

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: P644874

Luminaire Tested: OMN4DIP-SR4F0-50D125U830-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P644874
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-SR4F0-50D125U830-CLBOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - BATWING LENS - 500 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1250 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

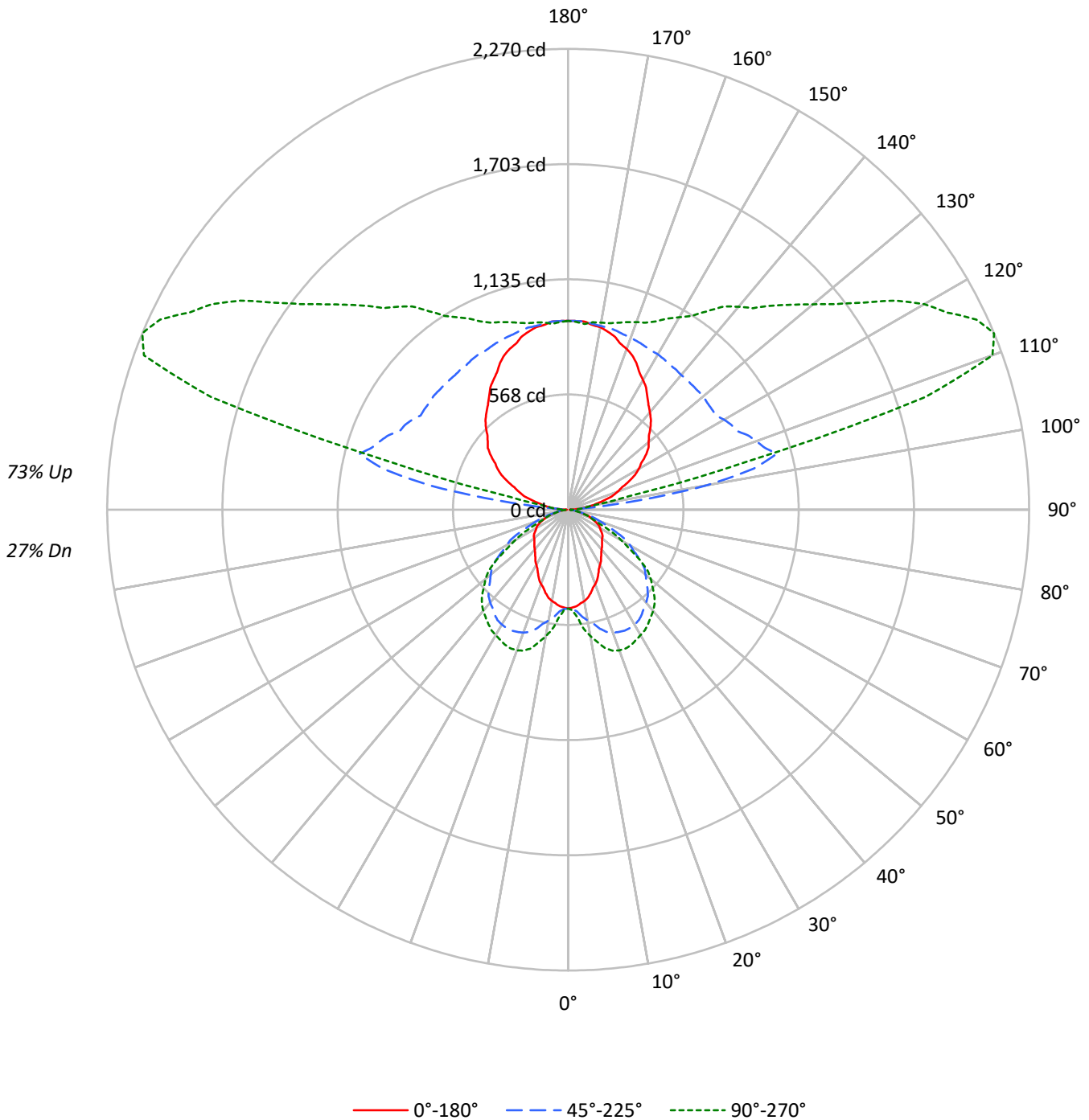
Lumens per Lamp: N/A
Luminaire Lumens: 6879.4 lumens
Efficiency: N/A
Efficacy: 131.0 lumens/watt
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 52.5
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: P644874

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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 | 102 | 102 | 102 | 102 | 91 | 91 | 91 | 91 | 71 | 71 | 71 | 52 | 52 | 52 | 35 | 35 | 35 | 27 | | | | |
| 1 | 93 | 89 | 85 | 81 | 83 | 79 | 76 | 73 | 62 | 60 | 58 | 46 | 45 | 43 | 31 | 30 | 30 | 23 | | | | |
| 2 | 84 | 77 | 71 | 66 | 75 | 69 | 64 | 60 | 54 | 51 | 48 | 40 | 38 | 36 | 27 | 26 | 25 | 19 | | | | |
| 3 | 77 | 68 | 61 | 55 | 68 | 61 | 55 | 50 | 48 | 43 | 40 | 35 | 33 | 30 | 24 | 23 | 21 | 16 | | | | |
| 4 | 70 | 60 | 52 | 46 | 62 | 54 | 47 | 42 | 42 | 38 | 34 | 31 | 28 | 26 | 21 | 20 | 18 | 14 | | | | |
| 5 | 64 | 53 | 45 | 39 | 57 | 48 | 41 | 36 | 38 | 33 | 29 | 28 | 25 | 22 | 19 | 17 | 16 | 12 | | | | |
| 6 | 59 | 47 | 40 | 34 | 52 | 43 | 36 | 31 | 34 | 29 | 25 | 25 | 22 | 19 | 17 | 15 | 14 | 10 | | | | |
| 7 | 54 | 43 | 35 | 29 | 48 | 38 | 32 | 27 | 30 | 25 | 22 | 23 | 19 | 17 | 16 | 14 | 12 | 9 | | | | |
| 8 | 50 | 38 | 31 | 26 | 45 | 35 | 28 | 24 | 27 | 23 | 19 | 21 | 17 | 15 | 14 | 12 | 11 | 8 | | | | |
| 9 | 47 | 35 | 28 | 23 | 42 | 31 | 25 | 21 | 25 | 20 | 17 | 19 | 16 | 13 | 13 | 11 | 10 | 7 | | | | |
| 10 | 43 | 32 | 25 | 20 | 39 | 29 | 23 | 18 | 23 | 18 | 15 | 17 | 14 | 12 | 12 | 10 | 9 | 6 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|-------|-------|
| 0° | 7850 | 7850 | 7850 |
| 5° | 7733 | 8173 | 8650 |
| 10° | 7489 | 9083 | 10362 |
| 15° | 7126 | 10150 | 11813 |
| 20° | 6703 | 11074 | 12667 |
| 25° | 6244 | 11703 | 13092 |
| 30° | 5839 | 12184 | 13300 |
| 35° | 5572 | 12435 | 13527 |
| 40° | 5385 | 12583 | 13702 |
| 45° | 5396 | 12625 | 13709 |
| 50° | 5481 | 12496 | 13320 |
| 55° | 5728 | 12253 | 12093 |
| 60° | 5842 | 11393 | 9820 |
| 65° | 5918 | 9979 | 7213 |
| 70° | 5655 | 7846 | 5604 |
| 75° | 5078 | 5852 | 4729 |
| 80° | 4314 | 4621 | 3784 |
| 85° | 4187 | 3779 | 3149 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 13709 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 49.9 | 0.7 |
| 10°-20° | 165.7 | 2.4 |
| 20°-30° | 275.3 | 4.0 |
| 30°-40° | 347.3 | 5.0 |
| 40°-50° | 371.2 | 5.4 |
| 50°-60° | 327.7 | 4.8 |
| 60°-70° | 210.3 | 3.1 |
| 70°-80° | 93.3 | 1.4 |
| 80°-90° | 26.3 | 0.4 |
| 90°-100° | 120.7 | 1.8 |
| 100°-110° | 819.1 | 11.9 |
| 110°-120° | 1109.5 | 16.1 |
| 120°-130° | 902.5 | 13.1 |
| 130°-140° | 724.5 | 10.5 |
| 140°-150° | 571.0 | 8.3 |
| 150°-160° | 417.5 | 6.1 |
| 160°-170° | 259.3 | 3.8 |
| 170°-180° | 88.4 | 1.3 |
| 0°-30° | 490.8 | 7.1 |
| 0°-40° | 838.1 | 12.2 |
| 0°-60° | 1537.0 | 22.3 |
| 0°-90° | 1866.8 | 27.1 |
| 90°-120° | 2049.3 | 29.8 |
| 90°-150° | 4247.3 | 61.7 |
| 90°-180° | 5013.0 | 72.9 |
| 0°-180° | 6879.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|------|-------|------|------|
| 0° | 486 | 486 | 486 | 486 | 486 | |
| 5° | 477 | 492 | 504 | 522 | 534 | 45 |
| 15° | 426 | 492 | 607 | 680 | 707 | 119 |
| 25° | 350 | 475 | 657 | 718 | 735 | 161 |
| 35° | 283 | 434 | 631 | 672 | 686 | 177 |
| 45° | 236 | 371 | 553 | 587 | 600 | 183 |
| 55° | 204 | 292 | 435 | 437 | 430 | 181 |
| 65° | 155 | 196 | 261 | 212 | 189 | 152 |
| 75° | 81 | 90 | 94 | 80 | 76 | 87 |
| 85° | 23 | 19 | 20 | 18 | 17 | 24 |
| 90° | 8 | 14 | 18 | 24 | 22 | 7 |
| 95° | 59 | 95 | 52 | 56 | 67 | 62 |
| 105° | 189 | 285 | 1062 | 1354 | 895 | 200 |
| 115° | 327 | 395 | 916 | 1898 | 2217 | 325 |
| 125° | 466 | 528 | 863 | 1505 | 1778 | 414 |
| 135° | 573 | 636 | 866 | 1239 | 1422 | 441 |
| 145° | 679 | 736 | 872 | 1079 | 1194 | 426 |
| 155° | 796 | 824 | 889 | 978 | 1024 | 365 |
| 165° | 883 | 895 | 913 | 936 | 954 | 248 |
| 175° | 930 | 936 | 930 | 924 | 918 | 88 |
| 180° | 930 | 930 | 930 | 930 | 930 | |

TEST NUMBER: P644874

CATALOG NUMBER: OMN4DIP-SR4F0-50D125U830-CLBOOB-1DUDD-WW

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|--------|--------|--------|
| 0° | 486.2 | 486.2 | 486.2 | 486.2 | 486.2 |
| 2.5° | 482.6 | 489.6 | 489.8 | 492.6 | 496.1 |
| 5° | 477.1 | 491.5 | 504.3 | 521.5 | 533.7 |
| 7.5° | 465.8 | 491.5 | 532.3 | 572.3 | 592.2 |
| 10° | 456.8 | 492.2 | 554.0 | 607.7 | 632.0 |
| 12.5° | 445.0 | 491.9 | 575.7 | 640.4 | 668.2 |
| 15° | 426.3 | 491.5 | 607.2 | 680.1 | 706.7 |
| 17.5° | 404.5 | 489.4 | 631.8 | 704.9 | 728.1 |
| 20° | 390.1 | 487.4 | 644.5 | 714.0 | 737.2 |
| 22.5° | 373.8 | 482.6 | 651.7 | 718.4 | 739.9 |
| 25° | 350.5 | 475.4 | 656.9 | 718.3 | 734.9 |
| 27.5° | 327.7 | 465.2 | 657.1 | 709.2 | 723.4 |
| 30° | 313.2 | 456.9 | 653.5 | 700.2 | 713.4 |
| 32.5° | 300.5 | 447.8 | 646.3 | 689.3 | 703.5 |
| 35° | 282.7 | 434.1 | 630.9 | 671.9 | 686.3 |
| 37.5° | 267.3 | 418.5 | 611.5 | 651.4 | 668.2 |
| 40° | 255.5 | 405.9 | 597.0 | 636.9 | 650.1 |
| 42.5° | 246.5 | 392.4 | 579.8 | 618.7 | 630.2 |
| 45° | 236.3 | 371.2 | 552.9 | 587.1 | 600.4 |
| 47.5° | 225.5 | 349.3 | 521.9 | 554.2 | 562.8 |
| 50° | 218.2 | 333.2 | 497.5 | 527.0 | 530.3 |
| 52.5° | 213.7 | 316.3 | 474.0 | 492.5 | 493.2 |
| 55° | 203.5 | 292.0 | 435.3 | 437.4 | 429.6 |
| 57.5° | 189.9 | 263.6 | 386.2 | 375.2 | 356.6 |
| 60° | 180.9 | 243.9 | 352.8 | 330.7 | 304.1 |
| 62.5° | 171.9 | 225.1 | 317.5 | 281.7 | 250.8 |
| 65° | 154.9 | 195.8 | 261.2 | 212.0 | 188.8 |
| 67.5° | 135.2 | 163.5 | 205.1 | 158.6 | 143.1 |
| 70° | 119.8 | 142.0 | 166.2 | 129.8 | 118.7 |
| 72.5° | 105.4 | 120.4 | 134.5 | 107.3 | 101.5 |
| 75° | 81.4 | 90.3 | 93.8 | 80.2 | 75.8 |
| 77.5° | 59.9 | 60.4 | 65.1 | 56.5 | 54.3 |
| 80° | 46.4 | 44.1 | 49.7 | 42.9 | 40.7 |
| 82.5° | 35.5 | 32.4 | 36.2 | 31.2 | 29.8 |
| 85° | 22.6 | 19.3 | 20.4 | 18.1 | 17.0 |
| 87.5° | 13.3 | 11.8 | 12.7 | 13.0 | 11.7 |
| 90° | 7.9 | 13.6 | 18.5 | 24.3 | 22.1 |
| 92.5° | 24.7 | 27.7 | 31.6 | 41.3 | 43.7 |
| 95° | 59.2 | 94.9 | 52.5 | 56.3 | 66.6 |
| 97.5° | 94.2 | 174.4 | 348.3 | 103.7 | 88.9 |
| 100° | 121.3 | 215.3 | 693.7 | 205.4 | 135.7 |
| 102.5° | 148.5 | 247.9 | 937.1 | 537.6 | 293.9 |
| 105° | 189.3 | 285.4 | 1062.3 | 1353.9 | 895.1 |
| 107.5° | 231.2 | 302.4 | 1014.3 | 1969.9 | 1844.0 |
| 110° | 258.4 | 325.9 | 986.3 | 2069.8 | 2223.2 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 286.4 | 354.0 | 958.2 | 2011.4 | 2270.0 |
| 115° | 327.4 | 395.0 | 916.1 | 1898.1 | 2217.3 |
| 117.5° | 370.5 | 437.1 | 905.5 | 1775.4 | 2103.8 |
| 120° | 402.4 | 465.3 | 886.8 | 1682.1 | 2024.2 |
| 122.5° | 425.8 | 492.4 | 862.5 | 1601.9 | 1916.6 |
| 125° | 465.6 | 528.5 | 863.4 | 1505.1 | 1778.5 |
| 127.5° | 498.4 | 563.3 | 863.4 | 1392.4 | 1662.7 |
| 130° | 517.1 | 585.7 | 868.1 | 1316.3 | 1573.8 |
| 132.5° | 538.7 | 607.3 | 866.3 | 1282.5 | 1494.2 |
| 135° | 573.3 | 636.3 | 865.9 | 1238.6 | 1421.7 |
| 137.5° | 602.6 | 670.1 | 865.9 | 1190.0 | 1346.8 |
| 140° | 626.0 | 688.9 | 865.9 | 1161.6 | 1304.6 |
| 142.5° | 649.4 | 707.7 | 870.5 | 1128.7 | 1262.5 |
| 145° | 678.6 | 735.9 | 871.7 | 1079.1 | 1193.5 |
| 147.5° | 713.8 | 764.1 | 878.7 | 1043.4 | 1131.5 |
| 150° | 737.2 | 782.9 | 883.4 | 1019.7 | 1094.0 |
| 152.5° | 760.6 | 801.7 | 883.4 | 1000.6 | 1061.3 |
| 155° | 795.7 | 824.3 | 889.3 | 978.1 | 1023.8 |
| 157.5° | 823.7 | 851.2 | 896.3 | 963.7 | 996.9 |
| 160° | 842.5 | 865.3 | 901.0 | 954.3 | 982.9 |
| 162.5° | 856.5 | 879.4 | 905.6 | 949.4 | 968.8 |
| 165° | 883.4 | 894.9 | 912.7 | 936.5 | 953.6 |
| 167.5° | 898.6 | 908.9 | 918.5 | 930.4 | 940.7 |
| 170° | 912.7 | 918.4 | 918.5 | 930.3 | 936.1 |
| 172.5° | 917.3 | 927.6 | 923.2 | 925.7 | 931.4 |
| 175° | 930.2 | 935.9 | 930.2 | 924.2 | 918.5 |
| 177.5° | 930.2 | 934.8 | 930.2 | 930.1 | 925.5 |
| 180° | 930.2 | 930.2 | 930.2 | 930.2 | 930.2 |

(END OF REPORT)