

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1058453

Luminaire Tested: S122RDRP-H675D835-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1058453
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-58)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-H675D835-X4F0-XX-UDD-WVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

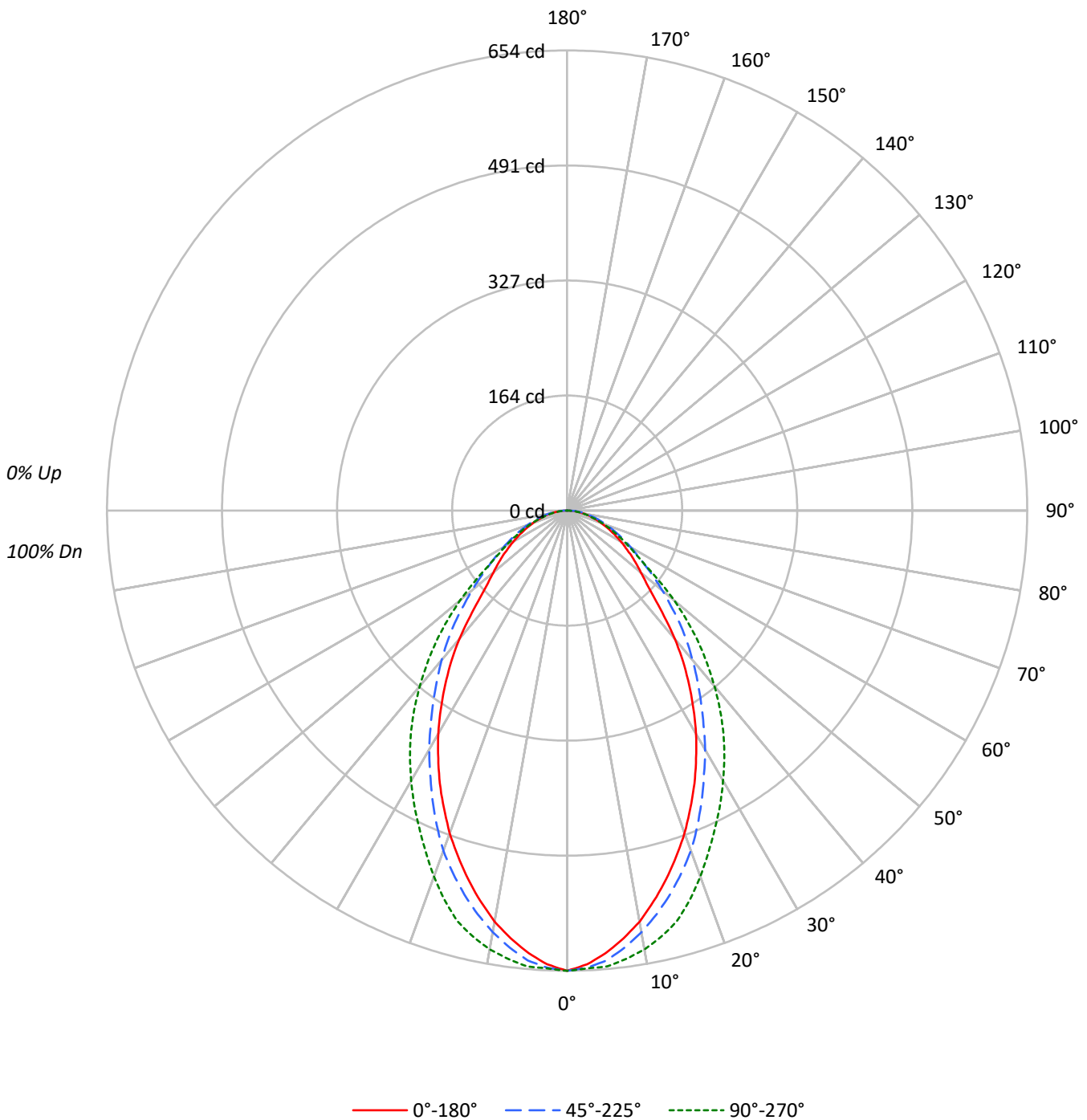
Lumens per Lamp: N/A
Luminaire Lumens: 1065.1 lumens
Efficiency: N/A
Efficacy: 45.3 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RF | 20 | | | | 20 | | | | 20 | | | | 20 | | | | 20 |
| RC | 80 | | | | 70 | | | | 50 | | | | 30 | | | | 10 |
| RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 |
| RCR | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 |
| 1 | 110 | 106 | 103 | 99 | 108 | 104 | 101 | 98 | 100 | 97 | 95 | 96 | 94 | 92 | 93 | 91 | 89 |
| 2 | 102 | 95 | 89 | 84 | 100 | 93 | 88 | 83 | 90 | 85 | 81 | 87 | 83 | 79 | 84 | 80 | 78 |
| 3 | 94 | 85 | 78 | 73 | 92 | 84 | 77 | 72 | 81 | 75 | 71 | 78 | 73 | 69 | 76 | 72 | 68 |
| 4 | 88 | 77 | 69 | 63 | 85 | 76 | 69 | 63 | 73 | 67 | 62 | 71 | 66 | 61 | 69 | 64 | 61 |
| 5 | 81 | 70 | 62 | 56 | 79 | 69 | 61 | 56 | 67 | 60 | 55 | 65 | 59 | 55 | 63 | 58 | 54 |
| 6 | 76 | 64 | 56 | 50 | 74 | 63 | 56 | 50 | 61 | 55 | 50 | 60 | 54 | 49 | 58 | 53 | 49 |
| 7 | 71 | 59 | 51 | 45 | 69 | 58 | 51 | 45 | 57 | 50 | 45 | 55 | 49 | 45 | 54 | 49 | 44 |
| 8 | 67 | 54 | 47 | 41 | 65 | 54 | 46 | 41 | 52 | 46 | 41 | 51 | 45 | 41 | 50 | 45 | 41 |
| 9 | 63 | 50 | 43 | 38 | 61 | 50 | 43 | 38 | 49 | 42 | 38 | 48 | 42 | 37 | 47 | 41 | 37 |
| 10 | 59 | 47 | 40 | 35 | 58 | 46 | 39 | 35 | 45 | 39 | 35 | 45 | 39 | 34 | 44 | 38 | 34 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 12070 | 12070 | 12070 |
| 5° | 11694 | 11886 | 12045 |
| 10° | 11117 | 11402 | 11864 |
| 15° | 10373 | 10790 | 11535 |
| 20° | 9581 | 10103 | 10869 |
| 25° | 8716 | 9219 | 10127 |
| 30° | 7807 | 8355 | 9445 |
| 35° | 6801 | 7463 | 8724 |
| 40° | 5740 | 6677 | 7843 |
| 45° | 4559 | 5895 | 6863 |
| 50° | 3924 | 5070 | 5695 |
| 55° | 3574 | 4337 | 4369 |
| 60° | 3259 | 3853 | 3713 |
| 65° | 2986 | 3480 | 3275 |
| 70° | 2768 | 3226 | 2919 |
| 75° | 2574 | 3044 | 2574 |
| 80° | 2423 | 2922 | 2317 |
| 85° | 2414 | 3006 | 2011 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6863 cd/sqm

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 60.4 | 5.7 |
| 10°-20° | 159.6 | 15.0 |
| 20°-30° | 210.1 | 19.7 |
| 30°-40° | 211.2 | 19.8 |
| 40°-50° | 171.2 | 16.1 |
| 50°-60° | 117.9 | 11.1 |
| 60°-70° | 77.2 | 7.2 |
| 70°-80° | 43.0 | 4.0 |
| 80°-90° | 14.5 | 1.4 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 430.0 | 40.4 |
| 0°-40° | 641.3 | 60.2 |
| 0°-60° | 930.4 | 87.4 |
| 0°-90° | 1065.1 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1065.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 654 | 654 | 654 | 654 | 654 | |
| 5° | 631 | 644 | 642 | 645 | 650 | 59 |
| 15° | 543 | 556 | 565 | 586 | 604 | 152 |
| 25° | 428 | 440 | 453 | 473 | 497 | 196 |
| 35° | 302 | 316 | 331 | 361 | 387 | 188 |
| 45° | 175 | 195 | 226 | 246 | 263 | 138 |
| 55° | 111 | 123 | 135 | 138 | 136 | 100 |
| 65° | 68 | 82 | 80 | 76 | 75 | 68 |
| 75° | 36 | 45 | 43 | 38 | 36 | 39 |
| 85° | 11 | 15 | 14 | 12 | 10 | 12 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 654.1 | 654.1 | 654.1 | 654.1 | 654.1 |
| 2.5° | 645.5 | 656.9 | 650.3 | 650.3 | 651.2 |
| 5° | 631.3 | 643.6 | 641.7 | 644.6 | 650.3 |
| 7.5° | 613.3 | 626.5 | 626.5 | 635.1 | 642.7 |
| 10° | 593.3 | 606.6 | 608.5 | 621.8 | 633.2 |
| 12.5° | 568.6 | 581.9 | 587.6 | 604.7 | 619.9 |
| 15° | 543.0 | 556.3 | 564.8 | 585.7 | 603.8 |
| 17.5° | 515.5 | 528.8 | 540.2 | 562.0 | 580.0 |
| 20° | 487.9 | 500.3 | 514.5 | 533.5 | 553.5 |
| 22.5° | 457.6 | 470.9 | 484.2 | 502.2 | 525.0 |
| 25° | 428.1 | 439.5 | 452.8 | 472.8 | 497.4 |
| 27.5° | 396.8 | 409.2 | 421.5 | 445.2 | 470.9 |
| 30° | 366.4 | 378.8 | 392.1 | 416.7 | 443.3 |
| 32.5° | 334.2 | 347.4 | 360.7 | 388.3 | 415.8 |
| 35° | 301.9 | 316.1 | 331.3 | 360.7 | 387.3 |
| 37.5° | 270.6 | 285.7 | 303.8 | 334.2 | 356.9 |
| 40° | 238.3 | 254.4 | 277.2 | 303.8 | 325.6 |
| 42.5° | 204.1 | 224.0 | 251.6 | 274.4 | 294.3 |
| 45° | 174.7 | 194.6 | 225.9 | 245.9 | 263.0 |
| 47.5° | 152.8 | 169.0 | 199.4 | 216.4 | 230.7 |
| 50° | 136.7 | 149.0 | 176.6 | 188.9 | 198.4 |
| 52.5° | 123.4 | 135.8 | 154.7 | 163.3 | 166.1 |
| 55° | 111.1 | 123.4 | 134.8 | 137.7 | 135.8 |
| 57.5° | 98.7 | 112.0 | 118.7 | 115.8 | 115.8 |
| 60° | 88.3 | 102.5 | 104.4 | 100.6 | 100.6 |
| 62.5° | 77.8 | 92.1 | 92.1 | 87.3 | 87.3 |
| 65° | 68.4 | 81.6 | 79.7 | 75.9 | 75.0 |
| 67.5° | 59.8 | 72.1 | 69.3 | 65.5 | 64.6 |
| 70° | 51.3 | 62.7 | 59.8 | 55.1 | 54.1 |
| 72.5° | 43.7 | 54.1 | 50.3 | 46.5 | 44.6 |
| 75° | 36.1 | 44.6 | 42.7 | 38.0 | 36.1 |
| 77.5° | 29.4 | 36.1 | 34.2 | 30.4 | 28.5 |
| 80° | 22.8 | 28.5 | 27.5 | 23.7 | 21.8 |
| 82.5° | 17.1 | 21.8 | 20.9 | 18.0 | 15.2 |
| 85° | 11.4 | 15.2 | 14.2 | 12.3 | 9.5 |
| 87.5° | 5.7 | 10.4 | 9.5 | 8.5 | 4.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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CIE UGR TABLE:

| Reflectances: | | | | | | | | | | | |
|-----------------|------|------------------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|
| Ceiling | | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 |
| Wall | | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 |
| Reference plane | | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Room dimensions | | Viewed crosswise | | | | | Viewed endwise | | | | |
| X=2H | Y=2H | 15.38 | 16.82 | 15.75 | 17.14 | 17.45 | 15.74 | 17.18 | 16.11 | 17.50 | 17.81 |
| | 3H | 16.93 | 18.22 | 17.31 | 18.54 | 18.91 | 17.09 | 18.38 | 17.47 | 18.71 | 19.07 |
| | 4H | 17.50 | 18.71 | 17.90 | 19.06 | 19.44 | 17.57 | 18.78 | 17.97 | 19.13 | 19.51 |
| | 6H | 17.93 | 19.04 | 18.34 | 19.41 | 19.80 | 17.93 | 19.04 | 18.34 | 19.41 | 19.80 |
| | 8H | 18.08 | 19.14 | 18.51 | 19.53 | 19.94 | 18.04 | 19.10 | 18.47 | 19.49 | 19.89 |
| | 12H | 18.20 | 19.21 | 18.63 | 19.59 | 20.02 | 18.12 | 19.13 | 18.55 | 19.51 | 19.94 |
| 4H | 2H | 15.97 | 17.18 | 16.37 | 17.52 | 17.91 | 16.26 | 17.46 | 16.66 | 17.81 | 18.19 |
| | 3H | 17.79 | 18.79 | 18.20 | 19.19 | 19.59 | 17.83 | 18.83 | 18.24 | 19.23 | 19.63 |
| | 4H | 18.54 | 19.44 | 18.97 | 19.86 | 20.30 | 18.43 | 19.34 | 18.87 | 19.75 | 20.19 |
| | 6H | 19.12 | 19.91 | 19.58 | 20.35 | 20.81 | 18.92 | 19.70 | 19.38 | 20.14 | 20.60 |
| | 8H | 19.33 | 20.07 | 19.80 | 20.51 | 20.98 | 19.08 | 19.81 | 19.54 | 20.26 | 20.73 |
| | 12H | 19.50 | 20.15 | 19.99 | 20.63 | 21.11 | 19.20 | 19.85 | 19.68 | 20.33 | 20.81 |
| 8H | 4H | 18.82 | 19.55 | 19.29 | 20.00 | 20.47 | 18.74 | 19.47 | 19.20 | 19.91 | 20.38 |
| | 6H | 19.58 | 20.18 | 20.08 | 20.68 | 21.15 | 19.35 | 19.96 | 19.85 | 20.45 | 20.93 |
| | 8H | 19.90 | 20.44 | 20.42 | 20.96 | 21.45 | 19.60 | 20.14 | 20.12 | 20.66 | 21.14 |
| | 12H | 20.19 | 20.67 | 20.70 | 21.16 | 21.73 | 19.81 | 20.29 | 20.32 | 20.78 | 21.35 |
| 12H | 4H | 18.84 | 19.49 | 19.32 | 19.97 | 20.45 | 18.77 | 19.42 | 19.25 | 19.90 | 20.37 |
| | 6H | 19.64 | 20.18 | 20.15 | 20.69 | 21.18 | 19.43 | 19.97 | 19.95 | 20.48 | 20.97 |
| | 8H | 20.04 | 20.52 | 20.55 | 21.01 | 21.58 | 19.75 | 20.23 | 20.26 | 20.72 | 21.29 |