

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: P1060831

Luminaire Tested: S124RDRP-H350D930-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060831
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-39)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-H350D930-X4F0-XX-UDD-BVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

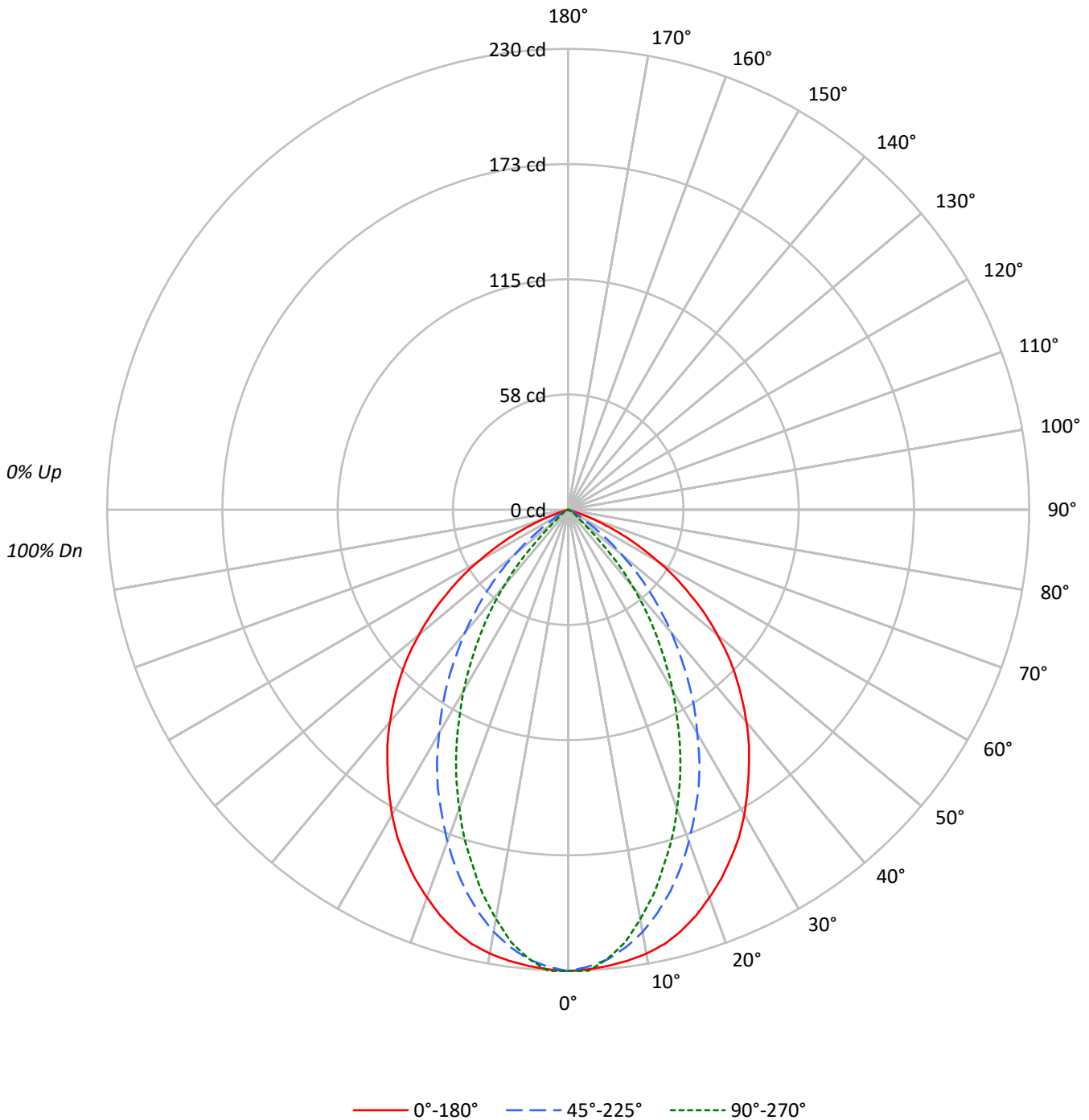
Lumens per Lamp: N/A
Luminaire Lumens: 300.7 lumens
Efficiency: N/A
Efficacy: 25.7 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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





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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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 112 | 109 | 106 | 103 | 110 | 107 | 104 | 102 | 103 | 101 | 99 | 99 | 97 | 96 | 96 | 94 | 93 | 91 |
| 2 | 105 | 99 | 95 | 90 | 103 | 98 | 93 | 89 | 94 | 91 | 87 | 91 | 88 | 86 | 88 | 86 | 84 | 82 |
| 3 | 98 | 91 | 85 | 80 | 96 | 89 | 84 | 79 | 86 | 82 | 78 | 84 | 80 | 77 | 82 | 78 | 75 | 74 |
| 4 | 92 | 83 | 76 | 71 | 90 | 82 | 76 | 71 | 79 | 74 | 70 | 77 | 73 | 69 | 75 | 71 | 68 | 66 |
| 5 | 86 | 76 | 69 | 64 | 84 | 75 | 69 | 64 | 73 | 67 | 63 | 71 | 66 | 62 | 70 | 65 | 62 | 60 |
| 6 | 81 | 70 | 63 | 58 | 79 | 69 | 63 | 58 | 68 | 62 | 57 | 66 | 61 | 57 | 65 | 60 | 56 | 55 |
| 7 | 76 | 65 | 58 | 53 | 74 | 64 | 57 | 53 | 63 | 57 | 52 | 61 | 56 | 52 | 60 | 55 | 52 | 50 |
| 8 | 71 | 60 | 53 | 48 | 70 | 60 | 53 | 48 | 58 | 52 | 48 | 57 | 52 | 48 | 56 | 51 | 47 | 46 |
| 9 | 67 | 56 | 49 | 44 | 66 | 56 | 49 | 44 | 54 | 48 | 44 | 54 | 48 | 44 | 53 | 48 | 44 | 42 |
| 10 | 64 | 52 | 46 | 41 | 63 | 52 | 45 | 41 | 51 | 45 | 41 | 50 | 45 | 41 | 49 | 44 | 41 | 39 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 1983 | 1983 | 1983 |
| 5° | 1976 | 1947 | 1945 |
| 10° | 1967 | 1871 | 1813 |
| 15° | 1941 | 1756 | 1640 |
| 20° | 1888 | 1614 | 1455 |
| 25° | 1824 | 1461 | 1255 |
| 30° | 1747 | 1281 | 1039 |
| 35° | 1651 | 1099 | 808 |
| 40° | 1556 | 902 | 565 |
| 45° | 1443 | 693 | 280 |
| 50° | 1302 | 468 | 94 |
| 55° | 1124 | 240 | 65 |
| 60° | 901 | 86 | 47 |
| 65° | 617 | 47 | 20 |
| 70° | 277 | 25 | 18 |
| 75° | 0 | 10 | 10 |
| 80° | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1443 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 21.3 | 7.1 |
| 10°-20° | 55.7 | 18.5 |
| 20°-30° | 72.2 | 24.0 |
| 30°-40° | 68.6 | 22.8 |
| 40°-50° | 48.6 | 16.1 |
| 50°-60° | 24.9 | 8.3 |
| 60°-70° | 8.7 | 2.9 |
| 70°-80° | 0.7 | 0.2 |
| 80°-90° | 0.0 | 0.0 |
| 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° | 149.2 | 49.6 |
| 0°-40° | 217.8 | 72.4 |
| 0°-60° | 291.3 | 96.9 |
| 0°-90° | 300.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 300.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 230 | 230 | 230 | 230 | 230 | |
| 5° | 229 | 229 | 225 | 225 | 225 | 22 |
| 15° | 218 | 211 | 197 | 188 | 184 | 61 |
| 25° | 192 | 177 | 154 | 138 | 132 | 88 |
| 35° | 157 | 134 | 104 | 84 | 77 | 98 |
| 45° | 118 | 91 | 57 | 33 | 23 | 91 |
| 55° | 75 | 49 | 16 | 5 | 4 | 67 |
| 65° | 30 | 15 | 2 | 1 | 1 | 30 |
| 75° | 0 | 0 | 0 | 0 | 0 | 2 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CATALOG NUMBER: S124RDRP-H350D930-X4F0-XX-UDD-BVL-B

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 230.3 | 230.3 | 230.3 | 230.3 | 230.3 |
| 2.5° | 229.6 | 230.3 | 228.3 | 230.0 | 230.3 |
| 5° | 228.6 | 229.0 | 225.3 | 225.3 | 225.0 |
| 7.5° | 227.0 | 226.3 | 220.3 | 218.0 | 217.7 |
| 10° | 225.0 | 222.7 | 214.0 | 209.0 | 207.3 |
| 12.5° | 222.0 | 217.7 | 206.0 | 198.7 | 196.7 |
| 15° | 217.7 | 211.0 | 197.0 | 187.7 | 184.0 |
| 17.5° | 212.3 | 203.7 | 187.0 | 175.7 | 172.1 |
| 20° | 206.0 | 195.0 | 176.1 | 163.4 | 158.8 |
| 22.5° | 199.4 | 186.7 | 164.7 | 150.4 | 145.8 |
| 25° | 192.0 | 177.1 | 153.8 | 137.5 | 132.1 |
| 27.5° | 184.4 | 166.7 | 141.8 | 124.8 | 117.8 |
| 30° | 175.7 | 156.4 | 128.8 | 111.2 | 104.5 |
| 32.5° | 166.4 | 145.1 | 117.1 | 98.2 | 90.2 |
| 35° | 157.1 | 134.1 | 104.5 | 84.2 | 76.9 |
| 37.5° | 148.1 | 123.8 | 91.9 | 70.6 | 63.6 |
| 40° | 138.4 | 112.5 | 80.2 | 58.2 | 50.3 |
| 42.5° | 128.5 | 101.5 | 68.2 | 45.6 | 36.9 |
| 45° | 118.5 | 91.2 | 56.9 | 32.6 | 23.0 |
| 47.5° | 108.5 | 80.2 | 45.9 | 20.6 | 12.3 |
| 50° | 97.2 | 69.6 | 34.9 | 11.0 | 7.0 |
| 52.5° | 86.5 | 59.6 | 25.0 | 6.3 | 5.3 |
| 55° | 74.9 | 49.3 | 16.0 | 4.7 | 4.3 |
| 57.5° | 63.9 | 39.3 | 9.0 | 3.7 | 3.3 |
| 60° | 52.3 | 30.3 | 5.0 | 3.0 | 2.7 |
| 62.5° | 40.6 | 22.0 | 3.3 | 2.0 | 1.7 |
| 65° | 30.3 | 14.6 | 2.3 | 1.3 | 1.0 |
| 67.5° | 20.0 | 8.3 | 1.7 | 0.7 | 0.7 |
| 70° | 11.0 | 4.0 | 1.0 | 0.7 | 0.7 |
| 72.5° | 4.0 | 1.3 | 0.7 | 0.3 | 0.3 |
| 75° | 0.0 | 0.3 | 0.3 | 0.3 | 0.3 |
| 77.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 |
| 80° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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 | 10.91 | 12.17 | 11.28 | 12.48 | 12.80 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 3H | 11.19 | 12.29 | 11.57 | 12.62 | 12.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 4H | 11.11 | 12.14 | 11.52 | 12.49 | 12.87 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 6H | 11.03 | 11.96 | 11.44 | 12.34 | 12.73 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 8H | 10.98 | 11.87 | 11.41 | 12.26 | 12.66 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 12H | 10.93 | 11.78 | 11.37 | 12.16 | 12.59 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4H | 2H | 10.68 | 11.71 | 11.09 | 12.06 | 12.45 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 3H | 10.97 | 11.80 | 11.38 | 12.20 | 12.61 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 4H | 10.88 | 11.61 | 11.31 | 12.03 | 12.48 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 6H | 10.79 | 11.42 | 11.25 | 11.87 | 12.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 8H | 10.73 | 11.31 | 11.20 | 11.76 | 12.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 12H | 10.67 | 11.19 | 11.16 | 11.68 | 12.15 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8H | 4H | 10.73 | 11.31 | 11.20 | 11.76 | 12.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 6H | 10.62 | 11.09 | 11.12 | 11.59 | 12.08 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 8H | 10.55 | 10.98 | 11.08 | 11.50 | 11.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 12H | 10.50 | 10.88 | 11.02 | 11.37 | 11.95 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12H | 4H | 10.68 | 11.19 | 11.16 | 11.68 | 12.15 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 6H | 10.55 | 10.98 | 11.08 | 11.50 | 11.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 8H | 10.50 | 10.88 | 11.02 | 11.37 | 11.95 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |