# SOLO 16

PRODUCT OVERVIEW

PLUS LIGHT ENGINE



## KEY FEATURES

Beam Options: 13 | 15 | 25 | 40 | 50
Light Engine Performance: 1127lm | 12.60W
Movement: 360 Pan | 90 Tilt
Tool-less field changeable optics
Interchangeable accessories
Ultra-high CRI
UK Part L1 / L2 (Display) Compliant
Title 24 JA8 Certified

## OVERVIEW

Solo 16 Plus 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 1127lm | 12.60W light engine has a max peak intensity of 16929cd. An accessory holder is available separately that can accommodate 55mm (2.16") lenses and louvers. This product requires an external 0.7mA 18V Constant Current LED driver.

## PERFORMANCE

| | Plus | | | | |
|---|---|---|---|---|---|
| | V. Narrow | Narrow | Medium | Wide | V. Wide |
| FWHM | 13° | 15° | 25° | 40° | 50° |
| Luminous Flux | 1127 lm | 1104 lm | 1072 lm | 987 lm | 979 lm |
| Peak Intensity | 16929 cd | 14173 cd | 5149 cd | 2358 cd | 1545 cd |
| CCT | 2400K \| 2700K \| 3000K \| 3500K \| 4000K | | | | |
| CRI Min. | 90 \| 98 \| 98 \| 98 \| 95 | | | | |
| LED Current | 0.700 A | | | | |
| Voltage | 18 V | | | | |
| Input Wattage | 12.6 W | | | | |
| Efficacy | 89.4 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* | **PL** *Plus* | **24K** *2400K* | **VN** *Very Narrow 13°* | **WH** *White* |
| | | | **27K** *2700K* | **NR** *Narrow 15°* | **BK** *Black* |
| | | | **30K** *3000K* | **ME** *Medium 25°* | **AL** *Br. Aluminium* |
| | | | **35K** *3500K* | **WD** *Wide 40°* | **RBZ** *Rubbed Bronze* |
| | | | **40K** *4000K* | **VW** *Very Wide 50°* | **BR** *Br. Brass* |
| | | | | | **PB** *Polished Brass* |

**Example code:** SOL16-SP-PL-24K-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 Plus light engine, this product is also available with Intense and HE 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

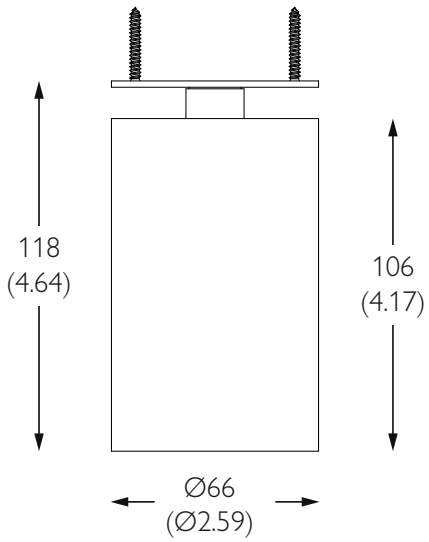
## LIFETIME & ENVIRONMENTAL

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)**<br>*≥75 lm/W source lumens* | *Compliant 121 lm/W*<br>*Source lm (1525 lm) / Source W (12.60 W)* |
| **Part L2A (General)**<br>*≥95lm/W delivered lumens* | - |
| **Part L2A (Display)**<br>*≥80 lm/W source lumens* | *Compliant 121 lm/W*<br>*Source lm (1525 lm) / Source W (12.60 W)* |

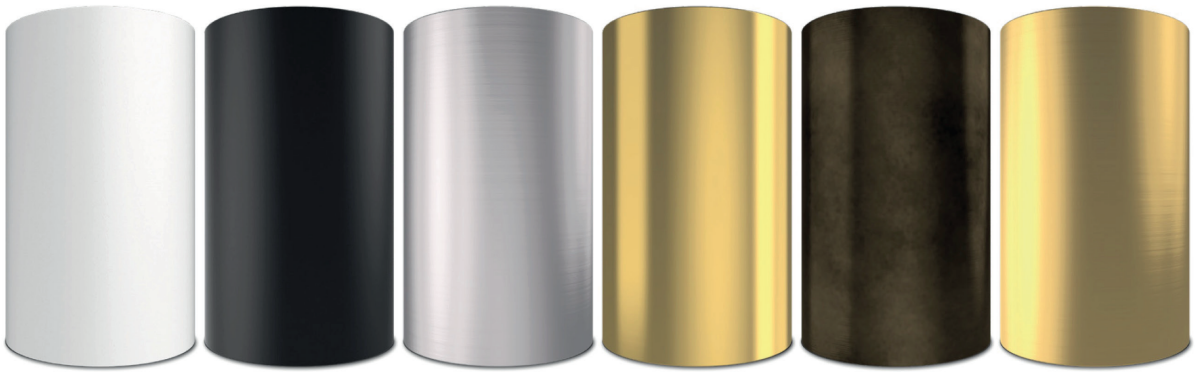
## DIMENSIONS




## 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

PLUS 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-20-700-A-EL | **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-20-700-D-EL | **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-14-700-PHC-EL | **in** | 4.92 | 1.26 | 1.61 |



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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 to 2 in series | **mm** | 348 | 65 | 47 |
| **Order Code** | USCC-30-700-A-EL-ENC | **in** | 13.7 | 2.56 | 1.85 |

## 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 to 2 in series | **mm** | 348 | 65 | 47 |
| **Order Code** | USCC-30-700-D-EL-ENC | **in** | 13.7 | 2.56 | 1.85 |

# SOLO 16

PHOTOMETRY

PLUS LIGHT ENGINE

## OUTPUT SCALING

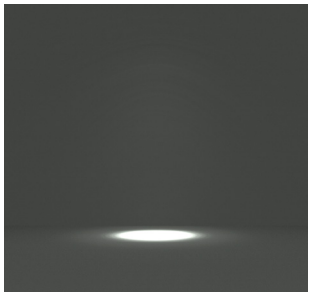
| CCT | Output Multiplier | CRI | R9 Typ. | TM-30: Rf | TM-30: Rg | Max Lm |
|---|---|---|---|---|---|---|
| 2400K | 0.97 | 90 | 90 | 90 | 99 | 1093 |
| 2700K | 0.93 | 98 | 95 | 95 | 101 | 1048 |
| 3000K | 1.00 | 98 | 95 | 95 | 100 | 1127 |
| 3500K | 1.05 | 98 | 92 | 95 | 99 | 1183 |
| 4000K | 1.05 | 95 | 90 | 90 | 99 | 1183 |

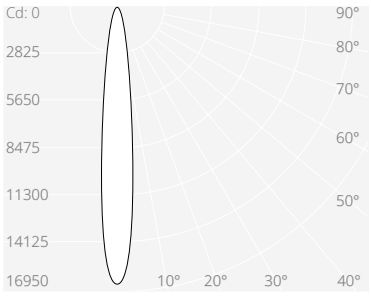
Colour Consistency: 2 SDCM

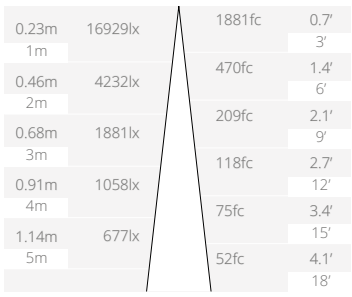
## PHOTOMETRY

### VERY NARROW

| | |
|---|---|
| FWHM | 13° |
| Delivered Flux | 1127 lm |
| Peak Intensity | 16929 cd |

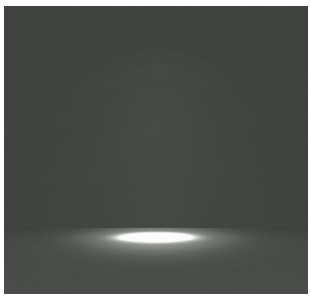


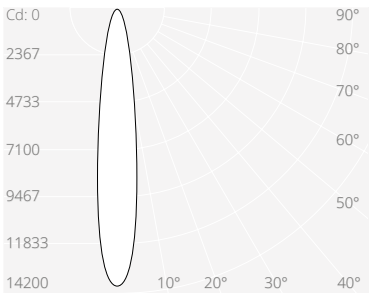


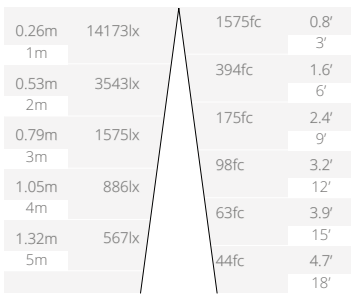




### NARROW

| | |
|---|---|
| FWHM | 15° |
| Delivered Flux | 1104 lm |
| Peak Intensity | 14173 cd |



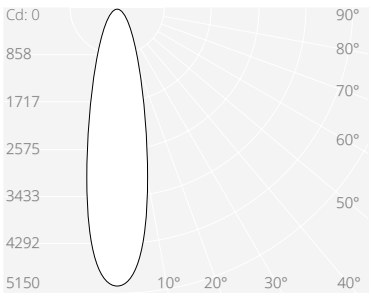


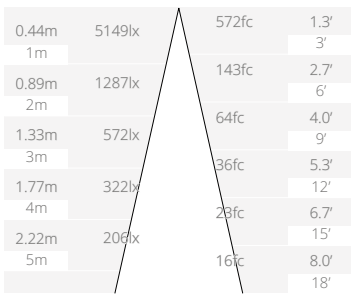




### MEDIUM

| | |
|---|---|
| FWHM | 25° |
| Delivered Flux | 1072 lm |
| Peak Intensity | 5149 cd |

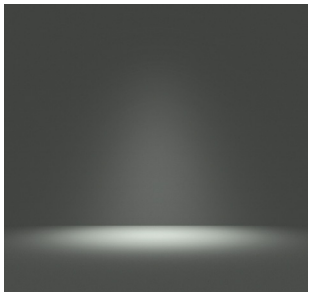


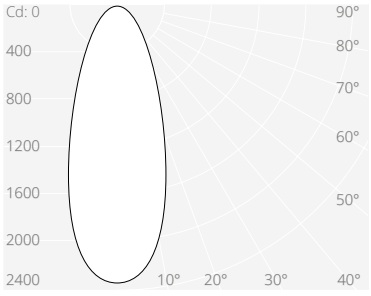


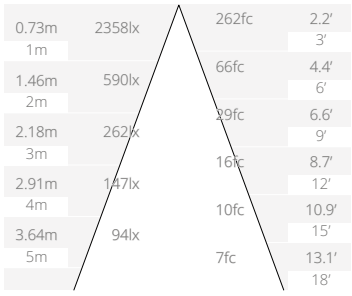




### WIDE

| | |
|---|---|
| FWHM | 40° |
| Delivered Flux | 987 lm |
| Peak Intensity | 2358 cd |

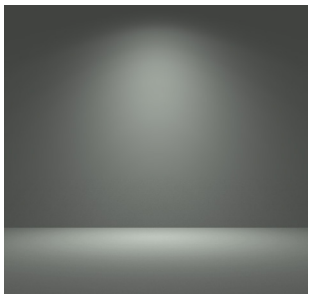


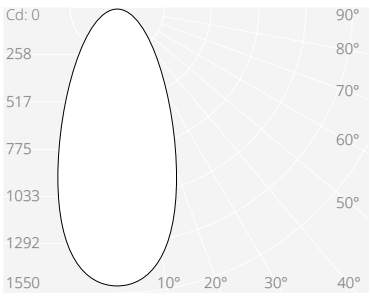


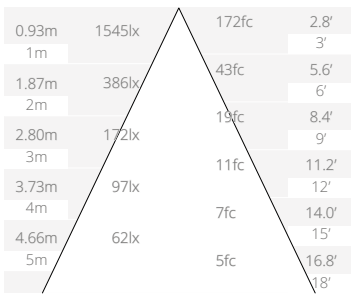




### VERY WIDE

| | |
|---|---|
| FWHM | 50° |
| Delivered Flux | 979 lm |
| Peak Intensity | 1545 cd |



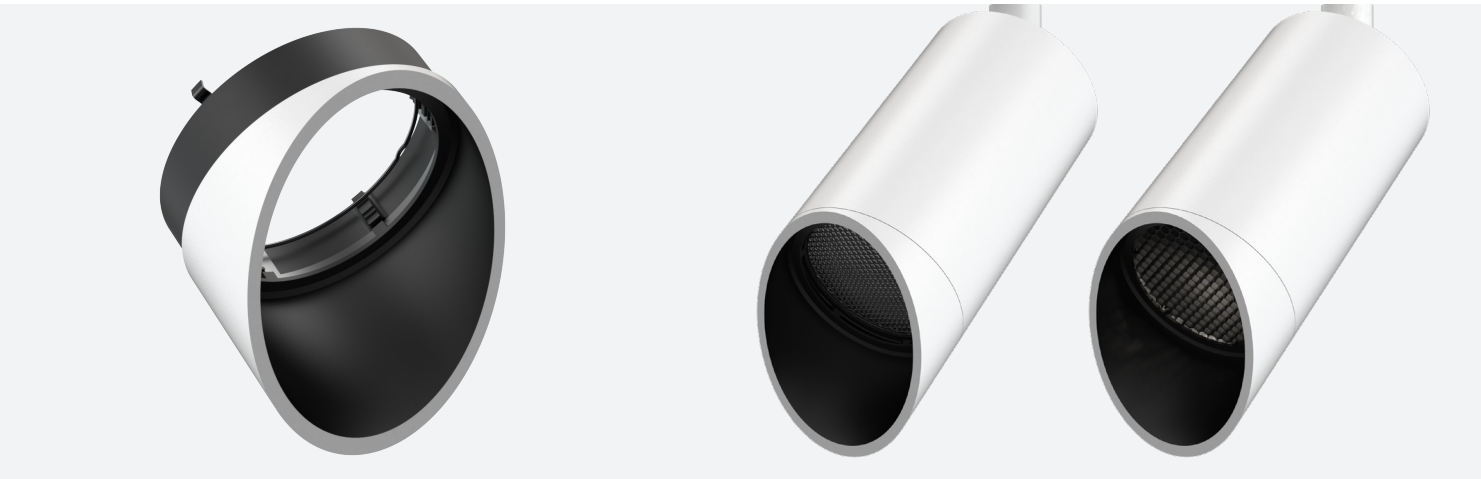





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## GLARE GUARD ACCESSORY HOLDER



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 |

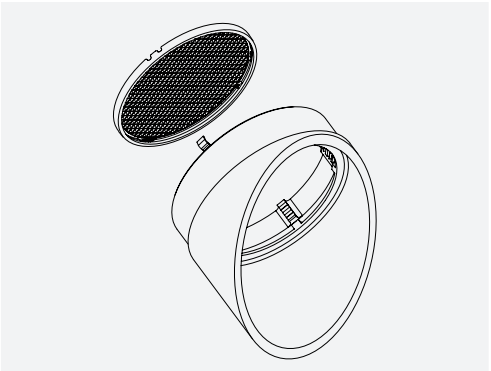
### Ordering Codes

| | | | |
|---|---|---|---|
| **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 |



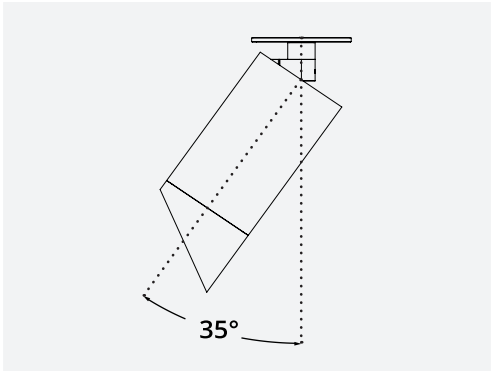
*Optical accessories ordered separately*

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



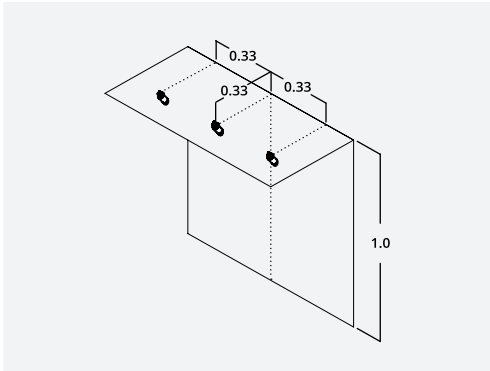
### Orientation Indexing

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.

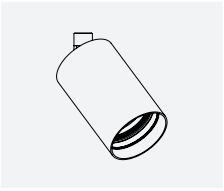



### Wallwash Positioning and Pitch

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

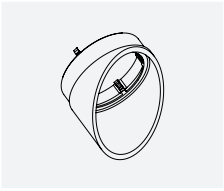
plus+

## WALLWASH PHOTOMETRY



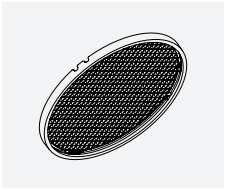
Solo 16 Plus

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SN-255-01-XX

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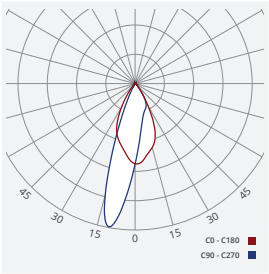


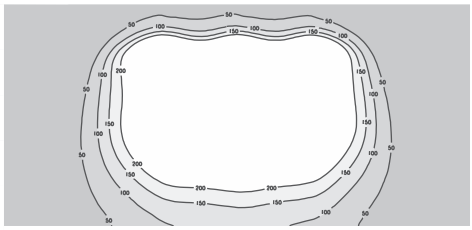
HKFD-55-WAS

- 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 Narrow 15° or 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 (13°) |
| Distribution Angle | 19 x 51° |
| Delivered Flux | 708 lm |
| Peak Intensity | 2,027 Cd |
| Efficiency | 56.2 lm/W |
| Efficiency Multiplier | |



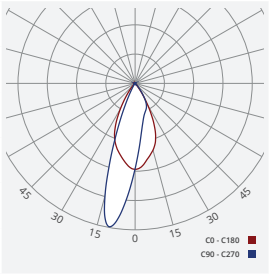


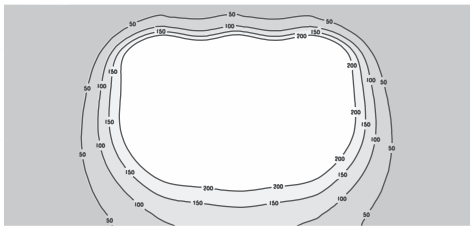



3x Fixtures | 2.40m : 0.79m : 0.79m | 35° Tilt

| | |
|---|---|
| Base Optic | Narrow (15°) |
| Distribution Angle | 21° x 51° |
| Delivered Flux | 724 lm |
| Peak Intensity | 1,939 Cd |
| Efficiency | 57.5 lm/W |
| Efficiency Multiplier | |



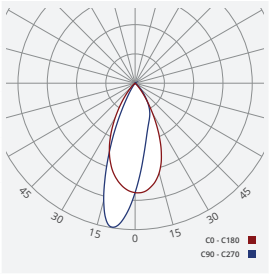


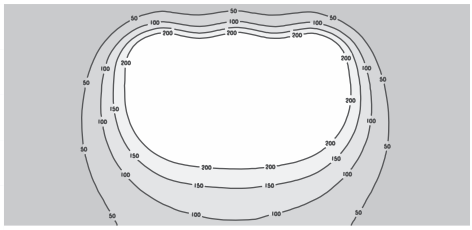



3x Fixtures | 2.40m : 0.79m : 0.79m | 35° Tilt

| | |
|---|---|
| Base Optic | Medium (25°) |
| Distribution Angle | 27° x 51° |
| Delivered Flux | 622 lm |
| Peak Intensity | 1,254 Cd |
| Efficiency | 49.4 lm/W |
| Efficiency Multiplier | |



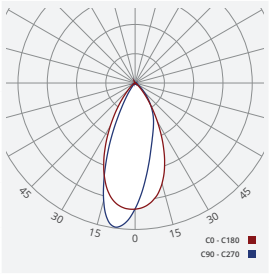


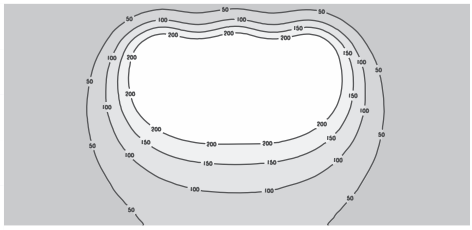



3x Fixtures | 2.40m : 0.79m : 0.79m | 35° Tilt

| | |
|---|---|
| Base Optic | Wide (40°) |
| Distribution Angle | 34° x 52° |
| Delivered Flux | 518 lm |
| Peak Intensity | 846 Cd |
| Efficiency | 41.1 lm/W |
| Efficiency Multiplier | |



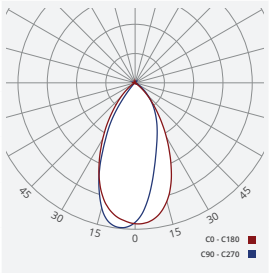


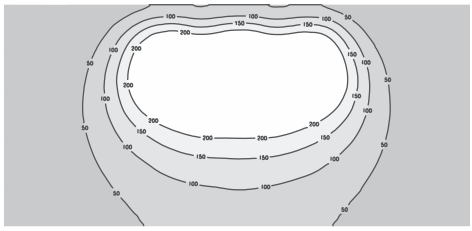



3x Fixtures | 2.40m : 0.79m : 0.79m | 35° Tilt

| | |
|---|---|
| Base Optic | Very Wide (50°) |
| Distribution Angle | 43° x 56° |
| Delivered Flux | 555 lm |
| Peak Intensity | 683 Cd |
| Efficiency | 44.0 lm/W |
| Efficiency Multiplier | |



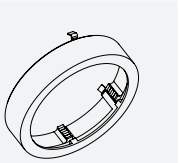


3x Fixtures | 2.40m : 0.79m : 0.79m | 35° Tilt

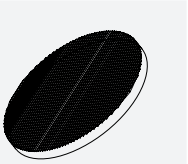
Digital photometric files available as .LDT format.
Contact your sales rep or visit **www.luminii.com** for more information.

## Ø55MM LINEAR SPREAD LENS



254-BK

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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*)

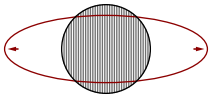
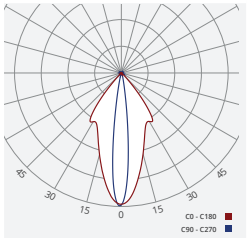
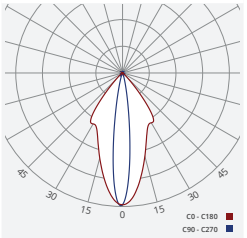
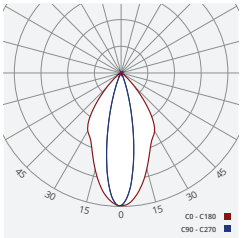
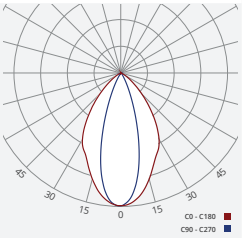
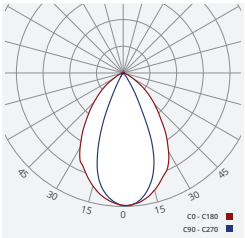


*fig. 1*



plus+

| | Very Narrow (13°) | Narrow (15°) | Medium (25°) | Wide (40°) | Very Wide (50°) |
|---|---|---|---|---|---|
| |  |  |  |  |  |
| Distribution Angle | 13° x 42° | 14° x 44° | 23° x 60° | 32° x 67° | 44° x 74° |
| Delivered Flux | 837 lm | 840 lm | 767 lm | 683 lm | 698 lm |
| Peak Intensity | 3,705 Cd | 3,286 Cd | 1,730 Cd | 1,040 Cd | 760 Cd |
| Efficiency | 66.4 lm/W | 66.7 lm/W | 60.9 lm/W | 54.2 lm/W | 55.4 lm/W |
| Efficiency Multiplier | x 0.74 | x 0.76 | x 0.72 | x 0.69 | x 0.71 |

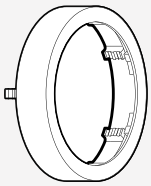
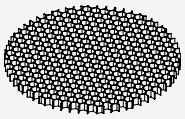
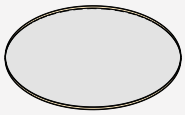
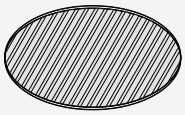
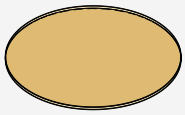
## OPTICS

There are 5 tool-less 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.

