

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: P334327

Luminaire Tested: **S125DS-S850D935-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334327  
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: S125DS-S850D935-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT LED LUMINAIRE, DROP SATIN WHITE DIFFUSER  
PENDANT/SURFACE/WALL MOUNT, 850 LUMENS PER FOOT  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2720.6 lumens  
Efficiency: N/A  
Efficacy: 103.4 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

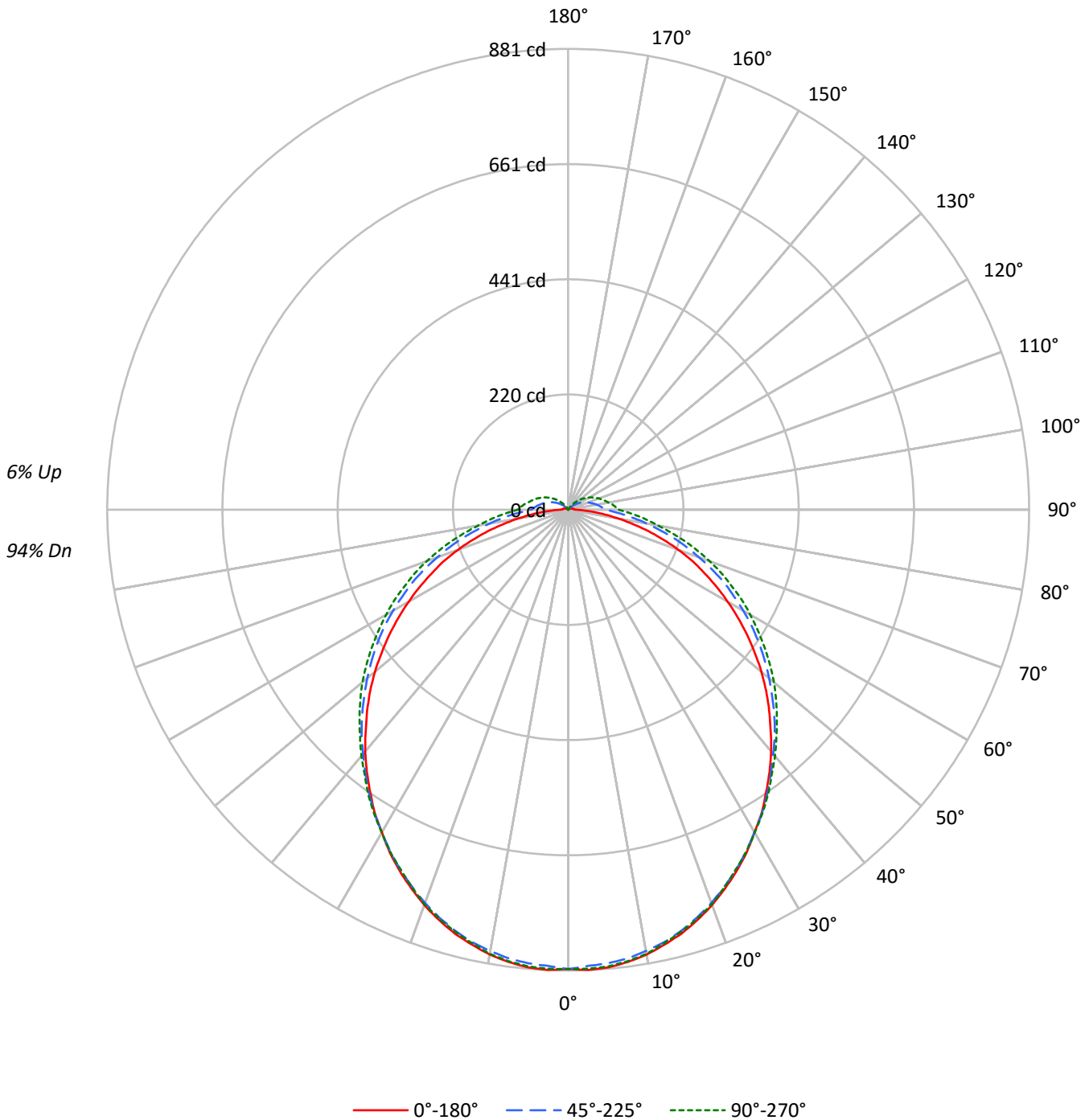
Input Watts (W): 26.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





TEST NUMBER: P334327

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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°  | 5672 | 5672 | 5672 |
| 5°  | 5693 | 5643 | 5682 |
| 10° | 5663 | 5618 | 5652 |
| 15° | 5607 | 5572 | 5584 |
| 20° | 5527 | 5498 | 5515 |
| 25° | 5430 | 5411 | 5405 |
| 30° | 5310 | 5310 | 5316 |
| 35° | 5200 | 5227 | 5248 |
| 40° | 5089 | 5139 | 5183 |
| 45° | 4962 | 5088 | 5151 |
| 50° | 4845 | 5035 | 5156 |
| 55° | 4702 | 5012 | 5158 |
| 60° | 4548 | 4994 | 5194 |
| 65° | 4395 | 5012 | 5263 |
| 70° | 4228 | 5023 | 5431 |
| 75° | 3953 | 5200 | 5737 |
| 80° | 3619 | 5668 | 6501 |
| 85° | 3512 | 7847 | 9759 |



TEST NUMBER: P334327

CATALOG NUMBER: S125DS-S850D935-4F0-1E-UDD-D

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 83.1   | 3.1       |
| 10°-20°   | 235.9  | 8.7       |
| 20°-30°   | 350.8  | 12.9      |
| 30°-40°   | 415.5  | 15.3      |
| 40°-50°   | 429.5  | 15.8      |
| 50°-60°   | 395.7  | 14.5      |
| 60°-70°   | 319.9  | 11.8      |
| 70°-80°   | 214.0  | 7.9       |
| 80°-90°   | 110.6  | 4.1       |
| 90°-100°  | 62.3   | 2.3       |
| 100°-110° | 45.9   | 1.7       |
| 110°-120° | 30.7   | 1.1       |
| 120°-130° | 17.4   | 0.6       |
| 130°-140° | 7.6    | 0.3       |
| 140°-150° | 1.5    | 0.1       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 669.8  | 24.6      |
| 0°-40°    | 1085.3 | 39.9      |
| 0°-60°    | 1910.5 | 70.2      |
| 0°-90°    | 2555.1 | 93.9      |
| 90°-120°  | 139.0  | 5.1       |
| 90°-150°  | 165.5  | 6.1       |
| 90°-180°  | 166.0  | 6.1       |
| 0°-180°   | 2720.6 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 878 | 878   | 878 | 878   | 878 |      |
| 5°   | 878 | 876   | 870 | 877   | 876 | 83   |
| 15°  | 839 | 840   | 833 | 839   | 835 | 236  |
| 25°  | 762 | 765   | 759 | 763   | 758 | 351  |
| 35°  | 660 | 666   | 663 | 666   | 666 | 413  |
| 45°  | 543 | 553   | 557 | 563   | 564 | 419  |
| 55°  | 418 | 431   | 445 | 455   | 458 | 373  |
| 65°  | 288 | 307   | 328 | 341   | 344 | 285  |
| 75°  | 158 | 181   | 208 | 226   | 230 | 168  |
| 85°  | 47  | 76    | 106 | 125   | 132 | 49   |
| 90°  | 14  | 41    | 71  | 90    | 96  | 10   |
| 95°  | 11  | 34    | 63  | 82    | 88  | 9    |
| 105° | 8   | 22    | 47  | 65    | 71  | 8    |
| 115° | 5   | 11    | 34  | 49    | 54  | 5    |
| 125° | 3   | 3     | 20  | 34    | 38  | 3    |
| 135° | 2   | 1     | 7   | 18    | 22  | 1    |
| 145° | 1   | 0     | 0   | 4     | 8   | 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: P334327

CATALOG NUMBER: S125DS-S850D935-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 878.2 | 878.2 | 878.2 | 878.2 | 878.2 |
| 2.5°   | 880.8 | 879.1 | 873.1 | 879.1 | 878.2 |
| 5°     | 878.2 | 876.5 | 870.5 | 877.4 | 876.5 |
| 7.5°   | 872.2 | 871.3 | 865.3 | 871.3 | 870.5 |
| 10°    | 863.6 | 863.6 | 856.7 | 862.7 | 861.9 |
| 12.5°  | 851.5 | 852.4 | 847.2 | 851.5 | 848.9 |
| 15°    | 838.6 | 839.5 | 833.4 | 838.6 | 835.2 |
| 17.5°  | 822.3 | 824.0 | 817.9 | 822.3 | 819.7 |
| 20°    | 804.2 | 805.9 | 799.9 | 802.5 | 802.5 |
| 22.5°  | 783.5 | 787.0 | 780.1 | 783.5 | 780.9 |
| 25°    | 762.0 | 764.6 | 759.4 | 762.8 | 758.5 |
| 27.5°  | 738.7 | 742.2 | 736.2 | 738.7 | 737.0 |
| 30°    | 712.0 | 717.2 | 712.0 | 713.8 | 712.9 |
| 32.5°  | 687.9 | 692.2 | 688.8 | 690.5 | 689.7 |
| 35°    | 659.5 | 665.6 | 663.0 | 665.6 | 665.6 |
| 37.5°  | 632.0 | 637.1 | 636.3 | 639.7 | 638.9 |
| 40°    | 603.6 | 610.4 | 609.6 | 613.0 | 614.8 |
| 42.5°  | 572.6 | 582.0 | 584.6 | 588.9 | 588.9 |
| 45°    | 543.3 | 552.8 | 557.1 | 563.1 | 564.0 |
| 47.5°  | 513.2 | 521.8 | 528.7 | 537.3 | 539.0 |
| 50°    | 482.2 | 491.6 | 501.1 | 510.6 | 513.2 |
| 52.5°  | 449.4 | 461.5 | 473.5 | 483.9 | 485.6 |
| 55°    | 417.6 | 431.4 | 445.1 | 454.6 | 458.1 |
| 57.5°  | 384.9 | 401.2 | 416.7 | 427.1 | 429.6 |
| 60°    | 352.1 | 369.4 | 386.6 | 399.5 | 402.1 |
| 62.5°  | 320.3 | 337.5 | 356.5 | 371.1 | 374.5 |
| 65°    | 287.6 | 307.4 | 328.0 | 341.0 | 344.4 |
| 67.5°  | 257.4 | 276.4 | 297.0 | 312.5 | 316.8 |
| 70°    | 223.9 | 243.7 | 266.0 | 282.4 | 287.6 |
| 72.5°  | 191.1 | 211.8 | 236.8 | 254.9 | 258.3 |
| 75°    | 158.4 | 180.8 | 208.4 | 225.6 | 229.9 |
| 77.5°  | 126.6 | 152.4 | 178.2 | 197.2 | 200.6 |
| 80°    | 97.3  | 123.1 | 152.4 | 171.3 | 174.8 |
| 82.5°  | 70.6  | 98.2  | 128.3 | 146.4 | 153.3 |
| 85°    | 47.4  | 75.8  | 105.9 | 124.8 | 131.7 |
| 87.5°  | 30.1  | 57.7  | 87.0  | 106.8 | 112.8 |
| 90°    | 13.8  | 41.3  | 70.6  | 90.4  | 96.4  |
| 92.5°  | 12.1  | 37.0  | 67.2  | 86.1  | 92.1  |
| 95°    | 11.2  | 33.6  | 62.9  | 81.8  | 87.8  |
| 97.5°  | 10.3  | 31.0  | 59.4  | 77.5  | 83.5  |
| 100°   | 9.5   | 27.6  | 55.1  | 73.2  | 78.4  |
| 102.5° | 8.6   | 25.0  | 51.7  | 68.9  | 74.0  |
| 105°   | 7.7   | 21.5  | 47.4  | 64.6  | 70.6  |
| 107.5° | 6.9   | 18.9  | 43.9  | 61.1  | 66.3  |
| 110°   | 6.0   | 16.4  | 40.5  | 56.8  | 62.9  |



TEST NUMBER: P334327

CATALOG NUMBER: S125DS-S850D935-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 22.5° | 45°  | 67.5° | 90°  |
|--------|-----|-------|------|-------|------|
| 112.5° | 6.0 | 13.8  | 37.0 | 52.5  | 58.5 |
| 115°   | 5.2 | 11.2  | 33.6 | 49.1  | 54.2 |
| 117.5° | 4.3 | 8.6   | 30.1 | 44.8  | 50.8 |
| 120°   | 4.3 | 6.9   | 26.7 | 41.3  | 46.5 |
| 122.5° | 3.4 | 4.3   | 23.2 | 37.0  | 42.2 |
| 125°   | 3.4 | 2.6   | 19.8 | 33.6  | 37.9 |
| 127.5° | 2.6 | 1.7   | 16.4 | 29.3  | 34.4 |
| 130°   | 2.6 | 1.7   | 13.8 | 25.8  | 30.1 |
| 132.5° | 1.7 | 1.7   | 10.3 | 22.4  | 25.8 |
| 135°   | 1.7 | 0.9   | 6.9  | 18.1  | 22.4 |
| 137.5° | 1.7 | 0.9   | 4.3  | 14.6  | 18.1 |
| 140°   | 0.9 | 0.9   | 1.7  | 11.2  | 14.6 |
| 142.5° | 0.9 | 0.0   | 0.0  | 7.7   | 11.2 |
| 145°   | 0.9 | 0.0   | 0.0  | 4.3   | 7.7  |
| 147.5° | 0.0 | 0.0   | 0.0  | 1.7   | 3.4  |
| 150°   | 0.0 | 0.0   | 0.0  | 0.0   | 0.9  |
| 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)