

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: P1056390

Luminaire Tested: S125R3DR-S1270D835-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056390
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125R3DR-S1270D835-X4F0-XX-UDD-F-W
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

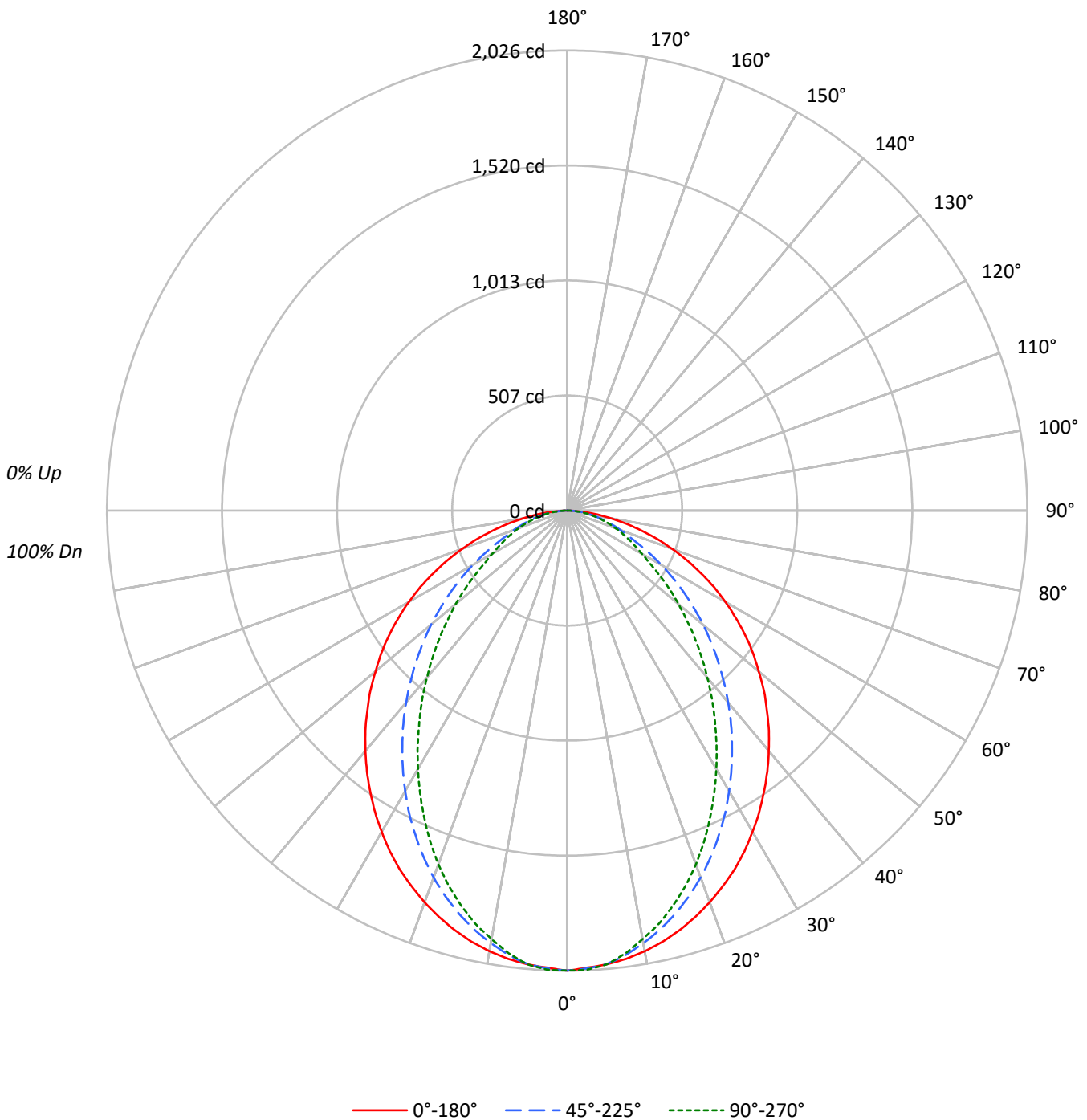
Lumens per Lamp: N/A
Luminaire Lumens: 4292.9 lumens
Efficiency: N/A
Efficacy: 102.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 41.9
Input Voltage (V): 120
Input Current (Ain): 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



TEST NUMBER: P1056390

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|-----|---|--|---|
| RF | 20 | | | | | 20 | | | | | 20 | | | | | 20 | | | | | 20 | | | | | |
| RC | 80 | | | | | 70 | | | | | 50 | | | | | 30 | | | | | 10 | | | | | 0 |
| RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 | | |
| RCR | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | | | | 100 | | | |
| 1 | 110 | 105 | 101 | 98 | 107 | 103 | 100 | 96 | 99 | 96 | 93 | 95 | 93 | 90 | 91 | 90 | 88 | 86 | | | | | 86 | | | |
| 2 | 101 | 93 | 87 | 81 | 98 | 91 | 85 | 80 | 88 | 83 | 79 | 84 | 80 | 77 | 81 | 78 | 75 | 73 | | | | | 73 | | | |
| 3 | 92 | 83 | 75 | 69 | 90 | 81 | 74 | 68 | 78 | 72 | 67 | 75 | 70 | 66 | 73 | 69 | 65 | 63 | | | | | 63 | | | |
| 4 | 85 | 74 | 66 | 59 | 83 | 73 | 65 | 59 | 70 | 63 | 58 | 68 | 62 | 57 | 66 | 61 | 57 | 55 | | | | | 55 | | | |
| 5 | 79 | 67 | 58 | 52 | 77 | 66 | 58 | 52 | 63 | 56 | 51 | 62 | 55 | 51 | 60 | 54 | 50 | 48 | | | | | 48 | | | |
| 6 | 73 | 60 | 52 | 46 | 71 | 59 | 51 | 46 | 58 | 51 | 45 | 56 | 50 | 45 | 55 | 49 | 45 | 43 | | | | | 43 | | | |
| 7 | 68 | 55 | 47 | 41 | 66 | 54 | 46 | 41 | 53 | 46 | 41 | 51 | 45 | 40 | 50 | 44 | 40 | 38 | | | | | 38 | | | |
| 8 | 63 | 51 | 42 | 37 | 62 | 50 | 42 | 37 | 49 | 42 | 37 | 47 | 41 | 36 | 46 | 40 | 36 | 34 | | | | | 34 | | | |
| 9 | 59 | 47 | 39 | 33 | 58 | 46 | 39 | 33 | 45 | 38 | 33 | 44 | 38 | 33 | 43 | 37 | 33 | 31 | | | | | 31 | | | |
| 10 | 56 | 43 | 36 | 31 | 55 | 43 | 35 | 30 | 42 | 35 | 30 | 41 | 35 | 30 | 40 | 34 | 30 | 28 | | | | | 28 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 14319 | 14319 | 14319 |
| 5° | 14234 | 14223 | 14234 |
| 10° | 14139 | 13879 | 13749 |
| 15° | 13996 | 13455 | 13179 |
| 20° | 13808 | 12934 | 12469 |
| 25° | 13599 | 12316 | 11623 |
| 30° | 13333 | 11646 | 10723 |
| 35° | 13042 | 10920 | 9787 |
| 40° | 12749 | 10174 | 8866 |
| 45° | 12439 | 9394 | 7946 |
| 50° | 12109 | 8592 | 7033 |
| 55° | 11804 | 7714 | 6116 |
| 60° | 11387 | 6781 | 5374 |
| 65° | 10823 | 5753 | 4995 |
| 70° | 10163 | 5143 | 4675 |
| 75° | 9186 | 4736 | 4408 |
| 80° | 7983 | 4299 | 4112 |
| 85° | 6237 | 3796 | 3796 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 12439 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 189.5 | 4.4 |
| 10°-20° | 520.4 | 12.1 |
| 20°-30° | 735.0 | 17.1 |
| 30°-40° | 809.2 | 18.8 |
| 40°-50° | 754.8 | 17.6 |
| 50°-60° | 602.6 | 14.0 |
| 60°-70° | 405.5 | 9.4 |
| 70°-80° | 216.0 | 5.0 |
| 80°-90° | 60.0 | 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° | 1444.9 | 33.7 |
| 0°-40° | 2254.1 | 52.5 |
| 0°-60° | 3611.4 | 84.1 |
| 0°-90° | 4292.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4292.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2026 | 2026 | 2026 | 2026 | 2026 | |
| 5° | 2006 | 2022 | 2004 | 1998 | 2006 | 190 |
| 15° | 1912 | 1902 | 1838 | 1807 | 1801 | 539 |
| 25° | 1743 | 1691 | 1579 | 1510 | 1490 | 802 |
| 35° | 1511 | 1422 | 1265 | 1166 | 1134 | 946 |
| 45° | 1244 | 1127 | 940 | 825 | 795 | 961 |
| 55° | 958 | 813 | 626 | 526 | 496 | 855 |
| 65° | 647 | 505 | 344 | 305 | 299 | 642 |
| 75° | 336 | 223 | 173 | 163 | 161 | 358 |
| 85° | 77 | 53 | 47 | 48 | 47 | 92 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P1056390

CATALOG NUMBER: S125R3DR-S1270D835-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2025.5 | 2025.5 | 2025.5 | 2025.5 | 2025.5 |
| 2.5° | 2014.9 | 2031.5 | 2017.9 | 2020.9 | 2023.9 |
| 5° | 2005.8 | 2022.4 | 2004.3 | 1998.3 | 2005.8 |
| 7.5° | 1990.8 | 2004.3 | 1974.2 | 1960.6 | 1966.6 |
| 10° | 1969.6 | 1978.7 | 1933.5 | 1915.4 | 1915.4 |
| 12.5° | 1944.0 | 1944.0 | 1889.7 | 1864.1 | 1864.1 |
| 15° | 1912.3 | 1901.8 | 1838.4 | 1806.8 | 1800.7 |
| 17.5° | 1876.1 | 1856.5 | 1781.1 | 1740.4 | 1732.9 |
| 20° | 1835.4 | 1803.8 | 1719.3 | 1666.5 | 1657.5 |
| 22.5° | 1790.2 | 1749.5 | 1651.4 | 1586.6 | 1576.0 |
| 25° | 1743.4 | 1690.6 | 1579.0 | 1509.7 | 1490.1 |
| 27.5° | 1690.6 | 1627.3 | 1505.1 | 1426.7 | 1402.6 |
| 30° | 1633.3 | 1560.9 | 1426.7 | 1339.2 | 1313.6 |
| 32.5° | 1574.5 | 1493.1 | 1346.8 | 1253.3 | 1224.6 |
| 35° | 1511.2 | 1422.2 | 1265.3 | 1165.8 | 1134.1 |
| 37.5° | 1447.8 | 1351.3 | 1185.4 | 1081.3 | 1048.2 |
| 40° | 1381.5 | 1275.9 | 1102.5 | 995.4 | 960.7 |
| 42.5° | 1315.1 | 1202.0 | 1021.0 | 912.4 | 876.2 |
| 45° | 1244.2 | 1126.6 | 939.6 | 825.0 | 794.8 |
| 47.5° | 1176.4 | 1049.7 | 859.6 | 748.0 | 714.9 |
| 50° | 1101.0 | 969.7 | 781.2 | 669.6 | 639.5 |
| 52.5° | 1031.6 | 891.3 | 702.8 | 598.7 | 567.1 |
| 55° | 957.7 | 812.9 | 625.9 | 526.3 | 496.2 |
| 57.5° | 880.8 | 734.5 | 552.0 | 458.5 | 429.8 |
| 60° | 805.4 | 656.0 | 479.6 | 393.6 | 380.1 |
| 62.5° | 728.4 | 582.1 | 411.7 | 345.4 | 336.3 |
| 65° | 647.0 | 505.2 | 343.9 | 304.6 | 298.6 |
| 67.5° | 570.1 | 431.3 | 289.6 | 266.9 | 260.9 |
| 70° | 491.7 | 357.4 | 248.8 | 229.2 | 226.2 |
| 72.5° | 414.7 | 286.5 | 209.6 | 196.1 | 193.0 |
| 75° | 336.3 | 223.2 | 173.4 | 162.9 | 161.4 |
| 77.5° | 263.9 | 167.4 | 137.2 | 132.7 | 129.7 |
| 80° | 196.1 | 125.2 | 105.6 | 102.6 | 101.0 |
| 82.5° | 134.2 | 86.0 | 75.4 | 75.4 | 72.4 |
| 85° | 76.9 | 52.8 | 46.8 | 48.3 | 46.8 |
| 87.5° | 28.7 | 22.6 | 21.1 | 22.6 | 22.6 |
| 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 | 20.54 | 22.08 | 20.90 | 22.39 | 22.70 | 16.92 | 18.46 | 17.28 | 18.77 | 19.09 |
| | 3H | 22.32 | 23.70 | 22.70 | 24.03 | 24.39 | 18.39 | 19.78 | 18.77 | 20.10 | 20.47 |
| | 4H | 22.97 | 24.27 | 23.37 | 24.62 | 25.00 | 18.98 | 20.28 | 19.38 | 20.63 | 21.01 |
| | 6H | 23.45 | 24.65 | 23.86 | 25.02 | 25.41 | 19.45 | 20.65 | 19.86 | 21.01 | 21.41 |
| | 8H | 23.60 | 24.75 | 24.03 | 25.14 | 25.54 | 19.61 | 20.75 | 20.03 | 21.14 | 21.54 |
| | 12H | 23.70 | 24.80 | 24.13 | 25.18 | 25.61 | 19.72 | 20.82 | 20.15 | 21.20 | 21.63 |
| 4H | 2H | 20.67 | 21.97 | 21.07 | 22.32 | 22.70 | 17.59 | 18.89 | 17.99 | 19.24 | 19.62 |
| | 3H | 22.64 | 23.72 | 23.05 | 24.12 | 24.52 | 19.27 | 20.35 | 19.68 | 20.75 | 21.15 |
| | 4H | 23.39 | 24.36 | 23.82 | 24.77 | 25.21 | 19.97 | 20.95 | 20.41 | 21.36 | 21.80 |
| | 6H | 23.98 | 24.83 | 24.44 | 25.27 | 25.73 | 20.56 | 21.41 | 21.02 | 21.85 | 22.31 |
| | 8H | 24.19 | 24.98 | 24.65 | 25.42 | 25.89 | 20.77 | 21.56 | 21.23 | 22.01 | 22.47 |
| | 12H | 24.33 | 25.04 | 24.82 | 25.52 | 25.99 | 20.93 | 21.64 | 21.41 | 22.12 | 22.59 |
| 8H | 4H | 23.45 | 24.24 | 23.91 | 24.69 | 25.15 | 20.34 | 21.13 | 20.80 | 21.58 | 22.04 |
| | 6H | 24.11 | 24.76 | 24.60 | 25.25 | 25.73 | 21.04 | 21.70 | 21.54 | 22.19 | 22.66 |
| | 8H | 24.36 | 24.95 | 24.88 | 25.46 | 25.95 | 21.32 | 21.91 | 21.84 | 22.42 | 22.91 |
| | 12H | 24.57 | 25.09 | 25.08 | 25.58 | 26.15 | 21.57 | 22.09 | 22.08 | 22.58 | 23.14 |
| 12H | 4H | 23.44 | 24.15 | 23.92 | 24.63 | 25.10 | 20.39 | 21.10 | 20.87 | 21.57 | 22.04 |
| | 6H | 24.10 | 24.69 | 24.62 | 25.20 | 25.69 | 21.11 | 21.70 | 21.63 | 22.21 | 22.70 |
| | 8H | 24.40 | 24.92 | 24.91 | 25.41 | 25.97 | 21.46 | 21.98 | 21.96 | 22.47 | 23.03 |