

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: P1217432

Luminaire Tested: S124DRP-S865D930-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217432
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G2-2509-563-3)
Test Lab: INNOVATION CENTER
Issue Date: 4/9/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DRP-S865D930-X4F0-XX-UDD-G-W
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

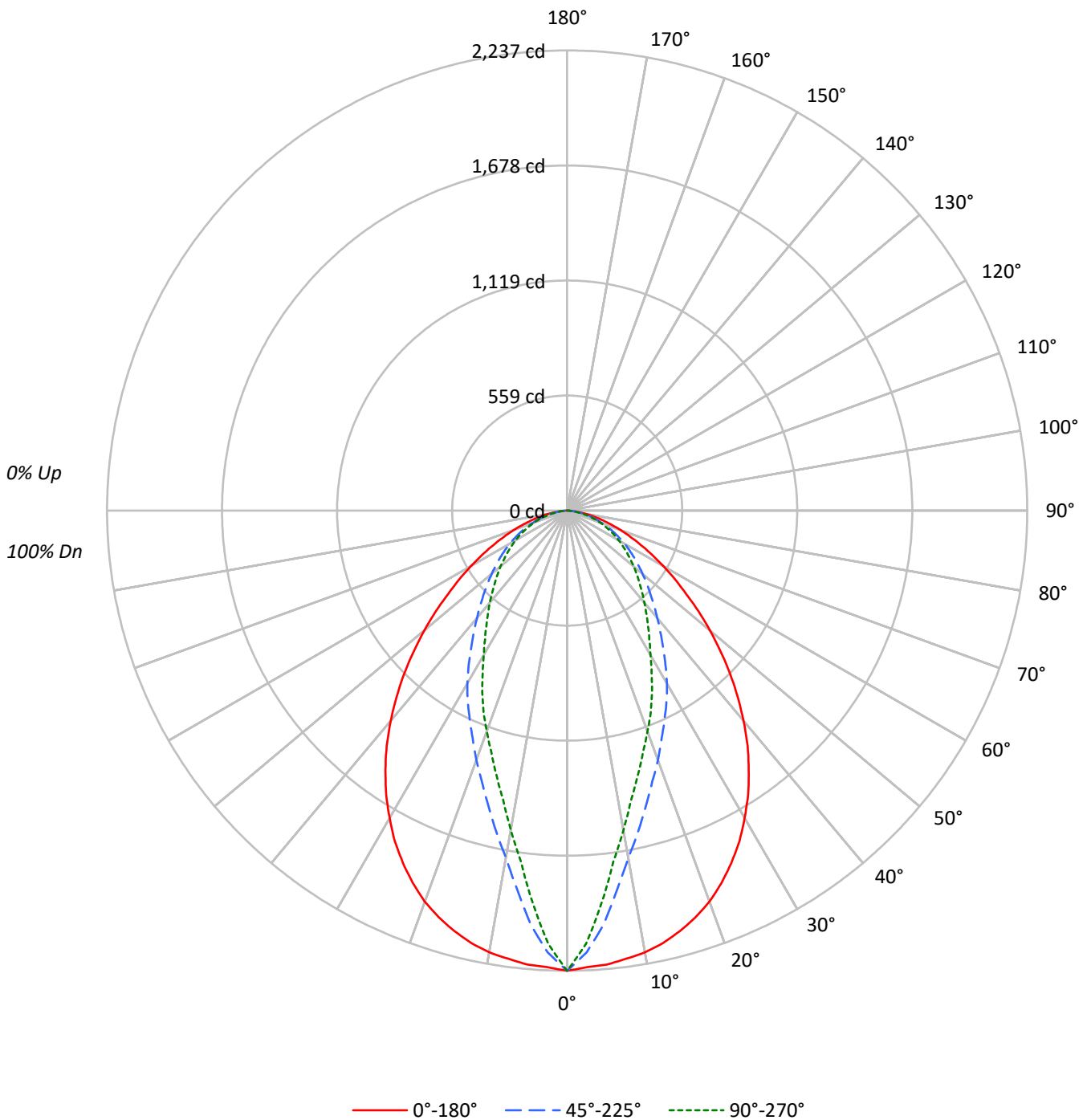
Lumens per Lamp: N/A
Luminaire Lumens: 3137.3 lumens
Efficiency: N/A
Efficacy: 90.4 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 34.7
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





TEST NUMBER: P1217432

CATALOG NUMBER: S124DRP-S865D930-X4F0-XX-UDD-G-W

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 | 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 110 | 106 | 102 | 99 | 108 | 104 | 100 | 97 | 100 | 97 | 94 | 96 | 94 | 92 | 92 | 90 | 89 | 87 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 102 | 94 | 88 | 83 | 99 | 92 | 87 | 82 | 89 | 84 | 80 | 86 | 82 | 79 | 83 | 80 | 77 | 75 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 94 | 84 | 77 | 71 | 91 | 83 | 76 | 71 | 80 | 74 | 69 | 77 | 72 | 68 | 75 | 71 | 67 | 65 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 87 | 76 | 68 | 62 | 84 | 75 | 67 | 62 | 72 | 66 | 61 | 70 | 64 | 60 | 68 | 63 | 59 | 57 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | 80 | 69 | 61 | 55 | 78 | 68 | 60 | 54 | 66 | 59 | 54 | 64 | 58 | 53 | 62 | 57 | 53 | 51 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | 75 | 63 | 55 | 49 | 73 | 62 | 54 | 49 | 60 | 53 | 48 | 58 | 52 | 48 | 57 | 52 | 47 | 45 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | 70 | 58 | 50 | 44 | 68 | 57 | 49 | 44 | 55 | 48 | 43 | 54 | 48 | 43 | 53 | 47 | 43 | 41 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | 66 | 53 | 45 | 40 | 64 | 52 | 45 | 40 | 51 | 44 | 40 | 50 | 44 | 39 | 49 | 43 | 39 | 37 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | 62 | 49 | 42 | 36 | 60 | 49 | 41 | 36 | 48 | 41 | 36 | 47 | 40 | 36 | 46 | 40 | 36 | 34 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | 58 | 46 | 38 | 34 | 57 | 45 | 38 | 34 | 44 | 38 | 33 | 43 | 37 | 33 | 43 | 37 | 33 | 31 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 19778 | 19778 | 19778 |
| 5° | 19661 | 17938 | 17003 |
| 10° | 19579 | 15378 | 14149 |
| 15° | 19376 | 13569 | 12172 |
| 20° | 19036 | 12141 | 10750 |
| 25° | 18430 | 10926 | 9522 |
| 30° | 17618 | 9905 | 8266 |
| 35° | 16617 | 8781 | 7400 |
| 40° | 15393 | 7867 | 6741 |
| 45° | 13992 | 7156 | 6219 |
| 50° | 12465 | 6584 | 5813 |
| 55° | 10872 | 6120 | 5435 |
| 60° | 9545 | 5696 | 5121 |
| 65° | 8264 | 5255 | 4780 |
| 70° | 7155 | 4762 | 4405 |
| 75° | 5954 | 4205 | 3870 |
| 80° | 4613 | 3411 | 3162 |
| 85° | 2901 | 2303 | 2100 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 13992 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 187.3 | 6.0 |
| 10°-20° | 444.8 | 14.2 |
| 20°-30° | 568.4 | 18.1 |
| 30°-40° | 577.3 | 18.4 |
| 40°-50° | 511.7 | 16.3 |
| 50°-60° | 402.1 | 12.8 |
| 60°-70° | 273.8 | 8.7 |
| 70°-80° | 140.6 | 4.5 |
| 80°-90° | 31.2 | 1.0 |
| 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° | 1200.5 | 38.3 |
| 0°-40° | 1777.8 | 56.7 |
| 0°-60° | 2691.7 | 85.8 |
| 0°-90° | 3137.3 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3137.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2237 | 2237 | 2237 | 2237 | 2237 | |
| 5° | 2215 | 2159 | 2021 | 1943 | 1916 | 210 |
| 15° | 2117 | 1767 | 1482 | 1360 | 1330 | 596 |
| 25° | 1889 | 1385 | 1120 | 1013 | 976 | 868 |
| 35° | 1540 | 1049 | 814 | 710 | 686 | 961 |
| 45° | 1119 | 756 | 572 | 513 | 497 | 862 |
| 55° | 705 | 503 | 397 | 362 | 353 | 637 |
| 65° | 395 | 305 | 251 | 233 | 228 | 395 |
| 75° | 174 | 144 | 123 | 117 | 113 | 187 |
| 85° | 29 | 27 | 23 | 23 | 21 | 38 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P1217432

CATALOG NUMBER: S124DRP-S865D930-X4F0-XX-UDD-G-W

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2237.0 | 2237.0 | 2237.0 | 2237.0 | 2237.0 |
| 2.5° | 2221.2 | 2224.2 | 2150.3 | 2123.7 | 2107.9 |
| 5° | 2215.3 | 2159.1 | 2021.2 | 1943.4 | 1915.8 |
| 7.5° | 2197.6 | 2075.4 | 1857.7 | 1750.4 | 1721.8 |
| 10° | 2180.8 | 1979.9 | 1712.9 | 1606.6 | 1576.0 |
| 12.5° | 2153.2 | 1874.5 | 1596.7 | 1474.6 | 1438.1 |
| 15° | 2116.8 | 1767.1 | 1482.4 | 1360.3 | 1329.8 |
| 17.5° | 2073.4 | 1664.7 | 1379.0 | 1261.8 | 1228.3 |
| 20° | 2023.2 | 1570.1 | 1290.4 | 1170.2 | 1142.6 |
| 22.5° | 1960.2 | 1476.5 | 1199.7 | 1091.4 | 1060.9 |
| 25° | 1889.2 | 1384.9 | 1120.0 | 1012.6 | 976.1 |
| 27.5° | 1813.4 | 1296.3 | 1046.1 | 926.9 | 888.5 |
| 30° | 1725.7 | 1211.6 | 970.2 | 845.1 | 809.7 |
| 32.5° | 1637.1 | 1127.8 | 890.4 | 772.2 | 743.7 |
| 35° | 1539.6 | 1049.0 | 813.6 | 710.2 | 685.6 |
| 37.5° | 1441.1 | 973.2 | 744.7 | 654.0 | 632.4 |
| 40° | 1333.7 | 899.3 | 681.6 | 601.8 | 584.1 |
| 42.5° | 1226.3 | 825.4 | 624.5 | 555.5 | 538.8 |
| 45° | 1119.0 | 755.5 | 572.3 | 513.2 | 497.4 |
| 47.5° | 1010.6 | 686.6 | 524.0 | 471.8 | 459.0 |
| 50° | 906.2 | 621.5 | 478.7 | 433.4 | 422.6 |
| 52.5° | 804.8 | 560.5 | 435.4 | 397.0 | 385.1 |
| 55° | 705.3 | 503.3 | 397.0 | 361.5 | 352.6 |
| 57.5° | 620.6 | 450.1 | 358.5 | 328.0 | 321.1 |
| 60° | 539.8 | 398.9 | 322.1 | 296.5 | 289.6 |
| 62.5° | 463.9 | 351.6 | 285.7 | 265.0 | 260.0 |
| 65° | 395.0 | 305.4 | 251.2 | 233.4 | 228.5 |
| 67.5° | 331.9 | 263.0 | 215.7 | 202.9 | 199.0 |
| 70° | 276.8 | 220.6 | 184.2 | 173.4 | 170.4 |
| 72.5° | 221.6 | 180.3 | 152.7 | 144.8 | 141.8 |
| 75° | 174.3 | 143.8 | 123.1 | 117.2 | 113.3 |
| 77.5° | 131.0 | 109.3 | 94.6 | 89.6 | 86.7 |
| 80° | 90.6 | 77.8 | 67.0 | 65.0 | 62.1 |
| 82.5° | 57.1 | 49.3 | 43.3 | 42.4 | 39.4 |
| 85° | 28.6 | 26.6 | 22.7 | 22.7 | 20.7 |
| 87.5° | 9.9 | 8.9 | 8.9 | 8.9 | 7.9 |
| 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 | 19.27 | 20.76 | 19.64 | 21.07 | 21.39 | 16.60 | 18.09 | 16.96 | 18.40 | 18.71 |
| | 3H | 20.87 | 22.20 | 21.24 | 22.53 | 22.89 | 18.20 | 19.53 | 18.58 | 19.86 | 20.22 |
| | 4H | 21.40 | 22.65 | 21.80 | 22.99 | 23.37 | 18.76 | 20.01 | 19.16 | 20.35 | 20.73 |
| | 6H | 21.73 | 22.88 | 22.14 | 23.25 | 23.64 | 19.11 | 20.27 | 19.52 | 20.63 | 21.02 |
| | 8H | 21.80 | 22.90 | 22.23 | 23.29 | 23.69 | 19.20 | 20.30 | 19.63 | 20.69 | 21.09 |
| | 12H | 21.83 | 22.88 | 22.26 | 23.27 | 23.70 | 19.23 | 20.29 | 19.67 | 20.67 | 21.10 |
| 4H | 2H | 19.50 | 20.75 | 19.90 | 21.10 | 21.48 | 17.27 | 18.52 | 17.68 | 18.87 | 19.25 |
| | 3H | 21.29 | 22.32 | 21.70 | 22.72 | 23.12 | 19.06 | 20.10 | 19.47 | 20.50 | 20.90 |
| | 4H | 21.93 | 22.86 | 22.36 | 23.27 | 23.71 | 19.73 | 20.66 | 20.16 | 21.07 | 21.51 |
| | 6H | 22.37 | 23.18 | 22.83 | 23.62 | 24.09 | 20.18 | 20.99 | 20.64 | 21.44 | 21.90 |
| | 8H | 22.48 | 23.24 | 22.95 | 23.68 | 24.15 | 20.30 | 21.06 | 20.76 | 21.50 | 21.97 |
| | 12H | 22.54 | 23.22 | 23.02 | 23.70 | 24.17 | 20.36 | 21.03 | 20.84 | 21.51 | 21.98 |
| 8H | 4H | 22.03 | 22.79 | 22.49 | 23.23 | 23.70 | 20.03 | 20.78 | 20.49 | 21.23 | 21.69 |
| | 6H | 22.55 | 23.17 | 23.05 | 23.66 | 24.14 | 20.58 | 21.20 | 21.07 | 21.69 | 22.17 |
| | 8H | 22.70 | 23.26 | 23.22 | 23.77 | 24.26 | 20.74 | 21.30 | 21.26 | 21.81 | 22.30 |
| | 12H | 22.80 | 23.30 | 23.31 | 23.79 | 24.35 | 20.85 | 21.34 | 21.36 | 21.84 | 22.40 |
| 12H | 4H | 22.02 | 22.70 | 22.50 | 23.17 | 23.65 | 20.05 | 20.72 | 20.53 | 21.20 | 21.67 |
| | 6H | 22.54 | 23.10 | 23.06 | 23.61 | 24.10 | 20.61 | 21.17 | 21.13 | 21.68 | 22.17 |
| | 8H | 22.73 | 23.23 | 23.24 | 23.72 | 24.29 | 20.83 | 21.32 | 21.34 | 21.81 | 22.38 |