

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: P334060

Luminaire Tested: **S123RDP-S340D835-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334060
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-25)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123RDP-S340D835-4F0-1E-UDD-F
Description: DEFINE 3 REGRESSED DIRECT LED LUMINAIRE, FLUSH SATIN WHITE DIFFUSER
PENDANT/SURFACE/WALL MOUNT, 340 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1216.2 lumens
Efficiency: N/A
Efficacy: 104.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.07 / 1.22
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

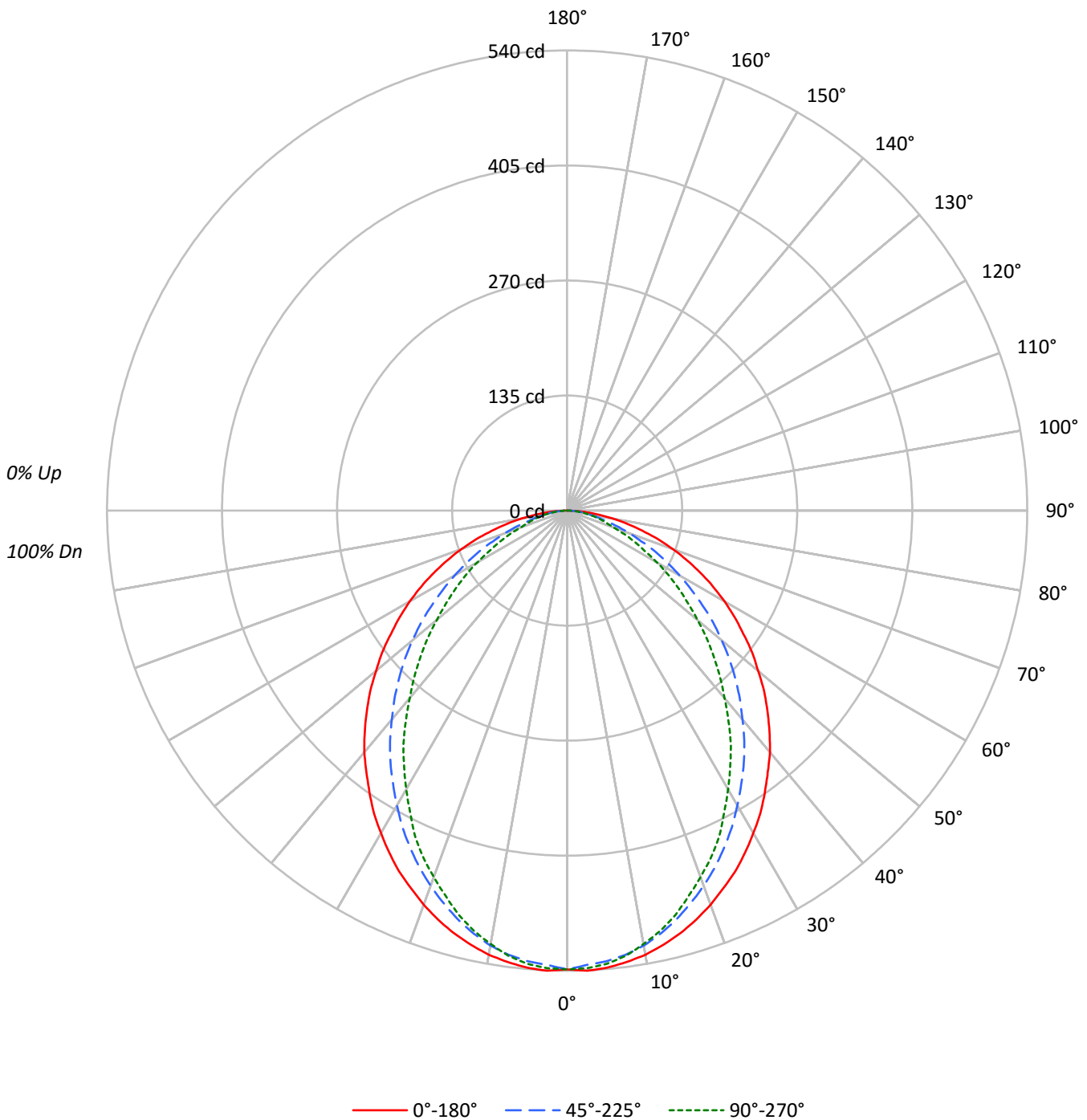
Input Watts (W): 11.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 110 | 105 | 101 | 98 | 107 | 103 | 99 | 96 | 99 | 96 | 93 | 95 | 93 | 90 | 91 | 89 | 88 | 86 | | | | | 86 | | | |
| 2 | 100 | 93 | 86 | 81 | 98 | 91 | 85 | 80 | 87 | 83 | 78 | 84 | 80 | 77 | 81 | 78 | 75 | 73 | | | | | 73 | | | |
| 3 | 92 | 82 | 75 | 68 | 90 | 81 | 74 | 68 | 78 | 72 | 67 | 75 | 70 | 66 | 73 | 68 | 64 | 62 | | | | | 62 | | | |
| 4 | 85 | 73 | 65 | 59 | 83 | 72 | 64 | 58 | 70 | 63 | 58 | 67 | 62 | 57 | 65 | 60 | 56 | 54 | | | | | 54 | | | |
| 5 | 78 | 66 | 57 | 51 | 76 | 65 | 57 | 51 | 63 | 56 | 50 | 61 | 55 | 50 | 59 | 54 | 49 | 47 | | | | | 47 | | | |
| 6 | 73 | 60 | 51 | 45 | 71 | 59 | 51 | 45 | 57 | 50 | 45 | 55 | 49 | 44 | 54 | 48 | 44 | 42 | | | | | 42 | | | |
| 7 | 67 | 54 | 46 | 40 | 66 | 54 | 46 | 40 | 52 | 45 | 40 | 51 | 44 | 39 | 49 | 44 | 39 | 37 | | | | | 37 | | | |
| 8 | 63 | 50 | 42 | 36 | 61 | 49 | 41 | 36 | 48 | 41 | 36 | 47 | 40 | 36 | 46 | 40 | 35 | 34 | | | | | 34 | | | |
| 9 | 59 | 46 | 38 | 33 | 58 | 45 | 38 | 33 | 44 | 37 | 32 | 43 | 37 | 32 | 42 | 36 | 32 | 30 | | | | | 30 | | | |
| 10 | 55 | 43 | 35 | 30 | 54 | 42 | 35 | 30 | 41 | 34 | 30 | 40 | 34 | 29 | 39 | 34 | 29 | 28 | | | | | 28 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 5795 | 5795 | 5795 |
| 5° | 5817 | 5736 | 5770 |
| 10° | 5784 | 5665 | 5645 |
| 15° | 5722 | 5532 | 5474 |
| 20° | 5637 | 5367 | 5242 |
| 25° | 5549 | 5181 | 5014 |
| 30° | 5433 | 4965 | 4694 |
| 35° | 5313 | 4750 | 4401 |
| 40° | 5203 | 4496 | 4037 |
| 45° | 5058 | 4247 | 3708 |
| 50° | 4898 | 3964 | 3341 |
| 55° | 4737 | 3639 | 2999 |
| 60° | 4588 | 3289 | 2622 |
| 65° | 4394 | 2914 | 2246 |
| 70° | 4151 | 2445 | 1813 |
| 75° | 3797 | 1926 | 1705 |
| 80° | 3384 | 1705 | 1568 |
| 85° | 2853 | 1507 | 1408 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 50.6 | 4.2 |
| 10°-20° | 140.8 | 11.6 |
| 20°-30° | 202.7 | 16.7 |
| 30°-40° | 228.3 | 18.8 |
| 40°-50° | 218.4 | 18.0 |
| 50°-60° | 178.8 | 14.7 |
| 60°-70° | 120.5 | 9.9 |
| 70°-80° | 60.4 | 5.0 |
| 80°-90° | 15.8 | 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° | 394.1 | 32.4 |
| 0°-40° | 622.4 | 51.2 |
| 0°-60° | 1019.5 | 83.8 |
| 0°-90° | 1216.2 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1216.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 538 | 538 | 538 | 538 | 538 | |
| 5° | 538 | 536 | 531 | 535 | 534 | 51 |
| 15° | 514 | 509 | 496 | 494 | 491 | 145 |
| 25° | 467 | 456 | 436 | 427 | 422 | 215 |
| 35° | 404 | 389 | 362 | 343 | 335 | 253 |
| 45° | 332 | 313 | 279 | 254 | 244 | 256 |
| 55° | 252 | 231 | 194 | 168 | 160 | 226 |
| 65° | 172 | 148 | 114 | 93 | 88 | 171 |
| 75° | 91 | 70 | 46 | 42 | 41 | 97 |
| 85° | 23 | 14 | 12 | 11 | 11 | 27 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P334060

CATALOG NUMBER: S123RDP-S340D835-4F0-1E-UDD-F

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 538.4 | 538.4 | 538.4 | 538.4 | 538.4 |
| 2.5° | 540.5 | 538.8 | 533.6 | 538.4 | 537.5 |
| 5° | 538.4 | 536.2 | 530.9 | 534.9 | 534.0 |
| 7.5° | 534.4 | 532.2 | 525.7 | 528.3 | 527.0 |
| 10° | 529.2 | 526.1 | 518.3 | 518.7 | 516.5 |
| 12.5° | 521.8 | 518.3 | 508.2 | 507.8 | 505.2 |
| 15° | 513.5 | 508.7 | 496.4 | 494.3 | 491.2 |
| 17.5° | 503.4 | 498.2 | 482.9 | 478.5 | 474.2 |
| 20° | 492.1 | 485.1 | 468.5 | 462.8 | 457.6 |
| 22.5° | 479.4 | 471.1 | 453.2 | 445.8 | 441.0 |
| 25° | 467.2 | 456.3 | 436.2 | 427.0 | 422.2 |
| 27.5° | 452.3 | 440.6 | 418.7 | 406.5 | 399.1 |
| 30° | 437.1 | 424.0 | 399.5 | 384.7 | 377.7 |
| 32.5° | 421.8 | 406.5 | 380.3 | 363.7 | 356.3 |
| 35° | 404.3 | 388.6 | 361.5 | 342.7 | 334.9 |
| 37.5° | 386.8 | 369.8 | 341.4 | 320.5 | 310.9 |
| 40° | 370.3 | 351.0 | 320.0 | 297.3 | 287.3 |
| 42.5° | 351.5 | 332.3 | 300.0 | 274.6 | 265.9 |
| 45° | 332.3 | 312.6 | 279.0 | 254.1 | 243.6 |
| 47.5° | 313.5 | 291.7 | 258.5 | 231.4 | 222.2 |
| 50° | 292.5 | 272.0 | 236.7 | 209.6 | 199.5 |
| 52.5° | 273.8 | 251.1 | 216.1 | 187.7 | 179.0 |
| 55° | 252.4 | 231.0 | 193.9 | 168.5 | 159.8 |
| 57.5° | 233.2 | 210.0 | 172.5 | 148.5 | 141.0 |
| 60° | 213.1 | 189.1 | 152.8 | 129.2 | 121.8 |
| 62.5° | 193.0 | 169.0 | 132.7 | 110.9 | 103.0 |
| 65° | 172.5 | 148.5 | 114.4 | 93.0 | 88.2 |
| 67.5° | 151.9 | 127.5 | 94.3 | 78.2 | 72.9 |
| 70° | 131.9 | 108.3 | 77.7 | 62.4 | 57.6 |
| 72.5° | 111.8 | 88.6 | 61.6 | 49.8 | 48.5 |
| 75° | 91.3 | 70.3 | 46.3 | 41.9 | 41.0 |
| 77.5° | 72.5 | 53.3 | 36.2 | 33.6 | 32.7 |
| 80° | 54.6 | 36.7 | 27.5 | 26.2 | 25.3 |
| 82.5° | 37.5 | 22.7 | 19.6 | 18.3 | 18.3 |
| 85° | 23.1 | 13.5 | 12.2 | 11.4 | 11.4 |
| 87.5° | 10.5 | 5.7 | 5.7 | 5.2 | 4.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)