

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: P1008021

Luminaire Tested: S122DIP-B290D330UB2750-4F0-XX-W2A-F\_3500K

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1008021  
REPORT IS A COMBINATION OF REPORTS P983899 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122DIP-B290D330UB2750-4F0-XX-W2A-F\_3500K  
Description: Define 2 Direct/Indirect Pendant with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}  
Light Source: -  
Ballast/Driver: -

**Summary**

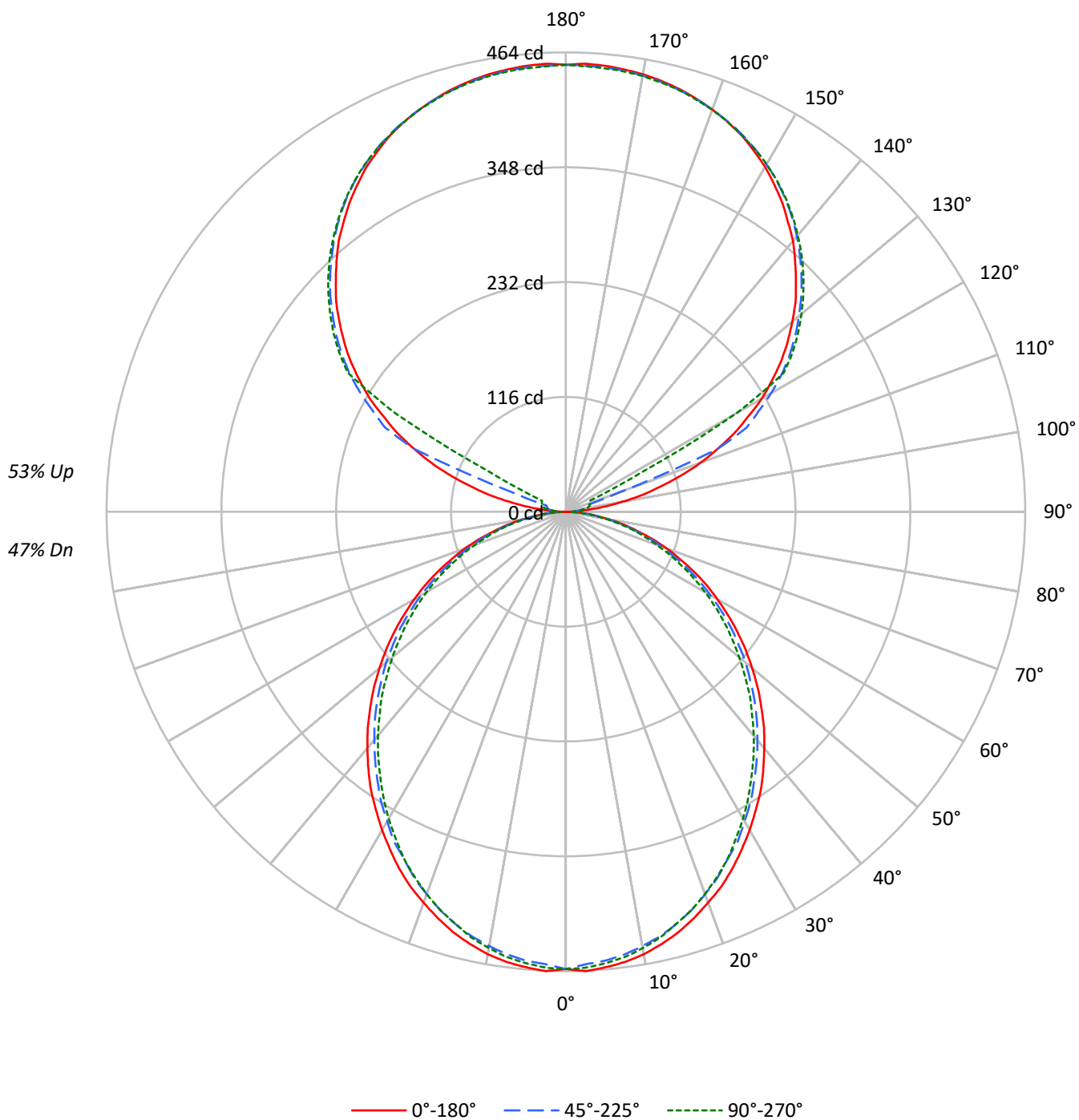
Lumens per Lamp: N/A  
Luminaire Lumens: 2499.0 lumens  
Efficiency: N/A  
Efficacy: 112.1 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 22.3  
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 | 98 | 98 | 98 | 98 | 82 | 82 | 82 | 67 | 67 | 67 | 53 | 53 | 53 |
| 1   | 97  | 93  | 89  | 85  | 89 | 85 | 82 | 79 | 72 | 69 | 67 | 59 | 57 | 56 | 47 | 46 | 45 |
| 2   | 88  | 81  | 75  | 70  | 81 | 75 | 69 | 65 | 63 | 59 | 56 | 52 | 49 | 47 | 42 | 40 | 38 |
| 3   | 81  | 71  | 64  | 58  | 74 | 66 | 59 | 54 | 55 | 51 | 47 | 46 | 42 | 39 | 37 | 34 | 32 |
| 4   | 74  | 63  | 55  | 49  | 68 | 58 | 51 | 46 | 49 | 44 | 40 | 41 | 37 | 34 | 33 | 30 | 28 |
| 5   | 68  | 56  | 48  | 42  | 62 | 52 | 45 | 39 | 44 | 38 | 34 | 37 | 32 | 29 | 30 | 27 | 24 |
| 6   | 62  | 50  | 42  | 36  | 57 | 47 | 39 | 34 | 40 | 34 | 30 | 33 | 29 | 26 | 27 | 24 | 21 |
| 7   | 58  | 45  | 38  | 32  | 53 | 42 | 35 | 30 | 36 | 30 | 26 | 30 | 26 | 23 | 25 | 21 | 19 |
| 8   | 53  | 41  | 34  | 28  | 49 | 38 | 31 | 27 | 33 | 27 | 23 | 27 | 23 | 20 | 23 | 19 | 17 |
| 9   | 50  | 38  | 30  | 25  | 46 | 35 | 28 | 24 | 30 | 25 | 21 | 25 | 21 | 18 | 21 | 18 | 15 |
| 10  | 46  | 34  | 27  | 23  | 43 | 32 | 26 | 21 | 28 | 22 | 19 | 23 | 19 | 16 | 19 | 16 | 14 |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 7310 | 7310 | 7310 |
| 5°  | 7322 | 6969 | 6918 |
| 10° | 7262 | 6651 | 6518 |
| 15° | 7156 | 6331 | 6099 |
| 20° | 7013 | 5983 | 5700 |
| 25° | 6870 | 5619 | 5302 |
| 30° | 6688 | 5277 | 4883 |
| 35° | 6520 | 4917 | 4473 |
| 40° | 6309 | 4562 | 4085 |
| 45° | 6100 | 4210 | 3706 |
| 50° | 5873 | 3850 | 3311 |
| 55° | 5633 | 3467 | 2937 |
| 60° | 5362 | 3050 | 2548 |
| 65° | 5066 | 2628 | 2140 |
| 70° | 4694 | 2167 | 1728 |
| 75° | 4173 | 1670 | 1334 |
| 80° | 3545 | 1136 | 860  |
| 85° | 2571 | 528  | 364  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6100 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 43.5   | 1.7       |
| 10°-20°   | 122.3  | 4.9       |
| 20°-30°   | 179.7  | 7.2       |
| 30°-40°   | 208.7  | 8.4       |
| 40°-50°   | 208.5  | 8.3       |
| 50°-60°   | 181.8  | 7.3       |
| 60°-70°   | 134.4  | 5.4       |
| 70°-80°   | 76.0   | 3.0       |
| 80°-90°   | 20.9   | 0.8       |
| 90°-100°  | 14.9   | 0.6       |
| 100°-110° | 55.5   | 2.2       |
| 110°-120° | 147.1  | 5.9       |
| 120°-130° | 244.0  | 9.8       |
| 130°-140° | 259.2  | 10.4      |
| 140°-150° | 240.9  | 9.6       |
| 150°-160° | 193.7  | 7.8       |
| 160°-170° | 124.8  | 5.0       |
| 170°-180° | 43.0   | 1.7       |
| 0°-30°    | 345.5  | 13.8      |
| 0°-40°    | 554.2  | 22.2      |
| 0°-60°    | 944.5  | 37.8      |
| 0°-90°    | 1175.8 | 47.1      |
| 90°-120°  | 217.5  | 8.7       |
| 90°-150°  | 961.7  | 38.5      |
| 90°-180°  | 1323.0 | 52.9      |
| 0°-180°   | 2499.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 462 | 462   | 462 | 462   | 462 |      |
| 5°   | 462 | 460   | 455 | 459   | 458 | 44   |
| 15°  | 440 | 437   | 431 | 433   | 431 | 124  |
| 25°  | 398 | 394   | 387 | 388   | 387 | 183  |
| 35°  | 343 | 339   | 332 | 329   | 327 | 214  |
| 45°  | 279 | 276   | 270 | 265   | 263 | 216  |
| 55°  | 211 | 209   | 203 | 198   | 196 | 189  |
| 65°  | 142 | 140   | 135 | 131   | 129 | 141  |
| 75°  | 75  | 74    | 72  | 69    | 70  | 80   |
| 85°  | 18  | 18    | 17  | 16    | 16  | 20   |
| 90°  | 0   | 4     | 6   | 8     | 9   | 2    |
| 95°  | 21  | 10    | 13  | 14    | 14  | 25   |
| 105° | 99  | 109   | 20  | 24    | 25  | 106  |
| 115° | 188 | 193   | 202 | 50    | 27  | 185  |
| 125° | 266 | 270   | 276 | 278   | 279 | 237  |
| 135° | 329 | 334   | 337 | 340   | 339 | 254  |
| 145° | 381 | 381   | 386 | 389   | 387 | 238  |
| 155° | 420 | 417   | 421 | 423   | 420 | 193  |
| 165° | 442 | 440   | 441 | 444   | 441 | 125  |
| 175° | 452 | 450   | 451 | 453   | 450 | 43   |
| 180° | 451 | 451   | 451 | 451   | 451 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 461.8 | 461.8 | 461.8 | 461.8 | 461.8 |
| 2.5°   | 464.5 | 462.3 | 457.4 | 461.8 | 461.0 |
| 5°     | 461.8 | 460.1 | 455.2 | 458.7 | 457.8 |
| 7.5°   | 458.7 | 456.1 | 451.2 | 454.7 | 453.8 |
| 10°    | 453.8 | 450.7 | 445.4 | 449.0 | 447.6 |
| 12.5°  | 447.2 | 444.5 | 439.2 | 441.4 | 440.5 |
| 15°    | 439.6 | 437.0 | 431.2 | 433.0 | 430.8 |
| 17.5°  | 430.3 | 427.6 | 421.9 | 424.1 | 421.9 |
| 20°    | 420.1 | 417.4 | 411.2 | 412.5 | 410.8 |
| 22.5°  | 409.9 | 405.9 | 400.1 | 400.1 | 399.2 |
| 25°    | 397.9 | 394.3 | 386.8 | 387.7 | 386.8 |
| 27.5°  | 384.6 | 381.5 | 375.7 | 374.4 | 372.1 |
| 30°    | 371.2 | 367.7 | 361.0 | 359.7 | 357.9 |
| 32.5°  | 357.0 | 354.4 | 347.3 | 344.6 | 342.8 |
| 35°    | 343.3 | 338.8 | 331.7 | 329.1 | 326.8 |
| 37.5°  | 327.7 | 323.7 | 316.6 | 313.5 | 311.3 |
| 40°    | 311.7 | 308.2 | 301.1 | 297.1 | 295.3 |
| 42.5°  | 296.2 | 292.6 | 285.5 | 281.1 | 278.4 |
| 45°    | 279.3 | 276.2 | 269.6 | 264.7 | 262.9 |
| 47.5°  | 262.9 | 259.8 | 252.7 | 247.8 | 245.1 |
| 50°    | 245.6 | 243.4 | 237.1 | 230.9 | 228.7 |
| 52.5°  | 228.7 | 225.6 | 219.8 | 214.9 | 211.8 |
| 55°    | 211.4 | 208.7 | 203.4 | 198.1 | 195.8 |
| 57.5°  | 194.1 | 191.8 | 186.1 | 180.7 | 179.0 |
| 60°    | 176.7 | 175.0 | 168.7 | 163.9 | 162.5 |
| 62.5°  | 159.9 | 156.8 | 152.3 | 147.9 | 146.1 |
| 65°    | 142.5 | 139.9 | 135.4 | 131.4 | 129.2 |
| 67.5°  | 124.8 | 122.6 | 118.6 | 115.5 | 113.7 |
| 70°    | 108.4 | 106.6 | 102.6 | 99.5  | 97.7  |
| 72.5°  | 91.5  | 89.7  | 87.5  | 84.4  | 83.0  |
| 75°    | 74.6  | 73.7  | 71.5  | 68.8  | 69.7  |
| 77.5°  | 59.5  | 57.7  | 56.8  | 55.5  | 54.2  |
| 80°    | 44.4  | 44.0  | 43.1  | 41.7  | 40.9  |
| 82.5°  | 30.2  | 30.2  | 29.8  | 28.0  | 28.0  |
| 85°    | 18.2  | 17.8  | 17.3  | 16.0  | 15.5  |
| 87.5°  | 8.0   | 7.1   | 6.2   | 4.9   | 4.4   |
| 90°    | 0.3   | 3.9   | 6.5   | 8.2   | 8.8   |
| 92.5°  | 8.2   | 6.9   | 7.8   | 8.5   | 8.8   |
| 95°    | 21.2  | 10.5  | 12.7  | 14.4  | 14.0  |
| 97.5°  | 38.2  | 11.4  | 16.7  | 17.6  | 18.0  |
| 100°   | 57.8  | 13.1  | 18.6  | 21.2  | 21.9  |
| 102.5° | 79.4  | 78.7  | 19.3  | 22.9  | 23.8  |
| 105°   | 99.3  | 109.1 | 19.9  | 23.5  | 24.8  |
| 107.5° | 122.5 | 130.6 | 20.6  | 24.2  | 25.5  |
| 110°   | 144.7 | 151.5 | 57.2  | 24.5  | 25.8  |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 165.6 | 171.5 | 165.9 | 25.1  | 26.1  |
| 115°   | 187.8 | 193.3 | 201.5 | 50.3  | 26.8  |
| 117.5° | 207.1 | 213.6 | 219.1 | 172.4 | 86.9  |
| 120°   | 228.6 | 233.5 | 239.4 | 243.3 | 199.2 |
| 122.5° | 246.9 | 252.1 | 258.7 | 260.6 | 260.9 |
| 125°   | 265.5 | 269.8 | 276.0 | 278.3 | 279.2 |
| 127.5° | 282.5 | 287.1 | 292.0 | 295.2 | 295.6 |
| 130°   | 298.5 | 303.7 | 307.3 | 310.9 | 310.6 |
| 132.5° | 314.8 | 319.1 | 322.7 | 325.6 | 325.3 |
| 135°   | 328.6 | 333.8 | 336.7 | 340.0 | 339.3 |
| 137.5° | 342.9 | 346.8 | 350.1 | 353.4 | 352.4 |
| 140°   | 357.0 | 359.6 | 363.2 | 366.1 | 364.5 |
| 142.5° | 368.7 | 371.0 | 375.3 | 377.9 | 376.2 |
| 145°   | 381.1 | 380.8 | 386.4 | 388.6 | 387.0 |
| 147.5° | 391.9 | 390.9 | 396.5 | 398.1 | 396.8 |
| 150°   | 402.4 | 400.1 | 405.3 | 407.3 | 405.6 |
| 152.5° | 411.2 | 408.6 | 413.5 | 415.4 | 413.1 |
| 155°   | 419.7 | 416.7 | 420.7 | 422.6 | 420.0 |
| 157.5° | 426.5 | 423.9 | 426.9 | 429.1 | 426.5 |
| 160°   | 432.4 | 430.5 | 432.4 | 434.4 | 432.1 |
| 162.5° | 437.6 | 435.7 | 437.3 | 439.6 | 436.7 |
| 165°   | 442.2 | 440.2 | 441.2 | 443.5 | 441.2 |
| 167.5° | 445.8 | 443.8 | 444.8 | 447.1 | 444.2 |
| 170°   | 448.7 | 446.8 | 447.4 | 449.7 | 446.8 |
| 172.5° | 450.7 | 448.7 | 449.4 | 451.7 | 448.7 |
| 175°   | 452.3 | 450.0 | 450.7 | 453.0 | 449.7 |
| 177.5° | 453.0 | 450.7 | 451.0 | 453.3 | 450.4 |
| 180°   | 451.4 | 451.4 | 451.4 | 451.4 | 451.4 |

(END OF REPORT)