

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: P1032266

Luminaire Tested: S123RDIW-B340D755UB40-4F0-XX-W2A-F

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1032266  
REPORT IS A COMBINATION OF REPORTS P994370 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDIW-B340D755UB40-4F0-XX-W2A-F  
Description: Define 3 Regressed Direct/Indirect Wall Mount with 4000K BioUP LEDs {m-DER=0.865}  
{m-EER=0.951}  
Light Source: -  
Ballast/Driver: -

**Summary**

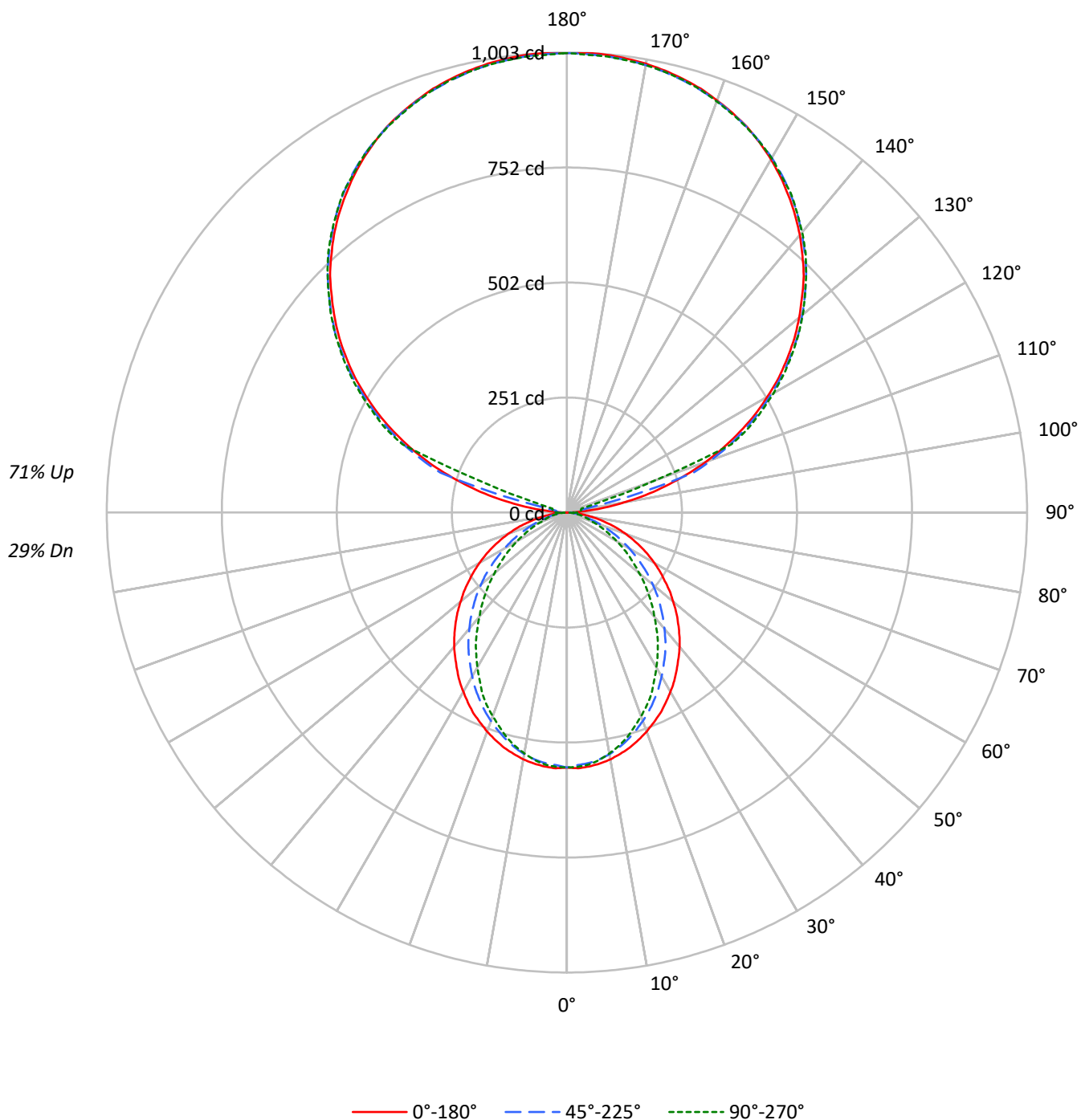
Lumens per Lamp: N/A  
Luminaire Lumens: 4312.0 lumens  
Efficiency: N/A  
Efficacy: 119.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.07 / 1.22  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect

Input Watts (W): 36.2  
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   | 102 | 102 | 102 | 102 | 92 | 92 | 92 | 92 | 72 | 72 | 72 | 54 | 54 | 54 | 37 | 37 | 37 |
| 1   | 93  | 89  | 85  | 82  | 83 | 80 | 77 | 74 | 63 | 61 | 59 | 47 | 46 | 45 | 33 | 32 | 32 |
| 2   | 85  | 78  | 72  | 67  | 76 | 70 | 65 | 61 | 55 | 52 | 49 | 42 | 40 | 38 | 29 | 28 | 27 |
| 3   | 78  | 69  | 62  | 56  | 69 | 62 | 56 | 51 | 49 | 45 | 41 | 37 | 34 | 32 | 26 | 24 | 23 |
| 4   | 71  | 61  | 53  | 48  | 63 | 55 | 48 | 43 | 44 | 39 | 35 | 33 | 30 | 28 | 23 | 21 | 20 |
| 5   | 65  | 54  | 46  | 41  | 58 | 49 | 42 | 37 | 39 | 34 | 30 | 30 | 26 | 24 | 21 | 19 | 17 |
| 6   | 60  | 48  | 41  | 35  | 54 | 44 | 37 | 32 | 35 | 30 | 27 | 27 | 23 | 21 | 19 | 17 | 15 |
| 7   | 55  | 44  | 36  | 31  | 50 | 40 | 33 | 28 | 32 | 27 | 23 | 24 | 21 | 18 | 18 | 15 | 14 |
| 8   | 51  | 40  | 32  | 27  | 46 | 36 | 29 | 25 | 29 | 24 | 21 | 22 | 19 | 16 | 16 | 14 | 12 |
| 9   | 48  | 36  | 29  | 24  | 43 | 33 | 26 | 22 | 26 | 22 | 18 | 20 | 17 | 15 | 15 | 13 | 11 |
| 10  | 44  | 33  | 26  | 21  | 40 | 30 | 24 | 20 | 24 | 20 | 17 | 19 | 16 | 13 | 14 | 12 | 10 |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 5985 | 5985 | 5985 |
| 5°  | 5994 | 5773 | 5756 |
| 10° | 5947 | 5555 | 5446 |
| 15° | 5870 | 5288 | 5106 |
| 20° | 5769 | 4995 | 4725 |
| 25° | 5664 | 4692 | 4364 |
| 30° | 5529 | 4370 | 3938 |
| 35° | 5392 | 4053 | 3550 |
| 40° | 5263 | 3709 | 3121 |
| 45° | 5095 | 3372 | 2736 |
| 50° | 4913 | 3013 | 2337 |
| 55° | 4722 | 2629 | 1971 |
| 60° | 4540 | 2234 | 1600 |
| 65° | 4305 | 1829 | 1249 |
| 70° | 4011 | 1384 | 892  |
| 75° | 3583 | 937  | 707  |
| 80° | 3062 | 651  | 497  |
| 85° | 2296 | 351  | 259  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 5095 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 52.3   | 1.2       |
| 10°-20°   | 145.4  | 3.4       |
| 20°-30°   | 209.3  | 4.9       |
| 30°-40°   | 235.7  | 5.5       |
| 40°-50°   | 225.5  | 5.2       |
| 50°-60°   | 184.6  | 4.3       |
| 60°-70°   | 124.4  | 2.9       |
| 70°-80°   | 62.4   | 1.4       |
| 80°-90°   | 18.3   | 0.4       |
| 90°-100°  | 35.3   | 0.8       |
| 100°-110° | 170.8  | 4.0       |
| 110°-120° | 418.5  | 9.7       |
| 120°-130° | 531.3  | 12.3      |
| 130°-140° | 567.6  | 13.2      |
| 140°-150° | 530.8  | 12.3      |
| 150°-160° | 428.1  | 9.9       |
| 160°-170° | 276.3  | 6.4       |
| 170°-180° | 95.2   | 2.2       |
| <hr/>     |        |           |
| 0°-30°    | 407.0  | 9.4       |
| 0°-40°    | 642.7  | 14.9      |
| 0°-60°    | 1052.8 | 24.4      |
| 0°-90°    | 1258.0 | 29.2      |
| 90°-120°  | 624.7  | 14.5      |
| 90°-150°  | 2254.4 | 52.3      |
| 90°-180°  | 3054.0 | 70.8      |
| 0°-180°   | 4312.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 556  | 556   | 556  | 556   | 556  |      |
| 5°   | 556  | 554   | 548  | 552   | 551  | 53   |
| 15°  | 530  | 525   | 513  | 510   | 507  | 149  |
| 25°  | 482  | 471   | 450  | 441   | 436  | 222  |
| 35°  | 418  | 401   | 373  | 354   | 346  | 261  |
| 45°  | 343  | 323   | 288  | 262   | 252  | 265  |
| 55°  | 261  | 238   | 200  | 174   | 165  | 234  |
| 65°  | 178  | 153   | 118  | 96    | 91   | 176  |
| 75°  | 94   | 73    | 48   | 43    | 42   | 100  |
| 85°  | 24   | 14    | 13   | 12    | 12   | 26   |
| 90°  | 1    | 8     | 18   | 21    | 22   | 4    |
| 95°  | 45   | 15    | 23   | 28    | 28   | 54   |
| 105° | 222  | 230   | 163  | 31    | 33   | 235  |
| 115° | 416  | 420   | 427  | 435   | 438  | 411  |
| 125° | 586  | 592   | 595  | 597   | 598  | 524  |
| 135° | 730  | 735   | 738  | 740   | 738  | 562  |
| 145° | 842  | 848   | 849  | 851   | 851  | 527  |
| 155° | 928  | 927   | 927  | 931   | 927  | 428  |
| 165° | 979  | 976   | 976  | 982   | 976  | 277  |
| 175° | 1002 | 998   | 999  | 1004  | 998  | 95   |
| 180° | 1002 | 1002  | 1002 | 1002  | 1002 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 556.0 | 556.0 | 556.0 | 556.0 | 556.0 |
| 2.5°   | 558.2 | 556.4 | 551.0 | 556.0 | 555.1 |
| 5°     | 556.0 | 553.7 | 548.3 | 552.3 | 551.4 |
| 7.5°   | 551.9 | 549.6 | 542.9 | 545.6 | 544.2 |
| 10°    | 546.5 | 543.3 | 535.2 | 535.7 | 533.4 |
| 12.5°  | 538.8 | 535.2 | 524.8 | 524.4 | 521.7 |
| 15°    | 530.3 | 525.3 | 512.7 | 510.4 | 507.3 |
| 17.5°  | 519.9 | 514.5 | 498.7 | 494.2 | 489.7 |
| 20°    | 508.2 | 500.9 | 483.8 | 477.9 | 472.5 |
| 22.5°  | 495.1 | 486.5 | 468.0 | 460.4 | 455.4 |
| 25°    | 482.5 | 471.2 | 450.4 | 441.0 | 436.0 |
| 27.5°  | 467.1 | 455.0 | 432.4 | 419.8 | 412.1 |
| 30°    | 451.3 | 437.8 | 412.6 | 397.2 | 390.0 |
| 32.5°  | 435.6 | 419.8 | 392.7 | 375.6 | 367.9 |
| 35°    | 417.5 | 401.3 | 373.3 | 354.0 | 345.8 |
| 37.5°  | 399.5 | 381.9 | 352.6 | 331.0 | 321.0 |
| 40°    | 382.4 | 362.5 | 330.5 | 307.1 | 296.7 |
| 42.5°  | 363.0 | 343.1 | 309.8 | 283.6 | 274.6 |
| 45°    | 343.1 | 322.8 | 288.1 | 262.4 | 251.6 |
| 47.5°  | 323.7 | 301.2 | 266.9 | 239.0 | 229.5 |
| 50°    | 302.1 | 280.9 | 244.4 | 216.4 | 206.1 |
| 52.5°  | 282.7 | 259.3 | 223.2 | 193.9 | 184.9 |
| 55°    | 260.6 | 238.5 | 200.2 | 174.0 | 165.0 |
| 57.5°  | 240.8 | 216.9 | 178.1 | 153.3 | 145.6 |
| 60°    | 220.0 | 195.2 | 157.8 | 133.5 | 125.8 |
| 62.5°  | 199.3 | 174.5 | 137.1 | 114.5 | 106.4 |
| 65°    | 178.1 | 153.3 | 118.1 | 96.0  | 91.1  |
| 67.5°  | 156.9 | 131.7 | 97.4  | 80.7  | 75.3  |
| 70°    | 136.2 | 111.8 | 80.3  | 64.5  | 59.5  |
| 72.5°  | 115.4 | 91.5  | 63.6  | 51.4  | 50.0  |
| 75°    | 94.2  | 72.6  | 47.8  | 43.3  | 42.4  |
| 77.5°  | 74.8  | 55.0  | 37.4  | 34.7  | 33.8  |
| 80°    | 56.4  | 37.9  | 28.4  | 27.1  | 26.2  |
| 82.5°  | 38.8  | 23.4  | 20.3  | 18.9  | 18.9  |
| 85°    | 23.9  | 14.0  | 12.6  | 11.7  | 11.7  |
| 87.5°  | 10.8  | 5.9   | 5.9   | 5.4   | 5.0   |
| 90°    | 0.7   | 8.2   | 17.9  | 20.8  | 22.3  |
| 92.5°  | 17.1  | 12.7  | 19.4  | 24.6  | 25.3  |
| 95°    | 45.4  | 14.9  | 23.1  | 28.3  | 28.3  |
| 97.5°  | 82.6  | 61.8  | 23.8  | 29.8  | 30.5  |
| 100°   | 125.8 | 140.7 | 24.6  | 30.5  | 31.3  |
| 102.5° | 174.9 | 184.6 | 55.1  | 30.5  | 32.0  |
| 105°   | 221.8 | 230.0 | 163.0 | 31.3  | 32.7  |
| 107.5° | 271.7 | 278.4 | 289.5 | 174.9 | 77.4  |
| 110°   | 321.5 | 327.5 | 335.7 | 311.1 | 204.7 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 369.2  | 374.4  | 382.6  | 389.2  | 387.8  |
| 115°   | 416.0  | 420.5  | 427.2  | 434.6  | 437.6  |
| 117.5° | 462.2  | 467.4  | 471.1  | 477.1  | 477.8  |
| 120°   | 504.6  | 511.3  | 513.5  | 519.5  | 519.5  |
| 122.5° | 547.8  | 553.0  | 556.0  | 559.7  | 560.4  |
| 125°   | 586.5  | 592.4  | 595.4  | 596.9  | 598.4  |
| 127.5° | 625.2  | 631.1  | 634.9  | 637.1  | 635.6  |
| 130°   | 660.9  | 666.9  | 669.8  | 672.8  | 671.3  |
| 132.5° | 695.1  | 701.1  | 703.3  | 706.3  | 704.1  |
| 135°   | 730.1  | 734.6  | 737.6  | 739.8  | 737.6  |
| 137.5° | 759.9  | 765.8  | 767.3  | 771.1  | 769.6  |
| 140°   | 789.7  | 794.1  | 796.4  | 799.3  | 797.8  |
| 142.5° | 817.2  | 821.7  | 823.9  | 826.1  | 823.9  |
| 145°   | 842.5  | 847.7  | 849.2  | 850.7  | 850.7  |
| 147.5° | 867.1  | 870.8  | 872.3  | 873.8  | 870.0  |
| 150°   | 889.4  | 891.6  | 893.1  | 894.6  | 892.4  |
| 152.5° | 909.5  | 910.2  | 911.0  | 914.0  | 910.2  |
| 155°   | 928.1  | 926.6  | 927.3  | 931.1  | 926.6  |
| 157.5° | 943.0  | 943.0  | 942.2  | 946.7  | 940.7  |
| 160°   | 956.4  | 955.6  | 954.9  | 959.4  | 954.1  |
| 162.5° | 969.0  | 966.8  | 966.1  | 971.3  | 966.8  |
| 165°   | 978.7  | 976.5  | 975.7  | 981.7  | 976.5  |
| 167.5° | 986.9  | 983.9  | 983.9  | 989.9  | 983.9  |
| 170°   | 993.6  | 990.6  | 990.6  | 996.6  | 990.6  |
| 172.5° | 998.1  | 994.3  | 995.1  | 1001.0 | 994.3  |
| 175°   | 1001.8 | 998.1  | 998.8  | 1004.0 | 998.1  |
| 177.5° | 1003.3 | 999.5  | 1000.3 | 1006.2 | 998.8  |
| 180°   | 1001.8 | 1001.8 | 1001.8 | 1001.8 | 1001.8 |

(END OF REPORT)