

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: P334670

Luminaire Tested: **S123IP-S365U930-4F0-1E-UDD-1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334670
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-9)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123IP-S365U930-4F0-1E-UDD-1
Description: DEFINE 3 INDIRECT LED LUMINAIRE, FLUSH SATIN WHITE DIFFUSER
PENDANT MOUNT, 365 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

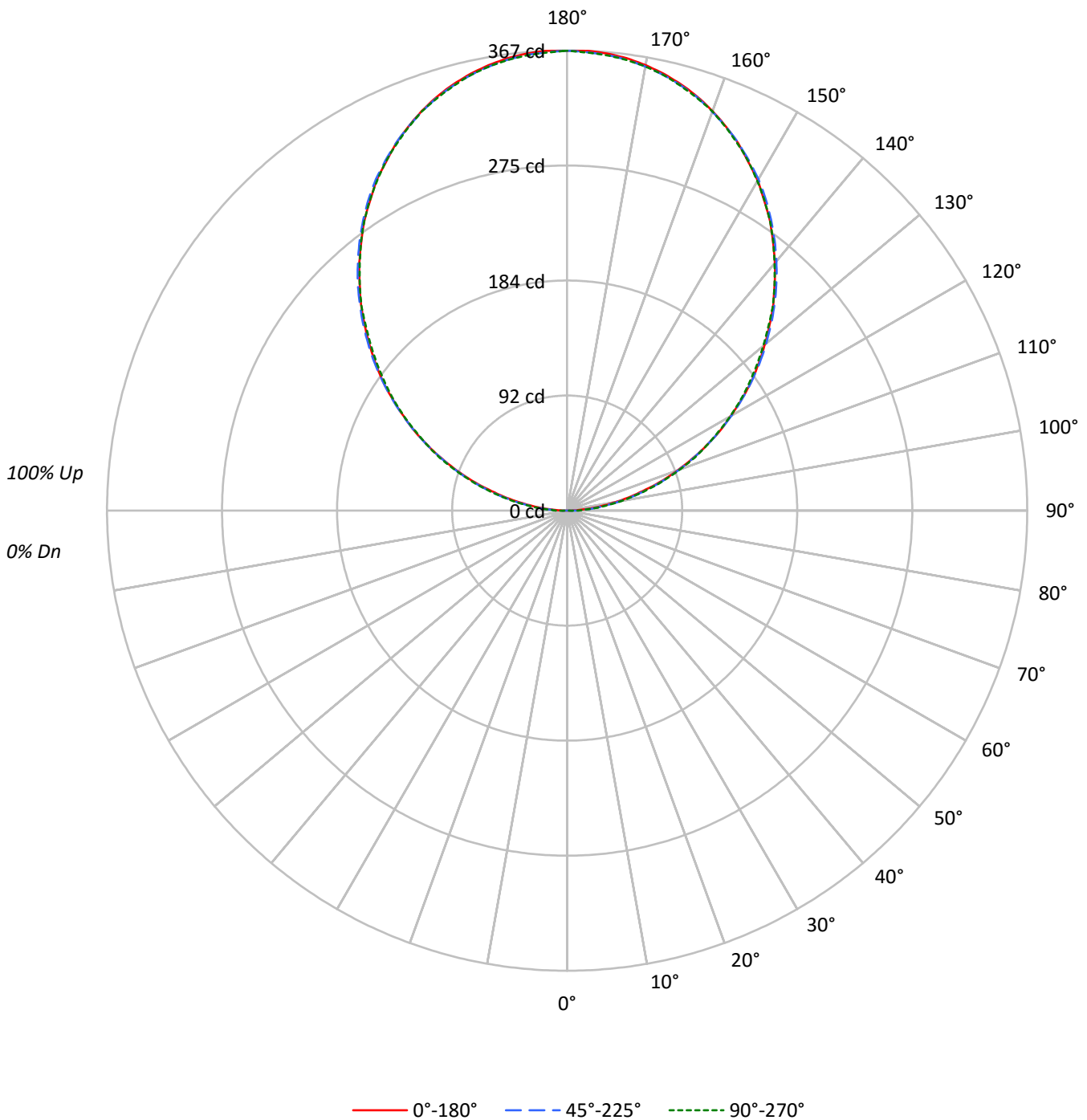
Lumens per Lamp: N/A
Luminaire Lumens: 1017.0 lumens
Efficiency: N/A
Efficacy: 89.2 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Indirect

Input Watts (W): 11.4
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° | 0.8 | 0.1 |
| 90°-100° | 23.6 | 2.3 |
| 100°-110° | 71.5 | 7.0 |
| 110°-120° | 121.6 | 12.0 |
| 120°-130° | 160.1 | 15.7 |
| 130°-140° | 179.9 | 17.7 |
| 140°-150° | 176.9 | 17.4 |
| 150°-160° | 148.9 | 14.6 |
| 160°-170° | 99.1 | 9.7 |
| 170°-180° | 34.7 | 3.4 |
| 0°-30° | 0.0 | 0.0 |
| 0°-40° | 0.0 | 0.0 |
| 0°-60° | 0.0 | 0.0 |
| 0°-90° | 0.8 | 0.1 |
| 90°-120° | 216.7 | 21.3 |
| 90°-150° | 733.5 | 72.1 |
| 90°-180° | 1016.0 | 99.9 |
| 0°-180° | 1017.0 | 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° | 0 | 3 | 7 | 8 | 9 | 1 |
| 95° | 17 | 19 | 21 | 22 | 22 | 19 |
| 105° | 65 | 65 | 68 | 68 | 69 | 69 |
| 115° | 122 | 123 | 123 | 123 | 123 | 121 |
| 125° | 179 | 180 | 180 | 178 | 177 | 160 |
| 135° | 232 | 234 | 234 | 233 | 232 | 179 |
| 145° | 282 | 283 | 284 | 283 | 282 | 176 |
| 155° | 323 | 323 | 323 | 324 | 322 | 149 |
| 165° | 352 | 351 | 351 | 353 | 351 | 99 |
| 175° | 366 | 365 | 365 | 366 | 364 | 35 |
| 180° | 367 | 367 | 367 | 367 | 367 | |



TEST NUMBER: P334670

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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° | 0.3 | 3.2 | 6.9 | 8.1 | 8.6 |
| 92.5° | 8.6 | 10.4 | 12.1 | 13.0 | 12.4 |
| 95° | 17.0 | 19.0 | 21.3 | 22.5 | 22.5 |
| 97.5° | 27.9 | 29.4 | 31.1 | 32.6 | 32.3 |
| 100° | 39.2 | 40.9 | 42.4 | 43.2 | 43.8 |
| 102.5° | 52.1 | 53.0 | 55.0 | 55.9 | 55.6 |
| 105° | 64.8 | 65.4 | 68.0 | 68.0 | 68.6 |
| 107.5° | 79.8 | 80.1 | 81.2 | 82.1 | 81.8 |
| 110° | 93.6 | 94.2 | 94.8 | 95.9 | 95.4 |



TEST NUMBER: P334670

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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 108.0 | 108.3 | 108.3 | 109.8 | 109.8 |
| 115° | 122.5 | 123.3 | 122.7 | 123.0 | 122.7 |
| 117.5° | 137.1 | 137.4 | 136.9 | 136.9 | 136.0 |
| 120° | 150.7 | 152.4 | 151.0 | 150.7 | 150.1 |
| 122.5° | 164.8 | 166.0 | 165.4 | 164.5 | 163.7 |
| 125° | 179.2 | 180.1 | 179.5 | 178.3 | 177.2 |
| 127.5° | 192.5 | 194.2 | 193.6 | 191.9 | 190.7 |
| 130° | 205.7 | 208.0 | 207.2 | 206.0 | 204.0 |
| 132.5° | 219.0 | 221.3 | 220.7 | 219.3 | 217.8 |
| 135° | 232.5 | 234.2 | 234.0 | 232.8 | 232.2 |
| 137.5° | 244.9 | 246.3 | 247.2 | 245.8 | 244.9 |
| 140° | 257.9 | 259.3 | 259.6 | 259.3 | 257.3 |
| 142.5° | 269.7 | 271.1 | 271.7 | 271.4 | 270.0 |
| 145° | 282.1 | 282.6 | 283.5 | 283.2 | 282.1 |
| 147.5° | 292.7 | 293.9 | 294.7 | 294.7 | 293.0 |
| 150° | 304.0 | 304.5 | 305.1 | 305.1 | 303.4 |
| 152.5° | 313.2 | 314.1 | 314.3 | 314.9 | 313.5 |
| 155° | 323.0 | 323.0 | 323.3 | 324.4 | 322.4 |
| 157.5° | 331.3 | 331.0 | 331.3 | 332.5 | 330.8 |
| 160° | 339.1 | 338.5 | 338.5 | 340.0 | 338.8 |
| 162.5° | 346.0 | 345.2 | 345.5 | 346.9 | 344.9 |
| 165° | 351.8 | 350.9 | 350.9 | 352.7 | 350.6 |
| 167.5° | 356.7 | 355.5 | 355.8 | 357.6 | 355.8 |
| 170° | 360.7 | 359.6 | 359.6 | 361.6 | 359.6 |
| 172.5° | 363.9 | 362.7 | 362.7 | 364.5 | 362.5 |
| 175° | 365.9 | 364.8 | 364.8 | 366.5 | 364.5 |
| 177.5° | 367.1 | 365.9 | 365.9 | 367.6 | 365.6 |
| 180° | 366.8 | 366.8 | 366.8 | 366.8 | 366.8 |

(END OF REPORT)