

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: P334872

Luminaire Tested: **S124IW-S1050U840-4F0-1E-UDD-1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334872
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124IW-S1050U840-4F0-1E-UDD-1
Description: DEFINE 4 INDIRECT LED LUMINAIRE, FLUSH SATIN WHITE DIFFUSER
WALL MOUNT, 1050 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3673.1 lumens
Efficiency: N/A
Efficacy: 187.4 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Indirect

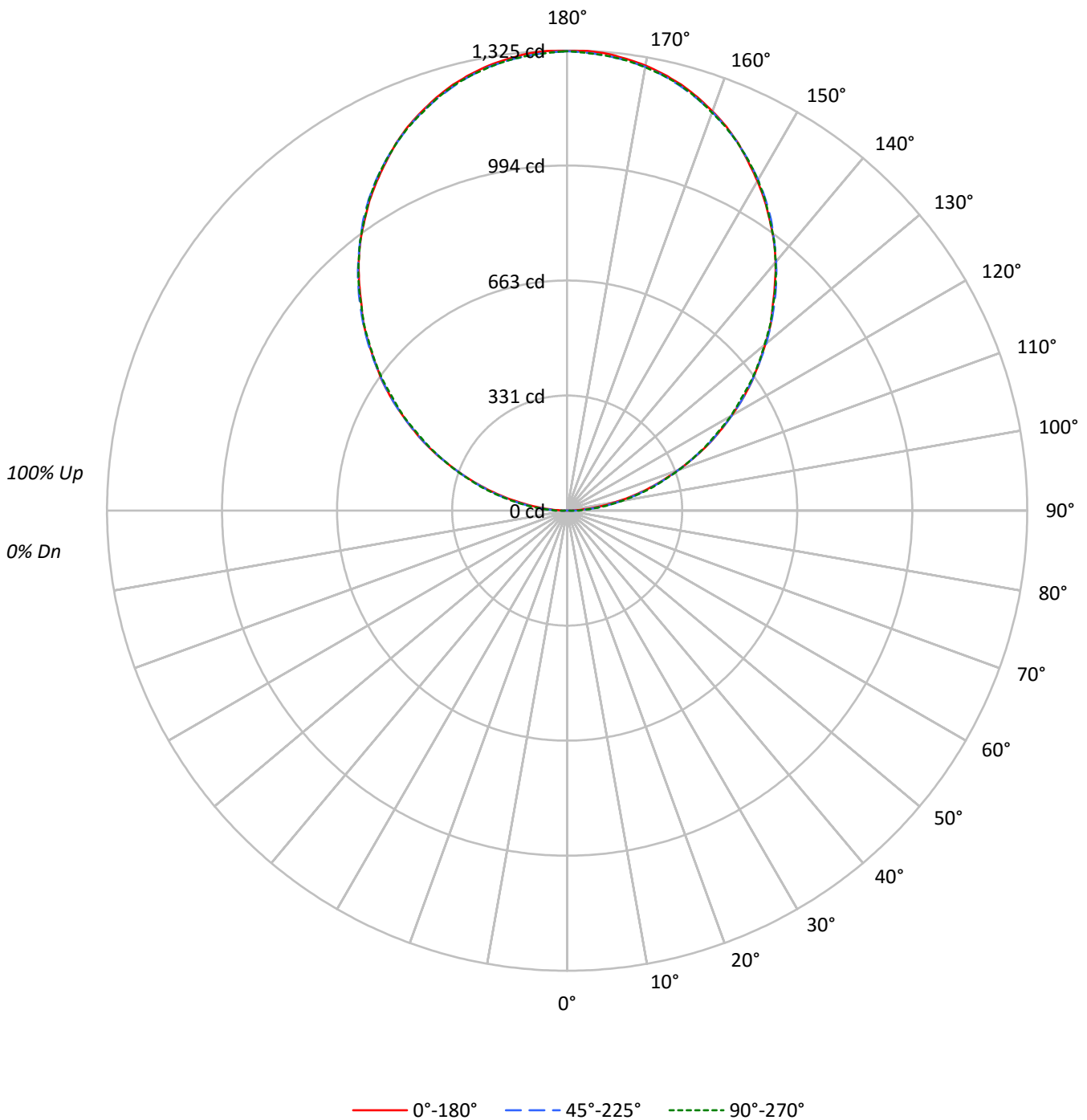
Input Watts (W): 19.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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° | 2.8 | 0.1 |
| 90°-100° | 86.2 | 2.3 |
| 100°-110° | 258.3 | 7.0 |
| 110°-120° | 438.7 | 11.9 |
| 120°-130° | 578.6 | 15.8 |
| 130°-140° | 649.9 | 17.7 |
| 140°-150° | 638.7 | 17.4 |
| 150°-160° | 537.2 | 14.6 |
| 160°-170° | 357.4 | 9.7 |
| 170°-180° | 125.2 | 3.4 |
| 0°-30° | 0.0 | 0.0 |
| 0°-40° | 0.0 | 0.0 |
| 0°-60° | 0.0 | 0.0 |
| 0°-90° | 2.8 | 0.1 |
| 90°-120° | 783.2 | 21.3 |
| 90°-150° | 2650.4 | 72.2 |
| 90°-180° | 3670.0 | 99.9 |
| 0°-180° | 3673.1 | 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° | 3 | 14 | 22 | 29 | 31 | 4 |
| 95° | 61 | 71 | 78 | 81 | 81 | 66 |
| 105° | 238 | 239 | 244 | 247 | 250 | 253 |
| 115° | 446 | 446 | 444 | 443 | 442 | 440 |
| 125° | 650 | 650 | 649 | 647 | 644 | 579 |
| 135° | 838 | 844 | 844 | 842 | 839 | 648 |
| 145° | 1018 | 1022 | 1023 | 1022 | 1019 | 637 |
| 155° | 1166 | 1166 | 1165 | 1169 | 1165 | 537 |
| 165° | 1270 | 1266 | 1264 | 1271 | 1266 | 358 |
| 175° | 1321 | 1316 | 1315 | 1322 | 1315 | 125 |
| 180° | 1323 | 1323 | 1323 | 1323 | 1323 | |



TEST NUMBER: P334872

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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° | 3.1 | 14.3 | 22.5 | 28.6 | 30.7 |
| 92.5° | 26.6 | 39.9 | 45.0 | 48.1 | 49.1 |
| 95° | 61.4 | 70.6 | 77.8 | 80.8 | 80.8 |
| 97.5° | 98.2 | 106.4 | 114.6 | 118.7 | 118.7 |
| 100° | 143.2 | 147.3 | 156.5 | 158.6 | 158.6 |
| 102.5° | 190.3 | 191.3 | 199.5 | 202.6 | 203.6 |
| 105° | 238.4 | 239.4 | 243.5 | 246.6 | 249.6 |
| 107.5° | 288.5 | 289.5 | 290.5 | 294.6 | 293.6 |
| 110° | 339.6 | 341.7 | 340.7 | 338.6 | 341.7 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 392.8 | 392.8 | 390.8 | 390.8 | 390.8 |
| 115° | 446.0 | 446.0 | 444.0 | 443.0 | 442.0 |
| 117.5° | 496.2 | 496.2 | 495.1 | 492.1 | 489.0 |
| 120° | 546.3 | 550.4 | 547.3 | 542.2 | 544.3 |
| 122.5° | 598.5 | 599.5 | 598.5 | 595.4 | 590.3 |
| 125° | 649.6 | 649.6 | 648.6 | 646.6 | 644.5 |
| 127.5° | 695.7 | 698.7 | 696.7 | 694.6 | 693.6 |
| 130° | 744.8 | 747.8 | 747.8 | 745.8 | 741.7 |
| 132.5° | 794.9 | 796.9 | 795.9 | 793.9 | 792.9 |
| 135° | 837.9 | 844.0 | 844.0 | 842.0 | 838.9 |
| 137.5° | 885.9 | 889.0 | 891.1 | 888.0 | 889.0 |
| 140° | 934.0 | 936.1 | 936.1 | 935.1 | 934.0 |
| 142.5° | 978.0 | 980.1 | 979.0 | 979.0 | 979.0 |
| 145° | 1017.9 | 1022.0 | 1023.0 | 1022.0 | 1018.9 |
| 147.5° | 1058.8 | 1064.0 | 1062.9 | 1061.9 | 1060.9 |
| 150° | 1095.7 | 1099.8 | 1099.8 | 1099.8 | 1098.7 |
| 152.5° | 1130.5 | 1132.5 | 1133.5 | 1136.6 | 1133.5 |
| 155° | 1166.3 | 1166.3 | 1165.2 | 1169.3 | 1165.2 |
| 157.5° | 1197.0 | 1194.9 | 1194.9 | 1198.0 | 1194.9 |
| 160° | 1223.6 | 1222.5 | 1221.5 | 1224.6 | 1219.5 |
| 162.5° | 1248.1 | 1245.0 | 1244.0 | 1250.1 | 1245.0 |
| 165° | 1269.6 | 1266.5 | 1264.5 | 1270.6 | 1266.5 |
| 167.5° | 1287.0 | 1282.9 | 1282.9 | 1289.0 | 1282.9 |
| 170° | 1301.3 | 1296.2 | 1297.2 | 1303.3 | 1296.2 |
| 172.5° | 1311.5 | 1307.4 | 1307.4 | 1314.6 | 1307.4 |
| 175° | 1320.7 | 1315.6 | 1314.6 | 1321.8 | 1314.6 |
| 177.5° | 1324.8 | 1319.7 | 1319.7 | 1326.9 | 1318.7 |
| 180° | 1322.8 | 1322.8 | 1322.8 | 1322.8 | 1322.8 |

(END OF REPORT)