

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: P1030981

Luminaire Tested: S123DIW-B775D1535UB2750-4F0-XX-W2A-F\_3000K

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1030981  
REPORT IS A COMBINATION OF REPORTS P991997 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123DIW-B775D1535UB2750-4F0-XX-W2A-F\_3000K  
Description: Define 3 Direct/Indirect Wall Mount with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}  
Light Source: -  
Ballast/Driver: -

**Summary**

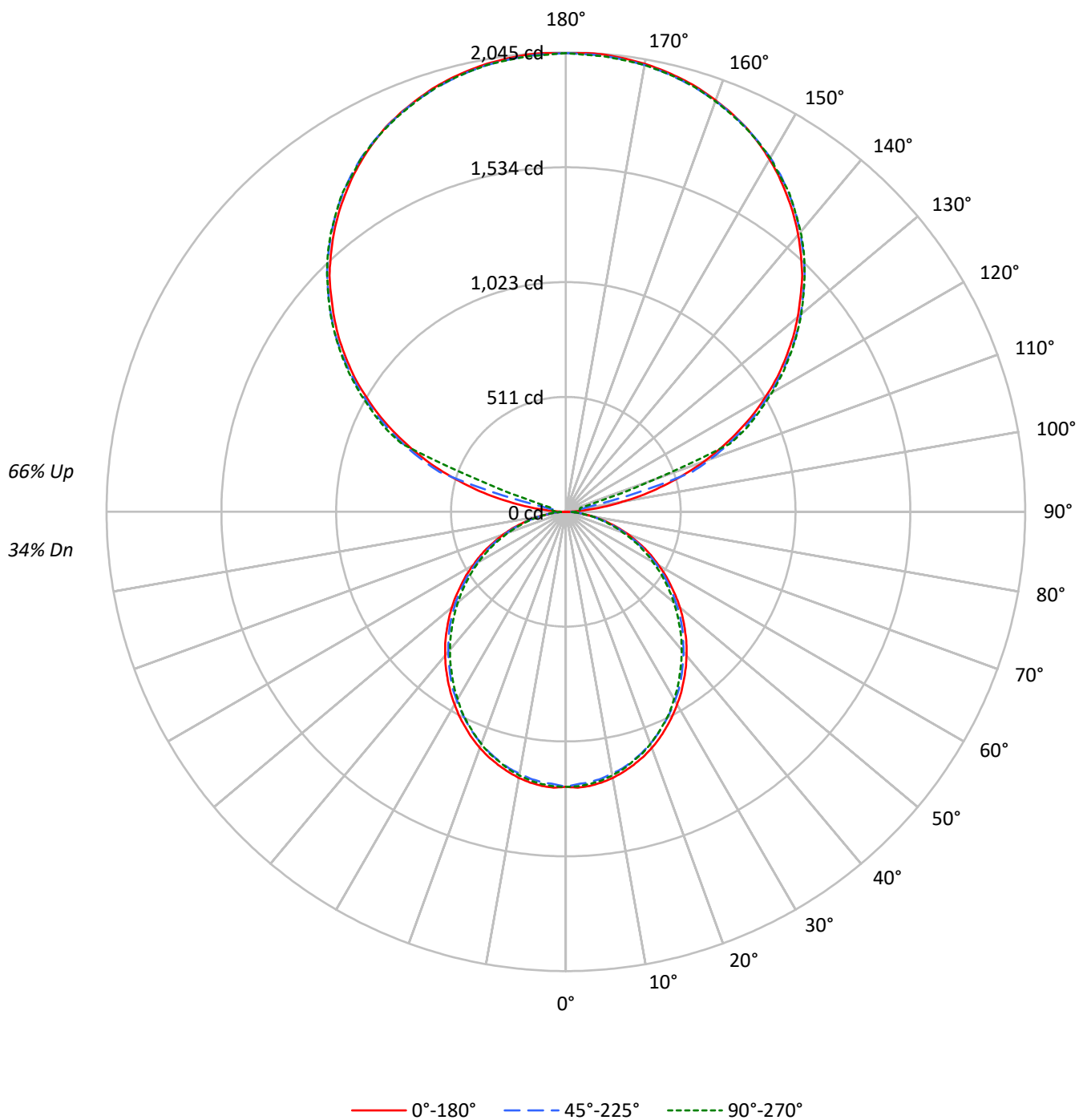
Lumens per Lamp: N/A  
Luminaire Lumens: 9415.0 lumens  
Efficiency: N/A  
Efficacy: 106.9 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.3  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect

Input Watts (W): 88.1  
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   | 103 | 103 | 103 | 103 | 93 | 93 | 93 | 93 | 74 | 74 | 74 | 57 | 57 | 57 | 41 | 41 | 41 |    |    | 34 |
| 1   | 94  | 90  | 86  | 83  | 85 | 81 | 78 | 75 | 65 | 63 | 61 | 50 | 49 | 47 | 36 | 36 | 35 |    |    | 28 |
| 2   | 86  | 78  | 72  | 67  | 77 | 71 | 66 | 62 | 57 | 53 | 50 | 44 | 42 | 40 | 32 | 31 | 29 |    |    | 24 |
| 3   | 78  | 69  | 62  | 56  | 70 | 62 | 56 | 51 | 50 | 46 | 42 | 39 | 36 | 33 | 28 | 26 | 25 |    |    | 20 |
| 4   | 71  | 61  | 53  | 47  | 64 | 55 | 49 | 43 | 44 | 40 | 36 | 35 | 31 | 29 | 25 | 23 | 21 |    |    | 17 |
| 5   | 65  | 54  | 46  | 40  | 59 | 49 | 42 | 37 | 40 | 35 | 31 | 31 | 27 | 25 | 23 | 20 | 19 |    |    | 15 |
| 6   | 60  | 48  | 41  | 35  | 54 | 44 | 37 | 32 | 36 | 31 | 27 | 28 | 24 | 21 | 21 | 18 | 16 |    |    | 13 |
| 7   | 56  | 44  | 36  | 30  | 50 | 40 | 33 | 28 | 32 | 27 | 23 | 25 | 22 | 19 | 19 | 16 | 14 |    |    | 12 |
| 8   | 51  | 39  | 32  | 27  | 46 | 36 | 29 | 25 | 29 | 24 | 21 | 23 | 19 | 17 | 17 | 15 | 13 |    |    | 10 |
| 9   | 48  | 36  | 29  | 24  | 43 | 33 | 26 | 22 | 27 | 22 | 18 | 21 | 18 | 15 | 16 | 13 | 12 |    |    | 9  |
| 10  | 45  | 33  | 26  | 21  | 40 | 30 | 24 | 20 | 25 | 20 | 17 | 20 | 16 | 14 | 15 | 12 | 11 |    |    | 9  |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 13177 | 13177 | 13177 |
| 5°  | 13209 | 12722 | 12703 |
| 10° | 13092 | 12292 | 12165 |
| 15° | 12910 | 11844 | 11580 |
| 20° | 12701 | 11347 | 10999 |
| 25° | 12431 | 10822 | 10378 |
| 30° | 12136 | 10279 | 9725  |
| 35° | 11827 | 9725  | 9076  |
| 40° | 11503 | 9142  | 8438  |
| 45° | 11146 | 8575  | 7771  |
| 50° | 10783 | 7943  | 7102  |
| 55° | 10319 | 7284  | 6424  |
| 60° | 9838  | 6557  | 5702  |
| 65° | 9389  | 5771  | 4949  |
| 70° | 8740  | 4899  | 4072  |
| 75° | 7809  | 3879  | 3161  |
| 80° | 6743  | 2725  | 2236  |
| 85° | 5254  | 1465  | 1119  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 11146 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 115.4  | 1.2       |
| 10°-20°   | 325.9  | 3.5       |
| 20°-30°   | 481.3  | 5.1       |
| 30°-40°   | 562.1  | 6.0       |
| 40°-50°   | 565.1  | 6.0       |
| 50°-60°   | 496.4  | 5.3       |
| 60°-70°   | 369.7  | 3.9       |
| 70°-80°   | 210.4  | 2.2       |
| 80°-90°   | 63.9   | 0.7       |
| 90°-100°  | 72.0   | 0.8       |
| 100°-110° | 348.1  | 3.7       |
| 110°-120° | 853.1  | 9.1       |
| 120°-130° | 1083.0 | 11.5      |
| 130°-140° | 1156.9 | 12.3      |
| 140°-150° | 1081.9 | 11.5      |
| 150°-160° | 872.6  | 9.3       |
| 160°-170° | 563.2  | 6.0       |
| 170°-180° | 194.1  | 2.1       |
| 0°-30°    | 922.6  | 9.8       |
| 0°-40°    | 1484.6 | 15.8      |
| 0°-60°    | 2546.1 | 27.0      |
| 0°-90°    | 3190.1 | 33.9      |
| 90°-120°  | 1273.3 | 13.5      |
| 90°-150°  | 4595.1 | 48.8      |
| 90°-180°  | 6225.0 | 66.1      |
| 0°-180°   | 9415.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1224 | 1224  | 1224 | 1224  | 1224 |      |
| 5°   | 1225 | 1220  | 1208 | 1219  | 1217 | 116  |
| 15°  | 1166 | 1162  | 1148 | 1157  | 1150 | 329  |
| 25°  | 1059 | 1053  | 1039 | 1040  | 1037 | 488  |
| 35°  | 916  | 910   | 896  | 890   | 884  | 573  |
| 45°  | 750  | 746   | 733  | 720   | 715  | 579  |
| 55°  | 570  | 568   | 555  | 543   | 538  | 510  |
| 65°  | 388  | 383   | 373  | 364   | 361  | 383  |
| 75°  | 205  | 201   | 198  | 193   | 190  | 219  |
| 85°  | 55   | 53    | 53   | 50    | 50   | 59   |
| 90°  | 2    | 17    | 36   | 42    | 46   | 9    |
| 95°  | 92   | 30    | 47   | 58    | 58   | 111  |
| 105° | 452  | 469   | 332  | 64    | 67   | 479  |
| 115° | 848  | 857   | 871  | 886   | 892  | 837  |
| 125° | 1195 | 1208  | 1214 | 1217  | 1220 | 1068 |
| 135° | 1488 | 1497  | 1503 | 1508  | 1503 | 1146 |
| 145° | 1717 | 1728  | 1731 | 1734  | 1734 | 1075 |
| 155° | 1892 | 1889  | 1890 | 1898  | 1889 | 872  |
| 165° | 1995 | 1990  | 1989 | 2001  | 1990 | 564  |
| 175° | 2042 | 2034  | 2036 | 2046  | 2034 | 194  |
| 180° | 2042 | 2042  | 2042 | 2042  | 2042 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1224.2 | 1224.2 | 1224.2 | 1224.2 | 1224.2 |
| 2.5°   | 1229.4 | 1225.2 | 1213.7 | 1224.2 | 1223.1 |
| 5°     | 1225.2 | 1220.0 | 1208.4 | 1218.9 | 1216.8 |
| 7.5°   | 1215.8 | 1210.5 | 1198.9 | 1208.4 | 1207.3 |
| 10°    | 1203.1 | 1197.9 | 1184.2 | 1193.7 | 1191.5 |
| 12.5°  | 1186.3 | 1182.1 | 1169.4 | 1175.8 | 1174.7 |
| 15°    | 1166.3 | 1162.1 | 1148.4 | 1156.8 | 1150.5 |
| 17.5°  | 1144.2 | 1138.9 | 1125.2 | 1131.6 | 1129.4 |
| 20°    | 1118.9 | 1112.6 | 1098.9 | 1103.1 | 1100.0 |
| 22.5°  | 1090.5 | 1084.2 | 1070.5 | 1073.7 | 1069.4 |
| 25°    | 1058.9 | 1052.6 | 1038.9 | 1040.0 | 1036.8 |
| 27.5°  | 1026.3 | 1020.0 | 1005.2 | 1006.3 | 1003.1 |
| 30°    | 990.5  | 985.2  | 970.5  | 970.5  | 963.1  |
| 32.5°  | 954.7  | 947.3  | 936.8  | 929.5  | 926.3  |
| 35°    | 915.8  | 909.5  | 895.8  | 889.5  | 884.2  |
| 37.5°  | 876.8  | 868.4  | 854.7  | 847.3  | 844.2  |
| 40°    | 835.8  | 829.5  | 814.7  | 806.3  | 802.1  |
| 42.5°  | 794.7  | 787.3  | 772.6  | 764.2  | 760.0  |
| 45°    | 750.5  | 746.3  | 732.6  | 720.0  | 714.7  |
| 47.5°  | 707.4  | 701.0  | 688.4  | 675.8  | 671.6  |
| 50°    | 663.1  | 657.9  | 644.2  | 632.6  | 626.3  |
| 52.5°  | 616.8  | 613.7  | 598.9  | 589.5  | 583.1  |
| 55°    | 569.5  | 568.4  | 554.7  | 543.1  | 537.9  |
| 57.5°  | 525.3  | 521.0  | 510.5  | 500.0  | 493.7  |
| 60°    | 476.8  | 475.8  | 463.1  | 453.7  | 448.4  |
| 62.5°  | 433.7  | 430.5  | 417.9  | 408.4  | 405.3  |
| 65°    | 388.4  | 383.1  | 372.6  | 364.2  | 361.0  |
| 67.5°  | 340.0  | 335.8  | 327.4  | 320.0  | 315.8  |
| 70°    | 296.8  | 290.5  | 284.2  | 276.8  | 271.6  |
| 72.5°  | 251.6  | 247.4  | 240.0  | 233.7  | 231.6  |
| 75°    | 205.3  | 201.0  | 197.9  | 192.6  | 189.5  |
| 77.5°  | 164.2  | 162.1  | 157.9  | 153.7  | 153.7  |
| 80°    | 124.2  | 121.0  | 118.9  | 117.9  | 117.9  |
| 82.5°  | 85.3   | 85.3   | 85.3   | 83.2   | 82.1   |
| 85°    | 54.7   | 52.6   | 52.6   | 50.5   | 50.5   |
| 87.5°  | 27.4   | 24.2   | 23.2   | 22.1   | 22.1   |
| 90°    | 1.5    | 16.7   | 36.4   | 42.5   | 45.5   |
| 92.5°  | 34.9   | 25.8   | 39.4   | 50.1   | 51.6   |
| 95°    | 92.5   | 30.3   | 47.0   | 57.6   | 57.6   |
| 97.5°  | 168.4  | 125.9  | 48.5   | 60.7   | 62.2   |
| 100°   | 256.4  | 286.7  | 50.1   | 62.2   | 63.7   |
| 102.5° | 356.5  | 376.2  | 112.3  | 62.2   | 65.2   |
| 105°   | 452.1  | 468.8  | 332.2  | 63.7   | 66.7   |
| 107.5° | 553.7  | 567.4  | 590.1  | 356.5  | 157.8  |
| 110°   | 655.4  | 667.5  | 684.2  | 634.1  | 417.2  |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 752.4  | 763.1  | 779.7  | 793.4  | 790.4  |
| 115°   | 848.0  | 857.1  | 870.8  | 885.9  | 892.0  |
| 117.5° | 942.1  | 952.7  | 960.3  | 972.4  | 973.9  |
| 120°   | 1028.5 | 1042.2 | 1046.7 | 1058.9 | 1058.9 |
| 122.5° | 1116.5 | 1127.1 | 1133.2 | 1140.8 | 1142.3 |
| 125°   | 1195.4 | 1207.5 | 1213.6 | 1216.6 | 1219.7 |
| 127.5° | 1274.3 | 1286.4 | 1294.0 | 1298.6 | 1295.5 |
| 130°   | 1347.1 | 1359.2 | 1365.3 | 1371.4 | 1368.3 |
| 132.5° | 1416.9 | 1429.0 | 1433.6 | 1439.6 | 1435.1 |
| 135°   | 1488.2 | 1497.3 | 1503.4 | 1507.9 | 1503.4 |
| 137.5° | 1548.9 | 1561.0 | 1564.0 | 1571.6 | 1568.6 |
| 140°   | 1609.6 | 1618.7 | 1623.2 | 1629.3 | 1626.2 |
| 142.5° | 1665.7 | 1674.8 | 1679.3 | 1683.9 | 1679.3 |
| 145°   | 1717.3 | 1727.9 | 1730.9 | 1734.0 | 1734.0 |
| 147.5° | 1767.3 | 1774.9 | 1777.9 | 1781.0 | 1773.4 |
| 150°   | 1812.8 | 1817.4 | 1820.4 | 1823.5 | 1818.9 |
| 152.5° | 1853.8 | 1855.3 | 1856.8 | 1862.9 | 1855.3 |
| 155°   | 1891.7 | 1888.7 | 1890.2 | 1897.8 | 1888.7 |
| 157.5° | 1922.1 | 1922.1 | 1920.5 | 1929.6 | 1917.5 |
| 160°   | 1949.4 | 1947.9 | 1946.3 | 1955.4 | 1944.8 |
| 162.5° | 1975.2 | 1970.6 | 1969.1 | 1979.7 | 1970.6 |
| 165°   | 1994.9 | 1990.3 | 1988.8 | 2000.9 | 1990.3 |
| 167.5° | 2011.6 | 2005.5 | 2005.5 | 2017.6 | 2005.5 |
| 170°   | 2025.2 | 2019.2 | 2019.2 | 2031.3 | 2019.2 |
| 172.5° | 2034.3 | 2026.7 | 2028.3 | 2040.4 | 2026.7 |
| 175°   | 2041.9 | 2034.3 | 2035.8 | 2046.5 | 2034.3 |
| 177.5° | 2044.9 | 2037.4 | 2038.9 | 2051.0 | 2035.8 |
| 180°   | 2041.9 | 2041.9 | 2041.9 | 2041.9 | 2041.9 |

(END OF REPORT)