

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: P731157

Luminaire Tested: **HBLED-LD5-60HE-W-UNV-L740**

Issue Date: 11/13/2023

**Test Information**

Test Method: LM-79-08  
Report Number: P731157  
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-LD5-60HE-W-UNV-L740  
Description: 60000 LUMEN, HE HBLED WITH WIDE DISTRIBUTION  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 65160.0 lumens  
Efficiency: N/A  
Efficacy: 183.5 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

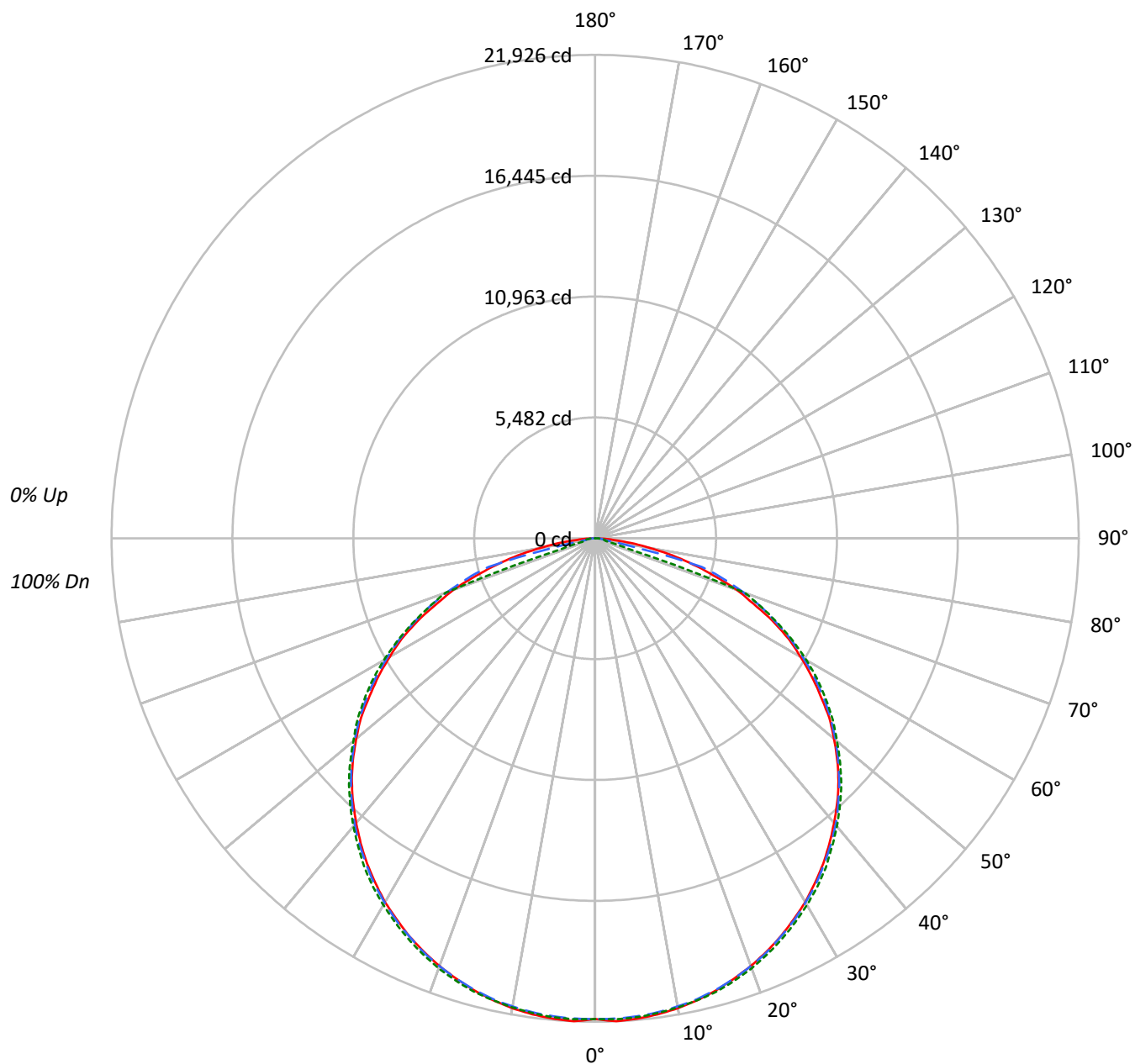
Input Watts (W): 355  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°  | 35205 | 35205 | 35205 |
| 5°  | 35458 | 35277 | 35340 |
| 10° | 35478 | 35350 | 35422 |
| 15° | 35473 | 35424 | 35586 |
| 20° | 35470 | 35478 | 35662 |
| 25° | 35487 | 35504 | 35721 |
| 30° | 35526 | 35571 | 35806 |
| 35° | 35519 | 35634 | 35931 |
| 40° | 35525 | 35750 | 35945 |
| 45° | 35624 | 35757 | 36046 |
| 50° | 35517 | 35724 | 35956 |
| 55° | 35126 | 35618 | 36001 |
| 60° | 34727 | 35291 | 35730 |
| 65° | 33959 | 34664 | 34924 |
| 70° | 32240 | 33615 | 34028 |
| 75° | 28756 | 31180 | 3757  |
| 80° | 23123 | 3884  | 4110  |
| 85° | 15387 | 5039  | 5130  |



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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 2070.9  | 3.2       |
| 10°-20°   | 5984.0  | 9.2       |
| 20°-30°   | 9194.0  | 14.1      |
| 30°-40°   | 11318.2 | 17.4      |
| 40°-50°   | 12066.3 | 18.5      |
| 50°-60°   | 11279.6 | 17.3      |
| 60°-70°   | 8929.2  | 13.7      |
| 70°-80°   | 3799.0  | 5.8       |
| 80°-90°   | 518.8   | 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°    | 17249.0 | 26.5      |
| 0°-40°    | 28567.1 | 43.8      |
| 0°-60°    | 51913.0 | 79.7      |
| 0°-90°    | 65160.0 | 100.0     |
| 90°-120°  | 0.0     | 0.0       |
| 90°-150°  | 0.0     | 0.0       |
| 90°-180°  | 0.0     | 0.0       |
| 0°-180°   | 65160.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°    | 22.5° | 45°   | 67.5° | 90°   | Flux  |
|-----|-------|-------|-------|-------|-------|-------|
| 0°  | 21804 | 21804 | 21804 | 21804 | 21804 |       |
| 5°  | 21877 | 21780 | 21766 | 21678 | 21804 | ###   |
| 15° | 21222 | 21183 | 21192 | 21134 | 21290 | 5992  |
| 25° | 19920 | 19896 | 19930 | 19920 | 20051 | 9184  |
| 35° | 18021 | 17991 | 18079 | 18142 | 18229 | 11276 |
| 45° | 15602 | 15514 | 15660 | 15723 | 15786 | 12022 |
| 55° | 12478 | 12517 | 12653 | 12697 | 12789 | 11174 |
| 65° | 8889  | 8967  | 9073  | 9141  | 9141  | 8745  |
| 75° | 4610  | 4809  | 4998  | 816   | 602   | 4877  |
| 85° | 831   | 248   | 272   | 282   | 277   | ###   |
| 90° | 0     | 0     | 0     | 0     | 0     |       |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 22.5°   | 45°     | 67.5°   | 90°     |
|-------|---------|---------|---------|---------|---------|
| 0°    | 21804.4 | 21804.4 | 21804.4 | 21804.4 | 21804.4 |
| 2.5°  | 21925.8 | 21823.8 | 21804.4 | 21717.0 | 21833.5 |
| 5°    | 21877.3 | 21780.1 | 21765.5 | 21678.1 | 21804.4 |
| 7.5°  | 21775.3 | 21697.5 | 21687.8 | 21595.5 | 21721.8 |
| 10°   | 21639.3 | 21566.4 | 21561.5 | 21479.0 | 21605.3 |
| 12.5° | 21454.7 | 21391.5 | 21411.0 | 21328.4 | 21454.7 |
| 15°   | 21221.5 | 21182.7 | 21192.4 | 21134.1 | 21289.5 |
| 17.5° | 20939.8 | 20920.4 | 20939.8 | 20896.1 | 21036.9 |
| 20°   | 20643.5 | 20619.2 | 20648.4 | 20624.1 | 20755.2 |
| 22.5° | 20298.6 | 20269.5 | 20327.8 | 20293.8 | 20415.2 |
| 25°   | 19919.8 | 19895.5 | 19929.5 | 19919.8 | 20050.9 |
| 27.5° | 19487.5 | 19463.2 | 19536.0 | 19540.9 | 19642.9 |
| 30°   | 19055.2 | 19021.2 | 19079.5 | 19103.7 | 19205.7 |
| 32.5° | 18540.3 | 18530.6 | 18618.0 | 18637.4 | 18744.3 |
| 35°   | 18020.6 | 17991.4 | 18078.9 | 18142.0 | 18229.4 |
| 37.5° | 17452.3 | 17447.4 | 17539.7 | 17593.1 | 17636.8 |
| 40°   | 16854.8 | 16830.5 | 16961.7 | 17015.1 | 17054.0 |
| 42.5° | 16247.7 | 16194.2 | 16320.5 | 16388.5 | 16432.2 |
| 45°   | 15601.6 | 15514.2 | 15659.9 | 15723.1 | 15786.2 |
| 47.5° | 14892.5 | 14814.8 | 14955.6 | 15023.6 | 15067.3 |
| 50°   | 14139.6 | 14066.7 | 14222.2 | 14280.4 | 14314.4 |
| 52.5° | 13381.8 | 13309.0 | 13474.1 | 13522.7 | 13605.3 |
| 55°   | 12478.4 | 12517.3 | 12653.3 | 12697.0 | 12789.3 |
| 57.5° | 11642.9 | 11676.9 | 11808.1 | 11861.5 | 11968.4 |
| 60°   | 10754.1 | 10807.5 | 10928.9 | 10982.3 | 11064.9 |
| 62.5° | 9894.3  | 9899.2  | 10044.9 | 10069.2 | 10132.3 |
| 65°   | 8888.9  | 8966.6  | 9073.4  | 9141.4  | 9141.4  |
| 67.5° | 7766.8  | 7956.2  | 8140.8  | 8126.3  | 8165.1  |
| 70°   | 6829.4  | 6902.2  | 7120.8  | 7154.8  | 7208.2  |
| 72.5° | 5653.9  | 5843.3  | 6086.2  | 4546.4  | 1544.6  |
| 75°   | 4609.6  | 4808.7  | 4998.2  | 816.0   | 602.3   |
| 77.5° | 3579.8  | 3735.3  | 1661.2  | 466.3   | 456.6   |
| 80°   | 2486.9  | 2734.7  | 417.7   | 427.4   | 442.0   |
| 82.5° | 1636.9  | 1335.8  | 344.9   | 378.9   | 383.7   |
| 85°   | 830.6   | 247.7   | 272.0   | 281.7   | 276.9   |
| 87.5° | 272.0   | 150.6   | 155.4   | 160.3   | 165.1   |
| 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)