

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P730719

Luminaire Tested: **HBLED-LD5-24HE-W-UNV-L740**

Issue Date: 11/13/2023

**Test Information**

Test Method: LM-79-08  
Report Number: P730719  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2304-003-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/13/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: HBLED-LD5-24HE-W-UNV-L740  
Description: 24000 LUMEN, HE HBLED WITH WIDE DISTRIBUTION  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 25744.0 lumens  
Efficiency: N/A  
Efficacy: 180.0 lumens/watt  
Spacing Criteria (0/90/45): 1.3 / 1.31 / 1.43  
Luminous Opening: Rectangular (W 1.67' x L: 4' x H: 0')  
CIE Type: Direct

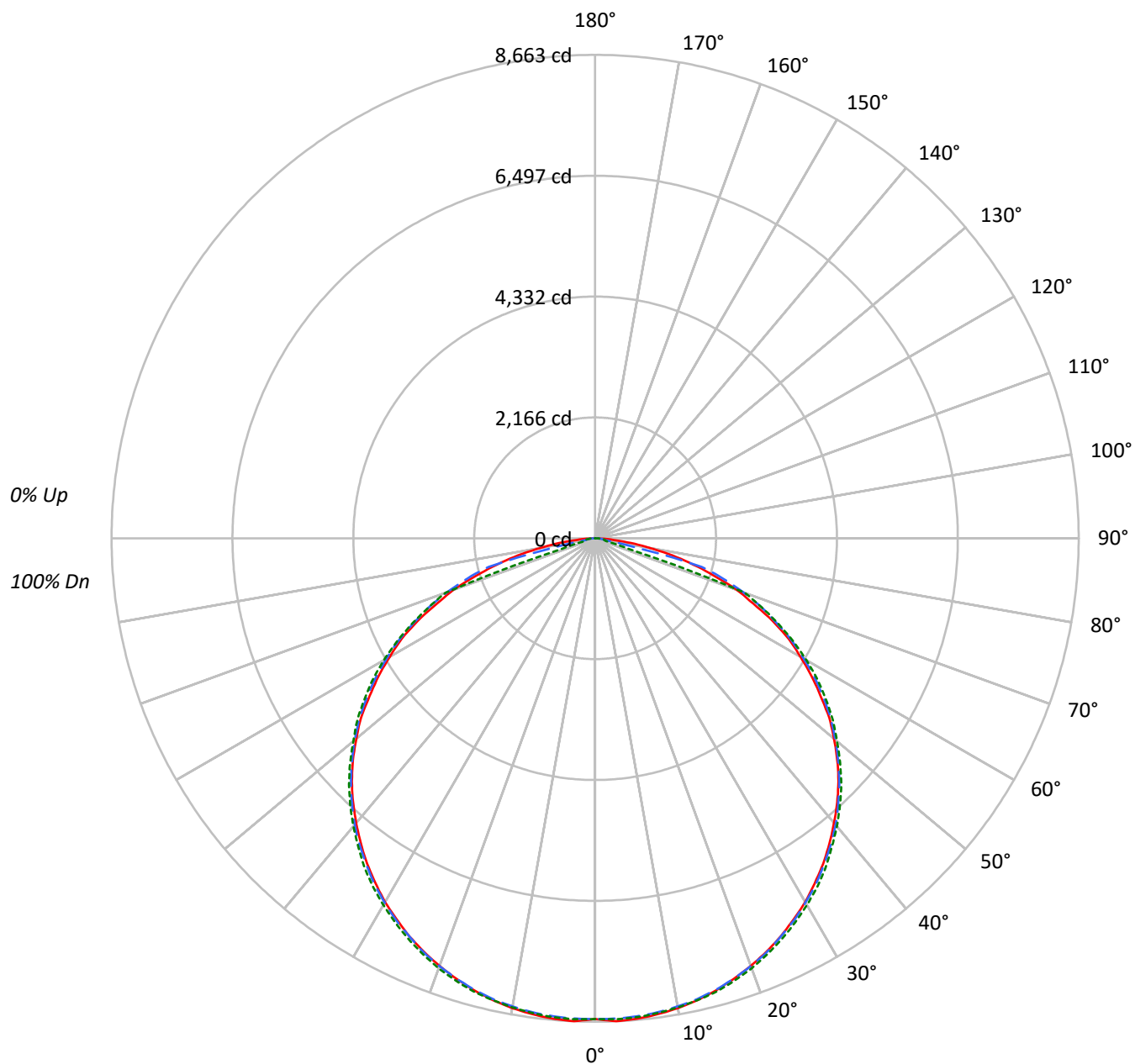
Input Watts (W): 143  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  | 50  | 30 | 10 |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |
| 1   | 109 | 105 | 100 | 97  | 106 | 102 | 98  | 95  | 98  | 95  | 92  | 94  | 92  | 89  | 91  | 88  | 87  | 85  |    |    |
| 2   | 99  | 91  | 84  | 79  | 97  | 89  | 83  | 78  | 86  | 80  | 76  | 82  | 78  | 74  | 79  | 76  | 72  | 70  |    |    |
| 3   | 90  | 80  | 72  | 65  | 88  | 78  | 71  | 64  | 75  | 69  | 63  | 72  | 67  | 62  | 70  | 65  | 61  | 59  |    |    |
| 4   | 82  | 70  | 62  | 55  | 80  | 69  | 61  | 54  | 67  | 59  | 54  | 64  | 58  | 53  | 62  | 57  | 52  | 50  |    |    |
| 5   | 76  | 63  | 54  | 47  | 74  | 62  | 53  | 47  | 59  | 52  | 46  | 57  | 51  | 46  | 56  | 50  | 45  | 43  |    |    |
| 6   | 70  | 56  | 47  | 41  | 68  | 55  | 47  | 41  | 54  | 46  | 40  | 52  | 45  | 40  | 50  | 44  | 40  | 37  |    |    |
| 7   | 65  | 51  | 42  | 36  | 63  | 50  | 42  | 36  | 49  | 41  | 36  | 47  | 40  | 35  | 46  | 40  | 35  | 33  |    |    |
| 8   | 60  | 46  | 38  | 32  | 58  | 46  | 38  | 32  | 44  | 37  | 32  | 43  | 36  | 31  | 42  | 36  | 31  | 29  |    |    |
| 9   | 56  | 43  | 34  | 29  | 55  | 42  | 34  | 29  | 41  | 33  | 28  | 40  | 33  | 28  | 39  | 33  | 28  | 26  |    |    |
| 10  | 53  | 39  | 31  | 26  | 51  | 39  | 31  | 26  | 38  | 31  | 26  | 37  | 30  | 26  | 36  | 30  | 25  | 24  |    |    |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 13909 | 13909 | 13909 |
| 5°  | 14009 | 13937 | 13962 |
| 10° | 14017 | 13966 | 13995 |
| 15° | 14015 | 13996 | 14060 |
| 20° | 14014 | 14017 | 14090 |
| 25° | 14021 | 14027 | 14113 |
| 30° | 14036 | 14054 | 14147 |
| 35° | 14033 | 14079 | 14196 |
| 40° | 14036 | 14125 | 14201 |
| 45° | 14075 | 14127 | 14241 |
| 50° | 14032 | 14114 | 14206 |
| 55° | 13878 | 14072 | 14224 |
| 60° | 13720 | 13943 | 14117 |
| 65° | 13417 | 13696 | 13798 |
| 70° | 12737 | 13281 | 13444 |
| 75° | 11361 | 12319 | 1485  |
| 80° | 9136  | 1534  | 1623  |
| 85° | 6080  | 1991  | 2027  |



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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 818.2   | 3.2       |
| 10°-20°   | 2364.2  | 9.2       |
| 20°-30°   | 3632.5  | 14.1      |
| 30°-40°   | 4471.7  | 17.4      |
| 40°-50°   | 4767.3  | 18.5      |
| 50°-60°   | 4456.4  | 17.3      |
| 60°-70°   | 3527.8  | 13.7      |
| 70°-80°   | 1500.9  | 5.8       |
| 80°-90°   | 205.0   | 0.8       |
| 90°-100°  | 0.0     | 0.0       |
| 100°-110° | 0.0     | 0.0       |
| 110°-120° | 0.0     | 0.0       |
| 120°-130° | 0.0     | 0.0       |
| 130°-140° | 0.0     | 0.0       |
| 140°-150° | 0.0     | 0.0       |
| 150°-160° | 0.0     | 0.0       |
| 160°-170° | 0.0     | 0.0       |
| 170°-180° | 0.0     | 0.0       |
| 0°-30°    | 6814.9  | 26.5      |
| 0°-40°    | 11286.6 | 43.8      |
| 0°-60°    | 20510.3 | 79.7      |
| 0°-90°    | 25744.0 | 100.0     |
| 90°-120°  | 0.0     | 0.0       |
| 90°-150°  | 0.0     | 0.0       |
| 90°-180°  | 0.0     | 0.0       |
| 0°-180°   | 25744.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 8615 | 8615  | 8615 | 8615  | 8615 |      |
| 5°  | 8644 | 8605  | 8599 | 8565  | 8615 | 822  |
| 15° | 8384 | 8369  | 8373 | 8350  | 8411 | 2367 |
| 25° | 7870 | 7860  | 7874 | 7870  | 7922 | 3629 |
| 35° | 7120 | 7108  | 7143 | 7168  | 7202 | 4455 |
| 45° | 6164 | 6130  | 6187 | 6212  | 6237 | 4750 |
| 55° | 4930 | 4945  | 4999 | 5016  | 5053 | 4415 |
| 65° | 3512 | 3543  | 3585 | 3612  | 3612 | 3455 |
| 75° | 1821 | 1900  | 1975 | 322   | 238  | 1927 |
| 85° | 328  | 98    | 108  | 111   | 109  | 428  |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 8614.7 | 8614.7 | 8614.7 | 8614.7 | 8614.7 |
| 2.5°  | 8662.7 | 8622.4 | 8614.7 | 8580.1 | 8626.2 |
| 5°    | 8643.5 | 8605.1 | 8599.3 | 8564.8 | 8614.7 |
| 7.5°  | 8603.2 | 8572.5 | 8568.6 | 8532.2 | 8582.1 |
| 10°   | 8549.4 | 8520.6 | 8518.7 | 8486.1 | 8536.0 |
| 12.5° | 8476.5 | 8451.6 | 8459.2 | 8426.6 | 8476.5 |
| 15°   | 8384.4 | 8369.0 | 8372.9 | 8349.8 | 8411.3 |
| 17.5° | 8273.1 | 8265.4 | 8273.1 | 8255.8 | 8311.5 |
| 20°   | 8156.0 | 8146.4 | 8157.9 | 8148.3 | 8200.2 |
| 22.5° | 8019.8 | 8008.3 | 8031.3 | 8017.8 | 8065.8 |
| 25°   | 7870.1 | 7860.5 | 7873.9 | 7870.1 | 7921.9 |
| 27.5° | 7699.3 | 7689.7 | 7718.5 | 7720.4 | 7760.7 |
| 30°   | 7528.5 | 7515.1 | 7538.1 | 7547.7 | 7588.0 |
| 32.5° | 7325.1 | 7321.2 | 7355.8 | 7363.4 | 7405.7 |
| 35°   | 7119.7 | 7108.2 | 7142.8 | 7167.7 | 7202.2 |
| 37.5° | 6895.2 | 6893.3 | 6929.7 | 6950.8 | 6968.1 |
| 40°   | 6659.2 | 6649.6 | 6701.4 | 6722.5 | 6737.8 |
| 42.5° | 6419.3 | 6398.2 | 6448.1 | 6474.9 | 6492.2 |
| 45°   | 6164.0 | 6129.5 | 6187.1 | 6212.0 | 6237.0 |
| 47.5° | 5883.9 | 5853.1 | 5908.8 | 5935.7 | 5952.9 |
| 50°   | 5586.4 | 5557.6 | 5619.0 | 5642.0 | 5655.5 |
| 52.5° | 5287.0 | 5258.2 | 5323.5 | 5342.7 | 5375.3 |
| 55°   | 4930.1 | 4945.4 | 4999.2 | 5016.4 | 5052.9 |
| 57.5° | 4600.0 | 4613.4 | 4665.2 | 4686.4 | 4728.6 |
| 60°   | 4248.8 | 4269.9 | 4317.9 | 4339.0 | 4371.6 |
| 62.5° | 3909.1 | 3911.1 | 3968.6 | 3978.2 | 4003.2 |
| 65°   | 3511.9 | 3542.6 | 3584.8 | 3611.7 | 3611.7 |
| 67.5° | 3068.6 | 3143.4 | 3216.4 | 3210.6 | 3225.9 |
| 70°   | 2698.2 | 2727.0 | 2813.3 | 2826.8 | 2847.9 |
| 72.5° | 2233.8 | 2308.6 | 2404.6 | 1796.2 | 610.3  |
| 75°   | 1821.2 | 1899.9 | 1974.7 | 322.4  | 238.0  |
| 77.5° | 1414.4 | 1475.8 | 656.3  | 184.2  | 180.4  |
| 80°   | 982.6  | 1080.4 | 165.0  | 168.9  | 174.6  |
| 82.5° | 646.7  | 527.7  | 136.3  | 149.7  | 151.6  |
| 85°   | 328.2  | 97.9   | 107.5  | 111.3  | 109.4  |
| 87.5° | 107.5  | 59.5   | 61.4   | 63.3   | 65.2   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180°    - - 45°-225°    - - - 90°-270°







(END OF REPORT)