

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1055657

Luminaire Tested: S123R3DR-S775D830-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055657
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-6)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123R3DR-S775D830-X4F0-XX-UDD-FLL-S
Description: DEFINE 3, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

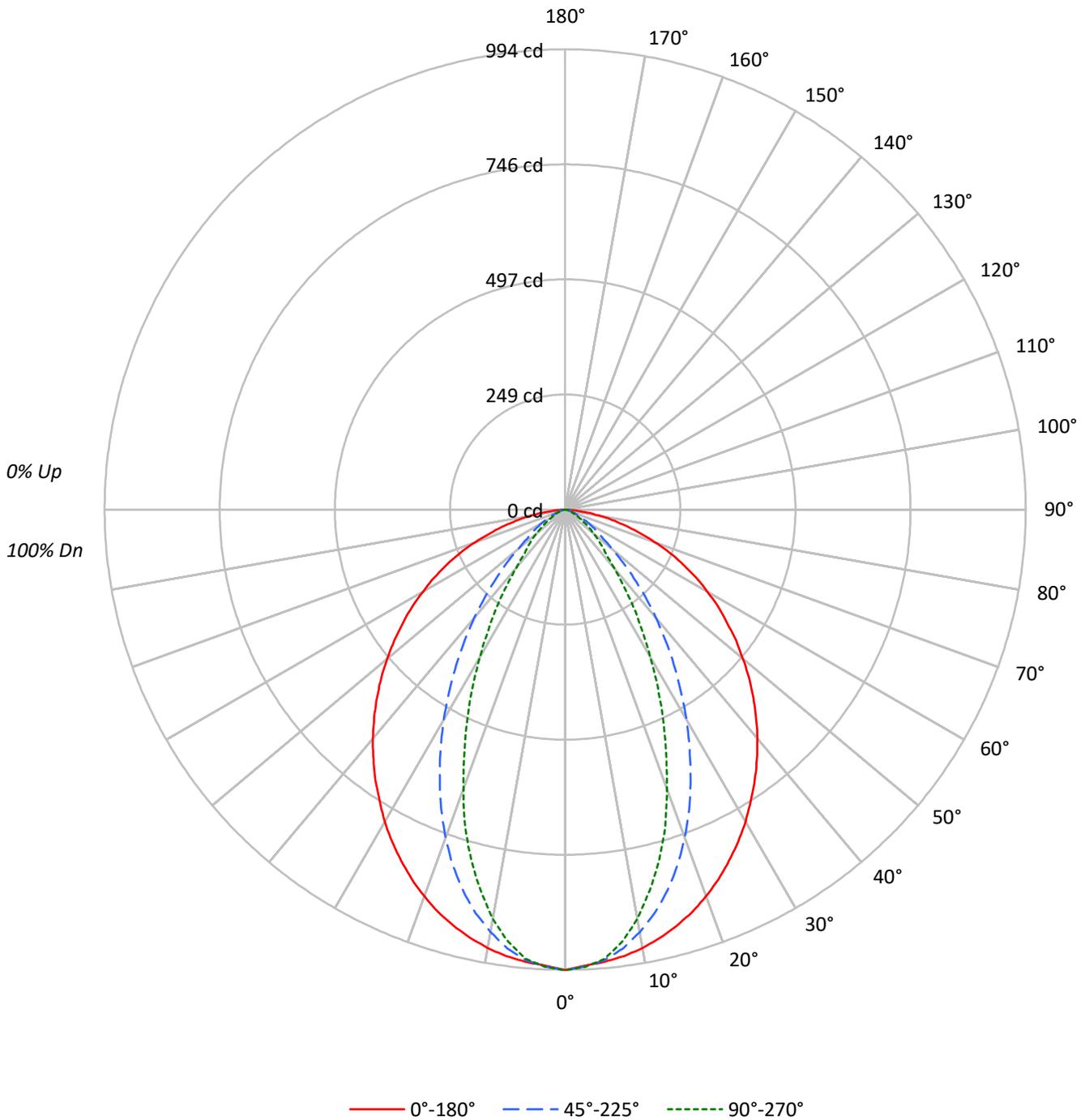
Lumens per Lamp: N/A
Luminaire Lumens: 1382.9 lumens
Efficiency: N/A
Efficacy: 52.4 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.77 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
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: 24 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 | 111 | 108 | 104 | 102 | 109 | 106 | 103 | 100 | 101 | 99 | 97 | 98 | 96 | 94 | 94 | 93 | 91 | 89 | | | 89 | |
| 2 | 104 | 97 | 92 | 87 | 101 | 95 | 90 | 86 | 92 | 88 | 84 | 89 | 85 | 82 | 86 | 83 | 81 | 79 | | | 79 | |
| 3 | 96 | 88 | 81 | 76 | 94 | 86 | 80 | 76 | 84 | 78 | 74 | 81 | 77 | 73 | 79 | 75 | 72 | 70 | | | 70 | |
| 4 | 90 | 80 | 73 | 67 | 88 | 79 | 72 | 67 | 76 | 71 | 66 | 74 | 69 | 65 | 72 | 68 | 64 | 62 | | | 62 | |
| 5 | 84 | 73 | 66 | 60 | 82 | 72 | 65 | 60 | 70 | 64 | 59 | 68 | 63 | 59 | 67 | 62 | 58 | 56 | | | 56 | |
| 6 | 78 | 67 | 60 | 54 | 77 | 66 | 59 | 54 | 65 | 58 | 53 | 63 | 57 | 53 | 62 | 57 | 53 | 51 | | | 51 | |
| 7 | 73 | 62 | 54 | 49 | 72 | 61 | 54 | 49 | 60 | 53 | 49 | 58 | 53 | 48 | 57 | 52 | 48 | 46 | | | 46 | |
| 8 | 69 | 57 | 50 | 45 | 68 | 57 | 50 | 45 | 56 | 49 | 45 | 54 | 49 | 44 | 53 | 48 | 44 | 42 | | | 42 | |
| 9 | 65 | 53 | 46 | 41 | 64 | 53 | 46 | 41 | 52 | 45 | 41 | 51 | 45 | 41 | 50 | 45 | 41 | 39 | | | 39 | |
| 10 | 62 | 50 | 43 | 38 | 60 | 49 | 43 | 38 | 48 | 42 | 38 | 48 | 42 | 38 | 47 | 42 | 38 | 36 | | | 36 | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 11989 | 11989 | 11989 |
| 5° | 11863 | 11818 | 11783 |
| 10° | 11770 | 11343 | 10985 |
| 15° | 11612 | 10636 | 9777 |
| 20° | 11403 | 9674 | 8236 |
| 25° | 11134 | 8514 | 6645 |
| 30° | 10838 | 7296 | 5118 |
| 35° | 10501 | 6021 | 3787 |
| 40° | 10161 | 4791 | 2581 |
| 45° | 9787 | 3584 | 1944 |
| 50° | 9388 | 2493 | 1521 |
| 55° | 8975 | 1822 | 1110 |
| 60° | 8546 | 1365 | 796 |
| 65° | 8039 | 913 | 619 |
| 70° | 7276 | 666 | 497 |
| 75° | 6279 | 484 | 396 |
| 80° | 5041 | 396 | 326 |
| 85° | 2614 | 387 | 263 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9787 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 91.9 | 6.6 |
| 10°-20° | 239.3 | 17.3 |
| 20°-30° | 300.6 | 21.7 |
| 30°-40° | 280.0 | 20.2 |
| 40°-50° | 214.3 | 15.5 |
| 50°-60° | 142.5 | 10.3 |
| 60°-70° | 76.8 | 5.6 |
| 70°-80° | 31.5 | 2.3 |
| 80°-90° | 6.0 | 0.4 |
| 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° | 631.8 | 45.7 |
| 0°-40° | 911.8 | 65.9 |
| 0°-60° | 1268.6 | 91.7 |
| 0°-90° | 1382.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1382.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 994 | 994 | 994 | 994 | 994 | |
| 5° | 980 | 991 | 976 | 973 | 974 | 93 |
| 15° | 930 | 915 | 852 | 802 | 783 | 262 |
| 25° | 837 | 780 | 640 | 534 | 500 | 385 |
| 35° | 714 | 608 | 409 | 289 | 257 | 446 |
| 45° | 574 | 424 | 210 | 124 | 114 | 443 |
| 55° | 427 | 247 | 87 | 60 | 53 | 383 |
| 65° | 282 | 95 | 32 | 24 | 22 | 278 |
| 75° | 135 | 23 | 10 | 9 | 8 | 144 |
| 85° | 19 | 3 | 3 | 3 | 2 | 28 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P1055657

CATALOG NUMBER: S123R3DR-S775D830-X4F0-XX-UDD-FLL-S

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 994.4 | 994.4 | 994.4 | 994.4 | 994.4 |
| 2.5° | 985.9 | 998.2 | 987.8 | 988.7 | 988.7 |
| 5° | 980.2 | 990.6 | 976.5 | 972.7 | 973.6 |
| 7.5° | 972.7 | 979.3 | 955.7 | 943.5 | 941.6 |
| 10° | 961.4 | 963.3 | 926.5 | 904.8 | 897.3 |
| 12.5° | 947.3 | 940.7 | 892.6 | 856.8 | 842.6 |
| 15° | 930.3 | 915.2 | 852.1 | 802.1 | 783.3 |
| 17.5° | 911.4 | 886.0 | 805.9 | 740.8 | 718.2 |
| 20° | 888.8 | 853.0 | 754.0 | 673.0 | 641.9 |
| 22.5° | 864.3 | 818.1 | 699.4 | 603.2 | 568.4 |
| 25° | 837.0 | 780.4 | 640.0 | 533.5 | 499.5 |
| 27.5° | 808.7 | 739.9 | 581.5 | 467.5 | 432.6 |
| 30° | 778.5 | 698.4 | 524.1 | 403.4 | 367.6 |
| 32.5° | 745.5 | 653.2 | 464.7 | 344.0 | 308.2 |
| 35° | 713.5 | 607.9 | 409.1 | 289.4 | 257.3 |
| 37.5° | 679.6 | 562.7 | 355.3 | 241.3 | 205.5 |
| 40° | 645.6 | 516.5 | 304.4 | 194.2 | 164.0 |
| 42.5° | 609.8 | 470.3 | 256.4 | 154.6 | 131.0 |
| 45° | 574.0 | 424.1 | 210.2 | 123.5 | 114.0 |
| 47.5° | 538.2 | 378.0 | 169.7 | 106.5 | 97.1 |
| 50° | 500.5 | 333.7 | 132.9 | 90.5 | 81.1 |
| 52.5° | 464.7 | 289.4 | 103.7 | 74.5 | 66.0 |
| 55° | 427.0 | 246.9 | 86.7 | 60.3 | 52.8 |
| 57.5° | 392.1 | 203.6 | 71.6 | 47.1 | 41.5 |
| 60° | 354.4 | 164.9 | 56.6 | 36.8 | 33.0 |
| 62.5° | 318.6 | 129.1 | 43.4 | 29.2 | 26.4 |
| 65° | 281.8 | 95.2 | 32.0 | 23.6 | 21.7 |
| 67.5° | 245.1 | 68.8 | 24.5 | 18.9 | 17.9 |
| 70° | 206.4 | 51.8 | 18.9 | 15.1 | 14.1 |
| 72.5° | 169.7 | 36.8 | 14.1 | 12.3 | 11.3 |
| 75° | 134.8 | 22.6 | 10.4 | 9.4 | 8.5 |
| 77.5° | 103.7 | 13.2 | 7.5 | 7.5 | 6.6 |
| 80° | 72.6 | 7.5 | 5.7 | 5.7 | 4.7 |
| 82.5° | 44.3 | 4.7 | 3.8 | 3.8 | 3.8 |
| 85° | 18.9 | 2.8 | 2.8 | 2.8 | 1.9 |
| 87.5° | 2.8 | 0.9 | 0.9 | 0.9 | 0.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)