SOLO 16

PRODUCT OVERVIEW

HIGH EFFICIENCY LIGHT ENGINE



KEY FEATURES

Beam Options: 12 | 14 | 24 | 36 | 47
Light Engine Performance: 1377lm | 10.80W
Movement: 360 Pan | 90 Tilt
Tool-less field changeable optics
Interchangeable accessories
High CRI
Part L1 / L2 (General & Display) Compliant
Title 24 JA8 Certified

OVERVIEW

Solo 16 HE Surface is a Constant Current single source LED spotlight that is machined from aerospace grade aluminium 6063-T6 and comes as standard in white, black and brushed aluminium along with three premium brass finishes. It has five site-changeable optics for flexible beam distribution and 360° lockable pan and 90° constant torque tilt. Our 1377lm | 10.80W light engine has a max peak intensity of 21542cd. An accessory holder is available separately that can accommodate 55mm (2.16") lenses and louvers. This product requires an external 0.6mA 18V Constant Current LED driver.

PERFORMANCE

	High Efficiency				
	V. Narrow	Narrow	Medium	Wide	V. Wide
FWHM	12°	14°	24°	36°	47°
Luminous Flux	1377 lm	1361 lm	1336 lm	1181 lm	1187 lm
Peak Intensity	21542 cd	16838 cd	6630 cd	3066 cd	2076 cd
CCT	2700K | 3000K				
CRI Min.	90 | 90				
LED Current	0.600 A				
Voltage	18 V				
Input Wattage	10.8 W				
Efficacy	127.5 lm/W				
Driver Type	Constant Current | Remote				
Class	SELV | Class III				

ORDER CODE

Model	Type	Output	CCT	Beam Angle	Finish
SOL16 *Solo 16*	**SP** *Surface Plate*	**HE** *High Efficiency*	**27K** *2700K*	**VN** *Very Narrow 12°*	**WH** *White*
			30K *3000K*	**NR** *Narrow 14°*	**BK** *Black*
				ME *Medium 24°*	**AL** *Br. Aluminium*
				WD *Wide 36°*	**RBZ** *Rubbed Bronze*
				VW *Very Wide 47°*	**BR** *Br. Brass*
					PB *Polished Brass*

Example code: SOL16-SP-HE-27K-VN-WH

See Drivers, Power Supplies and Accessories sections for further order codes

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LIGHT ENGINE SELECTION

This product specification sheet references our HE light engine, this product is also available with Intense and Plus static white light engines, please refer to their separate sheets.

▸ intense ◂

Precisions signature intense light engines offer tight, surgical beams combined with the highest peak intensity values available.

- Ultra-tight beams
- High Peak Cd

plus+

Precisions plus light engines offer the best balance between delivered lumens, beam quality and outstanding colour rendition.

- Increased Lumen Output
- CRI 98 Typical

HE

Precisions high efficiency light engines deliver the highest possible lumen values as well as our outstanding energy efficiency

- Maximum Lumen Output
- Maximum Energy Efficiency

LIFETIME & ENVIRONMENTAL

At Precision, we design and engineer our products with longevity in mind. Many of the components that make up our light fixtures are both modular and re-usable, making it possible to service and repair them throughout their life in service. Once our products reach the end of their useful life, it is possible to re-work and renew them in to a new product. We prioritise the use of recyclable materials in both our products and packaging, and encourage our customers to engage responsibly in the correct disposal of any materials we supply.

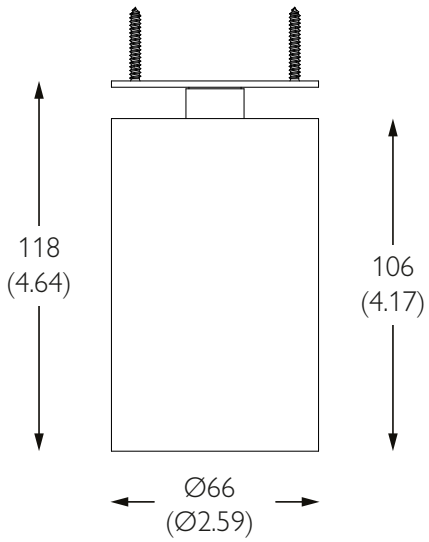
CIBSE TM65	16.05 Kg/CO2e
CIBSE TM66	2.4
RoHS Compliance	Yes
REACH Compliance	Yes
WEEE Compliance	Yes - Registered Producer
Declare	Declared
Lifetime	L90B10 50,000hrs
Warranty	5 Years

UK PART L

Part L1A / L1B (Dwellings) *≥75 lm/W source lumens*	*Compliant 154 lm/W* *Source lm (1663 lm) / Source W (10.80 W)*
Part L2A (General) *≥95lm/W delivered lumens*	*Compliant 120 lm/W* *Delivered (1377 lm) / System W* (11.49 W)*
Part L2A (Display) *≥80 lm/W source lumens*	*Compliant 154 lm/W* *Source lm (1663 lm) / Source W (10.80 W)*

**System W includes driver losses*

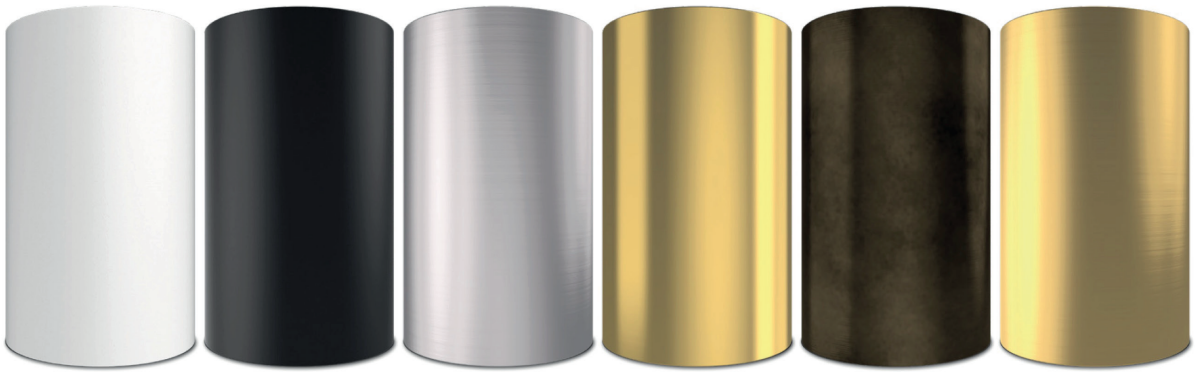
DIMENSIONS



MECHANICAL

Location	IP20 | Indoor Dry Location Only	**Cutout**	N/A
Mounting	Surface mounting plate	**Ceiling Thickness**	N/A
Adjustability	360 Pan | 90 Tilt	**Product Class**	SELV | Class III
Lockable	Pan	**Material**	Machined AL 6063-T6 | Machined Brass
Accessories	Lenses | Louver	**Weight**	350g | 0.77lb

FINISHES



White | Black | Brushed Aluminium | Polished Brass | Rubbed Bronze | Brushed Brass

SOLO 16

DRIVERS & POWER SUPPLIES – UK, EU, MIDDLE EAST, ASIA, PACIFIC

HIGH EFFICIENCY LIGHT ENGINE

20W | 0-10V | Remote | Constant Current

Input Voltage	230VAC | 50/60 Hz
Driver Type	Remote | Constant Current
Location	IP20 | Indoor Location Only
Dimming Control	0-10V
Min. Dim Level	0.1%
Flicker	IEEE P1789 Compatible | No Observable Effect
Wiring Distance	16 AWG - 36m (118') | 18 AWG 22m (72')



	All CCT's		L	W	H
Max. Lights	1 only	**mm**	160	41	30
Order Code	PSCC-RM-1050X-01A	**in**	6.3	1.61	1.18

20W | DALI-2 | Remote | Constant Current

Input Voltage	230VAC | 50/60 Hz
Driver Type	Remote | Constant Current
Location	IP20 | Indoor Location Only
Dimming Control	DALI-2
Min. Dim Level	0.1%
Flicker	IEEE P1789 Compatible | No Observable Effect
Wiring Distance	16 AWG - 36m (118') | 18 AWG 22m (72')



	All CCT's		L	W	H
Max. Lights	1 only	**mm**	160	41	30
Order Code	PSCC-RM-1050X-01D	**in**	6.3	1.61	1.18

14W | Phase | Remote | Constant Current

Input Voltage	230VAC | 50/60 Hz
Driver Type	Remote | Constant Current
Location	IP20 | Indoor Location Only
Dimming Control	Phase
Min. Dim Level	1.0%
Flicker	IEEE P1789 Compatible | No Observable Effect
Wiring Distance	18AWG - 2m (6.56')



	All CCT's		L	W	H
Max. Lights	1 only	**mm**	125	32	41
Order Code	PSCC-14-550-PHC-EL	**in**	4.92	1.26	1.61

Please note the phase dim driver option operates at a reduced output of 90%.

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30W | 0-10V | Remote | Constant Current

Input Voltage	120-277V | 50/60 Hz
Driver Type	Remote | Constant Current
Location	IP20 | Indoor Location Only
Dimming Control	0-10V
Min. Dim Level	0.1%
Flicker	IEEE P1789 Compatible | No Observable Effect
Wiring Distance	16 AWG - 36m (118') | 18 AWG 22m (72')



	All CCT's		L	W	H
Max. Lights	1 only	mm	318	130	61
Order Code	USCC-RM-1050X-02A	in	12.52	5.12	2.4

30W | DALI-2 | Remote | Constant Current

Input Voltage	120-277V | 50/60 Hz
Driver Type	Remote | Constant Current
Location	IP20 | Indoor Location Only
Dimming Control	DALI-2
Min. Dim Level	0.1%
Flicker	IEEE P1789 Compatible | No Observable Effect
Wiring Distance	16 AWG - 36m (118') | 18 AWG 22m (72')



	All CCT's		L	W	H
Max. Lights	1 only	mm	318	130	61
Order Code	USCC-RM-1050X-02D	in	12.52	5.12	2.4

20W | Phase | Remote | Constant Current

Input Voltage	120V | 50/60 Hz
Driver Type	Remote | Constant Current
Location	IP20 | Indoor Location Only
Dimming Control	Phase
Min. Dim Level	1.0%
Flicker	IEEE P1789 Compatible | No Observable Effect
Wiring Distance	16 AWG - 14m (46') | 18 AWG 9m (30')



	All CCT's		L	W	H
Max. Lights	1 only	mm	318	130	61
Order Code	USCC-RM-1050X-01M	in	12.52	5.12	2.4

SOLO 16

PHOTOMETRY

HIGH EFFICIENCY LIGHT ENGINE

OUTPUT SCALING

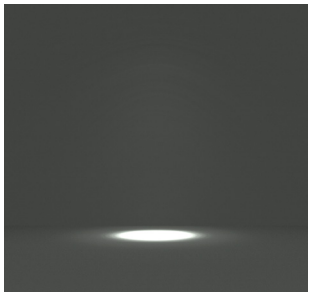
CCT	Output Multiplier	CRI	R9 Typ.	TM-30: Rf	TM-30: Rg	Max Lm
2400K	-	-	-	-	-	-
2700K	1.00	90	57	90	101	1377
3000K	1.00	90	57	90	101	1377
3500K	-	-	-	-	-	-
4000K	-	-	-	-	-	-

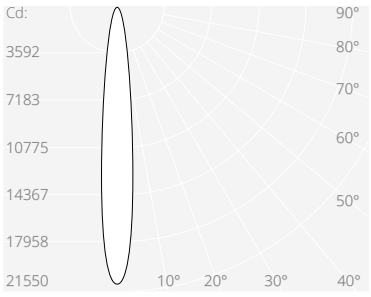
Colour Consistency: 2 SDCM

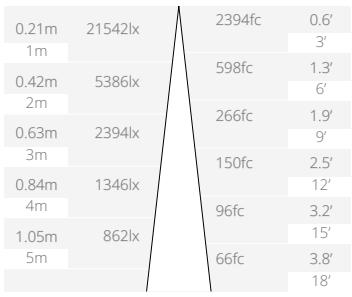
PHOTOMETRY

VERY NARROW

FWHM	12°
Delivered Flux	1377 lm
Peak Intensity	21542 cd

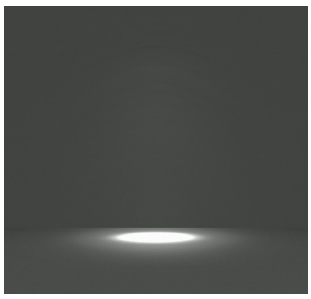


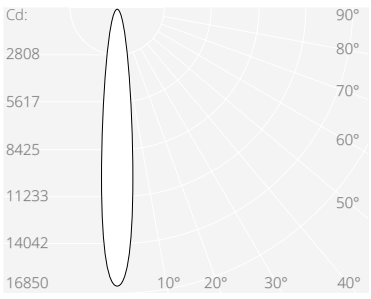


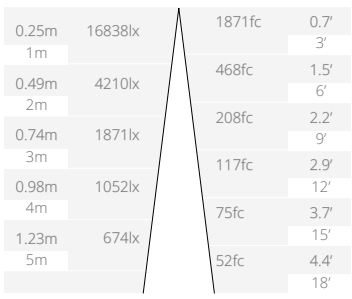


NARROW

FWHM	14°
Delivered Flux	1361 lm
Peak Intensity	16838 cd



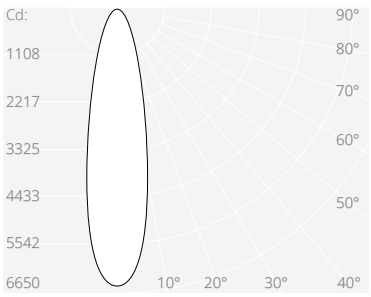


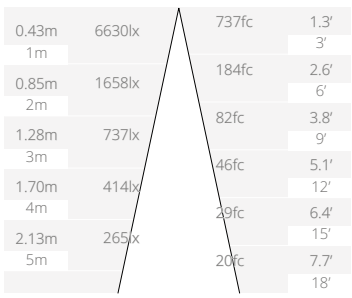


MEDIUM

FWHM	24°
Delivered Flux	1336 lm
Peak Intensity	6630 cd

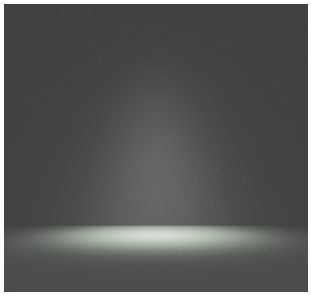


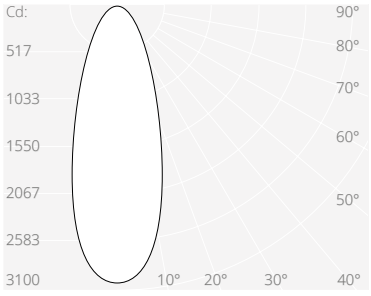


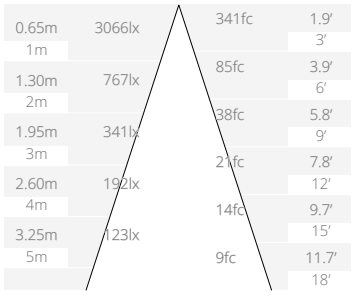


WIDE

FWHM	36°
Delivered Flux	1181 lm
Peak Intensity	3066 cd

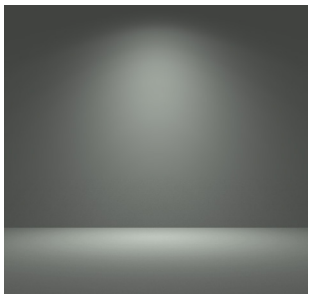


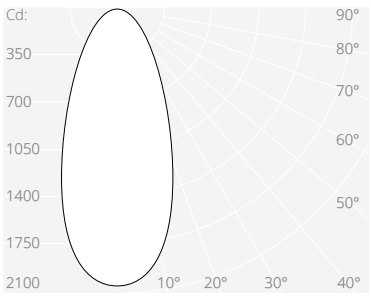


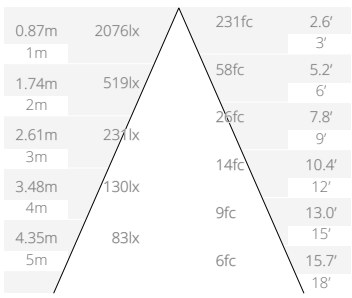


VERY WIDE

FWHM	47°
Delivered Flux	1187 lm
Peak Intensity	2076 cd

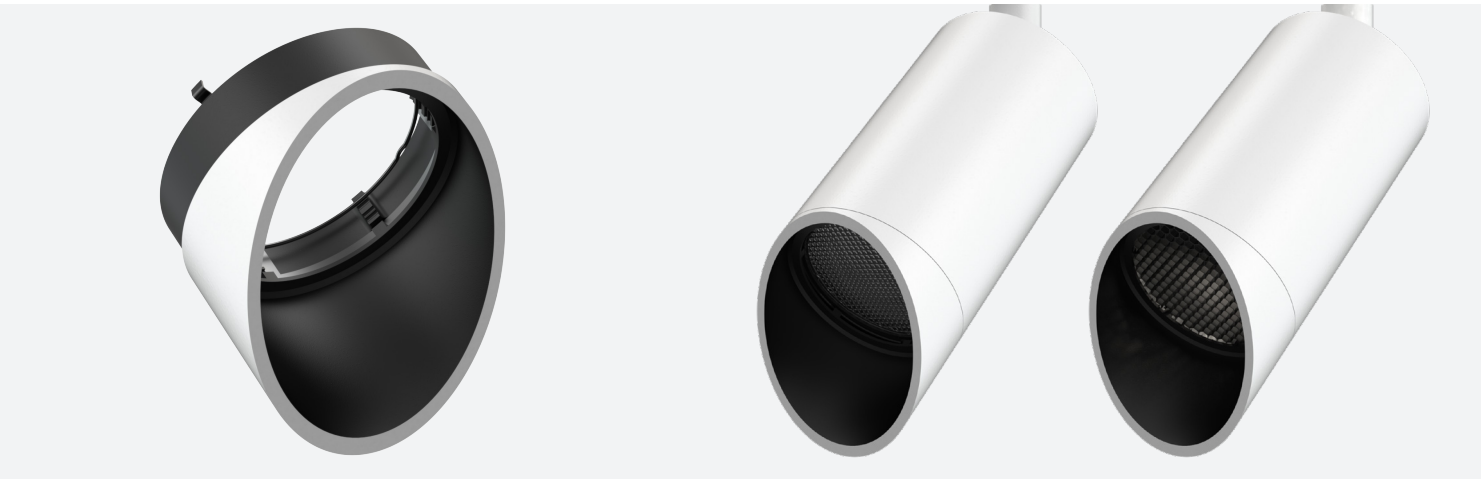






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GLARE GUARD ACCESSORY HOLDER



The Glare Guard Accessory Holder is an angled, snap-in snoot extension capable of holding two additional optical accessories. This includes honeycombs louvers, gels, and beam shaping optics such as our Wallwash and Linear Spread Lenses.

	Double Compartment Holder
Accessory Diameter	Ø55 mm | 2.16"
Capacity	8.00 mm | 0.315" Max. Thickness
Orientation Indexing	Not Available
Weight	Aluminium: 43g | Brass: 129g

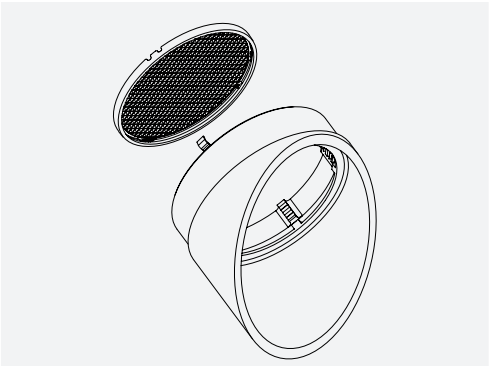
Ordering Codes

Black	SN-255-01-BK	**Polished Brass ***	SN-255-02-PB
Traffic White	SN-255-01-TW	**Brushed Brass ***	SN-255-02-SB
Brushed Aluminium	SN-255-01-AL	**Rubbed Bronze ***	SN-255-02-RB



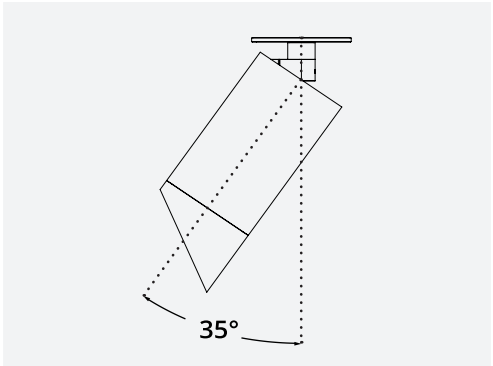
Optical accessories ordered separately

** N.B. - Custom RAL,,Brass and Brozne finishes subject to extended lead times*



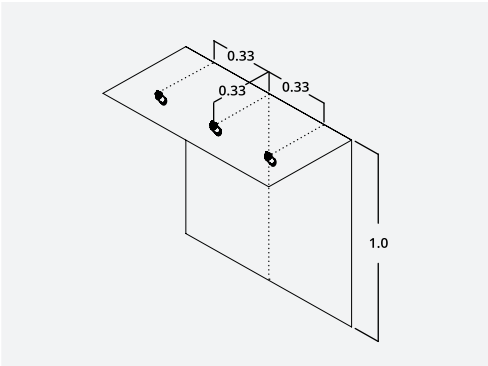
Orientation Indexing

Orientation indexing is not available with this accessory holder, please align accessories by eye. Ensure that discs are installed with their textured side facing inwards towards LED.



Wallwash Fixture Angle

For optimum performance, the fixture should be angled at approx. 35° from the vertical plane.

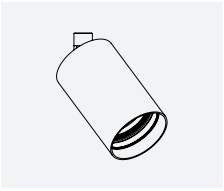


Wallwash Positioning and Pitch

Wallwash fixtures should be positioned one-third of the ceiling height away from the wall and spaced apart by the same distance.

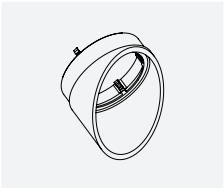
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WALLWASH PHOTOMETRY



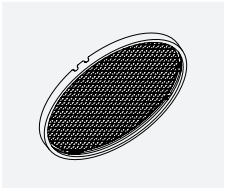
Solo 16 HE

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SN-255-01-AL

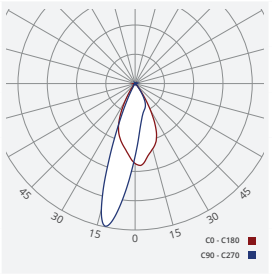
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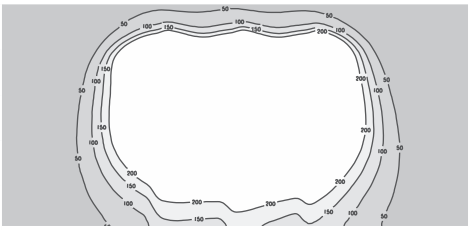


HKFD-55-WAS

- Recommended max. wall height is 2.4 m / 8.0 ft
- Recommended set back and fixture spacing is 0.79 m / 2.6 ft
- Recommended base optics are Very Narrow 12°, Narrow 14° and Medium 25°
- The Wallwash Disc **HKFD-55-WAS** can only be used in combination with the Glare Guard Accessory Holder **SN-255-01-XX**
- Follow the set back and fixture spacing rules outlined on page 10 - results may vary depending on your application

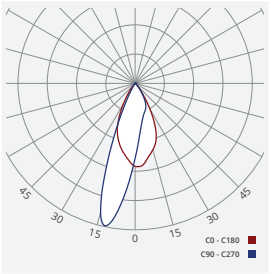
Base Optic	Very Narrow (12°)
Distribution Angle	20° x 50°
Delivered Flux	941 lm
Peak Intensity	2,716 Cd
Efficiency	87.1 lm/W
Efficiency Multiplier	x 0.68

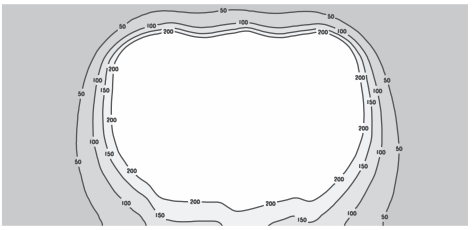




3x Fixtures | 2.40m : 0.79m : 0.79m | 35° Tilt

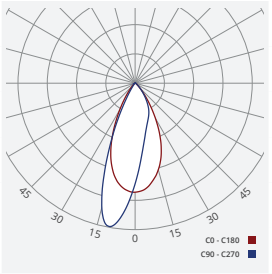
Base Optic	Narrow (14°)
Distribution Angle	21° x 51°
Delivered Flux	912 lm
Peak Intensity	2,507 Cd
Efficiency	84.4 lm/W
Efficiency Multiplier	x 0.67

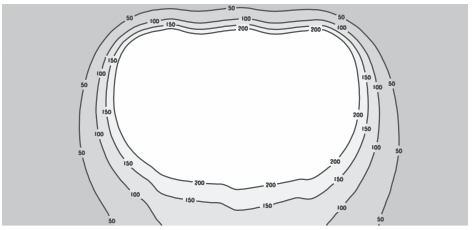




3x Fixtures | 2.40m : 0.79m : 0.79m | 35° Tilt

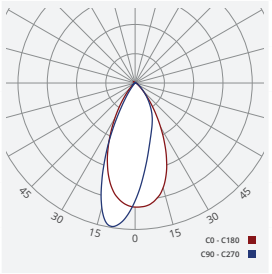
Base Optic	Medium (24°)
Distribution Angle	27° x 50°
Delivered Flux	814 lm
Peak Intensity	1,701 Cd
Efficiency	75.4 lm/w
Efficiency Multiplier	x 0.61

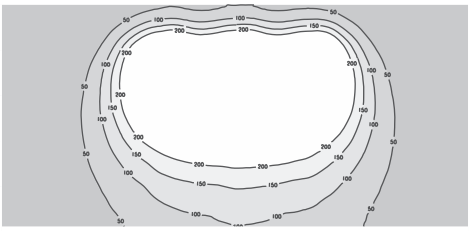




3x Fixtures | 2.40m : 0.79m : 0.79m | 35° Tilt

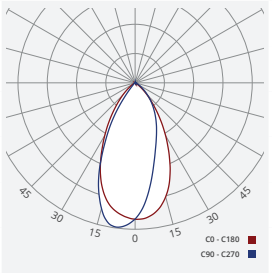
Base Optic	Wide (36°)
Distribution Angle	33° x 52°
Delivered Flux	692 lm
Peak Intensity	1,158 Cd
Efficiency	64.0 lm/W
Efficiency Multiplier	x 0.58

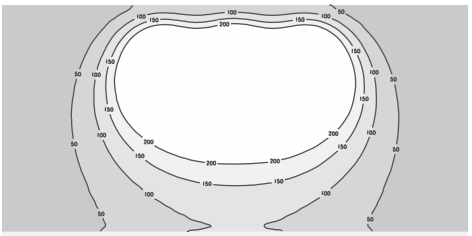




3x Fixtures | 2.40m : 0.79m : 0.79m | 35° Tilt

Base Optic	Very Wide (47°)
Distribution Angle	42° x 56°
Delivered Flux	764 lm
Peak Intensity	975 Cd
Efficiency	70.7 lm/W
Efficiency Multiplier	x 0.64

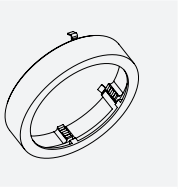




3x Fixtures | 2.40m : 0.79m : 0.79m | 35° Tilt

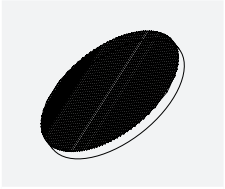
Digital photometric files available as .LDT format.
Contact your sales rep or visit **www.luminii.com** for more information.

Ø55MM LINEAR SPREAD LENS



254-BK

+



992-55

- The Linear Spread Lens **992-55** is a prismatic glass lens that can be used to create asymmetric linear beam effects
- It must be used in conjunction with the Single Accessory Holder **254-BK**
- Using narrower base optics will produce a longer, thinner beam
- The beam is spread widest perpendicular to the disc's vertical stripes (see *fig. 1*)

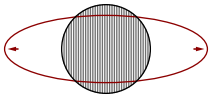
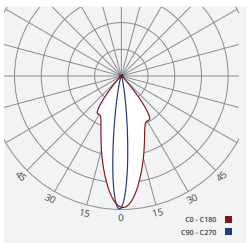
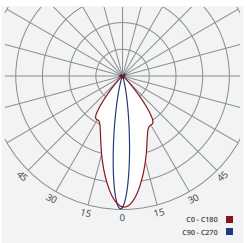
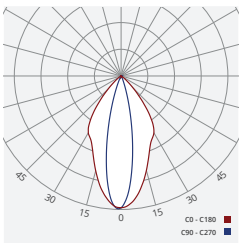
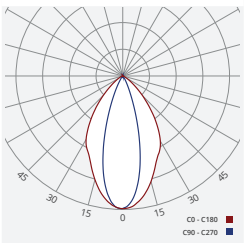
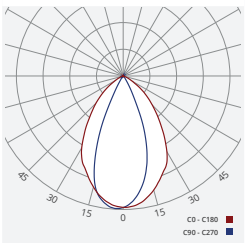


fig. 1



HE

	Ultra Narrow (12°)	Narrow (14°)	Medium (24°)	Wide (36°)	Very Wide (47°)
					
Distribution Angle	12° x 39°	14° x 42°	22° x 60°	31° x 65°	XX° x XX°
Delivered Flux	1,153 lm	1,137 lm	1,004 lm	887 lm	955 lm
Peak Intensity	5,083 Cd	4,527 Cd	2,394 Cd	1,415 Cd	1,105 Cd
Efficiency	106.8 lm/W	105.3 lm/W	100.0 lm/W	82.1 lm/W	92.1 lm/W
Efficiency Multiplier	x 0.84	x 0.83	x 0.75	x 0.75	x 0.80

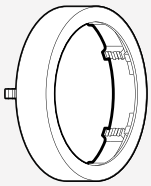
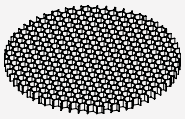
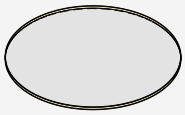
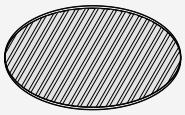
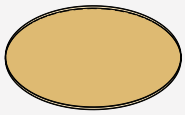
OPTICS

There are 5 interchangeable optics, cross reference the molded ID on the optic for beam option.

Optic	Optic	Optic	Optic	Optic
				
Very Narrow TIR Optic	**Narrow TIR Optic**	**Medium TIR Optic**	**Wide TIR Optic**	**Very Wide TIR Optic**
Molded ID 6686	Molded ID 6731	Molded ID 6687	Molded ID 6688	Molded ID 7434
Order Code	**Order Code**	**Order Code**	**Order Code**	**Order Code**
C16686-ILONA-RS	**C16731-ILONA-SS**	**C16687-ILONA-M**	**C16688-ILONA-W**	**C17434-ILONA-WW**

ACCESSORIES

This product can hold 2 x accessories using the double accessory holder. Accessories are pre-installed unless otherwise requested.

Accessory Holder	Glare Control	Beam Shaping	Beam Shaping	Colour Change
				
Double Accessory Holder	**Honeycomb Louver**	**Softening Lens**	**Linear Lens**	**1/4 CTO**
W63xH14mm | W2.48xH0.55"	W55xH3.2mm | W2.17xH0.13"	W55xH3.2mm | W2.17xH0.13"	W55xH3.2mm | W2.17xH0.13"	W55xH1.8mm | W2.17xH0.07"
Order Code	**Order Code**	**Order Code**	**Order Code**	**Order Code**
254-BK	**995-55-BK**	**991-55**	**992-55**	**997-1/4CTO-55**

Colour Change

Custom Colour Filter
W55xH1.8mm | W2.17xH0.07"
Order Code
Contact Sales Rep

The Double Accessory Holder (sold separately) greatly enhances Solo's optical accessory capacity providing space for up to two additional accessories. It snaps in and out of the fixture's snoot without the need for tools, making on-site adjustments quick and simple.

