

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: P334235

Luminaire Tested: **S124RDW-S350D835-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334235
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-26)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124RDW-S350D835-4F0-1E-UDD-F
Description: DEFINE 4 REGRESSED DIRECT LED LUMINAIRE, FLUSH SATIN WHITE DIFFUSER
PENDANT/SURFACE/WALL MOUNT, 350 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

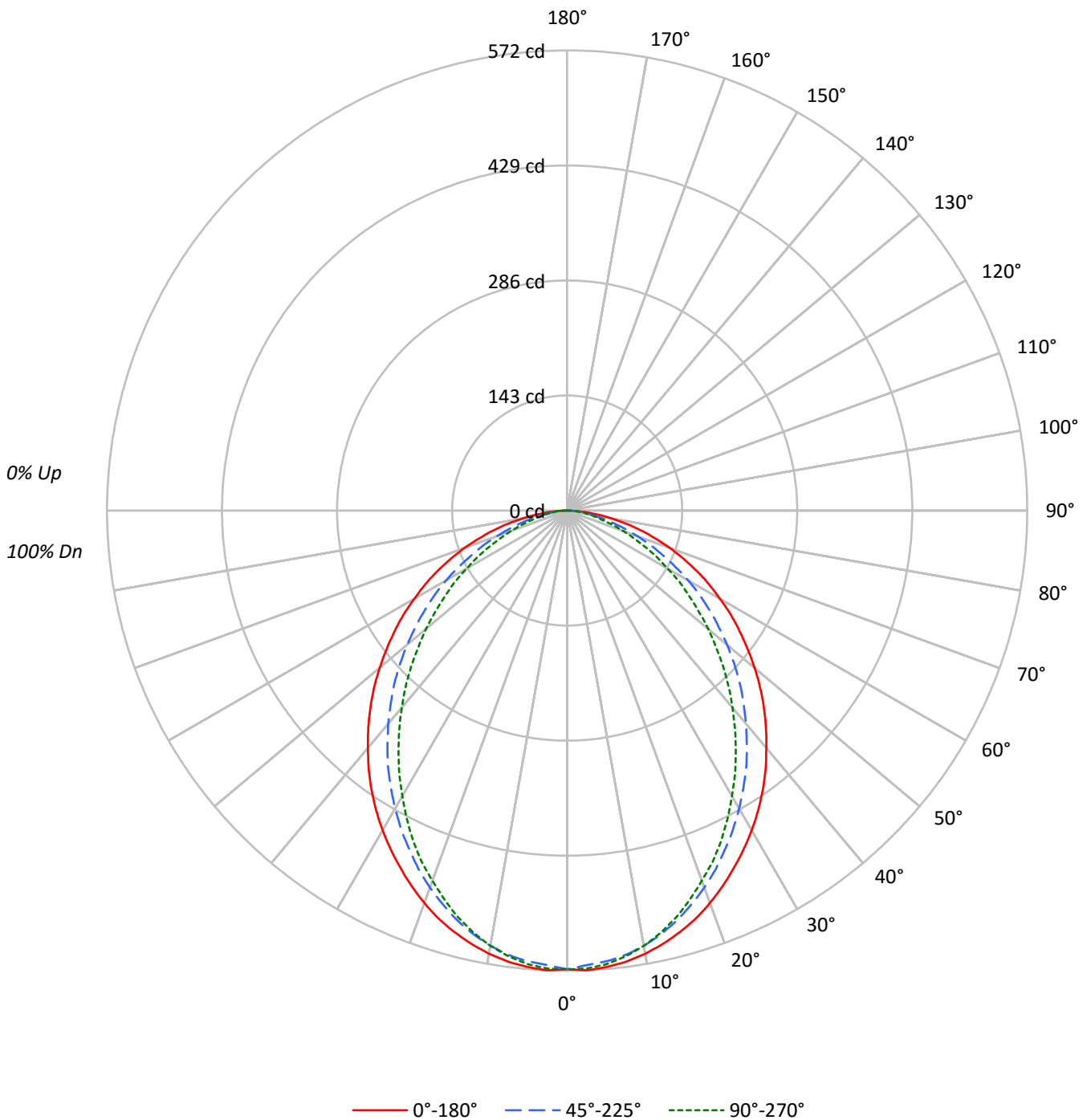
Lumens per Lamp: N/A
Luminaire Lumens: 1317.6 lumens
Efficiency: N/A
Efficacy: 113.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 11.6
Input Voltage (V): 120
Input Current (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 | 110 | 105 | 101 | 98 | 107 | 103 | 99 | 96 | 99 | 96 | 93 | 95 | 92 | 90 | 91 | 89 | 87 | | | | 85 | |
| 2 | 100 | 93 | 86 | 81 | 98 | 91 | 85 | 80 | 87 | 82 | 78 | 84 | 80 | 76 | 81 | 78 | 74 | | | | 72 | |
| 3 | 92 | 82 | 74 | 68 | 89 | 80 | 73 | 67 | 77 | 71 | 66 | 75 | 69 | 65 | 72 | 68 | 64 | | | | 62 | |
| 4 | 84 | 73 | 65 | 58 | 82 | 72 | 64 | 58 | 69 | 62 | 57 | 67 | 61 | 56 | 65 | 60 | 56 | | | | 54 | |
| 5 | 78 | 66 | 57 | 51 | 76 | 65 | 56 | 50 | 62 | 55 | 50 | 61 | 54 | 49 | 59 | 53 | 49 | | | | 47 | |
| 6 | 72 | 59 | 51 | 45 | 70 | 58 | 50 | 44 | 57 | 49 | 44 | 55 | 49 | 44 | 53 | 48 | 43 | | | | 41 | |
| 7 | 67 | 54 | 46 | 40 | 65 | 53 | 45 | 40 | 52 | 45 | 39 | 50 | 44 | 39 | 49 | 43 | 39 | | | | 37 | |
| 8 | 63 | 50 | 41 | 36 | 61 | 49 | 41 | 36 | 48 | 40 | 35 | 46 | 40 | 35 | 45 | 39 | 35 | | | | 33 | |
| 9 | 59 | 46 | 38 | 32 | 57 | 45 | 37 | 32 | 44 | 37 | 32 | 43 | 36 | 32 | 42 | 36 | 32 | | | | 30 | |
| 10 | 55 | 42 | 35 | 29 | 54 | 42 | 34 | 29 | 41 | 34 | 29 | 40 | 33 | 29 | 39 | 33 | 29 | | | | 27 | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 4603 | 4603 | 4603 |
| 5° | 4614 | 4558 | 4586 |
| 10° | 4585 | 4503 | 4503 |
| 15° | 4532 | 4408 | 4375 |
| 20° | 4460 | 4283 | 4205 |
| 25° | 4367 | 4138 | 4033 |
| 30° | 4278 | 3985 | 3818 |
| 35° | 4179 | 3826 | 3602 |
| 40° | 4058 | 3644 | 3368 |
| 45° | 3948 | 3465 | 3131 |
| 50° | 3822 | 3258 | 2879 |
| 55° | 3688 | 3042 | 2605 |
| 60° | 3539 | 2806 | 2327 |
| 65° | 3402 | 2510 | 2052 |
| 70° | 3205 | 2186 | 1742 |
| 75° | 2954 | 1812 | 1416 |
| 80° | 2580 | 1381 | 1297 |
| 85° | 2186 | 1250 | 1176 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 53.6 | 4.1 |
| 10°-20° | 149.5 | 11.3 |
| 20°-30° | 215.8 | 16.4 |
| 30°-40° | 244.6 | 18.6 |
| 40°-50° | 236.2 | 17.9 |
| 50°-60° | 196.4 | 14.9 |
| 60°-70° | 135.5 | 10.3 |
| 70°-80° | 68.5 | 5.2 |
| 80°-90° | 17.4 | 1.3 |
| 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° | 419.0 | 31.8 |
| 0°-40° | 663.6 | 50.4 |
| 0°-60° | 1096.2 | 83.2 |
| 0°-90° | 1317.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1317.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 570 | 570 | 570 | 570 | 570 | |
| 5° | 569 | 568 | 562 | 567 | 566 | 54 |
| 15° | 542 | 538 | 527 | 527 | 524 | 153 |
| 25° | 490 | 482 | 465 | 457 | 453 | 226 |
| 35° | 424 | 410 | 388 | 373 | 366 | 265 |
| 45° | 346 | 330 | 304 | 282 | 274 | 267 |
| 55° | 262 | 244 | 216 | 193 | 185 | 234 |
| 65° | 178 | 159 | 131 | 113 | 107 | 176 |
| 75° | 95 | 79 | 58 | 48 | 45 | 100 |
| 85° | 24 | 15 | 14 | 13 | 13 | 27 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P334235

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 570.2 | 570.2 | 570.2 | 570.2 | 570.2 |
| 2.5° | 572.0 | 570.2 | 565.4 | 570.2 | 569.8 |
| 5° | 569.4 | 567.6 | 562.4 | 566.7 | 565.9 |
| 7.5° | 565.4 | 563.7 | 557.1 | 560.2 | 558.9 |
| 10° | 559.3 | 557.1 | 549.3 | 551.0 | 549.3 |
| 12.5° | 551.5 | 548.8 | 539.2 | 540.1 | 537.5 |
| 15° | 542.3 | 538.4 | 527.4 | 526.6 | 523.5 |
| 17.5° | 531.8 | 526.1 | 513.5 | 511.3 | 506.9 |
| 20° | 519.1 | 513.5 | 498.6 | 495.1 | 489.5 |
| 22.5° | 505.2 | 498.6 | 482.5 | 476.8 | 472.4 |
| 25° | 490.3 | 482.5 | 464.6 | 457.1 | 452.8 |
| 27.5° | 475.0 | 465.4 | 446.7 | 437.9 | 431.8 |
| 30° | 458.9 | 448.0 | 427.5 | 416.5 | 409.6 |
| 32.5° | 441.9 | 429.2 | 407.8 | 394.7 | 388.2 |
| 35° | 424.0 | 410.0 | 388.2 | 373.3 | 365.5 |
| 37.5° | 405.2 | 390.8 | 366.8 | 350.6 | 342.7 |
| 40° | 385.1 | 370.7 | 345.8 | 327.5 | 319.6 |
| 42.5° | 365.9 | 350.6 | 324.4 | 305.6 | 297.3 |
| 45° | 345.8 | 329.7 | 303.5 | 282.1 | 274.2 |
| 47.5° | 325.3 | 308.7 | 281.6 | 259.4 | 250.6 |
| 50° | 304.3 | 287.3 | 259.4 | 237.5 | 229.2 |
| 52.5° | 282.9 | 266.3 | 237.5 | 215.3 | 206.5 |
| 55° | 262.0 | 244.5 | 216.1 | 193.4 | 185.1 |
| 57.5° | 241.5 | 223.1 | 195.2 | 172.0 | 165.9 |
| 60° | 219.2 | 201.7 | 173.8 | 151.1 | 144.1 |
| 62.5° | 199.1 | 180.8 | 151.9 | 131.4 | 126.2 |
| 65° | 178.1 | 159.4 | 131.4 | 112.6 | 107.4 |
| 67.5° | 156.3 | 138.4 | 112.2 | 95.6 | 89.5 |
| 70° | 135.8 | 117.5 | 92.6 | 78.2 | 73.8 |
| 72.5° | 114.0 | 97.8 | 74.7 | 62.9 | 58.9 |
| 75° | 94.7 | 78.6 | 58.1 | 48.0 | 45.4 |
| 77.5° | 74.7 | 60.7 | 43.2 | 36.2 | 35.4 |
| 80° | 55.5 | 42.8 | 29.7 | 28.4 | 27.9 |
| 82.5° | 38.9 | 27.5 | 21.4 | 20.5 | 20.1 |
| 85° | 23.6 | 14.8 | 13.5 | 12.7 | 12.7 |
| 87.5° | 10.0 | 6.5 | 6.1 | 5.7 | 6.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)