

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: P1031722

Luminaire Tested: S123DIW-B560D1030UB50-4F0-XX-W2A-F1

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1031722  
REPORT IS A COMBINATION OF REPORTS P991573 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123DIW-B560D1030UB50-4F0-XX-W2A-F1  
Description: Define 3 Direct/Indirect Wall Mount with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}  
Light Source: -  
Ballast/Driver: -

**Summary**

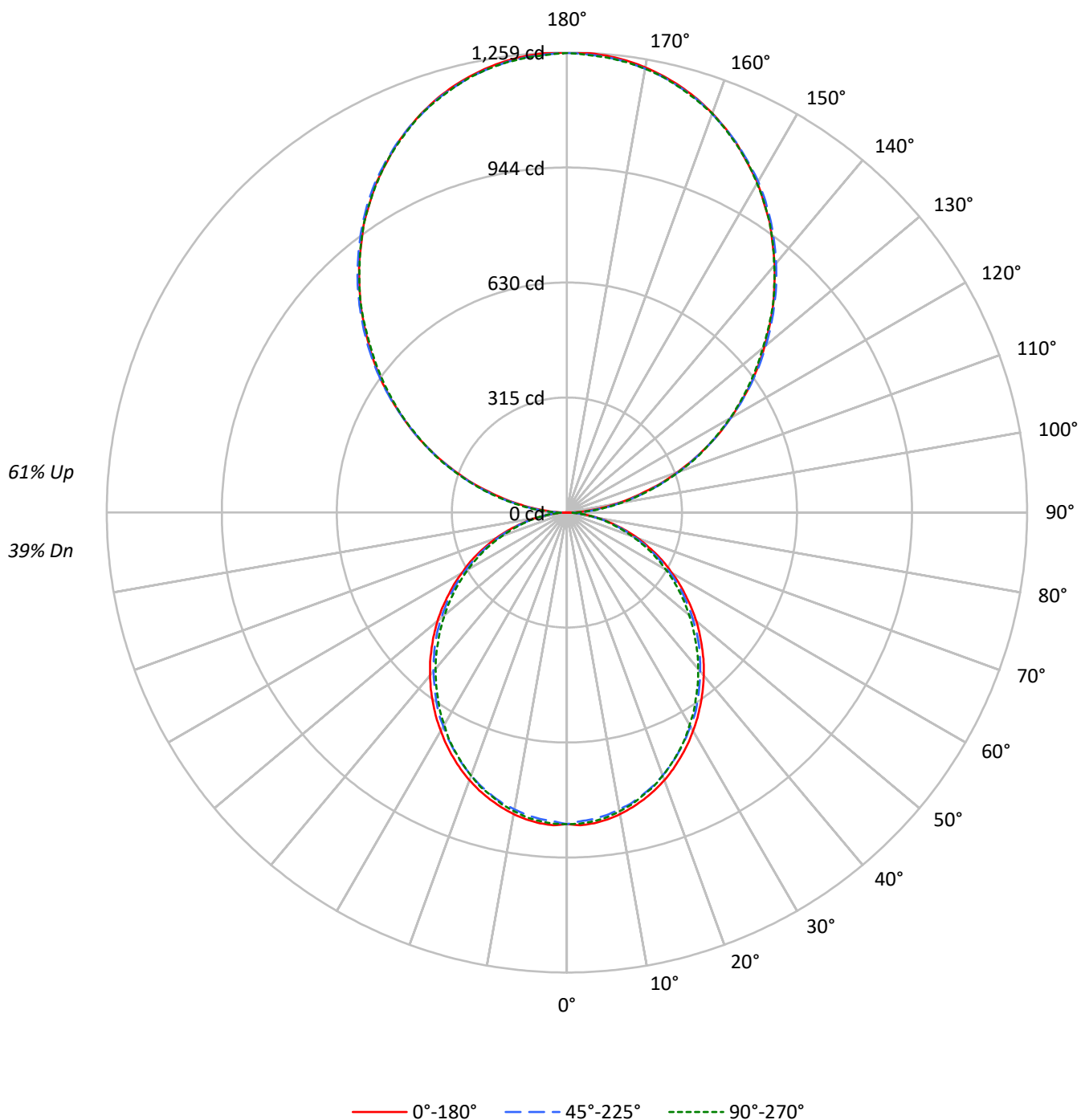
Lumens per Lamp: N/A  
Luminaire Lumens: 5708.0 lumens  
Efficiency: N/A  
Efficacy: 102.8 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.3  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect

Input Watts (W): 55.5  
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

TEST NUMBER: P1031722

CATALOG NUMBER: S123DIW-B560D1030UB50-4F0-XX-W2A-F1

### Luminous Intensity Polar Plot



TEST NUMBER: P1031722

CATALOG NUMBER: S123DIW-B560D1030UB50-4F0-XX-W2A-F1

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| RF  | 20  |     |     |     | 20 |    |    |    |    | 20 |    |    |    |    | 20 |    |    |    |    | 20 |
| RC  | 80  |     |     |     | 70 |    |    |    |    | 50 |    |    |    |    | 30 |    |    |    |    | 0  |
| RW  | 70  | 50  | 30  | 10  | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 |
| RCR |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 105 | 105 | 105 | 105 | 95 | 95 | 95 | 95 | 77 | 77 | 77 | 61 | 61 | 61 | 46 | 46 | 46 | 39 |    |    |
| 1   | 95  | 91  | 87  | 84  | 86 | 83 | 80 | 77 | 68 | 65 | 63 | 53 | 52 | 51 | 41 | 40 | 39 | 33 |    |    |
| 2   | 87  | 79  | 73  | 68  | 79 | 72 | 67 | 63 | 59 | 55 | 52 | 47 | 44 | 42 | 36 | 34 | 33 | 27 |    |    |
| 3   | 79  | 70  | 63  | 57  | 72 | 64 | 57 | 52 | 52 | 48 | 44 | 41 | 38 | 36 | 32 | 29 | 28 | 23 |    |    |
| 4   | 72  | 62  | 54  | 48  | 65 | 56 | 50 | 44 | 46 | 41 | 37 | 37 | 33 | 30 | 28 | 26 | 24 | 20 |    |    |
| 5   | 66  | 55  | 47  | 41  | 60 | 50 | 43 | 38 | 41 | 36 | 32 | 33 | 29 | 26 | 25 | 23 | 21 | 17 |    |    |
| 6   | 61  | 49  | 41  | 35  | 55 | 45 | 38 | 33 | 37 | 32 | 28 | 30 | 26 | 23 | 23 | 20 | 18 | 15 |    |    |
| 7   | 56  | 44  | 36  | 31  | 51 | 41 | 34 | 29 | 34 | 28 | 24 | 27 | 23 | 20 | 21 | 18 | 16 | 13 |    |    |
| 8   | 52  | 40  | 32  | 27  | 47 | 37 | 30 | 25 | 31 | 25 | 22 | 25 | 21 | 18 | 19 | 16 | 14 | 12 |    |    |
| 9   | 49  | 37  | 29  | 24  | 44 | 34 | 27 | 23 | 28 | 23 | 19 | 23 | 19 | 16 | 18 | 15 | 13 | 11 |    |    |
| 10  | 45  | 33  | 26  | 22  | 41 | 31 | 24 | 20 | 26 | 21 | 17 | 21 | 17 | 15 | 16 | 14 | 12 | 10 |    |    |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 9182 | 9182 | 9182 |
| 5°  | 9204 | 8865 | 8852 |
| 10° | 9122 | 8564 | 8477 |
| 15° | 8996 | 8253 | 8069 |
| 20° | 8851 | 7906 | 7664 |
| 25° | 8663 | 7541 | 7232 |
| 30° | 8457 | 7162 | 6776 |
| 35° | 8241 | 6776 | 6324 |
| 40° | 8015 | 6370 | 5880 |
| 45° | 7767 | 5975 | 5415 |
| 50° | 7514 | 5535 | 4949 |
| 55° | 7190 | 5075 | 4476 |
| 60° | 6857 | 4569 | 3974 |
| 65° | 6541 | 4021 | 3449 |
| 70° | 6090 | 3413 | 2837 |
| 75° | 5440 | 2703 | 2202 |
| 80° | 4696 | 1900 | 1557 |
| 85° | 3660 | 1022 | 780  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 7767 cd/sqm

TEST NUMBER: P1031722

CATALOG NUMBER: S123DIW-B560D1030UB50-4F0-XX-W2A-F1

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 80.4   | 1.4       |
| 10°-20°   | 227.1  | 4.0       |
| 20°-30°   | 335.4  | 5.9       |
| 30°-40°   | 391.7  | 6.9       |
| 40°-50°   | 393.8  | 6.9       |
| 50°-60°   | 345.9  | 6.1       |
| 60°-70°   | 257.6  | 4.5       |
| 70°-80°   | 146.6  | 2.6       |
| 80°-90°   | 44.3   | 0.8       |
| 90°-100°  | 81.0   | 1.4       |
| 100°-110° | 245.1  | 4.3       |
| 110°-120° | 417.2  | 7.3       |
| 120°-130° | 548.9  | 9.6       |
| 130°-140° | 617.0  | 10.8      |
| 140°-150° | 606.5  | 10.6      |
| 150°-160° | 510.6  | 8.9       |
| 160°-170° | 340.0  | 6.0       |
| 170°-180° | 119.0  | 2.1       |
| 0°-30°    | 642.8  | 11.3      |
| 0°-40°    | 1034.5 | 18.1      |
| 0°-60°    | 1774.1 | 31.1      |
| 0°-90°    | 2222.7 | 38.9      |
| 90°-120°  | 743.3  | 13.0      |
| 90°-150°  | 2515.7 | 44.1      |
| 90°-180°  | 3485.0 | 61.1      |
| 0°-180°   | 5708.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 853  | 853   | 853  | 853   | 853  |      |
| 5°   | 854  | 850   | 842  | 849   | 848  | 81   |
| 15°  | 813  | 810   | 800  | 806   | 802  | 229  |
| 25°  | 738  | 734   | 724  | 725   | 722  | 340  |
| 35°  | 638  | 634   | 624  | 620   | 616  | 399  |
| 45°  | 523  | 520   | 510  | 502   | 498  | 404  |
| 55°  | 397  | 396   | 386  | 378   | 375  | 355  |
| 65°  | 271  | 267   | 260  | 254   | 252  | 267  |
| 75°  | 143  | 140   | 138  | 134   | 132  | 153  |
| 85°  | 38   | 37    | 37   | 35    | 35   | 41   |
| 90°  | 1    | 11    | 24   | 28    | 30   | 7    |
| 95°  | 58   | 65    | 73   | 77    | 77   | 64   |
| 105° | 222  | 224   | 233  | 233   | 235  | 238  |
| 115° | 420  | 423   | 421  | 422   | 421  | 416  |
| 125° | 615  | 618   | 616  | 612   | 608  | 548  |
| 135° | 797  | 803   | 802  | 798   | 796  | 614  |
| 145° | 967  | 969   | 972  | 971   | 967  | 604  |
| 155° | 1108 | 1108  | 1109 | 1113  | 1106 | 510  |
| 165° | 1206 | 1204  | 1204 | 1210  | 1202 | 340  |
| 175° | 1255 | 1251  | 1251 | 1257  | 1250 | 119  |
| 180° | 1258 | 1258  | 1258 | 1258  | 1258 |      |

TEST NUMBER: P1031722

CATALOG NUMBER: S123DIW-B560D1030UB50-4F0-XX-W2A-F1

**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 853.0 | 853.0 | 853.0 | 853.0 | 853.0 |
| 2.5°   | 856.7 | 853.7 | 845.7 | 853.0 | 852.3 |
| 5°     | 853.7 | 850.1 | 842.0 | 849.3 | 847.9 |
| 7.5°   | 847.1 | 843.5 | 835.4 | 842.0 | 841.3 |
| 10°    | 838.3 | 834.7 | 825.1 | 831.7 | 830.3 |
| 12.5°  | 826.6 | 823.7 | 814.9 | 819.3 | 818.5 |
| 15°    | 812.7 | 809.7 | 800.2 | 806.1 | 801.7 |
| 17.5°  | 797.3 | 793.6 | 784.1 | 788.5 | 787.0 |
| 20°    | 779.7 | 775.3 | 765.7 | 768.7 | 766.5 |
| 22.5°  | 759.9 | 755.5 | 745.9 | 748.1 | 745.2 |
| 25°    | 737.9 | 733.5 | 723.9 | 724.7 | 722.5 |
| 27.5°  | 715.1 | 710.7 | 700.4 | 701.2 | 699.0 |
| 30°    | 690.2 | 686.5 | 676.2 | 676.2 | 671.1 |
| 32.5°  | 665.2 | 660.1 | 652.8 | 647.6 | 645.4 |
| 35°    | 638.1 | 633.7 | 624.2 | 619.8 | 616.1 |
| 37.5°  | 611.0 | 605.1 | 595.6 | 590.4 | 588.2 |
| 40°    | 582.4 | 578.0 | 567.7 | 561.8 | 558.9 |
| 42.5°  | 553.8 | 548.6 | 538.4 | 532.5 | 529.6 |
| 45°    | 523.0 | 520.0 | 510.5 | 501.7 | 498.0 |
| 47.5°  | 492.9 | 488.5 | 479.7 | 470.9 | 467.9 |
| 50°    | 462.1 | 458.4 | 448.9 | 440.8 | 436.4 |
| 52.5°  | 429.8 | 427.6 | 417.3 | 410.7 | 406.3 |
| 55°    | 396.8 | 396.1 | 386.5 | 378.5 | 374.8 |
| 57.5°  | 366.0 | 363.1 | 355.7 | 348.4 | 344.0 |
| 60°    | 332.3 | 331.5 | 322.7 | 316.1 | 312.5 |
| 62.5°  | 302.2 | 300.0 | 291.2 | 284.6 | 282.4 |
| 65°    | 270.6 | 267.0 | 259.6 | 253.8 | 251.6 |
| 67.5°  | 236.9 | 234.0 | 228.1 | 223.0 | 220.0 |
| 70°    | 206.8 | 202.4 | 198.0 | 192.9 | 189.2 |
| 72.5°  | 175.3 | 172.4 | 167.2 | 162.8 | 161.4 |
| 75°    | 143.0 | 140.1 | 137.9 | 134.2 | 132.0 |
| 77.5°  | 114.4 | 113.0 | 110.0 | 107.1 | 107.1 |
| 80°    | 86.5  | 84.3  | 82.9  | 82.1  | 82.1  |
| 82.5°  | 59.4  | 59.4  | 59.4  | 57.9  | 57.2  |
| 85°    | 38.1  | 36.7  | 36.7  | 35.2  | 35.2  |
| 87.5°  | 19.1  | 16.9  | 16.1  | 15.4  | 15.4  |
| 90°    | 1.0   | 10.9  | 23.7  | 27.7  | 29.6  |
| 92.5°  | 29.6  | 35.6  | 41.5  | 44.5  | 42.5  |
| 95°    | 58.3  | 65.2  | 73.1  | 77.1  | 77.1  |
| 97.5°  | 95.8  | 100.8 | 106.7 | 111.7 | 110.7 |
| 100°   | 134.4 | 140.3 | 145.3 | 148.2 | 150.2 |
| 102.5° | 178.8 | 181.8 | 188.7 | 191.7 | 190.7 |
| 105°   | 222.3 | 224.3 | 233.2 | 233.2 | 235.2 |
| 107.5° | 273.7 | 274.7 | 278.6 | 281.6 | 280.6 |
| 110°   | 321.1 | 323.1 | 325.1 | 329.0 | 327.1 |

TEST NUMBER: P1031722

CATALOG NUMBER: S123DIW-B560D1030UB50-4F0-XX-W2A-F1

**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 370.5  | 371.5  | 371.5  | 376.5  | 376.5  |
| 115°   | 420.0  | 422.9  | 420.9  | 421.9  | 420.9  |
| 117.5° | 470.3  | 471.3  | 469.4  | 469.4  | 466.4  |
| 120°   | 516.8  | 522.7  | 517.8  | 516.8  | 514.8  |
| 122.5° | 565.2  | 569.2  | 567.2  | 564.2  | 561.3  |
| 125°   | 614.6  | 617.6  | 615.6  | 611.6  | 607.7  |
| 127.5° | 660.1  | 666.0  | 664.0  | 658.1  | 654.1  |
| 130°   | 705.5  | 713.4  | 710.5  | 706.5  | 699.6  |
| 132.5° | 751.0  | 758.9  | 756.9  | 752.0  | 747.0  |
| 135°   | 797.4  | 803.3  | 802.4  | 798.4  | 796.4  |
| 137.5° | 839.9  | 844.8  | 847.8  | 842.9  | 839.9  |
| 140°   | 884.4  | 889.3  | 890.3  | 889.3  | 882.4  |
| 142.5° | 924.9  | 929.8  | 931.8  | 930.8  | 925.9  |
| 145°   | 967.4  | 969.3  | 972.3  | 971.3  | 967.4  |
| 147.5° | 1003.9 | 1007.9 | 1010.8 | 1010.8 | 1004.9 |
| 150°   | 1042.5 | 1044.4 | 1046.4 | 1046.4 | 1040.5 |
| 152.5° | 1074.1 | 1077.0 | 1078.0 | 1080.0 | 1075.1 |
| 155°   | 1107.7 | 1107.7 | 1108.7 | 1112.6 | 1105.7 |
| 157.5° | 1136.3 | 1135.3 | 1136.3 | 1140.3 | 1134.4 |
| 160°   | 1163.0 | 1161.0 | 1161.0 | 1166.0 | 1162.0 |
| 162.5° | 1186.7 | 1183.8 | 1184.8 | 1189.7 | 1182.8 |
| 165°   | 1206.5 | 1203.5 | 1203.5 | 1209.5 | 1202.5 |
| 167.5° | 1223.3 | 1219.3 | 1220.3 | 1226.3 | 1220.3 |
| 170°   | 1237.1 | 1233.2 | 1233.2 | 1240.1 | 1233.2 |
| 172.5° | 1248.0 | 1244.0 | 1244.0 | 1250.0 | 1243.1 |
| 175°   | 1254.9 | 1251.0 | 1251.0 | 1256.9 | 1250.0 |
| 177.5° | 1258.9 | 1254.9 | 1254.9 | 1260.8 | 1253.9 |
| 180°   | 1257.9 | 1257.9 | 1257.9 | 1257.9 | 1257.9 |

(END OF REPORT)