

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P644923

Luminaire Tested: OMN4DIP-SR4F0-50D150U935-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P644923
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-20)
Test Lab: INNOVATION CENTER
Issue Date: 2/16/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: OMN4DIP-SR4F0-50D150U935-CLBOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - BATWING LENS - 500 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1500 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

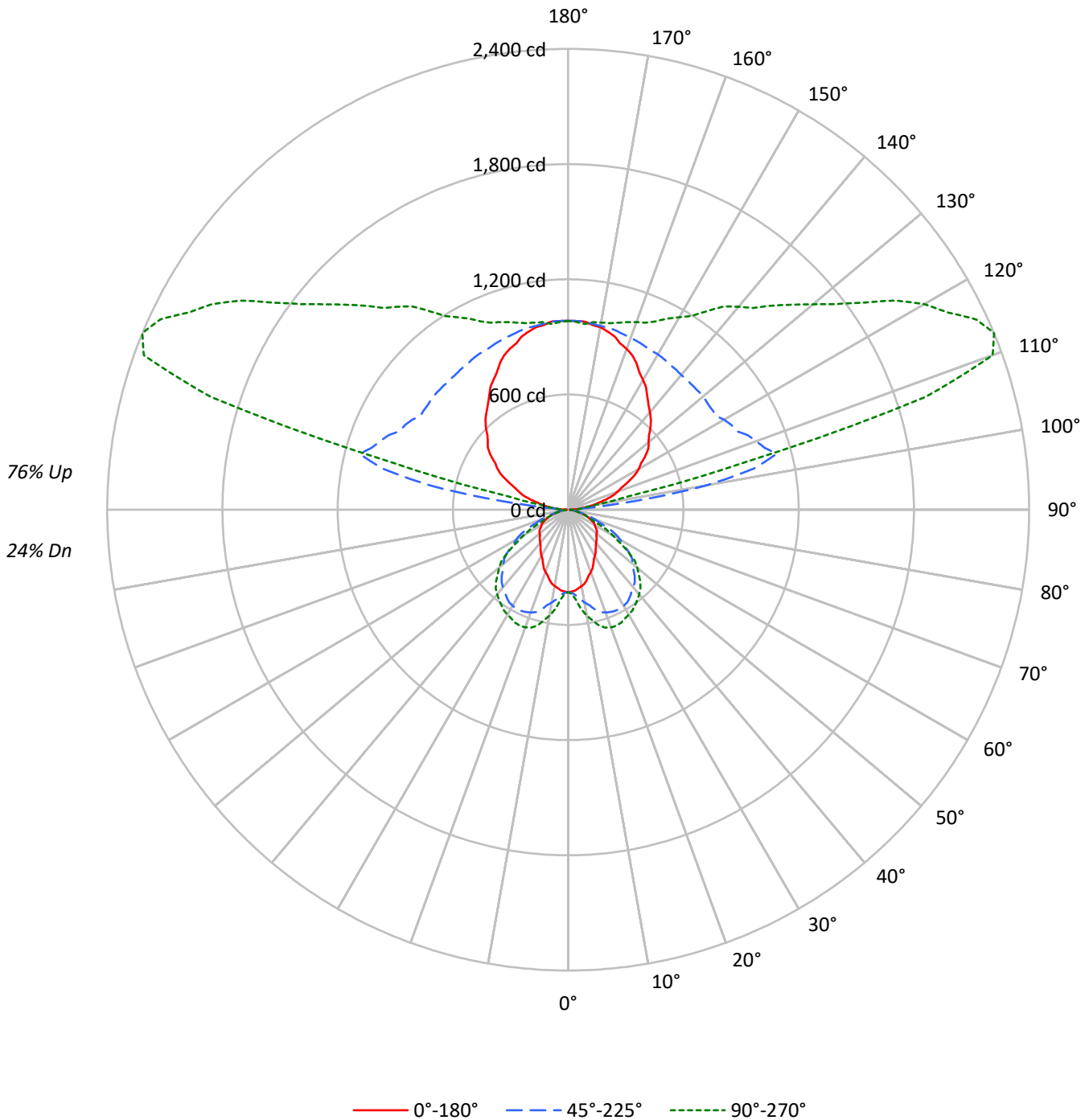
Lumens per Lamp: N/A
Luminaire Lumens: 6948.9 lumens
Efficiency: N/A
Efficacy: 110.5 lumens/watt
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 62.9
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





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| RF | 20 | | | | 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 |
| RCR | | | | | | | | | | | | | | | | | | | | |
| 0 | 101 | 101 | 101 | 101 | 90 | 90 | 90 | 90 | 69 | 69 | 69 | 50 | 50 | 50 | 32 | 32 | 32 | 24 | 24 | |
| 1 | 92 | 88 | 84 | 81 | 82 | 78 | 75 | 72 | 60 | 58 | 56 | 44 | 42 | 41 | 28 | 28 | 27 | 20 | 20 | |
| 2 | 84 | 77 | 71 | 66 | 74 | 68 | 63 | 59 | 53 | 49 | 47 | 38 | 36 | 34 | 25 | 24 | 23 | 17 | 17 | |
| 3 | 76 | 67 | 60 | 55 | 67 | 60 | 54 | 49 | 46 | 42 | 39 | 34 | 31 | 29 | 22 | 21 | 19 | 14 | 14 | |
| 4 | 70 | 59 | 52 | 46 | 62 | 53 | 47 | 42 | 41 | 37 | 33 | 30 | 27 | 25 | 20 | 18 | 16 | 12 | 12 | |
| 5 | 64 | 53 | 45 | 39 | 56 | 47 | 40 | 35 | 36 | 32 | 28 | 27 | 24 | 21 | 18 | 16 | 14 | 10 | 10 | |
| 6 | 58 | 47 | 39 | 34 | 52 | 42 | 35 | 30 | 33 | 28 | 24 | 24 | 21 | 18 | 16 | 14 | 12 | 9 | 9 | |
| 7 | 54 | 42 | 34 | 29 | 48 | 38 | 31 | 26 | 29 | 25 | 21 | 22 | 18 | 16 | 14 | 12 | 11 | 8 | 8 | |
| 8 | 50 | 38 | 31 | 25 | 44 | 34 | 28 | 23 | 27 | 22 | 19 | 20 | 16 | 14 | 13 | 11 | 10 | 7 | 7 | |
| 9 | 46 | 34 | 27 | 22 | 41 | 31 | 25 | 20 | 24 | 20 | 16 | 18 | 15 | 13 | 12 | 10 | 9 | 6 | 6 | |
| 10 | 43 | 31 | 24 | 20 | 38 | 28 | 22 | 18 | 22 | 18 | 15 | 16 | 13 | 11 | 11 | 9 | 8 | 6 | 6 | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|-------|-------|
| 0° | 6943 | 6943 | 6943 |
| 5° | 6840 | 7229 | 7650 |
| 10° | 6624 | 8034 | 9165 |
| 15° | 6302 | 8976 | 10447 |
| 20° | 5928 | 9794 | 11203 |
| 25° | 5523 | 10350 | 11580 |
| 30° | 5164 | 10776 | 11764 |
| 35° | 4928 | 10998 | 11964 |
| 40° | 4763 | 11129 | 12119 |
| 45° | 4772 | 11166 | 12125 |
| 50° | 4848 | 11052 | 11781 |
| 55° | 5067 | 10838 | 10697 |
| 60° | 5167 | 10075 | 8686 |
| 65° | 5234 | 8825 | 6380 |
| 70° | 5004 | 6939 | 4957 |
| 75° | 4492 | 5178 | 4180 |
| 80° | 3812 | 4091 | 3347 |
| 85° | 3705 | 3335 | 2779 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 12125 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 44.1 | 0.6 |
| 10°-20° | 146.6 | 2.1 |
| 20°-30° | 243.5 | 3.5 |
| 30°-40° | 307.1 | 4.4 |
| 40°-50° | 328.3 | 4.7 |
| 50°-60° | 289.8 | 4.2 |
| 60°-70° | 186.0 | 2.7 |
| 70°-80° | 82.5 | 1.2 |
| 80°-90° | 23.6 | 0.3 |
| 90°-100° | 126.5 | 1.8 |
| 100°-110° | 865.3 | 12.5 |
| 110°-120° | 1172.6 | 16.9 |
| 120°-130° | 954.0 | 13.7 |
| 130°-140° | 766.0 | 11.0 |
| 140°-150° | 603.8 | 8.7 |
| 150°-160° | 441.5 | 6.4 |
| 160°-170° | 274.2 | 3.9 |
| 170°-180° | 93.5 | 1.3 |
| 0°-30° | 434.1 | 6.2 |
| 0°-40° | 741.3 | 10.7 |
| 0°-60° | 1359.4 | 19.6 |
| 0°-90° | 1651.5 | 23.8 |
| 90°-120° | 2164.5 | 31.1 |
| 90°-150° | 4488.3 | 64.6 |
| 90°-180° | 5297.0 | 76.2 |
| 0°-180° | 6948.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|------|-------|------|------|
| 0° | 430 | 430 | 430 | 430 | 430 | |
| 5° | 422 | 435 | 446 | 461 | 472 | 40 |
| 15° | 377 | 435 | 537 | 602 | 625 | 106 |
| 25° | 310 | 420 | 581 | 635 | 650 | 143 |
| 35° | 250 | 384 | 558 | 594 | 607 | 157 |
| 45° | 209 | 328 | 489 | 519 | 531 | 161 |
| 55° | 180 | 258 | 385 | 387 | 380 | 160 |
| 65° | 137 | 173 | 231 | 188 | 167 | 134 |
| 75° | 72 | 80 | 83 | 71 | 67 | 77 |
| 85° | 20 | 17 | 18 | 16 | 15 | 21 |
| 90° | 7 | 13 | 18 | 24 | 23 | 7 |
| 95° | 60 | 99 | 54 | 59 | 70 | 63 |
| 105° | 199 | 301 | 1123 | 1431 | 946 | 210 |
| 115° | 345 | 417 | 968 | 2007 | 2344 | 343 |
| 125° | 492 | 558 | 912 | 1591 | 1881 | 437 |
| 135° | 606 | 673 | 916 | 1310 | 1503 | 467 |
| 145° | 718 | 778 | 922 | 1141 | 1262 | 451 |
| 155° | 841 | 872 | 940 | 1034 | 1083 | 386 |
| 165° | 934 | 946 | 965 | 990 | 1008 | 262 |
| 175° | 984 | 990 | 984 | 977 | 971 | 93 |
| 180° | 984 | 984 | 984 | 984 | 984 | |



TEST NUMBER: P644923

CATALOG NUMBER: OMN4DIP-SR4F0-50D150U935-CLBOOB-1DUDD-WW

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|--------|--------|--------|
| 0° | 430.0 | 430.0 | 430.0 | 430.0 | 430.0 |
| 2.5° | 426.8 | 433.1 | 433.2 | 435.7 | 438.8 |
| 5° | 422.0 | 434.7 | 446.0 | 461.2 | 472.0 |
| 7.5° | 412.0 | 434.7 | 470.8 | 506.2 | 523.8 |
| 10° | 404.0 | 435.3 | 490.0 | 537.5 | 559.0 |
| 12.5° | 393.6 | 435.1 | 509.2 | 566.4 | 591.0 |
| 15° | 377.0 | 434.7 | 537.0 | 601.5 | 625.0 |
| 17.5° | 357.8 | 432.9 | 558.8 | 623.5 | 644.0 |
| 20° | 345.0 | 431.0 | 570.0 | 631.5 | 652.0 |
| 22.5° | 330.6 | 426.8 | 576.4 | 635.4 | 654.4 |
| 25° | 310.0 | 420.5 | 581.0 | 635.3 | 650.0 |
| 27.5° | 289.8 | 411.4 | 581.2 | 627.3 | 639.8 |
| 30° | 277.0 | 404.1 | 578.0 | 619.3 | 631.0 |
| 32.5° | 265.8 | 396.0 | 571.6 | 609.7 | 622.2 |
| 35° | 250.0 | 384.0 | 558.0 | 594.3 | 607.0 |
| 37.5° | 236.4 | 370.2 | 540.8 | 576.1 | 591.0 |
| 40° | 226.0 | 359.0 | 528.0 | 563.3 | 575.0 |
| 42.5° | 218.0 | 347.1 | 512.8 | 547.2 | 557.4 |
| 45° | 209.0 | 328.3 | 489.0 | 519.3 | 531.0 |
| 47.5° | 199.4 | 308.9 | 461.6 | 490.2 | 497.8 |
| 50° | 193.0 | 294.7 | 440.0 | 466.1 | 469.0 |
| 52.5° | 189.0 | 279.7 | 419.2 | 435.6 | 436.2 |
| 55° | 180.0 | 258.2 | 385.0 | 386.8 | 380.0 |
| 57.5° | 168.0 | 233.1 | 341.6 | 331.8 | 315.4 |
| 60° | 160.0 | 215.7 | 312.0 | 292.5 | 269.0 |
| 62.5° | 152.0 | 199.1 | 280.8 | 249.2 | 221.8 |
| 65° | 137.0 | 173.2 | 231.0 | 187.5 | 167.0 |
| 67.5° | 119.6 | 144.6 | 181.4 | 140.3 | 126.6 |
| 70° | 106.0 | 125.6 | 147.0 | 114.8 | 105.0 |
| 72.5° | 93.2 | 106.5 | 119.0 | 94.9 | 89.8 |
| 75° | 72.0 | 79.8 | 83.0 | 70.9 | 67.0 |
| 77.5° | 53.0 | 53.4 | 57.6 | 50.0 | 48.0 |
| 80° | 41.0 | 39.0 | 44.0 | 38.0 | 36.0 |
| 82.5° | 31.4 | 28.7 | 32.0 | 27.6 | 26.4 |
| 85° | 20.0 | 17.1 | 18.0 | 16.0 | 15.0 |
| 87.5° | 11.8 | 10.7 | 11.7 | 12.1 | 10.9 |
| 90° | 7.0 | 13.0 | 18.4 | 24.5 | 22.6 |
| 92.5° | 24.2 | 27.9 | 32.4 | 42.8 | 45.7 |
| 95° | 60.5 | 98.9 | 54.5 | 58.9 | 70.0 |
| 97.5° | 97.6 | 183.0 | 367.5 | 109.3 | 93.8 |
| 100° | 126.5 | 226.4 | 733.0 | 216.8 | 143.3 |
| 102.5° | 155.4 | 260.9 | 990.3 | 568.2 | 310.7 |
| 105° | 198.8 | 300.6 | 1122.7 | 1431.3 | 946.5 |
| 107.5° | 243.1 | 318.8 | 1072.0 | 2082.7 | 1949.9 |
| 110° | 272.0 | 343.6 | 1042.3 | 2188.4 | 2350.7 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|--------|--------|--------|
| 112.5° | 301.7 | 373.3 | 1012.6 | 2126.6 | 2400.2 |
| 115° | 345.2 | 416.8 | 968.0 | 2006.8 | 2344.5 |
| 117.5° | 390.8 | 461.4 | 956.9 | 1877.1 | 2224.5 |
| 120° | 424.7 | 491.2 | 937.1 | 1778.5 | 2140.4 |
| 122.5° | 449.4 | 520.0 | 911.6 | 1693.7 | 2026.6 |
| 125° | 491.7 | 558.2 | 912.4 | 1591.2 | 1880.6 |
| 127.5° | 526.6 | 595.1 | 912.6 | 1472.2 | 1758.1 |
| 130° | 546.4 | 619.0 | 917.5 | 1391.9 | 1664.1 |
| 132.5° | 569.5 | 642.1 | 915.9 | 1356.1 | 1579.9 |
| 135° | 606.2 | 672.8 | 915.5 | 1309.7 | 1503.2 |
| 137.5° | 637.2 | 708.5 | 915.5 | 1258.3 | 1424.0 |
| 140° | 661.9 | 728.5 | 915.5 | 1228.3 | 1379.5 |
| 142.5° | 686.7 | 748.4 | 920.5 | 1193.4 | 1335.0 |
| 145° | 717.6 | 778.1 | 921.7 | 1141.0 | 1262.0 |
| 147.5° | 754.7 | 807.9 | 929.2 | 1103.2 | 1196.4 |
| 150° | 779.5 | 827.8 | 934.1 | 1078.2 | 1156.8 |
| 152.5° | 804.2 | 847.7 | 934.1 | 1058.0 | 1122.2 |
| 155° | 841.3 | 871.6 | 940.3 | 1034.2 | 1082.6 |
| 157.5° | 871.0 | 900.0 | 947.7 | 1019.0 | 1054.1 |
| 160° | 890.8 | 915.0 | 952.7 | 1009.0 | 1039.3 |
| 162.5° | 905.7 | 929.8 | 957.6 | 1003.9 | 1024.4 |
| 165° | 934.1 | 946.2 | 965.0 | 990.2 | 1008.3 |
| 167.5° | 950.2 | 961.1 | 971.2 | 983.8 | 994.7 |
| 170° | 965.0 | 971.1 | 971.2 | 983.7 | 989.8 |
| 172.5° | 970.0 | 980.9 | 976.2 | 978.8 | 984.8 |
| 175° | 983.6 | 989.6 | 983.6 | 977.3 | 971.2 |
| 177.5° | 983.6 | 988.4 | 983.6 | 983.5 | 978.6 |
| 180° | 983.6 | 983.6 | 983.6 | 983.6 | 983.6 |

(END OF REPORT)