

Reflectors for Cree® LMH2 LED Modules Product Guide



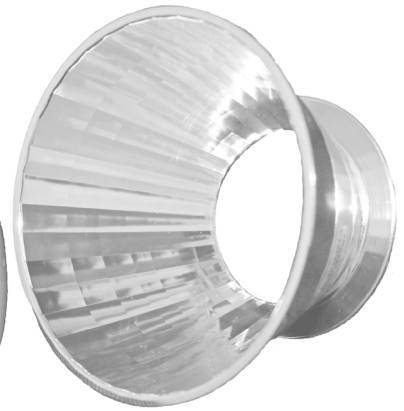
Diffuse Finish



White Finish



Semi-Specular Finish



Faceted, Specular Finish

PRODUCT DESCRIPTION

Cree LED modules provide lighting designers and manufacturers with simple, easy-to-adopt LED lighting solutions that reduce luminaire development time and speed time-to-market. Cree reflectors are specifically designed to work with the Cree LMH2 LED modules to jump-start the design process for recessed downlights, wall sconces and pendant lights in demanding end markets such as retail, museums, hospitality and restaurants.

FEATURES

- 4-in/110-mm, 6-in/150-mm and 8-in/190-mm sizes
- Diffuse, white, semi-specular and faceted, specular finishes

TABLE OF CONTENTS

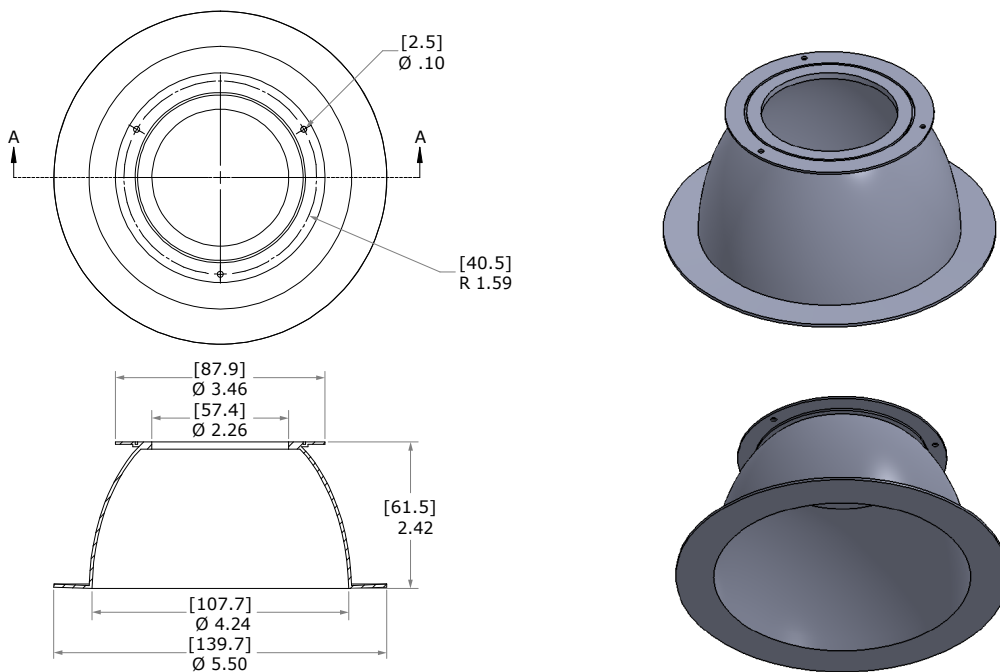
| | |
|--|----|
| 4-in/110-mm Reflectors..... | 2 |
| Mechanical Dimensions | 2 |
| Reflector Photometry | 2 |
| Circular Reflector, Diffuse Finish | 3 |
| Circular Reflector, White Finish..... | 3 |
| Circular Reflector, Semi-Specular Finish | 4 |
| Spot Reflector, Faceted, Specular Finish..... | 4 |
| 6-in/150-mm Reflectors..... | 6 |
| Mechanical Dimensions | 6 |
| Reflector Photometry | 6 |
| Circular Reflector, White Finish..... | 7 |
| Circular Reflector, Semi-Specular Finish | 7 |
| 8-in/190-mm Reflectors..... | 8 |
| Mechanical Dimensions | 8 |
| Reflector Photometry | 8 |
| Circular Reflector, White Finish..... | 9 |
| Circular Reflector, Semi-Specular Finish | 9 |
| Packaging..... | 10 |

4-IN/110-MM REFLECTORS

Order Codes

| Description | Finish | Order Code |
|--------------------------------|------------------|--------------------------|
| 4-in/110-mm circular reflector | Diffuse | LMH020-REFL-0000-0000045 |
| | White | LMH020-REFL-0000-0000044 |
| | Semi-specular | LMH020-REFL-0000-0000042 |
| 4-in/110-mm spot reflector | Faceted specular | LMH020-REFL-0000-0000046 |

Mechanical Dimensions¹



Reflector Photometry

The candela values for an LMH2 LED module with a particular reflector, and the values for the corresponding polar graph, can be approximated by applying the following multiplication factors to the tables and graphs in the following sections. The exact candela values can be found in the [IES files](#) available on the Cree website.²

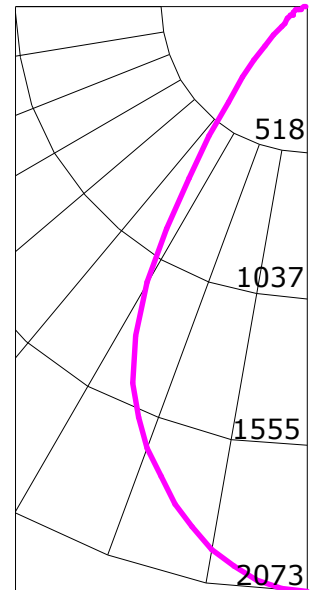
| | LMH2 LED Module | | | | | | |
|-----------------------|-----------------|---------|---------|---------|---------|---------|---------|
| | 850 lm | 1250 lm | 2000 lm | 3000 lm | 4000 lm | 6000 lm | 8000 lm |
| Multiplication factor | 0.283 | 0.417 | 03.667 | 1.000 | 1.333 | 2.000 | 2.667 |

- 1 Dimensions for the reflector diagrams are for reference only. For exact dimensions and tolerances, refer to the 3-D models (.STEP files) for the reflectors available on the [LMH2 product page](#) and the [diffuse](#), [white](#), [semi-specular](#) and [specular](#) reflector product pages. Select the Documentation tab, then select the STEP files under the Design Files heading.
- 2 Select the Documentation tab on the [LMH2 product page](#), then select the IES file under the Design Files heading.

4-in/110-mm Circular Reflector, Diffuse Finish

The following table and graph show the candela tabulation for the 3000-lumen flat lens LMH2 LED module with the 4-in/110-mm circular reflector with a diffuse finish.

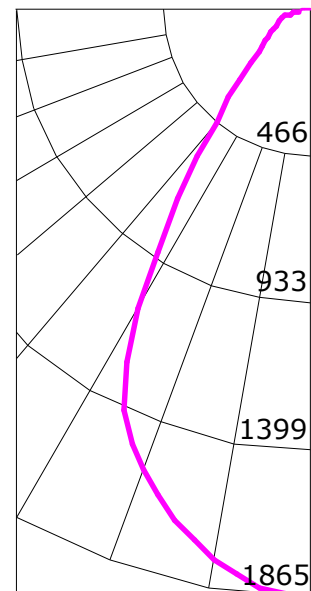
| Angle from Nadir (°) | Candelas | Angle from Nadir (°) | Candelas | Angle from Nadir (°) | Candelas |
|----------------------|----------|----------------------|----------|----------------------|----------|
| 0.0 | 2073.4 | | | | |
| 2.5 | 2065.1 | 32.5 | 934.0 | 62.5 | 64.4 |
| 5.0 | 2041.1 | 35.0 | 741.6 | 65.0 | 53.8 |
| 7.5 | 2002.9 | 37.5 | 577.2 | 67.5 | 44.3 |
| 10.0 | 1953.7 | 40.0 | 445.4 | 70.0 | 35.8 |
| 12.5 | 1892.6 | 42.5 | 345.7 | 72.5 | 28.3 |
| 15.0 | 1822.6 | 45.0 | 266.9 | 75.0 | 21.7 |
| 17.5 | 1745.0 | 47.5 | 203.9 | 77.5 | 16.0 |
| 20.0 | 1662.5 | 50.0 | 154.7 | 80.0 | 11.1 |
| 22.5 | 1579.9 | 52.5 | 122.9 | 82.5 | 7.0 |
| 25.0 | 1473.5 | 55.0 | 103.2 | 85.0 | 3.5 |
| 27.5 | 1319.9 | 57.5 | 89.2 | 87.5 | 0.9 |
| 30.0 | 1135.1 | 60.0 | 76.2 | 90.0 | 0.2 |



4-in/110-mm Circular Reflector, White Finish

The following table and graph show the candela tabulation for the 3000-lumen flat lens LMH2 LED module with the 4-in/110-mm circular reflector with a white finish.

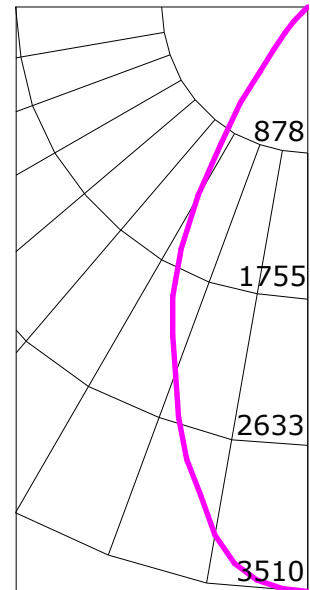
| Angle from Nadir (°) | Candelas | Angle from Nadir (°) | Candelas | Angle from Nadir (°) | Candelas |
|----------------------|----------|----------------------|----------|----------------------|----------|
| 0.0 | 1865.4 | | | | |
| 2.5 | 1859.2 | 32.5 | 913.4 | 62.5 | 138.7 |
| 5.0 | 1841.5 | 35.0 | 738.2 | 65.0 | 124.7 |
| 7.5 | 1812.5 | 37.5 | 588.6 | 67.5 | 110.7 |
| 10.0 | 1774.8 | 40.0 | 470.1 | 70.0 | 96.8 |
| 12.5 | 1728.7 | 42.5 | 382.5 | 72.5 | 83.0 |
| 15.0 | 1676.6 | 45.0 | 314.8 | 75.0 | 69.5 |
| 17.5 | 1618.8 | 47.5 | 261.4 | 77.5 | 56.3 |
| 20.0 | 1556.2 | 50.0 | 220.1 | 80.0 | 43.2 |
| 22.5 | 1491.7 | 52.5 | 194.5 | 82.5 | 30.2 |
| 25.0 | 1403.7 | 55.0 | 179.4 | 85.0 | 17.2 |
| 27.5 | 1266.9 | 57.5 | 166.6 | 87.5 | 5.5 |
| 30.0 | 1097.9 | 60.0 | 152.8 | 90.0 | 0.6 |



4-in/110-mm Circular Reflector, Semi-Specular Finish

The following table and graph show the candela tabulation for the 3000-lumen flat lens LMH2 LED module with the 4-in/110-mm circular reflector with a semi-specular finish.

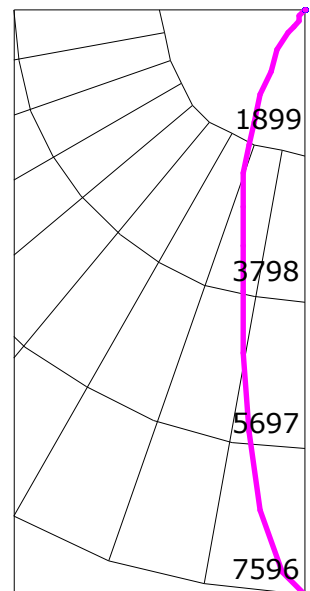
| Angle from Nadir (°) | Candelas | Angle from Nadir (°) | Candelas | Angle from Nadir (°) | Candelas |
|----------------------|----------|----------------------|----------|----------------------|----------|
| 0.0 | 3510.3 | | | | |
| 2.5 | 3500.2 | 32.5 | 989.3 | 62.5 | 1.8 |
| 5.0 | 3454.0 | 35.0 | 703.5 | 65.0 | 1.5 |
| 7.5 | 3368.6 | 37.5 | 489.0 | 67.5 | 1.3 |
| 10.0 | 3217.0 | 40.0 | 327.7 | 70.0 | 1.1 |
| 12.5 | 3013.8 | 42.5 | 209.5 | 72.5 | 0.9 |
| 15.0 | 2807.9 | 45.0 | 121.5 | 75.0 | 0.7 |
| 17.5 | 2582.7 | 47.5 | 61.1 | 77.5 | 0.6 |
| 20.0 | 2351.2 | 50.0 | 25.8 | 80.0 | 0.4 |
| 22.5 | 2146.8 | 52.5 | 8.6 | 82.5 | 0.3 |
| 25.0 | 1920.0 | 55.0 | 3.1 | 85.0 | 0.2 |
| 27.5 | 1639.8 | 57.5 | 2.5 | 87.5 | 0.1 |
| 30.0 | 1317.4 | 60.0 | 2.1 | 90.0 | 0.1 |



4-in/110-mm Spot Reflector, Faceted, Specular Finish

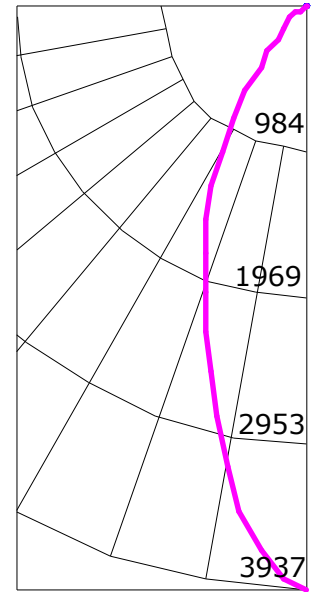
The following table and graph show the candela tabulation for the 3000-lumen flat lens LMH2 LED module with the 4-in/110-mm spot reflector with a faceted, specular finish.

| Angle from Nadir (°) | Candelas | Angle from Nadir (°) | Candelas | Angle from Nadir (°) | Candelas |
|----------------------|----------|----------------------|----------|----------------------|----------|
| 0.0 | 7595.5 | | | | |
| 2.5 | 7296.8 | 32.5 | 634.8 | 62.5 | 0.5 |
| 5.0 | 6562.5 | 35.0 | 415.3 | 65.0 | 0.4 |
| 7.5 | 5533.0 | 37.5 | 265.4 | 67.5 | 0.3 |
| 10.0 | 4535.5 | 40.0 | 161.7 | 70.0 | 0.2 |
| 12.5 | 3757.2 | 42.5 | 90.8 | 72.5 | 0.2 |
| 15.0 | 3171.1 | 45.0 | 41.7 | 75.0 | 0.2 |
| 17.5 | 2705.4 | 47.5 | 17.6 | 77.5 | 0.1 |
| 20.0 | 2294.5 | 50.0 | 6.1 | 80.0 | 0.1 |
| 22.5 | 1927.3 | 52.5 | 1.9 | 82.5 | 0.1 |
| 25.0 | 1587.2 | 55.0 | 1.0 | 85.0 | 0.1 |
| 27.5 | 1244.3 | 57.5 | 0.8 | 87.5 | 0.2 |
| 30.0 | 913.0 | 60.0 | 0.6 | 90.0 | 0.2 |



The following table and graph show the candela tabulation for the 3000-lumen dome lens LMH2 LED module with the 4-in/110-mm spot reflector with a faceted, specular finish.

| Angle from Nadir (°) | Candelas | Angle from Nadir (°) | Candelas | Angle from Nadir (°) | Candelas |
|----------------------|----------|----------------------|----------|----------------------|----------|
| 0.0 | 3937.3 | | | | |
| 2.5 | 3868.6 | 32.5 | 919.6 | 62.5 | 0.6 |
| 5.0 | 3695.2 | 35.0 | 707.3 | 65.0 | 0.5 |
| 7.5 | 3440.2 | 37.5 | 536.9 | 67.5 | 0.4 |
| 10.0 | 3144.7 | 40.0 | 404.1 | 70.0 | 0.3 |
| 12.5 | 2842.8 | 42.5 | 298.6 | 72.5 | 0.2 |
| 15.0 | 2551.5 | 45.0 | 213.8 | 75.0 | 0.2 |
| 17.5 | 2286.7 | 47.5 | 148.7 | 77.5 | 0.2 |
| 20.0 | 2045.1 | 50.0 | 97.8 | 80.0 | 0.1 |
| 22.5 | 1820.1 | 52.5 | 57.8 | 82.5 | 0.1 |
| 25.0 | 1602.2 | 55.0 | 29.6 | 85.0 | 0.2 |
| 27.5 | 1381.1 | 57.5 | 11.4 | 87.5 | 0.3 |
| 30.0 | 1153.3 | 60.0 | 2.4 | 90.0 | 0.4 |

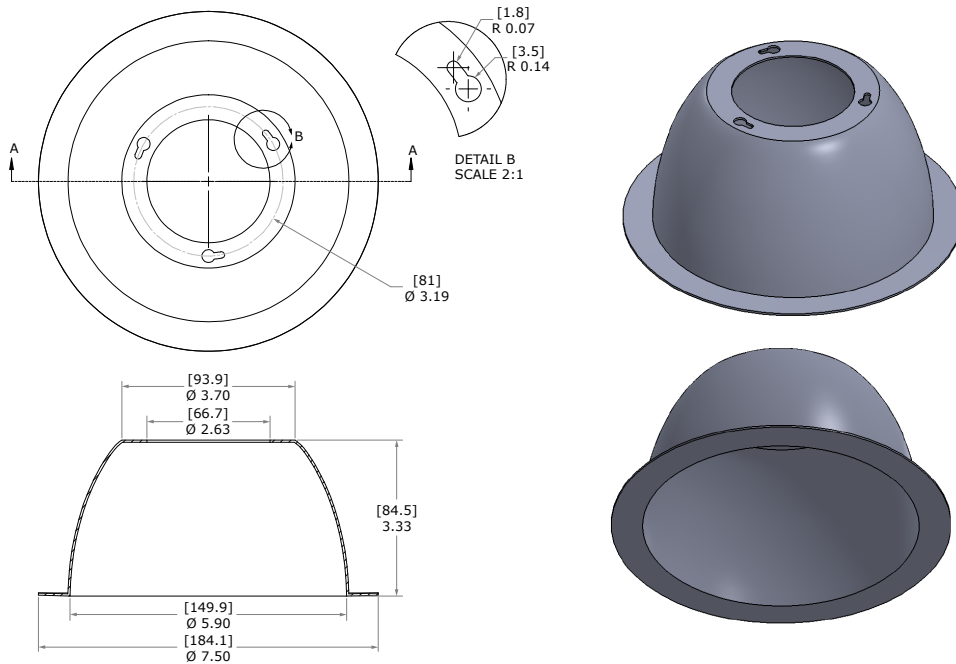


6-IN/150-MM REFLECTORS

Order Codes

| Description | Finish | Order Code |
|--------------------------------|---------------|--------------------------|
| 6-in/150-mm circular reflector | White | LMH020-REFL-0000-0000064 |
| | Semi-specular | LMH020-REFL-0000-0000062 |

Mechanical Dimensions³



Reflector Photometry

The candela values for an LMH2 LED module with a particular reflector, and the values for the corresponding polar graph, can be approximated by applying the following multiplication factors to the tables and graphs in the following sections. The exact candela values can be found in the [IES files](#) available on the Cree website.⁴

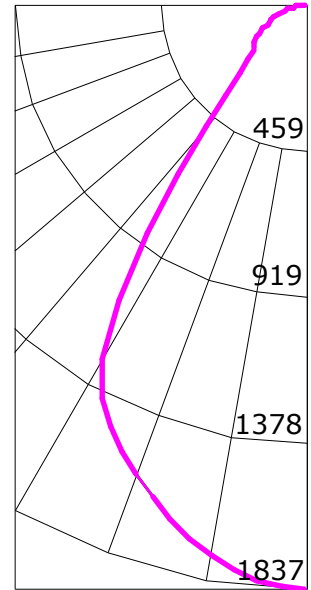
| | LMH2 LED Module | | | | | | |
|-----------------------|-----------------|---------|---------|---------|---------|---------|---------|
| | 850 lm | 1250 lm | 2000 lm | 3000 lm | 4000 lm | 6000 lm | 8000 lm |
| Multiplication factor | 0.283 | 0.417 | 03.667 | 1.000 | 1.333 | 2.000 | 2.667 |

- Dimensions for the reflector diagrams are for reference only. For exact dimensions and tolerances, refer to the 3-D models (.STEP files) for the reflectors available on the [LMH2 product page](#) and the [white](#) and [semi-specular](#) reflector product pages. Select the Documentation tab, then select the STEP files under the Design Files heading.
- Select the Documentation tab on the [LMH2 product page](#), then select the IES file under the Design Files heading.

6-in/150-mm Circular Reflector, White Finish

The following table and graph show the candela tabulation for the 3000-lumen flat lens LMH2 LED module with the 6-in/150-mm circular reflector with a white finish.

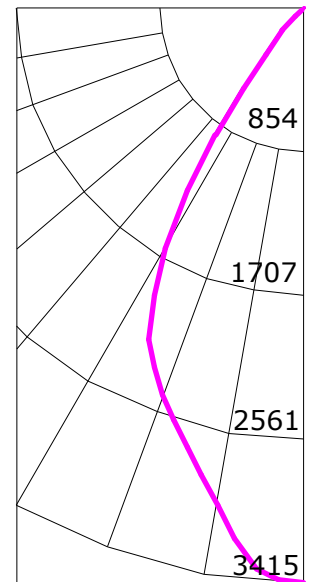
| Angle from Nadir (°) | Candelas | Angle from Nadir (°) | Candelas | Angle from Nadir (°) | Candelas |
|----------------------|----------|----------------------|----------|----------------------|----------|
| 0.0 | 1837.4 | | | | |
| 2.5 | 1832.6 | 32.5 | 1103.3 | 62.5 | 159.8 |
| 5.0 | 1817.7 | 35.0 | 876.1 | 65.0 | 144.0 |
| 7.5 | 1793.1 | 37.5 | 667.1 | 67.5 | 127.4 |
| 10.0 | 1759.5 | 40.0 | 498.2 | 70.0 | 111.4 |
| 12.5 | 1720.0 | 42.5 | 386.0 | 72.5 | 95.0 |
| 15.0 | 1673.1 | 45.0 | 306.0 | 75.0 | 79.6 |
| 17.5 | 1625.2 | 47.5 | 253.5 | 77.5 | 64.0 |
| 20.0 | 1571.8 | 50.0 | 227.3 | 80.0 | 49.2 |
| 22.5 | 1518.2 | 52.5 | 215.9 | 82.5 | 34.2 |
| 25.0 | 1460.0 | 55.0 | 204.3 | 85.0 | 20.0 |
| 27.5 | 1398.0 | 57.5 | 190.5 | 87.5 | 6.5 |
| 30.0 | 1288.4 | 60.0 | 175.7 | 90.0 | 0.4 |



6-in/150-mm Circular Reflector, Semi-Specular Finish

The following table and graph show the candela tabulation for the 3000-lumen flat lens LMH2 LED module with the 6-in/150-mm circular reflector with a semi-specular finish.

| Angle from Nadir (°) | Candelas | Angle from Nadir (°) | Candelas | Angle from Nadir (°) | Candelas |
|----------------------|----------|----------------------|----------|----------------------|----------|
| 0.0 | 3414.7 | | | | |
| 2.5 | 3407.8 | 32.5 | 1282.1 | 62.5 | 1.5 |
| 5.0 | 3339.8 | 35.0 | 925.0 | 65.0 | 1.2 |
| 7.5 | 3177.4 | 37.5 | 599.8 | 67.5 | 1.0 |
| 10.0 | 3002.6 | 40.0 | 361.4 | 70.0 | 0.8 |
| 12.5 | 2845.9 | 42.5 | 192.0 | 72.5 | 0.7 |
| 15.0 | 2705.6 | 45.0 | 84.7 | 75.0 | 0.6 |
| 17.5 | 2564.5 | 47.5 | 28.7 | 77.5 | 0.4 |
| 20.0 | 2442.5 | 50.0 | 6.5 | 80.0 | 0.3 |
| 22.5 | 2315.0 | 52.5 | 3.6 | 82.5 | 0.3 |
| 25.0 | 2170.7 | 55.0 | 2.8 | 85.0 | 0.2 |
| 27.5 | 1927.7 | 57.5 | 2.3 | 87.5 | 0.1 |
| 30.0 | 1653.1 | 60.0 | 1.8 | 90.0 | 0.1 |

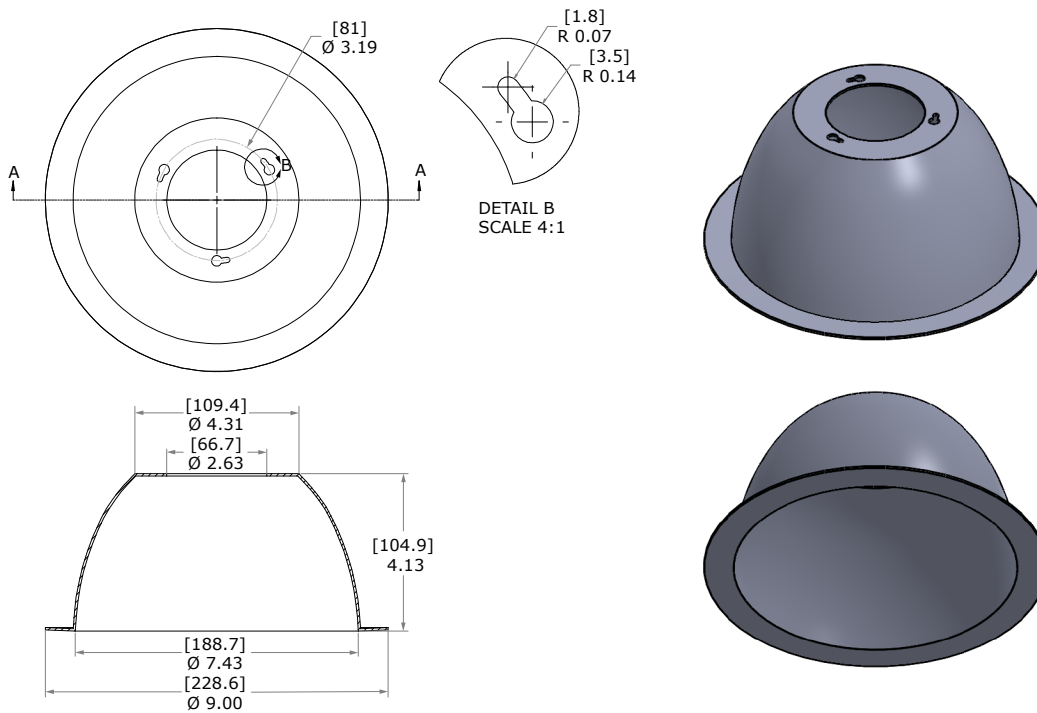


8-IN/190-MM REFLECTORS

Order Codes

| Description | Finish | Order Code |
|--------------------------------|---------------|--------------------------|
| 8-in/190-mm circular reflector | White | LMH020-REFL-0000-0000084 |
| | Semi-specular | LMH020-REFL-0000-0000082 |

Mechanical Dimensions⁵



Reflector Photometry

The candela values for an LMH2 LED module with a particular reflector, and the values for the corresponding polar graph, can be approximated by applying the following multiplication factors to the tables and graphs in the following sections. The exact candela values can be found in the [IES files](#) available on the Cree website.⁶

| | LMH2 LED Module | | | | | | |
|-----------------------|-----------------|---------|---------|---------|---------|---------|---------|
| | 850 lm | 1250 lm | 2000 lm | 3000 lm | 4000 lm | 6000 lm | 8000 lm |
| Multiplication factor | 0.283 | 0.417 | 03.667 | 1.000 | 1.333 | 2.000 | 2.667 |

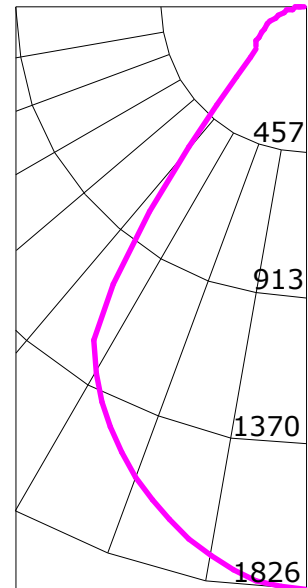
5 Dimensions for the reflector diagrams are for reference only. For exact dimensions and tolerances, refer to the 3-D models (.STEP files) for the reflectors available on the [LMH2 product page](#) and the [white](#) and [semi-specular](#) reflector product pages. Select the Documentation tab, then select the STEP files under the Design Files heading.

6 Select the Documentation tab on the [LMH2 product page](#), then select the IES file under the Design Files heading.

8-in/190-mm Circular Reflector, White Finish

The following table and graph show the candela tabulation for the 3000-lumen flat lens LMH2 LED module with the 8-in/190-mm circular reflector with a white finish.

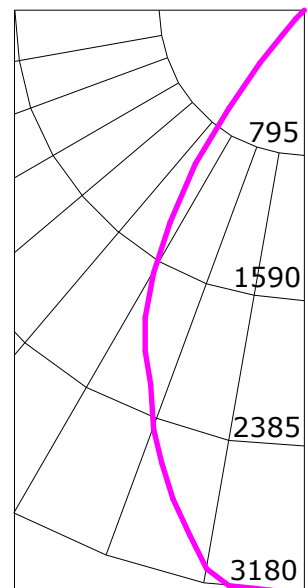
| Angle from Nadir (°) | Candelas | Angle from Nadir (°) | Candelas | Angle from Nadir (°) | Candelas |
|----------------------|----------|----------------------|----------|----------------------|----------|
| 0.0 | 1826.2 | | | | |
| 2.5 | 1821.5 | 32.5 | 1242.6 | 62.5 | 155.4 |
| 5.0 | 1807.4 | 35.0 | 1061.6 | 65.0 | 140.4 |
| 7.5 | 1783.7 | 37.5 | 814.0 | 67.5 | 125.1 |
| 10.0 | 1752.0 | 40.0 | 580.5 | 70.0 | 109.5 |
| 12.5 | 1713.0 | 42.5 | 418.0 | 72.5 | 93.8 |
| 15.0 | 1668.2 | 45.0 | 308.8 | 75.0 | 78.5 |
| 17.5 | 1619.6 | 47.5 | 243.6 | 77.5 | 63.5 |
| 20.0 | 1566.8 | 50.0 | 214.7 | 80.0 | 48.8 |
| 22.5 | 1512.0 | 52.5 | 204.6 | 82.5 | 34.1 |
| 25.0 | 1454.3 | 55.0 | 194.6 | 85.0 | 19.9 |
| 27.5 | 1393.9 | 57.5 | 183.1 | 87.5 | 6.7 |
| 30.0 | 1328.9 | 60.0 | 169.7 | 90.0 | 0.4 |



8-in/190-mm Circular Reflector, Semi-Specular Finish

The following table and graph show the candela tabulation for the 3000-lumen flat lens LMH2 LED module with the 8-in/190-mm circular reflector with a semi-specular finish.

| Angle from Nadir (°) | Candelas | Angle from Nadir (°) | Candelas | Angle from Nadir (°) | Candelas |
|----------------------|----------|----------------------|----------|----------------------|----------|
| 0.0 | 3176.6 | | | | |
| 2.5 | 3176.6 | 32.5 | 1381.3 | 62.5 | 0.1 |
| 5.0 | 3179.9 | 35.0 | 1039.6 | 65.0 | 0.0 |
| 7.5 | 3173.9 | 37.5 | 688.6 | 67.5 | 0.0 |
| 10.0 | 3099.6 | 40.0 | 386.1 | 70.0 | 0.0 |
| 12.5 | 2948.9 | 42.5 | 186.2 | 72.5 | 0.0 |
| 15.0 | 2763.9 | 45.0 | 81.9 | 75.0 | 0.0 |
| 17.5 | 2603.4 | 47.5 | 21.5 | 77.5 | 0.0 |
| 20.0 | 2435.4 | 50.0 | 2.3 | 80.0 | 0.0 |
| 22.5 | 2216.5 | 52.5 | 1.2 | 82.5 | 0.0 |
| 25.0 | 2056.1 | 55.0 | 0.8 | 85.0 | 0.0 |
| 27.5 | 1891.8 | 57.5 | 0.5 | 87.5 | 0.0 |
| 30.0 | 1658.0 | 60.0 | 0.2 | 90.0 | 0.0 |



PACKAGING

Reflectors are packaged in boxes of 10, which are then combined in cartons as shown below. Box and carton sizes are as follows.

Box of 10 4-in/110-mm reflectors: 155 x 155 x 380 mm

Carton of 20 4-in/110-mm reflector boxes, 200 4-inch/110-mm reflectors: 850 x 690 x 440 mm

Box of 10 6-in/150-mm reflectors: 205 x 205 x 350 mm

Carton of 6 6-in/150-mm reflector boxes, 60 6-inch/150-mm reflectors: 680 x 470 x 410 mm

Box of 10 8-in/190-mm reflectors: 245 x 245 x 380 mm

Carton of 6 8-in/190-mm reflector boxes, 60 8-inch/190-mm reflectors: 800 x 550 x 440 mm