

# MINIMO PRO PLUS

## PRODUCT OVERVIEW

## PLUS LIGHT ENGINE

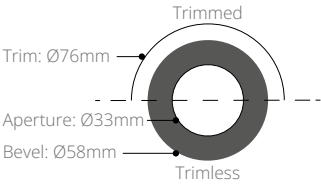


### OVERVIEW

Minimo Pro Plus is a Constant Current single source pro-series downlight that is machined from aerospace grade aluminium 6063-T6 and comes as standard in white and black along with a range of premium finishes. It has four site-changeable optics for flexible beam distribution and is fully adjustable with 360° pan and 35° tilt without breaking the ceiling line. Our 1001lm | 12.60W light engine has a max peak intensity of 6389cd. The integral accessory holder can accommodate 32mm lenses and louvers.

### KEY FEATURES

- Beam Options: 19 | 25 | 37 | 50
- Performance: 1001lm | 12.60W
- Movement: 360 Pan | 35 Tilt
- Tool-less field changeable optics
- Ultra-high CRI
- Trimmed / Trimless options
- UK Part L1 / L2 (Display) Compliant

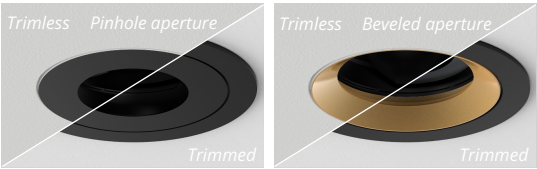


### PERFORMANCE

|                | Plus                                  |         |         |         |
|----------------|---------------------------------------|---------|---------|---------|
|                | Narrow                                | Medium  | Wide    | V. Wide |
| FWHM           | 19°                                   | 25°     | 37°     | 50°     |
| Luminous Flux  | 887 lm                                | 1001 lm | 997 lm  | 912 lm  |
| Peak Intensity | 6389 cd                               | 5069 cd | 2473 cd | 1537 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       | 79.4 lm/W                             |         |         |         |
| Driver Type    | Constant Current   Remote             |         |         |         |
| Class          | SELV   Class III                      |         |         |         |

### ORDER CODE

| Model                 | Type                | Rating         | Trim                            | Aperture                       | Output         | CCT              | Beam Angle              | Trim Finish             | Aperture Finish     |
|-----------------------|---------------------|----------------|---------------------------------|--------------------------------|----------------|------------------|-------------------------|-------------------------|---------------------|
| <b>MNP</b> Minimo Pro | <b>D</b> Fixed      | <b>20</b> IP20 | <b>TR</b> Trimmed               | <b>FP</b> Pinhole <sup>3</sup> | <b>PL</b> Plus | <b>24K</b> 2400K | <b>NR</b> Narrow 19°    | <b>NA</b> Trimless      | <b>WH</b> White     |
|                       | <b>A</b> Adjustable | <b>54</b> IP54 | <b>TL</b> Trimless <sup>1</sup> | <b>BV</b> Beveled <sup>2</sup> |                | <b>27K</b> 2700K | <b>ME</b> Medium 25°    | <b>WH</b> White         | <b>BK</b> Black     |
|                       |                     |                |                                 |                                |                | <b>30K</b> 3000K | <b>WD</b> Wide 37°      | <b>BK</b> Black         | <b>MG</b> Matt Gold |
|                       |                     |                |                                 |                                |                | <b>35K</b> 3500K | <b>VW</b> Very Wide 50° | <b>AL</b> Br. Aluminium |                     |
|                       |                     |                |                                 |                                |                | <b>40K</b> 4000K |                         | <b>RBZ</b> R. Bronze    |                     |
|                       |                     |                |                                 |                                |                |                  |                         | <b>BR</b> Br. Brass     |                     |
|                       |                     |                |                                 |                                |                |                  |                         | <b>PB</b> P. Brass      |                     |
|                       |                     |                |                                 |                                |                |                  |                         | <b>CH</b> Chrome        |                     |



**Example code:** MNP-D-20-TL-BV-PL-24K-NR-NA-WH

<sup>1</sup> Trimless trim finish must be NA <sup>2</sup> MG Aperture finish only for beveled <sup>3</sup> Pinhole trim finishes only WH/BK/NA

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

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<sup>+</sup>

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

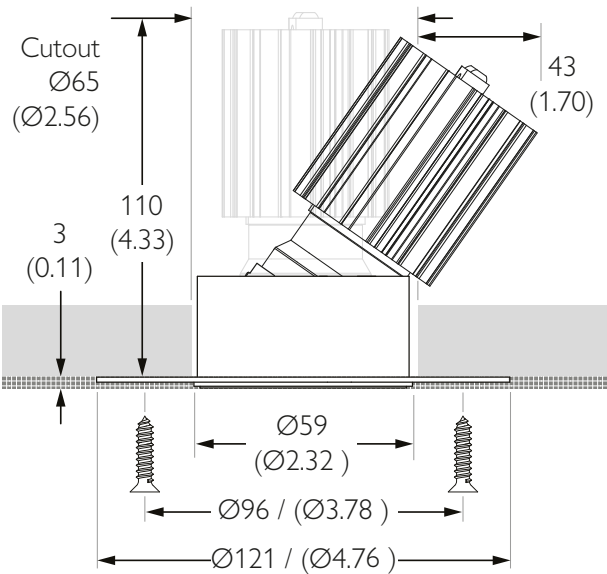
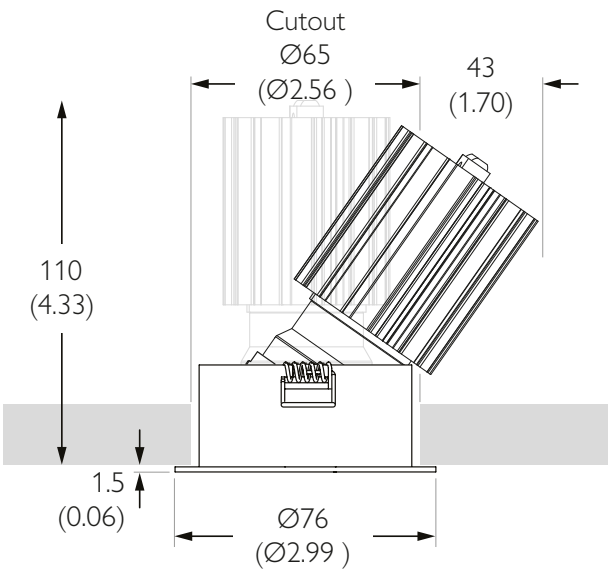
At Precision, we design and engineer our products with longevity in mind. Many of the components that make up our light fixtures are both modular and re-usable, making it possible to service and repair them throughout their life in service. Once our products reach the end of their useful life, it is 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       | 13.09 Kg/CO2e             |
| CIBSE TM66       | 2.2                       |
| RoHS Compliance  | Yes                       |
| REACH Compliance | Yes                       |
| WEEE Compliance  | Yes - Registered Producer |
| Declare          | LBC Red List Approved     |
| Lifetime         | L90B10 50,000hrs          |
| Warranty         | 5 Years                   |

| UK PART L                  |                                                                                          |
|----------------------------|------------------------------------------------------------------------------------------|
| Part L1A / L1B (Dwellings) | Compliant 121 lm/W<br>≥75 Lm/W source lumens<br>Source lm (1525 lm) / Source W (12.60 W) |
| Part L2A (General)         | -<br>≥95Lm/W delivered lumens                                                            |
| Part L2A (Display)         | Compliant 121 lm/W<br>≥80 Lm/W source lumens<br>Source lm (1525 lm) / Source W (12.60 W) |

# MINIMO PRO PLUS

## DIMENSIONS



## MECHANICAL

|               |                                               |
|---------------|-----------------------------------------------|
| Location      | IP20 / IP54   Indoor Dry / Damp Location Only |
| Mounting      | Recessed                                      |
| Adjustability | 360 Pan   35 Tilt                             |
| Lockable      | N/A                                           |
| Accessories   | Louver   Lenses                               |

|                   |                     |
|-------------------|---------------------|
| Cutout            | ø65mm (2.56")       |
| Ceiling Thickness | 3-25mm (0.12-0.98") |
| Product Class     | SELV   Class III    |
| Material          | Machined AL 6063-T6 |
| Weight            | 249g   0.55lb       |

# MINIMO PRO PLUS

DIMENSIONS & FINISHES

PLUS LIGHT ENGINE

## TRIM & APERTURE TYPES



TRIMMED  
PINHOLE



TRIMLESS  
PINHOLE



TRIMMED  
BEVELED

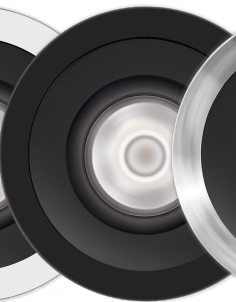


TRIMLESS  
BEVELED

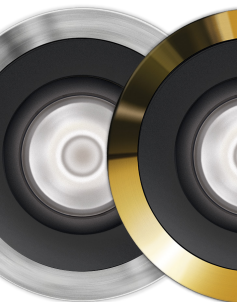
## TRIM FINISHES



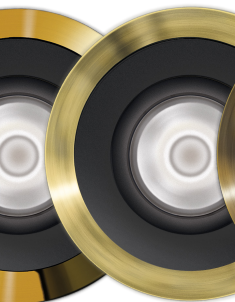
WHITE



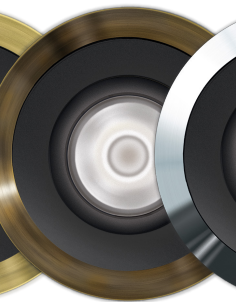
BLACK



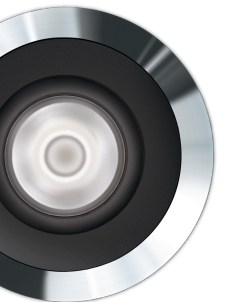
BRUSHED  
ALUMINUM



POLISHED  
BRASS



BRUSHED  
BRASS



RUBBED  
BRONZE



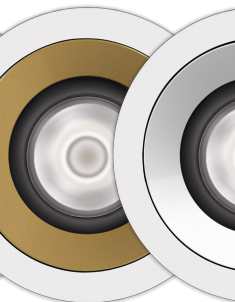
POLISHED  
CHROME

## APERTURE FINISHES

BEVELED



BLACK



MATTE GOLD



WHITE

PINHOLE



WHITE



BLACK

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 |

This product specification sheet is for 230V / CE / UKCA regions. For North American projects please refer to our Minimo - North American specification sheets.

# MINIMO PRO PLUS

PHOTOMETRY

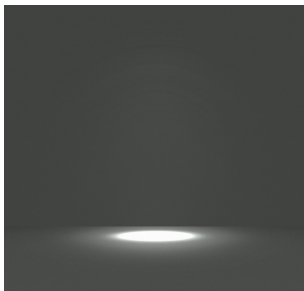
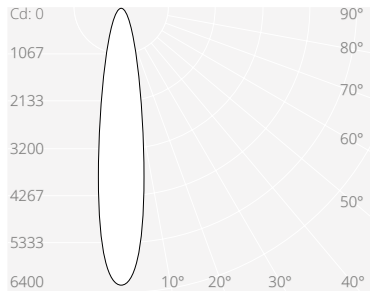
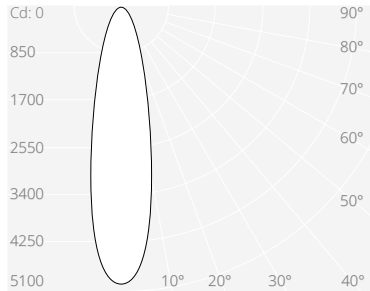
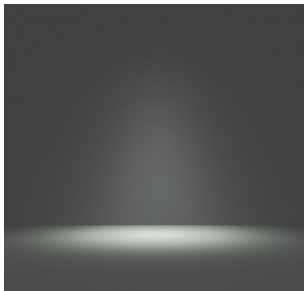
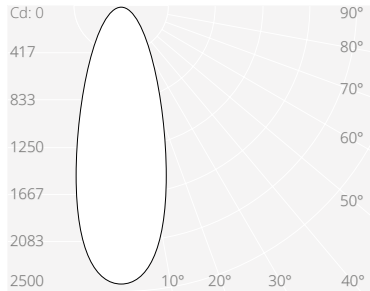
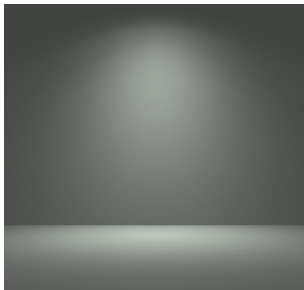
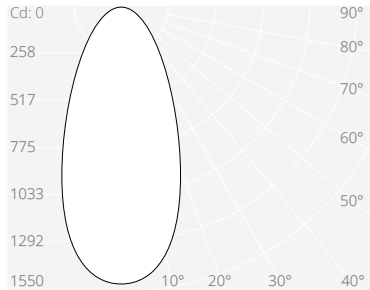
PLUS LIGHT ENGINE

## OUTPUT SCALING

| CCT   | Output Multiplier | CRI | R9 Typ. | TM-30: Rf | TM-30: Rg | Max Lm |
|-------|-------------------|-----|---------|-----------|-----------|--------|
| 2400K | 0.97              | 90  | 90      | 90        | 99        | 971    |
| 2700K | 0.93              | 98  | 95      | 95        | 101       | 931    |
| 3000K | 1.00              | 98  | 95      | 95        | 100       | 1001   |
| 3500K | 1.05              | 98  | 92      | 95        | 99        | 1051   |
| 4000K | 1.05              | 95  | 90      | 90        | 99        | 1051   |

Colour Consistency: 2 SDCM

## PHOTOMETRY

|                |     |                                                                                     |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |       |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
|----------------|-----|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-----|-------|--------|-------|------|------|-----|----|--|--|----|------|-----|-------|--------|-------|------|------|-----|----|--|--|----|------|-----|-------|-------|------|------|------|-----|----|--|--|----|------|--|-------|-------|------|-------|--|--|----|--|--|-----|--|--|-------|-------|------|-------|--|--|----|--|--|-----|--|--|--|--|------|-------|--|--|--|--|--|-----|
| NARROW         |     |    |    | <table><tr><td>Cd: 0</td><td>90°</td><td>0.33m</td><td>6389lx</td><td>710fc</td><td>1.0'</td></tr><tr><td>1067</td><td>80°</td><td>1m</td><td></td><td></td><td>3'</td></tr><tr><td>2133</td><td>70°</td><td>0.67m</td><td>1597lx</td><td>177fc</td><td>2.0'</td></tr><tr><td>3200</td><td>60°</td><td>2m</td><td></td><td></td><td>6'</td></tr><tr><td>4267</td><td>50°</td><td>1.00m</td><td>710lx</td><td>79fc</td><td>3.0'</td></tr><tr><td>5333</td><td>40°</td><td>3m</td><td></td><td></td><td>9'</td></tr><tr><td>6400</td><td></td><td>1.34m</td><td>399lx</td><td>44fc</td><td>4.0'</td></tr><tr><td></td><td></td><td>4m</td><td></td><td></td><td>12'</td></tr><tr><td></td><td></td><td>1.67m</td><td>256lx</td><td>28fc</td><td>5.0'</td></tr><tr><td></td><td></td><td>5m</td><td></td><td></td><td>15'</td></tr><tr><td></td><td></td><td></td><td></td><td>20fc</td><td>6.0'</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td>18'</td></tr></table> | Cd: 0 | 90° | 0.33m | 6389lx | 710fc | 1.0' | 1067 | 80° | 1m |  |  | 3' | 2133 | 70° | 0.67m | 1597lx | 177fc | 2.0' | 3200 | 60° | 2m |  |  | 6' | 4267 | 50° | 1.00m | 710lx | 79fc | 3.0' | 5333 | 40° | 3m |  |  | 9' | 6400 |  | 1.34m | 399lx | 44fc | 4.0'  |  |  | 4m |  |  | 12' |  |  | 1.67m | 256lx | 28fc | 5.0'  |  |  | 5m |  |  | 15' |  |  |  |  | 20fc | 6.0'  |  |  |  |  |  | 18' |
| Cd: 0          | 90° | 0.33m                                                                               | 6389lx                                                                               | 710fc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1.0'  |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| 1067           | 80° | 1m                                                                                  |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 3'    |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| 2133           | 70° | 0.67m                                                                               | 1597lx                                                                               | 177fc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 2.0'  |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| 3200           | 60° | 2m                                                                                  |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 6'    |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| 4267           | 50° | 1.00m                                                                               | 710lx                                                                                | 79fc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 3.0'  |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| 5333           | 40° | 3m                                                                                  |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 9'    |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| 6400           |     | 1.34m                                                                               | 399lx                                                                                | 44fc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 4.0'  |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
|                |     | 4m                                                                                  |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 12'   |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
|                |     | 1.67m                                                                               | 256lx                                                                                | 28fc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 5.0'  |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
|                |     | 5m                                                                                  |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 15'   |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
|                |     |                                                                                     |                                                                                      | 20fc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 6.0'  |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
|                |     |                                                                                     |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 18'   |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| FWHM           |     | 19°                                                                                 |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |       |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| Delivered Flux |     | 887 lm                                                                              |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |       |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| Peak Intensity |     | 6389 cd                                                                             |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |       |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| MEDIUM         |     |   |   | <table><tr><td>Cd: 0</td><td>90°</td><td>0.44m</td><td>5069lx</td><td>563fc</td><td>1.3'</td></tr><tr><td>850</td><td>80°</td><td>1m</td><td></td><td></td><td>3'</td></tr><tr><td>1700</td><td>70°</td><td>0.89m</td><td>1267lx</td><td>141fc</td><td>2.7'</td></tr><tr><td>2550</td><td>60°</td><td>2m</td><td></td><td></td><td>6'</td></tr><tr><td>3400</td><td>50°</td><td>1.33m</td><td>563lx</td><td>63fc</td><td>4.0'</td></tr><tr><td>4250</td><td>40°</td><td>3m</td><td></td><td></td><td>9'</td></tr><tr><td>5100</td><td></td><td>1.77m</td><td>317lx</td><td>35fc</td><td>5.3'</td></tr><tr><td></td><td></td><td>4m</td><td></td><td></td><td>12'</td></tr><tr><td></td><td></td><td>2.22m</td><td>203lx</td><td>23fc</td><td>6.7'</td></tr><tr><td></td><td></td><td>5m</td><td></td><td></td><td>15'</td></tr><tr><td></td><td></td><td></td><td></td><td>16fc</td><td>8.0'</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td>18'</td></tr></table>  | Cd: 0 | 90° | 0.44m | 5069lx | 563fc | 1.3' | 850  | 80° | 1m |  |  | 3' | 1700 | 70° | 0.89m | 1267lx | 141fc | 2.7' | 2550 | 60° | 2m |  |  | 6' | 3400 | 50° | 1.33m | 563lx | 63fc | 4.0' | 4250 | 40° | 3m |  |  | 9' | 5100 |  | 1.77m | 317lx | 35fc | 5.3'  |  |  | 4m |  |  | 12' |  |  | 2.22m | 203lx | 23fc | 6.7'  |  |  | 5m |  |  | 15' |  |  |  |  | 16fc | 8.0'  |  |  |  |  |  | 18' |
| Cd: 0          | 90° | 0.44m                                                                               | 5069lx                                                                               | 563fc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1.3'  |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| 850            | 80° | 1m                                                                                  |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 3'    |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| 1700           | 70° | 0.89m                                                                               | 1267lx                                                                               | 141fc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 2.7'  |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| 2550           | 60° | 2m                                                                                  |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 6'    |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| 3400           | 50° | 1.33m                                                                               | 563lx                                                                                | 63fc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 4.0'  |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| 4250           | 40° | 3m                                                                                  |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 9'    |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| 5100           |     | 1.77m                                                                               | 317lx                                                                                | 35fc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 5.3'  |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
|                |     | 4m                                                                                  |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 12'   |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
|                |     | 2.22m                                                                               | 203lx                                                                                | 23fc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 6.7'  |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
|                |     | 5m                                                                                  |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 15'   |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
|                |     |                                                                                     |                                                                                      | 16fc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 8.0'  |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
|                |     |                                                                                     |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 18'   |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| FWHM           |     | 25°                                                                                 |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |       |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| Delivered Flux |     | 1001 lm                                                                             |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |       |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| Peak Intensity |     | 5069 cd                                                                             |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |       |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| WIDE           |     |  |  | <table><tr><td>Cd: 0</td><td>90°</td><td>0.67m</td><td>2473lx</td><td>275fc</td><td>2.0'</td></tr><tr><td>417</td><td>80°</td><td>1m</td><td></td><td></td><td>3'</td></tr><tr><td>833</td><td>70°</td><td>1.34m</td><td>618lx</td><td>69fc</td><td>4.0'</td></tr><tr><td>1250</td><td>60°</td><td>2m</td><td></td><td></td><td>6'</td></tr><tr><td>1667</td><td>50°</td><td>2.01m</td><td>275lx</td><td>31fc</td><td>6.0'</td></tr><tr><td>2083</td><td>40°</td><td>3m</td><td></td><td></td><td>9'</td></tr><tr><td>2500</td><td></td><td>2.68m</td><td>155lx</td><td>17fc</td><td>8.0'</td></tr><tr><td></td><td></td><td>4m</td><td></td><td></td><td>12'</td></tr><tr><td></td><td></td><td>3.35m</td><td>99lx</td><td>11fc</td><td>10.0'</td></tr><tr><td></td><td></td><td>5m</td><td></td><td></td><td>15'</td></tr><tr><td></td><td></td><td></td><td></td><td>8fc</td><td>12.0'</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td>18'</td></tr></table>     | Cd: 0 | 90° | 0.67m | 2473lx | 275fc | 2.0' | 417  | 80° | 1m |  |  | 3' | 833  | 70° | 1.34m | 618lx  | 69fc  | 4.0' | 1250 | 60° | 2m |  |  | 6' | 1667 | 50° | 2.01m | 275lx | 31fc | 6.0' | 2083 | 40° | 3m |  |  | 9' | 2500 |  | 2.68m | 155lx | 17fc | 8.0'  |  |  | 4m |  |  | 12' |  |  | 3.35m | 99lx  | 11fc | 10.0' |  |  | 5m |  |  | 15' |  |  |  |  | 8fc  | 12.0' |  |  |  |  |  | 18' |
| Cd: 0          | 90° | 0.67m                                                                               | 2473lx                                                                               | 275fc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 2.0'  |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| 417            | 80° | 1m                                                                                  |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 3'    |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| 833            | 70° | 1.34m                                                                               | 618lx                                                                                | 69fc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 4.0'  |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| 1250           | 60° | 2m                                                                                  |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 6'    |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| 1667           | 50° | 2.01m                                                                               | 275lx                                                                                | 31fc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 6.0'  |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| 2083           | 40° | 3m                                                                                  |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 9'    |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| 2500           |     | 2.68m                                                                               | 155lx                                                                                | 17fc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 8.0'  |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
|                |     | 4m                                                                                  |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 12'   |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
|                |     | 3.35m                                                                               | 99lx                                                                                 | 11fc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 10.0' |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
|                |     | 5m                                                                                  |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 15'   |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
|                |     |                                                                                     |                                                                                      | 8fc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 12.0' |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
|                |     |                                                                                     |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 18'   |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| FWHM           |     | 37°                                                                                 |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |       |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| Delivered Flux |     | 997 lm                                                                              |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |       |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| Peak Intensity |     | 2473 cd                                                                             |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |       |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| VERY WIDE      |     |  |  | <table><tr><td>Cd: 0</td><td>90°</td><td>0.93m</td><td>1537lx</td><td>171fc</td><td>2.8'</td></tr><tr><td>258</td><td>80°</td><td>1m</td><td></td><td></td><td>3'</td></tr><tr><td>517</td><td>70°</td><td>1.87m</td><td>384lx</td><td>43fc</td><td>5.6'</td></tr><tr><td>775</td><td>60°</td><td>2m</td><td></td><td></td><td>6'</td></tr><tr><td>1033</td><td>50°</td><td>2.80m</td><td>171lx</td><td>19fc</td><td>8.4'</td></tr><tr><td>1292</td><td>40°</td><td>3m</td><td></td><td></td><td>9'</td></tr><tr><td>1550</td><td></td><td>3.73m</td><td>96lx</td><td>11fc</td><td>11.2'</td></tr><tr><td></td><td></td><td>4m</td><td></td><td></td><td>12'</td></tr><tr><td></td><td></td><td>4.66m</td><td>61lx</td><td>7fc</td><td>14.0'</td></tr><tr><td></td><td></td><td>5m</td><td></td><td></td><td>15'</td></tr><tr><td></td><td></td><td></td><td></td><td>5fc</td><td>16.8'</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td>18'</td></tr></table>       | Cd: 0 | 90° | 0.93m | 1537lx | 171fc | 2.8' | 258  | 80° | 1m |  |  | 3' | 517  | 70° | 1.87m | 384lx  | 43fc  | 5.6' | 775  | 60° | 2m |  |  | 6' | 1033 | 50° | 2.80m | 171lx | 19fc | 8.4' | 1292 | 40° | 3m |  |  | 9' | 1550 |  | 3.73m | 96lx  | 11fc | 11.2' |  |  | 4m |  |  | 12' |  |  | 4.66m | 61lx  | 7fc  | 14.0' |  |  | 5m |  |  | 15' |  |  |  |  | 5fc  | 16.8' |  |  |  |  |  | 18' |
| Cd: 0          | 90° | 0.93m                                                                               | 1537lx                                                                               | 171fc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 2.8'  |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| 258            | 80° | 1m                                                                                  |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 3'    |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| 517            | 70° | 1.87m                                                                               | 384lx                                                                                | 43fc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 5.6'  |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| 775            | 60° | 2m                                                                                  |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 6'    |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| 1033           | 50° | 2.80m                                                                               | 171lx                                                                                | 19fc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 8.4'  |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| 1292           | 40° | 3m                                                                                  |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 9'    |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| 1550           |     | 3.73m                                                                               | 96lx                                                                                 | 11fc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 11.2' |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
|                |     | 4m                                                                                  |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 12'   |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
|                |     | 4.66m                                                                               | 61lx                                                                                 | 7fc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 14.0' |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
|                |     | 5m                                                                                  |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 15'   |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
|                |     |                                                                                     |                                                                                      | 5fc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 16.8' |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
|                |     |                                                                                     |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 18'   |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| FWHM           |     | 50°                                                                                 |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |       |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| Delivered Flux |     | 912 lm                                                                              |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |       |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |
| Peak Intensity |     | 1537 cd                                                                             |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |       |     |       |        |       |      |      |     |    |  |  |    |      |     |       |        |       |      |      |     |    |  |  |    |      |     |       |       |      |      |      |     |    |  |  |    |      |  |       |       |      |       |  |  |    |  |  |     |  |  |       |       |      |       |  |  |    |  |  |     |  |  |  |  |      |       |  |  |  |  |  |     |

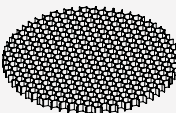
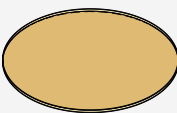
OPTICS

There are 4 interchangeable optics, cross reference the molded ID on the optic for beam option.

| Optic                                                                                     | Optic                                                                                     | Optic                                                                                   | Optic                                                                                        |
|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
|          |          |        |           |
| <b>Narrow TIR Optic</b><br>Molded ID 15   FWHM 19<br><b>Order Code</b><br>HKHG-35-15-PMMA | <b>Medium TIR Optic</b><br>Molded ID 24   FWHM 25<br><b>Order Code</b><br>HKHG-35-24-PMMA | <b>Wide TIR Optic</b><br>Molded ID 36   FWHM 37<br><b>Order Code</b><br>HKHG-35-36-PMMA | <b>Very Wide TIR Optic</b><br>Molded ID 50   FWHM 50<br><b>Order Code</b><br>HKHG-35-50-PMMA |

ACCESSORIES

This product can hold 1 x accessory within the integrated holder. To accommodate additional accessories please contact our sales team. Accessories are pre-installed unless otherwise requested.

| Glare Control                                                                          | Colour Change                                                                      |
|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
|      |  |
| <b>Honeycomb Louver</b><br>W32xH3.2mm   W1.26xH0.13"<br><b>Order Code</b><br>995-32-BK | <b>1/4 CTO</b><br>W32xH1.8mm   W1.26xH0.07"<br><b>Order Code</b><br>997-1/4CTO-32  |



# MINIMO PRO PLUS

FEATURE MAP

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PLUS LIGHT ENGINE

