






## WHITE LED ENGINE SPECIFICATION

| Engine                               |  E2 x 2 |             |  F1 x 2 |            |               |
|--------------------------------------|--|-------------|--|------------|---------------|
| Beam angles                          | 10°, 19°, 34°, 54°, 15°x 49°   |             | 25°, 37°, 65°, 18°x 45°.   |            |               |
| LED manufacturer                     | CREE   |             | CREE   |            |               |
| Colour temperature*                  | 2700K / 3000K / 4000K / 5000K  |             | 2200K  |            |               |
| Current                              | 350mA  | 500mA       | 350mA  | 500mA      | 700mA         |
| LED power (Max)                      | 8.4W (10W**)   | 12W (14W**) | 6.4W (7W**)  | 9W (10W**) | 12.6W (14W**) |
| Delivered lumens (L <sub>100</sub> ) | 784  | 948         | 490  | 610        | 812           |
| Lumens per circuit watt              | 79   | 68          | 70   | 61         | 58            |
| CRI (Min)                            | 85+  |             | 90+  |            |               |
| Forward voltage (V <sub>100</sub> )  | 28V  |             | 18V  |            |               |
| Colour consistency                   | 2 SCDM   |             | 3 SCDM   |            |               |
| Peak intensity                       | 4727 cd  |             | 1641   |            |               |
| LED lumens                           | 1328   |             | 1246   |            |               |
| LOR                                  | 0.72   |             | 0.59   |            |               |
| TM30                                 | RF85   | RG98        | RF90   | RG103      |               |
| UGR***                               | 8.0  |             | 8.1  |            |               |
| LED lifetime                         | L90B5 at 90,000hrs   |             |  |            |               |
| Applications                         |       |             |  |            |               |

These values are based around a LD10236-E2-700-LW30-NB & LD10236-F1-700-LW22-MSB

\*see lumen variance table to the right

\*\*indicates the nominal power for the LED run at that particular current and includes losses associated with using an 85% efficient driver





\*\*\*UGR values based on room parameters of 4H 8H, C70 W50 F20

| Lumen variance by CCT |        |
|-----------------------|--------|
| 2700K                 | +/- 0% |
| 4000K                 | +7%    |
| 5000K                 | +16%   |

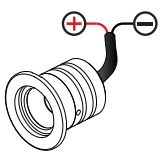
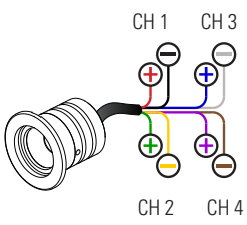
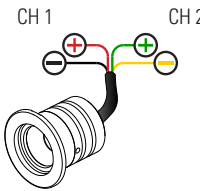
## MECHANICAL

|                     |   |
|---------------------|---|
| Ambient temperature | -20° to 45° (350mA) or -20° to 35° (500mA)  |
| Glass               | Low iron glass 3mm thick  |
| Materials           | Anodised aluminium body, with stainless steel fixing brackets                     |
| Weight of product   | 1.26kg  |
| IP rating           | IP67  |
| IK rating           | IK08  |
| Wiring              | In-series constant current wiring (pre-wired with 2 core cable at a length of 1m) |

COLOUR & DYNAMIC LED ENGINE SPECIFICATION

|                    |   |  |  |
|--------------------|---|--|--|
| Engine             |  CL - Colour x 2 |  RGBW x 2 |  TW - Tunable White x 2 |
| Beam angles        | 24°, 38°, 54°, 20° x 46°  | 38° colour mix lens  | 24°, 38°, 54°, 20° x 46°   |
| LED manufacturer   | CREE  | CREE   | CREE   |
| Colour temperature | Red, Green, Blue, Amber   | Red, Green, Blue, 4000K White  | Warm White 2700K or 3000K   Cool White 4000K or 5000K  |
| Current            | 700mA   | 350mA   500mA  | 500mA  |
| LED power (Max)    | 28W   | 7W   10W   | 12.6W (14W*)<br>7W per channel   |
| Applications       |                  |  |  |

MECHANICAL

|                   |  |   |  |
|-------------------|--|---|--|
| Glass             | Low iron glass 3mm thick   |   |  |
| Materials         | Anodised aluminium body, with stainless steel fixing brackets  |   |  |
| Weight of product | 1.26kg   |   |  |
| IP rating         | IP67   |   |  |
| IK rating         | IK08   |   |  |
| Wiring            | <p><b>CL</b> - 2 core cables at 1m in length</p>  | <p><b>RGBW</b> - 8 core cables at 1m in length</p>  | <p><b>TW</b> - 4 core cables at 1m in length</p>  |

AVAILABLE FINISHES

Please refer to our finishes guide for full details

The LD10236 body is a machined single billet of aluminium and is painted in-house at LightGraphix. Paint finishes are suitable for interior and exterior use on surface mounted products. Our standard colours are below but we can accommodate any RAL request.



SILVER ANODISED



ANTIQUE BRONZE



SATIN ANTIQUE BRASS



SATIN BRASS



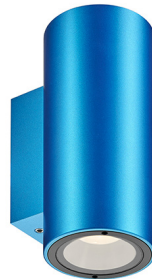
BLACK (RAL 9005)



ANTHRACITE GREY  
(RAL 7016)



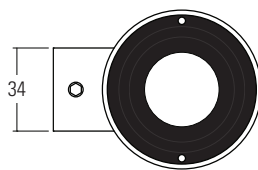
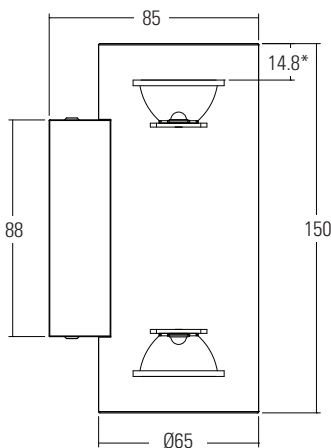
WHITE (RAL 9016)



RAL

DIMENSIONS

Dimensions in mm



\* 4.3mm when using the taller RGBW optic

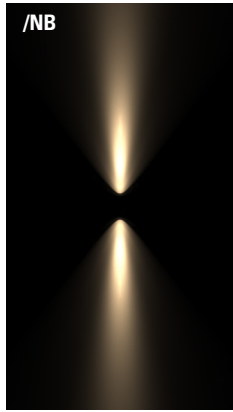
Design: Stan Baxter Lighting Design  
Project: Private Residence  
Product: LD10236



CONE DIAGRAMS

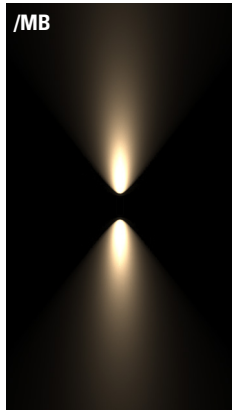
E2 LED Engine

Cone diagrams below are based on a 3000K E2 LED engine run at maximum output 500mA in one direction. Photometric files (LDT) are included in the design pack which can be downloaded from the LD10236 product page on the website.



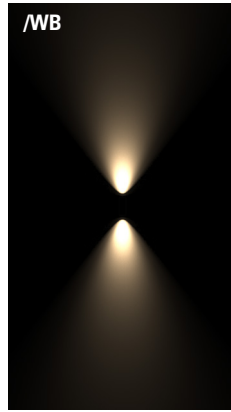
**Narrow Beam**  
500mA using a 10° optic

| Distance (m) | Cone Width (m) | Luminance (lx) |
|--------------|----------------|----------------|
| 3.0          | 0.64           | 686            |
| 2.5          | 0.53           | 987            |
| 2.0          | 0.43           | 1542           |
| 1.5          | 0.32           | 2742           |
| 1.0          | 0.21           | 6170           |
| 0.5          | 0.11           | 24679          |



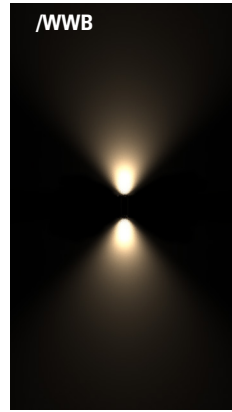
**Medium Beam**  
500mA using a 19° optic

| Distance (m) | Cone Width (m) | Luminance (lx) |
|--------------|----------------|----------------|
| 3.0          | 0.96           | 318            |
| 2.5          | 0.80           | 457            |
| 2.0          | 0.64           | 715            |
| 1.5          | 0.48           | 1270           |
| 1.0          | 0.32           | 2858           |
| 0.5          | 0.16           | 11433          |



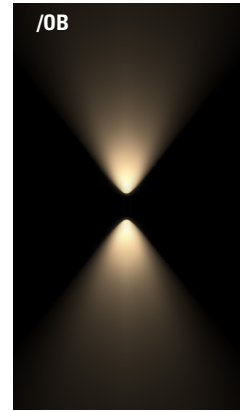
**Wide Beam**  
500mA using a 34° optic

| Distance (m) | Cone Width (m) | Luminance (lx) |
|--------------|----------------|----------------|
| 3.0          | 1.78           | 120            |
| 2.5          | 1.48           | 172            |
| 2.0          | 1.18           | 269            |
| 1.5          | 0.89           | 479            |
| 1.0          | 0.59           | 1078           |
| 0.5          | 0.30           | 4312           |



**Extra Wide Beam**  
500mA using a 54° optic

| Distance (m) | Cone Width (m) | Luminance (lx) |
|--------------|----------------|----------------|
| 3.0          | 3.26           | 52             |
| 2.5          | 2.71           | 75             |
| 2.0          | 2.17           | 118            |
| 1.5          | 1.63           | 210            |
| 1.0          | 1.09           | 472            |
| 0.5          | 0.54           | 1887           |

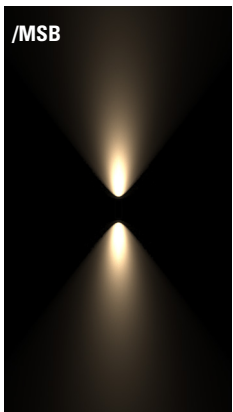


**Oval Beam**  
500mA using a 15° X 49° optic

| Distance (m) | Cone Width (m) | Luminance (lx) |
|--------------|----------------|----------------|
| 3.0          | 2.46 / 0.76    | 192            |
| 2.5          | 2.05 / 0.63    | 276            |
| 2.0          | 1.64 / 0.51    | 432            |
| 1.5          | 1.23 / 0.38    | 767            |
| 1.0          | 0.82 / 0.25    | 1726           |
| 0.5          | 0.41 / 0.13    | 6905           |

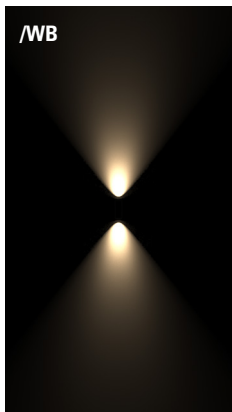
F1 LED Engine

Cone diagrams below are based on a 2200K F1 LED engine run at maximum output 700mA in one direction. Photometric files (LDT) are included in the design pack which can be downloaded from the LD10236 product page on the website.



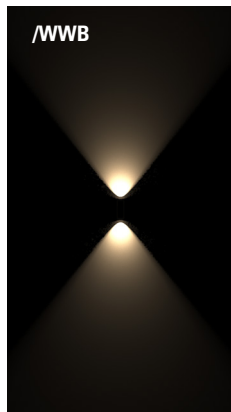
**Medium Spot Beam**  
700mA using a 25° optic

| Distance (m) | Cone Width (m) | Luminance (lx) |
|--------------|----------------|----------------|
| 3.0          | 1.17           | 202            |
| 2.5          | 0.97           | 290            |
| 2.0          | 0.78           | 454            |
| 1.5          | 0.58           | 806            |
| 1.0          | 0.39           | 1814           |
| 0.5          | 0.19           | 7256           |



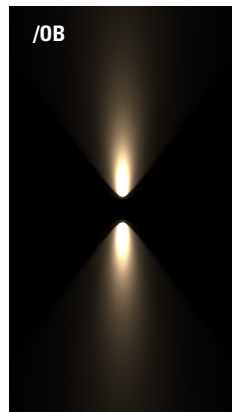
**Wide Beam**  
700mA using a 46° optic

| Distance (m) | Cone Width (m) | Luminance (lx) |
|--------------|----------------|----------------|
| 3.0          | 2.02           | 82             |
| 2.5          | 1.68           | 119            |
| 2.0          | 1.35           | 185            |
| 1.5          | 1.01           | 330            |
| 1.0          | 0.67           | 742            |
| 0.5          | 0.34           | 2968           |



**Extra Wide Beam**  
700mA using a 65° optic

| Distance (m) | Cone Width (m) | Luminance (lx) |
|--------------|----------------|----------------|
| 3.0          | 3.85           | 39             |
| 2.5          | 3.21           | 56             |
| 2.0          | 2.57           | 88             |
| 1.5          | 1.93           | 156            |
| 1.0          | 1.28           | 351            |
| 0.5          | 0.64           | 1402           |



**Oval Beam**  
700mA using a 43° X 25° optic

| Distance (m) | Cone Width (m) | Luminance (lx) |
|--------------|----------------|----------------|
| 3.0          | 2.47 / 0.91    | 149            |
| 2.5          | 2.06 / 0.76    | 214            |
| 2.0          | 1.65 / 0.60    | 335            |
| 1.5          | 1.24 / 0.45    | 595            |
| 1.0          | 0.82 / 0.30    | 1339           |
| 0.5          | 0.41 / 0.15    | 5357           |

ORDER CODES & OPTIONS

Example: LD10236-E2-500 / LW30 / NB / Silver Anodised

|                              |   |            |   |            |   |        |
|------------------------------|---|------------|---|------------|---|--------|
| Light Engine & Drive Current | / | LED Colour | / | Beam angle | / | Finish |
| LD10236 -                    | / |            | / |            | / |        |

WHITE LED ENGINES

 E2

|                 |                |
|-----------------|----------------|
| 5W LED at 350mA | LD10236-E2-350 |
| 7W LED at 500mA | LD10236-E2-500 |

|                            |       |
|----------------------------|-------|
| Extra Warm White (2700K)   | /LW27 |
| Warm White (3000K)         | /LW30 |
| White (4000K) - on request | /LW40 |
| Cool White (5000K)         | /LW50 |

|                 |      |
|-----------------|------|
| 10° Narrow spot | /NB  |
| 19° Medium      | /MB  |
| 34° Wide        | /WB  |
| 54° Extra wide  | /WWB |
| 15° x 49° Oval  | /OB  |



 F1

|                   |                |
|-------------------|----------------|
| 3.5W LED at 350mA | LD10236-F1-350 |
| 5W LED at 500mA   | LD10236-F1-500 |
| 7W LED at 700mA   | LD10236-F1-700 |

|                          |       |
|--------------------------|-------|
| Super Warm White (2200K) | /LW22 |
|--------------------------|-------|

|                 |      |
|-----------------|------|
| 25° Medium spot | /MSB |
| 46° Wide        | /WB  |
| 65° Extra wide  | /WWB |
| 43° x 25° Oval  | /OB  |



COLOUR & DYNAMIC LED ENGINES

 CL

|                 |                |
|-----------------|----------------|
| 7W LED at 500mA | LD10236-CL-500 |
|-----------------|----------------|

|       |     |
|-------|-----|
| Red   | /LR |
| Green | /LG |
| Blue  | /LB |
| Amber | /LA |

|                |      |
|----------------|------|
| 24° Medium     | /MB  |
| 38° Wide       | /WB  |
| 54° Extra wide | /WWB |
| 20° x 46° Oval | /OB  |



 RGBW

|                   |                  |
|-------------------|------------------|
| 3.5W LED at 350mA | LD10236-RGBW-350 |
| 5W LED at 500mA   | LD10236-RGBW-500 |

|                     |
|---------------------|
| 38° Colour mix lens |
|---------------------|



 TW

|                   |                |
|-------------------|----------------|
| 3.5W LED at 350mA | LD10236-TW-350 |
|-------------------|----------------|

|   |              |
|---|--------------|
| Tunable White 2700K & 4000K (standard option) | /LW27 + LW40 |
| Tunable White 2700K & 5000K                   | /LW27 + LW50 |
| Custom  | /LW** + L**  |

|                |      |
|----------------|------|
| 24° Medium     | /MB  |
| 38° Wide       | /WB  |
| 54° Extra wide | /WWB |
| 20° x 46° Oval | /OB  |



|   |
|---|
| Drivers   |
| Use with 350mA, 500mA & 700mA constant current LED drivers<br>We have a range of dimmable LED drivers DMX and DALI compatible. Please see the downloads section on our website. |