

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: P1011561

Luminaire Tested: S123DIP-B340D365UB30-4F0-XX-W2A-D4

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1011561  
REPORT IS A COMBINATION OF REPORTS P989768 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123DIP-B340D365UB30-4F0-XX-W2A-D4  
Description: Define 3 Direct/Indirect Pendant with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}  
Light Source: -  
Ballast/Driver: -

**Summary**

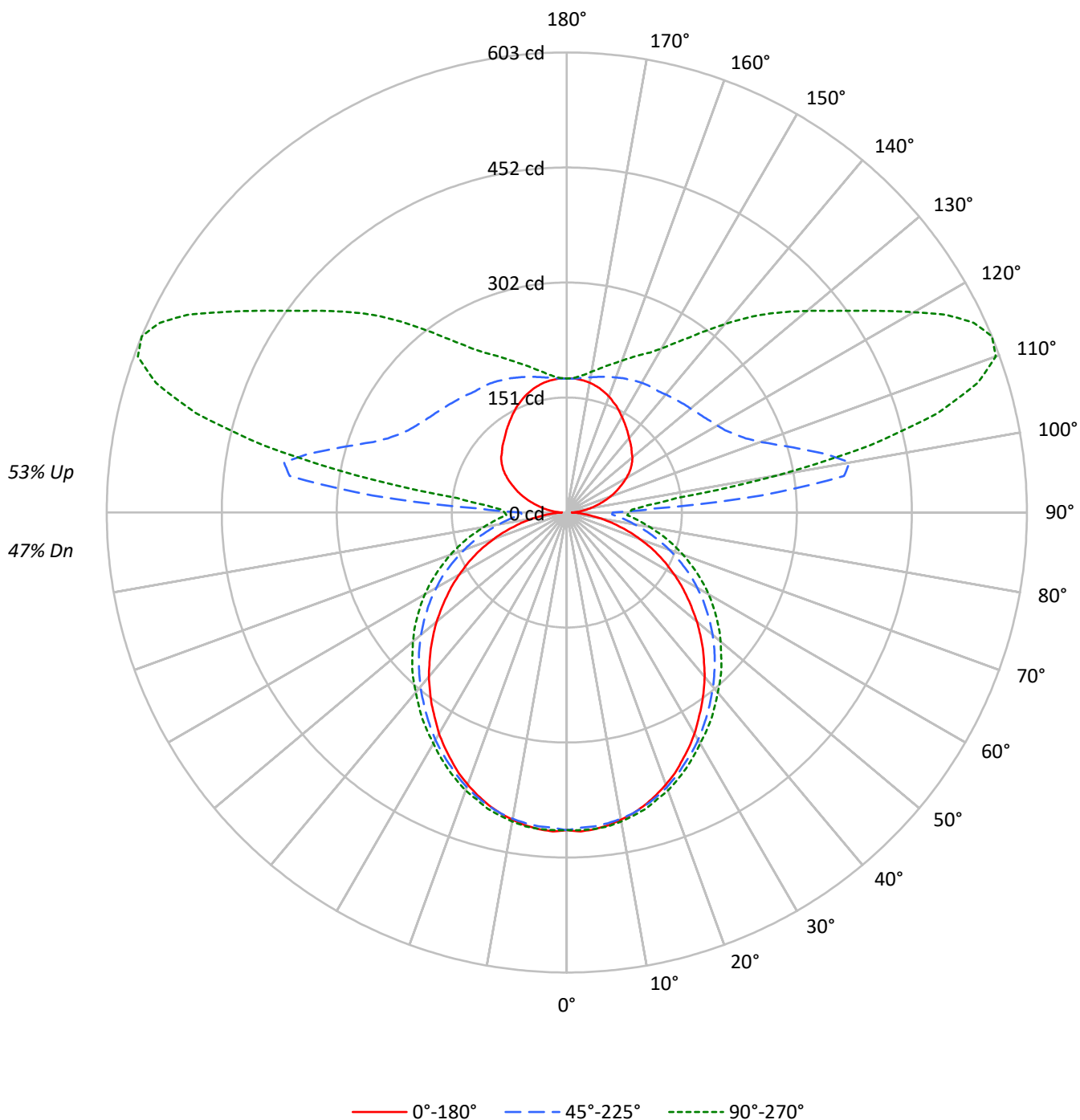
Lumens per Lamp: N/A  
Luminaire Lumens: 2724.0 lumens  
Efficiency: N/A  
Efficacy: 122.2 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

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 |    |    | 0  |
| RW  | 70  | 50  | 30  | 10  | 70 | 50 | 30 | 10 | 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 | 47 |    |    |
| 1   | 96  | 91  | 87  | 83  | 88 | 84 | 80 | 77 | 70 | 67 | 65 | 57 | 55 | 54 | 46 | 44 | 43 | 38 |    |    |
| 2   | 87  | 79  | 73  | 67  | 80 | 73 | 67 | 62 | 61 | 57 | 53 | 50 | 47 | 44 | 40 | 37 | 36 | 31 |    |    |
| 3   | 79  | 69  | 62  | 56  | 72 | 64 | 57 | 52 | 53 | 48 | 44 | 44 | 40 | 37 | 35 | 32 | 30 | 26 |    |    |
| 4   | 72  | 61  | 53  | 47  | 66 | 56 | 49 | 44 | 47 | 42 | 37 | 39 | 35 | 31 | 31 | 28 | 25 | 22 |    |    |
| 5   | 66  | 54  | 46  | 40  | 61 | 50 | 43 | 37 | 42 | 36 | 32 | 35 | 30 | 27 | 28 | 25 | 22 | 19 |    |    |
| 6   | 61  | 49  | 40  | 34  | 56 | 45 | 37 | 32 | 38 | 32 | 28 | 31 | 27 | 23 | 25 | 22 | 19 | 16 |    |    |
| 7   | 56  | 44  | 36  | 30  | 51 | 40 | 33 | 28 | 34 | 29 | 24 | 28 | 24 | 21 | 23 | 20 | 17 | 14 |    |    |
| 8   | 52  | 40  | 32  | 26  | 48 | 37 | 30 | 25 | 31 | 26 | 22 | 26 | 22 | 18 | 21 | 18 | 15 | 13 |    |    |
| 9   | 49  | 36  | 29  | 23  | 44 | 34 | 27 | 22 | 29 | 23 | 19 | 24 | 20 | 16 | 19 | 16 | 14 | 11 |    |    |
| 10  | 45  | 33  | 26  | 21  | 42 | 31 | 24 | 20 | 26 | 21 | 17 | 22 | 18 | 15 | 18 | 15 | 12 | 10 |    |    |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4481 | 4481 | 4481 |
| 5°  | 4493 | 4349 | 4346 |
| 10° | 4451 | 4232 | 4199 |
| 15° | 4392 | 4102 | 4044 |
| 20° | 4308 | 3957 | 3877 |
| 25° | 4205 | 3793 | 3704 |
| 30° | 4101 | 3646 | 3530 |
| 35° | 3981 | 3490 | 3389 |
| 40° | 3869 | 3349 | 3239 |
| 45° | 3744 | 3211 | 3116 |
| 50° | 3620 | 3075 | 2982 |
| 55° | 3484 | 2936 | 2859 |
| 60° | 3349 | 2793 | 2733 |
| 65° | 3213 | 2641 | 2586 |
| 70° | 3004 | 2470 | 2433 |
| 75° | 2743 | 2276 | 2277 |
| 80° | 2438 | 2079 | 2098 |
| 85° | 2132 | 1919 | 1970 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3744 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 39.5   | 1.4       |
| 10°-20°   | 112.6  | 4.1       |
| 20°-30°   | 168.3  | 6.2       |
| 30°-40°   | 201.0  | 7.4       |
| 40°-50°   | 210.3  | 7.7       |
| 50°-60°   | 197.3  | 7.2       |
| 60°-70°   | 164.8  | 6.1       |
| 70°-80°   | 117.9  | 4.3       |
| 80°-90°   | 71.1   | 2.6       |
| 90°-100°  | 143.9  | 5.3       |
| 100°-110° | 311.3  | 11.4      |
| 110°-120° | 293.6  | 10.8      |
| 120°-130° | 228.9  | 8.4       |
| 130°-140° | 176.5  | 6.5       |
| 140°-150° | 128.7  | 4.7       |
| 150°-160° | 89.0   | 3.3       |
| 160°-170° | 52.3   | 1.9       |
| 170°-180° | 17.0   | 0.6       |
| 0°-30°    | 320.4  | 11.8      |
| 0°-40°    | 521.4  | 19.1      |
| 0°-60°    | 929.0  | 34.1      |
| 0°-90°    | 1282.8 | 47.1      |
| 90°-120°  | 748.8  | 27.5      |
| 90°-150°  | 1282.9 | 47.1      |
| 90°-180°  | 1441.0 | 52.9      |
| 0°-180°   | 2724.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 416 | 416   | 416 | 416   | 416 |      |
| 5°   | 417 | 416   | 413 | 417   | 416 | 40   |
| 15°  | 397 | 398   | 398 | 402   | 402 | 112  |
| 25°  | 358 | 363   | 364 | 370   | 370 | 165  |
| 35°  | 308 | 316   | 322 | 328   | 330 | 193  |
| 45°  | 252 | 263   | 274 | 283   | 287 | 194  |
| 55°  | 192 | 207   | 224 | 236   | 239 | 172  |
| 65°  | 133 | 150   | 170 | 184   | 189 | 131  |
| 75°  | 72  | 93    | 116 | 131   | 136 | 77   |
| 85°  | 22  | 45    | 69  | 84    | 89  | 23   |
| 90°  | 7   | 32    | 60  | 77    | 82  | 5    |
| 95°  | 17  | 62    | 256 | 120   | 105 | 17   |
| 105° | 45  | 76    | 320 | 547   | 503 | 47   |
| 115° | 75  | 98    | 243 | 514   | 588 | 75   |
| 125° | 103 | 121   | 219 | 394   | 461 | 91   |
| 135° | 120 | 142   | 207 | 318   | 368 | 92   |
| 145° | 136 | 155   | 199 | 253   | 280 | 85   |
| 155° | 154 | 166   | 192 | 219   | 228 | 71   |
| 165° | 168 | 173   | 184 | 195   | 199 | 47   |
| 175° | 175 | 175   | 177 | 179   | 179 | 17   |
| 180° | 176 | 176   | 176 | 176   | 176 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 416.3 | 416.3 | 416.3 | 416.3 | 416.3 |
| 2.5°   | 418.5 | 417.2 | 413.6 | 417.2 | 416.7 |
| 5°     | 416.7 | 415.8 | 413.1 | 416.7 | 416.3 |
| 7.5°   | 413.6 | 413.6 | 410.8 | 415.4 | 414.9 |
| 10°    | 409.0 | 409.9 | 407.7 | 412.2 | 411.3 |
| 12.5°  | 403.6 | 404.9 | 403.6 | 407.7 | 406.7 |
| 15°    | 396.8 | 398.1 | 397.7 | 402.2 | 401.8 |
| 17.5°  | 388.6 | 391.3 | 390.9 | 395.0 | 394.1 |
| 20°    | 379.5 | 382.3 | 383.2 | 387.3 | 387.7 |
| 22.5°  | 370.0 | 372.7 | 374.1 | 379.5 | 379.1 |
| 25°    | 358.2 | 362.8 | 364.1 | 370.0 | 370.0 |
| 27.5°  | 346.9 | 351.9 | 354.6 | 359.6 | 360.0 |
| 30°    | 334.7 | 340.5 | 344.2 | 349.6 | 349.6 |
| 32.5°  | 321.0 | 327.8 | 332.8 | 338.7 | 340.1 |
| 35°    | 308.3 | 315.6 | 321.5 | 328.3 | 330.1 |
| 37.5°  | 294.7 | 302.9 | 309.7 | 317.4 | 318.8 |
| 40°    | 281.1 | 289.3 | 298.4 | 306.1 | 307.9 |
| 42.5°  | 266.2 | 276.6 | 286.1 | 294.7 | 297.5 |
| 45°    | 252.1 | 263.0 | 274.3 | 283.0 | 286.6 |
| 47.5°  | 237.2 | 249.4 | 262.1 | 271.6 | 274.3 |
| 50°    | 222.6 | 235.3 | 249.4 | 259.8 | 263.0 |
| 52.5°  | 207.2 | 220.8 | 236.7 | 247.6 | 251.7 |
| 55°    | 192.3 | 207.2 | 223.6 | 235.8 | 239.4 |
| 57.5°  | 177.8 | 193.2 | 210.9 | 223.1 | 227.2 |
| 60°    | 162.3 | 178.7 | 197.3 | 209.9 | 214.9 |
| 62.5°  | 147.8 | 164.6 | 184.6 | 197.3 | 201.8 |
| 65°    | 132.9 | 150.5 | 170.5 | 184.1 | 188.6 |
| 67.5°  | 117.9 | 136.5 | 156.4 | 171.4 | 175.0 |
| 70°    | 102.0 | 121.5 | 143.3 | 157.8 | 162.3 |
| 72.5°  | 87.5  | 107.0 | 129.7 | 144.7 | 149.2 |
| 75°    | 72.1  | 93.4  | 116.1 | 131.0 | 136.5 |
| 77.5°  | 58.9  | 80.3  | 102.9 | 118.8 | 122.9 |
| 80°    | 44.9  | 67.1  | 90.7  | 106.1 | 110.6 |
| 82.5°  | 32.6  | 55.3  | 79.4  | 94.8  | 99.3  |
| 85°    | 22.2  | 44.9  | 68.9  | 84.3  | 88.9  |
| 87.5°  | 13.6  | 36.3  | 59.4  | 74.8  | 79.4  |
| 90°    | 6.6   | 32.4  | 60.1  | 76.6  | 81.5  |
| 92.5°  | 10.7  | 46.2  | 113.7 | 85.2  | 85.5  |
| 95°    | 17.1  | 62.0  | 255.7 | 120.4 | 104.7 |
| 97.5°  | 23.7  | 65.8  | 366.4 | 210.4 | 144.9 |
| 100°   | 30.4  | 68.2  | 376.2 | 376.2 | 280.0 |
| 102.5° | 37.4  | 71.2  | 350.3 | 482.6 | 407.0 |
| 105°   | 44.8  | 75.5  | 319.8 | 546.6 | 503.0 |
| 107.5° | 52.3  | 80.8  | 292.6 | 572.7 | 564.5 |
| 110°   | 60.3  | 86.2  | 270.0 | 570.8 | 598.3 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 68.1  | 92.1  | 253.8 | 547.6 | 603.0 |
| 115°   | 75.2  | 98.5  | 242.6 | 514.3 | 588.5 |
| 117.5° | 82.6  | 104.2 | 233.9 | 478.9 | 560.9 |
| 120°   | 90.0  | 109.8 | 227.7 | 445.2 | 525.0 |
| 122.5° | 96.7  | 115.6 | 223.0 | 418.3 | 491.7 |
| 125°   | 102.7 | 121.0 | 218.6 | 393.7 | 460.9 |
| 127.5° | 107.7 | 126.9 | 215.2 | 373.3 | 434.0 |
| 130°   | 112.3 | 132.6 | 211.9 | 354.2 | 410.9 |
| 132.5° | 115.4 | 137.8 | 209.3 | 336.2 | 389.1 |
| 135°   | 119.6 | 142.2 | 206.6 | 318.1 | 367.5 |
| 137.5° | 123.5 | 146.0 | 204.1 | 300.4 | 345.2 |
| 140°   | 127.1 | 149.6 | 201.9 | 283.6 | 322.3 |
| 142.5° | 131.3 | 152.3 | 199.4 | 267.6 | 300.4 |
| 145°   | 135.9 | 155.2 | 198.7 | 253.4 | 280.2 |
| 147.5° | 140.1 | 158.2 | 197.7 | 241.9 | 263.1 |
| 150°   | 144.7 | 160.7 | 196.2 | 232.3 | 248.0 |
| 152.5° | 149.3 | 163.4 | 194.5 | 225.2 | 236.4 |
| 155°   | 153.9 | 166.0 | 192.3 | 218.6 | 227.9 |
| 157.5° | 157.5 | 168.4 | 190.6 | 212.2 | 219.7 |
| 160°   | 161.8 | 170.3 | 188.4 | 206.4 | 211.9 |
| 162.5° | 165.0 | 171.7 | 186.3 | 200.9 | 204.8 |
| 165°   | 168.2 | 173.0 | 184.2 | 195.4 | 198.7 |
| 167.5° | 170.6 | 174.0 | 182.0 | 190.6 | 192.7 |
| 170°   | 172.8 | 174.6 | 179.9 | 186.2 | 187.4 |
| 172.5° | 174.2 | 175.1 | 178.1 | 182.6 | 182.4 |
| 175°   | 175.3 | 175.4 | 176.7 | 179.2 | 178.8 |
| 177.5° | 176.0 | 175.6 | 175.6 | 177.0 | 176.3 |
| 180°   | 175.6 | 175.6 | 175.6 | 175.6 | 175.6 |

(END OF REPORT)