

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: P242900

Luminaire Tested: **S125RDR-S850D940-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242900
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-S850D940-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: 2789.4 lumens
Efficiency: N/A
Efficacy: 105.7 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

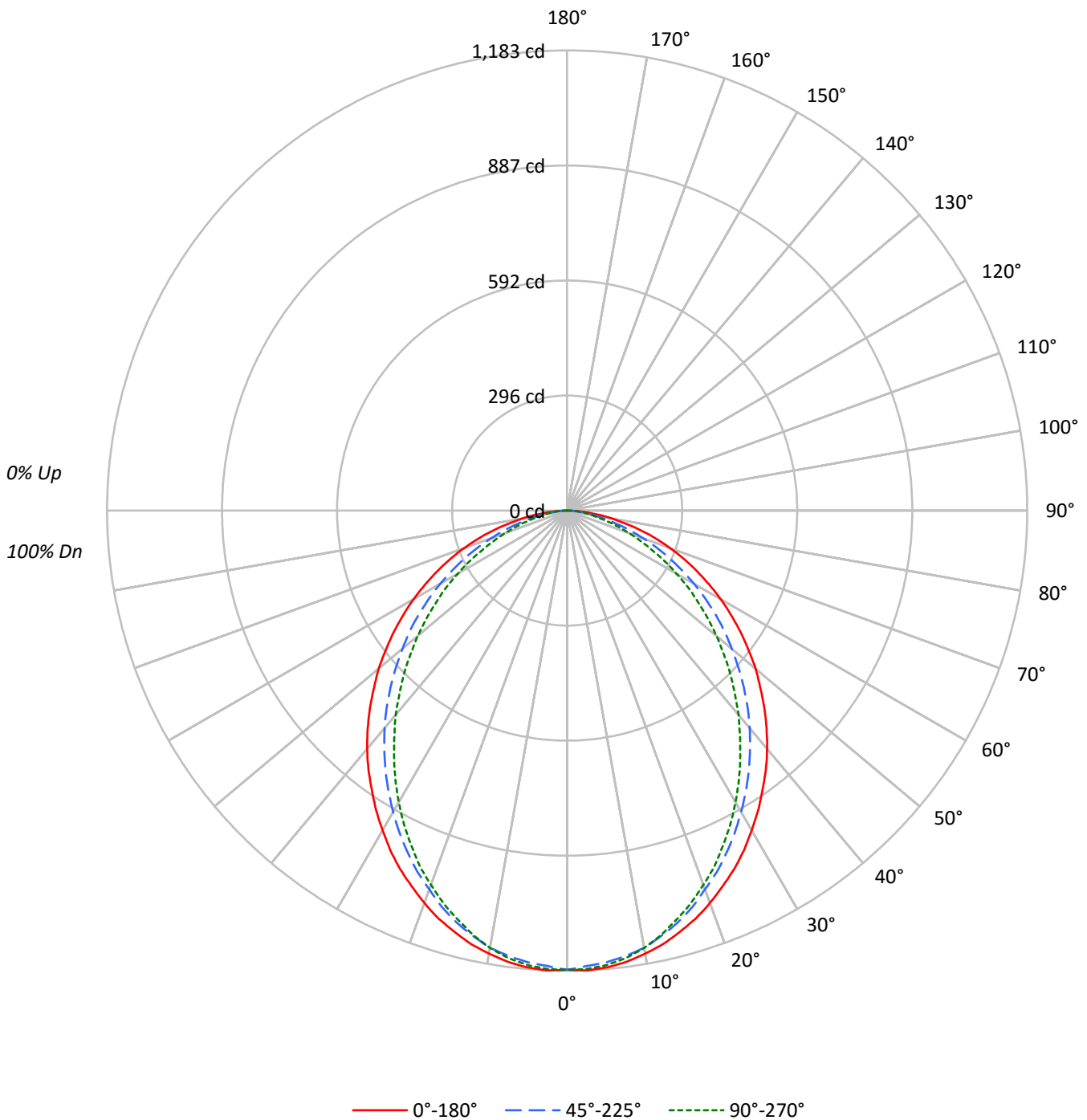
Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 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° | 8391 | 8391 | 8391 |
| 5° | 8410 | 8315 | 8366 |
| 10° | 8346 | 8237 | 8237 |
| 15° | 8248 | 8070 | 8005 |
| 20° | 8120 | 7837 | 7743 |
| 25° | 7972 | 7608 | 7441 |
| 30° | 7787 | 7340 | 7106 |
| 35° | 7598 | 7064 | 6731 |
| 40° | 7421 | 6776 | 6362 |
| 45° | 7206 | 6453 | 5960 |
| 50° | 6990 | 6103 | 5541 |
| 55° | 6740 | 5768 | 5094 |
| 60° | 6490 | 5362 | 4614 |
| 65° | 6194 | 4889 | 4065 |
| 70° | 5856 | 4299 | 3502 |
| 75° | 5388 | 3625 | 2914 |
| 80° | 4744 | 2849 | 2443 |
| 85° | 3996 | 2324 | 2185 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 111.1 | 4.0 |
| 10°-20° | 310.5 | 11.1 |
| 20°-30° | 450.3 | 16.1 |
| 30°-40° | 513.0 | 18.4 |
| 40°-50° | 500.0 | 17.9 |
| 50°-60° | 420.8 | 15.1 |
| 60°-70° | 294.9 | 10.6 |
| 70°-80° | 151.2 | 5.4 |
| 80°-90° | 37.7 | 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° | 871.9 | 31.3 |
| 0°-40° | 1384.9 | 49.6 |
| 0°-60° | 2305.7 | 82.7 |
| 0°-90° | 2789.4 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2789.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1181 | 1181 | 1181 | 1181 | 1181 | |
| 5° | 1179 | 1175 | 1166 | 1174 | 1173 | 112 |
| 15° | 1121 | 1116 | 1097 | 1096 | 1088 | 316 |
| 25° | 1017 | 1003 | 970 | 959 | 949 | 468 |
| 35° | 876 | 854 | 814 | 788 | 776 | 548 |
| 45° | 717 | 691 | 642 | 606 | 593 | 553 |
| 55° | 544 | 515 | 466 | 425 | 411 | 486 |
| 65° | 368 | 338 | 291 | 255 | 242 | 365 |
| 75° | 196 | 169 | 132 | 112 | 106 | 207 |
| 85° | 49 | 33 | 28 | 28 | 27 | 57 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1180.6 | 1180.6 | 1180.6 | 1180.6 | 1180.6 |
| 2.5° | 1183.3 | 1180.6 | 1171.7 | 1180.6 | 1179.7 |
| 5° | 1178.8 | 1175.3 | 1165.5 | 1174.4 | 1172.6 |
| 7.5° | 1169.9 | 1166.4 | 1154.8 | 1161.9 | 1160.1 |
| 10° | 1156.5 | 1153.9 | 1141.4 | 1144.1 | 1141.4 |
| 12.5° | 1141.4 | 1137.8 | 1120.0 | 1121.8 | 1117.3 |
| 15° | 1120.9 | 1115.5 | 1096.8 | 1095.9 | 1087.9 |
| 17.5° | 1099.5 | 1091.5 | 1069.2 | 1064.7 | 1058.5 |
| 20° | 1073.6 | 1064.7 | 1036.2 | 1031.7 | 1023.7 |
| 22.5° | 1045.1 | 1036.2 | 1005.8 | 996.0 | 989.8 |
| 25° | 1016.6 | 1003.2 | 970.2 | 958.6 | 948.8 |
| 27.5° | 984.4 | 968.4 | 933.6 | 918.5 | 908.7 |
| 30° | 948.8 | 931.8 | 894.4 | 873.9 | 865.9 |
| 32.5° | 914.0 | 893.5 | 855.2 | 832.0 | 821.3 |
| 35° | 875.7 | 854.3 | 814.1 | 788.3 | 775.8 |
| 37.5° | 839.1 | 813.2 | 772.2 | 741.9 | 729.4 |
| 40° | 799.9 | 773.1 | 730.3 | 696.4 | 685.7 |
| 42.5° | 758.8 | 731.2 | 686.6 | 654.5 | 637.6 |
| 45° | 716.9 | 691.1 | 642.0 | 606.4 | 593.0 |
| 47.5° | 673.2 | 646.5 | 597.4 | 560.9 | 545.7 |
| 50° | 632.2 | 602.8 | 552.0 | 514.5 | 501.1 |
| 52.5° | 587.6 | 557.3 | 510.1 | 469.0 | 455.7 |
| 55° | 543.9 | 515.4 | 465.5 | 425.3 | 411.1 |
| 57.5° | 499.4 | 469.0 | 420.9 | 381.7 | 369.2 |
| 60° | 456.6 | 425.3 | 377.2 | 338.0 | 324.6 |
| 62.5° | 411.1 | 381.7 | 332.6 | 296.9 | 283.6 |
| 65° | 368.3 | 338.0 | 290.7 | 255.0 | 241.7 |
| 67.5° | 325.5 | 295.2 | 249.7 | 215.8 | 205.1 |
| 70° | 281.8 | 251.5 | 206.9 | 179.2 | 168.5 |
| 72.5° | 239.0 | 209.6 | 168.5 | 143.6 | 137.3 |
| 75° | 196.2 | 169.4 | 132.0 | 112.4 | 106.1 |
| 77.5° | 152.5 | 131.1 | 99.9 | 84.7 | 79.4 |
| 80° | 115.9 | 94.5 | 69.6 | 61.5 | 59.7 |
| 82.5° | 80.3 | 61.5 | 46.4 | 43.7 | 42.8 |
| 85° | 49.0 | 33.0 | 28.5 | 27.6 | 26.8 |
| 87.5° | 20.5 | 14.3 | 13.4 | 13.4 | 12.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)