

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: P242845

Luminaire Tested: **S125DR-S375D835-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242845
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: S125DR-S375D835-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1379.6 lumens
Efficiency: N/A
Efficacy: 118.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

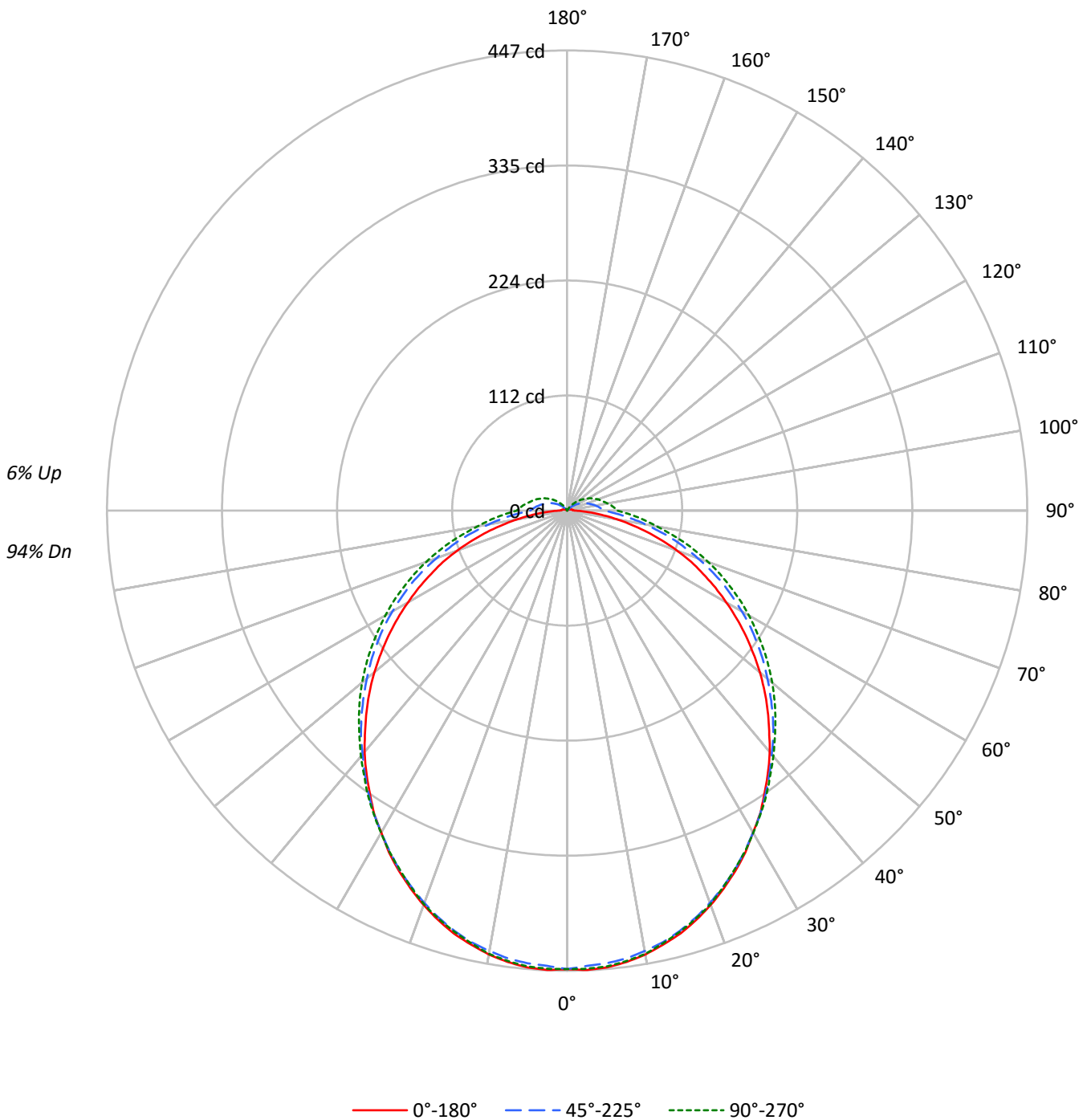
Input Watts (W): 11.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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° | 3166 | 3166 | 3166 |
| 5° | 3172 | 3104 | 3113 |
| 10° | 3148 | 3046 | 3040 |
| 15° | 3111 | 2978 | 2948 |
| 20° | 3060 | 2893 | 2856 |
| 25° | 3000 | 2803 | 2744 |
| 30° | 2927 | 2704 | 2642 |
| 35° | 2859 | 2613 | 2548 |
| 40° | 2790 | 2517 | 2453 |
| 45° | 2711 | 2435 | 2369 |
| 50° | 2636 | 2346 | 2294 |
| 55° | 2546 | 2261 | 2207 |
| 60° | 2448 | 2164 | 2117 |
| 65° | 2344 | 2064 | 2015 |
| 70° | 2227 | 1925 | 1911 |
| 75° | 2041 | 1792 | 1783 |
| 80° | 1798 | 1630 | 1641 |
| 85° | 1571 | 1512 | 1585 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 42.1 | 3.1 |
| 10°-20° | 119.6 | 8.7 |
| 20°-30° | 177.9 | 12.9 |
| 30°-40° | 210.7 | 15.3 |
| 40°-50° | 217.8 | 15.8 |
| 50°-60° | 200.6 | 14.5 |
| 60°-70° | 162.2 | 11.8 |
| 70°-80° | 108.5 | 7.9 |
| 80°-90° | 56.1 | 4.1 |
| 90°-100° | 31.6 | 2.3 |
| 100°-110° | 23.3 | 1.7 |
| 110°-120° | 15.6 | 1.1 |
| 120°-130° | 8.8 | 0.6 |
| 130°-140° | 3.9 | 0.3 |
| 140°-150° | 0.8 | 0.1 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 339.7 | 24.6 |
| 0°-40° | 550.4 | 39.9 |
| 0°-60° | 968.8 | 70.2 |
| 0°-90° | 1295.7 | 93.9 |
| 90°-120° | 70.5 | 5.1 |
| 90°-150° | 83.9 | 6.1 |
| 90°-180° | 84.0 | 6.1 |
| 0°-180° | 1379.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0° | 445 | 445 | 445 | 445 | 445 | |
| 5° | 445 | 444 | 441 | 445 | 444 | 42 |
| 15° | 425 | 426 | 423 | 425 | 424 | 120 |
| 25° | 386 | 388 | 385 | 387 | 385 | 178 |
| 35° | 334 | 338 | 336 | 338 | 338 | 209 |
| 45° | 276 | 280 | 282 | 286 | 286 | 213 |
| 55° | 212 | 219 | 226 | 230 | 232 | 189 |
| 65° | 146 | 156 | 166 | 173 | 175 | 145 |
| 75° | 80 | 92 | 106 | 114 | 117 | 85 |
| 85° | 24 | 38 | 54 | 63 | 67 | 25 |
| 90° | 7 | 21 | 36 | 46 | 49 | 5 |
| 95° | 6 | 17 | 32 | 42 | 44 | 4 |
| 105° | 4 | 11 | 24 | 33 | 36 | 4 |
| 115° | 3 | 6 | 17 | 25 | 28 | 3 |
| 125° | 2 | 1 | 10 | 17 | 19 | 1 |
| 135° | 1 | 0 | 4 | 9 | 11 | 1 |
| 145° | 0 | 0 | 0 | 2 | 4 | 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: P242845

CATALOG NUMBER: S125DR-S375D835-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 0° | 445.4 | 445.4 | 445.4 | 445.4 | 445.4 |
| 2.5° | 446.7 | 445.8 | 442.7 | 445.8 | 445.4 |
| 5° | 445.4 | 444.5 | 441.4 | 444.9 | 444.5 |
| 7.5° | 442.3 | 441.9 | 438.8 | 441.9 | 441.4 |
| 10° | 437.9 | 437.9 | 434.4 | 437.5 | 437.1 |
| 12.5° | 431.8 | 432.3 | 429.6 | 431.8 | 430.5 |
| 15° | 425.3 | 425.7 | 422.7 | 425.3 | 423.5 |
| 17.5° | 417.0 | 417.8 | 414.8 | 417.0 | 415.7 |
| 20° | 407.8 | 408.7 | 405.6 | 406.9 | 406.9 |
| 22.5° | 397.3 | 399.1 | 395.6 | 397.3 | 396.0 |
| 25° | 386.4 | 387.7 | 385.1 | 386.8 | 384.7 |
| 27.5° | 374.6 | 376.4 | 373.3 | 374.6 | 373.7 |
| 30° | 361.1 | 363.7 | 361.1 | 362.0 | 361.5 |
| 32.5° | 348.9 | 351.0 | 349.3 | 350.2 | 349.7 |
| 35° | 334.5 | 337.5 | 336.2 | 337.5 | 337.5 |
| 37.5° | 320.5 | 323.1 | 322.7 | 324.4 | 324.0 |
| 40° | 306.1 | 309.6 | 309.1 | 310.9 | 311.7 |
| 42.5° | 290.4 | 295.2 | 296.5 | 298.7 | 298.7 |
| 45° | 275.5 | 280.3 | 282.5 | 285.6 | 286.0 |
| 47.5° | 260.2 | 264.6 | 268.1 | 272.5 | 273.3 |
| 50° | 244.5 | 249.3 | 254.1 | 258.9 | 260.2 |
| 52.5° | 227.9 | 234.0 | 240.1 | 245.4 | 246.3 |
| 55° | 211.8 | 218.7 | 225.7 | 230.5 | 232.3 |
| 57.5° | 195.2 | 203.5 | 211.3 | 216.6 | 217.9 |
| 60° | 178.6 | 187.3 | 196.0 | 202.6 | 203.9 |
| 62.5° | 162.4 | 171.2 | 180.8 | 188.2 | 189.9 |
| 65° | 145.8 | 155.9 | 166.4 | 172.9 | 174.6 |
| 67.5° | 130.6 | 140.2 | 150.6 | 158.5 | 160.7 |
| 70° | 113.5 | 123.6 | 134.9 | 143.2 | 145.8 |
| 72.5° | 96.9 | 107.4 | 120.1 | 129.2 | 131.0 |
| 75° | 80.3 | 91.7 | 105.7 | 114.4 | 116.6 |
| 77.5° | 64.2 | 77.3 | 90.4 | 100.0 | 101.7 |
| 80° | 49.3 | 62.4 | 77.3 | 86.9 | 88.6 |
| 82.5° | 35.8 | 49.8 | 65.1 | 74.2 | 77.7 |
| 85° | 24.0 | 38.4 | 53.7 | 63.3 | 66.8 |
| 87.5° | 15.3 | 29.3 | 44.1 | 54.1 | 57.2 |
| 90° | 7.0 | 21.0 | 35.8 | 45.8 | 48.9 |
| 92.5° | 6.1 | 18.8 | 34.1 | 43.7 | 46.7 |
| 95° | 5.7 | 17.0 | 31.9 | 41.5 | 44.5 |
| 97.5° | 5.2 | 15.7 | 30.1 | 39.3 | 42.4 |
| 100° | 4.8 | 14.0 | 27.9 | 37.1 | 39.7 |
| 102.5° | 4.4 | 12.7 | 26.2 | 34.9 | 37.5 |
| 105° | 3.9 | 10.9 | 24.0 | 32.7 | 35.8 |
| 107.5° | 3.5 | 9.6 | 22.3 | 31.0 | 33.6 |
| 110° | 3.1 | 8.3 | 20.5 | 28.8 | 31.9 |



TEST NUMBER: P242845

CATALOG NUMBER: S125DR-S375D835-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|------|-------|------|
| 112.5° | 3.1 | 7.0 | 18.8 | 26.6 | 29.7 |
| 115° | 2.6 | 5.7 | 17.0 | 24.9 | 27.5 |
| 117.5° | 2.2 | 4.4 | 15.3 | 22.7 | 25.8 |
| 120° | 2.2 | 3.5 | 13.5 | 21.0 | 23.6 |
| 122.5° | 1.7 | 2.2 | 11.8 | 18.8 | 21.4 |
| 125° | 1.7 | 1.3 | 10.0 | 17.0 | 19.2 |
| 127.5° | 1.3 | 0.9 | 8.3 | 14.8 | 17.5 |
| 130° | 1.3 | 0.9 | 7.0 | 13.1 | 15.3 |
| 132.5° | 0.9 | 0.9 | 5.2 | 11.4 | 13.1 |
| 135° | 0.9 | 0.4 | 3.5 | 9.2 | 11.4 |
| 137.5° | 0.9 | 0.4 | 2.2 | 7.4 | 9.2 |
| 140° | 0.4 | 0.4 | 0.9 | 5.7 | 7.4 |
| 142.5° | 0.4 | 0.0 | 0.0 | 3.9 | 5.7 |
| 145° | 0.4 | 0.0 | 0.0 | 2.2 | 3.9 |
| 147.5° | 0.0 | 0.0 | 0.0 | 0.9 | 1.7 |
| 150° | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 |
| 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)