

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: P334865

Luminaire Tested: **S124IW-S470U835-4F0-1E-UDD-1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334865
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-S470U835-4F0-1E-UDD-1
Description: DEFINE 4 INDIRECT LED LUMINAIRE, FLUSH SATIN WHITE DIFFUSER
WALL MOUNT, 470 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1626.9 lumens
Efficiency: N/A
Efficacy: 187.0 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Indirect

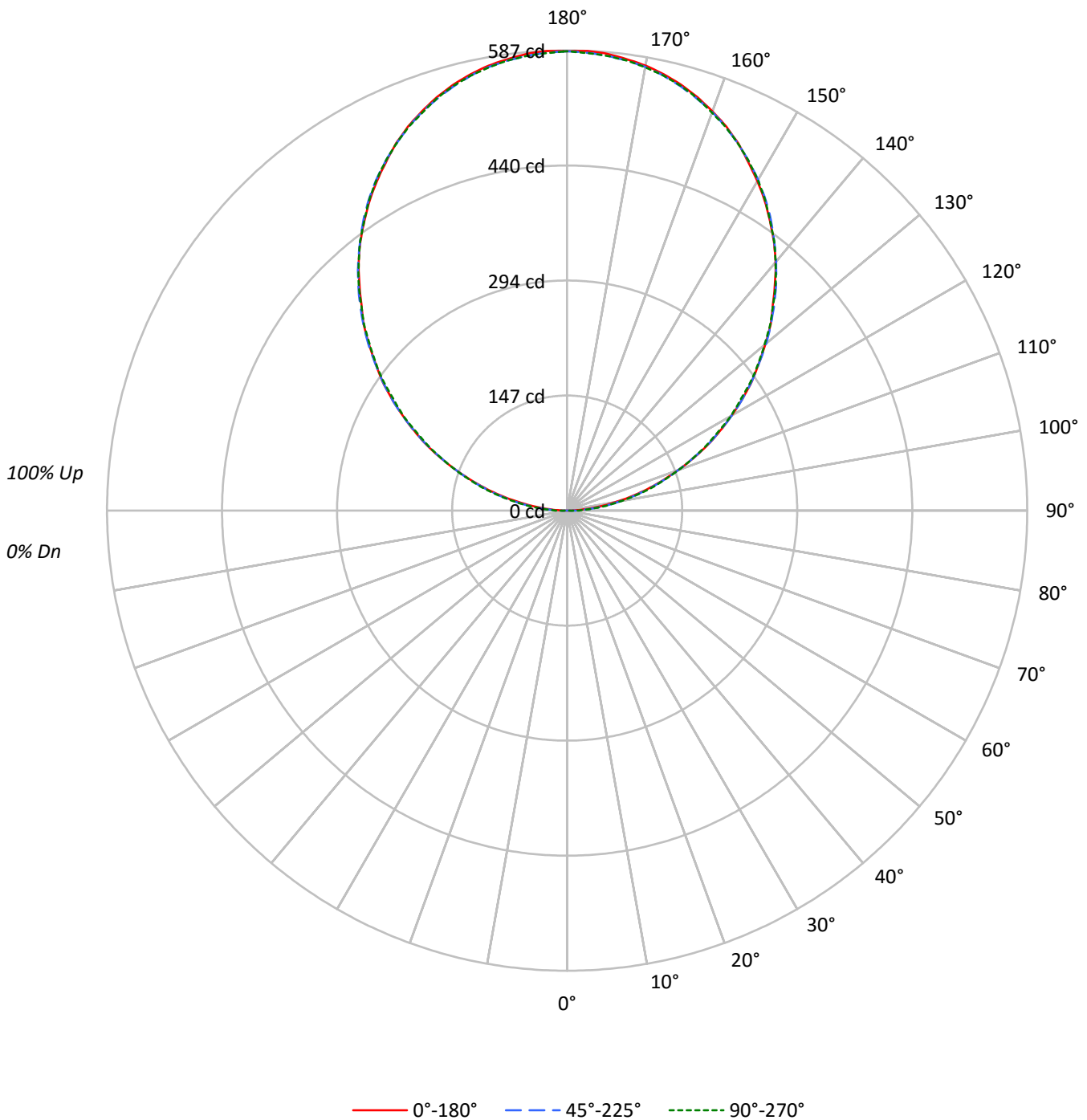
Input Watts (W): 8.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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° | 1.3 | 0.1 |
| 90°-100° | 38.2 | 2.3 |
| 100°-110° | 114.4 | 7.0 |
| 110°-120° | 194.3 | 11.9 |
| 120°-130° | 256.3 | 15.8 |
| 130°-140° | 287.8 | 17.7 |
| 140°-150° | 282.9 | 17.4 |
| 150°-160° | 238.0 | 14.6 |
| 160°-170° | 158.3 | 9.7 |
| 170°-180° | 55.4 | 3.4 |
| 0°-30° | 0.0 | 0.0 |
| 0°-40° | 0.0 | 0.0 |
| 0°-60° | 0.0 | 0.0 |
| 0°-90° | 1.3 | 0.1 |
| 90°-120° | 346.9 | 21.3 |
| 90°-150° | 1174.0 | 72.2 |
| 90°-180° | 1626.0 | 99.9 |
| 0°-180° | 1626.9 | 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 | 6 | 10 | 13 | 14 | 2 |
| 95° | 27 | 31 | 34 | 36 | 36 | 29 |
| 105° | 106 | 106 | 108 | 109 | 111 | 112 |
| 115° | 198 | 198 | 197 | 196 | 196 | 195 |
| 125° | 288 | 288 | 287 | 286 | 286 | 256 |
| 135° | 371 | 374 | 374 | 373 | 372 | 287 |
| 145° | 451 | 453 | 453 | 453 | 451 | 282 |
| 155° | 517 | 517 | 516 | 518 | 516 | 238 |
| 165° | 562 | 561 | 560 | 563 | 561 | 159 |
| 175° | 585 | 583 | 582 | 586 | 582 | 56 |
| 180° | 586 | 586 | 586 | 586 | 586 | |



TEST NUMBER: P334865

CATALOG NUMBER: S124IW-S470U835-4F0-1E-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° | 1.4 | 6.3 | 10.0 | 12.7 | 13.6 |
| 92.5° | 11.8 | 17.7 | 19.9 | 21.3 | 21.8 |
| 95° | 27.2 | 31.3 | 34.4 | 35.8 | 35.8 |
| 97.5° | 43.5 | 47.1 | 50.8 | 52.6 | 52.6 |
| 100° | 63.4 | 65.3 | 69.3 | 70.2 | 70.2 |
| 102.5° | 84.3 | 84.7 | 88.4 | 89.7 | 90.2 |
| 105° | 105.6 | 106.0 | 107.8 | 109.2 | 110.6 |
| 107.5° | 127.8 | 128.2 | 128.7 | 130.5 | 130.1 |
| 110° | 150.4 | 151.3 | 150.9 | 150.0 | 151.3 |



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CATALOG NUMBER: S124IW-S470U835-4F0-1E-UDD-1

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 174.0 | 174.0 | 173.1 | 173.1 | 173.1 |
| 115° | 197.6 | 197.6 | 196.7 | 196.2 | 195.8 |
| 117.5° | 219.8 | 219.8 | 219.3 | 218.0 | 216.6 |
| 120° | 242.0 | 243.8 | 242.4 | 240.2 | 241.1 |
| 122.5° | 265.1 | 265.5 | 265.1 | 263.7 | 261.5 |
| 125° | 287.7 | 287.7 | 287.3 | 286.4 | 285.5 |
| 127.5° | 308.1 | 309.5 | 308.6 | 307.7 | 307.2 |
| 130° | 329.9 | 331.2 | 331.2 | 330.3 | 328.5 |
| 132.5° | 352.1 | 353.0 | 352.5 | 351.6 | 351.2 |
| 135° | 371.1 | 373.8 | 373.8 | 372.9 | 371.6 |
| 137.5° | 392.4 | 393.8 | 394.7 | 393.3 | 393.8 |
| 140° | 413.7 | 414.6 | 414.6 | 414.2 | 413.7 |
| 142.5° | 433.2 | 434.1 | 433.7 | 433.7 | 433.7 |
| 145° | 450.9 | 452.7 | 453.1 | 452.7 | 451.3 |
| 147.5° | 469.0 | 471.3 | 470.8 | 470.4 | 469.9 |
| 150° | 485.3 | 487.1 | 487.1 | 487.1 | 486.7 |
| 152.5° | 500.7 | 501.6 | 502.1 | 503.4 | 502.1 |
| 155° | 516.6 | 516.6 | 516.1 | 517.9 | 516.1 |
| 157.5° | 530.2 | 529.3 | 529.3 | 530.6 | 529.3 |
| 160° | 542.0 | 541.5 | 541.1 | 542.4 | 540.1 |
| 162.5° | 552.8 | 551.5 | 551.0 | 553.7 | 551.5 |
| 165° | 562.3 | 561.0 | 560.1 | 562.8 | 561.0 |
| 167.5° | 570.1 | 568.2 | 568.2 | 571.0 | 568.2 |
| 170° | 576.4 | 574.1 | 574.6 | 577.3 | 574.1 |
| 172.5° | 580.9 | 579.1 | 579.1 | 582.3 | 579.1 |
| 175° | 585.0 | 582.7 | 582.3 | 585.5 | 582.3 |
| 177.5° | 586.8 | 584.6 | 584.6 | 587.7 | 584.1 |
| 180° | 585.9 | 585.9 | 585.9 | 585.9 | 585.9 |

(END OF REPORT)