

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: P334651

Luminaire Tested: **S123IP-S585U830-4F0-1E-UDD-1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334651  
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-S585U830-4F0-1E-UDD-1  
Description: DEFINE 3 INDIRECT LED LUMINAIRE, FLUSH SATIN WHITE DIFFUSER  
PENDANT MOUNT, 585 LUMENS PER FOOT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

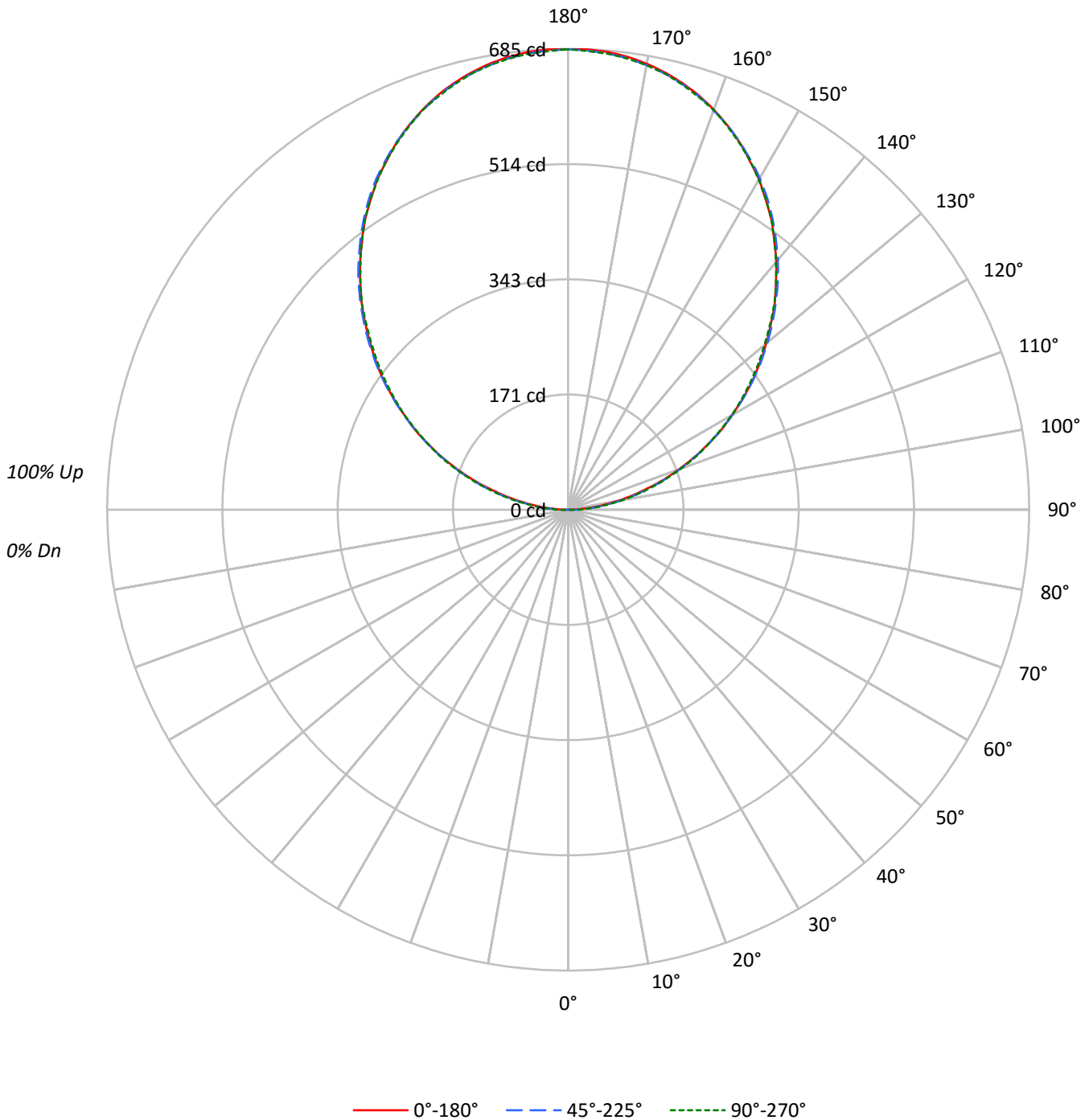
Lumens per Lamp: N/A  
Luminaire Lumens: 1897.8 lumens  
Efficiency: N/A  
Efficacy: 100.9 lumens/watt  
Spacing Criteria (0/90/45): - / - / -  
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')  
CIE Type: Indirect

Input Watts (W): 18.8  
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



TEST NUMBER: P334651  
CATALOG NUMBER: S123IP-S585U830-4F0-1E-UDD-1

### Luminous Intensity Polar Plot





TEST NUMBER: P334651

CATALOG NUMBER: S123IP-S585U830-4F0-1E-UDD-1

**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: P334651  
 CATALOG NUMBER: S123IP-S585U830-4F0-1E-UDD-1

**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°   | 1.4    | 0.1       |
| 90°-100°  | 44.1   | 2.3       |
| 100°-110° | 133.3  | 7.0       |
| 110°-120° | 227.0  | 12.0      |
| 120°-130° | 298.6  | 15.7      |
| 130°-140° | 335.7  | 17.7      |
| 140°-150° | 330.0  | 17.4      |
| 150°-160° | 277.8  | 14.6      |
| 160°-170° | 185.0  | 9.7       |
| 170°-180° | 64.8   | 3.4       |
| 0°-30°    | 0.0    | 0.0       |
| 0°-40°    | 0.0    | 0.0       |
| 0°-60°    | 0.0    | 0.0       |
| 0°-90°    | 1.4    | 0.1       |
| 90°-120°  | 404.4  | 21.3      |
| 90°-150°  | 1368.7 | 72.1      |
| 90°-180°  | 1896.0 | 99.9      |
| 0°-180°   | 1897.8 | 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   | 6     | 13  | 15    | 16  | 2    |
| 95°  | 32  | 36    | 40  | 42    | 42  | 35   |
| 105° | 121 | 122   | 127 | 127   | 128 | 129  |
| 115° | 228 | 230   | 229 | 230   | 229 | 226  |
| 125° | 334 | 336   | 335 | 333   | 331 | 298  |
| 135° | 434 | 437   | 436 | 434   | 433 | 334  |
| 145° | 526 | 527   | 529 | 528   | 526 | 329  |
| 155° | 603 | 603   | 603 | 605   | 602 | 277  |
| 165° | 656 | 655   | 655 | 658   | 654 | 185  |
| 175° | 683 | 681   | 681 | 684   | 680 | 65   |
| 180° | 684 | 684   | 684 | 684   | 684 |      |



TEST NUMBER: P334651

CATALOG NUMBER: S123IP-S585U830-4F0-1E-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°    | 0.5   | 5.9   | 12.9  | 15.1  | 16.1  |
| 92.5°  | 16.1  | 19.4  | 22.6  | 24.2  | 23.1  |
| 95°    | 31.7  | 35.5  | 39.8  | 41.9  | 41.9  |
| 97.5°  | 52.1  | 54.8  | 58.1  | 60.8  | 60.2  |
| 100°   | 73.1  | 76.3  | 79.0  | 80.6  | 81.7  |
| 102.5° | 97.3  | 98.9  | 102.7 | 104.3 | 103.8 |
| 105°   | 121.0 | 122.0 | 126.9 | 126.9 | 128.0 |
| 107.5° | 148.9 | 149.5 | 151.6 | 153.2 | 152.7 |
| 110°   | 174.7 | 175.8 | 176.9 | 179.0 | 178.0 |



TEST NUMBER: P334651

CATALOG NUMBER: S123IP-S585U830-4F0-1E-UDD-1

**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 201.6 | 202.1 | 202.1 | 204.8 | 204.8 |
| 115°   | 228.5 | 230.1 | 229.0 | 229.6 | 229.0 |
| 117.5° | 255.9 | 256.4 | 255.4 | 255.4 | 253.8 |
| 120°   | 281.2 | 284.4 | 281.7 | 281.2 | 280.1 |
| 122.5° | 307.5 | 309.7 | 308.6 | 307.0 | 305.4 |
| 125°   | 334.4 | 336.0 | 334.9 | 332.8 | 330.6 |
| 127.5° | 359.1 | 362.4 | 361.3 | 358.1 | 355.9 |
| 130°   | 383.9 | 388.2 | 386.5 | 384.4 | 380.6 |
| 132.5° | 408.6 | 412.9 | 411.8 | 409.1 | 406.4 |
| 135°   | 433.9 | 437.1 | 436.5 | 434.4 | 433.3 |
| 137.5° | 457.0 | 459.7 | 461.3 | 458.6 | 457.0 |
| 140°   | 481.2 | 483.9 | 484.4 | 483.9 | 480.1 |
| 142.5° | 503.2 | 505.9 | 507.0 | 506.4 | 503.7 |
| 145°   | 526.3 | 527.4 | 529.0 | 528.5 | 526.3 |
| 147.5° | 546.2 | 548.4 | 550.0 | 550.0 | 546.8 |
| 150°   | 567.2 | 568.3 | 569.3 | 569.3 | 566.1 |
| 152.5° | 584.4 | 586.0 | 586.5 | 587.6 | 584.9 |
| 155°   | 602.7 | 602.7 | 603.2 | 605.4 | 601.6 |
| 157.5° | 618.3 | 617.7 | 618.3 | 620.4 | 617.2 |
| 160°   | 632.8 | 631.7 | 631.7 | 634.4 | 632.2 |
| 162.5° | 645.7 | 644.1 | 644.6 | 647.3 | 643.5 |
| 165°   | 656.4 | 654.8 | 654.8 | 658.0 | 654.3 |
| 167.5° | 665.6 | 663.4 | 664.0 | 667.2 | 664.0 |
| 170°   | 673.1 | 670.9 | 670.9 | 674.7 | 670.9 |
| 172.5° | 679.0 | 676.9 | 676.9 | 680.1 | 676.3 |
| 175°   | 682.8 | 680.6 | 680.6 | 683.8 | 680.1 |
| 177.5° | 684.9 | 682.8 | 682.8 | 686.0 | 682.2 |
| 180°   | 684.4 | 684.4 | 684.4 | 684.4 | 684.4 |

(END OF REPORT)