

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: P1013172

Luminaire Tested: S124DIP-B795D365UB2750-4F0-XX-W2A-F\_3500K

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1013172  
REPORT IS A COMBINATION OF REPORTS P996460 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124DIP-B795D365UB2750-4F0-XX-W2A-F\_3500K  
Description: Define 4 Direct/Indirect Pendant with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}  
Light Source: -  
Ballast/Driver: -

**Summary**

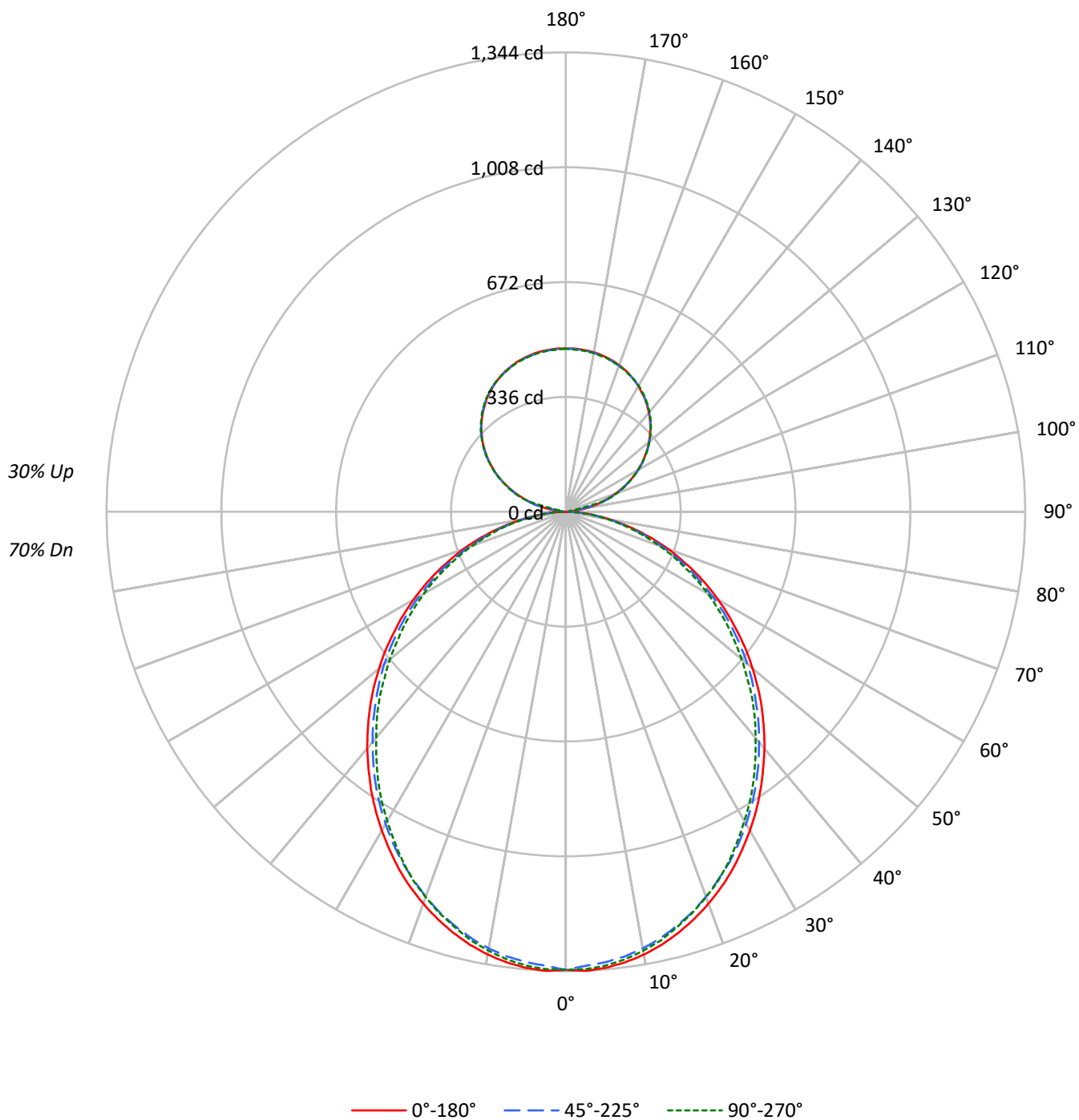
Lumens per Lamp: N/A  
Luminaire Lumens: 4918.0 lumens  
Efficiency: N/A  
Efficacy: 108.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: Semi-Direct

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   | 112 | 112 | 112 | 112 | 106 | 106 | 106 | 106 | 94 | 94 | 94 | 84 | 84 | 84 | 74 | 74 | 74 |
| 1   | 102 | 98  | 94  | 90  | 96  | 93  | 89  | 86  | 83 | 80 | 78 | 74 | 72 | 70 | 66 | 64 | 63 |
| 2   | 93  | 85  | 79  | 74  | 88  | 81  | 75  | 70  | 73 | 68 | 64 | 65 | 62 | 58 | 58 | 55 | 53 |
| 3   | 85  | 75  | 67  | 61  | 80  | 71  | 64  | 59  | 64 | 59 | 54 | 57 | 53 | 50 | 51 | 48 | 45 |
| 4   | 78  | 67  | 58  | 52  | 73  | 63  | 56  | 50  | 57 | 51 | 46 | 51 | 46 | 42 | 46 | 42 | 39 |
| 5   | 72  | 59  | 51  | 45  | 67  | 57  | 49  | 43  | 51 | 45 | 40 | 46 | 41 | 37 | 41 | 37 | 34 |
| 6   | 66  | 53  | 45  | 39  | 62  | 51  | 43  | 38  | 46 | 40 | 35 | 42 | 36 | 32 | 38 | 33 | 30 |
| 7   | 61  | 48  | 40  | 34  | 58  | 46  | 39  | 33  | 42 | 36 | 31 | 38 | 33 | 29 | 34 | 30 | 27 |
| 8   | 57  | 44  | 36  | 31  | 54  | 42  | 35  | 30  | 38 | 32 | 28 | 35 | 30 | 26 | 32 | 27 | 24 |
| 9   | 53  | 40  | 33  | 27  | 50  | 39  | 31  | 27  | 35 | 29 | 25 | 32 | 27 | 23 | 29 | 25 | 22 |
| 10  | 50  | 37  | 30  | 25  | 47  | 36  | 29  | 24  | 33 | 27 | 22 | 30 | 25 | 21 | 27 | 23 | 20 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 10929 | 10929 | 10929 |
| 5°  | 10938 | 10615 | 10627 |
| 10° | 10845 | 10320 | 10247 |
| 15° | 10690 | 9969  | 9820  |
| 20° | 10491 | 9591  | 9376  |
| 25° | 10268 | 9190  | 8898  |
| 30° | 9998  | 8757  | 8374  |
| 35° | 9719  | 8314  | 7867  |
| 40° | 9427  | 7837  | 7328  |
| 45° | 9122  | 7359  | 6824  |
| 50° | 8785  | 6895  | 6266  |
| 55° | 8417  | 6353  | 5711  |
| 60° | 8041  | 5760  | 5134  |
| 65° | 7611  | 5148  | 4484  |
| 70° | 7117  | 4409  | 3786  |
| 75° | 6374  | 3555  | 3032  |
| 80° | 5433  | 2570  | 2133  |
| 85° | 4221  | 1430  | 1149  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 9122 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 126.3  | 2.6       |
| 10°-20°   | 355.9  | 7.2       |
| 20°-30°   | 523.8  | 10.7      |
| 30°-40°   | 608.9  | 12.4      |
| 40°-50°   | 608.8  | 12.4      |
| 50°-60°   | 532.5  | 10.8      |
| 60°-70°   | 395.3  | 8.0       |
| 70°-80°   | 224.3  | 4.6       |
| 80°-90°   | 65.2   | 1.3       |
| 90°-100°  | 15.8   | 0.3       |
| 100°-110° | 104.3  | 2.1       |
| 110°-120° | 199.2  | 4.1       |
| 120°-130° | 252.9  | 5.1       |
| 130°-140° | 270.6  | 5.5       |
| 140°-150° | 253.0  | 5.1       |
| 150°-160° | 204.0  | 4.1       |
| 160°-170° | 131.6  | 2.7       |
| 170°-180° | 45.4   | 0.9       |
| 0°-30°    | 1006.0 | 20.5      |
| 0°-40°    | 1614.9 | 32.8      |
| 0°-60°    | 2756.1 | 56.0      |
| 0°-90°    | 3441.0 | 70.0      |
| 90°-120°  | 319.4  | 6.5       |
| 90°-150°  | 1096.0 | 22.3      |
| 90°-180°  | 1477.0 | 30.0      |
| 0°-180°   | 4918.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1340 | 1340  | 1340 | 1340  | 1340 |      |
| 5°   | 1339 | 1335  | 1323 | 1335  | 1333 | 127  |
| 15°  | 1275 | 1270  | 1254 | 1261  | 1258 | 359  |
| 25°  | 1154 | 1147  | 1132 | 1133  | 1129 | 531  |
| 35°  | 993  | 986   | 971  | 963   | 958  | 621  |
| 45°  | 811  | 803   | 786  | 774   | 771  | 625  |
| 55°  | 613  | 610   | 595  | 582   | 576  | 549  |
| 65°  | 416  | 410   | 400  | 389   | 383  | 411  |
| 75°  | 221  | 216   | 210  | 206   | 205  | 235  |
| 85°  | 58   | 58    | 56   | 56    | 55   | 62   |
| 90°  | 1    | 5     | 8    | 10    | 11   | 5    |
| 95°  | 20   | 8     | 8    | 10    | 10   | 24   |
| 105° | 108  | 110   | 111  | 115   | 102  | 112  |
| 115° | 201  | 202   | 201  | 202   | 202  | 197  |
| 125° | 282  | 284   | 283  | 284   | 284  | 252  |
| 135° | 350  | 350   | 351  | 352   | 352  | 270  |
| 145° | 403  | 404   | 404  | 405   | 406  | 252  |
| 155° | 442  | 443   | 442  | 443   | 442  | 204  |
| 165° | 467  | 465   | 465  | 468   | 464  | 132  |
| 175° | 477  | 475   | 476  | 479   | 474  | 45   |
| 180° | 477  | 477   | 477  | 477   | 477  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1340.2 | 1340.2 | 1340.2 | 1340.2 | 1340.2 |
| 2.5°   | 1344.5 | 1341.3 | 1329.5 | 1340.2 | 1339.2 |
| 5°     | 1339.2 | 1334.9 | 1323.1 | 1334.9 | 1332.7 |
| 7.5°   | 1329.5 | 1325.2 | 1312.3 | 1322.0 | 1320.9 |
| 10°    | 1315.5 | 1311.2 | 1297.3 | 1305.9 | 1303.7 |
| 12.5°  | 1297.3 | 1293.0 | 1278.0 | 1287.6 | 1284.4 |
| 15°    | 1274.7 | 1270.4 | 1254.3 | 1260.8 | 1257.6 |
| 17.5°  | 1249.0 | 1243.6 | 1228.6 | 1232.9 | 1230.7 |
| 20°    | 1220.0 | 1214.6 | 1198.5 | 1201.7 | 1199.6 |
| 22.5°  | 1188.8 | 1181.3 | 1165.2 | 1171.6 | 1167.3 |
| 25°    | 1154.5 | 1146.9 | 1131.9 | 1133.0 | 1128.7 |
| 27.5°  | 1115.8 | 1108.3 | 1094.3 | 1092.2 | 1086.8 |
| 30°    | 1077.1 | 1068.5 | 1054.6 | 1050.3 | 1044.9 |
| 32.5°  | 1036.3 | 1028.8 | 1013.8 | 1008.4 | 1003.0 |
| 35°    | 993.4  | 985.9  | 970.8  | 963.3  | 957.9  |
| 37.5°  | 948.3  | 941.8  | 925.7  | 918.2  | 910.7  |
| 40°    | 904.2  | 895.6  | 879.5  | 868.8  | 863.4  |
| 42.5°  | 857.0  | 852.7  | 834.4  | 821.5  | 818.3  |
| 45°    | 810.8  | 803.3  | 786.1  | 774.3  | 771.1  |
| 47.5°  | 762.5  | 757.1  | 741.0  | 728.1  | 719.5  |
| 50°    | 713.1  | 708.8  | 693.7  | 678.7  | 672.3  |
| 52.5°  | 664.8  | 659.4  | 643.3  | 630.4  | 621.8  |
| 55°    | 613.2  | 610.0  | 594.9  | 582.1  | 575.6  |
| 57.5°  | 564.9  | 561.7  | 546.6  | 533.7  | 527.3  |
| 60°    | 514.4  | 509.0  | 495.1  | 485.4  | 480.0  |
| 62.5°  | 465.0  | 460.7  | 445.7  | 437.1  | 431.7  |
| 65°    | 415.6  | 410.2  | 399.5  | 388.8  | 383.4  |
| 67.5°  | 365.1  | 360.8  | 350.1  | 339.4  | 338.3  |
| 70°    | 319.0  | 311.4  | 302.8  | 294.3  | 291.0  |
| 72.5°  | 269.6  | 262.0  | 255.6  | 249.1  | 245.9  |
| 75°    | 221.2  | 215.9  | 210.5  | 206.2  | 205.1  |
| 77.5°  | 174.0  | 171.8  | 166.5  | 165.4  | 162.2  |
| 80°    | 132.1  | 128.9  | 126.7  | 124.6  | 123.5  |
| 82.5°  | 91.3   | 90.2   | 90.2   | 89.1   | 88.1   |
| 85°    | 58.0   | 58.0   | 55.8   | 55.8   | 54.8   |
| 87.5°  | 27.9   | 26.8   | 25.8   | 25.8   | 25.8   |
| 90°    | 1.1    | 5.0    | 7.9    | 10.0   | 10.7   |
| 92.5°  | 5.4    | 4.6    | 7.5    | 9.6    | 9.6    |
| 95°    | 19.6   | 7.5    | 7.9    | 10.0   | 10.4   |
| 97.5°  | 37.5   | 45.3   | 7.9    | 9.6    | 10.0   |
| 100°   | 58.6   | 65.0   | 15.7   | 9.6    | 10.0   |
| 102.5° | 82.1   | 86.4   | 90.7   | 10.4   | 10.4   |
| 105°   | 107.5  | 109.6  | 111.4  | 114.6  | 101.7  |
| 107.5° | 130.7  | 131.7  | 134.2  | 136.0  | 137.4  |
| 110°   | 154.2  | 155.3  | 157.4  | 158.2  | 159.2  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 177.1 | 179.2 | 179.9 | 179.6 | 181.0 |
| 115°   | 200.6 | 201.7 | 201.4 | 202.1 | 202.1 |
| 117.5° | 221.7 | 223.1 | 224.2 | 223.8 | 223.8 |
| 120°   | 243.1 | 244.6 | 244.2 | 244.9 | 244.2 |
| 122.5° | 263.1 | 263.8 | 264.5 | 264.9 | 264.2 |
| 125°   | 282.0 | 283.5 | 282.8 | 283.8 | 284.2 |
| 127.5° | 300.2 | 300.6 | 302.4 | 302.0 | 301.7 |
| 130°   | 317.7 | 318.1 | 319.2 | 319.5 | 319.5 |
| 132.5° | 333.8 | 334.5 | 335.9 | 336.3 | 335.9 |
| 135°   | 349.9 | 349.5 | 350.9 | 351.7 | 352.4 |
| 137.5° | 364.2 | 364.2 | 365.9 | 366.7 | 366.3 |
| 140°   | 378.1 | 378.8 | 379.5 | 380.6 | 380.9 |
| 142.5° | 390.6 | 392.0 | 392.4 | 393.1 | 393.1 |
| 145°   | 403.4 | 404.5 | 404.5 | 404.9 | 405.6 |
| 147.5° | 413.4 | 415.6 | 415.2 | 415.6 | 415.9 |
| 150°   | 424.5 | 425.9 | 425.6 | 425.6 | 425.9 |
| 152.5° | 433.8 | 434.8 | 434.1 | 434.8 | 434.5 |
| 155°   | 442.3 | 442.7 | 441.6 | 443.1 | 442.0 |
| 157.5° | 449.8 | 449.8 | 448.4 | 450.2 | 448.4 |
| 160°   | 456.3 | 455.2 | 454.8 | 457.0 | 454.8 |
| 162.5° | 462.0 | 460.5 | 460.2 | 462.3 | 459.8 |
| 165°   | 466.6 | 464.8 | 464.8 | 467.7 | 464.5 |
| 167.5° | 470.5 | 468.8 | 468.4 | 471.6 | 468.0 |
| 170°   | 473.8 | 471.6 | 472.0 | 474.8 | 471.3 |
| 172.5° | 475.9 | 473.8 | 474.1 | 477.0 | 473.0 |
| 175°   | 477.3 | 475.2 | 475.5 | 478.8 | 474.5 |
| 177.5° | 478.4 | 475.9 | 476.6 | 479.5 | 475.2 |
| 180°   | 477.3 | 477.3 | 477.3 | 477.3 | 477.3 |

(END OF REPORT)