

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: P242605

Luminaire Tested: **S124DR-S575D835-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242605
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-5)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DR-S575D835-X4F0-XX-UDD-F-W
Description: DEFINE 4 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2300.0 lumens
Efficiency: N/A
Efficacy: 122.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')
CIE Type: Direct

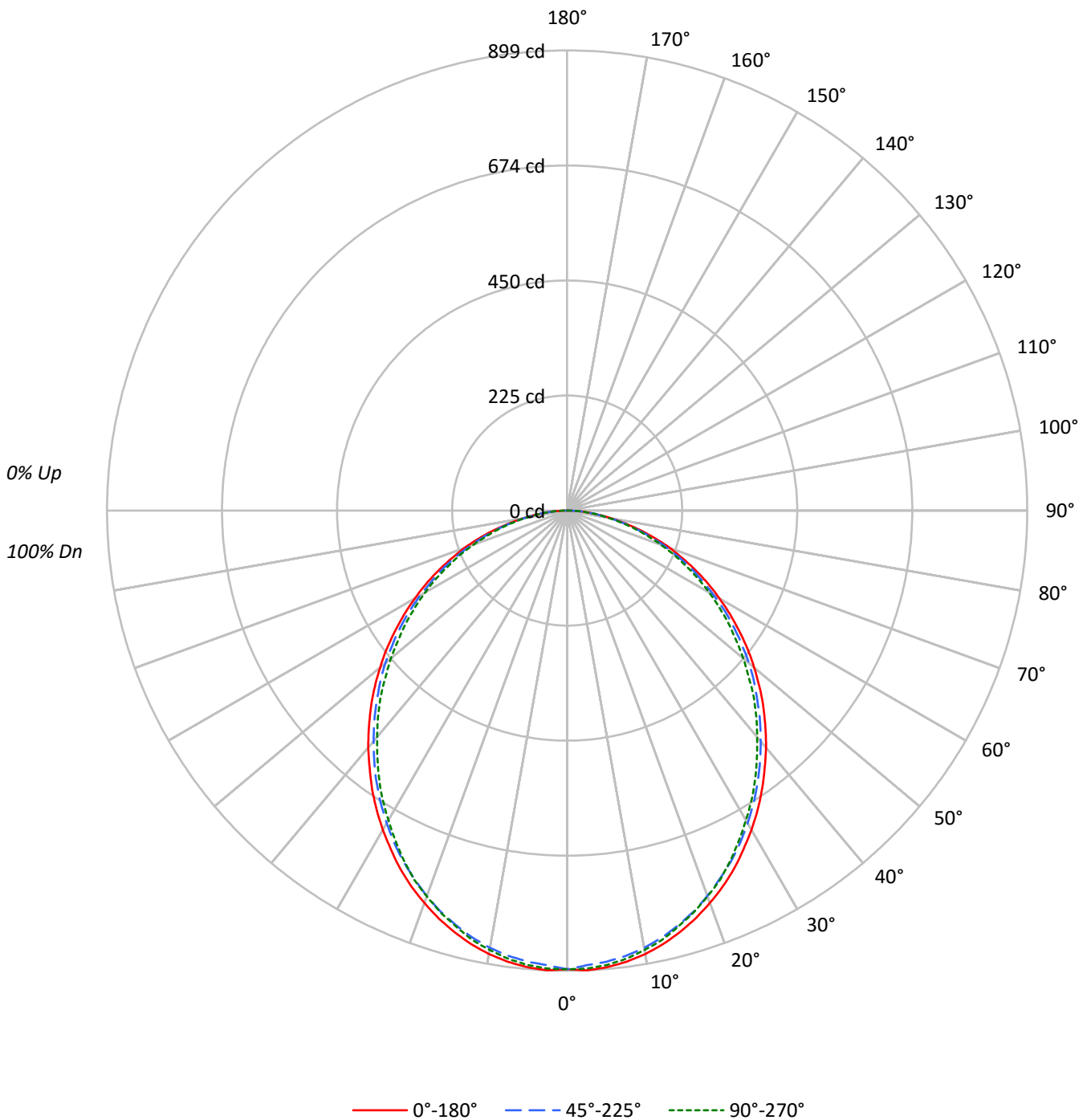
Input Watts (W): 18.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P242605

CATALOG NUMBER: S124DR-S575D835-X4F0-XX-UDD-F-W

Luminous Intensity Polar Plot





TEST NUMBER: P242605

CATALOG NUMBER: S124DR-S575D835-X4F0-XX-UDD-F-W

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 | 104 | 100 | 96 | 106 | 102 | 98 | 95 | 98 | 95 | 92 | 94 | 91 | 89 | 90 | 88 | 86 | 84 |
| 2 | 99 | 91 | 84 | 79 | 97 | 89 | 83 | 78 | 86 | 80 | 76 | 82 | 78 | 74 | 79 | 76 | 73 | 70 |
| 3 | 91 | 80 | 72 | 66 | 88 | 79 | 71 | 65 | 76 | 69 | 64 | 73 | 67 | 63 | 70 | 66 | 62 | 60 |
| 4 | 83 | 71 | 63 | 56 | 81 | 70 | 62 | 56 | 67 | 60 | 55 | 65 | 59 | 54 | 63 | 58 | 53 | 51 |
| 5 | 77 | 64 | 55 | 48 | 74 | 63 | 54 | 48 | 61 | 53 | 48 | 59 | 52 | 47 | 57 | 51 | 47 | 44 |
| 6 | 71 | 58 | 49 | 42 | 69 | 57 | 48 | 42 | 55 | 47 | 42 | 53 | 47 | 41 | 52 | 46 | 41 | 39 |
| 7 | 66 | 52 | 44 | 38 | 64 | 52 | 43 | 37 | 50 | 43 | 37 | 49 | 42 | 37 | 47 | 41 | 37 | 35 |
| 8 | 61 | 48 | 39 | 34 | 60 | 47 | 39 | 34 | 46 | 39 | 33 | 45 | 38 | 33 | 43 | 37 | 33 | 31 |
| 9 | 57 | 44 | 36 | 30 | 56 | 43 | 36 | 30 | 42 | 35 | 30 | 41 | 35 | 30 | 40 | 34 | 30 | 28 |
| 10 | 54 | 41 | 33 | 28 | 52 | 40 | 33 | 28 | 39 | 32 | 27 | 38 | 32 | 27 | 37 | 31 | 27 | 25 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 7965 | 7965 | 7965 |
| 5° | 7990 | 7893 | 7951 |
| 10° | 7939 | 7829 | 7868 |
| 15° | 7843 | 7718 | 7737 |
| 20° | 7716 | 7580 | 7586 |
| 25° | 7571 | 7423 | 7401 |
| 30° | 7392 | 7237 | 7170 |
| 35° | 7207 | 7044 | 6950 |
| 40° | 7016 | 6824 | 6699 |
| 45° | 6815 | 6607 | 6480 |
| 50° | 6594 | 6414 | 6216 |
| 55° | 6354 | 6165 | 5965 |
| 60° | 6114 | 5884 | 5707 |
| 65° | 5845 | 5618 | 5391 |
| 70° | 5544 | 5263 | 5058 |
| 75° | 5079 | 4832 | 4709 |
| 80° | 4520 | 4336 | 4228 |
| 85° | 3957 | 3804 | 3733 |



TEST NUMBER: P242605

CATALOG NUMBER: S124DR-S575D835-X4F0-XX-UDD-F-W

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 84.5 | 3.7 |
| 10°-20° | 238.0 | 10.3 |
| 20°-30° | 350.2 | 15.2 |
| 30°-40° | 407.1 | 17.7 |
| 40°-50° | 407.0 | 17.7 |
| 50°-60° | 356.0 | 15.5 |
| 60°-70° | 264.3 | 11.5 |
| 70°-80° | 150.0 | 6.5 |
| 80°-90° | 42.9 | 1.9 |
| 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° | 672.6 | 29.2 |
| 0°-40° | 1079.7 | 46.9 |
| 0°-60° | 1842.8 | 80.1 |
| 0°-90° | 2300.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2300.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 896 | 896 | 896 | 896 | 896 | |
| 5° | 895 | 892 | 885 | 892 | 891 | 85 |
| 15° | 852 | 849 | 839 | 843 | 841 | 240 |
| 25° | 772 | 767 | 757 | 758 | 755 | 355 |
| 35° | 664 | 659 | 649 | 644 | 640 | 415 |
| 45° | 542 | 537 | 526 | 518 | 516 | 418 |
| 55° | 410 | 408 | 398 | 389 | 385 | 367 |
| 65° | 278 | 274 | 267 | 260 | 256 | 275 |
| 75° | 148 | 144 | 141 | 138 | 137 | 157 |
| 85° | 39 | 39 | 37 | 37 | 37 | 44 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P242605

CATALOG NUMBER: S124DR-S575D835-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 896.1 | 896.1 | 896.1 | 896.1 | 896.1 |
| 2.5° | 899.0 | 896.8 | 888.9 | 896.1 | 895.4 |
| 5° | 895.4 | 892.5 | 884.6 | 892.5 | 891.1 |
| 7.5° | 888.9 | 886.0 | 877.4 | 883.9 | 883.2 |
| 10° | 879.6 | 876.7 | 867.4 | 873.1 | 871.7 |
| 12.5° | 867.4 | 864.5 | 854.5 | 860.9 | 858.8 |
| 15° | 852.3 | 849.4 | 838.7 | 843.0 | 840.8 |
| 17.5° | 835.1 | 831.5 | 821.4 | 824.3 | 822.9 |
| 20° | 815.7 | 812.1 | 801.3 | 803.5 | 802.0 |
| 22.5° | 794.9 | 789.8 | 779.1 | 783.4 | 780.5 |
| 25° | 771.9 | 766.9 | 756.8 | 757.5 | 754.6 |
| 27.5° | 746.0 | 741.0 | 731.7 | 730.2 | 726.6 |
| 30° | 720.2 | 714.4 | 705.1 | 702.2 | 698.6 |
| 32.5° | 692.9 | 687.9 | 677.8 | 674.2 | 670.6 |
| 35° | 664.2 | 659.1 | 649.1 | 644.1 | 640.5 |
| 37.5° | 634.0 | 629.7 | 618.9 | 613.9 | 608.9 |
| 40° | 604.6 | 598.8 | 588.1 | 580.9 | 577.3 |
| 42.5° | 573.0 | 570.1 | 557.9 | 549.3 | 547.1 |
| 45° | 542.1 | 537.1 | 525.6 | 517.7 | 515.5 |
| 47.5° | 509.8 | 506.2 | 495.4 | 486.8 | 481.1 |
| 50° | 476.8 | 473.9 | 463.8 | 453.8 | 449.5 |
| 52.5° | 444.5 | 440.9 | 430.1 | 421.5 | 415.7 |
| 55° | 410.0 | 407.8 | 397.8 | 389.2 | 384.9 |
| 57.5° | 377.7 | 375.5 | 365.5 | 356.9 | 352.6 |
| 60° | 343.9 | 340.3 | 331.0 | 324.5 | 321.0 |
| 62.5° | 310.9 | 308.0 | 298.0 | 292.2 | 288.6 |
| 65° | 277.9 | 274.3 | 267.1 | 259.9 | 256.3 |
| 67.5° | 244.1 | 241.3 | 234.1 | 226.9 | 226.2 |
| 70° | 213.3 | 208.2 | 202.5 | 196.7 | 194.6 |
| 72.5° | 180.2 | 175.2 | 170.9 | 166.6 | 164.4 |
| 75° | 147.9 | 144.3 | 140.7 | 137.9 | 137.1 |
| 77.5° | 116.3 | 114.9 | 111.3 | 110.6 | 108.4 |
| 80° | 88.3 | 86.2 | 84.7 | 83.3 | 82.6 |
| 82.5° | 61.0 | 60.3 | 60.3 | 59.6 | 58.9 |
| 85° | 38.8 | 38.8 | 37.3 | 37.3 | 36.6 |
| 87.5° | 18.7 | 18.0 | 17.2 | 17.2 | 17.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)