

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: P730973

Luminaire Tested: **HBLED-LD5-36HE-W-FLI-UNV-L835**

Issue Date: 11/13/2023

**Test Information**

Test Method: LM-79-08  
Report Number: P730973  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26703)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/13/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: HBLED-LD5-36HE-W-FLI-UNV-L835  
Description: 36000 LUMEN, HE HBLED WITH WIDE DISTRIBUTION AND FROSTED LENS INSERT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 31220.0 lumens  
Efficiency: N/A  
Efficacy: 148.7 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.2 / 1.31  
Luminous Opening: Rectangular (W 1.67' x L: 4' x H: 0')  
CIE Type: Direct

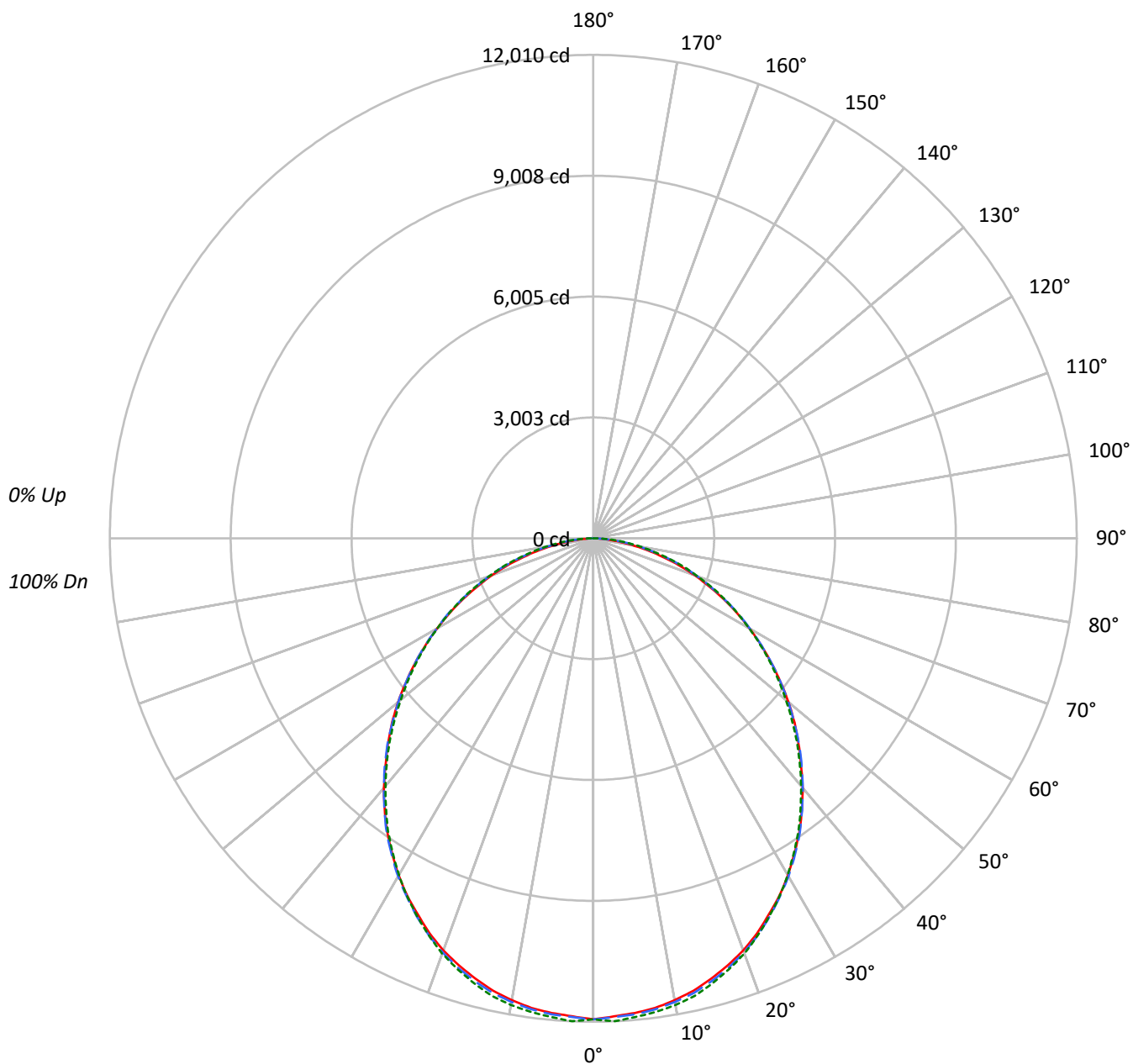
Input Watts (W): 210  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P730973

CATALOG NUMBER: HBLED-LD5-36HE-W-FLI-UNV-L835

### Luminous Intensity Polar Plot





TEST NUMBER: P730973

CATALOG NUMBER: HBLED-LD5-36HE-W-FLI-UNV-L835

**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 | 104 | 100 | 96  | 106 | 102 | 98  | 95  | 98  | 95  | 92  | 94  | 91  | 89  | 90  | 88  | 86  | 84  |    |    |
| 2   | 99  | 91  | 85  | 79  | 97  | 89  | 83  | 78  | 86  | 81  | 76  | 83  | 78  | 74  | 80  | 76  | 73  | 71  |    |    |
| 3   | 91  | 80  | 72  | 66  | 88  | 79  | 71  | 65  | 76  | 69  | 64  | 73  | 68  | 63  | 71  | 66  | 62  | 60  |    |    |
| 4   | 83  | 71  | 63  | 56  | 81  | 70  | 62  | 56  | 68  | 61  | 55  | 65  | 59  | 54  | 63  | 58  | 53  | 51  |    |    |
| 5   | 77  | 64  | 55  | 49  | 75  | 63  | 54  | 48  | 61  | 53  | 48  | 59  | 52  | 47  | 57  | 51  | 47  | 45  |    |    |
| 6   | 71  | 58  | 49  | 42  | 69  | 57  | 48  | 42  | 55  | 47  | 42  | 53  | 47  | 42  | 52  | 46  | 41  | 39  |    |    |
| 7   | 66  | 52  | 44  | 38  | 64  | 52  | 43  | 38  | 50  | 43  | 37  | 49  | 42  | 37  | 47  | 41  | 37  | 35  |    |    |
| 8   | 61  | 48  | 39  | 34  | 60  | 47  | 39  | 34  | 46  | 39  | 33  | 45  | 38  | 33  | 43  | 37  | 33  | 31  |    |    |
| 9   | 57  | 44  | 36  | 30  | 56  | 43  | 36  | 30  | 42  | 35  | 30  | 41  | 35  | 30  | 40  | 34  | 30  | 28  |    |    |
| 10  | 54  | 41  | 33  | 28  | 52  | 40  | 33  | 28  | 39  | 32  | 27  | 38  | 32  | 27  | 37  | 31  | 27  | 25  |    |    |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 19297 | 19297 | 19297 |
| 5°  | 19188 | 19242 | 19351 |
| 10° | 19100 | 19178 | 19302 |
| 15° | 18933 | 19035 | 19128 |
| 20° | 18718 | 18808 | 18863 |
| 25° | 18372 | 18476 | 18449 |
| 30° | 18033 | 18081 | 18008 |
| 35° | 17586 | 17631 | 17519 |
| 40° | 17058 | 17058 | 16926 |
| 45° | 16461 | 16506 | 16338 |
| 50° | 15896 | 15869 | 15670 |
| 55° | 15208 | 15210 | 15073 |
| 60° | 14471 | 14488 | 14432 |
| 65° | 13639 | 13775 | 13810 |
| 70° | 12597 | 12942 | 12956 |
| 75° | 11133 | 11854 | 12039 |
| 80° | 9131  | 10381 | 10968 |
| 85° | 6336  | 8716  | 9855  |



TEST NUMBER: P730973

CATALOG NUMBER: HBLED-LD5-36HE-W-FLI-UNV-L835

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 1130.4  | 3.6       |
| 10°-20°   | 3215.6  | 10.3      |
| 20°-30°   | 4778.6  | 15.3      |
| 30°-40°   | 5587.4  | 17.9      |
| 40°-50°   | 5570.8  | 17.8      |
| 50°-60°   | 4833.4  | 15.5      |
| 60°-70°   | 3570.1  | 11.4      |
| 70°-80°   | 1998.8  | 6.4       |
| 80°-90°   | 533.3   | 1.7       |
| 90°-100°  | 1.6     | 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°    | 9124.6  | 29.2      |
| 0°-40°    | 14712.0 | 47.1      |
| 0°-60°    | 25116.2 | 80.4      |
| 0°-90°    | 31218.4 | 100.0     |
| 90°-120°  | 1.6     | 0.0       |
| 90°-150°  | 1.6     | 0.0       |
| 90°-180°  | 2.0     | 0.0       |
| 0°-180°   | 31220.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°    | 22.5° | 45°   | 67.5° | 90°   | Flux |
|------|-------|-------|-------|-------|-------|------|
| 0°   | 11952 | 11952 | 11952 | 11952 | 11952 |      |
| 5°   | 11839 | 11913 | 11872 | 11924 | 11940 | ###  |
| 15°  | 11326 | 11406 | 11388 | 11443 | 11443 | 3194 |
| 25°  | 10312 | 10395 | 10371 | 10394 | 10356 | 4754 |
| 35°  | 8922  | 9000  | 8945  | 8944  | 8888  | 5573 |
| 45°  | 7209  | 7286  | 7229  | 7199  | 7155  | 5565 |
| 55°  | 5402  | 5440  | 5403  | 5394  | 5355  | 4831 |
| 65°  | 3570  | 3605  | 3606  | 3624  | 3615  | 3531 |
| 75°  | 1785  | 1838  | 1900  | 1914  | 1930  | 1901 |
| 85°  | 342   | 414   | 470   | 512   | 532   | 415  |
| 90°  | 0     | 8     | 9     | 20    | 19    | 14   |
| 95°  | 0     | 0     | 0     | 0     | 0     | 0    |
| 105° | 0     | 0     | 0     | 0     | 0     | 0    |
| 115° | 0     | 0     | 0     | 0     | 0     | 0    |
| 125° | 0     | 0     | 0     | 0     | 0     | 0    |
| 135° | 0     | 0     | 0     | 0     | 0     | 0    |
| 145° | 0     | 0     | 0     | 0     | 0     | 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     |      |



TEST NUMBER: P730973

CATALOG NUMBER: HBLED-LD5-36HE-W-FLI-UNV-L835

**CANDELA DISTRIBUTION (FULL):**

|        | 0°      | 22.5°   | 45°     | 67.5°   | 90°     |
|--------|---------|---------|---------|---------|---------|
| 0°     | 11951.9 | 11951.9 | 11951.9 | 11951.9 | 11951.9 |
| 2.5°   | 11886.6 | 11957.3 | 11907.8 | 11955.0 | 12009.8 |
| 5°     | 11838.7 | 11913.2 | 11872.1 | 11924.5 | 11939.7 |
| 7.5°   | 11768.8 | 11841.0 | 11801.5 | 11853.9 | 11869.9 |
| 10°    | 11650.1 | 11728.5 | 11697.3 | 11756.6 | 11773.3 |
| 12.5°  | 11511.9 | 11585.5 | 11565.0 | 11634.2 | 11645.6 |
| 15°    | 11326.4 | 11405.5 | 11387.9 | 11442.7 | 11443.4 |
| 17.5°  | 11121.2 | 11195.6 | 11182.7 | 11225.3 | 11223.7 |
| 20°    | 10894.0 | 10973.7 | 10946.4 | 10992.7 | 10978.2 |
| 22.5°  | 10624.9 | 10710.0 | 10675.7 | 10714.5 | 10678.1 |
| 25°    | 10312.4 | 10395.4 | 10371.0 | 10393.7 | 10355.8 |
| 27.5°  | 10010.0 | 10086.0 | 10035.7 | 10063.1 | 10022.8 |
| 30°    | 9672.5  | 9737.1  | 9698.4  | 9707.5  | 9658.8  |
| 32.5°  | 9293.2  | 9370.0  | 9322.8  | 9321.3  | 9269.6  |
| 35°    | 8922.3  | 9000.5  | 8945.2  | 8943.6  | 8888.2  |
| 37.5°  | 8511.9  | 8584.8  | 8519.5  | 8523.3  | 8458.7  |
| 40°    | 8093.1  | 8156.2  | 8093.1  | 8090.0  | 8030.8  |
| 42.5°  | 7638.5  | 7722.2  | 7664.5  | 7671.2  | 7592.2  |
| 45°    | 7209.2  | 7285.9  | 7229.0  | 7199.2  | 7155.1  |
| 47.5°  | 6781.3  | 6814.7  | 6767.5  | 6759.9  | 6697.7  |
| 50°    | 6328.2  | 6353.3  | 6317.5  | 6308.5  | 6238.6  |
| 52.5°  | 5860.1  | 5903.4  | 5857.7  | 5845.6  | 5799.3  |
| 55°    | 5402.5  | 5439.7  | 5403.2  | 5394.1  | 5354.6  |
| 57.5°  | 4941.9  | 4990.6  | 4953.3  | 4944.1  | 4912.3  |
| 60°    | 4481.4  | 4495.7  | 4486.6  | 4500.3  | 4469.2  |
| 62.5°  | 4023.8  | 4057.2  | 4067.9  | 4064.0  | 4039.7  |
| 65°    | 3570.0  | 3605.0  | 3605.7  | 3624.0  | 3614.8  |
| 67.5°  | 3105.6  | 3151.2  | 3164.2  | 3183.1  | 3191.4  |
| 70°    | 2668.5  | 2703.5  | 2741.6  | 2752.9  | 2744.5  |
| 72.5°  | 2228.5  | 2284.7  | 2327.3  | 2337.1  | 2372.9  |
| 75°    | 1784.6  | 1837.8  | 1900.2  | 1913.8  | 1929.8  |
| 77.5°  | 1372.7  | 1443.3  | 1499.6  | 1517.9  | 1537.6  |
| 80°    | 982.0   | 1060.2  | 1116.5  | 1141.5  | 1179.6  |
| 82.5°  | 644.5   | 724.4   | 781.3   | 806.4   | 852.8   |
| 85°    | 342.0   | 413.5   | 470.5   | 512.3   | 532.0   |
| 87.5°  | 101.1   | 161.9   | 194.5   | 206.7   | 224.3   |
| 90°    | 0.0     | 7.6     | 9.1     | 20.5    | 19.0    |
| 92.5°  | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 95°    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 97.5°  | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 100°   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 102.5° | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 105°   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |



TEST NUMBER: P730973

CATALOG NUMBER: HBLED-LD5-36HE-W-FLI-UNV-L835

**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|-----|-------|-----|
| 112.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 115°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 117.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 120°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 122.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 125°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 127.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 130°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 132.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 135°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 137.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 140°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 142.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 145°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 147.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 150°   | 0.0 | 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 |



Report Generated By 670246072 / DESKTOP-MV3F9LC







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







|        |     |     |     |     |     |
|--------|-----|-----|-----|-----|-----|
| 107.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 110°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



(END OF REPORT)