

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: P334900

Luminaire Tested: **S124IP-S365U835-4F0-1E-UDD**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334900  
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-S365U835-4F0-1E-UDD  
Description: DEFINE 4 INDIRECT LED LUMINAIRE, NO LENS  
PENDANT MOUNT, 365 LUMENS PER FOOT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1463.1 lumens  
Efficiency: N/A  
Efficacy: 128.3 lumens/watt  
Spacing Criteria (0/90/45): - / - / -  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Indirect

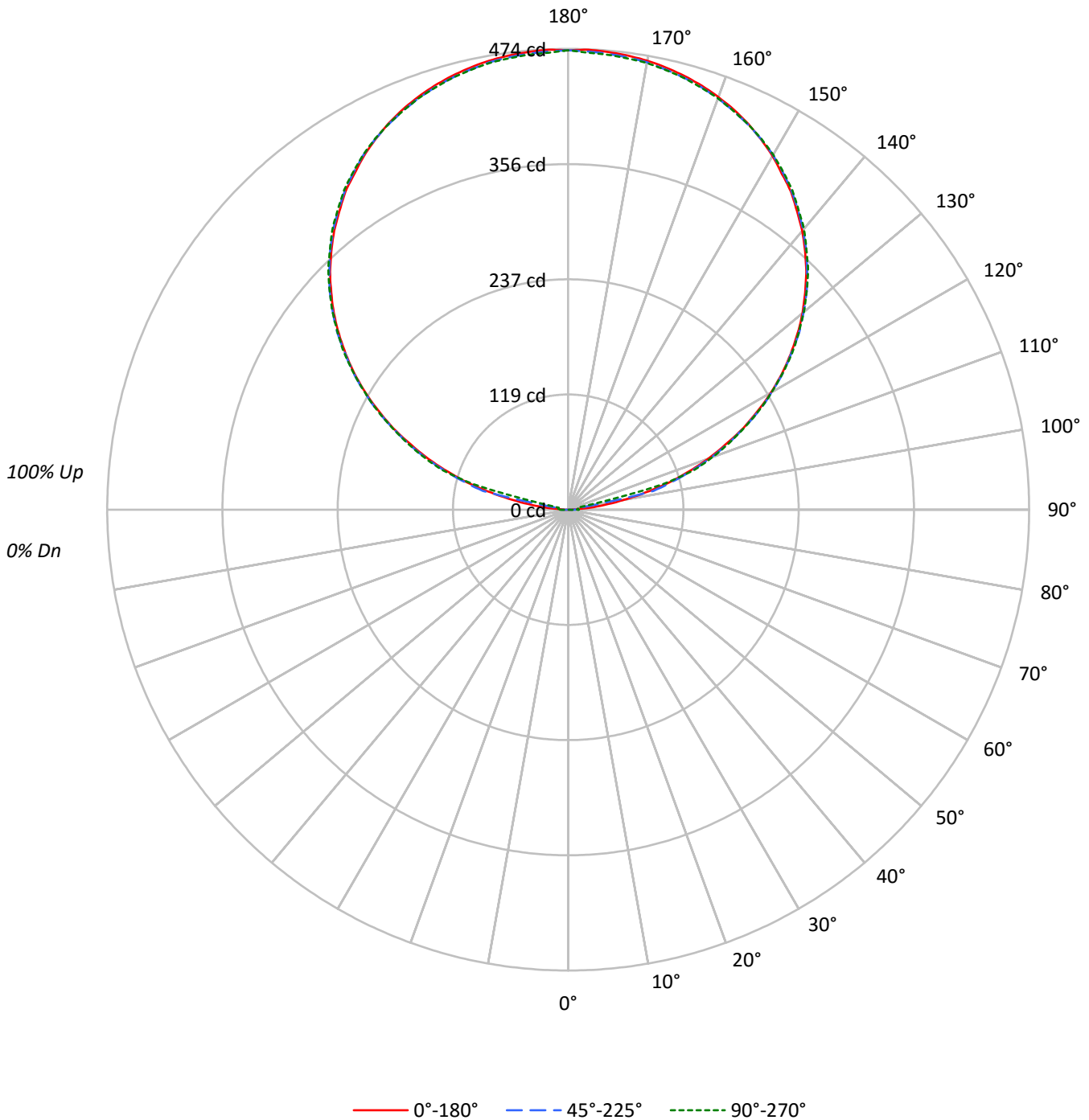
Input Watts (W): 11.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P334900

CATALOG NUMBER: S124IP-S365U835-4F0-1E-UDD

### Luminous Intensity Polar Plot





TEST NUMBER: P334900

CATALOG NUMBER: S124IP-S365U835-4F0-1E-UDD

**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   |



TEST NUMBER: P334900

CATALOG NUMBER: S124IP-S365U835-4F0-1E-UDD

**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°   | 1.0    | 0.1       |
| 90°-100°  | 15.7   | 1.1       |
| 100°-110° | 103.3  | 7.1       |
| 110°-120° | 197.2  | 13.5      |
| 120°-130° | 250.4  | 17.1      |
| 130°-140° | 267.9  | 18.3      |
| 140°-150° | 250.5  | 17.1      |
| 150°-160° | 202.0  | 13.8      |
| 160°-170° | 130.3  | 8.9       |
| 170°-180° | 44.9   | 3.1       |
| 0°-30°    | 0.0    | 0.0       |
| 0°-40°    | 0.0    | 0.0       |
| 0°-60°    | 0.0    | 0.0       |
| 0°-90°    | 1.0    | 0.1       |
| 90°-120°  | 316.2  | 21.6      |
| 90°-150°  | 1085.0 | 74.2      |
| 90°-180°  | 1462.0 | 99.9      |
| 0°-180°   | 1463.1 | 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   | 5     | 8   | 10    | 11  | 1    |
| 95°  | 19  | 7     | 8   | 10    | 10  | 24   |
| 105° | 106 | 108   | 110 | 113   | 101 | 111  |
| 115° | 199 | 200   | 199 | 200   | 200 | 196  |
| 125° | 279 | 281   | 280 | 281   | 281 | 249  |
| 135° | 346 | 346   | 347 | 348   | 349 | 267  |
| 145° | 399 | 400   | 400 | 401   | 402 | 250  |
| 155° | 438 | 438   | 437 | 439   | 438 | 202  |
| 165° | 462 | 460   | 460 | 463   | 460 | 131  |
| 175° | 472 | 470   | 471 | 474   | 470 | 45   |
| 180° | 472 | 472   | 472 | 472   | 472 |      |



TEST NUMBER: P334900

CATALOG NUMBER: S124IP-S365U835-4F0-1E-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°    | 1.1   | 4.9   | 7.8   | 9.9   | 10.6  |
| 92.5°  | 5.3   | 4.6   | 7.4   | 9.5   | 9.5   |
| 95°    | 19.4  | 7.4   | 7.8   | 9.9   | 10.2  |
| 97.5°  | 37.1  | 44.9  | 7.8   | 9.5   | 9.9   |
| 100°   | 58.0  | 64.3  | 15.6  | 9.5   | 9.9   |
| 102.5° | 81.3  | 85.5  | 89.8  | 10.2  | 10.2  |
| 105°   | 106.4 | 108.5 | 110.3 | 113.4 | 100.7 |
| 107.5° | 129.3 | 130.4 | 132.9 | 134.7 | 136.1 |
| 110°   | 152.7 | 153.7 | 155.9 | 156.6 | 157.6 |



TEST NUMBER: P334900

CATALOG NUMBER: S124IP-S365U835-4F0-1E-UDD

**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 175.3 | 177.4 | 178.1 | 177.8 | 179.2 |
| 115°   | 198.6 | 199.7 | 199.3 | 200.0 | 200.0 |
| 117.5° | 219.5 | 220.9 | 221.9 | 221.6 | 221.6 |
| 120°   | 240.7 | 242.1 | 241.7 | 242.4 | 241.7 |
| 122.5° | 260.5 | 261.2 | 261.9 | 262.2 | 261.5 |
| 125°   | 279.2 | 280.6 | 279.9 | 281.0 | 281.3 |
| 127.5° | 297.2 | 297.6 | 299.3 | 299.0 | 298.6 |
| 130°   | 314.5 | 314.9 | 316.0 | 316.3 | 316.3 |
| 132.5° | 330.4 | 331.1 | 332.6 | 332.9 | 332.6 |
| 135°   | 346.3 | 346.0 | 347.4 | 348.1 | 348.8 |
| 137.5° | 360.5 | 360.5 | 362.2 | 363.0 | 362.6 |
| 140°   | 374.3 | 375.0 | 375.7 | 376.7 | 377.1 |
| 142.5° | 386.6 | 388.0 | 388.4 | 389.1 | 389.1 |
| 145°   | 399.4 | 400.4 | 400.4 | 400.8 | 401.5 |
| 147.5° | 409.3 | 411.4 | 411.0 | 411.4 | 411.7 |
| 150°   | 420.2 | 421.6 | 421.3 | 421.3 | 421.6 |
| 152.5° | 429.4 | 430.5 | 429.8 | 430.5 | 430.1 |
| 155°   | 437.9 | 438.2 | 437.2 | 438.6 | 437.5 |
| 157.5° | 445.3 | 445.3 | 443.9 | 445.7 | 443.9 |
| 160°   | 451.7 | 450.6 | 450.2 | 452.4 | 450.2 |
| 162.5° | 457.3 | 455.9 | 455.5 | 457.7 | 455.2 |
| 165°   | 461.9 | 460.1 | 460.1 | 463.0 | 459.8 |
| 167.5° | 465.8 | 464.0 | 463.7 | 466.9 | 463.3 |
| 170°   | 469.0 | 466.9 | 467.2 | 470.0 | 466.5 |
| 172.5° | 471.1 | 469.0 | 469.3 | 472.2 | 468.3 |
| 175°   | 472.5 | 470.4 | 470.7 | 473.9 | 469.7 |
| 177.5° | 473.6 | 471.1 | 471.8 | 474.6 | 470.4 |
| 180°   | 472.5 | 472.5 | 472.5 | 472.5 | 472.5 |

(END OF REPORT)