

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: P242600

Luminaire Tested: **S124DR-S575D830-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242600
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-S575D830-X4F0-XX-UDD-F-W
Description: DEFINE 4 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2167.8 lumens
Efficiency: N/A
Efficacy: 115.3 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

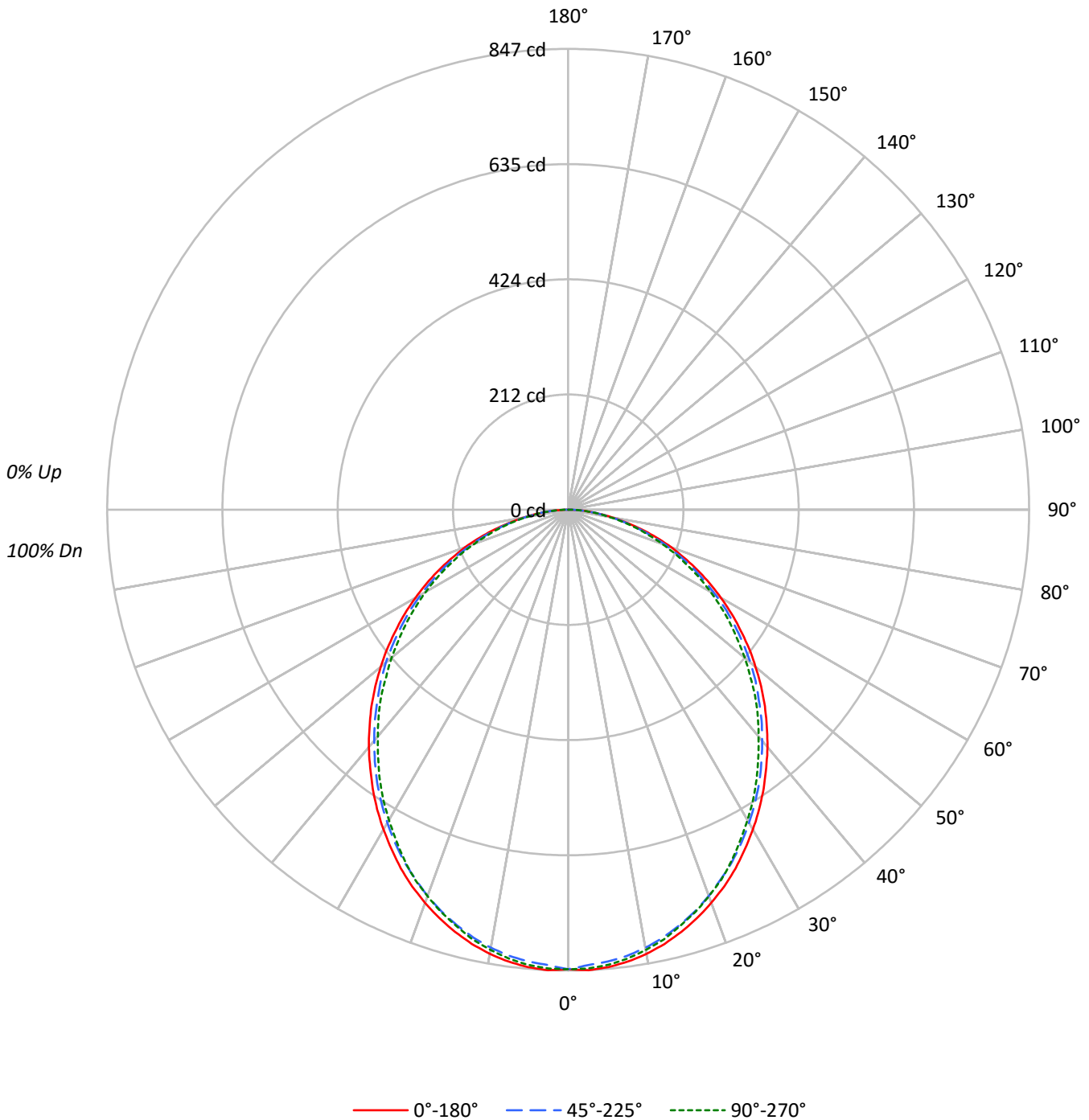
Input Watts (W): 18.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 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° | 7508 | 7508 | 7508 |
| 5° | 7530 | 7440 | 7494 |
| 10° | 7483 | 7379 | 7416 |
| 15° | 7392 | 7275 | 7293 |
| 20° | 7272 | 7145 | 7151 |
| 25° | 7135 | 6996 | 6976 |
| 30° | 6967 | 6821 | 6759 |
| 35° | 6793 | 6639 | 6551 |
| 40° | 6612 | 6432 | 6314 |
| 45° | 6424 | 6228 | 6108 |
| 50° | 6215 | 6046 | 5859 |
| 55° | 5988 | 5810 | 5621 |
| 60° | 5764 | 5547 | 5378 |
| 65° | 5509 | 5296 | 5082 |
| 70° | 5224 | 4959 | 4766 |
| 75° | 4788 | 4554 | 4441 |
| 80° | 4259 | 4090 | 3983 |
| 85° | 3723 | 3590 | 3519 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 79.6 | 3.7 |
| 10°-20° | 224.3 | 10.3 |
| 20°-30° | 330.1 | 15.2 |
| 30°-40° | 383.7 | 17.7 |
| 40°-50° | 383.7 | 17.7 |
| 50°-60° | 335.6 | 15.5 |
| 60°-70° | 249.1 | 11.5 |
| 70°-80° | 141.3 | 6.5 |
| 80°-90° | 40.5 | 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° | 634.0 | 29.2 |
| 0°-40° | 1017.7 | 46.9 |
| 0°-60° | 1736.9 | 80.1 |
| 0°-90° | 2167.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2167.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 845 | 845 | 845 | 845 | 845 | |
| 5° | 844 | 841 | 834 | 841 | 840 | 80 |
| 15° | 803 | 801 | 790 | 794 | 792 | 226 |
| 25° | 728 | 723 | 713 | 714 | 711 | 335 |
| 35° | 626 | 621 | 612 | 607 | 604 | 391 |
| 45° | 511 | 506 | 495 | 488 | 486 | 394 |
| 55° | 386 | 384 | 375 | 367 | 363 | 346 |
| 65° | 262 | 258 | 252 | 245 | 242 | 259 |
| 75° | 139 | 136 | 133 | 130 | 129 | 148 |
| 85° | 36 | 36 | 35 | 35 | 34 | 42 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CATALOG NUMBER: S124DR-S575D830-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 844.6 | 844.6 | 844.6 | 844.6 | 844.6 |
| 2.5° | 847.3 | 845.3 | 837.8 | 844.6 | 843.9 |
| 5° | 843.9 | 841.2 | 833.8 | 841.2 | 839.9 |
| 7.5° | 837.8 | 835.1 | 827.0 | 833.1 | 832.4 |
| 10° | 829.0 | 826.3 | 817.5 | 823.0 | 821.6 |
| 12.5° | 817.5 | 814.8 | 805.4 | 811.4 | 809.4 |
| 15° | 803.3 | 800.6 | 790.5 | 794.5 | 792.5 |
| 17.5° | 787.1 | 783.7 | 774.2 | 776.9 | 775.6 |
| 20° | 768.8 | 765.4 | 755.3 | 757.3 | 756.0 |
| 22.5° | 749.2 | 744.4 | 734.3 | 738.4 | 735.7 |
| 25° | 727.5 | 722.8 | 713.3 | 714.0 | 711.3 |
| 27.5° | 703.2 | 698.4 | 689.6 | 688.3 | 684.9 |
| 30° | 678.8 | 673.4 | 664.6 | 661.9 | 658.5 |
| 32.5° | 653.1 | 648.3 | 638.9 | 635.5 | 632.1 |
| 35° | 626.0 | 621.3 | 611.8 | 607.1 | 603.7 |
| 37.5° | 597.6 | 593.5 | 583.4 | 578.6 | 573.9 |
| 40° | 569.8 | 564.4 | 554.3 | 547.5 | 544.1 |
| 42.5° | 540.1 | 537.4 | 525.9 | 517.7 | 515.7 |
| 45° | 511.0 | 506.2 | 495.4 | 488.0 | 485.9 |
| 47.5° | 480.5 | 477.1 | 467.0 | 458.9 | 453.4 |
| 50° | 449.4 | 446.7 | 437.2 | 427.7 | 423.7 |
| 52.5° | 418.9 | 415.5 | 405.4 | 397.3 | 391.9 |
| 55° | 386.4 | 384.4 | 374.9 | 366.8 | 362.7 |
| 57.5° | 356.0 | 354.0 | 344.5 | 336.4 | 332.3 |
| 60° | 324.2 | 320.8 | 312.0 | 305.9 | 302.5 |
| 62.5° | 293.0 | 290.3 | 280.9 | 275.4 | 272.1 |
| 65° | 261.9 | 258.5 | 251.8 | 245.0 | 241.6 |
| 67.5° | 230.1 | 227.4 | 220.6 | 213.9 | 213.2 |
| 70° | 201.0 | 196.3 | 190.8 | 185.4 | 183.4 |
| 72.5° | 169.9 | 165.1 | 161.1 | 157.0 | 155.0 |
| 75° | 139.4 | 136.0 | 132.6 | 129.9 | 129.3 |
| 77.5° | 109.6 | 108.3 | 104.9 | 104.2 | 102.2 |
| 80° | 83.2 | 81.2 | 79.9 | 78.5 | 77.8 |
| 82.5° | 57.5 | 56.8 | 56.8 | 56.2 | 55.5 |
| 85° | 36.5 | 36.5 | 35.2 | 35.2 | 34.5 |
| 87.5° | 17.6 | 16.9 | 16.2 | 16.2 | 16.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)