

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: P1037474

Luminaire Tested: S123R3DS-B775DB35-4F0-XX-W2A-F

Issue Date: 5/2/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1037474  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-25)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/2/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123R3DS-B775DB35-4F0-XX-W2A-F  
Description: Define 3 3in Regressed Direct Surface with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}  
Light Source: -  
Ballast/Driver: -

**Summary**

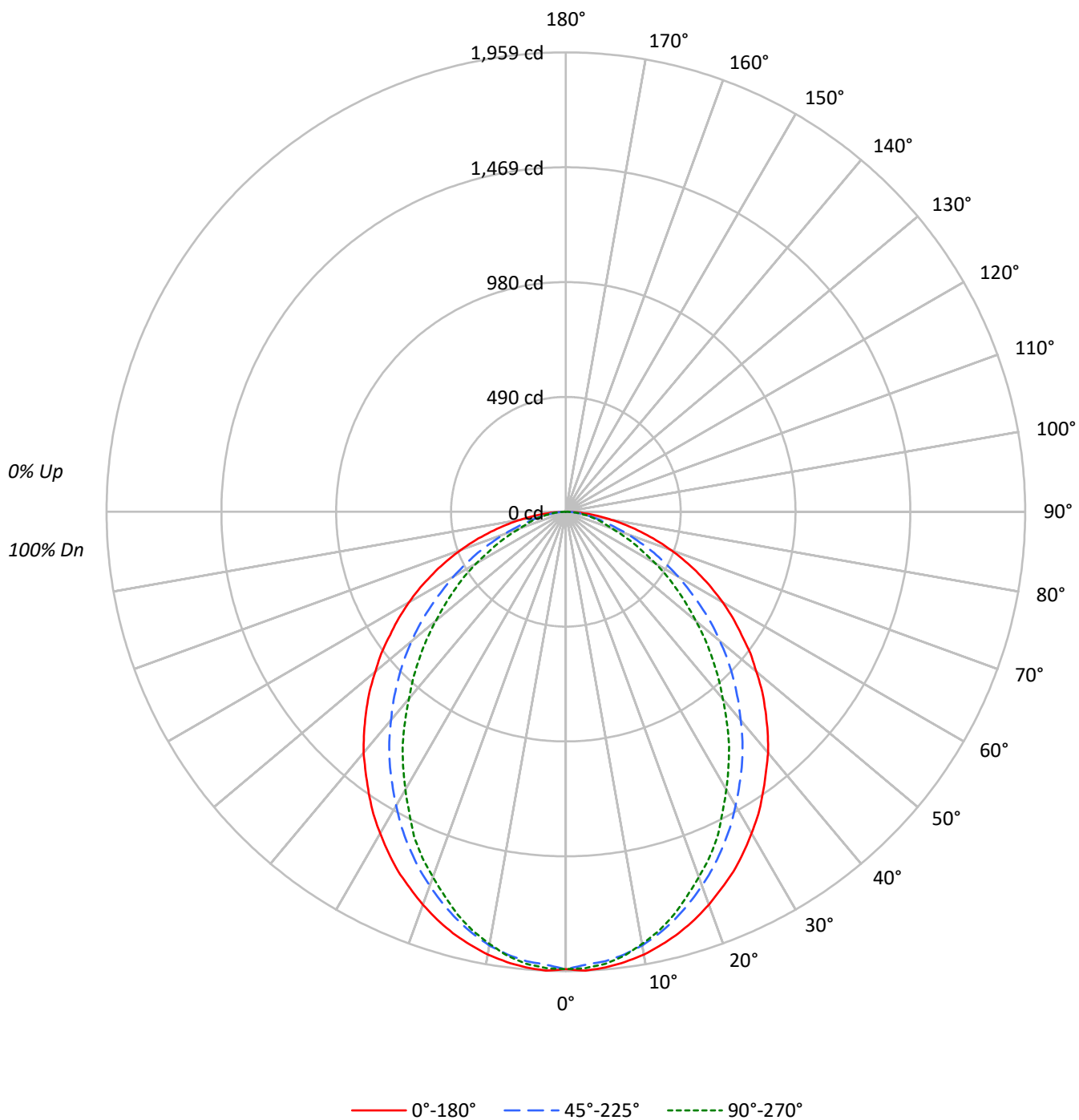
Lumens per Lamp: N/A  
Luminaire Lumens: 4407.0 lumens  
Efficiency: N/A  
Efficacy: 71.9 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.07 / 1.22  
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 61.3  
Input Voltage (V):  
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 |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30 | 10 |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |
| 1   | 110 | 105 | 101 | 98  | 107 | 103 | 99  | 96  | 99  | 96  | 93  | 95  | 93  | 90  | 91  | 89  | 88  | 86  |    |    |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 83  | 78  | 84  | 80  | 77  | 81  | 78  | 75  | 73  |    |    |
| 3   | 92  | 82  | 75  | 68  | 90  | 81  | 74  | 68  | 78  | 72  | 67  | 75  | 70  | 66  | 73  | 68  | 64  | 62  |    |    |
| 4   | 85  | 73  | 65  | 59  | 83  | 72  | 64  | 58  | 70  | 63  | 58  | 67  | 62  | 57  | 65  | 60  | 56  | 54  |    |    |
| 5   | 78  | 66  | 57  | 51  | 76  | 65  | 57  | 51  | 63  | 56  | 50  | 61  | 55  | 50  | 59  | 54  | 49  | 47  |    |    |
| 6   | 73  | 60  | 51  | 45  | 71  | 59  | 51  | 45  | 57  | 50  | 45  | 55  | 49  | 44  | 54  | 48  | 44  | 42  |    |    |
| 7   | 67  | 54  | 46  | 40  | 66  | 54  | 46  | 40  | 52  | 45  | 40  | 51  | 44  | 39  | 49  | 44  | 39  | 37  |    |    |
| 8   | 63  | 50  | 42  | 36  | 61  | 49  | 41  | 36  | 48  | 41  | 36  | 47  | 40  | 36  | 46  | 40  | 35  | 34  |    |    |
| 9   | 59  | 46  | 38  | 33  | 58  | 45  | 38  | 33  | 44  | 37  | 32  | 43  | 37  | 32  | 42  | 36  | 32  | 30  |    |    |
| 10  | 55  | 43  | 35  | 30  | 54  | 42  | 35  | 30  | 41  | 34  | 30  | 40  | 34  | 29  | 39  | 34  | 29  | 28  |    |    |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 20997 | 20997 | 20997 |
| 5°  | 21077 | 20787 | 20907 |
| 10° | 20958 | 20525 | 20457 |
| 15° | 20733 | 20045 | 19833 |
| 20° | 20424 | 19446 | 18992 |
| 25° | 20105 | 18771 | 18170 |
| 30° | 19684 | 17992 | 17009 |
| 35° | 19251 | 17214 | 15946 |
| 40° | 18851 | 16295 | 14627 |
| 45° | 18328 | 15390 | 13438 |
| 50° | 17750 | 14359 | 12107 |
| 55° | 17160 | 13181 | 10866 |
| 60° | 16622 | 11920 | 9502  |
| 65° | 15916 | 10557 | 8140  |
| 70° | 15037 | 8862  | 6571  |
| 75° | 13753 | 6974  | 6184  |
| 80° | 12261 | 6180  | 5690  |
| 85° | 10362 | 5471  | 5076  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 18328 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 183.4  | 4.2       |
| 10°-20°   | 510.1  | 11.6      |
| 20°-30°   | 734.5  | 16.7      |
| 30°-40°   | 827.2  | 18.8      |
| 40°-50°   | 791.2  | 18.0      |
| 50°-60°   | 647.7  | 14.7      |
| 60°-70°   | 436.7  | 9.9       |
| 70°-80°   | 219.0  | 5.0       |
| 80°-90°   | 57.3   | 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°    | 1428.0 | 32.4      |
| 0°-40°    | 2255.2 | 51.2      |
| 0°-60°    | 3694.0 | 83.8      |
| 0°-90°    | 4407.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4407.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1951 | 1951  | 1951 | 1951  | 1951 |      |
| 5°  | 1951 | 1943  | 1924 | 1938  | 1935 | 185  |
| 15° | 1860 | 1843  | 1799 | 1791  | 1780 | 524  |
| 25° | 1693 | 1653  | 1580 | 1547  | 1530 | 779  |
| 35° | 1465 | 1408  | 1310 | 1242  | 1214 | 917  |
| 45° | 1204 | 1133  | 1011 | 921   | 883  | 929  |
| 55° | 914  | 837   | 702  | 611   | 579  | 820  |
| 65° | 625  | 538   | 414  | 337   | 320  | 618  |
| 75° | 331  | 255   | 168  | 152   | 149  | 352  |
| 85° | 84   | 49    | 44   | 41    | 41   | 97   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1950.7 | 1950.7 | 1950.7 | 1950.7 | 1950.7 |
| 2.5°  | 1958.6 | 1952.3 | 1933.3 | 1950.7 | 1947.5 |
| 5°    | 1950.7 | 1942.8 | 1923.8 | 1938.1 | 1934.9 |
| 7.5°  | 1936.5 | 1928.6 | 1904.8 | 1914.3 | 1909.6 |
| 10°   | 1917.5 | 1906.4 | 1877.9 | 1879.5 | 1871.6 |
| 12.5° | 1890.6 | 1877.9 | 1841.5 | 1840.0 | 1830.5 |
| 15°   | 1860.5 | 1843.1 | 1798.8 | 1790.9 | 1779.8 |
| 17.5° | 1824.1 | 1805.2 | 1749.8 | 1734.0 | 1718.1 |
| 20°   | 1783.0 | 1757.7 | 1697.6 | 1677.0 | 1658.0 |
| 22.5° | 1737.1 | 1707.1 | 1642.2 | 1615.3 | 1597.9 |
| 25°   | 1692.8 | 1653.3 | 1580.5 | 1547.3 | 1529.9 |
| 27.5° | 1639.0 | 1596.3 | 1517.2 | 1472.9 | 1446.0 |
| 30°   | 1583.7 | 1536.2 | 1447.6 | 1393.8 | 1368.5 |
| 32.5° | 1528.3 | 1472.9 | 1378.0 | 1317.9 | 1291.0 |
| 35°   | 1465.0 | 1408.1 | 1310.0 | 1241.9 | 1213.5 |
| 37.5° | 1401.7 | 1340.0 | 1237.2 | 1161.2 | 1126.4 |
| 40°   | 1341.6 | 1272.0 | 1159.7 | 1077.4 | 1041.0 |
| 42.5° | 1273.6 | 1204.0 | 1086.9 | 995.1  | 963.5  |
| 45°   | 1204.0 | 1132.8 | 1011.0 | 920.8  | 882.8  |
| 47.5° | 1135.9 | 1056.8 | 936.6  | 838.5  | 805.3  |
| 50°   | 1060.0 | 985.6  | 857.5  | 759.4  | 723.0  |
| 52.5° | 992.0  | 909.7  | 783.1  | 680.3  | 648.7  |
| 55°   | 914.4  | 836.9  | 702.4  | 610.7  | 579.0  |
| 57.5° | 844.8  | 761.0  | 624.9  | 537.9  | 511.0  |
| 60°   | 772.1  | 685.0  | 553.7  | 468.3  | 441.4  |
| 62.5° | 699.3  | 612.3  | 481.0  | 401.8  | 373.4  |
| 65°   | 624.9  | 537.9  | 414.5  | 337.0  | 319.6  |
| 67.5° | 550.6  | 462.0  | 341.7  | 283.2  | 264.2  |
| 70°   | 477.8  | 392.4  | 281.6  | 226.2  | 208.8  |
| 72.5° | 405.0  | 321.2  | 223.1  | 180.4  | 175.6  |
| 75°   | 330.7  | 254.7  | 167.7  | 151.9  | 148.7  |
| 77.5° | 262.6  | 193.0  | 131.3  | 121.8  | 118.7  |
| 80°   | 197.8  | 132.9  | 99.7   | 94.9   | 91.8   |
| 82.5° | 136.1  | 82.3   | 71.2   | 66.4   | 66.4   |
| 85°   | 83.9   | 49.0   | 44.3   | 41.1   | 41.1   |
| 87.5° | 38.0   | 20.6   | 20.6   | 19.0   | 17.4   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)