

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: P243705

Luminaire Tested: **S125DR-H375D835-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243705
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-56)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DR-H375D835-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1406.4 lumens
Efficiency: N/A
Efficacy: 125.6 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

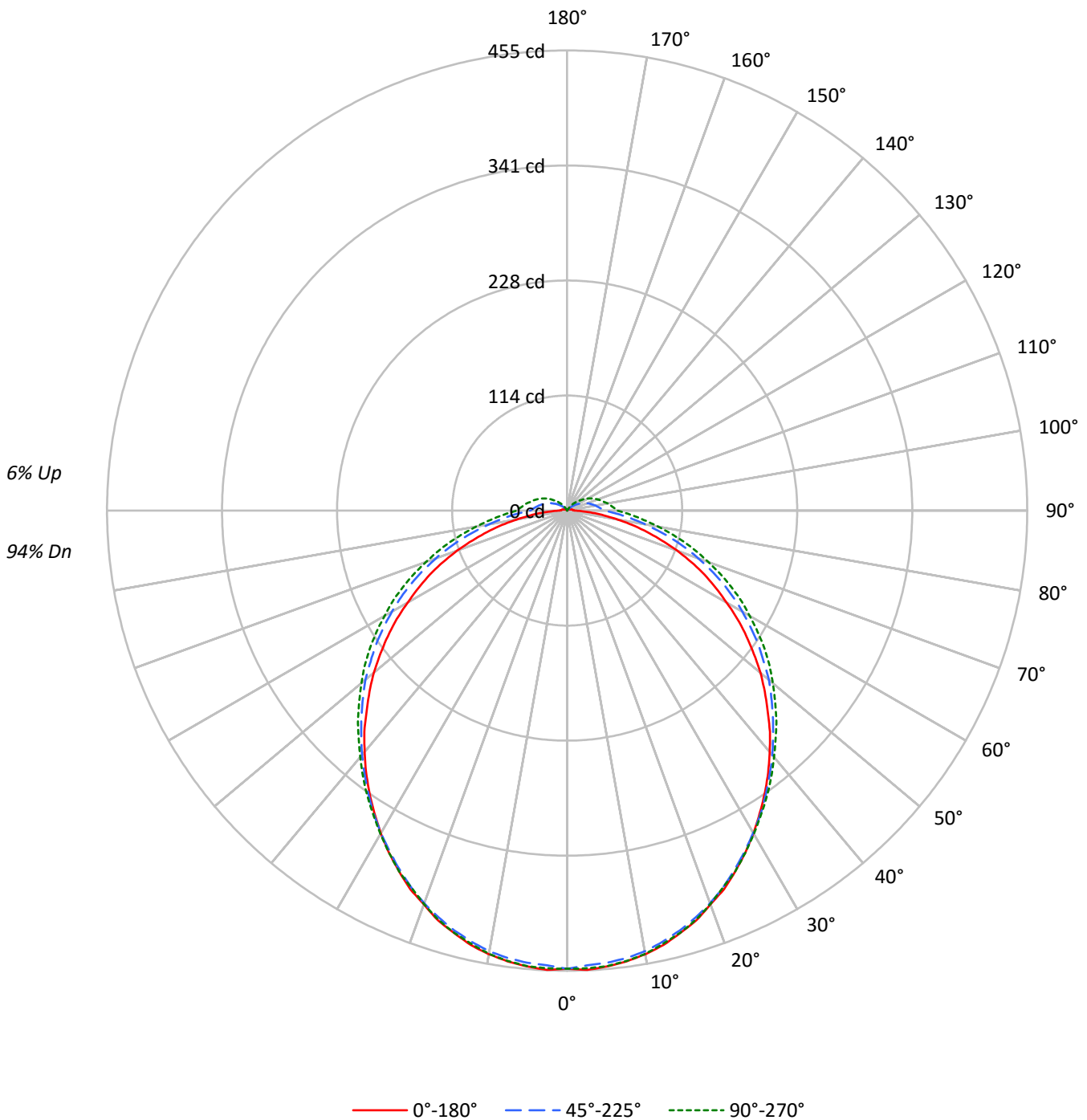
Input Watts (W): 11.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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° | 3220 | 3220 | 3220 |
| 5° | 3222 | 3156 | 3166 |
| 10° | 3202 | 3103 | 3095 |
| 15° | 3163 | 3029 | 3007 |
| 20° | 3110 | 2947 | 2906 |
| 25° | 3055 | 2852 | 2807 |
| 30° | 2986 | 2756 | 2698 |
| 35° | 2913 | 2662 | 2601 |
| 40° | 2839 | 2570 | 2504 |
| 45° | 2760 | 2479 | 2424 |
| 50° | 2690 | 2404 | 2340 |
| 55° | 2602 | 2311 | 2263 |
| 60° | 2496 | 2209 | 2164 |
| 65° | 2410 | 2102 | 2068 |
| 70° | 2266 | 1971 | 1942 |
| 75° | 2074 | 1818 | 1830 |
| 80° | 1850 | 1651 | 1692 |
| 85° | 1643 | 1543 | 1609 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 42.9 | 3.0 |
| 10°-20° | 121.8 | 8.7 |
| 20°-30° | 181.3 | 12.9 |
| 30°-40° | 214.8 | 15.3 |
| 40°-50° | 222.2 | 15.8 |
| 50°-60° | 204.9 | 14.6 |
| 60°-70° | 165.6 | 11.8 |
| 70°-80° | 110.7 | 7.9 |
| 80°-90° | 57.1 | 4.1 |
| 90°-100° | 32.0 | 2.3 |
| 100°-110° | 23.8 | 1.7 |
| 110°-120° | 15.8 | 1.1 |
| 120°-130° | 8.8 | 0.6 |
| 130°-140° | 4.0 | 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° | 345.9 | 24.6 |
| 0°-40° | 560.7 | 39.9 |
| 0°-60° | 987.8 | 70.2 |
| 0°-90° | 1321.2 | 93.9 |
| 90°-120° | 71.6 | 5.1 |
| 90°-150° | 85.2 | 6.1 |
| 90°-180° | 85.0 | 6.0 |
| 0°-180° | 1406.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0° | 453 | 453 | 453 | 453 | 453 | |
| 5° | 452 | 452 | 449 | 452 | 452 | 43 |
| 15° | 432 | 434 | 430 | 432 | 432 | 122 |
| 25° | 394 | 395 | 392 | 394 | 394 | 181 |
| 35° | 341 | 343 | 342 | 344 | 344 | 213 |
| 45° | 280 | 285 | 288 | 292 | 293 | 217 |
| 55° | 216 | 223 | 231 | 236 | 238 | 193 |
| 65° | 150 | 159 | 170 | 177 | 179 | 148 |
| 75° | 82 | 94 | 107 | 116 | 120 | 87 |
| 85° | 25 | 39 | 55 | 64 | 68 | 26 |
| 90° | 7 | 21 | 36 | 46 | 50 | 5 |
| 95° | 6 | 18 | 32 | 42 | 45 | 5 |
| 105° | 4 | 11 | 25 | 34 | 36 | 4 |
| 115° | 3 | 6 | 17 | 25 | 28 | 3 |
| 125° | 2 | 2 | 10 | 16 | 19 | 2 |
| 135° | 1 | 1 | 4 | 10 | 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: P243705

CATALOG NUMBER: S125DR-H375D835-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 0° | 453.0 | 453.0 | 453.0 | 453.0 | 453.0 |
| 2.5° | 454.6 | 453.4 | 450.0 | 453.4 | 453.0 |
| 5° | 452.5 | 452.1 | 448.8 | 452.1 | 452.1 |
| 7.5° | 449.6 | 449.2 | 446.3 | 449.6 | 449.2 |
| 10° | 445.4 | 445.4 | 442.5 | 445.0 | 445.0 |
| 12.5° | 440.0 | 440.0 | 436.6 | 439.6 | 438.7 |
| 15° | 432.4 | 433.7 | 429.9 | 432.4 | 432.0 |
| 17.5° | 424.9 | 424.9 | 422.0 | 424.1 | 424.1 |
| 20° | 414.4 | 416.1 | 413.2 | 415.3 | 414.0 |
| 22.5° | 405.2 | 406.1 | 403.1 | 405.2 | 403.1 |
| 25° | 393.5 | 395.2 | 391.8 | 393.9 | 393.5 |
| 27.5° | 381.4 | 382.6 | 380.1 | 382.6 | 381.4 |
| 30° | 368.4 | 369.7 | 368.0 | 369.7 | 369.2 |
| 32.5° | 354.6 | 357.1 | 355.8 | 357.1 | 356.7 |
| 35° | 340.8 | 343.3 | 342.4 | 344.1 | 344.5 |
| 37.5° | 326.5 | 329.0 | 329.0 | 331.1 | 331.6 |
| 40° | 311.5 | 314.8 | 315.6 | 318.6 | 318.2 |
| 42.5° | 296.8 | 300.2 | 301.4 | 305.2 | 305.2 |
| 45° | 280.5 | 285.1 | 287.6 | 292.2 | 292.6 |
| 47.5° | 265.0 | 270.0 | 273.8 | 278.0 | 278.8 |
| 50° | 249.5 | 254.1 | 260.4 | 264.6 | 265.4 |
| 52.5° | 232.8 | 238.6 | 244.9 | 250.8 | 252.4 |
| 55° | 216.4 | 223.1 | 230.7 | 236.1 | 238.2 |
| 57.5° | 199.7 | 206.8 | 215.2 | 221.9 | 223.5 |
| 60° | 182.1 | 190.5 | 200.1 | 206.8 | 208.5 |
| 62.5° | 165.8 | 175.0 | 185.0 | 192.2 | 194.7 |
| 65° | 149.9 | 158.7 | 169.5 | 177.1 | 179.2 |
| 67.5° | 132.7 | 142.3 | 153.6 | 162.0 | 164.1 |
| 70° | 115.5 | 126.0 | 138.1 | 146.1 | 148.2 |
| 72.5° | 98.0 | 109.7 | 122.7 | 131.5 | 134.0 |
| 75° | 81.6 | 93.8 | 107.2 | 116.4 | 119.7 |
| 77.5° | 66.1 | 78.7 | 92.1 | 101.7 | 104.7 |
| 80° | 50.7 | 63.6 | 78.3 | 88.3 | 91.3 |
| 82.5° | 36.8 | 50.7 | 65.7 | 75.8 | 78.7 |
| 85° | 25.1 | 39.4 | 54.8 | 64.5 | 67.8 |
| 87.5° | 15.5 | 29.3 | 45.2 | 54.8 | 58.2 |
| 90° | 7.1 | 20.9 | 36.4 | 46.5 | 49.8 |
| 92.5° | 6.3 | 19.3 | 34.3 | 44.4 | 47.3 |
| 95° | 5.9 | 17.6 | 32.2 | 41.9 | 44.8 |
| 97.5° | 5.4 | 15.9 | 30.1 | 39.8 | 42.7 |
| 100° | 5.0 | 14.2 | 28.5 | 37.7 | 40.6 |
| 102.5° | 4.6 | 13.0 | 26.4 | 35.6 | 38.1 |
| 105° | 4.2 | 11.3 | 24.7 | 33.5 | 36.4 |
| 107.5° | 3.8 | 9.6 | 23.0 | 31.4 | 34.3 |
| 110° | 3.3 | 8.4 | 20.9 | 29.3 | 32.2 |



TEST NUMBER: P243705

CATALOG NUMBER: S125DR-H375D835-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|------|-------|------|
| 112.5° | 2.9 | 7.1 | 19.3 | 27.2 | 30.1 |
| 115° | 2.9 | 5.9 | 17.2 | 25.1 | 28.0 |
| 117.5° | 2.5 | 4.6 | 15.1 | 23.0 | 26.0 |
| 120° | 2.1 | 3.3 | 13.4 | 20.9 | 23.9 |
| 122.5° | 2.1 | 2.5 | 11.7 | 18.8 | 21.8 |
| 125° | 1.7 | 1.7 | 10.0 | 16.3 | 19.3 |
| 127.5° | 1.7 | 1.3 | 8.4 | 14.7 | 16.7 |
| 130° | 1.3 | 0.8 | 7.1 | 13.0 | 15.1 |
| 132.5° | 1.3 | 0.8 | 5.4 | 11.3 | 13.4 |
| 135° | 0.8 | 0.8 | 3.8 | 9.6 | 11.3 |
| 137.5° | 0.8 | 0.4 | 2.5 | 7.5 | 9.6 |
| 140° | 0.4 | 0.4 | 0.8 | 5.9 | 7.5 |
| 142.5° | 0.4 | 0.4 | 0.4 | 4.2 | 5.9 |
| 145° | 0.4 | 0.0 | 0.0 | 2.5 | 3.8 |
| 147.5° | 0.4 | 0.0 | 0.0 | 0.8 | 2.1 |
| 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)