

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: P644912

Luminaire Tested: OMN4DIP-SR4F0-50D150U840-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P644912
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-SR4F0-50D150U840-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: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

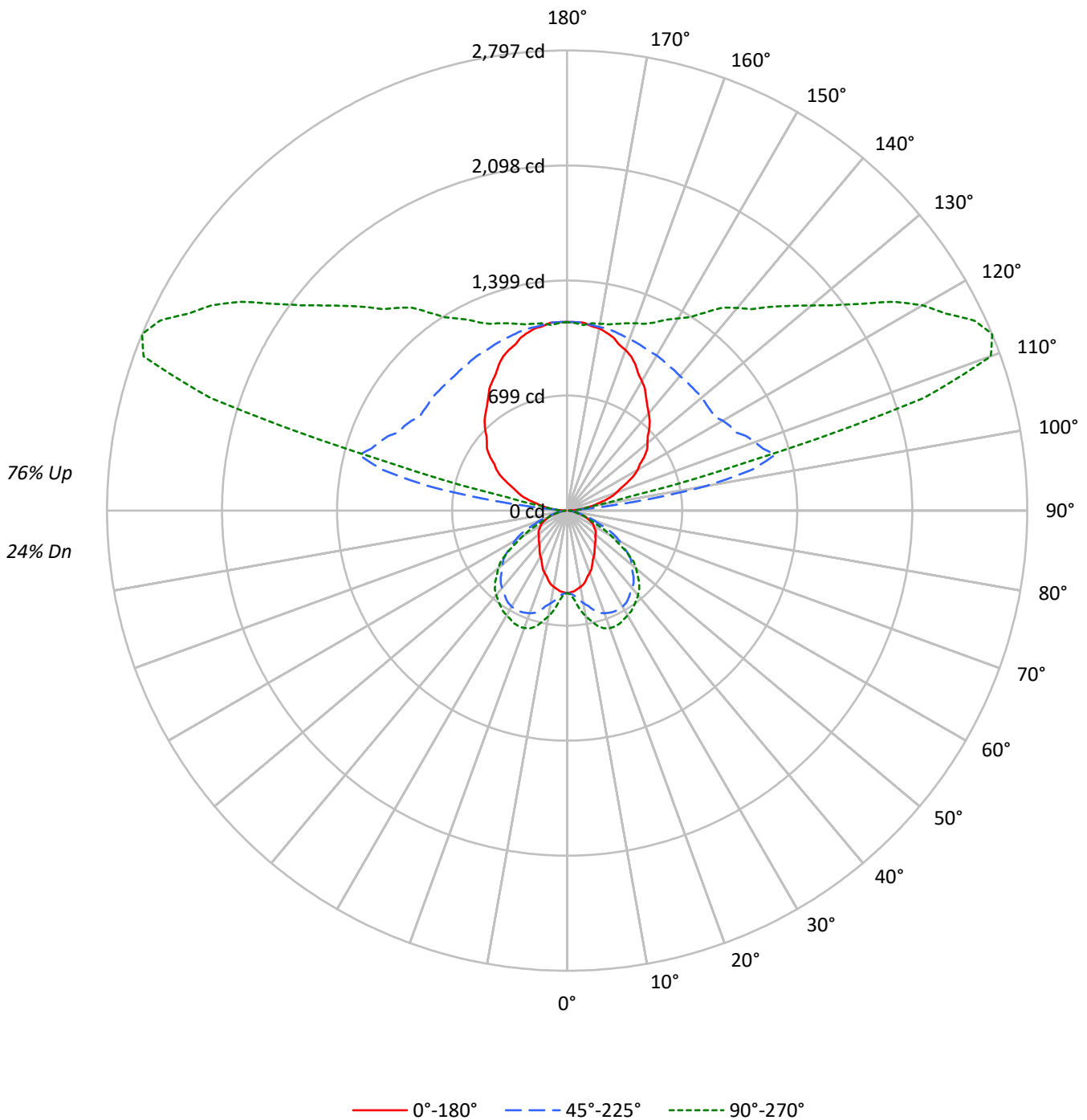
Lumens per Lamp: N/A
Luminaire Lumens: 8098.3 lumens
Efficiency: N/A
Efficacy: 128.7 lumens/watt
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 62.9
Input Voltage (V): 120
Input Current (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: P644912

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

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|-------|-------|
| 0° | 8091 | 8091 | 8091 |
| 5° | 7971 | 8425 | 8916 |
| 10° | 7719 | 9361 | 10681 |
| 15° | 7345 | 10460 | 12176 |
| 20° | 6909 | 11414 | 13055 |
| 25° | 6437 | 12063 | 13495 |
| 30° | 6018 | 12558 | 13711 |
| 35° | 5744 | 12818 | 13943 |
| 40° | 5552 | 12969 | 14124 |
| 45° | 5562 | 13013 | 14129 |
| 50° | 5649 | 12881 | 13730 |
| 55° | 5906 | 12631 | 12467 |
| 60° | 6022 | 11741 | 10123 |
| 65° | 6101 | 10285 | 7435 |
| 70° | 5830 | 8087 | 5778 |
| 75° | 5234 | 6032 | 4872 |
| 80° | 4444 | 4770 | 3905 |
| 85° | 4316 | 3890 | 3242 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 14129 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 51.4 | 0.6 |
| 10°-20° | 170.8 | 2.1 |
| 20°-30° | 283.7 | 3.5 |
| 30°-40° | 357.9 | 4.4 |
| 40°-50° | 382.6 | 4.7 |
| 50°-60° | 337.7 | 4.2 |
| 60°-70° | 216.8 | 2.7 |
| 70°-80° | 96.1 | 1.2 |
| 80°-90° | 27.5 | 0.3 |
| 90°-100° | 147.5 | 1.8 |
| 100°-110° | 1008.5 | 12.5 |
| 110°-120° | 1366.6 | 16.9 |
| 120°-130° | 1111.7 | 13.7 |
| 130°-140° | 892.7 | 11.0 |
| 140°-150° | 703.6 | 8.7 |
| 150°-160° | 514.5 | 6.4 |
| 160°-170° | 319.6 | 3.9 |
| 170°-180° | 109.0 | 1.3 |
| 0°-30° | 505.9 | 6.2 |
| 0°-40° | 863.9 | 10.7 |
| 0°-60° | 1584.2 | 19.6 |
| 0°-90° | 1924.6 | 23.8 |
| 90°-120° | 2522.6 | 31.1 |
| 90°-150° | 5230.7 | 64.6 |
| 90°-180° | 6174.0 | 76.2 |
| 0°-180° | 8098.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 501 | 501 | 501 | 501 | 501 | |
| 5° | 492 | 507 | 520 | 538 | 550 | 46 |
| 15° | 439 | 507 | 626 | 701 | 728 | 123 |
| 25° | 361 | 490 | 677 | 740 | 758 | 166 |
| 35° | 291 | 448 | 650 | 693 | 707 | 183 |
| 45° | 244 | 383 | 570 | 605 | 619 | 188 |
| 55° | 210 | 301 | 449 | 451 | 443 | 186 |
| 65° | 160 | 202 | 269 | 219 | 195 | 156 |
| 75° | 84 | 93 | 97 | 83 | 78 | 90 |
| 85° | 23 | 20 | 21 | 19 | 18 | 25 |
| 90° | 8 | 15 | 21 | 29 | 26 | 8 |
| 95° | 70 | 115 | 64 | 69 | 82 | 74 |
| 105° | 232 | 350 | 1308 | 1668 | 1103 | 245 |
| 115° | 402 | 486 | 1128 | 2339 | 2732 | 400 |
| 125° | 573 | 651 | 1063 | 1854 | 2192 | 509 |
| 135° | 706 | 784 | 1067 | 1526 | 1752 | 544 |
| 145° | 836 | 907 | 1074 | 1330 | 1471 | 525 |
| 155° | 980 | 1016 | 1096 | 1205 | 1262 | 450 |
| 165° | 1089 | 1103 | 1125 | 1154 | 1175 | 306 |
| 175° | 1146 | 1153 | 1146 | 1139 | 1132 | 108 |
| 180° | 1146 | 1146 | 1146 | 1146 | 1146 | |



TEST NUMBER: P644912

CATALOG NUMBER: OMN4DIP-SR4F0-50D150U840-CLBOOB-1DUDD-WW

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|--------|--------|--------|
| 0° | 501.1 | 501.1 | 501.1 | 501.1 | 501.1 |
| 2.5° | 497.4 | 504.7 | 504.9 | 507.7 | 511.4 |
| 5° | 491.8 | 506.6 | 519.8 | 537.5 | 550.1 |
| 7.5° | 480.1 | 506.6 | 548.7 | 589.9 | 610.4 |
| 10° | 470.8 | 507.3 | 571.0 | 626.4 | 651.5 |
| 12.5° | 458.7 | 507.0 | 593.4 | 660.0 | 688.8 |
| 15° | 439.4 | 506.6 | 625.8 | 701.0 | 728.4 |
| 17.5° | 417.0 | 504.5 | 651.2 | 726.6 | 750.5 |
| 20° | 402.1 | 502.3 | 664.3 | 735.9 | 759.8 |
| 22.5° | 385.3 | 497.4 | 671.7 | 740.5 | 762.6 |
| 25° | 361.3 | 490.0 | 677.1 | 740.4 | 757.5 |
| 27.5° | 337.7 | 479.5 | 677.3 | 731.0 | 745.6 |
| 30° | 322.8 | 471.0 | 673.6 | 721.7 | 735.4 |
| 32.5° | 309.8 | 461.5 | 666.1 | 710.5 | 725.1 |
| 35° | 291.4 | 447.5 | 650.3 | 692.6 | 707.4 |
| 37.5° | 275.5 | 431.4 | 630.2 | 671.4 | 688.8 |
| 40° | 263.4 | 418.4 | 615.3 | 656.4 | 670.1 |
| 42.5° | 254.1 | 404.5 | 597.6 | 637.7 | 649.6 |
| 45° | 243.6 | 382.6 | 569.9 | 605.2 | 618.8 |
| 47.5° | 232.4 | 360.0 | 537.9 | 571.2 | 580.1 |
| 50° | 224.9 | 343.4 | 512.8 | 543.2 | 546.6 |
| 52.5° | 220.3 | 326.0 | 488.5 | 507.7 | 508.3 |
| 55° | 209.8 | 300.9 | 448.7 | 450.8 | 442.9 |
| 57.5° | 195.8 | 271.7 | 398.1 | 386.7 | 367.6 |
| 60° | 186.5 | 251.4 | 363.6 | 340.8 | 313.5 |
| 62.5° | 177.1 | 232.1 | 327.2 | 290.4 | 258.5 |
| 65° | 159.7 | 201.8 | 269.2 | 218.6 | 194.6 |
| 67.5° | 139.4 | 168.6 | 211.4 | 163.5 | 147.5 |
| 70° | 123.5 | 146.3 | 171.3 | 133.8 | 122.4 |
| 72.5° | 108.6 | 124.1 | 138.7 | 110.6 | 104.7 |
| 75° | 83.9 | 93.0 | 96.7 | 82.6 | 78.1 |
| 77.5° | 61.8 | 62.2 | 67.1 | 58.2 | 55.9 |
| 80° | 47.8 | 45.5 | 51.3 | 44.2 | 42.0 |
| 82.5° | 36.6 | 33.4 | 37.3 | 32.1 | 30.8 |
| 85° | 23.3 | 19.9 | 21.0 | 18.6 | 17.5 |
| 87.5° | 13.8 | 12.4 | 13.6 | 14.1 | 12.7 |
| 90° | 8.2 | 15.2 | 21.4 | 28.6 | 26.3 |
| 92.5° | 28.3 | 32.6 | 37.8 | 49.9 | 53.3 |
| 95° | 70.5 | 115.3 | 63.5 | 68.7 | 81.6 |
| 97.5° | 113.8 | 213.3 | 428.3 | 127.4 | 109.3 |
| 100° | 147.5 | 263.9 | 854.2 | 252.7 | 167.0 |
| 102.5° | 181.1 | 304.1 | 1154.1 | 662.2 | 362.1 |
| 105° | 231.6 | 350.3 | 1308.4 | 1668.1 | 1103.0 |
| 107.5° | 283.3 | 371.5 | 1249.3 | 2427.2 | 2272.4 |
| 110° | 317.0 | 400.4 | 1214.7 | 2550.4 | 2739.5 |



TEST NUMBER: P644912

CATALOG NUMBER: OMN4DIP-SR4F0-50D150U840-CLBOOB-1DUDD-WW

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 351.6 | 435.0 | 1180.1 | 2478.3 | 2797.2 |
| 115° | 402.3 | 485.8 | 1128.2 | 2338.7 | 2732.3 |
| 117.5° | 455.5 | 537.7 | 1115.2 | 2187.6 | 2592.5 |
| 120° | 494.9 | 572.4 | 1092.1 | 2072.6 | 2494.4 |
| 122.5° | 523.7 | 606.0 | 1062.3 | 1973.8 | 2361.8 |
| 125° | 573.0 | 650.6 | 1063.3 | 1854.4 | 2191.6 |
| 127.5° | 613.7 | 693.5 | 1063.5 | 1715.7 | 2048.9 |
| 130° | 636.8 | 721.3 | 1069.3 | 1622.1 | 1939.3 |
| 132.5° | 663.7 | 748.3 | 1067.4 | 1580.4 | 1841.3 |
| 135° | 706.5 | 784.1 | 1067.0 | 1526.3 | 1751.9 |
| 137.5° | 742.6 | 825.7 | 1067.0 | 1466.4 | 1659.6 |
| 140° | 771.4 | 848.9 | 1067.0 | 1431.5 | 1607.7 |
| 142.5° | 800.2 | 872.1 | 1072.7 | 1390.8 | 1555.8 |
| 145° | 836.3 | 906.8 | 1074.2 | 1329.7 | 1470.7 |
| 147.5° | 879.5 | 941.6 | 1082.8 | 1285.7 | 1394.3 |
| 150° | 908.4 | 964.8 | 1088.6 | 1256.5 | 1348.1 |
| 152.5° | 937.2 | 988.0 | 1088.6 | 1233.1 | 1307.8 |
| 155° | 980.5 | 1015.7 | 1095.8 | 1205.2 | 1261.6 |
| 157.5° | 1015.1 | 1048.9 | 1104.5 | 1187.6 | 1228.5 |
| 160° | 1038.1 | 1066.3 | 1110.2 | 1175.9 | 1211.2 |
| 162.5° | 1055.4 | 1083.6 | 1116.0 | 1169.9 | 1193.9 |
| 165° | 1088.6 | 1102.7 | 1124.7 | 1154.0 | 1175.1 |
| 167.5° | 1107.4 | 1120.0 | 1131.9 | 1146.6 | 1159.3 |
| 170° | 1124.7 | 1131.7 | 1131.9 | 1146.4 | 1153.5 |
| 172.5° | 1130.4 | 1143.1 | 1137.6 | 1140.7 | 1147.7 |
| 175° | 1146.3 | 1153.3 | 1146.3 | 1138.9 | 1131.9 |
| 177.5° | 1146.3 | 1151.9 | 1146.3 | 1146.2 | 1140.5 |
| 180° | 1146.3 | 1146.3 | 1146.3 | 1146.3 | 1146.3 |

(END OF REPORT)