

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: P242706

Luminaire Tested: **S124RDR-S1195D830-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242706
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-S1195D830-X4F0-XX-UDD-F-W
Description: DEFINE 4 REGRESSED 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: 4215.4 lumens
Efficiency: N/A
Efficacy: 102.6 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

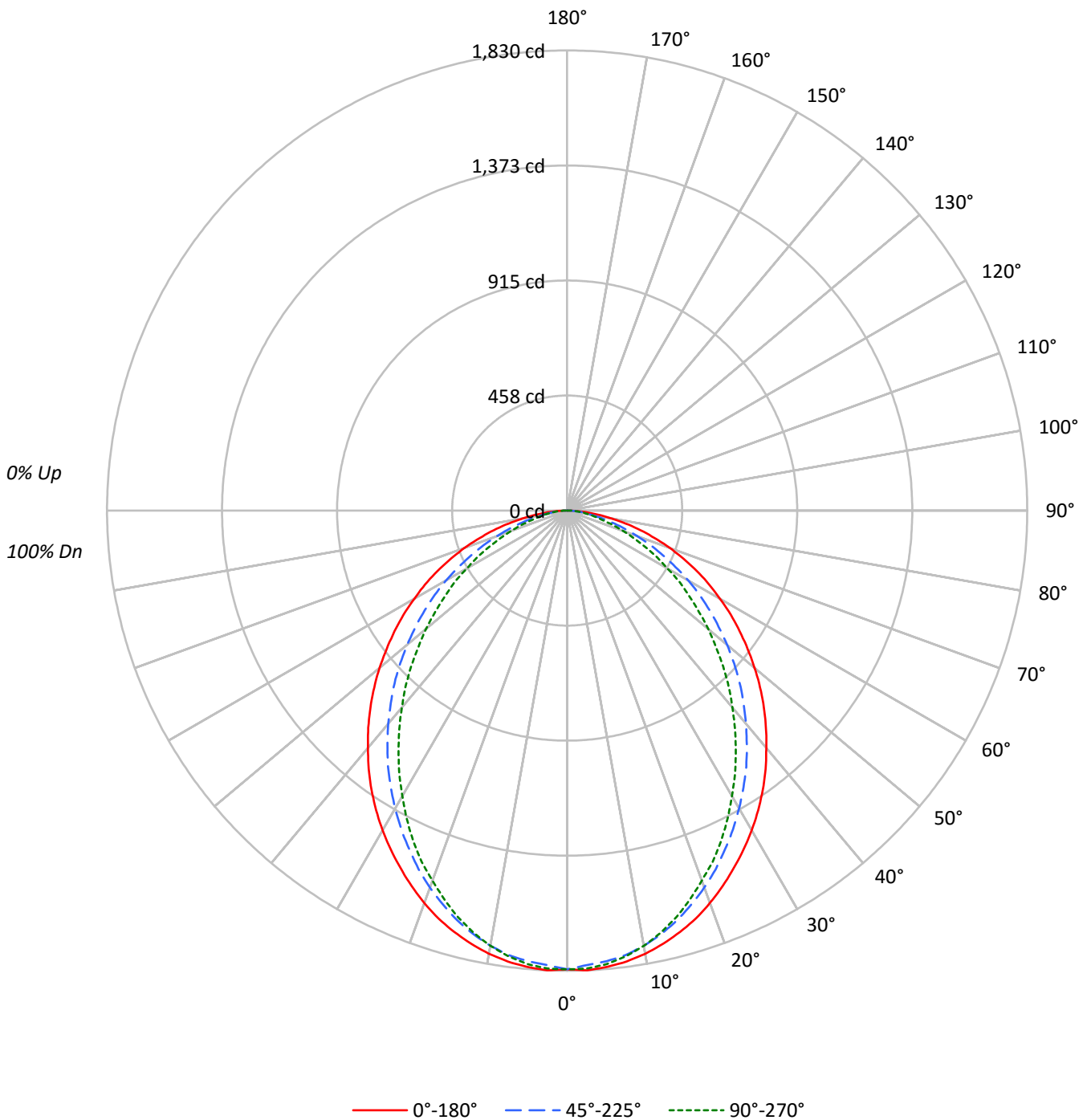
Input Watts (W): 41.1
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P242706

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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 | 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 | | | | | 100 | | | |
| 1 | 110 | 105 | 101 | 98 | 107 | 103 | 99 | 96 | 99 | 96 | 93 | 95 | 92 | 90 | 91 | 89 | 87 | 85 | | | | | 85 | | | |
| 2 | 100 | 93 | 86 | 81 | 98 | 91 | 85 | 80 | 87 | 82 | 78 | 84 | 80 | 76 | 81 | 78 | 74 | 72 | | | | | 72 | | | |
| 3 | 92 | 82 | 74 | 68 | 89 | 80 | 73 | 67 | 77 | 71 | 66 | 75 | 69 | 65 | 72 | 68 | 64 | 62 | | | | | 62 | | | |
| 4 | 84 | 73 | 65 | 58 | 82 | 72 | 64 | 58 | 69 | 62 | 57 | 67 | 61 | 56 | 65 | 60 | 56 | 54 | | | | | 54 | | | |
| 5 | 78 | 66 | 57 | 51 | 76 | 65 | 56 | 50 | 62 | 55 | 50 | 61 | 54 | 49 | 59 | 53 | 49 | 47 | | | | | 47 | | | |
| 6 | 72 | 59 | 51 | 45 | 70 | 58 | 50 | 44 | 57 | 49 | 44 | 55 | 49 | 44 | 53 | 48 | 43 | 41 | | | | | 41 | | | |
| 7 | 67 | 54 | 46 | 40 | 65 | 53 | 45 | 40 | 52 | 45 | 39 | 50 | 44 | 39 | 49 | 43 | 39 | 37 | | | | | 37 | | | |
| 8 | 63 | 50 | 41 | 36 | 61 | 49 | 41 | 36 | 48 | 40 | 35 | 46 | 40 | 35 | 45 | 39 | 35 | 33 | | | | | 33 | | | |
| 9 | 59 | 46 | 38 | 32 | 57 | 45 | 37 | 32 | 44 | 37 | 32 | 43 | 36 | 32 | 42 | 36 | 32 | 30 | | | | | 30 | | | |
| 10 | 55 | 42 | 35 | 29 | 54 | 42 | 34 | 29 | 41 | 34 | 29 | 40 | 33 | 29 | 39 | 33 | 29 | 27 | | | | | 27 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 16217 | 16217 | 16217 |
| 5° | 16254 | 16054 | 16154 |
| 10° | 16152 | 15861 | 15861 |
| 15° | 15966 | 15529 | 15413 |
| 20° | 15711 | 15091 | 14812 |
| 25° | 15386 | 14577 | 14208 |
| 30° | 15070 | 14037 | 13449 |
| 35° | 14719 | 13476 | 12687 |
| 40° | 14297 | 12838 | 11865 |
| 45° | 13908 | 12205 | 11028 |
| 50° | 13465 | 11475 | 10142 |
| 55° | 12990 | 10716 | 9179 |
| 60° | 12468 | 9884 | 8196 |
| 65° | 11987 | 8844 | 7227 |
| 70° | 11290 | 7695 | 6136 |
| 75° | 10410 | 6381 | 4990 |
| 80° | 9081 | 4863 | 4576 |
| 85° | 7690 | 4416 | 4131 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 171.6 | 4.1 |
| 10°-20° | 478.3 | 11.3 |
| 20°-30° | 690.6 | 16.4 |
| 30°-40° | 782.7 | 18.6 |
| 40°-50° | 755.7 | 17.9 |
| 50°-60° | 628.2 | 14.9 |
| 60°-70° | 433.6 | 10.3 |
| 70°-80° | 219.1 | 5.2 |
| 80°-90° | 55.7 | 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° | 1340.5 | 31.8 |
| 0°-40° | 2123.1 | 50.4 |
| 0°-60° | 3507.0 | 83.2 |
| 0°-90° | 4215.4 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4215.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1824 | 1824 | 1824 | 1824 | 1824 | |
| 5° | 1822 | 1816 | 1799 | 1813 | 1810 | 173 |
| 15° | 1735 | 1722 | 1688 | 1685 | 1675 | 489 |
| 25° | 1569 | 1544 | 1486 | 1463 | 1449 | 723 |
| 35° | 1356 | 1312 | 1242 | 1194 | 1169 | 848 |
| 45° | 1106 | 1055 | 971 | 902 | 877 | 853 |
| 55° | 838 | 782 | 692 | 619 | 592 | 750 |
| 65° | 570 | 510 | 420 | 360 | 344 | 563 |
| 75° | 303 | 251 | 186 | 154 | 145 | 320 |
| 85° | 75 | 48 | 43 | 40 | 40 | 87 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P242706

CATALOG NUMBER: S124RDR-S1195D830-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1824.4 | 1824.4 | 1824.4 | 1824.4 | 1824.4 |
| 2.5° | 1830.0 | 1824.4 | 1809.0 | 1824.4 | 1823.0 |
| 5° | 1821.6 | 1816.0 | 1799.2 | 1813.2 | 1810.4 |
| 7.5° | 1809.0 | 1803.4 | 1782.5 | 1792.2 | 1788.1 |
| 10° | 1789.5 | 1782.5 | 1757.3 | 1762.9 | 1757.3 |
| 12.5° | 1764.3 | 1755.9 | 1725.2 | 1728.0 | 1719.6 |
| 15° | 1735.0 | 1722.4 | 1687.5 | 1684.7 | 1674.9 |
| 17.5° | 1701.4 | 1683.3 | 1642.8 | 1635.8 | 1621.8 |
| 20° | 1660.9 | 1642.8 | 1595.3 | 1584.1 | 1565.9 |
| 22.5° | 1616.2 | 1595.3 | 1543.6 | 1525.4 | 1511.5 |
| 25° | 1568.7 | 1543.6 | 1486.3 | 1462.6 | 1448.6 |
| 27.5° | 1519.8 | 1489.1 | 1429.0 | 1401.1 | 1381.6 |
| 30° | 1468.2 | 1433.2 | 1367.6 | 1332.7 | 1310.3 |
| 32.5° | 1413.7 | 1373.2 | 1304.7 | 1262.8 | 1241.9 |
| 35° | 1356.4 | 1311.7 | 1241.9 | 1194.4 | 1169.2 |
| 37.5° | 1296.3 | 1250.2 | 1173.4 | 1121.7 | 1096.6 |
| 40° | 1232.1 | 1186.0 | 1106.4 | 1047.7 | 1022.5 |
| 42.5° | 1170.6 | 1121.7 | 1037.9 | 977.8 | 951.3 |
| 45° | 1106.4 | 1054.7 | 970.9 | 902.4 | 877.3 |
| 47.5° | 1040.7 | 987.6 | 901.0 | 829.8 | 801.8 |
| 50° | 973.7 | 919.2 | 829.8 | 759.9 | 733.4 |
| 52.5° | 905.2 | 852.1 | 759.9 | 688.7 | 660.7 |
| 55° | 838.2 | 782.3 | 691.5 | 618.8 | 592.3 |
| 57.5° | 772.5 | 713.8 | 624.4 | 550.4 | 530.8 |
| 60° | 701.3 | 645.4 | 556.0 | 483.3 | 461.0 |
| 62.5° | 637.0 | 578.3 | 486.1 | 420.5 | 403.7 |
| 65° | 569.9 | 509.9 | 420.5 | 360.4 | 343.6 |
| 67.5° | 500.1 | 442.8 | 359.0 | 305.9 | 286.4 |
| 70° | 434.4 | 375.8 | 296.1 | 250.0 | 236.1 |
| 72.5° | 364.6 | 312.9 | 238.9 | 201.2 | 188.6 |
| 75° | 303.1 | 251.4 | 185.8 | 153.7 | 145.3 |
| 77.5° | 238.9 | 194.2 | 138.3 | 115.9 | 113.2 |
| 80° | 177.4 | 136.9 | 95.0 | 90.8 | 89.4 |
| 82.5° | 124.3 | 88.0 | 68.4 | 65.7 | 64.3 |
| 85° | 75.4 | 47.5 | 43.3 | 40.5 | 40.5 |
| 87.5° | 32.1 | 21.0 | 19.6 | 18.2 | 19.6 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)