

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: P333883

Luminaire Tested: **SA2XXRDP-C865D830-4F0-1E-UDD-F**

Issue Date: 10/11/2019

Test Information

Test Method: LM-79-08
Report Number: P333883
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-C865D830-4F0-1E-UDD-F
Description: DEFINE 2 REGRESSED DIRECT LED LUMINAIRE, FLUSH SATIN WHITE DIFFUSER
PENDANT/SURFACE/WALL MOUNT, 865 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

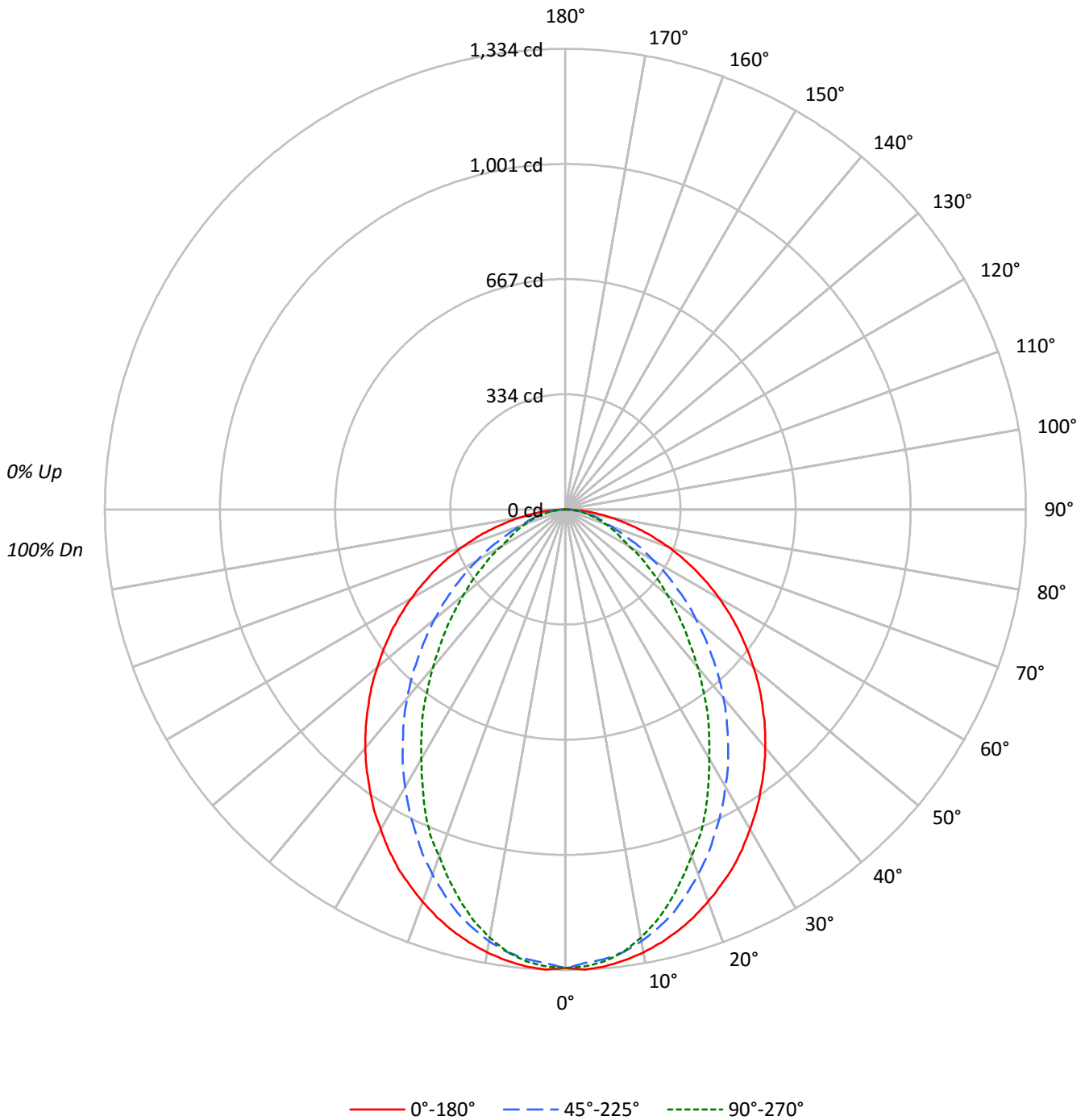
Lumens per Lamp: N/A
Luminaire Lumens: 2731.6 lumens
Efficiency: N/A
Efficacy: 78.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 34.8
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° | 21445 | 21445 | 21445 |
| 5° | 21527 | 21175 | 21293 |
| 10° | 21361 | 20830 | 20653 |
| 15° | 21117 | 20212 | 19629 |
| 20° | 20777 | 19330 | 18361 |
| 25° | 20428 | 18330 | 17131 |
| 30° | 19945 | 17299 | 15552 |
| 35° | 19474 | 16180 | 14168 |
| 40° | 19001 | 15024 | 12566 |
| 45° | 18443 | 13723 | 11115 |
| 50° | 17874 | 12409 | 9691 |
| 55° | 17289 | 10995 | 8324 |
| 60° | 16611 | 9510 | 6910 |
| 65° | 15843 | 7989 | 6292 |
| 70° | 14922 | 6581 | 5788 |
| 75° | 13799 | 6001 | 5396 |
| 80° | 12180 | 5365 | 4919 |
| 85° | 9578 | 4224 | 4224 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 124.5 | 4.6 |
| 10°-20° | 341.7 | 12.5 |
| 20°-30° | 479.8 | 17.6 |
| 30°-40° | 523.0 | 19.1 |
| 40°-50° | 480.7 | 17.6 |
| 50°-60° | 377.5 | 13.8 |
| 60°-70° | 245.7 | 9.0 |
| 70°-80° | 126.5 | 4.6 |
| 80°-90° | 32.3 | 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° | 946.0 | 34.6 |
| 0°-40° | 1468.9 | 53.8 |
| 0°-60° | 2327.1 | 85.2 |
| 0°-90° | 2731.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2731.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1328 | 1328 | 1328 | 1328 | 1328 | |
| 5° | 1328 | 1322 | 1306 | 1317 | 1314 | 126 |
| 15° | 1263 | 1250 | 1209 | 1186 | 1174 | 356 |
| 25° | 1147 | 1108 | 1029 | 980 | 962 | 527 |
| 35° | 988 | 927 | 821 | 745 | 719 | 618 |
| 45° | 808 | 727 | 601 | 516 | 487 | 624 |
| 55° | 614 | 520 | 391 | 318 | 296 | 549 |
| 65° | 415 | 317 | 209 | 168 | 165 | 411 |
| 75° | 221 | 137 | 96 | 88 | 86 | 234 |
| 85° | 52 | 26 | 23 | 23 | 23 | 62 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1328.2 | 1328.2 | 1328.2 | 1328.2 | 1328.2 |
| 2.5° | 1334.2 | 1328.2 | 1315.0 | 1327.0 | 1324.6 |
| 5° | 1328.2 | 1322.2 | 1306.5 | 1317.4 | 1313.8 |
| 7.5° | 1317.4 | 1310.1 | 1293.3 | 1298.1 | 1292.1 |
| 10° | 1302.9 | 1294.5 | 1270.5 | 1266.9 | 1259.7 |
| 12.5° | 1284.9 | 1274.1 | 1241.6 | 1234.4 | 1221.2 |
| 15° | 1263.3 | 1250.1 | 1209.2 | 1186.3 | 1174.3 |
| 17.5° | 1238.0 | 1218.8 | 1168.3 | 1141.9 | 1122.6 |
| 20° | 1209.2 | 1185.1 | 1125.0 | 1095.0 | 1068.6 |
| 22.5° | 1177.9 | 1150.3 | 1080.6 | 1039.7 | 1021.7 |
| 25° | 1146.7 | 1108.2 | 1028.9 | 979.6 | 961.6 |
| 27.5° | 1109.4 | 1068.6 | 980.8 | 924.3 | 896.7 |
| 30° | 1069.8 | 1024.1 | 927.9 | 866.6 | 834.2 |
| 32.5° | 1031.3 | 976.0 | 877.4 | 805.3 | 775.3 |
| 35° | 988.0 | 926.7 | 820.9 | 745.2 | 718.8 |
| 37.5° | 946.0 | 879.8 | 768.1 | 685.1 | 655.1 |
| 40° | 901.5 | 829.4 | 712.8 | 627.4 | 596.2 |
| 42.5° | 855.8 | 778.9 | 657.5 | 568.5 | 538.5 |
| 45° | 807.7 | 727.2 | 601.0 | 515.6 | 486.8 |
| 47.5° | 762.0 | 676.7 | 546.9 | 461.6 | 435.1 |
| 50° | 711.6 | 626.2 | 494.0 | 411.1 | 385.8 |
| 52.5° | 662.3 | 572.1 | 443.5 | 364.2 | 341.4 |
| 55° | 614.2 | 520.5 | 390.6 | 318.5 | 295.7 |
| 57.5° | 564.9 | 468.8 | 343.8 | 276.5 | 257.2 |
| 60° | 514.4 | 418.3 | 294.5 | 233.2 | 214.0 |
| 62.5° | 465.2 | 369.0 | 252.4 | 194.7 | 185.1 |
| 65° | 414.7 | 317.3 | 209.1 | 168.3 | 164.7 |
| 67.5° | 366.6 | 269.2 | 168.3 | 147.8 | 144.2 |
| 70° | 316.1 | 222.4 | 139.4 | 127.4 | 122.6 |
| 72.5° | 268.0 | 179.1 | 116.6 | 107.0 | 104.6 |
| 75° | 221.2 | 137.0 | 96.2 | 87.7 | 86.5 |
| 77.5° | 174.3 | 97.4 | 75.7 | 70.9 | 68.5 |
| 80° | 131.0 | 69.7 | 57.7 | 52.9 | 52.9 |
| 82.5° | 91.3 | 46.9 | 39.7 | 37.3 | 37.3 |
| 85° | 51.7 | 26.4 | 22.8 | 22.8 | 22.8 |
| 87.5° | 19.2 | 9.6 | 9.6 | 8.4 | 8.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)