

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: P645046

Luminaire Tested: OMN4DIP-SR4F0-75D100U935-WBMOOB-1DUDD-WW

Issue Date: 9/2/2020



Test Information

Test Method: LM-79-2019
Report Number: P645046
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-27)
Test Lab: INNOVATION CENTER
Issue Date: 9/2/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: OMN4DIP-SR4F0-75D100U935-WBMOOB-1DUDD-WW
Description: NEO-RAY CIRQUE 4-INCH DIAMETER LINEAR LED LUMINAIRE
DOWNLIGHT - WHITE BAFFLE WITH MEDIUM OPTIC - 750 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1000 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

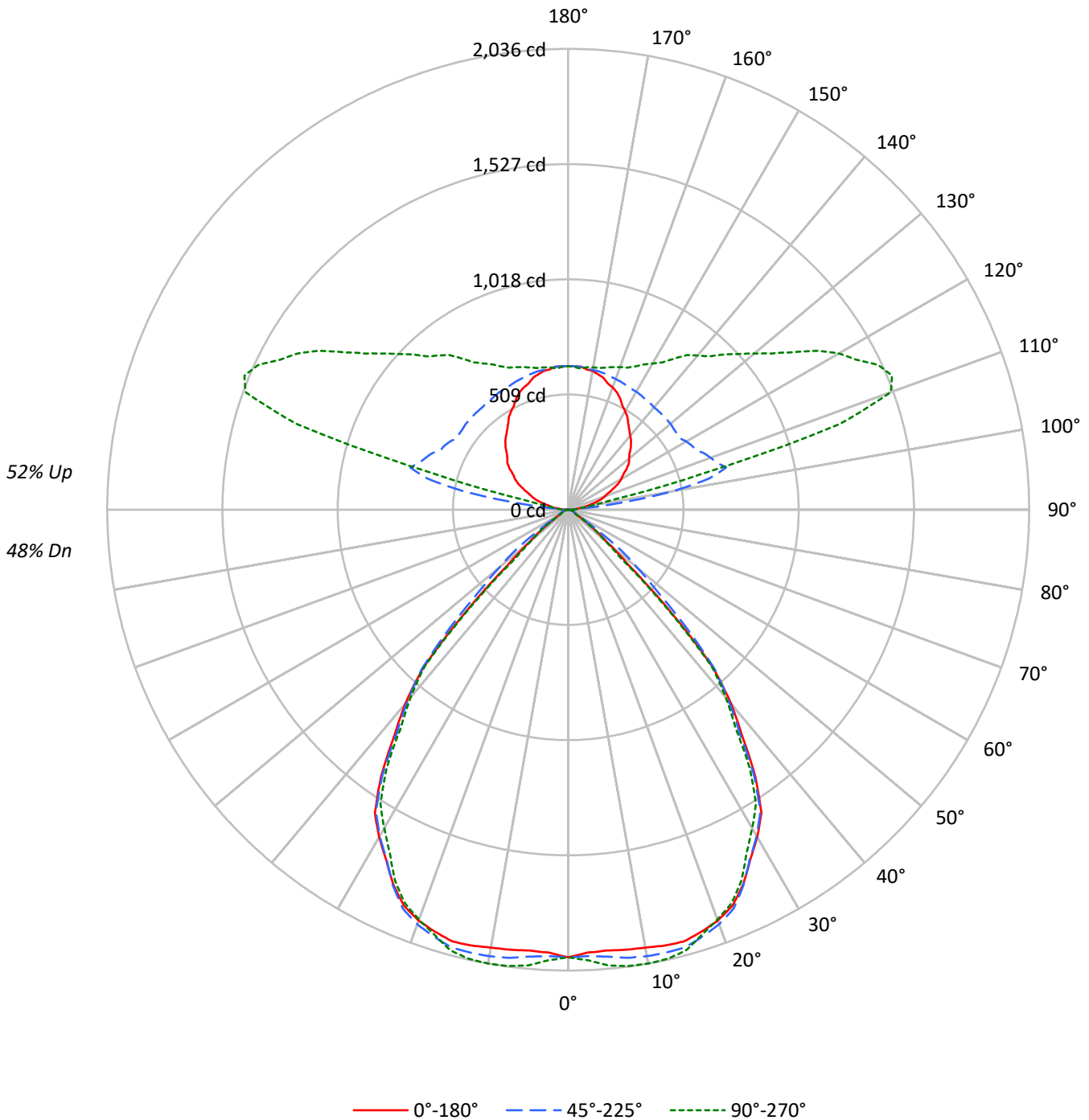
Lumens per Lamp: N/A
Luminaire Lumens: 6588.1 lumens
Efficiency: N/A
Efficacy: 115.8 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.21 / 1.19
Luminous Opening: Rectangular (W 0.21' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 56.9
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





TEST NUMBER: P645046

CATALOG NUMBER: OMN4DIP-SR4F0-75D100U935-WBMOOB-1DUDD-WW

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|--|--|--|----|--|--|--|--|--|--|--|--|----|---|
| RF | 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 | 50 | 30 | 10 | 0 | | | | | | | | | | | | | | |
| RCR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 107 | 107 | 107 | 107 | 98 | 98 | 98 | 98 | 82 | 82 | 82 | 68 | 68 | 68 | 55 | 55 | 55 | 48 | | | | | | | | | | | | | | | | | | | | |
| 1 | 99 | 95 | 92 | 89 | 91 | 88 | 85 | 83 | 75 | 73 | 71 | 62 | 61 | 60 | 51 | 50 | 49 | 44 | | | | | | | | | | | | | | | | | | | | |
| 2 | 92 | 85 | 80 | 76 | 85 | 79 | 75 | 71 | 68 | 65 | 62 | 57 | 55 | 53 | 47 | 46 | 44 | 40 | | | | | | | | | | | | | | | | | | | | |
| 3 | 85 | 77 | 71 | 66 | 78 | 71 | 66 | 62 | 61 | 57 | 54 | 52 | 49 | 47 | 43 | 42 | 40 | 36 | | | | | | | | | | | | | | | | | | | | |
| 4 | 79 | 69 | 62 | 57 | 73 | 65 | 59 | 54 | 56 | 51 | 48 | 48 | 45 | 42 | 40 | 38 | 36 | 33 | | | | | | | | | | | | | | | | | | | | |
| 5 | 73 | 63 | 56 | 50 | 67 | 59 | 52 | 48 | 51 | 46 | 43 | 44 | 40 | 38 | 37 | 35 | 33 | 30 | | | | | | | | | | | | | | | | | | | | |
| 6 | 68 | 57 | 50 | 45 | 63 | 53 | 47 | 42 | 47 | 42 | 38 | 40 | 37 | 34 | 34 | 32 | 30 | 27 | | | | | | | | | | | | | | | | | | | | |
| 7 | 63 | 52 | 45 | 40 | 58 | 49 | 43 | 38 | 43 | 38 | 34 | 37 | 33 | 31 | 32 | 29 | 27 | 25 | | | | | | | | | | | | | | | | | | | | |
| 8 | 59 | 48 | 41 | 36 | 55 | 45 | 39 | 34 | 39 | 35 | 31 | 34 | 31 | 28 | 30 | 27 | 25 | 23 | | | | | | | | | | | | | | | | | | | | |
| 9 | 55 | 44 | 37 | 32 | 51 | 41 | 35 | 31 | 36 | 32 | 28 | 32 | 28 | 26 | 28 | 25 | 23 | 21 | | | | | | | | | | | | | | | | | | | | |
| 10 | 52 | 41 | 34 | 29 | 48 | 38 | 32 | 28 | 34 | 29 | 26 | 30 | 26 | 23 | 26 | 23 | 21 | 19 | | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 25544 | 25544 | 25544 |
| 5° | 25353 | 25700 | 26202 |
| 10° | 25762 | 26270 | 26700 |
| 15° | 26405 | 26765 | 26944 |
| 20° | 26550 | 26794 | 26488 |
| 25° | 26041 | 26105 | 25786 |
| 30° | 24899 | 24832 | 24232 |
| 35° | 22730 | 22543 | 22073 |
| 40° | 18883 | 18607 | 18254 |
| 45° | 11861 | 13492 | 11316 |
| 50° | 4549 | 7990 | 4220 |
| 55° | 2146 | 3353 | 2180 |
| 60° | 1039 | 1692 | 922 |
| 65° | 957 | 1002 | 865 |
| 70° | 955 | 955 | 842 |
| 75° | 968 | 968 | 818 |
| 80° | 997 | 885 | 774 |
| 85° | 1097 | 889 | 667 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 13492 cd/sqm



TEST NUMBER: P645046

CATALOG NUMBER: OMN4DIP-SR4F0-75D100U935-WBMOOB-1DUDD-WW

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 190.5 | 2.9 |
| 10°-20° | 563.4 | 8.6 |
| 20°-30° | 836.9 | 12.7 |
| 30°-40° | 876.0 | 13.3 |
| 40°-50° | 530.6 | 8.1 |
| 50°-60° | 122.4 | 1.9 |
| 60°-70° | 33.6 | 0.5 |
| 70°-80° | 19.7 | 0.3 |
| 80°-90° | 8.2 | 0.1 |
| 90°-100° | 78.0 | 1.2 |
| 100°-110° | 555.6 | 8.4 |
| 110°-120° | 754.3 | 11.4 |
| 120°-130° | 613.9 | 9.3 |
| 130°-140° | 493.8 | 7.5 |
| 140°-150° | 389.3 | 5.9 |
| 150°-160° | 284.7 | 4.3 |
| 160°-170° | 176.8 | 2.7 |
| 170°-180° | 60.3 | 0.9 |
| 0°-30° | 1590.8 | 24.1 |
| 0°-40° | 2466.8 | 37.4 |
| 0°-60° | 3119.8 | 47.4 |
| 0°-90° | 3181.4 | 48.3 |
| 90°-120° | 1387.9 | 21.1 |
| 90°-150° | 2884.9 | 43.8 |
| 90°-180° | 3407.0 | 51.7 |
| 0°-180° | 6588.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1978 | 1978 | 1978 | 1978 | 1978 | |
| 5° | 1955 | 2000 | 1982 | 1990 | 2021 | 187 |
| 15° | 1975 | 2034 | 2002 | 1986 | 2015 | 556 |
| 25° | 1827 | 1881 | 1832 | 1785 | 1809 | 837 |
| 35° | 1442 | 1463 | 1430 | 1397 | 1400 | 886 |
| 45° | 649 | 738 | 739 | 713 | 620 | 499 |
| 55° | 95 | 108 | 149 | 103 | 97 | 99 |
| 65° | 31 | 33 | 33 | 30 | 28 | 31 |
| 75° | 19 | 19 | 19 | 18 | 16 | 20 |
| 85° | 7 | 7 | 6 | 6 | 4 | 7 |
| 90° | 0 | 4 | 8 | 12 | 12 | 2 |
| 95° | 32 | 59 | 32 | 36 | 44 | 36 |
| 105° | 124 | 190 | 722 | 922 | 610 | 130 |
| 115° | 219 | 266 | 622 | 1293 | 1512 | 218 |
| 125° | 315 | 358 | 586 | 1025 | 1212 | 280 |
| 135° | 391 | 434 | 590 | 844 | 969 | 301 |
| 145° | 463 | 502 | 594 | 736 | 814 | 291 |
| 155° | 542 | 562 | 606 | 667 | 698 | 249 |
| 165° | 602 | 610 | 622 | 638 | 650 | 169 |
| 175° | 634 | 638 | 634 | 630 | 626 | 60 |
| 180° | 634 | 634 | 634 | 634 | 634 | |

TEST NUMBER: P645046

CATALOG NUMBER: OMN4DIP-SR4F0-75D100U935-WBMOOB-1DUDD-WW

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1977.6 | 1977.6 | 1977.6 | 1977.6 | 1977.6 |
| 2.5° | 1958.6 | 1993.5 | 1974.0 | 1975.6 | 1991.9 |
| 5° | 1955.3 | 2000.4 | 1982.1 | 1990.2 | 2020.8 |
| 7.5° | 1960.6 | 2007.8 | 1997.0 | 1999.8 | 2033.3 |
| 10° | 1964.2 | 2013.7 | 2002.9 | 2002.2 | 2035.7 |
| 12.5° | 1972.6 | 2024.4 | 2004.1 | 1999.8 | 2032.1 |
| 15° | 1974.6 | 2034.3 | 2001.5 | 1985.7 | 2014.9 |
| 17.5° | 1955.3 | 2021.1 | 1976.7 | 1944.2 | 1967.5 |
| 20° | 1931.5 | 1998.4 | 1949.3 | 1903.7 | 1927.0 |
| 22.5° | 1894.5 | 1960.3 | 1907.6 | 1858.4 | 1882.9 |
| 25° | 1827.2 | 1881.1 | 1831.7 | 1784.6 | 1809.3 |
| 27.5° | 1742.0 | 1779.9 | 1737.6 | 1692.9 | 1706.9 |
| 30° | 1669.4 | 1707.2 | 1664.9 | 1618.9 | 1624.7 |
| 32.5° | 1588.4 | 1620.4 | 1579.1 | 1537.8 | 1542.5 |
| 35° | 1441.5 | 1463.4 | 1429.6 | 1396.9 | 1399.8 |
| 37.5° | 1262.8 | 1265.7 | 1242.9 | 1213.1 | 1213.7 |
| 40° | 1119.9 | 1128.6 | 1103.5 | 1079.7 | 1082.6 |
| 42.5° | 949.5 | 983.9 | 959.3 | 937.9 | 938.5 |
| 45° | 649.3 | 738.1 | 738.6 | 712.7 | 619.5 |
| 47.5° | 358.6 | 461.4 | 527.5 | 409.0 | 308.9 |
| 50° | 226.4 | 291.9 | 397.6 | 239.1 | 210.0 |
| 52.5° | 162.0 | 191.4 | 290.4 | 169.1 | 154.0 |
| 55° | 95.3 | 108.4 | 148.9 | 102.6 | 96.8 |
| 57.5° | 58.1 | 69.4 | 87.0 | 68.6 | 58.4 |
| 60° | 40.2 | 50.4 | 65.5 | 45.9 | 35.7 |
| 62.5° | 35.4 | 38.6 | 51.2 | 36.6 | 33.4 |
| 65° | 31.3 | 32.7 | 32.8 | 29.8 | 28.3 |
| 67.5° | 27.7 | 29.2 | 27.7 | 26.2 | 24.7 |
| 70° | 25.3 | 26.8 | 25.3 | 23.8 | 22.3 |
| 72.5° | 22.9 | 24.4 | 22.9 | 21.4 | 20.0 |
| 75° | 19.4 | 19.4 | 19.4 | 17.8 | 16.4 |
| 77.5° | 15.8 | 15.8 | 15.5 | 14.3 | 12.8 |
| 80° | 13.4 | 13.4 | 11.9 | 11.9 | 10.4 |
| 82.5° | 11.0 | 11.0 | 9.5 | 9.5 | 8.0 |
| 85° | 7.4 | 7.4 | 6.0 | 5.9 | 4.5 |
| 87.5° | 3.6 | 4.4 | 4.0 | 4.7 | 3.6 |
| 90° | 0.0 | 3.9 | 8.0 | 12.0 | 12.0 |
| 92.5° | 9.6 | 13.5 | 17.5 | 24.8 | 27.9 |
| 95° | 31.9 | 59.2 | 31.9 | 36.1 | 43.9 |
| 97.5° | 56.6 | 113.6 | 234.5 | 69.2 | 59.8 |
| 100° | 75.8 | 142.1 | 470.7 | 138.5 | 91.7 |
| 102.5° | 94.9 | 164.3 | 636.6 | 365.6 | 200.2 |
| 105° | 123.6 | 189.9 | 721.9 | 922.3 | 610.3 |
| 107.5° | 152.4 | 202.3 | 689.2 | 1342.2 | 1257.2 |
| 110° | 171.5 | 218.3 | 670.1 | 1410.4 | 1515.7 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 190.7 | 237.5 | 650.9 | 1370.5 | 1547.6 |
| 115° | 219.4 | 266.2 | 622.2 | 1293.3 | 1511.7 |
| 117.5° | 248.9 | 294.9 | 615.0 | 1209.7 | 1434.3 |
| 120° | 271.2 | 314.1 | 602.3 | 1146.1 | 1380.1 |
| 122.5° | 287.2 | 333.2 | 586.3 | 1091.4 | 1306.7 |
| 125° | 315.1 | 358.0 | 586.3 | 1025.3 | 1212.5 |
| 127.5° | 338.2 | 381.9 | 587.1 | 948.7 | 1133.6 |
| 130° | 351.0 | 397.8 | 590.3 | 897.4 | 1072.9 |
| 132.5° | 367.0 | 413.8 | 590.3 | 874.4 | 1018.7 |
| 135° | 390.9 | 433.8 | 590.3 | 844.4 | 969.2 |
| 137.5° | 410.8 | 456.8 | 590.3 | 811.3 | 918.2 |
| 140° | 426.8 | 469.7 | 590.3 | 792.0 | 889.5 |
| 142.5° | 442.7 | 482.5 | 593.5 | 769.5 | 860.7 |
| 145° | 462.7 | 501.7 | 594.3 | 735.7 | 813.7 |
| 147.5° | 486.6 | 520.9 | 599.1 | 711.3 | 771.4 |
| 150° | 502.6 | 533.8 | 602.3 | 695.2 | 745.9 |
| 152.5° | 518.5 | 546.6 | 602.3 | 682.2 | 723.5 |
| 155° | 542.5 | 562.0 | 606.3 | 666.8 | 698.0 |
| 157.5° | 561.6 | 580.3 | 611.1 | 657.0 | 679.7 |
| 160° | 574.4 | 590.0 | 614.2 | 650.6 | 670.1 |
| 162.5° | 583.9 | 599.5 | 617.4 | 647.3 | 660.5 |
| 165° | 602.3 | 610.1 | 622.2 | 638.4 | 650.1 |
| 167.5° | 612.7 | 619.7 | 626.2 | 634.4 | 641.4 |
| 170° | 622.2 | 626.1 | 626.2 | 634.3 | 638.2 |
| 172.5° | 625.4 | 632.4 | 629.4 | 631.1 | 635.0 |
| 175° | 634.2 | 638.1 | 634.2 | 630.1 | 626.2 |
| 177.5° | 634.2 | 637.3 | 634.2 | 634.1 | 631.0 |
| 180° | 634.2 | 634.2 | 634.2 | 634.2 | 634.2 |

(END OF REPORT)