

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: P1012089

Luminaire Tested: S123DIP-B775D805UB30-4F0-XX-W2A-F4

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1012089  
REPORT IS A COMBINATION OF REPORTS P990491 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123DIP-B775D805UB30-4F0-XX-W2A-F4  
Description: Define 3 Direct/Indirect Pendant with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}  
Light Source: -  
Ballast/Driver: -

**Summary**

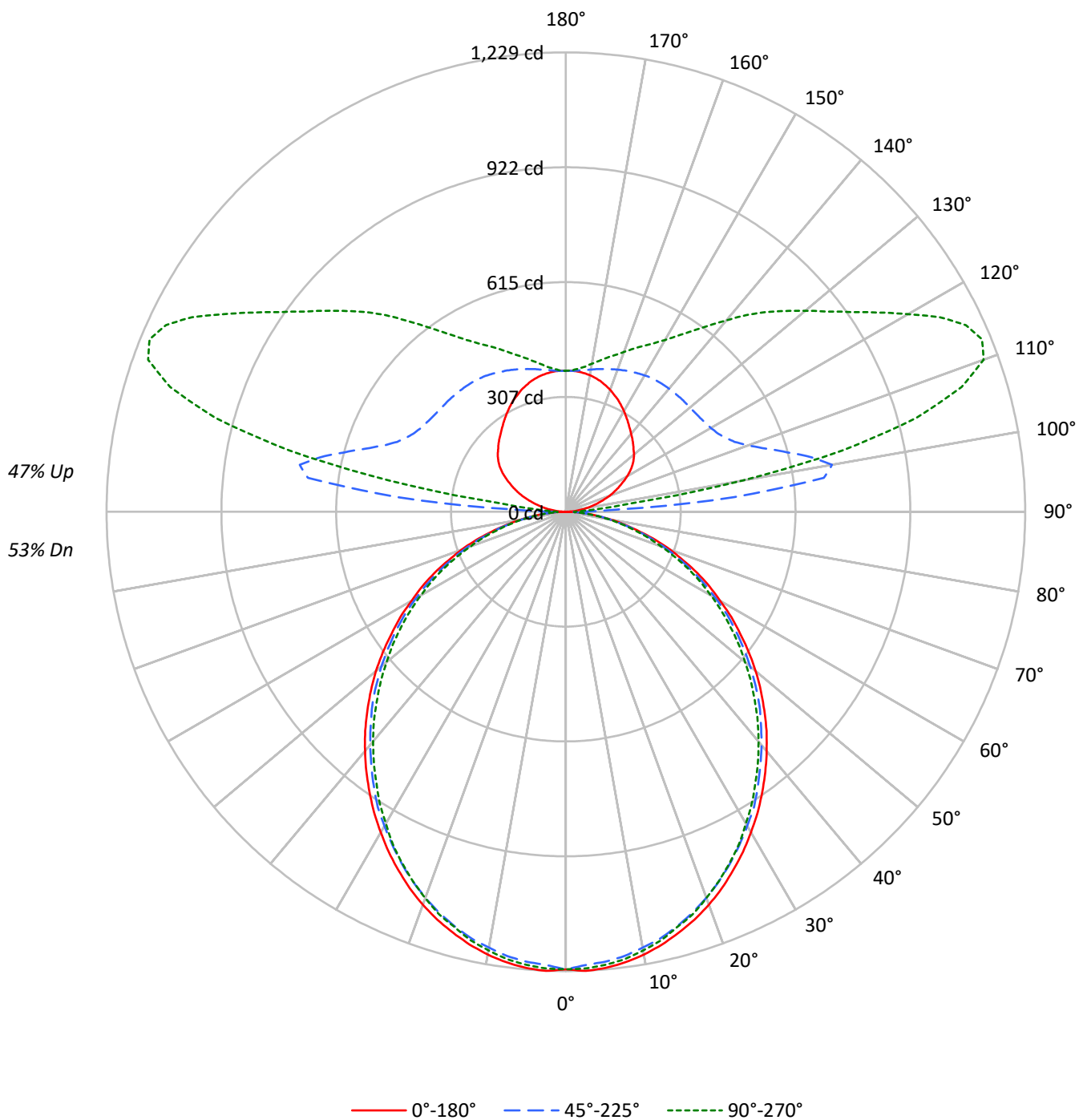
Lumens per Lamp: N/A  
Luminaire Lumens: 6031.6 lumens  
Efficiency: N/A  
Efficacy: 105.8 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.3  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 57  
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   | 108 | 108 | 108 | 108 | 100 | 100 | 100 | 100 | 85 | 85 | 85 | 71 | 71 | 71 | 59 | 59 | 59 |
| 1   | 98  | 94  | 90  | 87  | 91  | 87  | 84  | 81  | 74 | 72 | 70 | 63 | 61 | 59 | 52 | 51 | 49 |
| 2   | 90  | 82  | 76  | 71  | 83  | 76  | 71  | 66  | 65 | 61 | 58 | 55 | 52 | 49 | 46 | 43 | 42 |
| 3   | 82  | 72  | 65  | 59  | 75  | 67  | 61  | 55  | 57 | 52 | 48 | 49 | 45 | 42 | 40 | 38 | 35 |
| 4   | 75  | 64  | 56  | 50  | 69  | 59  | 52  | 47  | 51 | 46 | 41 | 43 | 39 | 36 | 36 | 33 | 30 |
| 5   | 69  | 57  | 49  | 43  | 63  | 53  | 46  | 40  | 46 | 40 | 36 | 39 | 34 | 31 | 32 | 29 | 27 |
| 6   | 63  | 51  | 43  | 37  | 58  | 48  | 40  | 35  | 41 | 35 | 31 | 35 | 31 | 27 | 29 | 26 | 23 |
| 7   | 58  | 46  | 38  | 32  | 54  | 43  | 36  | 31  | 37 | 32 | 27 | 32 | 27 | 24 | 27 | 23 | 21 |
| 8   | 54  | 42  | 34  | 29  | 50  | 39  | 32  | 27  | 34 | 28 | 24 | 29 | 25 | 21 | 25 | 21 | 19 |
| 9   | 50  | 38  | 31  | 26  | 47  | 36  | 29  | 24  | 31 | 26 | 22 | 27 | 22 | 19 | 23 | 19 | 17 |
| 10  | 47  | 35  | 28  | 23  | 44  | 33  | 26  | 22  | 29 | 23 | 20 | 25 | 20 | 17 | 21 | 18 | 15 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 13177 | 13177 | 13177 |
| 5°  | 13209 | 12722 | 12703 |
| 10° | 13092 | 12292 | 12165 |
| 15° | 12910 | 11844 | 11580 |
| 20° | 12701 | 11347 | 10999 |
| 25° | 12431 | 10822 | 10378 |
| 30° | 12136 | 10279 | 9725  |
| 35° | 11827 | 9725  | 9076  |
| 40° | 11503 | 9142  | 8438  |
| 45° | 11146 | 8575  | 7771  |
| 50° | 10783 | 7943  | 7102  |
| 55° | 10319 | 7284  | 6424  |
| 60° | 9838  | 6557  | 5702  |
| 65° | 9389  | 5771  | 4949  |
| 70° | 8740  | 4899  | 4072  |
| 75° | 7809  | 3879  | 3161  |
| 80° | 6743  | 2725  | 2236  |
| 85° | 5254  | 1465  | 1119  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 11146 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 115.4  | 1.9       |
| 10°-20°   | 325.9  | 5.4       |
| 20°-30°   | 481.3  | 8.0       |
| 30°-40°   | 562.1  | 9.3       |
| 40°-50°   | 565.1  | 9.4       |
| 50°-60°   | 496.4  | 8.2       |
| 60°-70°   | 369.7  | 6.1       |
| 70°-80°   | 210.4  | 3.5       |
| 80°-90°   | 61.9   | 1.0       |
| 90°-100°  | 214.3  | 3.6       |
| 100°-110° | 599.0  | 9.9       |
| 110°-120° | 584.1  | 9.7       |
| 120°-130° | 465.1  | 7.7       |
| 130°-140° | 367.1  | 6.1       |
| 140°-150° | 273.9  | 4.5       |
| 150°-160° | 191.1  | 3.2       |
| 160°-170° | 112.3  | 1.9       |
| 170°-180° | 36.5   | 0.6       |
| 0°-30°    | 922.6  | 15.3      |
| 0°-40°    | 1484.6 | 24.6      |
| 0°-60°    | 2546.1 | 42.2      |
| 0°-90°    | 3188.1 | 52.9      |
| 90°-120°  | 1397.5 | 23.2      |
| 90°-150°  | 2503.6 | 41.5      |
| 90°-180°  | 2844.0 | 47.2      |
| 0°-180°   | 6031.6 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1224 | 1224  | 1224 | 1224  | 1224 |      |
| 5°   | 1225 | 1220  | 1208 | 1219  | 1217 | 116  |
| 15°  | 1166 | 1162  | 1148 | 1157  | 1150 | 329  |
| 25°  | 1059 | 1053  | 1039 | 1040  | 1037 | 488  |
| 35°  | 916  | 910   | 896  | 890   | 884  | 573  |
| 45°  | 750  | 746   | 733  | 720   | 715  | 579  |
| 55°  | 570  | 568   | 555  | 543   | 538  | 510  |
| 65°  | 388  | 383   | 373  | 364   | 361  | 383  |
| 75°  | 205  | 201   | 198  | 193   | 190  | 219  |
| 85°  | 55   | 53    | 53   | 50    | 50   | 59   |
| 90°  | 2    | 9     | 19   | 21    | 22   | 6    |
| 95°  | 26   | 84    | 453  | 132   | 89   | 28   |
| 105° | 89   | 131   | 614  | 1073  | 971  | 94   |
| 115° | 156  | 195   | 470  | 1030  | 1181 | 155  |
| 125° | 218  | 257   | 438  | 794   | 931  | 193  |
| 135° | 255  | 304   | 432  | 654   | 755  | 197  |
| 145° | 291  | 333   | 427  | 536   | 590  | 182  |
| 155° | 331  | 356   | 413  | 470   | 489  | 152  |
| 165° | 361  | 371   | 396  | 420   | 427  | 102  |
| 175° | 376  | 377   | 379  | 385   | 384  | 36   |
| 180° | 377  | 377   | 377  | 377   | 377  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1224.2 | 1224.2 | 1224.2 | 1224.2 | 1224.2 |
| 2.5°   | 1229.4 | 1225.2 | 1213.7 | 1224.2 | 1223.1 |
| 5°     | 1225.2 | 1220.0 | 1208.4 | 1218.9 | 1216.8 |
| 7.5°   | 1215.8 | 1210.5 | 1198.9 | 1208.4 | 1207.3 |
| 10°    | 1203.1 | 1197.9 | 1184.2 | 1193.7 | 1191.5 |
| 12.5°  | 1186.3 | 1182.1 | 1169.4 | 1175.8 | 1174.7 |
| 15°    | 1166.3 | 1162.1 | 1148.4 | 1156.8 | 1150.5 |
| 17.5°  | 1144.2 | 1138.9 | 1125.2 | 1131.6 | 1129.4 |
| 20°    | 1118.9 | 1112.6 | 1098.9 | 1103.1 | 1100.0 |
| 22.5°  | 1090.5 | 1084.2 | 1070.5 | 1073.7 | 1069.4 |
| 25°    | 1058.9 | 1052.6 | 1038.9 | 1040.0 | 1036.8 |
| 27.5°  | 1026.3 | 1020.0 | 1005.2 | 1006.3 | 1003.1 |
| 30°    | 990.5  | 985.2  | 970.5  | 970.5  | 963.1  |
| 32.5°  | 954.7  | 947.3  | 936.8  | 929.5  | 926.3  |
| 35°    | 915.8  | 909.5  | 895.8  | 889.5  | 884.2  |
| 37.5°  | 876.8  | 868.4  | 854.7  | 847.3  | 844.2  |
| 40°    | 835.8  | 829.5  | 814.7  | 806.3  | 802.1  |
| 42.5°  | 794.7  | 787.3  | 772.6  | 764.2  | 760.0  |
| 45°    | 750.5  | 746.3  | 732.6  | 720.0  | 714.7  |
| 47.5°  | 707.4  | 701.0  | 688.4  | 675.8  | 671.6  |
| 50°    | 663.1  | 657.9  | 644.2  | 632.6  | 626.3  |
| 52.5°  | 616.8  | 613.7  | 598.9  | 589.5  | 583.1  |
| 55°    | 569.5  | 568.4  | 554.7  | 543.1  | 537.9  |
| 57.5°  | 525.3  | 521.0  | 510.5  | 500.0  | 493.7  |
| 60°    | 476.8  | 475.8  | 463.1  | 453.7  | 448.4  |
| 62.5°  | 433.7  | 430.5  | 417.9  | 408.4  | 405.3  |
| 65°    | 388.4  | 383.1  | 372.6  | 364.2  | 361.0  |
| 67.5°  | 340.0  | 335.8  | 327.4  | 320.0  | 315.8  |
| 70°    | 296.8  | 290.5  | 284.2  | 276.8  | 271.6  |
| 72.5°  | 251.6  | 247.4  | 240.0  | 233.7  | 231.6  |
| 75°    | 205.3  | 201.0  | 197.9  | 192.6  | 189.5  |
| 77.5°  | 164.2  | 162.1  | 157.9  | 153.7  | 153.7  |
| 80°    | 124.2  | 121.0  | 118.9  | 117.9  | 117.9  |
| 82.5°  | 85.3   | 85.3   | 85.3   | 83.2   | 82.1   |
| 85°    | 54.7   | 52.6   | 52.6   | 50.5   | 50.5   |
| 87.5°  | 27.4   | 24.2   | 23.2   | 22.1   | 22.1   |
| 90°    | 1.5    | 9.2    | 19.1   | 21.4   | 22.1   |
| 92.5°  | 11.5   | 45.8   | 142.0  | 48.5   | 40.5   |
| 95°    | 26.0   | 84.4   | 452.7  | 132.0  | 88.6   |
| 97.5°  | 41.2   | 96.6   | 696.3  | 332.1  | 181.7  |
| 100°   | 56.5   | 106.5  | 723.0  | 694.7  | 478.7  |
| 102.5° | 72.5   | 118.0  | 673.4  | 930.3  | 758.1  |
| 105°   | 88.6   | 131.0  | 613.8  | 1073.4 | 971.1  |
| 107.5° | 105.4  | 146.2  | 561.1  | 1136.4 | 1110.1 |
| 110°   | 123.7  | 161.8  | 517.6  | 1138.3 | 1189.5 |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 140.5 | 178.3 | 488.6 | 1095.2 | 1205.5 |
| 115°   | 156.5 | 195.1 | 469.5 | 1029.5 | 1181.1 |
| 117.5° | 172.5 | 211.1 | 456.5 | 959.2  | 1127.6 |
| 120°   | 189.3 | 227.2 | 448.1 | 892.8  | 1057.4 |
| 122.5° | 203.8 | 242.4 | 442.8 | 840.6  | 991.7  |
| 125°   | 217.6 | 256.9 | 438.2 | 794.0  | 931.4  |
| 127.5° | 228.3 | 270.6 | 435.9 | 755.8  | 879.5  |
| 130°   | 238.2 | 282.9 | 433.6 | 720.7  | 836.7  |
| 132.5° | 245.8 | 294.0 | 432.9 | 687.8  | 794.7  |
| 135°   | 255.0 | 304.2 | 432.1 | 653.9  | 755.1  |
| 137.5° | 263.4 | 312.6 | 430.6 | 621.8  | 713.1  |
| 140°   | 271.8 | 320.2 | 429.8 | 590.5  | 668.8  |
| 142.5° | 280.9 | 327.2 | 428.3 | 561.9  | 627.6  |
| 145°   | 290.9 | 333.2 | 426.8 | 536.3  | 590.1  |
| 147.5° | 300.8 | 339.8 | 424.5 | 516.5  | 558.1  |
| 150°   | 310.7 | 345.0 | 421.4 | 499.0  | 530.6  |
| 152.5° | 320.6 | 350.8 | 417.6 | 483.6  | 507.7  |
| 155°   | 330.6 | 356.5 | 413.0 | 469.5  | 489.4  |
| 157.5° | 338.2 | 361.5 | 409.2 | 455.8  | 471.8  |
| 160°   | 347.4 | 365.7 | 404.6 | 443.2  | 455.0  |
| 162.5° | 354.2 | 368.8 | 400.0 | 431.4  | 439.7  |
| 165°   | 361.1 | 371.4 | 395.5 | 419.5  | 426.8  |
| 167.5° | 366.5 | 373.7 | 390.9 | 409.2  | 413.8  |
| 170°   | 371.0 | 374.8 | 386.3 | 400.0  | 402.3  |
| 172.5° | 374.1 | 376.0 | 382.5 | 392.0  | 391.6  |
| 175°   | 376.4 | 376.8 | 379.4 | 384.8  | 384.0  |
| 177.5° | 377.9 | 377.1 | 377.1 | 380.2  | 378.7  |
| 180°   | 377.1 | 377.1 | 377.1 | 377.1  | 377.1  |

(END OF REPORT)