

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: P1012579

Luminaire Tested: S123RDIP-B560D1025UB50-4F0-XX-W2A-F

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1012579  
REPORT IS A COMBINATION OF REPORTS P993356 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDIP-B560D1025UB50-4F0-XX-W2A-F  
Description: Define 3 Regressed Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015}  
{m-EER=1.115}  
Light Source: -  
Ballast/Driver: -

**Summary**

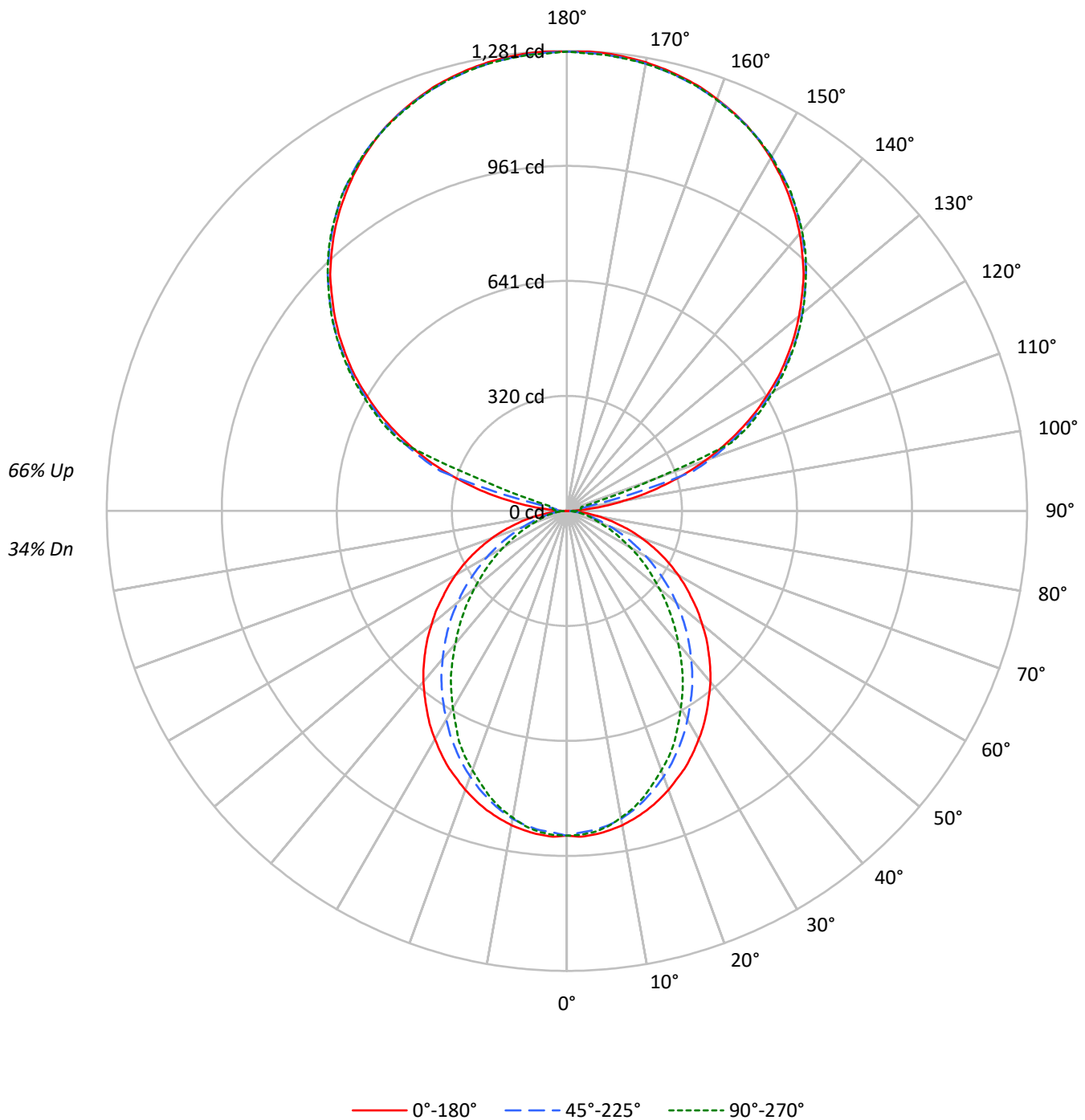
Lumens per Lamp: N/A  
Luminaire Lumens: 5944.0 lumens  
Efficiency: N/A  
Efficacy: 113.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.07 / 1.22  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect

Input Watts (W): 52.5  
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

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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   | 103 | 103 | 103 | 103 | 93 | 93 | 93 | 93 | 75 | 75 | 75 | 58 | 58 | 58 | 42 | 42 | 42 |
| 1   | 95  | 90  | 87  | 83  | 85 | 82 | 79 | 76 | 66 | 64 | 62 | 51 | 50 | 48 | 37 | 36 | 36 |
| 2   | 86  | 79  | 73  | 68  | 78 | 72 | 67 | 63 | 58 | 54 | 51 | 45 | 43 | 41 | 33 | 32 | 30 |
| 3   | 79  | 70  | 63  | 57  | 71 | 63 | 57 | 52 | 51 | 47 | 43 | 40 | 37 | 35 | 29 | 28 | 26 |
| 4   | 72  | 62  | 54  | 48  | 65 | 56 | 50 | 45 | 45 | 41 | 37 | 36 | 32 | 30 | 26 | 24 | 23 |
| 5   | 66  | 55  | 47  | 41  | 60 | 50 | 43 | 38 | 41 | 36 | 32 | 32 | 29 | 26 | 24 | 22 | 20 |
| 6   | 61  | 49  | 42  | 36  | 55 | 45 | 38 | 33 | 37 | 32 | 28 | 29 | 25 | 23 | 22 | 19 | 18 |
| 7   | 56  | 44  | 37  | 31  | 51 | 41 | 34 | 29 | 33 | 28 | 25 | 26 | 23 | 20 | 20 | 17 | 16 |
| 8   | 52  | 40  | 33  | 28  | 47 | 37 | 30 | 26 | 30 | 25 | 22 | 24 | 20 | 18 | 18 | 16 | 14 |
| 9   | 49  | 37  | 30  | 25  | 44 | 34 | 27 | 23 | 28 | 23 | 19 | 22 | 19 | 16 | 17 | 14 | 13 |
| 10  | 45  | 34  | 27  | 22  | 41 | 31 | 25 | 20 | 25 | 21 | 17 | 20 | 17 | 14 | 16 | 13 | 12 |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 9734 | 9734 | 9734 |
| 5°  | 9750 | 9389 | 9364 |
| 10° | 9673 | 9037 | 8858 |
| 15° | 9547 | 8600 | 8305 |
| 20° | 9383 | 8126 | 7685 |
| 25° | 9213 | 7632 | 7099 |
| 30° | 8996 | 7108 | 6406 |
| 35° | 8771 | 6593 | 5774 |
| 40° | 8559 | 6033 | 5077 |
| 45° | 8288 | 5486 | 4450 |
| 50° | 7991 | 4901 | 3801 |
| 55° | 7681 | 4275 | 3206 |
| 60° | 7385 | 3634 | 2602 |
| 65° | 7003 | 2977 | 2032 |
| 70° | 6523 | 2250 | 1451 |
| 75° | 5831 | 1523 | 1149 |
| 80° | 4978 | 1059 | 806  |
| 85° | 3737 | 571  | 423  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
Vertical Angle: 45°  
Luminance: 8288 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 85.0   | 1.4       |
| 10°-20°   | 236.5  | 4.0       |
| 20°-30°   | 340.5  | 5.7       |
| 30°-40°   | 383.4  | 6.5       |
| 40°-50°   | 366.8  | 6.2       |
| 50°-60°   | 300.2  | 5.1       |
| 60°-70°   | 202.4  | 3.4       |
| 70°-80°   | 101.5  | 1.7       |
| 80°-90°   | 29.1   | 0.5       |
| 90°-100°  | 45.1   | 0.8       |
| 100°-110° | 218.0  | 3.7       |
| 110°-120° | 534.3  | 9.0       |
| 120°-130° | 678.2  | 11.4      |
| 130°-140° | 724.6  | 12.2      |
| 140°-150° | 677.5  | 11.4      |
| 150°-160° | 546.5  | 9.2       |
| 160°-170° | 352.7  | 5.9       |
| 170°-180° | 121.5  | 2.0       |
| 0°-30°    | 662.0  | 11.1      |
| 0°-40°    | 1045.4 | 17.6      |
| 0°-60°    | 1712.5 | 28.8      |
| 0°-90°    | 2045.5 | 34.4      |
| 90°-120°  | 797.4  | 13.4      |
| 90°-150°  | 2877.8 | 48.4      |
| 90°-180°  | 3898.0 | 65.6      |
| 0°-180°   | 5944.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 904  | 904   | 904  | 904   | 904  |      |
| 5°   | 904  | 901   | 892  | 898   | 897  | 86   |
| 15°  | 862  | 854   | 834  | 830   | 825  | 243  |
| 25°  | 785  | 766   | 733  | 717   | 709  | 361  |
| 35°  | 679  | 653   | 607  | 576   | 562  | 425  |
| 45°  | 558  | 525   | 469  | 427   | 409  | 431  |
| 55°  | 424  | 388   | 326  | 283   | 268  | 380  |
| 65°  | 290  | 249   | 192  | 156   | 148  | 287  |
| 75°  | 153  | 118   | 78   | 70    | 69   | 163  |
| 85°  | 39   | 23    | 20   | 19    | 19   | 43   |
| 90°  | 1    | 10    | 23   | 27    | 28   | 6    |
| 95°  | 58   | 19    | 30   | 36    | 36   | 69   |
| 105° | 283  | 294   | 208  | 40    | 42   | 300  |
| 115° | 531  | 537   | 545  | 555   | 559  | 524  |
| 125° | 749  | 756   | 760  | 762   | 764  | 669  |
| 135° | 932  | 938   | 942  | 944   | 942  | 718  |
| 145° | 1076 | 1082  | 1084 | 1086  | 1086 | 673  |
| 155° | 1185 | 1183  | 1184 | 1188  | 1183 | 546  |
| 165° | 1249 | 1246  | 1246 | 1253  | 1246 | 353  |
| 175° | 1279 | 1274  | 1275 | 1282  | 1274 | 122  |
| 180° | 1279 | 1279  | 1279 | 1279  | 1279 |      |

TEST NUMBER: P1012579

CATALOG NUMBER: S123RDIP-B560D1025UB50-4F0-XX-W2A-F

**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 904.3 | 904.3 | 904.3 | 904.3 | 904.3 |
| 2.5°   | 908.0 | 905.0 | 896.2 | 904.3 | 902.8 |
| 5°     | 904.3 | 900.6 | 891.8 | 898.4 | 897.0 |
| 7.5°   | 897.7 | 894.0 | 883.0 | 887.4 | 885.2 |
| 10°    | 888.9 | 883.8 | 870.6 | 871.3 | 867.6 |
| 12.5°  | 876.4 | 870.6 | 853.7 | 853.0 | 848.6 |
| 15°    | 862.5 | 854.4 | 833.9 | 830.2 | 825.1 |
| 17.5°  | 845.6 | 836.8 | 811.2 | 803.8 | 796.5 |
| 20°    | 826.6 | 814.8 | 787.0 | 777.4 | 768.6 |
| 22.5°  | 805.3 | 791.4 | 761.3 | 748.8 | 740.8 |
| 25°    | 784.8 | 766.4 | 732.7 | 717.3 | 709.2 |
| 27.5°  | 759.8 | 740.0 | 703.4 | 682.8 | 670.3 |
| 30°    | 734.2 | 712.2 | 671.1 | 646.1 | 634.4 |
| 32.5°  | 708.5 | 682.8 | 638.8 | 610.9 | 598.5 |
| 35°    | 679.2 | 652.7 | 607.3 | 575.7 | 562.5 |
| 37.5°  | 649.8 | 621.2 | 573.5 | 538.3 | 522.2 |
| 40°    | 621.9 | 589.7 | 537.6 | 499.5 | 482.6 |
| 42.5°  | 590.4 | 558.1 | 503.9 | 461.3 | 446.7 |
| 45°    | 558.1 | 525.1 | 468.7 | 426.9 | 409.3 |
| 47.5°  | 526.6 | 489.9 | 434.2 | 388.7 | 373.3 |
| 50°    | 491.4 | 456.9 | 397.5 | 352.0 | 335.2 |
| 52.5°  | 459.9 | 421.7 | 363.0 | 315.4 | 300.7 |
| 55°    | 423.9 | 388.0 | 325.6 | 283.1 | 268.4 |
| 57.5°  | 391.6 | 352.8 | 289.7 | 249.4 | 236.9 |
| 60°    | 357.9 | 317.6 | 256.7 | 217.1 | 204.6 |
| 62.5°  | 324.2 | 283.8 | 223.0 | 186.3 | 173.1 |
| 65°    | 289.7 | 249.4 | 192.2 | 156.2 | 148.2 |
| 67.5°  | 255.2 | 214.2 | 158.4 | 131.3 | 122.5 |
| 70°    | 221.5 | 181.9 | 130.5 | 104.9 | 96.8  |
| 72.5°  | 187.8 | 148.9 | 103.4 | 83.6  | 81.4  |
| 75°    | 153.3 | 118.1 | 77.7  | 70.4  | 68.9  |
| 77.5°  | 121.7 | 89.5  | 60.9  | 56.5  | 55.0  |
| 80°    | 91.7  | 61.6  | 46.2  | 44.0  | 42.5  |
| 82.5°  | 63.1  | 38.1  | 33.0  | 30.8  | 30.8  |
| 85°    | 38.9  | 22.7  | 20.5  | 19.1  | 19.1  |
| 87.5°  | 17.6  | 9.5   | 9.5   | 8.8   | 8.1   |
| 90°    | 1.0   | 10.5  | 22.8  | 26.6  | 28.5  |
| 92.5°  | 21.9  | 16.2  | 24.7  | 31.4  | 32.3  |
| 95°    | 58.0  | 19.0  | 29.5  | 36.1  | 36.1  |
| 97.5°  | 105.5 | 78.9  | 30.4  | 38.0  | 39.0  |
| 100°   | 160.6 | 179.6 | 31.4  | 39.0  | 39.9  |
| 102.5° | 223.3 | 235.6 | 70.3  | 39.0  | 40.9  |
| 105°   | 283.1 | 293.6 | 208.1 | 39.9  | 41.8  |
| 107.5° | 346.8 | 355.3 | 369.6 | 223.3 | 98.8  |
| 110°   | 410.4 | 418.0 | 428.5 | 397.1 | 261.3 |

TEST NUMBER: P1012579

CATALOG NUMBER: S123RDIP-B560D1025UB50-4F0-XX-W2A-F

**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 471.2  | 477.9  | 488.3  | 496.9  | 495.0  |
| 115°   | 531.1  | 536.8  | 545.3  | 554.8  | 558.6  |
| 117.5° | 590.0  | 596.6  | 601.4  | 609.0  | 609.9  |
| 120°   | 644.1  | 652.7  | 655.5  | 663.1  | 663.1  |
| 122.5° | 699.2  | 705.9  | 709.7  | 714.4  | 715.4  |
| 125°   | 748.6  | 756.2  | 760.0  | 761.9  | 763.8  |
| 127.5° | 798.0  | 805.6  | 810.4  | 813.2  | 811.3  |
| 130°   | 843.6  | 851.2  | 855.0  | 858.8  | 856.9  |
| 132.5° | 887.4  | 895.0  | 897.8  | 901.6  | 898.8  |
| 135°   | 932.0  | 937.7  | 941.5  | 944.4  | 941.5  |
| 137.5° | 970.0  | 977.6  | 979.5  | 984.3  | 982.4  |
| 140°   | 1008.0 | 1013.7 | 1016.6 | 1020.4 | 1018.5 |
| 142.5° | 1043.2 | 1048.9 | 1051.7 | 1054.6 | 1051.7 |
| 145°   | 1075.5 | 1082.1 | 1084.0 | 1085.9 | 1085.9 |
| 147.5° | 1106.8 | 1111.6 | 1113.5 | 1115.4 | 1110.6 |
| 150°   | 1135.3 | 1138.2 | 1140.1 | 1142.0 | 1139.1 |
| 152.5° | 1161.0 | 1161.9 | 1162.9 | 1166.7 | 1161.9 |
| 155°   | 1184.7 | 1182.8 | 1183.8 | 1188.5 | 1182.8 |
| 157.5° | 1203.7 | 1203.7 | 1202.8 | 1208.5 | 1200.9 |
| 160°   | 1220.8 | 1219.9 | 1218.9 | 1224.6 | 1218.0 |
| 162.5° | 1237.0 | 1234.1 | 1233.2 | 1239.8 | 1234.1 |
| 165°   | 1249.3 | 1246.5 | 1245.5 | 1253.1 | 1246.5 |
| 167.5° | 1259.8 | 1256.0 | 1256.0 | 1263.6 | 1256.0 |
| 170°   | 1268.3 | 1264.5 | 1264.5 | 1272.1 | 1264.5 |
| 172.5° | 1274.0 | 1269.3 | 1270.2 | 1277.8 | 1269.3 |
| 175°   | 1278.8 | 1274.0 | 1275.0 | 1281.6 | 1274.0 |
| 177.5° | 1280.7 | 1275.9 | 1276.9 | 1284.5 | 1275.0 |
| 180°   | 1278.8 | 1278.8 | 1278.8 | 1278.8 | 1278.8 |

(END OF REPORT)