

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: P1055233

Luminaire Tested: S122R3DR-S675D850-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055233
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122R3DR-S675D850-X4F0-XX-UDD-FLL-B
Description: DEFINE 2, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

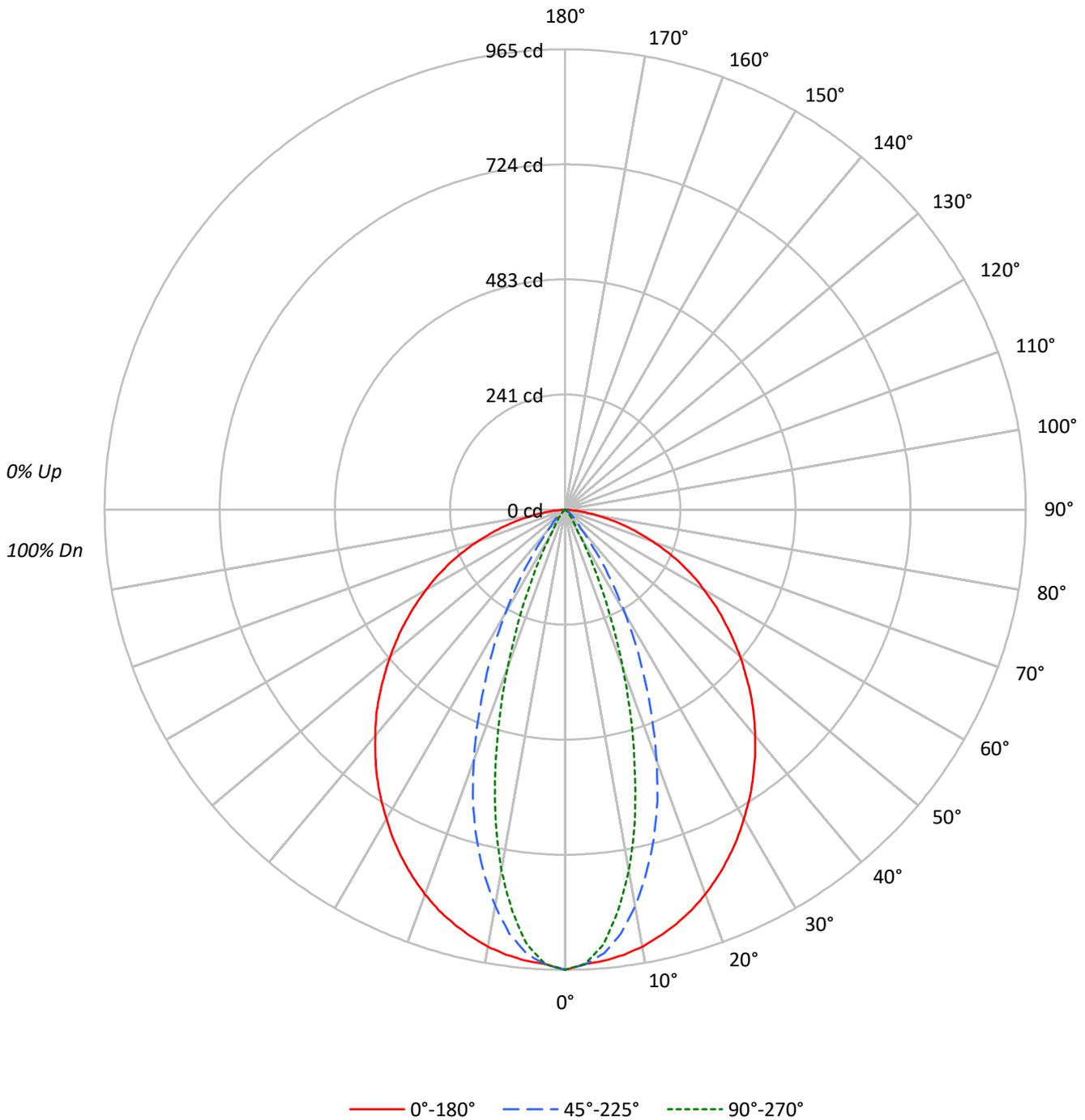
Lumens per Lamp: N/A
Luminaire Lumens: 877.8 lumens
Efficiency: N/A
Efficacy: 33.2 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.56 / 0.7
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 112 | 109 | 106 | 103 | 110 | 106 | 104 | 101 | 102 | 100 | 98 | 99 | 97 | 95 | 95 | 94 | 92 | 91 |
| 2 | 105 | 99 | 94 | 90 | 103 | 97 | 93 | 89 | 94 | 90 | 87 | 91 | 88 | 85 | 88 | 86 | 83 | 81 |
| 3 | 98 | 91 | 85 | 80 | 96 | 89 | 84 | 79 | 86 | 82 | 78 | 84 | 80 | 77 | 82 | 78 | 75 | 74 |
| 4 | 92 | 83 | 77 | 72 | 90 | 82 | 76 | 71 | 80 | 75 | 70 | 78 | 73 | 70 | 76 | 72 | 69 | 67 |
| 5 | 87 | 77 | 70 | 65 | 85 | 76 | 70 | 65 | 74 | 69 | 64 | 72 | 68 | 64 | 71 | 66 | 63 | 61 |
| 6 | 82 | 72 | 65 | 60 | 80 | 71 | 64 | 59 | 69 | 63 | 59 | 68 | 62 | 59 | 66 | 62 | 58 | 56 |
| 7 | 77 | 67 | 60 | 55 | 76 | 66 | 59 | 55 | 65 | 59 | 55 | 63 | 58 | 54 | 62 | 57 | 54 | 52 |
| 8 | 73 | 62 | 56 | 51 | 72 | 62 | 55 | 51 | 61 | 55 | 51 | 60 | 54 | 50 | 59 | 54 | 50 | 49 |
| 9 | 70 | 59 | 52 | 48 | 68 | 58 | 52 | 47 | 57 | 51 | 47 | 56 | 51 | 47 | 55 | 50 | 47 | 45 |
| 10 | 66 | 55 | 49 | 45 | 65 | 55 | 49 | 44 | 54 | 48 | 44 | 53 | 48 | 44 | 52 | 48 | 44 | 43 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 18279 | 18279 | 18279 |
| 5° | 18054 | 17759 | 17421 |
| 10° | 17901 | 16237 | 14784 |
| 15° | 17641 | 14052 | 11072 |
| 20° | 17307 | 11291 | 7089 |
| 25° | 16878 | 8276 | 3639 |
| 30° | 16377 | 5410 | 1188 |
| 35° | 15878 | 3002 | 692 |
| 40° | 15304 | 1207 | 383 |
| 45° | 14739 | 801 | 147 |
| 50° | 14089 | 457 | 65 |
| 55° | 13444 | 221 | 36 |
| 60° | 12732 | 83 | 0 |
| 65° | 11983 | 49 | 0 |
| 70° | 10752 | 61 | 0 |
| 75° | 9253 | 81 | 0 |
| 80° | 7015 | 0 | 0 |
| 85° | 2891 | 239 | 0 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14739 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 86.5 | 9.9 |
| 10°-20° | 201.0 | 22.9 |
| 20°-30° | 204.0 | 23.2 |
| 30°-40° | 153.1 | 17.4 |
| 40°-50° | 107.2 | 12.2 |
| 50°-60° | 65.6 | 7.5 |
| 60°-70° | 39.1 | 4.5 |
| 70°-80° | 18.0 | 2.1 |
| 80°-90° | 3.2 | 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° | 491.5 | 56.0 |
| 0°-40° | 644.6 | 73.4 |
| 0°-60° | 817.4 | 93.1 |
| 0°-90° | 877.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 877.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 965 | 965 | 965 | 965 | 965 | |
| 5° | 949 | 958 | 934 | 916 | 916 | 90 |
| 15° | 899 | 851 | 716 | 607 | 564 | 253 |
| 25° | 807 | 665 | 396 | 226 | 174 | 372 |
| 35° | 686 | 447 | 130 | 39 | 30 | 429 |
| 45° | 550 | 236 | 30 | 9 | 6 | 424 |
| 55° | 407 | 72 | 7 | 2 | 1 | 364 |
| 65° | 267 | 21 | 1 | 1 | 0 | 263 |
| 75° | 126 | 2 | 1 | 1 | 0 | 134 |
| 85° | 13 | 0 | 1 | 1 | 0 | 23 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P1055233

CATALOG NUMBER: S122R3DR-S675D850-X4F0-XX-UDD-FLL-B

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 964.8 | 964.8 | 964.8 | 964.8 | 964.8 |
| 2.5° | 953.7 | 968.2 | 954.9 | 952.6 | 953.7 |
| 5° | 949.3 | 958.2 | 933.8 | 916.0 | 916.0 |
| 7.5° | 941.5 | 941.5 | 896.1 | 859.5 | 848.4 |
| 10° | 930.5 | 918.3 | 844.0 | 785.2 | 768.5 |
| 12.5° | 916.0 | 887.2 | 783.0 | 699.8 | 673.2 |
| 15° | 899.4 | 850.6 | 716.4 | 606.6 | 564.5 |
| 17.5° | 880.6 | 809.6 | 642.1 | 505.7 | 456.9 |
| 20° | 858.4 | 765.2 | 560.0 | 402.6 | 351.6 |
| 22.5° | 834.0 | 716.4 | 476.9 | 310.5 | 256.2 |
| 25° | 807.4 | 665.4 | 395.9 | 226.2 | 174.1 |
| 27.5° | 779.6 | 612.2 | 321.6 | 155.3 | 106.5 |
| 30° | 748.6 | 556.7 | 247.3 | 92.0 | 54.3 |
| 32.5° | 718.6 | 503.5 | 185.2 | 49.9 | 39.9 |
| 35° | 686.5 | 446.9 | 129.8 | 38.8 | 29.9 |
| 37.5° | 653.2 | 393.7 | 79.8 | 28.8 | 22.2 |
| 40° | 618.8 | 339.4 | 48.8 | 21.1 | 15.5 |
| 42.5° | 585.6 | 288.3 | 38.8 | 14.4 | 10.0 |
| 45° | 550.1 | 236.2 | 29.9 | 8.9 | 5.5 |
| 47.5° | 513.5 | 188.5 | 22.2 | 5.5 | 3.3 |
| 50° | 478.0 | 146.4 | 15.5 | 3.3 | 2.2 |
| 52.5° | 442.5 | 107.6 | 10.0 | 2.2 | 1.1 |
| 55° | 407.0 | 72.1 | 6.7 | 2.2 | 1.1 |
| 57.5° | 371.5 | 51.0 | 4.4 | 1.1 | 1.1 |
| 60° | 336.0 | 39.9 | 2.2 | 1.1 | 0.0 |
| 62.5° | 302.8 | 31.1 | 2.2 | 1.1 | 1.1 |
| 65° | 267.3 | 21.1 | 1.1 | 1.1 | 0.0 |
| 67.5° | 229.6 | 13.3 | 1.1 | 1.1 | 0.0 |
| 70° | 194.1 | 7.8 | 1.1 | 1.1 | 0.0 |
| 72.5° | 159.7 | 4.4 | 1.1 | 1.1 | 0.0 |
| 75° | 126.4 | 2.2 | 1.1 | 1.1 | 0.0 |
| 77.5° | 94.3 | 1.1 | 0.0 | 1.1 | 0.0 |
| 80° | 64.3 | 0.0 | 0.0 | 1.1 | 0.0 |
| 82.5° | 37.7 | 0.0 | 0.0 | 1.1 | 0.0 |
| 85° | 13.3 | 0.0 | 1.1 | 1.1 | 0.0 |
| 87.5° | 0.0 | 0.0 | 1.1 | 1.1 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)