

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: P242723

Luminaire Tested: **S124RDR-S795D935-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242723
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-26)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124RDR-S795D935-X4F0-XX-UDD-F-W
Description: DEFINE 4 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2598.2 lumens
Efficiency: N/A
Efficacy: 98.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')
CIE Type: Direct

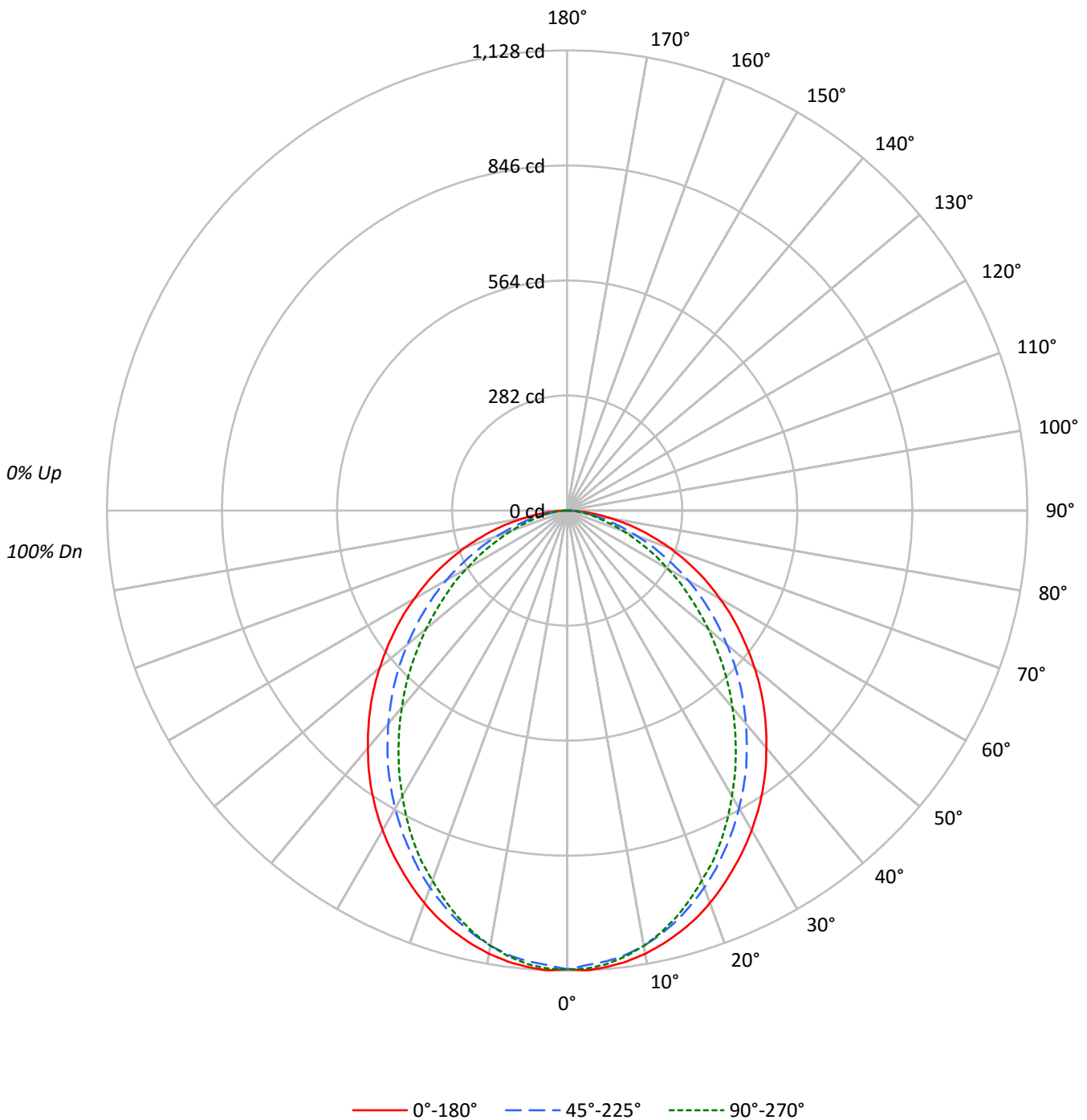
Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 110 | 105 | 101 | 98 | 107 | 103 | 99 | 96 | 99 | 96 | 93 | 95 | 92 | 90 | 91 | 89 | 87 | 85 |
| 2 | 100 | 93 | 86 | 81 | 98 | 91 | 85 | 80 | 87 | 82 | 78 | 84 | 80 | 76 | 81 | 78 | 74 | 72 |
| 3 | 92 | 82 | 74 | 68 | 89 | 80 | 73 | 67 | 77 | 71 | 66 | 75 | 69 | 65 | 72 | 68 | 64 | 62 |
| 4 | 84 | 73 | 65 | 58 | 82 | 72 | 64 | 58 | 69 | 62 | 57 | 67 | 61 | 56 | 65 | 60 | 56 | 54 |
| 5 | 78 | 66 | 57 | 51 | 76 | 65 | 56 | 50 | 62 | 55 | 50 | 61 | 54 | 49 | 59 | 53 | 49 | 47 |
| 6 | 72 | 59 | 51 | 45 | 70 | 58 | 50 | 44 | 57 | 49 | 44 | 55 | 49 | 44 | 53 | 48 | 43 | 41 |
| 7 | 67 | 54 | 46 | 40 | 65 | 53 | 45 | 40 | 52 | 45 | 39 | 50 | 44 | 39 | 49 | 43 | 39 | 37 |
| 8 | 63 | 50 | 41 | 36 | 61 | 49 | 41 | 36 | 48 | 40 | 35 | 46 | 40 | 35 | 45 | 39 | 35 | 33 |
| 9 | 59 | 46 | 38 | 32 | 57 | 45 | 37 | 32 | 44 | 37 | 32 | 43 | 36 | 32 | 42 | 36 | 32 | 30 |
| 10 | 55 | 42 | 35 | 29 | 54 | 42 | 34 | 29 | 41 | 34 | 29 | 40 | 33 | 29 | 39 | 33 | 29 | 27 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|------|------|
| 0° | 9996 | 9996 | 9996 |
| 5° | 10018 | 9895 | 9957 |
| 10° | 9955 | 9776 | 9776 |
| 15° | 9841 | 9571 | 9500 |
| 20° | 9684 | 9301 | 9130 |
| 25° | 9483 | 8985 | 8757 |
| 30° | 9288 | 8652 | 8289 |
| 35° | 9072 | 8306 | 7821 |
| 40° | 8812 | 7913 | 7314 |
| 45° | 8572 | 7522 | 6797 |
| 50° | 8299 | 7072 | 6251 |
| 55° | 8006 | 6605 | 5658 |
| 60° | 7684 | 6092 | 5051 |
| 65° | 7389 | 5452 | 4455 |
| 70° | 6960 | 4743 | 3781 |
| 75° | 6415 | 3932 | 3074 |
| 80° | 5595 | 2995 | 2821 |
| 85° | 4742 | 2723 | 2550 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 105.7 | 4.1 |
| 10°-20° | 294.8 | 11.3 |
| 20°-30° | 425.6 | 16.4 |
| 30°-40° | 482.4 | 18.6 |
| 40°-50° | 465.8 | 17.9 |
| 50°-60° | 387.2 | 14.9 |
| 60°-70° | 267.3 | 10.3 |
| 70°-80° | 135.0 | 5.2 |
| 80°-90° | 34.3 | 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° | 826.2 | 31.8 |
| 0°-40° | 1308.6 | 50.4 |
| 0°-60° | 2161.6 | 83.2 |
| 0°-90° | 2598.2 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2598.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1124 | 1124 | 1124 | 1124 | 1124 | |
| 5° | 1123 | 1119 | 1109 | 1118 | 1116 | 107 |
| 15° | 1069 | 1062 | 1040 | 1038 | 1032 | 301 |
| 25° | 967 | 951 | 916 | 902 | 893 | 446 |
| 35° | 836 | 808 | 765 | 736 | 721 | 523 |
| 45° | 682 | 650 | 598 | 556 | 541 | 526 |
| 55° | 517 | 482 | 426 | 381 | 365 | 462 |
| 65° | 351 | 314 | 259 | 222 | 212 | 347 |
| 75° | 187 | 155 | 114 | 95 | 90 | 197 |
| 85° | 46 | 29 | 27 | 25 | 25 | 54 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1124.5 | 1124.5 | 1124.5 | 1124.5 | 1124.5 |
| 2.5° | 1127.9 | 1124.5 | 1115.0 | 1124.5 | 1123.6 |
| 5° | 1122.7 | 1119.3 | 1109.0 | 1117.6 | 1115.9 |
| 7.5° | 1115.0 | 1111.6 | 1098.6 | 1104.7 | 1102.1 |
| 10° | 1102.9 | 1098.6 | 1083.1 | 1086.6 | 1083.1 |
| 12.5° | 1087.4 | 1082.3 | 1063.3 | 1065.1 | 1059.9 |
| 15° | 1069.4 | 1061.6 | 1040.1 | 1038.4 | 1032.3 |
| 17.5° | 1048.7 | 1037.5 | 1012.5 | 1008.2 | 999.6 |
| 20° | 1023.7 | 1012.5 | 983.3 | 976.4 | 965.2 |
| 22.5° | 996.2 | 983.3 | 951.4 | 940.2 | 931.6 |
| 25° | 966.9 | 951.4 | 916.1 | 901.5 | 892.9 |
| 27.5° | 936.8 | 917.8 | 880.8 | 863.6 | 851.5 |
| 30° | 904.9 | 883.4 | 842.9 | 821.4 | 807.6 |
| 32.5° | 871.3 | 846.4 | 804.2 | 778.3 | 765.4 |
| 35° | 836.0 | 808.5 | 765.4 | 736.2 | 720.7 |
| 37.5° | 799.0 | 770.6 | 723.2 | 691.4 | 675.9 |
| 40° | 759.4 | 731.0 | 681.9 | 645.7 | 630.3 |
| 42.5° | 721.5 | 691.4 | 639.7 | 602.7 | 586.3 |
| 45° | 681.9 | 650.1 | 598.4 | 556.2 | 540.7 |
| 47.5° | 641.4 | 608.7 | 555.3 | 511.4 | 494.2 |
| 50° | 600.1 | 566.5 | 511.4 | 468.4 | 452.0 |
| 52.5° | 557.9 | 525.2 | 468.4 | 424.5 | 407.3 |
| 55° | 516.6 | 482.2 | 426.2 | 381.4 | 365.1 |
| 57.5° | 476.1 | 440.0 | 384.9 | 339.2 | 327.2 |
| 60° | 432.2 | 397.8 | 342.7 | 297.9 | 284.1 |
| 62.5° | 392.6 | 356.5 | 299.6 | 259.2 | 248.8 |
| 65° | 351.3 | 314.3 | 259.2 | 222.1 | 211.8 |
| 67.5° | 308.2 | 272.9 | 221.3 | 188.6 | 176.5 |
| 70° | 267.8 | 231.6 | 182.5 | 154.1 | 145.5 |
| 72.5° | 224.7 | 192.9 | 147.2 | 124.0 | 116.2 |
| 75° | 186.8 | 155.0 | 114.5 | 94.7 | 89.5 |
| 77.5° | 147.2 | 119.7 | 85.2 | 71.5 | 69.7 |
| 80° | 109.3 | 84.4 | 58.5 | 56.0 | 55.1 |
| 82.5° | 76.6 | 54.2 | 42.2 | 40.5 | 39.6 |
| 85° | 46.5 | 29.3 | 26.7 | 25.0 | 25.0 |
| 87.5° | 19.8 | 12.9 | 12.1 | 11.2 | 12.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)