

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: P334784

Luminaire Tested: **S123IW-S1535U935-4F0-1E-UDD**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334784
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-5)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123IW-S1535U935-4F0-1E-UDD
Description: DEFINE 3 INDIRECT LED LUMINAIRE, NO LENS
WALL MOUNT, 1535 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

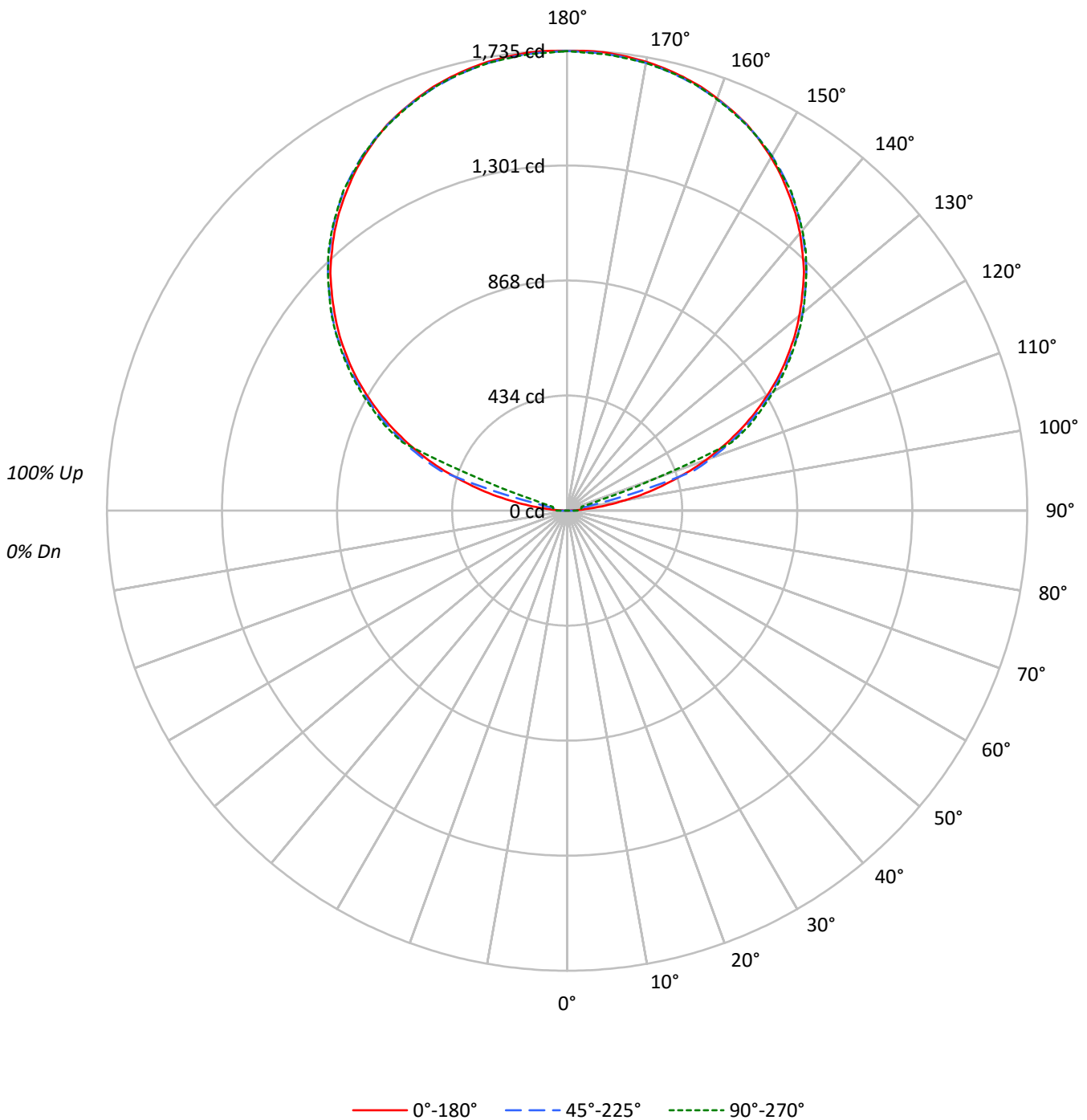
Lumens per Lamp: N/A
Luminaire Lumens: 5285.3 lumens
Efficiency: N/A
Efficacy: 172.7 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Indirect

Input Watts (W): 30.6
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° | 3.5 | 0.1 |
| 90°-100° | 61.1 | 1.2 |
| 100°-110° | 295.4 | 5.6 |
| 110°-120° | 723.9 | 13.7 |
| 120°-130° | 918.9 | 17.4 |
| 130°-140° | 981.7 | 18.6 |
| 140°-150° | 918.0 | 17.4 |
| 150°-160° | 740.4 | 14.0 |
| 160°-170° | 477.8 | 9.0 |
| 170°-180° | 164.7 | 3.1 |
| 0°-30° | 0.0 | 0.0 |
| 0°-40° | 0.0 | 0.0 |
| 0°-60° | 0.0 | 0.0 |
| 0°-90° | 3.5 | 0.1 |
| 90°-120° | 1080.4 | 20.4 |
| 90°-150° | 3898.9 | 73.8 |
| 90°-180° | 5282.0 | 99.9 |
| 0°-180° | 5285.3 | 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 | 14 | 31 | 36 | 39 | 4 |
| 95° | 78 | 26 | 40 | 49 | 49 | 94 |
| 105° | 384 | 398 | 282 | 54 | 57 | 407 |
| 115° | 720 | 727 | 739 | 752 | 757 | 711 |
| 125° | 1014 | 1025 | 1030 | 1032 | 1035 | 906 |
| 135° | 1263 | 1270 | 1276 | 1280 | 1276 | 972 |
| 145° | 1457 | 1466 | 1469 | 1471 | 1471 | 912 |
| 155° | 1605 | 1602 | 1604 | 1610 | 1602 | 740 |
| 165° | 1693 | 1689 | 1688 | 1698 | 1689 | 478 |
| 175° | 1732 | 1726 | 1727 | 1736 | 1726 | 165 |
| 180° | 1732 | 1732 | 1732 | 1732 | 1732 | |



TEST NUMBER: P334784

CATALOG NUMBER: S123IW-S1535U935-4F0-1E-UDD

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° | 1.3 | 14.2 | 30.9 | 36.0 | 38.6 |
| 92.5° | 29.6 | 21.9 | 33.5 | 42.5 | 43.8 |
| 95° | 78.5 | 25.7 | 39.9 | 48.9 | 48.9 |
| 97.5° | 142.9 | 106.8 | 41.2 | 51.5 | 52.8 |
| 100° | 217.5 | 243.3 | 42.5 | 52.8 | 54.1 |
| 102.5° | 302.5 | 319.2 | 95.3 | 52.8 | 55.3 |
| 105° | 383.6 | 397.7 | 281.9 | 54.1 | 56.6 |
| 107.5° | 469.8 | 481.4 | 500.7 | 302.5 | 133.9 |
| 110° | 556.1 | 566.4 | 580.5 | 538.0 | 354.0 |



TEST NUMBER: P334784

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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 638.4 | 647.5 | 661.6 | 673.2 | 670.6 |
| 115° | 719.5 | 727.3 | 738.8 | 751.7 | 756.9 |
| 117.5° | 799.3 | 808.3 | 814.8 | 825.1 | 826.4 |
| 120° | 872.7 | 884.3 | 888.2 | 898.5 | 898.5 |
| 122.5° | 947.4 | 956.4 | 961.5 | 968.0 | 969.2 |
| 125° | 1014.3 | 1024.6 | 1029.7 | 1032.3 | 1034.9 |
| 127.5° | 1081.2 | 1091.5 | 1098.0 | 1101.8 | 1099.3 |
| 130° | 1143.0 | 1153.3 | 1158.5 | 1163.6 | 1161.0 |
| 132.5° | 1202.2 | 1212.5 | 1216.4 | 1221.5 | 1217.7 |
| 135° | 1262.7 | 1270.4 | 1275.6 | 1279.5 | 1275.6 |
| 137.5° | 1314.2 | 1324.5 | 1327.1 | 1333.5 | 1330.9 |
| 140° | 1365.7 | 1373.4 | 1377.3 | 1382.4 | 1379.9 |
| 142.5° | 1413.3 | 1421.0 | 1424.9 | 1428.8 | 1424.9 |
| 145° | 1457.1 | 1466.1 | 1468.7 | 1471.2 | 1471.2 |
| 147.5° | 1499.6 | 1506.0 | 1508.6 | 1511.2 | 1504.7 |
| 150° | 1538.2 | 1542.0 | 1544.6 | 1547.2 | 1543.3 |
| 152.5° | 1572.9 | 1574.2 | 1575.5 | 1580.7 | 1574.2 |
| 155° | 1605.1 | 1602.5 | 1603.8 | 1610.3 | 1602.5 |
| 157.5° | 1630.9 | 1630.9 | 1629.6 | 1637.3 | 1627.0 |
| 160° | 1654.0 | 1652.7 | 1651.5 | 1659.2 | 1650.2 |
| 162.5° | 1675.9 | 1672.0 | 1670.8 | 1679.8 | 1672.0 |
| 165° | 1692.6 | 1688.8 | 1687.5 | 1697.8 | 1688.8 |
| 167.5° | 1706.8 | 1701.7 | 1701.7 | 1712.0 | 1701.7 |
| 170° | 1718.4 | 1713.2 | 1713.2 | 1723.5 | 1713.2 |
| 172.5° | 1726.1 | 1719.7 | 1721.0 | 1731.3 | 1719.7 |
| 175° | 1732.5 | 1726.1 | 1727.4 | 1736.4 | 1726.1 |
| 177.5° | 1735.1 | 1728.7 | 1730.0 | 1740.3 | 1727.4 |
| 180° | 1732.5 | 1732.5 | 1732.5 | 1732.5 | 1732.5 |

(END OF REPORT)