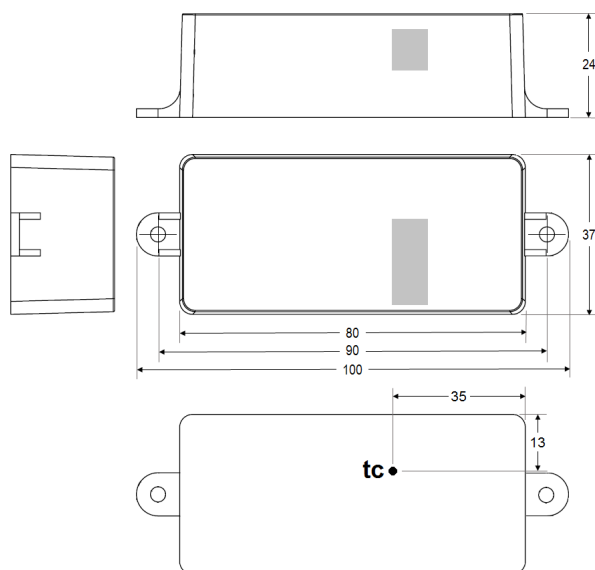
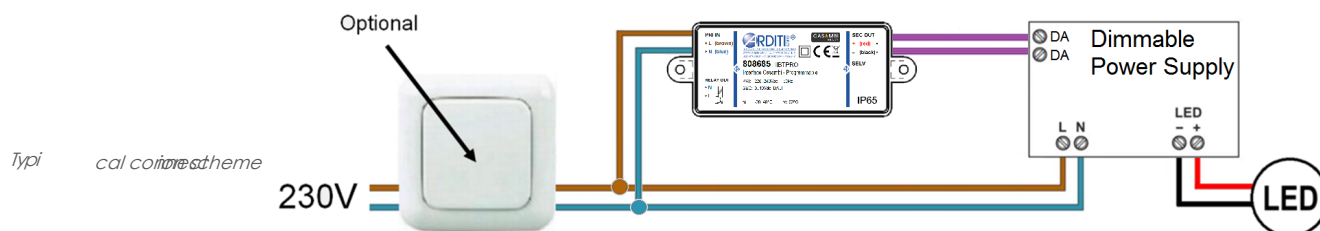


ARDITI IP65 ASD



CASAMBI
READY



IP65

CE

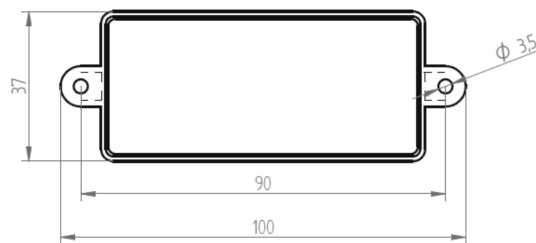
SELV

Technical data

DALI: CCT, RGB, RGB+W, 1..4 CH; 0-10 V

Part no.	808685
Type	IIBTPRO
Power Supply	220..240 Vac; 50 Hz
Radio Signal	2,4..2,483 GHz; 4 dBm
Signal Output	DALI / 0-10 V, max. 7 mA; SELV
Ambient temperature (ta)	-20..+40 °C
Rated max. temp. (tc)	60 °C
Degree of Protection	IP 65
Short Circuit protection	✓
Dimensions	100 x 37 x 24 mm (ohne Kabel without cable)

- Easily operated water protected interface to control LED control gear with DALI or 0-10 V signal input by smartphone or tablet (Apple, Android) with the Casambi app
- Configuration of the other interface types I(U)BTU, I(U)..BTDA is possible before pairing to a network: change profile
- Sends DALI broadcast. Configuration of the other interface types I(U)BTU, I(U)..BTDA is possible before pairing to a network: change profile
- You can setup a gateway, but it is not necessary
- Integrated antenna
(drawing: grey marking, do not cover with metal case)
- Sends DALI broadcast. Configuration of the other interface types I(U)BTU, I(U)..BTDA is possible before pairing to a network: change profile
- 0-10 V: Full switch-off only by switched mains output
- use only with relay between!
- Fixed rubber connection cable 15 cm



CASAMBI
READY

IP65

CE

Technische Daten *Technical data*

Technische Daten <i>Technical data</i>	CCT, RGB, RGB+W, 1..4 CH
Artikelnummer <i>Part no.</i>	808885
Typ <i>Type</i>	DIBTPRO14-144
Versorgungseingang <i>Power supply input</i>	12..24 Vdc
Funksignal <i>Radio signal</i>	2,4..2,483 GHz; 4 dBm
Maximale Ausgangsleistung 12 Vdc <i>Max. output power</i>	72 W
Maximale Ausgangsleistung 24 Vdc <i>Max. output power</i>	144 W
PWM-Frequenz <i>PWM frequency</i>	~ 400 Hz
Umgebungstemperatur <i>Ambient temperature (ta)</i>	-20..+45 °C
Max. Bemessungstemperatur <i>Rated Max. temp. (tc)</i>	75 °C
Schutzart <i>Degree of Protection</i>	IP 65
Abmessungen <i>Dimensions</i>	100 x 37 x 24 mm (ohne Kabel <i>without cable</i>)

- LED dimmer with IP65 Protection, easily operated by smartphone or tablet (Apple, Android) with the CASAMBI app
- For LED strips and other modules for constant voltage
- For up to 4 channels (colour mixture or single light sources) freely configurable
- Free App from CASAMBI (Apple/Android):
 - control of brightness and light colour
 - configuration of luminaires and luminaires networks
 - creation of scenes and animations (colour gradients)
 - automatic detection of new devices
 - intelligent timer and gallery functions
 - protection settings of your luminaires network ("just me", "with password")
- You can setup a gateway, but it is not necessary
- Integrated antenna
drawing: grey marking, do not cover with metal case)
- Fixed rubber connection cables, each 15 cm
- Protection class: 3
- Pollution degree: 1
- Do not insert switches into the secondary circuit!

App for
iOS



App for
Android



olders Technology



■ Description

CAS-UNI-NEMA-5P-81-DA control unit enables easy autonomous control and dimming of DALI devices (drivers, electronic ballasts, etc.). There is no need to use hubs, master devices or complex computer programs.

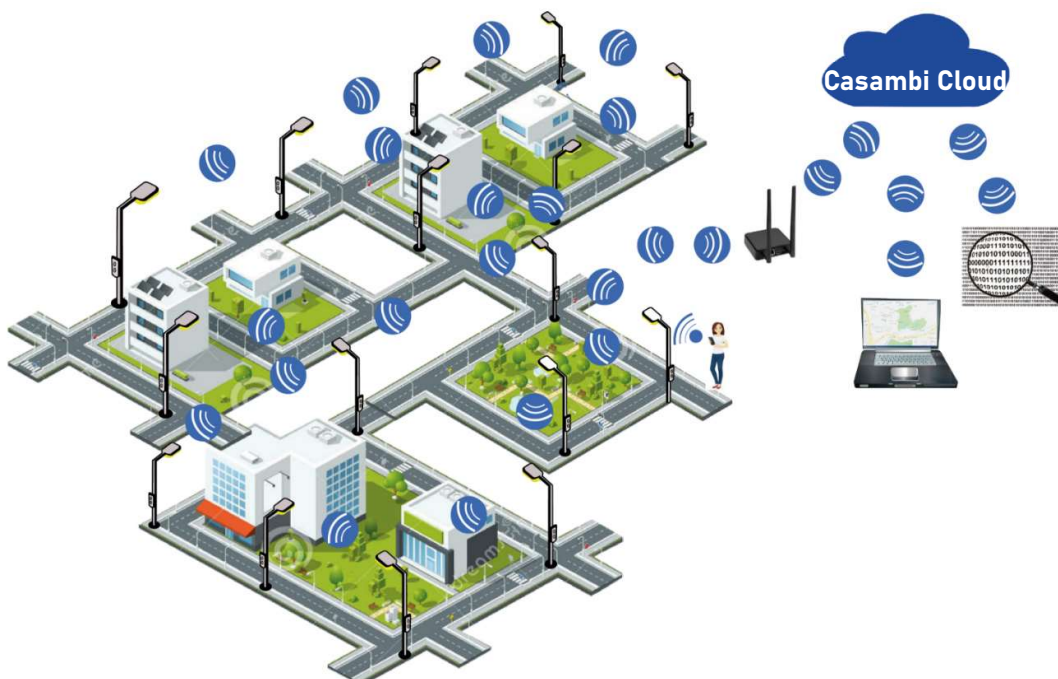
Communication is achieved by a meshed Bluetooth 4.0 network.

Each control unit stores information about its own configuration and also the configuration of the rest of controls installed in the same network. This provides the system with a high robustness level and also simplifies replacement of control units as programming them is not required.

Configuration and control can be done from a mobile phone or tablet using the free CASAMBI APP (available for iOS and Android). The networks work autonomously once configured. Remote control of the installation is also possible through the cloud by use of an internet connected device with Casambi App set up as gateway.

Main use is control of outdoor lighting applications. It is provided with an IP66 UV resistant enclosure. Hydrophobic vent is incorporated to prevent condensation.

Electrical connection and mechanical fixing are done through a standard NEMA socket (ANSI 136.41) by twist and lock, without tools.



■ Operation

By use of CASAMBI APP it is possible to group the luminaries by streets, set dimming levels based on the time, schedule special events for specific dates, etc.

Communication range between controllers is up to 70m outdoors. Adding the controllers to a net must be done individually with a mobile phone or tablet within range of each unit. For further installation setup and programming it is only necessary to be within the range of one of the controllers. Because it is a mesh type network, controllers communicate with each other until the information reaches the controller for which it is intended, even if it is located far away.

Communication security is provided by encrypted messages. It is possible to set different levels of access and configuration permissions. Network configuration information can optionally be stored in CASAMBI cloud and recovered if necessary. Several restoration points can be created. When a controller receives a firmware update, it will automatically be retransmitted to the other controllers.

Each network supports up to 250 controllers. One installation can have unlimited number of networks which can be grouped together in one Site. Through the sites we can control different networks simultaneously, each network must have access to Internet through a Casambi router.

Diverse operating modes are possible (on/off, dimming 0-100%, circadian control, tunable white, etc.).

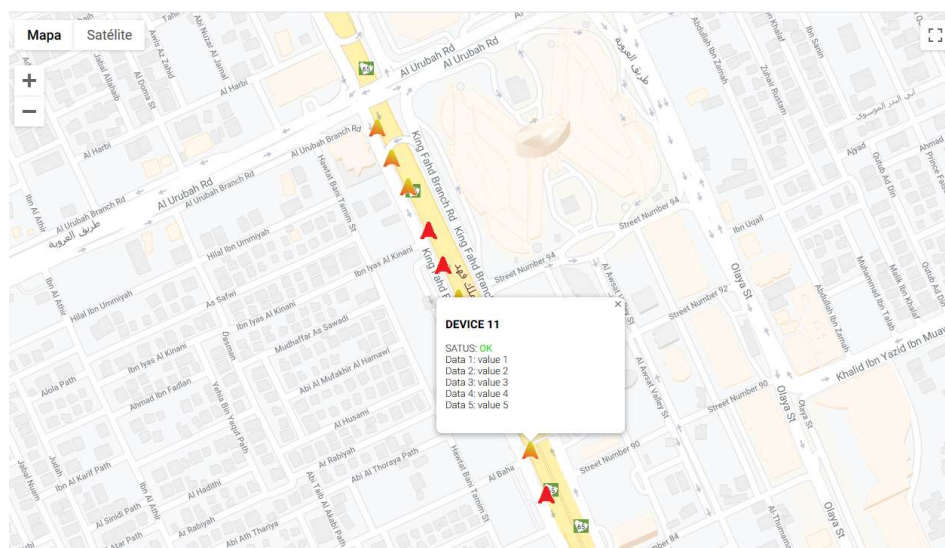
Different communication profiles can be configured to match the luminaire requirements (see profile list).

CAS-UNI-NEMA-5P-81-DA features smart switching capability. It is possible to change between different preset light levels or scenes by flicking the power supply off and on.

Control unit temperature can be monitored in the App. Also internal data of DALI D4i drivers (power, etc).

It is compatible with any other devices from other manufacturers which also incorporate CASAMBI inside and CASAMBI Ready products like luminaires, presence sensors, relays, actuators, push buttons, etc.

CAS-UNI-NEMA-5P-81-DA is IoT ready. It can receive information provided by the associated driver or ballast (power consumption, temperature, etc.) which can be sent to Casambi cloud by a device with internet connection and Casambi App set up as gateway. Access to this big data is possible through API and JSON protocol to exploit this information.



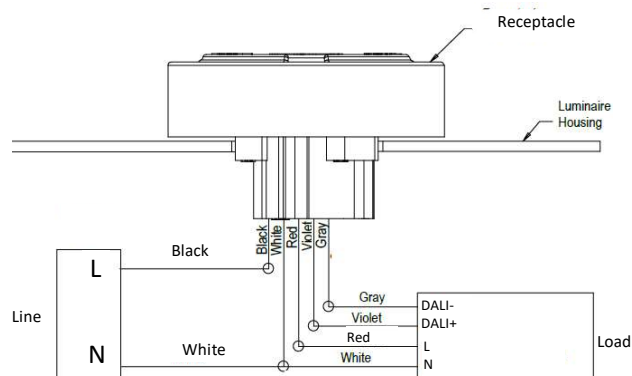
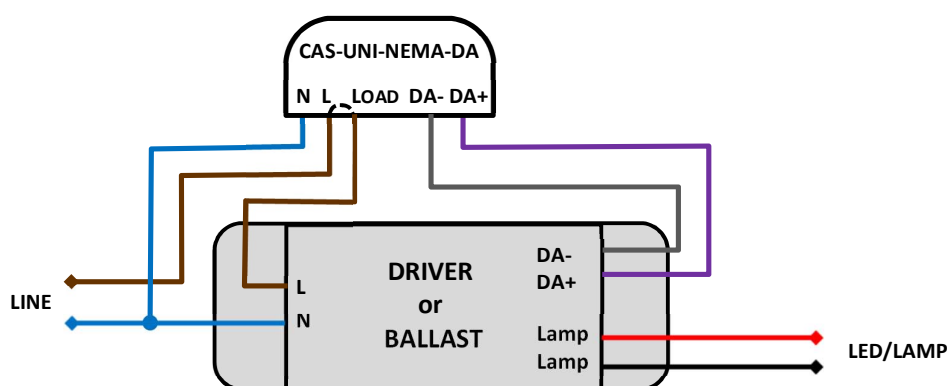
■ Technical data

Nominal line voltage	110-240Vac
Input voltage range	85-305Vac
Frequency	47-60Hz
Power consumption standby	<0,8W@230Vac (DALI bus disconnected)
Power consumption communicating	<1W @230Vac (one DALI device connected)
Output control interface	DALI/DALI2
Integrated DALI voltage source	16VDC (isolated from mains)
DALI output current	100mA max.
LOAD output current	5A max.
Dimming range	0-100%
RF communication interface	Bluetooth 4.0 Low energy (BLE)
RF communication protocol	Casambi
RF spectrum	2402–2483 MHz
RF network	Self-healing, frequency-hopping, spread spectrum mesh technology
Maximum transmission power	+4 dBm
Wireless class	Class 2
Data security	AES128 bit encryption + elliptical cryptography
Firmware update	OTA (Over the air)
Time/date update	Internal counter. Updatable from APP or by use of external timer after power disconnection or through Casambi gateway
Protections	Line permanent overvoltage, line surge overvoltage, temperature
Temperature monitoring	Internal temperature is displayed in Casambi App
Operating temperature range	-40° to +80°C
Dimensions	Diameter 88mm. Height 63mm
Weight	150gr.
Enclosure material	PC with anti-UV treatment
Enclosure isolation type	Reinforced isolation 
IP	66
IK	09
Connector	NEMA 5P (ANSI C136.41)
Standards	EN 61347-1:2016, EN 61347-2-11:2003, EN 55015:2013, EN 61547:2011, EN 61000-3-2, EN 61000-3-3, EN 301489-1, EN 301489-17.
DALI standards	IEC 62386 part 101, 102, 201, 203, 207, 250, 251, 252, 253
Directives	(LVD) 2014/35/UE, (EMC) 2014/30/UE, (RED) 2014/53/UE, (RoHS) 2011/65/UE, (REACH) 1907/2006.

■ Profiles

CAS-NODE (DALI lin Broadcast)	DALI Broadcast orders. Linear dimming curve.
CAS-NODE (DALI Log Broadcast)	DALI Broadcast orders. Logarithmic dimming curve.
CAS-NODE (DALI lin Group)	Controls four DALI groups. Linear dimming curve.
CAS-NODE (DALI Log Group)	Controls four DALI groups. Logarithmic dimming curve.
CAS-NODE (DALI lin DT8 TW Broadcast)	DALI2 DT8 Tunable white broadcast orders. Linear dimming curve.
CAS-NODE (DALI Log DT8 TW Broadcast)	DALI2 DT8 Tunable white broadcast orders. Logarithmic dimming curve.

■ Wiring diagram



The information presented in this document may change without notice

F-System S

A-Series



F5

Model	LPH [m] ①	Pole ②	↓ ③	→ ④	⚖️ ⑤	LU	Luminous Flux [lm]	Power [W]	L1 ⑥	L2 ⑥	H1 ⑥	B1 ⑥
F2	4-10	MK, M-DFC-10 / -11 / -12	0.19	0.07	15.5	2	1,900-7,700	20-65	620	/	77	278
F2-W	/	/	0.18	0.04	14.0	2	1,900-7,700	20-65	620	651	77	278
F3	4-10	MK, M-DFC-10 / -11 / -12	0.19	0.07	15.5	3	2,900-11,600	30-100	620	/	77	278
F3-W	/	/	0.18	0.04	14.0	3	2,900-11,600	30-100	620	651	77	278
F4	4-10	MK, M-DFC-10 / -11 / -12	0.19	0.07	15.5	4	3,800-15,500	40-135	620	/	77	278
F4-W	/	/	0.18	0.04	14.0	4	3,800-15,500	40-135	620	651	77	278
F5	4-10	MK, M-DFC-10 / -11 / -12	0.19	0.07	15.5	5	4,700-17,100	50-145	620	/	77	278
F5-W	/	/	0.18	0.04	14.0	5	4,700-17,100	50-145	620	651	77	278

① In 1 m steps ② Further details on poles see p. 58-61 ③ Projected windage area [m²] ④ Lateral windage area [m²] ⑤ Max. weight ③ ④ ⑤ Excluding pole ⑥ [mm]

Models / Equipment Variations



F2 / F3 / F4 / F5
2-5 Lighting units

- Housing accommodates up to 5 lighting units (LU), 32 / 48 / 64 / 80 LEDs
- Current feed: 200-700 mA, depending on ambient temperature (F5 max. 600 mA)
- Product compatible with A-Series and T-Series (ewoLightTile)
- Electronic operating device with DALI, 1-10 V interface, stand-alone programming or Line Switch available upon request
- Constant lumen output (CLO) and emergency power supply (AC/DC) available upon request
- Smart Lighting: control modules for different communication standards optionally integrated or via external Zhaga interface
- Various light distributions for area, street, walkway lighting and lighting of pedestrian crossings
- Lens made from PMMA
- Cover in single-pane safety glass (ESG)
- Die-cast aluminum housing, pole adapter made of aluminum, swivels from 0 to 90° in 5° increments, for pole-top $\varnothing 76$ mm or $\varnothing 60$ mm
- Finish: polyester powder coating, anthracite (DB 703), other colours upon request

Available Designs



Single



Double



Wall-mounted



IP66 RoHS IK08



Colour Temperatures



2,200 K
CRI ≥ 70



2,700 K
CRI ≥ 70



3,000 K
CRI ≥ 80



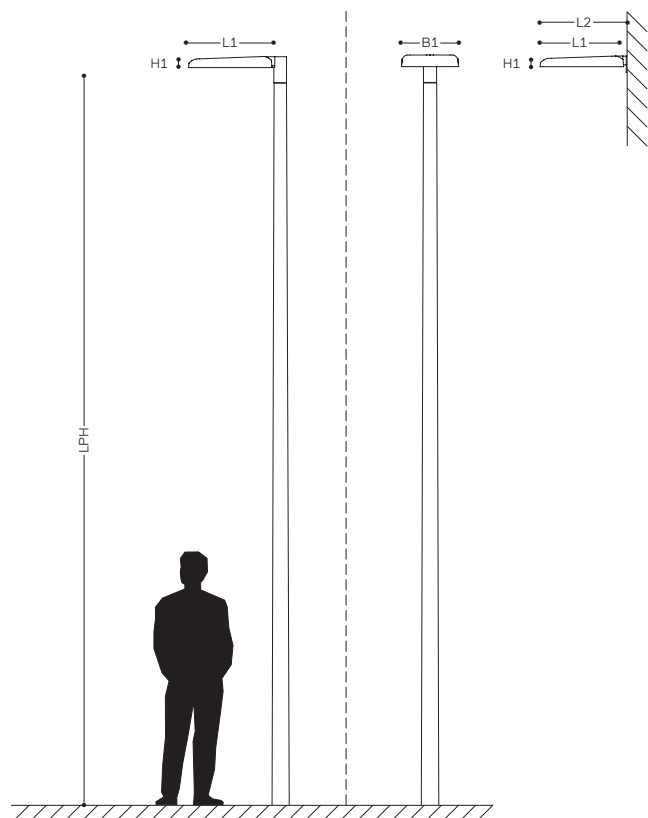
4,000 K
CRI ≥ 70



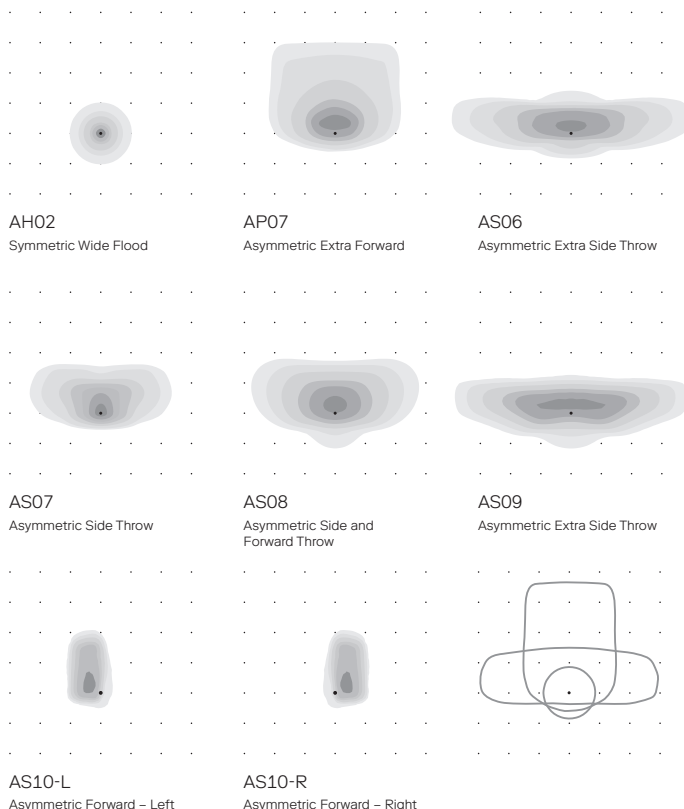
5,700 K
CRI ≥ 70

CRI ≥ 80 , other colour rendering indexes available upon request

Dimension (values see table)

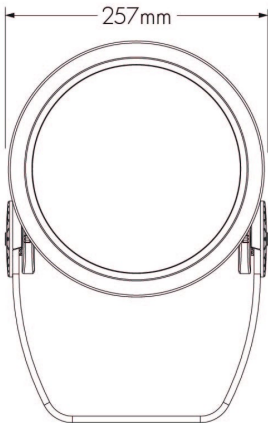


Light Distributions (also available in satiné version)

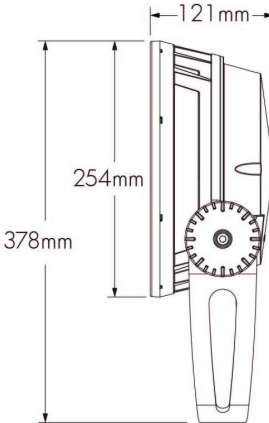


Project Name _____ Qty _____

Type _____ Catalog / Part Number _____



Front view



Side view

Photometric Summary

Symmetric

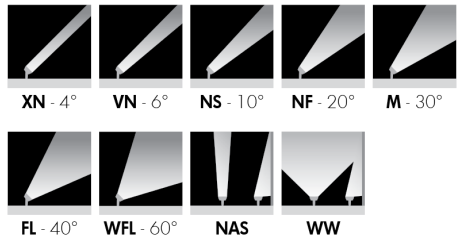
	Delivered output (lm)	Intensity (peak cd)
XN (4°)	3,273	295,070
VN (6°)	3,013	156,978
NS (10°)	5,039	75,098
NF (20°)	5,157	48,366
M (30°)	4,725	25,678
FL (40°)	4,225	10,426
WFL (60°)	4,205	4,252

Asymmetric

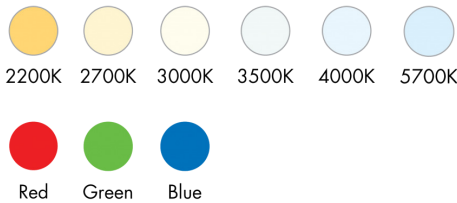
NAS	3,352	51,627 (@2.5°)
WW	4,131	12,658 (@5°)

Based on 4000K configuration.
Photometric performance is measured in compliance with IESNA LM-79-08.

Optics



Colours and Colour Temperatures



Controls

ON/OFF 1-10V DALI



Description

The Lumenbeam Large is an IP66-rated luminaire for lighting landscapes, trees, columns, monuments, and architectural details. It has numerous options, including optics for flood or accent lighting, a choice of colour temperatures and colours, as well as various accessories, spread lenses, and controls. The luminaire also has an anti-corrosion option for use in harsh, chemical, or coastal environments.

Features

Colour and Colour Temperature	2200K, 2700K, 3000K, 3500K, 4000K, 5700K, Red, Green, Blue
Optics (nominal distribution)	XN (4°), VN (6°), NS (10°), NF (20°), M (30°), FL (40°), WFL (60°), NAS (Narrow Asymmetric), WW (Asymmetric Wallwash)
Optical Option	Linear spread lens horizontal distribution, Linear spread lens vertical distribution
Options	Short Yoke, 3G ANSI C136.31-2010 Vibration Rating for bridge applications, Corrosion-resistant coating for hostile environments
Cable Colour	Black, White
Power Consumption	50 W
Warranty	5-year limited warranty

Performance

Maximum Delivered Output	5157 lm (4000K, NF 20°)
Maximum Delivered Intensity	295,070 cd at nadir (4000K, XN 4°)
Illuminance at Distance	Minimum 1 lx at 543 m (4000K, XN 4°)
Colour Consistency	3 SDCM
Colour Rendering	Minimum CRI 80
Lumen Maintenance	L70 B50 > 250,000 hrs (Ta 25 °C) (> 80,000 hrs for XN 4°, VN 6°, NAS optics only)

Physical

Housing Material	Low copper content high pressure die-cast aluminium
Yoke Material	Heavy aluminium (standard yoke included)
Lens Material	Clear tempered glass

Ratings

IP66 IK10

Certifications



Hardware Material	Stainless steel
Gasket Material	Silicone
Surface Finish	Electrostatically applied polyester powder coat
Weight	5.44 kg
EPA	Front = 0.06 sq m, Side = 0.02 sq m

Electrical and control

Voltage	100 to 277 volts
Fixture Cable	Power and data in one cable
Conductors	3C: 3 x 1,5 mm ² (NO, LT control), 5C: 5 x 1,5 mm ² (DIM, DALI, ES control), 6C: 3 x 1,5 mm ² / 3 x 0,20 mm ² (DMX/RDM control)
Inrush Current (peak)	55A @230VAC
Control	On/Off control, Lumentalk, 1-10V dimming, DALI dimming, Lutron® EcoSystem® Enabled dimming, DMX/RDM enabled
Resolution (DMX/RDM)	Per fixture, 8-bit or 16-bit

Environmental

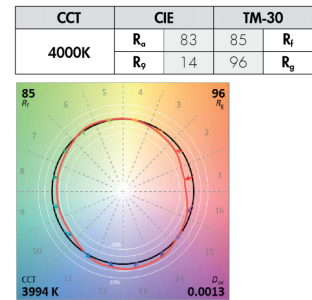
Storage Temperature	-40 °C to 70 °C (device must reach start-up temperature value before operating)
Start-up Temperature	-25 °C to 50 °C
Operating Temperature	-40 °C to 50 °C
Ingress Protection Rating	IP66
Impact Resistance Rating	IK10

Accessories (order separately)

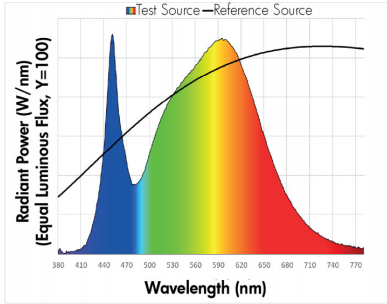
Optical Accessories	Snoot, Snoot wide, Visor, Linear Spread Lens Adjustable, Wire guard
Control Boxes	DMX/RDM enabled (daisy chain or star configuration), Ethernet enabled (daisy chain or star configuration)
Control Systems	Pharos® kit (PHAROS)
Diagnostic and Addressing Tools	LumenID (LID), LumentalkID

Chromaticity Data

TM-30 - 4000K

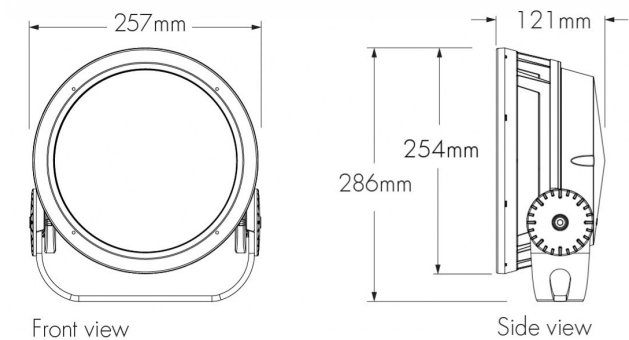


Spectral Power Distribution



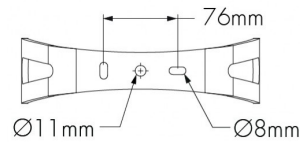
Mounting options

SY - Short yoke

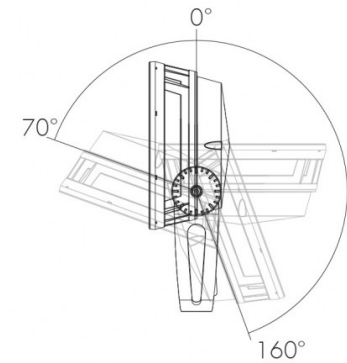


Mounting details

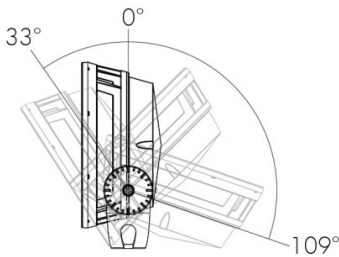
Mounting hole pattern - standard and short yoke



Adjustable pivot limits



Standard yoke



Short yoke

Optical options

LSLH - Linear spread lens horizontal distribution



LSLH - Linear spread lens horizontal distribution

LSLV - Linear spread lens vertical distribution



Beam angles

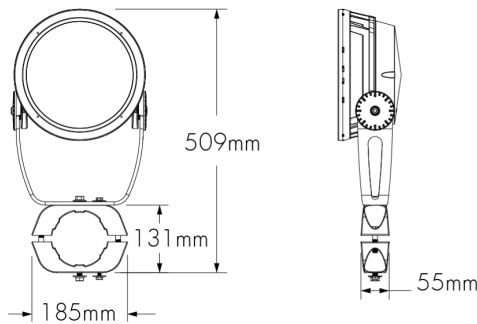
Optic installed in fixture	Beam angle with LSLH/LSLV
XN	5° x 60°
VN	7° x 60°
NS	13° x 66°
NF	16° x 62°
M	23° x 65°
FL	33° x 70°

LLF: 0.88*
*LLF may vary slightly by distribution chosen.

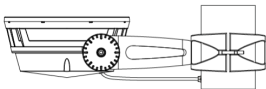
Factory installed, not adjustable on site. Not available for WFL, NAS and WW optics.
See 'Optical Accessories' section for field adjustable spread lens (LSLA).

Mounting accessories (order separately)

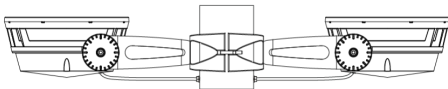
Round pole mounting accessory



PM4 model shown. Consult factory for square pole section.



PM4-1, PM4.5-1, PM5-1 - Round pole mounting accessory - single fixture

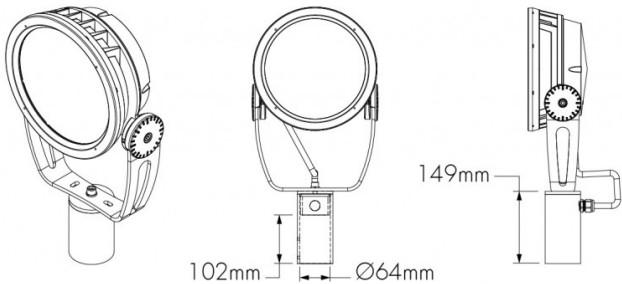


PM4-2, PM4.5-2, PM5-2 - Round pole mounting accessory - twin fixtures
*One bracket assembly is supplied per 2 fixtures unless otherwise specified.

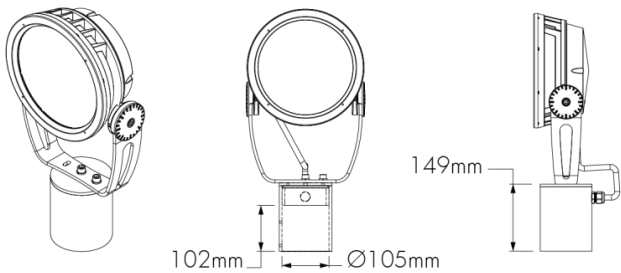
	PM4	PM4.5	PM5
For pole Ø	101.6mm ± 1.6mm	114.3mm ± 1.6mm	127mm ± 1.6mm

Consult factory for other pole diameters.

Tenon adapter



TN2 - Tenon adapter to fit on 60 mm O.D. tenon
Vertical mounting only. Consult factory for horizontal mounting.



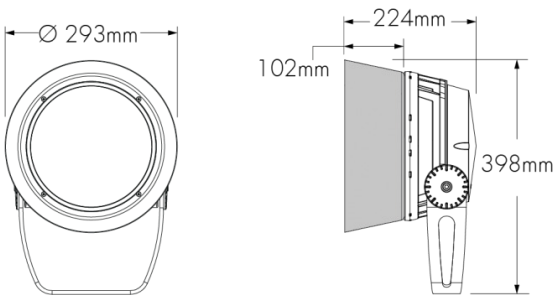
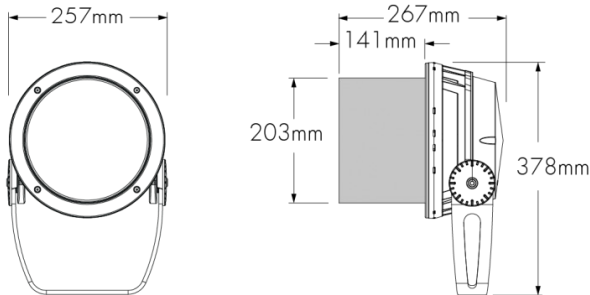
TN4 - Tenon adapter to fit on 102 mm O.D. tenon
Vertical mounting only. Consult factory for horizontal mounting.

Optical accessories (order separately)

Installed optical accessories will affect the maximum pivot limits for each mounting option, consult factory for details.

SN - Snoot

SNW - Snoot wide

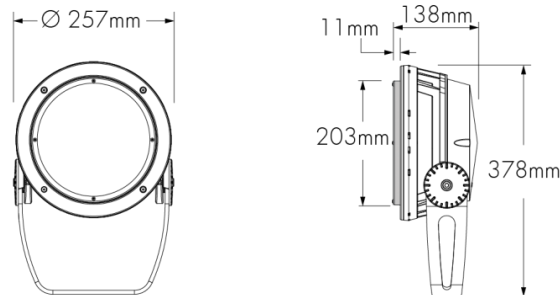
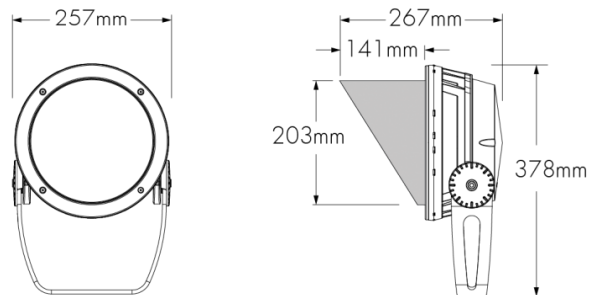


LBLSN-FINISH-BK-OPTIONS (CRC)
Interior surface painted black. Please specify the exterior **FINISH** from the list of finishes in the fixture order code.

LBLSNW-FINISH-BK-OPTIONS (CRC)
Interior surface painted black. Please specify the exterior **FINISH** from the list of finishes in the fixture order code.

VS - Visor

LSLA - Linear spread lens adjustable

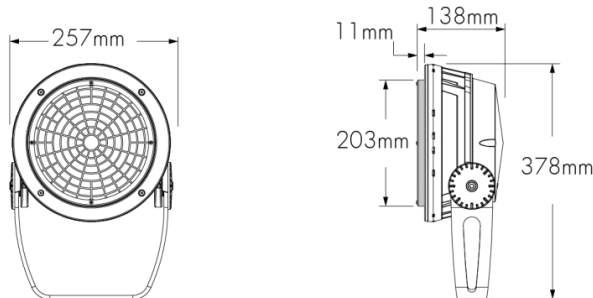


LBLSVS-FINISH-BK-OPTIONS (CRC)
Interior surface painted black. Please specify the exterior **FINISH** from the list of finishes in the fixture order code.

LBLSLA-FINISH-OPTIONS (CRC)
Please specify the exterior **FINISH** from the list of finishes in the fixture order code.

WG - Wire guard

Accessory combinations



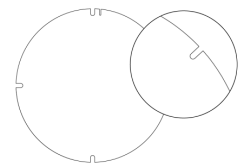
+	Snoot	Snoot wide	Visor
Linear spread lens adjustable	LBLSNLSLA	N/A *	LBLSLSLA
Wire guard	LBLSNWG	N/A	LBLSWG

LBLSWG-FINISH-OPTIONS (CRC)
Please specify the exterior **FINISH** from the list of finishes in the fixture order code.

Accessory combinations must be ordered together on a single line
Ex: A snoot + wire guard combination order code is **LBLSNWG-FINISH-BK-OPTIONS**. A maximum of two accessories can be combined per fixture.
*Consult factory for a linear spread lens adjustable + snoot wide combination.

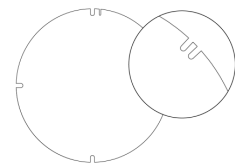
Diffuser lenses (intended for mockup purposes only, order separately)

Diffuser lens 1 (1 notch)



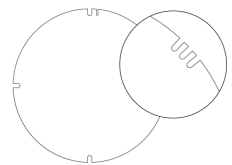
147677

Diffuser lens 2 (2 notches)



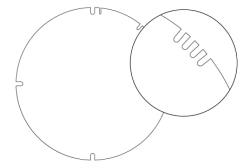
147678

Diffuser lens 3 (3 notches)



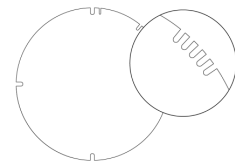
147679

Diffuser lens 4 (4 notches)



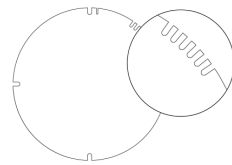
147680

Diffuser lens 5 (5 notches)



147681

Diffuser lens 6 (6 notches)



147682

Final distribution using diffuser lenses

Original Distribution on Fixture	Final Distribution Using Diffuser Lens					
	Diffuser Lens 1 1 Notch	Diffuser Lens 2 2 Notches	Diffuser Lens 3 3 Notches	Diffuser Lens 4 4 Notches	Diffuser Lens 5 5 Notches	Diffuser Lens 6 6 Notches
XN (4°/5°)	VN	NS				
VN (6°)	NS		NF	M	FL	WFL
NS (10°)						
NF (20°)				FL	WFL	
M (30°)						
FL (40°)						
WFL (60°)						

Choose a diffuser lens based on the desired final beam distribution. Refer to the 6-digit part numbers above to order diffuser lenses individually. To order a complete set of 6 diffuser lenses in a bag, refer to the following item names: **LBS**: LBALK-S **LBM/LBMP**: LBALK-M **LBL/LBLP**: LBALK-L **LBG/LBGP**: LBALK-G **LBX/LBXP**: LBALK-X.

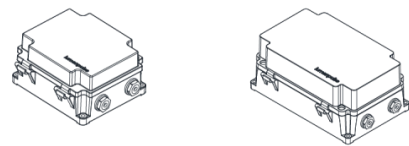
The diffuser lenses are intended for mockup purposes only. A lens holder is required to install a diffuser lens on the fixture, order separately using the following names: **LBS**: LBSLSLA-FINISH-LBALK **LBM/LBMP**: LBMLSLSLA-FINISH-LBALK **LBL/LBLP**: LBLLSLA-FINISH-LBALK **LBG/LBGP**: LBGLSLA-FINISH-LBALK **LBX/LBXP**: LBXLSLA-FINISH-LBALK

Please specify the exterior **FINISH** from the list of finishes in the fixture order code.

Refer to the Diffuser Lens Installation Instructions on the Lumenpulse website for information on installing the diffuser lenses.

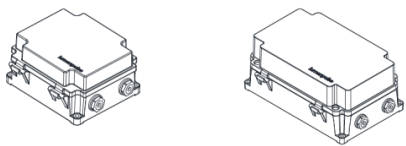
Control boxes (order separately)

CBX-DMX/RDM - DMX/RDM enabled (daisy chain or star configuration)



DMX/RDM control box. Up to six power and data outputs to fixtures or fixture runs. Consult CBX specification sheet and installation instructions for details. Lumenterminators provided with CBX (2x for daisy chain configuration, 6x for star configuration), consult factory to order spares.

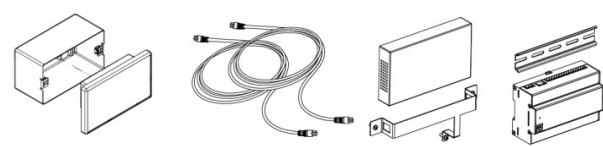
CBX-ENET - Ethernet enabled (daisy chain or star configuration)



Ethernet control box. Up to four power and data outputs to fixture or fixture runs. Consult Ethernet CBX specification sheet and installation instructions for details.

Control systems (order separately)

PHAROS - Pharos® kit



The Pharos kit, available for 1 or 2 DMX universes, allows for complete control of large lighting installations. 2 DMX universes kit shown.

Diagnostic and addressing tools (order separately)

LID - LumenID



LumenID is a diagnostic and addressing DMX/RDM tool. It must be specified on all DMX applications. Consult LID specification sheet for details.

LID-LT - LumentalkID



LumentalkID is a diagnostic and addressing tool. It must be specified for all Lumentalk (LT) applications. Consult LID-LT specification sheet for details.

EPA Guide

	LBL	LBL with snoot	LBL with visor	LBL with snoot wide
				
EPA front (m²)	0.060	0.060	0.060	0.094
EPA side (m²)	0.020	0.044	0.044	0.042

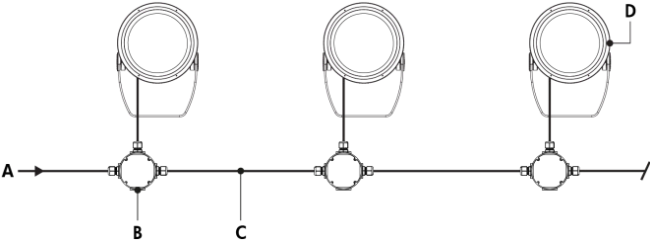
Typical wiring diagrams

Wiring colour code

CE Colour Code	USE
Yellow/Green	Ground
Brown	Line
Blue	Line/Neutral
Black or Purple	1-10V / Data +
Grey or Orange	1-10V / Data -
Grey	Signal common (DMX/RDM only)

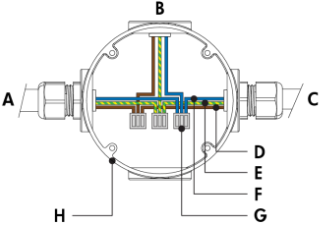
CE Class II Colour Code		USE
All other controls	DMX/RDM	
Brown	Brown	Line
Blue	Blue	Line/Neutral
Black 1	Grey	Signal common (DMX/RDM only)
Black 2	Black or Purple	1-10V / Data +
Grey	Grey or Orange	1-10V / Data -
N/A	Yellow/Green	Ground (do not connect)

On/Off Control (NO)



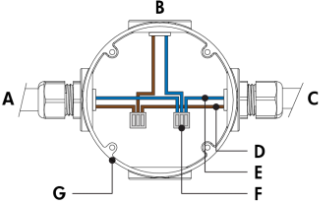
- A - Power input (100-277V AC, wiring by others)
- B - Junction box (by others)
- C - Power wiring (by others)
- D - Lumenbeam Large

On/Off control (NO) - wiring detail - CE



- A - Power input or from previous fixture
- B - To fixture
- C - To next fixture
- D - Line
- E - Ground
- F - Line/Neutral
- G - Terminal connector (by others)
- H - Junction box (by others)

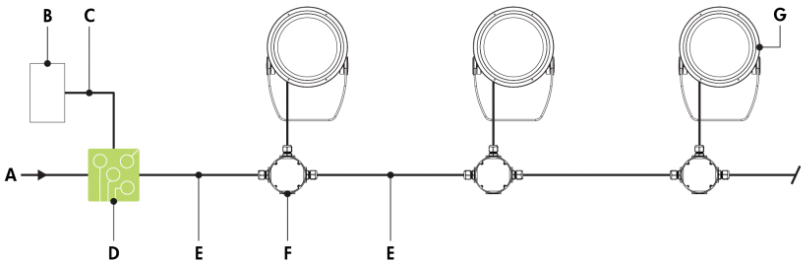
On/Off control (NO) - wiring detail - CE Class II



- A - Power input or from previous fixture
- B - To fixture
- C - To next fixture
- D - Line
- E - Line/Neutral
- F - Terminal connector (by others)
- G - Junction box (by others)

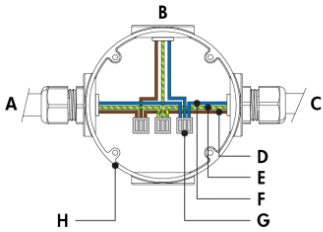
- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- 50 watts per fixture.

Lumentalk (LT)



- A** - Power input (100-277V AC, wiring by others)
- B** - Dimmer/controller (order separately from Lumenpulse, or by others)
- C** - Data wiring (by others)
- D** - Lumentranslator 2 (LTL2-DIM, -DMX, -TRIAC, -DALI)
- E** - Power wiring (by others)
- F** - Junction box (by others)
- G** - Lumenbeam Large

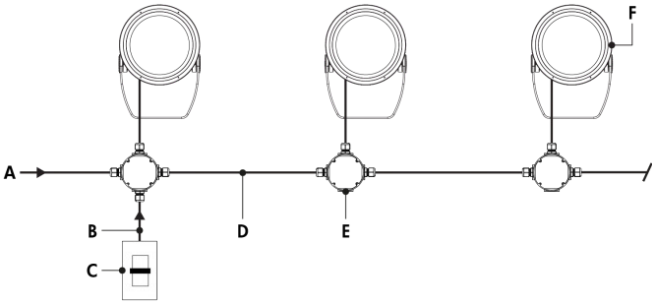
Lumentalk (LT) - wiring detail - CE



- A** - Power input (control over power line via Lumentalk system) or from previous fixture
- B** - To fixture
- C** - To next fixture
- D** - Line
- E** - Ground
- F** - Line/Neutral
- G** - Terminal connector (by others)
- H** - Junction box (by others)

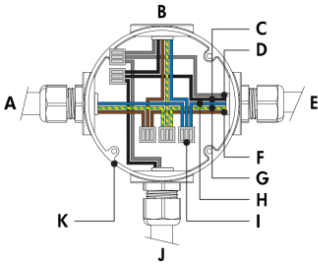
- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- Lumentalk enabled fixtures must be commissioned using LumentalkID software and a LID-LT. Consult factory for details.
- Maximum of 1 transmitter (Lumentranslator or Lumenlink) per system.
- No third party fixtures allowed on the same circuit.
- For DMX applications: 1 DMX controller per Lumentalk network, maximum of 48 DMX channels per Lumentalk network (minimum step transition update rate is 1 second, minimum fade time between two colours is 1 minute). Consult factory for applications that require additional capabilities.
- Consult factory for DALI Lumentalk applications.
- 1% minimum dimming value.
- 50 watts per fixture.

1-10V dimming (DIM)



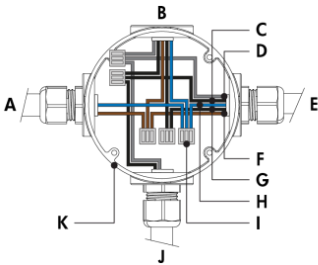
- A - Power input (100-277V AC, wiring by others)
- B - Data wiring (by others)
- C - Dimmer (by others)
- D - Power and data wiring (by others)
- E - Junction box (by others)
- F - Lumenbeam Large

1-10V dimming (DIM) - wiring detail - CE



- A - Power input or from previous fixture
- B - To fixture
- C - 1-10 V +
- D - 1-10 V -
- E - To next fixture
- F - Line
- G - Ground
- H - Neutral
- I - Terminal connector (by others)
- J - From dimmer (by others)
- K - Junction box (by others)

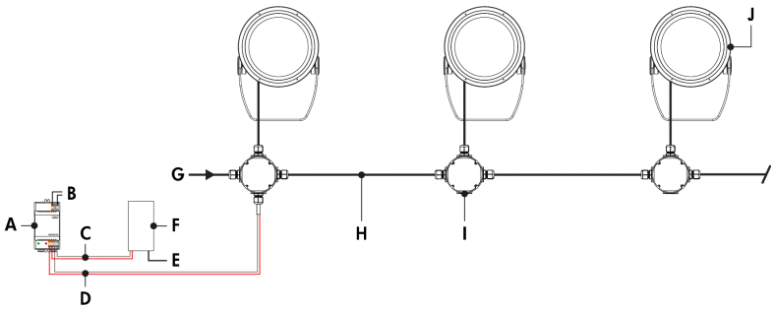
1-10V dimming (DIM) - wiring detail - CE Class II



- A - Power input or from previous fixture
- B - To fixture
- C - 1-10 V + (black 2)
- D - 1-10 V -
- E - To next fixture
- F - Line
- G - Signal common (black 1)
- H - Neutral
- I - Terminal connector (by others)
- J - From dimmer (by others)
- K - Junction box (by others)

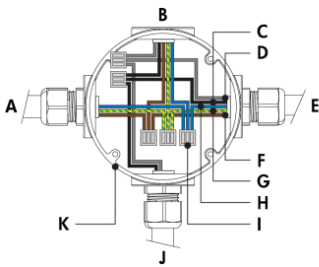
- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- 1-10V mA ratings: passive dimmer (Current Sink): 3mA per fixture, active dimmer (Current Source): 0.5mA per fixture.
- 1% minimum dimming value.
- 50 watts per fixture.

DAI dimming (DAI)



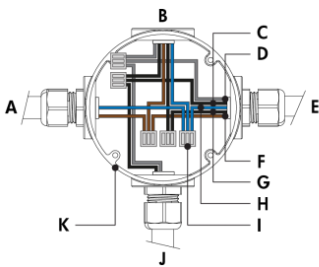
- A - DALI bus power supply (by others)
- B - Power input for DALI bus power supply (wiring by others)
- C - Data output to DALI controller (wiring by others)
- D - Data output to fixture (wiring by others)
- E - Power input for DALI controller (if required, wiring by others)
- F - DALI controller (by others)
- G - Power input (100-277V AC, wiring by others)
- H - Power and data wiring (by others)
- I - Junction box (by others)
- J - Lumenbeam Large

DAI dimming (DAI) - wiring detail - CE



- A - Power input or from previous fixture
- B - To fixture
- C - DA +
- D - DA -
- E - To next fixture
- F - Line
- G - Ground
- H - Neutral
- I - Terminal connector (by others)
- J - From DALI controller (by others)
- K - Junction box (by others)

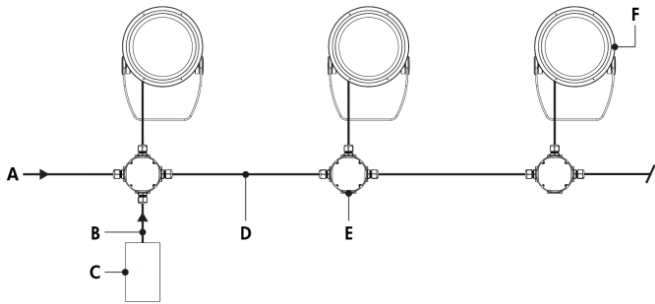
DAI dimming (DAI) - wiring detail - CE Class II



- A - Power input or from previous fixture
- B - To fixture
- C - DA + (black 2)
- D - DA -
- E - To next fixture
- F - Line
- G - Signal common (black 1)
- H - Neutral
- I - Terminal connector (by others)
- J - From DALI controller (by others)
- K - Junction box (by others)

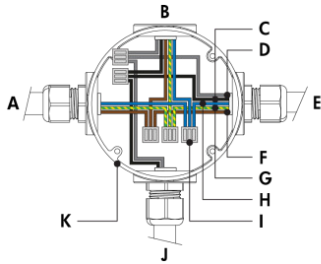
- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- Maximum of 64 DALI fixtures per DALI loop.
- Commissioning may be required based on the selection of 3rd party DALI controller. Controller and commissioning provided by others.
- 1% minimum dimming value.
- 50 watts per fixture.

Lutron® EcoSystem® Enabled dimming (ES)



- A - Power input (100-277V AC, wiring by others)
- B - Data wiring (by others)
- C - Lutron® EcoSystem® controller (by others)
- D - Power and data wiring (by others)
- E - Junction box (by others)
- F - Lumenbeam Large

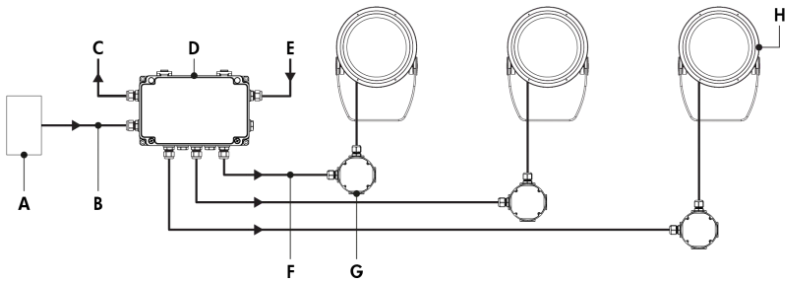
Lutron® EcoSystem® Enabled dimming (ES) - wiring detail - CE



- A - Power input or from previous fixture
- B - To fixture
- C - Data +
- D - Data -
- E - To next fixture
- F - Line
- G - Ground
- H - Neutral
- I - Terminal connector (by others)
- J - From Lutron® EcoSystem® controller (by others)
- K - Junction box (by others)

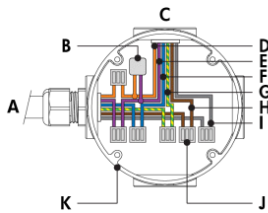
- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- Each Lutron® EcoSystem® enabled fixture has its own address; for the example shown, there are a total of 3 EcoSystem® addresses.
- 1% minimum dimming value.
- 50 watts per fixture.

Star Layout (DMX/RDM)



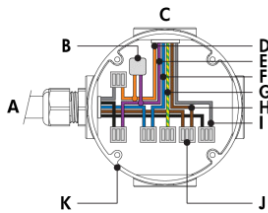
- A - DMX/RDM controller (order separately from Lumenpulse, or by others)
- B - Data input (Belden 9841 or equivalent, by others)
- C - Data output to next CBX (optional, not isolated/not boosted)
- D - CBX-ST
- E - Power input (100-277V AC, wiring by others)
- F - Power and data output to fixture (wiring by others)
- G - Junction box (by others)
- H - Lumenbeam Large

Star Layout (DMX/RDM) - wiring detail - CE



- A - From CBX
- B - Lumenterminator
- C - To fixture
- D - Data -
- E - Data +
- F - Neutral
- G - Ground
- H - Line
- I - Signal common
- J - Terminal connector (by others)
- K - Junction box (by others)

Star Layout (DMX/RDM) - wiring detail - CE Class II



- A - From CBX
- B - Lumenterminator
- C - To fixture
- D - Data -
- E - Data +
- F - Neutral
- G - Ground (do not connect)
- H - Line
- I - Signal common
- J - Terminal connector (by others)
- K - Junction box (by others)

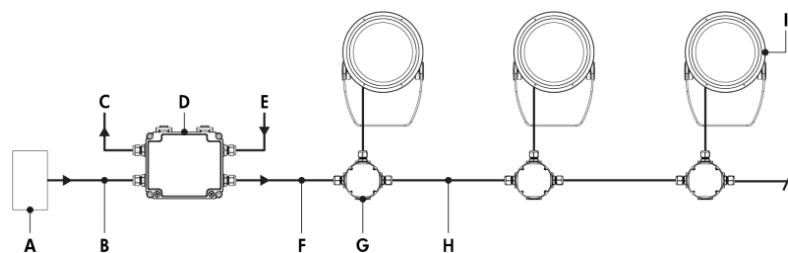
Maximum fixture count per run

Configuration/Voltage	120V	208V	240V	277V
LBL	18	28	32	32

Based on 16A maximum, 1,5 mm² cable, fixtures spaced 3 m on centre, first fixture 15 m from CBX.

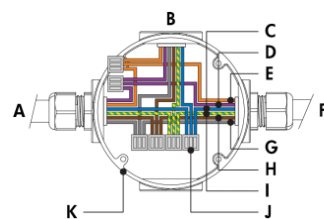
- Consult CBX installation instructions for additional wiring details.
- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- Run length calculations are based on a voltage drop of no more than 25V.
- The DMX/RDM protocol states a maximum of 32 DMX/RDM enabled fixtures on any single run.
- Maximum of 4 DMX/RDM repeaters/CBX cascading in line.
- Maximum of 6 outputs per CBX-ST.
- Each fixture requires 1 DMX address.
- DMX terminator is required at the end of each run to maintain data integrity. Six (6x) DMX lumenterminators included per CBX-ST. See installation instructions for details.
- 1% minimum dimming value.
- 50 watts per fixture.

Daisy Chain Layout (DMX/RDM)



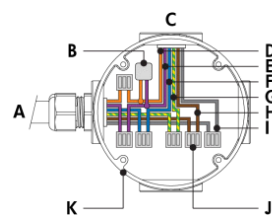
- A** - DMX/RDM controller (order separately from Lumenpulse, or by others)
- B** - Data input (Belden 9841 or equivalent, by others)
- C** - Data output to next CBX (optional, not isolated/not boosted)
- D** - CBX-DS
- E** - Power input (100-277V AC, wiring by others)
- F** - Power and data output to fixture (wiring by others)
- G** - Junction box (by others)
- H** - Power and data wiring (by others)
- I** - Lumenbeam Large

Daisy Chain Layout (DMX/RDM) - wiring detail (first or middle of run) - CE



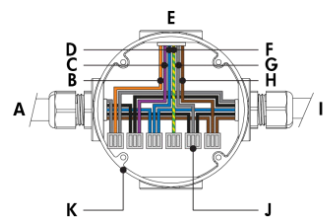
- A** - From CBX or previous fixture
- B** - To fixture
- C** - Neutral
- D** - Data +
- E** - Data -
- F** - To next fixture
- G** - Signal common
- H** - Line
- I** - Ground
- J** - Terminal connector (by others)
- K** - Junction box (by others)

Daisy Chain Layout (DMX/RDM) - wiring detail (end of run) - CE



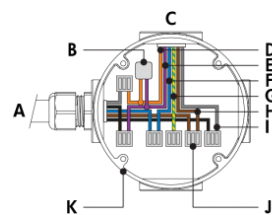
- A** - From CBX or previous fixture
- B** - Lumenterminator
- C** - To fixture
- D** - Data -
- E** - Data +
- F** - Neutral
- G** - Ground
- H** - Line
- I** - Signal common
- J** - Terminal connector (by others)
- K** - Junction box (by others)

Daisy Chain Layout (DMX/RDM) - wiring detail (first or middle of run) - CE Class II



- A** - From CBX or previous fixture
- B** - Data -
- C** - Data +
- D** - Neutral
- E** - To fixture
- F** - Ground (do not connect)
- G** - Signal common
- H** - Line
- I** - To next fixture
- J** - Terminal connector (by others)
- K** - Junction box (by others)

Daisy Chain Layout (DMX/RDM) - wiring detail (end of run) - CE Class II



- A** - From CBX
- B** - Lumenterminator
- C** - To fixture
- D** - Data -
- E** - Data +
- F** - Neutral
- G** - Ground (do not connect)
- H** - Line
- I** - Signal common
- J** - Terminal connector (by others)
- K** - Junction box (by others)

Maximum fixture count per run

Configuration/Voltage	120V	208V	240V	277V
LBL	18	28	32	32

Based on 16A maximum, 1,5 mm² cable, fixtures spaced 3 m on centre, first fixture 15 m from CBX.

- Consult CBX installation instructions for additional wiring details.
- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- Run length calculations are based on a voltage drop of no more than 25V.
- The DMX/RDM protocol states a maximum of 32 DMX/RDM enabled fixtures on any single run.
- Maximum of 4 DMX/RDM repeaters/CBX cascading in line.
- Maximum of 1 output per CBX-DS.
- Maximum of 0.9 m cable length between fixture and next junction box for daisy chain layout.
- Each fixture requires 1 DMX address.
- DMX terminator is required at the end of each run to maintain data integrity. Two (2x) DMX lumenterminators included per CBX-DS. See installation instructions for details.
- 1% minimum dimming value.
- 50 watts per fixture.

How to order

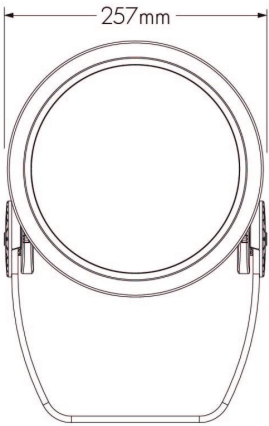
Housing	Voltage	Colour and Colour Temperature ⁽¹⁾	Optics	Optical Option ^{(4) (6)}	Finish	Control	Options	Certification	Cable Length ^{(13) (17)}	Cable Colour
LBL Lumenbeam™ Large	100 100 volts	22K 2200K	XN Extra Narrow 4° ⁽³⁾	LSLH Linear spread lens horizontal distribution ⁽⁵⁾ LSLV Linear spread lens vertical distribution ⁽⁵⁾	BK Black Sandtex®	NO On/Off control	SY Short Yoke	UL UL compliant ⁽¹⁶⁾	1M 1 m ^{(13) (17)}	BK Black
	120 120 volts	27K 2700K	VN Very Narrow 6° ⁽³⁾		BRZ Bronze Sandtex®	LT Lumentalk ^{(10) (11)}	3GV 3G ANSI C136.31-2010 Vibration Rating for bridge applications	CE CE compliant	5M 5 m	WH White ⁽¹⁸⁾
	208 208 volts	30K 3000K	NS Narrow Spot 10° ⁽³⁾		SI Silver Sandtex®	DIM 1-10V dimming	CRC Corrosion-resistant coating for hostile environments ^{(14) (15)}	CEII CE compliant Class II double insulated	10M 10 m	
	220 220 volts	35K 3500K	NF Narrow Flood 20° ⁽³⁾		WH Smooth white	DALI DALI dimming			15M 15 m	
	240 240 volts	40K 4000K	M Medium 30° ⁽³⁾		BKTX Textured black	ES Lutron® EcoSystem® Enabled dimming ⁽¹¹⁾			20M 20 m	
	277 277 volts	57K 5700K	FL Flood 40° ⁽³⁾		BRZTX Textured bronze non-metallic	DMX/RDM DMX/RDM enabled ^{(12) (13)}			30M 30 m	
		RD Red ⁽²⁾	WFL WF 60° ⁽³⁾		GRATX Textured medium grey					
		GR Green ⁽²⁾	NAS Narrow Asymmetric ⁽³⁾		GRNTX Textured green					
		BL Blue ⁽²⁾	WW Asymmetric Wallwash ⁽³⁾		WHTX Textured white					
					CC Custom colour and finish (please specify RAL colour) ^{(7) (8) (9)}					

- Notes:**

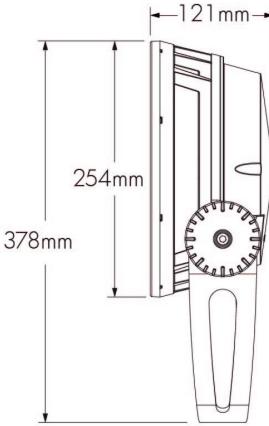
 1. Consult factory for availability of static Royal Blue, Amber, 6500K and 90+ CRI.
 2. Static colours made to order 8-10 weeks.
 3. Factory installed, not interchangeable on site.
 4. Optical options are factory installed and cannot be changed in the field.
 5. Field adjustable spread lens optical accessory available, order separately.
 6. Not available with WFL, NAS and WW optics.
 7. Lumenpulse offers a wide selection of RAL CLASSIC (K7) colours with a smooth texture and high-gloss finish. Please consult factory for a list of available K7 colours, other RAL textures and glosses, or to match alternate colour charts. Final colour matching results may vary.
 8. Setup charges apply for RAL colours. Consult factory for details.
 9. Longer lead times can be expected for custom RAL colour finishes.
10. A Lumentranslator 2 (LTL2) and LumentalkID (LIDL2) must be specified for Lumentalk applications. Consult Lumentranslator 2 and Lumentalk pages and specification sheets for details.
 11. Not available with Class II double insulated option.
 12. A control box (CBX) and LumenID (LID) must be specified.
 13. Maximum of 1 m cable length for daisy chain DMX applications with CBX-DS.
 14. Use only when exposed to salt spray. This option is not required for normal outdoor exposure.
 15. Setup charges apply. Consult factory for details.
 16. Consult North American specification sheets and installation instructions for UL wiring information.
 17. 1 m cable length is standard unless otherwise specified.
 18. Not available with CE or CEII certification options.

Project Name _____ Qty _____

Type _____ Catalog / Part Number _____



Front view



Side view

Photometric Summary (Discrete)

Symmetric		
	Delivered output (lm)	Intensity (peak cd)
VN (6°)	2,402	125,148
NS (10°)	2,572	91,221
NF (20°)	2,541	23,829
M (30°)	2,323	10,502
FL (40°)	2,190	5,407
WFL (60°)	1,817	1,886
Asymmetric		
NAS	2,672	41,158 (@2.5°)
WW	2,213	9,834 (@5°)

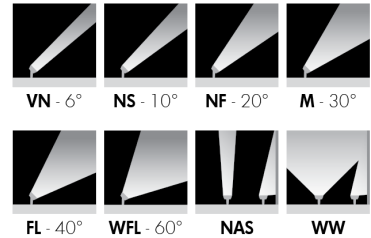
Based on RGBW40K full output, DMX/RDM configuration.
Photometric performance is measured in compliance with IESNA LM-79-08.

Photometric Summary (Opticolor)

	Preliminary Data	
	Delivered output (lm)	Intensity (peak cd)
NS (10°)	1,700	23,954
NF (20°)	1,690	12,601
M (30°)	1,711	7,307
FL (40°)	1,711	4,155
WFL (60°)	1,705	1,616

Based on MRGBW40K full output, DMX/RDM configuration.
Photometric performance is measured in compliance with IESNA LM-79-08.

Optics



Description

The Lumenbeam Large Colour Changing is an IP66-rated luminaire for lighting landscapes, trees, columns, monuments, and architectural details. The system offers numerous options including optics for flood or accent lighting, a choice of colour mixing, as well as various accessories, spread lenses, and controls. The luminaire also has an anti-corrosion option for use in harsh, chemical, or coastal environments.

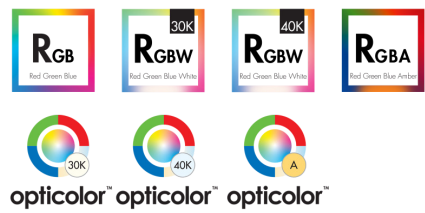
Features

Colours and Colour Temperature (Discrete)	RGB, RGB + white 3000K, RGB + white 4000K, RGB + amber
Colours and Colour Temperatures (Opticolor)	Opticolor cluster with MRGBW (red, green, blue, white 3000K), Opticolor cluster with MRGBW (red, green, blue, white 4000K), Opticolor cluster with MRGBA (red, green, blue, amber), MRGBW30K and MRGBW40K can be configured to MRGB via RDM (consult factory for more details)
Optics (nominal distribution)	VN (6°), NS (10°), NF (20°), M (30°), FL (40°), WFL (60°), NAS (Narrow Asymmetric), WW (Asymmetric Wallwash)
Optical Option	Linear spread lens horizontal distribution, Linear spread lens vertical distribution
Options	Short Yoke, 3G ANSI C136.31-2010 Vibration Rating for bridge applications, Corrosion-resistant coating for hostile environments
Cable Colour	Black, White
Power Consumption	50 W
Warranty	5-year limited warranty

Performance

Maximum Delivered Output (Discrete)	2,664 lm (RGB full output, NAS @ 2.5°, DMX/RDM), 2,619 lm (RGBW30K full output, NAS @ 2.5°, DMX/RDM), 2,672 lm (RGBW40K full output, NAS @ 2.5°, DMX/RDM), 2,168 lm (RGB full output, NAS @ 2.5°, DMX/RDM)
Maximum Delivered Output (Opticolor)	1,677 lm (MRGBW30K full output, M 30°, DMX/RDM), 1,711 lm (MRGBW40K full output, M 30°, DMX/RDM), 1,386 lm (MRGBA full output, M 30°, DMX/RDM)

Colours and Colour Temperatures



Controls



Ratings

IP66 IK10

Certifications



Maximum Delivered Intensity (Discrete)	124,768 cd at nadir (RGBA full output, VN 6°, DMX/RDM), 122,645 cd at nadir (RGBW30K full output, VN 6°, DMX/RDM), 125,148 cd at nadir (RGBW40K full output, VN 6°, DMX/RDM), 101,519 cd at nadir (RGBA full output, VN 6°, DMX/RDM)
Maximum Delivered Intensity (Opticolor)	23,475 cd at nadir (MRGBW30K full output, NS 10°, DMX/RDM), 23,954 cd at nadir (MRGBW40K full output, NS 10°, DMX/RDM), 19,403 cd at nadir (MRGBA full output, NS 10°, DMX/RDM)
Illuminance at Distance (Discrete)	Minimum 1 lx at 353 m (RGB full output, VN 6°, DMX/RDM), Minimum 1 lx at 350 m (RGBW30K full output, VN 6°, DMX/RDM), Minimum 1 lx at 354 m (RGBW40K full output, VN 6°, DMX/RDM), Minimum 1 lx at 319 m (RGBA full output, VN 6°, DMX/RDM)
Illuminance at Distance (Opticolor)	Minimum 1 lx at 153 m (MRGBW30K full output, NS 10°, DMX/RDM), Minimum 1 lx at 155 m (MRGBW40K full output, NS 10°, DMX/RDM), Minimum 1 lx at 139 m (MRGBA full output, NS 10°, DMX/RDM)
Lumen Maintenance	L70 B50 120,000 hrs (Ta 25 °C)

Physical

Housing Material	Low copper content high pressure die-cast aluminium
Yoke Material	Heavy aluminium (standard yoke included)
Lens Material	Clear tempered glass
Hardware Material	Stainless steel
Gasket Material	Silicone
Surface Finish	Electrostatically applied polyester powder coat
Weight	5.44 kg
EPA	Front = 0.06 sq m, Side = 0.02 sq m

Electrical and control

Voltage	100 to 277 volts
Fixture Cable	Power and data in one cable
Conductors	3C: 3 x 1,5 mm ² (LT control), 5C: 5 x 1,5 mm ² (DALI8 control), 6C: 3 x 1,5 mm ² / 3 x 0,20 mm ² (DMX/RDM control)
Inrush Current (peak)	55A @230VAC
Control	Lumentalk, DMX/RDM enabled, DALI-2 dimming Type 8
Resolution (DMX/RDM)	Per fixture, 8-bit or 16-bit, 3 channels (RGB) or 4 channels (RGBW30K, RGBW40K, RGBA, MRGBW30K, MRGBW40K, and MRGBA)
RGB Colour Mixing	36 LEDs (12x Red, 12x Green, 12x Blue)
RGBW30K Colour Mixing	28 LEDs (7x Red, 7x Green, 7x Blue, 7x White 3000K)
RGBW40K Colour Mixing	28 LEDs (7x Red, 7x Green, 7x Blue, 7x White 4000K)
RGBA Colour Mixing	28 LEDs (7x Red, 7x Green, 7x Blue, 7x Amber)
MRGBW30K Colour Mixing	56 LEDs in 14 clusters (1x Red, 1x Green, 1x Blue, 1x White 3000K per cluster), Consult factory for more colour and CCT options available
MRGBW40K Colour Mixing	56 LEDs in 14 clusters (1x Red, 1x Green, 1x Blue, 1x White 4000K per cluster), Consult factory for more colour and CCT options available
MRGBA Colour Mixing	56 LEDs in 14 clusters (1x Red, 1x Green, 1x Blue, 1x Amber per cluster), Consult factory for more colour and CCT options available

Environmental

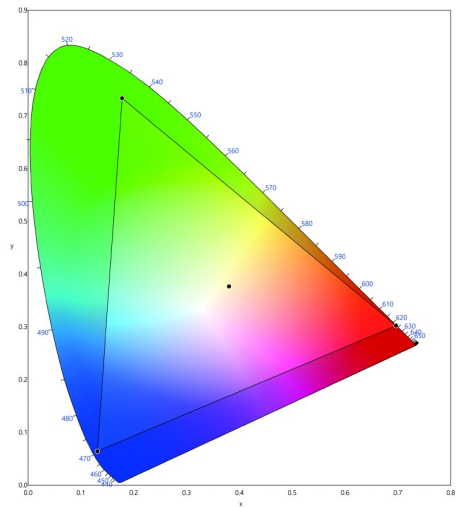
Storage Temperature	-40 °C to 70 °C (device must reach start-up temperature value before operating)
Start-up Temperature	-25 °C to 50 °C
Operating Temperature	-40 °C to 50 °C
Ingress Protection Rating	IP66
Impact Resistance Rating	IK10

Accessories (order separately)

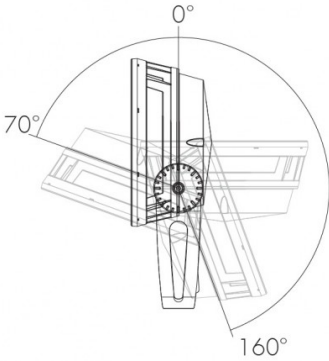
Optical Accessories	Snoot, Snoot wide, Visor, Linear Spread Lens Adjustable, Wire guard
Control Boxes	DMX/RDM enabled (daisy chain or star configuration), Ethernet enabled (daisy chain or star configuration)
Control Systems	Pharos® kit (PHAROS)
Diagnostic and Addressing Tools	LumenID (LID), LumentalkID

Colour point information

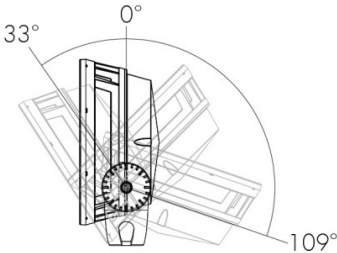
MRGBW40K



Adjustable pivot limits



Standard yoke



Short yoke

Optical options

LSLH - Linear spread lens horizontal distribution



LSLH - Linear spread lens horizontal distribution

LSLV - Linear spread lens vertical distribution



Beam angles

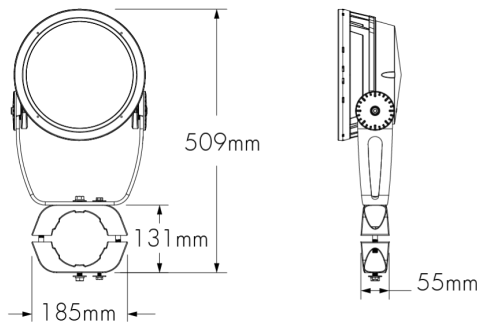
Optic installed in fixture	Beam angle with LSLH/LSLV
VN	7° x 60°
NS	13° x 66°
NF	16° x 62°
M	23° x 65°
FL	33° x 70°

LLF: 0.88*
*LLF may vary slightly by distribution chosen.

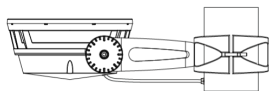
Factory installed, not adjustable on site. Not available for WFL, NAS and WW optics.
See 'Optical Accessories' section for field adjustable spread lens (LSLA).

Mounting accessories (order separately)

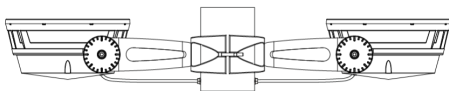
Round pole mounting accessory



PM4 model shown. Consult factory for square pole section.



PM4-1, PM4.5-1, PM5-1 - Round pole mounting accessory - single fixture

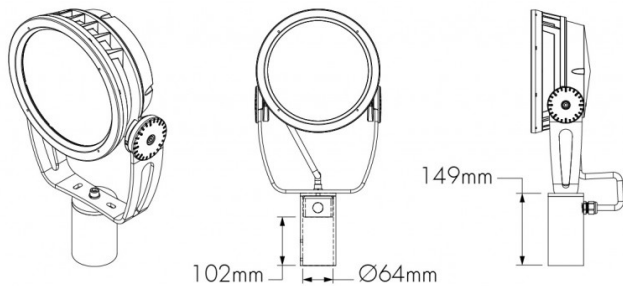


PM4-2, PM4.5-2, PM5-2 - Round pole mounting accessory - twin fixtures
*One bracket assembly is supplied per 2 fixtures unless otherwise specified.

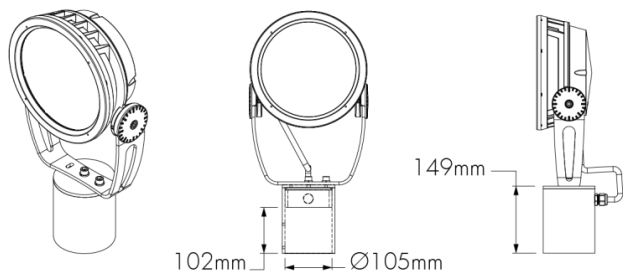
	PM4	PM4.5	PM5
For pole Ø	101.6mm ± 1.6mm	114.3mm ± 1.6mm	127mm ± 1.6mm

Consult factory for other pole diameters.

Tenon adapter



TN2 - Tenon adapter to fit on 60 mm O.D. tenon
Vertical mounting only. Consult factory for horizontal mounting.

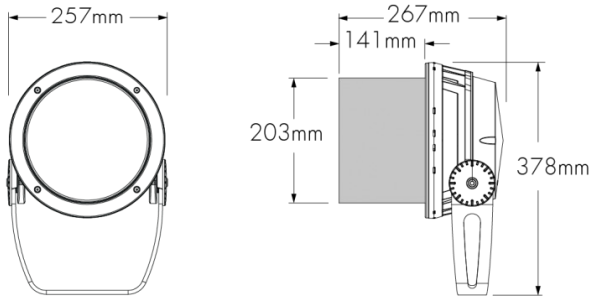


TN4 - Tenon adapter to fit on 102 mm O.D. tenon
Vertical mounting only. Consult factory for horizontal mounting.

Optical accessories (order separately)

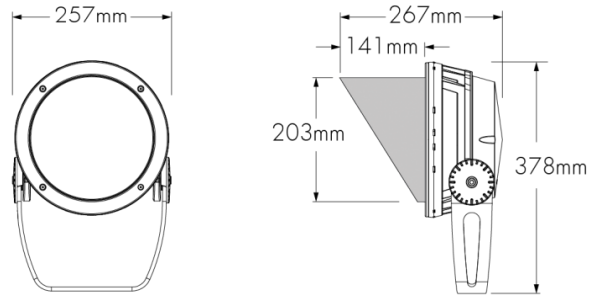
Installed optical accessories will affect the maximum pivot limits for each mounting option, consult factory for details.

SN - Snoot



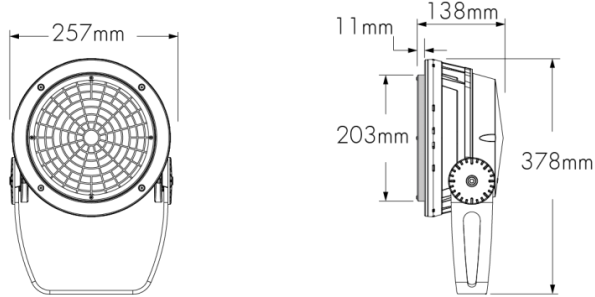
LBLSN-FINISH-BK-OPTIONS (CRC)
Interior surface painted black. Please specify the exterior **FINISH** from the list of finishes in the fixture order code.

VS - Visor



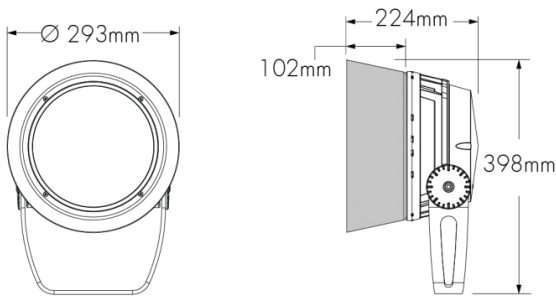
LBLSV-FINISH-BK-OPTIONS (CRC)
Interior surface painted black. Please specify the exterior **FINISH** from the list of finishes in the fixture order code.

WG - Wire guard



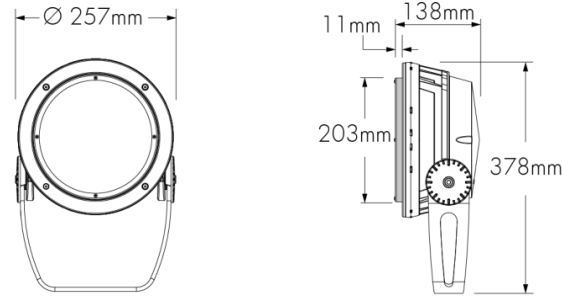
LBLWG-FINISH-OPTIONS (CRC)
Please specify the exterior **FINISH** from the list of finishes in the fixture order code.

SNW - Snoot wide



LBLSNW-FINISH-BK-OPTIONS (CRC)
Interior surface painted black. Please specify the exterior **FINISH** from the list of finishes in the fixture order code.

LSLA - Linear spread lens adjustable



LBLLSLA-FINISH-OPTIONS (CRC)
Please specify the exterior **FINISH** from the list of finishes in the fixture order code.

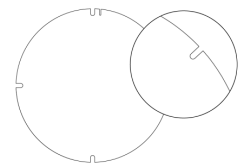
Accessory combinations

+	Snoot	Snoot wide	Visor
Linear spread lens adjustable	LBLSNLSLA	N/A *	LBLSLSLA
Wire guard	LBLSNWG	N/A	LBLSWG

Accessory combinations must be ordered together on a single line
Ex: A snoot + wire guard combination order code is LBLSNWG-FINISH-BK-OPTIONS. A maximum of two accessories can be combined per fixture.
*Consult factory for a linear spread lens adjustable + snoot wide combination.

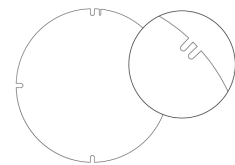
Diffuser lenses (intended for mockup purposes only, order separately)

Diffuser lens 1 (1 notch)



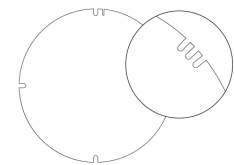
147677

Diffuser lens 2 (2 notches)



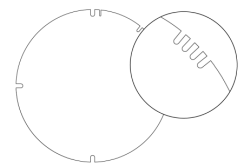
147678

Diffuser lens 3 (3 notches)



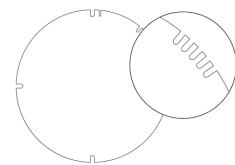
147679

Diffuser lens 4 (4 notches)



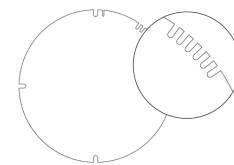
147680

Diffuser lens 5 (5 notches)



147681

Diffuser lens 6 (6 notches)



147682

Final distribution using diffuser lenses

Original Distribution on Fixture	Final Distribution Using Diffuser Lens					
	Diffuser Lens 1 Notch	Diffuser Lens 2 2 Notches	Diffuser Lens 3 3 Notches	Diffuser Lens 4 4 Notches	Diffuser Lens 5 5 Notches	Diffuser Lens 6 6 Notches
XN (4°/5°)	VN	NS				
VN (6°)	NS		NF	M	FL	WFL
NS (10°)						
NF (20°)				FL	WFL	
M (30°)						
FL (40°)						
WFL (60°)						

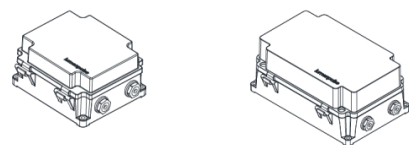
Choose a diffuser lens based on the desired final beam distribution. Refer to the 6-digit part numbers above to order diffuser lenses individually. To order a complete set of 6 diffuser lenses in a bag, refer to the following item names: **LBS**: LBALK-S **LBM/LBMP**: LBALK-M **LBL/LBLP**: LBALK-L **LBG/LBGP**: LBALK-G **LBX/LBXP**: LBALK-X.

The diffuser lenses are intended for mockup purposes only. A lens holder is required to install a diffuser lens on the fixture, order separately using the following names: **LBS**: LBSLSLA-FINISH-LBALK **LBM/LBMP**: LBMLSAL-FINISH-LBALK **LBL/LBLP**: LBLLSLA-FINISH-LBALK **LBG/LBGP**: LBGLSLA-FINISH-LBALK **LBX/LBXP**: LBXLSLA-FINISH-LBALK

Please specify the exterior **FINISH** from the list of finishes in the fixture order code.
Refer to the Diffuser Lens Installation Instructions on the Lumenpulse website for information on installing the diffuser lenses.

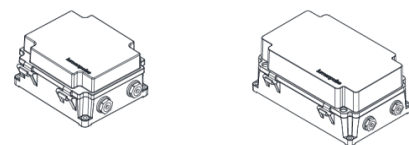
Control boxes (order separately)

CBX-DMX/RDM - DMX/RDM enabled (daisy chain or star configuration)



DMX/RDM control box. Up to six power and data outputs to fixtures or fixture runs. Consult CBX specification sheet and installation instructions for details. Lumenterminators provided with CBX (2x for daisy chain configuration, 6x for star configuration), consult factory to order spares.

CBX-ENET - Ethernet enabled (daisy chain or star configuration)



Ethernet control box. Up to four power and data outputs to fixture or fixture runs. Consult Ethernet CBX specification sheet and installation instructions for details.

Control systems (order separately)

PHAROS - Pharos® kit



The Pharos kit, available for 1 or 2 DMX universes, allows for complete control of large lighting installations. 2 DMX universes kit shown.

Diagnostic and addressing tools (order separately)

LID - LumenID



LumenID is a diagnostic and addressing DMX/RDM tool. It must be specified on all DMX applications. Consult LID specification sheet for details.

LID-LT - LumentalkID



LumentalkID is a diagnostic and addressing tool. It must be specified for all Lumentalk (LT) applications. Consult LID-LT specification sheet for details.

EPA Guide

	LBL	LBL with snoot	LBL with visor	LBL with snoot wide
				
EPA front (m²)	0.060	0.060	0.060	0.094
EPA side (m²)	0.020	0.044	0.044	0.042

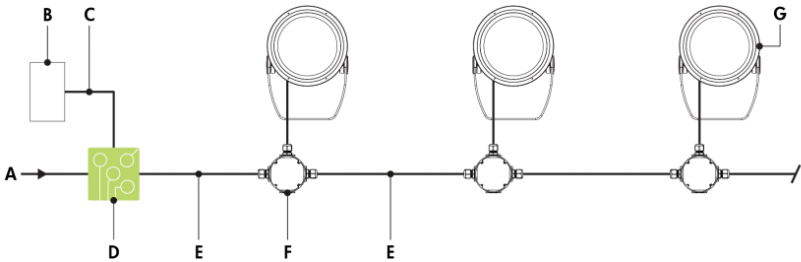
Typical wiring diagrams

Wiring colour code

CE Colour Code	USE
Yellow/Green	Ground
Brown	Line
Blue	Line/Neutral
Black or Purple	1-10V / Data +
Grey or Orange	1-10V / Data -
Grey	Signal common (DMX/RDM only)

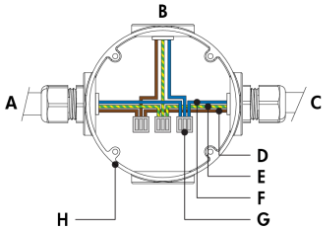
CE Class II Colour Code		USE
All other controls	DMX/RDM	
Brown	Brown	Line
Blue	Blue	Line/Neutral
Black 1	Grey	Signal common (DMX/RDM only)
Black 2	Black or Purple	1-10V / Data +
Grey	Grey or Orange	1-10V / Data -
N/A	Yellow/Green	Ground (do not connect)

Lumentalk (LT)



- A - Power input (100-277V AC, wiring by others)
- B - DMX/RDM controller (order separately from Lumenpulse, or by others)
- C - Data wiring (by others)
- D - Lumentranslator 2 (LTL2-DMX)
- E - Power wiring (by others)
- F - Junction box (by others)
- G - Lumenbeam Large

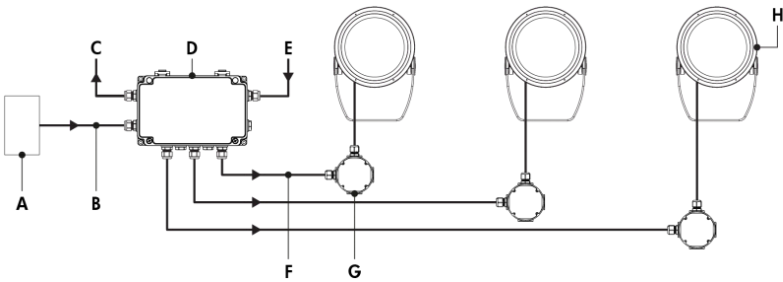
Lumentalk (LT) - wiring detail - CE



- A - Power input (control over power line via Lumentalk system) or from previous fixture
- B - To fixture
- C - To next fixture
- D - Line
- E - Ground
- F - Line/Neutral
- G - Terminal connector (by others)
- H - Junction box (by others)

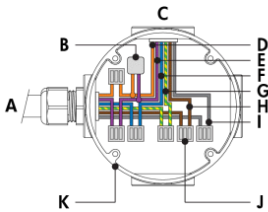
- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- Lumentalk enabled fixtures must be commissioned using LumentalkID software and a LID-LT. Consult factory for details.
- Maximum of 1 transmitter (Lumentranslator or Lumenlink) per system.
- No third party fixtures allowed on the same circuit.
- 1 DMX controller per Lumentalk network, maximum of 48 DMX channels per Lumentalk network (minimum step transition update rate is 1 second, minimum fade time between two colours is 1 minute). Consult factory for applications that require additional capabilities.
- 50 watts per fixture.

Star Layout (DMX/RDM)



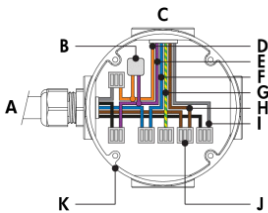
- A - DMX/RDM controller (order separately from Lumenpulse, or by others)
- B - Data input (Belden 9841 or equivalent, by others)
- C - Data output to next CBX (optional, not isolated/not boosted)
- D - CBX-ST
- E - Power input (100-277V AC, wiring by others)
- F - Power and data output to fixture (wiring by others)
- G - Junction box (by others)
- H - Lumenbeam Large

Star Layout (DMX/RDM) - wiring detail - CE



- A - From CBX
- B - Lumenterminator
- C - To fixture
- D - Data -
- E - Data +
- F - Neutral
- G - Ground
- H - Line
- I - Signal common
- J - Terminal connector (by others)
- K - Junction box (by others)

Star Layout (DMX/RDM) - wiring detail - CE Class II



- A - From CBX
- B - Lumenterminator
- C - To fixture
- D - Data -
- E - Data +
- F - Neutral
- G - Ground (do not connect)
- H - Line
- I - Signal common
- J - Terminal connector (by others)
- K - Junction box (by others)

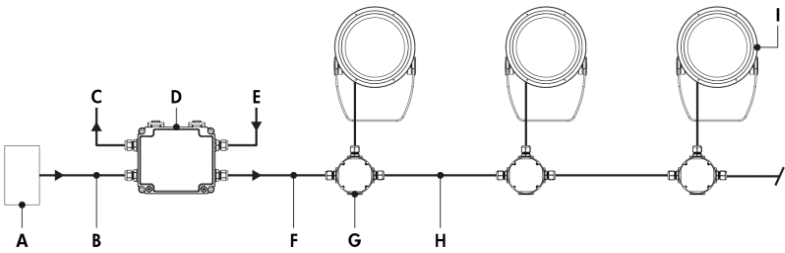
Maximum fixture count per run

Configuration/Voltage	120V	208V	240V	277V
LBL	18	28	32	32

Based on 16A maximum, 1,5 mm² cable, fixtures spaced 3 m on centre, first fixture 15 m from CBX.

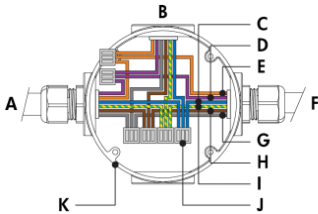
- Consult CBX installation instructions for additional wiring details.
- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- Run length calculations are based on a voltage drop of no more than 25V.
- The DMX/RDM protocol states a maximum of 32 DMX/RDM enabled fixtures on any single run.
- Maximum of 4 DMX/RDM repeaters/CBX cascading in line.
- Maximum of 6 outputs per CBX-ST.
- RGB colour mixture option requires 3 DMX addresses. RGBW30K and RGBW40K colour mixture options require 4 DMX addresses. RGBA colour mixture option requires 4 DMX addresses.
- DMX terminator is required at the end of each run to maintain data integrity. Six (6x) DMX lumenterminators included per CBX-ST. See installation instructions for details.
- 50 watts per fixture.

Daisy Chain Layout (DMX/RDM)



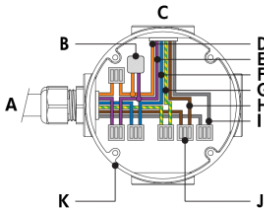
- A** - DMX/RDM controller (order separately from Lumenpulse, or by others)
- B** - Data input (Belden 9841 or equivalent, by others)
- C** - Data output to next CBX (optional, not isolated/not boosted)
- D** - CBX-DS
- E** - Power input (100-277V AC, wiring by others)
- F** - Power and data output to fixture (wiring by others)
- G** - Junction box (by others)
- H** - Power and data wiring (by others)
- I** - Lumenbeam Large

Daisy Chain Layout (DMX/RDM) - wiring detail (first or middle of run) - CE



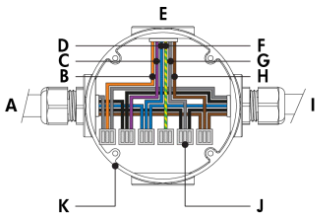
- A** - From CBX or previous fixture
- B** - To fixture
- C** - Neutral
- D** - Data +
- E** - Data -
- F** - To next fixture
- G** - Signal common
- H** - Line
- I** - Ground
- J** - Terminal connector (by others)
- K** - Junction box (by others)

Daisy Chain Layout (DMX/RDM) - wiring detail (end of run) - CE



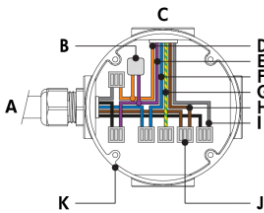
- A** - From CBX or previous fixture
- B** - Lumenterminator
- C** - To fixture
- D** - Data -
- E** - Data +
- F** - Neutral
- G** - Ground
- H** - Line
- I** - Signal common
- J** - Terminal connector (by others)
- K** - Junction box (by others)

Daisy Chain Layout (DMX/RDM) - wiring detail (first or middle of run) - CE Class II



- A** - From CBX or previous fixture
- B** - Data -
- C** - Data +
- D** - Neutral
- E** - To fixture
- F** - Ground (do not connect)
- G** - Signal common
- H** - Line
- I** - To next fixture
- J** - Terminal connector (by others)
- K** - Junction box (by others)

Daisy Chain Layout (DMX/RDM) - wiring detail (end of run) - CE Class II



- A** - From CBX
- B** - Lumenterminator
- C** - To fixture
- D** - Data -
- E** - Data +
- F** - Neutral
- G** - Ground (do not connect)
- H** - Line
- I** - Signal common
- J** - Terminal connector (by others)
- K** - Junction box (by others)

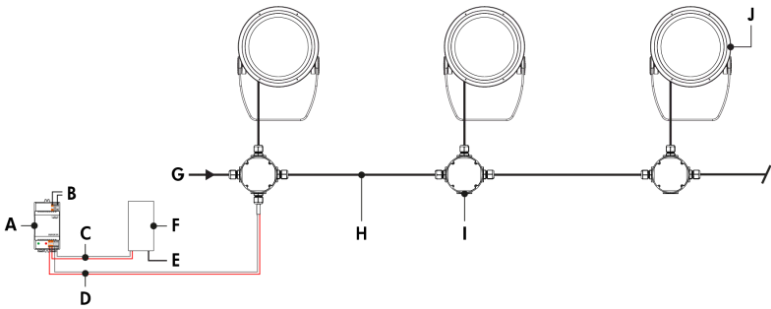
Maximum fixture count per run

Configuration/Voltage	120V	208V	240V	277V
LBL	18	28	32	32

Based on 16A maximum, 1,5 mm² cable, fixtures spaced 3 m on centre, first fixture 15 m from CBX.

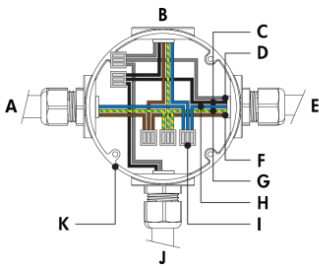
- Consult CBX installation instructions for additional wiring details.
- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- Run length calculations are based on a voltage drop of no more than 25V.
- The DMX/RDM protocol states a maximum of 32 DMX/RDM enabled fixtures on any single run.
- Maximum of 4 DMX/RDM repeaters/CBX cascading in line.
- Maximum of 1 output per CBX-DS.
- Maximum of 0.9 m cable length between fixture and next junction box for daisy chain layout.
- RGB colour mixture option requires 3 DMX addresses. RGBW30K and RGBW40K colour mixture options require 4 DMX addresses. RGBA colour mixture option requires 4 DMX addresses.
- DMX terminator is required at the end of each run to maintain data integrity. Two (2x) DMX lumenterminators included per CBX-DS. See installation instructions for details.
- 50 watts per fixture.

DALI-2 dimming Type 8 (DALIT8)



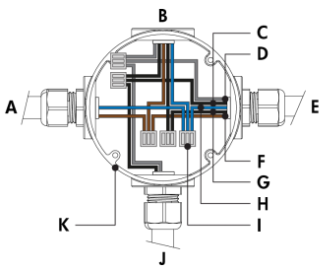
- A - DALI bus power supply (by others)
- B - Power input for DALI bus power supply (wiring by others)
- C - Data output to DALI controller (wiring by others)
- D - Data output to fixture (wiring by others)
- E - Power input for DALI controller (if required, wiring by others)
- F - DALI controller (by others)
- G - Power input (100-277V AC, wiring by others)
- H - Power and data wiring (by others)
- I - Junction box (by others)
- J - Lumenbeam Large

DALI-2 dimming Type 8 (DALIT8) - wiring detail - CE



- A - Power input or from previous fixture
- B - To fixture
- C - DA +
- D - DA -
- E - To next fixture
- F - Line
- G - Ground
- H - Neutral
- I - Terminal connector (by others)
- J - From DALI controller (by others)
- K - Junction box (by others)

DALI-2 dimming Type 8 (DALIT8) - wiring detail - CE Class II



- A - Power input or from previous fixture
- B - To fixture
- C - DA + (black 2)
- D - DA -
- E - To next fixture
- F - Line
- G - Signal common (black 1)
- H - Neutral
- I - Terminal connector (by others)
- J - From DALI controller (by others)
- K - Junction box (by others)

- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- Maximum of 64 DALI fixtures per DALI loop.
- The Lumenbeam responds to RGBWAF controls.
- Commissioning may be required based on the selection of 3rd party DALI controller. Controller and commissioning provided by others.
- 50 watts per fixture.

How to order

Housing	Voltage	Colour and Colour Temperature	Optics	Optical Option ^{(6) (8)}	Finish	Control	Options	Certification	Cable Length ^{(15) (20)}	Cable Colour
LBL Lumenbeam™ Large	100 100 volts	RGB RGB	VN Very Narrow 6° ⁽⁵⁾	LSLH Linear spread lens horizontal distribution ⁽⁷⁾	BK Black Sandtex®	LT Lumentalk ⁽¹²⁾ ⁽¹³⁾	SY Short Yoke	UL UL compliant ⁽¹⁹⁾	1M 1 m ^{(15) (20)}	BK Black
	120 120 volts	RGBW30K RGB + white 3000K ⁽¹⁾	NS Narrow Spot 10° ⁽⁵⁾	BRZ Bronze Sandtex®	SI Silver Sandtex®	DMX/RDM DMX/RDM enabled ⁽¹⁴⁾ ⁽¹⁵⁾	3GV 3G ANSI C136.31-2010 Vibration Rating for bridge applications	CE CE compliant	5M 5 m	WH White ⁽²¹⁾
	208 208 volts	RGBW40K RGB + white 4000K ⁽¹⁾	NF Narrow Flood 20° ⁽⁵⁾	LSLV Linear spread lens vertical distribution ⁽⁷⁾	WH Smooth white	DALIT8 DALI-2 dimming Type 8 ⁽¹⁶⁾	CRC Corrosion- resistant coating for hostile environments ^{(17) (18)}	CEII CE compliant Class II double insulated	10M 10 m	
	220 220 volts	RGBA RGB + amber	M Medium 30° ⁽⁵⁾						15M 15 m	
	240 240 volts	MRGBW30K Opticolor cluster with MRGBW (red, green, blue, white 3000K) ^{(2) (3) (4)}	FL Flood 40° ⁽⁵⁾		BKTX Textured black				20M 20 m	
	277 277 volts	MRGBW40K Opticolor cluster with MRGBW (red, green, blue, white 4000K) ^{(2) (3) (4)}	WFL WF 60° ⁽⁵⁾		BRZTX Textured bronze non- metallic				30M 30 m	
		MRGBW40K Opticolor cluster with MRGBW (red, green, blue, white 4000K) ^{(2) (3) (4)}	NAS Narrow Asymmetric ⁽⁵⁾		GRATX Textured medium grey					
		MRGBA Opticolor cluster with MRGBA (red, green, blue, amber) ^{(2) (3) (4)}	WW Asymmetric Wallwash ⁽⁵⁾		GRNTX Textured green					
					WHTX Textured white					
					CC Custom colour and finish (please specify RAL colour) ^{(9) (10)} ⁽¹¹⁾					

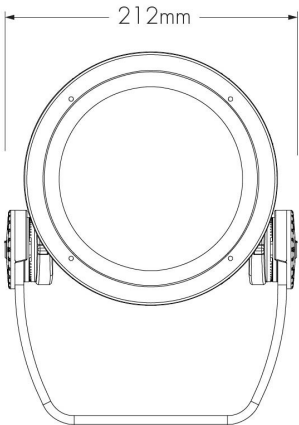
- Notes:
1. 2700K, 3500K and Royal Blue available, consult factory. Longer lead times apply.
2. Not available for VN, NAS and WW optics.
3. Consult factory for the availability of more colour and CCT options.
4. MRGBW30K and MRGBW40K can be configured to MRGB via RDM, consult factory for more details.
5. Factory installed, not interchangeable on site.
6. Optical options are factory installed and cannot be changed in the field.
7. Field adjustable spread lens optical accessory available, order separately.
8. Not available with WFL, NAS and WW optics.
9. Lumenpulse offers a wide selection of RAL CLASSIC (K7) colours with a smooth texture and high-gloss finish. Please consult factory for a list of available K7 colours, other RAL textures and glosses, or to match alternate colour charts. Final colour matching results may vary.
10. Setup charges apply for RAL colours. Consult factory for details.
11. Longer lead times can be expected for custom RAL colour finishes.
12. A Lumentranslator 2 (LTL2) and LumentalkID (LIDL2) must be specified for Lumentalk applications. Consult Lumentranslator 2 and Lumentalk pages and specification sheets for details.
13. Not available with Class II double insulated option.
14. A control box (CBX) and LumenID (LID) must be specified.
15. Maximum of 1 m cable length for daisy chain DMX applications with CBX-DS.
16. DALI-2 Type 8 controller required, provided by others.
17. Use only when exposed to salt spray. This option is not required for normal outdoor exposure.
18. Setup charges apply. Consult factory for details.
19. Consult North American specification sheets and installation instructions for UL wiring information.
20. 1 m cable length is standard unless otherwise specified.
21. Not available with CE or CEII certification options.

Project Name

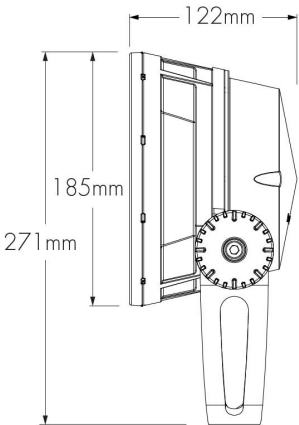
Qty

Type

Catalog / Part Number



Front view



Side view

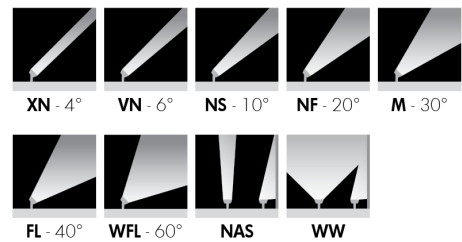
Photometric summary

Symmetric		
	Delivered output (lm)	Intensity (peak cd)
XN (4°)	1,830	156,410
VN (6°)	1,716	90,813
NS (10°)	2,467	35,359
NF (20°)	2,334	22,375
M (30°)	2,264	12,595
FL (40°)	2,047	5,306
WFL (60°)	1,836	1,382

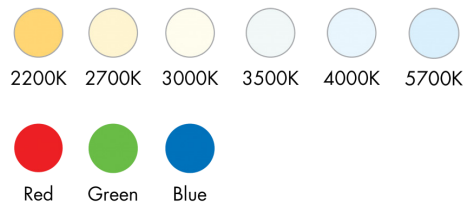
Asymmetric		
NAS	1,569	26,002 (@2.5°)
WW	2,148	3,582 (@5°)

Based on 4000K configuration.
Photometric performance is measured in compliance with IESNA LM-79-08.

Optics



Colours and Colour Temperatures



Controls

ON/OFF 1-10V DALI DMXrdm

Ratings

IP66 IK09

Description

The Lumenbeam Medium is an IP66-rated luminaire for lighting landscapes, trees, columns, monuments, and architectural details. It has numerous options, including optics for flood or accent lighting, a choice of colour temperatures and colours, as well as various accessories, spread lenses, and controls. The luminaire also has an anti-corrosion option for use in harsh, chemical, or coastal environments.

Features

Colour and Colour Temperature	2200K, 2700K, 3000K, 3500K, 4000K, 5700K, Red, Green, Blue
Optics (nominal distribution)	XN (4°), VN (6°), NS (10°), NF (20°), M (30°), FL (40°), WFL (60°), NAS (Narrow Asymmetric), WW (Asymmetric Wallwash)
Optical Option	Linear spread lens horizontal distribution, Linear spread lens vertical distribution
Options	Short Yoke, 3G ANSI C136.31-2010 Vibration Rating for bridge applications, Corrosion-resistant coating for hostile environments
Cable Colour	Black, White
Power Consumption	28 W
Warranty	5-year limited warranty

Performance

Maximum Delivered Output	2467lm (4000K, NS 10°)
Maximum Delivered Intensity	156,410 cd at nadir (4000K, XN 4°)
Illuminance at Distance	Minimum 1 fc at 120.4 m (4000K, XN 4°)
Colour Consistency	3 SDCM
Colour Rendering	Minimum CRI 80
Lumen Maintenance	L70 B50 > 250,000 hrs (Ta 25 °C) (> 80,000 hrs for XN 4°, VN 6°, NAS optics only), L80 B10 100,000 hrs (Ta 25 °C)

Physical

Housing Material	Low copper content high pressure die-cast aluminium
Yoke Material	Heavy aluminium (standard yoke included)
Lens Material	Clear tempered glass

Certifications



Hardware Material	Stainless steel
Gasket Material	Silicone
Surface Finish	Electrostatically applied polyester powder coat
Weight	3.04 kg
EPA	Front = 0.04 sq m, Side = 0.02 sq m

Electrical and control

Voltage	100 to 277 volts
Fixture Cable	Power and data in one cable
Conductors	3C: 3 x 1,5 mm ² (NO control), 5C: 5 x 1,5 mm ² (DIM, DALI control), 6C: 3 x 1,5 mm ² / 3 x 0,20 mm ² (DMX/RDM control)
Inrush Current (peak)	21A @230VAC
Control	On/Off control, 1-10V dimming, DALI dimming, DMX/RDM enabled, Lumentalk system is enabled with LDB accessory - see typical wiring diagrams for details
Resolution (DMX/RDM)	Per fixture, 8-bit or 16-bit

Environmental

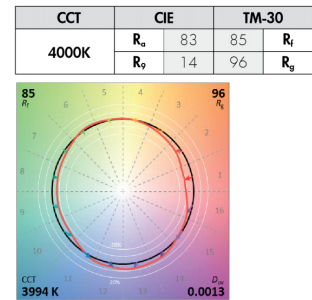
Storage Temperature	-40 °C to 70 °C (device must reach start-up temperature value before operating)
Start-up Temperature	-25 °C to 50 °C
Operating Temperature	-40 °C to 50 °C
Ingress Protection Rating	IP66
Impact Resistance Rating	IK09

Accessories (order separately)

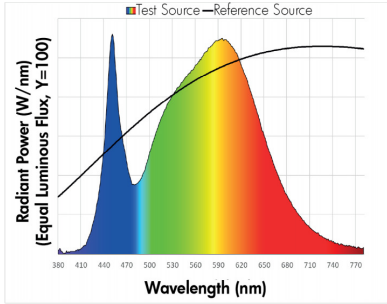
Optical Accessories	Lumenbeam Medium Snoot, Lumenbeam Medium Snoot wide, Lumenbeam Medium Visor, Lumenbeam Medium Linear spread lens adjustable, Lumenbeam Medium Wire guard
Control Boxes	DMX/RDM enabled (daisy chain or star configuration), Ethernet enabled (daisy chain or star configuration), Lumentalk Data Bridge
Control Systems	Pharos® kit (PHAROS)
Diagnostic and Addressing Tools	LumenID (LID), LumentalkID

Chromaticity Data

TM-30 - 4000K

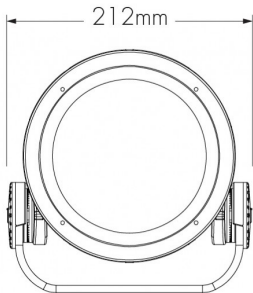


Spectral Power Distribution

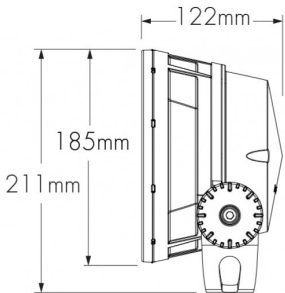


Mounting options

SY - Short yoke



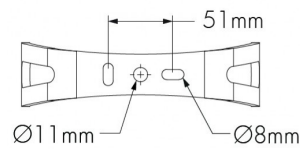
Front view



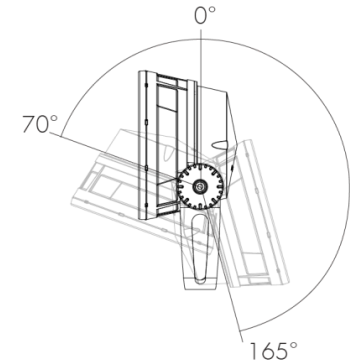
Side view

Mounting details

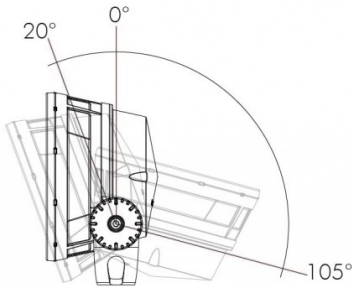
Mounting hole pattern - standard and short yoke



Adjustable pivot limits



Standard yoke



Short yoke

Optical options

LSLH - Linear spread lens horizontal distribution



LSLH - Linear spread lens horizontal distribution

LSLV - Linear spread lens vertical distribution



Beam angles

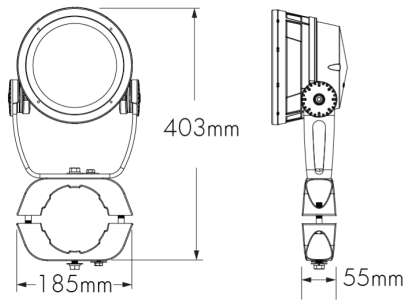
Optic installed in fixture	Beam angle with LSLH/LSLV
XN	5° x 60°
VN	7° x 60°
NS	13° x 66°
NF	16° x 62°
M	23° x 65°
FL	33° x 70°

LLF: 0.88*
*LLF may vary slightly by distribution chosen.

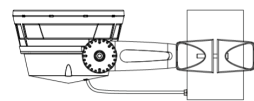
Factory installed, not adjustable on site. Not available for WFL, NAS and WW optics.
See 'Optical Accessories' section for field adjustable spread lens (LSLA).

Mounting accessories (order separately)

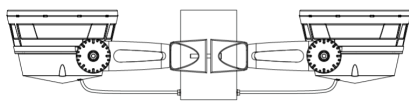
Round pole mounting accessory



PM4 model shown.
Consult factory for square pole section.



PM4-1, PM4.5-1, PM5-1 - Round pole mounting accessory - single fixture

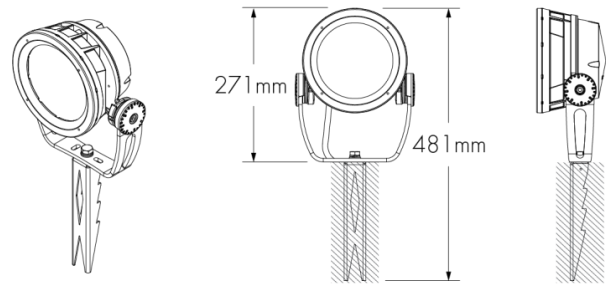


PM4-2, PM4.5-2, PM5-2 - Round pole mounting accessory - twin fixtures
*One bracket assembly is supplied per 2 fixtures unless otherwise specified.

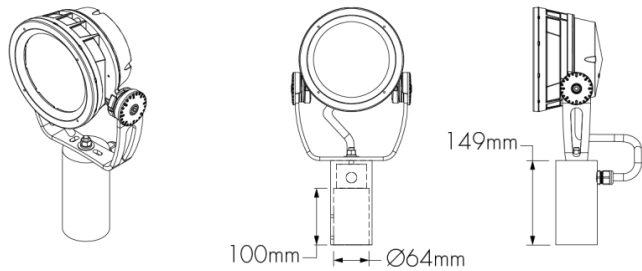
	PM4	PM4.5	PM5
For pole Ø	101.6mm ± 1.6mm	114.3mm ± 1.6mm	127mm ± 1.6mm

Consult factory for other pole diameters.

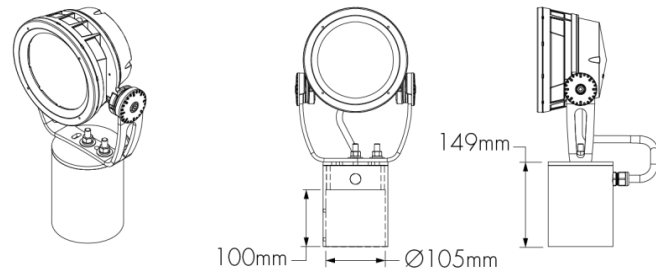
SK - Stake mounting



Tenon adapter



TN2 - Tenon adapter to fit on 60 mm O.D. tenon
Vertical mounting only. Consult factory for horizontal mounting.

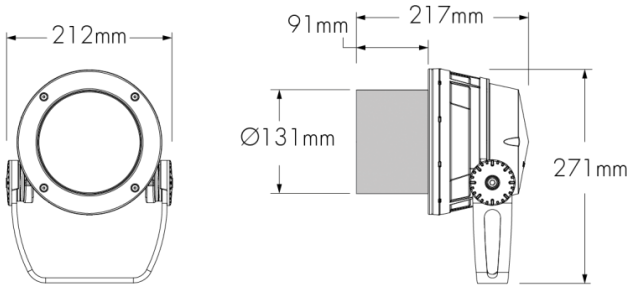


TN4 - Tenon adapter to fit on 102 mm O.D. tenon
Vertical mounting only. Consult factory for horizontal mounting.

Optical accessories (order separately)

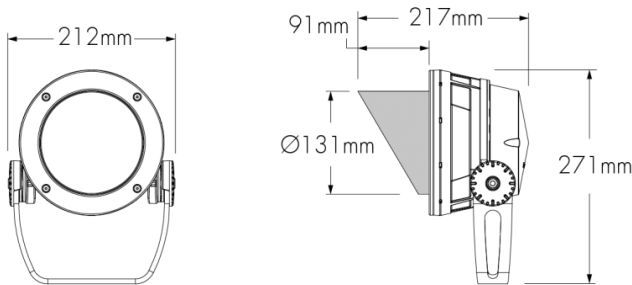
Installed optical accessories will affect the maximum pivot limits for each mounting option, consult factory for details.

SN - Snoot



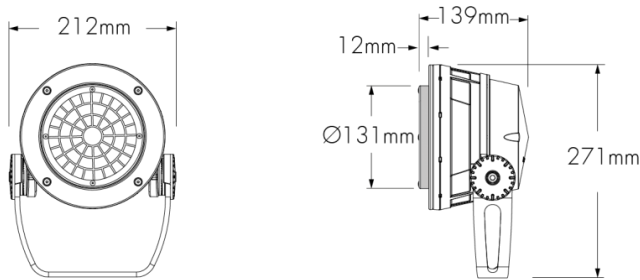
LBMSN-FINISH-BK-OPTIONS (CRC)
Interior surface painted black. Please specify the exterior **FINISH** from the list of finishes in the fixture order code.

VS - Visor



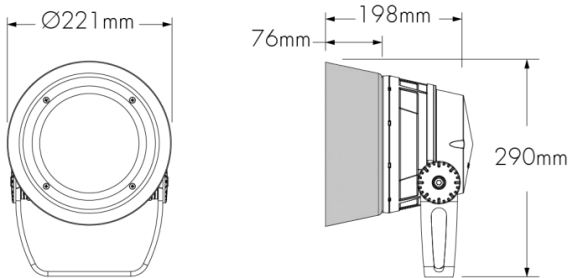
LBMVS-FINISH-BK-OPTIONS (CRC)
Interior surface painted black. Please specify the exterior **FINISH** from the list of finishes in the fixture order code.

WG - Wire guard



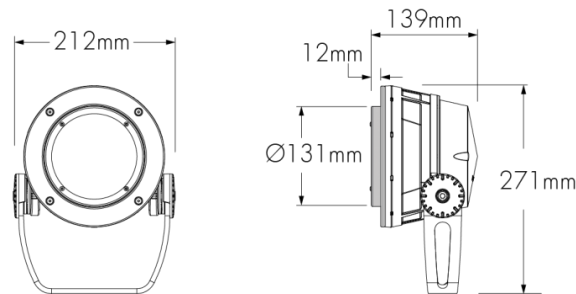
LBMWG-FINISH-OPTIONS (CRC)
Please specify the exterior **FINISH** from the list of finishes in the fixture order code.

SNW - Snoot wide



LBMSNW-FINISH-BK-OPTIONS (CRC)
Interior surface painted black. Please specify the exterior **FINISH** from the list of finishes in the fixture order code.

LSLA - Linear spread lens adjustable



LBMLSLA-FINISH-OPTIONS (CRC)
Please specify the exterior **FINISH** from the list of finishes in the fixture order code.

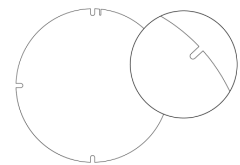
Accessory combinations

+	Snoot	Snoot wide	Visor
Linear spread lens adjustable	LBMSNLSLA	N/A *	LBMVLSLA
Wire guard	LBMSNWG	N/A	LBMVSWG

Accessory combinations must be ordered together on a single line.
Ex: A snoot + wire guard combination order code is LBMSNWG-FINISH-BK-OPTIONS. A maximum of two accessories can be combined per fixture.
*Consult factory for a linear spread lens adjustable + snoot wide combination.

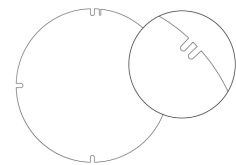
Diffuser lenses (intended for mockup purposes only, order separately)

Diffuser lens 1 (1 notch)



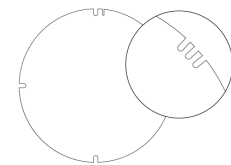
147671

Diffuser lens 2 (2 notches)



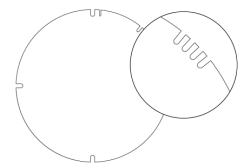
147672

Diffuser lens 3 (3 notches)



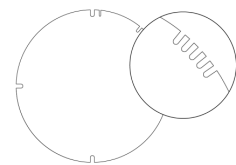
147673

Diffuser lens 4 (4 notches)



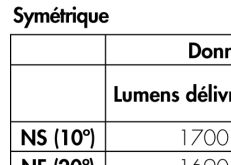
147674

Diffuser lens 5 (5 notches)



147675

Diffuser lens 6 (6 notches)



Symétrique

	Données préliminaires	
	Lumens délivrés (lm)	Intensité lumineuse (cd)
NS (10°)	1700	23 954
NF (20°)	1690	12 601
M (30°)	1711	7307
FL (40°)	1711	4155
WFL (60°)	1705	1616

Basé sur la configuration MRGBV40K à 100%, DMX/RDM.
La performance photométrique est mesurée conformément à IESNA LM-79-08.

147676

Final distribution using diffuser lenses

	Final Distribution Using Diffuser Lens					
Original Distribution on Fixture	Diffuser Lens 1 1 Notch	Diffuser Lens 2 2 Notches	Diffuser Lens 3 3 Notches	Diffuser Lens 4 4 Notches	Diffuser Lens 5 5 Notches	Diffuser Lens 6 6 Notches
XN (4°/5°)	VN	NS	NF	M	FL	WFL
VN (6°)	NS					
NS (10°)						
NF (20°)						
M (30°)						
FL (40°)						
WFL (60°)						

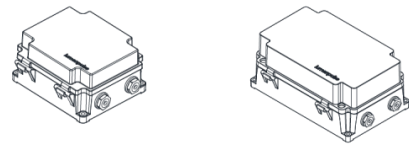
Choose a diffuser lens based on the desired final beam distribution. Refer to the 6-digit part numbers above to order diffuser lenses individually. To order a complete set of 6 diffuser lenses in a bag, refer to the following item names: **LBS**: LBALK-S **LBM/LBMP**: LBALK-M **LBL/LBLP**: LBALK-L **LBG/LBGP**: LBALK-G **LBX/LBXP**: LBALK-X.

The diffuser lenses are intended for mockup purposes only. A lens holder is required to install a diffuser lens on the fixture, order separately using the following names: **LBS**: LBSLSLA-FINISH-LBALK **LBM/LBMP**: LBMLSAL-FINISH-LBALK **LBL/LBLP**: LBLLSLA-FINISH-LBALK **LBG/LBGP**: LBGLSLA-FINISH-LBALK **LBX/LBXP**: LBXLSLA-FINISH-LBALK

Please specify the exterior **FINISH** from the list of finishes in the fixture order code.
Refer to the Diffuser Lens Installation Instructions on the Lumenpulse website for information on installing the diffuser lenses.

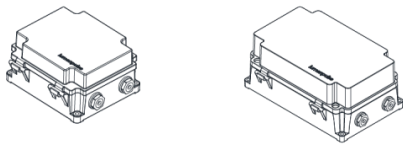
Control boxes (order separately)

CBX-DMX/RDM - DMX/RDM enabled (daisy chain or star configuration)



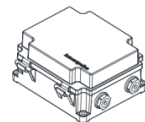
DMX/RDM control box. Up to six power and data outputs to fixtures or fixture runs. Consult CBX specification sheet and installation instructions for details. Lumenterminators provided with CBX (2x for daisy chain configuration, 6x for star configuration), consult factory to order spares.

CBX-ENET - Ethernet enabled (daisy chain or star configuration)



Ethernet control box. Up to four power and data outputs to fixture or fixture runs. Consult Ethernet CBX specification sheet and installation instructions for details.

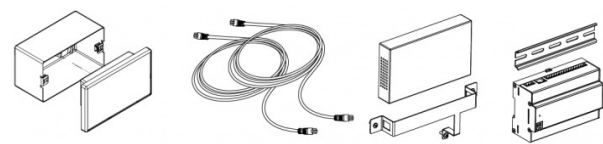
LDB - Lumentalk Data Bridge



Lumentalk Data Bridge, 1-10V or DMX output. Consult LDB specification sheet for details.

Control systems (order separately)

PHAROS - Pharos® kit



The Pharos kit, available for 1 or 2 DMX universes, allows for complete control of large lighting installations. 2 DMX universes kit shown.

Diagnostic and addressing tools (order separately)

LID - LumenID



LumenID is a diagnostic and addressing DMX/RDM tool. It must be specified on all DMX applications. Consult LID specification sheet for details.

LID-LT - LumentalkID



LumentalkID is a diagnostic and addressing tool. It must be specified for all Lumentalk (LT) applications. Consult LID-LT specification sheet for details.

EPA Guide

	LBM	LBM with snoot	LBM with visor	LBM with snoot wide
				
EPA front (m²)	0.041	0.041	0.041	0.054
EPA side (m²)	0.017	0.029	0.029	0.028

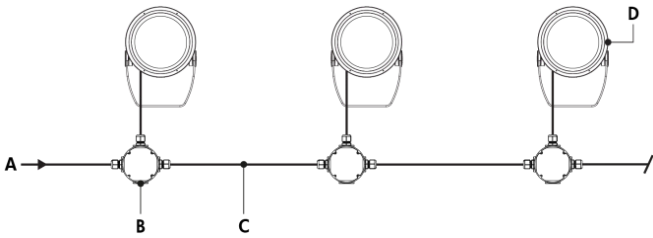
Typical wiring diagrams

Wiring colour code

CE Colour Code	USE
Yellow/Green	Ground
Brown	Line
Blue	Line/Neutral
Black or Purple	1-10V / Data +
Grey or Orange	1-10V / Data -
Grey	Signal common (DMX/RDM only)

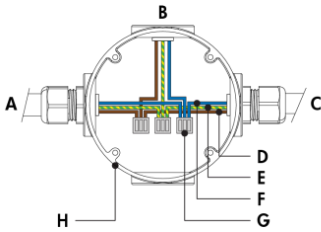
CE Class II Colour Code		USE
All other controls	DMX/RDM	
Brown	Brown	Line
Blue	Blue	Line/Neutral
Black 1	Grey	Signal common (DMX/RDM only)
Black 2	Black or Purple	1-10V / Data +
Grey	Grey or Orange	1-10V / Data -
N/A	Yellow/Green	Ground (do not connect)

On/Off Control (NO)



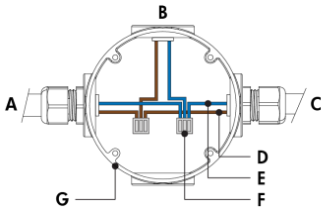
- A - Power input (100-277V AC, wiring by others)
- B - Junction box (by others)
- C - Power wiring (by others)
- D - Lumenbeam Medium

On/Off control (NO) - wiring detail - CE



- A - Power input or from previous fixture
- B - To fixture
- C - To next fixture
- D - Line
- E - Ground
- F - Line/Neutral
- G - Terminal connector (by others)
- H - Junction box (by others)

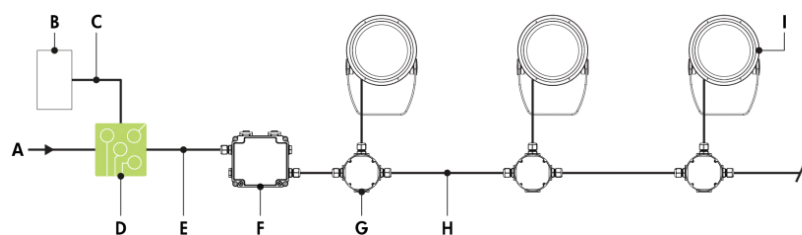
On/Off control (NO) - wiring detail - CE Class II



- A - Power input or from previous fixture
- B - To fixture
- C - To next fixture
- D - Line
- E - Line/Neutral
- F - Terminal connector (by others)
- G - Junction box (by others)

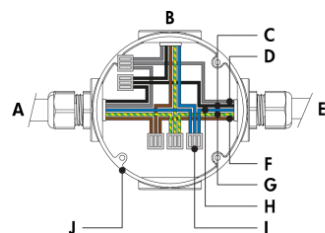
- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- 28 watts per fixture.

Lumentalk (LT)



- A** - Power input (100-277V AC, wiring by others)
- B** - Dimmer/controller (order separately from Lumenpulse, or by others)
- C** - Data wiring (by others)
- D** - Lumentalk Data Bridge (LDB-DIM, -DMX, -TRIAC, -DALI)
- E** - Power wiring (by others)
- F** - Lumentalk Data Bridge (LDB-DIM or LDB-DMX)
- G** - Junction box (by others)
- H** - Power and data wiring (by others)
- I** - Lumenbeam Medium

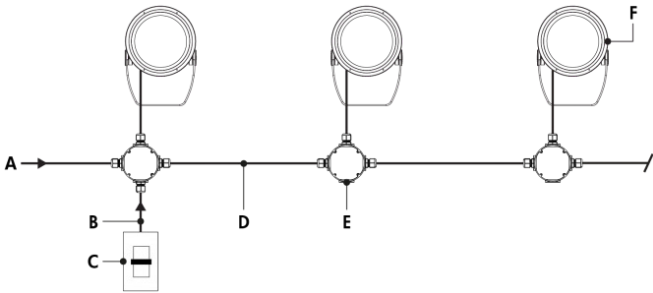
Lumentalk (LT) - wiring detail using LDB



- A** - From Lumentalk Data Bridge (control over power line via Lumentalk system) or from previous fixture
- B** - To fixture
- C** - 1-10 V + / Data +
- D** - 1-10 V - / Data -
- E** - To next fixture
- F** - Line
- G** - Ground
- H** - Line/Neutral
- I** - Terminal connector (by others)
- J** - Junction box (by others)

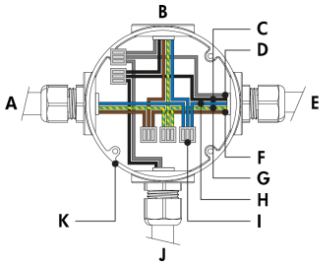
- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- Lumentalk Data Bridge required for Lumentalk system, see LDB installation instructions for details.
- For applications with all fixtures controlled as 1 zone: fixtures and Lumentalk Data Bridge must be specified as DIM. Maximum of 10 fixtures per LDB-DIM, consult factory for applications that require additional capabilities.
- For applications with fixtures controlled individually: fixtures and Lumentalk Data Bridge must be specified as DMX, 2-step commissioning process: 1 - DMX/RDM system using LumenID software and a LID, 2 - Lumentalk system using LumentalkID software and a LID-LT. Maximum of 32 fixtures per LDB-DMX. Consult factory for details.
- For DMX applications: 1 DMX controller per Lumentalk network, maximum of 48 DMX channels per Lumentalk network (minimum step transition update rate is 1 second, minimum fade time between two colours is 1 minute). Consult factory for applications that require additional capabilities.
- Maximum of 1 transmitter (Lumentranslator or Lumenlink) per system.
- No third party fixtures allowed on the same circuit.
- Consult factory for DALI Lumentalk applications.
- 1% minimum dimming value.
- 28 watts per fixture.

1-10V dimming (DIM)



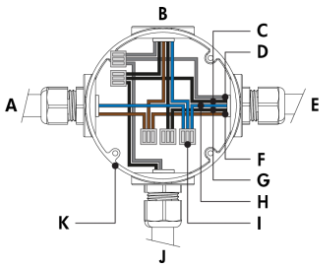
- A - Power input (100-277V AC, wiring by others)
- B - Data wiring (by others)
- C - Dimmer (by others)
- D - Power and data wiring (by others)
- E - Junction box (by others)
- F - Lumenbeam Medium

1-10V dimming (DIM) - wiring detail - CE



- A - Power input or from previous fixture
- B - To fixture
- C - 1-10 V +
- D - 1-10 V -
- E - To next fixture
- F - Line
- G - Ground
- H - Neutral
- I - Terminal connector (by others)
- J - From dimmer (by others)
- K - Junction box (by others)

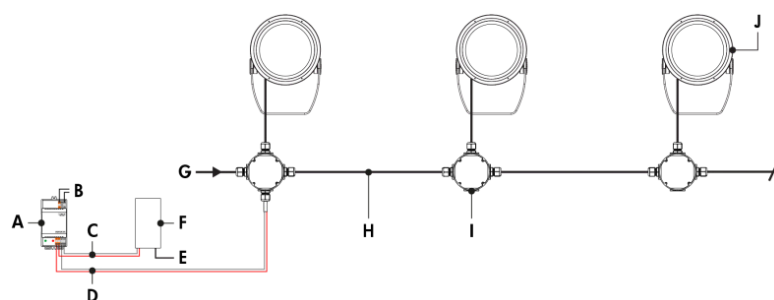
1-10V dimming (DIM) - wiring detail - CE Class II



- A - Power input or from previous fixture
- B - To fixture
- C - 1-10 V + (black 2)
- D - 1-10 V -
- E - To next fixture
- F - Line
- G - Signal common (black 1)
- H - Neutral
- I - Terminal connector (by others)
- J - From dimmer (by others)
- K - Junction box (by others)

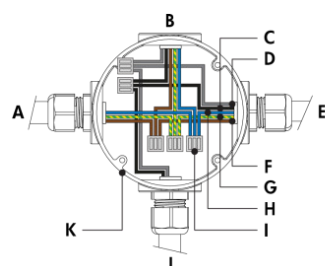
- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- 1-10V mA ratings: passive dimmer (Current Sink): 3mA per fixture, active dimmer (Current Source): 0.5mA per fixture.
- 1% minimum dimming value.
- 28 watts per fixture.

DALI dimming (DALI)



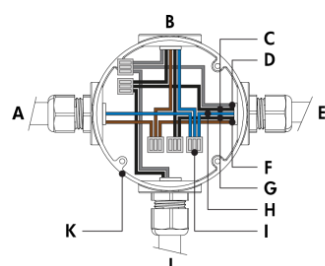
- A** - DALI bus power supply (by others)
- B** - Power input for DALI bus power supply (wiring by others)
- C** - Data output to DALI controller (wiring by others)
- D** - Data output to fixture (wiring by others)
- E** - Power input for DALI controller (if required, wiring by others)
- F** - DALI controller (by others)
- G** - Power input (100-277V AC, wiring by others)
- H** - Power and data wiring (by others)
- I** - Junction box (by others)
- J** - Lumenbeam Medium

DALI dimming (DALI) - wiring detail - CE



- A** - Power input or from previous fixture
- B** - To fixture
- C** - DA +
- D** - DA -
- E** - To next fixture
- F** - Line
- G** - Ground
- H** - Neutral
- I** - Terminal connector (by others)
- J** - From DALI controller (by others)
- K** - Junction box (by others)

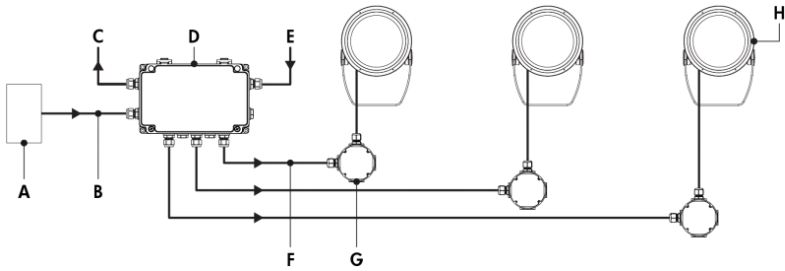
DALI dimming (DALI) - wiring detail - CE Class II



- A** - Power input or from previous fixture
- B** - To fixture
- C** - DA + (black 2)
- D** - DA -
- E** - To next fixture
- F** - Line
- G** - Signal common (black 1)
- H** - Neutral
- I** - Terminal connector (by others)
- J** - From DALI controller (by others)
- K** - Junction box (by others)

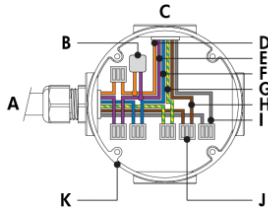
- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- Maximum of 64 DALI fixtures per DALI loop.
- Commissioning may be required based on the selection of 3rd party DALI controller. Controller and commissioning provided by others.
- 1% minimum dimming value.
- 28 watts per fixture.

Star Layout (DMX/RDM)



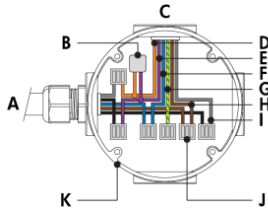
- A - DMX/RDM controller (order separately from Lumenpulse, or by others)
- B - Data input (Belden 9841 or equivalent, by others)
- C - Data output to next CBX (optional, not isolated/not boosted)
- D - CBX-ST
- E - Power input (100-277V AC, wiring by others)
- F - Power and data output to fixture (wiring by others)
- G - Junction box (by others)
- H - Lumenbeam Medium

Star Layout (DMX/RDM) - wiring detail - CE



- A - From CBX
- B - Lumenterminator
- C - To fixture
- D - Data -
- E - Data +
- F - Neutral
- G - Ground
- H - Line
- I - Signal common
- J - Terminal connector (by others)
- K - Junction box (by others)

Star Layout (DMX/RDM) - wiring detail - CE Class II



- A - From CBX
- B - Lumenterminator
- C - To fixture
- D - Data -
- E - Data +
- F - Neutral
- G - Ground (do not connect)
- H - Line
- I - Signal common
- J - Terminal connector (by others)
- K - Junction box (by others)

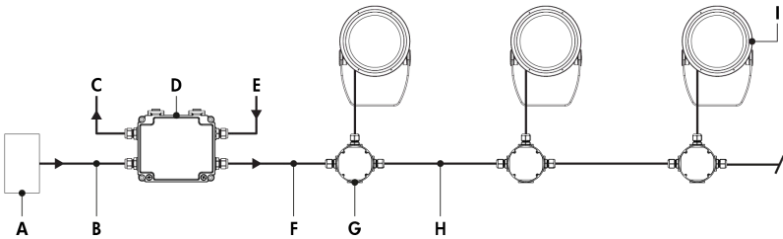
Maximum fixture count per run

Configuration/Voltage	120V	208V	240V	277V
LBM	29	32	32	32

Based on 16A maximum, 1,5 mm² cable, fixtures spaced 3 m on centre, first fixture 15 m from CBX.

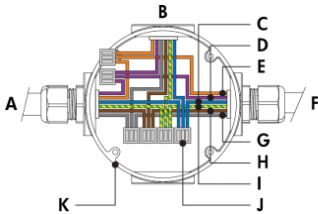
- Consult CBX installation instructions for additional wiring details.
- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- Run length calculations are based on a voltage drop of no more than 25V.
- The DMX/RDM protocol states a maximum of 32 DMX/RDM enabled fixtures on any single run.
- Maximum of 4 DMX/RDM repeaters/CBX cascading in line.
- Maximum of 6 outputs per CBX-ST.
- Each fixture requires 1 DMX address.
- DMX terminator is required at the end of each run to maintain data integrity. Six (6x) DMX lumenterminators included per CBX-ST. See installation instructions for details.
- 1% minimum dimming value.
- 28 watts per fixture.

Daisy Chain Layout (DMX/RDM)



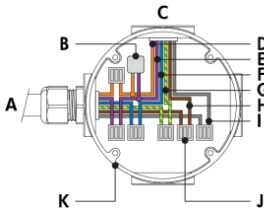
- A** - DMX/RDM controller (order separately from Lumenpulse, or by others)
- B** - Data input (Belden 9841 or equivalent, by others)
- C** - Data output to next CBX (optional, not isolated/not boosted)
- D** - CBX-DS
- E** - Power input (100-277V AC, wiring by others)
- F** - Power and data output to fixture (wiring by others)
- G** - Junction box (by others)
- H** - Power and data wiring (by others)
- I** - Lumenbeam Medium

Daisy Chain Layout (DMX/RDM) - wiring detail (first or middle of run) - CE



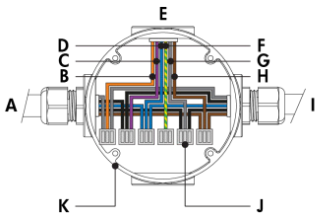
- A** - From CBX or previous fixture
- B** - To fixture
- C** - Neutral
- D** - Data +
- E** - Data -
- F** - To next fixture
- G** - Signal common
- H** - Line
- I** - Ground
- J** - Terminal connector (by others)
- K** - Junction box (by others)

Daisy Chain Layout (DMX/RDM) - wiring detail (end of run) - CE



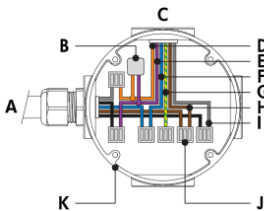
- A** - From CBX or previous fixture
- B** - Lumenterminator
- C** - To fixture
- D** - Data -
- E** - Data +
- F** - Neutral
- G** - Ground
- H** - Line
- I** - Signal common
- J** - Terminal connector (by others)
- K** - Junction box (by others)

Daisy Chain Layout (DMX/RDM) - wiring detail (first or middle of run) - CE Class II



- A** - From CBX or previous fixture
- B** - Data -
- C** - Data +
- D** - Neutral
- E** - To fixture
- F** - Ground (do not connect)
- G** - Signal common
- H** - Line
- I** - To next fixture
- J** - Terminal connector (by others)
- K** - Junction box (by others)

Daisy Chain Layout (DMX/RDM) - wiring detail (end of run) - CE Class II



- A** - From CBX
- B** - Lumenterminator
- C** - To fixture
- D** - Data -
- E** - Data +
- F** - Neutral
- G** - Ground (do not connect)
- H** - Line
- I** - Signal common
- J** - Terminal connector (by others)
- K** - Junction box (by others)

Maximum fixture count per run

Configuration/Voltage	120V	208V	240V	277V
LBM	29	32	32	32

Based on 16A maximum, 1,5 mm² cable, fixtures spaced 3 m on centre, first fixture 15 m from CBX.

- Consult CBX installation instructions for additional wiring details.
- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- Run length calculations are based on a voltage drop of no more than 25V.
- The DMX/RDM protocol states a maximum of 32 DMX/RDM enabled fixtures on any single run.
- Maximum of 4 DMX/RDM repeaters/CBX cascading in line.
- Maximum of 1 output per CBX-DS.
- Maximum of 0.9 m cable length between fixture and next junction box for daisy chain layout.
- Each fixture requires 1 DMX address.
- DMX terminator is required at the end of each run to maintain data integrity. Two (2x) DMX lumenterminators included per CBX-DS. See installation instructions for details.
- 1% minimum dimming value.
- 28 watts per fixture.

How to order

Housing	Voltage	Colour and Colour Temperature ⁽¹⁾	Optics	Optical Option ^{(5) (7)}	Finish	Control ^{(11) (12)}	Options	Certification	Cable Length ^{(14) (18)}	Cable Colour
LBM Lumenbeam™ Medium	100 100 volts	22K 2200K	XN Extra Narrow 4° ⁽⁴⁾	LSLH Linear spread lens horizontal distribution ⁽⁶⁾	BK Black Sandtex®	NO On/Off control	SY Short Yoke	UL UL compliant ⁽¹⁷⁾	1M 1 m ^{(14) (18)}	BK Black
	120 120 volts	27K 2700K	VN Very Narrow 6° ⁽⁴⁾	BRZ Bronze Sandtex®	BRZ Bronze Sandtex®	DIM 1-10V dimming	3GV 3G ANSI C136.31-2010 Vibration Rating for bridge applications	CE CE compliant	5M 5 m	WH White ⁽¹⁹⁾
	208 208 volts	30K 3000K	NS Narrow Spot 10° ⁽⁴⁾	LSLV Linear spread lens vertical distribution ⁽⁶⁾	SI Silver Sandtex®	DALI DALI dimming		CEI CE compliant Class II double insulated	10M 10 m	
	220 220 volts	35K 3500K	NF Narrow Flood 20° ⁽⁴⁾		WH Smooth white	DMX/RDM DMX/RDM enabled ^{(13) (14)}	CRC Corrosion-resistant coating for hostile environments ^{(15) (16)}		15M 15 m	
	240 240 volts	40K 4000K	M Medium 30° ⁽⁴⁾		BKTX Textured black				20M 20 m	
	277 277 volts	57K 5700K	FL Flood 40° ⁽⁴⁾		BRZTX Textured bronze non-metallic				30M 30 m	
		RD Red ^{(2) (3)}	WFL WF 60° ⁽⁴⁾		GRATX Textured medium grey					
		GR Green ^{(2) (3)}	NAS Narrow Asymmetric ⁽⁴⁾		GRNTX Textured green					
		BL Blue ^{(2) (3)}	WW Asymmetric Wallwash ⁽⁴⁾		WHTX Textured white					
					CC Custom colour and finish (please specify RAL colour) ^{(8) (9) (10)}					

- Notes:**

 - 1. Consult factory for availability of static Royal Blue, Amber, 6500K and 90+ CRI.
 - 2. Static colours made to order 8-10 weeks.
 - 3. Not available for XN optic.
 - 4. Factory installed, not interchangeable on site.
 - 5. Optical options are factory installed and cannot be changed in the field.
 - 6. Field adjustable spread lens optical accessory available, order separately.
 - 7. Not available with WFL, NAS and WW optics.
 - 8. Lumenpulse offers a wide selection of RAL CLASSIC (K7) colours with a smooth texture and high-gloss finish. Please consult factory for a list of available K7 colours, other RAL textures and glosses, or to match alternate colour charts. Final colour matching results may vary.
 - 9. Setup charges apply for RAL colours. Consult factory for details.
 - 10. Longer lead times can be expected for custom RAL colour finishes.
- 11. Lumentalk system is enabled with LDB accessory, DIM or DMX/RDM must be specified in the order code. See the typical wiring diagrams in the specification sheet for details.
 - 12. A Lumentranslator 2 (LTL2) and LumentalkID (LIDL) must be specified for Lumentalk applications. Consult Lumentranslator 2 and Lumentalk pages and specification sheets for details.
 - 13. A control box (CBX) and LumenID (LID) must be specified.
 - 14. Maximum of 1 m cable length for daisy chain DMX applications with CBX-DS.
 - 15. Use only when exposed to salt spray. This option is not required for normal outdoor exposure.
 - 16. Setup charges apply. Consult factory for details.
 - 17. Consult North American specification sheets and installation instructions for UL wiring information.
 - 18. 1 m cable length is standard unless otherwise specified.
 - 19. Not available with CE or CEI certification options.



MLINE IP67 WHITE

mLine LUM-E FL-112-14/N3-822 AG L1000

Luminaire segment

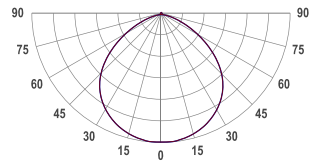
Product code: A05 LEC EO FL112-14N3-822 AG 1000



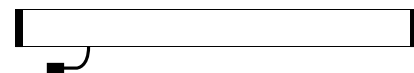
COLORS

White, Grey or Black housing

PHOTOMETRICS

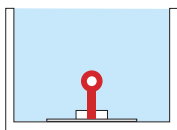


SEGMENT LAYOUT



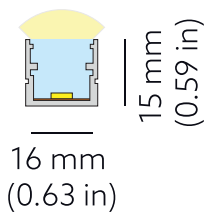
Luminaire type segment

CONNECTION TYPE



End exit wire or Side or Back

TECHNICAL DRAWING



SPECTRUM

2200K
CRI 80+
3-Step MacAdam

COVER

Opal

LUMINOUS FLUX

Per segment: 757 lm
Light source (per segment): 1641 lm
Per meter/feet: 757 lm/m | 231 lm/ft

EFFICACY

Luminaire: 53 lm/W
Light source: 114 lm/W

LIFETIME

L90B10 60.000h

HOUSING

Aluminum, polyurethane

ELECTRICAL

Segment power: 14.4 W
Power per meter/feet: 14.4 W/m
Voltage: 24 VDC

TEMPERATURE

Tc max <75°C (167°F)
Operating: -25°C...+50°C (-13°F...122°F)

OTHER DETAILS

IP67 protection
Dimmable

DIMENSIONS

Width: 16 mm (0.63")
Height: 15 mm (0.59")
Length: 1004 mm | 3.3'