

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: P333810

Luminaire Tested: **S122DP-S290D830-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333810
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-10)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122DP-S290D830-4F0-1E-UDD-F
Description: DEFINE 2 DIRECT LED LUMINAIRE, FLUSH SATIN WHITE DIFFUSER
PENDANT/SURFACE/WALL MOUNT, 290 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

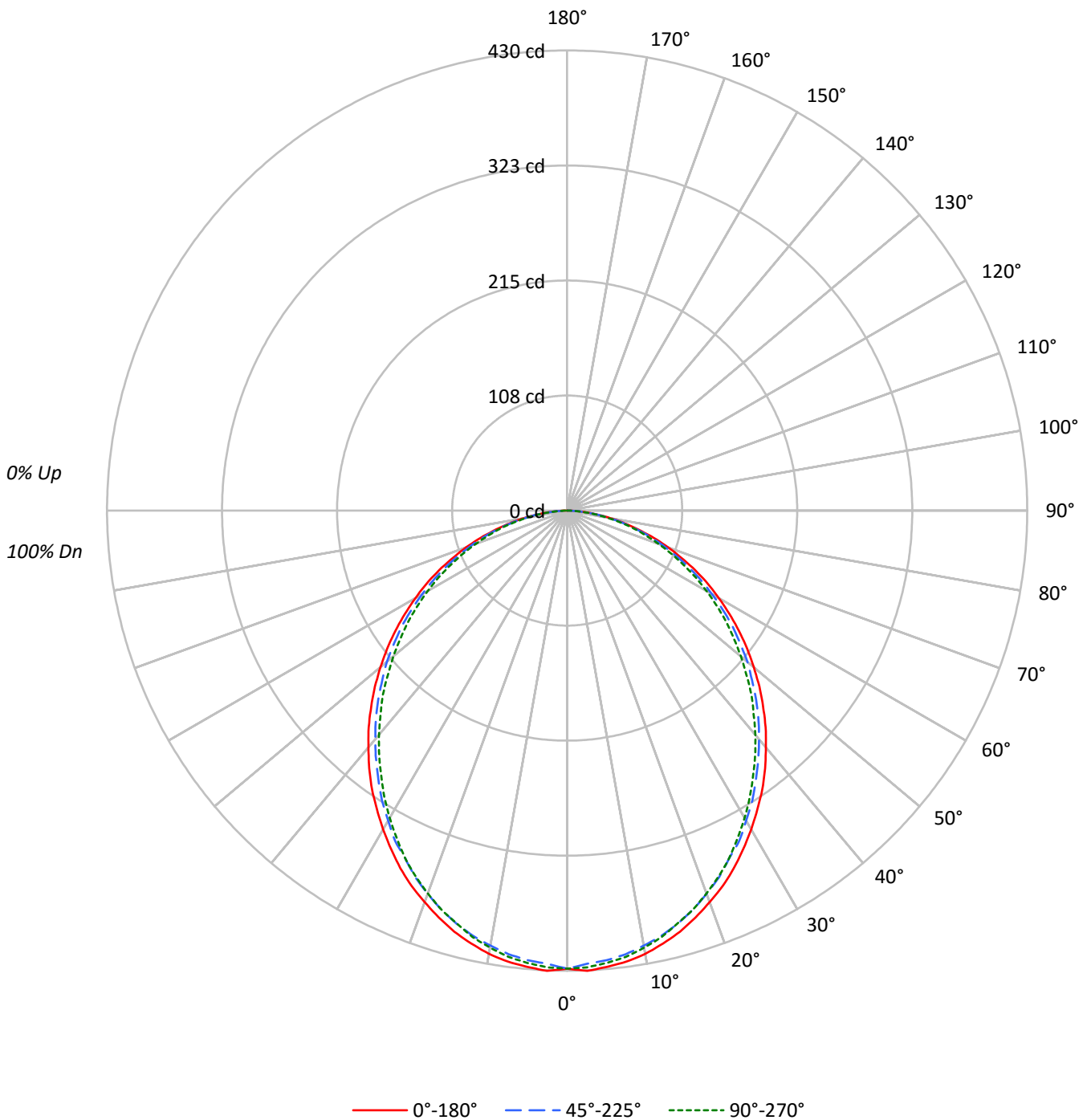
Lumens per Lamp: N/A
Luminaire Lumens: 1088.9 lumens
Efficiency: N/A
Efficacy: 93.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

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 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 109 | 104 | 100 | 96 | 106 | 102 | 98 | 95 | 98 | 95 | 92 | 94 | 91 | 89 | 90 | 88 | 86 | 84 |
| 2 | 99 | 91 | 85 | 79 | 97 | 89 | 83 | 78 | 86 | 81 | 76 | 83 | 78 | 74 | 80 | 76 | 73 | 71 |
| 3 | 91 | 80 | 72 | 66 | 88 | 79 | 71 | 65 | 76 | 69 | 64 | 73 | 68 | 63 | 71 | 66 | 62 | 60 |
| 4 | 83 | 71 | 63 | 56 | 81 | 70 | 62 | 56 | 68 | 61 | 55 | 65 | 59 | 54 | 63 | 58 | 54 | 51 |
| 5 | 77 | 64 | 55 | 49 | 75 | 63 | 55 | 48 | 61 | 53 | 48 | 59 | 52 | 47 | 57 | 51 | 47 | 45 |
| 6 | 71 | 58 | 49 | 43 | 69 | 57 | 48 | 42 | 55 | 48 | 42 | 53 | 47 | 42 | 52 | 46 | 41 | 39 |
| 7 | 66 | 52 | 44 | 38 | 64 | 52 | 43 | 38 | 50 | 43 | 37 | 49 | 42 | 37 | 47 | 41 | 37 | 35 |
| 8 | 61 | 48 | 40 | 34 | 60 | 47 | 39 | 34 | 46 | 39 | 33 | 45 | 38 | 33 | 44 | 38 | 33 | 31 |
| 9 | 57 | 44 | 36 | 30 | 56 | 43 | 36 | 30 | 42 | 35 | 30 | 41 | 35 | 30 | 40 | 34 | 30 | 28 |
| 10 | 54 | 41 | 33 | 28 | 53 | 40 | 33 | 28 | 39 | 32 | 27 | 38 | 32 | 27 | 37 | 32 | 27 | 26 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 6910 | 6910 | 6910 |
| 5° | 6937 | 6836 | 6877 |
| 10° | 6896 | 6768 | 6801 |
| 15° | 6810 | 6679 | 6673 |
| 20° | 6689 | 6548 | 6541 |
| 25° | 6568 | 6385 | 6385 |
| 30° | 6413 | 6238 | 6184 |
| 35° | 6270 | 6059 | 5970 |
| 40° | 6089 | 5880 | 5769 |
| 45° | 5912 | 5704 | 5562 |
| 50° | 5717 | 5521 | 5323 |
| 55° | 5514 | 5306 | 5109 |
| 60° | 5289 | 5050 | 4863 |
| 65° | 5047 | 4795 | 4577 |
| 70° | 4740 | 4489 | 4272 |
| 75° | 4311 | 4136 | 4030 |
| 80° | 3831 | 3710 | 3524 |
| 85° | 3131 | 2964 | 2668 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 40.3 | 3.7 |
| 10°-20° | 113.3 | 10.4 |
| 20°-30° | 166.6 | 15.3 |
| 30°-40° | 193.4 | 17.8 |
| 40°-50° | 193.2 | 17.7 |
| 50°-60° | 168.5 | 15.5 |
| 60°-70° | 124.5 | 11.4 |
| 70°-80° | 70.5 | 6.5 |
| 80°-90° | 18.6 | 1.7 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 320.2 | 29.4 |
| 0°-40° | 513.6 | 47.2 |
| 0°-60° | 875.3 | 80.4 |
| 0°-90° | 1088.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1088.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 428 | 428 | 428 | 428 | 428 | |
| 5° | 428 | 426 | 422 | 425 | 424 | 41 |
| 15° | 407 | 405 | 400 | 401 | 399 | 115 |
| 25° | 369 | 365 | 358 | 359 | 358 | 170 |
| 35° | 318 | 314 | 307 | 305 | 303 | 199 |
| 45° | 259 | 256 | 250 | 245 | 244 | 200 |
| 55° | 196 | 193 | 188 | 184 | 182 | 175 |
| 65° | 132 | 130 | 126 | 122 | 120 | 131 |
| 75° | 69 | 68 | 66 | 64 | 65 | 74 |
| 85° | 17 | 16 | 16 | 15 | 14 | 20 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 428.0 | 428.0 | 428.0 | 428.0 | 428.0 |
| 2.5° | 430.5 | 428.4 | 423.9 | 428.0 | 427.2 |
| 5° | 428.0 | 426.4 | 421.8 | 425.1 | 424.3 |
| 7.5° | 425.1 | 422.6 | 418.1 | 421.4 | 420.6 |
| 10° | 420.6 | 417.7 | 412.8 | 416.1 | 414.8 |
| 12.5° | 414.4 | 411.9 | 407.0 | 409.1 | 408.2 |
| 15° | 407.4 | 405.0 | 399.6 | 401.2 | 399.2 |
| 17.5° | 398.8 | 396.3 | 391.0 | 393.0 | 391.0 |
| 20° | 389.3 | 386.8 | 381.1 | 382.3 | 380.7 |
| 22.5° | 379.8 | 376.1 | 370.8 | 370.8 | 370.0 |
| 25° | 368.7 | 365.4 | 358.4 | 359.3 | 358.4 |
| 27.5° | 356.4 | 353.5 | 348.2 | 346.9 | 344.9 |
| 30° | 344.0 | 340.8 | 334.6 | 333.3 | 331.7 |
| 32.5° | 330.9 | 328.4 | 321.8 | 319.4 | 317.7 |
| 35° | 318.1 | 314.0 | 307.4 | 304.9 | 302.9 |
| 37.5° | 303.7 | 300.0 | 293.4 | 290.5 | 288.5 |
| 40° | 288.9 | 285.6 | 279.0 | 275.3 | 273.7 |
| 42.5° | 274.5 | 271.2 | 264.6 | 260.5 | 258.0 |
| 45° | 258.9 | 256.0 | 249.8 | 245.3 | 243.6 |
| 47.5° | 243.6 | 240.7 | 234.2 | 229.6 | 227.2 |
| 50° | 227.6 | 225.5 | 219.8 | 214.0 | 211.9 |
| 52.5° | 211.9 | 209.1 | 203.7 | 199.2 | 196.3 |
| 55° | 195.9 | 193.4 | 188.5 | 183.5 | 181.5 |
| 57.5° | 179.8 | 177.8 | 172.4 | 167.5 | 165.8 |
| 60° | 163.8 | 162.1 | 156.4 | 151.9 | 150.6 |
| 62.5° | 148.2 | 145.3 | 141.2 | 137.0 | 135.4 |
| 65° | 132.1 | 129.6 | 125.5 | 121.8 | 119.8 |
| 67.5° | 115.6 | 113.6 | 109.9 | 107.0 | 105.4 |
| 70° | 100.4 | 98.8 | 95.1 | 92.2 | 90.5 |
| 72.5° | 84.8 | 83.1 | 81.1 | 78.2 | 77.0 |
| 75° | 69.1 | 68.3 | 66.3 | 63.8 | 64.6 |
| 77.5° | 55.1 | 53.5 | 52.7 | 51.4 | 50.2 |
| 80° | 41.2 | 40.7 | 39.9 | 38.7 | 37.9 |
| 82.5° | 28.0 | 28.0 | 27.6 | 25.9 | 25.9 |
| 85° | 16.9 | 16.5 | 16.0 | 14.8 | 14.4 |
| 87.5° | 7.4 | 6.6 | 5.8 | 4.5 | 4.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)