

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: P1029646

Luminaire Tested: S122DIW-B675D1440UB2750-4F0-XX-W2A-F1\_3000K

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1029646  
REPORT IS A COMBINATION OF REPORTS P986498 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-F1\_3000K  
Description: Define 2 Direct/Indirect Wall Mount with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}  
Light Source: -  
Ballast/Driver: -

**Summary**

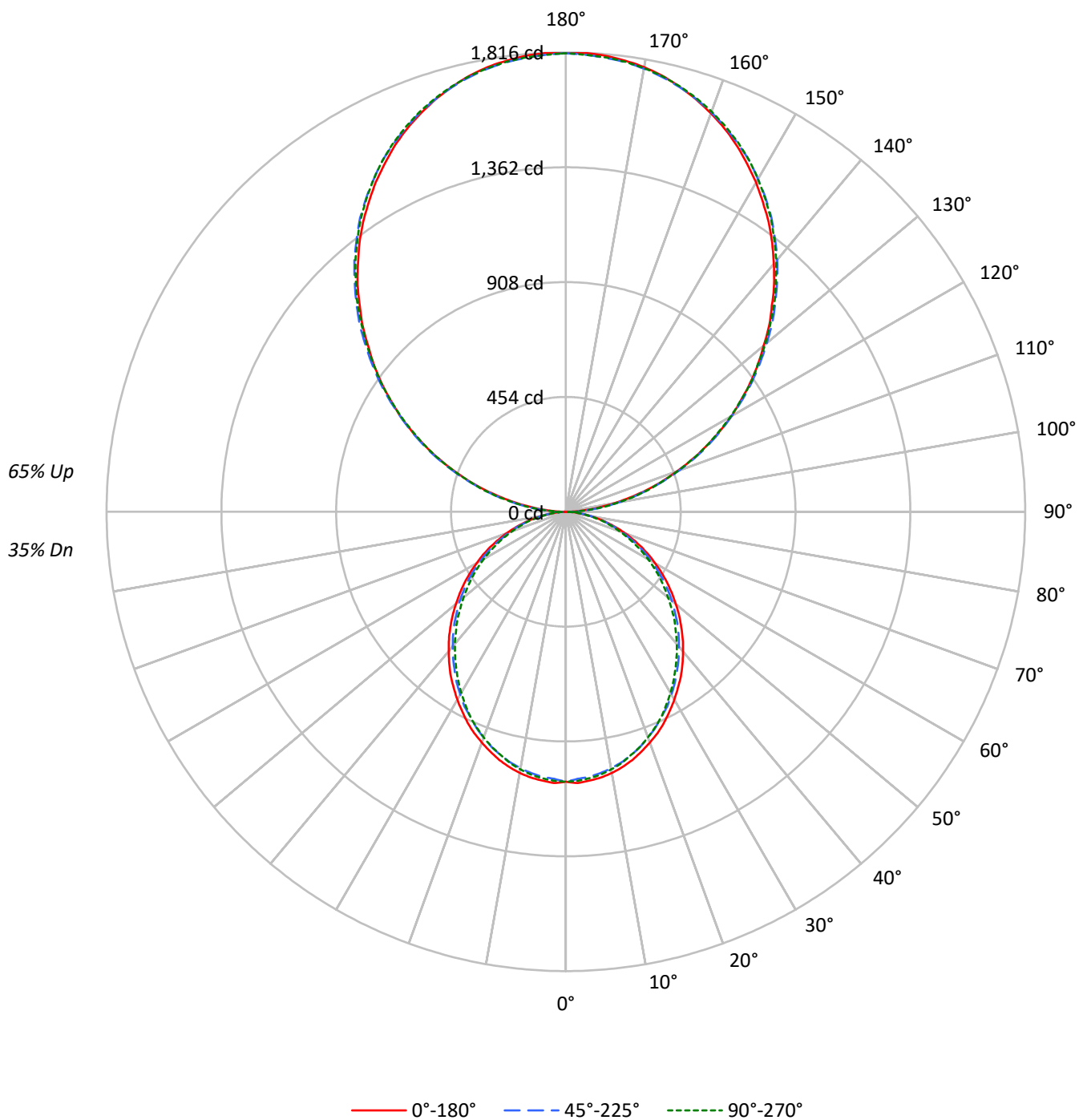
Lumens per Lamp: N/A  
Luminaire Lumens: 7788.0 lumens  
Efficiency: N/A  
Efficacy: 88.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect

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 |
| RCR |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 104 | 104 | 104 | 104 | 94 | 94 | 94 | 94 | 75 | 75 | 75 | 58 | 58 | 58 | 42 | 42 | 42 |
| 1   | 94  | 90  | 86  | 83  | 85 | 82 | 78 | 76 | 66 | 63 | 61 | 51 | 49 | 48 | 37 | 36 | 36 |
| 2   | 86  | 79  | 73  | 68  | 77 | 71 | 66 | 62 | 57 | 54 | 51 | 45 | 42 | 40 | 33 | 31 | 30 |
| 3   | 78  | 69  | 62  | 56  | 71 | 63 | 57 | 52 | 51 | 46 | 43 | 39 | 36 | 34 | 29 | 27 | 26 |
| 4   | 72  | 61  | 53  | 48  | 64 | 56 | 49 | 44 | 45 | 40 | 36 | 35 | 32 | 29 | 26 | 24 | 22 |
| 5   | 66  | 54  | 46  | 41  | 59 | 49 | 43 | 37 | 40 | 35 | 31 | 31 | 28 | 25 | 23 | 21 | 19 |
| 6   | 60  | 49  | 41  | 35  | 54 | 44 | 37 | 32 | 36 | 31 | 27 | 28 | 25 | 22 | 21 | 19 | 17 |
| 7   | 56  | 44  | 36  | 31  | 50 | 40 | 33 | 28 | 33 | 28 | 24 | 26 | 22 | 19 | 19 | 17 | 15 |
| 8   | 52  | 40  | 32  | 27  | 47 | 36 | 30 | 25 | 30 | 25 | 21 | 24 | 20 | 17 | 18 | 15 | 13 |
| 9   | 48  | 36  | 29  | 24  | 43 | 33 | 27 | 22 | 27 | 22 | 19 | 22 | 18 | 15 | 16 | 14 | 12 |
| 10  | 45  | 33  | 26  | 21  | 41 | 30 | 24 | 20 | 25 | 20 | 17 | 20 | 16 | 14 | 15 | 13 | 11 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 16891 | 16891 | 16891 |
| 5°  | 16919 | 16102 | 15987 |
| 10° | 16782 | 15368 | 15062 |
| 15° | 16536 | 14627 | 14090 |
| 20° | 16204 | 13824 | 13168 |
| 25° | 15873 | 12984 | 12249 |
| 30° | 15456 | 12195 | 11284 |
| 35° | 15064 | 11362 | 10336 |
| 40° | 14578 | 10541 | 9441  |
| 45° | 14096 | 9725  | 8563  |
| 50° | 13569 | 8896  | 7650  |
| 55° | 13014 | 8010  | 6787  |
| 60° | 12393 | 7049  | 5890  |
| 65° | 11710 | 6075  | 4946  |
| 70° | 10844 | 5005  | 3993  |
| 75° | 9644  | 3859  | 3084  |
| 80° | 8191  | 2622  | 1985  |
| 85° | 5947  | 1220  | 844   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 14096 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 100.4  | 1.3       |
| 10°-20°   | 282.6  | 3.6       |
| 20°-30°   | 415.3  | 5.3       |
| 30°-40°   | 482.3  | 6.2       |
| 40°-50°   | 481.7  | 6.2       |
| 50°-60°   | 420.0  | 5.4       |
| 60°-70°   | 310.5  | 4.0       |
| 70°-80°   | 175.7  | 2.3       |
| 80°-90°   | 51.5   | 0.7       |
| 90°-100°  | 112.1  | 1.4       |
| 100°-110° | 356.5  | 4.6       |
| 110°-120° | 610.0  | 7.8       |
| 120°-130° | 802.2  | 10.3      |
| 130°-140° | 900.4  | 11.6      |
| 140°-150° | 883.0  | 11.3      |
| 150°-160° | 740.7  | 9.5       |
| 160°-170° | 491.2  | 6.3       |
| 170°-180° | 171.7  | 2.2       |
| 0°-30°    | 798.3  | 10.3      |
| 0°-40°    | 1280.6 | 16.4      |
| 0°-60°    | 2182.4 | 28.0      |
| 0°-90°    | 2720.1 | 34.9      |
| 90°-120°  | 1078.6 | 13.8      |
| 90°-150°  | 3664.2 | 47.0      |
| 90°-180°  | 5068.0 | 65.1      |
| 0°-180°   | 7788.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1067 | 1067  | 1067 | 1067  | 1067 |      |
| 5°   | 1067 | 1063  | 1052 | 1060  | 1058 | 101  |
| 15°  | 1016 | 1010  | 996  | 1000  | 995  | 286  |
| 25°  | 919  | 911   | 894  | 896   | 894  | 423  |
| 35°  | 793  | 783   | 766  | 760   | 755  | 495  |
| 45°  | 645  | 638   | 623  | 612   | 608  | 498  |
| 55°  | 488  | 482   | 470  | 458   | 452  | 437  |
| 65°  | 329  | 323   | 313  | 304   | 299  | 326  |
| 75°  | 172  | 170   | 165  | 159   | 161  | 184  |
| 85°  | 42   | 41    | 40   | 37    | 36   | 47   |
| 90°  | 2    | 20    | 54   | 50    | 52   | 8    |
| 95°  | 80   | 95    | 98   | 98    | 95   | 89   |
| 105° | 329  | 334   | 336  | 340   | 340  | 347  |
| 115° | 612  | 621   | 618  | 616   | 612  | 605  |
| 125° | 890  | 904   | 899  | 895   | 893  | 796  |
| 135° | 1152 | 1169  | 1172 | 1170  | 1166 | 890  |
| 145° | 1398 | 1409  | 1418 | 1420  | 1413 | 874  |
| 155° | 1598 | 1603  | 1608 | 1615  | 1611 | 736  |
| 165° | 1739 | 1738  | 1738 | 1748  | 1741 | 491  |
| 175° | 1810 | 1805  | 1802 | 1813  | 1804 | 172  |
| 180° | 1813 | 1813  | 1813 | 1813  | 1813 |      |

TEST NUMBER: P1029646

CATALOG NUMBER: S122DIW-B675D1440UB2750-4F0-XX-W2A-F1\_3000K

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1067.1 | 1067.1 | 1067.1 | 1067.1 | 1067.1 |
| 2.5°   | 1073.3 | 1068.2 | 1056.9 | 1067.1 | 1065.1 |
| 5°     | 1067.1 | 1063.0 | 1051.8 | 1060.0 | 1057.9 |
| 7.5°   | 1060.0 | 1053.8 | 1042.5 | 1050.7 | 1048.7 |
| 10°    | 1048.7 | 1041.5 | 1029.2 | 1037.4 | 1034.3 |
| 12.5°  | 1033.3 | 1027.1 | 1014.8 | 1019.9 | 1017.9 |
| 15°    | 1015.8 | 1009.7 | 996.3  | 1000.5 | 995.3  |
| 17.5°  | 994.3  | 988.1  | 974.8  | 979.9  | 974.8  |
| 20°    | 970.7  | 964.5  | 950.2  | 953.3  | 949.1  |
| 22.5°  | 947.1  | 937.9  | 924.5  | 924.5  | 922.5  |
| 25°    | 919.4  | 911.2  | 893.7  | 895.8  | 893.7  |
| 27.5°  | 888.6  | 881.4  | 868.1  | 865.0  | 859.9  |
| 30°    | 857.8  | 849.6  | 834.2  | 831.1  | 827.0  |
| 32.5°  | 825.0  | 818.8  | 802.4  | 796.3  | 792.2  |
| 35°    | 793.2  | 782.9  | 766.5  | 760.3  | 755.2  |
| 37.5°  | 757.3  | 748.0  | 731.6  | 724.4  | 719.3  |
| 40°    | 720.3  | 712.1  | 695.7  | 686.5  | 682.4  |
| 42.5°  | 684.4  | 676.2  | 659.8  | 649.5  | 643.4  |
| 45°    | 645.4  | 638.2  | 622.8  | 611.6  | 607.5  |
| 47.5°  | 607.5  | 600.3  | 583.9  | 572.6  | 566.4  |
| 50°    | 567.4  | 562.3  | 547.9  | 533.6  | 528.4  |
| 52.5°  | 528.4  | 521.3  | 507.9  | 496.6  | 489.5  |
| 55°    | 488.4  | 482.3  | 470.0  | 457.6  | 452.5  |
| 57.5°  | 448.4  | 443.3  | 429.9  | 417.6  | 413.5  |
| 60°    | 408.4  | 404.3  | 389.9  | 378.6  | 375.6  |
| 62.5°  | 369.4  | 362.2  | 352.0  | 341.7  | 337.6  |
| 65°    | 329.4  | 323.2  | 313.0  | 303.7  | 298.6  |
| 67.5°  | 288.3  | 283.2  | 274.0  | 266.8  | 262.7  |
| 70°    | 250.4  | 246.3  | 237.0  | 229.8  | 225.7  |
| 72.5°  | 211.4  | 207.3  | 202.1  | 195.0  | 191.9  |
| 75°    | 172.4  | 170.3  | 165.2  | 159.0  | 161.1  |
| 77.5°  | 137.5  | 133.4  | 131.3  | 128.3  | 125.2  |
| 80°    | 102.6  | 101.6  | 99.5   | 96.5   | 94.4   |
| 82.5°  | 69.8   | 69.8   | 68.7   | 64.6   | 64.6   |
| 85°    | 42.1   | 41.0   | 40.0   | 36.9   | 35.9   |
| 87.5°  | 18.5   | 16.4   | 14.4   | 11.3   | 10.3   |
| 90°    | 1.5    | 19.9   | 53.5   | 50.5   | 52.0   |
| 92.5°  | 33.7   | 45.9   | 47.4   | 48.9   | 48.9   |
| 95°    | 79.5   | 94.8   | 97.9   | 97.9   | 94.8   |
| 97.5°  | 133.1  | 146.8  | 153.0  | 153.0  | 153.0  |
| 100°   | 194.3  | 206.5  | 211.1  | 211.1  | 209.6  |
| 102.5° | 258.5  | 267.7  | 273.8  | 275.3  | 273.8  |
| 105°   | 328.9  | 333.5  | 336.5  | 339.6  | 339.6  |
| 107.5° | 399.2  | 405.4  | 405.4  | 406.9  | 399.2  |
| 110°   | 466.5  | 475.7  | 475.7  | 475.7  | 471.1  |

TEST NUMBER: P1029646

CATALOG NUMBER: S122DIW-B675D1440UB2750-4F0-XX-W2A-F1\_3000K

**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 540.0  | 549.2  | 547.6  | 543.0  | 540.0  |
| 115°   | 611.9  | 621.0  | 618.0  | 616.5  | 611.9  |
| 117.5° | 683.8  | 696.0  | 688.4  | 683.8  | 679.2  |
| 120°   | 755.7  | 767.9  | 755.7  | 755.7  | 751.1  |
| 122.5° | 821.4  | 836.7  | 829.1  | 824.5  | 821.4  |
| 125°   | 890.3  | 904.0  | 899.4  | 894.9  | 893.3  |
| 127.5° | 957.6  | 974.4  | 968.3  | 962.2  | 957.6  |
| 130°   | 1020.3 | 1040.2 | 1037.1 | 1034.1 | 1027.9 |
| 132.5° | 1090.7 | 1105.9 | 1107.5 | 1099.8 | 1095.2 |
| 135°   | 1151.8 | 1168.7 | 1171.7 | 1170.2 | 1165.6 |
| 137.5° | 1219.1 | 1232.9 | 1236.0 | 1234.4 | 1228.3 |
| 140°   | 1278.8 | 1292.6 | 1300.2 | 1300.2 | 1294.1 |
| 142.5° | 1340.0 | 1353.8 | 1358.3 | 1359.9 | 1353.8 |
| 145°   | 1398.1 | 1408.8 | 1418.0 | 1419.5 | 1413.4 |
| 147.5° | 1450.1 | 1463.9 | 1470.0 | 1473.1 | 1467.0 |
| 150°   | 1503.7 | 1512.8 | 1519.0 | 1523.5 | 1519.0 |
| 152.5° | 1551.1 | 1560.3 | 1567.9 | 1574.0 | 1567.9 |
| 155°   | 1598.5 | 1603.1 | 1607.7 | 1615.3 | 1610.7 |
| 157.5° | 1639.8 | 1642.9 | 1645.9 | 1656.6 | 1649.0 |
| 160°   | 1676.5 | 1679.6 | 1681.1 | 1690.3 | 1684.2 |
| 162.5° | 1710.2 | 1710.2 | 1711.7 | 1722.4 | 1714.8 |
| 165°   | 1739.2 | 1737.7 | 1737.7 | 1748.4 | 1740.8 |
| 167.5° | 1765.2 | 1760.6 | 1760.6 | 1771.4 | 1763.7 |
| 170°   | 1785.1 | 1780.5 | 1779.0 | 1789.7 | 1780.5 |
| 172.5° | 1798.9 | 1794.3 | 1792.8 | 1803.5 | 1794.3 |
| 175°   | 1809.6 | 1805.0 | 1801.9 | 1812.7 | 1803.5 |
| 177.5° | 1815.7 | 1811.1 | 1808.1 | 1817.2 | 1808.1 |
| 180°   | 1812.7 | 1812.7 | 1812.7 | 1812.7 | 1812.7 |

(END OF REPORT)