

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: P334306

Luminaire Tested: **S125DW-S610D835-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334306  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-17)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DW-S610D835-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT LED LUMINAIRE, DROP SATIN WHITE DIFFUSER  
PENDANT/SURFACE/WALL MOUNT, 610 LUMENS PER FOOT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2268.8 lumens  
Efficiency: N/A  
Efficacy: 120.7 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: Direct

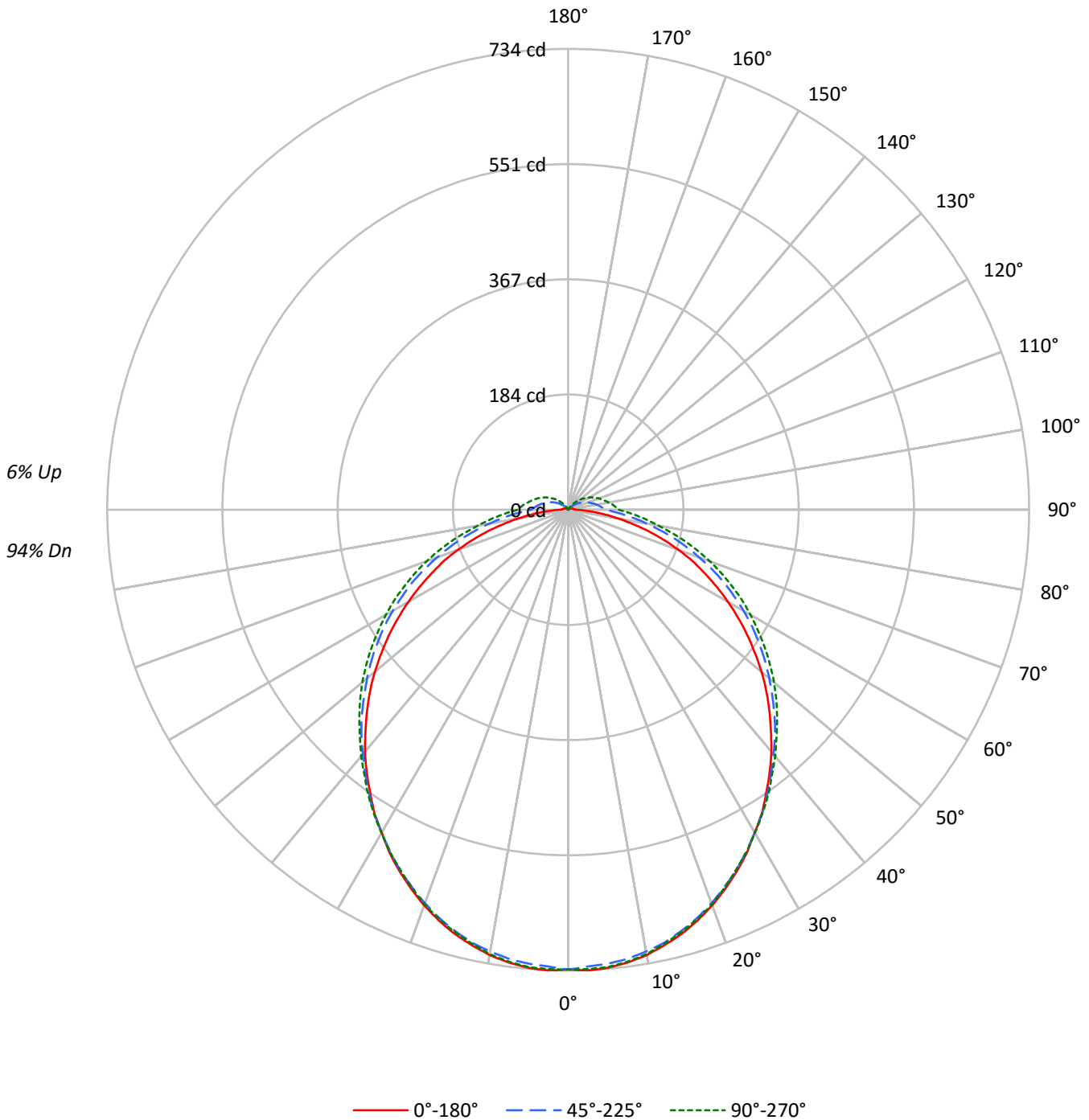
Input Watts (W): 18.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





TEST NUMBER: P334306

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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   | 118 | 118 | 118 | 118 | 114 | 114 | 114 | 114 | 108 | 108 | 108 | 102 | 102 | 102 | 96 | 96 | 96 | 94 |
| 1   | 106 | 101 | 96  | 92  | 103 | 98  | 94  | 90  | 93  | 89  | 86  | 88  | 85  | 82  | 83 | 81 | 79 | 76 |
| 2   | 96  | 88  | 80  | 74  | 93  | 85  | 78  | 73  | 81  | 75  | 70  | 76  | 72  | 68  | 72 | 69 | 65 | 63 |
| 3   | 88  | 77  | 68  | 61  | 84  | 75  | 67  | 60  | 71  | 64  | 59  | 67  | 61  | 57  | 64 | 59 | 55 | 53 |
| 4   | 80  | 68  | 59  | 52  | 77  | 66  | 58  | 51  | 63  | 55  | 50  | 60  | 53  | 48  | 57 | 51 | 47 | 45 |
| 5   | 74  | 60  | 51  | 44  | 71  | 59  | 50  | 44  | 56  | 49  | 43  | 53  | 47  | 42  | 51 | 45 | 41 | 39 |
| 6   | 68  | 54  | 45  | 39  | 66  | 53  | 45  | 38  | 51  | 43  | 38  | 48  | 42  | 37  | 46 | 40 | 36 | 34 |
| 7   | 63  | 49  | 40  | 34  | 61  | 48  | 40  | 34  | 46  | 39  | 33  | 44  | 37  | 33  | 42 | 36 | 32 | 30 |
| 8   | 59  | 45  | 36  | 30  | 57  | 44  | 36  | 30  | 42  | 35  | 30  | 40  | 34  | 29  | 39 | 33 | 29 | 27 |
| 9   | 55  | 41  | 33  | 27  | 53  | 40  | 33  | 27  | 39  | 32  | 27  | 37  | 31  | 26  | 36 | 30 | 26 | 24 |
| 10  | 51  | 38  | 30  | 25  | 50  | 37  | 30  | 25  | 36  | 29  | 24  | 35  | 28  | 24  | 33 | 28 | 23 | 22 |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4730 | 4730 | 4730 |
| 5°  | 4748 | 4706 | 4739 |
| 10° | 4723 | 4685 | 4713 |
| 15° | 4676 | 4647 | 4657 |
| 20° | 4609 | 4584 | 4599 |
| 25° | 4529 | 4513 | 4508 |
| 30° | 4428 | 4428 | 4433 |
| 35° | 4336 | 4359 | 4376 |
| 40° | 4243 | 4286 | 4322 |
| 45° | 4138 | 4243 | 4295 |
| 50° | 4040 | 4199 | 4299 |
| 55° | 3921 | 4180 | 4301 |
| 60° | 3794 | 4164 | 4331 |
| 65° | 3665 | 4181 | 4389 |
| 70° | 3525 | 4190 | 4528 |
| 75° | 3296 | 4337 | 4784 |
| 80° | 3016 | 4727 | 5423 |
| 85° | 2927 | 6543 | 8144 |



TEST NUMBER: P334306

CATALOG NUMBER: S125DW-S610D835-4F0-1E-UDD-D

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 69.3   | 3.1       |
| 10°-20°   | 196.7  | 8.7       |
| 20°-30°   | 292.6  | 12.9      |
| 30°-40°   | 346.5  | 15.3      |
| 40°-50°   | 358.2  | 15.8      |
| 50°-60°   | 330.0  | 14.5      |
| 60°-70°   | 266.7  | 11.8      |
| 70°-80°   | 178.5  | 7.9       |
| 80°-90°   | 92.3   | 4.1       |
| 90°-100°  | 52.0   | 2.3       |
| 100°-110° | 38.3   | 1.7       |
| 110°-120° | 25.6   | 1.1       |
| 120°-130° | 14.5   | 0.6       |
| 130°-140° | 6.3    | 0.3       |
| 140°-150° | 1.3    | 0.1       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 558.6  | 24.6      |
| 0°-40°    | 905.1  | 39.9      |
| 0°-60°    | 1593.2 | 70.2      |
| 0°-90°    | 2130.7 | 93.9      |
| 90°-120°  | 115.9  | 5.1       |
| 90°-150°  | 138.0  | 6.1       |
| 90°-180°  | 138.0  | 6.1       |
| 0°-180°   | 2268.8 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 732 | 732   | 732 | 732   | 732 |      |
| 5°   | 732 | 731   | 726 | 732   | 731 | 70   |
| 15°  | 699 | 700   | 695 | 699   | 696 | 197  |
| 25°  | 636 | 638   | 633 | 636   | 633 | 293  |
| 35°  | 550 | 555   | 553 | 555   | 555 | 344  |
| 45°  | 453 | 461   | 465 | 470   | 470 | 350  |
| 55°  | 348 | 360   | 371 | 379   | 382 | 311  |
| 65°  | 240 | 256   | 274 | 284   | 287 | 238  |
| 75°  | 132 | 151   | 174 | 188   | 192 | 140  |
| 85°  | 40  | 63    | 88  | 104   | 110 | 41   |
| 90°  | 12  | 34    | 59  | 75    | 80  | 8    |
| 95°  | 9   | 28    | 52  | 68    | 73  | 7    |
| 105° | 6   | 18    | 40  | 54    | 59  | 7    |
| 115° | 4   | 9     | 28  | 41    | 45  | 4    |
| 125° | 3   | 2     | 16  | 28    | 32  | 2    |
| 135° | 1   | 1     | 6   | 15    | 19  | 1    |
| 145° | 1   | 0     | 0   | 4     | 6   | 0    |
| 155° | 0   | 0     | 0   | 0     | 0   | 0    |
| 165° | 0   | 0     | 0   | 0     | 0   | 0    |
| 175° | 0   | 0     | 0   | 0     | 0   | 0    |
| 180° | 0   | 0     | 0   | 0     | 0   | 0    |



TEST NUMBER: P334306

CATALOG NUMBER: S125DW-S610D835-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 732.4 | 732.4 | 732.4 | 732.4 | 732.4 |
| 2.5°   | 734.5 | 733.1 | 728.1 | 733.1 | 732.4 |
| 5°     | 732.4 | 731.0 | 725.9 | 731.7 | 731.0 |
| 7.5°   | 727.4 | 726.6 | 721.6 | 726.6 | 725.9 |
| 10°    | 720.2 | 720.2 | 714.4 | 719.5 | 718.7 |
| 12.5°  | 710.1 | 710.8 | 706.5 | 710.1 | 708.0 |
| 15°    | 699.4 | 700.1 | 695.0 | 699.4 | 696.5 |
| 17.5°  | 685.7 | 687.2 | 682.1 | 685.7 | 683.6 |
| 20°    | 670.6 | 672.1 | 667.0 | 669.2 | 669.2 |
| 22.5°  | 653.4 | 656.3 | 650.5 | 653.4 | 651.2 |
| 25°    | 635.5 | 637.6 | 633.3 | 636.2 | 632.6 |
| 27.5°  | 616.1 | 618.9 | 613.9 | 616.1 | 614.6 |
| 30°    | 593.8 | 598.1 | 593.8 | 595.2 | 594.5 |
| 32.5°  | 573.7 | 577.3 | 574.4 | 575.9 | 575.1 |
| 35°    | 550.0 | 555.0 | 552.9 | 555.0 | 555.0 |
| 37.5°  | 527.0 | 531.3 | 530.6 | 533.5 | 532.8 |
| 40°    | 503.3 | 509.1 | 508.4 | 511.2 | 512.7 |
| 42.5°  | 477.5 | 485.4 | 487.5 | 491.1 | 491.1 |
| 45°    | 453.1 | 461.0 | 464.6 | 469.6 | 470.3 |
| 47.5°  | 427.9 | 435.1 | 440.9 | 448.0 | 449.5 |
| 50°    | 402.1 | 410.0 | 417.9 | 425.8 | 427.9 |
| 52.5°  | 374.8 | 384.9 | 394.9 | 403.5 | 405.0 |
| 55°    | 348.2 | 359.7 | 371.2 | 379.1 | 382.0 |
| 57.5°  | 321.0 | 334.6 | 347.5 | 356.1 | 358.3 |
| 60°    | 293.7 | 308.0 | 322.4 | 333.2 | 335.3 |
| 62.5°  | 267.1 | 281.5 | 297.3 | 309.5 | 312.3 |
| 65°    | 239.8 | 256.3 | 273.6 | 284.3 | 287.2 |
| 67.5°  | 214.7 | 230.5 | 247.7 | 260.6 | 264.2 |
| 70°    | 186.7 | 203.2 | 221.9 | 235.5 | 239.8 |
| 72.5°  | 159.4 | 176.6 | 197.5 | 212.5 | 215.4 |
| 75°    | 132.1 | 150.8 | 173.8 | 188.1 | 191.7 |
| 77.5°  | 105.5 | 127.1 | 148.6 | 164.4 | 167.3 |
| 80°    | 81.1  | 102.7 | 127.1 | 142.9 | 145.8 |
| 82.5°  | 58.9  | 81.9  | 107.0 | 122.1 | 127.8 |
| 85°    | 39.5  | 63.2  | 88.3  | 104.1 | 109.9 |
| 87.5°  | 25.1  | 48.1  | 72.5  | 89.0  | 94.1  |
| 90°    | 11.5  | 34.5  | 58.9  | 75.4  | 80.4  |
| 92.5°  | 10.1  | 30.9  | 56.0  | 71.8  | 76.8  |
| 95°    | 9.3   | 28.0  | 52.4  | 68.2  | 73.2  |
| 97.5°  | 8.6   | 25.8  | 49.5  | 64.6  | 69.6  |
| 100°   | 7.9   | 23.0  | 46.0  | 61.0  | 65.3  |
| 102.5° | 7.2   | 20.8  | 43.1  | 57.4  | 61.8  |
| 105°   | 6.5   | 18.0  | 39.5  | 53.9  | 58.9  |
| 107.5° | 5.7   | 15.8  | 36.6  | 51.0  | 55.3  |
| 110°   | 5.0   | 13.6  | 33.7  | 47.4  | 52.4  |



TEST NUMBER: P334306

CATALOG NUMBER: S125DW-S610D835-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 22.5° | 45°  | 67.5° | 90°  |
|--------|-----|-------|------|-------|------|
| 112.5° | 5.0 | 11.5  | 30.9 | 43.8  | 48.8 |
| 115°   | 4.3 | 9.3   | 28.0 | 40.9  | 45.2 |
| 117.5° | 3.6 | 7.2   | 25.1 | 37.3  | 42.4 |
| 120°   | 3.6 | 5.7   | 22.3 | 34.5  | 38.8 |
| 122.5° | 2.9 | 3.6   | 19.4 | 30.9  | 35.2 |
| 125°   | 2.9 | 2.2   | 16.5 | 28.0  | 31.6 |
| 127.5° | 2.2 | 1.4   | 13.6 | 24.4  | 28.7 |
| 130°   | 2.2 | 1.4   | 11.5 | 21.5  | 25.1 |
| 132.5° | 1.4 | 1.4   | 8.6  | 18.7  | 21.5 |
| 135°   | 1.4 | 0.7   | 5.7  | 15.1  | 18.7 |
| 137.5° | 1.4 | 0.7   | 3.6  | 12.2  | 15.1 |
| 140°   | 0.7 | 0.7   | 1.4  | 9.3   | 12.2 |
| 142.5° | 0.7 | 0.0   | 0.0  | 6.5   | 9.3  |
| 145°   | 0.7 | 0.0   | 0.0  | 3.6   | 6.5  |
| 147.5° | 0.0 | 0.0   | 0.0  | 1.4   | 2.9  |
| 150°   | 0.0 | 0.0   | 0.0  | 0.0   | 0.7  |
| 152.5° | 0.0 | 0.0   | 0.0  | 0.0   | 0.0  |
| 155°   | 0.0 | 0.0   | 0.0  | 0.0   | 0.0  |
| 157.5° | 0.0 | 0.0   | 0.0  | 0.0   | 0.0  |
| 160°   | 0.0 | 0.0   | 0.0  | 0.0   | 0.0  |
| 162.5° | 0.0 | 0.0   | 0.0  | 0.0   | 0.0  |
| 165°   | 0.0 | 0.0   | 0.0  | 0.0   | 0.0  |
| 167.5° | 0.0 | 0.0   | 0.0  | 0.0   | 0.0  |
| 170°   | 0.0 | 0.0   | 0.0  | 0.0   | 0.0  |
| 172.5° | 0.0 | 0.0   | 0.0  | 0.0   | 0.0  |
| 175°   | 0.0 | 0.0   | 0.0  | 0.0   | 0.0  |
| 177.5° | 0.0 | 0.0   | 0.0  | 0.0   | 0.0  |
| 180°   | 0.0 | 0.0   | 0.0  | 0.0   | 0.0  |

(END OF REPORT)