

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: P1029673

Luminaire Tested: S122DIW-B675D435UB2750-4F0-XX-W2A-D\_4000K

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1029673  
REPORT IS A COMBINATION OF REPORTS P986585 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122DIW-B675D435UB2750-4F0-XX-W2A-D\_4000K  
Description: Define 2 Direct/Indirect Wall Mount with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}  
Light Source: -  
Ballast/Driver: -

**Summary**

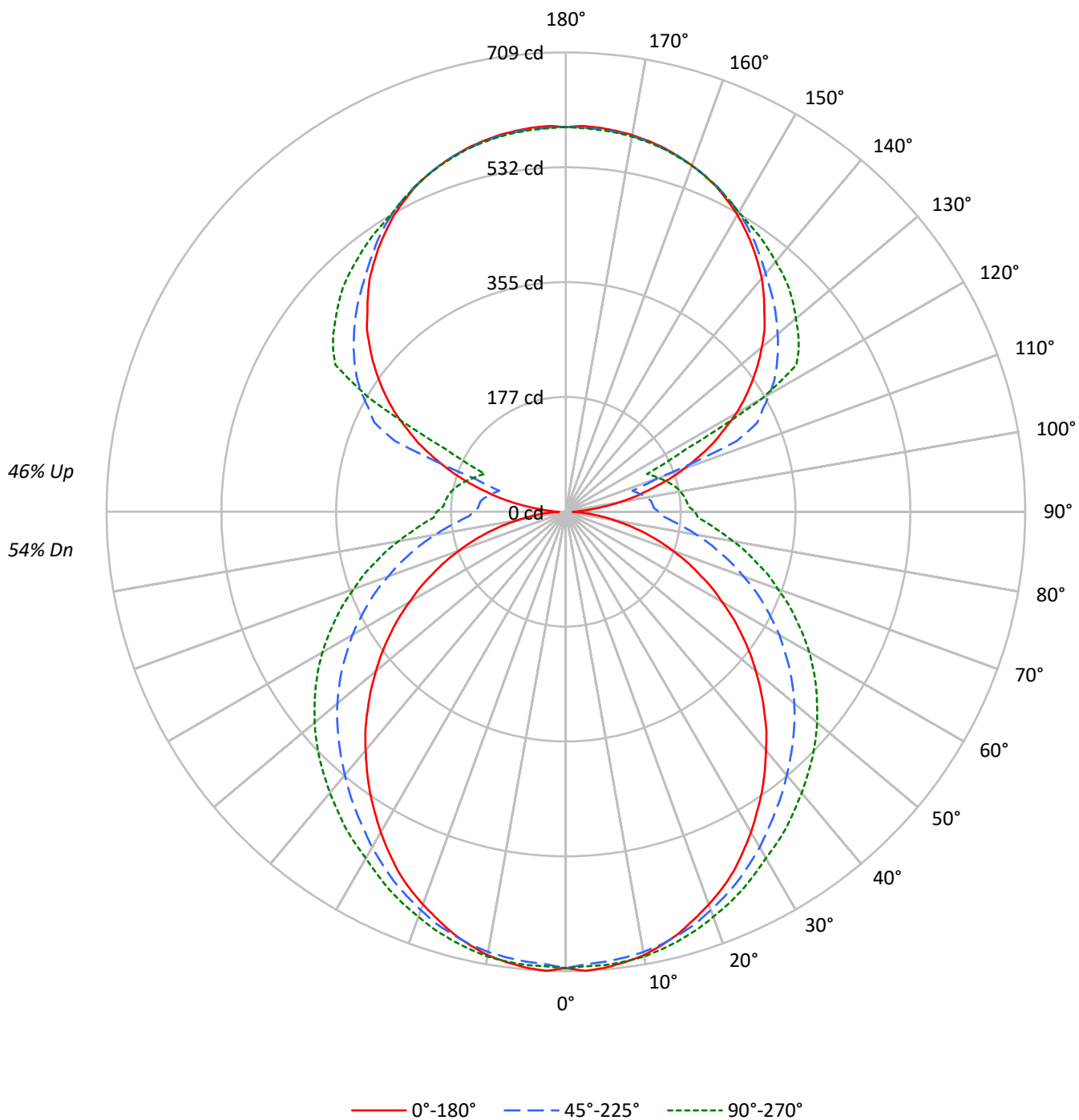
Lumens per Lamp: N/A  
Luminaire Lumens: 4428.9 lumens  
Efficiency: N/A  
Efficacy: 90.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

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

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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 |
| RCR |     |     |     |     |     |     |     |     |    |    |    |  |    |    |    |  |    |
| 0   | 108 | 108 | 108 | 108 | 100 | 100 | 100 | 100 | 86 | 86 | 86 |  | 72 | 72 | 72 |  | 60 |
| 1   | 97  | 92  | 87  | 83  | 90  | 85  | 81  | 78  | 73 | 70 | 67 |  | 61 | 59 | 57 |  | 50 |
| 2   | 88  | 79  | 73  | 67  | 81  | 74  | 68  | 62  | 63 | 58 | 54 |  | 53 | 49 | 46 |  | 43 |
| 3   | 80  | 69  | 61  | 55  | 73  | 64  | 57  | 51  | 55 | 49 | 45 |  | 46 | 42 | 38 |  | 38 |
| 4   | 73  | 61  | 52  | 46  | 67  | 57  | 49  | 43  | 48 | 42 | 38 |  | 41 | 36 | 32 |  | 34 |
| 5   | 67  | 54  | 45  | 39  | 61  | 50  | 43  | 37  | 43 | 37 | 32 |  | 36 | 32 | 28 |  | 30 |
| 6   | 61  | 48  | 40  | 34  | 56  | 45  | 37  | 32  | 39 | 33 | 28 |  | 33 | 28 | 24 |  | 27 |
| 7   | 56  | 44  | 35  | 29  | 52  | 41  | 33  | 28  | 35 | 29 | 24 |  | 30 | 25 | 21 |  | 25 |
| 8   | 52  | 40  | 31  | 26  | 48  | 37  | 30  | 24  | 32 | 26 | 22 |  | 27 | 22 | 19 |  | 23 |
| 9   | 49  | 36  | 28  | 23  | 45  | 34  | 27  | 22  | 29 | 23 | 19 |  | 25 | 20 | 17 |  | 21 |
| 10  | 46  | 33  | 26  | 21  | 42  | 31  | 24  | 19  | 27 | 21 | 17 |  | 23 | 18 | 15 |  | 19 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 11147 | 11147 | 11147 |
| 5°  | 11197 | 10672 | 10612 |
| 10° | 11122 | 10301 | 10152 |
| 15° | 10965 | 9919  | 9680  |
| 20° | 10767 | 9518  | 9232  |
| 25° | 10573 | 9134  | 8827  |
| 30° | 10297 | 8743  | 8425  |
| 35° | 10020 | 8366  | 8130  |
| 40° | 9729  | 8041  | 7836  |
| 45° | 9450  | 7745  | 7580  |
| 50° | 9152  | 7473  | 7328  |
| 55° | 8839  | 7184  | 7072  |
| 60° | 8454  | 6883  | 6801  |
| 65° | 8055  | 6537  | 6491  |
| 70° | 7600  | 6165  | 6156  |
| 75° | 7021  | 5793  | 5842  |
| 80° | 6108  | 5405  | 5514  |
| 85° | 5184  | 5040  | 5232  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 9450 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 66.8   | 1.5       |
| 10°-20°   | 191.5  | 4.3       |
| 20°-30°   | 290.1  | 6.6       |
| 30°-40°   | 353.3  | 8.0       |
| 40°-50°   | 380.1  | 8.6       |
| 50°-60°   | 369.1  | 8.3       |
| 60°-70°   | 322.4  | 7.3       |
| 70°-80°   | 248.1  | 5.6       |
| 80°-90°   | 167.2  | 3.8       |
| 90°-100°  | 134.2  | 3.0       |
| 100°-110° | 156.7  | 3.5       |
| 110°-120° | 248.9  | 5.6       |
| 120°-130° | 351.9  | 7.9       |
| 130°-140° | 354.0  | 8.0       |
| 140°-150° | 319.2  | 7.2       |
| 150°-160° | 254.9  | 5.8       |
| 160°-170° | 164.2  | 3.7       |
| 170°-180° | 56.5   | 1.3       |
| 0°-30°    | 548.3  | 12.4      |
| 0°-40°    | 901.6  | 20.4      |
| 0°-60°    | 1650.8 | 37.3      |
| 0°-90°    | 2388.5 | 53.9      |
| 90°-120°  | 539.8  | 12.2      |
| 90°-150°  | 1564.9 | 35.3      |
| 90°-180°  | 2040.0 | 46.1      |
| 0°-180°   | 4428.9 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 704 | 704   | 704 | 704   | 704 |      |
| 5°   | 706 | 703   | 697 | 703   | 702 | 67   |
| 15°  | 674 | 676   | 676 | 685   | 684 | 190  |
| 25°  | 612 | 620   | 629 | 641   | 644 | 282  |
| 35°  | 528 | 545   | 564 | 587   | 594 | 330  |
| 45°  | 433 | 460   | 496 | 528   | 538 | 334  |
| 55°  | 332 | 368   | 422 | 458   | 472 | 297  |
| 65°  | 227 | 277   | 337 | 379   | 392 | 225  |
| 75°  | 126 | 183   | 248 | 292   | 305 | 133  |
| 85°  | 37  | 100   | 165 | 208   | 222 | 39   |
| 90°  | 11  | 75    | 143 | 186   | 199 | 9    |
| 95°  | 36  | 70    | 134 | 175   | 187 | 39   |
| 105° | 136 | 178   | 114 | 154   | 167 | 145  |
| 115° | 251 | 270   | 326 | 158   | 138 | 247  |
| 125° | 351 | 357   | 398 | 428   | 439 | 314  |
| 135° | 433 | 440   | 454 | 480   | 487 | 335  |
| 145° | 502 | 501   | 508 | 517   | 520 | 314  |
| 155° | 552 | 548   | 554 | 556   | 553 | 254  |
| 165° | 582 | 579   | 580 | 584   | 580 | 164  |
| 175° | 595 | 592   | 593 | 596   | 592 | 57   |
| 180° | 594 | 594   | 594 | 594   | 594 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 704.2 | 704.2 | 704.2 | 704.2 | 704.2 |
| 2.5°   | 709.3 | 706.2 | 699.1 | 704.2 | 702.2 |
| 5°     | 706.2 | 703.2 | 697.1 | 703.2 | 702.2 |
| 7.5°   | 701.1 | 699.1 | 694.0 | 701.1 | 700.1 |
| 10°    | 695.0 | 693.0 | 689.9 | 698.1 | 697.1 |
| 12.5°  | 684.8 | 685.8 | 683.8 | 692.0 | 690.9 |
| 15°    | 673.6 | 675.6 | 675.6 | 684.8 | 683.8 |
| 17.5°  | 659.3 | 663.4 | 666.4 | 675.6 | 675.6 |
| 20°    | 645.0 | 650.1 | 654.2 | 665.4 | 665.4 |
| 22.5°  | 629.7 | 635.8 | 641.9 | 653.2 | 655.2 |
| 25°    | 612.4 | 619.5 | 628.7 | 640.9 | 644.0 |
| 27.5°  | 591.9 | 603.2 | 613.4 | 628.7 | 630.7 |
| 30°    | 571.5 | 584.8 | 598.1 | 614.4 | 617.5 |
| 32.5°  | 549.1 | 564.4 | 580.7 | 600.1 | 606.2 |
| 35°    | 527.6 | 545.0 | 564.4 | 586.8 | 594.0 |
| 37.5°  | 504.2 | 523.6 | 548.1 | 572.5 | 579.7 |
| 40°    | 480.7 | 503.1 | 530.7 | 557.2 | 566.4 |
| 42.5°  | 458.2 | 480.7 | 513.4 | 543.0 | 552.1 |
| 45°    | 432.7 | 460.3 | 496.0 | 527.6 | 537.8 |
| 47.5°  | 408.2 | 437.8 | 478.7 | 511.3 | 522.5 |
| 50°    | 382.7 | 414.4 | 460.3 | 495.0 | 506.2 |
| 52.5°  | 358.2 | 391.9 | 440.9 | 476.6 | 488.9 |
| 55°    | 331.7 | 368.4 | 421.5 | 458.2 | 471.5 |
| 57.5°  | 306.2 | 347.0 | 400.1 | 439.9 | 453.1 |
| 60°    | 278.6 | 322.5 | 380.7 | 419.5 | 433.7 |
| 62.5°  | 254.1 | 300.1 | 358.2 | 400.1 | 413.3 |
| 65°    | 226.6 | 276.6 | 336.8 | 378.6 | 391.9 |
| 67.5°  | 202.1 | 254.1 | 315.4 | 357.2 | 371.5 |
| 70°    | 175.5 | 228.6 | 291.9 | 335.8 | 348.0 |
| 72.5°  | 151.0 | 206.2 | 270.5 | 313.3 | 328.6 |
| 75°    | 125.5 | 182.7 | 248.0 | 291.9 | 305.2 |
| 77.5°  | 101.0 | 160.2 | 226.6 | 270.5 | 284.7 |
| 80°    | 76.5  | 138.8 | 205.1 | 248.0 | 262.3 |
| 82.5°  | 56.1  | 117.4 | 184.7 | 227.6 | 240.9 |
| 85°    | 36.7  | 100.0 | 165.3 | 208.2 | 222.5 |
| 87.5°  | 22.5  | 83.7  | 149.0 | 190.8 | 204.1 |
| 90°    | 10.6  | 74.6  | 143.3 | 186.2 | 199.4 |
| 92.5°  | 19.9  | 72.3  | 135.8 | 176.5 | 189.2 |
| 95°    | 36.1  | 69.9  | 134.2 | 175.0 | 186.9 |
| 97.5°  | 57.4  | 66.0  | 132.1 | 171.2 | 183.8 |
| 100°   | 83.2  | 62.1  | 126.6 | 167.7 | 179.8 |
| 102.5° | 110.5 | 143.4 | 120.3 | 161.8 | 174.3 |
| 105°   | 135.7 | 178.2 | 114.0 | 154.4 | 167.4 |
| 107.5° | 166.2 | 201.5 | 107.7 | 147.1 | 160.1 |
| 110°   | 194.5 | 223.9 | 149.7 | 139.4 | 152.3 |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 222.0 | 246.0 | 285.7 | 133.1 | 145.6 |
| 115°   | 251.2 | 269.7 | 326.3 | 158.1 | 138.3 |
| 117.5° | 275.5 | 292.2 | 342.4 | 311.6 | 209.2 |
| 120°   | 303.9 | 314.3 | 363.0 | 396.6 | 349.9 |
| 122.5° | 328.0 | 335.8 | 382.1 | 412.3 | 421.9 |
| 125°   | 351.3 | 356.9 | 397.8 | 428.4 | 438.8 |
| 127.5° | 373.7 | 378.7 | 412.8 | 442.6 | 452.2 |
| 130°   | 394.7 | 400.6 | 426.8 | 456.0 | 463.7 |
| 132.5° | 416.2 | 420.8 | 440.8 | 468.2 | 476.0 |
| 135°   | 433.3 | 440.2 | 454.2 | 480.0 | 487.3 |
| 137.5° | 452.2 | 457.3 | 466.7 | 490.4 | 496.3 |
| 140°   | 470.7 | 473.1 | 479.8 | 500.1 | 504.0 |
| 142.5° | 486.1 | 488.1 | 493.7 | 509.4 | 512.3 |
| 145°   | 501.5 | 501.0 | 508.3 | 517.4 | 520.4 |
| 147.5° | 515.6 | 514.4 | 521.7 | 524.8 | 526.2 |
| 150°   | 529.4 | 526.4 | 533.3 | 535.8 | 533.7 |
| 152.5° | 541.0 | 537.6 | 544.0 | 546.6 | 543.6 |
| 155°   | 552.2 | 548.3 | 553.5 | 556.0 | 552.6 |
| 157.5° | 561.2 | 557.8 | 561.6 | 564.6 | 561.2 |
| 160°   | 568.9 | 566.3 | 568.9 | 571.5 | 568.5 |
| 162.5° | 575.8 | 573.2 | 575.4 | 578.4 | 574.5 |
| 165°   | 581.8 | 579.2 | 580.5 | 583.5 | 580.5 |
| 167.5° | 586.5 | 584.0 | 585.3 | 588.3 | 584.4 |
| 170°   | 590.4 | 587.8 | 588.7 | 591.7 | 587.8 |
| 172.5° | 593.0 | 590.4 | 591.3 | 594.3 | 590.4 |
| 175°   | 595.1 | 592.1 | 593.0 | 596.0 | 591.7 |
| 177.5° | 596.0 | 593.0 | 593.4 | 596.4 | 592.6 |
| 180°   | 593.8 | 593.8 | 593.8 | 593.8 | 593.8 |

(END OF REPORT)