

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P333909

Luminaire Tested: **SA2XXRDP-C1005D935-4F0-1E-UDD-F**

Issue Date: 10/11/2019

Test Information

Test Method: LM-79-08
Report Number: P333909
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-24)
Test Lab: INNOVATIONS CENTER
Issue Date: 10/11/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA2XXRDP-C1005D935-4F0-1E-UDD-F
Description: DEFINE 2 REGRESSED DIRECT LED LUMINAIRE, FLUSH SATIN WHITE DIFFUSER
PENDANT/SURFACE/WALL MOUNT, 1005 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

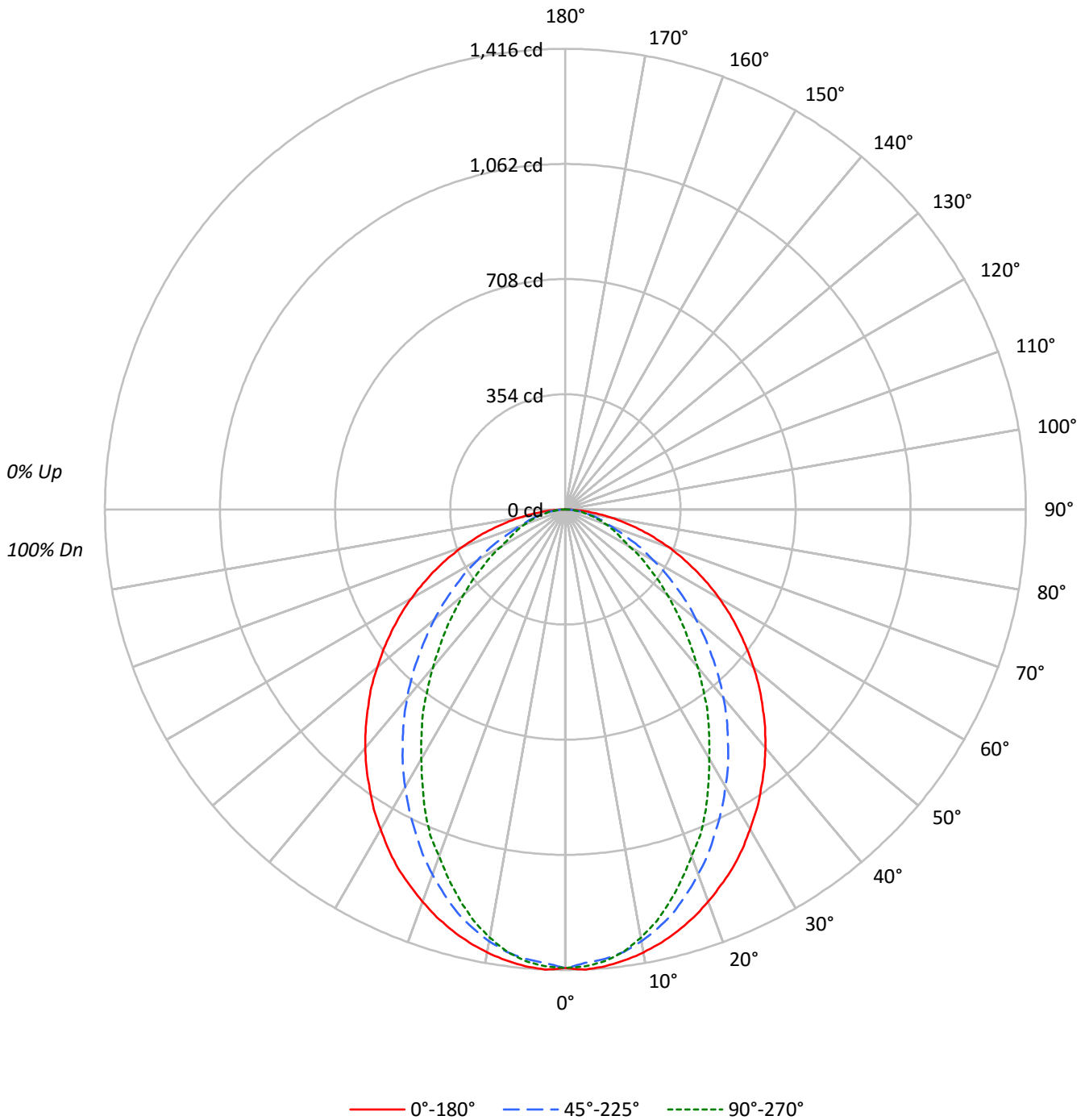
Lumens per Lamp: N/A
Luminaire Lumens: 2900.0 lumens
Efficiency: N/A
Efficacy: 70.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.1
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: 25 FT



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Luminous Intensity Polar Plot





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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 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | | | 100 |
| 1 | 110 | 106 | 102 | 98 | 107 | 103 | 100 | 97 | 99 | 96 | 94 | 95 | 93 | 91 | 92 | 90 | 88 | 86 | | | | 86 |
| 2 | 101 | 94 | 87 | 82 | 98 | 92 | 86 | 81 | 88 | 83 | 79 | 85 | 81 | 78 | 82 | 79 | 76 | 74 | | | | 74 |
| 3 | 93 | 83 | 76 | 70 | 90 | 82 | 75 | 69 | 79 | 73 | 68 | 76 | 71 | 67 | 74 | 69 | 66 | 64 | | | | 64 |
| 4 | 86 | 75 | 66 | 60 | 83 | 73 | 66 | 60 | 71 | 64 | 59 | 69 | 63 | 58 | 66 | 62 | 57 | 55 | | | | 55 |
| 5 | 79 | 67 | 59 | 53 | 77 | 66 | 58 | 52 | 64 | 57 | 52 | 62 | 56 | 51 | 60 | 55 | 51 | 49 | | | | 49 |
| 6 | 74 | 61 | 53 | 47 | 72 | 60 | 52 | 46 | 58 | 51 | 46 | 57 | 50 | 46 | 55 | 50 | 45 | 43 | | | | 43 |
| 7 | 68 | 56 | 47 | 42 | 67 | 55 | 47 | 42 | 53 | 46 | 41 | 52 | 46 | 41 | 51 | 45 | 41 | 39 | | | | 39 |
| 8 | 64 | 51 | 43 | 38 | 62 | 51 | 43 | 37 | 49 | 42 | 37 | 48 | 42 | 37 | 47 | 41 | 37 | 35 | | | | 35 |
| 9 | 60 | 47 | 39 | 34 | 59 | 47 | 39 | 34 | 46 | 39 | 34 | 44 | 38 | 34 | 44 | 38 | 34 | 32 | | | | 32 |
| 10 | 56 | 44 | 36 | 31 | 55 | 43 | 36 | 31 | 42 | 36 | 31 | 41 | 35 | 31 | 41 | 35 | 31 | 29 | | | | 29 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 22767 | 22767 | 22767 |
| 5° | 22854 | 22481 | 22605 |
| 10° | 22679 | 22113 | 21925 |
| 15° | 22417 | 21458 | 20839 |
| 20° | 22057 | 20522 | 19491 |
| 25° | 21688 | 19459 | 18187 |
| 30° | 21174 | 18366 | 16511 |
| 35° | 20674 | 17180 | 15041 |
| 40° | 20171 | 15949 | 13340 |
| 45° | 19580 | 14568 | 11800 |
| 50° | 18974 | 13175 | 10289 |
| 55° | 18356 | 11674 | 8836 |
| 60° | 17638 | 10094 | 7333 |
| 65° | 16818 | 8481 | 6678 |
| 70° | 15843 | 6987 | 6146 |
| 75° | 14647 | 6369 | 5733 |
| 80° | 12934 | 5700 | 5216 |
| 85° | 10170 | 4483 | 4483 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 132.2 | 4.6 |
| 10°-20° | 362.8 | 12.5 |
| 20°-30° | 509.3 | 17.6 |
| 30°-40° | 555.2 | 19.1 |
| 40°-50° | 510.3 | 17.6 |
| 50°-60° | 400.8 | 13.8 |
| 60°-70° | 260.8 | 9.0 |
| 70°-80° | 134.3 | 4.6 |
| 80°-90° | 34.3 | 1.2 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 1004.3 | 34.6 |
| 0°-40° | 1559.5 | 53.8 |
| 0°-60° | 2470.5 | 85.2 |
| 0°-90° | 2900.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2900.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1410 | 1410 | 1410 | 1410 | 1410 | |
| 5° | 1410 | 1404 | 1387 | 1399 | 1395 | 134 |
| 15° | 1341 | 1327 | 1284 | 1260 | 1247 | 378 |
| 25° | 1217 | 1176 | 1092 | 1040 | 1021 | 560 |
| 35° | 1049 | 984 | 872 | 791 | 763 | 657 |
| 45° | 858 | 772 | 638 | 547 | 517 | 662 |
| 55° | 652 | 552 | 415 | 338 | 314 | 583 |
| 65° | 440 | 337 | 222 | 179 | 175 | 436 |
| 75° | 235 | 146 | 102 | 93 | 92 | 248 |
| 85° | 55 | 28 | 24 | 24 | 24 | 66 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P333909

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1410.1 | 1410.1 | 1410.1 | 1410.1 | 1410.1 |
| 2.5° | 1416.4 | 1410.1 | 1396.0 | 1408.8 | 1406.2 |
| 5° | 1410.1 | 1403.7 | 1387.1 | 1398.6 | 1394.7 |
| 7.5° | 1398.6 | 1390.9 | 1373.0 | 1378.2 | 1371.8 |
| 10° | 1383.3 | 1374.3 | 1348.8 | 1345.0 | 1337.3 |
| 12.5° | 1364.1 | 1352.6 | 1318.2 | 1310.5 | 1296.5 |
| 15° | 1341.1 | 1327.1 | 1283.7 | 1259.5 | 1246.7 |
| 17.5° | 1314.3 | 1293.9 | 1240.3 | 1212.3 | 1191.8 |
| 20° | 1283.7 | 1258.2 | 1194.4 | 1162.5 | 1134.4 |
| 22.5° | 1250.5 | 1221.2 | 1147.2 | 1103.8 | 1084.7 |
| 25° | 1217.4 | 1176.5 | 1092.3 | 1040.0 | 1020.9 |
| 27.5° | 1177.8 | 1134.4 | 1041.3 | 981.3 | 951.9 |
| 30° | 1135.7 | 1087.2 | 985.1 | 920.0 | 885.6 |
| 32.5° | 1094.9 | 1036.2 | 931.5 | 855.0 | 823.1 |
| 35° | 1048.9 | 983.8 | 871.6 | 791.2 | 763.1 |
| 37.5° | 1004.3 | 934.1 | 815.4 | 727.4 | 695.5 |
| 40° | 957.0 | 880.5 | 756.7 | 666.1 | 632.9 |
| 42.5° | 908.6 | 826.9 | 698.0 | 603.6 | 571.7 |
| 45° | 857.5 | 772.0 | 638.0 | 547.4 | 516.8 |
| 47.5° | 809.0 | 718.4 | 580.6 | 490.0 | 461.9 |
| 50° | 755.4 | 664.8 | 524.5 | 436.4 | 409.6 |
| 52.5° | 703.1 | 607.4 | 470.9 | 386.6 | 362.4 |
| 55° | 652.1 | 552.5 | 414.7 | 338.2 | 313.9 |
| 57.5° | 599.8 | 497.7 | 365.0 | 293.5 | 273.1 |
| 60° | 546.2 | 444.1 | 312.6 | 247.6 | 227.1 |
| 62.5° | 493.8 | 391.8 | 268.0 | 206.7 | 196.5 |
| 65° | 440.2 | 336.9 | 222.0 | 178.6 | 174.8 |
| 67.5° | 389.2 | 285.8 | 178.6 | 157.0 | 153.1 |
| 70° | 335.6 | 236.1 | 148.0 | 135.3 | 130.2 |
| 72.5° | 284.6 | 190.1 | 123.8 | 113.6 | 111.0 |
| 75° | 234.8 | 145.5 | 102.1 | 93.2 | 91.9 |
| 77.5° | 185.0 | 103.4 | 80.4 | 75.3 | 72.7 |
| 80° | 139.1 | 74.0 | 61.3 | 56.1 | 56.1 |
| 82.5° | 97.0 | 49.8 | 42.1 | 39.6 | 39.6 |
| 85° | 54.9 | 28.1 | 24.2 | 24.2 | 24.2 |
| 87.5° | 20.4 | 10.2 | 10.2 | 8.9 | 8.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)