

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: P644499

Luminaire Tested: OMN4DIP-SR4F0-100D100U930-FLLOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P644499
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-19)
Test Lab: INNOVATION CENTER
Issue Date: 2/16/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: OMN4DIP-SR4F0-100D100U930-FLLOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - FLAT FROSTED LENS - 1000 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1000 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

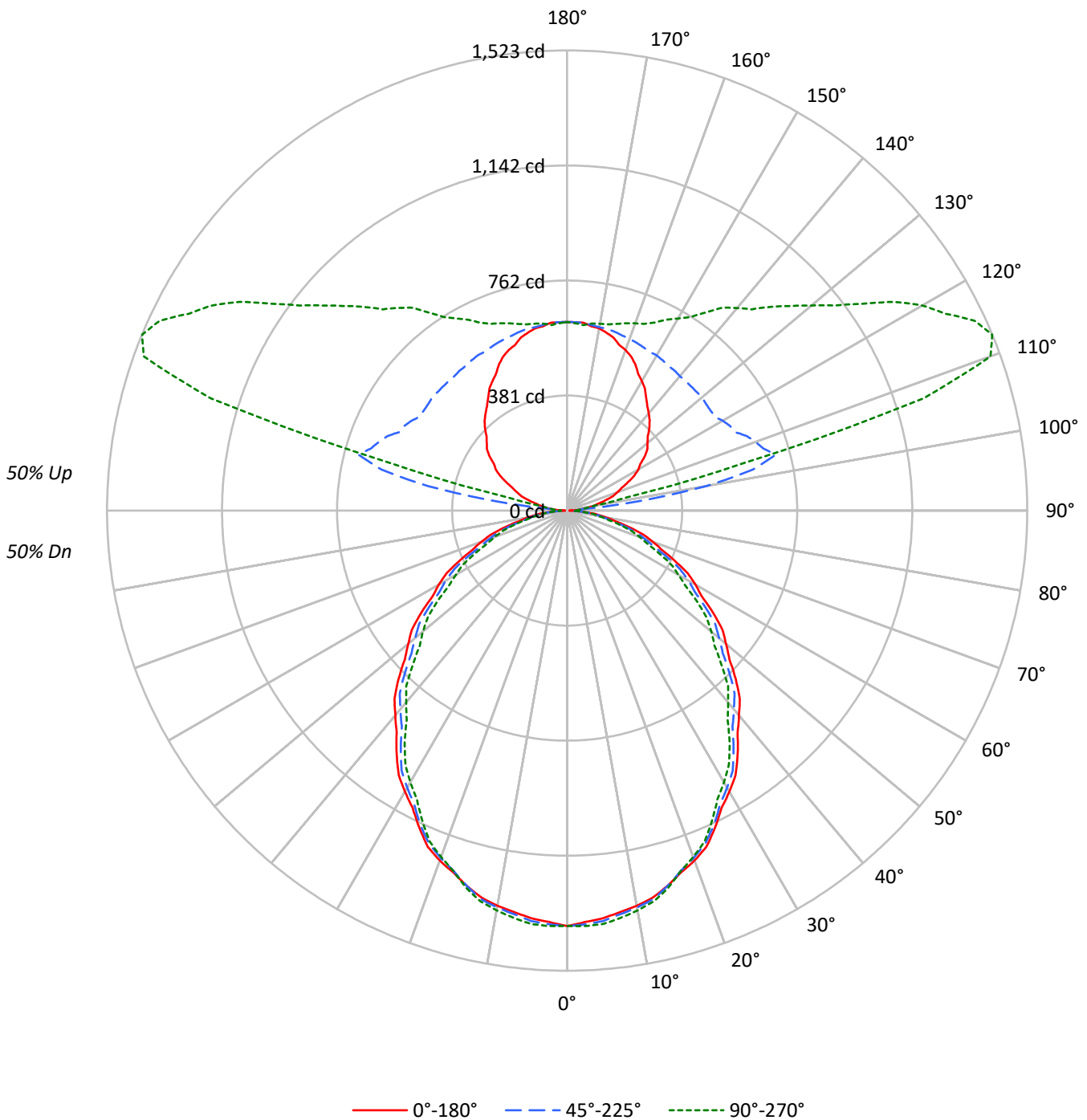
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6706.9 lumens
Efficiency: N/A
Efficacy: 113.9 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.13 / 1.26
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 58.9
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: P644499

CATALOG NUMBER: OMN4DIP-SR4F0-100D100U930-FLLOOB-1DUDD-WW

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 | 107 | 107 | 107 | 107 | 99 | 99 | 99 | 99 | 83 | 83 | 83 | 69 | 69 | 69 | 56 | 56 | 56 | 50 | | | | |
| 1 | 98 | 93 | 90 | 86 | 90 | 86 | 83 | 80 | 73 | 71 | 68 | 61 | 59 | 58 | 49 | 48 | 47 | 42 | | | | |
| 2 | 89 | 82 | 76 | 71 | 82 | 76 | 70 | 66 | 64 | 60 | 57 | 53 | 51 | 48 | 44 | 42 | 40 | 35 | | | | |
| 3 | 81 | 72 | 65 | 59 | 75 | 67 | 60 | 55 | 57 | 52 | 48 | 47 | 44 | 41 | 39 | 36 | 34 | 30 | | | | |
| 4 | 74 | 64 | 56 | 50 | 68 | 59 | 52 | 47 | 50 | 45 | 41 | 42 | 38 | 35 | 35 | 32 | 30 | 26 | | | | |
| 5 | 68 | 57 | 49 | 43 | 63 | 53 | 46 | 40 | 45 | 40 | 35 | 38 | 34 | 31 | 31 | 28 | 26 | 23 | | | | |
| 6 | 63 | 51 | 43 | 37 | 58 | 47 | 40 | 35 | 41 | 35 | 31 | 34 | 30 | 27 | 29 | 25 | 23 | 20 | | | | |
| 7 | 58 | 46 | 38 | 33 | 54 | 43 | 36 | 31 | 37 | 31 | 27 | 31 | 27 | 24 | 26 | 23 | 20 | 18 | | | | |
| 8 | 54 | 42 | 34 | 29 | 50 | 39 | 32 | 27 | 34 | 28 | 24 | 29 | 24 | 21 | 24 | 21 | 18 | 16 | | | | |
| 9 | 50 | 38 | 31 | 26 | 47 | 36 | 29 | 24 | 31 | 26 | 22 | 26 | 22 | 19 | 22 | 19 | 17 | 14 | | | | |
| 10 | 47 | 35 | 28 | 23 | 44 | 33 | 26 | 22 | 29 | 23 | 20 | 24 | 20 | 17 | 21 | 17 | 15 | 13 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 22201 | 22201 | 22201 |
| 5° | 21951 | 22102 | 22255 |
| 10° | 21776 | 21868 | 22022 |
| 15° | 21483 | 21483 | 21608 |
| 20° | 21182 | 21021 | 20957 |
| 25° | 20630 | 20462 | 20197 |
| 30° | 20020 | 19740 | 19356 |
| 35° | 19395 | 18916 | 18473 |
| 40° | 18649 | 18099 | 17466 |
| 45° | 18025 | 17342 | 16488 |
| 50° | 17246 | 16493 | 15646 |
| 55° | 16588 | 15744 | 14798 |
| 60° | 15826 | 14980 | 13714 |
| 65° | 15007 | 13937 | 12863 |
| 70° | 14219 | 12892 | 12010 |
| 75° | 13306 | 11784 | 11204 |
| 80° | 12171 | 10786 | 10265 |
| 85° | 11430 | 10059 | 9355 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 18025 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 129.3 | 1.9 |
| 10°-20° | 363.0 | 5.4 |
| 20°-30° | 527.7 | 7.9 |
| 30°-40° | 600.3 | 9.0 |
| 40°-50° | 585.3 | 8.7 |
| 50°-60° | 499.6 | 7.4 |
| 60°-70° | 363.1 | 5.4 |
| 70°-80° | 205.3 | 3.1 |
| 80°-90° | 64.6 | 1.0 |
| 90°-100° | 84.7 | 1.3 |
| 100°-110° | 551.1 | 8.2 |
| 110°-120° | 744.9 | 11.1 |
| 120°-130° | 605.6 | 9.0 |
| 130°-140° | 486.0 | 7.2 |
| 140°-150° | 383.0 | 5.7 |
| 150°-160° | 280.1 | 4.2 |
| 160°-170° | 173.9 | 2.6 |
| 170°-180° | 59.3 | 0.9 |
| 0°-30° | 1020.0 | 15.2 |
| 0°-40° | 1620.4 | 24.2 |
| 0°-60° | 2705.3 | 40.3 |
| 0°-90° | 3338.3 | 49.8 |
| 90°-120° | 1380.7 | 20.6 |
| 90°-150° | 2855.3 | 42.6 |
| 90°-180° | 3369.0 | 50.2 |
| 0°-180° | 6706.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1375 | 1375 | 1375 | 1375 | 1375 | |
| 5° | 1354 | 1374 | 1364 | 1362 | 1373 | 128 |
| 15° | 1285 | 1302 | 1285 | 1284 | 1293 | 362 |
| 25° | 1158 | 1169 | 1149 | 1128 | 1134 | 533 |
| 35° | 984 | 988 | 960 | 937 | 937 | 614 |
| 45° | 789 | 786 | 760 | 733 | 722 | 608 |
| 55° | 589 | 587 | 559 | 533 | 526 | 526 |
| 65° | 393 | 389 | 365 | 342 | 337 | 390 |
| 75° | 213 | 206 | 189 | 181 | 180 | 226 |
| 85° | 62 | 54 | 54 | 52 | 50 | 66 |
| 90° | 8 | 13 | 19 | 21 | 21 | 9 |
| 95° | 46 | 66 | 37 | 41 | 47 | 46 |
| 105° | 131 | 193 | 714 | 909 | 600 | 139 |
| 115° | 221 | 266 | 614 | 1272 | 1487 | 221 |
| 125° | 314 | 356 | 579 | 1009 | 1193 | 279 |
| 135° | 385 | 427 | 581 | 831 | 954 | 296 |
| 145° | 455 | 494 | 585 | 724 | 800 | 286 |
| 155° | 534 | 553 | 596 | 656 | 687 | 245 |
| 165° | 593 | 600 | 612 | 628 | 640 | 166 |
| 175° | 624 | 628 | 624 | 620 | 616 | 59 |
| 180° | 624 | 624 | 624 | 624 | 624 | |



TEST NUMBER: P644499

CATALOG NUMBER: OMN4DIP-SR4F0-100D100U930-FLLOOB-1DUDD-WW

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1375.0 | 1375.0 | 1375.0 | 1375.0 | 1375.0 |
| 2.5° | 1363.0 | 1380.6 | 1370.5 | 1370.6 | 1376.5 |
| 5° | 1354.4 | 1374.5 | 1363.7 | 1362.1 | 1373.1 |
| 7.5° | 1340.2 | 1359.9 | 1347.3 | 1345.4 | 1359.6 |
| 10° | 1328.2 | 1346.5 | 1333.8 | 1330.4 | 1343.2 |
| 12.5° | 1311.7 | 1330.0 | 1317.4 | 1312.4 | 1325.2 |
| 15° | 1285.2 | 1301.6 | 1285.2 | 1283.5 | 1292.7 |
| 17.5° | 1255.2 | 1269.5 | 1250.4 | 1244.2 | 1251.1 |
| 20° | 1232.8 | 1245.6 | 1223.4 | 1214.2 | 1219.7 |
| 22.5° | 1204.4 | 1217.2 | 1193.5 | 1179.8 | 1186.8 |
| 25° | 1158.0 | 1168.9 | 1148.6 | 1128.2 | 1133.7 |
| 27.5° | 1108.2 | 1116.6 | 1096.2 | 1075.3 | 1077.2 |
| 30° | 1073.8 | 1079.3 | 1058.8 | 1036.4 | 1038.2 |
| 32.5° | 1037.9 | 1041.9 | 1019.9 | 996.0 | 996.3 |
| 35° | 984.0 | 987.7 | 959.7 | 937.2 | 937.2 |
| 37.5° | 926.7 | 928.9 | 899.1 | 874.7 | 872.1 |
| 40° | 884.8 | 888.5 | 858.7 | 834.2 | 828.7 |
| 42.5° | 845.9 | 846.7 | 819.7 | 795.3 | 788.3 |
| 45° | 789.4 | 785.8 | 759.5 | 733.1 | 722.1 |
| 47.5° | 728.5 | 728.5 | 698.5 | 672.1 | 661.9 |
| 50° | 686.6 | 686.6 | 656.6 | 630.3 | 622.9 |
| 52.5° | 647.6 | 646.2 | 617.7 | 591.3 | 581.0 |
| 55° | 589.3 | 587.4 | 559.3 | 533.0 | 525.7 |
| 57.5° | 527.5 | 527.5 | 501.4 | 473.1 | 465.1 |
| 60° | 490.1 | 490.1 | 463.9 | 435.6 | 424.7 |
| 62.5° | 449.7 | 448.3 | 422.0 | 396.8 | 390.2 |
| 65° | 392.8 | 389.2 | 364.8 | 342.2 | 336.7 |
| 67.5° | 338.6 | 334.9 | 309.0 | 291.0 | 287.3 |
| 70° | 301.2 | 297.5 | 273.1 | 258.1 | 254.4 |
| 72.5° | 265.3 | 260.1 | 238.7 | 226.6 | 223.0 |
| 75° | 213.3 | 205.9 | 188.9 | 181.4 | 179.6 |
| 77.5° | 163.9 | 151.4 | 144.4 | 139.1 | 137.3 |
| 80° | 130.9 | 120.0 | 116.0 | 112.2 | 110.4 |
| 82.5° | 102.5 | 91.5 | 90.5 | 88.3 | 86.4 |
| 85° | 61.7 | 54.4 | 54.3 | 52.3 | 50.5 |
| 87.5° | 26.9 | 23.7 | 24.8 | 25.2 | 25.2 |
| 90° | 7.5 | 13.1 | 19.1 | 21.1 | 21.1 |
| 92.5° | 22.9 | 22.7 | 25.5 | 32.2 | 33.8 |
| 95° | 46.4 | 65.9 | 37.0 | 41.1 | 46.9 |
| 97.5° | 68.8 | 119.4 | 236.0 | 71.4 | 60.7 |
| 100° | 87.7 | 147.4 | 466.8 | 138.2 | 92.1 |
| 102.5° | 105.0 | 167.8 | 630.0 | 361.5 | 197.4 |
| 105° | 131.0 | 192.6 | 714.0 | 909.2 | 600.4 |
| 107.5° | 158.9 | 204.7 | 681.8 | 1322.4 | 1236.9 |
| 110° | 176.2 | 220.4 | 663.0 | 1389.4 | 1491.2 |



TEST NUMBER: P644499

CATALOG NUMBER: OMN4DIP-SR4F0-100D100U930-FLLOOB-1DUDD-WW

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 195.1 | 239.3 | 644.2 | 1350.2 | 1522.6 |
| 115° | 221.4 | 265.7 | 614.1 | 1272.4 | 1487.3 |
| 117.5° | 250.5 | 293.9 | 607.0 | 1190.1 | 1411.2 |
| 120° | 272.5 | 312.8 | 594.4 | 1127.6 | 1357.8 |
| 122.5° | 286.7 | 331.6 | 578.7 | 1073.8 | 1285.6 |
| 125° | 313.8 | 356.0 | 578.7 | 1008.8 | 1193.0 |
| 127.5° | 334.6 | 379.1 | 579.5 | 933.4 | 1115.3 |
| 130° | 347.2 | 393.2 | 582.7 | 883.0 | 1055.6 |
| 132.5° | 361.4 | 407.4 | 581.2 | 860.3 | 1002.2 |
| 135° | 384.6 | 426.8 | 580.8 | 830.8 | 953.6 |
| 137.5° | 404.2 | 449.5 | 580.8 | 798.2 | 903.4 |
| 140° | 419.9 | 462.1 | 580.8 | 779.2 | 875.1 |
| 142.5° | 435.6 | 474.7 | 583.9 | 757.1 | 846.8 |
| 145° | 455.2 | 493.6 | 584.7 | 723.8 | 800.5 |
| 147.5° | 478.8 | 512.5 | 589.4 | 699.9 | 758.9 |
| 150° | 494.5 | 525.1 | 592.6 | 683.9 | 733.8 |
| 152.5° | 510.1 | 537.8 | 592.6 | 671.2 | 711.9 |
| 155° | 533.7 | 552.9 | 596.5 | 656.0 | 686.7 |
| 157.5° | 552.5 | 570.9 | 601.2 | 646.4 | 668.7 |
| 160° | 565.1 | 580.4 | 604.3 | 640.1 | 659.3 |
| 162.5° | 574.5 | 589.9 | 607.5 | 636.8 | 649.9 |
| 165° | 592.6 | 600.2 | 612.2 | 628.1 | 639.6 |
| 167.5° | 602.8 | 609.7 | 616.1 | 624.1 | 631.0 |
| 170° | 612.2 | 616.0 | 616.1 | 624.0 | 627.9 |
| 172.5° | 615.3 | 622.2 | 619.2 | 620.9 | 624.7 |
| 175° | 624.0 | 627.8 | 624.0 | 619.9 | 616.1 |
| 177.5° | 624.0 | 627.0 | 624.0 | 623.9 | 620.8 |
| 180° | 624.0 | 624.0 | 624.0 | 624.0 | 624.0 |

(END OF REPORT)