

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: P1008795

Luminaire Tested: S122DIP-B290D1080UB40-4F0-XX-W2A-D1

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1008795  
REPORT IS A COMBINATION OF REPORTS P983864 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122DIP-B290D1080UB40-4F0-XX-W2A-D1  
Description: Define 2 Direct/Indirect Pendant with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}  
Light Source: -  
Ballast/Driver: -

**Summary**

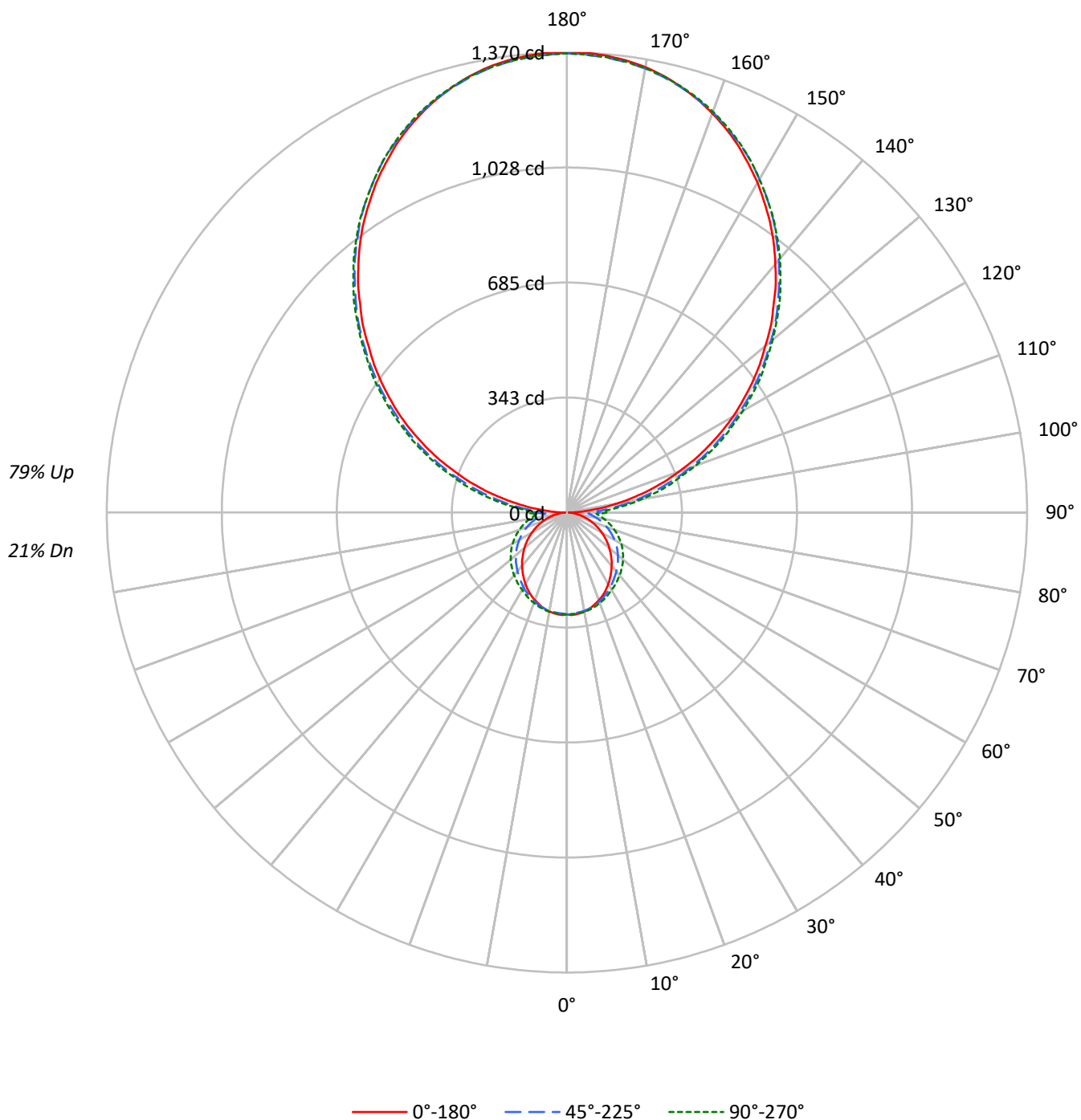
Lumens per Lamp: N/A  
Luminaire Lumens: 4986.0 lumens  
Efficiency: N/A  
Efficacy: 103.9 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect

Input Watts (W): 48  
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 |    |    |    |    | 0  |
| RW  | 70  | 50  | 30  | 10  | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 |
| RCR |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 100 | 100 | 100 | 100 | 89 | 89 | 89 | 89 | 67 | 67 | 67 | 47 | 47 | 47 | 29 | 29 | 29 | 21 |    |    |
| 1   | 91  | 86  | 82  | 79  | 80 | 76 | 73 | 70 | 58 | 55 | 53 | 41 | 39 | 38 | 25 | 24 | 23 | 16 |    |    |
| 2   | 82  | 75  | 69  | 64  | 72 | 66 | 61 | 57 | 50 | 47 | 44 | 35 | 33 | 31 | 21 | 20 | 19 | 13 |    |    |
| 3   | 75  | 65  | 58  | 53  | 66 | 58 | 52 | 47 | 44 | 40 | 36 | 31 | 28 | 26 | 19 | 17 | 16 | 11 |    |    |
| 4   | 68  | 58  | 50  | 44  | 60 | 51 | 45 | 40 | 39 | 34 | 31 | 27 | 24 | 22 | 17 | 15 | 14 | 9  |    |    |
| 5   | 62  | 51  | 43  | 37  | 55 | 45 | 39 | 34 | 34 | 30 | 26 | 24 | 21 | 19 | 15 | 13 | 12 | 8  |    |    |
| 6   | 57  | 46  | 38  | 32  | 50 | 40 | 34 | 29 | 31 | 26 | 23 | 22 | 19 | 16 | 13 | 12 | 10 | 7  |    |    |
| 7   | 53  | 41  | 33  | 28  | 46 | 36 | 30 | 25 | 28 | 23 | 20 | 20 | 17 | 14 | 12 | 10 | 9  | 6  |    |    |
| 8   | 49  | 37  | 29  | 24  | 43 | 33 | 26 | 22 | 25 | 20 | 17 | 18 | 15 | 13 | 11 | 9  | 8  | 5  |    |    |
| 9   | 45  | 33  | 26  | 21  | 40 | 30 | 24 | 19 | 23 | 18 | 15 | 16 | 13 | 11 | 10 | 8  | 7  | 5  |    |    |
| 10  | 42  | 31  | 24  | 19  | 37 | 27 | 21 | 17 | 21 | 17 | 13 | 15 | 12 | 10 | 9  | 8  | 6  | 4  |    |    |

**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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CATALOG NUMBER: S122DIP-B290D1080UB40-4F0-XX-W2A-D1

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 28.8   | 0.6       |
| 10°-20°   | 82.5   | 1.7       |
| 20°-30°   | 125.0  | 2.5       |
| 30°-40°   | 152.2  | 3.1       |
| 40°-50°   | 163.8  | 3.3       |
| 50°-60°   | 159.1  | 3.2       |
| 60°-70°   | 138.9  | 2.8       |
| 70°-80°   | 106.9  | 2.1       |
| 80°-90°   | 75.5   | 1.5       |
| 90°-100°  | 134.0  | 2.7       |
| 100°-110° | 305.1  | 6.1       |
| 110°-120° | 484.1  | 9.7       |
| 120°-130° | 618.6  | 12.4      |
| 130°-140° | 685.0  | 13.7      |
| 140°-150° | 667.2  | 13.4      |
| 150°-160° | 558.9  | 11.2      |
| 160°-170° | 370.7  | 7.4       |
| 170°-180° | 129.6  | 2.6       |
| 0°-30°    | 236.3  | 4.7       |
| 0°-40°    | 388.5  | 7.8       |
| 0°-60°    | 711.5  | 14.3      |
| 0°-90°    | 1032.8 | 20.7      |
| 90°-120°  | 923.2  | 18.5      |
| 90°-150°  | 2894.1 | 58.0      |
| 90°-180°  | 3953.0 | 79.3      |
| 0°-180°   | 4986.0 | 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°  | 6    | 45    | 98   | 114   | 120  | 7    |
| 95°  | 64   | 96    | 124  | 141   | 144  | 70   |
| 105° | 250  | 267   | 292  | 309   | 314  | 265  |
| 115° | 464  | 475   | 493  | 505   | 506  | 458  |
| 125° | 673  | 683   | 694  | 702   | 705  | 601  |
| 135° | 870  | 882   | 889  | 897   | 897  | 672  |
| 145° | 1055 | 1063  | 1070 | 1074  | 1071 | 659  |
| 155° | 1206 | 1210  | 1213 | 1219  | 1215 | 555  |
| 165° | 1312 | 1311  | 1311 | 1319  | 1314 | 370  |
| 175° | 1366 | 1362  | 1360 | 1368  | 1361 | 130  |
| 180° | 1368 | 1368  | 1368 | 1368  | 1368 |      |

TEST NUMBER: P1008795

CATALOG NUMBER: S122DIP-B290D1080UB40-4F0-XX-W2A-D1

**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°    | 5.6   | 44.9  | 98.5  | 113.8 | 120.1 |
| 92.5°  | 29.4  | 61.9  | 89.9  | 108.2 | 113.4 |
| 95°    | 63.5  | 95.8  | 124.5 | 141.2 | 144.2 |
| 97.5°  | 103.5 | 132.8 | 162.9 | 179.2 | 184.5 |
| 100°   | 149.7 | 175.2 | 203.3 | 219.6 | 223.2 |
| 102.5° | 197.7 | 219.2 | 247.5 | 264.5 | 268.2 |
| 105°   | 250.4 | 266.6 | 291.7 | 309.4 | 314.3 |
| 107.5° | 303.5 | 318.7 | 340.6 | 356.7 | 355.8 |
| 110°   | 353.8 | 369.6 | 391.1 | 405.2 | 406.5 |

TEST NUMBER: P1008795

CATALOG NUMBER: S122DIP-B290D1080UB40-4F0-XX-W2A-D1

**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 409.3  | 423.2  | 442.2  | 452.9  | 455.4  |
| 115°   | 463.5  | 475.2  | 492.7  | 504.8  | 506.1  |
| 117.5° | 517.3  | 530.0  | 542.7  | 552.5  | 553.4  |
| 120°   | 571.5  | 582.5  | 590.9  | 603.2  | 604.5  |
| 122.5° | 621.1  | 633.2  | 643.6  | 652.0  | 653.7  |
| 125°   | 672.7  | 683.1  | 693.7  | 702.0  | 704.9  |
| 127.5° | 723.5  | 735.7  | 742.9  | 749.3  | 749.9  |
| 130°   | 770.8  | 785.3  | 792.3  | 800.5  | 799.5  |
| 132.5° | 823.9  | 834.9  | 842.7  | 847.1  | 847.2  |
| 135°   | 869.6  | 882.3  | 889.0  | 897.1  | 897.1  |
| 137.5° | 920.3  | 930.7  | 935.2  | 942.5  | 941.0  |
| 140°   | 965.4  | 975.4  | 982.0  | 989.0  | 987.1  |
| 142.5° | 1011.5 | 1021.5 | 1025.0 | 1031.4 | 1029.0 |
| 145°   | 1055.0 | 1063.1 | 1070.0 | 1073.8 | 1071.3 |
| 147.5° | 1094.2 | 1104.6 | 1109.2 | 1112.0 | 1108.7 |
| 150°   | 1134.6 | 1141.6 | 1146.2 | 1149.6 | 1146.2 |
| 152.5° | 1170.4 | 1177.3 | 1183.1 | 1187.7 | 1183.1 |
| 155°   | 1206.2 | 1209.7 | 1213.1 | 1218.9 | 1215.4 |
| 157.5° | 1237.4 | 1239.7 | 1242.0 | 1250.1 | 1244.3 |
| 160°   | 1265.1 | 1267.4 | 1268.5 | 1275.5 | 1270.8 |
| 162.5° | 1290.5 | 1290.5 | 1291.6 | 1299.7 | 1293.9 |
| 165°   | 1312.4 | 1311.2 | 1311.2 | 1319.3 | 1313.5 |
| 167.5° | 1332.0 | 1328.6 | 1328.6 | 1336.6 | 1330.9 |
| 170°   | 1347.0 | 1343.6 | 1342.4 | 1350.5 | 1343.6 |
| 172.5° | 1357.4 | 1353.9 | 1352.8 | 1360.9 | 1353.9 |
| 175°   | 1365.5 | 1362.0 | 1359.7 | 1367.8 | 1360.9 |
| 177.5° | 1370.1 | 1366.6 | 1364.3 | 1371.3 | 1364.3 |
| 180°   | 1367.8 | 1367.8 | 1367.8 | 1367.8 | 1367.8 |

(END OF REPORT)