

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: P333840

Luminaire Tested: **S122DP-S290D940-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333840
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-S290D940-4F0-1E-UDD-F
Description: DEFINE 2 DIRECT LED LUMINAIRE, FLUSH SATIN WHITE DIFFUSER
PENDANT/SURFACE/WALL MOUNT, 290 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1030.2 lumens
Efficiency: N/A
Efficacy: 88.8 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

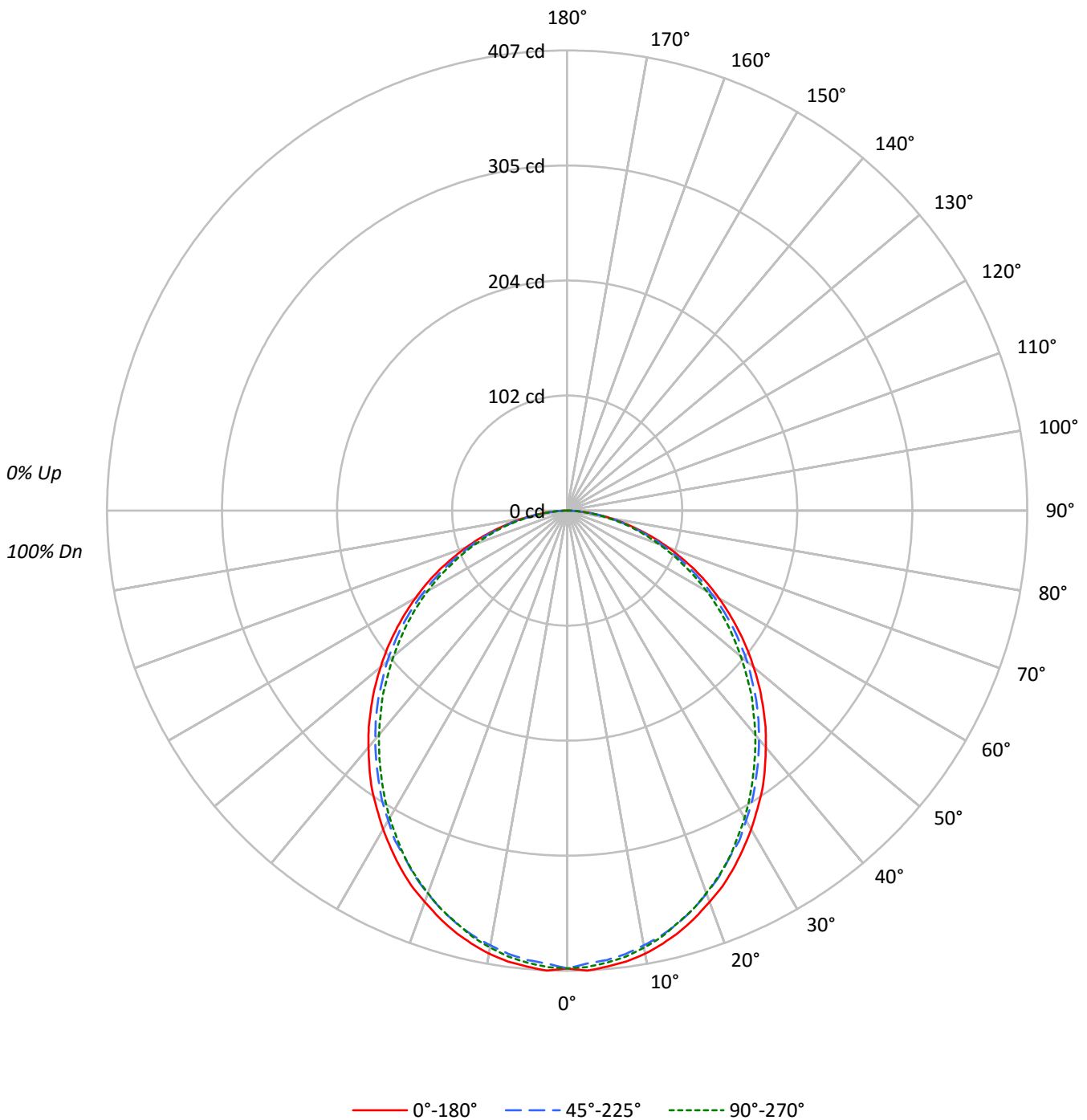
Input Watts (W): 11.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 28 | 38 | 32 | 27 | 37 | 32 | 27 | 26 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 6537 | 6537 | 6537 |
| 5° | 6562 | 6468 | 6506 |
| 10° | 6524 | 6402 | 6435 |
| 15° | 6442 | 6320 | 6313 |
| 20° | 6328 | 6194 | 6187 |
| 25° | 6216 | 6041 | 6041 |
| 30° | 6068 | 5901 | 5850 |
| 35° | 5933 | 5732 | 5649 |
| 40° | 5760 | 5564 | 5457 |
| 45° | 5592 | 5396 | 5263 |
| 50° | 5408 | 5222 | 5036 |
| 55° | 5216 | 5019 | 4833 |
| 60° | 5005 | 4779 | 4602 |
| 65° | 4776 | 4535 | 4329 |
| 70° | 4485 | 4244 | 4046 |
| 75° | 4080 | 3911 | 3812 |
| 80° | 3617 | 3515 | 3329 |
| 85° | 2964 | 2816 | 2519 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 38.1 | 3.7 |
| 10°-20° | 107.2 | 10.4 |
| 20°-30° | 157.6 | 15.3 |
| 30°-40° | 183.0 | 17.8 |
| 40°-50° | 182.8 | 17.7 |
| 50°-60° | 159.4 | 15.5 |
| 60°-70° | 117.8 | 11.4 |
| 70°-80° | 66.7 | 6.5 |
| 80°-90° | 17.6 | 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° | 302.9 | 29.4 |
| 0°-40° | 485.9 | 47.2 |
| 0°-60° | 828.1 | 80.4 |
| 0°-90° | 1030.2 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1030.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 405 | 405 | 405 | 405 | 405 | |
| 5° | 405 | 403 | 399 | 402 | 401 | 38 |
| 15° | 385 | 383 | 378 | 380 | 378 | 109 |
| 25° | 349 | 346 | 339 | 340 | 339 | 161 |
| 35° | 301 | 297 | 291 | 288 | 287 | 188 |
| 45° | 245 | 242 | 236 | 232 | 230 | 189 |
| 55° | 185 | 183 | 178 | 174 | 172 | 166 |
| 65° | 125 | 123 | 119 | 115 | 113 | 124 |
| 75° | 65 | 65 | 63 | 60 | 61 | 70 |
| 85° | 16 | 16 | 15 | 14 | 14 | 19 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 404.9 | 404.9 | 404.9 | 404.9 | 404.9 |
| 2.5° | 407.3 | 405.3 | 401.0 | 404.9 | 404.1 |
| 5° | 404.9 | 403.4 | 399.1 | 402.2 | 401.4 |
| 7.5° | 402.2 | 399.9 | 395.6 | 398.7 | 397.9 |
| 10° | 397.9 | 395.2 | 390.5 | 393.6 | 392.5 |
| 12.5° | 392.1 | 389.7 | 385.1 | 387.0 | 386.2 |
| 15° | 385.4 | 383.1 | 378.1 | 379.6 | 377.7 |
| 17.5° | 377.3 | 374.9 | 369.9 | 371.8 | 369.9 |
| 20° | 368.3 | 366.0 | 360.5 | 361.7 | 360.1 |
| 22.5° | 359.4 | 355.9 | 350.8 | 350.8 | 350.0 |
| 25° | 348.9 | 345.7 | 339.1 | 339.9 | 339.1 |
| 27.5° | 337.2 | 334.4 | 329.4 | 328.2 | 326.3 |
| 30° | 325.5 | 322.4 | 316.5 | 315.4 | 313.8 |
| 32.5° | 313.0 | 310.7 | 304.5 | 302.1 | 300.6 |
| 35° | 301.0 | 297.1 | 290.8 | 288.5 | 286.6 |
| 37.5° | 287.3 | 283.8 | 277.6 | 274.9 | 272.9 |
| 40° | 273.3 | 270.2 | 264.0 | 260.5 | 258.9 |
| 42.5° | 259.7 | 256.6 | 250.3 | 246.5 | 244.1 |
| 45° | 244.9 | 242.2 | 236.3 | 232.0 | 230.5 |
| 47.5° | 230.5 | 227.8 | 221.5 | 217.3 | 214.9 |
| 50° | 215.3 | 213.4 | 207.9 | 202.5 | 200.5 |
| 52.5° | 200.5 | 197.8 | 192.7 | 188.4 | 185.7 |
| 55° | 185.3 | 183.0 | 178.3 | 173.6 | 171.7 |
| 57.5° | 170.1 | 168.2 | 163.1 | 158.5 | 156.9 |
| 60° | 155.0 | 153.4 | 148.0 | 143.7 | 142.5 |
| 62.5° | 140.2 | 137.4 | 133.5 | 129.7 | 128.1 |
| 65° | 125.0 | 122.6 | 118.7 | 115.2 | 113.3 |
| 67.5° | 109.4 | 107.5 | 104.0 | 101.2 | 99.7 |
| 70° | 95.0 | 93.4 | 89.9 | 87.2 | 85.7 |
| 72.5° | 80.2 | 78.6 | 76.7 | 74.0 | 72.8 |
| 75° | 65.4 | 64.6 | 62.7 | 60.3 | 61.1 |
| 77.5° | 52.2 | 50.6 | 49.8 | 48.7 | 47.5 |
| 80° | 38.9 | 38.5 | 37.8 | 36.6 | 35.8 |
| 82.5° | 26.5 | 26.5 | 26.1 | 24.5 | 24.5 |
| 85° | 16.0 | 15.6 | 15.2 | 14.0 | 13.6 |
| 87.5° | 7.0 | 6.2 | 5.5 | 4.3 | 3.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)