

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: P334190

Luminaire Tested: **S124DP-S350D940-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334190
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-5)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DP-S350D940-4F0-1E-UDD-F
Description: DEFINE 4 DIRECT LED LUMINAIRE, FLUSH SATIN WHITE DIFFUSER
PENDANT/SURFACE/WALL MOUNT, 350 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1247.1 lumens
Efficiency: N/A
Efficacy: 107.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Direct

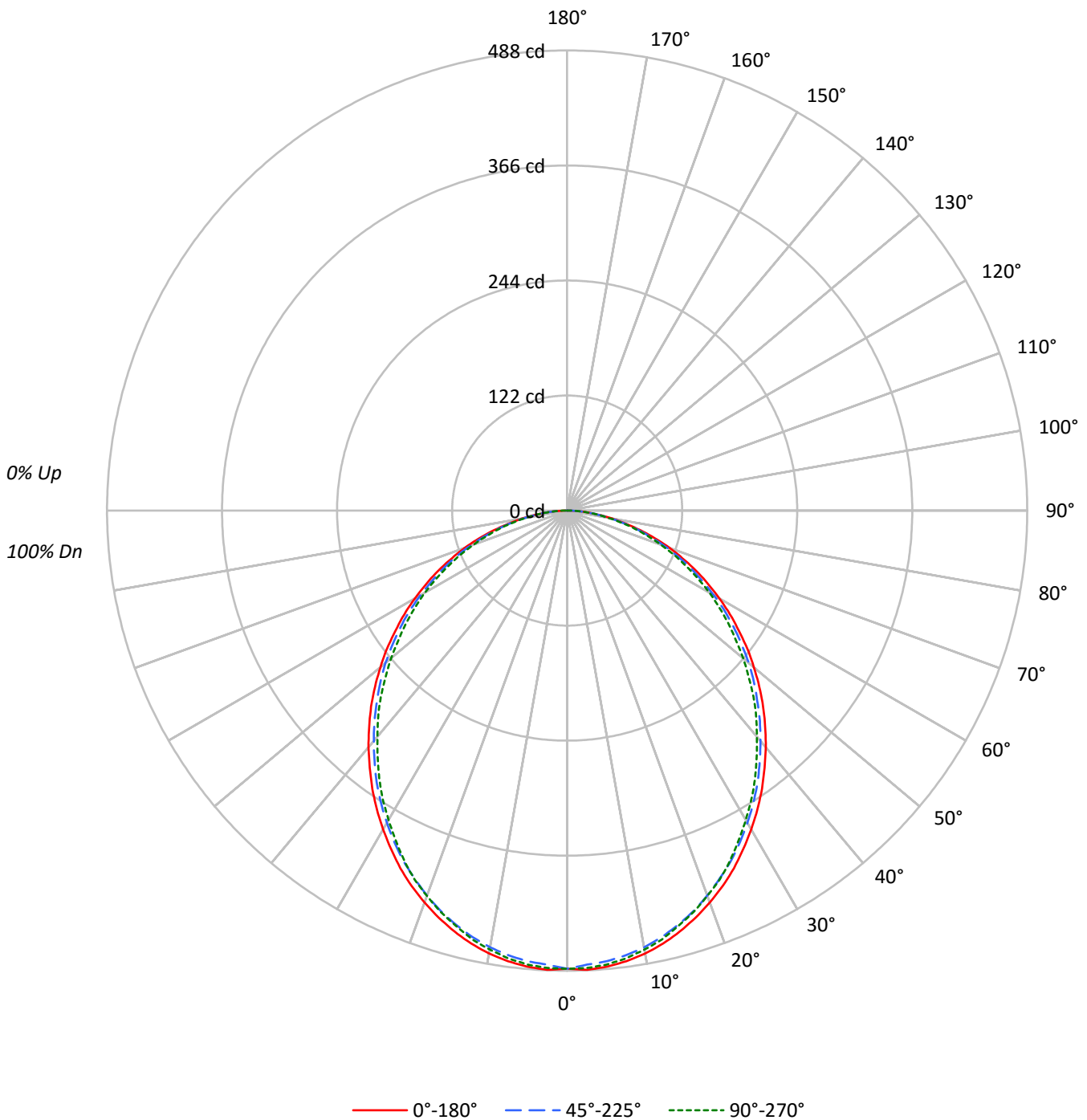
Input Watts (W): 11.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 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 | 84 | 79 | 97 | 89 | 83 | 78 | 86 | 80 | 76 | 82 | 78 | 74 | 79 | 76 | 73 | 70 | | | | | 70 | | | |
| 3 | 91 | 80 | 72 | 66 | 88 | 79 | 71 | 65 | 76 | 69 | 64 | 73 | 67 | 63 | 70 | 66 | 62 | 60 | | | | | 60 | | | |
| 4 | 83 | 71 | 63 | 56 | 81 | 70 | 62 | 56 | 67 | 60 | 55 | 65 | 59 | 54 | 63 | 58 | 53 | 51 | | | | | 51 | | | |
| 5 | 77 | 64 | 55 | 48 | 74 | 63 | 54 | 48 | 61 | 53 | 48 | 59 | 52 | 47 | 57 | 51 | 47 | 44 | | | | | 44 | | | |
| 6 | 71 | 58 | 49 | 42 | 69 | 57 | 48 | 42 | 55 | 47 | 42 | 53 | 47 | 41 | 52 | 46 | 41 | 39 | | | | | 39 | | | |
| 7 | 66 | 52 | 44 | 38 | 64 | 52 | 43 | 37 | 50 | 43 | 37 | 49 | 42 | 37 | 47 | 41 | 37 | 35 | | | | | 35 | | | |
| 8 | 61 | 48 | 39 | 34 | 60 | 47 | 39 | 34 | 46 | 39 | 33 | 45 | 38 | 33 | 43 | 37 | 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 | 52 | 40 | 33 | 28 | 39 | 32 | 27 | 38 | 32 | 27 | 37 | 31 | 27 | 25 | | | | | 25 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 3923 | 3923 | 3923 |
| 5° | 3934 | 3887 | 3916 |
| 10° | 3909 | 3855 | 3875 |
| 15° | 3862 | 3801 | 3810 |
| 20° | 3800 | 3733 | 3736 |
| 25° | 3728 | 3656 | 3645 |
| 30° | 3640 | 3564 | 3531 |
| 35° | 3549 | 3469 | 3423 |
| 40° | 3455 | 3361 | 3299 |
| 45° | 3357 | 3254 | 3191 |
| 50° | 3247 | 3159 | 3061 |
| 55° | 3129 | 3036 | 2937 |
| 60° | 3011 | 2898 | 2809 |
| 65° | 2879 | 2766 | 2655 |
| 70° | 2729 | 2592 | 2490 |
| 75° | 2502 | 2380 | 2321 |
| 80° | 2227 | 2134 | 2083 |
| 85° | 1945 | 1871 | 1843 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 45.8 | 3.7 |
| 10°-20° | 129.0 | 10.3 |
| 20°-30° | 189.9 | 15.2 |
| 30°-40° | 220.7 | 17.7 |
| 40°-50° | 220.7 | 17.7 |
| 50°-60° | 193.0 | 15.5 |
| 60°-70° | 143.3 | 11.5 |
| 70°-80° | 81.3 | 6.5 |
| 80°-90° | 23.3 | 1.9 |
| 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° | 364.7 | 29.2 |
| 0°-40° | 585.5 | 46.9 |
| 0°-60° | 999.2 | 80.1 |
| 0°-90° | 1247.1 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1247.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 486 | 486 | 486 | 486 | 486 | |
| 5° | 486 | 484 | 480 | 484 | 483 | 46 |
| 15° | 462 | 461 | 455 | 457 | 456 | 130 |
| 25° | 418 | 416 | 410 | 411 | 409 | 193 |
| 35° | 360 | 357 | 352 | 349 | 347 | 225 |
| 45° | 294 | 291 | 285 | 281 | 280 | 227 |
| 55° | 222 | 221 | 216 | 211 | 209 | 199 |
| 65° | 151 | 149 | 145 | 141 | 139 | 149 |
| 75° | 80 | 78 | 76 | 75 | 74 | 85 |
| 85° | 21 | 21 | 20 | 20 | 20 | 24 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P334190

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 485.9 | 485.9 | 485.9 | 485.9 | 485.9 |
| 2.5° | 487.5 | 486.3 | 482.0 | 485.9 | 485.5 |
| 5° | 485.5 | 484.0 | 479.7 | 484.0 | 483.2 |
| 7.5° | 482.0 | 480.4 | 475.8 | 479.3 | 478.9 |
| 10° | 476.9 | 475.4 | 470.3 | 473.4 | 472.7 |
| 12.5° | 470.3 | 468.8 | 463.3 | 466.8 | 465.7 |
| 15° | 462.1 | 460.6 | 454.8 | 457.1 | 455.9 |
| 17.5° | 452.8 | 450.9 | 445.4 | 447.0 | 446.2 |
| 20° | 442.3 | 440.3 | 434.5 | 435.7 | 434.9 |
| 22.5° | 431.0 | 428.3 | 422.4 | 424.8 | 423.2 |
| 25° | 418.5 | 415.8 | 410.4 | 410.8 | 409.2 |
| 27.5° | 404.5 | 401.8 | 396.7 | 396.0 | 394.0 |
| 30° | 390.5 | 387.4 | 382.3 | 380.8 | 378.8 |
| 32.5° | 375.7 | 373.0 | 367.5 | 365.6 | 363.6 |
| 35° | 360.1 | 357.4 | 352.0 | 349.2 | 347.3 |
| 37.5° | 343.8 | 341.5 | 335.6 | 332.9 | 330.2 |
| 40° | 327.8 | 324.7 | 318.9 | 315.0 | 313.0 |
| 42.5° | 310.7 | 309.1 | 302.5 | 297.8 | 296.7 |
| 45° | 294.0 | 291.2 | 285.0 | 280.7 | 279.5 |
| 47.5° | 276.4 | 274.5 | 268.6 | 264.0 | 260.9 |
| 50° | 258.5 | 257.0 | 251.5 | 246.1 | 243.7 |
| 52.5° | 241.0 | 239.1 | 233.2 | 228.5 | 225.4 |
| 55° | 222.3 | 221.1 | 215.7 | 211.0 | 208.7 |
| 57.5° | 204.8 | 203.6 | 198.2 | 193.5 | 191.2 |
| 60° | 186.5 | 184.5 | 179.5 | 176.0 | 174.0 |
| 62.5° | 168.6 | 167.0 | 161.6 | 158.5 | 156.5 |
| 65° | 150.7 | 148.7 | 144.8 | 140.9 | 139.0 |
| 67.5° | 132.4 | 130.8 | 126.9 | 123.0 | 122.6 |
| 70° | 115.6 | 112.9 | 109.8 | 106.7 | 105.5 |
| 72.5° | 97.7 | 95.0 | 92.7 | 90.3 | 89.2 |
| 75° | 80.2 | 78.3 | 76.3 | 74.8 | 74.4 |
| 77.5° | 63.1 | 62.3 | 60.3 | 60.0 | 58.8 |
| 80° | 47.9 | 46.7 | 45.9 | 45.2 | 44.8 |
| 82.5° | 33.1 | 32.7 | 32.7 | 32.3 | 31.9 |
| 85° | 21.0 | 21.0 | 20.2 | 20.2 | 19.9 |
| 87.5° | 10.1 | 9.7 | 9.3 | 9.3 | 9.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)