

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: P1012025

Luminaire Tested: S123DIP-B775D365UB50-4F0-XX-W2A-D1

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1012025  
REPORT IS A COMBINATION OF REPORTS P990394 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123DIP-B775D365UB50-4F0-XX-W2A-D1  
Description: Define 3 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}  
Light Source: -  
Ballast/Driver: -

**Summary**

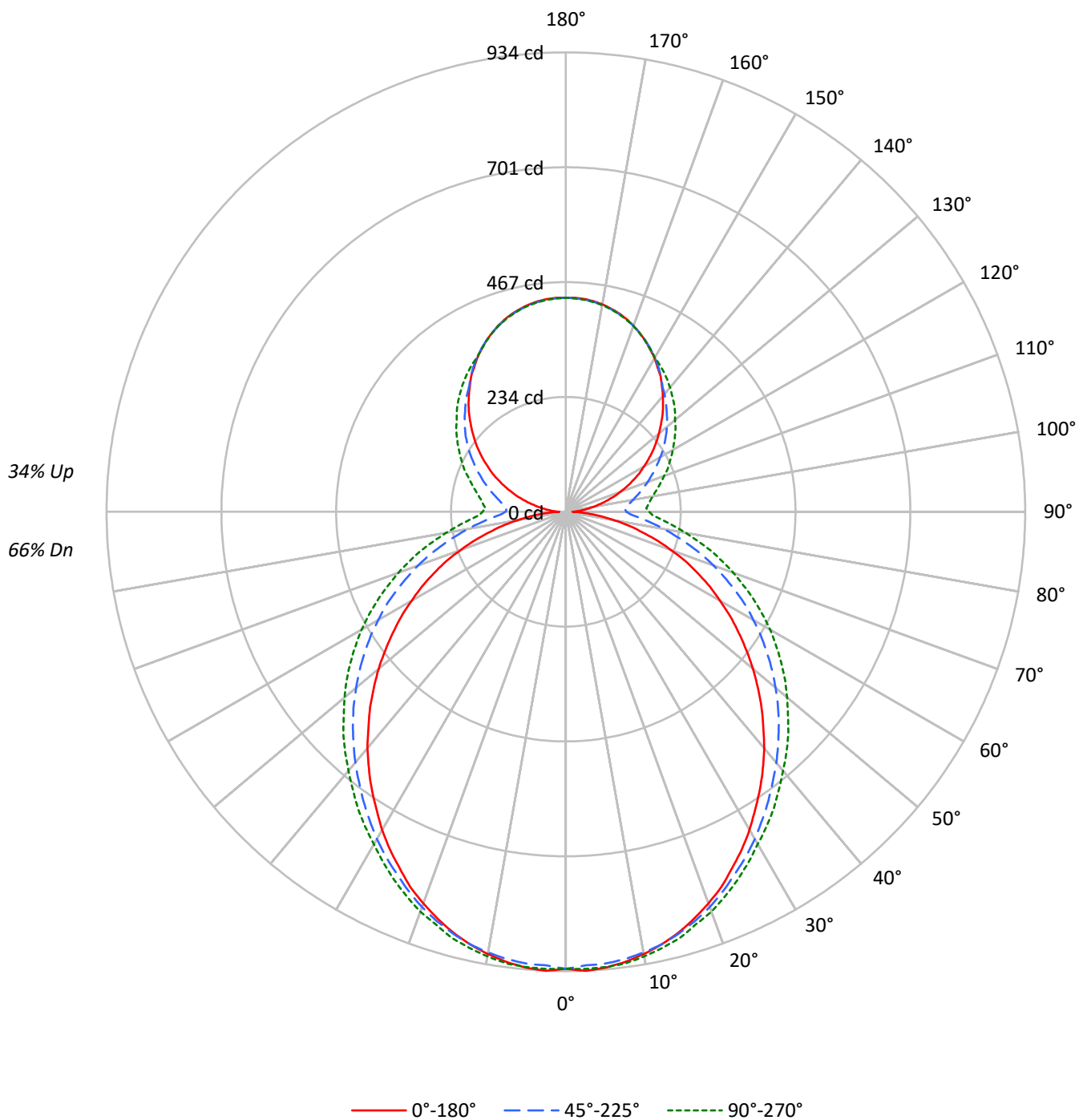
Lumens per Lamp: N/A  
Luminaire Lumens: 4330.0 lumens  
Efficiency: N/A  
Efficacy: 95.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')  
CIE Type: Semi-Direct

Input Watts (W): 45.2  
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   | 111 | 111 | 111 | 111 | 104 | 104 | 104 | 104 | 92 | 92 | 92 | 81 | 81 | 81 | 71 | 71 | 71 |
| 1   | 100 | 95  | 90  | 86  | 94  | 89  | 85  | 82  | 79 | 76 | 73 | 69 | 67 | 65 | 61 | 59 | 57 |
| 2   | 91  | 82  | 75  | 69  | 85  | 77  | 71  | 66  | 68 | 64 | 59 | 60 | 56 | 53 | 52 | 50 | 47 |
| 3   | 82  | 72  | 64  | 57  | 77  | 68  | 60  | 55  | 60 | 54 | 49 | 53 | 48 | 44 | 46 | 43 | 39 |
| 4   | 75  | 63  | 55  | 48  | 70  | 60  | 52  | 46  | 53 | 47 | 42 | 47 | 42 | 38 | 41 | 37 | 34 |
| 5   | 69  | 56  | 48  | 41  | 64  | 53  | 45  | 39  | 47 | 41 | 36 | 42 | 37 | 32 | 37 | 33 | 29 |
| 6   | 63  | 51  | 42  | 36  | 59  | 48  | 40  | 34  | 43 | 36 | 31 | 38 | 32 | 28 | 33 | 29 | 26 |
| 7   | 59  | 46  | 37  | 31  | 55  | 43  | 35  | 30  | 39 | 32 | 27 | 34 | 29 | 25 | 30 | 26 | 23 |
| 8   | 55  | 41  | 33  | 28  | 51  | 39  | 32  | 27  | 35 | 29 | 24 | 31 | 26 | 22 | 28 | 23 | 20 |
| 9   | 51  | 38  | 30  | 25  | 48  | 36  | 29  | 24  | 32 | 26 | 22 | 29 | 24 | 20 | 26 | 21 | 18 |
| 10  | 47  | 35  | 27  | 22  | 45  | 33  | 26  | 21  | 30 | 24 | 20 | 27 | 22 | 18 | 24 | 20 | 17 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 10002 | 10002 | 10002 |
| 5°  | 10030 | 9709  | 9701  |
| 10° | 9936  | 9446  | 9374  |
| 15° | 9804  | 9155  | 9027  |
| 20° | 9618  | 8832  | 8654  |
| 25° | 9388  | 8467  | 8268  |
| 30° | 9152  | 8137  | 7880  |
| 35° | 8889  | 7791  | 7564  |
| 40° | 8637  | 7475  | 7231  |
| 45° | 8358  | 7168  | 6956  |
| 50° | 8082  | 6864  | 6658  |
| 55° | 7777  | 6552  | 6384  |
| 60° | 7478  | 6234  | 6102  |
| 65° | 7170  | 5895  | 5773  |
| 70° | 6708  | 5515  | 5434  |
| 75° | 6121  | 5079  | 5083  |
| 80° | 5440  | 4642  | 4684  |
| 85° | 4764  | 4286  | 4397  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 8358 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 88.2   | 2.0       |
| 10°-20°   | 251.3  | 5.8       |
| 20°-30°   | 375.8  | 8.7       |
| 30°-40°   | 448.7  | 10.4      |
| 40°-50°   | 469.4  | 10.8      |
| 50°-60°   | 440.5  | 10.2      |
| 60°-70°   | 368.0  | 8.5       |
| 70°-80°   | 263.1  | 6.1       |
| 80°-90°   | 157.5  | 3.6       |
| 90°-100°  | 126.4  | 2.9       |
| 100°-110° | 157.1  | 3.6       |
| 110°-120° | 192.7  | 4.4       |
| 120°-130° | 217.5  | 5.0       |
| 130°-140° | 225.8  | 5.2       |
| 140°-150° | 212.5  | 4.9       |
| 150°-160° | 176.7  | 4.1       |
| 160°-170° | 117.6  | 2.7       |
| 170°-180° | 41.2   | 1.0       |
| <hr/>     |        |           |
| 0°-30°    | 715.2  | 16.5      |
| 0°-40°    | 1163.9 | 26.9      |
| 0°-60°    | 2073.9 | 47.9      |
| 0°-90°    | 2862.4 | 66.1      |
| 90°-120°  | 476.2  | 11.0      |
| 90°-150°  | 1132.0 | 26.1      |
| 90°-180°  | 1468.0 | 33.9      |
| 0°-180°   | 4330.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 929 | 929   | 929 | 929   | 929 |      |
| 5°   | 930 | 928   | 922 | 930   | 929 | 88   |
| 15°  | 886 | 889   | 888 | 898   | 897 | 250  |
| 25°  | 800 | 810   | 813 | 826   | 826 | 369  |
| 35°  | 688 | 704   | 718 | 733   | 737 | 430  |
| 45°  | 563 | 587   | 612 | 632   | 640 | 434  |
| 55°  | 429 | 463   | 499 | 526   | 534 | 384  |
| 65°  | 297 | 336   | 381 | 411   | 421 | 293  |
| 75°  | 161 | 208   | 259 | 292   | 305 | 172  |
| 85°  | 50  | 100   | 154 | 188   | 198 | 51   |
| 90°  | 14  | 67    | 123 | 158   | 169 | 11   |
| 95°  | 31  | 73    | 126 | 158   | 168 | 31   |
| 105° | 85  | 110   | 157 | 185   | 195 | 91   |
| 115° | 150 | 164   | 199 | 224   | 232 | 149  |
| 125° | 216 | 217   | 245 | 265   | 271 | 193  |
| 135° | 278 | 279   | 290 | 307   | 311 | 214  |
| 145° | 336 | 335   | 336 | 344   | 347 | 209  |
| 155° | 383 | 383   | 384 | 385   | 383 | 176  |
| 165° | 418 | 416   | 416 | 418   | 416 | 118  |
| 175° | 434 | 433   | 433 | 435   | 432 | 41   |
| 180° | 435 | 435   | 435 | 435   | 435 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 929.2 | 929.2 | 929.2 | 929.2 | 929.2 |
| 2.5°   | 934.3 | 931.3 | 923.2 | 931.3 | 930.3 |
| 5°     | 930.3 | 928.2 | 922.2 | 930.3 | 929.2 |
| 7.5°   | 923.2 | 923.2 | 917.1 | 927.2 | 926.2 |
| 10°    | 913.1 | 915.1 | 910.0 | 920.1 | 918.1 |
| 12.5°  | 900.9 | 903.9 | 900.9 | 910.0 | 908.0 |
| 15°    | 885.7 | 888.8 | 887.7 | 897.9 | 896.9 |
| 17.5°  | 867.5 | 873.6 | 872.6 | 881.7 | 879.6 |
| 20°    | 847.3 | 853.3 | 855.4 | 864.5 | 865.5 |
| 22.5°  | 826.0 | 832.1 | 835.1 | 847.3 | 846.2 |
| 25°    | 799.7 | 809.8 | 812.8 | 826.0 | 826.0 |
| 27.5°  | 774.4 | 785.5 | 791.6 | 802.7 | 803.7 |
| 30°    | 747.0 | 760.2 | 768.3 | 780.4 | 780.4 |
| 32.5°  | 716.7 | 731.9 | 743.0 | 756.2 | 759.2 |
| 35°    | 688.3 | 704.5 | 717.7 | 732.9 | 736.9 |
| 37.5°  | 658.0 | 676.2 | 691.4 | 708.6 | 711.6 |
| 40°    | 627.6 | 645.8 | 666.1 | 683.3 | 687.3 |
| 42.5°  | 594.2 | 617.5 | 638.7 | 658.0 | 664.0 |
| 45°    | 562.8 | 587.1 | 612.4 | 631.6 | 639.7 |
| 47.5°  | 529.4 | 556.7 | 585.1 | 606.3 | 612.4 |
| 50°    | 497.0 | 525.4 | 556.7 | 580.0 | 587.1 |
| 52.5°  | 462.6 | 493.0 | 528.4 | 552.7 | 561.8 |
| 55°    | 429.2 | 462.6 | 499.0 | 526.4 | 534.5 |
| 57.5°  | 396.8 | 431.2 | 470.7 | 498.0 | 507.1 |
| 60°    | 362.4 | 398.8 | 440.3 | 468.7 | 479.8 |
| 62.5°  | 330.0 | 367.4 | 412.0 | 440.3 | 450.5 |
| 65°    | 296.6 | 336.1 | 380.6 | 411.0 | 421.1 |
| 67.5°  | 263.2 | 304.7 | 349.2 | 382.6 | 390.7 |
| 70°    | 227.8 | 271.3 | 319.9 | 352.3 | 362.4 |
| 72.5°  | 195.4 | 238.9 | 289.5 | 322.9 | 333.0 |
| 75°    | 160.9 | 208.5 | 259.1 | 292.5 | 304.7 |
| 77.5°  | 131.6 | 179.2 | 229.8 | 265.2 | 274.3 |
| 80°    | 100.2 | 149.8 | 202.5 | 236.9 | 247.0 |
| 82.5°  | 72.9  | 123.5 | 177.1 | 211.6 | 221.7 |
| 85°    | 49.6  | 100.2 | 153.9 | 188.3 | 198.4 |
| 87.5°  | 30.4  | 81.0  | 132.6 | 167.0 | 177.1 |
| 90°    | 13.5  | 66.6  | 122.6 | 158.4 | 169.2 |
| 92.5°  | 22.4  | 68.0  | 120.7 | 155.1 | 163.5 |
| 95°    | 31.3  | 73.2  | 125.5 | 158.3 | 168.4 |
| 97.5°  | 43.3  | 81.5  | 131.0 | 163.1 | 172.9 |
| 100°   | 55.6  | 90.1  | 138.4 | 168.7 | 179.5 |
| 102.5° | 70.0  | 99.3  | 147.3 | 176.6 | 186.5 |
| 105°   | 85.0  | 110.0 | 156.6 | 185.0 | 194.8 |
| 107.5° | 101.8 | 123.4 | 166.2 | 194.7 | 203.4 |
| 110°   | 117.2 | 136.1 | 177.3 | 205.0 | 212.4 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 134.3 | 148.8 | 187.3 | 214.3 | 223.4 |
| 115°   | 150.4 | 163.5 | 199.3 | 223.9 | 231.7 |
| 117.5° | 167.9 | 176.3 | 210.0 | 234.3 | 241.4 |
| 120°   | 182.8 | 190.0 | 221.7 | 244.6 | 251.0 |
| 122.5° | 199.6 | 203.1 | 233.8 | 254.9 | 261.0 |
| 125°   | 215.7 | 216.7 | 245.4 | 265.3 | 271.0 |
| 127.5° | 231.4 | 232.5 | 257.1 | 275.3 | 281.1 |
| 130°   | 247.1 | 248.9 | 268.1 | 286.0 | 289.7 |
| 132.5° | 261.9 | 264.6 | 279.1 | 295.6 | 301.0 |
| 135°   | 277.9 | 279.0 | 289.7 | 306.7 | 311.0 |
| 137.5° | 292.6 | 293.4 | 301.5 | 316.0 | 320.0 |
| 140°   | 307.0 | 308.7 | 312.1 | 326.9 | 329.6 |
| 142.5° | 321.0 | 321.8 | 322.4 | 335.3 | 338.6 |
| 145°   | 335.8 | 335.4 | 336.5 | 344.2 | 346.9 |
| 147.5° | 347.4 | 348.8 | 349.8 | 352.8 | 354.8 |
| 150°   | 360.7 | 361.4 | 362.1 | 362.1 | 362.1 |
| 152.5° | 371.7 | 372.7 | 373.0 | 373.7 | 372.0 |
| 155°   | 383.3 | 383.3 | 383.6 | 385.0 | 382.6 |
| 157.5° | 393.2 | 392.9 | 393.2 | 394.6 | 392.5 |
| 160°   | 402.5 | 401.8 | 401.8 | 403.5 | 402.1 |
| 162.5° | 410.7 | 409.6 | 410.0 | 411.7 | 409.3 |
| 165°   | 417.5 | 416.5 | 416.5 | 418.5 | 416.1 |
| 167.5° | 423.3 | 421.9 | 422.3 | 424.3 | 422.3 |
| 170°   | 428.1 | 426.7 | 426.7 | 429.1 | 426.7 |
| 172.5° | 431.9 | 430.5 | 430.5 | 432.5 | 430.2 |
| 175°   | 434.3 | 432.9 | 432.9 | 434.9 | 432.5 |
| 177.5° | 435.6 | 434.3 | 434.3 | 436.3 | 433.9 |
| 180°   | 435.3 | 435.3 | 435.3 | 435.3 | 435.3 |

(END OF REPORT)