

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: P1029642

Luminaire Tested: S122DIW-B675D1440UB2750-4F0-XX-W2A-D\_3500K

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1029642  
REPORT IS A COMBINATION OF REPORTS P986494 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122DIW-B675D1440UB2750-4F0-XX-W2A-D\_3500K  
Description: Define 2 Direct/Indirect Wall Mount with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}  
Light Source: -  
Ballast/Driver: -

**Summary**

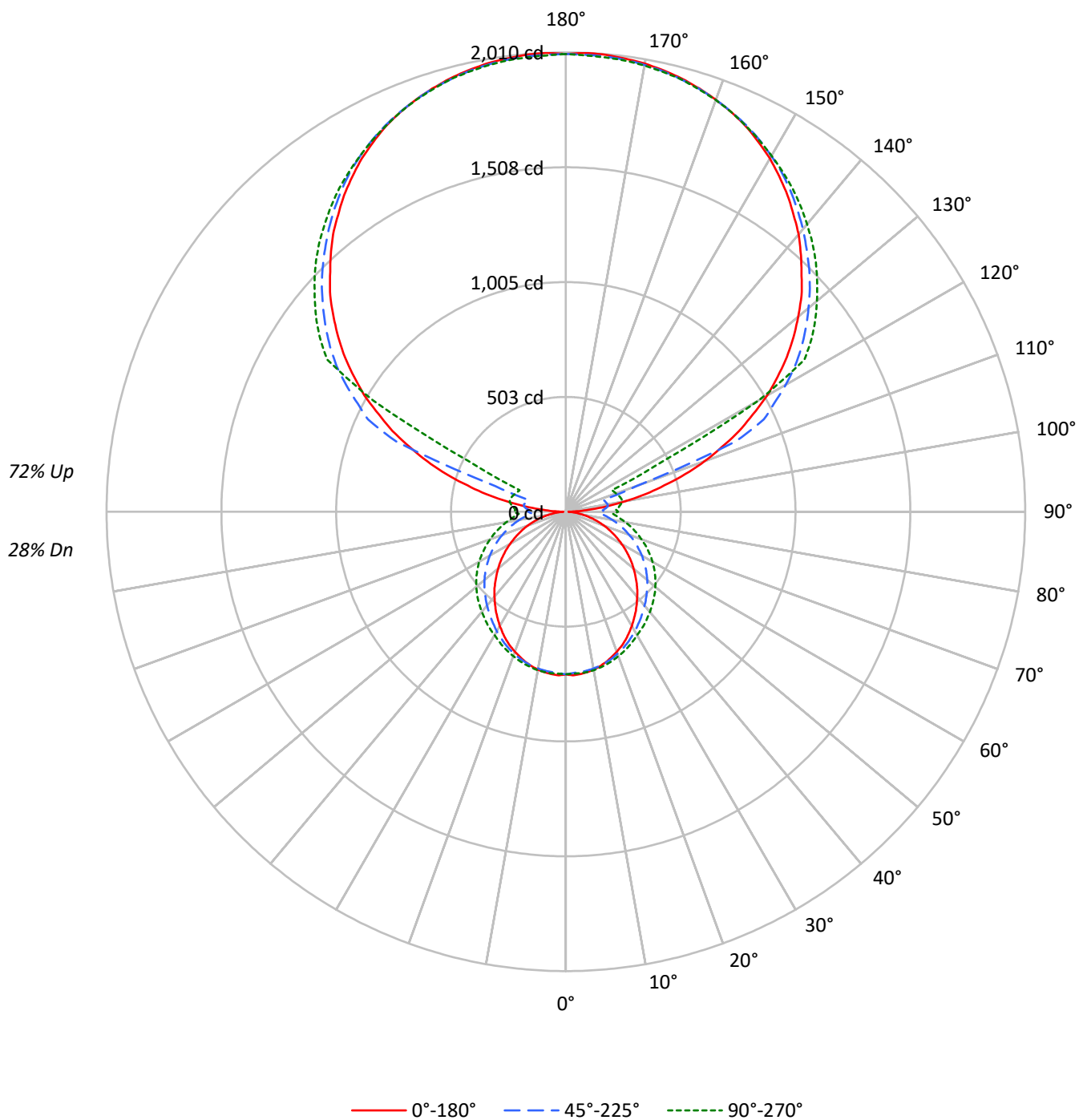
Lumens per Lamp: N/A  
Luminaire Lumens: 8589.0 lumens  
Efficiency: N/A  
Efficacy: 97.5 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect

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   | 102 | 102 | 102 | 102 | 91 | 91 | 91 | 91 | 71 | 71 | 71 | 53 | 53 | 53 | 36 | 36 | 36 |    |    | 28 |
| 1   | 92  | 87  | 83  | 80  | 82 | 78 | 75 | 72 | 61 | 59 | 56 | 45 | 44 | 42 | 30 | 30 | 29 |    |    | 22 |
| 2   | 83  | 76  | 70  | 64  | 74 | 68 | 63 | 58 | 53 | 49 | 46 | 39 | 37 | 34 | 26 | 25 | 23 |    |    | 18 |
| 3   | 76  | 66  | 59  | 53  | 67 | 59 | 53 | 48 | 46 | 42 | 38 | 34 | 31 | 29 | 23 | 21 | 20 |    |    | 15 |
| 4   | 69  | 58  | 51  | 45  | 61 | 52 | 46 | 40 | 41 | 36 | 32 | 30 | 27 | 24 | 20 | 18 | 17 |    |    | 12 |
| 5   | 63  | 52  | 44  | 38  | 56 | 46 | 40 | 34 | 36 | 31 | 27 | 27 | 24 | 21 | 18 | 16 | 14 |    |    | 11 |
| 6   | 58  | 46  | 38  | 32  | 52 | 41 | 35 | 30 | 33 | 28 | 24 | 24 | 21 | 18 | 16 | 14 | 12 |    |    | 9  |
| 7   | 54  | 42  | 34  | 28  | 48 | 37 | 31 | 26 | 29 | 24 | 21 | 22 | 18 | 16 | 15 | 13 | 11 |    |    | 8  |
| 8   | 50  | 37  | 30  | 25  | 44 | 34 | 27 | 22 | 27 | 22 | 18 | 20 | 16 | 14 | 14 | 11 | 10 |    |    | 7  |
| 9   | 46  | 34  | 27  | 22  | 41 | 31 | 24 | 20 | 24 | 19 | 16 | 18 | 15 | 12 | 13 | 10 | 9  |    |    | 6  |
| 10  | 43  | 31  | 24  | 19  | 38 | 28 | 22 | 18 | 22 | 18 | 14 | 17 | 13 | 11 | 12 | 9  | 8  |    |    | 6  |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 11259 | 11259 | 11259 |
| 5°  | 11309 | 10779 | 10717 |
| 10° | 11234 | 10404 | 10254 |
| 15° | 11076 | 10019 | 9778  |
| 20° | 10876 | 9614  | 9325  |
| 25° | 10678 | 9225  | 8916  |
| 30° | 10402 | 8831  | 8510  |
| 35° | 10121 | 8451  | 8212  |
| 40° | 9826  | 8121  | 7915  |
| 45° | 9546  | 7823  | 7658  |
| 50° | 9245  | 7548  | 7402  |
| 55° | 8926  | 7255  | 7142  |
| 60° | 8539  | 6952  | 6870  |
| 65° | 8134  | 6603  | 6555  |
| 70° | 7678  | 6226  | 6218  |
| 75° | 7093  | 5851  | 5899  |
| 80° | 6171  | 5460  | 5569  |
| 85° | 5241  | 5092  | 5284  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 9546 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 67.4   | 0.8       |
| 10°-20°   | 193.4  | 2.3       |
| 20°-30°   | 293.0  | 3.4       |
| 30°-40°   | 356.8  | 4.2       |
| 40°-50°   | 383.9  | 4.5       |
| 50°-60°   | 372.8  | 4.3       |
| 60°-70°   | 325.6  | 3.8       |
| 70°-80°   | 250.6  | 2.9       |
| 80°-90°   | 171.4  | 2.0       |
| 90°-100°  | 181.8  | 2.1       |
| 100°-110° | 330.7  | 3.9       |
| 110°-120° | 708.8  | 8.3       |
| 120°-130° | 1114.0 | 13.0      |
| 130°-140° | 1163.4 | 13.5      |
| 140°-150° | 1071.3 | 12.5      |
| 150°-160° | 859.5  | 10.0      |
| 160°-170° | 553.8  | 6.4       |
| 170°-180° | 190.6  | 2.2       |
| 0°-30°    | 553.8  | 6.4       |
| 0°-40°    | 910.7  | 10.6      |
| 0°-60°    | 1667.4 | 19.4      |
| 0°-90°    | 2414.9 | 28.1      |
| 90°-120°  | 1221.3 | 14.2      |
| 90°-150°  | 4570.0 | 53.2      |
| 90°-180°  | 6174.0 | 71.9      |
| 0°-180°   | 8589.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 711  | 711   | 711  | 711   | 711  |      |
| 5°   | 713  | 710   | 704  | 710   | 709  | 68   |
| 15°  | 680  | 682   | 682  | 692   | 691  | 192  |
| 25°  | 618  | 626   | 635  | 647   | 650  | 284  |
| 35°  | 533  | 550   | 570  | 593   | 600  | 333  |
| 45°  | 437  | 465   | 501  | 533   | 543  | 337  |
| 55°  | 335  | 372   | 426  | 463   | 476  | 300  |
| 65°  | 229  | 279   | 340  | 382   | 396  | 227  |
| 75°  | 127  | 184   | 250  | 295   | 308  | 134  |
| 85°  | 37   | 101   | 167  | 210   | 225  | 39   |
| 90°  | 12   | 88    | 165  | 214   | 229  | 13   |
| 95°  | 102  | 103   | 175  | 222   | 232  | 118  |
| 105° | 446  | 519   | 177  | 229   | 246  | 477  |
| 115° | 837  | 873   | 956  | 316   | 223  | 824  |
| 125° | 1180 | 1199  | 1260 | 1298  | 1311 | 1053 |
| 135° | 1459 | 1482  | 1505 | 1542  | 1547 | 1127 |
| 145° | 1691 | 1690  | 1714 | 1731  | 1729 | 1058 |
| 155° | 1862 | 1849  | 1867 | 1875  | 1864 | 858  |
| 165° | 1962 | 1954  | 1958 | 1968  | 1958 | 554  |
| 175° | 2007 | 1997  | 2000 | 2010  | 1996 | 191  |
| 180° | 2003 | 2003  | 2003 | 2003  | 2003 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 711.3 | 711.3 | 711.3 | 711.3 | 711.3 |
| 2.5°   | 716.4 | 713.3 | 706.1 | 711.3 | 709.2 |
| 5°     | 713.3 | 710.3 | 704.1 | 710.3 | 709.2 |
| 7.5°   | 708.2 | 706.1 | 701.0 | 708.2 | 707.2 |
| 10°    | 702.0 | 699.9 | 696.8 | 705.1 | 704.1 |
| 12.5°  | 691.7 | 692.7 | 690.7 | 698.9 | 697.9 |
| 15°    | 680.4 | 682.4 | 682.4 | 691.7 | 690.7 |
| 17.5°  | 665.9 | 670.0 | 673.1 | 682.4 | 682.4 |
| 20°    | 651.5 | 656.6 | 660.8 | 672.1 | 672.1 |
| 22.5°  | 636.0 | 642.2 | 648.4 | 659.7 | 661.8 |
| 25°    | 618.5 | 625.7 | 635.0 | 647.4 | 650.5 |
| 27.5°  | 597.9 | 609.2 | 619.5 | 635.0 | 637.1 |
| 30°    | 577.3 | 590.7 | 604.1 | 620.6 | 623.7 |
| 32.5°  | 554.6 | 570.1 | 586.5 | 606.1 | 612.3 |
| 35°    | 532.9 | 550.5 | 570.1 | 592.7 | 600.0 |
| 37.5°  | 509.2 | 528.8 | 553.6 | 578.3 | 585.5 |
| 40°    | 485.5 | 508.2 | 536.0 | 562.8 | 572.1 |
| 42.5°  | 462.8 | 485.5 | 518.5 | 548.4 | 557.7 |
| 45°    | 437.1 | 464.9 | 501.0 | 532.9 | 543.3 |
| 47.5°  | 412.3 | 442.2 | 483.5 | 516.5 | 527.8 |
| 50°    | 386.6 | 418.5 | 464.9 | 500.0 | 511.3 |
| 52.5°  | 361.8 | 395.8 | 445.3 | 481.4 | 493.8 |
| 55°    | 335.0 | 372.1 | 425.7 | 462.8 | 476.2 |
| 57.5°  | 309.3 | 350.5 | 404.1 | 444.3 | 457.7 |
| 60°    | 281.4 | 325.7 | 384.5 | 423.7 | 438.1 |
| 62.5°  | 256.7 | 303.1 | 361.8 | 404.1 | 417.5 |
| 65°    | 228.8 | 279.4 | 340.2 | 382.4 | 395.8 |
| 67.5°  | 204.1 | 256.7 | 318.5 | 360.8 | 375.2 |
| 70°    | 177.3 | 230.9 | 294.8 | 339.1 | 351.5 |
| 72.5°  | 152.6 | 208.2 | 273.2 | 316.5 | 331.9 |
| 75°    | 126.8 | 184.5 | 250.5 | 294.8 | 308.2 |
| 77.5°  | 102.1 | 161.8 | 228.8 | 273.2 | 287.6 |
| 80°    | 77.3  | 140.2 | 207.2 | 250.5 | 264.9 |
| 82.5°  | 56.7  | 118.5 | 186.6 | 229.9 | 243.3 |
| 85°    | 37.1  | 101.0 | 167.0 | 210.3 | 224.7 |
| 87.5°  | 22.7  | 84.5  | 150.5 | 192.8 | 206.2 |
| 90°    | 11.7  | 87.5  | 165.1 | 213.5 | 228.8 |
| 92.5°  | 45.5  | 94.3  | 161.6 | 204.7 | 218.5 |
| 95°    | 102.4 | 103.1 | 175.0 | 221.5 | 232.4 |
| 97.5°  | 176.8 | 102.2 | 185.2 | 227.8 | 241.5 |
| 100°   | 263.7 | 103.4 | 185.7 | 235.4 | 249.7 |
| 102.5° | 358.4 | 389.5 | 181.4 | 234.4 | 250.1 |
| 105°   | 445.8 | 519.0 | 177.1 | 229.0 | 246.2 |
| 107.5° | 548.6 | 609.6 | 172.7 | 223.7 | 240.8 |
| 110°   | 646.1 | 697.1 | 328.9 | 216.9 | 234.1 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 738.8  | 781.4  | 804.2  | 212.6  | 228.3  |
| 115°   | 837.4  | 873.4  | 956.1  | 316.0  | 222.9  |
| 117.5° | 921.9  | 959.1  | 1027.0 | 850.8  | 481.4  |
| 120°   | 1017.5 | 1043.4 | 1110.7 | 1157.0 | 972.7  |
| 122.5° | 1098.7 | 1122.9 | 1190.1 | 1226.6 | 1237.3 |
| 125°   | 1180.3 | 1199.1 | 1259.6 | 1297.6 | 1311.3 |
| 127.5° | 1255.7 | 1274.8 | 1324.5 | 1364.7 | 1375.4 |
| 130°   | 1326.7 | 1348.8 | 1386.4 | 1427.0 | 1433.9 |
| 132.5° | 1399.1 | 1416.9 | 1448.3 | 1485.0 | 1491.8 |
| 135°   | 1458.9 | 1482.1 | 1505.4 | 1541.6 | 1546.9 |
| 137.5° | 1522.7 | 1540.0 | 1559.7 | 1593.8 | 1596.7 |
| 140°   | 1585.0 | 1595.6 | 1613.6 | 1643.1 | 1642.0 |
| 142.5° | 1637.1 | 1646.3 | 1665.1 | 1689.1 | 1687.0 |
| 145°   | 1691.2 | 1689.8 | 1714.4 | 1730.7 | 1728.6 |
| 147.5° | 1739.0 | 1734.7 | 1759.3 | 1767.6 | 1764.9 |
| 150°   | 1785.4 | 1775.3 | 1798.5 | 1807.1 | 1799.9 |
| 152.5° | 1824.5 | 1812.9 | 1834.7 | 1843.4 | 1833.2 |
| 155°   | 1862.2 | 1849.2 | 1866.6 | 1875.3 | 1863.7 |
| 157.5° | 1892.7 | 1881.1 | 1894.1 | 1904.2 | 1892.7 |
| 160°   | 1918.7 | 1910.0 | 1918.7 | 1927.4 | 1917.3 |
| 162.5° | 1941.9 | 1933.2 | 1940.5 | 1950.6 | 1937.6 |
| 165°   | 1962.2 | 1953.5 | 1957.9 | 1968.0 | 1957.9 |
| 167.5° | 1978.2 | 1969.5 | 1973.8 | 1983.9 | 1970.9 |
| 170°   | 1991.2 | 1982.5 | 1985.4 | 1995.5 | 1982.5 |
| 172.5° | 1999.9 | 1991.2 | 1994.1 | 2004.2 | 1991.2 |
| 175°   | 2007.1 | 1997.0 | 1999.9 | 2010.0 | 1995.5 |
| 177.5° | 2010.0 | 1999.9 | 2001.3 | 2011.5 | 1998.4 |
| 180°   | 2002.8 | 2002.8 | 2002.8 | 2002.8 | 2002.8 |

(END OF REPORT)