

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: P998641

Luminaire Tested: S124DW-B350DB2750-4F0-XX-W2A-D\_5000K

Issue Date: 5/2/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P998641  
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-B350DB2750-4F0-XX-W2A-D\_5000K  
Description: Define 4 Direct Wall Mount with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}  
Light Source: -  
Ballast/Driver: -

**Summary**

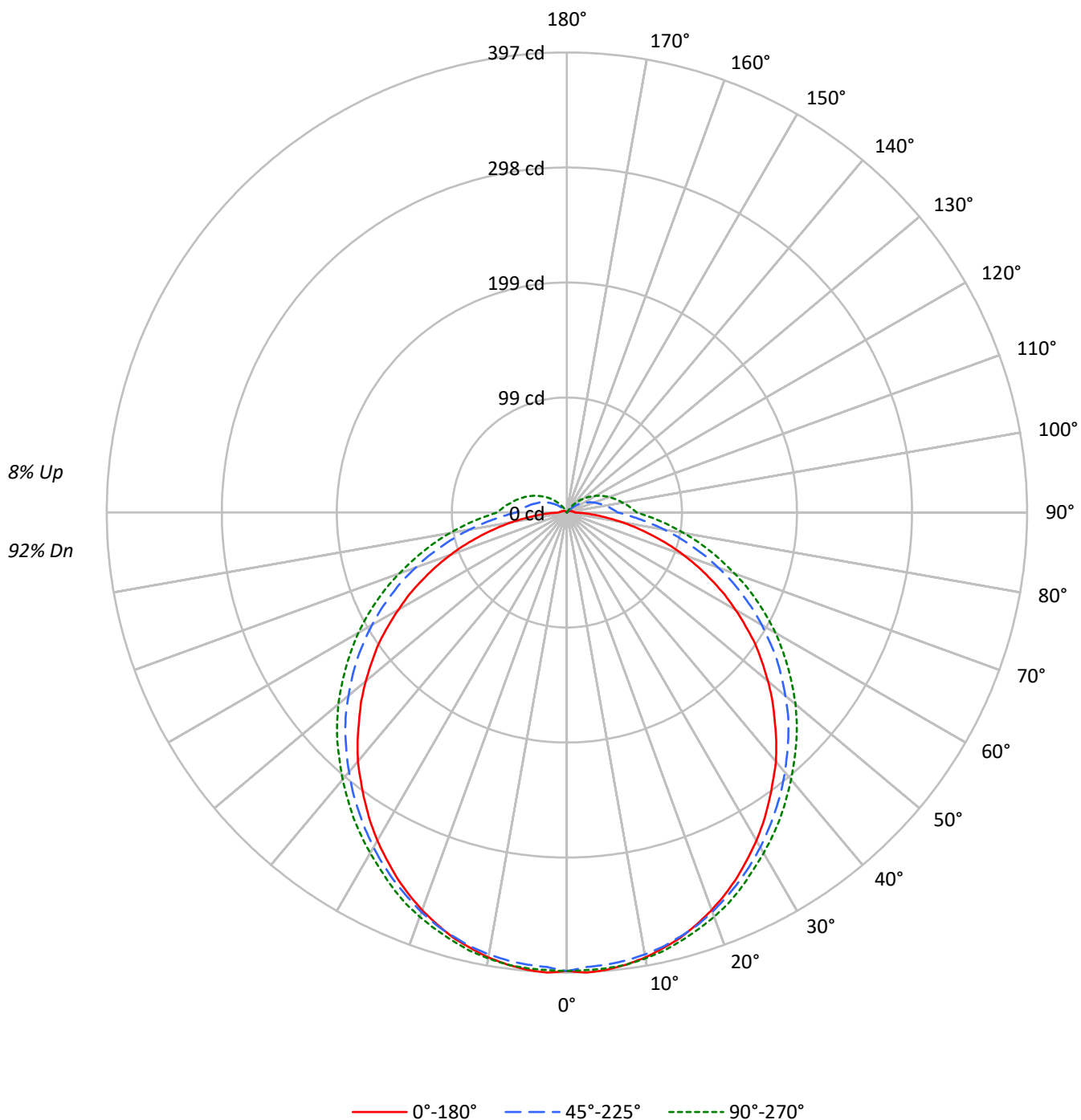
Lumens per Lamp: N/A  
Luminaire Lumens: 1349.0 lumens  
Efficiency: N/A  
Efficacy: 103.8 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 13  
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 |    |    | 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°  | 3227 | 3227 | 3227 |
| 5°  | 3242 | 3206 | 3232 |
| 10° | 3228 | 3207 | 3236 |
| 15° | 3205 | 3198 | 3228 |
| 20° | 3168 | 3184 | 3222 |
| 25° | 3126 | 3162 | 3209 |
| 30° | 3079 | 3141 | 3196 |
| 35° | 3026 | 3123 | 3197 |
| 40° | 2986 | 3113 | 3203 |
| 45° | 2922 | 3117 | 3229 |
| 50° | 2872 | 3120 | 3265 |
| 55° | 2822 | 3143 | 3307 |
| 60° | 2738 | 3166 | 3389 |
| 65° | 2651 | 3215 | 3496 |
| 70° | 2546 | 3307 | 3665 |
| 75° | 2401 | 3504 | 4020 |
| 80° | 2268 | 4015 | 4809 |
| 85° | 2199 | 5801 | 7466 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 12918 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 37.5   | 2.8       |
| 10°-20°   | 107.4  | 8.0       |
| 20°-30°   | 162.4  | 12.0      |
| 30°-40°   | 196.5  | 14.6      |
| 40°-50°   | 207.7  | 15.4      |
| 50°-60°   | 195.5  | 14.5      |
| 60°-70°   | 162.2  | 12.0      |
| 70°-80°   | 113.8  | 8.4       |
| 80°-90°   | 64.2   | 4.8       |
| 90°-100°  | 38.2   | 2.8       |
| 100°-110° | 28.3   | 2.1       |
| 110°-120° | 19.0   | 1.4       |
| 120°-130° | 10.7   | 0.8       |
| 130°-140° | 4.6    | 0.3       |
| 140°-150° | 0.9    | 0.1       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 307.3  | 22.8      |
| 0°-40°    | 503.8  | 37.3      |
| 0°-60°    | 907.0  | 67.2      |
| 0°-90°    | 1247.3 | 92.5      |
| 90°-120°  | 85.5   | 6.3       |
| 90°-150°  | 101.7  | 7.5       |
| 90°-180°  | 102.0  | 7.6       |
| 0°-180°   | 1349.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 396 | 396   | 396 | 396   | 396 |      |
| 5°   | 396 | 395   | 392 | 395   | 395 | 38   |
| 15°  | 380 | 380   | 379 | 383   | 382 | 107  |
| 25°  | 347 | 350   | 351 | 356   | 357 | 160  |
| 35°  | 304 | 309   | 314 | 320   | 321 | 190  |
| 45°  | 253 | 262   | 270 | 278   | 280 | 196  |
| 55°  | 198 | 208   | 221 | 230   | 233 | 177  |
| 65°  | 137 | 152   | 167 | 178   | 181 | 136  |
| 75°  | 76  | 93    | 111 | 124   | 128 | 81   |
| 85°  | 24  | 42    | 62  | 75    | 80  | 24   |
| 90°  | 7   | 25    | 44  | 57    | 60  | 5    |
| 95°  | 6   | 20    | 38  | 50    | 54  | 5    |
| 105° | 4   | 13    | 29  | 40    | 44  | 5    |
| 115° | 3   | 7     | 21  | 31    | 34  | 3    |
| 125° | 2   | 1     | 12  | 21    | 24  | 2    |
| 135° | 1   | 1     | 4   | 11    | 14  | 1    |
| 145° | 0   | 0     | 0   | 3     | 4   | 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°     | 395.7 | 395.7 | 395.7 | 395.7 | 395.7 |
| 2.5°   | 397.4 | 396.1 | 392.6 | 395.7 | 395.2 |
| 5°     | 396.1 | 394.8 | 391.7 | 395.2 | 394.8 |
| 7.5°   | 393.5 | 392.6 | 389.9 | 393.9 | 393.5 |
| 10°    | 389.9 | 389.5 | 387.3 | 391.2 | 390.8 |
| 12.5°  | 385.0 | 385.0 | 383.7 | 387.3 | 387.3 |
| 15°    | 379.7 | 380.2 | 378.8 | 382.8 | 382.4 |
| 17.5°  | 372.6 | 374.0 | 373.5 | 377.5 | 377.1 |
| 20°    | 365.1 | 366.4 | 366.9 | 371.3 | 371.3 |
| 22.5°  | 356.7 | 358.5 | 359.3 | 363.8 | 364.7 |
| 25°    | 347.4 | 350.0 | 351.4 | 356.2 | 356.7 |
| 27.5°  | 337.2 | 341.2 | 342.9 | 347.4 | 347.8 |
| 30°    | 327.0 | 330.5 | 333.6 | 338.5 | 339.4 |
| 32.5°  | 315.9 | 320.3 | 323.9 | 329.7 | 330.5 |
| 35°    | 304.0 | 309.3 | 313.7 | 319.9 | 321.2 |
| 37.5°  | 292.0 | 298.2 | 303.5 | 309.7 | 311.0 |
| 40°    | 280.5 | 286.2 | 292.4 | 299.1 | 300.9 |
| 42.5°  | 267.2 | 273.8 | 281.4 | 288.9 | 290.2 |
| 45°    | 253.4 | 261.9 | 270.3 | 277.8 | 280.0 |
| 47.5°  | 240.6 | 249.0 | 258.8 | 266.3 | 268.9 |
| 50°    | 226.4 | 236.2 | 245.9 | 254.8 | 257.4 |
| 52.5°  | 212.2 | 222.0 | 233.5 | 242.4 | 245.0 |
| 55°    | 198.5 | 207.8 | 221.1 | 230.0 | 232.6 |
| 57.5°  | 183.0 | 194.5 | 207.4 | 218.0 | 220.2 |
| 60°    | 167.9 | 179.4 | 194.1 | 204.3 | 207.8 |
| 62.5°  | 153.3 | 166.2 | 180.8 | 191.0 | 194.5 |
| 65°    | 137.4 | 151.5 | 166.6 | 177.7 | 181.2 |
| 67.5°  | 122.3 | 137.4 | 153.3 | 164.4 | 167.9 |
| 70°    | 106.8 | 121.8 | 138.7 | 150.6 | 153.7 |
| 72.5°  | 91.7  | 107.2 | 125.4 | 136.9 | 140.5 |
| 75°    | 76.2  | 92.6  | 111.2 | 123.6 | 127.6 |
| 77.5°  | 61.6  | 78.9  | 98.4  | 110.8 | 115.2 |
| 80°    | 48.3  | 66.0  | 85.5  | 98.8  | 102.4 |
| 82.5°  | 35.0  | 53.6  | 73.1  | 86.8  | 90.8  |
| 85°    | 23.5  | 42.1  | 62.0  | 75.3  | 79.8  |
| 87.5°  | 14.6  | 32.8  | 52.3  | 65.1  | 69.1  |
| 90°    | 7.1   | 24.8  | 43.9  | 56.7  | 60.3  |
| 92.5°  | 6.6   | 22.2  | 41.2  | 53.6  | 57.2  |
| 95°    | 5.8   | 20.4  | 38.5  | 50.5  | 54.5  |
| 97.5°  | 5.3   | 18.2  | 36.3  | 47.9  | 51.8  |
| 100°   | 4.9   | 16.4  | 33.7  | 45.6  | 48.7  |
| 102.5° | 4.9   | 14.6  | 31.5  | 43.0  | 46.5  |
| 105°   | 4.0   | 12.8  | 29.2  | 40.3  | 43.9  |
| 107.5° | 4.0   | 11.5  | 27.0  | 38.1  | 41.2  |
| 110°   | 3.5   | 9.7   | 25.3  | 35.4  | 39.0  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 22.5° | 45°  | 67.5° | 90°  |
|--------|-----|-------|------|-------|------|
| 112.5° | 3.1 | 8.4   | 23.0 | 32.8  | 36.3 |
| 115°   | 2.7 | 6.6   | 20.8 | 30.6  | 33.7 |
| 117.5° | 2.7 | 5.3   | 18.6 | 27.9  | 31.5 |
| 120°   | 2.2 | 3.5   | 16.4 | 25.3  | 28.8 |
| 122.5° | 2.2 | 2.2   | 14.2 | 23.0  | 26.1 |
| 125°   | 1.8 | 1.3   | 12.4 | 20.8  | 23.5 |
| 127.5° | 1.8 | 1.3   | 10.2 | 18.2  | 21.3 |
| 130°   | 1.3 | 0.9   | 8.0  | 16.0  | 18.6 |
| 132.5° | 1.3 | 0.9   | 6.2  | 13.7  | 16.4 |
| 135°   | 0.9 | 0.9   | 4.0  | 11.1  | 13.7 |
| 137.5° | 0.9 | 0.4   | 2.2  | 8.9   | 11.1 |
| 140°   | 0.9 | 0.4   | 0.9  | 6.6   | 8.9  |
| 142.5° | 0.4 | 0.4   | 0.0  | 4.9   | 6.6  |
| 145°   | 0.4 | 0.0   | 0.0  | 2.7   | 4.4  |
| 147.5° | 0.4 | 0.0   | 0.0  | 0.4   | 2.2  |
| 150°   | 0.4 | 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)