

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: P334916

Luminaire Tested: **S124IP-S590U930-4F0-1E-UDD**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334916
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: S124IP-S590U930-4F0-1E-UDD
Description: DEFINE 4 INDIRECT LED LUMINAIRE, NO LENS
PENDANT MOUNT, 590 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1925.4 lumens
Efficiency: N/A
Efficacy: 102.4 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Indirect

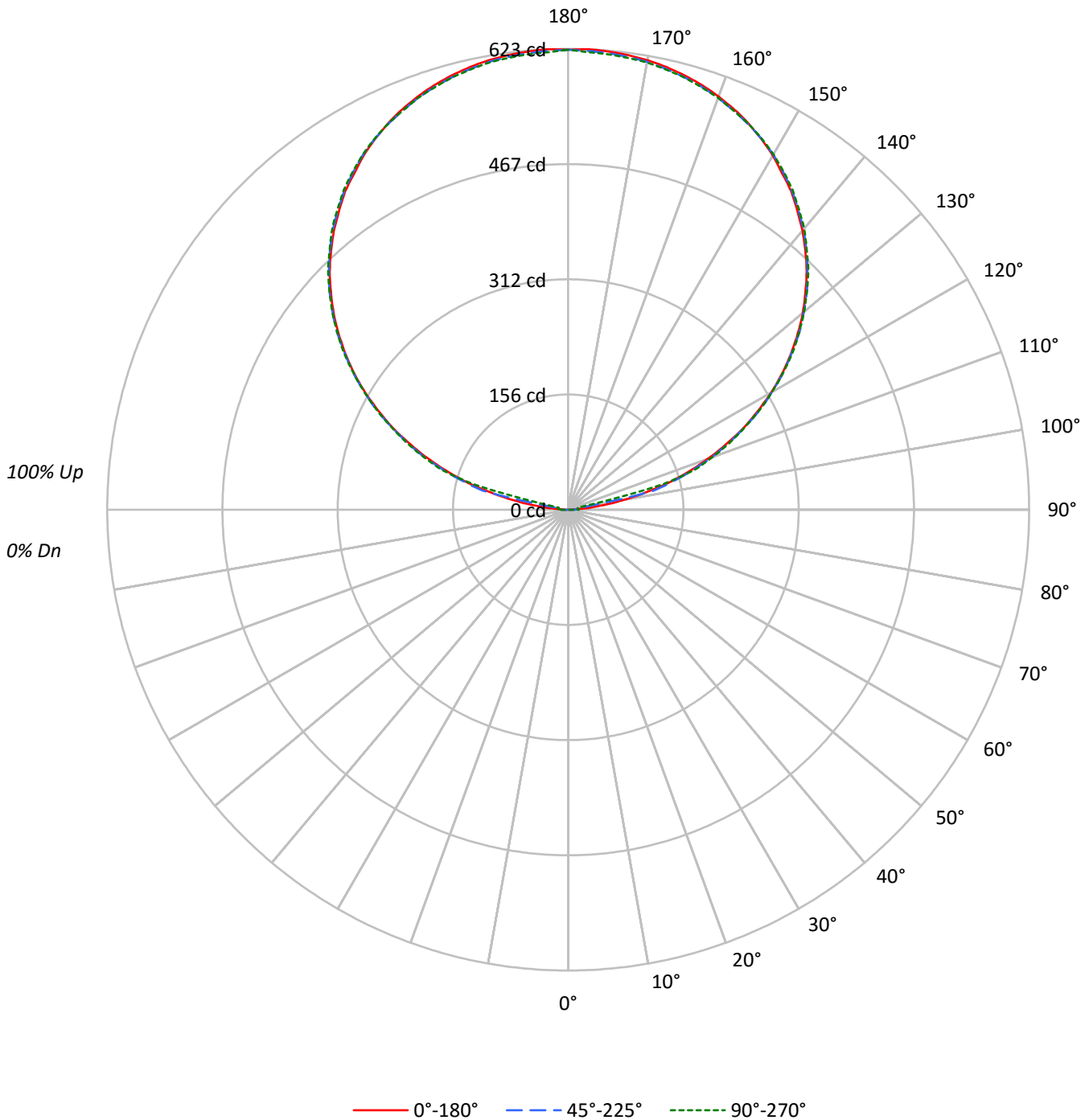
Input Watts (W): 18.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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° | 1.3 | 0.1 |
| 90°-100° | 20.6 | 1.1 |
| 100°-110° | 135.9 | 7.1 |
| 110°-120° | 259.6 | 13.5 |
| 120°-130° | 329.5 | 17.1 |
| 130°-140° | 352.5 | 18.3 |
| 140°-150° | 329.6 | 17.1 |
| 150°-160° | 265.8 | 13.8 |
| 160°-170° | 171.4 | 8.9 |
| 170°-180° | 59.1 | 3.1 |
| 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° | 416.1 | 21.6 |
| 90°-150° | 1427.8 | 74.2 |
| 90°-180° | 1924.0 | 99.9 |
| 0°-180° | 1925.4 | 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° | 1 | 6 | 10 | 13 | 14 | 1 |
| 95° | 26 | 10 | 10 | 13 | 14 | 32 |
| 105° | 140 | 143 | 145 | 149 | 132 | 147 |
| 115° | 261 | 263 | 262 | 263 | 263 | 257 |
| 125° | 367 | 369 | 368 | 370 | 370 | 328 |
| 135° | 456 | 455 | 457 | 458 | 459 | 351 |
| 145° | 526 | 527 | 527 | 527 | 528 | 328 |
| 155° | 576 | 577 | 575 | 577 | 576 | 266 |
| 165° | 608 | 606 | 606 | 609 | 605 | 172 |
| 175° | 622 | 619 | 620 | 624 | 618 | 59 |
| 180° | 622 | 622 | 622 | 622 | 622 | |



TEST NUMBER: P334916

CATALOG NUMBER: S124IP-S590U930-4F0-1E-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° | 1.4 | 6.5 | 10.2 | 13.0 | 14.0 |
| 92.5° | 7.0 | 6.0 | 9.8 | 12.6 | 12.6 |
| 95° | 25.6 | 9.8 | 10.2 | 13.0 | 13.5 |
| 97.5° | 48.8 | 59.1 | 10.2 | 12.6 | 13.0 |
| 100° | 76.3 | 84.6 | 20.5 | 12.6 | 13.0 |
| 102.5° | 107.0 | 112.5 | 118.1 | 13.5 | 13.5 |
| 105° | 140.0 | 142.8 | 145.1 | 149.3 | 132.5 |
| 107.5° | 170.2 | 171.6 | 174.9 | 177.2 | 179.1 |
| 110° | 200.9 | 202.3 | 205.1 | 206.0 | 207.4 |



TEST NUMBER: P334916

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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 230.7 | 233.5 | 234.4 | 233.9 | 235.8 |
| 115° | 261.4 | 262.8 | 262.3 | 263.2 | 263.2 |
| 117.5° | 288.8 | 290.7 | 292.1 | 291.6 | 291.6 |
| 120° | 316.7 | 318.6 | 318.1 | 319.0 | 318.1 |
| 122.5° | 342.8 | 343.7 | 344.6 | 345.1 | 344.2 |
| 125° | 367.4 | 369.3 | 368.3 | 369.7 | 370.2 |
| 127.5° | 391.1 | 391.6 | 393.9 | 393.4 | 393.0 |
| 130° | 413.9 | 414.4 | 415.8 | 416.2 | 416.2 |
| 132.5° | 434.8 | 435.8 | 437.6 | 438.1 | 437.6 |
| 135° | 455.8 | 455.3 | 457.2 | 458.1 | 459.0 |
| 137.5° | 474.4 | 474.4 | 476.7 | 477.6 | 477.2 |
| 140° | 492.5 | 493.4 | 494.4 | 495.8 | 496.2 |
| 142.5° | 508.8 | 510.6 | 511.1 | 512.0 | 512.0 |
| 145° | 525.5 | 526.9 | 526.9 | 527.4 | 528.3 |
| 147.5° | 538.5 | 541.3 | 540.9 | 541.3 | 541.8 |
| 150° | 553.0 | 554.8 | 554.4 | 554.4 | 554.8 |
| 152.5° | 565.1 | 566.5 | 565.5 | 566.5 | 566.0 |
| 155° | 576.2 | 576.7 | 575.3 | 577.1 | 575.8 |
| 157.5° | 586.0 | 586.0 | 584.1 | 586.5 | 584.1 |
| 160° | 594.4 | 593.0 | 592.5 | 595.3 | 592.5 |
| 162.5° | 601.8 | 599.9 | 599.5 | 602.3 | 599.0 |
| 165° | 607.8 | 605.5 | 605.5 | 609.2 | 605.1 |
| 167.5° | 613.0 | 610.6 | 610.2 | 614.4 | 609.7 |
| 170° | 617.1 | 614.4 | 614.8 | 618.5 | 613.9 |
| 172.5° | 619.9 | 617.1 | 617.6 | 621.3 | 616.2 |
| 175° | 621.8 | 619.0 | 619.5 | 623.7 | 618.1 |
| 177.5° | 623.2 | 619.9 | 620.9 | 624.6 | 619.0 |
| 180° | 621.8 | 621.8 | 621.8 | 621.8 | 621.8 |

(END OF REPORT)