

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: P1011297

Luminaire Tested: S123DIP-B1165D1195UB30-4F0-XX-W2A-D4

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1011297  
REPORT IS A COMBINATION OF REPORTS P989408 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123DIP-B1165D1195UB30-4F0-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**

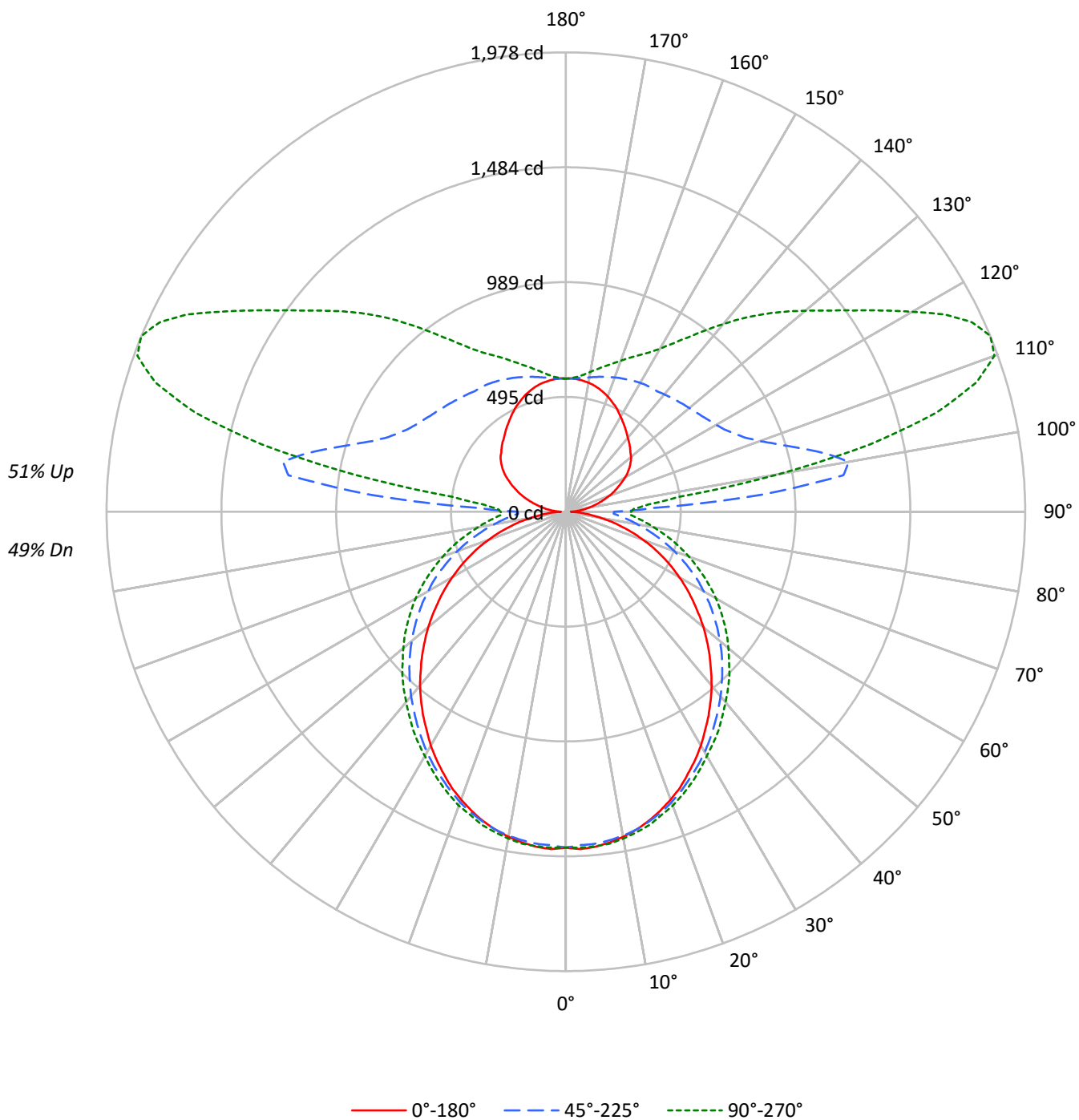
Lumens per Lamp: N/A  
Luminaire Lumens: 9188.1 lumens  
Efficiency: N/A  
Efficacy: 95.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 96.3  
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 |
| RW  | 70  | 50  | 30  | 10  | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 |
| RCR |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 107 | 107 | 107 | 107 | 98 | 98 | 98 | 98 | 83 | 83 | 83 | 68 | 68 | 68 | 55 | 55 | 55 |
| 1   | 96  | 92  | 87  | 84  | 88 | 84 | 81 | 77 | 71 | 68 | 66 | 58 | 56 | 55 | 47 | 45 | 44 |
| 2   | 87  | 79  | 73  | 67  | 80 | 73 | 67 | 63 | 61 | 57 | 54 | 51 | 47 | 45 | 41 | 38 | 36 |
| 3   | 79  | 70  | 62  | 56  | 73 | 64 | 57 | 52 | 54 | 49 | 45 | 44 | 41 | 37 | 36 | 33 | 31 |
| 4   | 73  | 61  | 53  | 47  | 66 | 57 | 49 | 44 | 48 | 42 | 38 | 39 | 35 | 32 | 32 | 29 | 26 |
| 5   | 66  | 54  | 46  | 40  | 61 | 50 | 43 | 37 | 42 | 37 | 32 | 35 | 31 | 27 | 28 | 25 | 23 |
| 6   | 61  | 49  | 40  | 34  | 56 | 45 | 38 | 32 | 38 | 32 | 28 | 32 | 27 | 24 | 26 | 22 | 20 |
| 7   | 56  | 44  | 36  | 30  | 52 | 41 | 33 | 28 | 35 | 29 | 25 | 29 | 24 | 21 | 23 | 20 | 17 |
| 8   | 52  | 40  | 32  | 26  | 48 | 37 | 30 | 25 | 31 | 26 | 22 | 26 | 22 | 19 | 21 | 18 | 16 |
| 9   | 49  | 36  | 29  | 24  | 45 | 34 | 27 | 22 | 29 | 23 | 19 | 24 | 20 | 17 | 20 | 16 | 14 |
| 10  | 46  | 33  | 26  | 21  | 42 | 31 | 24 | 20 | 26 | 21 | 17 | 22 | 18 | 15 | 18 | 15 | 13 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 15566 | 15566 | 15566 |
| 5°  | 15608 | 15109 | 15097 |
| 10° | 15462 | 14700 | 14588 |
| 15° | 15258 | 14248 | 14048 |
| 20° | 14967 | 13744 | 13467 |
| 25° | 14610 | 13176 | 12866 |
| 30° | 14243 | 12663 | 12263 |
| 35° | 13834 | 12125 | 11772 |
| 40° | 13442 | 11631 | 11252 |
| 45° | 13007 | 11155 | 10825 |
| 50° | 12578 | 10683 | 10361 |
| 55° | 12102 | 10197 | 9933  |
| 60° | 11636 | 9701  | 9496  |
| 65° | 11159 | 9174  | 8984  |
| 70° | 10437 | 8581  | 8455  |
| 75° | 9529  | 7906  | 7911  |
| 80° | 8469  | 7223  | 7290  |
| 85° | 7415  | 6667  | 6844  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 13007 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 137.2  | 1.5       |
| 10°-20°   | 391.1  | 4.3       |
| 20°-30°   | 584.8  | 6.4       |
| 30°-40°   | 698.2  | 7.6       |
| 40°-50°   | 730.6  | 8.0       |
| 50°-60°   | 685.6  | 7.5       |
| 60°-70°   | 572.6  | 6.2       |
| 70°-80°   | 409.5  | 4.5       |
| 80°-90°   | 246.8  | 2.7       |
| 90°-100°  | 479.1  | 5.2       |
| 100°-110° | 1023.6 | 11.1      |
| 110°-120° | 963.6  | 10.5      |
| 120°-130° | 750.3  | 8.2       |
| 130°-140° | 577.7  | 6.3       |
| 140°-150° | 420.6  | 4.6       |
| 150°-160° | 290.7  | 3.2       |
| 160°-170° | 170.7  | 1.9       |
| 170°-180° | 55.5   | 0.6       |
| 0°-30°    | 1113.0 | 12.1      |
| 0°-40°    | 1811.3 | 19.7      |
| 0°-60°    | 3227.4 | 35.1      |
| 0°-90°    | 4456.3 | 48.5      |
| 90°-120°  | 2466.3 | 26.8      |
| 90°-150°  | 4214.9 | 45.9      |
| 90°-180°  | 4732.0 | 51.5      |
| 0°-180°   | 9188.1 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1446 | 1446  | 1446 | 1446  | 1446 |      |
| 5°   | 1448 | 1444  | 1435 | 1448  | 1446 | 137  |
| 15°  | 1378 | 1383  | 1382 | 1397  | 1396 | 388  |
| 25°  | 1244 | 1260  | 1265 | 1285  | 1285 | 574  |
| 35°  | 1071 | 1096  | 1117 | 1140  | 1147 | 670  |
| 45°  | 876  | 914   | 953  | 983   | 996  | 675  |
| 55°  | 668  | 720   | 777  | 819   | 832  | 598  |
| 65°  | 462  | 523   | 592  | 640   | 655  | 456  |
| 75°  | 250  | 324   | 403  | 455   | 474  | 268  |
| 85°  | 77   | 156   | 239  | 293   | 309  | 79   |
| 90°  | 23   | 112   | 207  | 264   | 281  | 18   |
| 95°  | 57   | 207   | 845  | 406   | 355  | 55   |
| 105° | 147  | 250   | 1052 | 1795  | 1653 | 156  |
| 115° | 246  | 324   | 798  | 1687  | 1930 | 244  |
| 125° | 336  | 395   | 717  | 1291  | 1511 | 299  |
| 135° | 391  | 464   | 676  | 1042  | 1204 | 302  |
| 145° | 444  | 507   | 649  | 828   | 916  | 278  |
| 155° | 503  | 542   | 628  | 714   | 744  | 231  |
| 165° | 549  | 565   | 602  | 638   | 649  | 155  |
| 175° | 572  | 573   | 577  | 585   | 584  | 54   |
| 180° | 574  | 574   | 574  | 574   | 574  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1446.1 | 1446.1 | 1446.1 | 1446.1 | 1446.1 |
| 2.5°   | 1454.0 | 1449.2 | 1436.6 | 1449.2 | 1447.7 |
| 5°     | 1447.7 | 1444.5 | 1435.1 | 1447.7 | 1446.1 |
| 7.5°   | 1436.6 | 1436.6 | 1427.2 | 1442.9 | 1441.4 |
| 10°    | 1420.9 | 1424.0 | 1416.2 | 1431.9 | 1428.8 |
| 12.5°  | 1402.0 | 1406.7 | 1402.0 | 1416.2 | 1413.0 |
| 15°    | 1378.4 | 1383.1 | 1381.5 | 1397.3 | 1395.7 |
| 17.5°  | 1350.0 | 1359.5 | 1357.9 | 1372.1 | 1368.9 |
| 20°    | 1318.5 | 1327.9 | 1331.1 | 1345.3 | 1346.8 |
| 22.5°  | 1285.4 | 1294.9 | 1299.6 | 1318.5 | 1316.9 |
| 25°    | 1244.5 | 1260.2 | 1264.9 | 1285.4 | 1285.4 |
| 27.5°  | 1205.1 | 1222.4 | 1231.9 | 1249.2 | 1250.8 |
| 30°    | 1162.5 | 1183.0 | 1195.6 | 1214.5 | 1214.5 |
| 32.5°  | 1115.3 | 1138.9 | 1156.2 | 1176.7 | 1181.4 |
| 35°    | 1071.2 | 1096.4 | 1116.9 | 1140.5 | 1146.8 |
| 37.5°  | 1023.9 | 1052.3 | 1075.9 | 1102.7 | 1107.4 |
| 40°    | 976.7  | 1005.0 | 1036.5 | 1063.3 | 1069.6 |
| 42.5°  | 924.7  | 960.9  | 994.0  | 1023.9 | 1033.4 |
| 45°    | 875.8  | 913.7  | 953.0  | 983.0  | 995.6  |
| 47.5°  | 823.9  | 866.4  | 910.5  | 943.6  | 953.0  |
| 50°    | 773.5  | 817.6  | 866.4  | 902.6  | 913.7  |
| 52.5°  | 719.9  | 767.2  | 822.3  | 860.1  | 874.3  |
| 55°    | 667.9  | 719.9  | 776.6  | 819.1  | 831.7  |
| 57.5°  | 617.5  | 671.1  | 732.5  | 775.0  | 789.2  |
| 60°    | 563.9  | 620.7  | 685.2  | 729.3  | 746.7  |
| 62.5°  | 513.5  | 571.8  | 641.1  | 685.2  | 701.0  |
| 65°    | 461.6  | 523.0  | 592.3  | 639.6  | 655.3  |
| 67.5°  | 409.6  | 474.2  | 543.5  | 595.4  | 608.1  |
| 70°    | 354.4  | 422.2  | 497.8  | 548.2  | 563.9  |
| 72.5°  | 304.0  | 371.8  | 450.5  | 502.5  | 518.3  |
| 75°    | 250.5  | 324.5  | 403.3  | 455.3  | 474.2  |
| 77.5°  | 204.8  | 278.8  | 357.6  | 412.7  | 426.9  |
| 80°    | 156.0  | 233.1  | 315.1  | 368.6  | 384.4  |
| 82.5°  | 113.4  | 192.2  | 275.7  | 329.2  | 345.0  |
| 85°    | 77.2   | 156.0  | 239.4  | 293.0  | 308.8  |
| 87.5°  | 47.3   | 126.0  | 206.4  | 259.9  | 275.7  |
| 90°    | 22.8   | 111.6  | 207.0  | 264.2  | 281.0  |
| 92.5°  | 36.3   | 156.2  | 381.4  | 291.2  | 293.1  |
| 95°    | 56.8   | 207.2  | 844.6  | 405.7  | 355.2  |
| 97.5°  | 78.5   | 219.4  | 1205.5 | 698.9  | 485.9  |
| 100°   | 100.1  | 226.6  | 1236.6 | 1239.4 | 926.6  |
| 102.5° | 122.9  | 236.1  | 1151.8 | 1586.6 | 1340.5 |
| 105°   | 147.3  | 249.5  | 1051.7 | 1794.9 | 1653.4 |
| 107.5° | 171.2  | 266.4  | 962.2  | 1879.6 | 1853.7 |
| 110°   | 197.6  | 284.0  | 888.1  | 1873.2 | 1963.5 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 223.2 | 302.6 | 834.6 | 1796.4 | 1978.4 |
| 115°   | 245.9 | 323.5 | 797.6 | 1687.2 | 1930.2 |
| 117.5° | 270.3 | 341.6 | 768.4 | 1570.8 | 1839.5 |
| 120°   | 294.3 | 359.6 | 747.8 | 1460.4 | 1721.6 |
| 122.5° | 316.3 | 378.2 | 731.8 | 1371.4 | 1612.4 |
| 125°   | 335.6 | 395.4 | 716.9 | 1291.2 | 1511.1 |
| 127.5° | 351.9 | 414.8 | 705.5 | 1223.6 | 1422.8 |
| 130°   | 367.0 | 433.4 | 694.2 | 1160.8 | 1346.6 |
| 132.5° | 377.1 | 450.2 | 685.2 | 1101.4 | 1275.0 |
| 135°   | 391.0 | 464.4 | 676.1 | 1041.8 | 1203.5 |
| 137.5° | 403.8 | 477.1 | 667.5 | 983.6  | 1130.2 |
| 140°   | 415.0 | 488.7 | 660.0 | 928.0  | 1055.0 |
| 142.5° | 428.9 | 497.6 | 651.4 | 875.1  | 982.9  |
| 145°   | 444.0 | 506.8 | 649.1 | 828.4  | 916.5  |
| 147.5° | 457.5 | 516.7 | 645.6 | 790.2  | 859.8  |
| 150°   | 472.6 | 524.8 | 641.0 | 758.8  | 810.2  |
| 152.5° | 487.7 | 533.6 | 635.2 | 735.6  | 772.2  |
| 155°   | 502.8 | 542.2 | 628.2 | 714.2  | 744.3  |
| 157.5° | 514.4 | 549.8 | 622.4 | 693.2  | 717.6  |
| 160°   | 528.3 | 556.2 | 615.4 | 674.0  | 692.1  |
| 162.5° | 538.8 | 560.8 | 608.5 | 656.0  | 668.8  |
| 165°   | 549.2 | 564.9 | 601.5 | 638.1  | 649.1  |
| 167.5° | 557.4 | 568.4 | 594.5 | 622.4  | 629.4  |
| 170°   | 564.3 | 570.2 | 587.6 | 608.4  | 611.9  |
| 172.5° | 569.0 | 571.9 | 581.7 | 596.2  | 595.7  |
| 175°   | 572.5 | 573.0 | 577.1 | 585.2  | 584.1  |
| 177.5° | 574.8 | 573.6 | 573.6 | 578.3  | 575.9  |
| 180°   | 573.6 | 573.6 | 573.6 | 573.6  | 573.6  |

(END OF REPORT)