



Rated Voltage
Tensione Nominale
110 ÷ 127 V
220 ÷ 277 V

Frequency
Frequenza
50-60 Hz

AC Operation range
Tensione di utilizzo AC
100 ÷ 305 V

DC Operation range
Tensione di utilizzo DC
(see page info15)
DC 176 ÷ 275 V

Power - Potenza
17 ÷ 85 W

iTHD
≤ 10% ⁽¹⁾

Output current ripple
≤ 3% ⁽¹⁾

Standards compliance
EN 55015
EN 61000-3-2
EN 61000-3-3
EN 61347-1
EN 61347-2-13
EN 61547

Max. pcs for CB B16A
(see page info17)
36 pcs

In rush current
40A 450μsec

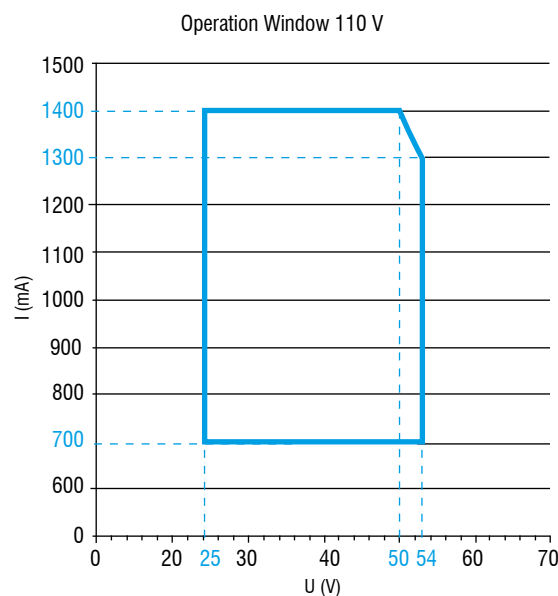
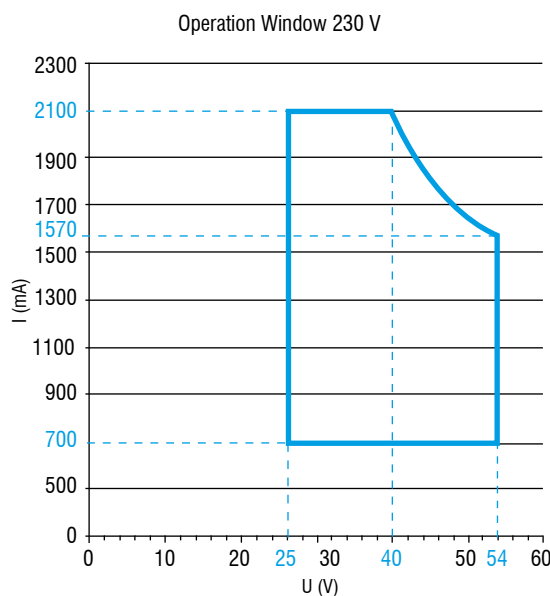
Article Articolo	Code Codice	P out W	V out DC ⁽¹⁾	I out DC	U out V	ta °C	tc °C	λ max. Power Factor	η max. Efficiency ⁽¹⁾
SVM 85 700-2100 110-277V NFC	142070	17...85	25...54	700...2100 mA cost.	60	-25...+50	80	0,85 C ⁽²⁾	> 92 %

⁽¹⁾ Referred to $V_{in} = 230$ V, 100% load - Riferito a $V_{in} = 230$ V, carico 100%

⁽²⁾ Pout > 25 W

Light output level in DC operation: Factory default 100% EOfi=1

Livello di emissione luminosa in funzionamento DC: Impostazioni di fabbrica 100% EOfi=1



Features

- Multipower driver supplied with NFC for the selection of the output current.
- Driver for built-in use for class I lighting equipment; luminaire enclosure is necessary for protection against accidental contact with live parts.
- Active Power Factor Corrector.
- Current regulation ± 5 % including temperature variations.
- Input and output terminal blocks on the opposite sides (wire cross-section up to 1,5 mm² / AWG15)
- Protections:
 - against overheating and short circuits;
 - against mains voltage spikes;
 - against overloads.
- Thermal protection = C.5.a.

Caratteristiche

- Alimentatore multipotenza fornito di NFC per la selezione della corrente in uscita.
- Alimentatore da incorporare in apparecchi di classe I; il contenitore dell'apparecchio è necessario per la protezione contro il contatto di parti attive.
- PFC attivo.
- Corrente regolata ± 5 % incluse variazioni di temperatura.
- Morsetti di entrata e uscita contrapposti (sezione cavo fino a 1,5 mm² / AWG15)
- Protezioni:
 - termica e cortocircuito;
 - contro le extra-tensioni di rete;
 - contro i sovraccarichi.
- Protezione termica = C.5.a.

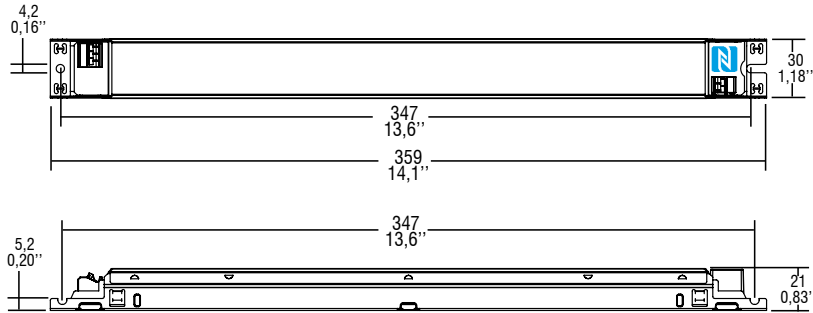


The data shown are preliminary and may change - I dati riportati sono preliminari e potrebbero subire variazioni

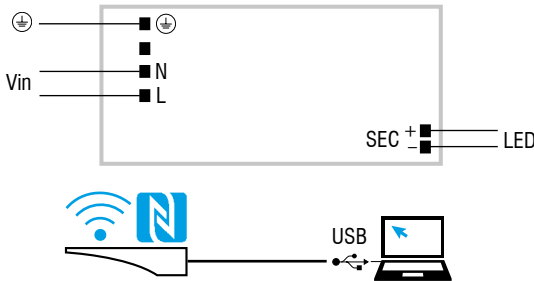
Direct current electronic drivers with NFC
Alimentatori elettronici in corrente continua con NFC

Made in Italy

BUILT-IN SCREW FIXING  Pcs - Pezzi 30
Compatible with ZHAGA (BL2/ZS5 H5D/ ZS5 H7D)



Wiring diagram - Schema di collegamento (Max. LED distance at page info8 - Massima distanza LED a pagina info8)



WIRELESS PROGRAMMING diagram
Collegamento per PROGRAMMAZIONE WIRELESS

Article - Articolo	Code - Codice
NFC-A PROGRAMMING TOOL FEIG ISC.PRH101	127095A
NFC-B PROGRAMMING TOOL FEIG CPR30-USB	127101
LINK TO DOWNLOAD PROGRAMMING SOFTWARE LINK PER SCARICARE SOFTWARE DI PROGRAMMAZIONE	

Operation Mode

- **WIRELESS PROGRAMMING** through **NFC** antenna.
- Programmable features:
 - output current setting, step 1mA.

Modalità di funzionamento

- La **PROGRAMMAZIONE WIRELESS** avviene attraverso l'antenna **NFC**.
- Caratteristiche programmabili:
 - settaggio corrente di uscita, step 1mA.

2.2

Multipower drivers - Linear case - Not dimmable
Alimentatori multipotenza - Formato lineare - Non regolabile

CERTIFICATE OF COMPLIANCE

Certificate Number UL-US-L334411-13-70500202-3
Report Reference E334411-20200507
Date 26-Sep-2023

Issued to: TCI TELECOMUNICAZIONI ITALIA S.R.L
Via Parma 14
Saronno, VA 21047
Italy

**This is to certify that
representative samples of**

FKSZ - Light-emitting-diode Drivers
See Addendum Page for Product Designation(s).

Have been evaluated by UL in accordance with the
Standard(s) indicated on this Certificate.

Standard(s) for Safety: UL 8750, Edition 2, Issue Date 2015-09-15, Revision Date
2022-12-07

Additional Information: See the UL Online Certifications Directory at
<https://iq.ulprospector.com> for additional information

This Certificate of Compliance indicates that representative samples of the product described in the certification report have met the requirements for UL certification. It does not provide authorization to apply the UL Mark. Only the Authorization Page that references the Follow-Up Services Procedure for ongoing surveillance provides authorization to apply the UL Mark.

Only those products bearing the UL Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Certification Mark on the product.


Deborah Jennings-Conner, VP Regulatory Services
UL LLC



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CERTIFICATE OF COMPLIANCE

Certificate Number UL-US-L334411-13-70500202-3
Report Reference E334411-20200507
Date 26-Sep-2023

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements

Model	Category Description
DC MAXI JOLLY SVM 65 YY SLIM, where YY if present may be blank or DALI.	Class P LED driver
MP 65/1400 SVM SLIM	Class P LED driver
SVM 85 700-2100 110-277V XX NFC, Where: XX may be blank or 1-10V or D4i	Class P LED driver

Deborah Jennings-Conner

Deborah Jennings-Conner, VP Regulatory Services

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CERTIFICATE OF COMPLIANCE

Certificate Number UL-CA-L334411-43-70500202-3
Report Reference E334411-20200507
Date 26-Sep-2023

Issued to: TCI TELECOMUNICAZIONI ITALIA S.R.L
Via Parma 14
Saronno, VA 21047
Italy

**This is to certify that
representative samples of**

FKSZ7 - Light-emitting-diode Drivers Certified for Canada
See Addendum Page for Product Designation(s).

Have been evaluated by UL in accordance with the
Standard(s) indicated on this Certificate.

Standard(s) for Safety: CSA C22.2 No. 250.13, Edition 5, Issue Date 2022-05

Additional Information: See the UL Online Certifications Directory at
<https://iq.ulprospector.com> for additional information

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CERTIFICATE OF COMPLIANCE

Certificate Number UL-CA-L334411-43-70500202-3
Report Reference E334411-20200507
Date 26-Sep-2023

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1.2

LINEAR LIGHTING

> 80.000 h
@ tc=85 °C

CRI

> 80

> 90 available online

**Available (CCT)
colour temperature**

3000 K

4000 K

5000 K

2700 K on request - su richiesta

3500 K on request - su richiesta

5700 K on request - su richiesta

6500 K on request - su richiesta

Beam angle

120 °

Ambient temperature

ta: -40...+55 °C

(Only for tc ≤ 85 °C)

Module temperature

tc: 85 °C

**Absolute maximum
operating current:**

800 mA

Standards compliance

CSA-C22.2 no.250

EN 55015

EN 62031

EN 62471

IEC TR 62778

UL 8750

LM70/20E4



LM140/20E8



LM280/20E16



LM560/20E32



Article Articolo	Code Codice	Connector Type	CCT K	Current mA	Flux tc 25°C lm	Flux tc 65°C lm	Power tc 65°C W	Efficacy tc 25°C lm/W	Efficacy tc 65°C lm/W	Vmin. tc 25°C @Imin	Vmax. tc 25°C @Imax
LM70/20E4	128899/830BB	Standard	3000	250	132	123	0,6	192	182	2,8	3
				350	182	170	0,9	187	177		
				500	254	237	1,4	179	169		
	128899/840BB	Standard	4000	250	138	128	0,6	201	190		
				350	190	177	0,9	195	184		
				500	266	248	1,4	187	177		
	128899/850BB	Standard	5000	250	139	130	0,6	203	193		
				350	193	180	0,9	198	187		
				500	269	251	1,4	190	179		
LM140/20E8	128117/830BB	Standard	3000	250	264	246	1,4	192	182	5,5	6
				350	364	339	2	187	177		
				500	509	474	2,8	179	169		
	128117/840BB	Standard	4000	250	275	257	1,4	201	190		
				350	380	354	2	195	184		
				500	531	495	2,8	187	177		
	128117/850BB	Standard	5000	250	279	260	1,4	203	192		
				350	385	359	2	198	187		
				500	538	502	2,8	190	179		
LM280/20E16	128038/830BB	Standard	3000	250	527	492	2,7	192	182	11	12
				350	728	679	3,9	187	177		
				500	1018	949	5,7	179	169		
	128620/830BB	Reverse	4000	250	550	513	2,7	201	190		
				350	760	708	3,9	195	184		
				500	1062	990	5,7	187	177		
	128038/840BB	Standard	5000	250	558	520	2,7	203	192		
				350	770	718	3,9	198	187		
				500	1077	1004	5,7	190	179		
LM560/20E32	128039/830BB	Standard	3000	250	1054	983	5,4	192	182	22	23,9
				350	1456	1358	7,8	188	177		
				500	2036	1898	11,4	179	169		
	128621/830BB	Reverse	4000	250	1100	1026	5,4	201	190		
				350	1520	1417	7,8	195	184		
				500	2124	1980	11,4	187	177		
	128039/840BB	Standard	5000	250	1116	1040	5,4	203	192		
				350	1541	1437	7,8	198	187		
				500	2154	2008	11,4	190	179		

The mentioned data can have a 10% tolerance - Il dato indicato può avere una tolleranza del 10%.

Main features

- Combinable high-quality modules for a smart, performant design. Ideal also for extensive applications. Perfect light uniformity.
- Ideal for [residential, office, retail and industrial lighting](#).
- SELV modules (V < 60 V). Suitable for NON-SELV applications: distance between the voltage area and the board edge ≥ 2,7 mm.
- Extended lifetime > 80.000 h.
- High efficiency: up to 203 lm/W.
- Minimum colour tolerance: 3MacAdam (3SDCM).
- Push-in terminal blocks. Easy module fixing with screws.
- Suitable for emergency applications with TCI inverters.
- Only for professional use, not for final end user.

Caratteristiche principali

- Moduli combinabili di elevata qualità per un design smart e performante, anche estensivo. Luce perfettamente uniforme.
- Moduli ideali per [illuminazione residenziale, uffici, spazi commerciali e industriali](#).
- Moduli SELV (V < 60 V). Idonei per applicazioni NON SELV: distanza tra parte in tensione e bordo scheda ≥ 2,7 mm.
- Lifetime esteso > 80.000 h.
- Elevata efficienza: fino a 203 lm/W.
- Minima tolleranza di colore: 3MacAdam (3SDCM).
- Morsetti a innesto rapido. Fissaggio del modulo semplice mediante viti.
- Moduli alimentabili in emergenza con inverter TCI.
- Prodotto ad uso unicamente professionale. Non per impiego da parte dell'utente finale.



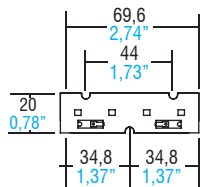
SMART PRO series - Linear modules

Technical features - Caratteristiche tecniche

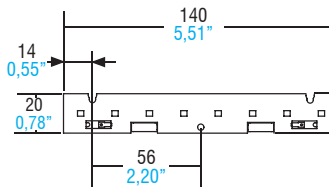
1.2

LINEAR LIGHTING

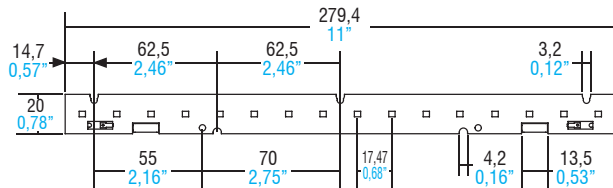
LM70/20E4 (Weight/Peso 0,21 oz. / gr. 6 - Pcs/Pezzi 216)



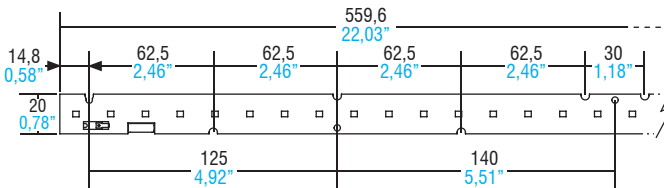
LM140/20E8 (Weight/Peso 0,32 oz. / gr. 9 - Pcs/Pezzi 144)



LM280/20E16 (Weight/Peso 0,63 oz. / gr. 18 - Pcs/Pezzi 72)



LM560/20E32 (Weight/Peso 1,27 oz. / gr. 36 - Pcs/Pezzi 72)



Zhaga compatible holes

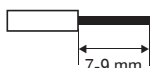
Wiring - Cablaggio



Standard connector



Insert/remove wires by slightly pressing on push-button.
Inserire/rimuovere i cavi premendo leggermente sul pulsante.



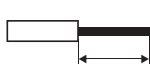
Solid conductor - Conduttore rigido
Fine-stranded conductor - Conduttore flessibile
Fine-stranded conductor with ferrule with plastic collar - Conduttore flessibile con boccia con isolamento in plastica

0,2...0,75 mm² / 24...18 AWG
0,2...0,75 mm² / 24...18 AWG
0,25...0,34 mm²

Reverse connector



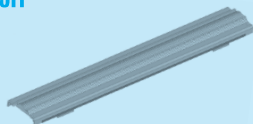
Insert/remove wires by slightly pressing on push-button.
Inserire/rimuovere i cavi premendo leggermente sul pulsante.



Solid conductor - Conduttore rigido
Tinned wire ends within - Conduttore stagnato di sezione

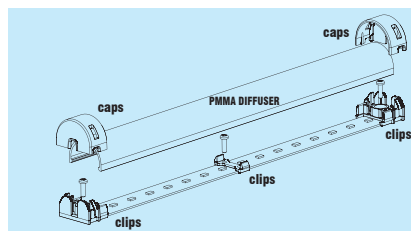
0,2...0,75 mm² / 24...18 AWG
0,2...0,75 mm²

Accessories - Accessori

LINEA CLIP
280 mm / 1 ft

Beam Angle Angolo di orientamento	30°	60°	90°	20° ASYM	±20° Double asymmetric
Code - Codice	468780231	468780232	468780233	468780234	468780235
CAPS FOR PMMA CLIP LENSES		Grey 468780236	Transparent 468780236T		

For technical details SEE SECTION 4. Per dettagli tecnici VEDI SEZIONE 4.



Methacrylate (PMMA) diffuser cover. Cover efficiency 90%.
Cover diffondente in metacrilato (PMMA). Efficienza cover 90%.

Code - Codice	Length - Lunghezza
128998/280	280 mm / 1 ft
128998/560	560 mm / 2 ft
128998/1120	1120 mm / 4 ft
128998/1400	1400 mm / 5 ft

KIT Testatine e Clip di fissaggio
Fixing Caps and Clips KIT

Code - Codice	128999
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Dissipation, assembly

A dissipation of the LED module might be required to guarantee the stated datas of brightness and lifetime. Please verify that the modules Tc does not exceed the maximum values as indicated in the table. It is recommended the use of all the holes for the fixing of the LED module or the use of thermoconductive pastes or adhesives. To avoid any damages to the LED module please use only rounded head screws and an additional plastic flat washer. If the LED modules are wired in parallel and a module fails, all the current flowing through the other LED module increases. This may reduce the lifetime of the LED module.

Handling and Cleaning

Don't give any shock to the LED modules nor store them in a dusty place. Avoid any contacts with any kind of fluid such as oil or organic solvents. It is recommended the use of IPA (isopropyl alcohol) as solvent to clean the LED modules. Before cleaning, a pre-test should be done to verify any possible damages to the LED module.

Static Electricity

Static electricity or surge voltage can damage the LED modules. Always wear anti ESD wrist band or anti ESD gloves when handling the LED modules.

Lifetime

The brightness value of a LED module according to 60.000/80.000 working hours is indicated by letter L. Letter B indicates the number of LEDs that keep the L value also after 60.000/80.000 working hours. TCI LED modules are guaranteed L80B20. In other words the 80% of the LEDs will have 80% or higher rendering after 60.000/80.000 working hours.

Dissipazione e assemblaggio

Per garantire i dati di luminosità e durata indicati può essere necessaria una dissipazione del modulo LED. Verificare che la Tc del modulo non superi i valori massimi indicati nella tabella. Si consiglia l'utilizzo di tutti i fori previsti per il fissaggio del modulo LED o l'utilizzo di pasta o adesivi termoisolanti. Per non danneggiare i moduli LED utilizzare soltanto viti a testa arrotondata e rondelle plastiche piatte. Se i moduli LED sono collegati in parallelo e un modulo si danneggia, tutta la corrente che passa nell'altro modulo LED aumenta. Questo potrebbe ridurre il lifetime del modulo LED.

Uso e pulizia

Non procurare shock ai moduli LED e conservarli in luogo non polveroso. Evitare il contatto con qualsiasi tipo di fluido, come olio o solventi organici. Si raccomanda l'uso di IPA (alcol isopropilico) quale solvente per la pulizia dei moduli LED. Prima di procedere con la pulizia, dovrebbe essere effettuato un pre-test per accertare potenziali danni al modulo LED.

Elettricità statica

L'elettricità statica o le tensioni di rete possono danneggiare i moduli LED. Indossare un braccialetto ESD o guanti ESD durante l'uso dei moduli LED.

Lifetime

Il valore di luminosità di un modulo LED in base a 60.000/80.000 ore di funzionamento è indicato dalla lettera L. La lettera B indica invece il numero dei LED che rispetteranno il valore L dopo 60.000/80.000 ore di funzionamento. I moduli LED TCI sono garantiti L80B20, che significa che l'80% dei LED avrà una resa pari o superiore all'80% dopo 60.000/80.000 ore di utilizzo.

TCI LED modules are not equipped against mains spikes, overloads and short circuits. The use is guaranteed in combination with TCI drivers.

I moduli LED TCI non sono protetti contro extra tensioni, sovraccarichi e cortocircuiti. L'utilizzo è garantito in combinazione con driver TCI.

For additional technical informations please visit our website: www.tci.it

CERTIFICATE OF COMPLIANCE

Certificate Number 20170522-E477306
Report Reference E477306-20151026
Issue Date 2017-MAY-22

Issued to: TCI TELECOMUNICAZIONI ITALIA SRL
VIA PARMA 14, 21047 SARONNO VA ITALY

**This is to certify that
representative samples of** COMPONENT - LIGHT-EMITTING-DIODE ARRAYS,
MODULES AND CONTROLLERS
See Addendum Page for Models

Have been investigated by UL in accordance with the
Standard(s) indicated on this Certificate.

Standard(s) for Safety: CSA C22.2 NO. 250 13-14, Light emitting diode
(LED)equipment for lighting applications
UL 8750, Light Emitting Diode Light Sources for use in
Lighting

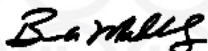
Additional Information: See the UL Online Certifications Directory at
www.ul.com/database for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's
Certification and Follow-Up Service.

The UL Recognized Component Mark generally consists of the manufacturer's identification and catalog
number, model number or other product designation as specified under "Marking" for the particular
Recognition as published in the appropriate UL Directory. As a supplementary means of identifying products
that have been produced under UL's Component Recognition Program, UL's Recognized Component Mark:
, may be used in conjunction with the required Recognized Marks. The Recognized Component Mark is
required when specified in the UL Directory preceding the recognitions or under "Markings" for the individual
recognitions.

Recognized components are incomplete in certain constructional features or restricted in performance
capabilities and are intended for use as components of complete equipment submitted for investigation rather
than for direct separate installation in the field. The final acceptance of the component is dependent upon its
installation and use in complete equipment submitted to UL LLC.

Look for the UL Certification Mark on the product.



Bruce Mahrenholz, Director North American Certification Program

UL LLC

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CERTIFICATE OF COMPLIANCE

Certificate Number 20170522-E477306
Report Reference E477306-20151026
Issue Date 2017-MAY-22

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

Component, Class 2 LED Array

Product Key/Differences between models:

aMxxx/yyezzz nnnnnn/icss

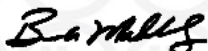
Where:

- a= indicates the shape: L (linear); S (square); F (finger); R (round).
- M= fixed character
- xxx=1st dimension, module length or diameter(20-585 mm). According to the dimensions they can be two or three integer digits
- /yy=2nd dimension (if present), module width (20-55 mm). Two integer digits.
- e= variable `e` alphanumeric character(s) that does not affect safety.
- zz= LED number, (1-72). According to the number of LEDs they can be one, two or three integer digits

The commercial code nnnnnn (e.g. 128038) can be followed by:
i=color rendering index, CRI/10 (e.g. 8)

cc=correlated color temperature, CCT/100

ss= LED type: May be missing, R for LED Samsung LM561B (max. forward current IF=180 mA) or S for LED Samsung LM561B Plus(max. forward current IF=180 mA) or T for Samsung LM561C(max. forward current IF=180 mA), E for LED Samsung LM281B (max. forward current IF=150 mA), or L for LED Lumileds Luxeon 2835C (max. forward current IF=240 mA).



Bruce Mahrenholz, Director North American Certification Program

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