

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: P644724

Luminaire Tested: OMN4DIP-SR4F0-125D150U830-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P644724
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-SR4F0-125D150U830-CLBOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - BATWING LENS - 1250 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1500 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

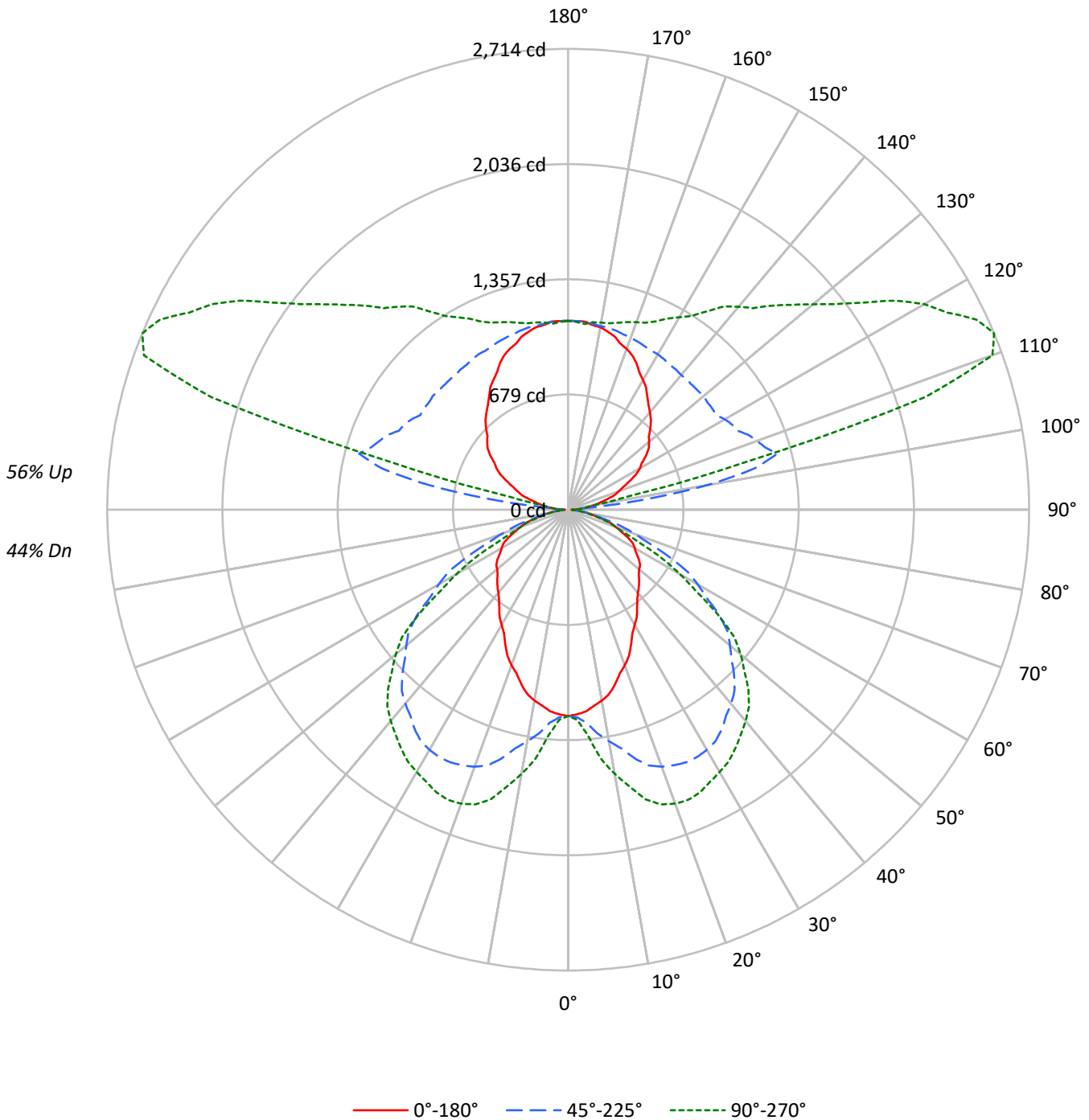
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10675.6 lumens
Efficiency: N/A
Efficacy: 120.5 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: General Diffuse

Input Watts (W): 88.6
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





TEST NUMBER: P644724

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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 | 106 | 106 | 106 | 106 | 97 | 97 | 97 | 97 | 80 | 80 | 80 | | 64 | 64 | 64 | | 50 | 50 | 50 | 44 |
| 1 | 96 | 92 | 88 | 85 | 88 | 85 | 81 | 78 | 70 | 68 | 66 | | 57 | 55 | 54 | | 45 | 44 | 43 | 37 |
| 2 | 88 | 81 | 74 | 69 | 80 | 74 | 69 | 64 | 61 | 58 | 54 | | 50 | 47 | 45 | | 39 | 37 | 36 | 31 |
| 3 | 80 | 71 | 63 | 58 | 73 | 65 | 59 | 54 | 54 | 49 | 46 | | 44 | 41 | 38 | | 35 | 32 | 30 | 26 |
| 4 | 73 | 62 | 55 | 49 | 67 | 57 | 50 | 45 | 48 | 43 | 39 | | 39 | 35 | 32 | | 31 | 28 | 26 | 22 |
| 5 | 67 | 55 | 47 | 41 | 61 | 51 | 44 | 39 | 43 | 37 | 33 | | 35 | 31 | 28 | | 28 | 25 | 23 | 19 |
| 6 | 62 | 49 | 41 | 36 | 56 | 46 | 38 | 33 | 38 | 33 | 29 | | 31 | 27 | 24 | | 25 | 22 | 20 | 17 |
| 7 | 57 | 45 | 37 | 31 | 52 | 41 | 34 | 29 | 35 | 29 | 25 | | 28 | 24 | 21 | | 23 | 20 | 17 | 15 |
| 8 | 53 | 40 | 33 | 27 | 48 | 37 | 30 | 26 | 31 | 26 | 22 | | 26 | 22 | 19 | | 21 | 18 | 15 | 13 |
| 9 | 49 | 37 | 29 | 24 | 45 | 34 | 27 | 23 | 29 | 23 | 20 | | 24 | 20 | 17 | | 19 | 16 | 14 | 12 |
| 10 | 46 | 33 | 26 | 21 | 42 | 31 | 25 | 20 | 26 | 21 | 18 | | 22 | 18 | 15 | | 18 | 15 | 12 | 10 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 19617 | 19617 | 19617 |
| 5° | 19326 | 20425 | 21616 |
| 10° | 18715 | 22699 | 25896 |
| 15° | 17805 | 25362 | 29519 |
| 20° | 16749 | 27673 | 31654 |
| 25° | 15604 | 29247 | 32719 |
| 30° | 14592 | 30449 | 33240 |
| 35° | 13923 | 31077 | 33805 |
| 40° | 13460 | 31445 | 34244 |
| 45° | 13483 | 31549 | 34260 |
| 50° | 13697 | 31230 | 33287 |
| 55° | 14317 | 30621 | 30224 |
| 60° | 14599 | 28468 | 24545 |
| 65° | 14789 | 24936 | 18029 |
| 70° | 14139 | 19610 | 14006 |
| 75° | 12689 | 14629 | 11809 |
| 80° | 10767 | 11557 | 9456 |
| 85° | 10467 | 9429 | 7855 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 34260 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 124.6 | 1.2 |
| 10°-20° | 414.1 | 3.9 |
| 20°-30° | 688.0 | 6.4 |
| 30°-40° | 867.9 | 8.1 |
| 40°-50° | 927.7 | 8.7 |
| 50°-60° | 818.8 | 7.7 |
| 60°-70° | 525.5 | 4.9 |
| 70°-80° | 233.0 | 2.2 |
| 80°-90° | 62.9 | 0.6 |
| 90°-100° | 152.6 | 1.4 |
| 100°-110° | 984.5 | 9.2 |
| 110°-120° | 1330.5 | 12.5 |
| 120°-130° | 1081.5 | 10.1 |
| 130°-140° | 866.4 | 8.1 |
| 140°-150° | 682.6 | 6.4 |
| 150°-160° | 499.1 | 4.7 |
| 160°-170° | 310.0 | 2.9 |
| 170°-180° | 105.7 | 1.0 |
| 0°-30° | 1226.7 | 11.5 |
| 0°-40° | 2094.5 | 19.6 |
| 0°-60° | 3841.1 | 36.0 |
| 0°-90° | 4662.6 | 43.7 |
| 90°-120° | 2467.6 | 23.1 |
| 90°-150° | 5098.2 | 47.8 |
| 90°-180° | 6013.0 | 56.3 |
| 0°-180° | 10675.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1215 | 1215 | 1215 | 1215 | 1215 | |
| 5° | 1192 | 1228 | 1260 | 1303 | 1334 | 112 |
| 15° | 1065 | 1228 | 1517 | 1700 | 1766 | 298 |
| 25° | 876 | 1188 | 1642 | 1795 | 1837 | 403 |
| 35° | 706 | 1085 | 1577 | 1679 | 1715 | 444 |
| 45° | 590 | 928 | 1382 | 1467 | 1500 | 456 |
| 55° | 509 | 730 | 1088 | 1093 | 1074 | 451 |
| 65° | 387 | 489 | 653 | 530 | 472 | 379 |
| 75° | 203 | 226 | 234 | 200 | 189 | 217 |
| 85° | 56 | 48 | 51 | 45 | 42 | 60 |
| 90° | 20 | 27 | 31 | 38 | 32 | 16 |
| 95° | 87 | 124 | 70 | 72 | 83 | 86 |
| 105° | 237 | 350 | 1274 | 1620 | 1070 | 251 |
| 115° | 399 | 478 | 1100 | 2271 | 2651 | 397 |
| 125° | 561 | 636 | 1037 | 1801 | 2126 | 499 |
| 135° | 685 | 761 | 1035 | 1481 | 1700 | 528 |
| 145° | 811 | 880 | 1042 | 1290 | 1427 | 510 |
| 155° | 951 | 985 | 1063 | 1169 | 1224 | 437 |
| 165° | 1056 | 1070 | 1091 | 1120 | 1140 | 297 |
| 175° | 1112 | 1119 | 1112 | 1105 | 1098 | 105 |
| 180° | 1112 | 1112 | 1112 | 1112 | 1112 | |



TEST NUMBER: P644724

CATALOG NUMBER: OMN4DIP-SR4F0-125D150U830-CLBOOB-1DUDD-WW

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1215.0 | 1215.0 | 1215.0 | 1215.0 | 1215.0 |
| 2.5° | 1206.0 | 1223.6 | 1224.0 | 1231.0 | 1239.9 |
| 5° | 1192.4 | 1228.3 | 1260.2 | 1303.3 | 1333.7 |
| 7.5° | 1164.1 | 1228.2 | 1330.3 | 1430.3 | 1480.0 |
| 10° | 1141.5 | 1229.9 | 1384.5 | 1518.7 | 1579.5 |
| 12.5° | 1112.1 | 1229.3 | 1438.8 | 1600.3 | 1669.9 |
| 15° | 1065.2 | 1228.2 | 1517.3 | 1699.7 | 1766.0 |
| 17.5° | 1011.0 | 1223.2 | 1578.9 | 1761.7 | 1819.7 |
| 20° | 974.8 | 1218.0 | 1610.6 | 1784.3 | 1842.3 |
| 22.5° | 934.1 | 1206.0 | 1628.7 | 1795.5 | 1849.1 |
| 25° | 875.9 | 1188.1 | 1641.7 | 1795.2 | 1836.6 |
| 27.5° | 818.9 | 1162.5 | 1642.2 | 1772.4 | 1807.8 |
| 30° | 782.7 | 1141.8 | 1633.2 | 1749.8 | 1782.9 |
| 32.5° | 751.0 | 1119.0 | 1615.1 | 1722.7 | 1758.1 |
| 35° | 706.4 | 1084.9 | 1576.7 | 1679.2 | 1715.1 |
| 37.5° | 668.0 | 1045.9 | 1528.1 | 1627.9 | 1669.9 |
| 40° | 638.6 | 1014.3 | 1491.9 | 1591.6 | 1624.7 |
| 42.5° | 616.0 | 980.7 | 1449.0 | 1546.2 | 1575.0 |
| 45° | 590.5 | 927.6 | 1381.7 | 1467.2 | 1500.4 |
| 47.5° | 563.4 | 872.9 | 1304.3 | 1385.0 | 1406.6 |
| 50° | 545.3 | 832.7 | 1243.3 | 1316.9 | 1325.2 |
| 52.5° | 534.0 | 790.4 | 1184.5 | 1230.9 | 1232.5 |
| 55° | 508.6 | 729.6 | 1087.8 | 1093.1 | 1073.7 |
| 57.5° | 474.7 | 658.7 | 965.2 | 937.6 | 891.2 |
| 60° | 452.1 | 609.6 | 881.6 | 826.4 | 760.1 |
| 62.5° | 429.5 | 562.7 | 793.4 | 704.1 | 626.7 |
| 65° | 387.1 | 489.3 | 652.7 | 529.9 | 471.9 |
| 67.5° | 337.9 | 408.7 | 512.6 | 396.4 | 357.7 |
| 70° | 299.5 | 354.8 | 415.4 | 324.3 | 296.7 |
| 72.5° | 263.3 | 300.9 | 336.2 | 268.1 | 253.7 |
| 75° | 203.4 | 225.5 | 234.5 | 200.4 | 189.3 |
| 77.5° | 149.8 | 150.9 | 162.8 | 141.2 | 135.6 |
| 80° | 115.8 | 110.3 | 124.3 | 107.2 | 101.7 |
| 82.5° | 88.7 | 81.0 | 90.4 | 77.9 | 74.6 |
| 85° | 56.5 | 48.2 | 50.9 | 45.1 | 42.4 |
| 87.5° | 33.3 | 28.1 | 28.8 | 27.9 | 24.5 |
| 90° | 19.8 | 26.6 | 30.9 | 37.8 | 32.3 |
| 92.5° | 43.3 | 43.6 | 45.5 | 55.8 | 55.7 |
| 95° | 87.0 | 123.9 | 70.1 | 71.7 | 82.6 |
| 97.5° | 127.0 | 218.6 | 422.0 | 126.9 | 107.7 |
| 100° | 158.3 | 266.3 | 833.8 | 248.5 | 163.7 |
| 102.5° | 189.6 | 305.3 | 1124.8 | 644.4 | 351.7 |
| 105° | 236.6 | 350.1 | 1274.4 | 1620.0 | 1070.1 |
| 107.5° | 286.4 | 369.0 | 1217.1 | 2356.5 | 2204.6 |
| 110° | 317.7 | 397.0 | 1183.5 | 2476.0 | 2657.8 |



TEST NUMBER: P644724

CATALOG NUMBER: OMN4DIP-SR4F0-125D150U830-CLBOOB-1DUDD-WW

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 351.3 | 430.6 | 1149.9 | 2406.1 | 2713.8 |
| 115° | 398.8 | 478.1 | 1099.6 | 2270.6 | 2650.8 |
| 117.5° | 450.0 | 528.5 | 1087.0 | 2124.0 | 2515.2 |
| 120° | 486.9 | 562.1 | 1064.6 | 2012.5 | 2420.0 |
| 122.5° | 514.9 | 593.4 | 1034.4 | 1916.6 | 2291.3 |
| 125° | 561.0 | 636.3 | 1036.6 | 1800.8 | 2126.3 |
| 127.5° | 598.8 | 677.6 | 1035.2 | 1665.8 | 1987.8 |
| 130° | 621.2 | 703.2 | 1040.8 | 1573.7 | 1881.5 |
| 132.5° | 644.6 | 726.7 | 1036.3 | 1533.3 | 1786.3 |
| 135° | 685.4 | 760.7 | 1035.2 | 1480.8 | 1699.6 |
| 137.5° | 720.4 | 801.1 | 1035.2 | 1422.7 | 1610.1 |
| 140° | 748.4 | 823.6 | 1035.2 | 1388.8 | 1559.7 |
| 142.5° | 776.4 | 846.1 | 1040.8 | 1349.3 | 1509.4 |
| 145° | 811.3 | 879.7 | 1042.2 | 1290.1 | 1426.8 |
| 147.5° | 853.3 | 913.5 | 1050.5 | 1247.4 | 1352.7 |
| 150° | 881.3 | 936.0 | 1056.1 | 1219.0 | 1307.9 |
| 152.5° | 909.3 | 958.5 | 1056.1 | 1196.3 | 1268.8 |
| 155° | 951.2 | 985.4 | 1063.1 | 1169.3 | 1224.0 |
| 157.5° | 984.8 | 1017.6 | 1071.5 | 1152.2 | 1191.8 |
| 160° | 1007.2 | 1034.5 | 1077.1 | 1140.8 | 1175.0 |
| 162.5° | 1024.0 | 1051.3 | 1082.7 | 1135.0 | 1158.3 |
| 165° | 1056.1 | 1069.8 | 1091.1 | 1119.6 | 1140.1 |
| 167.5° | 1074.3 | 1086.6 | 1098.1 | 1112.4 | 1124.7 |
| 170° | 1091.1 | 1098.0 | 1098.1 | 1112.3 | 1119.1 |
| 172.5° | 1096.7 | 1109.0 | 1103.7 | 1106.7 | 1113.5 |
| 175° | 1112.1 | 1118.9 | 1112.1 | 1104.9 | 1098.1 |
| 177.5° | 1112.1 | 1117.6 | 1112.1 | 1112.0 | 1106.5 |
| 180° | 1112.1 | 1112.1 | 1112.1 | 1112.1 | 1112.1 |

(END OF REPORT)