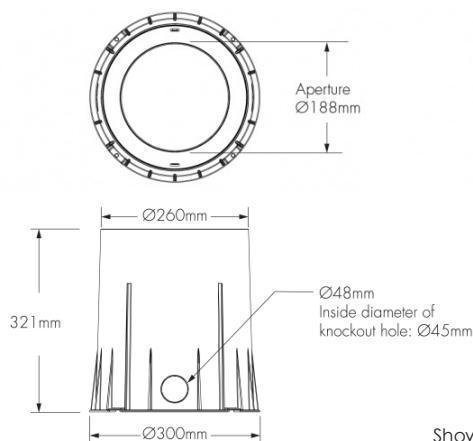


Project Name _____ Qty _____

Type _____ Catalog / Part Number _____



Top view

Front view
Shown with FLN trim type

Photometric Summary

Symmetric

| | Delivered output (lm) | Intensity (peak cd) | Power ^[1] (120V) [W] |
|------------------|-----------------------|---------------------|---------------------------------|
| VN (6°) | 1695 | 83,330 | 30 ^[4] |
| NS (10°) | 4371 ^[3] | 63,536 | 60 ^[2] |
| M (30°) | 4929 ^[3] | 21,162 | 60 ^[2] |
| FL (40°) | 4442 ^[3] | 10,611 | 60 ^[2] |
| WFL (60°) | 4118 ^[3] | 4157 | 60 ^[2] |

Bi-symmetric

| | Delivered output (lm) | Intensity (peak cd) | Power ^[1] (120V) [W] |
|----------------|-----------------------|---------------------|---------------------------------|
| 6°x90° | 1585 | 8136 | 30 ^[4] |
| 90°x6° | | | |
| 15°x90° | 3670 ^[3] | 9152 | 60 ^[2] |
| 90°x15° | | | |
| 25°x90° | 3836 ^[3] | 5471 | 60 ^[2] |
| 90°x25° | | | |
| 35°x90° | 3396 ^[3] | 3536 | 60 ^[2] |
| 90°x35° | | | |

Asymmetric

| | Delivered output (lm) | Intensity (peak cd) | Power ^[1] (120V) [W] |
|------------|-----------------------|---------------------|---------------------------------|
| NAS | 1713 | 26,491 | 30 ^[4] |
| WW | 2182 | 3250 | 36 ^[2] |

Based on 4000K, On/Off configuration. Tested with LFR lens for VN optic, SFR lens for NAS, WW optics and CL lens for all other optics.

Photometric performance is measured in compliance with IESNA LM 79-08. Consult photometric files for static color information.

- [1] Add 5 W per fixture when specifying DMX/RDM.
 [2] Use 39 W when specifying Lumentalk for white light.
 [3] 70% output for Lumentalk, 80% output for DALI when specifying white light.
 [4] Use 32 W when specifying Lumentalk for VN, 6°x90°, 90°x6° and NAS.

Description

The Lumenbeam Inground Large is a high-performance, ground-recessed LED projector designed to solve a range of inground lighting challenges with a choice of optics, trim, lenses and control options. The plug and play design simplifies installation, protecting the system from water infiltration and ensuring long-lasting performance. Built with robust, high-quality materials that are resistant to harsh environments, the Lumenbeam Inground Large delivers L70 LED lifetimes from 79,000 up to 370,000 hours, has a Drive-Over rating of 5000kg, IK10 glass lens and an IP68 factory-sealed optical chamber.

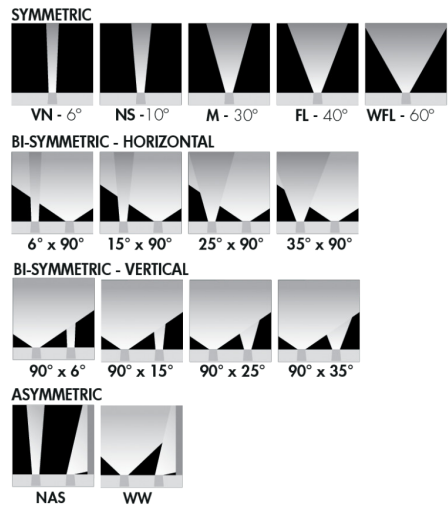
Features

| | |
|---|--|
| Construction | Walk over compliant up to 1000 kg in any type of ground, Drive over compliant up to 5000 kg in concrete |
| Colour and Colour Temperature | 2200K, 2700K, 3000K, 3500K, 4000K, 5700K, Red, Green, Blue |
| Optics (nominal distribution) | VN (6°), NS (10°), M (30°), FL (40°), WFL (60°), 6° x 90°, 15° x 90°, 25° x 90°, 35° x 90°, 90° x 6°, 90° x 15°, 90° x 25°, 90° x 35°, NAS (Narrow Asymmetric), WW (Asymmetric Wallwash) |
| Lens | Clear lens, Small frosted ring, Large frosted ring, Softening lens, (lens type will vary according to optic, see optics and lens section) |
| Optical Option (factory installed) | Internal louvre |
| Trim Type | Flush trim with hardware, Flush trim no hardware, Bevel edge trim with hardware, Bevel edge trim no hardware |
| Blockout | Recessed blockout, Recessed blockout with mounting brackets |
| Options | Anti-slip lens |
| Adjustment | -3° to +15° tilt, 360° rotation |
| Power Consumption | 30 W to 60 W |
| Warranty | 5-year limited warranty |

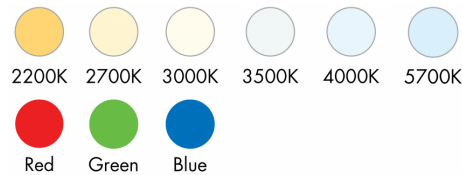
Performance

| | |
|------------------------------------|--|
| Maximum Delivered Output | 4929 lm (4000K, M 30°, CL lens, On/Off control) |
| Maximum Delivered Intensity | 83,330 cd at nadir (4000K, VN 6°, LFR lens, On/Off control) |
| Illuminance at Distance | Minimum 1 lx at 288 m (4000K, VN 6°, LFR lens, On/Off control) |
| Colour Consistency | 2 SDCM, 3 SDCM (2200K and 5700K) |

Optics



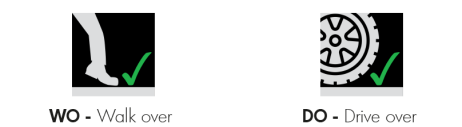
Colours and Colour Temperatures



Controls



Construction



Trim Finishes



Options



Ratings

IP68 IK10

Certifications



| | |
|-------------------|--|
| Colour Rendering | Minimum CRI 80 |
| Lumen Maintenance | L70 B50 79,000 to 370,000 hrs (Ta 25 °C), L70 B50 77,000 to 90,500 hrs (Ta 40°), L80 B50 49,000 to 225,000 hrs (Ta 25 °C), L80 B50 48,500 to 54,000 hrs (Ta 40°) |

Physical

| | |
|--------------------------|---|
| Optical Chamber Material | Brass for walk-over and drive-over construction in harsh environments |
| Blockout Material | Fibreglass reinforced polymer |
| Lens Material | Tempered glass |
| Hardware Material | Stainless steel |
| Gasket Material | Silicone |
| Trim Finish | Brushed stainless steel, Polished stainless steel |
| Weight | 10.43 kg |

Electrical and control

| | |
|------------------------|---|
| Voltage | 120-277 volts, 220-240 volts |
| Inrush Current (peak) | See inrush current table for details |
| Leader Cable Conductor | 6C: 3 x 1,5 mm ² / 3 x 0,20 mm ² |
| Leader Cable Connector | IP68 6-pin push-lock |
| Control | On/Off control, Lumentalk, 1-10V dimming, DALI dimming, DMX/RDM enabled |
| Resolution (DMX/RDM) | Per fixture, 8-bit or 16-bit |

Environmental

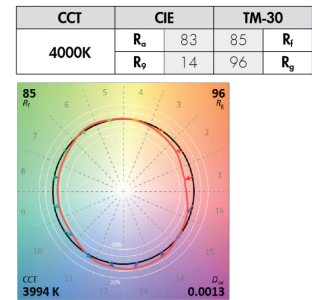
| | |
|---------------------------|--|
| Storage Temperature | -40 °C to 85 °C (device must reach start-up temperature value before operating) |
| Start-up Temperature | -25 °C to 40 °C |
| Operating Temperature | -40 °C to 40 °C, Consult factory for -40 °C to 50 °C temperature range |
| Ingress Protection Rating | IP68 (submerged up to 1 m for up to 24 hours), not suitable for permanent immersion applications |
| Impact Resistance Rating | IK10 |

Accessories (order separately)

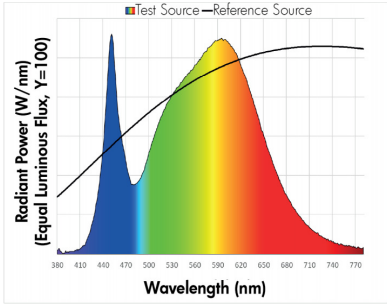
| | |
|---------------------------------|--|
| Cables | 3 Conductor Power and 3 Conductor Data Leader Cable with Connector, 3 Conductor Power and 3 Conductor Data Cable |
| Electrical Accessories | Large Junction Box for Lumenbeam Inground |
| Control Boxes | DMX/RDM enabled (daisy chain or star configuration), Ethernet enabled (daisy chain or star configuration) |
| Control Systems | Pharos® kit |
| Diagnostic and Addressing Tools | LumenID, LumentalkID |

Chromaticity Data

TM-30 - 4000K



Spectral Power Distribution



Construction details

WO - Walk over
compliant up to 1000kg

Trim type All trim options are suitable (FLH, FLN, BVH and BVN)

Ground type Installed in sand, soft soil, compacted soil, pavement or concrete

DO - Drive over
compliant up to 5000kg

Trim type Only trim options with visible hardware are suitable (FLH and BVH)

Ground type Installed in concrete

Optics and lens options

22K, 27K, 30K, 35K, 40K and 57K static colours



| Optics / Lens | Clear | Small frosted ring | Large frosted ring | Softening | Anti-slip |
|-----------------------|-------|--------------------|--------------------|-----------|-----------|
| VN | | | ☑ | | |
| NS/M/FL/WFL | ☑ | | | | |
| 6° /15°/25°/35° x 90° | ☑ | | | | |
| NAS/WW | | ☑ | | | |

☑ Recommended for optimal performance, may be replaced by a softening lens. A softening lens will affect beam distribution and output. Consult factory for application support.

RD, GR and BL static colours

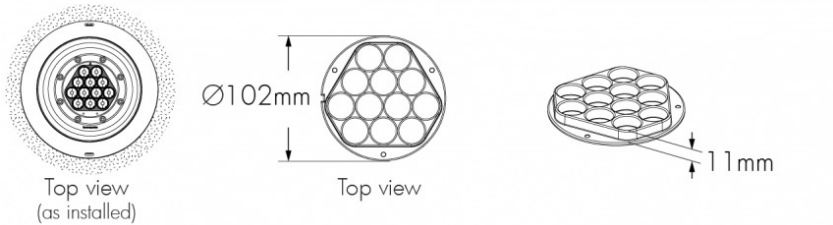


| Optics / Lens | Clear | Small frosted ring | Large frosted ring | Softening | Anti-slip |
|-----------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--|
| VN | | | <input checked="" type="checkbox"/> | Optional | Optional (can be combined with all lenses and optics) |
| NS | <input checked="" type="checkbox"/> | | | | |
| M/FL/WFL | | | | <input checked="" type="checkbox"/> | |
| 6° /15°/25°/35° x 90° | <input checked="" type="checkbox"/> | | | Optional | |
| NAS | | <input checked="" type="checkbox"/> | | | |
| WW | | | | <input checked="" type="checkbox"/> | |

☑ Recommended for optimal performance, may be replaced by a softening lens. A softening lens will affect beam distribution and output. Consult factory for application support.

Optical accessories (factory installed)

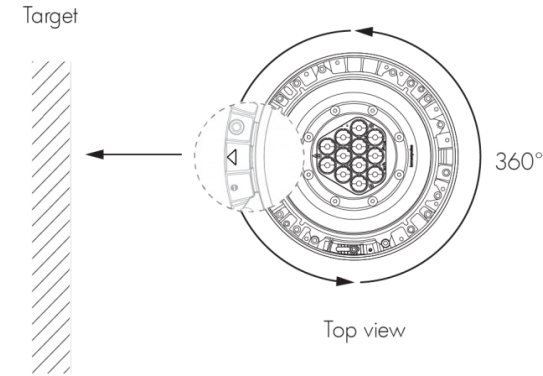
INTL - Internal louvre



- The internal louvre is factory installed and not adjustable in the field.
- Not available for NAS, WW optics.
- The addition of an internal louvre will affect beam distribution, consult factory for application support.

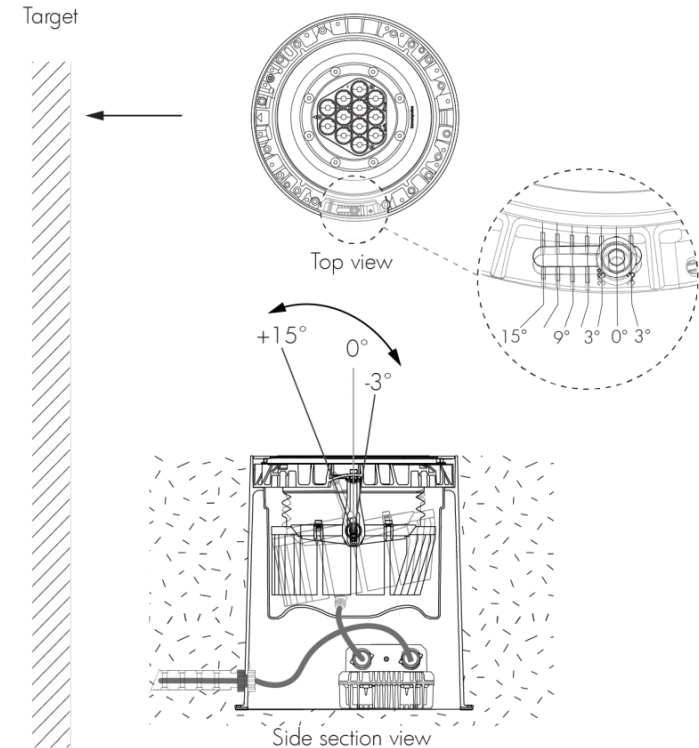
Adjustment

360° Orientation



The optical chamber can be rotated until the arrow faces the target.
Refer to the installation instructions for details.

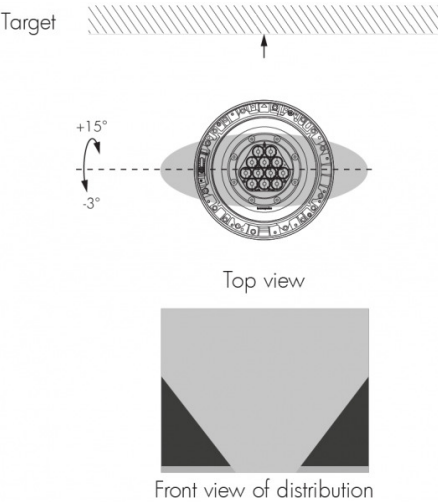
-3° to +15° Tilt adjustment



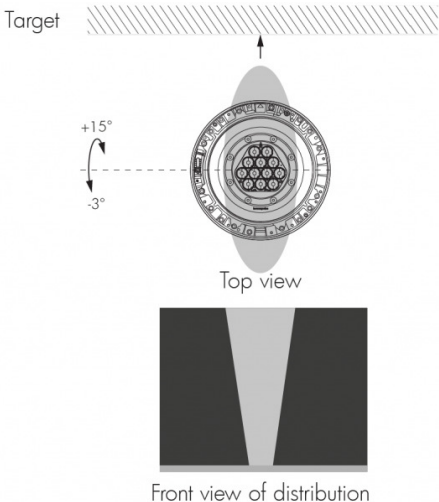
- Tilt can be adjusted on site without opening the factory sealed optical chamber.
- **Asymmetrical optics:** Tilt set in factory for optimal results (WW at 5° and NAS at 3°).

Bi-symmetrical distributions

Horizontal distribution : 6°x90°, 15°x90°, 25°x90°, 35°x90°

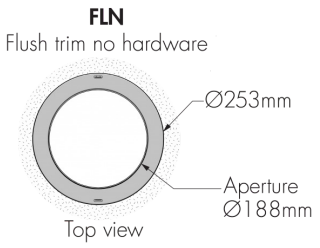
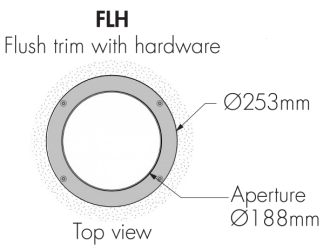
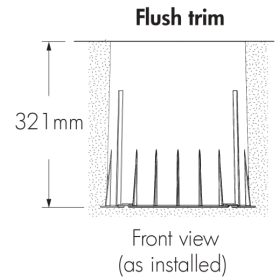


Vertical distribution : 90°x6°, 90°x15°, 90°x25°, 90°x35°



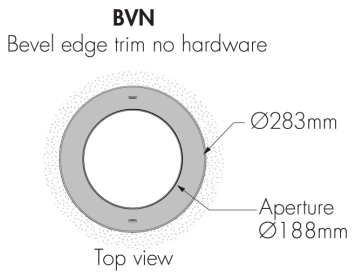
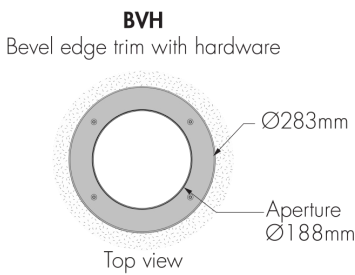
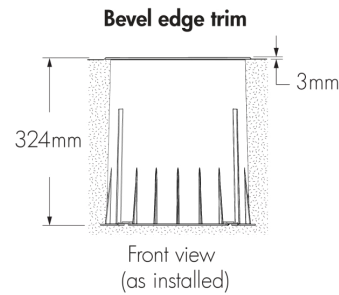
Trim type

Flush trim



Only trims with hardware are drive-over compliant.

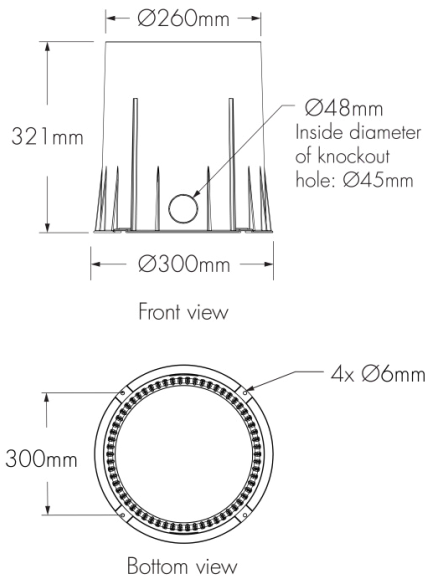
Bevel edge trim



Blockout

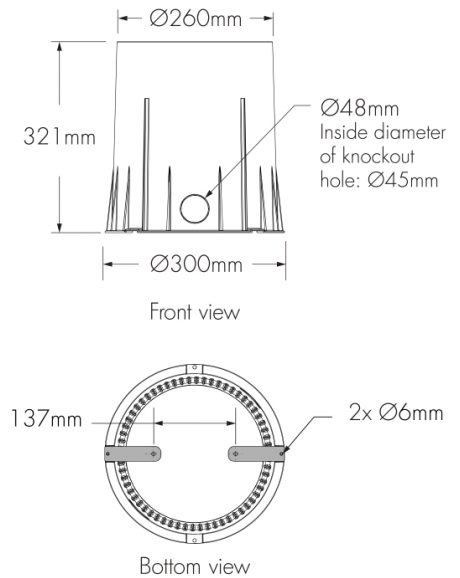
RBO - Recessed Blockout

RBO - Recessed blockout

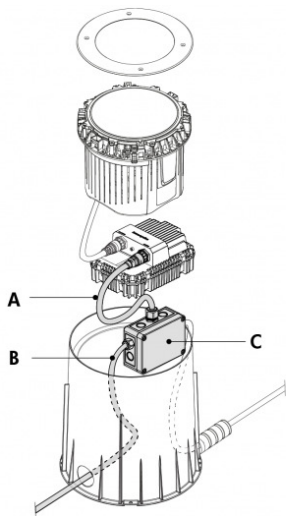


RBM - Recessed Blockout with Mounting Brackets

RBM - Recessed blockout with mounting brackets



Overview - cables and accessories



A - 3P3DLC: 3 Conductor Power and 3 Conductor Data Leader Cable with Connector

B - 3P3DC: 3 Conductor Power and 3 Conductor Data Cable

C - LBI-JBOX-L: Large Junction Box for Lumenbeam Inground (required for continuous runs and DMX/RDM daisy chain layouts)

Refer to typical wiring diagrams for details.

Cables (order separately)

3P3DLC - 3 Conductor Power and 3 Conductor Data Leader Cable with Connector



CERTIFICATION: UL or CE

LENGTH: 3 m, 7.6 m or 15.2 m

- Sealing endcap is mandatory for all unused connectors. One (1) included with every leader cable.
- Consult 3P3DLC specification sheet for details.

3P3DC - 3 Conductor Power and 3 Conductor Data Cable



CERTIFICATION: UL or CE

LENGTH: 15.2 m, 30.5 m, 45.7 m, 61 m or complete spool of cable 76.2 m

Electrical accessories (order separately)

LBI-JBOX-L - Large Junction Box for Lumenbeam Inground (required for continuous runs and DMX/RDM daisy chain layouts)



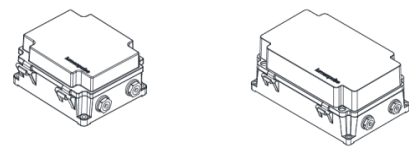
Included

- 1x Junction box with 406 mm 3P3DLC cable whip
- 4x Strain reliefs
- 1x IP68 insulating resin
- 1x Sealing cap

Refer to LBI-JBOX-L installation instructions for details.

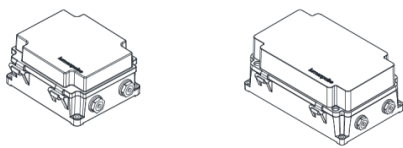
Control boxes (order separately)

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)

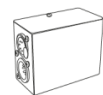
PHAROS - Pharos® kit



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

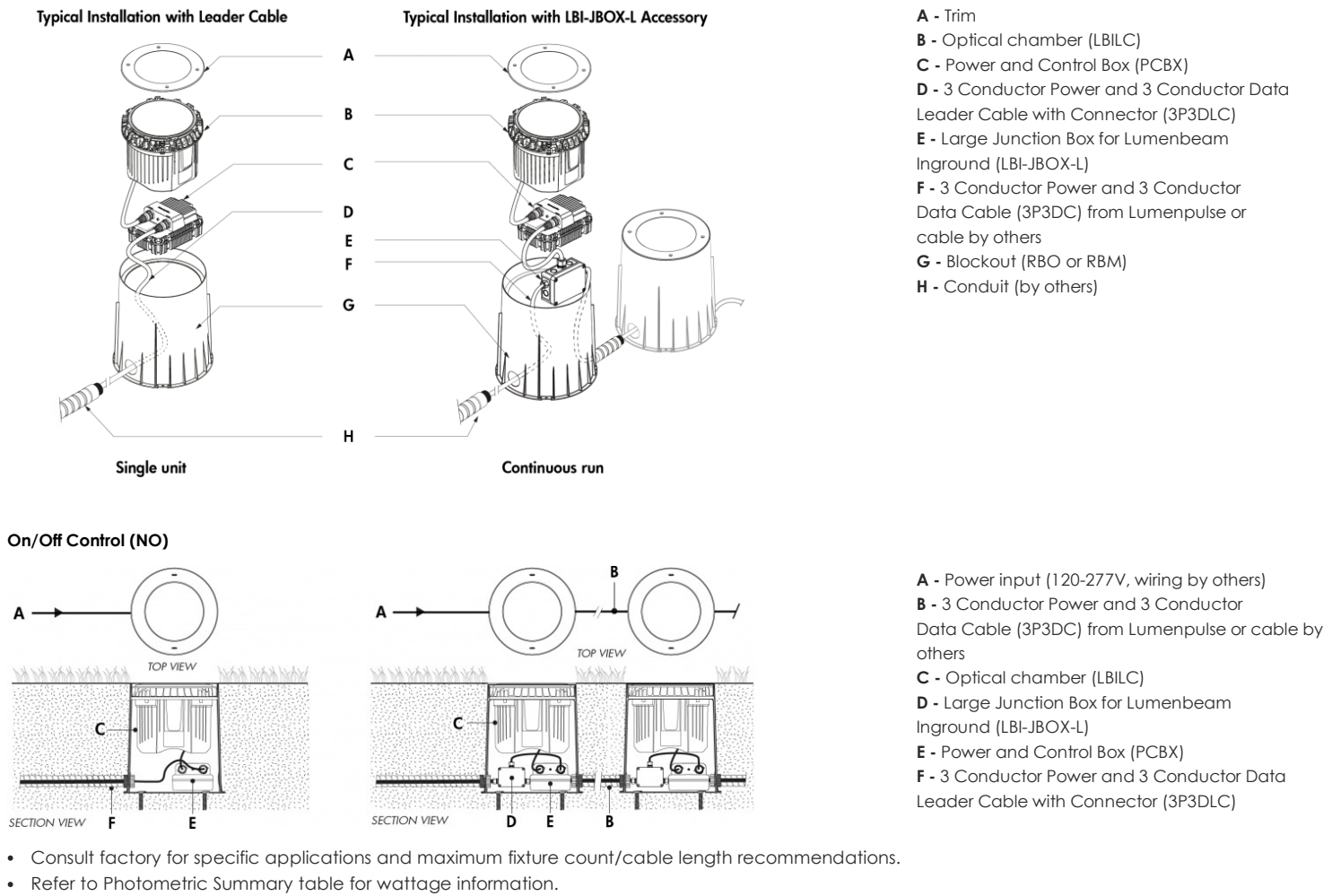


LumentalkID is a diagnostic and addressing tool. It must be specified for all Lumentalk (LT) applications. Consult LID-LT specification sheet for details.

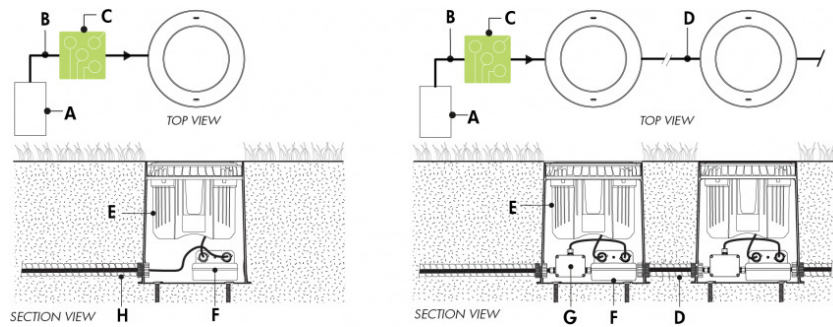
Inrush current (peak)

| Colours and colour temperatures | 2200K, 2700K, 3000K, 3500K, 4000K, 5700K | | | Red, Green, Blue | | |
|--|--|---|------------|---------------------------|---|------------|
| Control | NO, DIM | LT, DMX/RDM | DAI | NO, DIM | LT, DMX/RDM | DAI |
| Optics: VN, NAS, 6° x 90°, 90° x 6° | 5A @120VAC 13A @277VAC | 11A @120VAC 26A @230VAC 28A @277VAC | Negligible | 5A @120VAC 13A @277VAC | 11A @120VAC 26A @230VAC 28A @277VAC | Negligible |
| Optics: NS, M, FL, WFL, 15° x 90°, 90° x 15°, 25° x 90°, 90° x 25°, 35° x 90°, 90° x 35°, WW | Meets NEMA-410 requirements | 13A @120VAC 30A @230VAC 31A @277VAC | Negligible | | | |

Typical wiring diagrams



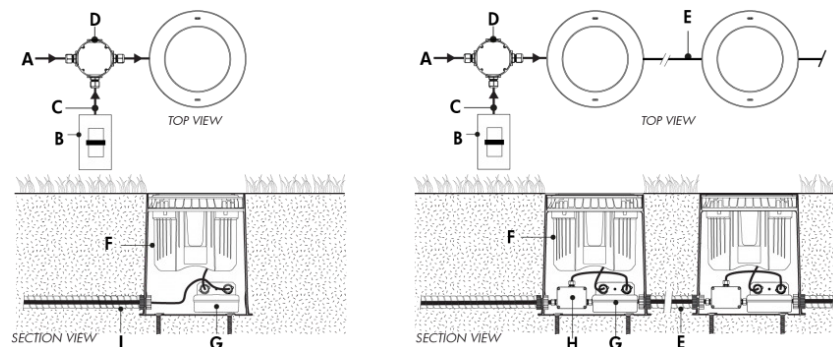
Lumentalk (LT)



- A** - Dimmer/controller (order separately from Lumenpulse, or by others)
- B** - Data wiring (by others)
- C** - Lumentranslator 2 (LTL2 -DIM, -DMX, -TRIAC, -DALI)
- D** - 3 Conductor Power and 3 Conductor Data Cable (3P3DC) from Lumenpulse or cable by others
- E** - Optical chamber (LBILC)
- F** - Power and Control Box (PCBX)
- G** - Large Junction Box for Lumenbeam Inground (LBI-JBOX-L)
- H** - 3 Conductor Power and 3 Conductor Data Leader Cable with Connector (3P3DLC)

- 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. Refer to Photometric Summary table for wattage information.

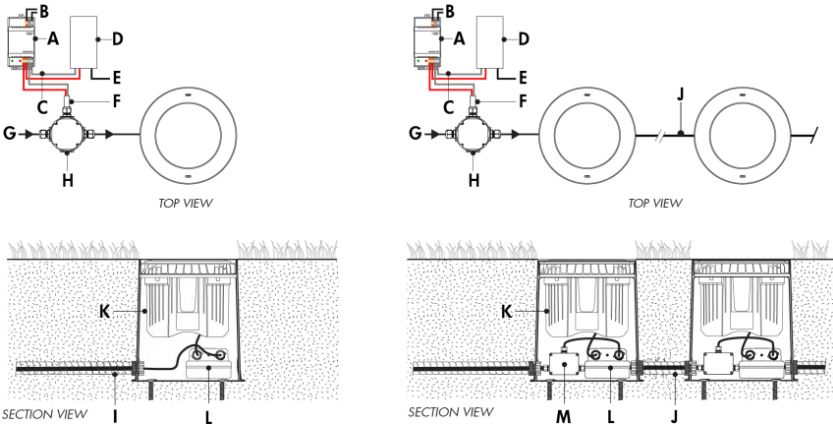
1-10V dimming (DIM)



- A** - Power input (120-277V, wiring by others)
- B** - Dimmer (by others)
- C** - Data wiring (by others)
- D** - Junction box (by others)
- E** - 3 Conductor Power and 3 Conductor Data Cable (3P3DC) from Lumenpulse or cable by others
- F** - Optical chamber (LBILC)
- G** - Power and Control Box (PCBX)
- H** - Large Junction Box for Lumenbeam Inground (LBI-JBOX-L)
- I** - 3 Conductor Power and 3 Conductor Data Leader Cable with Connector (3P3DLC)

- 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. Refer to Photometric Summary table for wattage information.

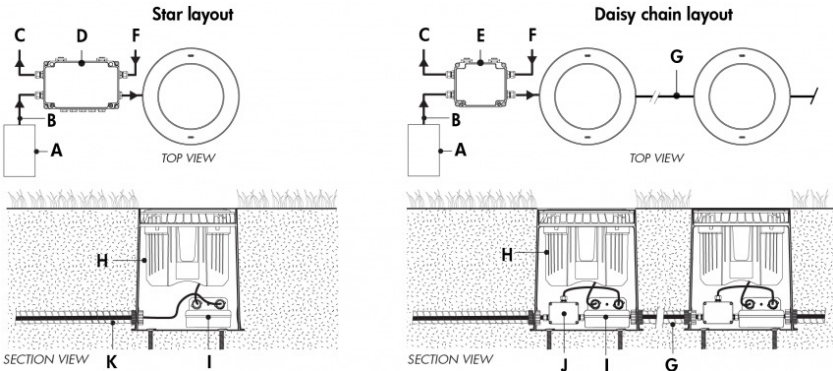
DAI dimming (DALI)



- A - DALI bus power supply (by others)
- B - Power input for DALI bus power supply (wiring by others)
- C - To DALI controller (by others)
- D - DALI controller (by others)
- E - Power input for DALI controller (wiring by others)
- F - To fixture
- G - Power input (120-277V, wiring by others)
- H - Junction box (by others)
- I - 3 Conductor Power and 3 Conductor Data Leader Cable with Connector (3P3DLC)
- J - 3 Conductor Power and 3 Conductor Data Cable (3P3DC) from Lumenpulse or cable by others
- K - Optical chamber (LBILC)
- L - Power and Control Box (PCBX)
- M - Large Junction Box for Lumenbeam Inground (LBI-JBOX-L)

- 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.
- Refer to Photometric Summary table for wattage information.

DMX/RDM enabled (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 - CBX-DS
- F - Power input (120-277V, wiring by others)
- G - 3 Conductor Power and 3 Conductor Data Cable (3P3DC) from Lumenpulse or cable by others
- H - Optical chamber (LBILC)
- I - Power and Control Box (PCBX)
- J - Large Junction Box for Lumenbeam Inground (LBI-JBOX-L)
- K - 3 Conductor Power and 3 Conductor Data Leader Cable with Connector (3P3DLC)

Maximum fixture count

| Configuration/Voltage | 120V | 208V | 240V | 277V |
|---|------|------|------|------|
| LBIL (Maximum number of fixtures per run) | 18* | 32 | 32 | 32 |

Based on 16A maximum, 1.5mm² cable, fixtures spaced 3 m on centre, first fixture 15.2 m from CBX.
*28 fixtures maximum for VN, 6°x90°, 90°x6°, NAS and WW optics.

- Refer to CBX installation instructions for additional wiring details.
- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- 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. Each fixture requires 1 DMX address. Maximum of 1 output per CBX-DS. Maximum of 6 outputs per CBX-ST.
- Refer to Photometric Summary table for wattage information.
- DMX terminator is required at the end of each run to maintain data integrity. (2x) DMX lumenterminators included per CBX-DS, (6x) included per CBX-ST. See installation instructions for details.

How to order

| Housing ⁽¹⁾ | Construction | Voltage | Colour and Colour Temperature ⁽⁵⁾ | Optics | Lens ⁽⁸⁾ | Optical Options | Control ⁽¹⁴⁾ |
|-------------------------------------|--|--|---|--|---|---|---|
| LBIL Lumenbeam Inground Large | WO Walk over DO Drive over ⁽²⁾ | 120/277 120-277 volts ⁽³⁾ 220/240 220-240 volts ⁽⁴⁾ | 22K 2200K 27K 2700K 30K 3000K 35K 3500K 40K 4000K 57K 5700K RD Red ⁽⁶⁾ GR Green ⁽⁶⁾ BL Blue ⁽⁶⁾ | VN Very Narrow 6° ⁽⁷⁾ NS Narrow Spot 10° ⁽⁷⁾ M Medium 30° ⁽⁷⁾ FL Flood 40° ⁽⁷⁾ WFL Wide Flood 60° ⁽⁷⁾ 6x90 6° vertical x 90° horizontal ⁽⁷⁾ 15x90 15° vertical x 90° horizontal ⁽⁷⁾ 25x90 25° vertical x 90° horizontal ⁽⁷⁾ 35x90 35° vertical x 90° horizontal ⁽⁷⁾ 90x6 90° vertical x 6° horizontal ⁽⁷⁾ 90x15 90° vertical x 15° horizontal ⁽⁷⁾ 90x25 90° vertical x 25° horizontal ⁽⁷⁾ 90x35 90° vertical x 35° horizontal ⁽⁷⁾ NAS Narrow Asymmetric ⁽⁷⁾ WW Asymmetric Wallwash ⁽⁷⁾ | CL Clear lens ⁽⁹⁾ SFR Small frosted ring ⁽¹⁰⁾ LFR Large frosted ring ⁽¹¹⁾ SL Softening lens ⁽¹²⁾ | INTL Internal louvre ⁽¹³⁾ | NO On/Off control LT Lumentalk ⁽¹⁵⁾ DIM 1-10V dimming DALI DALI dimming DMX/RDM DMX/RDM enabled ⁽¹⁶⁾ |

Notes:

1. A Lumenbeam Inground fixture includes one optical chamber (LBILC), one Power and Control Box (PCBX), one recessed blackout with temporary blackout cover (RBO or RBM) and one trim (FLH, FLN, BVH or BVN). The LBILC and PCBX are provided according to the optic and control configuration.

2. A trim option with hardware (FLH or BVH) must be specified for DO construction.

3. Available for UL certification only.

4. Available for CE certification only.

5. Consult factory for availability of static Royal Blue, Amber, 6500K and 90+ CRI.

6. Static colours made to order 8-10 weeks.

7. Factory installed, not interchangeable on site.

8. Consult Optics and Lens Options section for details.
9. Available for all optics except VN, NAS and WW.

10. Available for NAS and WW optics only.

11. Available for VN optic only.

12. Available as an alternate lens choice for all optics. A softening lens will affect beam distribution and output. Consult factory for application support.

13. Not available for NAS and WW optics.

14. Wattage and output may vary according to control option. Refer to Photometric Summary table for details.

15. A Lumentranslator 2 (LTL2) and LumentalkID (LIDL) must be specified for Lumentalk applications. Consult Lumentranslator 2 and Lumentalk pages and specification sheets for details.

16. A control box (CBX) and LumenID (LID) must be specified.

How to order

| Trim Type | Trim Finish | Blockout | Options | Environment | Certification |
|---|--|--|------------------------------|---|---|
| FLH Flush trim with hardware | SSB Brushed stainless steel | RBO Recessed blockout | ASL Anti-slip lens | HRS Standard brass material suitable for harsh environments | UL UL compliant ⁽¹⁸⁾ |
| FLN Flush trim no hardware ⁽¹⁷⁾ | SSP Polished stainless steel | RBM Recessed blockout with mounting brackets | | | CE CE compliant |
| BVH Bevel edge trim with hardware | | | | | |
| BVN Bevel edge trim no hardware ⁽¹⁷⁾ | | | | | |

Notes:

17. Not available for DO construction.

18. Consult North American specification sheets and installation instructions for UL wiring information.