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PROGETTO:

VARIANTE SOSTANZIALE AL PIANO URBANISTICO ATTUATIVO
CON CONVENZIONE REGISTRATA IN DATA 12/10/2020

OGGETTO:

IMPIANTO ELETTRICO
RELAZIONE DI CALCOLO

PROGETTO:
DEFINITIVO

TAVOLA:
IE01

REVISIONE:
-

SCALA:

DATA:
04.04.18

N°:	TIPO DI ELABORAZIONE	REDAZIONE		VERIFICA		VALIDAZIONE	
		DATA:	NOME:	DATA:	NOME:	DATA:	NOME:
01	PRIMA EDIZIONE						
02	SECONDA EDIZIONE						
03	TERZA EDIZIONE						

INDICE

Art.1 – Classificazione strade e/o percorsi delle aree interessate all'impianto di illuminazione

Art.2 – Leggi – Norme ed elenco documenti facenti parte della Relazione

Art.3 – Dati progettuali di base elettrici (energia)

Art.4 – Impianti progettati

- Impianto elettrico energia:

- a) Quadri elettrici
- b) Linee di alimentazione illuminazione
- c) Apparecchi illuminanti e pali
- d) Impianto di terra

Art.5 – Dimensionamenti e protezioni

- a) Sezioni linee di alimentazione quadri
- b) Caduta di tensione percentuale
- c) Correnti di corto circuito
- d) Protezione linee contro le sovracorrenti
- e) Protezione da contatti indiretti
- f) Protezione da contatti diretti

Tabelle:

Tabella A – Linee in partenza da Quadro Illuminazione Pubblica

Tabelle B – Calcoli Illuminotecnici e fotografie dei prodotti scelti

Allegati:

Allegato 1 – Dati fotometrici del prodotto in conformità alla L.R. 19/03

Allegato 2 – Scheda tecnica Apparecchi illuminanti installati

Allegato 3 – Certificazione rischio fotobiologico secondo EN 60598-1:2015

Allegato 4 – Certificazione IPEA

Allegato 5 – Certificazione IPEI

Allegato 6 – Istruzioni montaggio

Allegato 7– Dichiarazione di conformità del progetto illuminotecnico alla LR 19/03 e Direttiva applicativa (allegato H3)

Allegato 8 – Piano manutenzione

Allegato 9 – Relazione di analisi dei consumi e dei risparmi energetici e dell' indicazione del TCO

Art.1) - Classificazione strade e/o percorsi delle aree interessate all'impianto di illuminazione parcheggio privato ad uso pubblico situato sulla strada provinciale "Via Madonna di Genova" del Comune di Cotignola, rif. D.G.R. n.° 1732 del 12 Novembre 2015 (rif. UNI 11248)

1) Parcheggio con strada di manovra.

Classificazione secondo Tabella 1 – D.G.R. n.° 1732 del 12-11-2015/ Prospetto 1 UNI 11248:2016

- Tipo di strada: F (strada locale urbana ; altre situazioni)

- **Categoria illuminotecnica di riferimento** C5/P3 (C4/P2 UNI 11248)

Parametri di influenza di base strada F (Tabella 5- D.G.R. n.° 1732 del 12-11-2015)

- Flusso di traffico: ELEVATO

- Complessità del campo visivo: NORMALE

- Zone di conflitto: NON COSPICUE

- Dispositivi rallentatori: ASSENTI

- Rischio aggressione: NORMALE

Dall' analisi del rischio, vista l'area interessata si ritiene opportuno considerare un aumento di categoria dovuta al seguente parametro:

- Zone di conflitto: COSPICUE +1

2) Marciapiede

Classificazione secondo Tabella 1 – D.G.R. n.° 1732 del 12-11-2015/ Prospetto 1 UNI 11248:2016

- Tipo di strada: F (strada locale urbana ; altre situazioni)

- **Categoria illuminotecnica di riferimento** C5/P3 (C4/P2 UNI 11248)

Parametri di influenza di base strada F (Tabella 5- D.G.R. n.° 1732 del 12-11-2015)

- Flusso di traffico: ELEVATO

- Complessità del campo visivo: NORMALE

- Zone di conflitto: NON COSPICUE

- Dispositivi rallentatori: ASSENTI

- Rischio aggressione: NORMALE

Dall' analisi del rischio i parametri d' influenza di base si ritengono opportuni per l' area considerata.

Art.2) – Leggi – Norme ed elenco documenti facenti parte della Relazione

Si richiamano quelle più significative

- Legge 1 Marzo 1968 n. 186: “Disposizioni concernenti la produzione di materiali, apparecchiature, macchinari, installazione di impianti elettrici ed elettronici”;
- D.M. 10 Aprile 1984: “Eliminazione dei radiodisturbi”;
- D.L. n.81 del 9 aprile 2008 “Attuazione dell’art.1 della legge 3 agosto 2007 n.123 , in materia di tutela e della sicurezza nei luoghi di lavoro e relative integrazioni;
- LEGGE REGIONALE n°19 del 29-09-03 “NORME IN MATERIA DI RIDUZIONE DELL’INQUINAMENTO LUMINOSO E DI RISPARMIO ENERGETICO”;
- DGR n° 1732 del 12-11-2015 “ NUOVA DIRETTIVA PER L’APPLICAZIONE DELL’ART 2 DELLA LEGGE REGIONALE n°19 DEL 19-2003 RECANTE NORME IN MATERIA DI RIDUZIONE DELL’INQUINAMENTO LUMINOSO E DI RISPARMIO ENERGETICO”.

Norme CEI – UNI, in particolare

- Norma CEI 64-8 Impianti elettrici utilizzatori a tensione nominale non superiore a 1000V in corrente alternata e 1500V in corrente continua. ;
- Norma UNI 11248 “Illuminazione stradale - Selezione delle categorie illuminotecniche” – Edizione NOVEMBRE 2016
- Norma UNI 13201-2 “Illuminazione stradale – Parte 2: Requisiti prestazionali ” – Edizione FEBBRAIO 2016
- Norma UNI 13201-3 “Illuminazione stradale – Parte 3: Calcolo delle prestazioni ” – Edizione SETTEMBRE 2004 (Versione Italiano 2007)
- Norma UNI 13201-4 “Illuminazione stradale – Parte 4: Metodi di misurazione delle prestazioni fotometriche ” – Edizione SETTEMBRE 2004 (Versione Italiano 2007)

Fanno parte integrante del progetto :

- RT - Relazione tecnica e di calcolo (compresa nel seguente documento)
- E01 - Impianto elettrico – Elenco Tavole
- E02 - Impianto elettrico – Planimetria generale - Illuminazione parcheggio privato ad uso pubblico
- E03 - Impianto elettrico – Quadro parcheggio privato ad uso pubblico

3) Dati progettuali di base elettrici (energia)

Impianto elettrico:

- Alimentazione bassa tensione 400/230V 50 Hz. “Quadro illuminazione Parcheggio”.
- Temperatura ambiente riferimento 30 °C e interrato 20°C

Art.4) Impianti progettati

Impianto elettrico energia:

- a) Quadro elettrico “02- Q. Illuminazione Pubblica”
- b) Linee di alimentazione e distribuzione
- c) Apparecchi illuminanti e pali
- d) Impianto di terra

L’impianto elettrico energia comprende:

a) Quadri elettrici

E’ prevista la realizzazione del quadro 02 Illuminazione pubblica.

Tutte le apparecchiature ed i materiali da installare devono essere conformi alle caratteristiche di impiego ed idonei ad assicurare un efficiente servizio, in ogni caso non

devono essere di qualità inferiore a quella prescritta dalle Norme. Tutte le apparecchiature elettriche a corrente alternata sono previste per la frequenza nominale di 50 Hz. Tutte le apparecchiature all'interno dei quadri elettrici verranno fissati a scatto su guide normalizzate DIN e si avrà cura di fissare saldamente queste ultime al fondo del quadro o al pannello porta apparecchi.

Tutti i materiali devono essere nuovi ed esenti da difetti e il grado di lavorazione delle varie parti deve essere estremamente accurato in accordo con la migliore tecnica corrente. I quadri devono essere realizzati in accordo con quanto di seguito richiesto:

- massima compattezza,
- facilità di manovra,,
- sicurezza totale del personale,
- massima continuità di esercizio,
- facilità di installazione e di collegamento,
- manutenzione ridotta.

Il quadro deve essere costruito in conformità alle Norme CEI ed alle leggi per la prevenzione sugli infortuni.

b) Linee di alimentazione illuminazione

Le alimentazioni ai singoli centri luminosi degli apparecchi illuminanti stradali sono realizzate con cavi FG16OR16 0,6/1Kv., posate in tubazioni in materiale plastico rigido di tipo rinforzato, per cavidotti interrati, a norme CEI 23-8 con resistenza allo schiacciamento a secco e a umido pari o superiore a 200kg/dm.; ogni elemento è provvisto all'estremità di bicchiere per la giunzione. Una striscia ad elica esterna di colore giallo serve per il facile riconoscimento (nastro monitore).

Tutti i cavi previsti sono del tipo non propagante l'incendio, secondo le Norme CEI 20-22.

Il grado di protezione delle tubazioni è adeguato alle caratteristiche degli ambienti in cui sono installati

Il dimensionamento delle linee e la taratura dei dispositivi di protezione è effettuato in conformità alla tab. UNEL 35024/1, CEI-UNEL 35026:2000-09 per le linee interrate ed alle Norme CEI 64-8 ed è riportato nelle Tabelle B allegate e in questa relazione di calcolo.

Per i cavi di fase, del neutro e del conduttore di terra (protezione), secondo le Norme CEI, sono utilizzati i seguenti colori dell'isolante:

- fase : nero,marrone,grigio
- neutro : blu chiaro
- conduttore di terra : bicolore giallo-verde

Le giunzioni dei conduttori saranno effettuate mediante morsetti o morsettiere all'interno delle scatole di derivazione. Impianti a tensione diversa e/o impianti speciali non faranno capo alle stesse scatole. Le tubazioni avranno un andamento parallelo agli assi delle strutture evitando percorsi diagonali ed accavallamenti. Le derivazioni delle tubazioni saranno esclusivamente all'interno di pozzetti, non saranno ammesse le derivazioni a "T". Le tubazioni interrate faranno sempre capo a pozzetti o vani di attestazione, completi di chiusino o coperchio di portata adeguata alla zona in cui sono installati. Per tratte particolarmente lunghe saranno inoltre previsti pozzetti rompitratta ogni 25-30 mt. Le dimensioni dei pozzetti non saranno inferiori a 50x50 cm.

Il diametro interno dei tubi protettivi è maggiore a 1,3 volte il diametro del cerchio circoscritto al fascio dei cavi, con una scorta del 20%. Nei punti di derivazione e di difficile infilaggio sono previste scatole o cassette di derivazione in resina termoplastica autoestinguente e/o in silumin.

Le cassette di derivazione in materiale isolante, sia da incasso che da parete sono del tipo ad alta resistenza agli urti.

Il grado di protezione è adeguato all'ambiente in cui le tubazioni sono installate.

All'esterno e negli ambienti umidi e bagnati il grado di protezione è comunque non inferiore a IP44.

Le cassette sono montate in posizione accessibile con mezzi comuni .Il fissaggio delle cassette è effettuato in modo da non trasmettere sollecitazioni ai tubi ed ai cavi che vi fanno capo.

I sostegni sono costituiti da profilati metallici, staffe , ecc.. zincati ,se presenti sul mercato, di tipo prefabbricato.

I percorsi, le lunghezze e le caratteristiche delle linee sono indicate negli elaborati grafici, nella relazione di calcolo.

c) Indice di categoria illuminotecnica di progetto e scelta apparecchi illuminanti e pali

Con riferimento alle norme e alle prescrizioni secondo la Classificazione strade, di seguito sono elencati gli ***“indici di categoria illuminotecnica di progetto per ogni strada e/o percorso”*** ottenuti attraverso l’ analisi dei rischio.

L’ analisi dei rischio è stata eseguita individuando i parametri d’ influenza della Tabella 5 e Tabella 6 che interessano le zone di studio.

1) Parcheggio con strada di manovra rif. D.G.R. n.° 1732 del 12-11-2015 (rif. UNI 11248)

Con riferimento ai parametri di influenza della tabella 5 (D.G.R. 17-11-2015), alla categoria illuminotecnica di ingresso della tabella 1 (D.G.R. 17-11-2015) e alla tabella 6 (D.G.R. 17-11-2015) si individua la seguente **categoria illuminotecnica di progetto:** **P2**

2) Marciapiede rif. D.G.R. n.° 1732 del 12-11-2015 (rif. UNI 11248)

Con riferimento ai parametri di influenza della tabella 5 (D.G.R. 17-11-2015), alla categoria illuminotecnica di ingresso della tabella 1 (D.G.R. 17-11-2015) e alla tabella 6 (D.G.R. 17-11-2015) si individua la seguente **categoria illuminotecnica di progetto:** **P3**

Nella Tab 1 , in base “alla categoria illuminotecnica di ingresso” definito dalla D.G.R 17/11/15 , sono indicati tutti i parametri illuminotecnici secondo UNI 13201-2

TABELLA 1

Nome Strada	Classificazione Strada in funzione del tipo di traffico secondo il prospetto 1 della norma UNI 11248 Novembre 2016			Parametri illuminotecnici Secondo:	Apparecchio illuminante			Parametri illuminotecnici Impianto					Interdistanza pali (m)
	Tipo di Strada	Tipo di strada e Ambito territoriale	Categoria Illuminotecnica di progetto D.G.R.I (UNI)		Tipo app. Temp. colore	Indice IPEA	Rischio Fotobiologico relativo all' altezza di installazione	Valore minimo dell' Illuminamento medio mantenuto E (Lux)	Valore minimo dell' Illuminamento minimo mantenuto Emin (Lux)	Classe intensità luminosa	Classe indice abbagliamento	Indice IPEI	
Parch. con strada di manovra	F	Strade locali urbane: altre situazioni	P2	D.G.R. (UNI)	-	-	-	10	3	G6	D6	-	45
				PROGETTO	Led 4000 °K	A++	RG1	11.89	3.37	G6	D6	A++	
Marciapiede	F	Strade locali urbane: altre situazioni	P3	D.G.R. (UNI)	-	-	-	7.5	1.5	G6	D6	-	45
				PROGETTO	Led 4000 °K	A++	RG1	7.68	2.35	G6	D6	A++	

Apparecchi illuminanti scelti per le singole strade e/o percorsi:

- Parcheggio con strada di manovra e marciapiede-

Apparecchi illuminanti tipo "DigiStreet Medio BGP762 DM31" della PHILIPS , con lampada da 70 W Led, montati a 10 metri su palo in acciaio zincato di altezza 10 m. fuori terra; distanza pali 45 m. Ogni apparecchio sarà dotato di sistema dimmerabile profilo DDF2 per ridurre il flusso dal 70% / 50% nelle ore notturne.

Tutti i pali devono essere in acciaio zincato a caldo, trafilati a caldo diritti e a seconda della posizione devono avere le seguenti caratteristiche riportate in tabella 2:

TABELLA 2

Zona di installazione	Tipo Armatura o Lampione su palo	Tipologia Palo	Altezza fuori terra H.f.t.(mm) del palo	Sbraccio b (mm)	Lungh. minima parte interrata (mm)	Diametro alla base d2 (mm)	Diametro alla sommità d1 (mm)
STRADA INGRESSO/ MARCIAPIEDE	BGP762 70W	CILINDRICO	10000	1000	800	120	60

L'alimentazione degli apparecchi illuminanti è suddivisa su vari circuiti comandati da orologi astronomici per la gestione delle accensioni secondo gli orari richiesti dalla delibera regionale 25/09/08 (si rimanda agli elaborati grafici).

Le posizioni e le caratteristiche delle apparecchiature sono indicate negli elaborati allegati.

d) Impianto di terra

L'impianto di terra è un unico dispersore di terra realizzato con picchetti in profilato di acciaio zincato a fuoco, secondo norme CEI, di dimensioni 50x50x5mm, altezza 2,5m, infissi nel terreno in corrispondenza di pozzetti di illuminazione esterna, e interconnessi tra loro con cavo 1x16 mmq di colore giallo-verde tipo FG17 in tubazione interrata ad una profondità di 60cm.

Ai conduttori di terra sono collegati in particolare:

- i morsetti di terra di tutti i quadri e degli alimentatori;
- in genere tutte le parti metalliche estese.

Art. 5- Dimensionamenti e protezioni

a) SEZIONI LINEE DI ALIMENTAZIONE QUADRI

Le sezioni delle linee sono state scelte con riferimento alle tabelle UNEL.

b) CADUTA DI TENSIONE PERCENTUALE

La caduta di tensione percentuale è calcolata con la formula:

$$\Delta V\% = \frac{V_U \cdot L \cdot I}{1000 \cdot V_N} \cdot 100$$

V_n = tensione nominale

D_v = caduta di tensione in Volt

Vu = caduta di tensione unitaria (riferita al cavo scelto)
L = lunghezza linea
I = valore corrente elettrica nella linea

La caduta di tensione a tutti gli utilizzatori, in relazione alle condizioni di esercizio ipotizzata, risulta essere inferiore al 4%.

c) CORRENTI DI CORTO CIRCUITO

La corrente di corto circuito al Quadro illuminazione esterna risulta pari a $I_{cc} = 16000A$,
Tutti gli interruttori scelti hanno potere di interruzione superiore al valore della I_{cc} del quadro in cui sono installati

Tutti gli interruttori e i fusibili installati nei quadri hanno potere di interruzione maggiore o uguale alla corrente di corto circuito nel punto in cui sono installati.

d) PROTEZIONE LINEE CONTRO LE SOVRACORRENTI -

Rif. Norma CEI 64-8 Cap.VI - Protezione delle condutture contro le sovracorrenti.

Le sezioni dei cavi sono scelte in base alla tabella UNEL.

Gli interruttori installati sono del tipo con protezione magnetotermica .I singoli cavi , con riferimento alla sezione, alla lunghezza ed all'interruttore posto a monte sono protetti:

- contro i corto circuiti :

$$I^2 t \leq K^2 S^2$$

- $I^2 t$ = energia specifica lasciata passare dal dispositivo di protezione
- K = coefficiente determinato in base al tipo di cavo scelto (115 per i cavi in rame isolati in PVC, 143 per i cavi in rame isolati in EPR-G7)
- S = sezione del conduttore

- contro i sovraccarichi :

$$I_b \leq I_n \leq I_z \text{ e } I_f \leq 1,45 I_z$$

I_b = corrente di impiego

I_n = corrente nominale

I_z = portata del cavo

I_f = corrente convenzionale di intervento

e) PROTEZIONE DA CONTATTI INDIRETTI

La protezione dai contatti indiretti di tutti gli utilizzatori elettrici è assicurata da interruttori differenziali a sensibilità regolabile, in ogni caso non inferiore a quanto previsto dalle Norme

f) PROTEZIONE DA CONTATTI DIRETTI

Nei luoghi accessibili a tutti, la protezione da contatti diretti per i cavi è assicurata dall'isolamento, per le apparecchiature, dall'isolamento e dai contenitori, che garantiscono la protezione in tutte le direzioni. L'apertura di portelli che consente l'accesso a parti in tensione con IP inferiore a 2X è effettuabile solo:

- con utensile apposito o con chiave , disponibili solo a personale qualificato;
- attraverso interblocco che toglie tensione alle apparecchiature elettriche contenute.

TABELLE A

- PROTEZIONE DALLE SOVRACORRENTI
- I_{cc} INIZIO E FINE LINEA
- CADUTA DI TENSIONE
- PROTEZIONE CONTATTI INDIRETTI

LINEE IN PARTENZA DAL QUADRO ILLUMINAZIONE ESTERNA

Protezione dalle sovracorrenti

lcc inizio e fine linea

Caduta di tensione

LINEA	Pa(kW) Qa(kVAr)	FORM. CAVO	TIPO CAVO	TIPO POSA	LUN. m.	I _b A	I _u A	I _n A	I _r A	I _m A	I _o A	K _r	I _z A	lcc1 KA	lcc2 KA	DV %	I _{dn} A
	cosΦ																
PERCORSO 1 ACC.1, 2, 3	0,5	3X10+N+T	FG16R16	61	332	1	16	16	16	160	67	0,456	30	10	<5	<1	0,03
PERCORSO 2 ACC.4, 5, 6	0,2	3X10+N+T	FG16R16	61	110	1	16	16	16	160	67	0,456	30	10	<5	<1	0,03
ALIM. CANCELLO 1 PARCHEGGIO	0,5	2X4+T	FG16R16	61	50	2,2	16	16	16	160	41	0,456	18	10	<5	<1	0,03
ALIM. CANCELLO 2 PARCHEGGIO	0,5	2X4+T	FG16R16	61	110	2,2	16	16	16	160	41	0,456	18	10	<5	<1	0,03

Pa-POTENZA ASSORBITA; **Eq** (LUNGHEZZA) EQUIVALENTE

I_b CORR. ASSORBITA; **I_u** CORR. ININTERROTTA NOM.; **I_n** CORR. NOM. RELE' TERMICO ; **I_m** CORR. INTERVENTO SGANCIATORE MAGN.;

I_r CORR. REGOLAZIONE RELE' TERMICO; **I_o** PORTATA CAVO SECONDO POSA ; **I_z** PORTATA CAVO;

K_r COEFF. DI DECLASSAMENTO PORTATA CAVO ; **I_{dn}** CORR. INTERVENTO DIFFERENZIALE

lcc1 CORR. SIMM. PRESUNTA DI C.C. A INIZIO LINEA; **lcc2** CORR. SIMM. PRESUNTA DI C.C. A FINE LINEA; **DV%** CADUTA DI TENSIONE PERC.

E INT. CON SGANCIATORE DI MAX CORR. A MICROPROCESSORE; **cosΦ** FATT. DI POTENZA; **η** RENDIMENTO MECC. (MOTORI ELETTRICI)

TABELLE B

CALCOLI ILLUMINOTECNICI RELATIVI A:

- PARCHEGGIO

VILLA MARIA - PUA

PARCHEGGIO

No. cliente:

Data: 19.04.2018
Redattore: STUDIO M s.t.a



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Indice

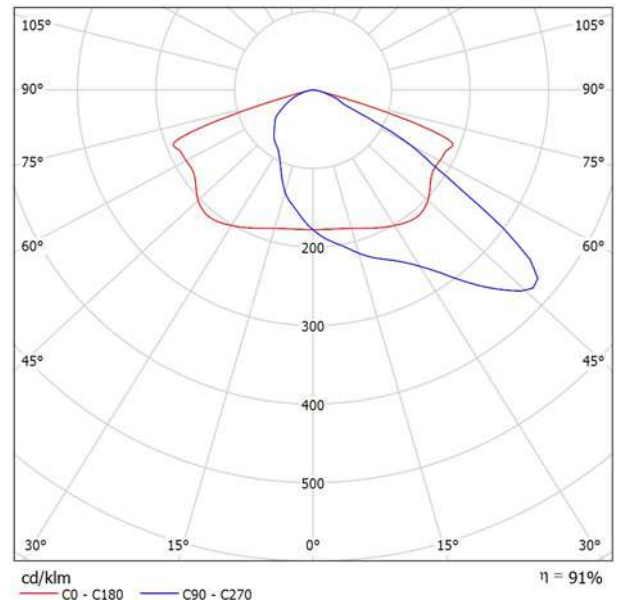
VILLA MARIA - PUA	
Copertina progetto	1
Indice	2
PHILIPS BGP762 T25 DM31 LED120/- NO	
Scheda tecnica apparecchio	3
PARCHEGGIO	
Dati di pianificazione	4
Campi di valutazione	
Campo di valutazione Carreggiata 1	
Panoramica risultati	5
Campo di valutazione Marciapiede 2	
Panoramica risultati	6

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PHILIPS BGP762 T25 DM31 LED120/- NO / Scheda tecnica apparecchio

Emissione luminosa 1:

Per un'immagine della lampada consultare il nostro catalogo lampade.



Classificazione lampade secondo CIE: 100
CIE Flux Code: 32 75 98 100 91

A causa dell'assenza di simmetria, per questa lampada non è possibile rappresentare la tabella UGR.

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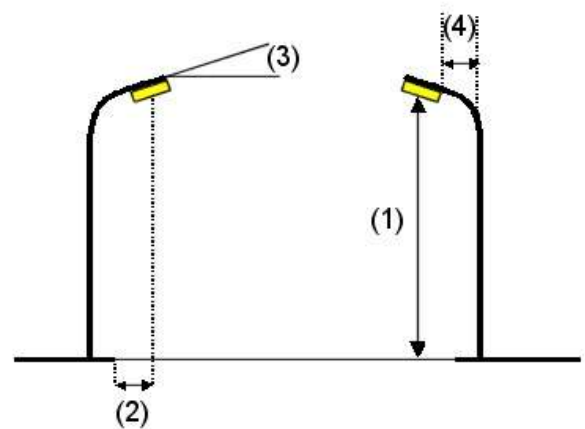
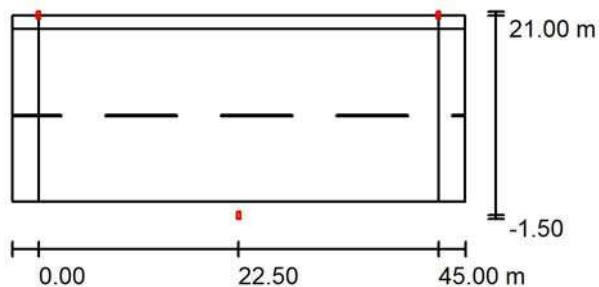
PARCHEGGIO / Dati di pianificazione

Profilo strada

Marciapiede 2 (Larghezza: 1.500 m)
 Carreggiata 1 (Larghezza: 19.500 m, Numero corsie: 2, Manto stradale: C2, q0: 0.070)

Fattore di manutenzione: 0.67

Disposizioni lampade



Lampada: PHILIPS BGP762 T25 DM31 LED120/- NO
 Flusso luminoso (Lampada): 10965 lm
 Flusso luminoso (Lampadine): 12000 lm
 Potenza lampade: 70.0 W
 Disposizione: su entrambi i lati, alternati
 Distanza pali: 45.000 m
 Altezza di montaggio (1): 10.000 m
 Altezza fuochi: 9.893 m
 Distanza dal bordo stradale (2): -1.500 m
 Inclinazione braccio (3): 0.0 °
 Lunghezza braccio (4): 1.000 m

Valori massimi dell'intensità luminosa
 per 70°: 265 cd/klm
 per 80°: 13 cd/klm
 per 90°: 0.00 cd/klm

Per tutte le direzioni che, per le lampade installate e utilizzabili, formano l'angolo indicato con le verticali inferiori.

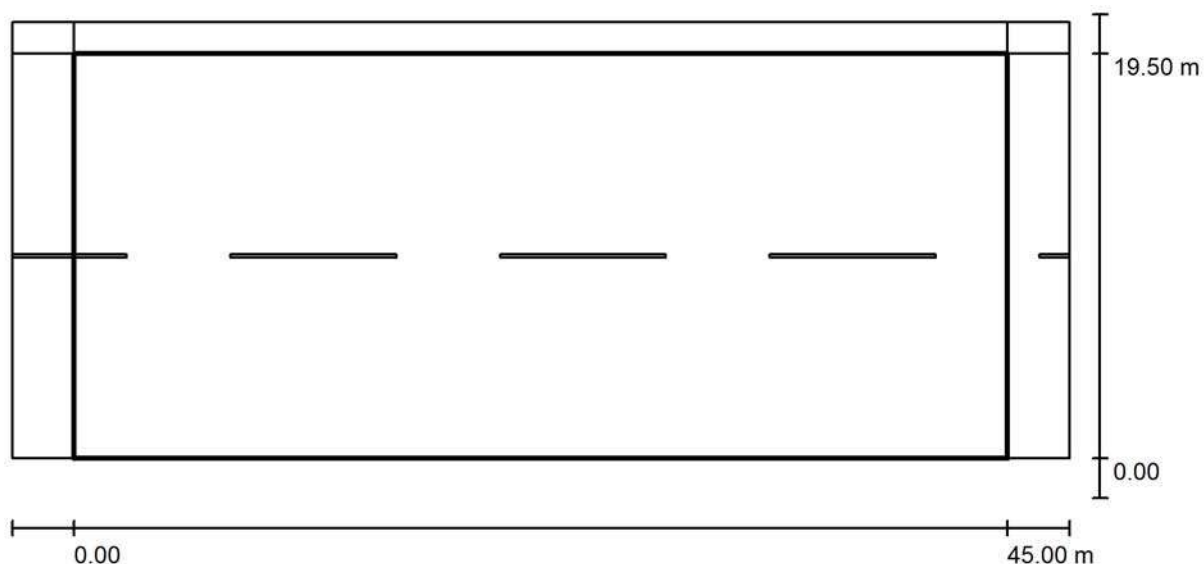
Nessuna intensità luminosa superiore a 90°. La disposizione rispetta la classe di intensità luminosa G6.

La disposizione rispetta la classe degli indici di abbagliamento D.6.



Redattore STUDIO M s.t.a
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e-Mail studio@studiomoretti2.191.it

PARCHEGGIO / Campo di valutazione Carreggiata 1 / Panoramica risultati



Fattore di manutenzione: 0.67

Scala 1:365

Reticolo: 15 x 13 Punti

Elementi stradali corrispondenti: Carreggiata 1.

Classe di illuminazione selezionata: S2

(Tutti i requisiti fotometrici sono rispettati.)

Valori reali calcolati:

Valori nominali secondo la classe:

Rispettato/non rispettato:

E_m [lx]

11.89

≥ 10.00



E_{min} [lx]

3.37

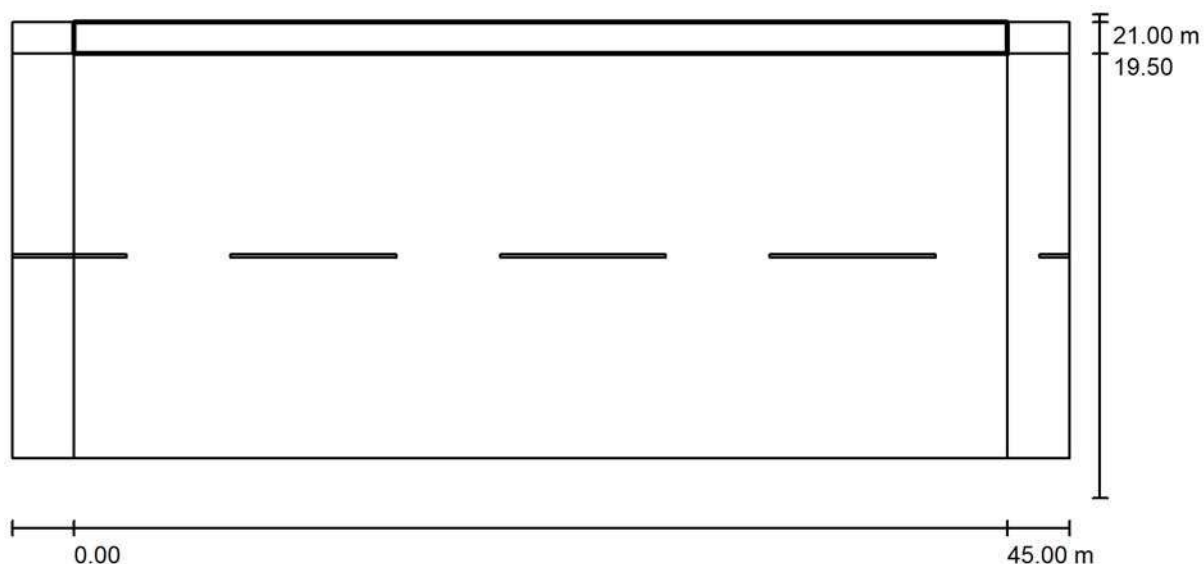
≥ 3.00





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PARCHEGGIO / Campo di valutazione Marciapiede 2 / Panoramica risultati



Fattore di manutenzione: 0.67

Scala 1:365

Reticolo: 15 x 3 Punti

Elementi stradali corrispondenti: Marciapiede 2.

Classe di illuminazione selezionata: S3

(Tutti i requisiti fotometrici sono rispettati.)

Valori reali calcolati:

Valori nominali secondo la classe:

Rispettato/non rispettato:

E_m [lx]	E_{min} [lx]
7.68	2.35
≥ 7.50	≥ 1.50
✓	✓

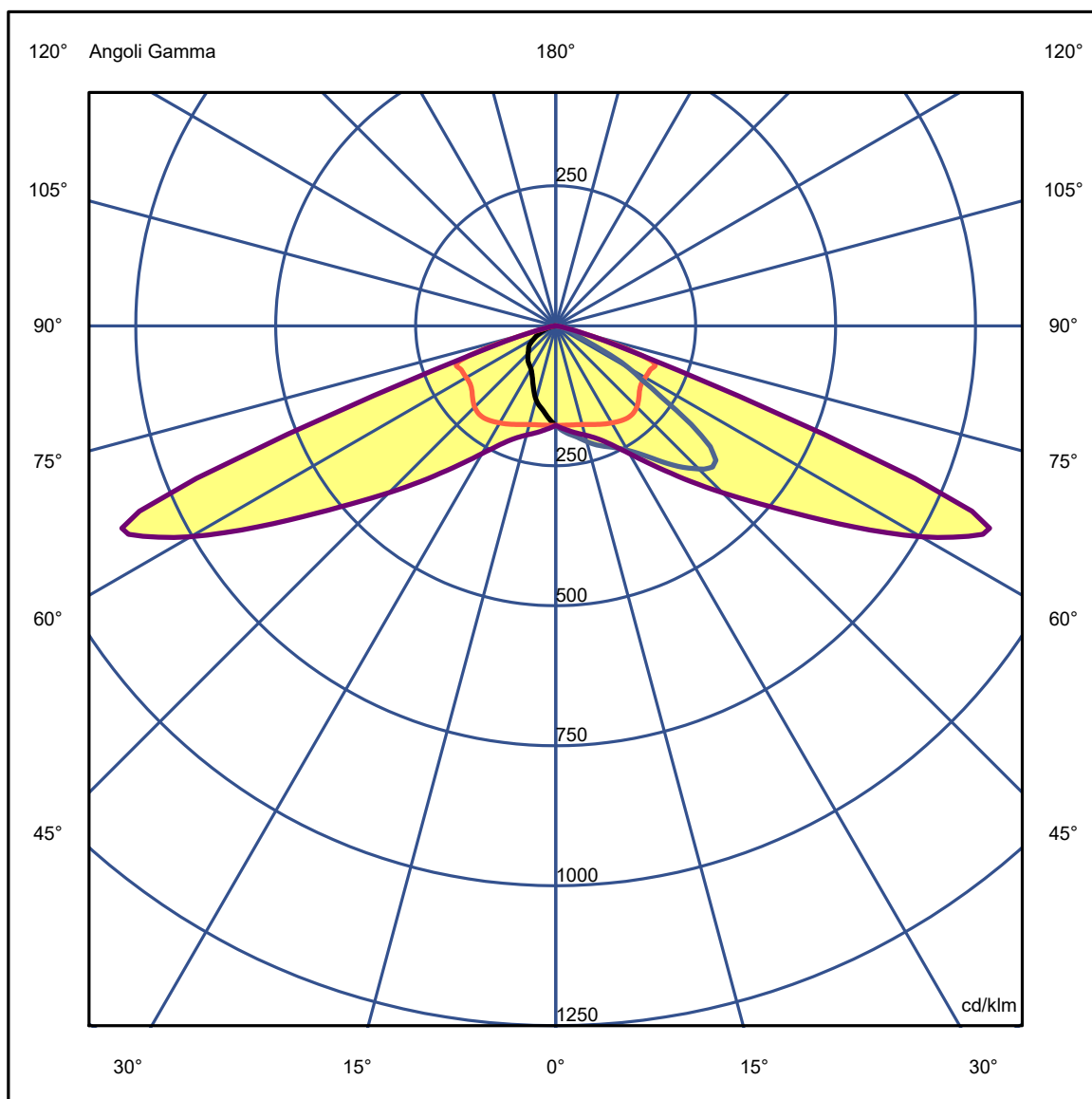
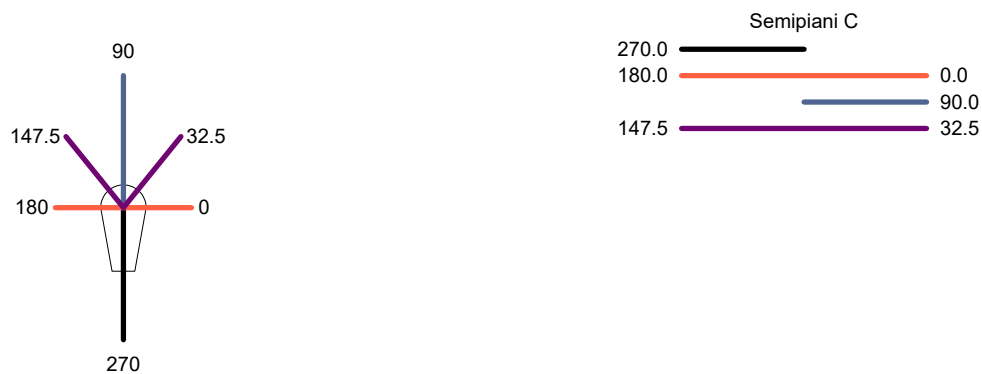
Apparecchio

Codice BGP762 T25 DM31 LED120/- NO
Nome BGP762 T25 DM31 LED120/- NO

Rilievo

Codice LVE16B1295
Nome BGP762 T25 DM31 LED120/- NO

Flusso Apparecchio	10964.75 lm	Potenza Apparecchio	70.00 W	Efficacia	156.64 lm/W	Rendimento	91.37%
Flusso Lampade	12000.00 lm	Valore Massimo	855.26 cd/klm	Posizione	C=32.50 G=65.00	CG	Simmetrico 90-270



Apparecchio

Codice BGP762 T25 DM31 LED120/- NO

Nome BGP762 T25 DM31 LED120/- NO

Rilievo

Codice LVE16B1295

Nome BGP762 T25 DM31 LED120/- NO

Flusso Apparecchio	10964.75 lm		Potenza Apparecchio		70.00 W		Efficacia		156.64 lm/W		Rendimento		91.37%	
Flusso Lampade	12000.00 lm		Valore Massimo		855.26 cd/klm		Posizione		C=32.50 G=65.00		CG Simmetrico 90-270			
Tabella Intensità Luminose - cd/klm														
Tabella 1/6														
	C 270.00	C 272.50	C 275.00	C 277.50	C 280.00	C 282.50	C 285.00	C 287.50	C 290.00	C 292.50	C 295.00	C 297.50	C 300.00	
G 0.0	178.00	178.00	178.00	178.00	178.00	178.00	178.00	178.00	178.00	178.00	178.00	178.00	178.00	
G 2.5	171.17	171.07	171.07	171.17	171.27	171.27	171.37	171.47	171.57	171.67	171.76	171.96	172.16	
G 5.0	163.45	163.25	163.25	163.35	163.45	163.65	163.85	163.94	164.24	164.54	164.74	165.03	165.43	
G 7.5	155.53	155.33	155.33	155.43	155.53	155.63	155.83	156.12	156.32	156.62	157.01	157.41	157.90	
G 10.0	149.09	148.99	149.09	149.09	149.19	149.29	149.49	149.69	149.89	150.18	150.48	150.88	151.27	
G 12.5	143.45	143.35	143.35	143.55	143.65	143.85	144.14	144.44	144.64	145.13	145.63	146.12	146.62	
G 15.0	136.03	135.73	135.63	135.93	136.03	136.52	136.82	137.41	137.81	138.50	139.29	140.28	141.07	
G 17.5	126.62	126.32	126.22	126.52	126.62	127.22	127.51	128.40	129.10	129.99	130.88	132.26	133.25	
G 20.0	116.72	116.23	116.13	116.42	116.72	117.32	117.61	118.60	119.39	120.38	121.47	122.76	124.15	
G 22.5	107.32	106.92	106.82	107.12	107.42	107.91	108.31	109.30	109.99	111.08	112.17	113.55	114.94	
G 25.0	99.40	99.10	99.10	99.30	99.59	99.99	100.39	101.18	101.77	102.86	103.75	105.04	106.43	
G 27.5	93.16	92.96	92.96	93.16	93.36	93.65	93.95	94.54	95.04	95.93	96.62	97.81	98.90	
G 30.0	88.61	88.41	88.51	88.51	88.70	88.90	89.10	89.50	89.89	90.39	90.98	91.77	92.66	
G 32.5	85.54	85.44	85.64	85.54	85.64	85.73	85.93	86.13	86.33	86.63	86.92	87.42	88.01	
G 35.0	83.26	83.16	83.36	83.36	83.46	83.56	83.65	83.75	83.85	83.95	84.05	84.25	84.55	
G 37.5	80.78	80.68	80.78	80.98	81.08	81.38	81.68	81.97	82.17	82.17	82.17	81.97	81.87	
G 40.0	77.32	77.22	77.42	77.72	78.11	78.80	79.89	80.78	81.28	80.98	80.29	79.60	79.30	
G 42.5	73.46	73.36	73.56	74.05	74.94	76.53	78.31	79.40	79.40	78.41	77.22	76.43	76.03	
G 45.0	69.70	69.60	69.89	70.59	71.68	73.26	74.75	75.34	74.84	73.85	72.96	72.57	72.37	
G 46.0	68.21	68.11	68.51	69.20	70.29	71.68	72.76	73.06	72.47	71.78	71.18	70.88	70.79	
G 47.0	66.82	66.73	67.12	67.72	68.51	69.70	70.39	70.49	70.09	69.60	69.20	69.10	69.00	
G 48.0	65.44	65.44	65.74	66.23	66.82	67.62	67.91	67.91	67.62	67.42	67.32	67.32	67.22	
G 49.0	64.35	64.25	64.45	64.75	65.14	65.54	65.64	65.54	65.34	65.24	65.34	65.34	65.34	
G 50.0	63.26	63.06	63.06	63.26	63.36	63.46	63.26	63.16	63.06	63.06	63.26	63.36	63.46	
G 51.0	62.27	61.97	61.88	61.97	61.88	61.88	61.58	61.48	61.38	61.38	61.48	61.58	61.78	
G 52.0	61.18	60.89	60.69	60.59	60.39	60.19	59.90	59.80	59.60	59.60	59.70	59.80	60.09	
G 53.0	59.60	59.20	58.90	58.90	58.71	58.61	58.41	58.31	58.21	58.21	58.21	58.31	58.51	
G 54.0	58.01	57.62	57.22	57.32	57.02	57.12	56.92	56.92	56.83	56.83	56.83	56.83	56.92	
G 55.0	55.74	55.34	54.94	55.04	54.85	55.04	54.94	55.14	55.24	55.34	55.44	55.54	55.54	
G 56.0	53.46	52.97	52.57	52.77	52.57	52.87	52.87	53.26	53.56	53.86	54.05	54.15	54.15	
G 57.0	50.99	50.49	50.09	50.39	50.19	50.49	50.49	50.99	51.38	51.98	52.47	52.87	52.97	
G 58.0	48.41	48.01	47.62	47.92	47.72	48.01	48.11	48.71	49.20	49.99	50.79	51.48	51.68	
G 59.0	45.94	45.64	45.24	45.54	45.24	45.54	45.64	46.23	46.83	47.82	48.71	49.70	50.19	
G 60.0	43.66	43.46	43.06	43.36	43.06	43.36	43.36	43.86	44.35	45.34	46.23	47.42	48.31	
G 61.0	41.58	41.28	40.99	41.18	40.99	41.18	41.18	41.68	41.98	42.87	43.76	45.05	46.23	
G 62.0	39.50	39.10	38.81	39.10	38.91	39.10	39.10	39.50	39.80	40.49	41.28	42.47	43.76	
G 63.0	37.32	37.03	36.73	37.03	36.83	37.13	37.03	37.52	37.72	38.31	39.01	40.00	41.18	
G 64.0	35.44	35.05	34.75	35.05	34.85	35.05	34.95	35.34	35.64	36.23	36.73	37.62	38.61	
G 65.0	33.26	32.97	32.67	32.97	32.77	32.97	32.77	33.17	33.46	33.96	34.35	35.24	36.23	
G 66.0	31.48	31.09	30.79	31.09	30.79	30.99	30.89	31.28	31.48	31.98	32.17	32.87	33.76	
G 67.0	29.40	29.01	28.61	29.11	28.81	29.11	29.01	29.50	29.80	30.10	30.19	30.79	31.58	
G 68.0	27.23	26.83	26.53	27.03	26.83	27.13	27.23	28.02	28.41	28.41	28.31	28.71	29.40	
G 69.0	25.25	24.85	24.45	25.05	24.55	25.34	25.64	26.73	27.23	26.63	26.43	26.83	27.42	
G 70.0	23.17	22.87	22.57	23.07	22.87	23.46	23.86	25.54	25.94	25.05	24.45	24.85	25.34	
G 71.0	21.38	21.09	20.89	21.28	21.19	21.68	22.18	23.96	24.16	23.26	22.77	22.97	23.36	
G 72.0	19.70	19.40	19.21	19.60	19.60	20.10	20.49	21.98	22.18	21.68	21.28	21.38	21.58	
G 73.0	18.12	17.82	17.62	18.12	18.02	18.61	19.01	20.20	20.49	20.39	20.10	20.00	20.10	
G 74.0	16.43	16.14	15.94	16.53	16.53	17.23	17.62	18.71	19.11	19.31	19.11	19.01	19.01	
G 75.0	14.65	14.36	14.26	14.75	15.05	15.74	16.34	17.42	18.02	18.32	18.32	18.32	18.22	
G 76.0	12.87	12.57	12.38	13.07	13.27	14.16	14.75	16.04	16.73	17.33	17.52	17.72	17.52	
G 77.0	11.09	10.79	10.59	11.29	11.58	12.67	13.17	14.36	15.25	16.14	16.53	16.93	16.73	
G 78.0	9.40	9.11	9.01	9.60	9.90	11.19	11.88	13.07	13.86	15.05	15.54	15.94	15.64	
G 79.0	7.82	7.52	7.33	7.43	7.33	9.31	10.40	11.88	12.77	14.06	14.55	14.95	14.45	
G 80.0	5.64	5.35	5.15	5.35	5.15	6.34	7.43	10.30	11.39	12.77	13.17	13.46	12.87	
G 81.0	3.96	3.76	3.56	3.86	3.76	4.16	4.65	8.32	9.80	11.09	11.09	11.48	10.69	
G 82.0	2.87	2.77	2.57	2.77	2.67	2.97	2.97	5.54	7.82	9.01	8.81	9.21	8.12	
G 83.0	1.98	1.88	1.78	1.98	1.88	2.08	1.98	3.07	5.45	6.63	6.34	6.83	5.54	
G 84.0	1.39	1.29	1.09	1.29	1.19	1.39	1.19	1.68	2.77	3.86	3.47	4.06	3.07	
G 85.0	0.79	0.69	0.69	0.79	0.69	0.79	0.69	0.89	1.19	1.68	1.49	1.88	1.49	
G 86.0	0.40	0.40	0.40	0.40	0.40	0.50	0.40	0.50	0.50	0.69	0.59	0.79	0.59	
G 87.0	0.20	0.20	0.20	0.20	0.20	0.30	0.20	0.30	0.30	0.30	0.30	0.40	0.30	
G 88.0	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	
G 89.0	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	
G 90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Apparecchio

Codice BGP762 T25 DM31 LED120/- NO

Nome BGP762 T25 DM31 LED120/- NO

Rilievo

Codice LVE16B1295

Nome BGP762 T25 DM31 LED120/- NO

Flusso Apparecchio	10964.75 lm		Potenza Apparecchio		70.00 W		Efficacia		156.64 lm/W		Rendimento		91.37%	
Flusso Lampade	12000.00 lm		Valore Massimo		855.26 cd/klm		Posizione		C=32.50 G=65.00		CG Simmetrico 90-270			
Tabella Intensità Luminose - cd/klm														
Tabella 2/6														
	C 302.50	C 305.00	C 307.50	C 310.00	C 312.50	C 315.00	C 317.50	C 320.00	C 322.50	C 325.00	C 327.50	C 330.00	C 332.50	
G 0.0	178.00	178.00	178.00	178.00	178.00	178.00	178.00	178.00	178.00	178.00	178.00	178.00	178.00	
G 2.5	172.26	172.36	172.66	172.76	173.05	173.25	173.45	173.74	173.94	174.14	174.34	174.64	174.83	
G 5.0	165.73	166.02	166.42	167.01	167.41	167.90	168.50	168.99	169.49	169.98	170.48	171.07	171.67	
G 7.5	158.30	158.99	159.49	160.28	160.97	161.67	162.56	163.35	164.14	165.13	166.02	167.11	168.10	
G 10.0	151.77	152.26	152.86	153.65	154.44	155.53	156.62	157.51	158.50	159.79	161.07	162.56	164.04	
G 12.5	147.11	147.71	148.30	148.90	149.59	150.48	151.47	152.36	153.55	154.84	156.12	157.81	159.59	
G 15.0	142.07	142.96	144.04	145.04	146.02	147.01	147.91	148.70	149.69	150.88	152.06	153.65	155.33	
G 17.5	134.74	136.03	137.61	139.10	140.68	142.26	143.95	145.23	146.42	147.61	148.80	150.28	151.96	
G 20.0	125.83	127.31	129.29	131.18	133.15	135.43	137.61	139.79	141.57	143.65	145.33	147.31	148.99	
G 22.5	116.52	118.11	120.29	122.17	124.54	126.82	129.59	132.17	134.74	137.31	139.89	142.66	145.23	
G 25.0	107.91	109.59	111.57	113.45	115.93	118.11	121.08	124.15	126.72	129.99	132.86	136.42	139.79	
G 27.5	100.39	101.77	103.55	105.43	107.61	109.79	112.46	115.43	118.21	121.97	125.14	129.20	132.96	
G 30.0	93.75	95.14	96.62	98.21	100.09	102.17	104.74	107.32	110.19	113.65	117.32	121.57	125.53	
G 32.5	88.70	89.60	90.78	92.07	93.65	95.44	97.61	99.79	102.47	106.03	109.69	113.75	118.11	
G 35.0	84.94	85.34	86.13	86.92	88.11	89.50	91.28	93.16	95.44	98.60	102.07	106.13	110.58	
G 37.5	81.87	82.07	82.37	82.76	83.46	84.35	85.64	87.12	88.90	91.48	94.54	98.41	102.86	
G 40.0	79.10	79.10	79.10	79.20	79.30	79.89	80.78	81.77	82.76	84.84	87.32	90.78	95.04	
G 42.5	75.93	75.93	76.03	76.13	76.13	76.33	76.72	77.32	77.91	79.40	80.78	83.75	87.32	
G 45.0	72.27	72.37	72.47	72.57	72.76	72.76	73.06	73.06	73.26	74.45	75.14	77.52	80.29	
G 46.0	70.79	70.79	70.88	70.98	71.28	71.28	71.48	71.28	71.48	72.57	72.96	75.14	77.52	
G 47.0	69.00	69.00	69.20	69.40	69.60	69.70	69.89	69.70	69.89	70.79	71.08	72.86	75.04	
G 48.0	67.22	67.32	67.62	67.72	67.91	68.01	68.21	68.11	68.21	68.90	69.20	70.69	72.57	
G 49.0	65.44	65.64	65.83	66.03	66.13	66.33	66.53	66.63	66.53	67.12	67.42	68.71	70.39	
G 50.0	63.66	63.85	64.05	64.25	64.45	64.65	64.94	65.14	64.85	65.44	65.74	66.73	68.11	
G 51.0	62.07	62.17	62.37	62.47	62.57	62.77	63.16	63.36	63.26	63.76	63.95	64.85	66.03	
G 52.0	60.39	60.49	60.69	60.79	60.89	60.98	61.38	61.68	61.78	62.07	62.27	62.87	63.95	
G 53.0	58.71	58.81	58.90	58.81	59.00	59.20	59.60	59.90	60.09	60.29	60.59	61.08	61.97	
G 54.0	57.12	57.22	57.12	57.02	57.22	57.42	57.82	58.11	58.31	58.51	58.81	59.30	59.99	
G 55.0	55.64	55.54	55.34	55.24	55.34	55.54	55.94	56.23	56.43	56.63	56.92	57.32	57.92	
G 56.0	54.05	53.76	53.56	53.36	53.46	53.66	54.05	54.35	54.55	54.85	55.14	55.44	55.94	
G 57.0	52.77	52.37	51.98	51.68	51.68	51.88	52.27	52.57	52.67	52.97	53.06	53.36	53.86	
G 58.0	51.48	50.89	50.39	49.99	49.90	49.99	50.39	50.69	50.79	51.08	51.08	51.38	51.78	
G 59.0	50.19	49.60	48.91	48.51	48.31	48.21	48.61	48.91	49.01	49.10	49.20	49.40	49.80	
G 60.0	48.81	48.41	47.62	47.03	46.63	46.53	46.73	47.12	47.12	47.22	47.22	47.52	47.82	
G 61.0	47.12	47.12	46.33	45.64	45.14	44.75	44.95	45.14	45.14	45.24	45.34	45.54	45.84	
G 62.0	45.05	45.44	45.05	44.25	43.56	43.16	42.97	42.97	42.97	43.06	43.16	43.26	43.56	
G 63.0	42.47	43.26	43.46	42.97	42.08	41.48	41.28	41.18	41.08	40.99	41.08	41.28	41.48	
G 64.0	39.90	40.89	41.68	41.48	40.69	39.90	39.40	39.10	38.91	39.01	39.10	39.20	39.30	
G 65.0	37.32	38.21	39.40	39.90	39.20	38.21	37.62	37.22	36.93	36.93	37.03	37.03	37.03	
G 66.0	34.85	35.64	36.93	37.82	37.62	36.63	35.74	35.24	34.95	34.85	34.75	34.75	34.55	
G 67.0	32.47	32.97	34.25	35.54	35.94	35.05	33.86	33.17	32.67	32.47	32.37	32.17	32.08	
G 68.0	30.19	30.59	31.68	32.97	33.86	33.17	31.98	31.09	30.49	30.19	30.00	29.80	29.60	
G 69.0	28.12	28.41	29.20	30.49	31.68	31.38	30.10	29.01	28.31	28.02	27.62	27.32	27.13	
G 70.0	26.04	26.24	27.03	28.02	29.30	29.30	28.22	27.03	26.24	25.84	25.34	25.05	24.85	
G 71.0	23.96	24.06	24.85	25.64	26.83	27.03	26.24	24.95	23.86	23.36	22.97	22.87	22.67	
G 72.0	22.08	22.18	22.67	23.26	24.35	24.55	23.96	22.87	21.78	21.28	20.89	20.69	20.59	
G 73.0	20.39	20.39	20.69	21.09	21.98	22.18	21.88	20.89	19.80	19.21	18.81	18.61	18.61	
G 74.0	19.11	18.91	19.01	19.01	19.60	19.80	19.50	18.81	17.82	17.23	16.83	16.73	16.63	
G 75.0	18.12	17.72	17.52	17.23	17.42	17.42	17.23	16.63	15.84	15.15	14.95	14.75	14.65	
G 76.0	17.33	16.83	16.34	15.64	15.44	15.15	14.95	14.55	13.86	13.36	12.97	12.87	12.87	
G 77.0	16.43	15.94	15.25	14.06	13.46	12.97	12.87	12.47	11.88	11.68	11.29	11.09	11.29	
G 78.0	15.44	14.65	13.86	12.38	11.58	10.89	10.59	10.49	10.00	10.00	9.50	9.40	9.50	
G 79.0	14.06	13.07	12.18	10.40	9.60	8.81	8.51	8.41	8.02	8.22	7.92	8.02	7.82	
G 80.0	12.28	10.99	10.00	8.32	7.52	6.83	6.83	6.73	6.53	6.63	6.43	6.53	6.34	
G 81.0	9.90	8.22	7.43	6.14	5.64	5.15	5.15	5.25	5.05	5.15	5.05	5.15	4.85	
G 82.0	7.13	5.45	4.75	4.06	3.96	3.66	3.76	3.76	3.56	3.76	3.56	3.76	3.56	
G 83.0	4.45	3.17	2.87	2.47	2.67	2.57	2.57	2.47	2.47	2.67	2.47	2.67	2.47	
G 84.0	2.57	1.78	1.68	1.49	1.68	1.58	1.58	1.58	1.58	1.68	1.58	1.68	1.58	
G 85.0	1.29	0.99	0.99	0.89	1.09	0.99	1.09	0.99	0.99	0.99	1.09	1.09	0.99	
G 86.0	0.69	0.50	0.59	0.59	0.59	0.59	0.50	0.79	0.59	0.50	0.69	0.79	0.59	
G 87.0	0.40	0.30	0.40	0.40	0.40	0.30	0.20	0.20	0.10	0.20	0.30	0.50	0.20	
G 88.0	0.20	0.20	0.30	0.30	0.30	0.30	0.20	0.00	0.00	0.00	0.00	0.20	0.00	
G 89.0	0.20	0.20	0.20	0.30	0.30	0.30	0.10	0.00	0.00	0.00	0.00	0.00	0.00	
G 90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Apparecchio

Codice BGP762 T25 DM31 LED120/- NO

Nome BGP762 T25 DM31 LED120/- NO

Rilievo

Codice LVE16B1295

Nome BGP762 T25 DM31 LED120/- NO

Flusso Apparecchio	10964.75 lm			Potenza Apparecchio	70.00 W		Efficacia	156.64 lm/W			Rendimento	91.37%	
Flusso Lampade	12000.00 lm			Valore Massimo	855.26 cd/klm		Posizione	C=32.50 G=65.00			CG Simmetrico 90-270		
Tabella Intensità Luminose - cd/klm													
	C 335.00	C 337.50	C 340.00	C 342.50	C 345.00	C 347.50	C 350.00	C 352.50	C 355.00	C 357.50	C 0.00	C 2.50	C 5.00
G 0.0	178.00	178.00	178.00	178.00	178.00	178.00	178.00	178.00	178.00	178.00	178.00	178.00	178.00
G 2.5	175.13	175.43	175.73	176.02	176.22	176.52	176.81	177.01	177.41	177.71	177.90	178.20	178.50
G 5.0	172.26	172.85	173.55	174.04	174.64	175.23	175.73	176.32	176.91	177.51	178.10	178.79	179.39
G 7.5	169.09	170.18	171.17	172.16	173.05	174.04	174.93	175.92	176.81	177.71	178.70	179.59	180.58
G 10.0	165.53	167.01	168.60	169.98	171.47	172.85	174.34	175.63	176.91	178.20	179.59	180.87	182.26
G 12.5	161.47	163.45	165.43	167.51	169.59	171.57	173.45	175.33	177.21	178.99	180.77	182.56	184.44
G 15.0	157.41	159.69	162.16	164.74	167.41	170.08	172.66	175.23	177.61	180.08	182.46	184.83	187.11
G 17.5	153.95	156.12	158.90	161.77	165.03	168.50	171.96	175.33	178.40	181.57	184.73	187.70	190.67
G 20.0	150.98	153.05	155.73	158.80	162.46	166.72	170.97	175.33	179.39	183.45	187.51	191.37	195.13
G 22.5	147.81	150.08	152.76	155.93	159.79	164.54	169.69	175.13	180.48	185.53	190.57	195.72	200.38
G 25.0	143.06	146.22	149.39	152.96	157.01	162.16	168.00	174.54	181.07	187.31	193.84	200.08	206.02
G 27.5	136.92	140.78	144.74	148.99	153.55	159.09	165.92	173.55	181.47	189.19	197.01	204.73	211.86
G 30.0	130.09	134.44	138.90	143.95	148.90	155.13	162.66	171.96	181.57	190.87	200.08	209.58	218.10
G 32.5	122.86	127.51	132.46	137.81	143.35	150.18	158.60	169.39	180.97	192.26	203.25	214.43	224.53
G 35.0	115.43	120.48	125.83	131.47	137.51	144.64	153.55	165.43	179.29	193.05	206.12	218.99	231.07
G 37.5	107.91	113.26	119.00	124.94	131.27	138.50	147.51	160.08	175.92	192.56	208.30	223.24	237.40
G 40.0	100.19	105.83	111.87	118.31	125.04	132.26	141.17	153.65	170.68	190.28	209.09	226.71	243.14
G 42.5	92.37	98.11	104.54	111.47	118.60	126.22	134.84	146.62	163.75	185.82	207.80	228.59	247.99
G 45.0	84.84	90.29	96.82	104.35	111.87	120.09	128.60	139.69	156.02	179.88	204.83	229.18	251.96
G 46.0	81.87	87.12	93.65	101.38	109.10	117.51	126.13	136.92	152.76	177.21	203.25	229.09	253.34
G 47.0	79.10	83.95	90.49	98.31	106.13	114.94	123.55	134.34	149.69	174.24	201.17	228.49	254.23
G 48.0	76.33	80.78	87.22	95.24	103.16	112.27	120.98	131.67	146.62	171.27	199.09	227.80	255.12
G 49.0	73.75	77.91	84.05	91.97	100.09	109.49	118.31	129.10	143.65	168.40	196.71	226.61	255.72
G 50.0	71.18	75.04	80.88	88.80	96.92	106.72	115.73	126.52	140.58	165.53	194.34	225.42	256.31
G 51.0	68.71	72.27	77.81	85.54	93.75	103.65	112.96	124.05	138.40	162.95	192.06	223.84	256.61
G 52.0	66.33	69.60	74.84	82.27	90.58	100.58	110.29	121.57	136.22	160.48	189.78	222.26	257.00
G 53.0	63.95	66.92	71.78	78.90	87.22	97.32	107.32	119.20	134.34	158.60	188.10	220.97	257.30
G 54.0	61.68	64.15	68.71	75.64	83.85	94.15	104.44	116.72	132.36	156.72	186.42	219.68	257.70
G 55.0	59.40	61.58	65.74	72.27	80.39	90.68	101.38	114.15	130.68	155.43	185.43	219.19	258.49
G 56.0	57.12	59.00	62.67	68.90	76.92	87.22	98.31	111.57	129.00	154.24	184.44	218.59	259.18
G 57.0	54.85	56.53	59.90	65.64	73.46	83.65	95.14	109.00	127.51	153.65	184.24	218.89	260.57
G 58.0	52.57	54.05	57.02	62.37	69.99	80.19	91.87	106.43	126.13	152.96	184.04	219.19	261.86
G 59.0	50.49	51.78	54.25	59.20	66.53	76.72	88.70	103.75	124.74	152.56	184.14	219.78	263.64
G 60.0	48.31	49.30	51.48	55.94	62.96	73.06	85.44	101.38	123.45	152.36	184.54	220.57	265.42
G 61.0	46.33	47.22	49.01	52.77	59.50	69.50	82.17	99.00	122.46	152.26	184.93	221.46	267.00
G 62.0	44.06	45.05	46.53	49.80	55.94	65.83	79.00	96.92	121.67	152.26	185.33	222.26	268.39
G 63.0	41.88	42.57	43.96	46.83	52.37	62.17	75.93	95.14	121.18	152.26	185.43	222.85	269.38
G 64.0	39.60	40.19	41.38	43.86	49.01	58.71	73.06	93.75	121.28	152.66	185.63	223.15	269.68
G 65.0	37.32	37.92	38.91	40.89	45.44	55.04	70.59	93.16	122.36	153.85	186.02	223.24	268.98
G 66.0	34.95	35.44	36.23	37.92	41.78	51.08	68.01	93.26	124.64	156.12	187.51	223.44	267.20
G 67.0	32.17	32.57	33.36	34.85	37.92	46.53	64.65	93.26	127.31	159.29	189.49	223.64	263.54
G 68.0	29.70	30.00	30.59	31.68	34.06	41.48	59.99	91.77	129.10	162.36	191.37	222.06	255.32
G 69.0	27.32	27.52	28.02	28.91	30.59	36.53	54.05	87.12	127.12	162.66	190.67	216.51	239.98
G 70.0	25.05	25.15	25.44	26.14	27.42	32.08	47.52	78.31	118.21	155.33	182.36	203.05	216.51
G 71.0	22.87	22.87	22.97	23.56	24.55	28.31	40.69	66.53	102.17	138.20	163.15	179.19	186.22
G 72.0	20.69	20.79	20.89	21.19	21.98	24.65	34.06	53.46	81.58	113.26	136.13	148.30	152.66
G 73.0	18.71	18.91	19.01	19.11	19.50	21.38	27.92	41.08	60.39	84.65	103.26	113.55	118.40
G 74.0	16.93	17.13	17.13	17.13	17.23	18.41	22.57	30.79	41.88	57.02	70.59	80.39	86.33
G 75.0	14.95	15.15	15.35	15.35	15.05	15.74	18.41	23.17	28.71	36.53	44.85	52.67	58.81
G 76.0	13.17	13.46	13.56	13.46	12.97	13.36	15.15	18.22	20.89	24.06	27.42	32.17	37.52
G 77.0	11.68	11.98	12.08	11.78	11.19	11.29	12.38	14.55	16.24	17.42	18.12	20.20	23.07
G 78.0	10.10	10.40	10.40	10.00	9.40	9.50	10.20	11.68	12.77	13.56	13.66	14.26	15.15
G 79.0	8.41	8.71	8.71	8.32	7.82	7.92	8.32	9.31	10.10	10.79	10.79	10.89	11.19
G 80.0	6.93	7.13	7.03	6.73	6.34	6.43	6.63	7.33	7.72	8.32	8.32	8.41	8.91
G 81.0	5.54	5.84	5.54	5.25	4.75	5.05	5.15	5.64	5.84	6.24	6.24	6.34	6.83
G 82.0	4.16	4.26	3.96	3.76	3.56	3.76	3.76	4.06	4.06	4.36	4.45	4.55	5.05
G 83.0	2.87	3.07	2.77	2.67	2.47	2.67	2.57	2.87	2.77	2.97	2.97	3.17	3.56
G 84.0	1.78	1.78	1.78	1.78	1.58	1.78	1.68	1.88	1.78	1.98	1.98	1.98	2.38
G 85.0	1.19	1.09	1.09	1.09	0.99	1.09	0.99	1.09	0.99	1.09	1.19	1.19	1.49
G 86.0	0.59	0.69	0.59	0.59	0.59	0.59	0.59	0.69	0.59	0.59	0.59	0.59	0.79
G 87.0	0.20	0.30	0.30	0.40	0.40	0.40	0.40	0.40	0.30	0.40	0.40	0.30	0.40
G 88.0	0.00	0.20	0.30	0.30	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.20
G 89.0	0.00	0.10	0.30	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10
G 90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Apparecchio

Codice BGP762 T25 DM31 LED120/- NO

Nome BGP762 T25 DM31 LED120/- NO

Rilievo

Codice LVE16B1295

Nome BGP762 T25 DM31 LED120/- NO

Flusso Apparecchio	10964.75 lm			Potenza Apparecchio		70.00 W		Efficacia		156.64 lm/W		Rendimento		91.37%	
Flusso Lampade	12000.00 lm			Valore Massimo		855.26 cd/klm		Posizione		C=32.50 G=65.00		CG Simmetrico 90-270			
Tabella Intensità Luminose - cd/klm														Tabella 4/6	
	C 7.50	C 10.00	C 12.50	C 15.00	C 17.50	C 20.00	C 22.50	C 25.00	C 27.50	C 30.00	C 32.50	C 35.00	C 37.50		
G 0.0	178.00	178.00	178.00	178.00	178.00	178.00	178.00	178.00	178.00	178.00	178.00	178.00	178.00	178.00	
G 2.5	178.79	179.09	179.39	179.68	179.88	180.18	180.58	180.77	181.07	181.27	181.57	181.76	182.06		
G 5.0	179.88	180.58	181.17	181.67	182.26	182.75	183.35	183.84	184.34	184.93	185.33	185.72	186.22		
G 7.5	181.57	182.46	183.45	184.24	185.13	185.82	186.52	187.31	188.00	188.69	189.29	189.88	190.48		
G 10.0	183.65	184.93	186.12	187.31	188.30	189.39	190.28	191.07	191.86	192.65	193.45	194.14	194.73		
G 12.5	186.22	187.80	189.39	190.77	192.16	193.25	194.24	195.23	196.02	196.81	197.41	198.00	198.69		
G 15.0	189.39	191.37	193.35	194.93	196.42	197.70	198.89	199.78	200.57	201.37	201.96	202.65	203.25		
G 17.5	193.45	195.92	198.20	200.08	201.66	202.95	204.14	205.23	205.92	206.71	207.31	208.00	208.59		
G 20.0	198.59	201.56	204.24	206.32	208.20	209.38	210.67	211.76	212.45	213.25	213.94	214.63	215.62		
G 22.5	204.73	208.30	211.46	213.84	215.92	217.60	218.99	220.18	220.97	221.96	222.65	223.84	224.33		
G 25.0	211.27	215.72	219.48	222.55	225.13	227.11	229.09	230.77	231.46	233.24	233.64	235.42	236.02		
G 27.5	218.39	223.74	228.49	232.15	235.72	238.00	240.97	243.24	244.13	246.41	247.40	248.99	250.07		
G 30.0	226.12	232.25	238.39	242.85	247.50	250.57	254.33	257.40	259.48	261.95	263.54	264.92	266.11		
G 32.5	233.94	241.66	248.99	254.93	260.86	265.52	270.37	274.43	277.60	280.47	282.64	284.13	285.12		
G 35.0	242.06	251.76	260.67	268.69	276.11	282.55	288.88	294.13	298.29	301.75	304.23	305.91	306.31		
G 37.5	250.47	262.45	273.64	283.93	293.44	301.75	309.87	316.70	321.85	326.30	328.48	330.46	329.97		
G 40.0	258.59	273.34	287.30	300.27	312.54	323.14	333.43	342.54	348.48	354.62	356.60	359.67	357.69		
G 42.5	266.41	284.13	301.46	317.49	332.84	345.91	358.97	370.46	377.49	385.80	387.39	391.45	388.38		
G 45.0	273.93	295.12	316.50	335.61	354.72	370.06	386.20	400.65	408.97	419.86	421.34	425.90	423.13		
G 46.0	276.80	299.48	322.64	343.13	363.83	380.06	397.49	413.33	422.24	433.92	435.80	440.15	438.08		
G 47.0	279.48	304.03	328.98	350.86	373.23	390.75	409.56	426.79	436.79	448.87	451.64	456.19	454.61		
G 48.0	282.25	308.48	335.41	358.58	382.73	401.45	421.74	440.15	451.34	463.82	467.38	472.23	471.24		
G 49.0	284.82	313.24	342.14	366.99	392.73	413.13	435.11	455.10	467.58	480.74	485.30	490.64	490.35		
G 50.0	287.50	317.89	348.88	375.41	402.83	424.91	448.47	469.95	483.81	497.57	503.22	509.06	509.36		
G 51.0	290.07	322.94	356.00	384.71	414.12	438.37	464.01	487.08	502.33	516.88	523.41	529.55	530.24		
G 52.0	292.74	327.89	363.23	394.12	425.50	451.84	479.46	504.21	520.84	536.09	543.71	550.14	551.03		
G 53.0	295.42	333.33	371.35	404.91	438.67	467.48	497.67	524.21	542.42	558.76	566.97	573.11	573.71		
G 54.0	298.19	338.78	379.37	415.80	451.93	483.22	515.79	544.30	564.10	581.43	590.24	596.08	596.38		
G 55.0	301.26	344.82	388.48	428.08	466.88	501.24	536.58	567.27	588.85	606.87	615.98	621.03	620.14		
G 56.0	304.42	350.86	397.58	440.35	481.93	519.26	557.37	590.24	613.70	632.41	641.82	645.88	643.90		
G 57.0	307.99	357.59	407.48	453.42	497.97	538.76	580.14	615.48	641.03	660.23	669.44	671.91	667.76		
G 58.0	311.45	364.22	417.29	466.49	514.01	558.26	602.81	640.83	668.35	687.95	697.06	698.05	691.71		
G 59.0	315.41	371.15	427.28	479.56	530.15	578.46	626.67	667.66	697.16	717.16	725.37	724.18	715.08		
G 60.0	319.08	377.68	436.49	491.54	545.09	597.56	649.74	693.99	725.87	746.06	753.29	749.63	736.76		
G 61.0	322.34	383.13	443.82	501.24	557.86	614.49	670.73	718.54	752.60	773.29	779.63	773.29	756.26		
G 62.0	324.82	386.69	448.27	507.28	566.58	627.46	688.35	740.03	776.95	798.63	803.78	794.28	771.90		
G 63.0	326.11	387.78	448.96	509.16	571.33	636.97	702.80	758.74	799.42	822.99	827.54	813.98	784.28		
G 64.0	325.71	385.80	445.70	507.08	572.62	642.61	711.61	770.81	816.35	843.98	849.12	831.70	793.19		
G 65.0	323.04	380.26	438.27	499.46	566.38	637.76	703.99	762.10	812.49	845.96	855.26	836.95	793.09		
G 66.0	317.59	369.96	423.82	480.05	541.04	605.68	660.23	711.32	762.70	799.13	813.88	798.93	759.83		
G 67.0	307.49	351.15	395.41	439.96	485.89	534.30	571.72	611.62	655.48	684.09	697.26	685.67	661.82		
G 68.0	288.49	317.99	345.91	373.92	401.54	433.92	457.48	484.11	512.92	519.85	516.38	500.05	479.95		
G 69.0	257.89	269.18	277.99	290.27	305.81	328.98	344.42	359.96	373.82	363.92	349.57	329.18	315.51		
G 70.0	219.29	214.63	208.79	210.47	218.69	237.01	249.28	258.19	264.33	251.96	233.84	208.89	190.87		
G 71.0	179.98	166.52	152.56	147.11	148.99	162.46	173.65	181.27	187.90	179.59	164.44	142.26	122.46		
G 72.0	144.84	130.09	112.86	103.06	101.28	110.19	118.21	125.73	134.94	132.17	123.06	106.92	91.77		
G 73.0	112.96	102.17	85.83	73.66	68.81	73.66	79.00	86.03	95.73	96.62	93.26	82.27	71.78		
G 74.0	83.65	78.51	66.53	55.04	48.51	50.09	53.26	58.61	66.13	68.31	69.50	62.67	55.34		
G 75.0	58.21	56.83	50.59	42.67	36.23	35.15	36.53	39.80	44.95	47.03	50.29	47.32	42.37		
G 76.0	38.02	38.51	36.63	33.46	28.61	26.43	25.94	27.42	30.69	32.08	35.74	35.54	33.36		
G 77.0	23.86	25.34	25.74	26.24	23.17	20.89	19.60	19.80	21.68	22.47	25.44	26.33	26.63		
G 78.0	15.54	17.03	18.02	19.90	18.71	17.03	15.64	15.25	16.04	16.34	18.32	19.40	20.79		
G 79.0	11.09	11.98	12.87	14.55	14.26	13.66	12.77	12.18	12.38	12.28	13.56	14.45	15.94		
G 80.0	8.71	9.31	9.70	10.79	10.69	10.79	10.20	9.80	10.00	9.60	10.40	10.89	12.18		
G 81.0	6.73	7.33	7.52	8.22	8.02	8.32	8.12	7.72	8.02	7.62	7.92	8.22	9.31		
G 82.0	5.05	5.54	5.74	6.43	6.14	6.34	6.14	5.94	6.24	5.94	6.04	6.24	7.13		
G 83.0	3.47	3.86	3.86	4.65	4.55	4.55	4.36	4.26	4.65	4.36	4.45	4.45	5.25		
G 84.0	2.28	2.57	2.47	2.97	3.07	3.27	3.07	2.77	3.37	3.17	3.27	3.17	3.66		
G 85.0	1.39	1.58	1.49	1.68	1.78	2.18	1.98	1.78	2.18	2.08	2.18	2.08	2.38		
G 86.0	0.69	0.89	0.79	0.89	0.79	1.19	1.09	0.99	1.19	1.19	1.19	1.19	1.39		
G 87.0	0.30	0.40	0.40	0.50	0.40	0.50	0.40	0.40	0.50	0.50	0.50	0.50	0.69		
G 88.0	0.20	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10		
G 89.0	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
G 90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Apparecchio

Codice BGP762 T25 DM31 LED120/- NO

Nome BGP762 T25 DM31 LED120/- NO

Rilievo

Codice LVE16B1295

Nome BGP762 T25 DM31 LED120/- NO

Flusso Apparecchio	10964.75 lm			Potenza Apparecchio	70.00 W		Efficacia	156.64 lm/W			Rendimento		91.37%
Flusso Lampade	12000.00 lm			Valore Massimo	855.26 cd/klm		Posizione	C=32.50 G=65.00			CG Simmetrico 90-270		
Tabella Intensità Luminose - cd/klm													
	C 40.00	C 42.50	C 45.00	C 47.50	C 50.00	C 52.50	C 55.00	C 57.50	C 60.00	C 62.50	C 65.00	C 67.50	C 70.00
G 0.0	178.00	178.00	178.00	178.00	178.00	178.00	178.00	178.00	178.00	178.00	178.00	178.00	178.00
G 2.5	182.26	182.46	182.65	182.85	183.05	183.25	183.45	183.65	183.74	183.84	183.94	184.14	184.24
G 5.0	186.62	187.11	187.51	187.80	188.20	188.40	188.69	188.99	189.19	189.39	189.68	189.88	189.98
G 7.5	191.17	191.76	192.06	192.36	192.75	193.15	193.45	193.74	194.04	194.24	194.54	194.73	194.93
G 10.0	195.33	195.82	196.32	196.61	197.01	197.41	197.80	198.10	198.40	198.79	198.99	199.19	199.58
G 12.5	199.49	200.18	200.67	201.07	201.56	201.96	202.46	202.85	203.45	203.84	204.34	204.63	205.13
G 15.0	204.14	204.93	205.52	206.12	206.81	207.50	208.20	208.89	209.48	210.18	210.77	211.37	211.86
G 17.5	209.68	210.57	211.46	212.35	213.35	214.24	215.13	215.92	216.71	217.50	218.10	218.69	219.29
G 20.0	216.81	217.90	218.89	220.18	221.17	222.16	223.15	223.94	224.53	225.13	225.72	226.02	226.51
G 22.5	226.12	227.50	228.39	229.58	230.47	231.26	231.86	232.35	232.65	232.85	233.05	233.15	233.24
G 25.0	237.70	238.69	239.58	240.27	240.77	241.07	241.16	241.16	241.07	240.87	240.67	240.27	240.07
G 27.5	251.36	251.96	252.25	252.35	252.25	251.96	251.36	250.87	250.17	249.58	248.99	248.39	247.90
G 30.0	267.00	267.30	266.80	266.31	265.32	264.53	263.04	262.05	260.67	259.88	258.98	258.29	257.70
G 32.5	285.81	285.22	283.83	282.94	280.86	279.67	277.20	276.11	274.13	273.04	271.85	270.86	270.17
G 35.0	307.10	305.81	303.63	302.54	299.38	297.89	294.62	293.04	290.66	289.08	287.60	286.31	285.32
G 37.5	330.96	328.88	325.91	324.82	320.86	318.88	315.41	313.24	310.66	308.68	306.90	305.32	304.23
G 40.0	358.78	355.31	351.65	350.06	346.10	343.83	340.26	337.79	334.92	332.54	330.26	328.09	326.50
G 42.5	389.66	386.10	382.34	380.65	376.89	374.52	370.85	367.59	363.92	360.36	356.89	353.33	350.26
G 45.0	424.51	421.34	417.68	416.00	412.14	409.07	404.81	400.16	395.01	389.57	384.12	378.68	373.73
G 46.0	439.36	436.49	433.03	431.05	426.89	423.32	418.67	413.52	407.58	401.35	395.01	388.67	382.93
G 47.0	456.09	453.52	449.86	447.18	442.53	438.08	432.73	426.69	419.86	412.53	405.21	397.98	391.35
G 48.0	472.82	470.65	466.79	463.42	458.17	452.83	446.79	439.86	432.14	423.72	415.40	407.29	399.66
G 49.0	491.93	489.36	484.90	480.65	474.31	467.48	460.25	452.33	443.42	433.82	424.21	414.91	406.20
G 50.0	511.04	508.07	503.02	497.77	490.45	482.23	473.81	464.80	454.81	444.02	433.13	422.53	412.63
G 51.0	531.33	527.77	521.53	514.90	505.89	496.09	486.19	475.79	464.31	451.93	438.87	426.10	414.02
G 52.0	551.63	547.37	540.14	531.93	521.43	510.05	498.46	486.68	473.91	459.76	444.71	429.56	415.50
G 53.0	573.21	567.67	558.56	548.26	535.89	522.32	508.76	494.70	479.46	462.33	443.92	425.11	407.68
G 54.0	594.89	587.96	576.97	564.70	550.34	534.70	518.96	502.82	485.00	464.90	443.22	420.55	399.86
G 55.0	616.77	607.76	594.49	579.74	562.62	544.20	525.29	505.40	483.32	458.47	432.33	404.51	379.76
G 56.0	638.65	627.56	612.02	594.69	574.89	553.71	531.63	507.97	481.64	452.03	421.54	388.48	359.57
G 57.0	659.64	645.78	626.97	606.18	582.61	557.07	529.45	499.26	465.70	427.98	391.35	352.44	320.96
G 58.0	680.72	663.99	642.02	617.66	590.44	560.44	527.37	490.64	449.66	404.02	361.05	316.40	282.35
G 59.0	700.42	679.54	653.00	624.39	592.12	555.69	515.10	469.46	420.45	367.19	320.27	274.92	244.04
G 60.0	717.06	691.22	659.84	625.98	587.37	543.02	493.61	438.57	383.23	325.61	279.28	238.79	213.94
G 61.0	730.82	698.94	661.42	621.13	575.19	521.73	463.52	400.55	342.34	285.91	244.73	211.56	192.16
G 62.0	739.43	700.42	656.07	608.16	554.30	491.63	426.10	358.88	302.54	252.65	218.39	191.17	174.44
G 63.0	742.30	694.78	642.31	586.08	524.40	453.52	384.22	317.79	267.30	225.32	196.32	170.78	154.04
G 64.0	739.93	681.81	620.43	555.39	486.68	410.16	341.05	279.67	235.82	198.40	171.27	143.45	126.13
G 65.0	730.52	662.11	592.12	518.46	443.52	364.02	297.89	241.56	201.96	164.64	138.01	109.10	92.96
G 66.0	698.64	629.34	557.17	476.39	395.90	314.33	251.36	197.51	160.88	124.25	100.78	76.53	65.14
G 67.0	615.68	564.00	503.42	421.64	339.17	257.30	198.49	148.01	116.82	86.92	70.29	54.85	48.81
G 68.0	456.69	439.26	407.78	339.47	266.80	192.46	142.76	101.87	79.89	60.98	51.48	43.76	41.48
G 69.0	300.76	306.70	290.86	233.24	184.04	129.29	94.74	68.71	56.63	46.83	42.08	38.81	38.61
G 70.0	173.74	177.21	169.59	135.63	111.08	80.59	62.47	49.99	44.85	39.80	37.82	36.33	36.93
G 71.0	102.47	97.02	91.58	74.75	64.94	51.98	45.24	40.79	39.01	36.43	35.54	34.06	35.34
G 72.0	75.04	64.25	57.62	49.01	44.35	38.91	36.93	36.14	36.04	34.25	33.66	31.68	33.17
G 73.0	58.90	50.29	44.45	38.81	36.04	32.67	32.27	33.36	34.25	32.37	31.28	28.81	30.10
G 74.0	45.74	40.10	36.53	32.27	30.49	28.41	29.01	31.18	32.37	29.80	28.31	25.05	25.64
G 75.0	35.54	31.98	29.80	26.63	25.94	24.95	26.24	28.51	29.50	26.53	24.65	20.89	20.99
G 76.0	28.12	25.44	23.66	21.58	21.58	21.48	23.26	24.85	25.74	22.87	20.89	17.52	17.42
G 77.0	23.07	20.59	18.91	17.42	17.92	18.02	19.80	20.59	21.48	19.31	17.52	14.65	14.45
G 78.0	18.71	16.93	15.44	14.26	14.55	14.75	16.24	16.53	17.62	15.94	14.45	12.28	12.28
G 79.0	14.45	13.56	12.67	11.78	12.08	12.08	12.97	13.07	14.06	12.87	11.88	10.20	10.49
G 80.0	11.39	10.89	10.40	9.70	10.00	9.80	10.40	10.20	11.19	10.20	9.70	8.32	8.81
G 81.0	8.81	8.71	8.41	7.82	8.12	7.82	8.22	7.82	8.61	7.92	7.72	6.73	7.43
G 82.0	6.93	6.83	6.73	6.14	6.43	6.04	6.34	5.84	6.53	6.14	6.14	5.25	6.14
G 83.0	5.15	5.45	5.25	4.45	4.75	4.36	4.65	4.16	4.75	4.55	4.65	3.86	4.75
G 84.0	3.47	3.76	3.66	3.17	3.47	3.07	3.27	2.87	3.47	3.17	3.47	2.77	3.56
G 85.0	2.18	2.38	2.47	2.08	2.38	1.98	2.28	1.88	2.28	2.08	2.28	1.88	2.28
G 86.0	1.19	1.19	1.49	1.19	1.39	1.19	1.39	1.09	1.39	1.19	1.39	1.09	1.29
G 87.0	0.40	0.50	0.69	0.50	0.59	0.40	0.50	0.40	0.40	0.30	0.30	0.20	0.20
G 88.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
G 89.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
G 90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Apparecchio

Codice BGP762 T25 DM31 LED120/- NO
Nome BGP762 T25 DM31 LED120/- NO

Rilievo

Codice LVE16B1295
Nome BGP762 T25 DM31 LED120/- NO

Flusso Apparecchio	10964.75 lm	Potenza Apparecchio	70.00 W	Efficacia	156.64 lm/W	Rendimento	91.37%
Flusso Lampade	12000.00 lm	Valore Massimo	855.26 cd/klm	Posizione	C=32.50 G=65.00	CG Simmetrico	90-270

Tabella Intensità Luminosa - cd/klm Tabella 6/6

	C 72.50	C 75.00	C 77.50	C 80.00	C 82.50	C 85.00	C 87.50	C 90.00
G 0.0	178.00	178.00	178.00	178.00	178.00	178.00	178.00	178.00
G 2.5	184.34	184.34	184.44	184.44	184.54	184.54	184.54	184.54
G 5.0	190.18	190.28	190.38	190.38	190.48	190.48	190.48	190.48
G 7.5	195.13	195.23	195.43	195.62	195.53	195.53	195.53	195.53
G 10.0	199.78	199.98	200.08	200.38	200.38	200.38	200.38	200.48
G 12.5	205.43	205.72	206.02	206.32	206.51	206.51	206.61	206.71
G 15.0	212.35	212.75	213.05	213.35	213.64	213.74	213.74	213.94
G 17.5	219.68	220.18	220.37	220.67	220.87	220.97	220.87	221.07
G 20.0	226.71	227.01	227.11	227.30	227.40	227.50	227.30	227.40
G 22.5	233.24	233.24	233.34	233.34	233.34	233.34	233.05	233.15
G 25.0	239.88	239.68	239.58	239.58	239.48	239.38	239.18	239.28
G 27.5	247.60	247.30	247.01	247.01	247.01	246.91	246.71	246.81
G 30.0	257.30	256.90	256.51	256.51	256.61	256.51	256.41	256.71
G 32.5	269.48	269.08	268.79	268.59	268.59	268.39	268.59	268.88
G 35.0	284.53	284.13	283.93	283.64	283.73	283.44	284.03	284.53
G 37.5	303.34	302.94	302.74	302.45	302.74	302.35	303.14	303.83
G 40.0	325.21	324.42	324.03	323.43	323.53	322.94	323.63	324.23
G 42.5	347.79	345.91	344.82	343.73	343.33	342.54	342.94	343.53
G 45.0	369.67	366.40	364.22	362.64	361.85	360.95	361.15	361.55
G 46.0	378.08	374.32	371.74	369.86	368.97	368.18	368.18	368.48
G 47.0	385.70	381.05	377.78	375.61	374.22	373.53	372.74	372.74
G 48.0	393.33	387.88	383.92	381.45	379.47	378.77	377.29	376.89
G 49.0	398.28	391.74	386.40	383.23	380.06	379.17	376.10	375.21
G 50.0	403.33	395.51	388.77	385.11	380.56	379.47	375.01	373.53
G 51.0	402.34	392.73	383.63	379.07	372.14	371.05	364.32	362.04
G 52.0	401.35	389.86	378.48	373.03	363.63	362.64	353.73	350.56
G 53.0	389.57	375.71	360.36	353.63	340.66	340.16	328.58	324.92
G 54.0	377.78	361.55	342.34	334.22	317.79	317.69	303.53	299.18
G 55.0	352.84	334.03	310.96	301.85	283.04	283.14	267.89	263.74
G 56.0	327.89	306.60	279.67	269.48	248.29	248.49	232.25	228.20
G 57.0	287.89	267.40	243.44	234.53	217.90	217.80	206.32	203.94
G 58.0	247.90	228.20	207.21	199.58	187.41	187.11	180.28	179.68
G 59.0	215.62	200.38	185.13	179.88	170.87	171.37	166.02	165.73
G 60.0	192.56	181.17	168.79	164.64	156.12	156.92	151.57	151.07
G 61.0	175.03	165.43	153.05	149.09	139.69	140.98	134.84	133.85
G 62.0	157.51	148.40	134.64	130.78	119.39	121.57	115.14	110.39
G 63.0	134.54	125.33	108.40	105.04	90.88	94.25	88.41	80.78
G 64.0	104.35	95.04	78.41	75.24	63.36	65.74	58.31	56.03
G 65.0	74.45	66.82	55.14	52.57	46.33	47.03	44.75	44.25
G 66.0	53.46	49.30	43.66	42.67	40.00	40.49	40.00	40.19
G 67.0	43.66	41.68	39.01	39.01	37.52	37.82	37.62	37.82
G 68.0	39.80	38.31	36.73	36.83	35.84	36.14	35.74	35.84
G 69.0	38.21	36.43	34.85	34.75	33.96	34.45	34.06	34.15
G 70.0	36.73	34.75	32.97	32.77	32.47	33.17	32.77	32.37
G 71.0	35.24	33.07	31.18	30.99	29.60	30.69	29.01	28.02
G 72.0	32.87	30.59	27.62	27.32	25.34	26.43	24.65	24.16
G 73.0	28.71	26.43	23.36	23.36	21.78	22.87	21.68	21.28
G 74.0	23.86	22.18	20.10	20.30	19.11	20.10	19.21	18.91
G 75.0	20.00	19.01	17.62	17.82	16.93	17.62	17.03	16.73
G 76.0	16.93	16.63	15.54	15.74	14.95	15.64	14.95	14.55
G 77.0	14.55	14.75	13.66	13.76	12.97	13.56	12.87	12.67
G 78.0	12.77	13.27	11.98	11.88	11.09	11.68	10.99	10.79
G 79.0	11.29	11.88	10.20	10.00	9.31	9.80	9.21	9.11
G 80.0	9.90	10.30	8.41	8.22	7.62	8.22	7.72	7.52
G 81.0	8.81	8.71	6.73	6.63	6.24	6.73	6.24	6.14
G 82.0	7.72	7.33	5.35	5.25	4.85	5.35	5.05	4.75
G 83.0	6.53	6.14	4.16	4.06	3.66	4.06	3.76	3.66
G 84.0	4.75	4.65	2.97	2.97	2.57	2.97	2.57	2.57
G 85.0	2.77	2.87	1.88	1.98	1.58	1.98	1.58	1.58
G 86.0	1.29	1.49	0.99	1.19	0.89	1.09	0.89	0.79
G 87.0	0.20	0.10	0.10	0.10	0.00	0.00	0.00	0.00
G 88.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
G 89.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
G 90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Apparecchio

Codice BGP762 T25 DM31 LED120/- NO
Nome BGP762 T25 DM31 LED120/- NO

Rilievo

Codice LVE16B1295
Nome BGP762 T25 DM31 LED120/- NO

Flusso Apparecchio	10964.75 lm	Potenza Apparecchio	70.00 W	Efficacia	156.64 lm/W	Rendimento	91.37%
Flusso Lampade	12000.00 lm	Valore Massimo	855.26 cd/klm	Posizione	C=32.50 G=65.00	CG	Simmetrico 90-270

Marciapiede

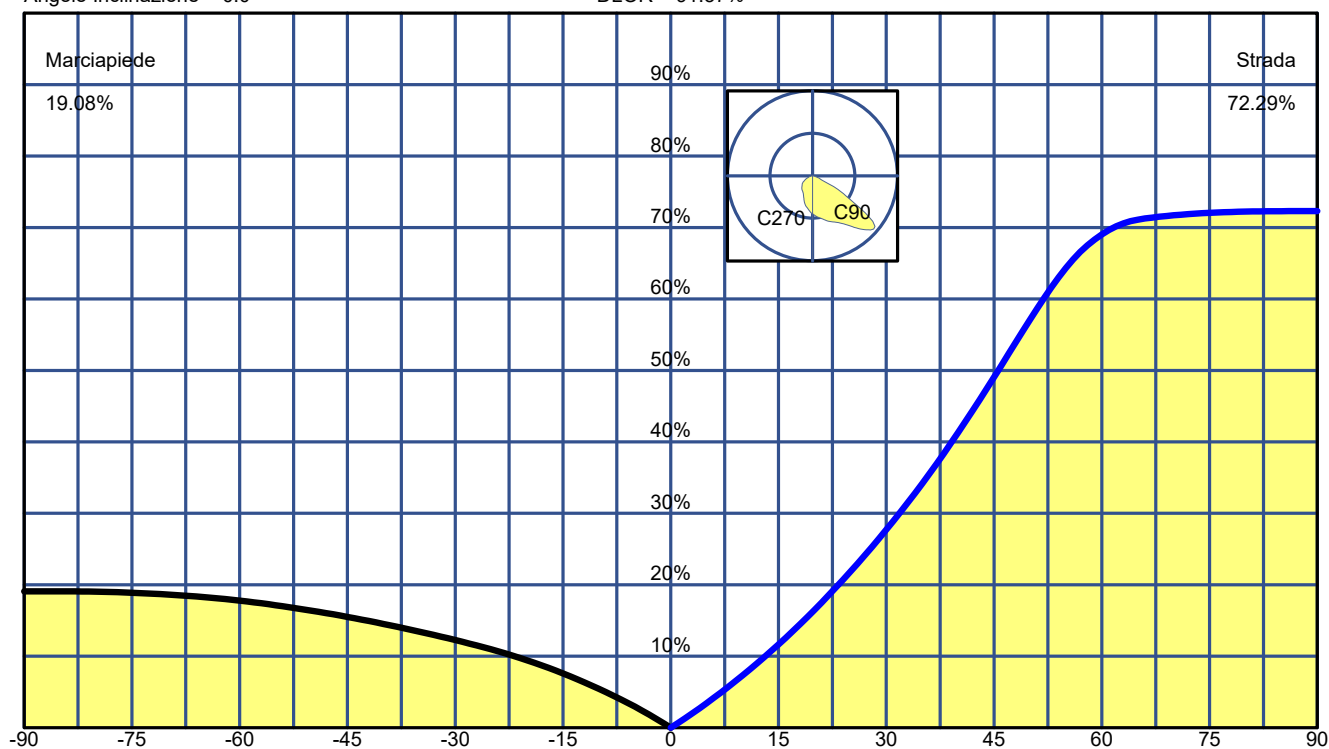
Angolo	0	0.00%
Angolo	-5	2.94%
Angolo	-10	5.43%
Angolo	-15	7.60%
Angolo	-20	9.44%
Angolo	-25	10.96%
Angolo	-30	12.26%
Angolo	-35	13.44%
Angolo	-40	14.52%
Angolo	-45	15.51%
Angolo	-50	16.38%
Angolo	-55	17.14%
Angolo	-60	17.78%
Angolo	-65	18.27%
Angolo	-70	18.64%
Angolo	-75	18.88%
Angolo	-80	19.04%
Angolo	-85	19.08%
Angolo	-90	19.08%

Strada

Angolo	0	0.00%
Angolo	5	3.43%
Angolo	10	7.32%
Angolo	15	11.65%
Angolo	20	16.48%
Angolo	25	21.83%
Angolo	30	27.70%
Angolo	35	34.16%
Angolo	40	41.30%
Angolo	45	49.06%
Angolo	50	57.09%
Angolo	55	64.34%
Angolo	60	69.03%
Angolo	65	71.10%
Angolo	70	71.71%
Angolo	75	72.06%
Angolo	80	72.22%
Angolo	85	72.28%
Angolo	90	72.29%

Angolo Inclinazione = 0.0

DLOR = 91.37%



Spread 53.4° Medio
Throw 63.5° Intermedio
SLI 6.6 Ristretto
Cutoff CIE Cutoff - Max: C=32.5° Gamma=65.0°
Cutoff Iesna Full Cutoff
DIN5044 KB1

IESNA Type II Short Asymmetrical

DLOR 91.37289 %
ULOR 0.00000 %
Rendimento 91.37289 %
RN 0.00000 %
Classe Intensità Luminosa G*6
Indice Abbagliamento D6

Valutazione IPEA* - DM Ambiente - 27 settembre 2017

Apparecchio

Dati Apparecchio

Codice: BGP762 T25 DM31 LED120/- NO

Produttore: PHILIPS/2018-04-17 Eulumdat/1 B-Tilt = 0.00

Nome: BGP762 T25 DM31 LED120/- NO

Sorgente Luminosa: LED120-4S/740

Applicazione: Stradali (ME)

Operatore

Nome:

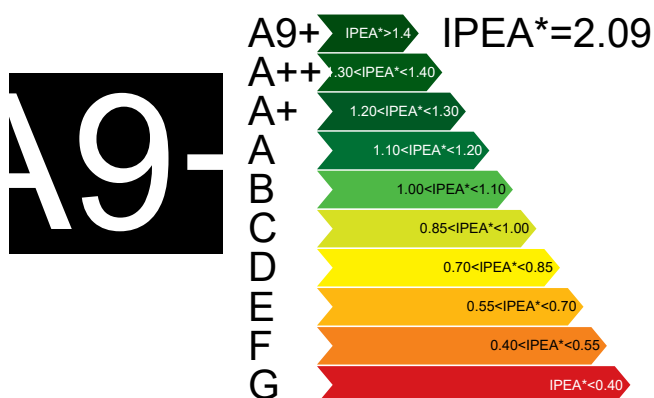
Società: PHILIPS/2018-04-17 Eulumdat/1 B-Tilt = 0.00

Data: 06 / 06 / 2017

File : BGP762 T25 1 xLED120-4S_740 DM31.ltd

Classificazione energetica

IPEA*



Altri Dati

Sorgente e Codice	LED120-4S/740	Caratt. Sorgente	
Temp.Colore e CRI	Tc:0 Ra:0	Ottica	
Allegati		Classe Isolamento	
Alimentatore		Affidabilità Alimentatore	
Flusso Sorgente	12000.0 lm	Potenza Reale	
Flusso Totale	10964.7 lm	Vita Sorgente	
LLMF		LSF	
Inquin. Luminoso		Certificazioni	
Prezzo		Garanzia	



Redattore STUDIO M s.t.a
 Telefono 0541-395182
 Fax 0541-752354
 e-Mail studio@studiomoretti2.191.it

PHILIPS BGP762 T25 DM31 LED120/- NO / Tabella di intensità luminosa

Lampada: PHILIPS BGP762 T25 DM31 LED120/- NO

Lampadine: 1 x LED120-4S/740

Gamma	C 90°	C 105°	C 120°	C 135°	C 150°	C 165°	C 180°	C 195°	C 210°	C 225°
0.0°	178	178	178	178	178	178	178	178	178	178
5.0°	190	190	189	188	185	182	178	175	171	168
10.0°	200	200	198	196	193	187	180	171	163	156
15.0°	214	213	209	206	201	195	182	167	154	147
20.0°	227	227	225	219	213	206	188	162	147	135
25.0°	239	240	241	240	233	223	194	157	136	118
30.0°	257	257	261	267	262	243	200	149	122	102
35.0°	285	284	291	304	302	269	206	138	106	90
40.0°	324	324	335	352	355	300	209	125	91	80
45.0°	362	366	395	418	420	336	205	112	78	73
50.0°	374	396	455	503	498	375	194	97	67	65
55.0°	264	334	483	594	607	428	185	80	57	56
60.0°	151	181	383	660	746	492	185	63	48	47
65.0°	44	67	202	592	846	499	186	45	37	38
70.0°	32	35	45	170	252	210	182	27	25	29
75.0°	17	19	30	30	47	43	45	15	15	17
80.0°	7.52	10	11	10	9.60	11	8.32	6.34	6.53	6.83
85.0°	1.58	2.87	2.28	2.47	2.08	1.68	1.19	0.99	1.09	0.99
90.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Valori in cd/klm



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e-Mail studio@studiomoretti2.191.it

PHILIPS BGP762 T25 DM31 LED120/- NO / Tabella di intensità luminosa

Lampada: PHILIPS BGP762 T25 DM31 LED120/- NO

Lampadine: 1 x LED120-4S/740

Gamma	C 240°	C 255°	C 270°
0.0°	178	178	178
5.0°	165	164	163
10.0°	151	149	149
15.0°	141	137	136
20.0°	124	118	117
25.0°	106	100	99
30.0°	93	89	89
35.0°	85	84	83
40.0°	79	80	77
45.0°	72	75	70
50.0°	63	63	63
55.0°	56	55	56
60.0°	48	43	44
65.0°	36	33	33
70.0°	25	24	23
75.0°	18	16	15
80.0°	13	7.43	5.64
85.0°	1.49	0.69	0.79
90.0°	0.00	0.00	0.00
95.0°	0.00	0.00	0.00

Valori in cd/klm



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PHILIPS BGP762 T25 DM31 LED120/- NO / Tabella di intensità luminosa

Lampada: PHILIPS BGP762 T25 DM31 LED120/- NO

Lampadine: 1 x LED120-4S/740

Gamma	C 90°	C 105°	C 120°	C 135°	C 150°	C 165°	C 180°	C 195°	C 210°	C 225°
100.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
115.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
125.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
170.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
175.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Valori in cd/klm



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PHILIPS BGP762 T25 DM31 LED120/- NO / Tabella di intensità luminosa

Lampada: PHILIPS BGP762 T25 DM31 LED120/- NO
Lampadine: 1 x LED120-4S/740

Gamma	C 240°	C 255°	C 270°
100.0°	0.00	0.00	0.00
105.0°	0.00	0.00	0.00
110.0°	0.00	0.00	0.00
115.0°	0.00	0.00	0.00
120.0°	0.00	0.00	0.00
125.0°	0.00	0.00	0.00
130.0°	0.00	0.00	0.00
135.0°	0.00	0.00	0.00
140.0°	0.00	0.00	0.00
145.0°	0.00	0.00	0.00
150.0°	0.00	0.00	0.00
155.0°	0.00	0.00	0.00
160.0°	0.00	0.00	0.00
165.0°	0.00	0.00	0.00
170.0°	0.00	0.00	0.00
175.0°	0.00	0.00	0.00
180.0°	0.00	0.00	0.00

Valori in cd/klm

DigiStreet Medio

BGP762



Innovation
Design

IP66

IK09



Apparecchio tecnico LED per illuminazione stradale

Apparecchi di illuminazione Philips DigiStreet sono stati sviluppati con la nuova piattaforma LED ed ottiche LEDGINE-O (Optimized), permette di ottenere il massimo dall'impianto di illuminazione.

Ogni singolo apparecchio è identificabile in modo univoco, grazie all'applicazione Philips Service tag: con una semplice scansione di un codice a barre (QR code), collocato all'interno dell'apparecchio ed alla base del palo, si accede immediatamente alla configurazione dell'apparecchio, rendendo la operazioni di manutenzione e programmazione più semplice e veloce in ogni momento della vita dell'apparecchio. Progettato esclusivamente per applicazioni stradali, possono essere collegati al sistema Philips CityTouch, consentendo alle città il passaggio ad apparecchi LED, ad una illuminazione efficace in mode semplice e veloce

Tipologie

BGP762 – DigiStreet Medio

Caratteristiche Illuminotecniche

Sorgente luminosa: LED ad alta potenza

Temperature di colore:

Bianco Caldo (WW) Tc=3000K

CRI>80

Bianco Neutro (NW) Tc=4000 K

CRI>70

Bianco Freddo (NW) Tc=5700K

CRI>70

Ottiche

DM10 / DM11 / DM12/ DM30/ DM31 /

DM50 / DM70 / DM32/ DM33/ DSM1

DN10 /DN11 / DSN1

DW10 / DW12 / DW50

DX10 / DX50 / DX51 / DX70

DS50

DPR1 / DPL1

Veelette antiabbagliamento: Backlighting
Louvers (BL1, BL2)

Flusso luminoso

Flusso di sistema: da 8.300 a 18.800 lm

Efficienza luminosa

Fino a 130 lm/W a seconda della
configurazione

Potenza

Da 65 a 152W a seconda della
configurazione

Vita Utile

100.000 ore Min L90B10

Temperatura operativa

-20°C < Ta < + 35°C

Corpo

Alluminio LM6 pressofuso ad alta
pressione

Diffusore

Vetro trasparente piano

Colore

RAL7035 o RAL10714.

Altri colori RAL o AKSO a richiesta

Cablaggio

V: 220 – 240 V / 50 – 60 Hz

Controllo

DynaDimmer, LineSwitch ed AmpDim

Installazione

Montaggio tramite attacco palo per

installazione laterale e/o testa palo

Testa palo: ø 48-62 o 76mm

Montaggio laterale: ø 32-48 o 48-60mm

Altezza di montaggio consigliata: 6-12 m

Testa palo – angolo di inclinazione

standard: 0°

Angolo di inclinazione regolabile: -20°,

-15°, -10°, -5°, 0°, +5°, +10°, +15°, +20°

Distribuzione della luce regolabile: no

Manutenzione

Di facile manutenzione, apertura
dell'apparecchio tramite clip.

Philips Service tag facilita

l'identificazione del prodotto e

consente di evidenziare in loco tutte
le informazioni tecniche specifiche del
prodotto

Applicazioni

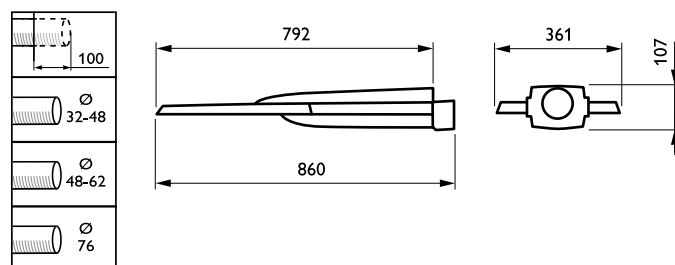
Strade principali e secondarie, aree
urbane e residenziali, centri città e
strade principali, passaggi ciclabili,
sottopassi e attraversamenti pedonali

Area esposta al vento

Max SCx: 0.0726 m²

Configurazioni

Disponibile a configuratore (BGP7601)

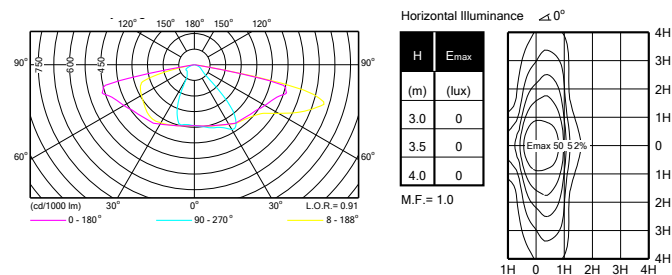


BGP762 – DigiStreet Medio

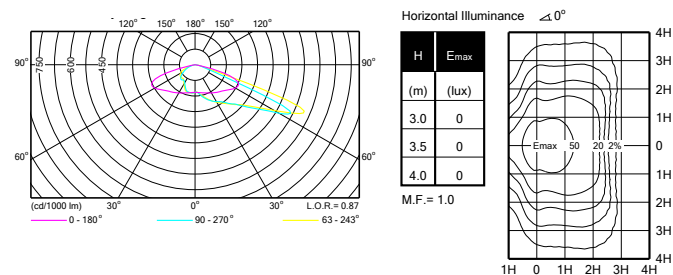
DigiStreet Medio BGP762

Dati fotometrici

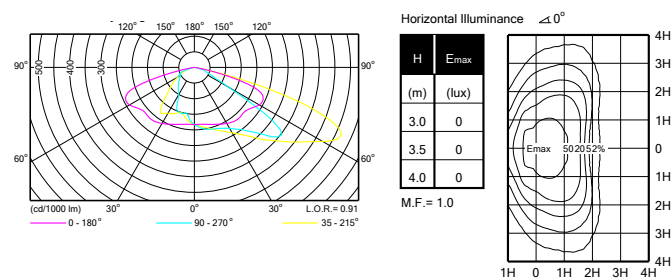
DIGISTREET BGP762 1xLED-HB 5750-21750 LM-4S 740 DN10



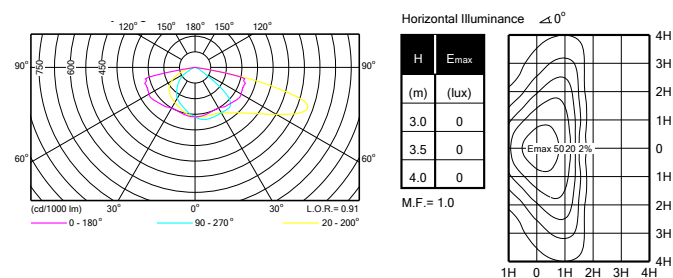
DIGISTREET BGP762 1xLED-HB 5750-21750 LM-4S 740 DX10



DIGISTREET BGP762 1xLED-HB 5750-21750 LM-4S 740 DW10



DIGISTREET BGP762 1xLED-HB 5750-21750 LM-4S 740 DM11



DigiStreet Medio

BGP762

Public Lighting

Co.Sco. X3 Categoria W4



Versione BGP762: corpo in alluminio, canopy verniciata colore grigio (Dark Grey 10714), vetro piano trasparente, classe II, completo di SPD, non regolabile, con attacco palo testa palo 62

tipo	flusso (lm)	t. colore	ottica	pot. (W)	Kg	EOC	codice ordine	prezzo
BGP762 LED95/740 II DM10 DGR SRG10 62	9.500	4000 K	Stradale DM10	65	9	config.	config.	552,00
BGP762 LED100/740 II DM10 DGR SRG10 62	10.000	4000 K	Stradale DM10	68	9	config.	config.	552,00
BGP762 LED110/740 II DM10 DGR SRG10 62	11.000	4000 K	Stradale DM10	75	9	config.	config.	552,00
BGP762 LED120/740 II DM10 DGR SRG10 62	12.000	4000 K	Stradale DM10	82	9	config.	config.	552,00
BGP762 LED129/740 II DM10 DGR SRG10 62	12.900	4000 K	Stradale DM10	88	9	config.	config.	552,00
BGP762 LED139/740 II DM10 DGR SRG10 62	13.900	4000 K	Stradale DM10	94	9	config.	config.	552,00
BGP762 LED149/740 II DM10 DGR SRG10 62	14.900	4000 K	Stradale DM10	101	9	config.	config.	552,00
BGP762 LED159/740 II DM10 DGR SRG10 62	15.900	4000 K	Stradale DM10	109	9	config.	config.	552,00
BGP762 LED169/740 II DM10 DGR SRG10 62	16.900	4000 K	Stradale DM10	117	9	config.	config.	552,00
BGP762 LED170/740 II DM10 DGR SRG10 62	17.000	4000 K	Stradale DM10	115	9	config.	config.	581,00
BGP762 LED180/740 II DM10 DGR SRG10 62	18.000	4000 K	Stradale DM10	122	9	config.	config.	581,00
BGP762 LED190/740 II DM10 DGR SRG10 62	19.000	4000 K	Stradale DM10	129	9	config.	config.	581,00
BGP762 LED200/740 II DM10 DGR SRG10 62	20.000	4000 K	Stradale DM10	137	9	config.	config.	581,00
BGP762 LED210/740 II DM10 DGR SRG10 62	21.000	4000 K	Stradale DM10	145	9	config.	config.	581,00
BGP762 LED220/740 II DM10 DGR SRG10 62	22.000	4000 K	Stradale DM10	153	9	config.	config.	581,00

Versione BGP762: corpo in alluminio, canopy verniciata colore grigio (Dark Grey 10714), vetro piano trasparente, classe II, completo di SPD, con driver e connettore SR, con attacco palo testa palo 62

tipo	flusso (lm)	t. colore	ottica	pot. (W)	Kg	EOC	codice ordine	prezzo
BGP762 LED95/740 II DM10 DGR P1-7 SRG10	9.500	4000 K	Stradale DM10	65	9	config.	config.	664,00
BGP762 LED100/740 II DM10 DGR P1-7 SRG10	10.000	4000 K	Stradale DM10	68	9	config.	config.	664,00
BGP762 LED110/740 II DM10 DGR P1-7 SRG10	11.000	4000 K	Stradale DM10	75	9	config.	config.	664,00
BGP762 LED120/740 II DM10 DGR P1-7 SRG10	12.000	4000 K	Stradale DM10	82	9	config.	config.	664,00
BGP762 LED129/740 II DM10 DGR P1-7 SRG10	12.900	4000 K	Stradale DM10	88	9	config.	config.	664,00
BGP762 LED139/740 II DM10 DGR P1-7 SRG10	13.900	4000 K	Stradale DM10	94	9	config.	config.	664,00
BGP762 LED149/740 II DM10 DGR P1-7 SRG10	14.900	4000 K	Stradale DM10	101	9	config.	config.	664,00
BGP762 LED159/740 II DM10 DGR P1-7 SRG10	15.900	4000 K	Stradale DM10	109	9	config.	config.	664,00
BGP762 LED169/740 II DM10 DGR P1-7 SRG10	16.900	4000 K	Stradale DM10	117	9	config.	config.	664,00
BGP762 LED170/740 II DM10 DGR P1-7 SRG10	17.000	4000 K	Stradale DM10	115	9	config.	config.	693,00
BGP762 LED180/740 II DM10 DGR P1-7 SRG10	18.000	4000 K	Stradale DM10	122	9	config.	config.	693,00
BGP762 LED190/740 II DM10 DGR P1-7 SRG10	19.000	4000 K	Stradale DM10	129	9	config.	config.	693,00
BGP762 LED200/740 II DM10 DGR P1-7 SRG10	20.000	4000 K	Stradale DM10	137	9	config.	config.	693,00
BGP762 LED210/740 II DM10 DGR P1-7 SRG10	21.000	4000 K	Stradale DM10	145	9	config.	config.	693,00
BGP762 LED220/740 II DM10 DGR P1-7 SRG10	22.000	4000 K	Stradale DM10	153	9	config.	config.	693,00

Opzioni a configuratore: verificare la possibilità di combinazione delle varie opzioni contattando l'organizzazione di vendita. Specificare l'opzione in fase d'ordine.

descrizione	note	codice	prezzo
Altre ottiche	–	–	0,00
Spigot 32-48 mm	–	–	0,00
Spigot Testa palo 76 mm	–	–	7,00
Classe I	–	–	0,00
CLO constant Light Output	–	–	0,00
Driver regolabile DALI (D9)	–	–	30,00
Driver regolabile Line Switch through switch OFF (D11)	–	–	30,00
Driver regolabile Line Switch through switch ON (D12)	–	–	30,00
Driver regolabile regolatore di flusso AmpDim (D13)	–	–	30,00
DynaDimmer (DDF1- DDF2 –DDF3)	–	–	30,00
Lightwave (City touch)	–	–	274,00
Knife Connector	–	–	21,00

Per altre opzioni vedere configuratore

Philips Lighting



EC Declaration of Conformity

We, Philips Lighting
I.B.R.S./C.C.R.I./Numéro 10461
5600 VB Eindhoven, The Netherlands

Internal Ref. No.: 0079/A/PLP
Year in which CE Mark was first affixed: 16

Declare under our responsibility for the product(s):

Product Range:	NAME: DigiStreet
Product Code:	DESCRIPTION: Luminaires for road and street lighting BGP762...I...; BGP762...II...; CL I, CL II; ~220÷240V, 50/60Hz; IP66; IK09; Ta35;

The designated product(s) is (are) in conformity with the essential requirements of the following European Directives and harmonized standards:

Low Voltage Directive (LVD), 2014/35/EU	
• EN 60598-1:2015	Luminaires. Part 1: General requirements and tests
• EN 60598-2-3:2003+A1:2011	Luminaires. Part 2-3: Particular requirements - Luminaires for road and street lighting
• EN 62471:2008	Photobiological safety of lamps and lamp system
Electromagnetic compatibility Directive (EMC), 2014/30/EU	
• EN 55015:2013	Limits and methods of measurements of radio disturbance characteristics of electrical lighting and similar equipment
• EN 61547:2009	Equipment for general lighting purposes - EMC immunity requirements
• EN 61000-3-2:2014	Limits for (≤ 16A per phase) harmonic currents emission
• EN 61000-3-3:2013	Limits. (Limitation of voltage fluctuations and flicker in low-voltage supply systems for equipment with rated current ≤ 16A)
Additional requirements	
• EN 62493:2010	Assessment of lighting equipment related to human exposure to electromagnetic fields
Restriction of the use of certain Hazardous Substances in electrical and electronic equipment Directive (RoHS), 2011/65/EU	
• EN 50581:2012	Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances
The Notified Body PL-3 - ITE FREEDOM Division performed testing and certification and issued the certificate ENEC30.	

and is/are produced under a quality scheme at least in conformity with ISO 9001 or CENELEC permanent documents.

2016-10-21 Kętrzyn	Maciej Drelichowski IPSC Supply Chain Manager Luminaires Kętrzyn
Signature:	



ITE PREDOM Division
53, Krakowiaków Str.
02-255 WARSAW, POLAND

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LICENCE

CERTIFICATE/CERTYFIKAT

to use the European Mark

Licencja na używanie europejskiego Znaku



Licence/Certificate No. / Licencja/ Certyfikat Nr 0122/ENEC/16/M2

Under the conditions given in the following pages of this document, the licence to use the ENEC Mark in conjunction with the suffix 30, as shown above, has been issued to:

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Philips Lighting Poland Sp.z o.o. 64-920 Piła, ul. Kossaka 150
O/Kętrzyn ul. Chrobrego 8, 11-400 Kętrzyn, Poland

For the products: *Dla wyrobów:*

Luminaires for road and street lighting *Oprawy oświetleniowe drogowe i uliczne*

Manufacturing place: *Miejsce Produkcji*

Philips Lighting Poland Sp.z o.o. 64-920 Piła, ul. Kossaka 150
O/Kętrzyn ul. Chrobrego 8, 11-400 Kętrzyn, Poland

Trade name: *Znak towarowy:*

PHILIPS

Type(s)/Model(s): *Typ(y), model(e):*

DigiStreet family BGP76x...II... - series (see Appendix/ *patrz Załącznik*)

Technical data/ *Dane Techniczne:* 220-240V 50/60Hz, IP 66, cl.II – details in the Appendix/*Szczegóły w Załączniku*

Complying with the following European Standards: *Zgodnymi z następującymi normami europejskimi*

EN 60598-2-3:2003

EN 60598-2-3:2003/ A1:2011

EN 60598-1:2015

(the test reports/ *raporty z badań:* Ref.No. BS-3/097/B/16 + Att. No. 1 (EU GD and ND BS-3/097/B/1/16) dated 16.09.2016; BS-3/097/B/16/M1 + Att. No. 1 (EU GD and ND BS-3/097/B/1/16/M1) dated 02.06.2017, BS-3/097/B/16/M2 + Att. No. 1 (EU GD and ND BS-3/097/B/1/16/M2) dated 26.01.2018/ITE PREDOM Division

Note: This licence/certificate has been issued because the products modifications: several components had been added as well as the choice sheet had been changed. This licence/certificate replaces the licence/ certificate 0122/ENEC/16/M1 dated 30-06-2017.

Uwaga: niniejsza licencja/certyfikat została wydana ponieważ wyroby zostały zmodyfikowane: dodano szereg komponentów oraz arkusz wyboru został zmieniony. Niniejsza licencja/certyfikat zastępuje licencję/certyfikat 0122/ENEC/16/M1 z dnia 30-06-2017.

Date: *Data* 26-02-2018

Signature:

Name:

Joanna Walczak-Ziółkowska

Aleksander Piotrowski

Position:

Manager of Certification
Office

Deputy Director of ITE
PREDOM Division

This licence has been issued under the presumption and conditional on the fact that the licensee holds all necessary legal rights with regard to the product presented for testing and certification. The ENEC mark may be applied to the products as specified in this licence for the duration of the Licence Agreement. No. R6/ENEC/02/10 dated 2010-02-09 and under conditions of the Licence agreement. This licence is issued on 26-02-2018 and expires upon withdrawal any of the above mentioned standards. *Niniejsza licencja została wydana zgodnie z założeniem i pod warunkiem, że licencjodawca posiada wszelkie niezbędne prawa w odniesieniu do wyrobu przedstawionego do badań i certyfikacji. Znak ENEC może być stosowany na wyrobach wymienionych w niniejszej licencji przez okres obowiązywania Umowy licencyjnej Nr R6/ENEC/02/10 z dnia 2010-02-09 i na warunkach tej Umowy. Niniejsza licencja została wydana w dniu 26-02-2018 i traci ważność po wycofaniu którejkolwiek z wyżej wymienionych norm.*

Additional information – see the Appendix.

Dodatkowe informacje – patrz Załącznik.

APPENDIX TO THE LICENCE/CERTIFICATE No. **0122/ENEC/16/M2**

page 1/6

Name and address of the license/certificate holder:	Philips Lighting Poland Sp. z o.o. 64-920 Piła, ul. Kossaka 150 O/Kętrzyn ul. Chrobrego 8, 11-400 Kętrzyn, Poland
Name and address of manufacturer:	Philips Lighting Poland Sp. z o.o. 64-920 Piła, ul. Kossaka 150 O/Kętrzyn ul. Chrobrego 8, 11-400 Kętrzyn, Poland
Name and address of manufacturing place:	Philips Lighting Poland Sp. z o.o. 64-920 Piła, ul. Kossaka 150 O/Kętrzyn ul. Chrobrego 8, 11-400 Kętrzyn, Poland
Name of product:	Luminaires for road and street lighting
Type (model):	Digistreet BGP76x...II... - series (see below)
Trade mark:	PHILIPS
Technical data:	
rated voltage	220-240V
rated current	see below
rated frequency	50/60Hz
number of lamps	6 – 150 LEDs
type of lamp	LED
protection against electric shock	class II
degree of protection	IP 66; IK09
classification of the luminaires, with respect to the supporting material	normal
mains connections	Connection block/ supply cable
ta	35°C

List of the luminaires:

Choice sheet of the luminaires DigiStreet BGP76x...II... - series:

Example:

BGP760 LW10 LED340-3S/740 PSU II DM 7045 MSP DDF1 D11 CTG-DGR SRG10 3183Y-3x0,75 62 REG

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

Designations used on the marking of luminaires (some designation may not appear in the name) :

1. BGP760
 - Code of the series (760,761,762,763)
2. LW10
 - LightWave (GPRS) option
 - LW10: telemanagement option with 10 years contract
 - LW5: telemanagement option with 5 years contract
 - LW1: telemanagement option with 1 year contract
 - LWCO: telemanagement option with signed service contract
 - LWFP: telemanagement option without contract
3. LED360
 - LEDGINE flux(x100) [lumen]
 - range: from LED06 to LED 360
4. 3S
 - Ledgine generation (3S, 4S, xS) when missing latest version applied
5. 757,740,830
 - LEDGINE version/color – CRI>76,CW 5700K NW 4000K, CRI>80, WW 3000K
6. PSU
 - Power supply without regulating and control
6. PSR/ PSD/ PSDD/ PSA/PSD-SR
 - Power supply regulating version
7. II
 - Safety Class II
8. DM
 - Optic DMxx, DNxx, DWxx, DSxx, DPLxx, BLxx, DXxx, DRMx, DRNx – Road light distribution
9. xxxx/xx-xxxx
 - RAL Colour, Colour Choice AKZO, British standard colours, GR, DGR
10. MSP
 - Marine salt protected coating
11. Dxx
 - Light control Dxx,DDFxx, CLOxx – Different light settings (dimming time, communication type, constant light output ect) **ex1:** D9 –Dimming with external communication with DALI, **ex2:** CLO-DDF3- Dynadimmer with fixed presets version with CLO
12. D11
 - Light regulation:
 - D9: External dimming Dali
 - RF: RF antenna control
 - D13: Mains Dimming
 - D11: Line Switch through switch OFF
 - D12: Line Switch through switch ON



APPENDIX TO THE LICENCE/CERTIFICATE No. **0122/ENEC/16/M2**

page 2/6

13. CTG-DGR

D17: Telensa dimming module DALI (PSD)

D18: Dynadimmer integrated (PSDD)

D24: DynaDimmer int. DALI unprog.

- Photocell:

P1-x: Nema socket for photocell

CTG-DGR, CTG-LGR, CTG-35-DGR, CTG-55-DGR, CTG-70-DGR, CTG-35-LGR, CTG-55-LGR, CTG-70-LGR, CTGO-DGR, CTGO-35-DGR, CTGO-55-DGR, CTGO-70-DGR, CTGO-AC-DGR, CTGO-LGR, CTGO-35-LGR, CTGO-55-LGR, CTGO-70-LGR, CTGO-AC-LGR, CTGN-DGR, CTGN-35-DGR, CTGN-55-DGR, CTGN-70-DGR, CTGN-AC-DGR, SRT,SRB

14. SRG10

- 10kV Surge Protection Device

15. 3183Yxx/H07RN-Yx

- POWER CABLE H05-VV 3/5X...m in wide range of length (0,75;1,5; 2,5 mm2), POWER CABLE H07RN in wide range of length where Y is 2,3,4 or 5 core, cable types: H05VV-F, S05Z1Z1-R, H07RN-F, H07BQ-F, H05VV-F Arctic, H05VV-U,

16. 62

- Spigot Type (32,48,62,76)

17. REG

- 005 option (luminaire with Knife Connector and Synergrid certificate)

List of LED's and electronic led driver's system:

LED's and electronic led driver system	PCB LED	Driver	Current
	PCB XXX XXX XX		
	Example: PCBA LDGOSQ1.0 MICRO 006 OS3H2-17 740 PCBA LDGOSQ1.0 MICRO 006 OS3H2-17 830 PCBA LDGOSQ1.0 MICRO 006 OS3H2-17 757 PCBA LDGOSQ1.0 MICRO 010 OS3H1-18 740 PCBA LDGOSQ1.0 MICRO 010 OS3H1-18 757 PCBA LDGOSQ1.0 MICRO 020 OS3H1-18 740 PCBA LDGOSQ1.0 MICRO 020 OS3H1-18 757 PCBA LDGOSQ1.0 MICRO 030 OS3H2-17 740 PCBA LDGOSQ1.0 MICRO 030 OS3H2-17 757 PCBA LDGOSQ1.0 MICRO 040 OS3H1-18 740 PCBA LDGOSQ1.0 MICRO 040 OS3H1-18 757 PCBA LDGOSQ1.0 MICRO 050 OS3H1-18 740 PCBA LDGOSQ1.0 MICRO 050 OS3H1-18 757 PCBA LDGOSQ1.0 MICRO 060 OS3H1-18 740 PCBA LDGOSQ1.0 MICRO 060 OS3H1-18 757 PCB LUMA MICRO 10 OSLONG3 WW PCB LUMA MICRO 10 OSLONG3 NW PCB LUMA MICRO 10 OSLONG3 CW PCB LUMA MICRO 20 OSLONG3 WW PCB LUMA MICRO 20 OSLONG3 NW PCB LUMA MICRO 20 OSLONG3 CW PCB LUMA MINI 30 OSLONG3 WW PCB LUMA MINI 30 OSLONG3 NW PCB LUMA MINI 30 OSLONG3 CWf PCB LUMA MINI 40 OSLONG3 WW PCB LUMA MINI 40 OSLONG3 NW PCB LUMA MINI 40 OSLONG3 CW PCB LUMA LARGE 50 OSLONG3 WW PCB LUMA LARGE 50 OSLONG3 NW PCB LUMA LARGE 50 OSLONG3 CW PCB LUMA LARGE 60 OSLONG3 WW PCB LUMA LARGE 60 OSLONG3 NW PCB LUMA LARGE 60 OSLONG3 CW	Xi FP xxW xxxA xxxxx Example: Xi FP 22W 0.3-1.0A SNLDAE 230V S175 sXt Xi FP 40W 0.2-0.7A SNLDAE 230V S175 sXt Xi LP 40W 0.2-0.7A SN 230V S175 sXt Xi FP 75W 0.2-0.7A SNLDAE 230V S240 sXt Xi FP 150W 0.2-0.7A SNLDAE 230V S240 sXt Xi LP 150W 0.2-0.7A SN 230V S240 sXt Xi SR 22W 0.2-0.7A SNEMP 230V S240 sXt Xi SR 40W 0.2-0.7A SNEMP 230V C133 sXt Xi SR 75W 0.2-0.7A SNEMP 230V S240 Xi SR 150W 0.2-0.7A SNEMP 230V S240 (40W – max power; 0.2-0.7A – operation current)	max.1A
LEDxxx Example: LED06 – 600lm LED55 – 5500lm LED170 – 17000lm LED360 – 36000lm	(10 –no of LEDs; WW/830 –color temp)		



APPENDIX TO THE LICENCE/CERTIFICATE No. 0122/ENEC/16/M2

page 3/6

List of components:

Object / part No.	Code	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity
Connection block	A	ADELS	CON WW 5P F H SCR 124845B2	450V,750V,T85, T130, 100A	EN60998-1 EN60998-2-1	VDE
Connection block	A	ADELS	CON WW 3P F H SCR 124703M	450V,750V,T85, T130, 100A	EN60998-1 EN60998-2-1	VDE
Connection block	A	ADELS	124702M	450V,750V,T85, T130, 100A	EN60998-1 EN60998-2-1	VDE
LED Driver	A	PHILIPS LIGHTING ELECTRONICS N.A. Advance	Xi FP 40W 0.2-0.7A SNLDAE 230V S175 sXt	220-240V 50...60 Hz 0.2-0.7A Tc=85 °	EN 61347-1 EN 61347-2-13	ENEC 05
LED Driver	A	PHILIPS LIGHTING ELECTRONICS N.A. Advance	Xi LP 40W 0.2-0.7A SN 230V S175 sXt	220-240V 50...60 Hz 0.2-0.7A Tc=80 °C	EN 61347-1 EN 61347-2-13	ENEC 05
LED Driver	A	PHILIPS LIGHTING ELECTRONICS N.A. Advance	Xi FP 75W 0.2-0.7A SNLDAE 230V S240 sXt	220-240V 50...60 Hz 0.2-0.7A Tc=85°C	EN 61347-1 EN 61347-2-13	ENEC 05
LED Driver	A	PHILIPS LIGHTING ELECTRONICS N.A. Advance	Xi LP 75W 0.2-0.7A SN 230V S240 sXt	220-240V 50...60 Hz 0.2-0.7A Tc=85°C	EN 61347-1 EN 61347-2-13	ENEC 05
LED Driver	A	PHILIPS LIGHTING ELECTRONICS N.A. Advance	Xi FP 150W 0.2-0.7A SNLDAE 230V S240 sXt	220-240V 50...60 Hz 0.2-0.7A Tc=90°C	EN 61347-1 EN 61347-2-13	ENEC 05
LED Driver	A	PHILIPS LIGHTING ELECTRONICS N.A. Advance	Xi LP 150W 0.2-0.7A SN 230V S240 sXt	220-240V 50...60 Hz 0.2-0.7A Tc=90°C	EN 61347-1 EN 61347-2-13	ENEC 05
GPRS module	A	PHILIPS	LLC7240 CityTouch OLC POWER	120 - 277V, max 4A, Tc=85 °C	EN61347	ENEC05
GPRS antenna	A	PHILIPS	LLC7250 CityTouch OLC COM	Ta: -30...60°C	EN61347	ENEC05
Surge Protective Device	A	CPT CIRPROTEC	NSS-10/230-D-LCF-P	Imax 10kA In 5kA Un 230V (50/60Hz) Uoc 10kV Uc(L1-L2/PE) 420V Uc(L1-L2) 320V Temperature range: - 40°C to 80°C	IEC 61643-11	CB
					EN 61643-11	CE
Knife connector	A	OMT	Knife connector male 3P	10A, 250V	EN 60998 -1 60998-2-1	CSV
Knife connector	A	OMT	Knife connector female 3P	10A, 250V	EN 60998 -1 60998-2-1	CSV
POWER CABLE	B	HELUKABEL	H07RN-F 3/5X1,5	-30°C, +60°C 5mm2, 450/750V	EN 60598-2-3 EN 50525-2-21	Tested together with appliance CE
POWER CABLE	B	NKT CABLES	H05-VV 3/5X1,5MM2/ Cable 3183Y	-15°C, +70°C	EN 60598-2-3 EN 50525-2-21	Tested together with appliance CE
Connection block	A	ADELS	125302M	450V,750V,T85, T130, 100A	EN60998-1 EN60998-2-1	VDE
LED Module	B	PHILIPS/ Opulent	PCB LUMA MICRO 10 OSLONG3 CW	0.7A Tc65	EN 62031	Tested by LCIE (Report No. 143254-689379A)
LED Module	B	PHILIPS/ Opulent	PCB LUMA MICRO 10 OSLONG3 NW	0.7A Tc65	EN 62031	Tested by LCIE (Report No. 143254-689379A)
LED Module	B	PHILIPS/ Opulent	PCB LUMA MICRO 10 OSLONG3 WW	0.7A Tc65	EN 62031	Tested by LCIE (Report No. 143254-689379A)
LED Module	B	PHILIPS/ Opulent	PCB LUMA MICRO 20 OSLONG3 CW	0.7A Tc65	EN 62031	Tested by LCIE (Report No. 143254-689379A)
LED Module	B	PHILIPS/ Opulent	PCB LUMA MICRO 20 OSLONG3 NW	0.7A Tc65	EN 62031	Tested by LCIE (Report No. 143254-689379A)
LED Module	B	PHILIPS/ Opulent	PCB LUMA MICRO 20 OSLONG3 WW	0.7A Tc65	EN 62031	Tested by LCIE (Report No. 143254-689379A)



APPENDIX TO THE LICENCE/CERTIFICATE No. 0122/ENEC/16/M2

page 4/6

Object / part No.	Code	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity
LED Module	B	PHILIPS/ Opulent	PCB LUMA MINI 30 OSLONG3 NW	0.7A Tc65	EN 62031	Tested by LCIE (Report No. 143254-689379A)
LED Module	B	PHILIPS/ Opulent	PCB LUMA MINI 30 OSLONG3 WW	0.7A Tc65	EN 62031	Tested by LCIE (Report No. 143254-689379A)
LED Module	B	PHILIPS/ Opulent	PCB LUMA MINI 30 OSLONG3 CW	0.7A Tc65	EN 62031	Tested by LCIE (Report No. 143254-689379A)
LED Module	B	PHILIPS/ Opulent	PCB LUMA MINI 40 OSLONG3 NW	0.7A Tc65	EN 62031	Tested by LCIE (Report No. 143254-689379A)
LED Module	B	PHILIPS/ Opulent	PCB LUMA MINI 40 OSLONG3 WW	0.7A Tc65	EN 62031	Tested by LCIE (Report No. 143254-689379A)
LED Module	B	PHILIPS/ Opulent	PCB LUMA MINI 40 OSLONG3 CW	0.7A Tc65	EN 62031	Tested by LCIE (Report No. 143254-689379A)
LED Module	B	PHILIPS/ Opulent	PCB LUMA LARGE 50 OSLONG3 NW	0.7A Tc80	EN 62031	Tested by LCIE (Report No. 143254-689379A)
LED Module	B	PHILIPS/ Opulent	PCB LUMA LARGE 50 OSLONG3 WW	0.7A Tc80	EN 62031	Tested by LCIE (Report No. 143254-689379A)
LED Module	B	PHILIPS/ Opulent	PCB LUMA LARGE 50 OSLONG3 CW	0.7A Tc80	EN 62031	Tested by LCIE (Report No. 143254-689379A)
LED Module	B	PHILIPS/ Opulent	PCB LUMA LARGE 60 OSLONG3 NW	0.7A Tc80	EN 62031	Tested by LCIE (Report No. 143254-689379A)
LED Module	B	PHILIPS/ Opulent	PCB LUMA LARGE 60 OSLONG3 WW	0.7A Tc80	EN 62031	Tested by LCIE (Report No. 143254-689379A)
LED Module	B	PHILIPS	PCB LUMA LARGE 60 OSLONG3 CW	0.7A Tc80	EN 62031	Tested by LCIE (Report No. 143254-689379A)
Wire (internal)	A	Omerin	H05SJ-U1G0,75	0,75mm2, 300/500V	EN 50525-2-41	VDE
Wire	A	Omerin	H05SJ-U1G0,75	0,75mm2, 300/500V	EN 50525-2-41	HAR
Electronic led driver	A	PHILIPS LIGHTING ELECTRONICS N.A. Advance	Xi SR 75W 0.2-0.7A SNEMP 230V S240	220-240V 50...60 Hz 0.2-0.7A Tc=90°C	EN 61347-1 EN 61347-2-13	ENEC 05
Electronic led driver	A	PHILIPS LIGHTING ELECTRONICS N.A. Advance	Xi SR 150W 0.2-0.7A SNEMP 230V S240	220-240V 50...60 Hz 0.2-0.7A Tc=90°C	EN 61347-1 EN 61347-2-13	ENEC 05
GPRS module	A	PHILIPS	LLC7270 CityTouch OLC COM SR DG	15-24V, DC, Ta: -40...+60°C	EN61347	ENEC05
GPRS antenna	A	PHILIPS	LLC7271 CityTouch OLC COM SR LG	15-24V, DC, Ta: -40...+60°C	EN61347	ENEC05
GPRS antenna	A	PHILIPS	LLC7280 CityTouch Nema SR	15-24V, DC, switching 100- 480VAC Ta: -40...+70°C	EN61347	ENEC05
SR receptacle	A	Tyco Electronic	2213858 - 1	1.5A, 30V (typical 24V)	IEC 61984	UL
NEMA 7 PIN	C	Tyco Electronic	2213362	Max15A, max 480V	EN 60598-2-3	Tested together with appliance
POWER CABLE	A	NEXANS	S05Z1Z1-R 3/5x1,5 (x2,5)	-10°C, +70°C	SS 424 02 19-5	S
POWER CABLE	A	HELUKABEL	H05/H07BQ-P 3/5X1,5 (x2,5)	-40°C, +80°C	EN 50525-2-21	VDE
POWER CABLE	B	HELUKABEL	H05RR-F 3/5X1,5 (x2,5)	-30°C, +60°C	EN 60598-2-3 EN 50525-2-21	Tested together with appliance CE
POWER CABLE	A	HELUKABEL	H05VV-U 3/5X1,5 (x2,5)	-40°C, +70°C	EN 50525-2-21	VDE
Wire (internal SR connector)	A	Omerin	RE6Y6YS 1x0,75	0,75mm2, 300/500V	DIN 57250-106	VDE
Knife connector	A	OMT	CON CS 3P F 0000013151	0,5-4mm2,16A/400V T 120 °C	EN 60998 -1 60998-2-1	IMQ CSV
Knife connector	A	OMT	CON CS 3P M 0000013113	0,5-4mm2,16A/400V T 120 °C	EN 60998 -1 60998-2-1	IMQ CSV
GPRS antenna	A	Philips	LLC7280 CityTouch Nema SR	15-24V, DC, swithing 100 480VAC; Ta: - 40...+70°C	EN61347	ENEC05



File No. R1/ENEC/18/0285

APPENDIX TO THE LICENCE/CERTIFICATE No. 0122/ENEC/16/M2

page 5/6

Object / part No.	Code	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity
GPRS antenna	A	Philips	LLC7251 CityTouch LG	15-24V, DC-30°C, +60°C	EN61347	ENEC05
Connection block	A	ADELS	AC 166-1 ST/3 BU/3 163063	250V, 16A, max 2,5 mm ² @Tc70deg	EN 61984	VDE
Electronic led driver	A	PHILIPS LIGHTING ELECTRONICS	Xi SR 40W 0.2-0.7A SNEMP 230V C133 sXt	220-240VAC; 0,2- 0,7A; 50/60Hz	EN 61347-1 EN 61347-2-13	ENEC05
Antenna	A	PHILIPS	LLC7300/00 STARSENSE WIRELESS 1- 10V/DALI	220-240V,50-60Hz,- 30...+65°C,Tc80°C	EN61347-2-11	ENEC05
LineSwitch	A	Lunatone	LINESWITCH DALI MC4L, DALI MC1L	Rin=150kΩ, @Vio=500VDC, - 20°C to +75°C	EN 61347-1	ENEC11
Bleeder Resistor	A	Royalohm	MGRF1WJ010KT50	10MOhm, 10kV	EN 60065	VDE
Wire	A	OMERIN	H07 SJ-K 1G0,75mm ²	0,75mm ²	50525-2-41	VDE
Wire	A	OMERIN	RE6Y6YS	0,75mm ² , 300/500V	DIN57250-106	VDE
Dimming module	A	Philips	SDU01H	220-240V 50/60Hz	EN 61347-2-11	ENEC05
Connection block	A	ADELS	500/5 SKII	0,5-2,5mm ² , 16A/750V, Ta 85 °C	EN60598-2-3	ENEC 14
Surge Protective Device	A	CPT CIRPROTEC	NSB-10/230-C3-DD	Imax 10kA, In 5kA, Un 230V (50/60Hz), Ta= -40°C to 80°C	IEC 61643-11	CB
Electronic led driver	A	PHILIPS LIGHTING ELECTRONICS	Xi FP 22W 0.3-1.0A SNLDAE 230V S175 sXt	220-240V 50...60 Hz 0.3-1.0A Tc=85 °	EN 61347-1, EN 61347-2-13	CE ENEC05
Connector	A	Colosio	M140MN/xx,	250 - 450V, IP68	EN 60998-1 EN60998-2-1 EN60529-1	ENEC 03
Cable for mains	A	La Triventa Cavi SPA	H07RN-F 5G1/3G1	1mm ² , 450/750V	EN 50525-2-21	HAR
Cable for mains	A	ElettroBrescia	H07RN-F 5G1/3G1	1mm ² , 450/750V	EN 50525-2-21	HAR
Cable for mains	A	Elpar	H07RN-F 5G1/3G1	1mm ² , 450/750V	EN 60598-2-3	Tested together with appliance
					EN 50525-2-21	CE
Cable for mains	A	Nexans	H07RN-F 5G1/3G1	1mm ² , 450/750V	EN 50525-2-21	HAR
Cable for mains	A	La Triventa Cavi SPA	H07RN-F 5G1,5/3G1,5	1,5mm ² , 450/750V	EN 50525-2-21	HAR
Cable for mains	A	ElettroBrescia	H07RN-F 5G1,5/3G1,5	1,5mm ² , 450/750V	EN 50525-2-21	HAR
Cable for mains	A	Elpar	H07RN-F 5G1,5/3G1,5	1,5mm ² , 450/750V	EN 60598-2-3	Tested together with appliance
					EN 50525-2-21	CE
Cable for mains	A	Nexans	H07RN-F 5G1,5/3G1,5	1,5mm ² , 450/750V	EN 50525-2-21	HAR
Cable for mains	A	La Triventa Cavi SPA	H07RN-F 5G2,5/3G2,5	2,5mm ² , 450/750V	EN 50525-2-21	HAR
Cable for mains	A	ElettroBrescia	H07RN-F 5G2,5/3G2,5	2,5mm ² , 450/750V	EN 50525-2-21	HAR
Cable for mains	A	Elpar	H07RN-F 5G2,5/3G2,5	2,5mm ² , 450/750V	EN 60598-2-3	Tested together with appliance
					EN 50525-2-21	CE
Cable for mains	A	Nexans	H07RN-F 5G2,5/3G2,5	2,5mm ² , 450/750V	EN 50525-2-21	HAR
Cable for mains	A	ElettroBrescia	H05VV-F 5G1,5/3G1,5	1,5mm ² , 300/500V	EN 50525-2-11	HAR
Cable for mains	A	nkt	H05VV-F 5G1,5/3G1,5	1,5mm ² , 300/500V	EN 50525-2-11	EZU
Cable for mains	A	PECESO CAVI SRL	H05VV-F 5G1,5/3G1,5	1,5mm ² , 300/500V	EN 50525-2-11	HAR
Cable for mains	A	Elpar	H05VV-F 5G1,5/3G1,5	1,5mm ² , 300/500V	EN 50525-2-11	VDE
Cable for mains	A	Elektrokabel	H05VV-F 5G1,5/3G1,5	1,5mm ² , 300/500V	EN 50525-2-11	BBJ SEP
Cable for mains	A	PECESO CAVI SRL	H05VV-F 5G2,5/3G2,5	2,5mm ² , 300/500V	EN 50525-2-11	HAR
Cable for mains	A	Elpar	H05VV-F 5G2,5/3G2,5	2,5mm ² , 300/500V	EN 50525-2-11	VDE
Cable for mains	A	ElettroBrescia	H05VV-F 5G2,5/3G2,5	2,5mm ² , 300/500V	EN 50525-2-11	HAR
Cable for mains	A	nkt	H05VV-F 5G2,5/3G2,5	2,5mm ² , 300/500V	EN 50525-2-11	EZU
Cable for mains	A	Elektrokabel	H05VV-F 5G2,5/3G2,5	2,5mm ² , 300/500V	EN 50525-2-11	BBJ SEP
Cable for mains	A	CMK Cabo	H05VV-FP 5G1,5/3G1,5	1,5mm ² , 300/500V	BS6004	BASEC
Cable for mains	A	CMK Cabo	H05VV-FP 3G2,5	2,5mm ² , 300/500V	BS6004	BASEC
Cable for mains	A	General Cavi SPA	H07BQ-F 5G1,5/3G1,5	1,5mm ² , 450/750V	EN 50525-2-21	HAR
Cable for mains	A	Elpar	H07BQ-F 5G1,5/3G1,5	1,5mm ² , 450/750V	EN 60598-2-3	Tested together with appliance
					EN 50525-2-21	CE
Cable for mains	A	XBK	H05VV-U 5G1,5/3G1,5	1,5mm ² , 300/500V	DIN VDE 0250-204	VDE
Cable for mains	A	nkt	H05VV-U 5G1,5/3G1,5	1,5mm ² , 300/500V	DIN VDE 0250-204	VDE
fuse	A	ADELS	TB1SI OF FU-175201	250V 6,3A 1,6W	EN 60127-6, EN 60127-1	VDE



APPENDIX TO THE LICENCE/CERTIFICATE No. 0122/ENEC/16/M2

page 6/6

Object / part No.	Code	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity
LED Module	C	PHILIPS/ Opulent	PCBA LDGOSQ1.0 MICRO 006 OS3H2-17 830	1A Tc85	EN 62031	Tested by LCIE (Report No. 153464-715980)
LED Module	C	PHILIPS/ Opulent	PCBA LDGOSQ1.0 MICRO 006 OS3H1-18 740	1A Tc85	EN 62031	Tested by LCIE (Report No. 153464-715980)
LED Module	C	PHILIPS/ Opulent	PCBA LDGOSQ1.0 MICRO 006 OS3H1-18 757	1A Tc85	EN 62031	Tested by LCIE (Report No. 153464-715980)
LED Module	C	PHILIPS/ Opulent	PCBA LDGOSQ1.0 MICRO 010 OS3H1-18 740	1A Tc85	EN 62031	Tested by LCIE (Report No. 153464-715980)
LED Module	C	PHILIPS/ Opulent	PCBA LDGOSQ1.0 MICRO 010 OS3H1-18 757	1A Tc85	EN 62031	Tested by LCIE (Report No. 153464-715980)
LED Module	C	PHILIPS/ Opulent	PCBA LDGOSQ1.0 MICRO 020 OS3H1-18 740	1A Tc85	EN 62031	Tested by LCIE (Report No. 153464-715980)
LED Module	C	PHILIPS/ Opulent	PCBA LDGOSQ1.0 MICRO 020 OS3H1-18 757	1A Tc85	EN 62031	Tested by LCIE (Report No. 153464-715980)
LED Module	C	PHILIPS/ Opulent	PCBA LDGOSQ1.0 MINI 030 OS3H1-18 740	1A Tc85	EN 62031	Tested by LCIE (Report No. 153464-715980)
LED Module	C	PHILIPS/ Opulent	PCBA LDGOSQ1.0 MINI 030 OS3H1-18 757	1A Tc85	EN 62031	Tested by LCIE (Report No. 153464-715980)
LED Module	C	PHILIPS/ Opulent	PCBA LDGOSQ1.0 MINI 040 OS3H1-18 740	1A Tc85	EN 62031	Tested by LCIE (Report No. 153464-715980)
LED Module	C	PHILIPS/ Opulent	PCBA LDGOSQ1.0 MINI 040 OS3H1-18 757	1A Tc85	EN 62031	Tested by LCIE (Report No. 153464-715980)
LED Module	C	PHILIPS/ Opulent	PCBA LDGOSQ1.0 LARGE 050 OS3H1-18 757	1A Tc85	EN 62031	Tested by LCIE (Report No. 153464-715980)
LED Module	C	PHILIPS/ Opulent	PCBA LDGOSQ1.0 LARGE 050 OS3H1-18 740	1A Tc85	EN 62031	Tested by LCIE (Report No. 153464-715980)
LED Module	C	PHILIPS/ Opulent	PCBA LDGOSQ1.0 LARGE 060 OS3H1-18 740	1A Tc85	EN 62031	Tested by LCIE (Report No. 153464-715980)
LED Module	C	PHILIPS/ Opulent	PCBA LDGOSQ1.0 LARGE 060 OS3H1-18 757	1A Tc85	EN 62031	Tested by LCIE (Report No. 153464-715980)
Electronic led driver	A	PHILIPS LIGHTING ELECTRONICS	Xi SR 22W 0.2-0.7A SNEMP 230V C133 sXt	220-240V 50...60 Hz 0.2-0.7A Tc=85 °	EN 61347-1, EN 61347-2-13	ENEC05

The codes above have the following meaning:

- A - The component is replaceable with another one, also certified, with equivalent characteristics
- B - The component is replaceable if authorised by ITE PREDOM Division
- C - Integrated component tested together with the appliance

Certification Body: ITE PREDOM Division

Place: WARSAW

Signed:

Manager of Certification
Office

Deputy Director of ITE
PREDOM Division

Date: 26-02-2018

Joanna Walczak-
Złotkowska

Aleksander Piotrowski



Test Report issued under the responsibility of:

PL-3 ITE PREDOM Division

TEST REPORT
IEC 60598-2-3
Luminaires
Part 2: Particular requirements
Section 3: Luminaires for road and street lighting

Report Number..... : BS-3/097/B/16

Date of issue..... : 16.09.2016

Total number of pages 66

Name of Testing Laboratory : ITE PREDOM Division
preparing the Report : 02-255 Warszawa, ul. Krakowiaków 53, Poland

Applicant's name : Philips Lighting Poland Sp. z o.o. Piła, ul. Kossaka 150,
Address..... : O/Kętrzyn 11-400 Kętrzyn, ul. Chrobrego 8, Poland

Test specification:

Standard : IEC 60598-2-3:2002/AMD1:2011 used in conjunction with
IEC 60598-1:2014

Test procedure : CB Scheme

Non-standard test method : N/A

Test Report Form No. : IEC60598_2_3K

Test Report Form(s) Originator : Intertek Semko AB

Master TRF : 2016-09

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This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

General disclaimer:

The test results presented in this report relate only to the object tested.

This report shall not be reproduced, except in full, without the written approval of the Issuing CB Testing Laboratory. The authenticity of this Test Report and its contents can be verified by contacting the NCB, responsible for this Test Report.

Test item description	Luminaires for road and street lighting	
Trade Mark	Philips	
Manufacturer	Philips Lighting Poland Sp. z o.o. Piła, ul. Kossaka 150, O/Kętrzyn 11-400 Kętrzyn, ul. Chrobrego 8, Poland	
Model/Type reference	Digistreet family BGP76x...II... - series	
Ratings	220 -240V 50/60Hz, IP66 cl II	
Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):		
<input checked="" type="checkbox"/>	CB Testing Laboratory:	ITE PREDOM Division
Testing location/ address		02-255 Warszawa, ul. Krakowiaków 53, Poland
<input type="checkbox"/>	Associated CB Testing Laboratory:	
Testing location/ address		
Tested by (name + signature)		M. Jasiński
Approved by (+ signature)		T. Małyska
Supervised by (+ signature)		A. Piotrowski
<input type="checkbox"/>	Testing procedure: CTF Stage 1:	
Testing location/ address		
Tested by (name, function, signature)		
Approved by (name, function, signature) ...		
<input type="checkbox"/>	Testing procedure: CTF Stage 2:	
Testing location/ address		
Tested by (name + signature)		
Witnessed by (name, function, signature) .:		
Approved by (name, function, signature) ...		
<input type="checkbox"/>	Testing procedure: CTF Stage 3:	
<input type="checkbox"/>	Testing procedure: CTF Stage 4:	
Testing location/ address		
Tested by (name, function, signature)		
Witnessed by (name, function, signature) .:		
Approved by (name, function, signature) ...		
Supervised by (name, function, signature) :		

List of Attachments (including a total number of pages in each attachment): Attachment No. 1 (EU Group Differences and National Differences Report Reference No. BS-3/097/B/1/16 - 2 pages)	
Summary of testing: Tests Results - Positive	
Tests performed (name of test and test clause): IEC 60598-2-3:2002/AMD1:2011 used in conjunction with IEC 60598-1:2014	Testing location: ITE PREDOM Division 02-255 Warszawa, ul. Krakowiaków 53, Poland
Summary of compliance with National Differences: See Attachment No.1 to this Test Report (Report Reference No.: BS-3/097/B/1/- (2 pages). <input checked="" type="checkbox"/> The product fulfils the requirements of EN 60598-2-3:2003 + A1:2011 used in conjunction with EN 60598-1:2015	

Example of marking plate:



Test item particulars: Luminaire for road and street lighting	
Classification of installation and use: Normal	
Supply Connection: Connection block/ supply cable:	
Possible test case verdicts: - test case does not apply to the test object.....: N/A - test object does meet the requirement.....: P (Pass) - test object does not meet the requirement.....: F (Fail)	
Testing:	
Date of receipt of test item: 25.07.2016	
Date (s) of performance of tests: 25.07.2016 – 16.09.2016	
General remarks:	
"(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report. Throughout this report a <input checked="" type="checkbox"/> comma / <input type="checkbox"/> point is used as the decimal separator. Clause numbers between brackets refer to clauses in IEC 60598-1	
Manufacturer's Declaration per sub-clause 4.2.5 of IEC 60598-1:	
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided :	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not applicable
When differences exist; they shall be identified in the General product information section.	
Name and address of factory (ies) : Philips Lighting Poland sp. z o.o. 64-920 Piła, ul. Kossaka 150 O/Kętrzyn ul. Chrobrego 8, 11-400 Kętrzyn, Poland	
General product information:	

Name and address of the license holder:	Philips Lighting Poland sp. z o.o. 64-920 Piła, ul. Kossaka 150 O/Kętrzyn ul. Chrobrego 8, 11-400 Kętrzyn, Poland
Address of the factory:	Philips Lighting Poland sp. z o.o. 64-920 Piła, ul. Kossaka 150 O/Kętrzyn ul. Chrobrego 8, 11-400 Kętrzyn, Poland
Name of product:	Luminaires for road and street lighting
Type (model):	Digistreet BGP76x...II... - series (see bellow)
Trade mark :	PHILIPS
Technical data:	
rated voltage	220-240V
rated current	max. 0,7 A
rated frequency	50/60Hz
number of lamps	10 – 150 LEDs
type of lamp	LED
protection against electric shock	class I
degree of protection	IP 66; IK09
classification of the luminaires, with respect to the supporting material	normal
mains connections	Connector block/ supply cord
ta	35°C

List of the luminaires

Choice sheet of the luminaires DigiStreet76x...II... - series:

Example:

BGP760 LW10 LED340-3S/740 PSU II DM 7045 MSP DDF1 D11 CTG-DGR SRG10 3183Y-3x0,75 B 62

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

Designations used on the marking of luminaires (some designation may not appear in the name) :

- | | |
|-------------------------------|--|
| 1. BGP760 | - Code of the series (760,761,761,763) |
| 2. LW10 | - LightWave (GPRS) option
LW10: telemanagement option with 10 years contract
LW5: telemanagement option with 5 years contract
LW1: telemanagement option with 1 year contract
LWCO: telemanagement option with signed service contract
LWFP: telemanagement option without contract |
| 3. LED340 | - LEDGINE flux(x100) [lumen]
range: from LED12 to LED 340 |
| 4. 3S | - Ledgine generation (3S, 4S, xS) when missing latest version applied |
| 5. 757,740,830 | - LEDGINE version/color – CRI>76,CW 5700K NW 4000K, CRI>80, WW 3000K |
| 6. PSU | - Power supply without regulating and control |
| 6. PSR/ PSD/ PSDD/ PSA | - Power supply regulating version |
| 7. II | - Safety Class II |
| 8. DM | - Optic DMxx, DNxx, DWxx, DSxx, DPLxx, BLxx, DXxx – Road light distribution |
| 9. xxxx/xx-xxxx | - RAL Colour, Colour Choice AKZO, British standard colours, GR, DGR |
| 10. MSP | - Marine salt protected coating |
| 11. Dxx | - Light control Dxx,DDFxx, CLOxx – Different light settings (dimming time, communication type, constant light output ect) ex1. D9 –Dimming with external communication with DALI, ex2: CLO-DDF3- Dynadimmer with fixed presets version with CLO |
| 12. D11 | Light regulation:
D9: External dimming Dali
RF: RF antenna control
D13: Mains Dimming
D11: Line Switch through switch OFF
D12: Line Switch through switch ON
D17: Telensa dimming module DALI (PSD)
D18: Dynadimmer integrated (PSDD) |

13. CTG-DGR**14. SRG10****15. 3183Yxx/H07RN-Yx****16. B****17. 62**

D24: DynaDimmer int. DALI unprog.

- Photocell via CT module:
CTG-DGR, CTG-LGR, CTG-35-DGR, CTG-55-DGR, CTG-70-DGR, CTG-35-LGR, CTG-55-LGR, CTG-70-LGR
- 10kV Surge Protection Device
- POWER CABLE H05-VV 3/5X...m in wide range of length (0,75;1,5; 2,5 mm2), POWER CABLE H07RN in wide range of length where Y is 2,3,4 or 5 core
- Cable finish: Protective earth wire insulated
- Spigot Type (32,48,62,76)

List of LED's and electronic led driver's system:

LED's and electronic led driver system	PCB LED	Driver	Current
LEDxxx Example: LED10 – 1000lm LED55 – 5500lm LED170 – 17000lm LED350 – 35000lm	PCB XXX XXX XX Example: PCB LUMA MICRO 10 OSLONG3 WW PCB LUMA MICRO 20 OSLONG3 NW PCB LUMA MINI 30 OSLONG3 CW PCB LUMA MINI 40 OSLONG3 WW PCB LUMA LARGE 50 OSLONG3 NW PCB LUMA LARGE 60 OSLONG3 CW (10 –no of LEDs; WW –color temp)	Xi FP xxW xxxA xxxxx Example: Xi FP 40W 0.2-0.7A SNLDAE S175 230V sX Xi LP 40W 0.2-0.7A SN 230V S175 sXt Xi FP 75W 0.2-0.7A SNLDAE 230V S240 sXt Xi FP 150W 0.2-0.7A SNLDAE 230V S240 sXt Xi LP 150W 0.2-0.7A SN 230V S240 sXt (40W – max power; 0.2-0.7A – operation current)	max.0,7A

After review of the construction luminaires DigiStreet Micro BGP760 LED12-4S/830 II DM11 DGR 62, DigiStreet Mini BGP761 LED94-4S/740 II DM50 DGR 32-48, DigiStreet Medium BGP762 LED220-4S/740 II DW 12 62 DGR SRG10, DigiStreet Large BGP 763 LED340-4S/740 II DW 12 62 DGR SRG10 have been tested as representatives of all models of luminaires.

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
3.2 (0)	GENERAL TEST REQUIREMENTS		
3.2 (0.1)	Information for luminaire design considered	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Lamp standard: IEC 62031	—
3.2 (0.3)	More sections applicable	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Section/s:	—
3.4 (2)	CLASSIFICATION OF LUMINAIRES		
3.4 (2.2)	Type of protection	Class II	
3.4 (2.3)	Degree of protection	IP 66	
3.4 (2.4)	Luminaire suitable for direct mounting on normally flammable surfaces	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	—
3.4 (2.5)	Luminaire for normal use	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	—
	Luminaire for rough service	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	—
3.4 (-)	Modes of installation of road or street lighting		—
	a) on a pipe	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	—
	b) on a mast arm	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	—
	c) on a post top	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	—
	d) on span or suspension wires	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	—
	e) on a wall	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	—
3.5 (3)	MARKING		
3.5 (3.2)	Mandatory markings		P
	Position of the marking		P
	Format of symbols/text		P
3.5 (3.3)	Additional information		P
	Language of instructions		P
3.5 (3.3.1)	Combination luminaires		N/A
3.5 (3.3.2)	Nominal frequency in Hz		P
3.5 (3.3.3)	Operating temperature		P
3.5 (3.3.4)	Symbol or warning notice		N/A
3.5 (3.3.5)	Wiring diagram		P
3.5 (3.3.6)	Special conditions		N/A
3.5 (3.3.7)	Metal halide lamp luminaire – warning		N/A
3.5 (3.3.8)	Limitation for semi-luminaires		N/A

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
3.5 (3.3.9)	Power factor and supply current		P
3.5 (3.3.10)	Suitability for use indoors		N/A
3.5 (3.3.11)	Luminaires with remote control		N/A
3.5 (3.3.12)	Clip-mounted luminaire – warning		N/A
3.5 (3.3.13)	Specifications of protective shields		N/A
3.5 (3.3.14)	Symbol for nature of supply		P
3.5 (3.3.15)	Rated current of socket outlet		N/A
3.5 (3.3.16)	Rough service luminaire		N/A
3.5 (3.3.17)	Mounting instruction for type Y, type Z and some type X attachments		N/A
3.5 (3.3.18)	Non-ordinary luminaires with PVC cable		N/A
3.5 (3.3.19)	Protective conductor current in instruction if applicable		N/A
3.5 (3.3.20)	Provided with information if not intended to be mounted within arm's reach		N/A
3.5 (3.3.21)	Non replaceable and non-user replaceable light sources information provided		P
	Cautionary symbol		P
3.5 (3.3.22)	Controllable luminaires, classification of insulation provided		P
3.5 (3.4)	Test with water		P
	Test with hexane		P
	Legible after test		P
	Label attached		P
3.5 (-)	Additional information in instruction leaflet		
	a) Design attitude		P
	b) Weight		P
	c) Overall dimensions		P
	d) Maximum projected area if applicable		P
	e) Cross-sectional area of wires if applicable		N/A
	f) Suitability for indoors use		N/A
	g) Dimensions of the compartment		N/A
	h) Torque setting to be applied to bolts or screws		P
	i) Maximum mounting height		P

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
3.6 (4)	CONSTRUCTION		
3.6 (4.2)	Components replaceable without difficulty		P
3.6 (4.3)	Wireways smooth and free from sharp edges		P
3.6 (4.4)	Lampholders		
3.6 (4.4.1)	Integral lampholder		N/A
3.6 (4.4.2)	Wiring connection		N/A
3.6 (4.4.3)	Lampholder for end-to-end mounting		N/A
3.6 (4.4.4)	Positioning		N/A
	- pressure test (N)		—
	After test the lampholder comply with relevant standard sheets and show no damage		N/A
	After test on single-capped lampholder the lampholder have not moved from its position and show no permanent deformation		N/A
	- bending test (N)		—
	After test the lampholder have not moved from its position and show no permanent deformation		N/A
3.6 (4.4.5)	Peak pulse voltage		N/A
3.6 (4.4.6)	Centre contact		N/A
3.6 (4.4.7)	Parts in rough service luminaires resistant to tracking		N/A
3.6 (4.4.8)	Lamp connectors		N/A
3.6 (4.4.9)	Caps and bases correctly used		N/A
3.6 (4.4.10)	Light source for lampholder or connection according IEC 60061 not connected another way		N/A
3.6 (4.5)	Starter holders		
	Starter holder in luminaires other than class II		N/A
	Starter holder class II construction		N/A
3.6 (4.6)	Terminal blocks		
	Tails		N/A
	Unsecured blocks		N/A
3.6 (4.7)	Terminals and supply connections		
3.6 (4.7.1)	Contact to metal parts		P
3.6 (4.7.2)	Test 8 mm live conductor		P
	Test 8 mm earth conductor		N/A
3.6 (4.7.3)	Terminals for supply conductors		P
3.6 (4.7.3.1)	Welded method and material		

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
	- stranded or solid conductor		N/A
	- spot welding		N/A
	- welding between wires		N/A
	- Type Z attachment		N/A
	- mechanical test according to 15.6.2		N/A
	- electrical test according to 15.6.3		N/A
	- heat test according to 15.6.3.2.3 and 15.6.3.2.4		N/A
3.6 (4.7.4)	Terminals other than supply connection		P
3.6 (4.7.5)	Heat-resistant wiring/sleeves		N/A
3.6 (4.7.6)	Multi-pole plug		N/A
	- test at 30 N		N/A
3.6 (4.8)	Switches		
	- adequate rating		N/A
	- adequate fixing		N/A
	- polarized supply		N/A
	- compliance with IEC 61058-1 for electronic switches		N/A
3.6 (4.9)	Insulating lining and sleeves		
3.6 (4.9.1)	Retainment		N/A
	Method of fixing :		N/A
3.6 (4.9.2)	Insulated linings and sleeves:		
	Resistant to a temperature > 20 °C to the wire temperature or		N/A
	a) & c) Insulation resistance and electric strength		N/A
	b) Ageing test. Temperature (°C) :		N/A
3.6 (4.10)	Double or reinforced insulation		
3.6 (4.10.1)	No contact, mounting surface – accessible metal parts – wiring of basic insulation		P
	Safe installation fixed luminaires		P
	Capacitors and switches		N/A
	Interference suppression capacitors according to IEC 60384-14		N/A
3.6 (4.10.2)	Assembly gaps:		
	- not coincidental		N/A
	- no straight access with test probe		N/A

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
3.6 (4.10.3)	Retention of insulation:		
	- fixed		P
	- unable to be replaced; luminaire inoperative		N/A
	- sleeves retained in position		N/A
	- lining in lampholder		N/A
1.6 (4.10.4)	Protective impedance device		
	Double or reinforced insulation bridged by appropriate and at least two resistors or two Y2 capacitors or one Y1 capacitor		N/A
	Y1 or Y2 capacitors comply with IEC 60384-14		N/A
	Resistors comply with test (a) in 14.1 of IEC 60065		N/A
3.6 (4.11)	Electrical connections and current-carrying parts		
3.6 (4.11.1)	Contact pressure		N/A
3.6 (4.11.2)	Screws:		
	- self-tapping screws		N/A
	- thread-cutting screws		P
3.6 (4.11.3)	Screw locking:		
	- spring washer		P
	- rivets		N/A
3.6 (4.11.4)	Material of current-carrying parts		P
3.6 (4.11.5)	No contact to wood or mounting surface		P
3.6 (4.11.6)	Electro-mechanical contact systems		N/A
3.6 (4.12)	Screws and connections (mechanical) and glands		
3.6 (4.12.1)	Screws not made of soft metal		P
	Screws of insulating material		N/A
	Torque test: torque (Nm); part..... :	Connection block – 0,5Nm	P
	Torque test: torque (Nm); part..... :	Connection block support plate, driver, cover, glass cover, LED module – 1,20Nm	P
	Torque test: torque (Nm); part..... :		N/A
3.6 (4.12.2)	Screws with diameter < 3 mm screwed into metal		P
3.6 (4.12.4)	Locked connections:		
	- fixed arms; torque (Nm) :	2,5Nm	P
	- lampholder; torque (Nm) :		N/A
	- push-button switches; torque 0,8 Nm :		N/A

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
3.6 (4.12.5)	Screwed glands; force (Nm)..... :	3,25Nm	P
3.6 (4.13)	Mechanical strength		
3.6 (4.13.1)	Impact tests:		
	- fragile parts; energy (Nm) :	0,5Nm	P
	- other parts; energy (Nm) :	0,7Nm	P
	a) live parts		P
	b) linings		N/A
	c) protection		P
	d) covers		P
3.6 (4.13.3)	Straight test finger		P
3.6 (4.13.4)	Rough service luminaires		
	- IP54 or higher		N/A
	a) fixed		N/A
	b) hand-held		N/A
	c) delivered with a stand		N/A
	d) for temporary installations and suitable for mounting on a stand		N/A
3.6 (4.13.6)	Tumbling barrel		N/A
3.6 (4.14)	Suspensions, fixings and means of adjusting		
3.6 (4.14.1)	Mechanical load:		
	A) four times the weight		P
	B) torque 2,5 Nm		P
	C) bracket arm; bending moment (Nm)..... :		N/A
	D) load track-mounted luminaires		N/A
	E) clip-mounted luminaires, glass-shelve. Thickness (mm) :		N/A
	Metal rod. diameter (mm) :		N/A
	Fixed luminaire or independent control gear without fixing devices		N/A
3.6 (4.14.2)	Load to flexible cables		
	Mass (kg) :		—
	Stress in conductors (N/mm ²) :		N/A
	Mass (kg) of semi-luminaire :		N/A
	Bending moment (Nm) of semi-luminaire :		N/A
3.6 (4.14.3)	Adjusting devices:		

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
	- flexing test; number of cycles..... :	45	P
	- strands broken :	0	P
	- electric strength test afterwards		P
3.6 (4.14.4)	Telescopic tubes: cords not fixed to tube; no strain on conductors		N/A
3.6 (4.14.5)	Guide pulleys		N/A
3.6 (4.14.6)	Strain on socket-outlets		N/A
3.6 (4.15)	Flammable materials		
	- glow-wire test 650°C :	See Test Table 3.15 (13.3.2)	N/A
	- spacing ≥ 30 mm		N/A
	- screen withstanding test of 13.3.1		N/A
	- screen dimensions		N/A
	- no fiercely burning material		N/A
	- thermal protection		N/A
	- electronic circuits exempted		N/A
3.6 (4.15.2)	Luminaires made of thermoplastic material with lamp control gear		
	a) construction		N/A
	b) temperature sensing control		N/A
	c) surface temperature		N/A
3.6 (4.16)	Luminaires for mounting on normally flammable surfaces		
	No lamp control gear :	(compliance with Section 12)	N/A
3.6 (4.16.1)	Lamp control gear spacing:		
	- spacing 35 mm		N/A
	- spacing 10 mm		P
3.6 (4.16.2)	Thermal protection:		
	- in lamp control gear		N/A
	- external		N/A
	- fixed position		N/A
	- temperature marked lamp control gear		P
3.6 (4.16.3)	Design to satisfy the test of 12.6	(see clause 12.6)	N/A
3.6 (4.17)	Drain holes		
	Clearance at least 5 mm		N/A
3.6 (4.18)	Resistance to corrosion		
3.6 (4.18.1)	- rust-resistance		N/A

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
3.6 (4.18.2)	- season cracking in copper		P
3.6 (4.18.3)	- corrosion of aluminium		P
3.6 (4.19)	Igniters compatible with ballast		N/A
3.6 (4.20)	Rough service vibration		N/A
3.6 (4.21)	Protective shield		
3.6 (4.21.1)	Shield fitted if tungsten halogen lamps or metal halide lamps		N/A
	Shield of glass if tungsten halogen lamps		N/A
3.6 (4.21.2)	Particles from a shattering lamp not impair safety		N/A
3.6 (4.21.3)	No direct path		N/A
3.6 (4.21.4)	Impact test on shield		P
	Glow-wire test on lamp compartment..... :	See Test Table 3.15 (13.3.2)	N/A
3.6 (4.22)	Attachments to lamps not cause overheating or damage		N/A
3.6 (4.23)	Semi-luminaires comply Class II		N/A
3.6 (4.24)	Photobiological hazards		
3.6 (4.24.1)	No excessive UV radiation if tungsten halogen lamps and metal halide lamps (Annex P)		N/A
3.6 (4.24.2)	Retinal blue light hazard		
	Class of risk group assessed according to IEC/TR 62778	Risk Group 1	—
	Luminaires with E_{thr} :		
	a) Fixed luminaires		N/A
	- distance x m, borderline between RG1 and RG2 .. :		N/A
	- marking and instruction according 3.2.23		N/A
	b) Portable and handheld luminaires		N/A
	- marking according 3.2.23 if RG1 exceeded at 200 mm according to IEC/TR 62778		N/A
	Portable luminaires for children IEC 60598-2-10 and Mains socket outlet nightlights IEC 60598-2-12 not exceed RG1 at 200 mm according to IEC/62778		N/A
3.6 (4.25)	Mechanical hazard		
	No sharp point or edges		P
3.6 (4.26)	Short-circuit protection		
3.6 (4.26.1)	Adequate means of uninsulated accessible SELV parts		N/A
3.6 (4.26.2)	Short-circuit test with test chain according 4.26.3		N/A

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
	Test chain not melt through		N/A
	Test sample not exceed values of Table 12.1 and 12.2		N/A
3.6 (4.27)	Terminal blocks with integrated screwless earthing contacts		
	Test according Annex V		N/A
	Pull test of terminal fixing (20 N)		N/A
	After test, resistance < 0,05 Ω		N/A
	Pull test of mechanical connection (50 N)		N/A
	After test, resistance < 0,05 Ω		N/A
	Voltage drop test, resistance < 0,05 Ω		N/A
3.6 (4.28)	Fixing of thermal sensing control		
	Not plug-in or easily replaceable type		N/A
	Reliably kept in position		N/A
	No adhesive fixing if UV radiations from a lamp can degrade the fixing		N/A
	Not outside the luminaire enclosure		N/A
	Test of adhesive fixing:		
	Max. temperature on adhesive material ($^{\circ}\text{C}$) :		—
	100 cycles between t min and t max		N/A
	Temperature sensing control still in position		N/A
3.6 (4.29)	Luminaires with non-replaceable light source		
	Not possible to replace light source		N/A
	Live part not accessible after parts have been opened by hand or tools		N/A
3.6 (4.30)	Luminaires with non-user replaceable light source		
	If protective cover provide protection against electric shock and marked with “caution, electric shock risk” symbol:		
	Minimum two fixing means		P
3.6 (4.31)	Insulation between circuits		
	Circuits insulated from LV supply fulfil requirements according 4.31.1 – 4.31.3		P
	Controllable luminaires requiring same level of insulation for all components, the insulation between control terminals and LV supply fulfil requirements according 4.31.1 – 4.31.3		P
3.6 (4.31.1)	SELV circuits		
	Used SELV source		N/A

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
	Voltage \leq ELV		N/A
	Insulating of SELV circuits from LV supply		N/A
	Insulating of SELV circuits from other non SELV circuits		N/A
	Insulating of SELV circuits from FELV		N/A
	Insulating of SELV circuits from other SELV circuits		N/A
	SELV circuits insulated from accessible parts according Table X.1		N/A
	Plugs not able to enter socket-outlets of other voltage systems		N/A
	Socket outlets does not admit plugs of other voltage systems		N/A
	Plugs and socket-outlets does not have protective conductor contact		N/A
3.6 (4.31.2)	FELV circuits		
	Used FELV source		N/A
	Voltage \leq ELV		P
	Insulating of FELV circuits from LV supply		P
	FELV circuits insulated from accessible parts according Table X.1		P
	Plugs not able to enter socket-outlets of other voltage systems		N/A
	Socket outlets does not admit plugs of other voltage systems		N/A
	Socket-outlets does not have protective conductor contact		N/A
3.6 (4.31.3)	Other circuits		
	Other circuits insulated from accessible parts according Table X.1		N/A
	Class II construction with equipotential bonding for protection against indirect contacts with live parts:		
	- conductive parts are connected together		N/A
	- test according 7.2.3		N/A
	- conductive part not cause an electric shock in case of an insulation fault		N/A
	- equipotential bonding in master/slave applications		N/A
	- master luminaire provided with terminal for accessible conductive parts of slave luminaires		N/A
	- slave luminaire constructed as class I		N/A

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
3.6 (4.32)	Overvoltage protective devices		
	Comply with IEC 61643-11		P
	External to controlgear and connected to earth:		
	- only in fixed luminaires		P
	- only connected to protective earth		P
3.6.1 (-)	At least IP X3 or X5 respectively. IP	IP66	P
	Column-integrated luminaires:		
	- parts below 2,5 m. IP		N/A
	- parts above 2,5 m. IP		N/A
3.6.2 (-)	Suspension on span wires		N/A
3.6.3 (-)	Means for attaching the luminaire or external parts to its support appropriate to the weight		P
3.6.3.1 (-)	Static load test		
	- drag coefficient.....	1,2	P
	- loaded area (m ²).....	BGP760 – 0,055m ² BGP761 – 0,066m ² BGP762 – 0,066m ² BGP763 – 0,082m ²	P
	- used load (N).....	BGP760 – 131N BGP761 – 158N BGP762 – 158N BGP763 – 195N	P
	- measured deformation (cm/m)	0	P
	- no rotation		P
3.6.4 (-)	Adjustable lampholders		N/A
3.6.5 (-)	Luminaires installed above 5 m, glass covers shall be:		
	a) glass that fractures into small pieces (test according to 3.6.5.1), or		N/A
	b) glass having a high impact shock resistance (test according to 3.6.5.2), or		P
	c) protected by any means to retain glass fragments		N/A
	For tunnel luminaires 3.6.5.1 apply		N/A
	Method of protection declared by the manufacturer		P
3.6.5.1 (-)	Protection by the use of glass that fractures into small pieces		
	- number of particles is more than 40.....		N/A
3.6.5.2 (-)	Protection by the use of high impact resistant glass		

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
3.6.5.2.1 (-)	Glass covers have high mechanical strength		P
	Test according IEC 62262 with test apparatus according IEC 60068-2-75 with impact energy of 5J on preconditioned sample		P
3.6.5.2.2 (-)	Glass covers not break into large pieces		P
	- test according 3.6.5.1, number of particles is more than 20	95	P
3.6.6 (-)	Connection compartment of column-integrated luminaire		
	- provides adequate space		N/A
	- means for attachment		N/A
	- means for attachment of metal corrosion-resistant		N/A
3.6.7 (-)	Compliance with ISO standard or other		N/A
3.6.8 (-)	Doors of column-integrated luminaires:		
	- corrosion-resistant		N/A
	- opening only possible for an authorized person		N/A
	- impact test 5 Nm		N/A
	- sample show no damage		N/A
3.6.9 (-)	Column-integrated luminaire:		
	- dimension of the cable entry slot (mm)		N/A
	- cable path from the slot to the connection compartment (mm)		N/A
	- cable path free from obstruction that might cause abrasion of the cable		N/A

3.7 (11)	CREEPAGE DISTANCES AND CLEARANCES		
3.7 (11.2)	Creepage distances and clearances	See Table 3.7 (11.2)	P
	Impulse withstand category (Normal category II) (Category III Annex U, Table U.1)	Category II <input checked="" type="checkbox"/> Category III <input type="checkbox"/>	—

3.8 (7)	PROVISION FOR EARTHING		
3.8 (7.2.1 + 7.2.3)	Accessible metal parts		N/A
	Metal parts in contact with supporting surface		N/A
	Resistance < 0,5 Ω		N/A
	Self-tapping screws used		N/A
	Thread-forming screws		N/A
	Thread-forming screw used in a groove		N/A

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
	Earth makes contact first		N/A
	Terminal blocks with integrated screwless earthing contacts tested according Annex V		N/A
	Protective earthing of the luminaire not via built-in control gear		N/A
3.8 (7.2.2 + 7.2.3)	Earth continuity in joints, etc.		N/A
3.8 (7.2.4)	Locking of clamping means		N/A
	Compliance with 4.7.3		N/A
	Terminal blocks with integrated screwless earthing contacts tested according Annex V		N/A
3.8 (7.2.5)	Earth terminal integral part of connector socket		N/A
3.8 (7.2.6)	Earth terminal adjacent to mains terminals		N/A
3.8 (7.2.7)	Electrolytic corrosion of the earth terminal		N/A
3.8 (7.2.8)	Material of earth terminal		N/A
	Contact surface bare metal		N/A
3.8 (7.2.10)	Class II luminaire for looping-in		N/A
	Double or reinforced insulation to functional earth		P
3.8 (7.2.11)	Earthing core coloured green-yellow		N/A
	Length of earth conductor		N/A
3.8.1 (-)	Attachment prevented from rotation		N/A
3.9 (14)	SCREW TERMINALS		
	Separately approved; component list	(see Annex 1)	P
	Part of the luminaire	(see Annex 3)	N/A
3.9 (15)	SCREWLESS TERMINALS AND ELECTRICAL CONNECTIONS		
	Separately approved; component list..... :	(see Annex 1)	P
	Part of the luminaire :	(see Annex 4)	N/A
3.10 (5)	EXTERNAL AND INTERNAL WIRING		
3.10 (5.2)	Supply connection and external wiring		
3.10 (5.2.1)	Means of connection :	Connection block/ supply cord	P
	Outdoor luminaire has not PVC insulated external wiring if not class III or SELV ≤ 25 V a.c./60 V d.c. or protected from outdoor environment		N/A

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
3.10 (5.2.2)	Type of cable	H07RN-F, H05-VV	P
	Nominal cross-sectional area (mm ²)	1,5mm ²	P
	Cables equal to IEC 60227 or IEC 60245		P
3.10 (5.2.3)	Type of attachment, X, Y or Z		P
3.10 (5.2.5)	Type Z not connected to screws		N/A
3.10 (5.2.6)	Cable entries:		
	- suitable for introduction		P
	- adequate degree of protection		P
3.10 (5.2.7)	Cable entries through rigid material have rounded edges		P
3.10 (5.2.8)	Insulating bushings:		
	- suitably fixed		N/A
	- material in bushings		N/A
	- material not likely to deteriorate		N/A
	- tubes or guards made of insulating material		N/A
3.10 (5.2.9)	Locking of screwed bushings		P
3.10 (5.2.10)	Cord anchorage:		
	- covering protected from abrasion		P
	- clear how to be effective		P
	- no mechanical or thermal stress		P
	- no tying of cables into knots etc.		P
	- insulating material or lining		N/A
3.10 (5.2.10.1)	Cord anchorage for type X attachment:		
	a) at least one part fixed		P
	b) types of cable		P
	c) no damaging of the cable		P
	d) whole cable can be mounted		P
	e) no touching of clamping screws		N/A
	f) metal screw not directly on cable		N/A
	g) replacement without special tool		P
	Glands not used as anchorage		N/A
	Labyrinth type anchorages		N/A
3.10 (5.2.10.2)	Adequate cord anchorage for type Y and type Z attachment		N/A

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
3.10 (5.2.10.3)	Tests:		
	- impossible to push cable; unsafe		P
	- pull test: 25 times; pull (N) :	120N	P
	- torque test: torque (Nm) :	0,35Nm	P
	- displacement ≤ 2 mm		P
	- no movement of conductors		P
	- no damage of cable or cord		P
	- function independent of electrical connection		P
3.10 (5.2.11)	External wiring passing into luminaire		P
3.10 (5.2.12)	Looping-in terminals		N/A
3.10 (5.2.13)	Wire ends not tinned		N/A
	Wire ends tinned: no cold flow		N/A
3.10 (5.2.14)	Mains plug same protection		N/A
	Class III luminaire plug		N/A
	No unsafe compatibility		N/A
3.10 (5.2.16)	Appliance inlets (IEC 60320)		N/A
	Installation couplers (IEC 61535)		N/A
	Other appliance inlet or connector according relevant IEC standard		N/A
3.10 (5.2.17)	No standardized interconnecting cables properly assembled		N/A
3.10 (5.2.18)	Used plug in accordance with		
	- IEC 60083		N/A
	- other standard		N/A
3.10 (5.3)	Internal wiring		
3.10 (5.3.1)	Internal wiring of suitable size and type		P
	Through wiring		
	- not delivered/ mounting instruction		N/A
	- factory assembled		N/A
	- socket outlet loaded (A) :		N/A

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
	- temperatures :	(see Annex 2)	N/A
	Green-yellow for earth only		N/A
3.10 (5.3.1.1)	Internal wiring connected directly to fixed wiring		
	Cross-sectional area (mm ²)..... :	0,75mm ²	P
	Insulation thickness		P
	Extra insulation added where necessary		N/A
3.10 (5.3.1.2)	Internal wiring connected to fixed wiring via internal current-limiting device		
	Adequate cross-sectional area and insulation thickness		N/A
3.10 (5.3.1.3)	Double or reinforced insulation for class II		P
3.10 (5.3.1.4)	Conductors without insulation		N/A
3.10 (5.3.1.5)	SELV current-carrying parts		N/A
3.10 (5.3.1.6)	Insulation thickness other than PVC or rubber		P
3.10 (5.3.2)	Sharp edges etc.		P
	No moving parts of switches etc.		N/A
	Joints, raising/lowering devices		N/A
	Telescopic tubes etc.		N/A
	No twisting over 360°		P
3.10 (5.3.3)	Insulating bushings:		
	- suitable fixed		N/A
	- material in bushings		N/A
	- material not likely to deteriorate		N/A
	- cables with protective sheath		N/A
3.10 (5.3.4)	Joints and junctions effectively insulated		N/A
3.10 (5.3.5)	Strain on internal wiring		N/A
3.10 (5.3.6)	Wire carriers		N/A
3.10 (5.3.7)	Wire ends not tinned		N/A
	Wire ends tinned: no cold flow		N/A
3.10.1 (-)	Cord anchorage if applicable		P
	- pull test: 25 times; pull (N):	60N	P
	- torque test: torque (Nm):	0,35Nm	P

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
3.11 (8)	PROTECTION AGAINST ELECTRIC SHOCK		
3.11 (8.2.1)	Live parts not accessible		P
	Basic insulated parts not used on the outer surface without appropriate protection		N/A
	Basic insulated parts not accessible with standard test finger on portable, settable and adjustable luminaires		N/A
	Basic insulated parts not accessible with Ø 50 mm probe from outside, other types of luminaires		P
	Lamp and starterholders in portable and adjustable luminaires comply with double or reinforced insulation requirements		N/A
	Basic insulation only accessible under lamp or starter replacement		N/A
	Protection in any position		P
	Double-ended tungsten filament lamp		N/A
	Insulation lacquer not reliable		N/A
	Double-ended high pressure discharge lamp		N/A
	Relevant warning according to 3.2.18 fitted to the luminaire		N/A
3.11 (8.2.2)	Portable luminaire adjusted in most unfavourable position		N/A
3.11 (8.2.3.a)	Class II luminaire:		
	- basic insulated metal parts not accessible during starter or lamp replacement		P
	- basic insulation not accessible other than during starter or lamp replacement		N/A
	- glass protective shields not used as supplementary insulation		N/A
3.11 (8.2.3.b)	BC lampholder of metal in class I luminaires shall be earthed		N/A
3.11 (8.2.3.c)	SELV circuits with exposed current carrying parts:		
	Ordinary luminaire:		
	- voltage under load (V)..... :		N/A
	- no-load voltage (V)..... :		N/A
	- touch current if applicable (mA) :		N/A

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
	One conductive part insulated if required		N/A
	Other than ordinary luminaire:		
	- nominal voltage (V) :		N/A
	Class III luminaire only for connection to SELV		N/A
	Class III luminaire not provided with means for protective earthing		N/A
1.11 (8.2.4)	Portable luminaire have protection independent of supporting surface		N/A
3.11 (8.2.5)	Compliance with the standard test finger or relevant probe		P
3.11 (8.2.6)	Covers reliably secured		P
3.11 (8.2.7)	Luminaire other than below with capacitor > 0,5 μ F not exceed 50 V 1 min after disconnection		N/A
	Portable luminaire with capacitor > 0,1 μ F (0.25) not exceed 34 V 1 s after disconnection		N/A
	Other luminaires with capacitor > 0,1 μ F (0.25) with plug and track adaptors not exceed 60 V 5 s after disconnection		N/A

3.12 (12)	ENDURANCE TEST AND THERMAL TEST		
3.12.2 (-)	If IP > IP 20 relevant test of (12.4), (12.5) and (12.6) after (9.2) before (9.3) specified in 3.13		—
3.12 (12.3)	Endurance test: DigiStreet Micro BGP760 LED 12-4S/830 II DM11 DGR 62		
	- mounting-position..... :	Normal	—
	- test temperature (°C) :	45°C	—
	- total duration (h) :	240h	—
	- supply voltage: Un factor; calculated voltage (V)... :	264V	—
	- lamp used..... :	PCB LUMA MICRO 20 OSLONG3 WW	—
3.12 (12.3.2)	After endurance test:		
	- no part unserviceable		P
	- luminaire not unsafe		P
	- no damage to track system		N/A
	- marking legible		P
	- no cracks, deformation etc.		P
3.12 (12.4)	Thermal test (normal operation)	(see Annex 2)	P
3.12 (12.5)	Thermal test (abnormal operation)	(see Annex 2)	N/A

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
3.12 (12.6)	Thermal test (failed lamp control gear condition):		
3.12 (12.6.1)	Through wiring or looping-in wiring loaded by a current of (A)		—
	- case of abnormal conditions		—
	- electronic lamp control gear		N/A
	- measured winding temperature (°C): at 1,1 Un		—
	- measured mounting surface temperature (°C) at 1,1 Un		N/A
	- calculated mounting surface temperature (°C)		N/A
	- track-mounted luminaires		N/A
3.12 (12.6.2)	Temperature sensing control		
	- case of abnormal conditions		—
	- thermal link		N/A
	- manual reset cut-out		N/A
	- auto reset cut-out		N/A
	- measured mounting surface temperature (°C)		N/A
	- track-mounted luminaires		N/A
3.12 (12.7)	Thermal test (failed lamp control gear in plastic luminaires):		
3.12 (12.7.1)	Luminaire without temperature sensing control		
3.12 (12.7.1.1)	Luminaire with fluorescent lamp ≤ 70W		
	Test method 12.7.1.1 or Annex W		—
	Test according to 12.7.1.1:		
	- case of abnormal conditions		—
	- Ballast failure at supply voltage (V)		—
	- Components retained in place after the test		N/A
	- Test with standard test finger after the test		N/A
	Test according to Annex W:		
	- case of abnormal conditions		—
	- measured winding temperature (°C): at 1,1 Un		—
	- measured temperature of fixing point/exposed part (°C): at 1,1 Un		—
	- calculated temperature of fixing point/exposed part (°C)		—

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
	Ball-pressure test	See Table 3.15 (13.2.1)	
3.12 (12.7.1.2)	Luminaire with discharge lamp, fluorescent lamp > 70W, transformer > 10 VA		
	- case of abnormal conditions		—
	- measured winding temperature (°C): at 1,1 Un		—
	- measured temperature of fixing point/exposed part (°C): at 1,1 Un		—
	- calculated temperature of fixing point/exposed part (°C)		—
	Ball-pressure test	See Table 3.15 (13.2.1)	
3.12 (12.7.1.3)	Luminaire with short circuit proof transformers ≤ 10 VA		N/A
	- case of abnormal conditions		—
	- Components retained in place after the test		N/A
	- Test with standard test finger after the test		N/A
3.12 (12.7.2)	Luminaire with temperature sensing control		
	- thermal link	Yes <input type="checkbox"/> No <input type="checkbox"/>	—
	- manual reset cut-out	Yes <input type="checkbox"/> No <input type="checkbox"/>	—
	- auto reset cut-out	Yes <input type="checkbox"/> No <input type="checkbox"/>	—
	- case of abnormal conditions		—
	- highest measured temperature of fixing point/exposed part (°C):		—
	Ball-pressure test:	See Table 3.15 (13.2.1)	N/A
3.12.1 (-)	Temperature reduction if for outdoor use only		P
3.12.2 (-)	(See above)		—
3.12.3 (-)	Glass covers used within the thermal limits declared by the glass manufacturer		P

3.12 (12)	ENDURANCE TEST AND THERMAL TEST		
3.12.2 (-)	If IP > IP 20 relevant test of (12.4), (12.5) and (12.6) after (9.2) before (9.3) specified in 3.13		—
3.12 (12.3)	Endurance test: DigiStreet Mini BGP761 LED94-4S/740 II DM50 DGR 32-48		
	- mounting-position	Normal	—
	- test temperature (°C)	45°C	—
	- total duration (h)	240h	—

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
	- supply voltage: Un factor; calculated voltage (V)... :	264V	—
	- lamp used..... :	PCB LUMA MINI 40 OSLONG3 NW	—
3.12 (12.3.2)	After endurance test:		
	- no part unserviceable		P
	- luminaire not unsafe		P
	- no damage to track system		N/A
	- marking legible		P
	- no cracks, deformation etc.		P
3.12 (12.4)	Thermal test (normal operation)	(see Annex 2)	P
3.12 (12.5)	Thermal test (abnormal operation)	(see Annex 2)	N/A
3.12 (12.6)	Thermal test (failed lamp control gear condition):		
3.12 (12.6.1)	Through wiring or looping-in wiring loaded by a current of (A)		—
	- case of abnormal conditions		—
	- electronic lamp control gear		N/A
	- measured winding temperature (°C): at 1,1 Un		—
	- measured mounting surface temperature (°C) at 1,1 Un		N/A
	- calculated mounting surface temperature (°C)		N/A
	- track-mounted luminaires		N/A
3.12 (12.6.2)	Temperature sensing control		
	- case of abnormal conditions		—
	- thermal link		N/A
	- manual reset cut-out		N/A
	- auto reset cut-out		N/A
	- measured mounting surface temperature (°C)		N/A
	- track-mounted luminaires		N/A
3.12 (12.7)	Thermal test (failed lamp control gear in plastic luminaires):		
3.12 (12.7.1)	Luminaire without temperature sensing control		
3.12 (12.7.1.1)	Luminaire with fluorescent lamp $\leq 70W$		
	Test method 12.7.1.1 or Annex W		—
	Test according to 12.7.1.1:		

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
	- case of abnormal conditions		—
	- Ballast failure at supply voltage (V)		—
	- Components retained in place after the test		N/A
	- Test with standard test finger after the test		N/A
	Test according to Annex W:		
	- case of abnormal conditions		—
	- measured winding temperature (°C): at 1,1 Un		—
	- measured temperature of fixing point/exposed part (°C): at 1,1 Un		—
	- calculated temperature of fixing point/exposed part (°C)		—
	Ball-pressure test	See Table 3.15 (13.2.1)	
3.12 (12.7.1.2)	Luminaire with discharge lamp, fluorescent lamp > 70W, transformer > 10 VA		
	- case of abnormal conditions		—
	- measured winding temperature (°C): at 1,1 Un		—
	- measured temperature of fixing point/exposed part (°C): at 1,1 Un		—
	- calculated temperature of fixing point/exposed part (°C)		—
	Ball-pressure test	See Table 3.15 (13.2.1)	
3.12 (12.7.1.3)	Luminaire with short circuit proof transformers ≤ 10 VA		N/A
	- case of abnormal conditions		—
	- Components retained in place after the test		N/A
	- Test with standard test finger after the test		N/A
3.12 (12.7.2)	Luminaire with temperature sensing control		
	- thermal link	Yes <input type="checkbox"/> No <input type="checkbox"/>	—
	- manual reset cut-out	Yes <input type="checkbox"/> No <input type="checkbox"/>	—
	- auto reset cut-out	Yes <input type="checkbox"/> No <input type="checkbox"/>	—
	- case of abnormal conditions		—
	- highest measured temperature of fixing point/exposed part (°C):		—
	Ball-pressure test:	See Table 3.15 (13.2.1)	N/A
3.12.1 (-)	Temperature reduction if for outdoor use only		P

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
3.12.2 (-)	(See above)		—
3.12.3 (-)	Glass covers used within the thermal limits declared by the glass manufacturer		P
3.12 (12)	ENDURANCE TEST AND THERMAL TEST		
3.12.2 (-)	If IP > IP 20 relevant test of (12.4), (12.5) and (12.6) after (9.2) before (9.3) specified in 3.13		—
3.12 (12.3)	Endurance test: DigiStreet Medium BGP762 LED220-4S/740 II DW 12 62 DGR SRG10		
	- mounting-position..... :	Normal	—
	- test temperature (°C) :	45°C	—
	- total duration (h) :	240h	—
	- supply voltage: Un factor; calculated voltage (V)... :	264V	—
	- lamp used..... :	PCB LUMA MINI 40 OSLONG3 NW-2 pcs	—
3.12 (12.3.2)	After endurance test:		
	- no part unserviceable		P
	- luminaire not unsafe		P
	- no damage to track system		N/A
	- marking legible		P
	- no cracks, deformation etc.		P
3.12 (12.4)	Thermal test (normal operation)	(see Annex 2)	P
3.12 (12.5)	Thermal test (abnormal operation)	(see Annex 2)	N/A
3.12 (12.6)	Thermal test (failed lamp control gear condition):		
3.12 (12.6.1)	Through wiring or looping-in wiring loaded by a current of (A) :		—
	- case of abnormal conditions :		—
	- electronic lamp control gear		N/A
	- measured winding temperature (°C): at 1,1 Un :		—
	- measured mounting surface temperature (°C) at 1,1 Un..... :		N/A
	- calculated mounting surface temperature (°C) :		N/A
	- track-mounted luminaires		N/A
3.12 (12.6.2)	Temperature sensing control		
	- case of abnormal conditions :		—
	- thermal link		N/A

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
	- manual reset cut-out		N/A
	- auto reset cut-out		N/A
	- measured mounting surface temperature (°C)		N/A
	- track-mounted luminaires		N/A
3.12 (12.7)	Thermal test (failed lamp control gear in plastic luminaires):		
3.12 (12.7.1)	Luminaire without temperature sensing control		
3.12 (12.7.1.1)	Luminaire with fluorescent lamp ≤ 70W		
	Test method 12.7.1.1 or Annex W		—
	Test according to 12.7.1.1:		
	- case of abnormal conditions		—
	- Ballast failure at supply voltage (V)		—
	- Components retained in place after the test		N/A
	- Test with standard test finger after the test		N/A
	Test according to Annex W:		
	- case of abnormal conditions		—
	- measured winding temperature (°C): at 1,1 Un		—
	- measured temperature of fixing point/exposed part (°C): at 1,1 Un		—
	- calculated temperature of fixing point/exposed part (°C)		—
	Ball-pressure test	See Table 3.15 (13.2.1)	
3.12 (12.7.1.2)	Luminaire with discharge lamp, fluorescent lamp > 70W, transformer > 10 VA		
	- case of abnormal conditions		—
	- measured winding temperature (°C): at 1,1 Un		—
	- measured temperature of fixing point/exposed part (°C): at 1,1 Un		—
	- calculated temperature of fixing point/exposed part (°C)		—
	Ball-pressure test	See Table 3.15 (13.2.1)	
3.12 (12.7.1.3)	Luminaire with short circuit proof transformers ≤ 10 VA		N/A
	- case of abnormal conditions		—
	- Components retained in place after the test		N/A

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
	- Test with standard test finger after the test		N/A
3.12 (12.7.2)	Luminaire with temperature sensing control		
	- thermal link..... : Yes <input type="checkbox"/> No <input type="checkbox"/>		—
	- manual reset cut-out : Yes <input type="checkbox"/> No <input type="checkbox"/>		—
	- auto reset cut-out : Yes <input type="checkbox"/> No <input type="checkbox"/>		—
	- case of abnormal conditions :		—
	- highest measured temperature of fixing point/ exposed part (°C): :		—
	Ball-pressure test: :	See Table 3.15 (13.2.1)	N/A
3.12.1 (-)	Temperature reduction if for outdoor use only		P
3.12.2 (-)	(See above)		—
3.12.3 (-)	Glass covers used within the thermal limits declared by the glass manufacturer		P

3.12 (12)	ENDURANCE TEST AND THERMAL TEST		
3.12.2 (-)	If IP > IP 20 relevant test of (12.4), (12.5) and (12.6) after (9.2) before (9.3) specified in 3.13		—
3.12 (12.3)	Endurance test: DigiStreet Large BGP 763 LED340-4S/740 II DW 12 62 DGR SRG10		
	- mounting-position..... :	Normal	—
	- test temperature (°C) :	45°C	—
	- total duration (h) :	240h	—
	- supply voltage: Un factor; calculated voltage (V)... :	264V	—
	- lamp used..... :	PCB LUMA LARGE 60 OSLONG3 NW-2 pcs	—
3.12 (12.3.2)	After endurance test:		
	- no part unserviceable		P
	- luminaire not unsafe		P
	- no damage to track system		N/A
	- marking legible		P
	- no cracks, deformation etc.		P
3.12 (12.4)	Thermal test (normal operation)	(see Annex 2)	P
3.12 (12.5)	Thermal test (abnormal operation)	(see Annex 2)	N/A
3.12 (12.6)	Thermal test (failed lamp control gear condition):		

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
3.12 (12.6.1)	Through wiring or looping-in wiring loaded by a current of (A)		—
	- case of abnormal conditions		—
	- electronic lamp control gear		N/A
	- measured winding temperature (°C): at 1,1 Un		—
	- measured mounting surface temperature (°C) at 1,1 Un		N/A
	- calculated mounting surface temperature (°C)		N/A
	- track-mounted luminaires		N/A
3.12 (12.6.2)	Temperature sensing control		
	- case of abnormal conditions		—
	- thermal link		N/A
	- manual reset cut-out		N/A
	- auto reset cut-out		N/A
	- measured mounting surface temperature (°C)		N/A
	- track-mounted luminaires		N/A
3.12 (12.7)	Thermal test (failed lamp control gear in plastic luminaires):		
3.12 (12.7.1)	Luminaire without temperature sensing control		
3.12 (12.7.1.1)	Luminaire with fluorescent lamp ≤ 70W		
	Test method 12.7.1.1 or Annex W		—
	Test according to 12.7.1.1:		
	- case of abnormal conditions		—
	- Ballast failure at supply voltage (V)		—
	- Components retained in place after the test		N/A
	- Test with standard test finger after the test		N/A
	Test according to Annex W:		
	- case of abnormal conditions		—
	- measured winding temperature (°C): at 1,1 Un		—
	- measured temperature of fixing point/exposed part (°C): at 1,1 Un		—
	- calculated temperature of fixing point/exposed part (°C)		—
	Ball-pressure test	See Table 3.15 (13.2.1)	

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
3.12 (12.7.1.2)	Luminaire with discharge lamp, fluorescent lamp > 70W, transformer > 10 VA		
	- case of abnormal conditions		—
	- measured winding temperature (°C): at 1,1 Un		—
	- measured temperature of fixing point/exposed part (°C): at 1,1 Un		—
	- calculated temperature of fixing point/exposed part (°C)		—
	Ball-pressure test	See Table 3.15 (13.2.1)	
3.12 (12.7.1.3)	Luminaire with short circuit proof transformers ≤ 10 VA		N/A
	- case of abnormal conditions		—
	- Components retained in place after the test		N/A
	- Test with standard test finger after the test		N/A
3.12 (12.7.2)	Luminaire with temperature sensing control		
	- thermal link	Yes <input type="checkbox"/> No <input type="checkbox"/>	—
	- manual reset cut-out	Yes <input type="checkbox"/> No <input type="checkbox"/>	—
	- auto reset cut-out	Yes <input type="checkbox"/> No <input type="checkbox"/>	—
	- case of abnormal conditions		—
	- highest measured temperature of fixing point/exposed part (°C):		—
	Ball-pressure test:	See Table 3.15 (13.2.1)	N/A
3.12.1 (-)	Temperature reduction if for outdoor use only		P
3.12.2 (-)	(See above)		—
3.12.3 (-)	Glass covers used within the thermal limits declared by the glass manufacturer		P

3.13 (9)	RESISTANCE TO DUST AND MOISTURE		
3.13.1 (-)	If IP > IP 20 the order of tests as specified in clause 3.12		
3.13 (9.2)	Tests for ingress of dust, solid objects and moisture:		
	- classification according to IP	IP 66	—
	- mounting position during test	Normal	—
	- fixing screws tightened; torque (Nm)	20Nm	—
	- tests according to clauses	9.2.2, 9.2.7	—
	- electric strength test afterwards		P

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
	a) no deposit in dust-proof luminaire		N/A
	b) no talcum in dust-tight luminaire		P
	c) no trace of water on current-carrying parts or on insulation where it could become a hazard		P
	c.1) For luminaires without drain holes – no water entry		P
	c.2) For luminaires with drain holes – no hazardous water entry		N/A
	d) no water in watertight or pressure watertight luminaire		N/A
	e) no contact with live parts (IP 2X)		N/A
	e) no entry into enclosure (IP 3X and IP 4X)		N/A
	e) no contact with live parts through drain holes and ventilation slots (IP3X and IP4X)		N/A
	f) no trace of water on part of lamp requiring protection from splashing water		P
	g) no damage of protective shield or glass envelope		P
3.13 (9.3)	Humidity test 48 h		P

3.14 (10)	INSULATION RESISTANCE AND ELECTRIC STRENGTH		
3.14 (10.2.1)	Insulation resistance test		
	Cable or cord covered by metal foil or replaced by a metal rod of mm Ø :		—
	Insulation resistance (MΩ) :		—
	SELV		
	- between current-carrying parts of different polarity :		N/A
	- between current-carrying parts and mounting surface..... :		N/A
	- between current-carrying parts and metal parts of the luminaire :		N/A
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts..... :		N/A
	- Insulation bushings as described in Section 5 :		N/A
	Other than SELV		
	- between live parts of different polarity :	>10MΩ	P
	- between live parts and mounting surface :	>10MΩ	P

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
	- between live parts and metal parts	>10MΩ	P
	- between live parts of different polarity through action of a switch		N/A
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts	>10 MΩ	P
	- Insulation bushings as described in Section 5		N/A
3.14 (10.2.2)	Electric strength test		P
	Dummy lamp		N/A
	Luminaires with ignitors after 24 h test		N/A
	Luminaires with manual ignitors		N/A
	Test voltage (V)	See below	P
	SELV		
	- between current-carrying parts of different polarity :		N/A
	- between current-carrying parts and mounting surface		N/A
	- between current-carrying parts and metal parts of the luminaire		N/A
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts		N/A
	- Insulation bushings as described in Section 5		N/A
	Other than SELV		
	- between live parts of different polarity	1480V	P
	- between live parts and mounting surface	2960V	P
	- between live parts and metal parts	2960V	P
	- between live parts of different polarity through action of a switch		N/A
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts	1480V	P
	- Insulation bushings as described in Section 5		N/A

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
3.14 (10.3)	Touch current or protective conductor current (mA):	DigiStreet Micro BGP760 LED 12-4S/830 II DM11 DGR 62 – 0,31mA DigiStreet Mini BGP761 LED94- 4S/740 II DM50 DGR 32-48 – 0,32mA DigiStreet Medium BGP762 LED220-4S/740 II DW 12 62 DGR SRG10 – 0,38mA DigiStreet Large BGP 763 LED340-4S/740 II DW 12 62 DGR SRG10 – 0,36mA	P

3.15 (13)	RESISTANCE TO HEAT, FIRE AND TRACKING		
3.15 (13.2.1)	Ball-pressure test	See Test Table 3.15 (13.2.1)	P
3.15 (13.3.1)	Needle-flame test (10 s)	See Test Table 3.15 (13.3.1)	P
3.15 (13.3.2)	Glow-wire test (650°C)	See Test Table 3.15 (13.3.2)	N/A
3.15 (13.4)	Proof tracking test (IEC 60112)	See Test Table 3.15 (13.4)	N/A

3.7 (11.2)	TABLE: Creepage distances and clearances						P
	Minimum distances (mm) for a.c. (50/60 Hz) sinusoidal voltages						
	Applicable part of IEC 60598-1 Table 11.1* and 11.2*						
	Insulation type **	Measured clearance	Required		Measured creepage	Required	
			clearance	*Table		creepage	*Table
Distance 1:	R	10mm	>2,6mm for 220V >2,9mm for 240V	11.1	16mm	>4,4mm for 220V >4,8mm for 240V	11.1
Working voltage (V)					220-240V		—
PTI					< 600 ☒ ≥ 600 ☐		—
Pulse voltage if applicable (kV)					-		—
Supplementary information: Connection block							
Distance 2:	R	5,1	2,4mm	11.1	5,1	>4,0mm	11.1
Working voltage (V)					283Vdc		—
PTI					< 600 ☒ ≥ 600 ☐		—
Pulse voltage if applicable (kV)					-		—
Supplementary information: Led module terminal block							

IEC 60598-2-3							
Clause	Requirement + Test				Result - Remark		Verdict
Distance 3:							
Working voltage (V)							—
PTI					< 600 <input type="checkbox"/> ≥ 600 <input type="checkbox"/>		—
Pulse voltage if applicable (kV)							—
Supplementary information:							

** Insulation type: B – Basic; S – Supplementary; R – Reinforced. See also IEC 60598-1 Annex M.

3.15 (13.2.1)	TABLE: Ball Pressure Test of Thermoplastics				P
Allowed impression diameter (mm) :			2,0		—
Object/ Part No./ Material		Manufacturer/ trademark	Test temperature (°C)	Impression diameter (mm)	
CON WW 5P F H SCR 124845B2		ADELS	125	0,9	
Supplementary information:					

3.15 (13.3.1)	TABLE: Needle-flame test (IEC 60695-11-5)				P	
Object/ Part No./ Material		Manufacturer/ trademark	Duration of application of test flame (ta); (s)	Ignition of specified layer Yes/No	Duration of burning (tb) (s)	Verdict
CON WW 5P F H SCR 124845B2		ADELS	10	No	2	P
Supplementary information:						

3.15 (13.3.2)	TABLE: Glow-wire test (IEC 60695-2-11)				N/A	
Glow wire temperature				650°C		—
Object/ Part No./ Material		Manufacturer/ trademark	Ignition of specified layer Yes/No		Duration of burning (tb) (s)	Verdict

IEC 60598-2-3				
Clause	Requirement + Test	Result - Remark		Verdict
Any flame or glowing of the sample extinguished within 30 s of withdrawing the glow-wire, and any burning or molten drop did not ignite the underlying parts (Yes/No)				
Supplementary information:				

3.15 (13.4)	TABLE: Proof tracking test (IEC 60112)			N/A
Test voltage PTI		175 V		—
Object/ Part No./ Material	Manufacturer/ trademark	Withstand 50 drops without failure on three places or on three specimens		Verdict
Supplementary information:				

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 1	TABLE: Critical components information						P
Object / part No.	Code	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Connection block	A	ADELS	CON WW 5P F H SCR 124845B2	450V,750V,T85, T130, 100A	EN60998-1 EN60998-2-1	VDE	
Connection block	A	ADELS	CON WW 3P F H SCR 124703M	450V,750V,T85, T130, 100A	EN60998-1 EN60998-2-1	VDE	
Connection block	A	ADELS	124702M	450V,750V,T85, T130, 100A	EN60998-1 EN60998-2-1	VDE	
LED Driver	A	PHILIPS LIGHTING ELECTRONICS N.A. Advance	Xi FP 40W 0.2-0.7A SNLDAE S175 230V sX	220-240V 50...60 Hz 0.2-0.7A Tc=85 °	EN 61347-1 EN 61347-2-13	ENEC 05	
LED Driver	A	PHILIPS LIGHTING ELECTRONICS N.A. Advance	Xi LP 40W 0.2-0.7A SN 230V S175 sXt	220-240V 50...60 Hz 0.2-0.7A Tc=80 °C	EN 61347-1 EN 61347-2-13	ENEC 05	
LED Driver	A	PHILIPS LIGHTING ELECTRONICS N.A. Advance	Xi FP 75W 0.2-0.7A SNLDAE 230V S240 sXt	220-240V 50...60 Hz 0.2-0.7A Tc=85°C	EN 61347-1 EN 61347-2-13	ENEC 05	
LED Driver	A	PHILIPS LIGHTING ELECTRONICS N.A. Advance	Xi LP 75W 0.2-0.7A SN 230V S240 sXt	220-240V 50...60 Hz 0.2-0.7A Tc=85°C	EN 61347-1 EN 61347-2-13	ENEC 05	
LED Driver	A	PHILIPS LIGHTING ELECTRONICS N.A. Advance	Xi FP 150W 0.2-0.7A SNLDAE 230V S240 sXt	220-240V 50...60 Hz 0.2-0.7A Tc=90°C	EN 61347-1 EN 61347-2-13	ENEC 05	
LED Driver	A	PHILIPS LIGHTING ELECTRONICS N.A. Advance	Xi LP 150W 0.2-0.7A SN 230V S240 sXt	220-240V 50...60 Hz 0.2-0.7A Tc=90°C	EN 61347-1 EN 61347-2-13	ENEC 05	
GPRS module	A	PHILIPS	LLC7240 CityTouch OLC POWER	120 - 277V, max 4A, Tc=85 °C	EN61347	ENEC05	
GPRS antenna	A	PHILIPS	LLC7250 CityTouch OLC COM	Ta: -30...60°C	EN61347	ENEC05	

IEC 60598-2-3						
Clause	Requirement + Test			Result - Remark		Verdict
Surge Protective Device	A	CPT CIRPROTEC	NSS-10/230-D-LCF-P	Imax 10kA In 5kA Un 230V (50/60Hz) Uoc 10kV Uc(L1-L2/PE) 420V Uc(L1-L2) 320V Temperature range: -40°C to 80°C	IEC 61643-11 EN 61643-11	CB CE
Knife connector	A	OMT	Knife connector male 3P	10A, 250V	EN 60998 -1 60998-2-1	CSV
Knife connector	A	OMT	Knife connector female 3P	10A, 250V	EN 60998 -1 60998-2-1	CSV
POWER CABLE	A	HELUKABEL	H07RN-F 3/5X1,5	-30°C, +60°C 5mm ² , 450/750V	EN 50525-2-21	VDE
POWER CABLE	A	NKT CABLES	H05-VV 3/5X1,5MM ² / Cable 3183Y	-15°C, +70°C	EN 50525-2-11	VDE
Connection block	A	ADELS	125302M	450V, 750V, T85, T130, 100A	EN60998-1 EN60998-2-1	VDE
LED Module	B	PHILIPS/ Opulent	PCB LUMA MICRO 10 OSLONG3 CW	0.7A Tc65	EN 62031	Tested by LCIE (Report No. 143254-689379A)
LED Module	B	PHILIPS/ Opulent	PCB LUMA MICRO 10 OSLONG3 NW	0.7A Tc65	EN 62031	Tested by LCIE (Report No. 143254-689379A)
LED Module	B	PHILIPS/ Opulent	PCB LUMA MICRO 10 OSLONG3 WW	0.7A Tc65	EN 62031	Tested by LCIE (Report No. 143254-689379A)
LED Module	B	PHILIPS/ Opulent	PCB LUMA MICRO 20 OSLONG3 CW	0.7A Tc65	EN 62031	Tested by LCIE (Report No. 143254-689379A)
LED Module	B	PHILIPS/ Opulent	PCB LUMA MICRO 20 OSLONG3 NW	0.7A Tc65	EN 62031	Tested by LCIE (Report No. 143254-689379A)
LED Module	B	PHILIPS/ Opulent	PCB LUMA MICRO 20 OSLONG3 WW	0.7A Tc65	EN 62031	Tested by LCIE (Report No. 143254-689379A)
LED Module	B	PHILIPS/ Opulent	PCB LUMA MINI 30 OSLONG3 NW	0.7A Tc65	EN 62031	Tested by LCIE (Report No. 143254-689379A)
LED Module	B	PHILIPS/ Opulent	PCB LUMA MINI 30 OSLONG3 WW	0.7A Tc65	EN 62031	Tested by LCIE (Report No. 143254-689379A)
LED Module	B	PHILIPS/ Opulent	PCB LUMA MINI 30 OSLONG3 CW	0.7A Tc65	EN 62031	Tested by LCIE (Report No. 143254-689379A)
LED Module	B	PHILIPS/ Opulent	PCB LUMA MINI 40 OSLONG3 NW	0.7A Tc65	EN 62031	Tested by LCIE (Report No. 143254-689379A)

IEC 60598-2-3						
Clause	Requirement + Test			Result - Remark		Verdict
LED Module	B	PHILIPS/ Opulent	PCB LUMA MINI 40 OSLONG3 WW	0.7A Tc65	EN 62031	Tested by LCIE (Report No. 143254-689379A)
LED Module	B	PHILIPS/ Opulent	PCB LUMA MINI 40 OSLONG3 CW	0.7A Tc65	EN 62031	Tested by LCIE (Report No. 143254-689379A)
LED Module	B	PHILIPS/ Opulent	PCB LUMA LARGE 50 OSLONG3 NW	0.7A Tc80	EN 62031	Tested by LCIE (Report No. 143254-689379A)
LED Module	B	PHILIPS/ Opulent	PCB LUMA LARGE 50 OSLONG3 WW	0.7A Tc80	EN 62031	Tested by LCIE (Report No. 143254-689379A)
LED Module	B	PHILIPS/ Opulent	PCB LUMA LARGE 50 OSLONG3 CW	0.7A Tc80	EN 62031	Tested by LCIE (Report No. 143254-689379A)
LED Module	B	PHILIPS/ Opulent	PCB LUMA LARGE 60 OSLONG3 NW	0.7A Tc80	EN 62031	Tested by LCIE (Report No. 143254-689379A)
LED Module	B	PHILIPS/ Opulent	PCB LUMA LARGE 60 OSLONG3 WW	0.7A Tc80	EN 62031	Tested by LCIE (Report No. 143254-689379A)
LED Module	B	PHILIPS	PCB LUMA LARGE 60 OSLONG3 CW	0.7A Tc80	EN 62031	Tested by LCIE (Report No. 143254-689379A)
Wire (internal)	A	Omerin	H05SJ-U1G0,75	0,75mm ² , 300/500V	EN 50525-2-41	VDE
Wire	A	Omerin	H05SJ-U1G0,75	0,75mm ² , 300/500V	EN 50525-2-41	HAR
Supplementary information: ¹⁾ Provided evidence ensures the agreed level of compliance. See OD-CB2039. The codes above have the following meaning: A - The component is replaceable with another one, also certified, with equivalent characteristics B - The component is replaceable if authorised by the test house C - Integrated component tested together with the appliance D - Alternative component						

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 2	TABLE: Temperature measurements, thermal tests of Section 12			P			
	Type reference	DigiStreet Micro BGP760 LED 12-4S/830 II DM11 DGR 62		—			
	Lamp used.....	PCB LUMA MICRO 20 OSLONG3 WW		—			
	Lamp control gear used.....	Xi LP 40W 0.2-0.7A SN 230V S175 sXt		—			
	Mounting position of luminaire	Normal		—			
	Supply wattage (W)	24W		—			
	Supply current (A)	N/A		—			
	Calculated power factor.....	0,95		—			
	Table: measured temperatures corrected for ta = 35 °C:						
	- abnormal operating mode	N/A		—			
	- test 1: rated voltage.....	N/A		—			
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage	264V		—			
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage	N/A		—			
	- test 4: 1,1 times rated voltage or 1,05 times rated wattage	N/A		—			
	Through wiring or looping-in wiring loaded by a current of A during the test	N/A		—			
Temperature measurements, (°C)							
Part	Ambient	Clause 12.4 – normal				Clause 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
Driver	25,1	N/A	60,5	N/A	80,0	N/A	N/A
LED module	25,1	N/A	50,9	N/A	80,0	N/A	N/A
Connection block	25,1	N/A	38,1	N/A	130,0	N/A	N/A
Internal wiring	25,1	N/A	39,6	N/A	90,0	N/A	N/A
Supplementary information:							

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 2		TABLE: Temperature measurements, thermal tests of Section 12				P	
	Type reference	DigiStreet Mini BGP761 LED94-4S/740 II DM50 DGR 32-48				—	
	Lamp used.....	PCB LUMA MINI 40 OSLONG3 NW				—	
	Lamp control gear used.....	Xi LP 75W 0.2-0.7A SN 230V S240 sXt				—	
	Mounting position of luminaire	Normal				—	
	Supply wattage (W)	28W				—	
	Supply current (A)	N/A				—	
	Calculated power factor.....	0,95				—	
	Table: measured temperatures corrected for ta = 35 °C:						
	- abnormal operating mode	N/A				—	
	- test 1: rated voltage.....	N/A				—	
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage	264V				—	
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage	N/A				—	
	- test 4: 1,1 times rated voltage or 1,05 times rated wattage	N/A				—	
	Through wiring or looping-in wiring loaded by a current of A during the test	N/A				—	
Temperature measurements, (°C)							
Part	Ambient	Clause 12.4 – normal				Clause 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
Driver	24,3	N/A	59,3	N/A	80,0	N/A	N/A
LED module	24,3	N/A	55,5	N/A	80,0	N/A	N/A
Connection block	24,3	N/A	40,8	N/A	130,0	N/A	N/A
Internal wiring	24,3	N/A	40,4	N/A	90,0	N/A	N/A
Supplementary information:							

IEC 60598-2-3							
Clause	Requirement + Test				Result - Remark		Verdict
ANNEX 2	TABLE: Temperature measurements, thermal tests of Section 12						P
	Type reference				DigiStreet Medium BGP762 LED220-4S/740 II DW 12 62 DGR SRG10		—
	Lamp used.....				PCB LUMA MINI 40 OSLONG3 NW–2 pcs		—
	Lamp control gear used.....				Xi FP 150W 0.2-0.7A SNLDAE 230V S240 sXt		—
	Mounting position of luminaire				Normal		—
	Supply wattage (W)				152W		—
	Supply current (A)				N/A		—
	Calculated power factor.....				0,95		—
	Table: measured temperatures corrected for ta =3 °C:						
	- abnormal operating mode				N/A		—
	- test 1: rated voltage.....				N/A		—
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage				264V		—
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage				N/A		—
	- test 4: 1,1 times rated voltage or 1,05 times rated wattage				N/A		—
	Through wiring or looping-in wiring loaded by a current of A during the test				N/A		—
Temperature measurements, (°C)							
Part	Ambient	Clause 12.4 – normal				Clause 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
Driver	24,7	N/A	82,0	N/A	90,0	N/A	N/A
LED module no.1	24,7	N/A	69,8	N/A	80,0	N/A	N/A
LED module no.2	24,7	N/A	70,7	N/A	80,0	N/A	N/A
Connection block	24,7	N/A	45,1	N/A	130,0	N/A	N/A
Internal wiring	24,7	N/A	42,4	N/A	90,0	N/A	N/A
Surge Protective Device	24,7	N/A	45,1	N/A	80,0	N/A	N/A
Supplementary information:							

IEC 60598-2-3							
Clause	Requirement + Test				Result - Remark		Verdict
ANNEX 2	TABLE: Temperature measurements, thermal tests of Section 12						P
	Type reference :				DigiStreet Large BGP 763 LED340-4S/740 II DW 12 62 DGR SRG10		—
	Lamp used..... :				PCB LUMA LARGE 60 OSLONG3 NW-2 pcs		—
	Lamp control gear used..... :				Xi LP 150W 0.2-0.7A SN 230V S240 sXt – 2 pcs		—
	Mounting position of luminaire :				Normal		—
	Supply wattage (W) :				235W		—
	Supply current (A) :				N/A		—
	Calculated power factor..... :				0,95		—
	Table: measured temperatures corrected for ta = 35 °C:						
	- abnormal operating mode :				N/A		—
	- test 1: rated voltage..... :				N/A		—
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage :				264V		—
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage :				N/A		—
	- test 4: 1,1 times rated voltage or 1,05 times rated wattage :				N/A		—
	Through wiring or looping-in wiring loaded by a current of A during the test :				N/A		—
Temperature measurements, (°C)							
Part	Ambient	Clause 12.4 – normal				Clause 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
Driver no.1	25,2	N/A	82,2	N/A	90,0	N/A	N/A
Driver no.2	25,2	N/A	82,3	N/A	90,0	N/A	N/A
LED module no.1	25,2	N/A	74,3	N/A	80,0	N/A	N/A
LED module no.2	25,2	N/A	74,7	N/A	80,0	N/A	N/A
Connection block	25,2	N/A	52,6	N/A	130	N/A	N/A
Internal wiring	25,2	N/A	45,9	N/A	90,0	N/A	N/A
Surge Protective Device	25,2	N/A	48,6	N/A	80,0	N/A	N/A

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
Supplementary information:			

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 3	Screw terminals (part of the luminaire)		N/A
(14)	SCREW TERMINALS		
(14.2)	Type of terminal..... :		—
	Rated current (A) :		—
(14.3.2.1)	One or more conductors		N/A
(14.3.2.2)	Special preparation		N/A
(14.3.2.3)	Terminal size		N/A
	Cross-sectional area (mm ²)..... :		—
(14.3.3)	Conductor space (mm)..... :		N/A
(14.4)	Mechanical tests		
(14.4.1)	Minimum distance		N/A
(14.4.2)	Cannot slip out		N/A
(14.4.3)	Special preparation		N/A
(14.4.4)	Nominal diameter of thread (metric ISO thread) :	M	N/A
	External wiring		N/A
	No soft metal		N/A
(14.4.5)	Corrosion		N/A
(14.4.6)	Nominal diameter of thread (mm) :		N/A
	Torque (Nm) :		N/A
(14.4.7)	Between metal surfaces		N/A
	Lug terminal		N/A
	Mantle terminal		N/A
	Pull test; pull (N) :		N/A
(14.4.8)	Without undue damage		N/A

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 4	Screwless terminals (part of the luminaire)		N/A
(15)	SCREWLESS TERMINALS		
(15.2)	Type of terminal..... :		—
	Rated current (A)..... :		—
(15.3.1)	Material		N/A
(15.3.2)	Clamping		N/A
(15.3.3)	Stop		N/A
(15.3.4)	Unprepared conductors		N/A
(15.3.5)	Pressure on insulating material		N/A
(15.3.6)	Clear connection method		N/A
(15.3.7)	Clamping independently		N/A
(15.3.8)	Fixed in position		N/A
(15.3.10)	Conductor size		N/A
	Type of conductor		N/A
(15.5)	Terminals and connections for internal wiring		N/A
(15.5.1)	Mechanical tests		N/A
(15.5.1.1.1)	Pull test spring-type terminals (4 N, 4 samples)		N/A
(15.5.1.1.2)	Pull test pin or tab terminals (4 N, 4 samples)		N/A
	Insertion force not exceeding 50 N		N/A
(15.5.1.2)	Permanent connections: pull-off test (20 N)		N/A
(15.5.2)	Electrical tests		
	Voltage drop (mV) after 1 h (4 samples)		N/A
	Voltage drop of two inseparable joints		N/A
	Number of cycles:		—
	Voltage drop (mV) after 10th alt. 25th cycle (4 samples)..... :		N/A
	Voltage drop (mV) after 50th alt. 100th cycle (4 samples)..... :		N/A
	After ageing, voltage drop (mV) after 10th alt. 25th cycle (4 samples)		N/A
	After ageing, voltage drop (mV) after 50th alt. 100th cycle (4 samples)		N/A
(15.6)	Terminals and connections for external wiring		N/A
(15.6.1)	Conductors		

IEC 60598-2-3											
Clause	Requirement + Test					Result - Remark					Verdict
	Terminal size and rating										N/A
15.6.2	Mechanical tests										
(15.6.2.1)	Pull test spring-type terminals or welded connections (4 samples); pull (N) :										N/A
(15.6.2.2)	Pull test pin or tab terminals (4 samples); pull (N) :										N/A
(15.6.3)	Electrical tests										
	Tests according 15.6.3.1 + 15.6.3.2 in IEC 60598-1										N/A
(15.6.3.1) (15.6.3.2)	TABLE: Contact resistance test / Heating tests										
	Voltage drop (mV) after 1 h										—
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)										N/A	
	Voltage drop of two inseparable joints										N/A
	Voltage drop after 10th alt. 25th cycle										N/A
	Max. allowed voltage drop (mV) :										—
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)										N/A	
	Voltage drop after 50th alt. 100th cycle										N/A
	Max. allowed voltage drop (mV) :										—
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)										N/A	
	Continued ageing: voltage drop after 10th alt. 25th cycle										N/A
	Max. allowed voltage drop (mV) :										—
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)										N/A	
	Continued ageing: voltage drop after 50th alt. 100th cycle										N/A
	Max. allowed voltage drop (mV) :										—
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)										N/A	
										N/A	
Supplementary information:											

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict

List of test equipment used:

A completed list of used test equipment shall be provided in the Test Reports when a Manufacturer Testing Laboratory according to CTF stage 1 or CTF stage 2 procedure has been used.

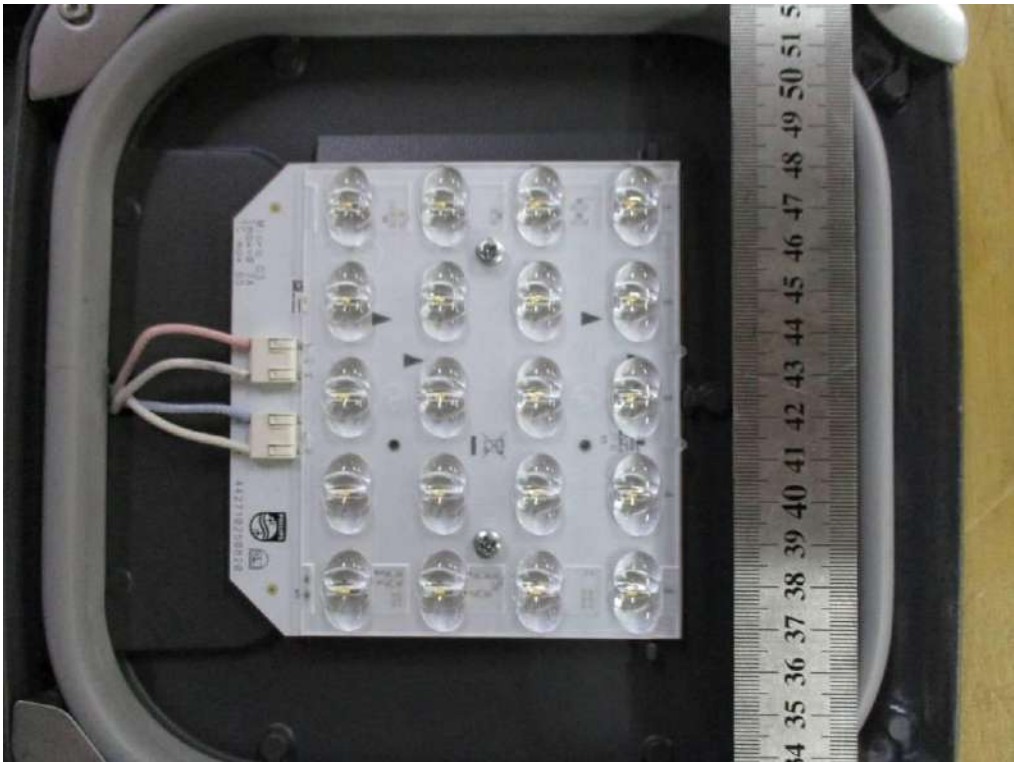
Other forms with a different layout but containing corresponding information are also acceptable.

Note: This page may be removed when CTF stage 1 CTF stage 2 are not used. See also clause 4.8 in OD 2020 for more details.

Clause	Measurement / testing	Testing / measuring equipment / material used, (Equipment ID)	Range used	Last Calibration date	Calibration due date

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict

Photos
DigiStreet Micro BGP760 LED12-4S/830 II DM11 DGR 62



IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict



IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict



IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict

DigiStreet Mini BGP761 LED94-4S/740 II DM50 DGR 32-48



TRF No. IEC60598_2_3K

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict

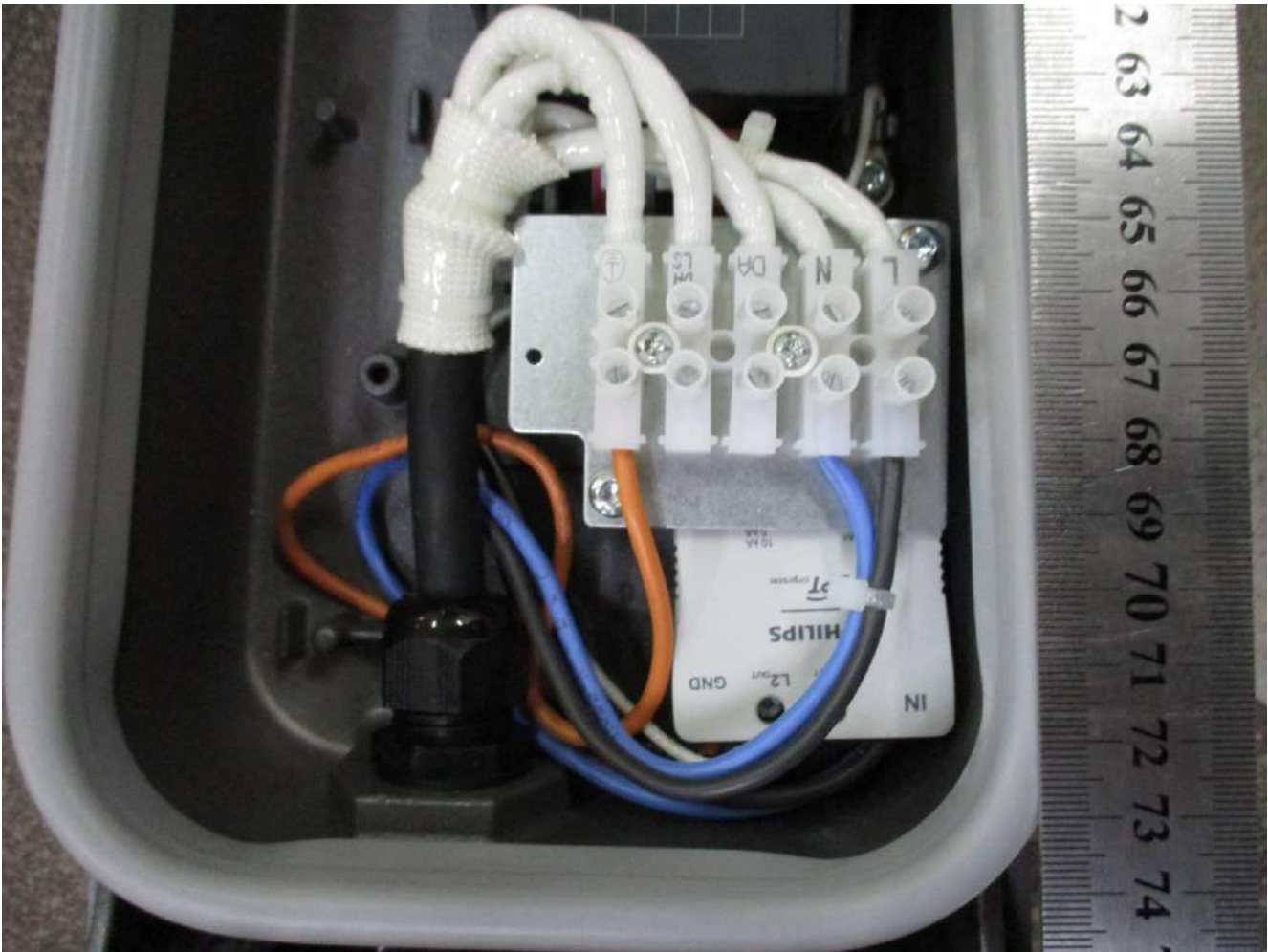


IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict



IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict

DigiStreet Medium BGP762 LED220-4S/740 II DW 12 62 DGR SRG10



IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict



IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict



IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict

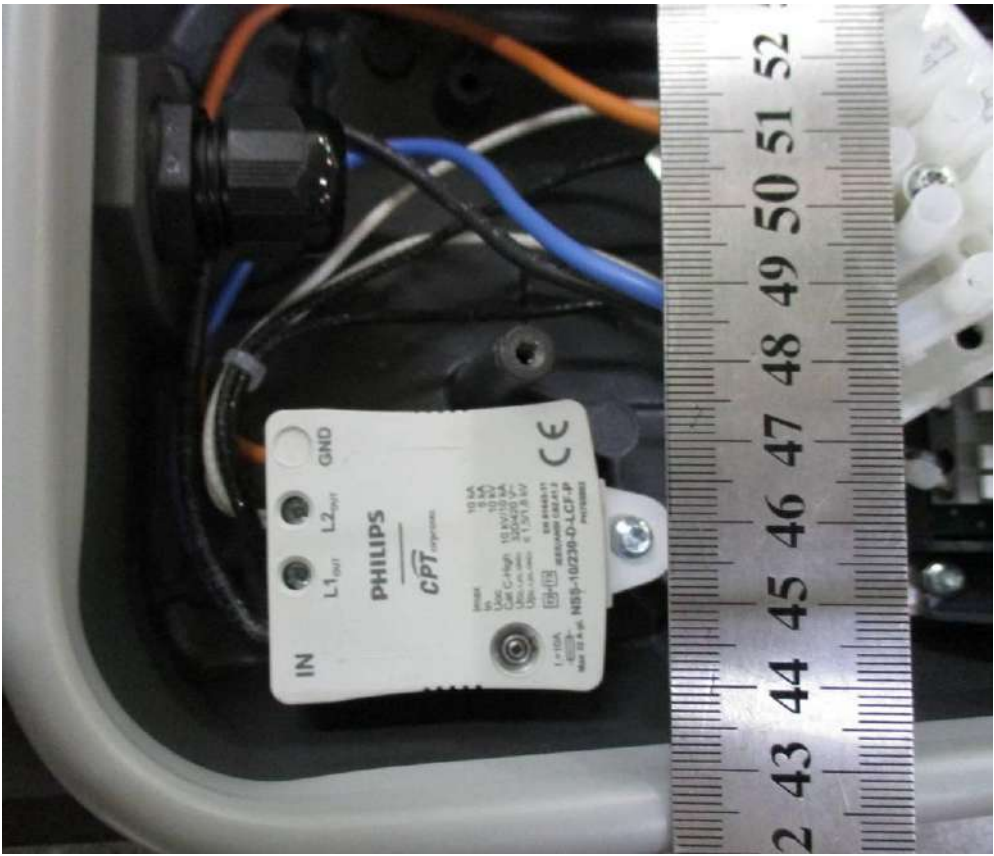
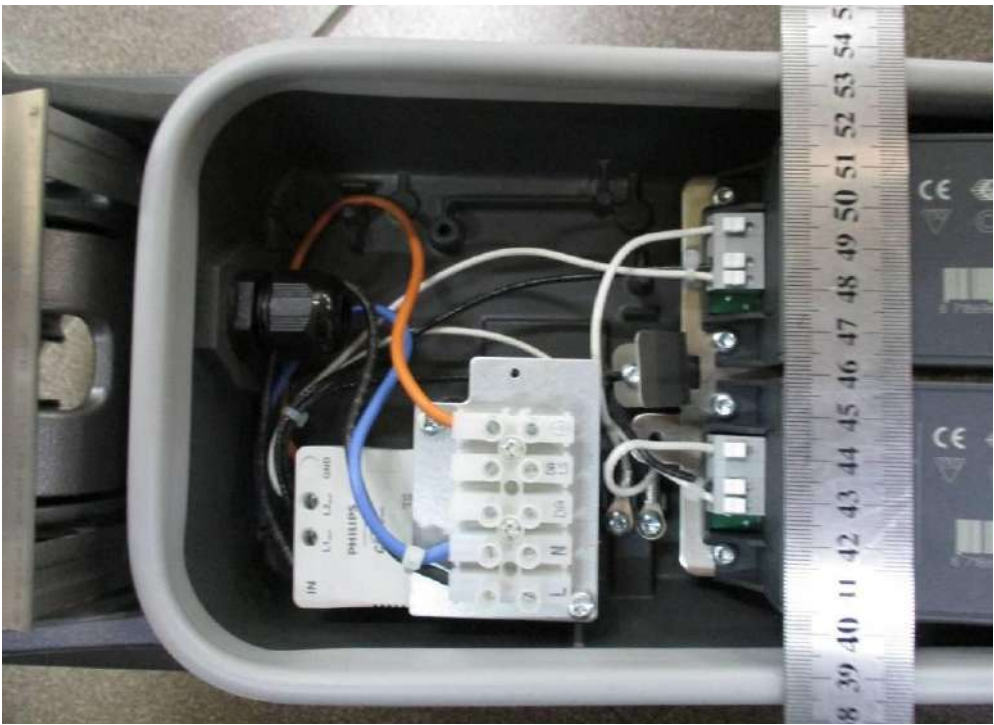


IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict

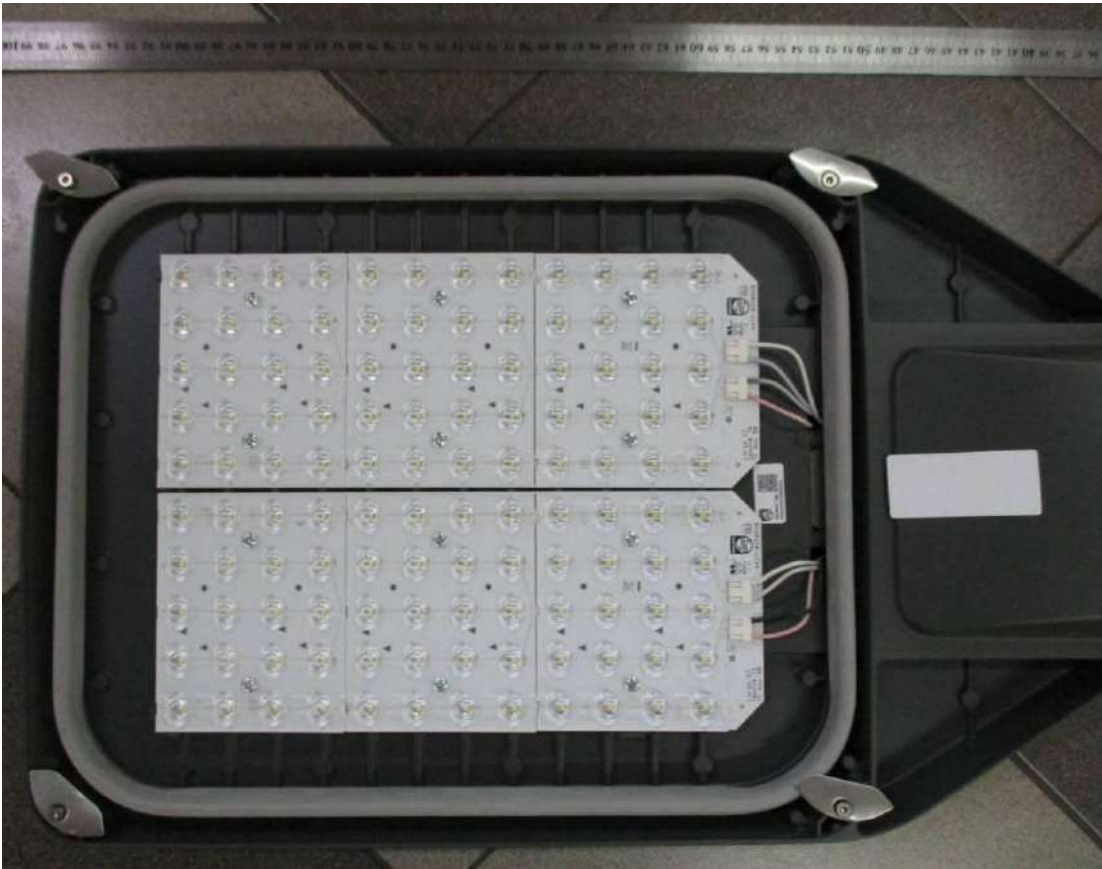
DigiStreet Large BGP 763 LED340-4S/740 II DW 12 62 DGR SRG10



IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict



IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict



IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict



IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict



L'uso del presente foglio è facoltativo. Esso non costituisce certificazione né per il progettista né per il comune, ma solo un utile strumento di supporto.

Le formule sono state lasciate visibili per massima chiarezza dei calcoli. Qualora inavvertitamente si modificasse il contenuto di una cella già predisposta, occorre effettuare un nuovo download del foglio originale.

ISTRUZIONI per l'USO

Inserire nelle caselle gialle i dati richiesti, selezionandoli, ove previsto, dall'elenco.

Il foglio in automatico calcolerà il valore dell'efficienza globale dell'apparecchio (caselle arancioni).

Il foglio calcolerà in automatico il valore dell'IPEA, esplicitando in base al valore ottenuto, la classe di appartenenza. L'indicazione della classe comparirà nella casella verde se è ammessa (quindi per classi uguali o superiori a C) o nella casella rossa, se non è ammessa (quindi per classi inferiori a C).

Calcola l' IPEA per sorgenti LED

dati da inserire

	Tipo di apparecchio	DIGISTREET 76W	
	Marca e modello	PHILIPS BGP762 DM31	
	Ambito principale di utilizzo	stradale e grandi aree	
	Tipo sorgente	LED	
Φ_{sorg}	flusso Modulo LED	12.000	lm
Preale	potenza reale apparecchio LED	89	W
	Dff	1	

inserire una breve descrizione
inserire solo i riferimenti
scegliere da elenco

η_R	efficienza globale di riferimento (da Allegato D)	75	lm/W
----------	---	----	------

scegliere da Tab.2, 3,
4 o 5

dati calcolati

η_{app}	efficienza globale apparecchio ($\Phi_{sorg} \cdot P_{sorg} \cdot Dff$)	135	lm/W
--------------	---	-----	------

IPEA (η_{app} / η_R)	1,80	A++
--------------------------------	------	-----

L'uso del presente foglio è facoltativo. Esso non costituisce certificazione né per il progettista né per il comune, ma solo un utile strumento di supporto.

Le formule sono state lasciate visibili per massima chiarezza dei calcoli. Qualora inavvertitamente si modificasse il contenuto di una cella già predisposta, occorre effettuare un nuovo download del foglio originale.

ISTRUZIONI per l'USO

Inserire nel primo gruppo di caselle gialle relative all'ambito principale da illuminare i dati richiesti, selezionandoli, ove previsto, dall'elenco.

Compilare la successiva sezione, in base al tipo di sorgente utilizzata (NON LED o LED).

Inserire nelle caselle gialle i dati richiesti selezionandoli, ove previsto, dall'elenco.

Il foglio in automatico calcolerà i valori presenti nelle caselle arancioni.

Il foglio calcolerà in automatico il valore dell'IPEI, esplicitando in base al valore ottenuto, la classe di appartenenza.

L'indicazione della classe comparirà nella cella verde se è ammessa (quindi per classi uguali o superiori a B) o nella cella rossa, se non è ammessa (quindi per classi inferiori a B).

Calcola l' IPEI in illuminamento

per sorgenti LED

dati da inserire

	Ambito principale da illuminare		
	Tipo strada (PUT)	F	
	Descrizione tipo strada	strade locali urbane (altre situazioni)	
	specificata	marciapiedi, percorsi ciclopedonali e parcheggi	
	Categoria illuminotecnica	P2	
$E_{m,rif}$	Illuminamento di riferimento	10	lux
l	Larghezza carreggiata	18	m

scegliere da elenco

scegliere da elenco (vd. Allegato F, Tab. 1)

scegliere da elenco (vd. Allegato F, Tab. 1)

da Allegato F (vd. EN 13201-2)

	Tipo di apparecchio	DIGISTREET 76W	
	Marca e modello	PHILIPS BGP762 DM31	
	Tipo sorgente	LED	
Φ_{sorg}	flusso Modulo LED	12.000	lm
P_{app}	potenza reale apparecchio LED	89	W

i	interdistanza	45	m
	altezza sorgenti	10	m
E_m	Illuminamento medio mantenuto	11,84	lux
	U_o	3,52	

dal calcolo illuminotecnico

inserimento facoltativo

SE	SLEEC in illuminamento $[P_{app}/(E_m \cdot l)]$	0,01	$W/[(lux) \cdot mq]$
K_{inst}	Costante d'installazione $(0,524 + [E_m/(E_{m,rif} \cdot 2,1)])$	1,09	

SE_R	SLEEC di riferimento	0,08	lm/W
--------	----------------------	------	------

scegliere Allegato E, Tab.3 o 4

IPEI	$(SE/SE_R \cdot K_{inst})$	0,13	A++
-------------	--	-------------	------------

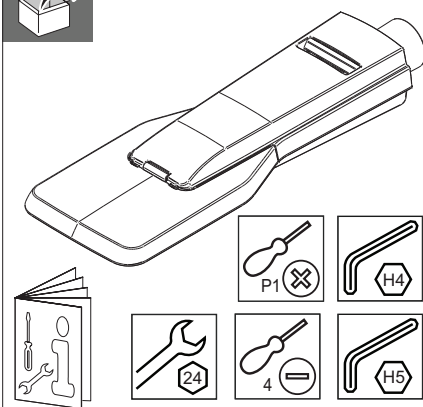
PHILIPS

DigiStreet

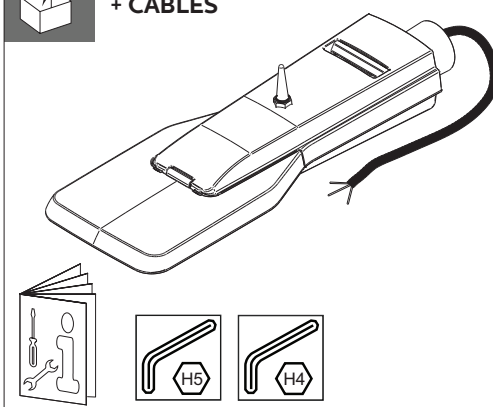
BGP760/761/762/763



BGP760/761/762/763



BGP760/761/762/763 + RF/PTD
+ CABLES



R&TTE
868MHz
<5mW



220V
240V

50Hz
60Hz



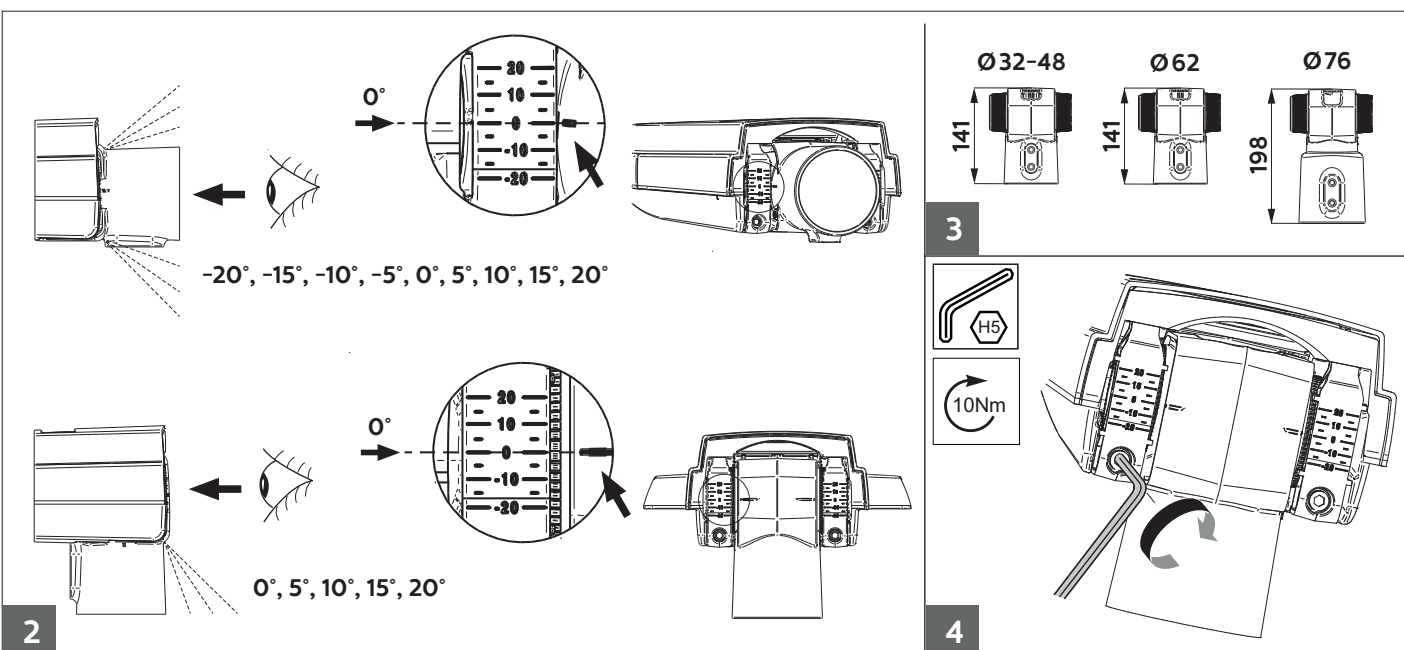
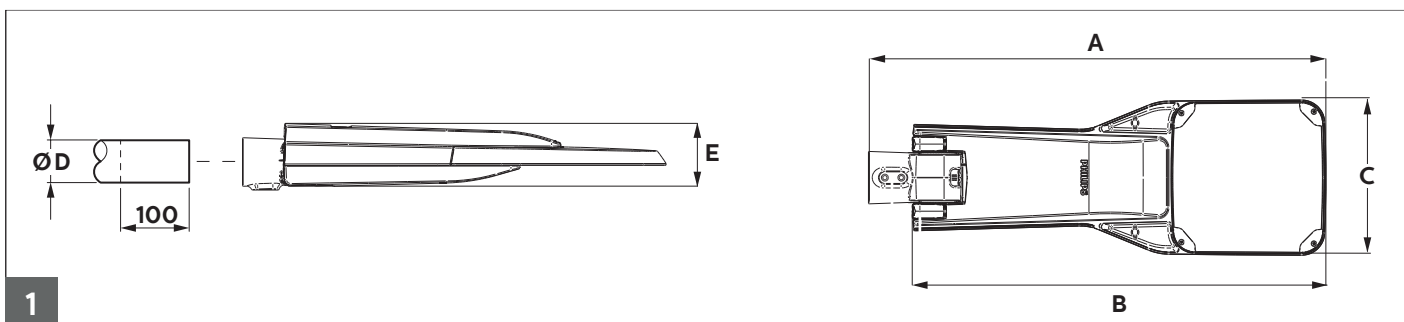
IP66

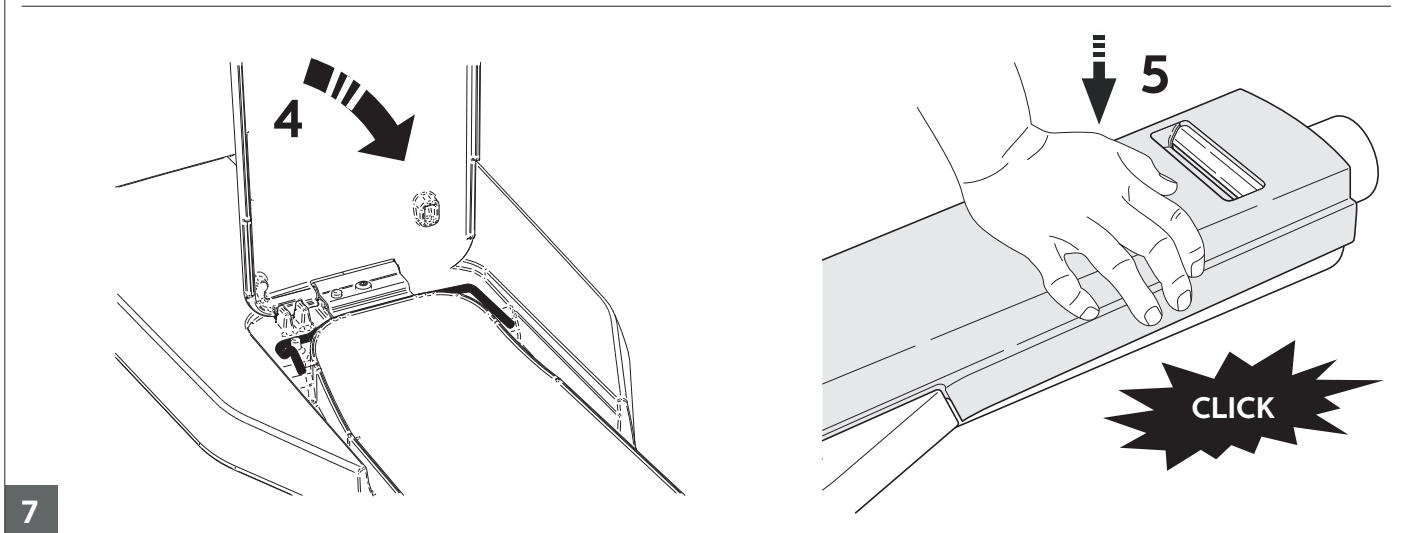
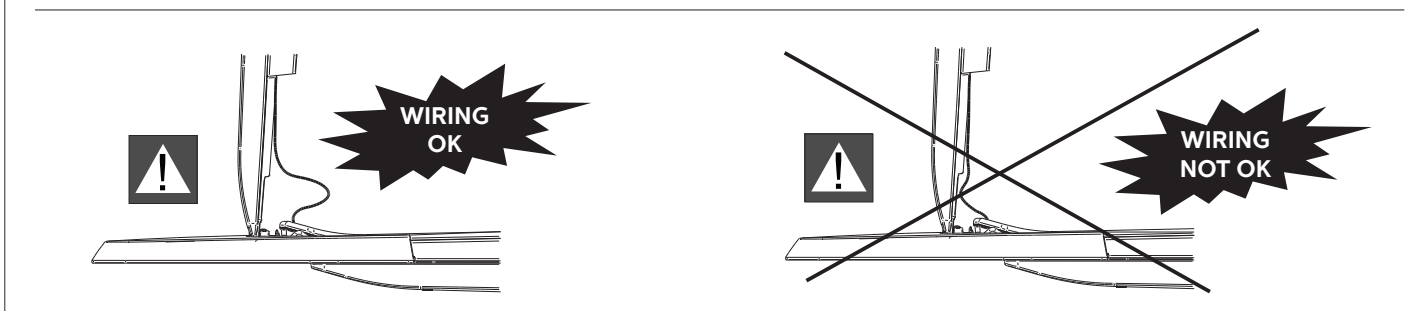
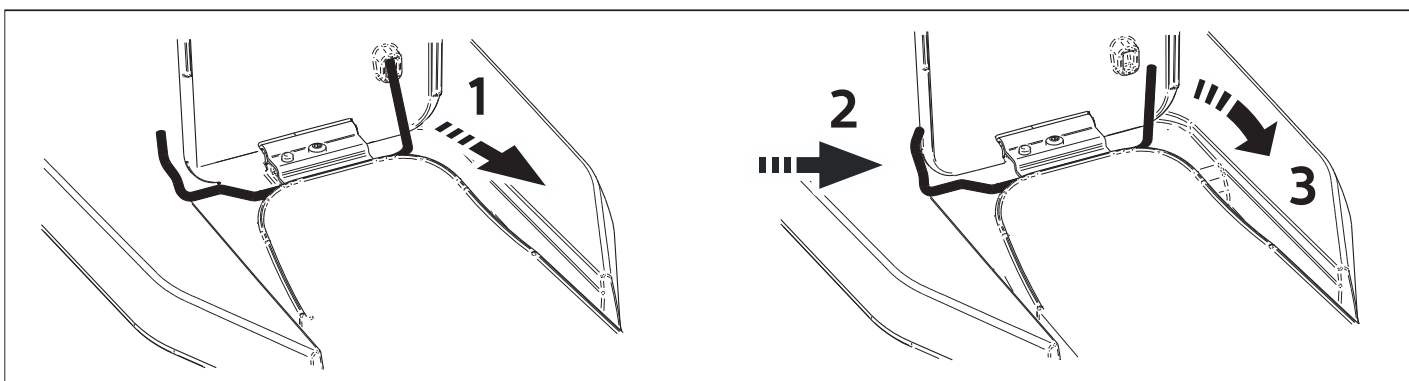
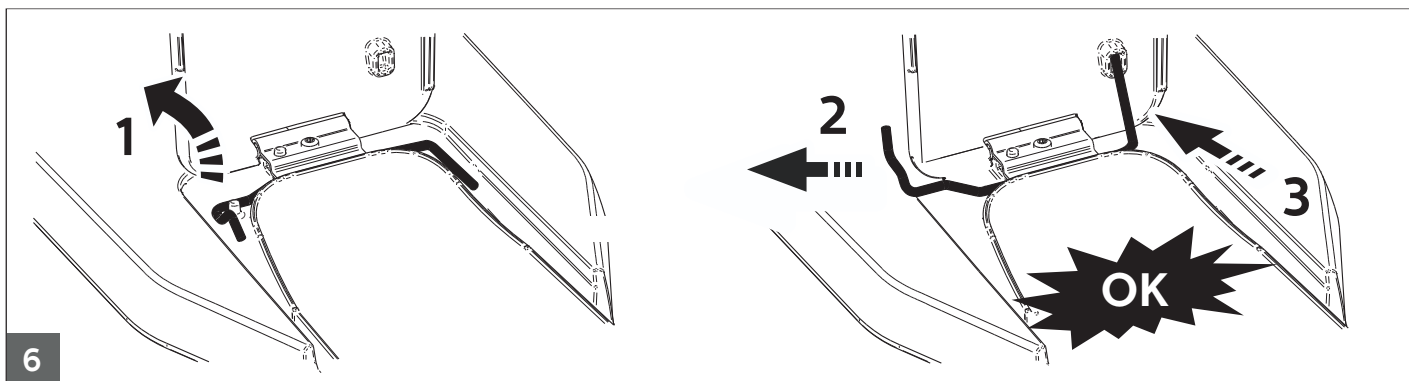
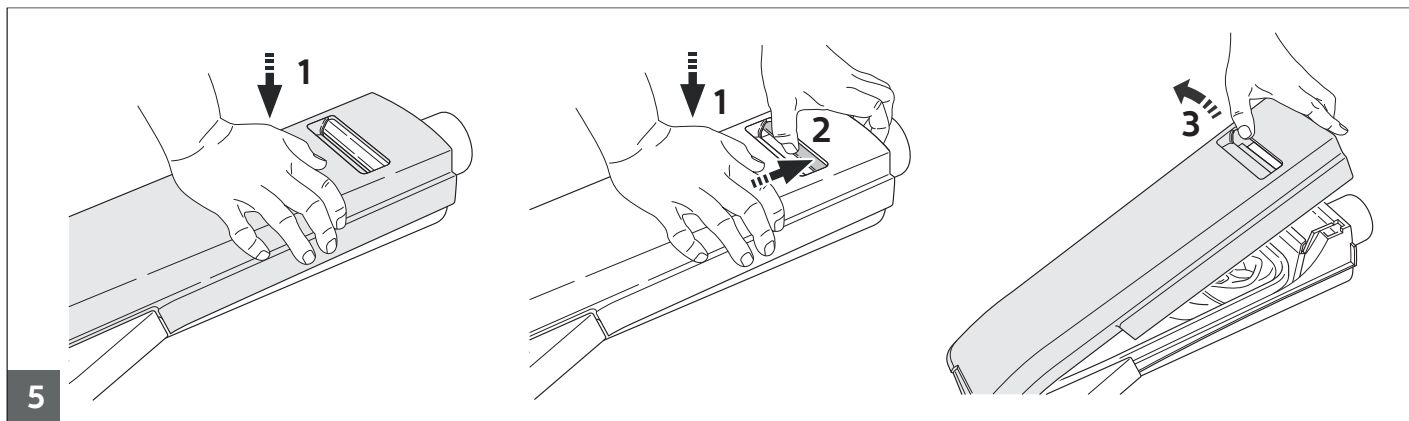
IK09

Max.
35 °C
Min.
-20 °C

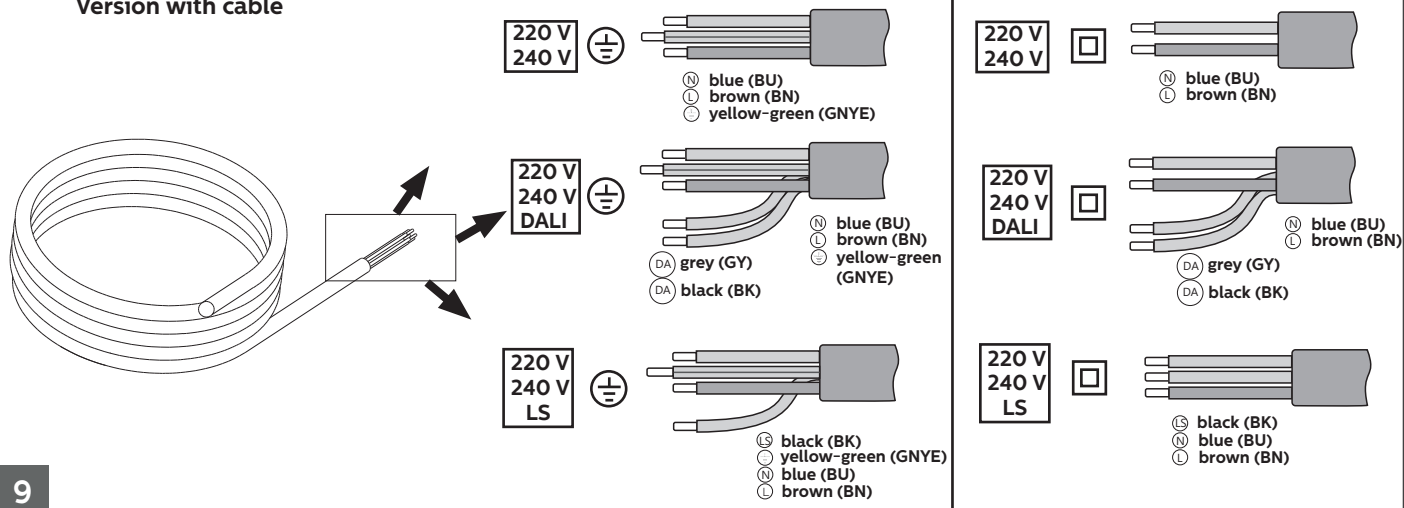


Luminaire	LEDs	Driver	MCBB16A	Inrush current Ipeak (A)	Inrush current Twidth (µs)	P(W)	P(W)	m²	Cxs(m²)	Dimensions in [mm] with 62mm spigot					kg
										A	B	C	D	E	
DigiStreet Micro BGP760	10-20	40W FP 40W LP	20 18	22 27	290 265	3-36	4-40	0,055	0,0605	695	629	240	32-76	102	6
DigiStreet Mini BGP761	30-40	75W 150W	11 8	46 53	250 300	8-73	11-80	0,066	0,0726	860	794	240	32-76	103	8
DigiStreet Medium BGP762	60-80	150W	8	53	300	17-146	22-160	0,066	0,0726	860	794	361	32-76	103	9
DigiStreet Large BGP763	100-120	2x 150W	4	106	300	28-218	36-240	0,082	0,0902	1011	945	361	32-76	111	12





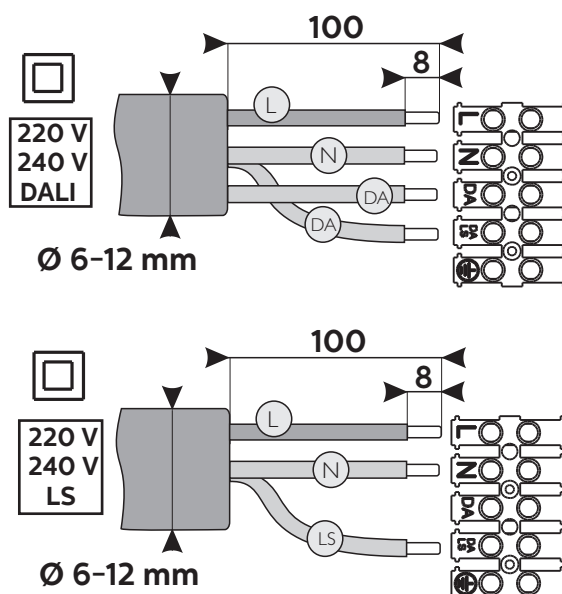
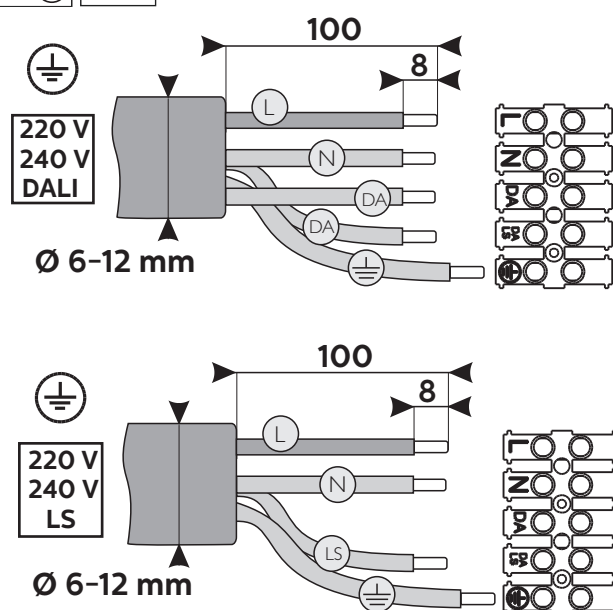
Version with cable



9



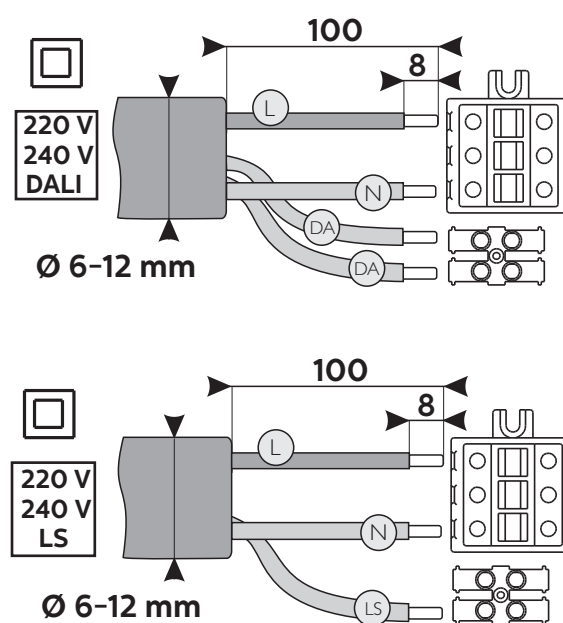
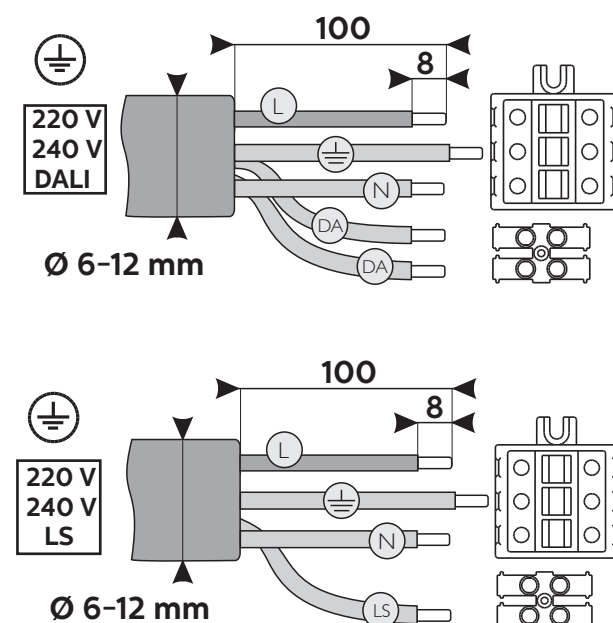
Version without cable: standard connector



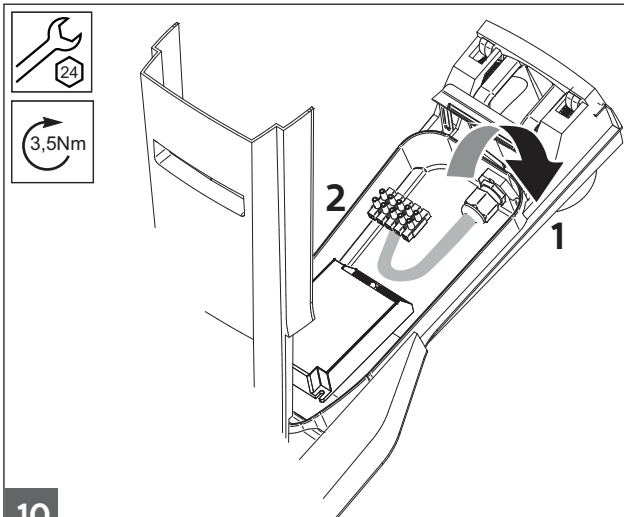
8a



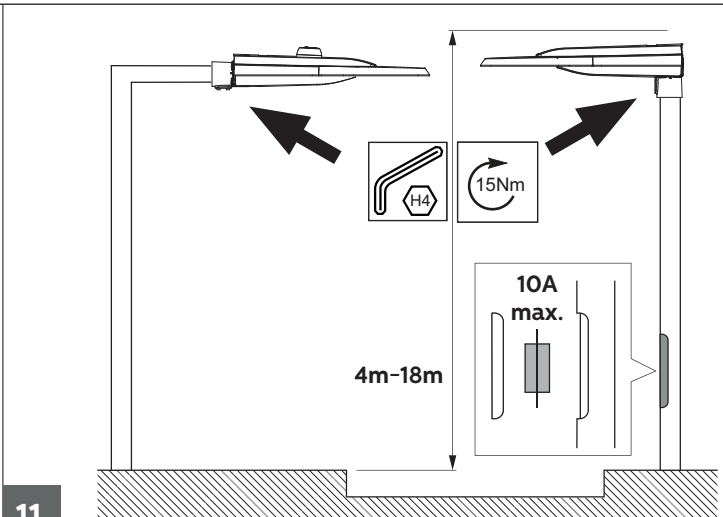
Version without cable: KC connector



8b



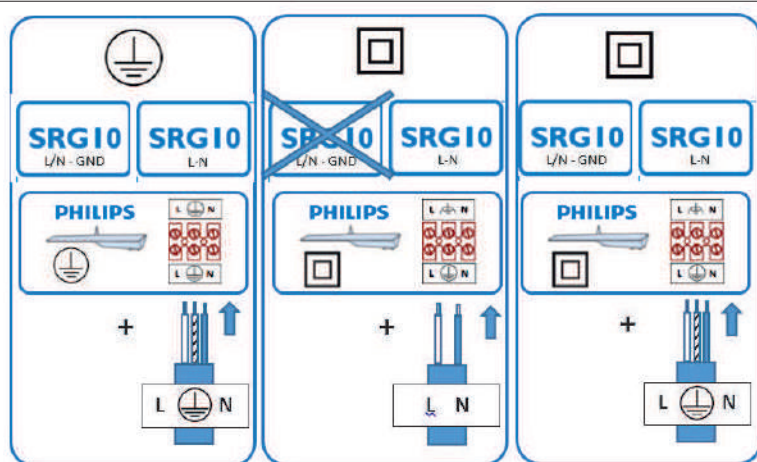
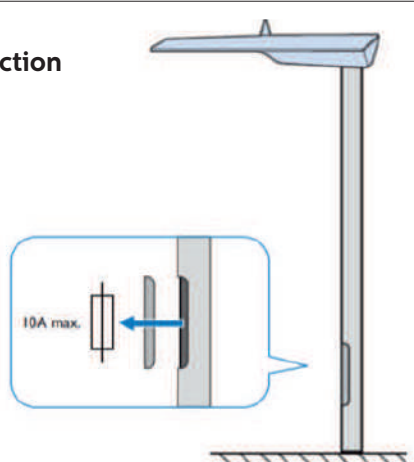
10



11

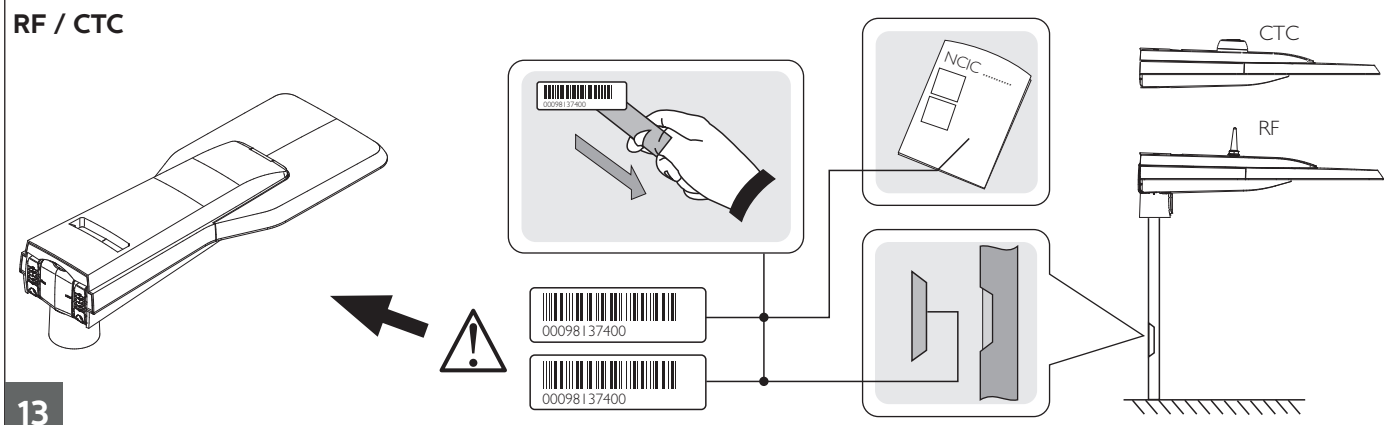
SRG10
10kV protection

12



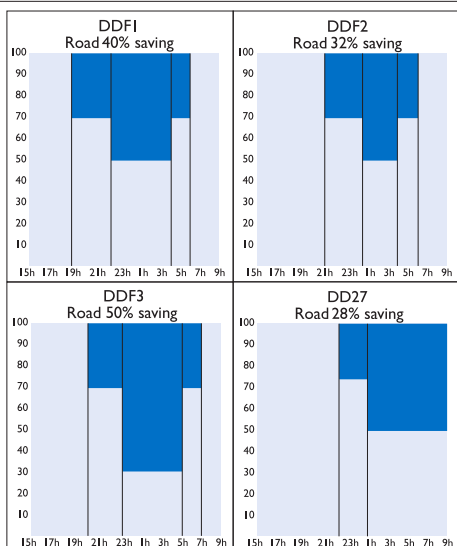
RF / CTC

13



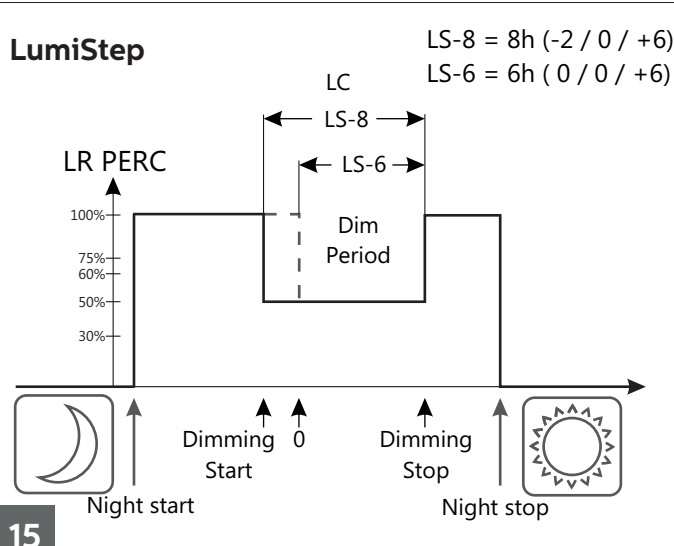
Dyna Dimmer

14



LumiStep

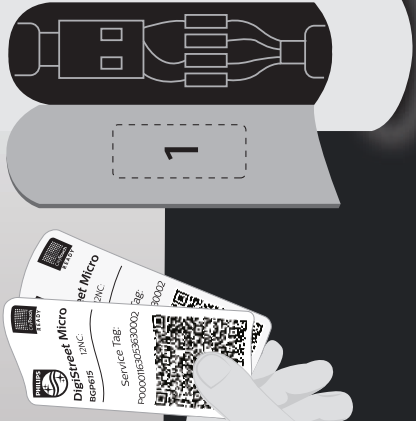
15



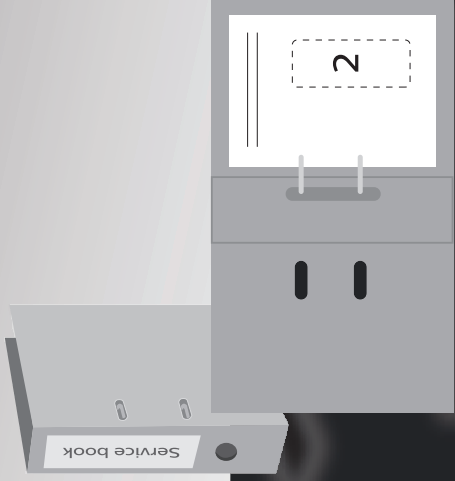
1



2



+



3



Register me!



- GB The light source contained in this luminaire shall only be replaced by the manufacturer or his service agent or a similar qualified person.
- SP La fuente de luz contenida en esta luminaria sólo podrá ser sustituido por el fabricante o su agente de servicio o una persona calificada similar.
- PT A fonte de luz contida neste luminária só será substituído pelo fabricante ou o seu agente de serviços ou uma pessoa qualificada similar.
- DE Die in dieser Leuchte enthaltenen Lichtquelle darf nur durch den Hersteller oder seinen Kundendienst oder eine ähnlich qualifizierte Person ersetzt werden.
- FR La source de lumière contenue dans ce luminaire ne doit être remplacé par le fabricant ou son agent de service ou une personne qualifiée.
- IT La sorgente di luce del presente apparecchiatura sarà sostituita solo dal fabbricante o dal suo agente di servizio o una persona qualificata simile.
- NL De lichtbron in dit armatuur mag alleen worden vervangen door de fabrikant of zijn service agent of een soortgelijk gekwalificeerd persoon.
- DK Lyskilden er indeholdt i dette armatur må kun udskiftes af fabrikanten eller hans servicevæksted eller en tilsvarende kvalificeret person.
- SE Ljuskällan i detta Armaturen får endast bytas av tillverkaren eller dennes serviceombud eller liknande behörig person.
- NO Lyskilden i denne armaturen skal bare skiftes ut av produsenten eller serviceverksted eller en tilsvarende kvalifisert person.
- FI Valonlähde sisältämät valaisimen saa vaihtaa vain valmistaja tai valtuutettu huoltoliike tai muu ammattitaitoinen.
- HU A fényforrás található a lámpatest csak helyébe a gyártó vagy a szerviz vagy hasonló szakképzett személy.
- PL Źródłem światła w oprawie zawarte powinny być wymieniane wyłącznie przez producenta lub jego przedstawiciela serwisu lub wykwalifikowaną osobę.
- RO Sursa de lumină în acest corp de iluminat conținute se înlocuiește numai de către producător sau de agentul său de service sau o persoană similară calificată.
- CZ Světelný zdroj obsažený v tomto svítidle se nahrazují pouze výrobcem nebo jeho servisním zástupcem nebo podobně kvalifikovanou osobou.
- HR Izvor svjetla sadržan u ovom svjetiljke će se zamijeniti samo proizvođač ili njegov servisera ili sličnog stručne osobe.
- GR Η πηγή φωτός που περιέχονται σε αυτό το φωτιστικό θα πρέπει να αντικατασταθεί μόνο από τον κατασκευαστή ή τον αντιπρόσωπο συντήρησης αυτού ή έναν παρόμοιο ειδικευμένο άτομο.
- BG Източникът на светлина се съдържа в този осветително тяло се заменя само от производителя или негов сервисен агент или подобно квалифицирано лице.
- RS Извор светlosti sadržana u ovom svjetiljke biće zameњen samo od strane proizvoђачa или његовог сервисера или слично квалификоване особе.

ALLEGATO H3

DICHIARAZIONE DI CONFORMITA' DEL PROGETTO ILLUMINOTECNICO

alla LR 19/03 e Direttiva applicativa

Il sottoscritto MELUCCI FABIO con sede di lavoro in STRADA
CONSOLARE RIMINI SAN MARINO n°51C Comune RIMINI Prov RN Tel 0541
395182 fax 0541 752354 iscritto all'Ordine DEGLI INGEGNERI
di RIMINI con numero 1080/A

Progettista dell'impianto di illuminazione DEL
PARCHEGGIO PRIVATO USO PUBBLICO EDIFICIO
" PUA " come da Progetto ESECUTIVO

DICHIARA

sotto la propria personale responsabilità che l'impianto è stato
progettato in conformità alla LR. 19/2003 "Norme in materia di
riduzione dell'Inquinamento Luminoso e di risparmio energetico" e
alla direttiva applicativa di tale legge.

DECLINA

ogni responsabilità per sinistri a persone o a cose derivanti
da una esecuzione sommaria e non realizzata con i dispositivi
previsti nel progetto illuminotecnico esecutivo.

ogni responsabilità derivante da una scorretta installazione
(non conforme alla LR. 19/2003 e al presente progetto), ricordando
che nel progetto sono presenti tutti gli elementi per una
installazione corretta.

Data 19-06-2018

Firma



ALLEGATO 7

PIANO MANUTENZIONE

Generalità

Per manutenzione di un impianto elettrico si intende l'insieme dei lavori necessari per conservare un buono stato di efficienza , e soprattutto di sicurezza, l'impianto elettrico stesso.

Una costante attività di manutenzione è indispensabile per conservare gli impianti in conformità alla regola dell'arte, cioè per fare in modo che forniscano in sicurezza le prestazioni richieste.

La regola dell'arte discende da una corretta progettazione, scelta ed installazione di componenti idonei.

Non è però sufficiente avere progettato e costruito un impianto a regola d'arte, poiché qualsiasi componente, anche se utilizzato correttamente, non può mantenere invariate nel tempo le proprie prestazioni e caratteristiche di sicurezza.

I principali obiettivi della manutenzione sono :

- conservare le prestazioni e il livello di sicurezza iniziale dell'impianto contenendo il normale degrado ed invecchiamento dei componenti;
- ridurre i costi di gestione dell'impianto evitando perdite per mancanza di produzione a causa del deterioramento precoce dell'impianto stesso;
- rispettare le disposizioni di legge.

Perché nel tempo l'impianto elettrico mantenga l'efficienza e la sicurezza è indispensabile vengano effettuati controlli e manutenzioni periodiche.

Per avere buoni risultati è indispensabile conoscere:

- la designazione del responsabile delle verifiche periodiche dell'impianto elettrico
- la specifica dei compiti del responsabile dell'impianto elettrico
- la definizione delle verifiche da effettuare
- la definizione dei tempi in cui devono essere effettuate le verifiche
- un registro da esibire alle autorità competenti, su cui annotare verifiche, anomalie , guasti e modifiche
- schemi elettrici
- piante e planimetrie
- attrezzi e strumenti di misura
- estintori idonei a spegnere incendi di natura elettrica

Disposizioni Legislative Generali

L'obbligo di eseguire la manutenzione degli impianti elettrici nei luoghi di lavoro ,per quanto riguarda la sicurezza per le persone, è sancito dal D.M. 37/08 Art.8 comma 2.

L'obbligo della manutenzione nei luoghi di lavoro discende indirettamente anche dall'art. 2087 del Codice Civile.

Nei luoghi di lavoro la mancanza della manutenzione, resa evidente dallo stato di decadimento dell'impianto elettrico, è penalmente sanzionata in base agli articoli 267 e 374 del DPR 547/1955 su indicato, anche se non provoca alcun infortunio (reato di pericolo), come indicato dall'art. 389.

L'inosservanza dell'art.32 del D.L. 626/94 è punita con le sanzioni previste dall'art.89 (per il datore di lavoro) e dall'art.90 (per i preposti).

Se la mancanza di manutenzione provoca un infortunio, si configura la responsabilità per colpa, per non avere cioè agito con diligenza, prudenza e perizia. Ovviamente questo vale ovunque e non soltanto nei luoghi di lavoro.

Se dalla mancanza di manutenzione consegue un danno, senza lesioni alle persone, il responsabile dell'impianto è comunque tenuto a risarcire chi ha subito il danno, in base all'art. 2043 del Codice Civile (risarcimento per fatto illecito) essendo un fatto colposo comunque un illecito .

Di seguito si riporta il piano di manutenzione, da completare con le figure responsabili, con tutti gli interventi e la frequenza necessari per garantire l'efficienza e la durabilità dell'impianto di illuminazione esterna in oggetto.

IMPIANTO ILLUMINAZIONE ESTERNA

Individuazioni Impianto: Impianto illuminazione Parcheggio Privato ad uso pubblico edificio "PUA"

Indirizzo : VIA Madonna di Genova Cotignola (RA)

Proprietà :

Personale autorizzato

Personale autorizzato all'esercizio , manutenzione e sorveglianza dell'impianto

Responsabile _____

1° aiutante _____

2° aiutante _____

Strumenti di misura e controllo

Si elencano di seguito alcuni strumenti di misura e di controllo utilizzati :

- Luxmetro;
- Strumenti di multifunzione per verifiche su quadri elettrici;
- Strumenti di multifunzione per misura resistenza di terra;

Schede di manutenzione

Di seguito si riportano le schede di manutenzione di tutte le parti dell'impianto:

Devono essere a disposizione dei manutentori:

- Schemi dell'impianto e dei quadri (AS BUILT)
- Piante distribuzione impianti (AS BUILT)

Le schede manutenzione sono:

- scheda 1 - Quadri elettrici
- scheda 2- Apparecchi illuminanti

SCHEDA 1

COMPONENTE QUADRI ELETTRICI

PERIODICITA'

TIPO INTERVENTO	O	M	T	Q	S	A	N	NOTE
Verifica stato componenti,int.ecc...						1		
Verifica funz.int.diff....						1		
.Verifica serraggio morsetti,dopo messa in funzione					X			
Verifica serraggio morsetti in genere...						1		
Controllo asservimenti elettrici						1		
..Verifica connessioni di terra						1		

Legenda :

O = ore funzionamento

M = mensile

T = trimestrale

Q = quadrimestrale

S = semestrale

A = anni numero

N = quando necessario

SCHEDA N 2

COMPONENTE : APPARECCHI ILLUMINANTI

PERIODICITA'

TIPO INTERVENTO	O	M	T	Q	S	A	N	NOTE
Sostituzione moduli LED	100.000							
Pulizia apparecchi illuminanti						1		
Verificare il corretto funzionamento degli orari d'intervento dei temporizzatori						1		
Verifica delle connessioni dei morsetti d'impianto						1		
Controllare le connessioni dell'impianto di messa a terra (pozzetti, nodo collettore, nodi equipotenziali)						1		
Eseguire la misura della resistenza dell'impianto di terra (da riportare nel registro)						2		
Eseguire le misure di conducibilità sulle principali linee						2		
...								
..								

Legenda :

O = ore funzionamento

M = mensile

T = trimestrale

Q = quadrimestrale

S = semestrale

A = anni numero

N = quando necessario

ALLEGATO 9

RELAZIONE DI CALCOLO COSTI E CONSUMI

La presente relazione prende in considerazione i costi relativi ai consumi e alla manutenzione del nuovo impianto d'illuminazione del parcheggio privato ad uso pubblico esterna installato presso l'Edificio "PUA" Cotignola (RA).

Come arco temporale sono stati presi 20 anni che corrispondono all'incirca al ciclo di vita degli apparecchi illuminanti utilizzati pari a 100.000 ore come da indicazione del costruttore riportate nell'Allegato 1.

L'impianto in oggetto è composto dai seguenti apparecchi illuminanti:

- n°8 apparecchi da 70 W;

La potenza assorbita dall'impianto risulta essere pari a 560 W.

Ogni apparecchio illuminante è dotato di sistema "Smart Light Control" con riconoscimento della mezzanotte che riduce il flusso al 70% per 6 ore durante la notte, nell'impianto in oggetto viene impostato dalle 23.30 alle 05.30. L'intero impianto è gestito tramite orologi astronomici che regolano l'accensione e lo spegnimento e ne determinano il funzionamento medio arco anno di circa 15 ore al giorno, con orari d'accensione in accordo con la Delibera 25/11/2008.

Per quanto detto sopra l'impianto sarà in funzione per circa 6 ore al 100% del flusso e per le restanti 9 ore saranno 6 al 70% del flusso e 4 al 50% del flusso, determinando così un consumo di energia elettrica pari a circa 6,8 kWh giornalieri, ovvero circa 2.500 kWh Annuì.

L'impianto, come da piano di manutenzione, prevede un costo di mantenimento di circa 500 euro annui che comprende la pulizia degli apparecchi illuminanti e la verifica dell'impianto elettrico e di terra.

Per quanto detto sopra ipotizzando un costo dell'energia pari a 0,25 euro al kWh l'impianto comporta un costo annuo di energia e manutenzione pari a 1.1250 euro che corrisponde ad un costo di 22.500 euro per tutto il suo ciclo di vita.

Essendo l'impianto di nuova realizzazione non si può eseguire il calcolo del risparmio energetico ottenibile in quanto non esiste un'impianto di base per il confronto.