

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: P996218

Luminaire Tested: S123DRP-B775DB2750-4F0-XX-W2A-D\_5000K

Issue Date: 5/2/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P996218  
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-B775DB2750-4F0-XX-W2A-D\_5000K  
Description: Define 3 Direct Perimeter with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}  
Light Source: -  
Ballast/Driver: -

**Summary**

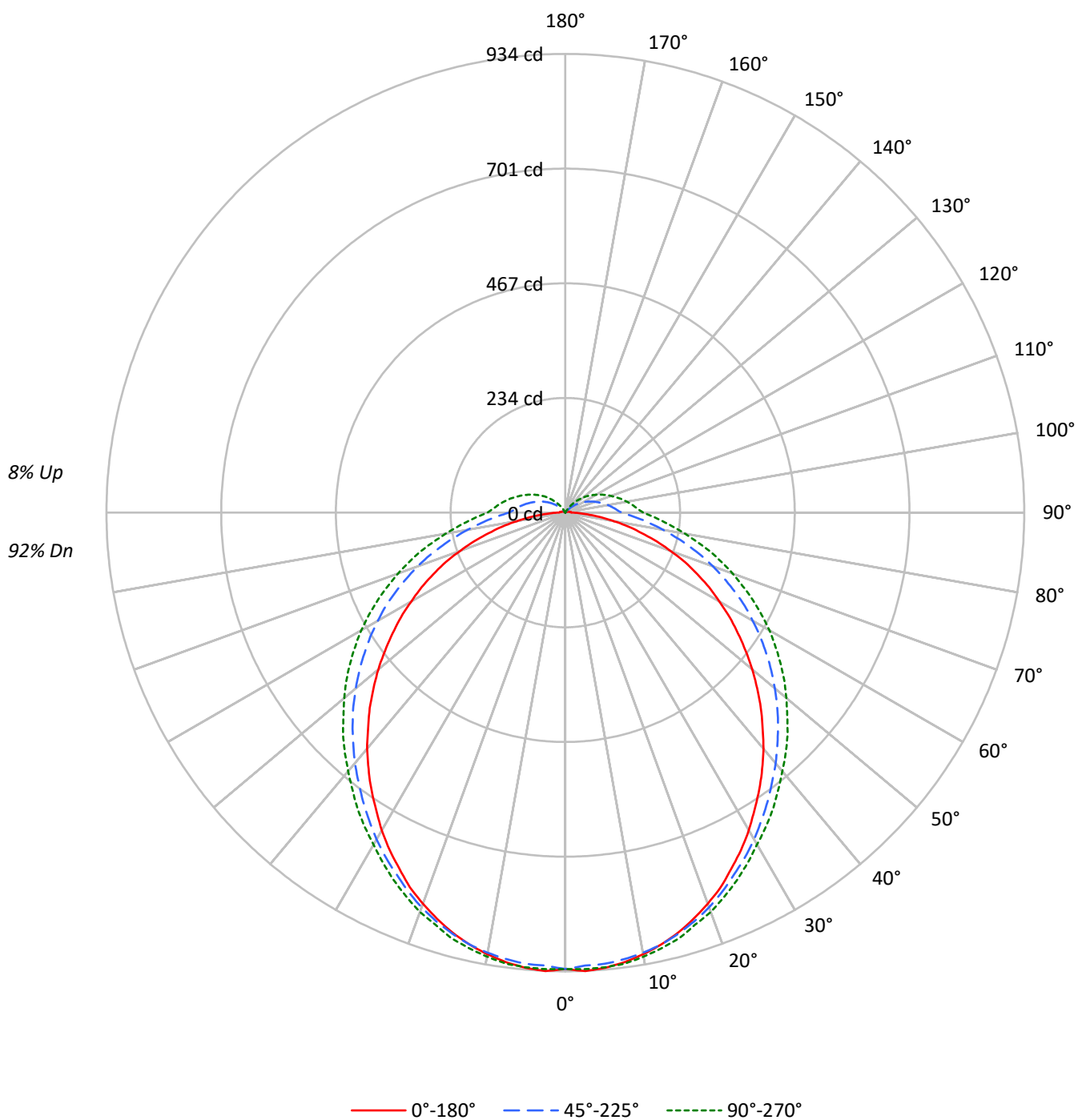
Lumens per Lamp: N/A  
Luminaire Lumens: 3123.0 lumens  
Efficiency: N/A  
Efficacy: 87.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37  
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 35.9  
Input Voltage (V):  
Input Current (A<sub>in</sub>): 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   | 117 | 117 | 117 | 117 | 113 | 113 | 113 | 113 | 106 | 106 | 106 | 100 | 100 | 100 | 94 | 94 | 94 |
| 1   | 105 | 100 | 95  | 90  | 102 | 97  | 92  | 88  | 91  | 87  | 84  | 85  | 82  | 80  | 80 | 78 | 76 |
| 2   | 95  | 86  | 79  | 72  | 92  | 83  | 77  | 71  | 79  | 73  | 68  | 74  | 69  | 65  | 70 | 66 | 63 |
| 3   | 86  | 75  | 67  | 60  | 83  | 73  | 65  | 59  | 69  | 62  | 56  | 65  | 59  | 54  | 61 | 56 | 52 |
| 4   | 79  | 66  | 57  | 50  | 76  | 64  | 56  | 49  | 61  | 54  | 48  | 57  | 51  | 46  | 54 | 49 | 45 |
| 5   | 72  | 59  | 50  | 43  | 70  | 58  | 49  | 42  | 54  | 47  | 41  | 52  | 45  | 40  | 49 | 43 | 39 |
| 6   | 67  | 53  | 44  | 37  | 64  | 52  | 43  | 37  | 49  | 42  | 36  | 47  | 40  | 35  | 44 | 38 | 34 |
| 7   | 62  | 48  | 39  | 33  | 60  | 47  | 38  | 32  | 45  | 37  | 32  | 42  | 36  | 31  | 40 | 35 | 30 |
| 8   | 58  | 44  | 35  | 29  | 56  | 43  | 35  | 29  | 41  | 33  | 28  | 39  | 32  | 28  | 37 | 31 | 27 |
| 9   | 54  | 40  | 32  | 26  | 52  | 39  | 31  | 26  | 37  | 30  | 25  | 36  | 29  | 25  | 34 | 28 | 24 |
| 10  | 50  | 37  | 29  | 24  | 49  | 36  | 29  | 24  | 35  | 28  | 23  | 33  | 27  | 23  | 32 | 26 | 22 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 10002 | 10002 | 10002 |
| 5°  | 10052 | 9964  | 10040 |
| 10° | 9980  | 9946  | 10035 |
| 15° | 9870  | 9892  | 9995  |
| 20° | 9706  | 9798  | 9914  |
| 25° | 9498  | 9653  | 9810  |
| 30° | 9285  | 9549  | 9700  |
| 35° | 9044  | 9431  | 9683  |
| 40° | 8819  | 9360  | 9657  |
| 45° | 8567  | 9322  | 9738  |
| 50° | 8323  | 9322  | 9831  |
| 55° | 8055  | 9364  | 10031 |
| 60° | 7802  | 9479  | 10329 |
| 65° | 7554  | 9694  | 10725 |
| 70° | 7169  | 10068 | 11405 |
| 75° | 6692  | 10776 | 12672 |
| 80° | 6211  | 12552 | 15311 |
| 85° | 6126  | 19007 | 24503 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 43703 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 88.2   | 2.8       |
| 10°-20°   | 251.3  | 8.0       |
| 20°-30°   | 375.8  | 12.0      |
| 30°-40°   | 448.7  | 14.4      |
| 40°-50°   | 469.4  | 15.0      |
| 50°-60°   | 440.5  | 14.1      |
| 60°-70°   | 368.0  | 11.8      |
| 70°-80°   | 263.1  | 8.4       |
| 80°-90°   | 156.6  | 5.0       |
| 90°-100°  | 98.4   | 3.2       |
| 100°-110° | 72.3   | 2.3       |
| 110°-120° | 48.3   | 1.5       |
| 120°-130° | 27.5   | 0.9       |
| 130°-140° | 12.3   | 0.4       |
| 140°-150° | 2.6    | 0.1       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 715.2  | 22.9      |
| 0°-40°    | 1163.9 | 37.3      |
| 0°-60°    | 2073.9 | 66.4      |
| 0°-90°    | 2861.5 | 91.6      |
| 90°-120°  | 219.0  | 7.0       |
| 90°-150°  | 261.4  | 8.4       |
| 90°-180°  | 261.0  | 8.4       |
| 0°-180°   | 3123.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 929 | 929   | 929 | 929   | 929 |      |
| 5°   | 930 | 928   | 922 | 930   | 929 | 88   |
| 15°  | 886 | 889   | 888 | 898   | 897 | 250  |
| 25°  | 800 | 810   | 813 | 826   | 826 | 369  |
| 35°  | 688 | 704   | 718 | 733   | 737 | 430  |
| 45°  | 563 | 587   | 612 | 632   | 640 | 434  |
| 55°  | 429 | 463   | 499 | 526   | 534 | 384  |
| 65°  | 297 | 336   | 381 | 411   | 421 | 293  |
| 75°  | 161 | 208   | 259 | 292   | 305 | 172  |
| 85°  | 50  | 100   | 154 | 188   | 198 | 51   |
| 90°  | 13  | 63    | 114 | 149   | 159 | 9    |
| 95°  | 11  | 51    | 100 | 132   | 142 | 9    |
| 105° | 8   | 32    | 76  | 104   | 113 | 8    |
| 115° | 5   | 17    | 54  | 78    | 86  | 5    |
| 125° | 3   | 3     | 32  | 54    | 61  | 3    |
| 135° | 2   | 1     | 12  | 30    | 35  | 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°     | 929.2 | 929.2 | 929.2 | 929.2 | 929.2 |
| 2.5°   | 934.3 | 931.3 | 923.2 | 931.3 | 930.3 |
| 5°     | 930.3 | 928.2 | 922.2 | 930.3 | 929.2 |
| 7.5°   | 923.2 | 923.2 | 917.1 | 927.2 | 926.2 |
| 10°    | 913.1 | 915.1 | 910.0 | 920.1 | 918.1 |
| 12.5°  | 900.9 | 903.9 | 900.9 | 910.0 | 908.0 |
| 15°    | 885.7 | 888.8 | 887.7 | 897.9 | 896.9 |
| 17.5°  | 867.5 | 873.6 | 872.6 | 881.7 | 879.6 |
| 20°    | 847.3 | 853.3 | 855.4 | 864.5 | 865.5 |
| 22.5°  | 826.0 | 832.1 | 835.1 | 847.3 | 846.2 |
| 25°    | 799.7 | 809.8 | 812.8 | 826.0 | 826.0 |
| 27.5°  | 774.4 | 785.5 | 791.6 | 802.7 | 803.7 |
| 30°    | 747.0 | 760.2 | 768.3 | 780.4 | 780.4 |
| 32.5°  | 716.7 | 731.9 | 743.0 | 756.2 | 759.2 |
| 35°    | 688.3 | 704.5 | 717.7 | 732.9 | 736.9 |
| 37.5°  | 658.0 | 676.2 | 691.4 | 708.6 | 711.6 |
| 40°    | 627.6 | 645.8 | 666.1 | 683.3 | 687.3 |
| 42.5°  | 594.2 | 617.5 | 638.7 | 658.0 | 664.0 |
| 45°    | 562.8 | 587.1 | 612.4 | 631.6 | 639.7 |
| 47.5°  | 529.4 | 556.7 | 585.1 | 606.3 | 612.4 |
| 50°    | 497.0 | 525.4 | 556.7 | 580.0 | 587.1 |
| 52.5°  | 462.6 | 493.0 | 528.4 | 552.7 | 561.8 |
| 55°    | 429.2 | 462.6 | 499.0 | 526.4 | 534.5 |
| 57.5°  | 396.8 | 431.2 | 470.7 | 498.0 | 507.1 |
| 60°    | 362.4 | 398.8 | 440.3 | 468.7 | 479.8 |
| 62.5°  | 330.0 | 367.4 | 412.0 | 440.3 | 450.5 |
| 65°    | 296.6 | 336.1 | 380.6 | 411.0 | 421.1 |
| 67.5°  | 263.2 | 304.7 | 349.2 | 382.6 | 390.7 |
| 70°    | 227.8 | 271.3 | 319.9 | 352.3 | 362.4 |
| 72.5°  | 195.4 | 238.9 | 289.5 | 322.9 | 333.0 |
| 75°    | 160.9 | 208.5 | 259.1 | 292.5 | 304.7 |
| 77.5°  | 131.6 | 179.2 | 229.8 | 265.2 | 274.3 |
| 80°    | 100.2 | 149.8 | 202.5 | 236.9 | 247.0 |
| 82.5°  | 72.9  | 123.5 | 177.1 | 211.6 | 221.7 |
| 85°    | 49.6  | 100.2 | 153.9 | 188.3 | 198.4 |
| 87.5°  | 30.4  | 81.0  | 132.6 | 167.0 | 177.1 |
| 90°    | 13.2  | 62.8  | 114.4 | 148.8 | 158.9 |
| 92.5°  | 12.1  | 55.7  | 106.3 | 139.7 | 148.8 |
| 95°    | 11.1  | 50.6  | 100.2 | 131.6 | 141.7 |
| 97.5°  | 10.1  | 46.6  | 94.1  | 124.5 | 134.6 |
| 100°   | 9.1   | 41.5  | 88.1  | 117.4 | 127.5 |
| 102.5° | 8.1   | 36.4  | 82.0  | 110.3 | 120.5 |
| 105°   | 8.1   | 32.4  | 75.9  | 104.3 | 113.4 |
| 107.5° | 7.1   | 28.3  | 69.8  | 97.2  | 106.3 |
| 110°   | 6.1   | 24.3  | 64.8  | 91.1  | 99.2  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 22.5° | 45°  | 67.5° | 90°  |
|--------|-----|-------|------|-------|------|
| 112.5° | 6.1 | 20.2  | 58.7 | 84.0  | 93.1 |
| 115°   | 5.1 | 17.2  | 53.6 | 77.9  | 86.0 |
| 117.5° | 5.1 | 13.2  | 47.6 | 71.9  | 80.0 |
| 120°   | 4.0 | 9.1   | 42.5 | 65.8  | 72.9 |
| 122.5° | 4.0 | 6.1   | 37.5 | 59.7  | 66.8 |
| 125°   | 3.0 | 3.0   | 32.4 | 53.6  | 60.7 |
| 127.5° | 3.0 | 2.0   | 27.3 | 47.6  | 54.7 |
| 130°   | 3.0 | 2.0   | 22.3 | 41.5  | 47.6 |
| 132.5° | 2.0 | 2.0   | 17.2 | 35.4  | 42.5 |
| 135°   | 2.0 | 1.0   | 12.1 | 30.4  | 35.4 |
| 137.5° | 2.0 | 1.0   | 8.1  | 24.3  | 29.4 |
| 140°   | 1.0 | 1.0   | 4.0  | 19.2  | 24.3 |
| 142.5° | 1.0 | 0.0   | 0.0  | 13.2  | 18.2 |
| 145°   | 1.0 | 0.0   | 0.0  | 8.1   | 12.1 |
| 147.5° | 0.0 | 0.0   | 0.0  | 3.0   | 7.1  |
| 150°   | 0.0 | 0.0   | 0.0  | 0.0   | 2.0  |
| 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)