

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: P1036142

Luminaire Tested: S125RDIW-B850D470UB50-4F0-XX-W2A-F

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1036142  
REPORT IS A COMBINATION OF REPORTS P1006972 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDIW-B850D470UB50-4F0-XX-W2A-F  
Description: Define 5 Regressed Direct/Indirect Wall Mount with 5000K BioUP LEDs {m-DER=1.015}  
{m-EER=1.115}  
Light Source: -  
Ballast/Driver: -

**Summary**

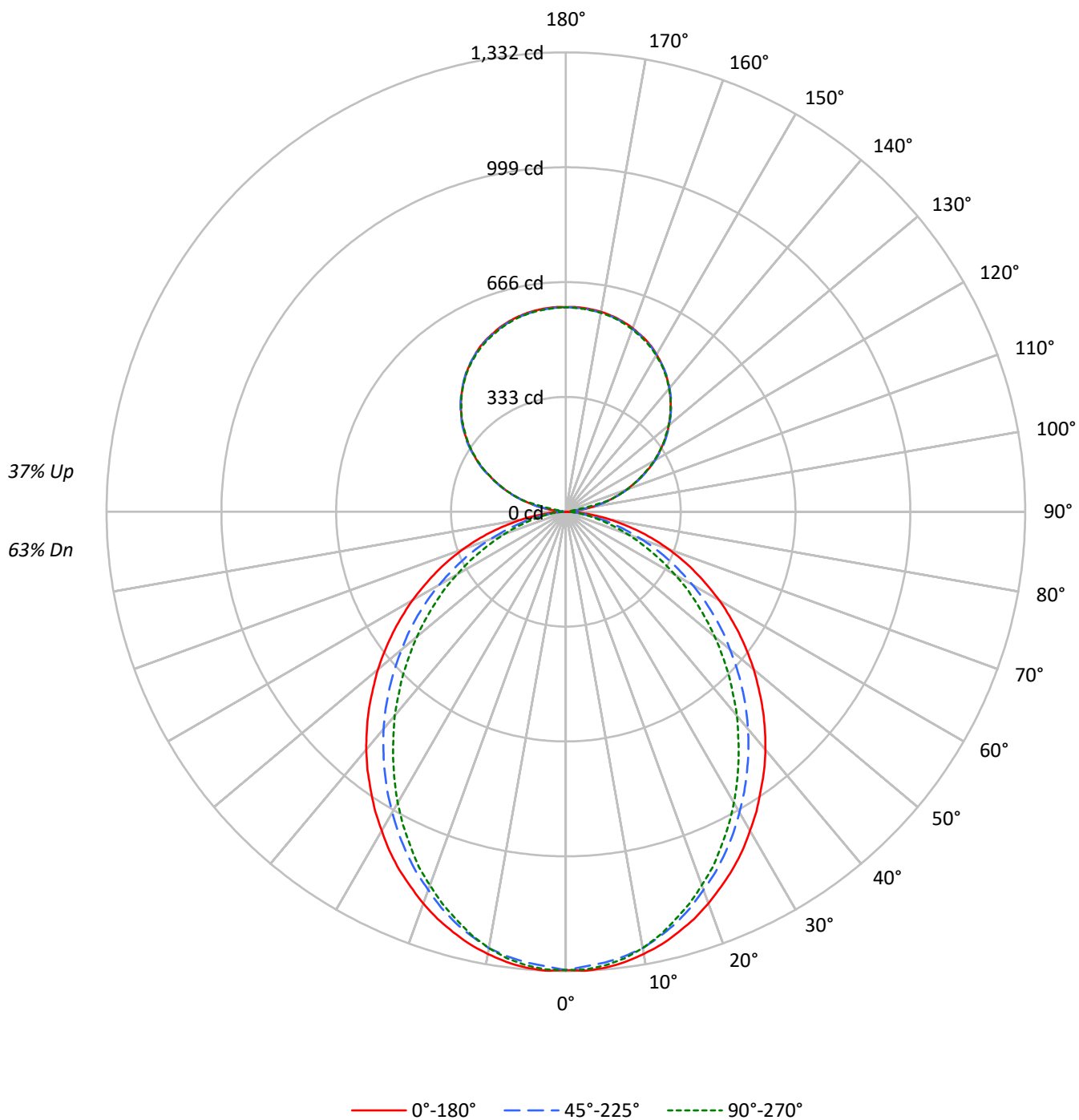
Lumens per Lamp: N/A  
Luminaire Lumens: 4963.0 lumens  
Efficiency: N/A  
Efficacy: 101.1 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.1')  
CIE Type: Semi-Direct

Input Watts (W): 49.1  
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

TEST NUMBER: P1036142

CATALOG NUMBER: S125RDIW-B850D470UB50-4F0-XX-W2A-F

### Luminous Intensity Polar Plot



TEST NUMBER: P1036142

CATALOG NUMBER: S125RDIW-B850D470UB50-4F0-XX-W2A-F

**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   | 110 | 110 | 110 | 110 | 103 | 103 | 103 | 103 | 91 | 91 | 91 | 79 | 79 | 79 | 68 | 68 | 68 |
| 1   | 101 | 97  | 93  | 89  | 95  | 91  | 88  | 85  | 80 | 78 | 75 | 70 | 68 | 67 | 61 | 60 | 58 |
| 2   | 92  | 85  | 79  | 74  | 86  | 80  | 74  | 70  | 71 | 66 | 63 | 62 | 59 | 56 | 54 | 52 | 50 |
| 3   | 84  | 75  | 67  | 62  | 79  | 71  | 64  | 59  | 62 | 57 | 53 | 55 | 51 | 48 | 48 | 45 | 42 |
| 4   | 77  | 66  | 58  | 52  | 72  | 63  | 56  | 50  | 56 | 50 | 46 | 49 | 45 | 41 | 43 | 40 | 37 |
| 5   | 71  | 59  | 51  | 45  | 67  | 56  | 49  | 43  | 50 | 44 | 39 | 44 | 40 | 36 | 39 | 35 | 32 |
| 6   | 66  | 53  | 45  | 39  | 61  | 51  | 43  | 38  | 45 | 39 | 35 | 40 | 35 | 32 | 35 | 32 | 28 |
| 7   | 61  | 48  | 40  | 35  | 57  | 46  | 39  | 33  | 41 | 35 | 31 | 37 | 32 | 28 | 32 | 28 | 25 |
| 8   | 57  | 44  | 36  | 31  | 53  | 42  | 35  | 30  | 38 | 32 | 27 | 34 | 29 | 25 | 30 | 26 | 23 |
| 9   | 53  | 40  | 33  | 28  | 50  | 38  | 31  | 27  | 35 | 29 | 25 | 31 | 26 | 23 | 28 | 24 | 21 |
| 10  | 49  | 37  | 30  | 25  | 46  | 35  | 29  | 24  | 32 | 26 | 22 | 29 | 24 | 21 | 26 | 22 | 19 |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 8515 | 8515 | 8515 |
| 5°  | 8516 | 8303 | 8316 |
| 10° | 8433 | 8094 | 8023 |
| 15° | 8314 | 7801 | 7636 |
| 20° | 8166 | 7448 | 7231 |
| 25° | 7996 | 7104 | 6796 |
| 30° | 7789 | 6726 | 6340 |
| 35° | 7577 | 6342 | 5855 |
| 40° | 7376 | 5948 | 5381 |
| 45° | 7134 | 5521 | 4885 |
| 50° | 6889 | 5069 | 4380 |
| 55° | 6604 | 4625 | 3857 |
| 60° | 6312 | 4115 | 3315 |
| 65° | 5966 | 3546 | 2730 |
| 70° | 5560 | 2887 | 2148 |
| 75° | 4999 | 2171 | 1566 |
| 80° | 4217 | 1406 | 1057 |
| 85° | 3156 | 755  | 595  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 7134 cd/sqm

TEST NUMBER: P1036142

CATALOG NUMBER: S125RDIW-B850D470UB50-4F0-XX-W2A-F

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 125.1  | 2.5       |
| 10°-20°   | 349.6  | 7.0       |
| 20°-30°   | 506.9  | 10.2      |
| 30°-40°   | 577.5  | 11.6      |
| 40°-50°   | 562.8  | 11.3      |
| 50°-60°   | 473.7  | 9.5       |
| 60°-70°   | 331.9  | 6.7       |
| 70°-80°   | 170.2  | 3.4       |
| 80°-90°   | 43.3   | 0.9       |
| 90°-100°  | 20.1   | 0.4       |
| 100°-110° | 133.9  | 2.7       |
| 110°-120° | 241.1  | 4.9       |
| 120°-130° | 309.4  | 6.2       |
| 130°-140° | 332.8  | 6.7       |
| 140°-150° | 312.4  | 6.3       |
| 150°-160° | 252.7  | 5.1       |
| 160°-170° | 163.4  | 3.3       |
| 170°-180° | 56.4   | 1.1       |
| 0°-30°    | 981.5  | 19.8      |
| 0°-40°    | 1559.0 | 31.4      |
| 0°-60°    | 2595.5 | 52.3      |
| 0°-90°    | 3140.9 | 63.3      |
| 90°-120°  | 395.1  | 8.0       |
| 90°-150°  | 1349.7 | 27.2      |
| 90°-180°  | 1822.0 | 36.7      |
| 0°-180°   | 4963.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1329 | 1329  | 1329 | 1329  | 1329 |      |
| 5°   | 1327 | 1323  | 1312 | 1322  | 1320 | 126  |
| 15°  | 1262 | 1256  | 1235 | 1234  | 1225 | 356  |
| 25°  | 1144 | 1129  | 1092 | 1079  | 1068 | 527  |
| 35°  | 986  | 962   | 916  | 887   | 873  | 617  |
| 45°  | 807  | 778   | 723  | 683   | 668  | 622  |
| 55°  | 612  | 580   | 524  | 479   | 463  | 548  |
| 65°  | 415  | 380   | 327  | 287   | 272  | 411  |
| 75°  | 221  | 191   | 149  | 126   | 120  | 233  |
| 85°  | 55   | 37    | 32   | 31    | 30   | 60   |
| 90°  | 0    | 4     | 7    | 9     | 11   | 4    |
| 95°  | 25   | 24    | 7    | 9     | 9    | 31   |
| 105° | 129  | 131   | 131  | 131   | 131  | 137  |
| 115° | 243  | 245   | 245  | 244   | 241  | 241  |
| 125° | 345  | 348   | 348  | 346   | 345  | 308  |
| 135° | 430  | 433   | 432  | 431   | 429  | 332  |
| 145° | 499  | 500   | 500  | 500   | 498  | 312  |
| 155° | 550  | 547   | 548  | 549   | 546  | 253  |
| 165° | 580  | 577   | 578  | 580   | 577  | 164  |
| 175° | 593  | 590   | 591  | 594   | 590  | 56   |
| 180° | 593  | 593   | 593  | 593   | 593  |      |

TEST NUMBER: P1036142

CATALOG NUMBER: S125RDIW-B850D470UB50-4F0-XX-W2A-F

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1329.0 | 1329.0 | 1329.0 | 1329.0 | 1329.0 |
| 2.5°   | 1332.0 | 1329.0 | 1319.0 | 1329.0 | 1328.0 |
| 5°     | 1327.0 | 1323.0 | 1312.0 | 1322.0 | 1320.0 |
| 7.5°   | 1317.0 | 1313.0 | 1299.9 | 1307.9 | 1305.9 |
| 10°    | 1301.9 | 1298.9 | 1284.9 | 1287.9 | 1284.9 |
| 12.5°  | 1284.9 | 1280.8 | 1260.8 | 1262.8 | 1257.8 |
| 15°    | 1261.8 | 1255.7 | 1234.7 | 1233.7 | 1224.6 |
| 17.5°  | 1237.7 | 1228.6 | 1203.5 | 1198.5 | 1191.5 |
| 20°    | 1208.6 | 1198.5 | 1166.4 | 1161.4 | 1152.4 |
| 22.5°  | 1176.4 | 1166.4 | 1132.3 | 1121.2 | 1114.2 |
| 25°    | 1144.3 | 1129.3 | 1092.1 | 1079.1 | 1068.0 |
| 27.5°  | 1108.2 | 1090.1 | 1051.0 | 1033.9 | 1022.9 |
| 30°    | 1068.0 | 1049.0 | 1006.8 | 983.7  | 974.7  |
| 32.5°  | 1028.9 | 1005.8 | 962.6  | 936.5  | 924.5  |
| 35°    | 985.7  | 961.6  | 916.5  | 887.4  | 873.3  |
| 37.5°  | 944.6  | 915.5  | 869.3  | 835.2  | 821.1  |
| 40°    | 900.4  | 870.3  | 822.1  | 784.0  | 771.9  |
| 42.5°  | 854.2  | 823.1  | 772.9  | 736.8  | 717.7  |
| 45°    | 807.0  | 777.9  | 722.7  | 682.6  | 667.5  |
| 47.5°  | 757.9  | 727.7  | 672.5  | 631.4  | 614.3  |
| 50°    | 711.7  | 678.6  | 621.3  | 579.2  | 564.1  |
| 52.5°  | 661.5  | 627.4  | 574.2  | 528.0  | 512.9  |
| 55°    | 612.3  | 580.2  | 524.0  | 478.8  | 462.7  |
| 57.5°  | 562.1  | 528.0  | 473.8  | 429.6  | 415.6  |
| 60°    | 513.9  | 478.8  | 424.6  | 380.4  | 365.4  |
| 62.5°  | 462.7  | 429.6  | 374.4  | 334.3  | 319.2  |
| 65°    | 414.6  | 380.4  | 327.2  | 287.1  | 272.0  |
| 67.5°  | 366.4  | 332.3  | 281.1  | 242.9  | 230.9  |
| 70°    | 317.2  | 283.1  | 232.9  | 201.8  | 189.7  |
| 72.5°  | 269.0  | 235.9  | 189.7  | 161.6  | 154.6  |
| 75°    | 220.8  | 190.7  | 148.6  | 126.5  | 119.5  |
| 77.5°  | 171.6  | 147.6  | 112.4  | 95.4   | 89.3   |
| 80°    | 130.5  | 106.4  | 78.3   | 69.3   | 67.3   |
| 82.5°  | 90.3   | 69.3   | 52.2   | 49.2   | 48.2   |
| 85°    | 55.2   | 37.1   | 32.1   | 31.1   | 30.1   |
| 87.5°  | 23.1   | 16.1   | 15.1   | 15.1   | 14.1   |
| 90°    | 0.4    | 4.0    | 7.0    | 9.2    | 10.6   |
| 92.5°  | 8.4    | 4.4    | 7.0    | 9.2    | 9.7    |
| 95°    | 25.1   | 23.7   | 7.0    | 9.2    | 9.2    |
| 97.5°  | 47.0   | 49.7   | 7.9    | 8.8    | 9.2    |
| 100°   | 73.4   | 74.8   | 76.5   | 11.0   | 9.2    |
| 102.5° | 100.3  | 102.0  | 102.9  | 103.8  | 66.8   |
| 105°   | 129.3  | 131.0  | 131.0  | 131.0  | 130.6  |
| 107.5° | 159.2  | 159.2  | 160.1  | 160.5  | 158.7  |
| 110°   | 188.2  | 188.2  | 189.1  | 187.8  | 188.2  |



TEST NUMBER: P1036142

CATALOG NUMBER: S125RDIW-B850D470UB50-4F0-XX-W2A-F

**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 215.5 | 216.8 | 217.2 | 215.5 | 214.6 |
| 115°   | 242.7 | 244.9 | 245.4 | 243.6 | 241.0 |
| 117.5° | 271.3 | 271.3 | 273.1 | 270.4 | 269.5 |
| 120°   | 297.7 | 297.2 | 298.6 | 297.7 | 295.5 |
| 122.5° | 321.0 | 323.2 | 323.6 | 322.8 | 320.1 |
| 125°   | 345.2 | 348.3 | 348.3 | 346.5 | 345.2 |
| 127.5° | 368.5 | 370.7 | 370.2 | 369.4 | 365.8 |
| 130°   | 389.6 | 391.8 | 392.2 | 390.9 | 388.7 |
| 132.5° | 410.7 | 413.3 | 412.0 | 412.0 | 409.8 |
| 135°   | 430.5 | 433.1 | 432.2 | 431.4 | 428.7 |
| 137.5° | 449.0 | 451.6 | 450.7 | 450.7 | 448.5 |
| 140°   | 467.0 | 467.9 | 467.4 | 468.3 | 465.7 |
| 142.5° | 483.2 | 483.7 | 484.6 | 484.6 | 481.9 |
| 145°   | 499.1 | 500.0 | 500.0 | 500.4 | 497.8 |
| 147.5° | 513.2 | 513.2 | 513.6 | 514.0 | 511.0 |
| 150°   | 526.3 | 525.5 | 526.3 | 527.2 | 523.7 |
| 152.5° | 539.1 | 536.9 | 537.8 | 538.7 | 535.6 |
| 155°   | 549.6 | 547.0 | 547.9 | 549.2 | 545.7 |
| 157.5° | 558.0 | 556.7 | 556.7 | 558.0 | 554.5 |
| 160°   | 566.8 | 564.2 | 564.6 | 566.4 | 562.8 |
| 162.5° | 573.8 | 571.2 | 571.6 | 574.3 | 570.3 |
| 165°   | 580.0 | 577.3 | 577.8 | 580.4 | 576.9 |
| 167.5° | 584.8 | 582.2 | 582.6 | 585.7 | 581.7 |
| 170°   | 588.8 | 585.7 | 586.1 | 589.7 | 585.7 |
| 172.5° | 591.4 | 588.3 | 589.2 | 592.3 | 588.3 |
| 175°   | 593.2 | 590.5 | 591.0 | 594.5 | 590.5 |
| 177.5° | 594.5 | 591.9 | 592.3 | 595.4 | 591.9 |
| 180°   | 593.2 | 593.2 | 593.2 | 593.2 | 593.2 |

(END OF REPORT)