

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: P1011898

Luminaire Tested: S123DIP-B775D1025UB27-4F0-XX-W2A-D

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1011898  
REPORT IS A COMBINATION OF REPORTS P990222 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123DIP-B775D1025UB27-4F0-XX-W2A-D  
Description: Define 3 Direct/Indirect Pendant with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}  
Light Source: -  
Ballast/Driver: -

**Summary**

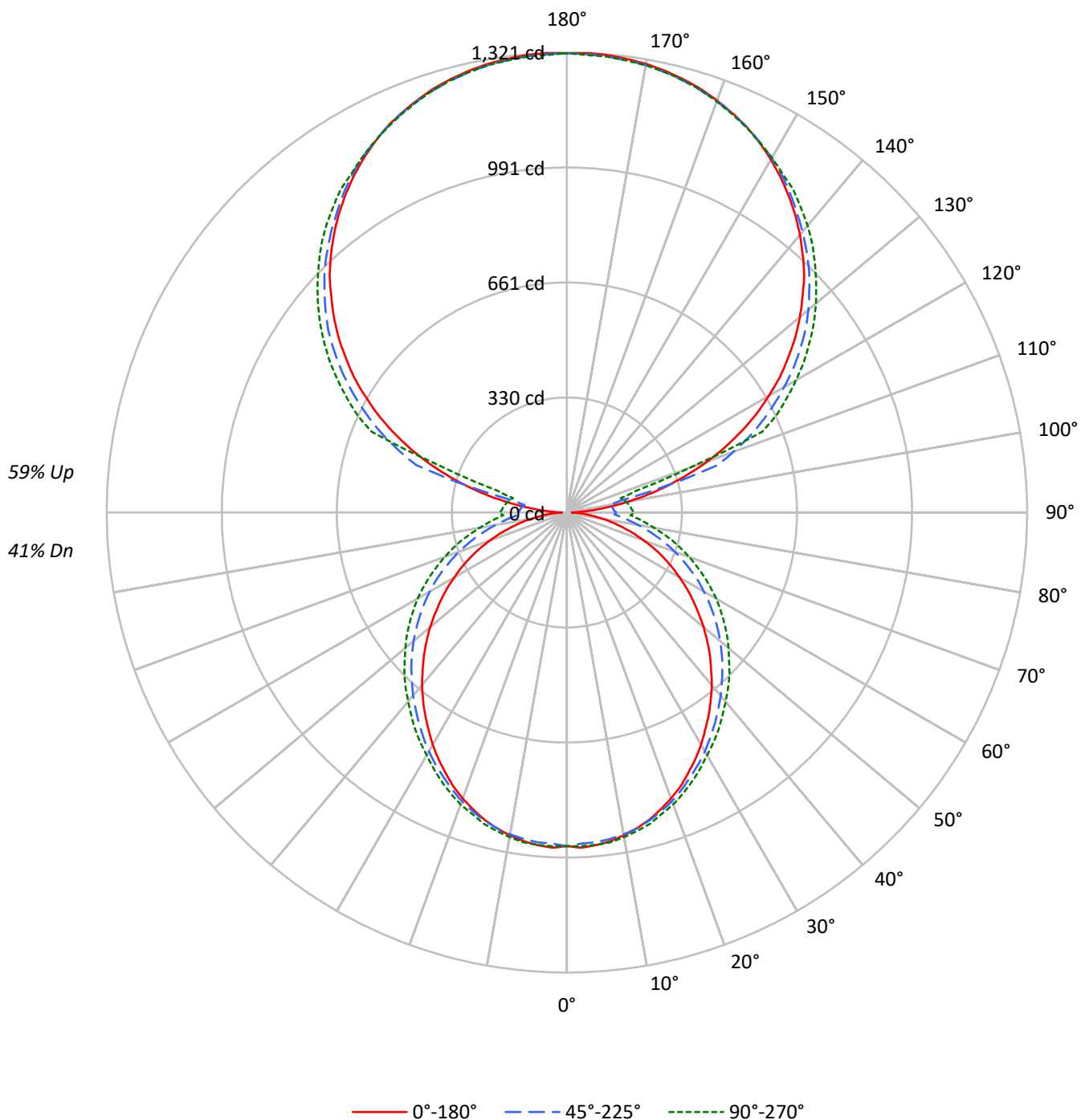
Lumens per Lamp: N/A  
Luminaire Lumens: 7243.0 lumens  
Efficiency: N/A  
Efficacy: 112.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 64.4  
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   | 105 | 105 | 105 | 105 | 96 | 96 | 96 | 96 | 78 | 78 | 78 | 62 | 62 | 62 | 48 | 48 | 48 |
| 1   | 95  | 90  | 86  | 82  | 86 | 82 | 79 | 75 | 67 | 65 | 62 | 53 | 52 | 50 | 41 | 40 | 38 |
| 2   | 86  | 78  | 72  | 66  | 78 | 71 | 66 | 61 | 58 | 54 | 51 | 46 | 44 | 41 | 35 | 33 | 32 |
| 3   | 78  | 68  | 61  | 55  | 71 | 62 | 56 | 51 | 51 | 46 | 42 | 41 | 37 | 34 | 31 | 29 | 27 |
| 4   | 71  | 60  | 52  | 46  | 65 | 55 | 48 | 43 | 45 | 40 | 36 | 36 | 32 | 29 | 28 | 25 | 23 |
| 5   | 65  | 54  | 45  | 39  | 59 | 49 | 42 | 36 | 40 | 35 | 31 | 32 | 28 | 25 | 25 | 22 | 20 |
| 6   | 60  | 48  | 40  | 34  | 54 | 44 | 37 | 31 | 36 | 31 | 27 | 29 | 25 | 22 | 22 | 19 | 17 |
| 7   | 56  | 43  | 35  | 30  | 50 | 40 | 32 | 27 | 33 | 27 | 23 | 26 | 22 | 19 | 20 | 17 | 15 |
| 8   | 51  | 39  | 31  | 26  | 47 | 36 | 29 | 24 | 30 | 24 | 21 | 24 | 20 | 17 | 19 | 16 | 14 |
| 9   | 48  | 36  | 28  | 23  | 43 | 33 | 26 | 21 | 27 | 22 | 18 | 22 | 18 | 15 | 17 | 14 | 12 |
| 10  | 45  | 33  | 25  | 21  | 41 | 30 | 24 | 19 | 25 | 20 | 16 | 20 | 16 | 14 | 16 | 13 | 11 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 10313 | 10313 | 10313 |
| 5°  | 10342 | 10010 | 10002 |
| 10° | 10244 | 9739  | 9665  |
| 15° | 10109 | 9440  | 9307  |
| 20° | 9917  | 9106  | 8923  |
| 25° | 9679  | 8730  | 8525  |
| 30° | 9437  | 8391  | 8125  |
| 35° | 9165  | 8033  | 7800  |
| 40° | 8906  | 7706  | 7456  |
| 45° | 8618  | 7390  | 7172  |
| 50° | 8334  | 7077  | 6864  |
| 55° | 8018  | 6756  | 6582  |
| 60° | 7709  | 6428  | 6291  |
| 65° | 7392  | 6078  | 5953  |
| 70° | 6915  | 5685  | 5602  |
| 75° | 6311  | 5238  | 5242  |
| 80° | 5608  | 4784  | 4830  |
| 85° | 4908  | 4417  | 4535  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 8618 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 90.9   | 1.3       |
| 10°-20°   | 259.1  | 3.6       |
| 20°-30°   | 387.5  | 5.3       |
| 30°-40°   | 462.6  | 6.4       |
| 40°-50°   | 484.0  | 6.7       |
| 50°-60°   | 454.2  | 6.3       |
| 60°-70°   | 379.4  | 5.2       |
| 70°-80°   | 271.3  | 3.7       |
| 80°-90°   | 164.0  | 2.3       |
| 90°-100°  | 147.9  | 2.0       |
| 100°-110° | 299.4  | 4.1       |
| 110°-120° | 600.8  | 8.3       |
| 120°-130° | 727.9  | 10.0      |
| 130°-140° | 759.9  | 10.5      |
| 140°-150° | 701.4  | 9.7       |
| 150°-160° | 563.6  | 7.8       |
| 160°-170° | 363.7  | 5.0       |
| 170°-180° | 125.3  | 1.7       |
| 0°-30°    | 737.5  | 10.2      |
| 0°-40°    | 1200.1 | 16.6      |
| 0°-60°    | 2138.3 | 29.5      |
| 0°-90°    | 2953.0 | 40.8      |
| 90°-120°  | 1048.1 | 14.5      |
| 90°-150°  | 3237.3 | 44.7      |
| 90°-180°  | 4290.0 | 59.2      |
| 0°-180°   | 7243.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 958  | 958   | 958  | 958   | 958  |      |
| 5°   | 959  | 957   | 951  | 959   | 958  | 91   |
| 15°  | 913  | 916   | 915  | 926   | 925  | 257  |
| 25°  | 824  | 835   | 838  | 852   | 852  | 380  |
| 35°  | 710  | 726   | 740  | 756   | 760  | 444  |
| 45°  | 580  | 605   | 631  | 651   | 660  | 447  |
| 55°  | 442  | 477   | 514  | 543   | 551  | 396  |
| 65°  | 306  | 346   | 392  | 424   | 434  | 302  |
| 75°  | 166  | 215   | 267  | 302   | 314  | 177  |
| 85°  | 51   | 103   | 159  | 194   | 205  | 53   |
| 90°  | 15   | 76    | 141  | 181   | 193  | 13   |
| 95°  | 71   | 72    | 134  | 173   | 183  | 80   |
| 105° | 300  | 336   | 293  | 149   | 160  | 318  |
| 115° | 553  | 571   | 618  | 653   | 665  | 546  |
| 125° | 775  | 783   | 817  | 841   | 850  | 693  |
| 135° | 963  | 968   | 983  | 1005  | 1007 | 742  |
| 145° | 1110 | 1116  | 1118 | 1128  | 1132 | 695  |
| 155° | 1222 | 1220  | 1221 | 1226  | 1220 | 563  |
| 165° | 1288 | 1286  | 1284 | 1292  | 1286 | 364  |
| 175° | 1319 | 1314  | 1315 | 1322  | 1314 | 126  |
| 180° | 1319 | 1319  | 1319 | 1319  | 1319 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 958.1 | 958.1 | 958.1 | 958.1 | 958.1 |
| 2.5°   | 963.3 | 960.2 | 951.8 | 960.2 | 959.2 |
| 5°     | 959.2 | 957.1 | 950.8 | 959.2 | 958.1 |
| 7.5°   | 951.8 | 951.8 | 945.6 | 956.0 | 955.0 |
| 10°    | 941.4 | 943.5 | 938.3 | 948.7 | 946.6 |
| 12.5°  | 928.9 | 932.0 | 928.9 | 938.3 | 936.2 |
| 15°    | 913.2 | 916.4 | 915.3 | 925.8 | 924.7 |
| 17.5°  | 894.4 | 900.7 | 899.7 | 909.1 | 907.0 |
| 20°    | 873.6 | 879.8 | 881.9 | 891.3 | 892.4 |
| 22.5°  | 851.7 | 857.9 | 861.0 | 873.6 | 872.5 |
| 25°    | 824.5 | 835.0 | 838.1 | 851.7 | 851.7 |
| 27.5°  | 798.4 | 809.9 | 816.2 | 827.6 | 828.7 |
| 30°    | 770.2 | 783.8 | 792.2 | 804.7 | 804.7 |
| 32.5°  | 738.9 | 754.6 | 766.1 | 779.6 | 782.8 |
| 35°    | 709.7 | 726.4 | 740.0 | 755.6 | 759.8 |
| 37.5°  | 678.4 | 697.2 | 712.8 | 730.6 | 733.7 |
| 40°    | 647.1 | 665.9 | 686.7 | 704.5 | 708.7 |
| 42.5°  | 612.6 | 636.7 | 658.6 | 678.4 | 684.7 |
| 45°    | 580.3 | 605.3 | 631.4 | 651.3 | 659.6 |
| 47.5°  | 545.9 | 574.0 | 603.3 | 625.2 | 631.4 |
| 50°    | 512.5 | 541.7 | 574.0 | 598.0 | 605.3 |
| 52.5°  | 477.0 | 508.3 | 544.8 | 569.9 | 579.2 |
| 55°    | 442.5 | 477.0 | 514.5 | 542.7 | 551.1 |
| 57.5°  | 409.1 | 444.6 | 485.3 | 513.5 | 522.9 |
| 60°    | 373.6 | 411.2 | 454.0 | 483.2 | 494.7 |
| 62.5°  | 340.2 | 378.9 | 424.8 | 454.0 | 464.4 |
| 65°    | 305.8 | 346.5 | 392.4 | 423.7 | 434.2 |
| 67.5°  | 271.4 | 314.2 | 360.1 | 394.5 | 402.9 |
| 70°    | 234.8 | 279.7 | 329.8 | 363.2 | 373.6 |
| 72.5°  | 201.4 | 246.3 | 298.5 | 332.9 | 343.4 |
| 75°    | 165.9 | 215.0 | 267.2 | 301.6 | 314.2 |
| 77.5°  | 135.7 | 184.7 | 236.9 | 273.4 | 282.8 |
| 80°    | 103.3 | 154.5 | 208.7 | 244.2 | 254.7 |
| 82.5°  | 75.1  | 127.3 | 182.6 | 218.1 | 228.6 |
| 85°    | 51.1  | 103.3 | 158.6 | 194.1 | 204.6 |
| 87.5°  | 31.3  | 83.5  | 136.7 | 172.2 | 182.6 |
| 90°    | 14.6  | 75.5  | 141.4 | 180.8 | 193.3 |
| 92.5°  | 35.0  | 74.1  | 135.1 | 176.3 | 186.7 |
| 95°    | 71.3  | 71.8  | 133.7 | 172.9 | 183.3 |
| 97.5°  | 119.2 | 129.3 | 128.5 | 167.6 | 179.0 |
| 100°   | 175.0 | 228.0 | 123.1 | 161.3 | 172.7 |
| 102.5° | 238.5 | 280.6 | 157.0 | 154.0 | 166.3 |
| 105°   | 300.3 | 336.1 | 292.9 | 148.7 | 160.0 |
| 107.5° | 364.9 | 395.6 | 453.1 | 330.4 | 211.5 |
| 110°   | 429.6 | 456.1 | 508.7 | 503.4 | 371.7 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 492.3  | 513.7  | 564.1  | 599.0  | 606.5  |
| 115°   | 552.9  | 571.3  | 617.7  | 652.6  | 664.8  |
| 117.5° | 613.6  | 628.9  | 669.3  | 702.1  | 711.5  |
| 120°   | 668.5  | 682.5  | 719.8  | 751.7  | 759.0  |
| 122.5° | 725.3  | 734.3  | 770.5  | 798.4  | 806.7  |
| 125°   | 775.2  | 783.0  | 817.2  | 841.1  | 850.3  |
| 127.5° | 826.1  | 832.9  | 863.9  | 887.8  | 893.1  |
| 130°   | 873.1  | 880.0  | 904.8  | 928.5  | 932.8  |
| 132.5° | 917.2  | 925.0  | 943.6  | 966.3  | 970.7  |
| 135°   | 963.3  | 968.0  | 983.4  | 1005.2 | 1007.4 |
| 137.5° | 1002.4 | 1009.2 | 1018.4 | 1040.0 | 1043.4 |
| 140°   | 1040.5 | 1046.4 | 1052.5 | 1072.1 | 1075.3 |
| 142.5° | 1076.8 | 1081.7 | 1084.6 | 1101.1 | 1103.4 |
| 145°   | 1110.1 | 1116.0 | 1117.9 | 1128.2 | 1132.4 |
| 147.5° | 1141.4 | 1146.3 | 1148.3 | 1153.3 | 1152.6 |
| 150°   | 1170.8 | 1173.8 | 1175.7 | 1177.7 | 1176.8 |
| 152.5° | 1197.3 | 1198.3 | 1199.2 | 1203.2 | 1198.3 |
| 155°   | 1221.8 | 1219.8 | 1220.8 | 1225.7 | 1219.8 |
| 157.5° | 1241.4 | 1241.4 | 1240.4 | 1246.3 | 1238.4 |
| 160°   | 1259.0 | 1258.0 | 1257.0 | 1262.9 | 1256.1 |
| 162.5° | 1275.7 | 1272.7 | 1271.7 | 1278.6 | 1272.7 |
| 165°   | 1288.4 | 1285.5 | 1284.5 | 1292.3 | 1285.5 |
| 167.5° | 1299.2 | 1295.3 | 1295.3 | 1303.1 | 1295.3 |
| 170°   | 1308.0 | 1304.1 | 1304.1 | 1311.9 | 1304.1 |
| 172.5° | 1313.9 | 1309.0 | 1309.9 | 1317.8 | 1309.0 |
| 175°   | 1318.8 | 1313.9 | 1314.8 | 1321.7 | 1313.9 |
| 177.5° | 1320.7 | 1315.8 | 1316.8 | 1324.6 | 1314.8 |
| 180°   | 1318.8 | 1318.8 | 1318.8 | 1318.8 | 1318.8 |

(END OF REPORT)