

RAIL 4 RM4DI

LED . WALL . INDIRECT / DIRECT



| | |
|---------------------|--------------------|
| PART #: | |
| PREP BY: | DATE: |
| PROJECT: | |
| NOTES: | |
| APPROVAL SIGNATURE: | DATE (DD/MM/YYYY): |

| PERFORMANCE SUMMARY @ 3500K | | MBMB | MBMD | MRMD | MM |
|-----------------------------|--------|--------------|---------|---------|---------|
| L3 | | | | | |
| Lumens per foot | 80 CRI | 1274 | 1290 | 1300 | 1352 |
| | 90 CRI | 1115 | 1129 | 1138 | 1183 |
| Distribution (Up / Down %) | | 51 / 49 | 53 / 47 | 51 / 49 | 51 / 49 |
| Wattage per foot | | 12.1 | 12.1 | 12.1 | 12.1 |
| Efficacy | 80 CRI | 106 | 107 | 107 | 112 |
| | 90 CRI | 92 | 93 | 94 | 98 |
| L70 Estimate (h) | | ≥ 60,000 hrs | | | |

See page 2 for the complete Light Level Performance chart.

FEATURES

- 3/4" drop lens with seamless lines of light without pixels or shadows
- Integral drivers
- Option for daylight harvesting, occupancy sensing, dimming control and emergency lighting
- Optional Illuminated by BIOS version for Healthy Lighting and Well Building Applications

ORDERING LOGIC

Example Part Number: RM4DI-2L35K-12-MBMB-W-L31-W-1-D-90

| RM4DI | | | | | | | | | | | | |
|---|--|--|---|---|---|---|---|---|--|----|--|--|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | | |
| 1. SERIES RM4DI | 2. COLOR TEMP 2L30K 3000K 2L35K 3500K 2L40K 4000K 90 CRI is available under OPTIONS BIOS is available under OPTIONS. See p2 for BIOS Naming Convention Reference | 3. LENGTH 2 2 ft 3 3 ft 4 4 ft 5 5 ft 6 6 ft 7 7 ft 8 8 ft 9 9 ft 10 10 ft 11 11 ft 12 12 ft RA Continuous Rows Replace "A" with length in feet selected on p3 C Custom Length* - None (leave space empty) | 4. OPTICS MBMB Up: Meta Blanc Down: Meta Blanc MBMD Up: Meta Blanc Down: Drop Lens MRMD Up: Rise Lens Down: Drop Lens MM Up: Meta Ice Down: Meta Ice BWMB Up: Batwing ² Down: Meta Blanc BWMD Up: Batwing ² Down: Drop Lens BWM Up: Batwing ² Down: Meta Ice Meta Blanc, Rise & Drop Lens: Opal diffuse lens Meta Ice: High output semi-diffuse lens | | | | 5. FINISH SA Satin Aluminum W White B Black C Custom Finish Specify RAL: | | 6. LIGHT LEVEL / DRIVER L1 ² Select Driver below. L2 L3 See Light Level Performance chart below. L4 | | | |
| 7. CIRCUITRY 1 1 Circuit EM Emergency / Night Light B Emergency Battery Pack ¹ | 8. MOUNTING W Wall | 9. VOLTAGE 1 120 V 2 277 V 3 347 V 4 UNV (120 - 277V) | 10. CONTROLS / SENSORS _ None (leave space empty) D Wattstopper Daylight Sensor O Wattstopper Occupancy Sensor DO Wattstopper Daylight and Occupancy Sensors | | 11. OPTIONS 90 90 CRI, High R9 BS BIOS Static BD BIOS Dynamic _ None (leave space empty) | | | | | | | |

*Consult factory. | ¹ Battery operates 4ft direct sections only. | ² Not available with BIOS. | ³ Available with BIOS®

Select Driver:

- Factory option 0-10V, 1% Dimming
- LHE** Lutron H-Series Hi-Lume 1% EcoSystem LED Driver
- LA2** Lutron A-Series Hi-Lume 1% 2-wire LED Driver
- L5E** Lutron 5-Series EcoSystem LED Driver

Light Level Performance

3500K, 80 CRI, 0-10V Dimming (Standard)

| Distribution % (Up / Down) | MBMB (UP: Meta Blanc / DOWN: Meta Blanc) | | | MBMD (UP: Meta Blanc / DOWN: Drop Lens) | | | MRMD (UP: Rise Lens / DOWN: Drop Lens) | | | MM (UP: Meta Ice / DOWN: Meta Ice) | | |
|-------------------------------|---|------------------|-----------------|--|------------------|-----------------|---|------------------|-----------------|---------------------------------------|------------------|-----------------|
| | Lumens per foot | Wattage per foot | Efficacy (lm/W) | Lumens per foot | Wattage per foot | Efficacy (lm/W) | Lumens per foot | Wattage per foot | Efficacy (lm/W) | Lumens per foot | Wattage per foot | Efficacy (lm/W) |
| | 51 / 49 | | | 53 / 47 | | | 51 / 49 | | | 51 / 49 | | |
| L1 | 749 | 7.0 | 107 | 758 | 7.0 | 108 | 814 | 6.9 | 118 | 794 | 7.0 | 113 |
| L2 | 937 | 8.9 | 106 | 949 | 8.8 | 107 | 956 | 8.8 | 109 | 997 | 8.9 | 113 |
| L3 | 1274 | 12.1 | 106 | 1290 | 12.1 | 107 | 1300 | 12.1 | 108 | 1352 | 12.1 | 112 |
| L4 | 2363 | 25.0 | 95 | 2393 | 25.0 | 96 | 2412 | 24.2 | 100 | 2639 | 24.2 | 109 |

Standard Lumen Adjustment Factor

| Color Temp | 80 CRI | 90 CRI |
|------------|--------|--------|
| 3000K | 0.984 | 0.880 |
| 3500K | 1.000 | 0.875 |
| 4000K | 1.032 | 0.879 |

BIOS 3500K

| Distribution % (Up / Down) | MBMB (UP: Meta Blanc / DOWN: Meta Blanc) | | | MBMD (UP: Meta Blanc / DOWN: Drop Lens) | | | MRMD (UP: Rise Lens / DOWN: Drop Lens) | | | MM (UP: Meta Ice / DOWN: Meta Ice) | | | |
|-------------------------------|---|------------------|-----------------|--|------------------|-----------------|---|------------------|-----------------|---------------------------------------|------------------|-----------------|----|
| | Lumens per foot | Wattage per foot | Efficacy (lm/W) | Lumens per foot | Wattage per foot | Efficacy (lm/W) | Lumens per foot | Wattage per foot | Efficacy (lm/W) | Lumens per foot | Wattage per foot | Efficacy (lm/W) | |
| | 51 / 49 | | | 53 / 47 | | | 51 / 49 | | | 51 / 49 | | | |
| Static | L2 | 1244 | 18.9 | 66 | 1309 | 18.9 | 69 | 1256 | 18.9 | 67 | 1413 | 18.9 | 75 |
| | L3 | 1659 | 26.6 | 62 | 1746 | 26.6 | 66 | 1675 | 26.6 | 63 | 1885 | 26.6 | 71 |
| | L4 | 2016 | 34.4 | 59 | 2122 | 34.4 | 62 | 2035 | 34.4 | 59 | 2291 | 34.4 | 67 |
| Dynamic | L2 | 1119 | 18.9 | 59 | 1178 | 18.9 | 62 | 1130 | 18.9 | 59.9 | 1272 | 18.9 | 67 |
| | L3 | 1493 | 26.6 | 56 | 1571 | 26.6 | 59 | 1507 | 26.6 | 56.6 | 1696 | 26.6 | 64 |
| | L4 | 1814 | 34.4 | 53 | 1910 | 34.4 | 56 | 1832 | 34.4 | 53.3 | 2062 | 34.4 | 60 |

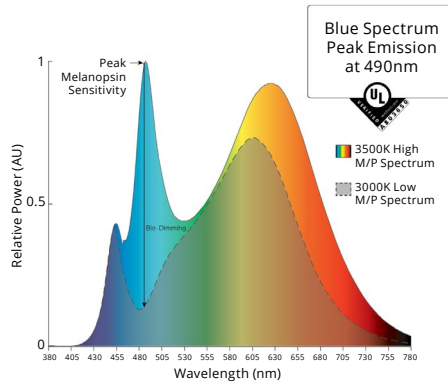
BIOS Lumen Adjustment Factor (LAF)

| Color Temp | LAF |
|------------|------|
| 3500K | 1.00 |
| 4000K | 1.05 |

BIOS Naming Convention Reference

| BIOS | Static | |
|-------|----------|----------|
| | 3500K | 35BIOSST |
| 4000K | 40BIOSST | |
| BIOS | Dynamic | |
| | 3500K | 35BIOSDY |
| 4000K | 40BIOSDY | |

* EML or M/P is a ratio that describes the relative melanopic lux (M) versus the photopic lux (P). BIOS provides the following m/p values: 3000K = 0.7, 3500K = 0.8, 4000K = 0.9. ** COI - Cyanosis Observation Index.



Metalumen's light level performance metrics are subject to manufacturers component tolerances.

CONTINUOUS ROWS

Step 1) Indicate desired quantity of rows under the QTY column

Step 2) ← Pods → If applicable, select pod(s) per row to indicate desired Emergency/Night Light/Battery location. If a similar row requires a different Emergency lighting location, please fill out another sheet.

Record drawings for rows not represented here will be sent out upon order.

| QTY | Nominal Length | Run Length Overall | Along / Start Length | Mid Length(s) | End Length | Asymmetric Reflector Light Throw Direction | ROWS IN PLAN VIEW |
|-----|----------------|--------------------|----------------------|---------------|------------|--|--|
| | | | | | | | Rows are for demonstration purposes only and are not to scale. |
| | 4' | 1225 [48.2] | 4 | | | ↑ | |
| | 8' | 2442 [96.1] | 8 | | | ↑ | |
| | 12' | 3661 [144.1] | 12 | | | ↑ | |
| | 16' | 4881 [192.2] | 8 | 8 | 8 | ↑ | |
| | 20' | 6100 [240.2] | 12 | 8 | 8 | ↑ | |
| | 24' | 7319 [288.1] | 12 | 12 | 12 | ↑ | |
| | 28' | 8538 [336.1] | 8 | 12 | 8 | ↑ | |
| | 32' | 9757 [384.1] | 12 | 8 | 12 | ↑ | |
| | 36' | 10977 [432.2] | 12 | 12 | 12 | ↑ | |
| | 40' | 12196 [480.2] | 12 | 8, 8 | 12 | ↑ | |
| | 44' | 13415 [528.1] | 12 | 12, 8 | 12 | ↑ | |
| | 48' | 14634 [576.1] | 12 | 12, 12 | 12 | ↑ | |

LEGEND

- Standard (STD) Wire Entry Location
(located on back of fixture either: 231 mm from end cap, or 229 mm from end of extrusion without end cap)
- Emergency (EM) / Night Light Location
(4 ft sections)
- EM Wire Entry or Battery Wire Entry Location
(located 231 mm from end on back of fixture).

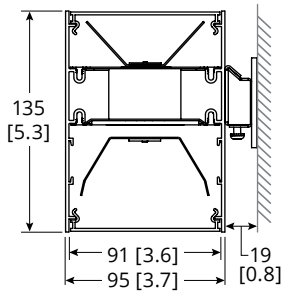
Wall bracket

- = 231 [9.1] Distance between end-cap and bracket
- = 458 [18.0] Distance between brackets at joiners
- A = Distance between brackets
- B = Extrusion lengths (includes end-caps)

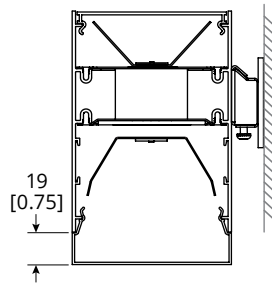
EM / Night Light and EM or Battery Wire Entry location in relation to pod selections:

Example 20 ft run

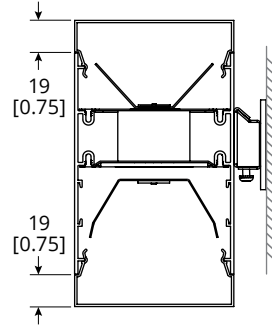
CROSS SECTIONS



UP: Meta Blanc, DOWN: Meta Blanc
UP: Meta Ice, DOWN: Meta Ice



UP: Meta Blanc
DOWN: Drop Lens



UP: Rise Lens
DOWN: Drop Lens

SPECIFICATIONS

Due to the Continuous Improvement Policy at Metalumen, we reserve the right to change our specifications without notice.

Housing: Rigid extruded aluminum body, 2.0mm (0.08”) nominal wall thickness. Aluminum end caps.
Optical System: Metalumen luminaires are designed to utilize leading edge LED technology combined with luminaire optimized reflectors and our custom diffusers, resulting in industry leading optical performance.
BIOS LED: BIOS SkyBlue® solutions have a peak wavelength at 490nm to provide an enhanced spectrum with high M/P (melanopic to photopic)

ratios while also providing a low Cyanosis Observation Index (COI), making it ideally suited for Healthcare and Healthy Lighting projects. BIOS® SkyBlue® lighting solutions also contribute to satisfying Circadian Lighting Design Feature for WELL Building Standard v1 and v2.
CRI: 83+ for 3500K, 80 minimum for all CCTs in standard configurations.
Lumen Maintenance: Minimum 50,000h with TM-21 lumen maintenance of 85% @ 25°C ambient

temperature (calculated based on IESNA LM-80-08 LED test data). L70: ≥ 60 000hrs.
Finish: Satin aluminum, white and black are standard finishes. For custom finish, contact factory.
Mounting: Mounting plate provided.
Electrical: Factory prewired with easy wire quick connect sections.
Drivers: Metalumen offers 0-10V dimming* as a standard on our entire LED product offering. Dimming range is 1%-100%. Power factor is > 90%. Class

2 rating. Drivers are integral.
Approvals: All components are UL/ CSA/QPS recognized or listed. RoHS compliant. cULus listed.
Environment: Suitable for dry or damp locations.
**Standard drivers compatible with passive/ sinking dimmers. Please contact Metalumen if active/sourcing dimmer support is required.*

| | | | | |
|--|-----------------------------|-------------------------------------|-------------------------------------|---|
| | DLC Approved RM4DI Products | RM4DI-2L35K-4-MM-xx-L1X-X-XX-[34]-X | RM4DI-2L35K-8-MM-xx-L1X-X-XX-[34]-X | For more Metalumen DLC Approved Products, visit the DLC Website |
| | | RM4DI-2L35K-4-MM-xx-L2X-X-XX-[34]-X | RM4DI-2L35K-8-MM-xx-L2X-X-XX-[34]-X | |
| | | RM4DI-2L35K-4-MM-xx-L3X-X-XX-[34]-X | RM4DI-2L35K-8-MM-xx-L3X-X-XX-[34]-X | |
| | | RM4DI-2L40K-4-MM-xx-L1X-X-XX-[34]-X | RM4DI-2L40K-8-MM-xx-L1X-X-XX-[34]-X | |
| | | RM4DI-2L40K-4-MM-xx-L2X-X-XX-[34]-X | RM4DI-2L40K-8-MM-xx-L2X-X-XX-[34]-X | |
| | | RM4DI-2L40K-4-MM-xx-L3X-X-XX-[34]-X | RM4DI-2L40K-8-MM-xx-L3X-X-XX-[34]-X | |

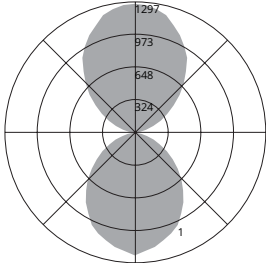
WARRANTY

Metalumen will warrant defective luminaires for 5 years from date of purchase. Warranty is valid if luminaire is installed and used according to specification. If defective, Metalumen will send replacement boards or drivers at no cost along with detailed replacement instructions and instructions on how to return defective components to Metalumen.

PHOTOMETRIC DATA - 3500K, 80 CRI

Optics Up: **Meta Ice**
 Optics Down: **Meta Ice**
 IES File: **RM4DI-2L35K-4-MM-L3**
 Lumens: **1352/ft** Wattage: **12.1/ft**
 Efficacy: **112 lm/W**

PHOTOMETRIC CURVE
 51% Up
 49% Down



ZONAL LUMEN SUMMARY

| Zone | Lumens | %Fixt |
|---------|--------|-------|
| 0-20 | 423 | 7.8 |
| 0-30 | 874 | 16.1 |
| 0-40 | 1378 | 25.4 |
| 0-60 | 2227 | 41.1 |
| 0-80 | 2595 | 47.9 |
| 0-90 | 2624 | 48.5 |
| 10-90 | 2511 | 46.4 |
| 20-40 | 955 | 17.6 |
| 20-50 | 1428 | 26.4 |
| 40-70 | 1097 | 20.3 |
| 60-80 | 368 | 6.8 |
| 70-80 | 120 | 2.2 |
| 80-90 | 29 | 0.5 |
| 90-110 | 141 | 2.6 |
| 90-120 | 402 | 7.4 |
| 90-130 | 803 | 14.8 |
| 90-150 | 1855 | 34.3 |
| 90-180 | 2792 | 51.5 |
| 110-180 | 2651 | 48.9 |
| 0-180 | 5415 | 100.0 |

COEFFICIENTS OF UTILIZATION

Zonal Cavity Method | Effective Floor Cavity Reflectance = .20

| RC | 80 | | | 70 | | | 50 | | | |
|-----|-----|-----|-----|-----|----|----|----|----|----|----|
| | RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | |
| RCR | | | | | | | | | | |
| 0 | 107 | 107 | 107 | 107 | 98 | 98 | 98 | 82 | 82 | 82 |
| 1 | 98 | 94 | 90 | 87 | 90 | 87 | 83 | 80 | 73 | 71 |
| 2 | 89 | 82 | 76 | 71 | 82 | 76 | 71 | 67 | 64 | 61 |
| 3 | 82 | 73 | 66 | 60 | 75 | 67 | 61 | 56 | 57 | 53 |
| 4 | 75 | 65 | 57 | 51 | 69 | 60 | 53 | 48 | 51 | 46 |
| 5 | 69 | 58 | 50 | 44 | 63 | 54 | 47 | 41 | 46 | 40 |
| 6 | 64 | 52 | 44 | 38 | 59 | 48 | 41 | 36 | 41 | 36 |
| 7 | 59 | 47 | 39 | 34 | 54 | 44 | 37 | 32 | 38 | 32 |
| 8 | 55 | 43 | 35 | 30 | 50 | 40 | 33 | 28 | 34 | 29 |
| 9 | 51 | 39 | 32 | 27 | 47 | 36 | 30 | 25 | 32 | 26 |
| 10 | 48 | 36 | 29 | 24 | 44 | 34 | 27 | 23 | 29 | 24 |

CANDELA DISTRIBUTION

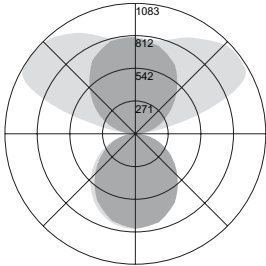
| Vertical Angle | Horizontal Angle | | | | |
|----------------|------------------|------|------|------|------|
| | 0 | 22.5 | 45 | 67.5 | 90 |
| 0 | 1215 | 1215 | 1215 | 1215 | 1215 |
| 10 | 1150 | 1161 | 1160 | 1159 | 1134 |
| 20 | 1063 | 1053 | 1053 | 1039 | 1032 |
| 30 | 921 | 923 | 906 | 871 | 866 |
| 40 | 747 | 734 | 707 | 676 | 670 |
| 50 | 557 | 542 | 512 | 488 | 471 |
| 60 | 368 | 359 | 331 | 304 | 294 |
| 70 | 200 | 191 | 170 | 157 | 153 |
| 80 | 69 | 66 | 58 | 54 | 51 |
| 90 | 4 | 3 | 3 | 3 | 3 |
| 100 | 61 | 57 | 53 | 46 | 44 |
| 110 | 196 | 189 | 180 | 167 | 163 |
| 120 | 375 | 373 | 350 | 332 | 330 |
| 130 | 583 | 573 | 554 | 528 | 513 |
| 140 | 790 | 790 | 765 | 749 | 739 |
| 150 | 985 | 987 | 969 | 958 | 949 |
| 160 | 1130 | 1121 | 1116 | 1112 | 1105 |
| 170 | 1242 | 1231 | 1231 | 1251 | 1225 |
| 180 | 1276 | 1276 | 1276 | 1276 | 1276 |

LUMINANCE DATA (CD/M²)

| Vertical Angle | Horizontal Angle | | |
|----------------|------------------|------|------|
| | 0 | 45 | 90 |
| 45 | 7113 | 3590 | 2830 |
| 55 | 5881 | 2452 | 1850 |
| 65 | 4429 | 1503 | 1098 |
| 75 | 2915 | 715 | 502 |
| 85 | 1038 | 152 | 110 |

Optics Up: **Batwing**
 Optics Down: **Meta Blanc**
 IES File: **RM4DI-2L35K-4-BWMB-L3**
 Lumens: **1403/ft** Wattage: **12.0/ft**
 Efficacy: **117 lm/W**

PHOTOMETRIC CURVE
 62% Up
 38% Down



ZONAL LUMEN SUMMARY

| Zone | Lumens | %Fixt |
|---------|--------|-------|
| 0-20 | 284 | 5.1 |
| 0-30 | 599 | 10.7 |
| 0-40 | 971 | 17.3 |
| 0-60 | 1678 | 29.9 |
| 0-80 | 2089 | 37.2 |
| 0-90 | 2150 | 38.3 |
| 10-90 | 2077 | 37 |
| 20-40 | 688 | 12.3 |
| 20-50 | 1063 | 18.9 |
| 40-70 | 960 | 17.1 |
| 60-80 | 412 | 7.3 |
| 70-80 | 158 | 2.8 |
| 80-90 | 61 | 1.1 |
| 90-110 | 481 | 8.6 |
| 90-120 | 1070 | 19.1 |
| 90-130 | 1709 | 30.4 |
| 90-150 | 2796 | 49.8 |
| 90-180 | 3461 | 61.7 |
| 110-180 | 2980 | 53.1 |
| 0-180 | 5612 | 100 |

COEFFICIENTS OF UTILIZATION

Zonal Cavity Method | Effective Floor Cavity Reflectance = .20

| RC | 80 | | | 70 | | | 50 | | | |
|-----|-----|-----|-----|-----|----|----|----|----|----|----|
| | RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | |
| RCR | | | | | | | | | | |
| 0 | 104 | 104 | 104 | 104 | 95 | 95 | 95 | 77 | 77 | 77 |
| 1 | 95 | 91 | 87 | 83 | 86 | 82 | 79 | 76 | 67 | 65 |
| 2 | 86 | 79 | 73 | 68 | 78 | 72 | 67 | 62 | 58 | 55 |
| 3 | 79 | 69 | 62 | 56 | 71 | 63 | 57 | 52 | 51 | 47 |
| 4 | 72 | 61 | 53 | 47 | 65 | 56 | 49 | 44 | 46 | 41 |
| 5 | 66 | 54 | 46 | 40 | 60 | 50 | 43 | 37 | 41 | 36 |
| 6 | 61 | 49 | 41 | 35 | 55 | 45 | 38 | 32 | 37 | 31 |
| 7 | 56 | 44 | 36 | 31 | 51 | 40 | 33 | 28 | 33 | 28 |
| 8 | 52 | 40 | 32 | 27 | 47 | 36 | 30 | 25 | 30 | 25 |
| 9 | 48 | 36 | 29 | 24 | 44 | 33 | 27 | 22 | 28 | 22 |
| 10 | 45 | 33 | 26 | 21 | 41 | 30 | 24 | 20 | 25 | 20 |

CANDELA DISTRIBUTION

| Vertical Angle | Horizontal Angle | | | | |
|----------------|------------------|------|-----|------|-----|
| | 0 | 22.5 | 45 | 67.5 | 90 |
| 0 | 784 | 784 | 784 | 784 | 784 |
| 10 | 775 | 775 | 775 | 776 | 779 |
| 20 | 766 | 765 | 763 | 763 | 765 |
| 30 | 757 | 755 | 749 | 743 | 743 |
| 40 | 723 | 728 | 733 | 717 | 714 |
| 50 | 689 | 694 | 698 | 686 | 679 |
| 60 | 656 | 659 | 658 | 651 | 637 |
| 70 | 602 | 614 | 616 | 613 | 590 |
| 80 | 548 | 559 | 572 | 567 | 540 |
| 90 | 494 | 505 | 513 | 511 | 486 |
| 100 | 440 | 450 | 455 | 453 | 429 |
| 110 | 386 | 396 | 397 | 393 | 370 |
| 120 | 332 | 343 | 342 | 331 | 310 |
| 130 | 277 | 288 | 288 | 264 | 249 |
| 140 | 222 | 233 | 235 | 200 | 189 |
| 150 | 167 | 178 | 179 | 140 | 133 |
| 160 | 112 | 123 | 125 | 89 | 79 |
| 170 | 57 | 68 | 72 | 52 | 30 |
| 180 | 2 | 13 | 19 | 19 | 12 |

LUMINANCE DATA (CD/M²)

| Vertical Angle | Horizontal Angle | | |
|----------------|------------------|------|------|
| | 0 | 45 | 90 |
| 45 | 6024 | 6260 | 5926 |
| 55 | 5807 | 5972 | 5563 |
| 65 | 5658 | 5885 | 5074 |
| 75 | 5566 | 5976 | 4425 |
| 85 | 5622 | 7123 | 2935 |

Photometric performance is measured and scaled in accordance with IESNA LM-79.