

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: P1217274

Luminaire Tested: S122DRP-H485D830-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217274
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G3-2511-596-2)
Test Lab: INNOVATION CENTER
Issue Date: 4/9/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122DRP-H485D830-X4F0-XX-UDD-G-W
Description: DEFINE 2, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

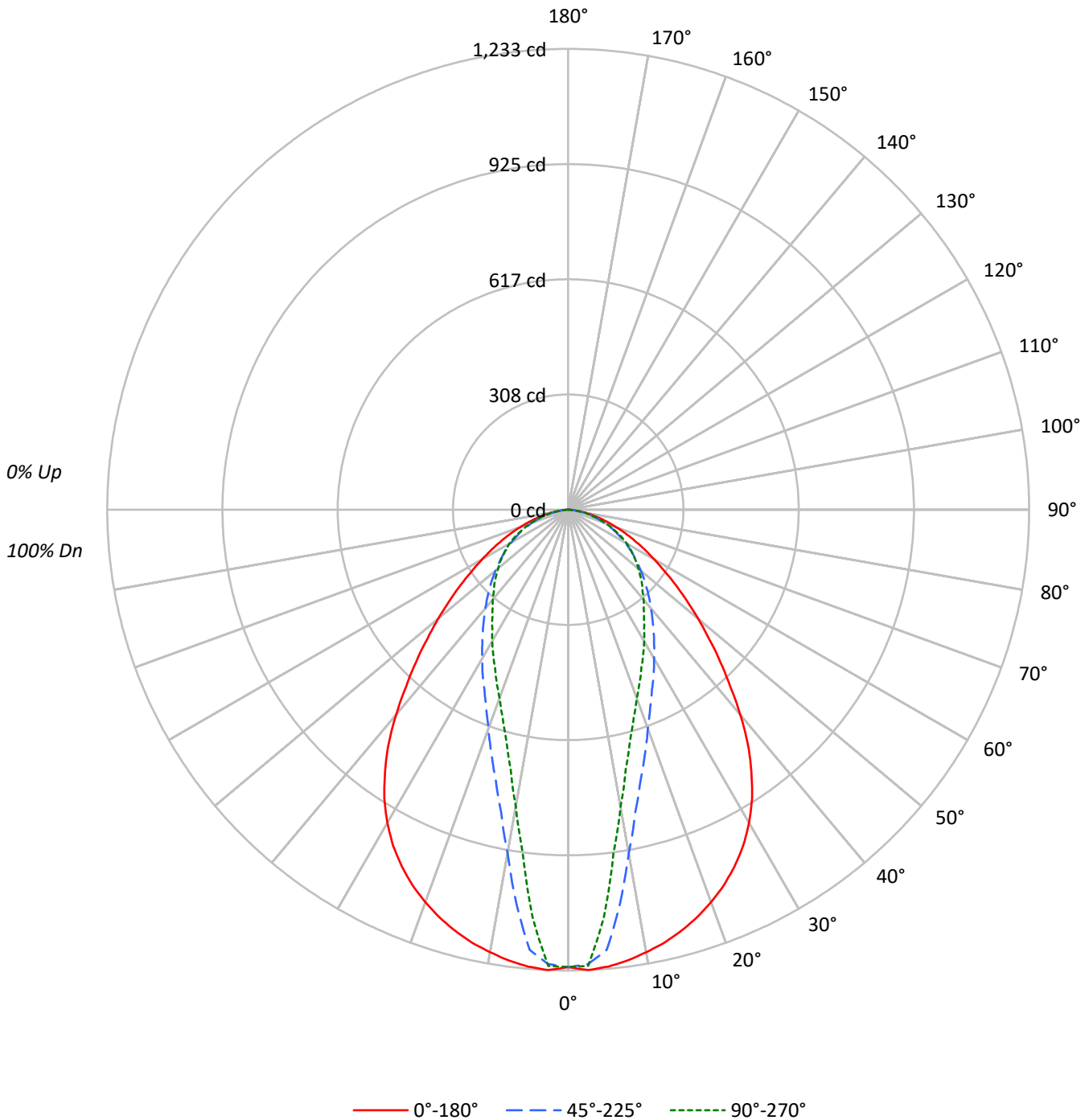
Lumens per Lamp: N/A
Luminaire Lumens: 1644.6 lumens
Efficiency: N/A
Efficacy: 95.1 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 0.5 / 0.8
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 17.3
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





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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 | 110 | 106 | 102 | 99 | 108 | 104 | 100 | 97 | 100 | 97 | 94 | 96 | 93 | 91 | 92 | 90 | 89 | 87 |
| 2 | 101 | 94 | 88 | 83 | 99 | 92 | 87 | 82 | 89 | 84 | 80 | 86 | 82 | 78 | 83 | 79 | 77 | 75 |
| 3 | 93 | 84 | 77 | 71 | 91 | 82 | 76 | 70 | 80 | 74 | 69 | 77 | 72 | 68 | 74 | 70 | 67 | 65 |
| 4 | 86 | 76 | 68 | 62 | 84 | 74 | 67 | 61 | 72 | 65 | 60 | 70 | 64 | 60 | 68 | 63 | 59 | 57 |
| 5 | 80 | 69 | 60 | 54 | 78 | 67 | 60 | 54 | 65 | 59 | 53 | 63 | 58 | 53 | 62 | 57 | 52 | 50 |
| 6 | 75 | 63 | 54 | 48 | 73 | 62 | 54 | 48 | 60 | 53 | 48 | 58 | 52 | 47 | 57 | 51 | 47 | 45 |
| 7 | 70 | 57 | 49 | 44 | 68 | 57 | 49 | 44 | 55 | 48 | 43 | 54 | 48 | 43 | 52 | 47 | 43 | 41 |
| 8 | 65 | 53 | 45 | 40 | 64 | 52 | 45 | 40 | 51 | 44 | 39 | 50 | 44 | 39 | 49 | 43 | 39 | 37 |
| 9 | 62 | 49 | 41 | 36 | 60 | 49 | 41 | 36 | 47 | 41 | 36 | 46 | 40 | 36 | 45 | 40 | 36 | 34 |
| 10 | 58 | 46 | 38 | 33 | 57 | 45 | 38 | 33 | 44 | 38 | 33 | 43 | 37 | 33 | 43 | 37 | 33 | 31 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 23186 | 23186 | 23186 |
| 5° | 23335 | 22485 | 20823 |
| 10° | 23126 | 17957 | 15525 |
| 15° | 22890 | 14675 | 12533 |
| 20° | 22525 | 12563 | 10813 |
| 25° | 22006 | 11090 | 9702 |
| 30° | 21172 | 10057 | 8897 |
| 35° | 19756 | 9214 | 8181 |
| 40° | 17716 | 8510 | 7753 |
| 45° | 15412 | 7955 | 7475 |
| 50° | 13378 | 7469 | 7207 |
| 55° | 11577 | 7065 | 7022 |
| 60° | 10038 | 6654 | 6847 |
| 65° | 8787 | 6240 | 6469 |
| 70° | 7567 | 5728 | 5944 |
| 75° | 6310 | 5044 | 5234 |
| 80° | 4942 | 4113 | 3971 |
| 85° | 3043 | 2630 | 2630 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 15412 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 105.4 | 6.4 |
| 10°-20° | 232.3 | 14.1 |
| 20°-30° | 285.1 | 17.3 |
| 30°-40° | 294.6 | 17.9 |
| 40°-50° | 266.1 | 16.2 |
| 50°-60° | 215.6 | 13.1 |
| 60°-70° | 151.1 | 9.2 |
| 70°-80° | 78.0 | 4.7 |
| 80°-90° | 16.4 | 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° | 622.8 | 37.9 |
| 0°-40° | 917.4 | 55.8 |
| 0°-60° | 1399.0 | 85.1 |
| 0°-90° | 1644.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1644.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1224 | 1224 | 1224 | 1224 | 1224 | |
| 5° | 1227 | 1224 | 1182 | 1129 | 1095 | 116 |
| 15° | 1167 | 984 | 748 | 667 | 639 | 329 |
| 25° | 1053 | 699 | 530 | 480 | 464 | 484 |
| 35° | 854 | 516 | 398 | 364 | 354 | 531 |
| 45° | 575 | 372 | 297 | 280 | 279 | 445 |
| 55° | 350 | 255 | 214 | 211 | 213 | 316 |
| 65° | 196 | 157 | 139 | 142 | 144 | 196 |
| 75° | 86 | 74 | 69 | 71 | 72 | 93 |
| 85° | 14 | 12 | 12 | 12 | 12 | 19 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P1217274

CATALOG NUMBER: S122DRP-H485D830-X4F0-XX-UDD-G-W

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1223.8 | 1223.8 | 1223.8 | 1223.8 | 1223.8 |
| 2.5° | 1232.8 | 1228.3 | 1216.8 | 1227.7 | 1221.9 |
| 5° | 1227.0 | 1224.5 | 1182.3 | 1129.4 | 1094.9 |
| 7.5° | 1216.8 | 1207.9 | 1062.3 | 962.1 | 928.3 |
| 10° | 1202.1 | 1157.4 | 933.4 | 840.1 | 807.0 |
| 12.5° | 1186.8 | 1081.5 | 829.3 | 741.8 | 711.8 |
| 15° | 1167.0 | 983.8 | 748.2 | 667.1 | 639.0 |
| 17.5° | 1144.0 | 898.9 | 683.7 | 605.9 | 583.5 |
| 20° | 1117.2 | 825.5 | 623.1 | 554.8 | 536.3 |
| 22.5° | 1087.9 | 763.5 | 572.7 | 517.1 | 499.9 |
| 25° | 1052.7 | 699.1 | 530.5 | 480.1 | 464.1 |
| 27.5° | 1013.8 | 649.9 | 495.4 | 448.2 | 434.8 |
| 30° | 967.8 | 602.0 | 459.7 | 417.5 | 406.7 |
| 32.5° | 915.5 | 557.3 | 427.7 | 390.7 | 377.9 |
| 35° | 854.2 | 516.5 | 398.4 | 364.5 | 353.7 |
| 37.5° | 789.1 | 476.3 | 370.3 | 340.9 | 332.0 |
| 40° | 716.3 | 441.1 | 344.1 | 317.9 | 313.5 |
| 42.5° | 641.6 | 406.0 | 320.5 | 298.1 | 294.3 |
| 45° | 575.2 | 372.2 | 296.9 | 280.3 | 279.0 |
| 47.5° | 510.7 | 341.6 | 275.2 | 262.4 | 261.1 |
| 50° | 453.9 | 309.6 | 253.4 | 245.2 | 244.5 |
| 52.5° | 399.6 | 281.5 | 233.0 | 228.6 | 229.8 |
| 55° | 350.5 | 254.7 | 213.9 | 211.3 | 212.6 |
| 57.5° | 305.2 | 229.8 | 194.7 | 195.4 | 197.3 |
| 60° | 264.9 | 204.3 | 175.6 | 178.1 | 180.7 |
| 62.5° | 229.8 | 180.7 | 157.0 | 160.9 | 163.4 |
| 65° | 196.0 | 157.0 | 139.2 | 142.4 | 144.3 |
| 67.5° | 166.0 | 134.7 | 121.3 | 125.1 | 125.8 |
| 70° | 136.6 | 114.3 | 103.4 | 107.3 | 107.3 |
| 72.5° | 111.1 | 93.2 | 86.2 | 88.1 | 88.7 |
| 75° | 86.2 | 74.1 | 68.9 | 70.9 | 71.5 |
| 77.5° | 65.1 | 56.2 | 52.3 | 54.3 | 53.6 |
| 80° | 45.3 | 39.6 | 37.7 | 37.0 | 36.4 |
| 82.5° | 28.1 | 24.9 | 23.0 | 23.6 | 23.0 |
| 85° | 14.0 | 12.1 | 12.1 | 12.1 | 12.1 |
| 87.5° | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| 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 | 19.42 | 20.92 | 19.78 | 21.23 | 21.55 | 17.92 | 19.42 | 18.28 | 19.73 | 20.05 |
| | 3H | 21.01 | 22.35 | 21.38 | 22.68 | 23.04 | 19.63 | 20.98 | 20.01 | 21.31 | 21.67 |
| | 4H | 21.53 | 22.79 | 21.93 | 23.14 | 23.52 | 20.21 | 21.47 | 20.61 | 21.82 | 22.20 |
| | 6H | 21.86 | 23.02 | 22.27 | 23.39 | 23.78 | 20.56 | 21.73 | 20.97 | 22.09 | 22.48 |
| | 8H | 21.93 | 23.04 | 22.36 | 23.43 | 23.83 | 20.64 | 21.74 | 21.06 | 22.13 | 22.54 |
| | 12H | 21.96 | 23.02 | 22.39 | 23.40 | 23.83 | 20.67 | 21.73 | 21.10 | 22.11 | 22.54 |
| 4H | 2H | 19.73 | 20.99 | 20.13 | 21.34 | 21.72 | 18.48 | 19.74 | 18.88 | 20.09 | 20.47 |
| | 3H | 21.51 | 22.56 | 21.92 | 22.96 | 23.36 | 20.40 | 21.44 | 20.81 | 21.84 | 22.25 |
| | 4H | 22.14 | 23.08 | 22.57 | 23.50 | 23.94 | 21.09 | 22.03 | 21.52 | 22.45 | 22.89 |
| | 6H | 22.57 | 23.39 | 23.03 | 23.84 | 24.30 | 21.54 | 22.36 | 22.00 | 22.81 | 23.27 |
| | 8H | 22.68 | 23.45 | 23.14 | 23.89 | 24.36 | 21.65 | 22.41 | 22.11 | 22.86 | 23.32 |
| | 12H | 22.73 | 23.41 | 23.21 | 23.89 | 24.36 | 21.70 | 22.38 | 22.18 | 22.86 | 23.33 |
| 8H | 4H | 22.29 | 23.05 | 22.75 | 23.50 | 23.97 | 21.33 | 22.10 | 21.79 | 22.54 | 23.01 |
| | 6H | 22.80 | 23.43 | 23.29 | 23.92 | 24.40 | 21.87 | 22.50 | 22.37 | 22.99 | 23.47 |
| | 8H | 22.94 | 23.51 | 23.46 | 24.02 | 24.51 | 22.02 | 22.58 | 22.53 | 23.09 | 23.58 |
| | 12H | 23.03 | 23.53 | 23.54 | 24.02 | 24.59 | 22.11 | 22.61 | 22.62 | 23.10 | 23.67 |
| 12H | 4H | 22.29 | 22.97 | 22.77 | 23.45 | 23.92 | 21.34 | 22.03 | 21.83 | 22.50 | 22.98 |
| | 6H | 22.80 | 23.36 | 23.31 | 23.87 | 24.36 | 21.89 | 22.46 | 22.40 | 22.97 | 23.45 |
| | 8H | 22.98 | 23.48 | 23.49 | 23.97 | 24.54 | 22.08 | 22.58 | 22.59 | 23.07 | 23.64 |