



The LS343 is a premium inground luminaire with outstanding performance. The housing is totally sealed, as proven by independent lab tests rating the housing for submersion up to 33' (10 m). The glass surface is safe to touch when fitted with **HumanTouch™**. Re-lamping and re-sealing on site is simple and robust. The choice of lamps and accessories makes the LS343 suitable for most uplighting applications.

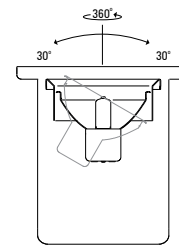
**Specifications**

<b>Lamp</b>	35 W, 70 W MH T6 (G12)
<b>IP Rating</b>	IP68
<b>Construction</b>	316 marine grade stainless steel
<b>Installation Types</b>	<p><b>Pre-Installation Blockout</b> Concrete pour, drive-over &amp; general use applications</p> <p><b>Pre-Installation Collar</b> Decks &amp; grates</p> <p><b>Direct Burial</b> Landscapes, planters &amp; special applications <i>(consult factory)</i></p>
<b>Drive-over</b>	With <b>OptiClear™</b> lens and pre-installation blockout (LS640-K)
<b>Static Load Rating</b>	9 259 lb (4 200 kg) with <b>OptiClear™</b> lens and pre-installation blockout <i>(Load applied to center of glass across a 2" (50 mm) dia. area)</i>
<b>Impact Rating</b>	IK10 with <b>OptiClear™</b> lens
<b>Standard Inclusions</b>	Teflon coated cover screws <b>MicroAntiLeach™</b> cable entry
<b>Ambient Operating Temperature</b>	HID -4 °F to 104 °F (-20 °C to 40 °C)
<b>Photometrics</b>	Refer to <a href="http://www.lumascope.com">www.lumascope.com</a>
<b>Glass Temperature</b> ≤ 149 °F (≤ 65 °C)	<b>HumanTouch™</b> compliant models 35 W, 70 W MH T6

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



**LS343**  
Metal Halide with PureOptics™ reflector and round flush cover



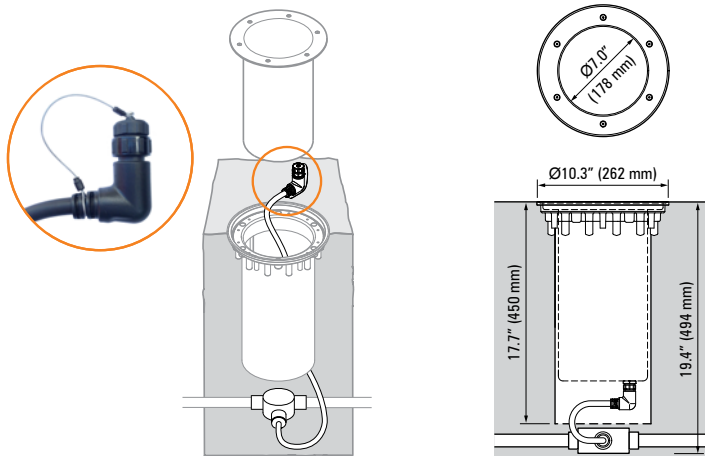
Why Use LS640-K-87 Pre-Installation Blockout?

The LS640-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 LS640-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 LS640-K-84 Pre-Installation Blockout?

The LS640-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. For use with the LS640-K-84, Lumascape provides the LS343 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 LS640-K-87 Pre-Installation Blockout



Pre-Install & Luminaire

IP68 Connector & Junction Box

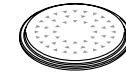
The luminaire is fitted with an IP68 connector, which attaches directly to the cable supplied with LS640-K-87, without the use of any tools. The cable is 1 m in length, and is factory assembled with a 3-way junction box – **Remains field serviceable after installation.**

Lens Options



OptiClear™ Glass

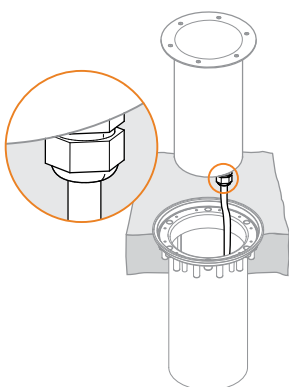
Glass of very high optical purity and load strength. Suitable for walk-over and drive-over applications.



GripGlass™

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

Connection Type '84' for LS640-K-84 Pre-Installation Blockout

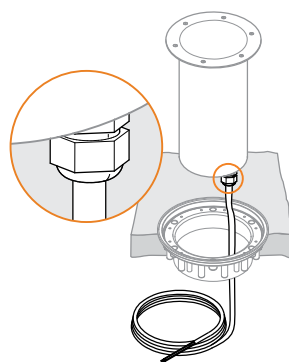


MicroAntiLeach™ Cable

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

Lamp
Lens
Cover
Connection Type
Optical System
Housing Depth
Cable Entry Location
Luminaire Input Voltage

LS343

#### LAMP

Description	Wattage	Base	Code
MH T6	35 W	G12	223
	35 W	G12	226 <sup>(1)</sup>
	70 W	G12	221
	70 W	G12	225 <sup>(1)</sup>

<sup>(1)</sup> Electronic Ballast

#### OPTICAL SYSTEM

Description	Reflector	Beam	Code
Adjustable	PureOptics™	Narrow 10°	AV <span style="color: red;">A</span>
		Medium 18°	AW <span style="color: red;">A</span>
		Flood 48°	AX <span style="color: red;">A</span>
		Wide flood 60°	AY <span style="color: red;">A</span>
Adjustable	Aluminum	Narrow 10°	XV <span style="color: gray;">B</span>
		Medium 28°	XW <span style="color: gray;">B</span>
		Flood 70°	XX <span style="color: gray;">B</span>
		Wide flood 140°	XY <span style="color: gray;">B</span>

#### HOUSING DEPTH

Description	Code
17.7" (450 mm)	24

#### LENS

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

<sup>(1)</sup> Suitable for drive-over

#### CABLE ENTRY LOCATION

Description	Code
Bottom	Q

#### LUMINAIRE INPUT VOLTAGE

Description	Code
240 V AC 50 Hz	01
230 V AC 50 Hz	02
220 V AC 50 Hz	03

Other voltage options available - consult factory

#### COVER

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

#### CONNECTION TYPE

Description	Code
IP68 Connector & Junction Box	87 <sup>(1)</sup>
MicroAntiLeach™ Cable	84 <sup>(2)(3)</sup>

<sup>(1)</sup> LS640-K-87 required - order separately  
<sup>(2)</sup> LS640-K-84 required - order separately  
<sup>(3)</sup> For all applications requiring LS640-2 collar only, consult factory

A These letters refer to the compatible accessories tables.  
B

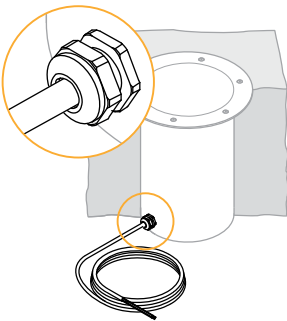
Why Use Direct Burial?

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 LS343 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 remains field servicable.

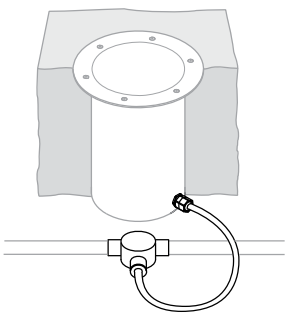
**Consult factory for application advice prior to using this configuration.**

**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**



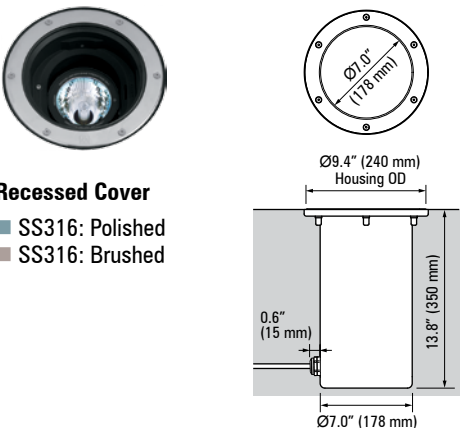
**OptiClear™ Glass**  
Glass of very high optical purity and load strength. Suitable for walk-over and drive-over applications.



**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.



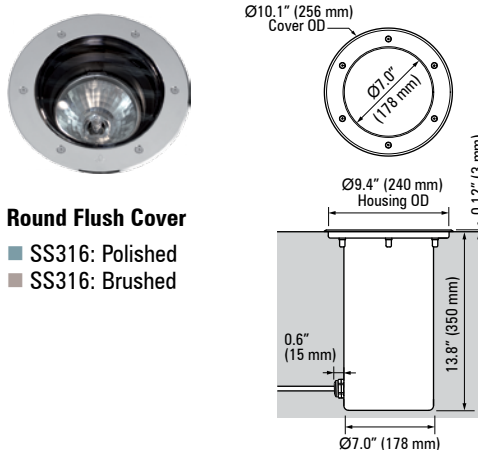
**Recessed Cover**

- SS316: Polished
- SS316: Brushed

Dimensions: Housing OD: Ø9.4" (240 mm), Cover OD: Ø7.0" (178 mm), Housing Depth: 13.8" (350 mm), Mounting Hole: 0.6" (15 mm).

**Flush Cover Options**

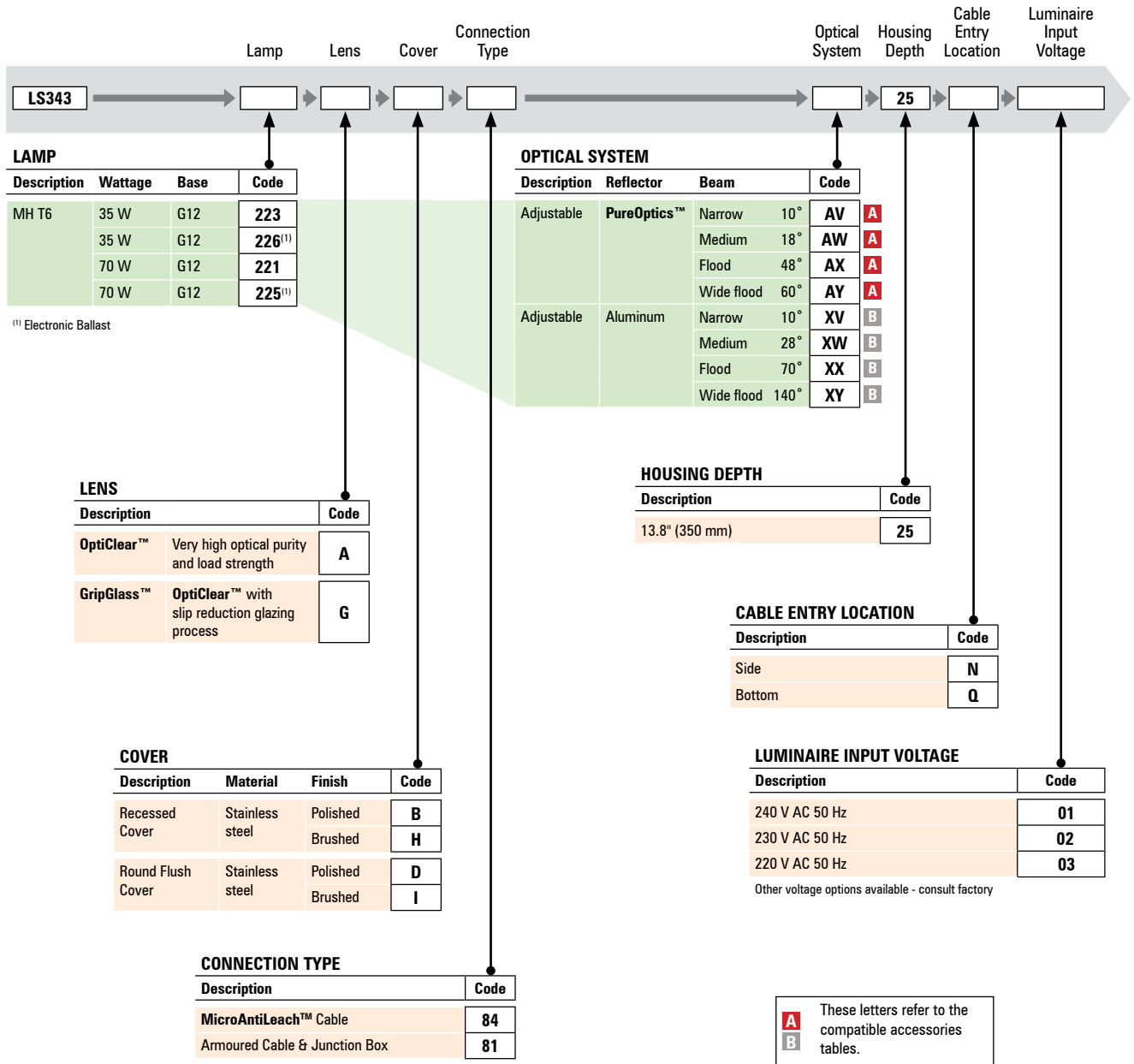
Use flush covers for installation in fine finished surfaces such as granite and marble. They can also be used in some suspended applications. The flush cover will conceal gaps between the luminaire and the surrounding surface.



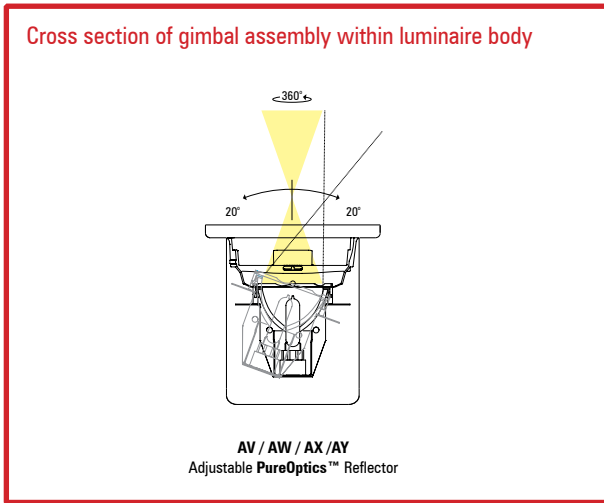
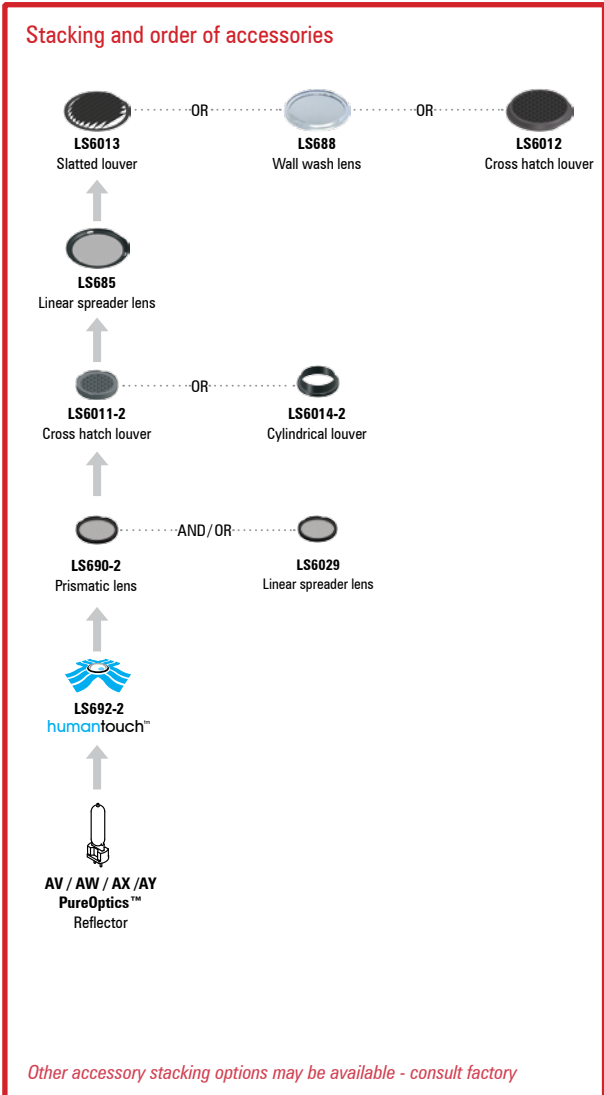
**Round Flush Cover**

- SS316: Polished
- SS316: Brushed

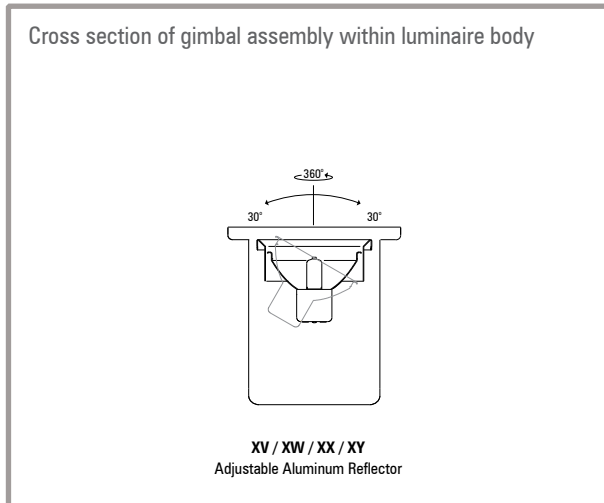
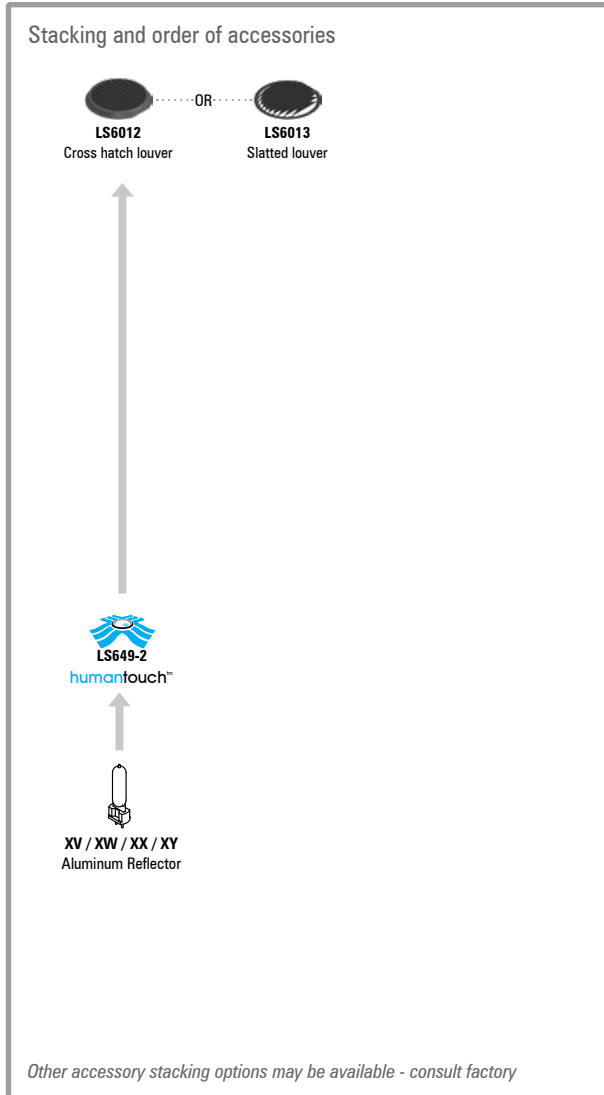
Dimensions: Cover OD: Ø10.1" (256 mm), Housing OD: Ø9.4" (240 mm), Housing Depth: 13.8" (350 mm), Mounting Hole: 0.6" (15 mm), Flush Gap: -0.12" (3 mm).



**A** T6 Metal Halide Adjustable PureOptics™ Reflector AV / AW / AX / AY



**B** T6 Metal Halide Adjustable Aluminum Reflector XV / XW / XX / XY



### 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

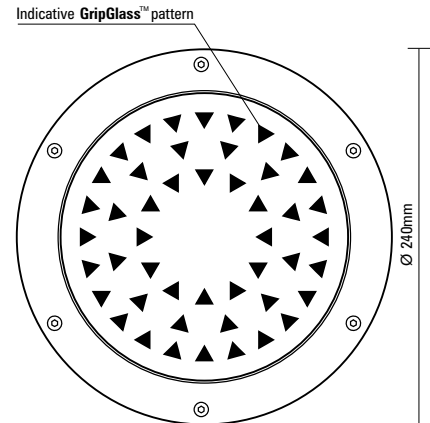
Two test persons, wearing standard test shoes, are used to determine the angle of inclination at which safe walking no longer occurs, after the pedestrian surface material being tested is coated with engine lubricating oil. The angles of inclination obtained are used to assess the friction characteristics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





LUMASCAPE

i n g r o u n d

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Lumascap Lighting Industries has a genuine and proactive commitment to improving the safety of its fixtures and accessories. This commitment has lead to the development of our Total Temperature Reduction Technology. We call it Humantouch™.

Humantouch™ ensures the temperature of all internal componentry is actively maintained well below maximum safe operating temperatures. Should circumstances threaten to overheat our fixtures, then our dual protection device simply turns the unit off.

Humantouch™ not only guarantees the optimal performance of our fixtures, but also reduces external glass temperatures to human friendly levels for public spaces where safety is the priority.

Humantouch™ is yet another innovative concept designed to increase the quality of your Lumascap product.

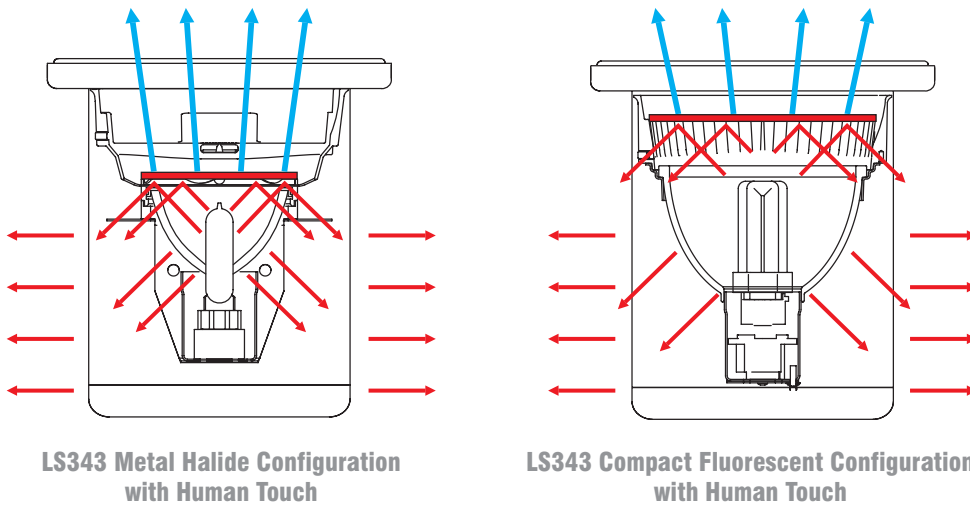


Diagram also indicative of Human Touch for High Pressure Sodium & Mercury Vapour (80W max)

human safe glass temperatures  
 component safe internal temperatures

Lumascap will guarantee the following product groups from the date of purchase against faulty workmanship or materials as stated below and subject to the terms and conditions published in the Lumascap catalogue and at [www.lumascap.com.au](http://www.lumascap.com.au)  
 Architectural lighting product group - structural warranty: spotlights & floodlights - aluminium fixtures, 2 years; in ground - stainless steel fixtures, 10 years; underwater - stainless steel & brass fixtures, 5 years; wall mount - stainless steel fixtures, 10 years; wall mount - aluminium fixtures, 2 years; wall mount - brass fixtures, 5 years; bollard & pathway - stainless steel fixtures, 10 years; down lights - aluminium fixtures, 2 years; landscape lighting product group - structural warranty: copper fixtures, 10 years aluminium fixtures, 2 years, electronic transformers, 12 months, magnetic transformers, 12 months, electrical warranty all product groups: 12 months.

[www.lumascap.com.au](http://www.lumascap.com.au)

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Lighting designer	Fixture
Supplier	

LS343  
 human touch™



Compatible Source Configurations

Type	Watts	Human Touch	Glass temp
MH CDMT/T6	35	✓	< 65C / 149F
	70	✓	< 65C / 149F
	150	✓	< 80C / 176F
MH PAR/CDMR	35		
	70		
	100		
INC PAR30	100 (max)		
INC PAR38	150 (max)		
HPS	50	✓	< 60C / 140F
	70	✓	< 60C / 140F
	100	✓	< 60C / 140F
MV	50	✓	< 65C / 149F
	80	✓	< 65C / 149F
	125	✓	< 65C / 149F
CFL	9	✓	< 60C / 140F
	18	✓	< 60C / 140F
	26	✓	< 60C / 140F
HALO AR111	100 (max)		



# LUMASCAPE



pureOptics

Advanced glass reflector technology for HID lighting



# LS343

STAINLESS STEEL



in ground  
ground mount  
underwater

Lumascap's most versatile In Ground up-light, the LS343, now provides even better light output and accuracy with the PureOptics glass reflector system.

NATA accredited tests confirm the PureOptics glass reflector achieves up to 15% greater LOR than leading aluminium reflectors. This new German engineered glass reflector is available in narrow, medium, flood & wide flood outputs and is compatible with metal halide, compact fluorescent and high pressure sodium lamps.

Coupled with Lumascap's Direct-Drive fully adjustable gimbal, distribution by the PureOptics system may be controlled and tuned simply and accurately.

The new system provides control in three ways - a reflector tilt mechanism, rotation of the gimbal housing and refraction.

PureOptics compliments Lumascap's existing range of accessories and is compatible with our HumanTouch and GripGlass technology



## Reflector Pitch

The PureOptics reflector projects a converging beam that allows much greater pitch angles to be achieved before cut-off shadows appear. A single hex screw controls this function and inherently maintains a lock on the selected angle.

## Rotation

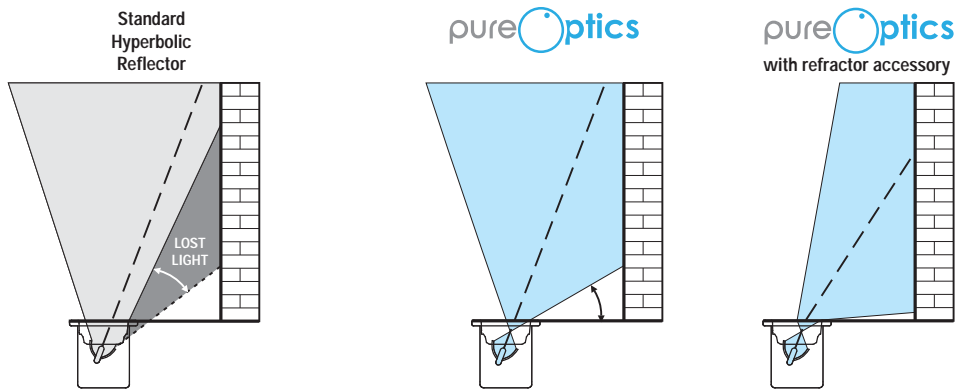
Angled light from refractors or spreader lenses can be accurately directed by rotating the gimbal through 360 degrees and is easily aimed using a built-in directional arrow. The gimbal can then be locked into position.

## Refraction

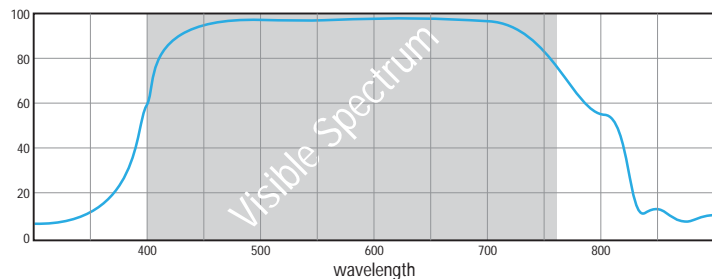
The refractor accessory increases the pitch achieved by the tilt mechanism so that light is projected to virtually ground level in wall wash applications.

## Deeper wall wash

The Pure Optics reflector projects a converging beam, dramatically reducing the amount of light lost by conventional hyperbolic reflectors in wall wash applications. When used in conjunction with the Lumascap refractor accessory, light may be projected virtually to ground level.

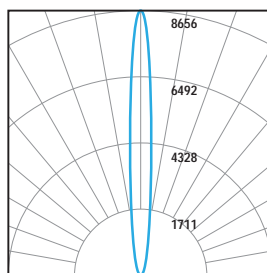


## 99% Reflectivity

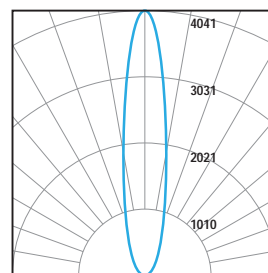


## Standard Fixture (cd/klm)

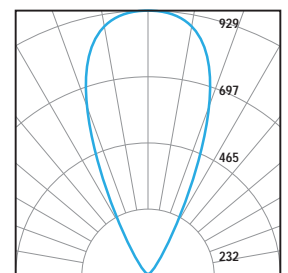
Results for 35W CDMT/T6



**Narrow**  
10 degrees at 50% max intensity



**Medium**  
18 degrees at 50% max intensity

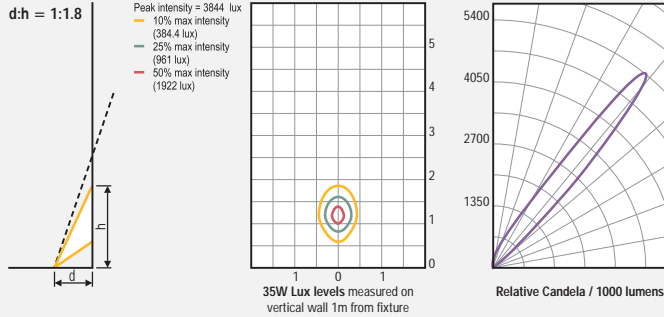


**Flood**  
48 degrees at 50% max intensity

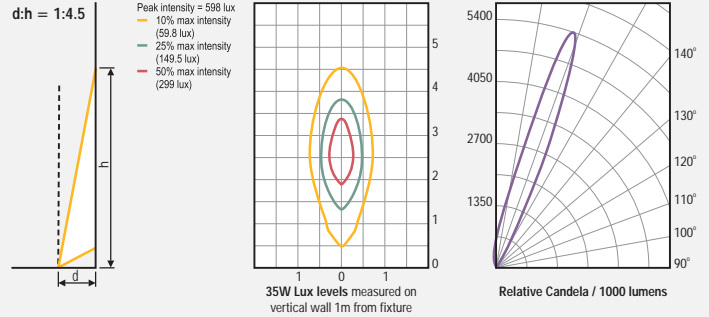
Narrow reflector output beam angle = 10 degrees at 50% maximum intensity. Results for 35W CDMT/T6. Peak intensity of 8656 cd/klm.

...with refractor

20° Gimbal Pitch Towards Wall/Feature

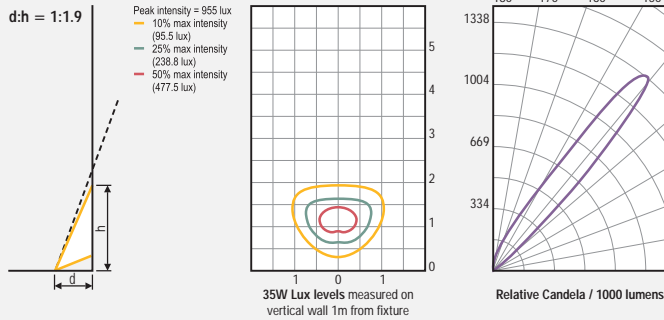


0° Gimbal Pitch Towards Wall/Feature

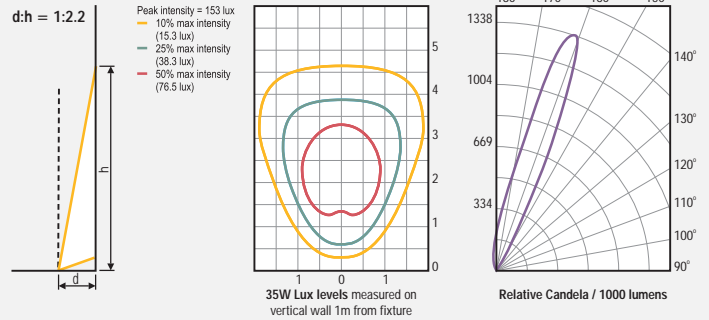


...with refractor & linear spreader lens

20° Gimbal Pitch Towards Wall/Feature



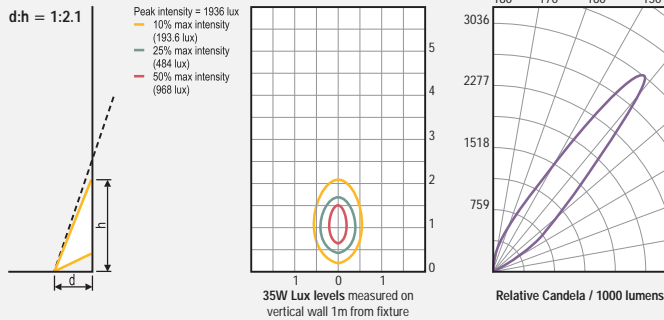
0° Gimbal Pitch Towards Wall/Feature



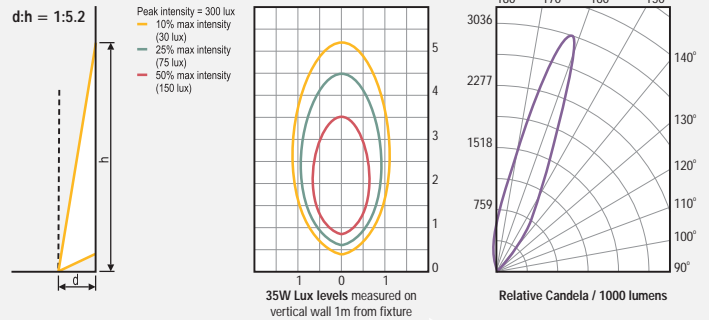
Medium reflector output beam angle = 18 degrees at 50% maximum intensity. Results for 35W CDMT/T6. Peak intensity of 4041 cd/klm.

...with refractor

20° Gimbal Pitch Towards Wall/Feature

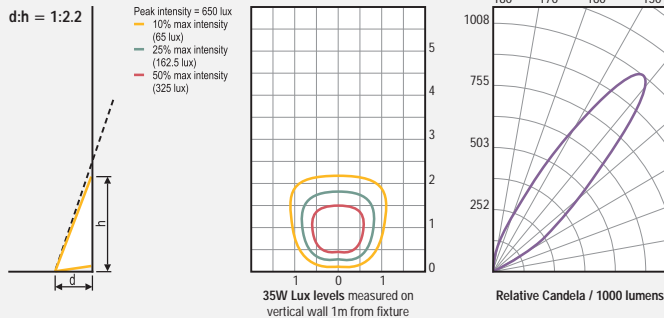


0° Gimbal Pitch Towards Wall/Feature

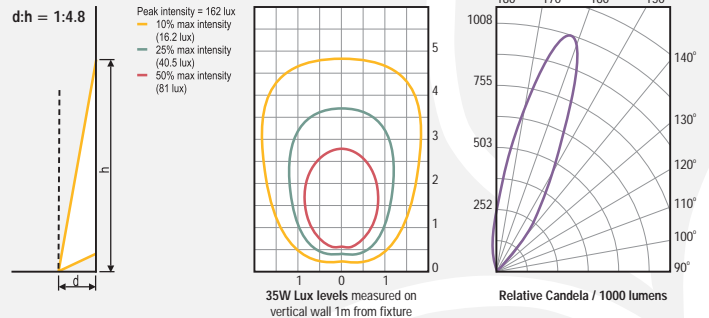


...with refractor & linear spreader lens

20° Gimbal Pitch Towards Wall/Feature



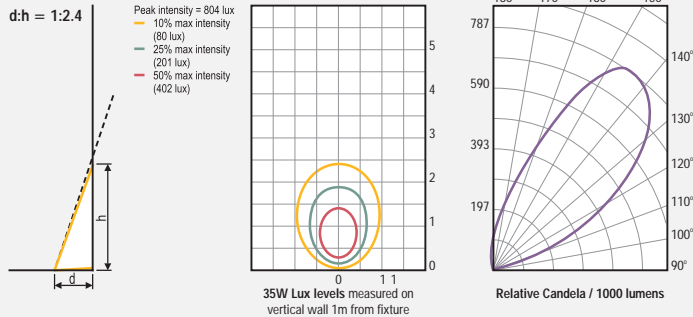
0° Gimbal Pitch Towards Wall/Feature



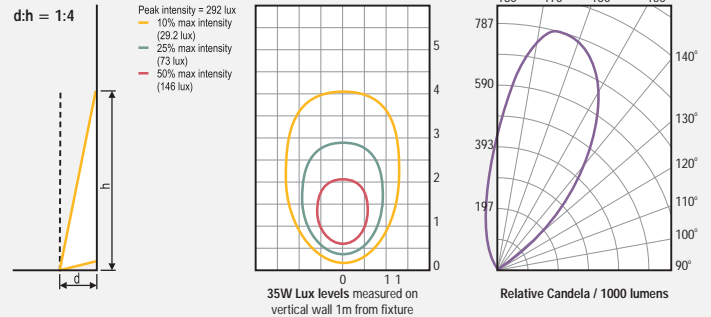
Flood reflector output beam angle = 48 degrees at 50% maximum intensity. Results for 35W CDMT/T6. Peak intensity of 929 cd/klm.

...with refractor

20° Gimbal Pitch Towards Wall/Feature

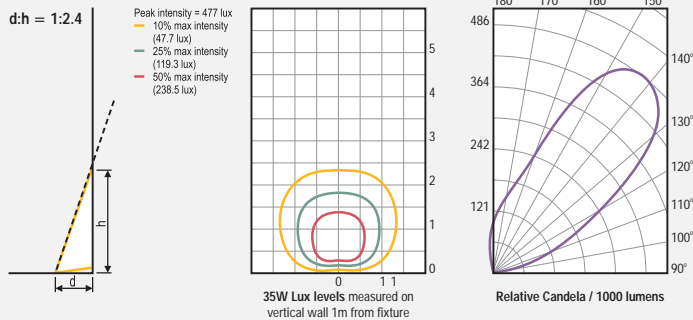


0° Gimbal Pitch Towards Wall/Feature

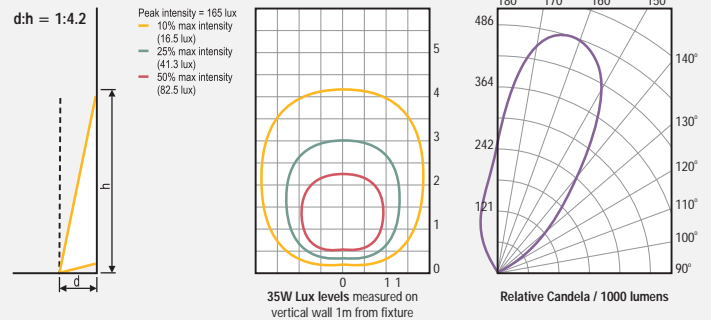


...with refractor & linear spreader lens

20° Gimbal Pitch Towards Wall/Feature



0° Gimbal Pitch Towards Wall/Feature



- |        |                            |   |           |                                       |
|--------|----------------------------|---|-----------|---------------------------------------|
| LS688  | Refractor Lens             |   | LS6011    | Cross Hatch Louvre - 96mm             |
| LS685  | Linear Spreader Lens       |   | LS6013    | Slatted Louvre                        |
| LS691  | Prismatic Lens - 137mm     |   | LS6014    | Cylindrical Louvre                    |
| LS690  | Prismatic Lens - 96mm      |   | LS636     | Brass Grill                           |
| LS686  | Dichroic Filters - 137mm   | <span style="color:red">■</span> <span style="color:green">■</span> <span style="color:blue">■</span> <span style="color:yellow">■</span> | LS640 - K | Pre-Installation Kit - Concrete       |
| LS689  | Dichroic Filters - 96mm    | <span style="color:red">■</span> <span style="color:green">■</span> <span style="color:blue">■</span> <span style="color:yellow">■</span> | LS640     | Pre-Installation Kit - Decks & Grates |
| LS6012 | Cross Hatch Louvre - 165mm |   |           |                                       |

Full Replacement Warranty

Pure Optics will provide outstanding reflectivity for the life of the fixture. Lumascope warrants the Pure Optics reflector coating against any visible deterioration of the reflector surface for 5 years, subject to 8 hours of operation per 24 hour period. The terms of this warranty are subject to correct installation as defined in the appropriate LS343 Installation Instructions. This warranty is void if moisture is allowed to enter the fixture.

Lumascope Lighting Industries Pty Ltd  
 38-44 Enterprise Street, Cleveland, QLD 4163, Australia  
 PO Box 1875, Cleveland D.C., QLD 4163, Australia  
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 E sales@lumascope.com.au  
 W www.lumascope.com.au  
 ABN: 21 010 572 773



## FEATURES

The A343 is the perfect retrofit kit for Lumascope Model LS343. The pairing of LED in Lumascope Ingrade housings are a great match, combining a long life lamp source with a long life housing. The retrofit kit includes the LED light engine and power supply, and because the product is designed around modular components, the installation of the retrofit parts does not require any wiring modification—just plug it in! Consult factory to ensure compatibility for installations after 2012.

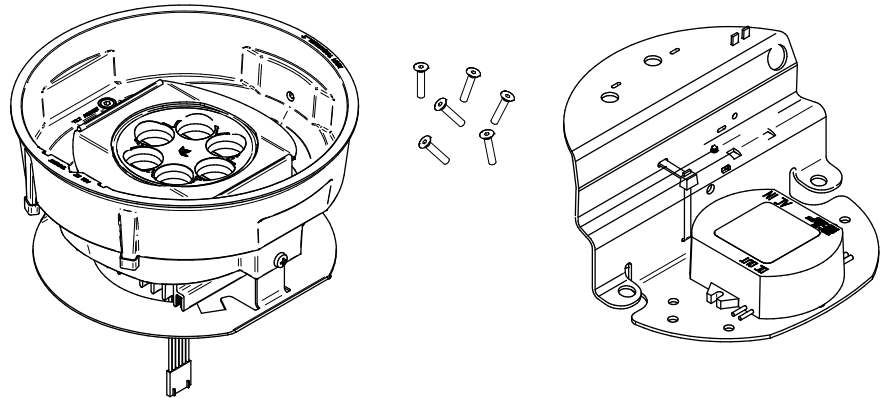


## OVERVIEW / SPECIFICATIONS

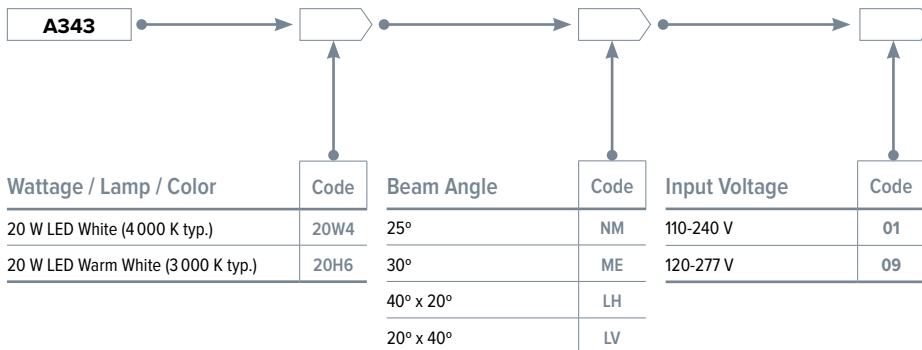
Performance	Lamp source	20 W LED White (4000 K typical) Warm White (3000 K typical)
	Available Beam Angles	25°, 30°, 40° x 20°, 20° x 40°
	TM-21 Lumen Maintenance (L70)	85,000 hrs at 25°C
Electrical	Input Voltage	110-240V, 50/60Hz (International Market) 120-277V, 50/60Hz (North American Market)
Construction	Ambient Operating Temperature	-22 °F to 122 °F (-30 °C to 50 °C)
<b>Mounting &amp; Adjustability</b>	Adjustability	±20° tilt, 360° rotation

### Kit Contents

- LED Light Engine (1)
- LED Driver, pre-wired on modular tray (1)
- New Screws for trim (6)



## ORDER CODE

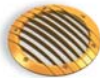


# REFRACTOR

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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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](http://www.lumascope.com.au) or call your local Lumascope representative.



LUMASCAPE

USA INC.

**LUMASCOPE USA INC.**

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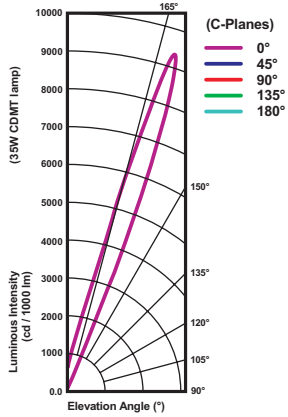
**Free Call**  
**1-866-695-LUMA(5862)**  
(US & Canada)

SPECIFICATION	
DESCRIPTION	CATALOGUE NO:
NOTES	LAMP
	COLOUR

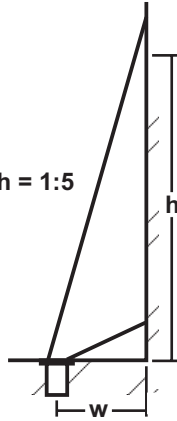
Lumascope Lighting Industries will guarantee the following product groups from the date of purchase against faulty workmanship or materials for: 1. Underwater-5 years 2. Copper-10 years 3. Aluminium-2 years 4. Stainless Steel-10 years Structural/12 months Electrical. All warranty claims must be returned 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

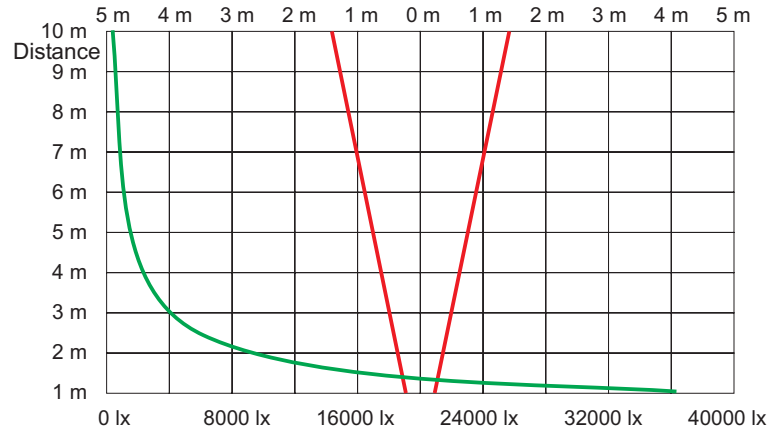


w:h = 1:5



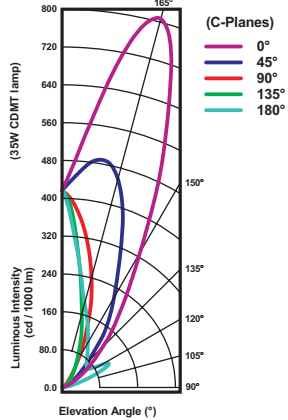
(150W CDMT lamp)

Beam Dimensions



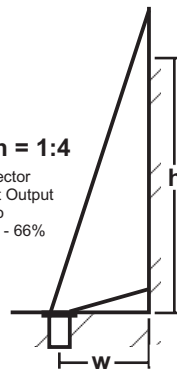
Wide

Luminous Intensity Distribution



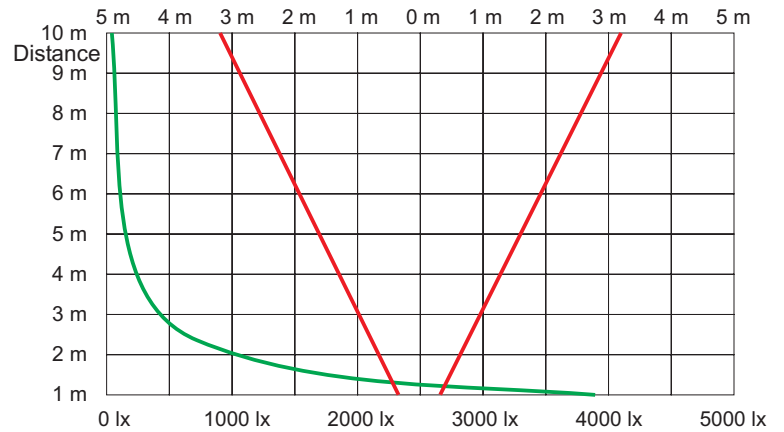
w:h = 1:4

Reflector Light Output Ratio LOR - 66%



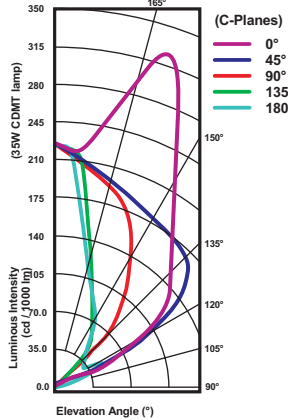
(150W CDMT lamp)

Beam Dimensions

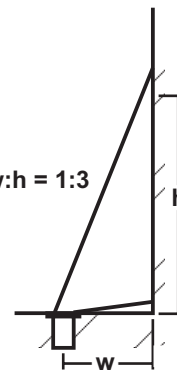


Ultra Wide

Luminous Intensity Distribution



w:h = 1:3



(150W CDMT lamp)

Beam Dimensions

