

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: P334852

Luminaire Tested: **S124IP-S810U935-4F0-1E-UDD-1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334852
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: S124IP-S810U935-4F0-1E-UDD-1
Description: DEFINE 4 INDIRECT LED LUMINAIRE, FLUSH SATIN WHITE DIFFUSER
PENDANT MOUNT, 810 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

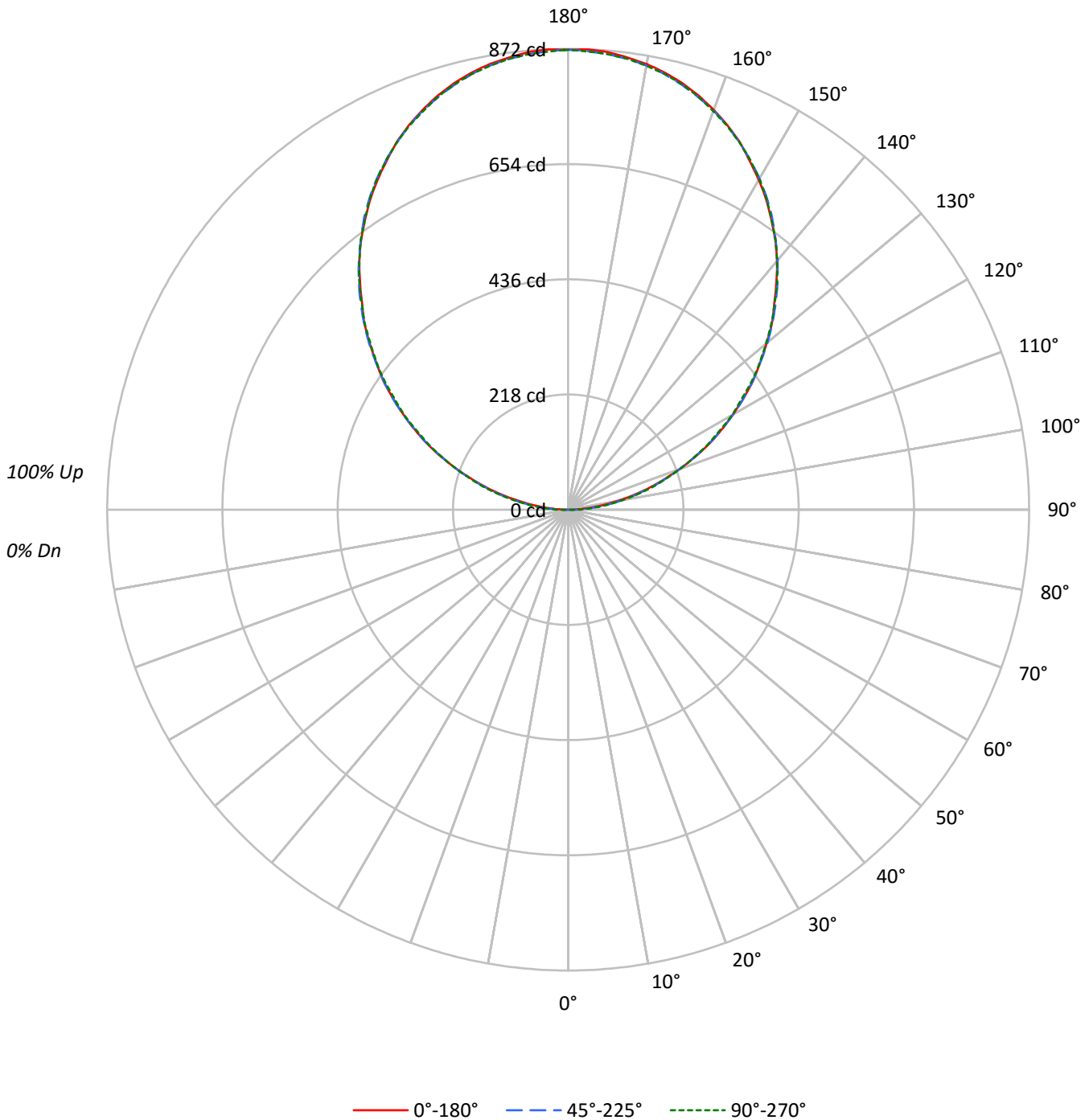
Lumens per Lamp: N/A
Luminaire Lumens: 2416.7 lumens
Efficiency: N/A
Efficacy: 91.5 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Indirect

Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (Ain): 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° | 1.9 | 0.1 |
| 90°-100° | 56.7 | 2.3 |
| 100°-110° | 169.9 | 7.0 |
| 110°-120° | 288.7 | 11.9 |
| 120°-130° | 380.7 | 15.8 |
| 130°-140° | 427.6 | 17.7 |
| 140°-150° | 420.3 | 17.4 |
| 150°-160° | 353.5 | 14.6 |
| 160°-170° | 235.2 | 9.7 |
| 170°-180° | 82.4 | 3.4 |
| 0°-30° | 0.0 | 0.0 |
| 0°-40° | 0.0 | 0.0 |
| 0°-60° | 0.0 | 0.0 |
| 0°-90° | 1.9 | 0.1 |
| 90°-120° | 515.3 | 21.3 |
| 90°-150° | 1743.9 | 72.2 |
| 90°-180° | 2415.0 | 99.9 |
| 0°-180° | 2416.7 | 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° | 2 | 9 | 15 | 19 | 20 | 3 |
| 95° | 40 | 46 | 51 | 53 | 53 | 44 |
| 105° | 157 | 158 | 160 | 162 | 164 | 166 |
| 115° | 294 | 294 | 292 | 292 | 291 | 289 |
| 125° | 427 | 427 | 427 | 425 | 424 | 381 |
| 135° | 551 | 555 | 555 | 554 | 552 | 426 |
| 145° | 670 | 672 | 673 | 672 | 670 | 419 |
| 155° | 767 | 767 | 767 | 769 | 767 | 353 |
| 165° | 835 | 833 | 832 | 836 | 833 | 236 |
| 175° | 869 | 866 | 865 | 870 | 865 | 83 |
| 180° | 870 | 870 | 870 | 870 | 870 | |



TEST NUMBER: P334852

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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° | 2.0 | 9.4 | 14.8 | 18.8 | 20.2 |
| 92.5° | 17.5 | 26.3 | 29.6 | 31.6 | 32.3 |
| 95° | 40.4 | 46.4 | 51.2 | 53.2 | 53.2 |
| 97.5° | 64.6 | 70.0 | 75.4 | 78.1 | 78.1 |
| 100° | 94.2 | 96.9 | 103.0 | 104.3 | 104.3 |
| 102.5° | 125.2 | 125.9 | 131.3 | 133.3 | 134.0 |
| 105° | 156.8 | 157.5 | 160.2 | 162.2 | 164.2 |
| 107.5° | 189.8 | 190.5 | 191.2 | 193.9 | 193.2 |
| 110° | 223.5 | 224.8 | 224.1 | 222.8 | 224.8 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 258.5 | 258.5 | 257.1 | 257.1 | 257.1 |
| 115° | 293.5 | 293.5 | 292.1 | 291.5 | 290.8 |
| 117.5° | 326.5 | 326.5 | 325.8 | 323.8 | 321.8 |
| 120° | 359.4 | 362.1 | 360.1 | 356.8 | 358.1 |
| 122.5° | 393.8 | 394.4 | 393.8 | 391.8 | 388.4 |
| 125° | 427.4 | 427.4 | 426.8 | 425.4 | 424.1 |
| 127.5° | 457.7 | 459.7 | 458.4 | 457.0 | 456.4 |
| 130° | 490.0 | 492.0 | 492.0 | 490.7 | 488.0 |
| 132.5° | 523.0 | 524.4 | 523.7 | 522.3 | 521.7 |
| 135° | 551.3 | 555.3 | 555.3 | 554.0 | 552.0 |
| 137.5° | 582.9 | 584.9 | 586.3 | 584.3 | 584.9 |
| 140° | 614.6 | 615.9 | 615.9 | 615.2 | 614.6 |
| 142.5° | 643.5 | 644.8 | 644.2 | 644.2 | 644.2 |
| 145° | 669.8 | 672.4 | 673.1 | 672.4 | 670.4 |
| 147.5° | 696.7 | 700.0 | 699.4 | 698.7 | 698.0 |
| 150° | 720.9 | 723.6 | 723.6 | 723.6 | 722.9 |
| 152.5° | 743.8 | 745.1 | 745.8 | 747.8 | 745.8 |
| 155° | 767.4 | 767.4 | 766.7 | 769.4 | 766.7 |
| 157.5° | 787.5 | 786.2 | 786.2 | 788.2 | 786.2 |
| 160° | 805.0 | 804.4 | 803.7 | 805.7 | 802.4 |
| 162.5° | 821.2 | 819.2 | 818.5 | 822.6 | 819.2 |
| 165° | 835.3 | 833.3 | 832.0 | 836.0 | 833.3 |
| 167.5° | 846.8 | 844.1 | 844.1 | 848.1 | 844.1 |
| 170° | 856.2 | 852.8 | 853.5 | 857.6 | 852.8 |
| 172.5° | 862.9 | 860.2 | 860.2 | 865.0 | 860.2 |
| 175° | 869.0 | 865.6 | 865.0 | 869.7 | 865.0 |
| 177.5° | 871.7 | 868.3 | 868.3 | 873.0 | 867.6 |
| 180° | 870.3 | 870.3 | 870.3 | 870.3 | 870.3 |

(END OF REPORT)