

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: P1008032

Luminaire Tested: S122DIP-B290D530UB2750-4F0-XX-W2A-D\_4000K

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1008032  
REPORT IS A COMBINATION OF REPORTS P983955 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122DIP-B290D530UB2750-4F0-XX-W2A-D\_4000K  
Description: Define 2 Direct/Indirect Pendant with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}  
Light Source: -  
Ballast/Driver: -

**Summary**

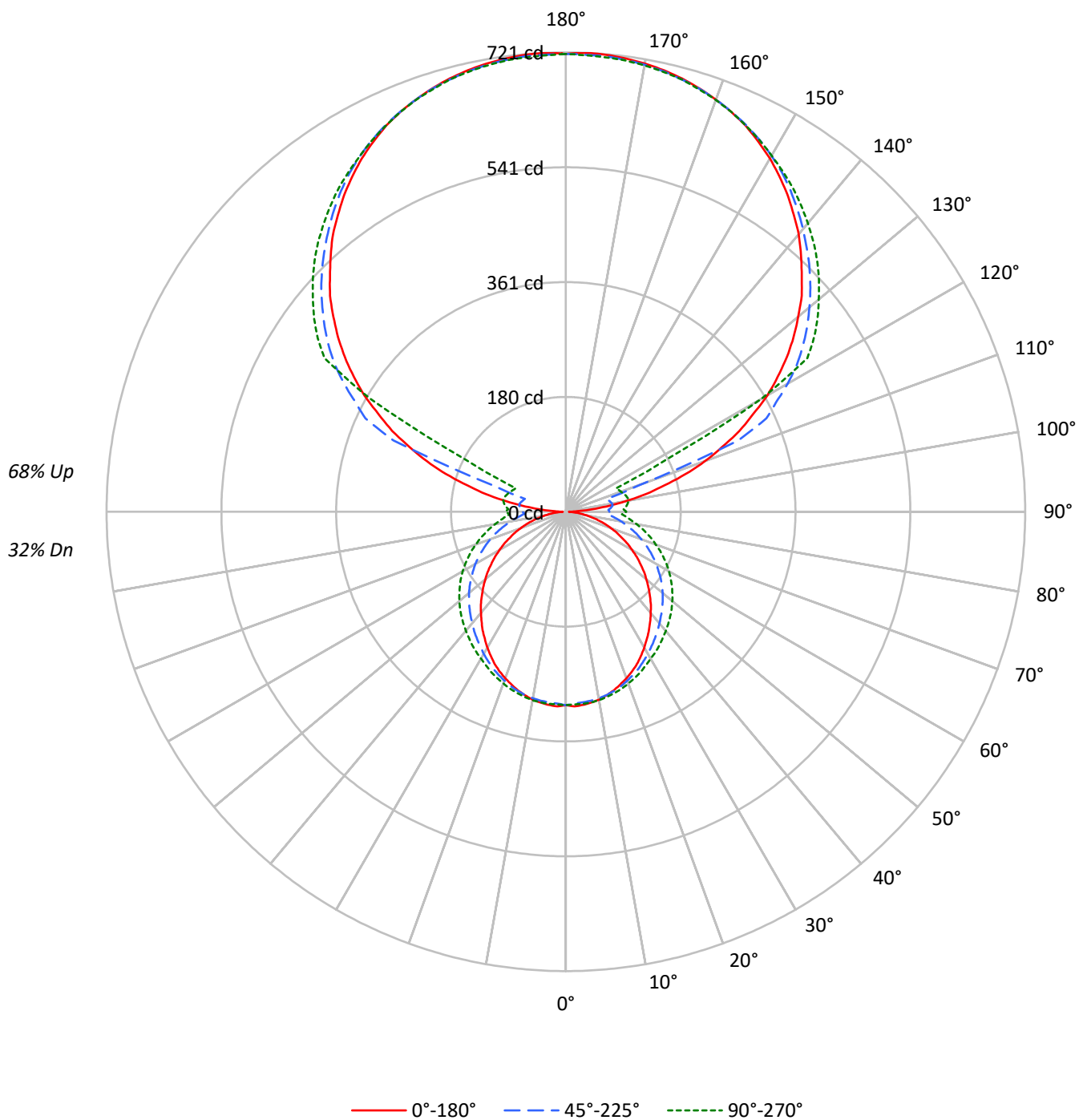
Lumens per Lamp: N/A  
Luminaire Lumens: 3266.0 lumens  
Efficiency: N/A  
Efficacy: 115.0 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect

Input Watts (W): 28.4  
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   | 103 | 103 | 103 | 103 | 92 | 92 | 92 | 92 | 73 | 73 | 73 | 55 | 55 | 55 | 39 | 39 | 39 |
| 1   | 93  | 88  | 84  | 80  | 83 | 79 | 76 | 73 | 63 | 60 | 58 | 47 | 46 | 44 | 33 | 32 | 31 |
| 2   | 84  | 76  | 70  | 65  | 75 | 69 | 63 | 59 | 54 | 50 | 47 | 41 | 38 | 36 | 29 | 27 | 25 |
| 3   | 76  | 67  | 59  | 53  | 68 | 60 | 54 | 49 | 47 | 43 | 39 | 36 | 33 | 30 | 25 | 23 | 21 |
| 4   | 70  | 59  | 51  | 45  | 62 | 53 | 46 | 41 | 42 | 37 | 33 | 32 | 28 | 25 | 22 | 20 | 18 |
| 5   | 64  | 52  | 44  | 38  | 57 | 47 | 40 | 35 | 37 | 32 | 28 | 28 | 25 | 22 | 20 | 17 | 16 |
| 6   | 59  | 46  | 38  | 33  | 52 | 42 | 35 | 30 | 33 | 28 | 24 | 25 | 22 | 19 | 18 | 15 | 14 |
| 7   | 54  | 42  | 34  | 28  | 48 | 38 | 31 | 26 | 30 | 25 | 21 | 23 | 19 | 17 | 16 | 14 | 12 |
| 8   | 50  | 38  | 30  | 25  | 45 | 34 | 27 | 23 | 27 | 22 | 19 | 21 | 17 | 15 | 15 | 12 | 11 |
| 9   | 46  | 34  | 27  | 22  | 42 | 31 | 25 | 20 | 25 | 20 | 17 | 19 | 16 | 13 | 14 | 11 | 9  |
| 10  | 43  | 31  | 24  | 19  | 39 | 28 | 22 | 18 | 23 | 18 | 15 | 18 | 14 | 12 | 13 | 10 | 9  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4804 | 4804 | 4804 |
| 5°  | 4826 | 4599 | 4573 |
| 10° | 4793 | 4439 | 4375 |
| 15° | 4726 | 4275 | 4172 |
| 20° | 4641 | 4101 | 3979 |
| 25° | 4556 | 3936 | 3803 |
| 30° | 4438 | 3767 | 3631 |
| 35° | 4319 | 3605 | 3504 |
| 40° | 4194 | 3465 | 3377 |
| 45° | 4073 | 3338 | 3267 |
| 50° | 3943 | 3221 | 3159 |
| 55° | 3808 | 3097 | 3048 |
| 60° | 3644 | 2967 | 2931 |
| 65° | 3470 | 2816 | 2797 |
| 70° | 3278 | 2657 | 2654 |
| 75° | 3026 | 2497 | 2517 |
| 80° | 2635 | 2330 | 2376 |
| 85° | 2232 | 2174 | 2255 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 4073 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 28.8   | 0.9       |
| 10°-20°   | 82.5   | 2.5       |
| 20°-30°   | 125.0  | 3.8       |
| 30°-40°   | 152.2  | 4.7       |
| 40°-50°   | 163.8  | 5.0       |
| 50°-60°   | 159.1  | 4.9       |
| 60°-70°   | 138.9  | 4.3       |
| 70°-80°   | 106.9  | 3.3       |
| 80°-90°   | 72.9   | 2.2       |
| 90°-100°  | 73.1   | 2.2       |
| 100°-110° | 124.4  | 3.8       |
| 110°-120° | 258.1  | 7.9       |
| 120°-130° | 401.8  | 12.3      |
| 130°-140° | 418.3  | 12.8      |
| 140°-150° | 384.5  | 11.8      |
| 150°-160° | 308.4  | 9.4       |
| 160°-170° | 198.7  | 6.1       |
| 170°-180° | 68.4   | 2.1       |
| 0°-30°    | 236.3  | 7.2       |
| 0°-40°    | 388.5  | 11.9      |
| 0°-60°    | 711.5  | 21.8      |
| 0°-90°    | 1030.2 | 31.5      |
| 90°-120°  | 455.6  | 14.0      |
| 90°-150°  | 1660.3 | 50.8      |
| 90°-180°  | 2236.0 | 68.5      |
| 0°-180°   | 3266.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 304 | 304   | 304 | 304   | 304 |      |
| 5°   | 304 | 303   | 300 | 303   | 303 | 29   |
| 15°  | 290 | 291   | 291 | 295   | 295 | 82   |
| 25°  | 264 | 267   | 271 | 276   | 278 | 121  |
| 35°  | 227 | 235   | 243 | 253   | 256 | 142  |
| 45°  | 186 | 198   | 214 | 227   | 232 | 144  |
| 55°  | 143 | 159   | 182 | 198   | 203 | 128  |
| 65°  | 98  | 119   | 145 | 163   | 169 | 97   |
| 75°  | 54  | 79    | 107 | 126   | 132 | 57   |
| 85°  | 16  | 43    | 71  | 90    | 96  | 17   |
| 90°  | 5   | 36    | 68  | 89    | 95  | 5    |
| 95°  | 37  | 41    | 71  | 90    | 95  | 43   |
| 105° | 160 | 189   | 70  | 91    | 98  | 171  |
| 115° | 301 | 314   | 347 | 120   | 87  | 296  |
| 125° | 424 | 430   | 454 | 470   | 475 | 378  |
| 135° | 524 | 532   | 541 | 555   | 558 | 405  |
| 145° | 607 | 606   | 615 | 621   | 621 | 380  |
| 155° | 668 | 664   | 670 | 673   | 669 | 308  |
| 165° | 704 | 701   | 702 | 706   | 702 | 199  |
| 175° | 720 | 716   | 718 | 721   | 716 | 69   |
| 180° | 719 | 719   | 719 | 719   | 719 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 303.5 | 303.5 | 303.5 | 303.5 | 303.5 |
| 2.5°   | 305.7 | 304.4 | 301.3 | 303.5 | 302.6 |
| 5°     | 304.4 | 303.0 | 300.4 | 303.0 | 302.6 |
| 7.5°   | 302.2 | 301.3 | 299.1 | 302.2 | 301.7 |
| 10°    | 299.5 | 298.6 | 297.3 | 300.8 | 300.4 |
| 12.5°  | 295.1 | 295.6 | 294.7 | 298.2 | 297.8 |
| 15°    | 290.3 | 291.2 | 291.2 | 295.1 | 294.7 |
| 17.5°  | 284.1 | 285.9 | 287.2 | 291.2 | 291.2 |
| 20°    | 278.0 | 280.2 | 281.9 | 286.8 | 286.8 |
| 22.5°  | 271.4 | 274.0 | 276.7 | 281.5 | 282.4 |
| 25°    | 263.9 | 267.0 | 270.9 | 276.2 | 277.5 |
| 27.5°  | 255.1 | 259.9 | 264.3 | 270.9 | 271.8 |
| 30°    | 246.3 | 252.0 | 257.7 | 264.8 | 266.1 |
| 32.5°  | 236.6 | 243.2 | 250.3 | 258.6 | 261.3 |
| 35°    | 227.4 | 234.9 | 243.2 | 252.9 | 256.0 |
| 37.5°  | 217.3 | 225.6 | 236.2 | 246.7 | 249.8 |
| 40°    | 207.2 | 216.8 | 228.7 | 240.2 | 244.1 |
| 42.5°  | 197.5 | 207.2 | 221.2 | 234.0 | 238.0 |
| 45°    | 186.5 | 198.4 | 213.8 | 227.4 | 231.8 |
| 47.5°  | 175.9 | 188.7 | 206.3 | 220.4 | 225.2 |
| 50°    | 164.9 | 178.6 | 198.4 | 213.3 | 218.2 |
| 52.5°  | 154.4 | 168.9 | 190.0 | 205.4 | 210.7 |
| 55°    | 142.9 | 158.8 | 181.7 | 197.5 | 203.2 |
| 57.5°  | 132.0 | 149.5 | 172.4 | 189.6 | 195.3 |
| 60°    | 120.1 | 139.0 | 164.1 | 180.8 | 186.9 |
| 62.5°  | 109.5 | 129.3 | 154.4 | 172.4 | 178.1 |
| 65°    | 97.6  | 119.2 | 145.1 | 163.2 | 168.9 |
| 67.5°  | 87.1  | 109.5 | 135.9 | 153.9 | 160.1 |
| 70°    | 75.7  | 98.5  | 125.8 | 144.7 | 150.0 |
| 72.5°  | 65.1  | 88.8  | 116.6 | 135.0 | 141.6 |
| 75°    | 54.1  | 78.7  | 106.9 | 125.8 | 131.5 |
| 77.5°  | 43.5  | 69.1  | 97.6  | 116.6 | 122.7 |
| 80°    | 33.0  | 59.8  | 88.4  | 106.9 | 113.0 |
| 82.5°  | 24.2  | 50.6  | 79.6  | 98.1  | 103.8 |
| 85°    | 15.8  | 43.1  | 71.3  | 89.7  | 95.9  |
| 87.5°  | 9.7   | 36.1  | 64.2  | 82.2  | 88.0  |
| 90°    | 4.9   | 36.1  | 68.5  | 88.7  | 94.9  |
| 92.5°  | 17.0  | 38.2  | 66.6  | 84.8  | 90.5  |
| 95°    | 37.3  | 40.8  | 70.9  | 90.2  | 95.0  |
| 97.5°  | 63.9  | 40.2  | 74.0  | 91.9  | 97.7  |
| 100°   | 95.1  | 40.2  | 73.6  | 94.1  | 99.9  |
| 102.5° | 129.0 | 142.5 | 71.6  | 93.1  | 99.6  |
| 105°   | 160.3 | 188.7 | 69.5  | 90.6  | 97.6  |
| 107.5° | 197.2 | 220.8 | 67.5  | 88.2  | 95.1  |
| 110°   | 232.2 | 251.9 | 123.1 | 85.2  | 92.1  |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 265.4 | 281.8 | 293.2 | 83.1  | 89.5  |
| 115°   | 300.8 | 314.4 | 347.2 | 119.7 | 87.0  |
| 117.5° | 331.0 | 344.9 | 372.2 | 311.1 | 179.2 |
| 120°   | 365.3 | 374.9 | 401.8 | 420.4 | 355.0 |
| 122.5° | 394.4 | 403.2 | 429.8 | 444.8 | 449.4 |
| 125°   | 423.6 | 430.4 | 454.4 | 469.8 | 475.4 |
| 127.5° | 450.7 | 457.5 | 477.2 | 493.4 | 497.9 |
| 130°   | 476.2 | 484.0 | 499.0 | 515.2 | 518.3 |
| 132.5° | 502.2 | 508.4 | 520.7 | 535.6 | 538.6 |
| 135°   | 523.5 | 531.8 | 540.9 | 555.4 | 557.9 |
| 137.5° | 546.4 | 552.6 | 560.0 | 573.6 | 575.2 |
| 140°   | 568.7 | 572.5 | 579.1 | 590.8 | 590.9 |
| 142.5° | 587.5 | 590.7 | 597.5 | 606.9 | 606.5 |
| 145°   | 606.8 | 606.3 | 615.1 | 621.4 | 621.0 |
| 147.5° | 624.0 | 622.4 | 631.3 | 634.3 | 633.6 |
| 150°   | 640.6 | 637.0 | 645.3 | 648.4 | 645.8 |
| 152.5° | 654.7 | 650.5 | 658.3 | 661.4 | 657.8 |
| 155°   | 668.2 | 663.5 | 669.7 | 672.9 | 668.7 |
| 157.5° | 679.1 | 674.9 | 679.6 | 683.3 | 679.1 |
| 160°   | 688.5 | 685.3 | 688.5 | 691.6 | 687.9 |
| 162.5° | 696.8 | 693.7 | 696.3 | 699.9 | 695.2 |
| 165°   | 704.1 | 700.9 | 702.5 | 706.1 | 702.5 |
| 167.5° | 709.8 | 706.7 | 708.2 | 711.9 | 707.2 |
| 170°   | 714.5 | 711.3 | 712.4 | 716.0 | 711.3 |
| 172.5° | 717.6 | 714.5 | 715.5 | 719.1 | 714.5 |
| 175°   | 720.2 | 716.5 | 717.6 | 721.2 | 716.0 |
| 177.5° | 721.2 | 717.6 | 718.1 | 721.7 | 717.1 |
| 180°   | 718.6 | 718.6 | 718.6 | 718.6 | 718.6 |

(END OF REPORT)