

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: P996207

Luminaire Tested: S123DRP-B775DB27-4F0-XX-W2A-D

Issue Date: 5/2/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P996207  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-15)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/2/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123DRP-B775DB27-4F0-XX-W2A-D  
Description: Define 3 Direct Perimeter with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}  
Light Source: -  
Ballast/Driver: -

**Summary**

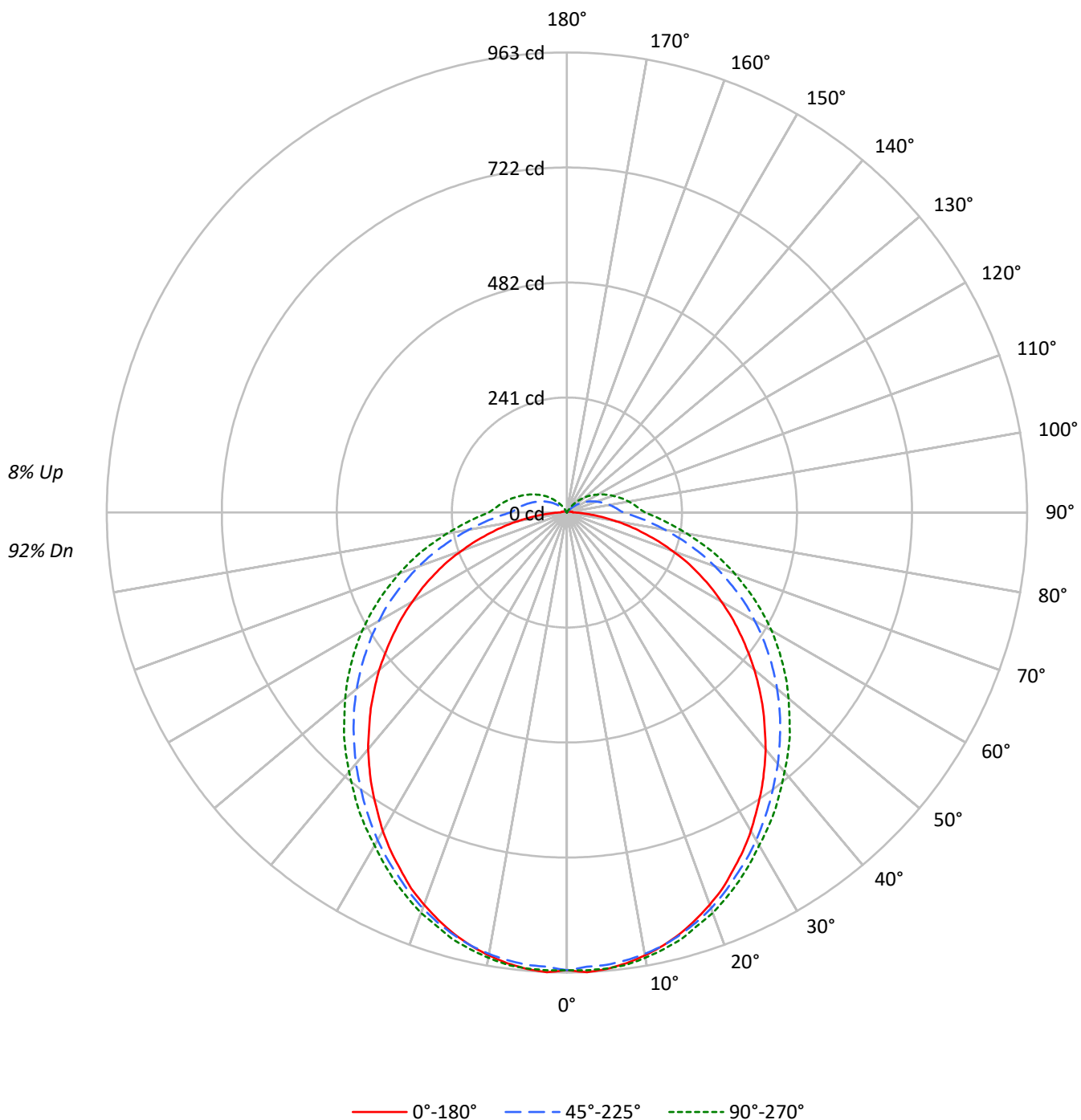
Lumens per Lamp: N/A  
Luminaire Lumens: 3219.9 lumens  
Efficiency: N/A  
Efficacy: 89.7 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37  
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 35.9  
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 |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |    |
| 0   | 117 | 117 | 117 | 117 | 113 | 113 | 113 | 113 | 106 | 106 | 106 |  | 100 | 100 | 100 |  | 94 |
| 1   | 105 | 100 | 95  | 90  | 102 | 97  | 92  | 88  | 91  | 87  | 84  |  | 85  | 82  | 80  |  | 80 |
| 2   | 95  | 86  | 79  | 72  | 92  | 83  | 77  | 71  | 79  | 73  | 68  |  | 74  | 69  | 65  |  | 70 |
| 3   | 86  | 75  | 67  | 60  | 83  | 73  | 65  | 59  | 69  | 62  | 56  |  | 65  | 59  | 54  |  | 61 |
| 4   | 79  | 66  | 57  | 50  | 76  | 64  | 56  | 49  | 61  | 54  | 48  |  | 57  | 51  | 46  |  | 54 |
| 5   | 72  | 59  | 50  | 43  | 70  | 58  | 49  | 42  | 54  | 47  | 41  |  | 52  | 45  | 40  |  | 49 |
| 6   | 67  | 53  | 44  | 37  | 64  | 52  | 43  | 37  | 49  | 42  | 36  |  | 47  | 40  | 35  |  | 44 |
| 7   | 62  | 48  | 39  | 33  | 60  | 47  | 38  | 32  | 45  | 37  | 32  |  | 42  | 36  | 31  |  | 40 |
| 8   | 58  | 44  | 35  | 29  | 56  | 43  | 35  | 29  | 41  | 33  | 28  |  | 39  | 32  | 28  |  | 37 |
| 9   | 54  | 40  | 32  | 26  | 52  | 39  | 31  | 26  | 37  | 30  | 25  |  | 36  | 29  | 25  |  | 34 |
| 10  | 50  | 37  | 29  | 24  | 49  | 36  | 29  | 24  | 35  | 28  | 23  |  | 33  | 27  | 23  |  | 32 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 10313 | 10313 | 10313 |
| 5°  | 10364 | 10273 | 10352 |
| 10° | 10289 | 10256 | 10346 |
| 15° | 10176 | 10200 | 10305 |
| 20° | 10007 | 10102 | 10222 |
| 25° | 9792  | 9954  | 10115 |
| 30° | 9573  | 9846  | 10002 |
| 35° | 9326  | 9724  | 9984  |
| 40° | 9093  | 9649  | 9958  |
| 45° | 8834  | 9611  | 10041 |
| 50° | 8582  | 9612  | 10136 |
| 55° | 8304  | 9655  | 10342 |
| 60° | 8043  | 9774  | 10650 |
| 65° | 7789  | 9994  | 11059 |
| 70° | 7390  | 10379 | 11758 |
| 75° | 6900  | 11112 | 13067 |
| 80° | 6403  | 12937 | 15788 |
| 85° | 6311  | 19587 | 25269 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 45060 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 90.9   | 2.8       |
| 10°-20°   | 259.1  | 8.0       |
| 20°-30°   | 387.5  | 12.0      |
| 30°-40°   | 462.6  | 14.4      |
| 40°-50°   | 484.0  | 15.0      |
| 50°-60°   | 454.2  | 14.1      |
| 60°-70°   | 379.4  | 11.8      |
| 70°-80°   | 271.3  | 8.4       |
| 80°-90°   | 161.4  | 5.0       |
| 90°-100°  | 101.4  | 3.2       |
| 100°-110° | 74.6   | 2.3       |
| 110°-120° | 49.8   | 1.5       |
| 120°-130° | 28.4   | 0.9       |
| 130°-140° | 12.7   | 0.4       |
| 140°-150° | 2.7    | 0.1       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 737.5  | 22.9      |
| 0°-40°    | 1200.1 | 37.3      |
| 0°-60°    | 2138.3 | 66.4      |
| 0°-90°    | 2950.4 | 91.6      |
| 90°-120°  | 225.8  | 7.0       |
| 90°-150°  | 269.6  | 8.4       |
| 90°-180°  | 270.0  | 8.4       |
| 0°-180°   | 3219.9 | 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°  | 14  | 65    | 118 | 153   | 164 | 10   |
| 95°  | 12  | 52    | 103 | 136   | 146 | 9    |
| 105° | 8   | 33    | 78  | 108   | 117 | 8    |
| 115° | 5   | 18    | 55  | 80    | 89  | 5    |
| 125° | 3   | 3     | 33  | 55    | 63  | 3    |
| 135° | 2   | 1     | 12  | 31    | 36  | 2    |
| 145° | 1   | 0     | 0   | 8     | 12  | 0    |
| 155° | 0   | 0     | 0   | 0     | 0   | 0    |
| 165° | 0   | 0     | 0   | 0     | 0   | 0    |
| 175° | 0   | 0     | 0   | 0     | 0   | 0    |
| 180° | 0   | 0     | 0   | 0     | 0   | 0    |

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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°    | 13.6  | 64.7  | 117.9 | 153.4 | 163.9 |
| 92.5°  | 12.5  | 57.4  | 109.6 | 144.0 | 153.4 |
| 95°    | 11.5  | 52.2  | 103.3 | 135.7 | 146.1 |
| 97.5°  | 10.4  | 48.0  | 97.1  | 128.4 | 138.8 |
| 100°   | 9.4   | 42.8  | 90.8  | 121.1 | 131.5 |
| 102.5° | 8.3   | 37.6  | 84.5  | 113.8 | 124.2 |
| 105°   | 8.3   | 33.4  | 78.3  | 107.5 | 116.9 |
| 107.5° | 7.3   | 29.2  | 72.0  | 100.2 | 109.6 |
| 110°   | 6.3   | 25.0  | 66.8  | 93.9  | 102.3 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 22.5° | 45°  | 67.5° | 90°  |
|--------|-----|-------|------|-------|------|
| 112.5° | 6.3 | 20.9  | 60.5 | 86.6  | 96.0 |
| 115°   | 5.2 | 17.7  | 55.3 | 80.4  | 88.7 |
| 117.5° | 5.2 | 13.6  | 49.1 | 74.1  | 82.5 |
| 120°   | 4.2 | 9.4   | 43.8 | 67.8  | 75.1 |
| 122.5° | 4.2 | 6.3   | 38.6 | 61.6  | 68.9 |
| 125°   | 3.1 | 3.1   | 33.4 | 55.3  | 62.6 |
| 127.5° | 3.1 | 2.1   | 28.2 | 49.1  | 56.4 |
| 130°   | 3.1 | 2.1   | 23.0 | 42.8  | 49.1 |
| 132.5° | 2.1 | 2.1   | 17.7 | 36.5  | 43.8 |
| 135°   | 2.1 | 1.0   | 12.5 | 31.3  | 36.5 |
| 137.5° | 2.1 | 1.0   | 8.3  | 25.0  | 30.3 |
| 140°   | 1.0 | 1.0   | 4.2  | 19.8  | 25.0 |
| 142.5° | 1.0 | 0.0   | 0.0  | 13.6  | 18.8 |
| 145°   | 1.0 | 0.0   | 0.0  | 8.3   | 12.5 |
| 147.5° | 0.0 | 0.0   | 0.0  | 3.1   | 7.3  |
| 150°   | 0.0 | 0.0   | 0.0  | 0.0   | 2.1  |
| 152.5° | 0.0 | 0.0   | 0.0  | 0.0   | 0.0  |
| 155°   | 0.0 | 0.0   | 0.0  | 0.0   | 0.0  |
| 157.5° | 0.0 | 0.0   | 0.0  | 0.0   | 0.0  |
| 160°   | 0.0 | 0.0   | 0.0  | 0.0   | 0.0  |
| 162.5° | 0.0 | 0.0   | 0.0  | 0.0   | 0.0  |
| 165°   | 0.0 | 0.0   | 0.0  | 0.0   | 0.0  |
| 167.5° | 0.0 | 0.0   | 0.0  | 0.0   | 0.0  |
| 170°   | 0.0 | 0.0   | 0.0  | 0.0   | 0.0  |
| 172.5° | 0.0 | 0.0   | 0.0  | 0.0   | 0.0  |
| 175°   | 0.0 | 0.0   | 0.0  | 0.0   | 0.0  |
| 177.5° | 0.0 | 0.0   | 0.0  | 0.0   | 0.0  |
| 180°   | 0.0 | 0.0   | 0.0  | 0.0   | 0.0  |

(END OF REPORT)