

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: P334951

Luminaire Tested: **S124IW-S770U930-4F0-1E-UDD**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334951
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124IW-S770U930-4F0-1E-UDD
Description: DEFINE 4 INDIRECT LED LUMINAIRE, NO LENS
WALL MOUNT, 770 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

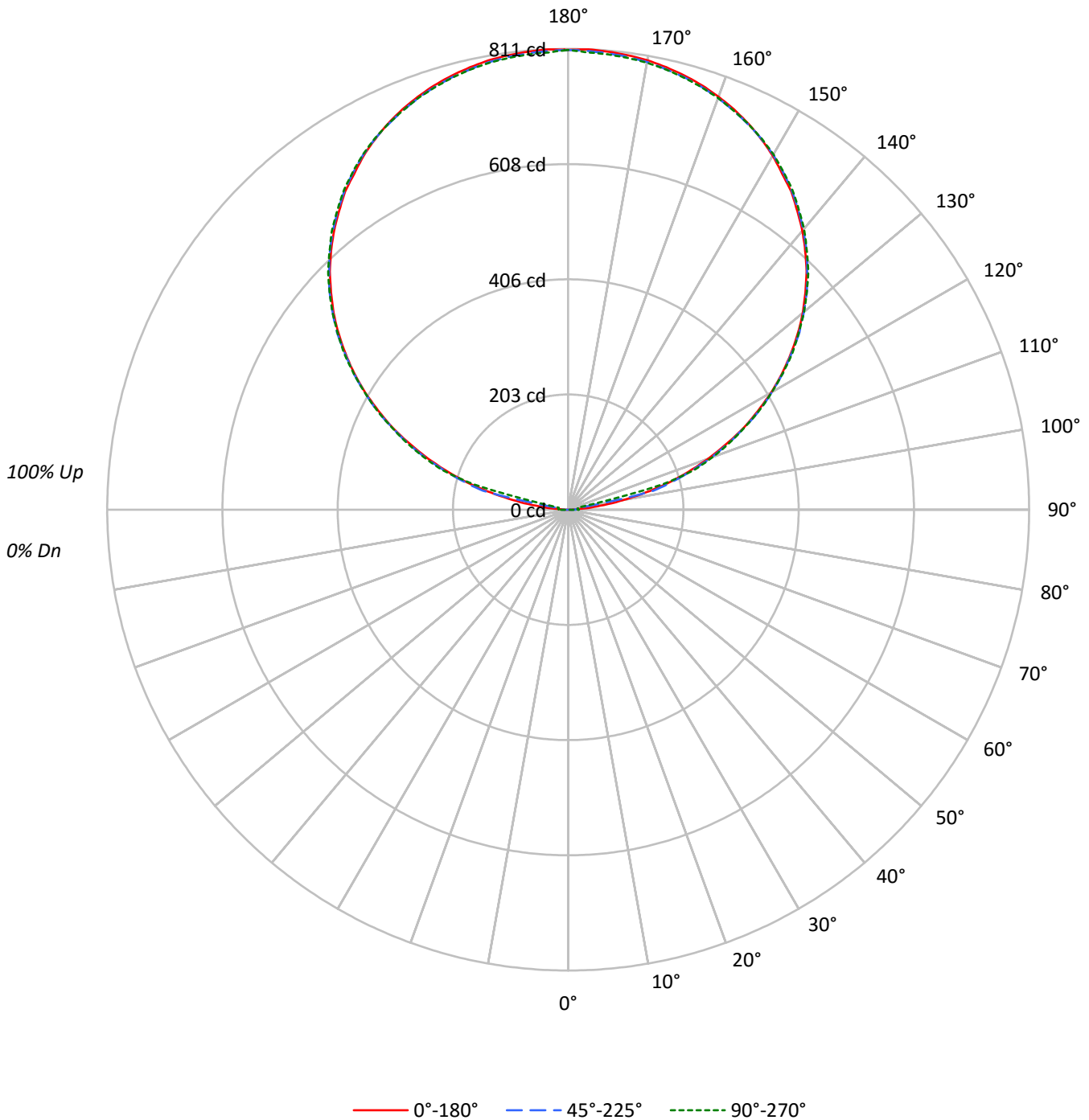
Lumens per Lamp: N/A
Luminaire Lumens: 2505.4 lumens
Efficiency: N/A
Efficacy: 179.0 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Indirect

Input Watts (W): 14
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° | 1.7 | 0.1 |
| 90°-100° | 26.8 | 1.1 |
| 100°-110° | 176.9 | 7.1 |
| 110°-120° | 337.8 | 13.5 |
| 120°-130° | 428.8 | 17.1 |
| 130°-140° | 458.7 | 18.3 |
| 140°-150° | 428.9 | 17.1 |
| 150°-160° | 345.9 | 13.8 |
| 160°-170° | 223.1 | 8.9 |
| 170°-180° | 76.9 | 3.1 |
| 0°-30° | 0.0 | 0.0 |
| 0°-40° | 0.0 | 0.0 |
| 0°-60° | 0.0 | 0.0 |
| 0°-90° | 1.7 | 0.1 |
| 90°-120° | 541.5 | 21.6 |
| 90°-150° | 1857.9 | 74.2 |
| 90°-180° | 2504.0 | 99.9 |
| 0°-180° | 2505.4 | 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 | 8 | 13 | 17 | 18 | 2 |
| 95° | 33 | 13 | 13 | 17 | 18 | 41 |
| 105° | 182 | 186 | 189 | 194 | 172 | 191 |
| 115° | 340 | 342 | 341 | 342 | 342 | 335 |
| 125° | 478 | 480 | 479 | 481 | 482 | 427 |
| 135° | 593 | 592 | 595 | 596 | 597 | 457 |
| 145° | 684 | 686 | 686 | 686 | 688 | 427 |
| 155° | 750 | 750 | 749 | 751 | 749 | 346 |
| 165° | 791 | 788 | 788 | 793 | 787 | 224 |
| 175° | 809 | 806 | 806 | 812 | 804 | 77 |
| 180° | 809 | 809 | 809 | 809 | 809 | |



TEST NUMBER: P334951

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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° | 1.8 | 8.5 | 13.3 | 16.9 | 18.2 |
| 92.5° | 9.1 | 7.9 | 12.7 | 16.3 | 16.3 |
| 95° | 33.3 | 12.7 | 13.3 | 16.9 | 17.6 |
| 97.5° | 63.5 | 76.9 | 13.3 | 16.3 | 16.9 |
| 100° | 99.3 | 110.1 | 26.6 | 16.3 | 16.9 |
| 102.5° | 139.2 | 146.5 | 153.7 | 17.6 | 17.6 |
| 105° | 182.2 | 185.8 | 188.8 | 194.3 | 172.5 |
| 107.5° | 221.5 | 223.3 | 227.5 | 230.6 | 233.0 |
| 110° | 261.4 | 263.3 | 266.9 | 268.1 | 269.9 |



TEST NUMBER: P334951

CATALOG NUMBER: S124IW-S770U930-4F0-1E-UDD

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 300.2 | 303.8 | 305.0 | 304.4 | 306.8 |
| 115° | 340.1 | 341.9 | 341.3 | 342.5 | 342.5 |
| 117.5° | 375.8 | 378.2 | 380.1 | 379.5 | 379.5 |
| 120° | 412.1 | 414.6 | 413.9 | 415.2 | 413.9 |
| 122.5° | 446.0 | 447.2 | 448.4 | 449.0 | 447.8 |
| 125° | 478.1 | 480.5 | 479.3 | 481.1 | 481.7 |
| 127.5° | 509.0 | 509.6 | 512.6 | 512.0 | 511.4 |
| 130° | 538.6 | 539.2 | 541.0 | 541.6 | 541.6 |
| 132.5° | 565.8 | 567.1 | 569.5 | 570.1 | 569.5 |
| 135° | 593.1 | 592.5 | 594.9 | 596.1 | 597.3 |
| 137.5° | 617.3 | 617.3 | 620.3 | 621.5 | 620.9 |
| 140° | 640.9 | 642.1 | 643.3 | 645.1 | 645.7 |
| 142.5° | 662.1 | 664.5 | 665.1 | 666.3 | 666.3 |
| 145° | 683.9 | 685.7 | 685.7 | 686.3 | 687.5 |
| 147.5° | 700.8 | 704.4 | 703.8 | 704.4 | 705.0 |
| 150° | 719.6 | 722.0 | 721.4 | 721.4 | 722.0 |
| 152.5° | 735.3 | 737.1 | 735.9 | 737.1 | 736.5 |
| 155° | 749.8 | 750.4 | 748.6 | 751.0 | 749.2 |
| 157.5° | 762.5 | 762.5 | 760.1 | 763.1 | 760.1 |
| 160° | 773.4 | 771.6 | 771.0 | 774.6 | 771.0 |
| 162.5° | 783.1 | 780.7 | 780.1 | 783.7 | 779.5 |
| 165° | 791.0 | 788.0 | 788.0 | 792.8 | 787.3 |
| 167.5° | 797.6 | 794.6 | 794.0 | 799.5 | 793.4 |
| 170° | 803.1 | 799.5 | 800.1 | 804.9 | 798.8 |
| 172.5° | 806.7 | 803.1 | 803.7 | 808.5 | 801.9 |
| 175° | 809.1 | 805.5 | 806.1 | 811.6 | 804.3 |
| 177.5° | 810.9 | 806.7 | 807.9 | 812.8 | 805.5 |
| 180° | 809.1 | 809.1 | 809.1 | 809.1 | 809.1 |

(END OF REPORT)