

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: P998700

Luminaire Tested: S124DW-B795DB2750-4F0-XX-W2A-D\_4000K

Issue Date: 5/2/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P998700  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-16)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/2/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124DW-B795DB2750-4F0-XX-W2A-D\_4000K  
Description: Define 4 Direct Wall Mount with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}  
Light Source: -  
Ballast/Driver: -

**Summary**

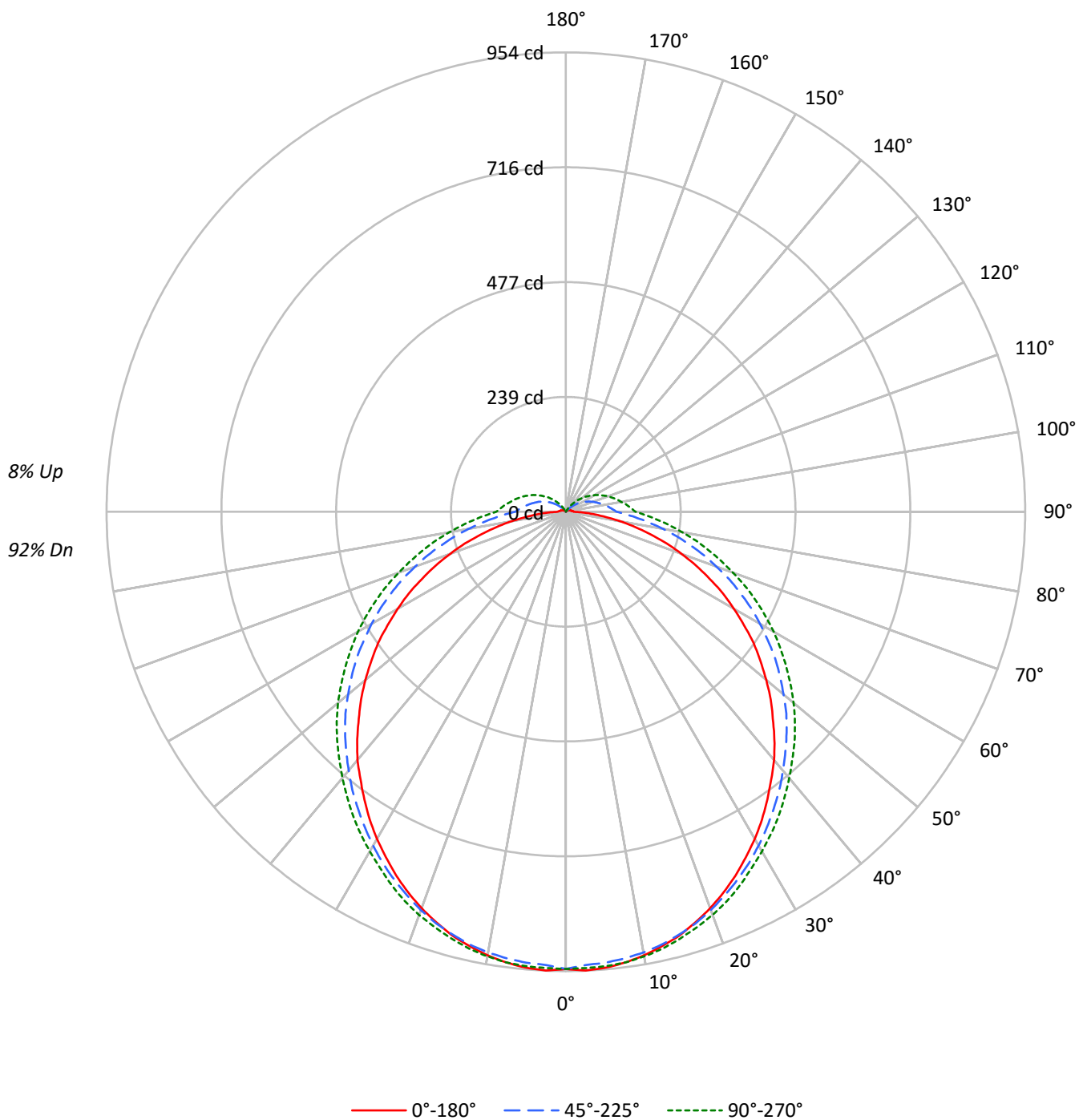
Lumens per Lamp: N/A  
Luminaire Lumens: 3237.0 lumens  
Efficiency: N/A  
Efficacy: 90.2 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Direct

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 |    |    | 0  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50 | 30 | 10 | 50 | 30 | 10 |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |
| 0   | 117 | 117 | 117 | 117 | 114 | 114 | 114 | 114 | 107 | 107 | 107 | 101 | 101 | 101 | 95 | 95 | 95 | 95 | 95 | 92 |
| 1   | 105 | 100 | 95  | 91  | 102 | 97  | 93  | 89  | 91  | 88  | 84  | 86  | 83  | 80  | 81 | 79 | 77 | 77 | 77 | 74 |
| 2   | 95  | 86  | 79  | 73  | 92  | 84  | 77  | 71  | 79  | 73  | 68  | 74  | 70  | 66  | 70 | 67 | 63 | 63 | 63 | 60 |
| 3   | 87  | 75  | 67  | 60  | 83  | 73  | 65  | 59  | 69  | 62  | 57  | 65  | 60  | 55  | 62 | 57 | 53 | 53 | 53 | 50 |
| 4   | 79  | 66  | 57  | 50  | 76  | 65  | 56  | 49  | 61  | 54  | 48  | 58  | 52  | 47  | 55 | 49 | 45 | 45 | 45 | 43 |
| 5   | 73  | 59  | 50  | 43  | 70  | 58  | 49  | 42  | 55  | 47  | 41  | 52  | 45  | 40  | 49 | 44 | 39 | 39 | 39 | 37 |
| 6   | 67  | 53  | 44  | 37  | 64  | 52  | 43  | 37  | 49  | 42  | 36  | 47  | 40  | 35  | 45 | 39 | 34 | 34 | 34 | 32 |
| 7   | 62  | 48  | 39  | 33  | 60  | 47  | 38  | 32  | 45  | 37  | 32  | 43  | 36  | 31  | 41 | 35 | 30 | 30 | 30 | 28 |
| 8   | 58  | 44  | 35  | 29  | 56  | 43  | 35  | 29  | 41  | 33  | 28  | 39  | 32  | 28  | 37 | 31 | 27 | 27 | 27 | 25 |
| 9   | 54  | 40  | 32  | 26  | 52  | 39  | 31  | 26  | 38  | 30  | 25  | 36  | 29  | 25  | 34 | 29 | 24 | 24 | 24 | 22 |
| 10  | 50  | 37  | 29  | 24  | 49  | 36  | 29  | 23  | 35  | 28  | 23  | 33  | 27  | 23  | 32 | 26 | 22 | 22 | 22 | 20 |

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

|     | 0°   | 45°   | 90°   |
|-----|------|-------|-------|
| 0°  | 7742 | 7742  | 7742  |
| 5°  | 7780 | 7694  | 7754  |
| 10° | 7747 | 7694  | 7764  |
| 15° | 7692 | 7674  | 7746  |
| 20° | 7603 | 7639  | 7732  |
| 25° | 7499 | 7586  | 7701  |
| 30° | 7388 | 7538  | 7668  |
| 35° | 7261 | 7493  | 7673  |
| 40° | 7164 | 7470  | 7685  |
| 45° | 7013 | 7479  | 7748  |
| 50° | 6892 | 7486  | 7836  |
| 55° | 6772 | 7542  | 7936  |
| 60° | 6573 | 7595  | 8132  |
| 65° | 6360 | 7714  | 8390  |
| 70° | 6108 | 7935  | 8795  |
| 75° | 5763 | 8409  | 9647  |
| 80° | 5443 | 9636  | 11533 |
| 85° | 5268 | 13922 | 17908 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 31014 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 90.0   | 2.8       |
| 10°-20°   | 257.7  | 8.0       |
| 20°-30°   | 389.7  | 12.0      |
| 30°-40°   | 471.5  | 14.6      |
| 40°-50°   | 498.4  | 15.4      |
| 50°-60°   | 469.1  | 14.5      |
| 60°-70°   | 389.3  | 12.0      |
| 70°-80°   | 273.2  | 8.4       |
| 80°-90°   | 154.0  | 4.8       |
| 90°-100°  | 91.7   | 2.8       |
| 100°-110° | 67.9   | 2.1       |
| 110°-120° | 45.6   | 1.4       |
| 120°-130° | 25.7   | 0.8       |
| 130°-140° | 11.1   | 0.3       |
| 140°-150° | 2.2    | 0.1       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 737.4  | 22.8      |
| 0°-40°    | 1208.9 | 37.3      |
| 0°-60°    | 2176.5 | 67.2      |
| 0°-90°    | 2992.9 | 92.5      |
| 90°-120°  | 205.2  | 6.3       |
| 90°-150°  | 244.1  | 7.5       |
| 90°-180°  | 244.0  | 7.5       |
| 0°-180°   | 3237.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 949 | 949   | 949 | 949   | 949 |      |
| 5°   | 950 | 947   | 940 | 948   | 947 | 90   |
| 15°  | 911 | 912   | 909 | 919   | 918 | 257  |
| 25°  | 834 | 840   | 843 | 855   | 856 | 384  |
| 35°  | 729 | 742   | 753 | 768   | 771 | 457  |
| 45°  | 608 | 628   | 648 | 667   | 672 | 470  |
| 55°  | 476 | 499   | 530 | 552   | 558 | 424  |
| 65°  | 330 | 364   | 400 | 426   | 435 | 327  |
| 75°  | 183 | 222   | 267 | 297   | 306 | 194  |
| 85°  | 56  | 101   | 149 | 181   | 191 | 59   |
| 90°  | 17  | 60    | 105 | 136   | 145 | 12   |
| 95°  | 14  | 49    | 92  | 121   | 131 | 11   |
| 105° | 10  | 31    | 70  | 97    | 105 | 11   |
| 115° | 6   | 16    | 50  | 73    | 81  | 7    |
| 125° | 4   | 3     | 30  | 50    | 56  | 4    |
| 135° | 2   | 2     | 10  | 27    | 33  | 2    |
| 145° | 1   | 0     | 0   | 6     | 11  | 1    |
| 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    |

TEST NUMBER: P998700

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 949.4 | 949.4 | 949.4 | 949.4 | 949.4 |
| 2.5°   | 953.7 | 950.5 | 942.0 | 949.4 | 948.4 |
| 5°     | 950.5 | 947.3 | 939.9 | 948.4 | 947.3 |
| 7.5°   | 944.1 | 942.0 | 935.6 | 945.2 | 944.1 |
| 10°    | 935.6 | 934.5 | 929.2 | 938.8 | 937.7 |
| 12.5°  | 923.9 | 923.9 | 920.7 | 929.2 | 929.2 |
| 15°    | 911.2 | 912.2 | 909.0 | 918.6 | 917.5 |
| 17.5°  | 894.1 | 897.3 | 896.3 | 905.8 | 904.8 |
| 20°    | 876.1 | 879.3 | 880.3 | 891.0 | 891.0 |
| 22.5°  | 855.9 | 860.1 | 862.2 | 872.9 | 875.0 |
| 25°    | 833.5 | 839.9 | 843.1 | 854.8 | 855.9 |
| 27.5°  | 809.1 | 818.7 | 822.9 | 833.5 | 834.6 |
| 30°    | 784.6 | 793.1 | 800.6 | 812.3 | 814.4 |
| 32.5°  | 758.1 | 768.7 | 777.2 | 791.0 | 793.1 |
| 35°    | 729.4 | 742.1 | 752.7 | 767.6 | 770.8 |
| 37.5°  | 700.6 | 715.5 | 728.3 | 743.2 | 746.4 |
| 40°    | 673.0 | 686.8 | 701.7 | 717.7 | 721.9 |
| 42.5°  | 641.1 | 657.1 | 675.1 | 693.2 | 696.4 |
| 45°    | 608.1 | 628.3 | 648.5 | 666.6 | 671.9 |
| 47.5°  | 577.3 | 597.5 | 620.9 | 639.0 | 645.4 |
| 50°    | 543.3 | 566.7 | 590.1 | 611.3 | 617.7 |
| 52.5°  | 509.3 | 532.7 | 560.3 | 581.6 | 587.9 |
| 55°    | 476.3 | 498.6 | 530.5 | 551.8 | 558.2 |
| 57.5°  | 439.1 | 466.7 | 497.6 | 523.1 | 528.4 |
| 60°    | 403.0 | 430.6 | 465.7 | 490.1 | 498.6 |
| 62.5°  | 367.9 | 398.7 | 433.8 | 458.2 | 466.7 |
| 65°    | 329.6 | 363.6 | 399.8 | 426.3 | 434.8 |
| 67.5°  | 293.4 | 329.6 | 367.9 | 394.4 | 403.0 |
| 70°    | 256.2 | 292.4 | 332.8 | 361.5 | 368.9 |
| 72.5°  | 220.1 | 257.3 | 300.9 | 328.5 | 337.0 |
| 75°    | 182.9 | 222.2 | 266.9 | 296.6 | 306.2 |
| 77.5°  | 147.8 | 189.2 | 236.0 | 265.8 | 276.4 |
| 80°    | 115.9 | 158.4 | 205.2 | 237.1 | 245.6 |
| 82.5°  | 84.0  | 128.6 | 175.4 | 208.4 | 218.0 |
| 85°    | 56.3  | 101.0 | 148.8 | 180.7 | 191.4 |
| 87.5°  | 35.1  | 78.7  | 125.5 | 156.3 | 165.9 |
| 90°    | 17.0  | 59.5  | 105.3 | 136.1 | 144.6 |
| 92.5°  | 15.9  | 53.2  | 98.9  | 128.6 | 137.2 |
| 95°    | 13.8  | 48.9  | 92.5  | 121.2 | 130.8 |
| 97.5°  | 12.8  | 43.6  | 87.2  | 114.8 | 124.4 |
| 100°   | 11.7  | 39.3  | 80.8  | 109.5 | 117.0 |
| 102.5° | 11.7  | 35.1  | 75.5  | 103.1 | 111.6 |
| 105°   | 9.6   | 30.8  | 70.2  | 96.8  | 105.3 |
| 107.5° | 9.6   | 27.6  | 64.9  | 91.4  | 98.9  |
| 110°   | 8.5   | 23.4  | 60.6  | 85.1  | 93.6  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 22.5° | 45°  | 67.5° | 90°  |
|--------|-----|-------|------|-------|------|
| 112.5° | 7.4 | 20.2  | 55.3 | 78.7  | 87.2 |
| 115°   | 6.4 | 15.9  | 50.0 | 73.4  | 80.8 |
| 117.5° | 6.4 | 12.8  | 44.7 | 67.0  | 75.5 |
| 120°   | 5.3 | 8.5   | 39.3 | 60.6  | 69.1 |
| 122.5° | 5.3 | 5.3   | 34.0 | 55.3  | 62.7 |
| 125°   | 4.3 | 3.2   | 29.8 | 50.0  | 56.3 |
| 127.5° | 4.3 | 3.2   | 24.5 | 43.6  | 51.0 |
| 130°   | 3.2 | 2.1   | 19.1 | 38.3  | 44.7 |
| 132.5° | 3.2 | 2.1   | 14.9 | 33.0  | 39.3 |
| 135°   | 2.1 | 2.1   | 9.6  | 26.6  | 33.0 |
| 137.5° | 2.1 | 1.1   | 5.3  | 21.3  | 26.6 |
| 140°   | 2.1 | 1.1   | 2.1  | 15.9  | 21.3 |
| 142.5° | 1.1 | 1.1   | 0.0  | 11.7  | 15.9 |
| 145°   | 1.1 | 0.0   | 0.0  | 6.4   | 10.6 |
| 147.5° | 1.1 | 0.0   | 0.0  | 1.1   | 5.3  |
| 150°   | 1.1 | 0.0   | 0.0  | 0.0   | 0.0  |
| 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)