

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: P1055676

Luminaire Tested: S123R3DR-S775D935-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055676
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-4)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123R3DR-S775D935-X4F0-XX-UDD-FLL-W
Description: DEFINE 3, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

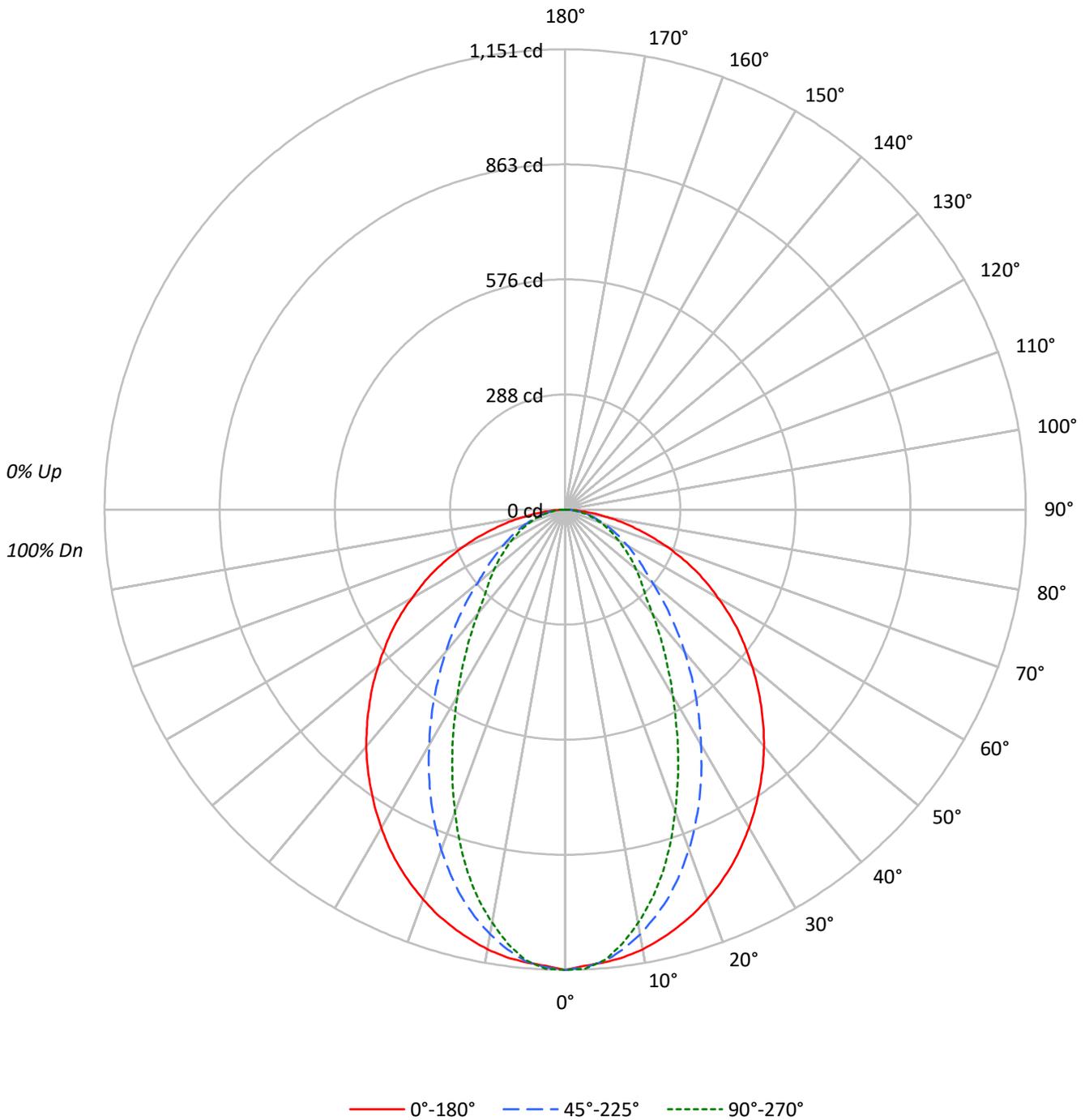
Lumens per Lamp: N/A
Luminaire Lumens: 2018.9 lumens
Efficiency: N/A
Efficacy: 76.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.83 / 1.02
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

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





TEST NUMBER: P1055676

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|---|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|----|
| RF | 20 | | | | | | | | | 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 | 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 | 110 | 106 | 102 | 99 | 107 | 104 | 100 | 97 | 99 | 97 | 94 | 96 | 93 | 91 | 92 | 90 | 88 | 86 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 101 | 94 | 88 | 83 | 99 | 92 | 87 | 82 | 89 | 84 | 80 | 85 | 82 | 78 | 83 | 79 | 76 | 74 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 93 | 84 | 77 | 71 | 91 | 82 | 76 | 70 | 80 | 74 | 69 | 77 | 72 | 68 | 74 | 70 | 67 | 65 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 86 | 75 | 68 | 61 | 84 | 74 | 67 | 61 | 72 | 65 | 60 | 70 | 64 | 59 | 67 | 63 | 59 | 57 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | 80 | 68 | 60 | 54 | 78 | 67 | 60 | 54 | 65 | 58 | 53 | 63 | 57 | 53 | 62 | 56 | 52 | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | 75 | 62 | 54 | 48 | 73 | 61 | 54 | 48 | 60 | 53 | 48 | 58 | 52 | 47 | 57 | 51 | 47 | 45 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | 70 | 57 | 49 | 43 | 68 | 56 | 49 | 43 | 55 | 48 | 43 | 53 | 47 | 43 | 52 | 47 | 42 | 40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | 65 | 53 | 45 | 39 | 64 | 52 | 44 | 39 | 51 | 44 | 39 | 49 | 43 | 39 | 48 | 43 | 39 | 37 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | 61 | 49 | 41 | 36 | 60 | 48 | 41 | 36 | 47 | 40 | 36 | 46 | 40 | 35 | 45 | 39 | 35 | 34 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | 58 | 45 | 38 | 33 | 56 | 45 | 38 | 33 | 44 | 37 | 33 | 43 | 37 | 33 | 42 | 37 | 33 | 31 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 13879 | 13879 | 13879 |
| 5° | 13754 | 13723 | 13693 |
| 10° | 13671 | 13207 | 12850 |
| 15° | 13509 | 12509 | 11735 |
| 20° | 13311 | 11610 | 10318 |
| 25° | 13081 | 10572 | 8877 |
| 30° | 12790 | 9457 | 7504 |
| 35° | 12482 | 8364 | 6336 |
| 40° | 12169 | 7304 | 5326 |
| 45° | 11802 | 6298 | 4697 |
| 50° | 11434 | 5362 | 4312 |
| 55° | 11094 | 4778 | 3981 |
| 60° | 10629 | 4319 | 3716 |
| 65° | 10193 | 3954 | 3489 |
| 70° | 9500 | 3641 | 3278 |
| 75° | 8501 | 3368 | 3088 |
| 80° | 7290 | 3110 | 2867 |
| 85° | 5118 | 2863 | 2739 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11802 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 106.7 | 5.3 |
| 10°-20° | 282.3 | 14.0 |
| 20°-30° | 371.9 | 18.4 |
| 30°-40° | 377.5 | 18.7 |
| 40°-50° | 328.1 | 16.3 |
| 50°-60° | 257.1 | 12.7 |
| 60°-70° | 174.6 | 8.7 |
| 70°-80° | 94.6 | 4.7 |
| 80°-90° | 26.1 | 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° | 760.9 | 37.7 |
| 0°-40° | 1138.4 | 56.4 |
| 0°-60° | 1723.6 | 85.4 |
| 0°-90° | 2018.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2018.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1151 | 1151 | 1151 | 1151 | 1151 | |
| 5° | 1136 | 1150 | 1134 | 1124 | 1131 | 108 |
| 15° | 1082 | 1067 | 1002 | 953 | 940 | 305 |
| 25° | 983 | 924 | 795 | 696 | 667 | 453 |
| 35° | 848 | 747 | 568 | 460 | 430 | 531 |
| 45° | 692 | 555 | 369 | 285 | 276 | 534 |
| 55° | 528 | 367 | 227 | 194 | 189 | 471 |
| 65° | 357 | 198 | 139 | 124 | 122 | 353 |
| 75° | 182 | 91 | 72 | 67 | 66 | 195 |
| 85° | 37 | 22 | 21 | 19 | 20 | 47 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1151.2 | 1151.2 | 1151.2 | 1151.2 | 1151.2 |
| 2.5° | 1141.7 | 1156.3 | 1145.1 | 1146.0 | 1149.4 |
| 5° | 1136.5 | 1150.3 | 1133.9 | 1123.6 | 1131.4 |
| 7.5° | 1128.8 | 1139.1 | 1109.0 | 1092.6 | 1095.2 |
| 10° | 1116.7 | 1120.2 | 1078.8 | 1053.0 | 1049.6 |
| 12.5° | 1100.4 | 1094.3 | 1042.7 | 1004.8 | 998.8 |
| 15° | 1082.3 | 1066.8 | 1002.2 | 953.1 | 940.2 |
| 17.5° | 1061.6 | 1035.8 | 954.8 | 894.6 | 874.8 |
| 20° | 1037.5 | 1001.3 | 904.9 | 828.3 | 804.2 |
| 22.5° | 1011.7 | 965.2 | 850.7 | 760.3 | 735.3 |
| 25° | 983.3 | 923.9 | 794.7 | 695.7 | 667.3 |
| 27.5° | 952.3 | 882.5 | 737.9 | 632.0 | 600.1 |
| 30° | 918.7 | 839.5 | 679.3 | 570.0 | 539.0 |
| 32.5° | 884.2 | 793.8 | 623.4 | 512.3 | 482.2 |
| 35° | 848.1 | 747.3 | 568.3 | 459.8 | 430.5 |
| 37.5° | 811.1 | 700.0 | 514.9 | 409.8 | 382.3 |
| 40° | 773.2 | 651.8 | 464.1 | 363.3 | 338.4 |
| 42.5° | 732.7 | 603.6 | 415.0 | 319.4 | 300.5 |
| 45° | 692.2 | 555.3 | 369.4 | 285.0 | 275.5 |
| 47.5° | 651.8 | 506.3 | 326.3 | 260.9 | 252.3 |
| 50° | 609.6 | 458.9 | 285.9 | 238.5 | 229.9 |
| 52.5° | 568.3 | 412.4 | 252.3 | 217.0 | 210.9 |
| 55° | 527.8 | 366.8 | 227.3 | 193.7 | 189.4 |
| 57.5° | 485.6 | 322.0 | 202.3 | 175.6 | 170.5 |
| 60° | 440.8 | 279.0 | 179.1 | 156.7 | 154.1 |
| 62.5° | 400.4 | 238.5 | 158.4 | 140.3 | 137.8 |
| 65° | 357.3 | 198.0 | 138.6 | 124.0 | 122.3 |
| 67.5° | 313.4 | 164.5 | 120.5 | 108.5 | 107.6 |
| 70° | 269.5 | 138.6 | 103.3 | 93.8 | 93.0 |
| 72.5° | 226.4 | 114.5 | 87.0 | 80.9 | 79.2 |
| 75° | 182.5 | 91.3 | 72.3 | 67.2 | 66.3 |
| 77.5° | 142.9 | 70.6 | 57.7 | 54.2 | 53.4 |
| 80° | 105.0 | 52.5 | 44.8 | 42.2 | 41.3 |
| 82.5° | 68.9 | 36.2 | 31.9 | 30.1 | 30.1 |
| 85° | 37.0 | 22.4 | 20.7 | 18.9 | 19.8 |
| 87.5° | 12.9 | 9.5 | 9.5 | 8.6 | 9.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)