

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: P242901

Luminaire Tested: **S125RDR-S1090D940-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242901
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-27)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125RDR-S1090D940-X4F0-XX-UDD-F-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3557.2 lumens
Efficiency: N/A
Efficacy: 102.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

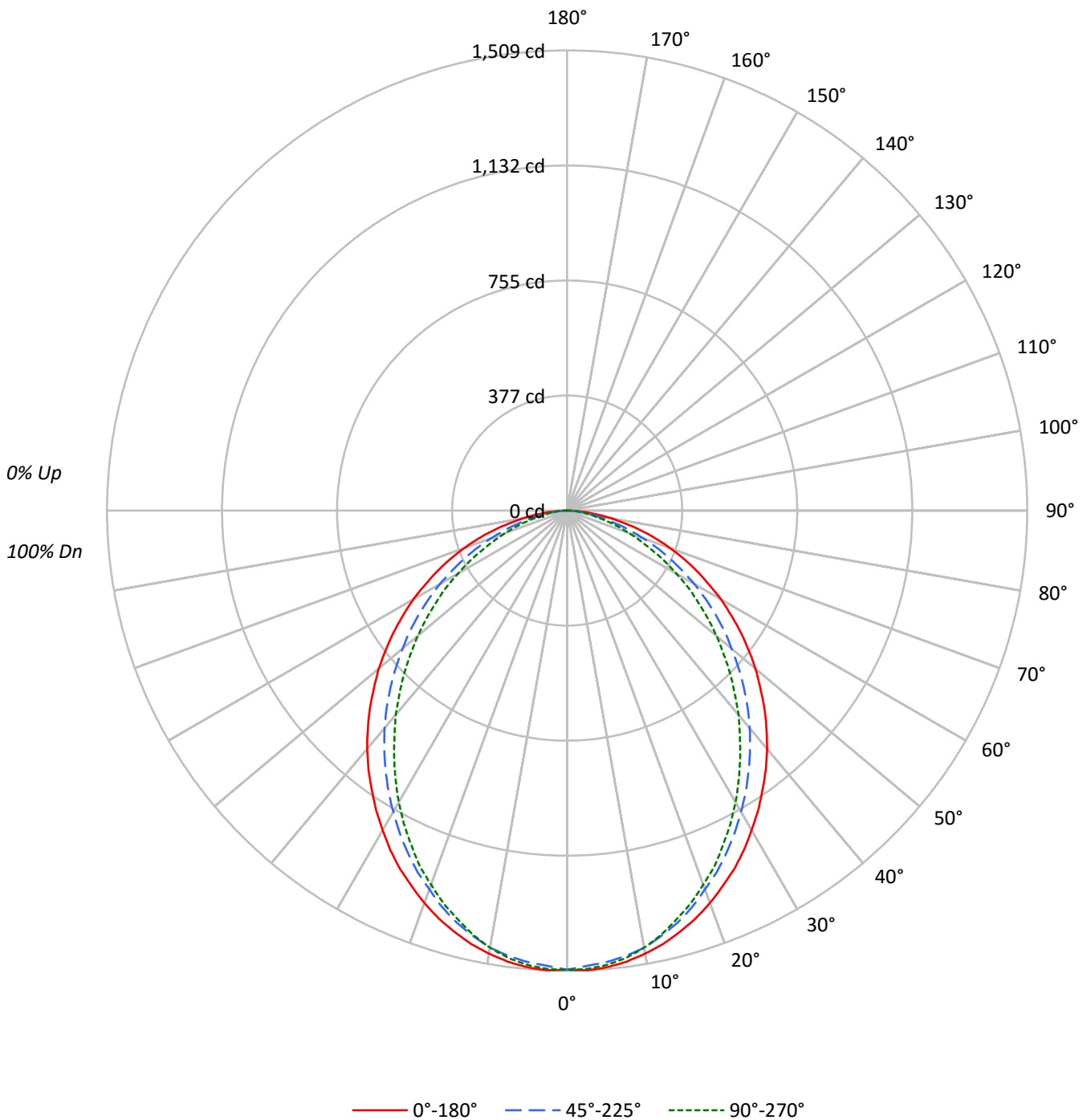
Input Watts (W): 34.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 109 | 105 | 101 | 97 | 107 | 103 | 99 | 96 | 99 | 96 | 93 | 95 | 92 | 90 | 91 | 89 | 87 | 85 |
| 2 | 100 | 92 | 86 | 80 | 98 | 90 | 84 | 79 | 87 | 82 | 78 | 84 | 79 | 76 | 81 | 77 | 74 | 72 |
| 3 | 92 | 82 | 74 | 68 | 89 | 80 | 73 | 67 | 77 | 71 | 66 | 74 | 69 | 65 | 72 | 67 | 64 | 61 |
| 4 | 84 | 73 | 64 | 58 | 82 | 71 | 64 | 57 | 69 | 62 | 57 | 67 | 61 | 56 | 64 | 59 | 55 | 53 |
| 5 | 78 | 65 | 57 | 50 | 76 | 64 | 56 | 50 | 62 | 55 | 49 | 60 | 54 | 49 | 58 | 53 | 48 | 46 |
| 6 | 72 | 59 | 50 | 44 | 70 | 58 | 50 | 44 | 56 | 49 | 44 | 55 | 48 | 43 | 53 | 47 | 43 | 41 |
| 7 | 67 | 54 | 45 | 39 | 65 | 53 | 45 | 39 | 51 | 44 | 39 | 50 | 43 | 39 | 49 | 43 | 38 | 36 |
| 8 | 62 | 49 | 41 | 35 | 61 | 48 | 41 | 35 | 47 | 40 | 35 | 46 | 39 | 35 | 45 | 39 | 34 | 33 |
| 9 | 58 | 45 | 37 | 32 | 57 | 45 | 37 | 32 | 44 | 37 | 32 | 42 | 36 | 31 | 41 | 36 | 31 | 29 |
| 10 | 55 | 42 | 34 | 29 | 54 | 41 | 34 | 29 | 40 | 34 | 29 | 39 | 33 | 29 | 39 | 33 | 29 | 27 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 10701 | 10701 | 10701 |
| 5° | 10725 | 10604 | 10669 |
| 10° | 10644 | 10505 | 10505 |
| 15° | 10518 | 10292 | 10208 |
| 20° | 10355 | 9994 | 9873 |
| 25° | 10166 | 9702 | 9488 |
| 30° | 9929 | 9361 | 9062 |
| 35° | 9689 | 9008 | 8584 |
| 40° | 9464 | 8641 | 8114 |
| 45° | 9190 | 8229 | 7601 |
| 50° | 8914 | 7783 | 7067 |
| 55° | 8596 | 7355 | 6496 |
| 60° | 8276 | 6837 | 5883 |
| 65° | 7897 | 6234 | 5183 |
| 70° | 7466 | 5482 | 4466 |
| 75° | 6871 | 4622 | 3715 |
| 80° | 6049 | 3630 | 3119 |
| 85° | 5097 | 2968 | 2781 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 141.7 | 4.0 |
| 10°-20° | 396.0 | 11.1 |
| 20°-30° | 574.2 | 16.1 |
| 30°-40° | 654.2 | 18.4 |
| 40°-50° | 637.6 | 17.9 |
| 50°-60° | 536.6 | 15.1 |
| 60°-70° | 376.0 | 10.6 |
| 70°-80° | 192.8 | 5.4 |
| 80°-90° | 48.1 | 1.4 |
| 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° | 1111.9 | 31.3 |
| 0°-40° | 1766.1 | 49.6 |
| 0°-60° | 2940.3 | 82.7 |
| 0°-90° | 3557.2 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3557.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1506 | 1506 | 1506 | 1506 | 1506 | |
| 5° | 1503 | 1499 | 1486 | 1498 | 1495 | 143 |
| 15° | 1429 | 1423 | 1399 | 1398 | 1387 | 403 |
| 25° | 1296 | 1279 | 1237 | 1222 | 1210 | 597 |
| 35° | 1117 | 1089 | 1038 | 1005 | 989 | 699 |
| 45° | 914 | 881 | 819 | 773 | 756 | 705 |
| 55° | 694 | 657 | 594 | 542 | 524 | 620 |
| 65° | 470 | 431 | 371 | 325 | 308 | 465 |
| 75° | 250 | 216 | 168 | 143 | 135 | 264 |
| 85° | 62 | 42 | 36 | 35 | 34 | 72 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P242901

CATALOG NUMBER: S125RDR-S1090D940-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1505.6 | 1505.6 | 1505.6 | 1505.6 | 1505.6 |
| 2.5° | 1509.0 | 1505.6 | 1494.2 | 1505.6 | 1504.5 |
| 5° | 1503.3 | 1498.8 | 1486.3 | 1497.6 | 1495.4 |
| 7.5° | 1491.9 | 1487.4 | 1472.6 | 1481.7 | 1479.4 |
| 10° | 1474.9 | 1471.5 | 1455.6 | 1459.0 | 1455.6 |
| 12.5° | 1455.6 | 1451.0 | 1428.3 | 1430.5 | 1424.8 |
| 15° | 1429.4 | 1422.6 | 1398.7 | 1397.6 | 1387.3 |
| 17.5° | 1402.1 | 1391.9 | 1363.4 | 1357.8 | 1349.8 |
| 20° | 1369.1 | 1357.8 | 1321.4 | 1315.7 | 1305.4 |
| 22.5° | 1332.7 | 1321.4 | 1282.7 | 1270.2 | 1262.2 |
| 25° | 1296.4 | 1279.3 | 1237.2 | 1222.4 | 1209.9 |
| 27.5° | 1255.4 | 1234.9 | 1190.6 | 1171.3 | 1158.8 |
| 30° | 1209.9 | 1188.3 | 1140.6 | 1114.4 | 1104.2 |
| 32.5° | 1165.6 | 1139.4 | 1090.5 | 1061.0 | 1047.3 |
| 35° | 1116.7 | 1089.4 | 1038.2 | 1005.2 | 989.3 |
| 37.5° | 1070.1 | 1037.1 | 984.8 | 946.1 | 930.2 |
| 40° | 1020.0 | 985.9 | 931.3 | 888.1 | 874.5 |
| 42.5° | 967.7 | 932.5 | 875.6 | 834.7 | 813.1 |
| 45° | 914.3 | 881.3 | 818.7 | 773.3 | 756.2 |
| 47.5° | 858.5 | 824.4 | 761.9 | 715.3 | 695.9 |
| 50° | 806.2 | 768.7 | 703.9 | 656.1 | 639.1 |
| 52.5° | 749.4 | 710.7 | 650.5 | 598.1 | 581.1 |
| 55° | 693.7 | 657.3 | 593.6 | 542.4 | 524.2 |
| 57.5° | 636.8 | 598.1 | 536.7 | 486.7 | 470.8 |
| 60° | 582.2 | 542.4 | 481.0 | 431.0 | 413.9 |
| 62.5° | 524.2 | 486.7 | 424.2 | 378.7 | 361.6 |
| 65° | 469.6 | 431.0 | 370.7 | 325.2 | 308.2 |
| 67.5° | 415.1 | 376.4 | 318.4 | 275.2 | 261.5 |
| 70° | 359.3 | 320.7 | 263.8 | 228.6 | 214.9 |
| 72.5° | 304.8 | 267.2 | 214.9 | 183.1 | 175.1 |
| 75° | 250.2 | 216.1 | 168.3 | 143.3 | 135.3 |
| 77.5° | 194.5 | 167.2 | 127.4 | 108.0 | 101.2 |
| 80° | 147.8 | 120.5 | 88.7 | 78.5 | 76.2 |
| 82.5° | 102.3 | 78.5 | 59.1 | 55.7 | 54.6 |
| 85° | 62.5 | 42.1 | 36.4 | 35.3 | 34.1 |
| 87.5° | 26.2 | 18.2 | 17.1 | 17.1 | 15.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)