



The LS853LED is a full featured, shallow depth inground luminaire featuring lumen output and efficacy exceeding metal halide. As an inherently protected luminaire it can be used in interior spaces and immediately adjacent to combustible materials (such as wood decking or similar). In addition, internal rotation and tilt adjustability ensures the most efficient light delivery can be set according to site conditions.

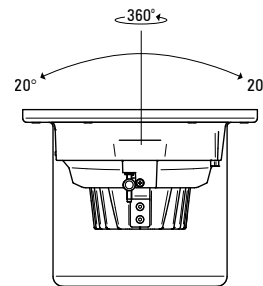
Specifications

Source	16 W or 20 W LED □ White (4 000 K typical) ■ Warm white (3 000 K typical) ■ Blue (470 nm) <i>Other colors by request</i> ■ RGB (20 W LED only)
Lumen Maintenance (L70)	>60,000 hrs <i>Limited by TM-21 x6 rule</i>
Control Options	PWM <i>(0-10 V → PWM and DMX → PWM conversion available)</i>
IP Rating	IP68
Construction	316 marine grade stainless steel
Installation Types	Pre-Installation Blockout Concrete pour, drive-over & general use applications Pre-Installation Collar Decks & grates Direct Burial Landscapes, planters & special applications <i>(consult factory)</i>
Drive-over	With OptiClear™ lens and pre-installation blockout (LS6052-K)
Static Load Rating	9 259 lb (4 200 kg) with OptiClear™ lens and pre-installation blockout <i>(Load applied to center of glass across a 2" (50 mm) dia. area)</i>
Impact Rating	IK10 with OptiClear™ lens
Standard Inclusions	Teflon coated cover screws MicroAntiLeach™ cable entry
Ambient Operating Temperature	-4°F to 122°F (-20°C to 50°C)
Glass Temperature	≤149 °F (≤65 °C) HumanTouch™ compliant
Photometrics	Refer to www.lumascope.com

Any luminaire can become hot - take care with appropriate use and placement



LS853LED
with round flush cover



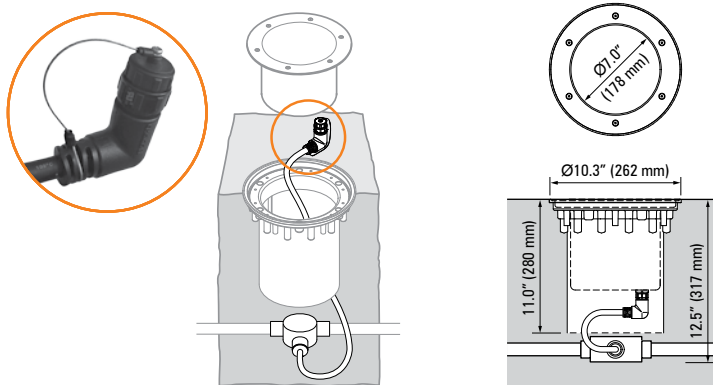
Why Use LS6052-K-87 Pre-Installation Blockout?

The LS6052-K-87 acts as a blockout, and is intended for installation before the luminaire, however it has other special functions. To simplify the installation, every LS6052-K-87 is supplied complete with a 3-way junction box, inside which the installer can make all necessary connections, and allows the completion of all wiring even before the luminaire arrives on site. This method also ensures the luminaire itself is not damaged during concreting or other site works. **Note: The junction box remains serviceable after installation.** To complete the installation, Lumascape provides an IP68 connector, enabling a tool-free final connection from the luminaire to the branch circuit. In addition, this connector is readily detachable, allowing for off-site maintenance.

Why Use LS6052-K-84 Pre-Installation Blockout?

The LS6052-K-84 pre-installation kit (order separately) is ideal for use in applications where maximum flexibility for the type and location of branch circuit connections are required or where exact site conditions may be unknown. The LS6052-K-84 is also for use with all applications requiring a color changing or dimmable lighting scheme. For use with the LS6052-K-84, Lumascape provides the LS853LED complete with 3 m of factory-installed cable with **MicroAntiLeach™** seal. This provides the installer with greater flexibility to determine the type and location of the branch circuit connection. This option is also 100% hard-wired and does not feature the IP68 detachable couplings for off-site maintenance. All aspects of the luminaire itself are still field serviceable.

Connection Type '87' for LS6052-K-87 Pre-Installation Blockout



IP68 Connector & Junction Box

The luminaire is fitted with an IP68 connector, which attaches directly to the cable supplied with LS6052-K-87, without the use of any tools. The cable is 1 m in length, and is factory assembled with a 3-way junction box – **Remains field serviceable after installation.**

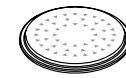
Not suitable for color changing or dimmable applications.

Lens Options



OptiClear™ Glass

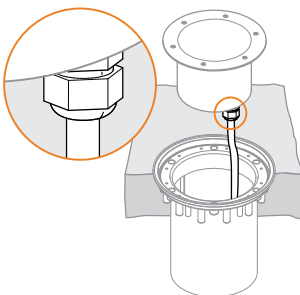
Glass of very high optical purity and load strength. Suitable for walk-over and drive-over applications.



GripGlass™

OptiClear™ glass with slip reduction glazing process. Suitable for walk-over and drive-over applications.

Connection Type '84' for LS6052-K-84 Pre-Installation Blockout

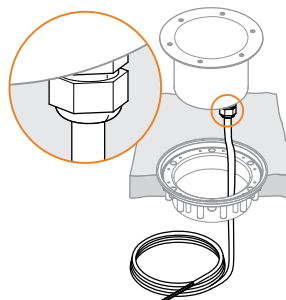


MicroAntiLeach™ Cable

For connection to the branch circuit via junction box (by others) or other approved method.

3 m length. For other length options, consult factory.

Connection Type '84' for LS640-2 Pre-Installation Collar



MicroAntiLeach™ Cable

For connection to the branch circuit via junction box (by others) or other approved method.

3 m length. For other length options, consult factory.

Flush Cover Options

Flush covers for pre-installation use special seals and support bushes to ensure static loads up to 9 259 lb (4 200 kg) are properly supported. In order to achieve this drive-over rating, **OptiClear™** or **GripGlass™** must be used.



Pre-Installation Blockout Round Flush Cover

- SS316: Polished
- SS316: Brushed

Product: **LS853LED** → Source → Lens → Cover → Connection Type → Optical System → Housing Depth → Cable Entry Location → Luminaire Input Voltage

SOURCE				OPTICAL SYSTEM		
Description	Wattage	Color	Code	Description	Beam	Code
LED	16 W	White (4 000 K typ.)	16W4	Adjustable	Narrow 14°	NR
		Warm white (3 000 K typ.)	16H6		Medium 20°	ME
		Blue (470 nm)	16B4		Wide 30°	WD
LED	20 W	White (4 000 K typ.)	20W4	Adjustable	Linear Horizontal 40° x 10°	LH ⁽²⁾
		Warm white (3 000 K typ.)	20H6		Linear Vertical 10° x 40°	LV ⁽²⁾
		Blue (470 nm)	20B4		Narrow Medium 20°	NM
		RGB	20M4		Medium 25°	ME ⁽¹⁾
					Wide 40°	WD
				Linear Horizontal 40° x 20°	LH ⁽²⁾	
				Linear Vertical 20° x 40°	LV ⁽²⁾	

⁽¹⁾ Recommended for best RGB color mixing.
⁽²⁾ Refer to beam orientation diagram.

LENS	
Description	Code
OptiClear™ Very high optical purity and load strength	A ⁽¹⁾
GripGlass™ OptiClear™ with slip reduction glazing process	G ⁽¹⁾

⁽¹⁾ Suitable for drive-over.

COVER			
Description	Material	Finish	Code
Round Flush Cover	Stainless steel	Polished	M
		Brushed	N

CONNECTION TYPE	
Description	Code
IP68 Connector & Junction Box	87 ⁽¹⁾
MicroAntiLeach™ Cable	84 ⁽²⁾

⁽¹⁾ Not suitable for color changing or dimmable applications. LS6052-K-87 required - order separately.
⁽²⁾ LS6052-K-84 or LS640-2 collar required - order separately. For all applications requiring LS640-2 collar, consult factory.

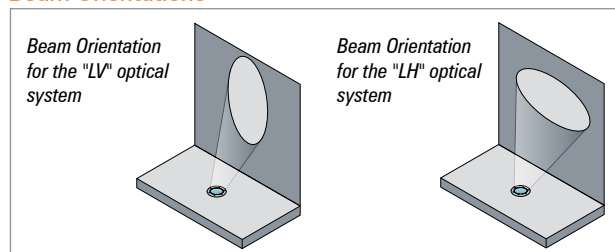
HOUSING DEPTH	
Description	Code
11.0" (280 mm)	29

CABLE ENTRY LOCATION	
Description	Code
Bottom	Q

LUMINAIRE INPUT VOLTAGE	
Description	Code
110-240 V AC, 50/60 Hz	01 ⁽¹⁾
24 V DC	07 ⁽¹⁾⁽²⁾⁽³⁾
PWM Dimmable Driver, 24 V DC	27 ⁽²⁾⁽³⁾

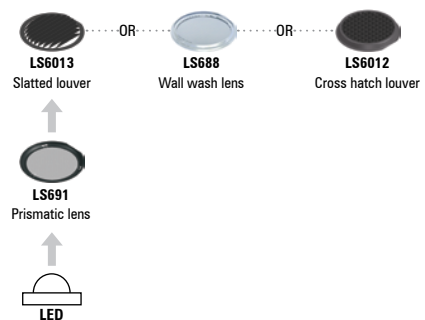
⁽¹⁾ Not available for RGB.
⁽²⁾ Not available with 16 W light engine.
⁽³⁾ Requires remote power supply.

Beam Orientations



LS853LED Accessories

Stacking and order of accessories



Other accessory stacking options may be available - consult factory

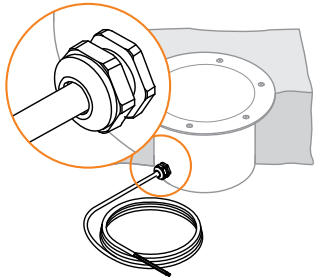
Why Use Direct Burial?

Direct burial installation is ideal for landscaping areas or for special applications where depth is restricted. This type of installation also allows for maximum heat dissipation. The 316 grade Stainless Steel construction of the luminaire performs flawlessly in alkaline and acidic soil types, and is also rated for use in concrete pour applications. **Note: This installation type has no option for a pre-installation blackout.**

Lumascap provides the LS853LED complete with 3 m of factory installed cable, supplied complete with **MicroAntiLeach™** seal. This provides the installer with greater flexibility to determine the location of the electrical connection. This connection is also 100% hard-wired. All aspects of the luminaire itself remain field serviceable.

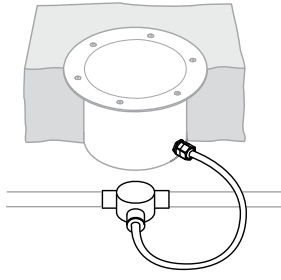
Consult factory for application advice prior to using this configuration.

Connection type '84'
for 'Direct Burial' housing




MicroAntiLeach™ Cable
For connections to the branch circuit via junction box (by others) or other approved method. 3 m length.
For other length options, consult factory.

Connection type '81'
for 'Direct Burial' housing

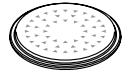


Armoured Cable & Junction Box
The luminaire is factory-fitted with a 0.6 m armoured cable. Ensure terminations can be made within this length.
For other length options, consult factory.

Lens Options



OptiClear™ Glass
Glass of very high optical purity and load strength. Suitable for walk-over and drive-over applications.



GripGlass™
OptiClear™ glass with slip reduction glazing process. Suitable for walk-over and drive-over applications.

Recessed Cover Options

Use recessed cover for installation in soil, grass, pavers and other uneven surfaces where no cover overhang is desired.



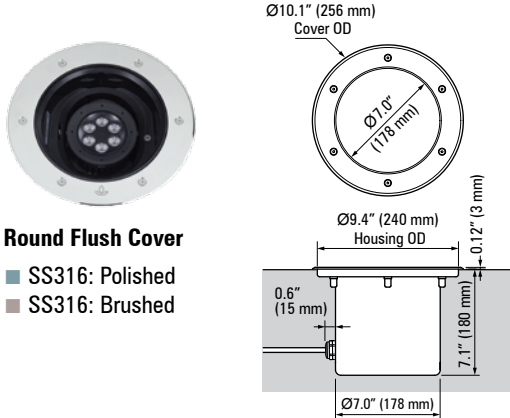
Recessed Cover

- SS316: Polished
- SS316: Brushed

Dimensions: Housing OD: Ø9.4" (240 mm), Cover OD: Ø1.0" (178 mm), Housing ID: Ø7.0" (178 mm), Housing Depth: 7.1" (180 mm), Mounting Hole: 0.6" (15 mm).

Flush Cover Options

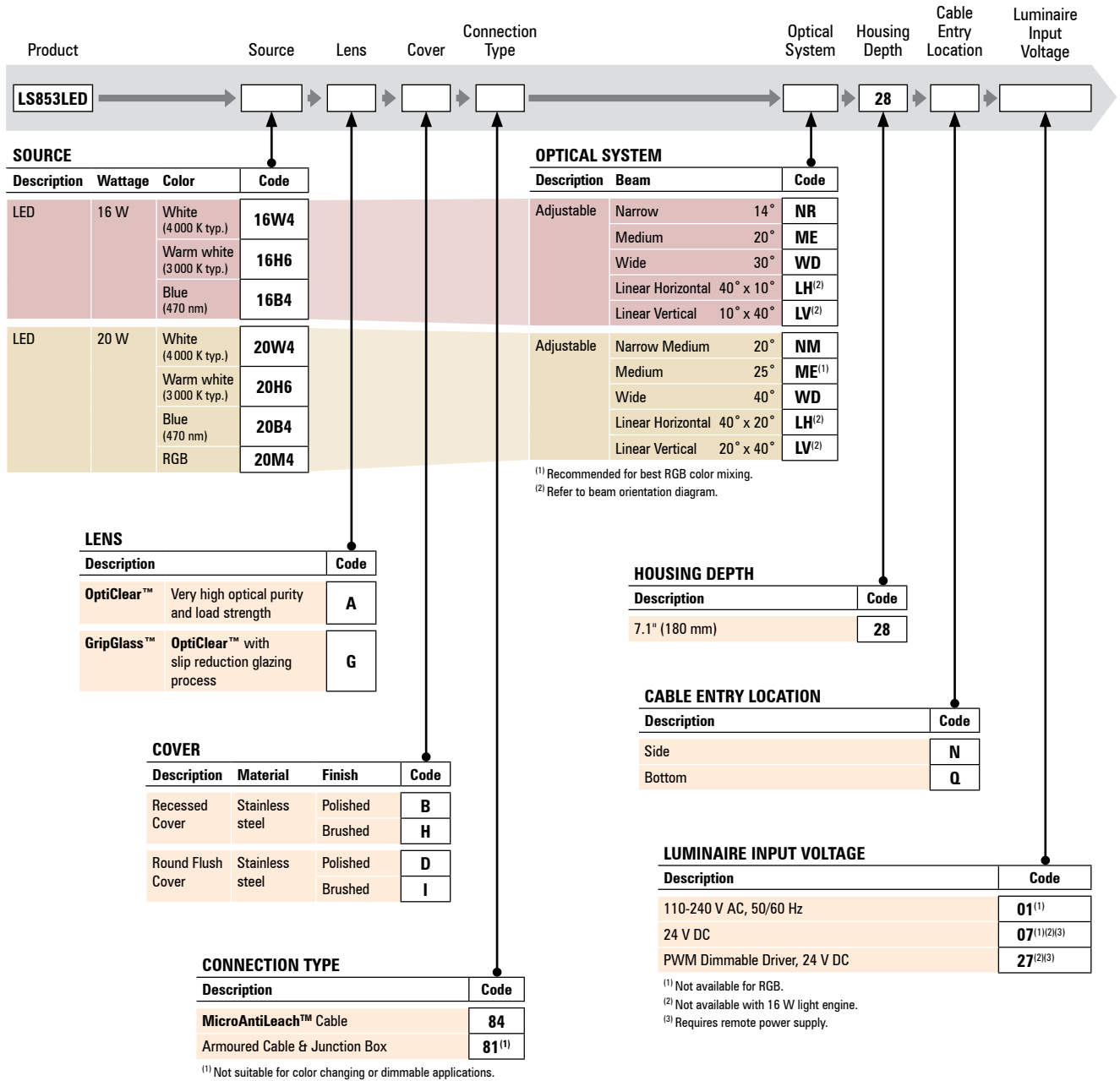
Use flush covers for installation in fine finished surfaces such as granite and marble. They can also be used in some suspended applications. The flush cover will conceal gaps between the luminaire and the surrounding surface.



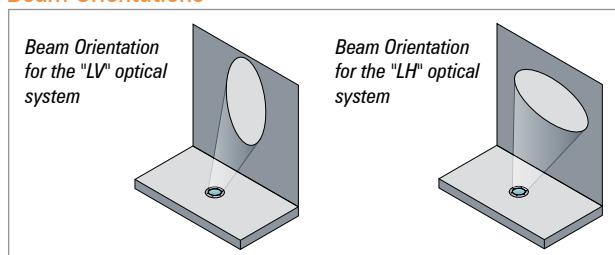
Round Flush Cover

- SS316: Polished
- SS316: Brushed

Dimensions: Cover OD: Ø10.1" (256 mm), Housing OD: Ø9.4" (240 mm), Housing ID: Ø7.0" (178 mm), Housing Depth: 7.1" (180 mm), Mounting Hole: 0.6" (15 mm), Flush Gap: 0.12" (3 mm).



Beam Orientations



LS853LED Accessories

Stacking and order of accessories

LS6013 Slatted louver OR LS688 Wall wash lens OR LS6012 Cross hatch louver

LS691 Prismatic lens

LED

Other accessory stacking options may be available - consult factory

Photometrics

Photometric data is based on test results from a NIST traceable testing lab. IES data is available at www.lumascap.com.

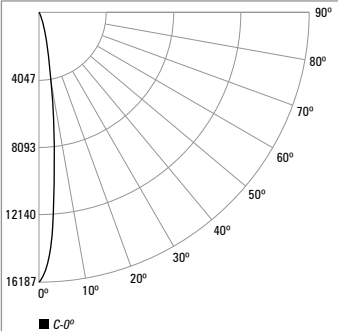
Note: No depreciation factor is applied to the data shown.

Polar Candela Distribution

Illuminance at a Distance

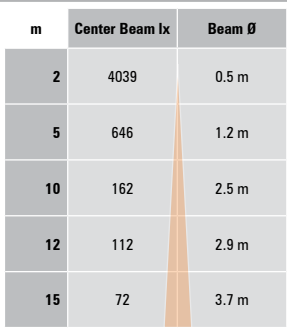
LS853LED
4 000 K
14° Beam Angle

Power Input	18.0 W
Lumens	1314 lm
Efficacy	73 lm/W



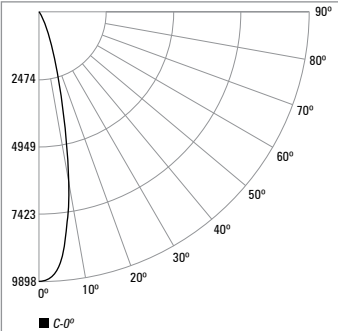
	C 0°	C 10°	C 20°	C 30°	C 40°	C 50°	C 60°	C 70°	C 80°	C 90°
0°	16111	16111	16111	16111	16111	16111	16111	16111	16111	16111
10°	4233	4176	4088	4037	3983	3923	3890	3847	3825	3776
20°	320	308	294	286	281	281	282	284	281	278
30°	55	54	53	52	52	53	53	53	51	50
40°	13	12	12	12	11	11	11	11	11	11
50°	0	0	0	1	0	0	0	0	0	0
60°	0	0	0	0	0	0	0	0	0	0
70°	0	0	0	0	0	0	0	0	0	0
80°	0	0	0	0	0	0	0	0	0	0
90°	0	0	0	0	0	0	0	0	0	0

m	Center Beam lx	Beam Ø
2	4039	0.5 m
5	646	1.2 m
10	162	2.5 m
12	112	2.9 m
15	72	3.7 m



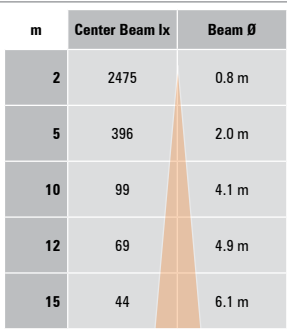
LS853LED
4 000 K
20° Beam Angle

Power Input	21.1 W
Lumens	1720 lm
Efficacy	82 lm/W



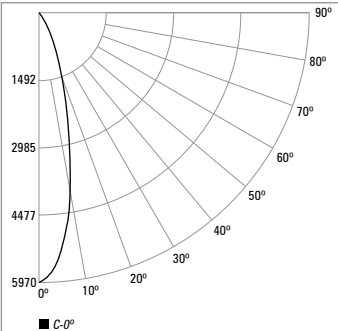
	C 0°	C 10°	C 20°	C 30°	C 40°	C 50°	C 60°	C 70°	C 80°	C 90°
0°	9896	9896	9896	9896	9896	9896	9896	9896	9896	9896
10°	5740	5739	5746	5752	5767	5785	5797	5802	5794	5779
20°	625	652	659	662	664	658	645	642	641	627
30°	146	148	149	147	142	136	134	137	144	147
40°	82	77	65	59	58	58	59	59	59	60
50°	3	4	4	5	6	6	8	6	6	5
60°	0	0	0	0	0	0	0	0	0	0
70°	0	0	0	0	0	0	0	0	0	0
80°	0	0	0	0	0	0	0	0	0	0
90°	0	0	0	0	0	0	0	0	0	0

m	Center Beam lx	Beam Ø
2	2475	0.8 m
5	396	2.0 m
10	99	4.1 m
12	69	4.9 m
15	44	6.1 m



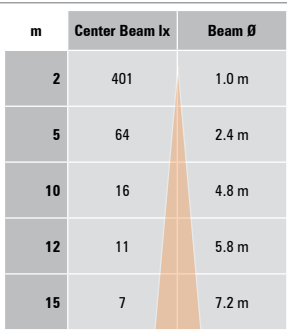
LS853LED
4 000 K
25° Beam Angle

Power Input	21.1 W
Lumens	1605 lm
Efficacy	76 lm/W



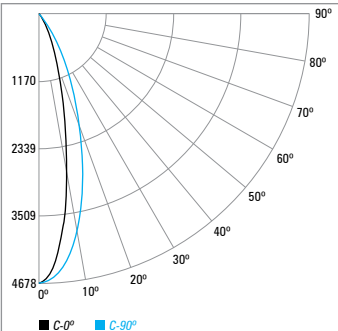
	C 0°	C 10°	C 20°	C 30°	C 40°	C 50°	C 60°	C 70°	C 80°	C 90°
0°	5970	5970	5970	5970	5970	5970	5970	5970	5970	5970
10°	3998	3991	3970	3960	3977	3987	3966	3944	3924	3939
20°	1344	1339	1329	1323	1334	1339	1334	1327	1315	1325
30°	297	294	295	295	296	293	294	296	296	297
40°	65	59	57	56	56	58	63	68	70	71
50°	9	8	7	7	7	7	6	6	5	6
60°	0	0	0	0	0	0	0	0	0	0
70°	0	0	0	0	0	0	0	0	0	0
80°	0	0	0	0	0	0	0	0	0	0
90°	0	0	0	0	0	0	0	0	0	0

m	Center Beam lx	Beam Ø
2	401	1.0 m
5	64	2.4 m
10	16	4.8 m
12	11	5.8 m
15	7	7.2 m



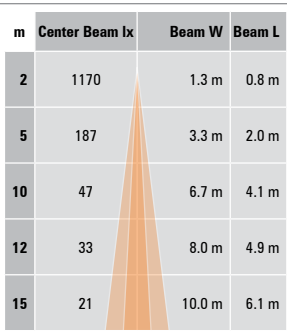
LS853LED
4 000 K
20° x 40° Beam Angle

Power Input	21.1 W
Lumens	1450 lm
Efficacy	69 lm/W



	C 0°	C 10°	C 20°	C 30°	C 40°	C 50°	C 60°	C 70°	C 80°	C 90°
0°	4676	4676	4676	4676	4676	4676	4676	4676	4676	4676
10°	3928	3827	3696	3537	3358	3181	3022	2901	2828	2793
20°	2114	2011	1818	1584	1356	1160	1000	878	796	753
30°	722	682	584	462	344	245	174	135	117	112
40°	191	190	165	120	78	51	38	33	31	31
50°	27	20	13	9	8	8	9	11	12	12
60°	0	0	0	0	0	0	0	0	0	0
70°	0	0	0	0	0	0	0	0	0	0
80°	0	0	0	0	0	0	0	0	0	0
90°	0	0	0	0	0	0	0	0	0	0

m	Center Beam lx	Beam W	Beam L
2	1170	1.3 m	0.8 m
5	187	3.3 m	2.0 m
10	47	6.7 m	4.1 m
12	33	8.0 m	4.9 m
15	21	10.0 m	6.1 m



SAFETY STANDARDS

Lumascape's **GripGlass™** pattern is specifically designed to maximise effective contact area achieved between an average pedestrian footprint and the slip resistant **GripGlass™** treated area, while minimising the impact on luminaire output and performance.

Independent laboratories using German standard **DIN 51130**, have determined the **GripGlass™** treated surface area achieves an R11 (or greater) performance rating, using the Oil Wet Ramp Test. **This R11 rating relates to the surface area effected with the GripGlass™ treatment only (see diagram), and is not applicable to the entire luminaire including untreated glass area and surrounding stainless steel or brass cover.**

A brief explanation of this test is as follows.

OIL-WET RAMP TEST METHOD

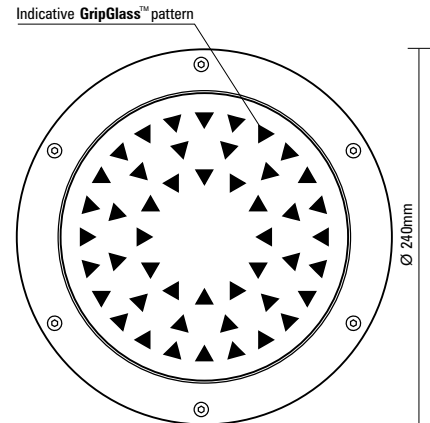
Two test persons, wearing standard test shoes, are used to determine the angle of inclination at which safe walking no longer occurs, after the pedestrian surface material being tested is coated with engine lubricating oil. The angles of inclination obtained are used to assess the friction characteristics of the test surface.

Rating	Angle (degrees)
R9	≥6 <10
R10	≥10 <19
R11	≥19 <27
R12	≥27 <35
R13	≥35

SLIP RESISTANCE RATINGS FOR TYPICAL PEDESTRIAN SURFACE

Description	Rating
External collonade, walkways and pedestrian crossings	R10
Entry foyers hotel, office, public buildings – wet	R10
Entry foyers hotel, office, public buildings – dry	R9
Shopping centre excluding food court	R9
Shopping centre – food court	R10
Hospitals and aged care facilities – dry areas	R9
Hospitals and aged care facilities – ensuites	R10
Undercover concourse areas of sports stadium	R10

The above information is for reference only. Ratings only refer to the treated area.



LS343 recessed cover with GripGlass™ depicted

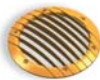


REFRACTOR

REFRACTOR LENS SYSTEM FOR USE IN LS343 | LS853



LS636
Brass Grill



A.C.N. 010 572 773

LS640/LS640-K
Pre-Installation Kit



LIGHTING DESIGNER	FITTING
REFERENCE	
SUPPLIER	

FEATURES

- Available in three widths:
 - Very Narrow
 - Wide
 - Ultra wide
- Soft beam edge
- Aimable and lockable optics fixed even during relamping
- Available in Human Touch configuration
- Available in drive over configuration.
- IP68 rating
- Choice of cable entry (all factory fitted):
 - 3m Anti-leach
 - Steelwire Armoured Cable clw 3-way J-box
 - IP67 in-line power snap connector
- Easy maintenance
- Stainless Steel 316 Marine Grade body
- Choice of lids, materials and finishes - Polished or brushed, S/S or brass
- Inherent side glare control
- Hi temp dynamic seal
- Exclusive moisture control
- Modular gear trays - gear simply drops into place
- For full fixture feature list see LS343 literature.
- Optional
 - Drive over/pre-installation kit
 - Coloured lenses
 - High pressure die-cast grill



LUMASCAPE

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www.lumascope.com.au

ABN: 21 010 572 773



Lumascope's three new Refractor Systems enable functional vertical surface illumination from an inground recessed fixture. Using our optically precise refractor lens, the designer can illuminate walls, columns, flagpoles and other vertical surfaces by directing all available light toward the object of illumination whilst avoiding annoying glare from other viewing angles.

This unique system is mounted within our LS343 recessed inground fixture and is available in a Very Narrow, Wide and Ultra Wide beam using 35 Watt to 150 Watt Metal Halide CDM lamps.

The refractor system is mounted beneath your choice of 2 secondary outer lenses - 204Kg per square cm (2,896 Lb per square inch) toughened glass for heavy traffic and drive over environments or the 51Kg per square cm (724 Lb per square Inch) toughened Humantouch lens for lower glass temperatures.

The refractor assembly can be aimed and locked with the turn of a single screw and the lens is keyed within this assembly so that when it is removed during re-lamping it is always returned to the same position, avoiding the risk of interfering with the intended aim of the light.

Complete Data Sheets and Photometric Reports are available to download from our web site - www.lumascope.com.au or call your local Lumascope representative.



LUMASCAPE

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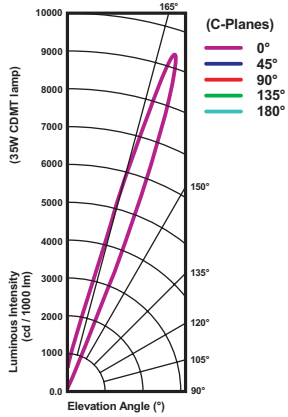
Free Call
1-866-695-LUMA(5862)
(US & Canada)

SPECIFICATION	
DESCRIPTION	CATALOGUE NO:
NOTES	LAMP
	COLOUR

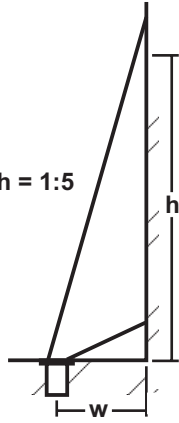
Lumascope Lighting Industries will guarantee the following product groups from the date of purchase against faulty workmanship or materials for: 1. Underwater-5 years 2. Copper-10 years 3. Aluminium-2 years 4. Stainless Steel-10 years Structural/12 months Electrical. All warranty claims must be returned to Lumascope Lighting Industries for assessment. There is no warranty offered on lamps other than lamp manufacturers warranty if any. Lumascope Lighting Industries accepts no responsibility for damage to any ancillary equipment or inconvenience caused by the failure of our products. Lumascope Lighting Industries reserves the right to alter fittings or specifications at any time.

Very Narrow

Luminous Intensity Distribution

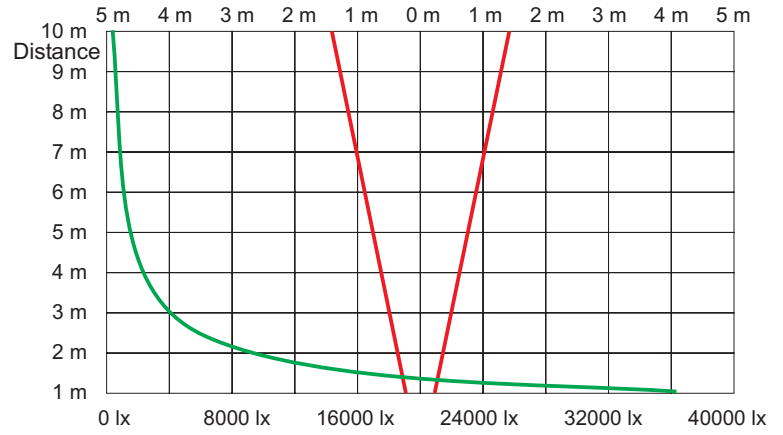


w:h = 1:5



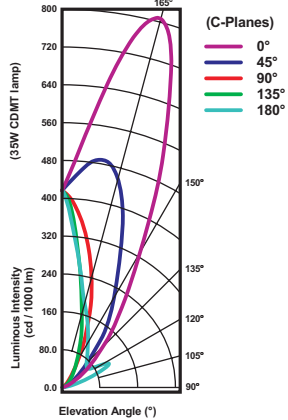
(150W CDMT lamp)

Beam Dimensions



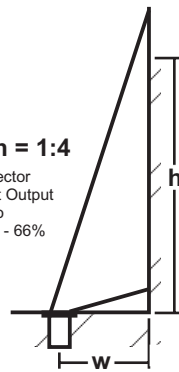
Wide

Luminous Intensity Distribution



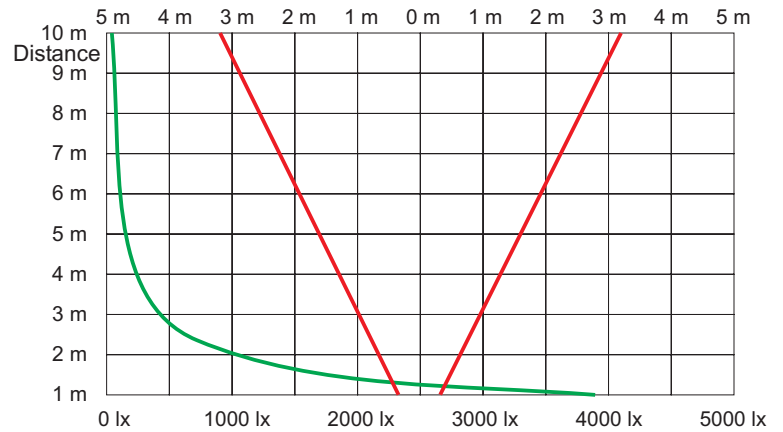
w:h = 1:4

Reflector
Light Output
Ratio
LOR - 66%



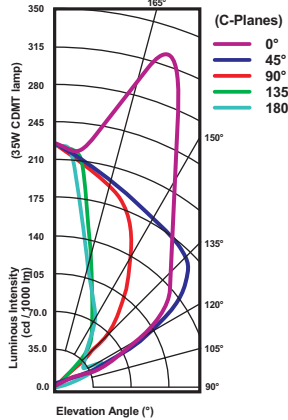
(150W CDMT lamp)

Beam Dimensions

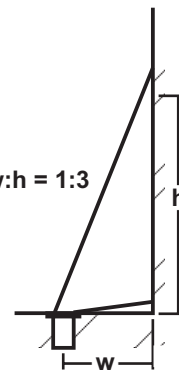


Ultra Wide

Luminous Intensity Distribution



w:h = 1:3



(150W CDMT lamp)

Beam Dimensions

