

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: P1032235

Luminaire Tested: S123RDIW-B340D460UB27-4F0-XX-W2A-F1

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1032235  
REPORT IS A COMBINATION OF REPORTS P994295 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDIW-B340D460UB27-4F0-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**

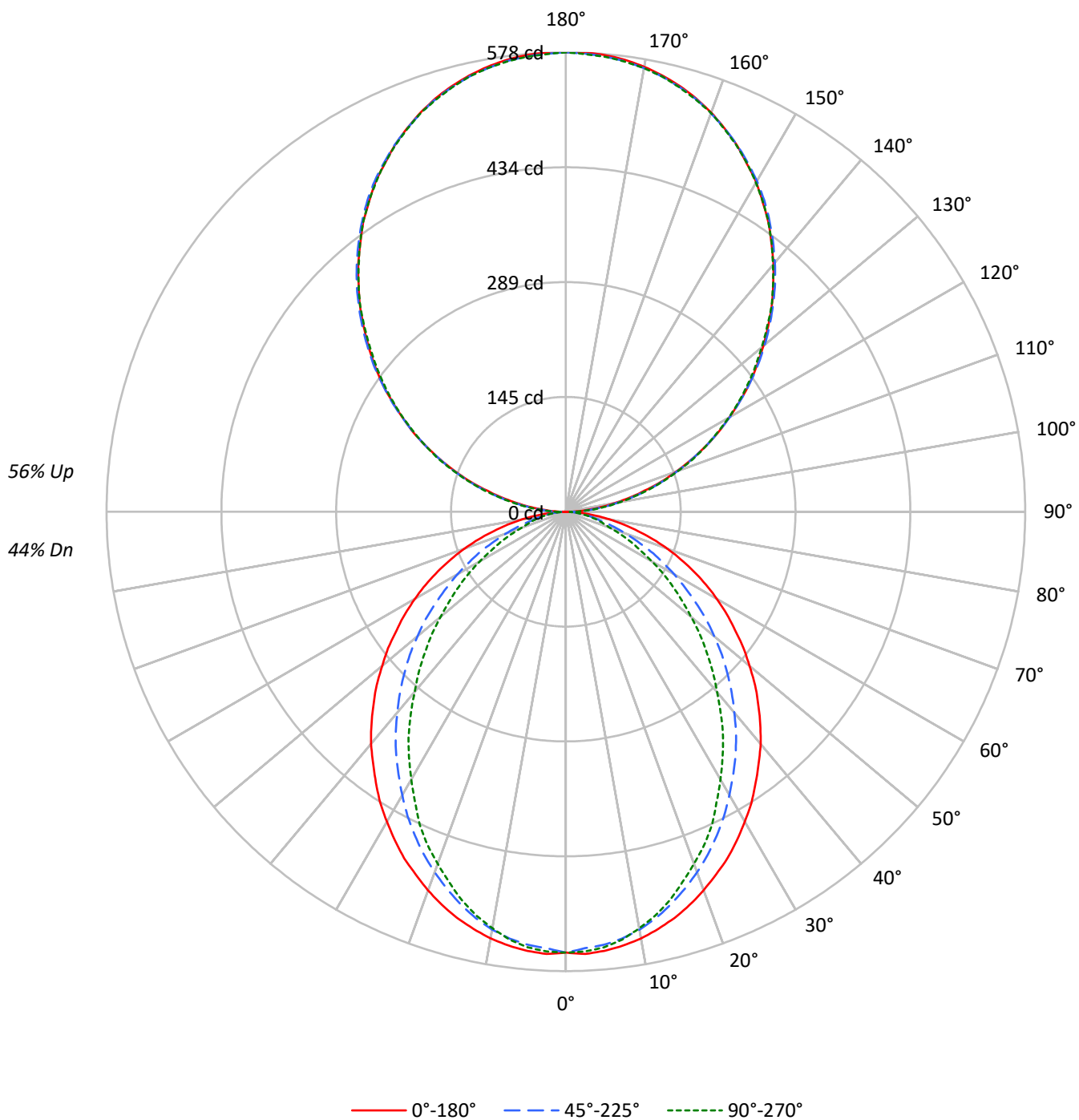
Lumens per Lamp: N/A  
Luminaire Lumens: 2856.0 lumens  
Efficiency: N/A  
Efficacy: 109.0 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.07 / 1.22  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 26.2  
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   | 106 | 106 | 106 | 106 | 97 | 97 | 97 | 97 | 80 | 80 | 80 | 65 | 65 | 65 | 51 | 51 | 51 |
| 1   | 97  | 93  | 89  | 85  | 88 | 85 | 82 | 79 | 70 | 68 | 66 | 57 | 56 | 54 | 45 | 44 | 43 |
| 2   | 88  | 81  | 75  | 70  | 81 | 75 | 69 | 65 | 62 | 58 | 55 | 51 | 48 | 46 | 40 | 38 | 37 |
| 3   | 81  | 72  | 64  | 59  | 74 | 66 | 60 | 55 | 55 | 50 | 47 | 45 | 42 | 39 | 36 | 34 | 32 |
| 4   | 74  | 63  | 56  | 50  | 67 | 58 | 52 | 47 | 49 | 44 | 40 | 40 | 37 | 34 | 32 | 30 | 27 |
| 5   | 68  | 57  | 49  | 43  | 62 | 52 | 45 | 40 | 44 | 39 | 35 | 36 | 32 | 29 | 29 | 26 | 24 |
| 6   | 63  | 51  | 43  | 37  | 57 | 47 | 40 | 35 | 40 | 34 | 30 | 33 | 29 | 26 | 26 | 24 | 21 |
| 7   | 58  | 46  | 38  | 33  | 53 | 42 | 36 | 31 | 36 | 31 | 27 | 30 | 26 | 23 | 24 | 21 | 19 |
| 8   | 54  | 42  | 34  | 29  | 49 | 39 | 32 | 27 | 33 | 28 | 24 | 27 | 23 | 20 | 22 | 19 | 17 |
| 9   | 50  | 38  | 31  | 26  | 46 | 35 | 29 | 24 | 30 | 25 | 21 | 25 | 21 | 18 | 21 | 18 | 15 |
| 10  | 47  | 35  | 28  | 23  | 43 | 32 | 26 | 22 | 28 | 23 | 19 | 23 | 19 | 17 | 19 | 16 | 14 |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 5970 | 5970 | 5970 |
| 5°  | 5979 | 5759 | 5743 |
| 10° | 5933 | 5542 | 5433 |
| 15° | 5856 | 5274 | 5093 |
| 20° | 5754 | 4984 | 4714 |
| 25° | 5650 | 4681 | 4354 |
| 30° | 5517 | 4359 | 3929 |
| 35° | 5379 | 4043 | 3541 |
| 40° | 5249 | 3700 | 3114 |
| 45° | 5084 | 3364 | 2729 |
| 50° | 4901 | 3006 | 2331 |
| 55° | 4711 | 2622 | 1966 |
| 60° | 4529 | 2229 | 1596 |
| 65° | 4296 | 1826 | 1246 |
| 70° | 3999 | 1381 | 891  |
| 75° | 3576 | 935  | 706  |
| 80° | 3051 | 649  | 495  |
| 85° | 2286 | 351  | 259  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 5084 cd/sqm

TEST NUMBER: P1032235

CATALOG NUMBER: S123RDIW-B340D460UB27-4F0-XX-W2A-F1

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 52.1   | 1.8       |
| 10°-20°   | 145.0  | 5.1       |
| 20°-30°   | 208.8  | 7.3       |
| 30°-40°   | 235.2  | 8.2       |
| 40°-50°   | 225.0  | 7.9       |
| 50°-60°   | 184.1  | 6.4       |
| 60°-70°   | 124.2  | 4.3       |
| 70°-80°   | 62.3   | 2.2       |
| 80°-90°   | 17.5   | 0.6       |
| 90°-100°  | 37.2   | 1.3       |
| 100°-110° | 112.6  | 3.9       |
| 110°-120° | 191.7  | 6.7       |
| 120°-130° | 252.3  | 8.8       |
| 130°-140° | 283.5  | 9.9       |
| 140°-150° | 278.8  | 9.8       |
| 150°-160° | 234.7  | 8.2       |
| 160°-170° | 156.2  | 5.5       |
| 170°-180° | 54.7   | 1.9       |
| 0°-30°    | 406.0  | 14.2      |
| 0°-40°    | 641.2  | 22.5      |
| 0°-60°    | 1050.3 | 36.8      |
| 0°-90°    | 1254.2 | 43.9      |
| 90°-120°  | 341.6  | 12.0      |
| 90°-150°  | 1156.2 | 40.5      |
| 90°-180°  | 1602.0 | 56.1      |
| 0°-180°   | 2856.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 555 | 555   | 555 | 555   | 555 |      |
| 5°   | 555 | 552   | 547 | 551   | 550 | 53   |
| 15°  | 529 | 524   | 511 | 509   | 506 | 149  |
| 25°  | 481 | 470   | 449 | 440   | 435 | 221  |
| 35°  | 416 | 400   | 372 | 353   | 345 | 261  |
| 45°  | 342 | 322   | 287 | 262   | 251 | 264  |
| 55°  | 260 | 238   | 200 | 174   | 165 | 233  |
| 65°  | 178 | 153   | 118 | 96    | 91  | 176  |
| 75°  | 94  | 72    | 48  | 43    | 42  | 100  |
| 85°  | 24  | 14    | 13  | 12    | 12  | 26   |
| 90°  | 0   | 5     | 11  | 13    | 14  | 3    |
| 95°  | 27  | 30    | 34  | 35    | 35  | 30   |
| 105° | 102 | 103   | 107 | 107   | 108 | 109  |
| 115° | 193 | 194   | 194 | 194   | 194 | 191  |
| 125° | 282 | 284   | 283 | 281   | 279 | 252  |
| 135° | 366 | 369   | 369 | 367   | 366 | 282  |
| 145° | 445 | 446   | 447 | 446   | 445 | 278  |
| 155° | 509 | 509   | 510 | 511   | 508 | 234  |
| 165° | 554 | 553   | 553 | 556   | 553 | 156  |
| 175° | 577 | 575   | 575 | 578   | 574 | 55   |
| 180° | 578 | 578   | 578 | 578   | 578 |      |

TEST NUMBER: P1032235

CATALOG NUMBER: S123RDIW-B340D460UB27-4F0-XX-W2A-F1

**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 554.6 | 554.6 | 554.6 | 554.6 | 554.6 |
| 2.5°   | 556.9 | 555.1 | 549.7 | 554.6 | 553.7 |
| 5°     | 554.6 | 552.4 | 547.0 | 551.0 | 550.1 |
| 7.5°   | 550.6 | 548.3 | 541.6 | 544.3 | 542.9 |
| 10°    | 545.2 | 542.0 | 533.9 | 534.4 | 532.1 |
| 12.5°  | 537.5 | 533.9 | 523.6 | 523.1 | 520.4 |
| 15°    | 529.0 | 524.0 | 511.4 | 509.2 | 506.0 |
| 17.5°  | 518.6 | 513.2 | 497.5 | 493.0 | 488.5 |
| 20°    | 506.9 | 499.7 | 482.7 | 476.8 | 471.4 |
| 22.5°  | 493.9 | 485.4 | 466.9 | 459.3 | 454.3 |
| 25°    | 481.3 | 470.1 | 449.4 | 439.9 | 435.0 |
| 27.5°  | 466.0 | 453.9 | 431.4 | 418.8 | 411.1 |
| 30°    | 450.3 | 436.8 | 411.6 | 396.3 | 389.1 |
| 32.5°  | 434.5 | 418.8 | 391.8 | 374.7 | 367.1 |
| 35°    | 416.5 | 400.3 | 372.4 | 353.1 | 345.0 |
| 37.5°  | 398.5 | 381.0 | 351.8 | 330.2 | 320.3 |
| 40°    | 381.4 | 361.7 | 329.7 | 306.3 | 296.0 |
| 42.5°  | 362.1 | 342.3 | 309.0 | 282.9 | 273.9 |
| 45°    | 342.3 | 322.1 | 287.4 | 261.8 | 251.0 |
| 47.5°  | 323.0 | 300.5 | 266.3 | 238.4 | 229.0 |
| 50°    | 301.4 | 280.2 | 243.8 | 215.9 | 205.6 |
| 52.5°  | 282.0 | 258.6 | 222.7 | 193.4 | 184.4 |
| 55°    | 260.0 | 238.0 | 199.7 | 173.6 | 164.6 |
| 57.5°  | 240.2 | 216.4 | 177.7 | 152.9 | 145.3 |
| 60°    | 219.5 | 194.8 | 157.4 | 133.1 | 125.5 |
| 62.5°  | 198.8 | 174.1 | 136.7 | 114.3 | 106.2 |
| 65°    | 177.7 | 152.9 | 117.9 | 95.8  | 90.9  |
| 67.5°  | 156.5 | 131.3 | 97.2  | 80.5  | 75.1  |
| 70°    | 135.8 | 111.6 | 80.1  | 64.3  | 59.4  |
| 72.5°  | 115.2 | 91.3  | 63.4  | 51.3  | 49.9  |
| 75°    | 94.0  | 72.4  | 47.7  | 43.2  | 42.3  |
| 77.5°  | 74.7  | 54.9  | 37.3  | 34.6  | 33.7  |
| 80°    | 56.2  | 37.8  | 28.3  | 27.0  | 26.1  |
| 82.5°  | 38.7  | 23.4  | 20.2  | 18.9  | 18.9  |
| 85°    | 23.8  | 13.9  | 12.6  | 11.7  | 11.7  |
| 87.5°  | 10.8  | 5.8   | 5.8   | 5.4   | 4.9   |
| 90°    | 0.5   | 5.0   | 10.9  | 12.7  | 13.6  |
| 92.5°  | 13.6  | 16.3  | 19.1  | 20.4  | 19.5  |
| 95°    | 26.8  | 30.0  | 33.6  | 35.4  | 35.4  |
| 97.5°  | 44.0  | 46.3  | 49.0  | 51.3  | 50.9  |
| 100°   | 61.8  | 64.5  | 66.8  | 68.1  | 69.0  |
| 102.5° | 82.2  | 83.6  | 86.7  | 88.1  | 87.6  |
| 105°   | 102.2 | 103.1 | 107.2 | 107.2 | 108.1 |
| 107.5° | 125.8 | 126.2 | 128.1 | 129.4 | 129.0 |
| 110°   | 147.6 | 148.5 | 149.4 | 151.2 | 150.3 |



TEST NUMBER: P1032235

CATALOG NUMBER: S123RDIW-B340D460UB27-4F0-XX-W2A-F1

**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 170.3 | 170.7 | 170.7 | 173.0 | 173.0 |
| 115°   | 193.0 | 194.4 | 193.5 | 193.9 | 193.5 |
| 117.5° | 216.2 | 216.6 | 215.7 | 215.7 | 214.3 |
| 120°   | 237.5 | 240.2 | 238.0 | 237.5 | 236.6 |
| 122.5° | 259.8 | 261.6 | 260.7 | 259.3 | 257.9 |
| 125°   | 282.5 | 283.8 | 282.9 | 281.1 | 279.3 |
| 127.5° | 303.3 | 306.1 | 305.2 | 302.4 | 300.6 |
| 130°   | 324.2 | 327.9 | 326.5 | 324.7 | 321.5 |
| 132.5° | 345.1 | 348.8 | 347.9 | 345.6 | 343.3 |
| 135°   | 366.5 | 369.2 | 368.7 | 366.9 | 366.0 |
| 137.5° | 386.0 | 388.3 | 389.6 | 387.4 | 386.0 |
| 140°   | 406.4 | 408.7 | 409.2 | 408.7 | 405.5 |
| 142.5° | 425.1 | 427.3 | 428.2 | 427.8 | 425.5 |
| 145°   | 444.6 | 445.5 | 446.8 | 446.4 | 444.6 |
| 147.5° | 461.4 | 463.2 | 464.6 | 464.6 | 461.8 |
| 150°   | 479.1 | 480.0 | 480.9 | 480.9 | 478.2 |
| 152.5° | 493.6 | 495.0 | 495.4 | 496.3 | 494.1 |
| 155°   | 509.1 | 509.1 | 509.5 | 511.3 | 508.2 |
| 157.5° | 522.2 | 521.8 | 522.2 | 524.0 | 521.3 |
| 160°   | 534.5 | 533.6 | 533.6 | 535.9 | 534.0 |
| 162.5° | 545.4 | 544.0 | 544.5 | 546.8 | 543.6 |
| 165°   | 554.5 | 553.1 | 553.1 | 555.8 | 552.7 |
| 167.5° | 562.2 | 560.4 | 560.8 | 563.6 | 560.8 |
| 170°   | 568.6 | 566.7 | 566.7 | 569.9 | 566.7 |
| 172.5° | 573.5 | 571.7 | 571.7 | 574.5 | 571.3 |
| 175°   | 576.7 | 574.9 | 574.9 | 577.6 | 574.5 |
| 177.5° | 578.5 | 576.7 | 576.7 | 579.5 | 576.3 |
| 180°   | 578.1 | 578.1 | 578.1 | 578.1 | 578.1 |

(END OF REPORT)