

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: P334079

Luminaire Tested: **S123RDP-S1165D930-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334079
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-25)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123RDP-S1165D930-4F0-1E-UDD-F
Description: DEFINE 3 REGRESSED DIRECT LED LUMINAIRE, FLUSH SATIN WHITE DIFFUSER
PENDANT/SURFACE/WALL MOUNT, 1165 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3365.9 lumens
Efficiency: N/A
Efficacy: 81.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.07 / 1.22
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

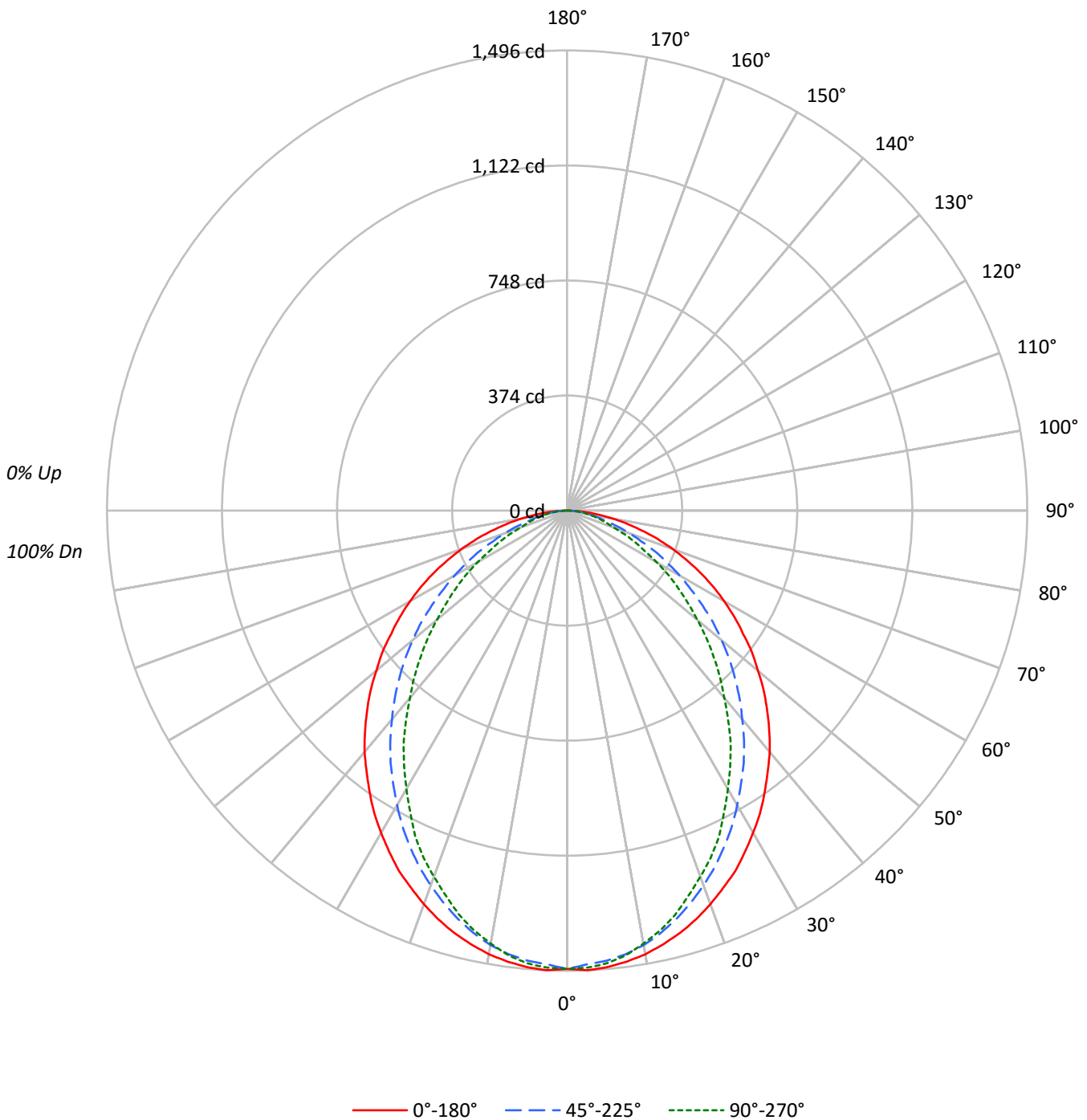
Input Watts (W): 41.1
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 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 | 105 | 101 | 98 | 107 | 103 | 99 | 96 | 99 | 96 | 93 | 95 | 93 | 90 | 91 | 89 | 88 | | | | | 86 | | | | |
| 2 | 100 | 93 | 86 | 81 | 98 | 91 | 85 | 80 | 87 | 83 | 78 | 84 | 80 | 77 | 81 | 78 | 75 | | | | | 73 | | | | |
| 3 | 92 | 82 | 75 | 68 | 90 | 81 | 74 | 68 | 78 | 72 | 67 | 75 | 70 | 66 | 73 | 68 | 64 | | | | | 62 | | | | |
| 4 | 85 | 73 | 65 | 59 | 83 | 72 | 64 | 58 | 70 | 63 | 58 | 67 | 62 | 57 | 65 | 60 | 56 | | | | | 54 | | | | |
| 5 | 78 | 66 | 57 | 51 | 76 | 65 | 57 | 51 | 63 | 56 | 50 | 61 | 55 | 50 | 59 | 54 | 49 | | | | | 47 | | | | |
| 6 | 73 | 60 | 51 | 45 | 71 | 59 | 51 | 45 | 57 | 50 | 45 | 55 | 49 | 44 | 54 | 48 | 44 | | | | | 42 | | | | |
| 7 | 67 | 54 | 46 | 40 | 66 | 54 | 46 | 40 | 52 | 45 | 40 | 51 | 44 | 39 | 49 | 44 | 39 | | | | | 37 | | | | |
| 8 | 63 | 50 | 42 | 36 | 61 | 49 | 41 | 36 | 48 | 41 | 36 | 47 | 40 | 36 | 46 | 40 | 35 | | | | | 34 | | | | |
| 9 | 59 | 46 | 38 | 33 | 58 | 45 | 38 | 33 | 44 | 37 | 32 | 43 | 37 | 32 | 42 | 36 | 32 | | | | | 30 | | | | |
| 10 | 55 | 43 | 35 | 30 | 54 | 42 | 35 | 30 | 41 | 34 | 30 | 40 | 34 | 29 | 39 | 34 | 29 | | | | | 28 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 16037 | 16037 | 16037 |
| 5° | 16098 | 15876 | 15968 |
| 10° | 16007 | 15677 | 15624 |
| 15° | 15835 | 15310 | 15149 |
| 20° | 15599 | 14851 | 14505 |
| 25° | 15355 | 14336 | 13878 |
| 30° | 15033 | 13742 | 12991 |
| 35° | 14703 | 13147 | 12178 |
| 40° | 14398 | 12445 | 11172 |
| 45° | 13997 | 11753 | 10265 |
| 50° | 13557 | 10967 | 9247 |
| 55° | 13106 | 10068 | 8300 |
| 60° | 12695 | 9104 | 7257 |
| 65° | 12157 | 8064 | 6217 |
| 70° | 11484 | 6770 | 5020 |
| 75° | 10501 | 5327 | 4724 |
| 80° | 9360 | 4717 | 4345 |
| 85° | 7904 | 4174 | 3878 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 140.1 | 4.2 |
| 10°-20° | 389.6 | 11.6 |
| 20°-30° | 561.0 | 16.7 |
| 30°-40° | 631.7 | 18.8 |
| 40°-50° | 604.3 | 18.0 |
| 50°-60° | 494.7 | 14.7 |
| 60°-70° | 333.5 | 9.9 |
| 70°-80° | 167.3 | 5.0 |
| 80°-90° | 43.7 | 1.3 |
| 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° | 1090.7 | 32.4 |
| 0°-40° | 1722.4 | 51.2 |
| 0°-60° | 2821.4 | 83.8 |
| 0°-90° | 3365.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3365.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1490 | 1490 | 1490 | 1490 | 1490 | |
| 5° | 1490 | 1484 | 1469 | 1480 | 1478 | 141 |
| 15° | 1421 | 1408 | 1374 | 1368 | 1359 | 400 |
| 25° | 1293 | 1263 | 1207 | 1182 | 1168 | 595 |
| 35° | 1119 | 1075 | 1000 | 948 | 927 | 700 |
| 45° | 920 | 865 | 772 | 703 | 674 | 710 |
| 55° | 698 | 639 | 536 | 466 | 442 | 626 |
| 65° | 477 | 411 | 317 | 257 | 244 | 472 |
| 75° | 252 | 194 | 128 | 116 | 114 | 269 |
| 85° | 64 | 38 | 34 | 31 | 31 | 74 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1489.9 | 1489.9 | 1489.9 | 1489.9 | 1489.9 |
| 2.5° | 1495.9 | 1491.1 | 1476.6 | 1489.9 | 1487.5 |
| 5° | 1489.9 | 1483.8 | 1469.3 | 1480.2 | 1477.8 |
| 7.5° | 1479.0 | 1473.0 | 1454.8 | 1462.1 | 1458.5 |
| 10° | 1464.5 | 1456.0 | 1434.3 | 1435.5 | 1429.5 |
| 12.5° | 1444.0 | 1434.3 | 1406.5 | 1405.3 | 1398.0 |
| 15° | 1421.0 | 1407.7 | 1373.9 | 1367.8 | 1359.4 |
| 17.5° | 1393.2 | 1378.7 | 1336.4 | 1324.3 | 1312.3 |
| 20° | 1361.8 | 1342.5 | 1296.5 | 1280.8 | 1266.3 |
| 22.5° | 1326.8 | 1303.8 | 1254.3 | 1233.7 | 1220.4 |
| 25° | 1292.9 | 1262.7 | 1207.1 | 1181.8 | 1168.5 |
| 27.5° | 1251.8 | 1219.2 | 1158.8 | 1125.0 | 1104.4 |
| 30° | 1209.5 | 1173.3 | 1105.6 | 1064.5 | 1045.2 |
| 32.5° | 1167.3 | 1125.0 | 1052.5 | 1006.5 | 986.0 |
| 35° | 1118.9 | 1075.4 | 1000.5 | 948.5 | 926.8 |
| 37.5° | 1070.6 | 1023.5 | 944.9 | 886.9 | 860.3 |
| 40° | 1024.7 | 971.5 | 885.7 | 822.9 | 795.1 |
| 42.5° | 972.7 | 919.5 | 830.1 | 760.0 | 735.9 |
| 45° | 919.5 | 865.2 | 772.1 | 703.3 | 674.3 |
| 47.5° | 867.6 | 807.2 | 715.3 | 640.4 | 615.0 |
| 50° | 809.6 | 752.8 | 654.9 | 580.0 | 552.2 |
| 52.5° | 757.6 | 694.8 | 598.1 | 519.6 | 495.4 |
| 55° | 698.4 | 639.2 | 536.5 | 466.4 | 442.3 |
| 57.5° | 645.3 | 581.2 | 477.3 | 410.8 | 390.3 |
| 60° | 589.7 | 523.2 | 422.9 | 357.7 | 337.1 |
| 62.5° | 534.1 | 467.6 | 367.3 | 306.9 | 285.2 |
| 65° | 477.3 | 410.8 | 316.6 | 257.4 | 244.1 |
| 67.5° | 420.5 | 352.8 | 261.0 | 216.3 | 201.8 |
| 70° | 364.9 | 299.7 | 215.1 | 172.8 | 159.5 |
| 72.5° | 309.3 | 245.3 | 170.4 | 137.8 | 134.1 |
| 75° | 252.5 | 194.5 | 128.1 | 116.0 | 113.6 |
| 77.5° | 200.6 | 147.4 | 100.3 | 93.0 | 90.6 |
| 80° | 151.0 | 101.5 | 76.1 | 72.5 | 70.1 |
| 82.5° | 103.9 | 62.8 | 54.4 | 50.8 | 50.8 |
| 85° | 64.0 | 37.5 | 33.8 | 31.4 | 31.4 |
| 87.5° | 29.0 | 15.7 | 15.7 | 14.5 | 13.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)