

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: P334302

Luminaire Tested: **S125DW-S850D830-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334302
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-S850D830-4F0-1E-UDD-D
Description: DEFINE 5 DIRECT LED LUMINAIRE, DROP SATIN WHITE DIFFUSER
PENDANT/SURFACE/WALL MOUNT, 850 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

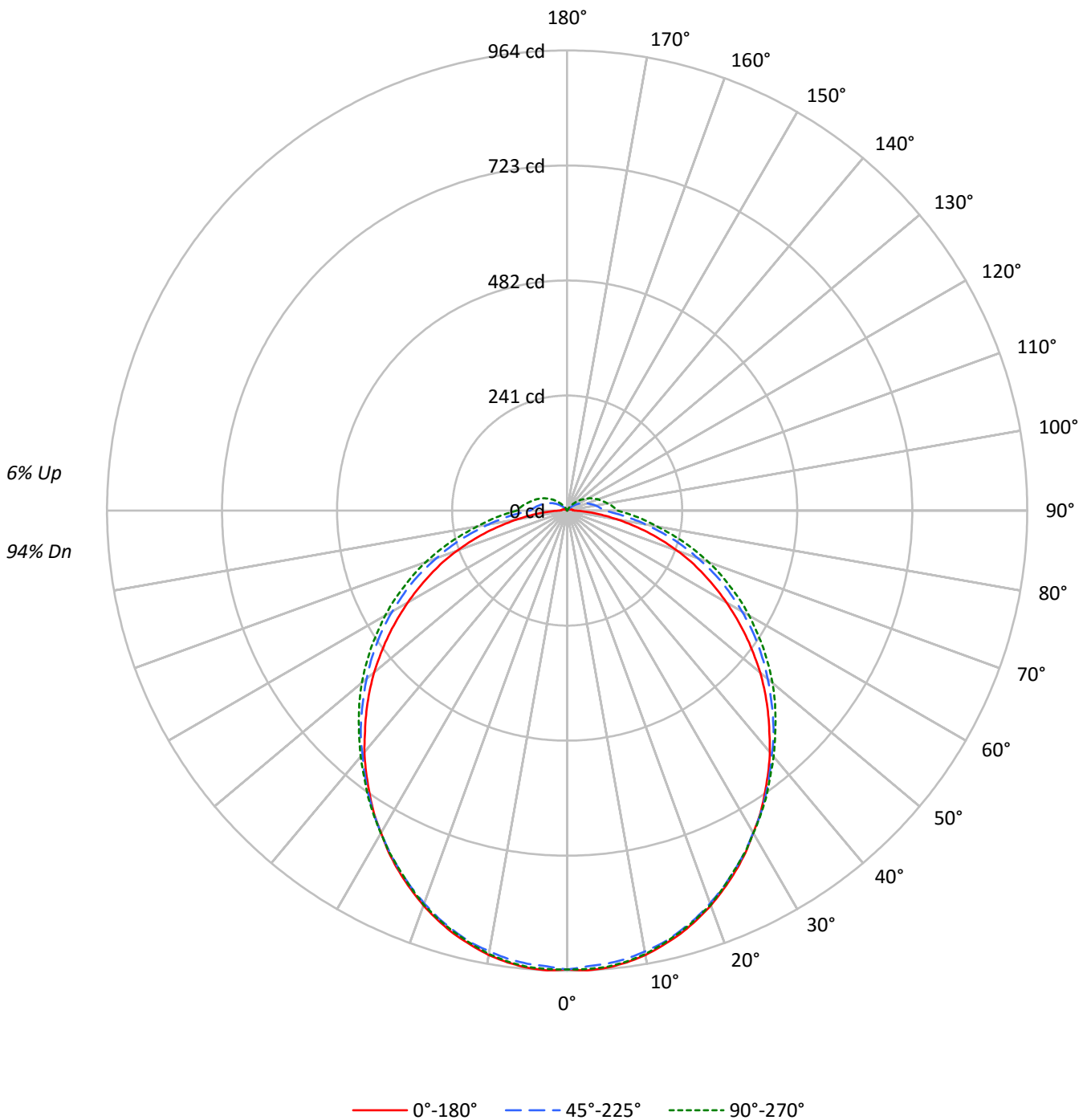
Lumens per Lamp: N/A
Luminaire Lumens: 2978.2 lumens
Efficiency: N/A
Efficacy: 113.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: Direct

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



TEST NUMBER: P334302
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Luminous Intensity Polar Plot





TEST NUMBER: P334302

CATALOG NUMBER: S125DW-S850D830-4F0-1E-UDD-D

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° | 6209 | 6209 | 6209 |
| 5° | 6233 | 6178 | 6220 |
| 10° | 6200 | 6150 | 6187 |
| 15° | 6138 | 6100 | 6113 |
| 20° | 6050 | 6018 | 6037 |
| 25° | 5944 | 5924 | 5917 |
| 30° | 5813 | 5813 | 5820 |
| 35° | 5692 | 5722 | 5744 |
| 40° | 5570 | 5626 | 5674 |
| 45° | 5432 | 5570 | 5639 |
| 50° | 5303 | 5512 | 5645 |
| 55° | 5147 | 5487 | 5646 |
| 60° | 4979 | 5466 | 5686 |
| 65° | 4811 | 5488 | 5761 |
| 70° | 4628 | 5499 | 5944 |
| 75° | 4327 | 5692 | 6281 |
| 80° | 3961 | 6204 | 7115 |
| 85° | 3838 | 8588 | 10685 |



TEST NUMBER: P334302

CATALOG NUMBER: S125DW-S850D830-4F0-1E-UDD-D

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 91.0 | 3.1 |
| 10°-20° | 258.3 | 8.7 |
| 20°-30° | 384.0 | 12.9 |
| 30°-40° | 454.8 | 15.3 |
| 40°-50° | 470.2 | 15.8 |
| 50°-60° | 433.1 | 14.5 |
| 60°-70° | 350.2 | 11.8 |
| 70°-80° | 234.3 | 7.9 |
| 80°-90° | 121.1 | 4.1 |
| 90°-100° | 68.2 | 2.3 |
| 100°-110° | 50.3 | 1.7 |
| 110°-120° | 33.7 | 1.1 |
| 120°-130° | 19.1 | 0.6 |
| 130°-140° | 8.3 | 0.3 |
| 140°-150° | 1.7 | 0.1 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 733.3 | 24.6 |
| 0°-40° | 1188.1 | 39.9 |
| 0°-60° | 2091.4 | 70.2 |
| 0°-90° | 2797.0 | 93.9 |
| 90°-120° | 152.2 | 5.1 |
| 90°-150° | 181.2 | 6.1 |
| 90°-180° | 181.0 | 6.1 |
| 0°-180° | 2978.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0° | 961 | 961 | 961 | 961 | 961 | |
| 5° | 961 | 960 | 953 | 960 | 960 | 91 |
| 15° | 918 | 919 | 912 | 918 | 914 | 259 |
| 25° | 834 | 837 | 831 | 835 | 830 | 384 |
| 35° | 722 | 729 | 726 | 729 | 729 | 452 |
| 45° | 595 | 605 | 610 | 616 | 617 | 459 |
| 55° | 457 | 472 | 487 | 498 | 501 | 409 |
| 65° | 315 | 336 | 359 | 373 | 377 | 312 |
| 75° | 173 | 198 | 228 | 247 | 252 | 184 |
| 85° | 52 | 83 | 116 | 137 | 144 | 54 |
| 90° | 15 | 45 | 77 | 99 | 106 | 10 |
| 95° | 12 | 37 | 69 | 90 | 96 | 10 |
| 105° | 8 | 24 | 52 | 71 | 77 | 9 |
| 115° | 6 | 12 | 37 | 54 | 59 | 6 |
| 125° | 4 | 3 | 22 | 37 | 42 | 3 |
| 135° | 2 | 1 | 8 | 20 | 24 | 1 |
| 145° | 1 | 0 | 0 | 5 | 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: P334302

CATALOG NUMBER: S125DW-S850D830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 0° | 961.4 | 961.4 | 961.4 | 961.4 | 961.4 |
| 2.5° | 964.2 | 962.3 | 955.7 | 962.3 | 961.4 |
| 5° | 961.4 | 959.5 | 952.9 | 960.5 | 959.5 |
| 7.5° | 954.8 | 953.9 | 947.3 | 953.9 | 952.9 |
| 10° | 945.4 | 945.4 | 937.8 | 944.4 | 943.5 |
| 12.5° | 932.2 | 933.1 | 927.5 | 932.2 | 929.3 |
| 15° | 918.0 | 919.0 | 912.4 | 918.0 | 914.3 |
| 17.5° | 900.1 | 902.0 | 895.4 | 900.1 | 897.3 |
| 20° | 880.3 | 882.2 | 875.6 | 878.4 | 878.4 |
| 22.5° | 857.7 | 861.5 | 853.9 | 857.7 | 854.9 |
| 25° | 834.1 | 837.0 | 831.3 | 835.1 | 830.4 |
| 27.5° | 808.7 | 812.5 | 805.9 | 808.7 | 806.8 |
| 30° | 779.5 | 785.1 | 779.5 | 781.4 | 780.4 |
| 32.5° | 753.1 | 757.8 | 754.0 | 755.9 | 755.0 |
| 35° | 722.0 | 728.6 | 725.8 | 728.6 | 728.6 |
| 37.5° | 691.8 | 697.5 | 696.5 | 700.3 | 699.4 |
| 40° | 660.7 | 668.3 | 667.3 | 671.1 | 673.0 |
| 42.5° | 626.8 | 637.2 | 640.0 | 644.7 | 644.7 |
| 45° | 594.7 | 605.1 | 609.8 | 616.4 | 617.4 |
| 47.5° | 561.8 | 571.2 | 578.7 | 588.1 | 590.0 |
| 50° | 527.8 | 538.2 | 548.6 | 558.9 | 561.8 |
| 52.5° | 492.0 | 505.2 | 518.4 | 529.7 | 531.6 |
| 55° | 457.1 | 472.2 | 487.3 | 497.7 | 501.4 |
| 57.5° | 421.3 | 439.2 | 456.2 | 467.5 | 470.3 |
| 60° | 385.5 | 404.4 | 423.2 | 437.3 | 440.2 |
| 62.5° | 350.6 | 369.5 | 390.2 | 406.2 | 410.0 |
| 65° | 314.8 | 336.5 | 359.1 | 373.2 | 377.0 |
| 67.5° | 281.8 | 302.6 | 325.2 | 342.1 | 346.9 |
| 70° | 245.1 | 266.7 | 291.2 | 309.2 | 314.8 |
| 72.5° | 209.2 | 231.9 | 259.2 | 279.0 | 282.8 |
| 75° | 173.4 | 197.9 | 228.1 | 246.9 | 251.7 |
| 77.5° | 138.6 | 166.8 | 195.1 | 215.8 | 219.6 |
| 80° | 106.5 | 134.8 | 166.8 | 187.6 | 191.3 |
| 82.5° | 77.3 | 107.4 | 140.4 | 160.2 | 167.8 |
| 85° | 51.8 | 82.9 | 115.9 | 136.7 | 144.2 |
| 87.5° | 33.0 | 63.2 | 95.2 | 116.9 | 123.5 |
| 90° | 15.1 | 45.2 | 77.3 | 99.0 | 105.6 |
| 92.5° | 13.2 | 40.5 | 73.5 | 94.3 | 100.9 |
| 95° | 12.3 | 36.8 | 68.8 | 89.5 | 96.1 |
| 97.5° | 11.3 | 33.9 | 65.0 | 84.8 | 91.4 |
| 100° | 10.4 | 30.2 | 60.3 | 80.1 | 85.8 |
| 102.5° | 9.4 | 27.3 | 56.6 | 75.4 | 81.1 |
| 105° | 8.5 | 23.6 | 51.8 | 70.7 | 77.3 |
| 107.5° | 7.5 | 20.7 | 48.1 | 66.9 | 72.6 |
| 110° | 6.6 | 17.9 | 44.3 | 62.2 | 68.8 |



TEST NUMBER: P334302

CATALOG NUMBER: S125DW-S850D830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|------|-------|------|
| 112.5° | 6.6 | 15.1 | 40.5 | 57.5 | 64.1 |
| 115° | 5.7 | 12.3 | 36.8 | 53.7 | 59.4 |
| 117.5° | 4.7 | 9.4 | 33.0 | 49.0 | 55.6 |
| 120° | 4.7 | 7.5 | 29.2 | 45.2 | 50.9 |
| 122.5° | 3.8 | 4.7 | 25.4 | 40.5 | 46.2 |
| 125° | 3.8 | 2.8 | 21.7 | 36.8 | 41.5 |
| 127.5° | 2.8 | 1.9 | 17.9 | 32.0 | 37.7 |
| 130° | 2.8 | 1.9 | 15.1 | 28.3 | 33.0 |
| 132.5° | 1.9 | 1.9 | 11.3 | 24.5 | 28.3 |
| 135° | 1.9 | 0.9 | 7.5 | 19.8 | 24.5 |
| 137.5° | 1.9 | 0.9 | 4.7 | 16.0 | 19.8 |
| 140° | 0.9 | 0.9 | 1.9 | 12.3 | 16.0 |
| 142.5° | 0.9 | 0.0 | 0.0 | 8.5 | 12.3 |
| 145° | 0.9 | 0.0 | 0.0 | 4.7 | 8.5 |
| 147.5° | 0.0 | 0.0 | 0.0 | 1.9 | 3.8 |
| 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)