

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: P1012007

Luminaire Tested: S123DIP-B775D365UB35-4F0-XX-W2A-D1

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1012007  
REPORT IS A COMBINATION OF REPORTS P990376 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123DIP-B775D365UB35-4F0-XX-W2A-D1  
Description: Define 3 Direct/Indirect Pendant with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}  
Light Source: -  
Ballast/Driver: -

**Summary**

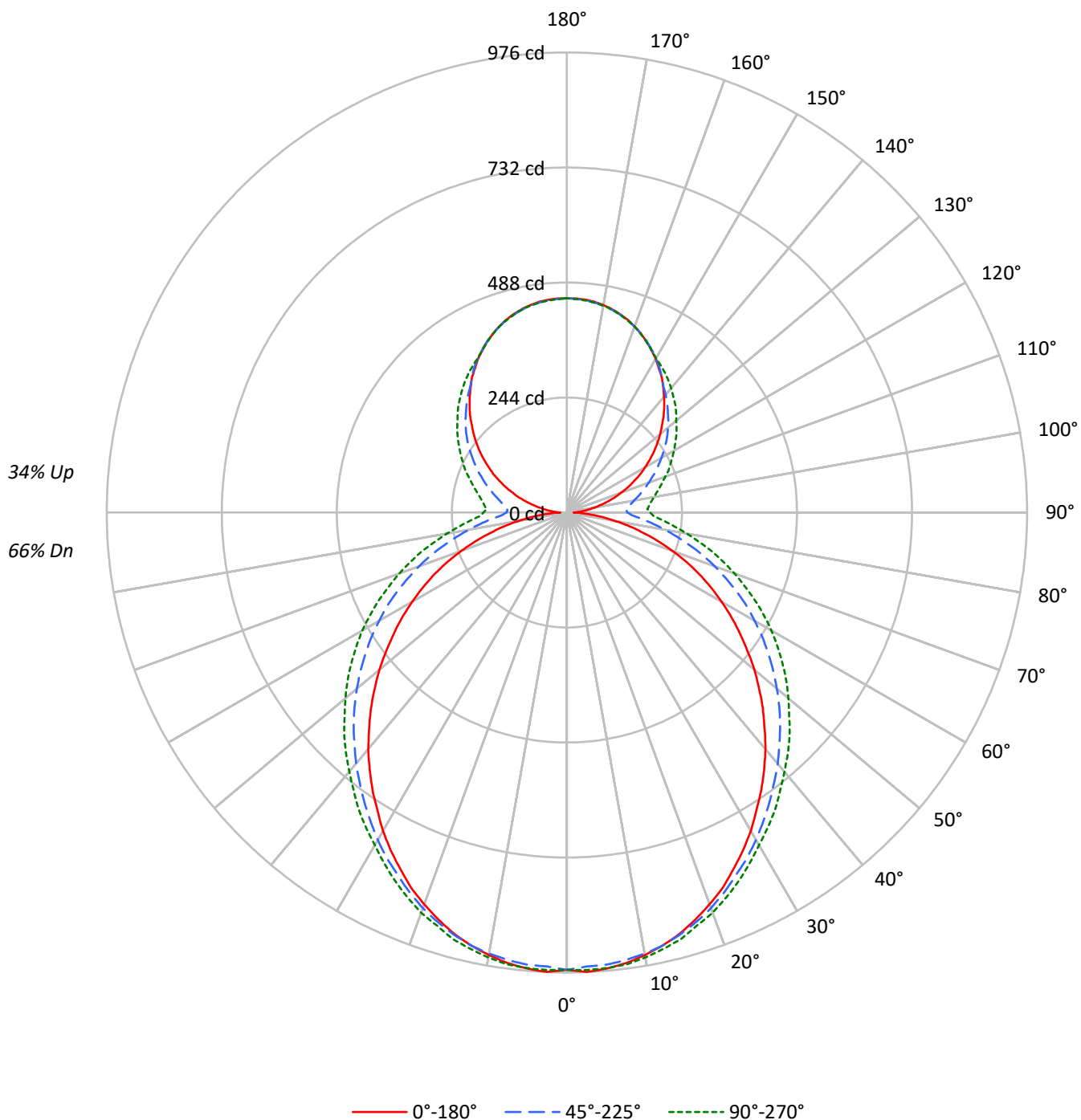
Lumens per Lamp: N/A  
Luminaire Lumens: 4521.0 lumens  
Efficiency: N/A  
Efficacy: 100.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')  
CIE Type: Semi-Direct

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°  | 10444 | 10444 | 10444 |
| 5°  | 10473 | 10138 | 10130 |
| 10° | 10375 | 9863  | 9788  |
| 15° | 10238 | 9560  | 9426  |
| 20° | 10043 | 9222  | 9036  |
| 25° | 9803  | 8842  | 8633  |
| 30° | 9558  | 8496  | 8228  |
| 35° | 9281  | 8135  | 7899  |
| 40° | 9019  | 7805  | 7550  |
| 45° | 8728  | 7485  | 7263  |
| 50° | 8440  | 7167  | 6951  |
| 55° | 8121  | 6842  | 6666  |
| 60° | 7808  | 6510  | 6371  |
| 65° | 7487  | 6155  | 6028  |
| 70° | 7003  | 5758  | 5674  |
| 75° | 6394  | 5305  | 5309  |
| 80° | 5679  | 4846  | 4891  |
| 85° | 4976  | 4475  | 4593  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 8728 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 92.0   | 2.0       |
| 10°-20°   | 262.4  | 5.8       |
| 20°-30°   | 392.4  | 8.7       |
| 30°-40°   | 468.5  | 10.4      |
| 40°-50°   | 490.2  | 10.8      |
| 50°-60°   | 460.0  | 10.2      |
| 60°-70°   | 384.2  | 8.5       |
| 70°-80°   | 274.7  | 6.1       |
| 80°-90°   | 164.4  | 3.6       |
| 90°-100°  | 132.0  | 2.9       |
| 100°-110° | 164.0  | 3.6       |
| 110°-120° | 201.1  | 4.4       |
| 120°-130° | 227.0  | 5.0       |
| 130°-140° | 235.8  | 5.2       |
| 140°-150° | 221.8  | 4.9       |
| 150°-160° | 184.5  | 4.1       |
| 160°-170° | 122.8  | 2.7       |
| 170°-180° | 43.0   | 1.0       |
| <hr/>     |        |           |
| 0°-30°    | 746.8  | 16.5      |
| 0°-40°    | 1215.3 | 26.9      |
| 0°-60°    | 2165.5 | 47.9      |
| 0°-90°    | 2988.9 | 66.1      |
| 90°-120°  | 497.1  | 11.0      |
| 90°-150°  | 1181.8 | 26.1      |
| 90°-180°  | 1532.0 | 33.9      |
| 0°-180°   | 4521.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 970 | 970   | 970 | 970   | 970 |      |
| 5°   | 971 | 969   | 963 | 971   | 970 | 92   |
| 15°  | 925 | 928   | 927 | 938   | 936 | 261  |
| 25°  | 835 | 846   | 849 | 862   | 862 | 385  |
| 35°  | 719 | 736   | 749 | 765   | 770 | 449  |
| 45°  | 588 | 613   | 640 | 660   | 668 | 453  |
| 55°  | 448 | 483   | 521 | 550   | 558 | 401  |
| 65°  | 310 | 351   | 397 | 429   | 440 | 306  |
| 75°  | 168 | 218   | 271 | 306   | 318 | 180  |
| 85°  | 52  | 105   | 161 | 197   | 207 | 53   |
| 90°  | 14  | 69    | 128 | 165   | 177 | 11   |
| 95°  | 33  | 76    | 131 | 165   | 176 | 32   |
| 105° | 89  | 115   | 164 | 193   | 203 | 95   |
| 115° | 157 | 171   | 208 | 234   | 242 | 156  |
| 125° | 225 | 226   | 256 | 277   | 283 | 201  |
| 135° | 290 | 291   | 302 | 320   | 325 | 224  |
| 145° | 351 | 350   | 351 | 359   | 362 | 219  |
| 155° | 400 | 400   | 400 | 402   | 399 | 184  |
| 165° | 436 | 435   | 435 | 437   | 434 | 123  |
| 175° | 453 | 452   | 452 | 454   | 452 | 43   |
| 180° | 454 | 454   | 454 | 454   | 454 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 970.3 | 970.3 | 970.3 | 970.3 | 970.3 |
| 2.5°   | 975.6 | 972.4 | 964.0 | 972.4 | 971.4 |
| 5°     | 971.4 | 969.3 | 962.9 | 971.4 | 970.3 |
| 7.5°   | 964.0 | 964.0 | 957.6 | 968.2 | 967.1 |
| 10°    | 953.4 | 955.5 | 950.2 | 960.8 | 958.7 |
| 12.5°  | 940.7 | 943.9 | 940.7 | 950.2 | 948.1 |
| 15°    | 924.9 | 928.0 | 927.0 | 937.5 | 936.5 |
| 17.5°  | 905.8 | 912.2 | 911.1 | 920.6 | 918.5 |
| 20°    | 884.7 | 891.0 | 893.1 | 902.7 | 903.7 |
| 22.5°  | 862.5 | 868.8 | 872.0 | 884.7 | 883.6 |
| 25°    | 835.0 | 845.6 | 848.8 | 862.5 | 862.5 |
| 27.5°  | 808.6 | 820.2 | 826.6 | 838.2 | 839.2 |
| 30°    | 780.1 | 793.8 | 802.2 | 814.9 | 814.9 |
| 32.5°  | 748.3 | 764.2 | 775.8 | 789.6 | 792.7 |
| 35°    | 718.7 | 735.7 | 749.4 | 765.3 | 769.5 |
| 37.5°  | 687.0 | 706.1 | 721.9 | 739.9 | 743.1 |
| 40°    | 655.3 | 674.4 | 695.5 | 713.5 | 717.7 |
| 42.5°  | 620.4 | 644.8 | 667.0 | 687.0 | 693.4 |
| 45°    | 587.7 | 613.0 | 639.5 | 659.6 | 668.0 |
| 47.5°  | 552.8 | 581.3 | 610.9 | 633.1 | 639.5 |
| 50°    | 519.0 | 548.6 | 581.3 | 605.7 | 613.0 |
| 52.5°  | 483.0 | 514.8 | 551.7 | 577.1 | 586.6 |
| 55°    | 448.2 | 483.0 | 521.1 | 549.6 | 558.1 |
| 57.5°  | 414.3 | 450.3 | 491.5 | 520.0 | 529.5 |
| 60°    | 378.4 | 416.5 | 459.8 | 489.4 | 501.0 |
| 62.5°  | 344.6 | 383.7 | 430.2 | 459.8 | 470.4 |
| 65°    | 309.7 | 350.9 | 397.4 | 429.1 | 439.7 |
| 67.5°  | 274.8 | 318.2 | 364.7 | 399.5 | 408.0 |
| 70°    | 237.8 | 283.3 | 334.0 | 367.8 | 378.4 |
| 72.5°  | 204.0 | 249.4 | 302.3 | 337.2 | 347.7 |
| 75°    | 168.1 | 217.7 | 270.6 | 305.5 | 318.2 |
| 77.5°  | 137.4 | 187.1 | 239.9 | 276.9 | 286.4 |
| 80°    | 104.6 | 156.4 | 211.4 | 247.3 | 257.9 |
| 82.5°  | 76.1  | 129.0 | 185.0 | 220.9 | 231.5 |
| 85°    | 51.8  | 104.6 | 160.7 | 196.6 | 207.2 |
| 87.5°  | 31.7  | 84.6  | 138.5 | 174.4 | 185.0 |
| 90°    | 14.1  | 69.4  | 128.0 | 165.4 | 176.6 |
| 92.5°  | 23.4  | 71.0  | 126.0 | 162.0 | 170.7 |
| 95°    | 32.7  | 76.4  | 131.0 | 165.2 | 175.8 |
| 97.5°  | 45.2  | 85.0  | 136.9 | 170.3 | 180.6 |
| 100°   | 58.0  | 94.0  | 144.5 | 176.1 | 187.5 |
| 102.5° | 73.1  | 103.8 | 153.8 | 184.4 | 194.7 |
| 105°   | 88.8  | 114.8 | 163.5 | 193.1 | 203.4 |
| 107.5° | 106.3 | 128.8 | 173.6 | 203.2 | 212.4 |
| 110°   | 122.3 | 142.1 | 185.0 | 214.0 | 221.7 |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 140.2 | 155.3 | 195.5 | 223.7 | 233.2 |
| 115°   | 157.0 | 170.8 | 208.1 | 233.8 | 241.9 |
| 117.5° | 175.2 | 184.0 | 219.2 | 244.5 | 252.0 |
| 120°   | 190.9 | 198.3 | 231.4 | 255.4 | 262.1 |
| 122.5° | 208.4 | 211.9 | 244.0 | 266.2 | 272.5 |
| 125°   | 225.2 | 226.3 | 256.2 | 276.9 | 282.9 |
| 127.5° | 241.6 | 242.7 | 268.4 | 287.4 | 293.4 |
| 130°   | 258.1 | 259.8 | 279.9 | 298.5 | 302.4 |
| 132.5° | 273.4 | 276.2 | 291.4 | 308.6 | 314.3 |
| 135°   | 290.2 | 291.3 | 302.5 | 320.1 | 324.7 |
| 137.5° | 305.5 | 306.3 | 314.8 | 329.9 | 334.1 |
| 140°   | 320.6 | 322.4 | 325.8 | 341.4 | 344.2 |
| 142.5° | 335.2 | 335.9 | 336.6 | 349.9 | 353.5 |
| 145°   | 350.6 | 350.2 | 351.2 | 359.4 | 362.2 |
| 147.5° | 362.7 | 364.1 | 365.2 | 368.4 | 370.4 |
| 150°   | 376.6 | 377.3 | 378.0 | 378.0 | 378.0 |
| 152.5° | 388.0 | 389.1 | 389.4 | 390.1 | 388.4 |
| 155°   | 400.1 | 400.1 | 400.5 | 401.9 | 399.4 |
| 157.5° | 410.5 | 410.1 | 410.5 | 411.9 | 409.8 |
| 160°   | 420.1 | 419.4 | 419.4 | 421.2 | 419.8 |
| 162.5° | 428.7 | 427.6 | 428.0 | 429.8 | 427.3 |
| 165°   | 435.8 | 434.8 | 434.8 | 436.9 | 434.4 |
| 167.5° | 441.9 | 440.5 | 440.8 | 443.0 | 440.8 |
| 170°   | 446.9 | 445.5 | 445.5 | 448.0 | 445.5 |
| 172.5° | 450.8 | 449.4 | 449.4 | 451.5 | 449.0 |
| 175°   | 453.3 | 451.9 | 451.9 | 454.0 | 451.5 |
| 177.5° | 454.7 | 453.3 | 453.3 | 455.5 | 453.0 |
| 180°   | 454.4 | 454.4 | 454.4 | 454.4 | 454.4 |

(END OF REPORT)