

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: P334707

Luminaire Tested: **S123IW-S1030U930-4F0-1E-UDD-1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334707
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-9)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123IW-S1030U930-4F0-1E-UDD-1
Description: DEFINE 3 INDIRECT LED LUMINAIRE, FLUSH SATIN WHITE DIFFUSER
WALL MOUNT, 1030 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2915.7 lumens
Efficiency: N/A
Efficacy: 148.8 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Indirect

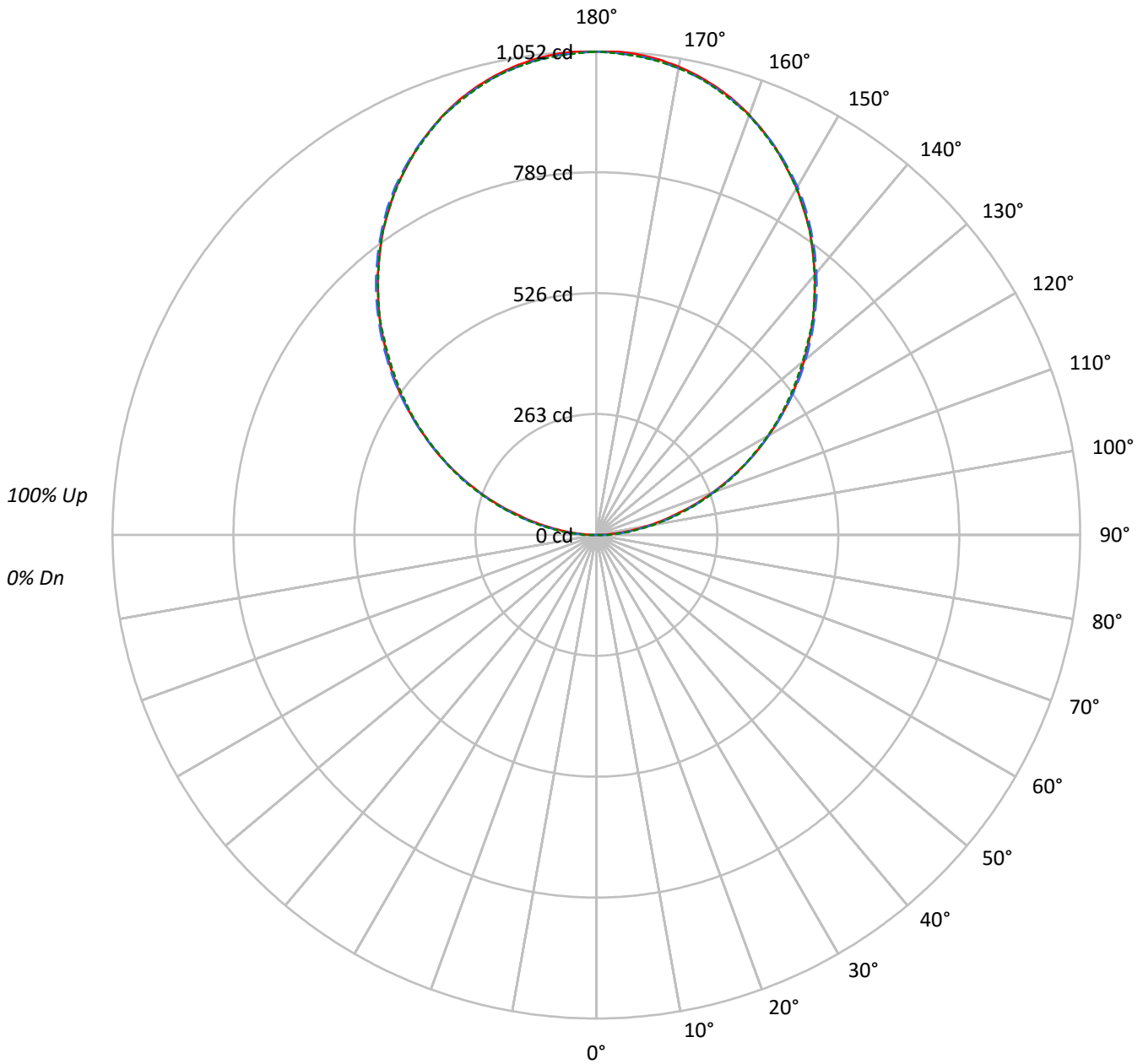
Input Watts (W): 19.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot



— 0°-180° - - 45°-225° - - - 90°-270°



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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 | 95 | 95 | 95 | 95 | 81 | 81 | 81 | 81 | 56 | 56 | 56 | 32 | 32 | 32 | 10 | 10 | 10 | 0 |
| 1 | 87 | 83 | 79 | 76 | 74 | 71 | 68 | 65 | 48 | 47 | 45 | 28 | 27 | 26 | 9 | 9 | 8 | 0 |
| 2 | 79 | 72 | 66 | 62 | 67 | 62 | 57 | 53 | 42 | 40 | 37 | 24 | 23 | 22 | 8 | 7 | 7 | 0 |
| 3 | 72 | 63 | 56 | 51 | 61 | 54 | 49 | 44 | 37 | 34 | 31 | 21 | 20 | 18 | 7 | 6 | 6 | 0 |
| 4 | 65 | 56 | 48 | 43 | 56 | 48 | 42 | 37 | 33 | 29 | 26 | 19 | 17 | 16 | 6 | 6 | 5 | 0 |
| 5 | 60 | 49 | 42 | 36 | 51 | 42 | 36 | 32 | 29 | 25 | 22 | 17 | 15 | 13 | 5 | 5 | 4 | 0 |
| 6 | 55 | 44 | 36 | 31 | 47 | 38 | 32 | 27 | 26 | 22 | 19 | 15 | 13 | 11 | 5 | 4 | 4 | 0 |
| 7 | 50 | 39 | 32 | 27 | 43 | 34 | 28 | 23 | 23 | 19 | 17 | 14 | 11 | 10 | 4 | 4 | 3 | 0 |
| 8 | 47 | 35 | 28 | 23 | 40 | 30 | 24 | 20 | 21 | 17 | 14 | 12 | 10 | 9 | 4 | 3 | 3 | 0 |
| 9 | 43 | 32 | 25 | 20 | 37 | 27 | 22 | 18 | 19 | 15 | 13 | 11 | 9 | 8 | 4 | 3 | 3 | 0 |
| 10 | 40 | 29 | 22 | 18 | 34 | 25 | 19 | 16 | 17 | 14 | 11 | 10 | 8 | 7 | 3 | 3 | 2 | 0 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|----|-----|-----|
| 0° | 0 | 0 | 0 |
| 5° | 0 | 0 | 0 |
| 10° | 0 | 0 | 0 |
| 15° | 0 | 0 | 0 |
| 20° | 0 | 0 | 0 |
| 25° | 0 | 0 | 0 |
| 30° | 0 | 0 | 0 |
| 35° | 0 | 0 | 0 |
| 40° | 0 | 0 | 0 |
| 45° | 0 | 0 | 0 |
| 50° | 0 | 0 | 0 |
| 55° | 0 | 0 | 0 |
| 60° | 0 | 0 | 0 |
| 65° | 0 | 0 | 0 |
| 70° | 0 | 0 | 0 |
| 75° | 0 | 0 | 0 |
| 80° | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 0.0 | 0.0 |
| 10°-20° | 0.0 | 0.0 |
| 20°-30° | 0.0 | 0.0 |
| 30°-40° | 0.0 | 0.0 |
| 40°-50° | 0.0 | 0.0 |
| 50°-60° | 0.0 | 0.0 |
| 60°-70° | 0.0 | 0.0 |
| 70°-80° | 0.0 | 0.0 |
| 80°-90° | 2.2 | 0.1 |
| 90°-100° | 67.7 | 2.3 |
| 100°-110° | 204.9 | 7.0 |
| 110°-120° | 348.8 | 12.0 |
| 120°-130° | 458.8 | 15.7 |
| 130°-140° | 515.7 | 17.7 |
| 140°-150° | 507.0 | 17.4 |
| 150°-160° | 426.9 | 14.6 |
| 160°-170° | 284.2 | 9.7 |
| 170°-180° | 99.5 | 3.4 |
| 0°-30° | 0.0 | 0.0 |
| 0°-40° | 0.0 | 0.0 |
| 0°-60° | 0.0 | 0.0 |
| 0°-90° | 2.2 | 0.1 |
| 90°-120° | 621.3 | 21.3 |
| 90°-150° | 2102.9 | 72.1 |
| 90°-180° | 2913.0 | 99.9 |
| 0°-180° | 2915.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 0 | 0 | 0 | 0 | 0 | |
| 5° | 0 | 0 | 0 | 0 | 0 | 0 |
| 15° | 0 | 0 | 0 | 0 | 0 | 0 |
| 25° | 0 | 0 | 0 | 0 | 0 | 0 |
| 35° | 0 | 0 | 0 | 0 | 0 | 0 |
| 45° | 0 | 0 | 0 | 0 | 0 | 0 |
| 55° | 0 | 0 | 0 | 0 | 0 | 0 |
| 65° | 0 | 0 | 0 | 0 | 0 | 0 |
| 75° | 0 | 0 | 0 | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 1 | 9 | 20 | 23 | 25 | 4 |
| 95° | 49 | 54 | 61 | 64 | 64 | 54 |
| 105° | 186 | 188 | 195 | 195 | 197 | 199 |
| 115° | 351 | 354 | 352 | 353 | 352 | 347 |
| 125° | 514 | 516 | 515 | 511 | 508 | 458 |
| 135° | 667 | 672 | 671 | 667 | 666 | 514 |
| 145° | 809 | 810 | 813 | 812 | 809 | 505 |
| 155° | 926 | 926 | 927 | 930 | 924 | 426 |
| 165° | 1008 | 1006 | 1006 | 1011 | 1005 | 284 |
| 175° | 1049 | 1046 | 1046 | 1051 | 1045 | 100 |
| 180° | 1052 | 1052 | 1052 | 1052 | 1052 | |



TEST NUMBER: P334707

CATALOG NUMBER: S123IW-S1030U930-4F0-1E-UDD-1

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 0° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 7.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 10° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 12.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 15° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 17.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 20° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 22.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 25° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 27.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 32.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 35° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 37.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 40° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 42.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 45° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 47.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 50° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 52.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 55° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 57.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 60° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 62.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 65° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 67.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.8 | 9.1 | 19.8 | 23.1 | 24.8 |
| 92.5° | 24.8 | 29.7 | 34.7 | 37.2 | 35.5 |
| 95° | 48.7 | 54.5 | 61.1 | 64.4 | 64.4 |
| 97.5° | 80.1 | 84.3 | 89.2 | 93.3 | 92.5 |
| 100° | 112.3 | 117.3 | 121.4 | 123.9 | 125.6 |
| 102.5° | 149.5 | 152.0 | 157.8 | 160.2 | 159.4 |
| 105° | 185.8 | 187.5 | 194.9 | 194.9 | 196.6 |
| 107.5° | 228.8 | 229.6 | 232.9 | 235.4 | 234.6 |
| 110° | 268.4 | 270.1 | 271.8 | 275.1 | 273.4 |



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CATALOG NUMBER: S123IW-S1030U930-4F0-1E-UDD-1

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 309.7 | 310.6 | 310.6 | 314.7 | 314.7 |
| 115° | 351.0 | 353.5 | 351.9 | 352.7 | 351.9 |
| 117.5° | 393.2 | 394.0 | 392.3 | 392.3 | 389.9 |
| 120° | 432.0 | 436.9 | 432.8 | 432.0 | 430.3 |
| 122.5° | 472.5 | 475.8 | 474.1 | 471.6 | 469.2 |
| 125° | 513.8 | 516.2 | 514.6 | 511.3 | 508.0 |
| 127.5° | 551.8 | 556.7 | 555.1 | 550.1 | 546.8 |
| 130° | 589.8 | 596.4 | 593.9 | 590.6 | 584.8 |
| 132.5° | 627.8 | 634.4 | 632.7 | 628.6 | 624.4 |
| 135° | 666.6 | 671.5 | 670.7 | 667.4 | 665.7 |
| 137.5° | 702.1 | 706.2 | 708.7 | 704.6 | 702.1 |
| 140° | 739.3 | 743.4 | 744.2 | 743.4 | 737.6 |
| 142.5° | 773.1 | 777.3 | 778.9 | 778.1 | 774.0 |
| 145° | 808.6 | 810.3 | 812.8 | 812.0 | 808.6 |
| 147.5° | 839.2 | 842.5 | 845.0 | 845.0 | 840.0 |
| 150° | 871.4 | 873.1 | 874.7 | 874.7 | 869.8 |
| 152.5° | 897.9 | 900.3 | 901.2 | 902.8 | 898.7 |
| 155° | 925.9 | 925.9 | 926.8 | 930.1 | 924.3 |
| 157.5° | 949.9 | 949.1 | 949.9 | 953.2 | 948.2 |
| 160° | 972.2 | 970.5 | 970.5 | 974.7 | 971.4 |
| 162.5° | 992.0 | 989.5 | 990.4 | 994.5 | 988.7 |
| 165° | 1008.5 | 1006.1 | 1006.1 | 1011.0 | 1005.2 |
| 167.5° | 1022.6 | 1019.3 | 1020.1 | 1025.1 | 1020.1 |
| 170° | 1034.1 | 1030.8 | 1030.8 | 1036.6 | 1030.8 |
| 172.5° | 1043.2 | 1039.9 | 1039.9 | 1044.9 | 1039.1 |
| 175° | 1049.0 | 1045.7 | 1045.7 | 1050.7 | 1044.9 |
| 177.5° | 1052.3 | 1049.0 | 1049.0 | 1054.0 | 1048.2 |
| 180° | 1051.5 | 1051.5 | 1051.5 | 1051.5 | 1051.5 |

(END OF REPORT)