

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: P1029382

Luminaire Tested: S122DIW-B290D435UB2750-4F0-XX-W2A-F1\_3000K

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1029382  
REPORT IS A COMBINATION OF REPORTS P985688 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122DIW-B290D435UB2750-4F0-XX-W2A-F1\_3000K  
Description: Define 2 Direct/Indirect Wall Mount with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}  
Light Source: -  
Ballast/Driver: -

**Summary**

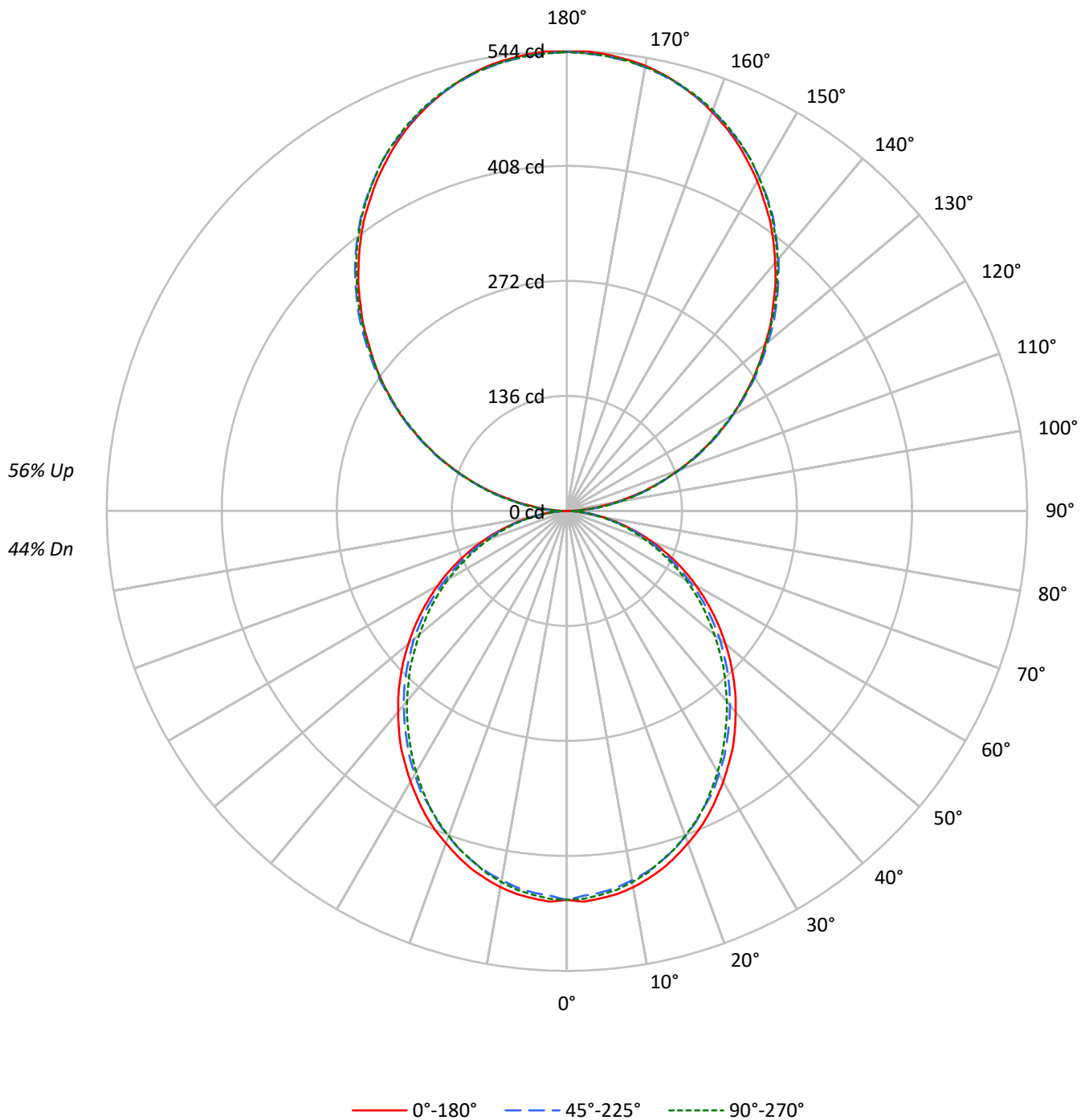
Lumens per Lamp: N/A  
Luminaire Lumens: 2689.0 lumens  
Efficiency: N/A  
Efficacy: 102.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

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 |  | 64 | 64 | 64 |  | 50 | 50 | 50 |
| 1   | 96  | 92  | 88  | 85  | 88 | 84 | 81 | 78 |  | 70 | 68 | 65 |  | 57 | 55 | 54 |  | 44 | 43 | 42 |
| 2   | 88  | 80  | 74  | 69  | 80 | 74 | 68 | 64 |  | 61 | 57 | 54 |  | 50 | 47 | 45 |  | 39 | 37 | 36 |
| 3   | 80  | 71  | 63  | 58  | 73 | 65 | 59 | 53 |  | 54 | 49 | 46 |  | 44 | 41 | 38 |  | 35 | 32 | 30 |
| 4   | 73  | 62  | 55  | 49  | 67 | 57 | 51 | 45 |  | 48 | 43 | 39 |  | 39 | 35 | 32 |  | 31 | 28 | 26 |
| 5   | 67  | 56  | 48  | 42  | 61 | 51 | 44 | 39 |  | 43 | 38 | 33 |  | 35 | 31 | 28 |  | 28 | 25 | 23 |
| 6   | 62  | 50  | 42  | 36  | 56 | 46 | 39 | 34 |  | 39 | 33 | 29 |  | 32 | 28 | 25 |  | 25 | 22 | 20 |
| 7   | 57  | 45  | 37  | 32  | 52 | 42 | 35 | 30 |  | 35 | 30 | 26 |  | 29 | 25 | 22 |  | 23 | 20 | 18 |
| 8   | 53  | 41  | 33  | 28  | 48 | 38 | 31 | 26 |  | 32 | 27 | 23 |  | 26 | 22 | 19 |  | 21 | 18 | 16 |
| 9   | 49  | 37  | 30  | 25  | 45 | 34 | 28 | 23 |  | 29 | 24 | 20 |  | 24 | 20 | 17 |  | 20 | 17 | 14 |
| 10  | 46  | 34  | 27  | 22  | 42 | 32 | 25 | 21 |  | 27 | 22 | 18 |  | 22 | 18 | 16 |  | 18 | 15 | 13 |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 7280 | 7280 | 7280 |
| 5°  | 7292 | 6938 | 6890 |
| 10° | 7232 | 6622 | 6491 |
| 15° | 7127 | 6304 | 6072 |
| 20° | 6983 | 5958 | 5675 |
| 25° | 6840 | 5595 | 5278 |
| 30° | 6661 | 5255 | 4863 |
| 35° | 6491 | 4896 | 4455 |
| 40° | 6282 | 4542 | 4069 |
| 45° | 6074 | 4191 | 3690 |
| 50° | 5847 | 3833 | 3296 |
| 55° | 5609 | 3451 | 2925 |
| 60° | 5341 | 3037 | 2537 |
| 65° | 5044 | 2618 | 2132 |
| 70° | 4673 | 2156 | 1721 |
| 75° | 4156 | 1663 | 1328 |
| 80° | 3529 | 1131 | 856  |
| 85° | 2557 | 524  | 364  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6074 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 43.3   | 1.6       |
| 10°-20°   | 121.8  | 4.5       |
| 20°-30°   | 179.0  | 6.7       |
| 30°-40°   | 207.9  | 7.7       |
| 40°-50°   | 207.6  | 7.7       |
| 50°-60°   | 181.0  | 6.7       |
| 60°-70°   | 133.8  | 5.0       |
| 70°-80°   | 75.7   | 2.8       |
| 80°-90°   | 21.5   | 0.8       |
| 90°-100°  | 33.6   | 1.2       |
| 100°-110° | 106.7  | 4.0       |
| 110°-120° | 182.6  | 6.8       |
| 120°-130° | 240.2  | 8.9       |
| 130°-140° | 269.6  | 10.0      |
| 140°-150° | 264.4  | 9.8       |
| 150°-160° | 221.8  | 8.2       |
| 160°-170° | 147.1  | 5.5       |
| 170°-180° | 51.4   | 1.9       |
| 0°-30°    | 344.0  | 12.8      |
| 0°-40°    | 551.9  | 20.5      |
| 0°-60°    | 940.5  | 35.0      |
| 0°-90°    | 1171.5 | 43.6      |
| 90°-120°  | 322.9  | 12.0      |
| 90°-150°  | 1097.1 | 40.8      |
| 90°-180°  | 1517.0 | 56.4      |
| 0°-180°   | 2689.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 460 | 460   | 460 | 460   | 460 |      |
| 5°   | 460 | 458   | 453 | 457   | 456 | 44   |
| 15°  | 438 | 435   | 429 | 431   | 429 | 123  |
| 25°  | 396 | 393   | 385 | 386   | 385 | 182  |
| 35°  | 342 | 337   | 330 | 328   | 326 | 213  |
| 45°  | 278 | 275   | 268 | 264   | 262 | 215  |
| 55°  | 210 | 208   | 202 | 197   | 195 | 188  |
| 65°  | 142 | 139   | 135 | 131   | 129 | 140  |
| 75°  | 74  | 73    | 71  | 68    | 69  | 79   |
| 85°  | 18  | 18    | 17  | 16    | 16  | 20   |
| 90°  | 0   | 6     | 16  | 15    | 16  | 3    |
| 95°  | 24  | 28    | 29  | 29    | 28  | 27   |
| 105° | 98  | 100   | 101 | 102   | 102 | 104  |
| 115° | 183 | 186   | 185 | 185   | 183 | 181  |
| 125° | 267 | 271   | 269 | 268   | 268 | 238  |
| 135° | 345 | 350   | 351 | 350   | 349 | 267  |
| 145° | 419 | 422   | 425 | 425   | 423 | 262  |
| 155° | 479 | 480   | 481 | 484   | 482 | 220  |
| 165° | 521 | 520   | 520 | 524   | 521 | 147  |
| 175° | 542 | 540   | 540 | 543   | 540 | 51   |
| 180° | 543 | 543   | 543 | 543   | 543 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 459.9 | 459.9 | 459.9 | 459.9 | 459.9 |
| 2.5°   | 462.5 | 460.3 | 455.5 | 459.9 | 459.0 |
| 5°     | 459.9 | 458.1 | 453.2 | 456.8 | 455.9 |
| 7.5°   | 456.8 | 454.1 | 449.3 | 452.8 | 451.9 |
| 10°    | 451.9 | 448.8 | 443.5 | 447.1 | 445.7 |
| 12.5°  | 445.3 | 442.6 | 437.3 | 439.5 | 438.7 |
| 15°    | 437.8 | 435.1 | 429.4 | 431.1 | 428.9 |
| 17.5°  | 428.5 | 425.8 | 420.1 | 422.3 | 420.1 |
| 20°    | 418.3 | 415.7 | 409.5 | 410.8 | 409.0 |
| 22.5°  | 408.1 | 404.2 | 398.4 | 398.4 | 397.5 |
| 25°    | 396.2 | 392.7 | 385.1 | 386.0 | 385.1 |
| 27.5°  | 382.9 | 379.8 | 374.1 | 372.8 | 370.6 |
| 30°    | 369.7 | 366.1 | 359.5 | 358.2 | 356.4 |
| 32.5°  | 355.5 | 352.9 | 345.8 | 343.1 | 341.4 |
| 35°    | 341.8 | 337.4 | 330.3 | 327.7 | 325.5 |
| 37.5°  | 326.3 | 322.4 | 315.3 | 312.2 | 310.0 |
| 40°    | 310.4 | 306.9 | 299.8 | 295.8 | 294.1 |
| 42.5°  | 294.9 | 291.4 | 284.3 | 279.9 | 277.3 |
| 45°    | 278.1 | 275.0 | 268.4 | 263.5 | 261.8 |
| 47.5°  | 261.8 | 258.7 | 251.6 | 246.7 | 244.1 |
| 50°    | 244.5 | 242.3 | 236.1 | 229.9 | 227.7 |
| 52.5°  | 227.7 | 224.6 | 218.9 | 214.0 | 210.9 |
| 55°    | 210.5 | 207.8 | 202.5 | 197.2 | 195.0 |
| 57.5°  | 193.2 | 191.0 | 185.3 | 180.0 | 178.2 |
| 60°    | 176.0 | 174.2 | 168.0 | 163.2 | 161.8 |
| 62.5°  | 159.2 | 156.1 | 151.7 | 147.2 | 145.5 |
| 65°    | 141.9 | 139.3 | 134.9 | 130.9 | 128.7 |
| 67.5°  | 124.3 | 122.0 | 118.1 | 115.0 | 113.2 |
| 70°    | 107.9 | 106.1 | 102.1 | 99.1  | 97.3  |
| 72.5°  | 91.1  | 89.3  | 87.1  | 84.0  | 82.7  |
| 75°    | 74.3  | 73.4  | 71.2  | 68.5  | 69.4  |
| 77.5°  | 59.3  | 57.5  | 56.6  | 55.3  | 53.9  |
| 80°    | 44.2  | 43.8  | 42.9  | 41.6  | 40.7  |
| 82.5°  | 30.1  | 30.1  | 29.6  | 27.9  | 27.9  |
| 85°    | 18.1  | 17.7  | 17.2  | 15.9  | 15.5  |
| 87.5°  | 8.0   | 7.1   | 6.2   | 4.9   | 4.4   |
| 90°    | 0.5   | 6.0   | 16.0  | 15.1  | 15.6  |
| 92.5°  | 10.1  | 13.7  | 14.2  | 14.7  | 14.7  |
| 95°    | 23.8  | 28.4  | 29.3  | 29.3  | 28.4  |
| 97.5°  | 39.8  | 44.0  | 45.8  | 45.8  | 45.8  |
| 100°   | 58.2  | 61.8  | 63.2  | 63.2  | 62.7  |
| 102.5° | 77.4  | 80.2  | 82.0  | 82.4  | 82.0  |
| 105°   | 98.5  | 99.8  | 100.8 | 101.7 | 101.7 |
| 107.5° | 119.5 | 121.4 | 121.4 | 121.8 | 119.5 |
| 110°   | 139.7 | 142.4 | 142.4 | 142.4 | 141.1 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 161.7 | 164.4 | 164.0 | 162.6 | 161.7 |
| 115°   | 183.2 | 186.0 | 185.0 | 184.6 | 183.2 |
| 117.5° | 204.7 | 208.4 | 206.1 | 204.7 | 203.4 |
| 120°   | 226.3 | 229.9 | 226.3 | 226.3 | 224.9 |
| 122.5° | 246.0 | 250.5 | 248.2 | 246.9 | 246.0 |
| 125°   | 266.6 | 270.7 | 269.3 | 267.9 | 267.5 |
| 127.5° | 286.7 | 291.8 | 289.9 | 288.1 | 286.7 |
| 130°   | 305.5 | 311.5 | 310.5 | 309.6 | 307.8 |
| 132.5° | 326.6 | 331.2 | 331.6 | 329.3 | 327.9 |
| 135°   | 344.9 | 349.9 | 350.8 | 350.4 | 349.0 |
| 137.5° | 365.0 | 369.2 | 370.1 | 369.6 | 367.8 |
| 140°   | 382.9 | 387.0 | 389.3 | 389.3 | 387.5 |
| 142.5° | 401.2 | 405.4 | 406.7 | 407.2 | 405.4 |
| 145°   | 418.6 | 421.8 | 424.6 | 425.0 | 423.2 |
| 147.5° | 434.2 | 438.3 | 440.2 | 441.1 | 439.2 |
| 150°   | 450.2 | 453.0 | 454.8 | 456.2 | 454.8 |
| 152.5° | 464.4 | 467.2 | 469.5 | 471.3 | 469.5 |
| 155°   | 478.6 | 480.0 | 481.4 | 483.7 | 482.3 |
| 157.5° | 491.0 | 491.9 | 492.8 | 496.0 | 493.8 |
| 160°   | 502.0 | 502.9 | 503.4 | 506.1 | 504.3 |
| 162.5° | 512.1 | 512.1 | 512.5 | 515.7 | 513.4 |
| 165°   | 520.8 | 520.3 | 520.3 | 523.5 | 521.2 |
| 167.5° | 528.6 | 527.2 | 527.2 | 530.4 | 528.1 |
| 170°   | 534.5 | 533.1 | 532.7 | 535.9 | 533.1 |
| 172.5° | 538.6 | 537.3 | 536.8 | 540.0 | 537.3 |
| 175°   | 541.8 | 540.5 | 539.6 | 542.8 | 540.0 |
| 177.5° | 543.7 | 542.3 | 541.4 | 544.1 | 541.4 |
| 180°   | 542.8 | 542.8 | 542.8 | 542.8 | 542.8 |

(END OF REPORT)