

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: P333825

Luminaire Tested: **S122DP-S290D927-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333825
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-S290D927-4F0-1E-UDD-F
Description: DEFINE 2 DIRECT LED LUMINAIRE, FLUSH SATIN WHITE DIFFUSER
PENDANT/SURFACE/WALL MOUNT, 290 LUMENS PER FOOT
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 915.2 lumens
Efficiency: N/A
Efficacy: 78.9 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

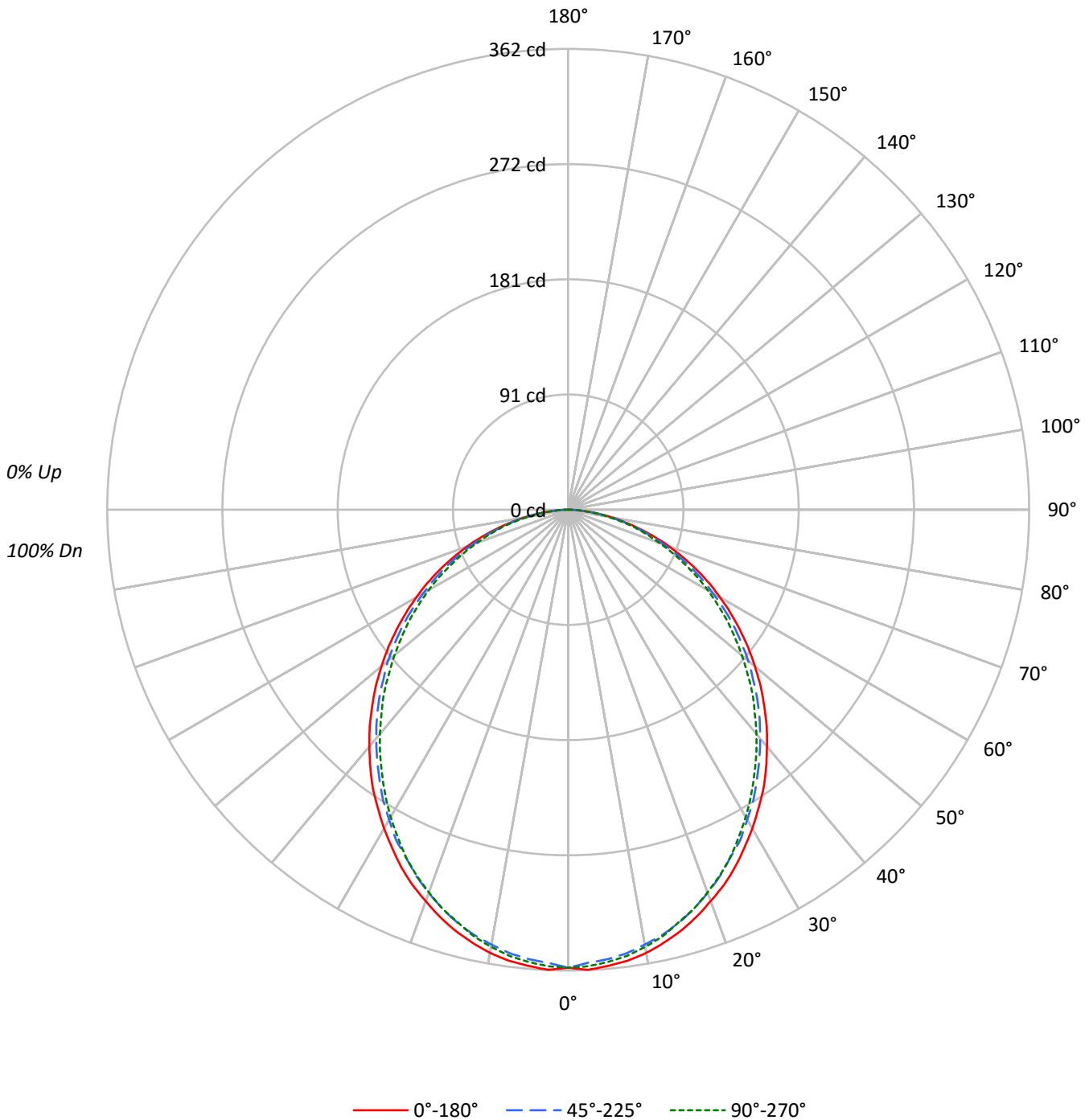
Input Watts (W): 11.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 50 | 30 | 10 | 0 | |
| RCR | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | | | 100 |
| 1 | 109 | 104 | 100 | 96 | 106 | 102 | 98 | 95 | 98 | 95 | 92 | 94 | 91 | 89 | 90 | 88 | 86 | 84 | | | | 84 |
| 2 | 99 | 91 | 85 | 79 | 97 | 89 | 83 | 78 | 86 | 81 | 76 | 83 | 78 | 74 | 80 | 76 | 73 | 71 | | | | 71 |
| 3 | 91 | 80 | 72 | 66 | 88 | 79 | 71 | 65 | 76 | 69 | 64 | 73 | 68 | 63 | 71 | 66 | 62 | 60 | | | | 60 |
| 4 | 83 | 71 | 63 | 56 | 81 | 70 | 62 | 56 | 68 | 61 | 55 | 65 | 59 | 54 | 63 | 58 | 54 | 51 | | | | 51 |
| 5 | 77 | 64 | 55 | 49 | 75 | 63 | 55 | 48 | 61 | 53 | 48 | 59 | 52 | 47 | 57 | 51 | 47 | 45 | | | | 45 |
| 6 | 71 | 58 | 49 | 43 | 69 | 57 | 48 | 42 | 55 | 48 | 42 | 53 | 47 | 42 | 52 | 46 | 41 | 39 | | | | 39 |
| 7 | 66 | 52 | 44 | 38 | 64 | 52 | 43 | 38 | 50 | 43 | 37 | 49 | 42 | 37 | 47 | 41 | 37 | 35 | | | | 35 |
| 8 | 61 | 48 | 40 | 34 | 60 | 47 | 39 | 34 | 46 | 39 | 33 | 45 | 38 | 33 | 44 | 38 | 33 | 31 | | | | 31 |
| 9 | 57 | 44 | 36 | 30 | 56 | 43 | 36 | 30 | 42 | 35 | 30 | 41 | 35 | 30 | 40 | 34 | 30 | 28 | | | | 28 |
| 10 | 54 | 41 | 33 | 28 | 53 | 40 | 33 | 28 | 39 | 32 | 27 | 38 | 32 | 27 | 37 | 32 | 27 | 26 | | | | 26 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 5808 | 5808 | 5808 |
| 5° | 5830 | 5746 | 5780 |
| 10° | 5796 | 5687 | 5717 |
| 15° | 5723 | 5615 | 5608 |
| 20° | 5622 | 5503 | 5497 |
| 25° | 5521 | 5368 | 5368 |
| 30° | 5392 | 5243 | 5198 |
| 35° | 5271 | 5093 | 5018 |
| 40° | 5117 | 4943 | 4848 |
| 45° | 4969 | 4795 | 4676 |
| 50° | 4805 | 4639 | 4474 |
| 55° | 4633 | 4459 | 4293 |
| 60° | 4447 | 4243 | 4088 |
| 65° | 4241 | 4031 | 3847 |
| 70° | 3984 | 3772 | 3592 |
| 75° | 3624 | 3475 | 3387 |
| 80° | 3217 | 3124 | 2957 |
| 85° | 2631 | 2501 | 2242 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 33.9 | 3.7 |
| 10°-20° | 95.3 | 10.4 |
| 20°-30° | 140.0 | 15.3 |
| 30°-40° | 162.6 | 17.8 |
| 40°-50° | 162.4 | 17.7 |
| 50°-60° | 141.6 | 15.5 |
| 60°-70° | 104.7 | 11.4 |
| 70°-80° | 59.2 | 6.5 |
| 80°-90° | 15.6 | 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° | 269.1 | 29.4 |
| 0°-40° | 431.7 | 47.2 |
| 0°-60° | 735.7 | 80.4 |
| 0°-90° | 915.2 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 915.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 360 | 360 | 360 | 360 | 360 | |
| 5° | 360 | 358 | 354 | 357 | 357 | 34 |
| 15° | 342 | 340 | 336 | 337 | 336 | 96 |
| 25° | 310 | 307 | 301 | 302 | 301 | 143 |
| 35° | 267 | 264 | 258 | 256 | 255 | 167 |
| 45° | 218 | 215 | 210 | 206 | 205 | 168 |
| 55° | 165 | 163 | 158 | 154 | 152 | 147 |
| 65° | 111 | 109 | 106 | 102 | 101 | 110 |
| 75° | 58 | 57 | 56 | 54 | 54 | 62 |
| 85° | 14 | 14 | 14 | 12 | 12 | 17 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 359.7 | 359.7 | 359.7 | 359.7 | 359.7 |
| 2.5° | 361.8 | 360.1 | 356.3 | 359.7 | 359.0 |
| 5° | 359.7 | 358.3 | 354.5 | 357.3 | 356.6 |
| 7.5° | 357.3 | 355.2 | 351.4 | 354.2 | 353.5 |
| 10° | 353.5 | 351.1 | 346.9 | 349.7 | 348.7 |
| 12.5° | 348.3 | 346.2 | 342.1 | 343.8 | 343.1 |
| 15° | 342.4 | 340.4 | 335.9 | 337.2 | 335.5 |
| 17.5° | 335.2 | 333.1 | 328.6 | 330.3 | 328.6 |
| 20° | 327.2 | 325.1 | 320.3 | 321.3 | 319.9 |
| 22.5° | 319.3 | 316.1 | 311.6 | 311.6 | 311.0 |
| 25° | 309.9 | 307.1 | 301.3 | 302.0 | 301.3 |
| 27.5° | 299.5 | 297.1 | 292.6 | 291.6 | 289.9 |
| 30° | 289.2 | 286.4 | 281.2 | 280.2 | 278.8 |
| 32.5° | 278.1 | 276.0 | 270.5 | 268.4 | 267.0 |
| 35° | 267.4 | 263.9 | 258.4 | 256.3 | 254.6 |
| 37.5° | 255.3 | 252.2 | 246.6 | 244.2 | 242.5 |
| 40° | 242.8 | 240.0 | 234.5 | 231.4 | 230.0 |
| 42.5° | 230.7 | 227.9 | 222.4 | 218.9 | 216.9 |
| 45° | 217.6 | 215.1 | 210.0 | 206.1 | 204.8 |
| 47.5° | 204.8 | 202.3 | 196.8 | 193.0 | 190.9 |
| 50° | 191.3 | 189.5 | 184.7 | 179.9 | 178.1 |
| 52.5° | 178.1 | 175.7 | 171.2 | 167.4 | 165.0 |
| 55° | 164.6 | 162.6 | 158.4 | 154.3 | 152.5 |
| 57.5° | 151.2 | 149.4 | 144.9 | 140.8 | 139.4 |
| 60° | 137.7 | 136.3 | 131.4 | 127.6 | 126.6 |
| 62.5° | 124.5 | 122.1 | 118.6 | 115.2 | 113.8 |
| 65° | 111.0 | 109.0 | 105.5 | 102.4 | 100.7 |
| 67.5° | 97.2 | 95.5 | 92.4 | 89.9 | 88.5 |
| 70° | 84.4 | 83.0 | 79.9 | 77.5 | 76.1 |
| 72.5° | 71.3 | 69.9 | 68.1 | 65.7 | 64.7 |
| 75° | 58.1 | 57.4 | 55.7 | 53.6 | 54.3 |
| 77.5° | 46.3 | 45.0 | 44.3 | 43.2 | 42.2 |
| 80° | 34.6 | 34.2 | 33.6 | 32.5 | 31.8 |
| 82.5° | 23.5 | 23.5 | 23.2 | 21.8 | 21.8 |
| 85° | 14.2 | 13.8 | 13.5 | 12.5 | 12.1 |
| 87.5° | 6.2 | 5.5 | 4.8 | 3.8 | 3.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)