

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: P1032275

Luminaire Tested: S123RDIW-B560D1030UB27-4F0-XX-W2A-F1

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1032275  
REPORT IS A COMBINATION OF REPORTS P994383 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDIW-B560D1030UB27-4F0-XX-W2A-F1  
Description: Define 3 Regressed Direct/Indirect Wall Mount with 2700K BioUP LEDs {m-DER=0.473}  
{m-EER=0.52}  
Light Source: -  
Ballast/Driver: -

**Summary**

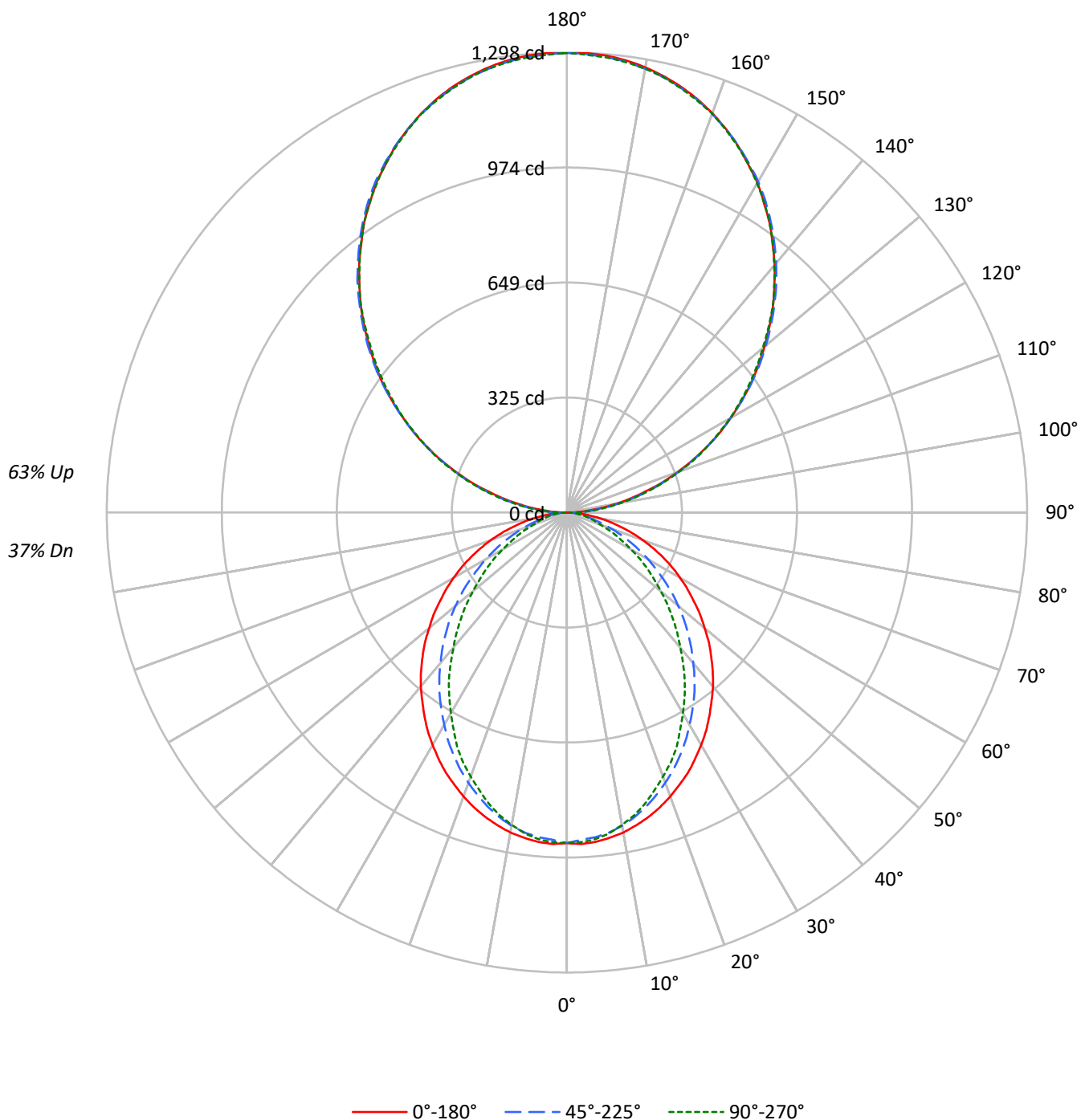
Lumens per Lamp: N/A  
Luminaire Lumens: 5703.0 lumens  
Efficiency: N/A  
Efficacy: 102.8 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.07 / 1.22  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect

Input Watts (W): 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

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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 | 76 | 76 | 76 | 59 | 59 | 59 | 44 | 44 | 44 |
| 1   | 95  | 91  | 87  | 84  | 86 | 83 | 79 | 77 | 67 | 65 | 63 | 53 | 51 | 50 | 39 | 39 | 38 |
| 2   | 87  | 80  | 74  | 69  | 78 | 72 | 67 | 63 | 59 | 55 | 52 | 46 | 44 | 42 | 35 | 33 | 32 |
| 3   | 79  | 70  | 63  | 58  | 72 | 64 | 58 | 53 | 52 | 48 | 44 | 41 | 38 | 36 | 31 | 29 | 28 |
| 4   | 73  | 62  | 55  | 49  | 66 | 57 | 50 | 45 | 46 | 42 | 38 | 37 | 34 | 31 | 28 | 26 | 24 |
| 5   | 67  | 55  | 48  | 42  | 60 | 51 | 44 | 39 | 42 | 37 | 33 | 33 | 30 | 27 | 25 | 23 | 21 |
| 6   | 61  | 50  | 42  | 36  | 55 | 45 | 39 | 34 | 37 | 32 | 29 | 30 | 26 | 23 | 23 | 20 | 19 |
| 7   | 57  | 45  | 37  | 32  | 51 | 41 | 34 | 30 | 34 | 29 | 25 | 27 | 24 | 21 | 21 | 18 | 17 |
| 8   | 53  | 41  | 33  | 28  | 48 | 37 | 31 | 26 | 31 | 26 | 22 | 25 | 21 | 19 | 19 | 17 | 15 |
| 9   | 49  | 37  | 30  | 25  | 44 | 34 | 28 | 23 | 28 | 23 | 20 | 23 | 19 | 17 | 18 | 15 | 13 |
| 10  | 46  | 34  | 27  | 22  | 41 | 31 | 25 | 21 | 26 | 21 | 18 | 21 | 18 | 15 | 17 | 14 | 12 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 10038 | 10038 | 10038 |
| 5°  | 10055 | 9684  | 9658  |
| 10° | 9977  | 9319  | 9136  |
| 15° | 9846  | 8869  | 8564  |
| 20° | 9677  | 8380  | 7926  |
| 25° | 9501  | 7871  | 7321  |
| 30° | 9277  | 7330  | 6607  |
| 35° | 9045  | 6799  | 5956  |
| 40° | 8827  | 6221  | 5236  |
| 45° | 8548  | 5657  | 4590  |
| 50° | 8241  | 5055  | 3920  |
| 55° | 7922  | 4409  | 3306  |
| 60° | 7616  | 3748  | 2683  |
| 65° | 7223  | 3070  | 2095  |
| 70° | 6726  | 2320  | 1496  |
| 75° | 6014  | 1572  | 1186  |
| 80° | 5130  | 1093  | 833   |
| 85° | 3852  | 590   | 437   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 8548 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 87.7   | 1.5       |
| 10°-20°   | 243.9  | 4.3       |
| 20°-30°   | 351.2  | 6.2       |
| 30°-40°   | 395.5  | 6.9       |
| 40°-50°   | 378.3  | 6.6       |
| 50°-60°   | 309.7  | 5.4       |
| 60°-70°   | 208.8  | 3.7       |
| 70°-80°   | 104.7  | 1.8       |
| 80°-90°   | 30.1   | 0.5       |
| 90°-100°  | 83.5   | 1.5       |
| 100°-110° | 252.7  | 4.4       |
| 110°-120° | 430.1  | 7.5       |
| 120°-130° | 565.9  | 9.9       |
| 130°-140° | 636.1  | 11.2      |
| 140°-150° | 625.3  | 11.0      |
| 150°-160° | 526.5  | 9.2       |
| 160°-170° | 350.5  | 6.1       |
| 170°-180° | 122.7  | 2.2       |
| 0°-30°    | 682.7  | 12.0      |
| 0°-40°    | 1078.2 | 18.9      |
| 0°-60°    | 1766.1 | 31.0      |
| 0°-90°    | 2109.7 | 37.0      |
| 90°-120°  | 766.3  | 13.4      |
| 90°-150°  | 2593.6 | 45.5      |
| 90°-180°  | 3593.0 | 63.0      |
| 0°-180°   | 5703.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 933  | 933   | 933  | 933   | 933  |      |
| 5°   | 933  | 929   | 920  | 927   | 925  | 88   |
| 15°  | 890  | 881   | 860  | 856   | 851  | 251  |
| 25°  | 809  | 790   | 756  | 740   | 731  | 372  |
| 35°  | 700  | 673   | 626  | 594   | 580  | 438  |
| 45°  | 576  | 542   | 483  | 440   | 422  | 444  |
| 55°  | 437  | 400   | 336  | 292   | 277  | 392  |
| 65°  | 299  | 257   | 198  | 161   | 153  | 296  |
| 75°  | 158  | 122   | 80   | 73    | 71   | 168  |
| 85°  | 40   | 23    | 21   | 20    | 20   | 44   |
| 90°  | 1    | 11    | 24   | 28    | 31   | 7    |
| 95°  | 60   | 67    | 75   | 80    | 80   | 66   |
| 105° | 229  | 231   | 240  | 240   | 242  | 245  |
| 115° | 433  | 436   | 434  | 435   | 434  | 428  |
| 125° | 634  | 637   | 635  | 631   | 626  | 565  |
| 135° | 822  | 828   | 827  | 823   | 821  | 633  |
| 145° | 997  | 999   | 1002 | 1001  | 997  | 623  |
| 155° | 1142 | 1142  | 1143 | 1147  | 1140 | 526  |
| 165° | 1244 | 1241  | 1241 | 1247  | 1240 | 351  |
| 175° | 1294 | 1290  | 1290 | 1296  | 1289 | 123  |
| 180° | 1297 | 1297  | 1297 | 1297  | 1297 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 932.6 | 932.6 | 932.6 | 932.6 | 932.6 |
| 2.5°   | 936.4 | 933.4 | 924.3 | 932.6 | 931.1 |
| 5°     | 932.6 | 928.9 | 919.8 | 926.6 | 925.1 |
| 7.5°   | 925.8 | 922.1 | 910.7 | 915.2 | 913.0 |
| 10°    | 916.8 | 911.5 | 897.8 | 898.6 | 894.8 |
| 12.5°  | 903.9 | 897.8 | 880.4 | 879.7 | 875.2 |
| 15°    | 889.5 | 881.2 | 860.0 | 856.2 | 850.9 |
| 17.5°  | 872.1 | 863.1 | 836.6 | 829.0 | 821.4 |
| 20°    | 852.5 | 840.4 | 811.6 | 801.8 | 792.7 |
| 22.5°  | 830.5 | 816.2 | 785.1 | 772.3 | 764.0 |
| 25°    | 809.3 | 790.4 | 755.6 | 739.8 | 731.4 |
| 27.5°  | 783.6 | 763.2 | 725.4 | 704.2 | 691.3 |
| 30°    | 757.2 | 734.5 | 692.1 | 666.4 | 654.3 |
| 32.5°  | 730.7 | 704.2 | 658.8 | 630.1 | 617.2 |
| 35°    | 700.4 | 673.2 | 626.3 | 593.8 | 580.2 |
| 37.5°  | 670.2 | 640.7 | 591.5 | 555.2 | 538.6 |
| 40°    | 641.4 | 608.1 | 554.4 | 515.1 | 497.7 |
| 42.5°  | 608.9 | 575.6 | 519.6 | 475.8 | 460.6 |
| 45°    | 575.6 | 541.6 | 483.3 | 440.2 | 422.1 |
| 47.5°  | 543.1 | 505.3 | 447.8 | 400.9 | 385.0 |
| 50°    | 506.8 | 471.2 | 410.0 | 363.1 | 345.7 |
| 52.5°  | 474.3 | 434.9 | 374.4 | 325.3 | 310.1 |
| 55°    | 437.2 | 400.1 | 335.8 | 292.0 | 276.8 |
| 57.5°  | 403.9 | 363.8 | 298.8 | 257.2 | 244.3 |
| 60°    | 369.1 | 327.5 | 264.7 | 223.9 | 211.0 |
| 62.5°  | 334.3 | 292.7 | 229.9 | 192.1 | 178.5 |
| 65°    | 298.8 | 257.2 | 198.2 | 161.1 | 152.8 |
| 67.5°  | 263.2 | 220.9 | 163.4 | 135.4 | 126.3 |
| 70°    | 228.4 | 187.6 | 134.6 | 108.2 | 99.8  |
| 72.5°  | 193.6 | 153.5 | 106.7 | 86.2  | 84.0  |
| 75°    | 158.1 | 121.8 | 80.2  | 72.6  | 71.1  |
| 77.5°  | 125.6 | 92.3  | 62.8  | 58.2  | 56.7  |
| 80°    | 94.5  | 63.5  | 47.7  | 45.4  | 43.9  |
| 82.5°  | 65.1  | 39.3  | 34.0  | 31.8  | 31.8  |
| 85°    | 40.1  | 23.4  | 21.2  | 19.7  | 19.7  |
| 87.5°  | 18.2  | 9.8   | 9.8   | 9.1   | 8.3   |
| 90°    | 1.0   | 11.2  | 24.4  | 28.5  | 30.6  |
| 92.5°  | 30.6  | 36.7  | 42.8  | 45.8  | 43.8  |
| 95°    | 60.1  | 67.2  | 75.4  | 79.5  | 79.5  |
| 97.5°  | 98.8  | 103.9 | 110.0 | 115.1 | 114.1 |
| 100°   | 138.5 | 144.7 | 149.8 | 152.8 | 154.8 |
| 102.5° | 184.4 | 187.4 | 194.6 | 197.6 | 196.6 |
| 105°   | 229.2 | 231.2 | 240.4 | 240.4 | 242.5 |
| 107.5° | 282.2 | 283.2 | 287.3 | 290.3 | 289.3 |
| 110°   | 331.1 | 333.1 | 335.2 | 339.2 | 337.2 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 382.0  | 383.0  | 383.0  | 388.1  | 388.1  |
| 115°   | 433.0  | 436.0  | 434.0  | 435.0  | 434.0  |
| 117.5° | 484.9  | 485.9  | 483.9  | 483.9  | 480.8  |
| 120°   | 532.8  | 538.9  | 533.8  | 532.8  | 530.7  |
| 122.5° | 582.7  | 586.8  | 584.7  | 581.7  | 578.6  |
| 125°   | 633.6  | 636.7  | 634.7  | 630.6  | 626.5  |
| 127.5° | 680.5  | 686.6  | 684.6  | 678.5  | 674.4  |
| 130°   | 727.4  | 735.5  | 732.5  | 728.4  | 721.2  |
| 132.5° | 774.2  | 782.4  | 780.3  | 775.2  | 770.1  |
| 135°   | 822.1  | 828.2  | 827.2  | 823.1  | 821.1  |
| 137.5° | 865.9  | 871.0  | 874.1  | 869.0  | 865.9  |
| 140°   | 911.7  | 916.8  | 917.9  | 916.8  | 909.7  |
| 142.5° | 953.5  | 958.6  | 960.6  | 959.6  | 954.5  |
| 145°   | 997.3  | 999.4  | 1002.4 | 1001.4 | 997.3  |
| 147.5° | 1035.0 | 1039.1 | 1042.1 | 1042.1 | 1036.0 |
| 150°   | 1074.7 | 1076.8 | 1078.8 | 1078.8 | 1072.7 |
| 152.5° | 1107.3 | 1110.4 | 1111.4 | 1113.5 | 1108.4 |
| 155°   | 1142.0 | 1142.0 | 1143.0 | 1147.1 | 1139.9 |
| 157.5° | 1171.5 | 1170.5 | 1171.5 | 1175.6 | 1169.5 |
| 160°   | 1199.0 | 1197.0 | 1197.0 | 1202.1 | 1198.0 |
| 162.5° | 1223.5 | 1220.4 | 1221.4 | 1226.5 | 1219.4 |
| 165°   | 1243.8 | 1240.8 | 1240.8 | 1246.9 | 1239.8 |
| 167.5° | 1261.2 | 1257.1 | 1258.1 | 1264.2 | 1258.1 |
| 170°   | 1275.4 | 1271.4 | 1271.4 | 1278.5 | 1271.4 |
| 172.5° | 1286.6 | 1282.6 | 1282.6 | 1288.7 | 1281.5 |
| 175°   | 1293.8 | 1289.7 | 1289.7 | 1295.8 | 1288.7 |
| 177.5° | 1297.8 | 1293.8 | 1293.8 | 1299.9 | 1292.7 |
| 180°   | 1296.8 | 1296.8 | 1296.8 | 1296.8 | 1296.8 |

(END OF REPORT)