

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: P1057879

Luminaire Tested: S122RDR-S290D835-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1057879
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-21)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-S290D835-X4F0-XX-UDD-BVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

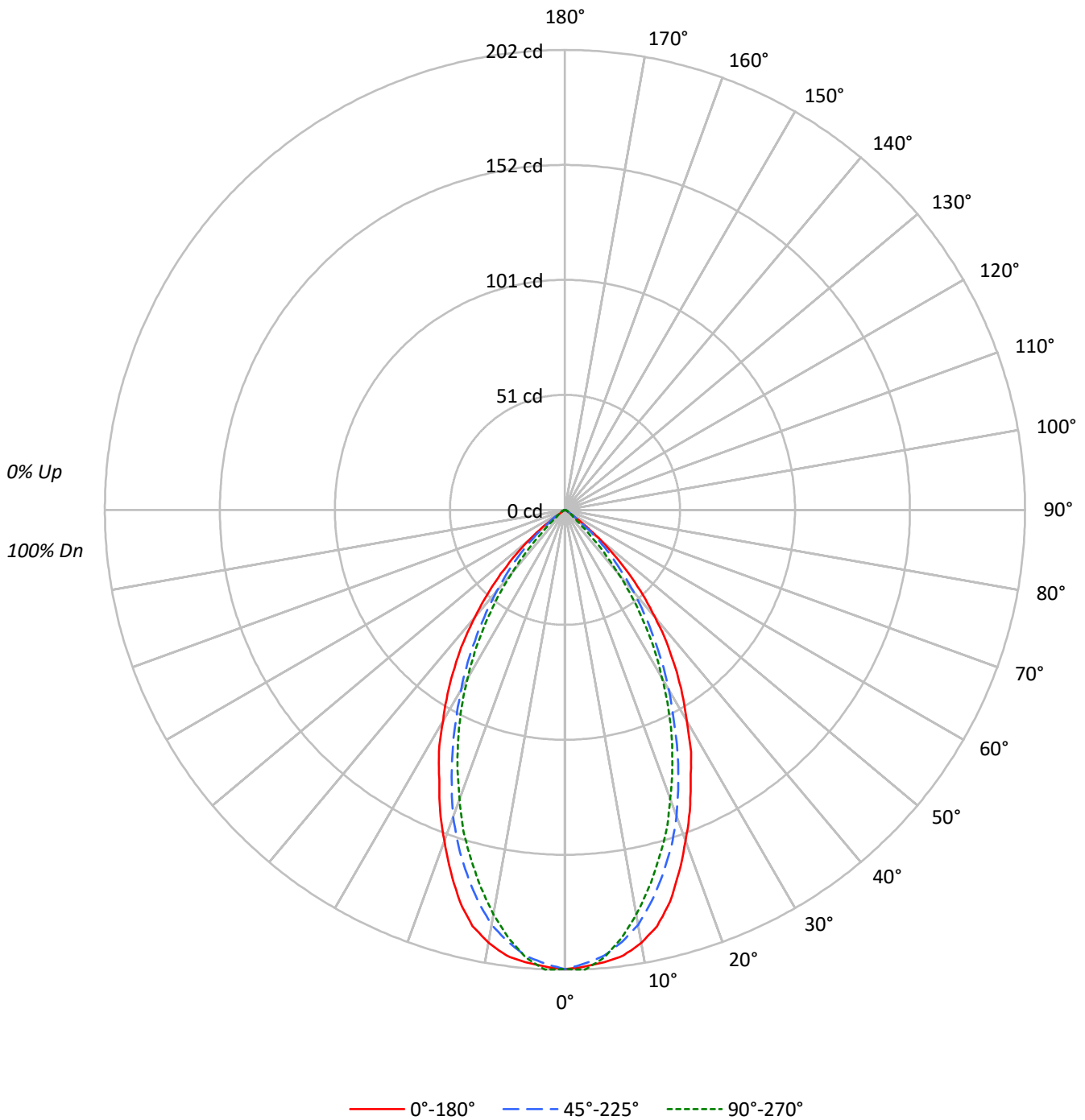
Lumens per Lamp: N/A
Luminaire Lumens: 189.6 lumens
Efficiency: N/A
Efficacy: 15.2 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 0.8 / 0.88
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
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 | 113 | 110 | 108 | 105 | 111 | 108 | 106 | 104 | 104 | 102 | 101 | 100 | 99 | 98 | 97 | 96 | 95 | 93 |
| 2 | 107 | 102 | 98 | 94 | 105 | 100 | 97 | 93 | 97 | 94 | 91 | 94 | 92 | 89 | 91 | 89 | 87 | 86 |
| 3 | 101 | 95 | 90 | 85 | 99 | 93 | 89 | 85 | 91 | 87 | 83 | 88 | 85 | 82 | 86 | 83 | 81 | 79 |
| 4 | 96 | 88 | 82 | 78 | 94 | 87 | 81 | 77 | 85 | 80 | 76 | 83 | 79 | 75 | 81 | 77 | 75 | 73 |
| 5 | 91 | 82 | 76 | 71 | 89 | 81 | 75 | 71 | 79 | 74 | 70 | 77 | 73 | 70 | 76 | 72 | 69 | 67 |
| 6 | 86 | 76 | 70 | 66 | 84 | 76 | 70 | 65 | 74 | 69 | 65 | 73 | 68 | 64 | 71 | 67 | 64 | 62 |
| 7 | 81 | 71 | 65 | 61 | 80 | 71 | 65 | 61 | 69 | 64 | 60 | 68 | 63 | 60 | 67 | 63 | 60 | 58 |
| 8 | 77 | 67 | 61 | 56 | 76 | 66 | 60 | 56 | 65 | 60 | 56 | 64 | 59 | 56 | 63 | 59 | 56 | 54 |
| 9 | 73 | 63 | 57 | 53 | 72 | 62 | 57 | 52 | 61 | 56 | 52 | 61 | 56 | 52 | 60 | 55 | 52 | 51 |
| 10 | 69 | 59 | 53 | 49 | 68 | 59 | 53 | 49 | 58 | 53 | 49 | 57 | 52 | 49 | 56 | 52 | 49 | 47 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 3722 | 3722 | 3722 |
| 5° | 3695 | 3642 | 3656 |
| 10° | 3618 | 3466 | 3380 |
| 15° | 3404 | 3169 | 3037 |
| 20° | 3040 | 2814 | 2655 |
| 25° | 2657 | 2378 | 2258 |
| 30° | 2280 | 1943 | 1817 |
| 35° | 1901 | 1518 | 1363 |
| 40° | 1479 | 1120 | 872 |
| 45° | 1036 | 746 | 378 |
| 50° | 563 | 390 | 135 |
| 55° | 84 | 138 | 97 |
| 60° | 15 | 33 | 63 |
| 65° | 0 | 17 | 39 |
| 70° | 0 | 0 | 22 |
| 75° | 0 | 0 | 0 |
| 80° | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1036 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 18.5 | 9.8 |
| 10°-20° | 46.7 | 24.6 |
| 20°-30° | 54.4 | 28.7 |
| 30°-40° | 43.6 | 23.0 |
| 40°-50° | 21.7 | 11.4 |
| 50°-60° | 4.3 | 2.3 |
| 60°-70° | 0.4 | 0.2 |
| 70°-80° | 0.0 | 0.0 |
| 80°-90° | 0.0 | 0.0 |
| 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° | 119.7 | 63.1 |
| 0°-40° | 163.3 | 86.1 |
| 0°-60° | 189.2 | 99.8 |
| 0°-90° | 189.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 189.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 202 | 202 | 202 | 202 | 202 | |
| 5° | 200 | 200 | 197 | 197 | 197 | 19 |
| 15° | 178 | 175 | 166 | 162 | 159 | 49 |
| 25° | 130 | 124 | 117 | 114 | 111 | 60 |
| 35° | 84 | 76 | 67 | 64 | 60 | 52 |
| 45° | 40 | 35 | 29 | 19 | 14 | 31 |
| 55° | 3 | 5 | 4 | 3 | 3 | 5 |
| 65° | 0 | 0 | 0 | 0 | 1 | 0 |
| 75° | 0 | 0 | 0 | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 201.7 | 201.7 | 201.7 | 201.7 | 201.7 |
| 2.5° | 200.8 | 201.7 | 199.5 | 201.7 | 202.1 |
| 5° | 199.5 | 199.5 | 196.6 | 197.0 | 197.4 |
| 7.5° | 197.4 | 196.6 | 191.4 | 190.6 | 189.7 |
| 10° | 193.1 | 191.4 | 185.0 | 181.6 | 180.4 |
| 12.5° | 187.2 | 184.6 | 176.1 | 172.3 | 170.1 |
| 15° | 178.2 | 174.8 | 165.9 | 161.6 | 159.0 |
| 17.5° | 166.7 | 163.7 | 155.2 | 150.5 | 148.0 |
| 20° | 154.8 | 150.5 | 143.3 | 138.6 | 135.2 |
| 22.5° | 143.3 | 137.7 | 130.0 | 126.6 | 123.2 |
| 25° | 130.5 | 124.1 | 116.8 | 114.3 | 110.9 |
| 27.5° | 119.8 | 111.7 | 103.2 | 101.5 | 98.5 |
| 30° | 107.0 | 99.3 | 91.2 | 88.7 | 85.3 |
| 32.5° | 95.9 | 87.4 | 79.3 | 76.3 | 73.3 |
| 35° | 84.4 | 75.9 | 67.4 | 64.4 | 60.5 |
| 37.5° | 73.3 | 65.2 | 56.7 | 52.0 | 48.6 |
| 40° | 61.4 | 54.6 | 46.5 | 40.5 | 36.2 |
| 42.5° | 50.7 | 44.8 | 37.1 | 29.4 | 25.2 |
| 45° | 39.7 | 35.0 | 28.6 | 19.2 | 14.5 |
| 47.5° | 29.4 | 26.0 | 20.9 | 11.1 | 7.7 |
| 50° | 19.6 | 18.3 | 13.6 | 5.5 | 4.7 |
| 52.5° | 10.7 | 11.5 | 8.1 | 3.4 | 3.8 |
| 55° | 2.6 | 5.1 | 4.3 | 2.6 | 3.0 |
| 57.5° | 0.4 | 0.9 | 2.1 | 2.1 | 2.1 |
| 60° | 0.4 | 0.4 | 0.9 | 1.3 | 1.7 |
| 62.5° | 0.4 | 0.0 | 0.4 | 0.9 | 1.3 |
| 65° | 0.0 | 0.0 | 0.4 | 0.4 | 0.9 |
| 67.5° | 0.0 | 0.0 | 0.0 | 0.4 | 0.4 |
| 70° | 0.0 | 0.0 | 0.0 | 0.4 | 0.4 |
| 72.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 |
| 75° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)