

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: P197373

Luminaire Tested: **8WSL-LD2-90-UNV-L830-CD2-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P197373  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P28104)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 8WSL-LD2-90-UNV-L830-CD2-U  
Description: 8FT. Linear Wavestream System, L830  
Light Source: (476) 3000K CCT, 80 CRI LEDS  
EL236N0119D830  
Ballast/Driver: OSRAM  
OT50W

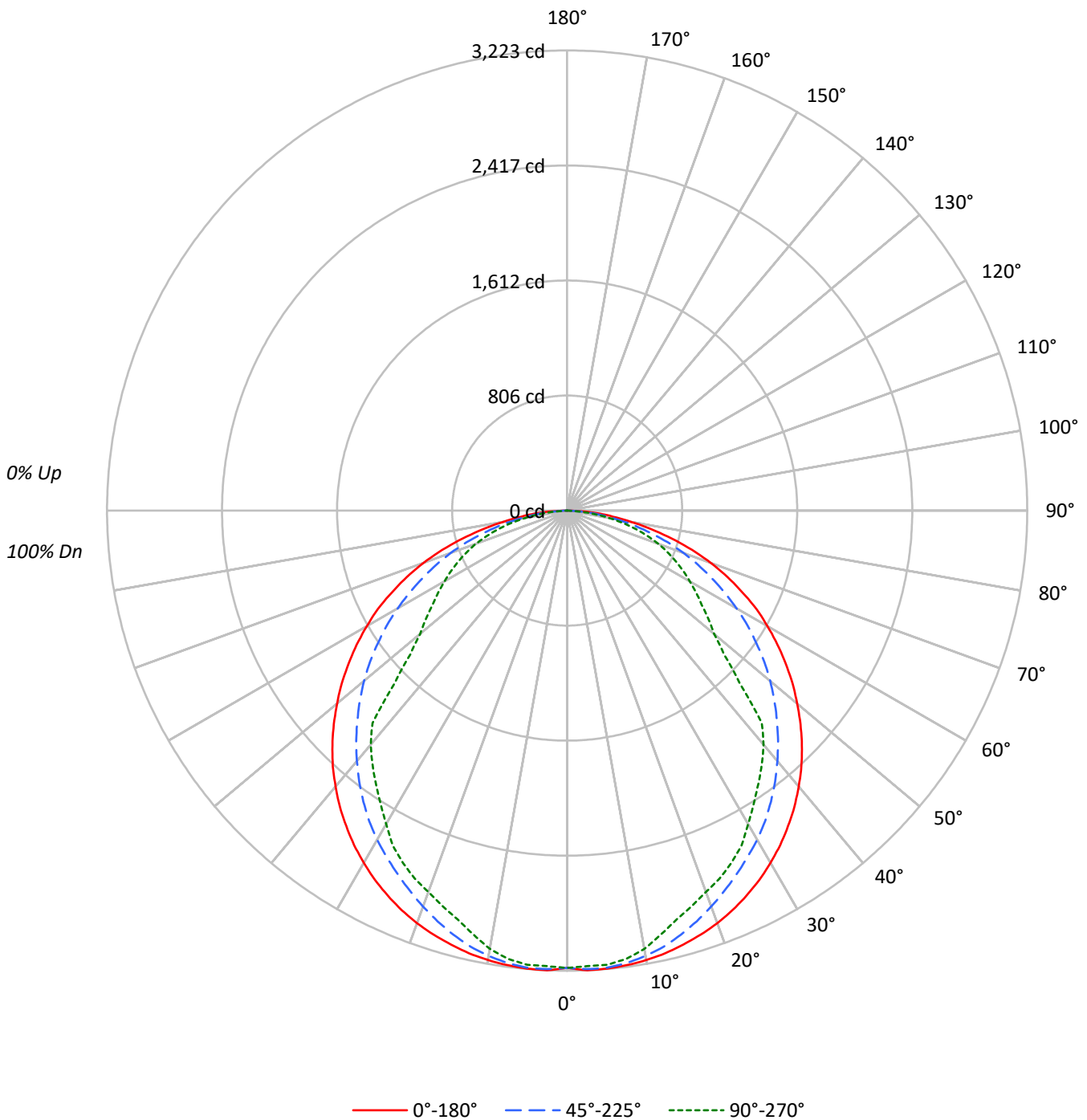
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8921.9 lumens  
Efficiency: N/A  
Efficacy: 110.7 lumens/watt  
Spacing Criteria (0/90/45): 1.32 / 1.18 / 1.35  
Luminous Opening: Rectangular (W 0.5' x L: 7.6' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 80.6  
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  | 0   |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 0   |
| 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  | 94  | 97  | 94  | 91  | 93  | 91  | 88  | 90  | 88  | 86  | 84  |
| 2   | 99  | 90  | 84  | 78  | 96  | 89  | 82  | 77  | 85  | 80  | 75  | 82  | 77  | 73  | 79  | 75  | 72  | 70  |
| 3   | 90  | 79  | 71  | 65  | 88  | 78  | 70  | 64  | 75  | 68  | 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  | 60  | 52  | 46  | 58  | 51  | 46  | 56  | 50  | 45  | 43  |
| 6   | 70  | 57  | 48  | 41  | 68  | 56  | 47  | 41  | 54  | 46  | 41  | 52  | 45  | 40  | 51  | 45  | 40  | 38  |
| 7   | 65  | 51  | 43  | 36  | 63  | 51  | 42  | 36  | 49  | 42  | 36  | 48  | 41  | 36  | 46  | 40  | 35  | 33  |
| 8   | 60  | 47  | 38  | 33  | 59  | 46  | 38  | 32  | 45  | 37  | 32  | 44  | 37  | 32  | 42  | 36  | 32  | 30  |
| 9   | 57  | 43  | 35  | 29  | 55  | 42  | 35  | 29  | 41  | 34  | 29  | 40  | 34  | 29  | 39  | 33  | 29  | 27  |
| 10  | 53  | 40  | 32  | 27  | 52  | 39  | 32  | 26  | 38  | 31  | 26  | 37  | 31  | 26  | 36  | 30  | 26  | 24  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 9071 | 9071 | 9071 |
| 5°  | 9156 | 9140 | 9081 |
| 10° | 9194 | 9110 | 8965 |
| 15° | 9227 | 9019 | 8690 |
| 20° | 9271 | 8897 | 8568 |
| 25° | 9299 | 8782 | 8506 |
| 30° | 9316 | 8708 | 8293 |
| 35° | 9329 | 8604 | 8073 |
| 40° | 9332 | 8470 | 7913 |
| 45° | 9317 | 8324 | 6846 |
| 50° | 9274 | 8182 | 5931 |
| 55° | 9227 | 7988 | 5685 |
| 60° | 9180 | 7759 | 5618 |
| 65° | 9060 | 7478 | 5619 |
| 70° | 8873 | 7187 | 5623 |
| 75° | 8302 | 6622 | 5459 |
| 80° | 7416 | 5729 | 4863 |
| 85° | 6812 | 4414 | 3549 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 304.2  | 3.4       |
| 10°-20°   | 863.4  | 9.7       |
| 20°-30°   | 1301.5 | 14.6      |
| 30°-40°   | 1562.7 | 17.5      |
| 40°-50°   | 1591.5 | 17.8      |
| 50°-60°   | 1396.8 | 15.7      |
| 60°-70°   | 1086.5 | 12.2      |
| 70°-80°   | 646.2  | 7.2       |
| 80°-90°   | 169.1  | 1.9       |
| 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°    | 2469.2 | 27.7      |
| 0°-40°    | 4031.8 | 45.2      |
| 0°-60°    | 7020.1 | 78.7      |
| 0°-90°    | 8921.9 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 8921.9 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 3202 | 3202  | 3202 | 3202  | 3202 |      |
| 5°  | 3220 | 3191  | 3214 | 3202  | 3194 | 307  |
| 15° | 3146 | 3102  | 3076 | 2999  | 2963 | 889  |
| 25° | 2975 | 2907  | 2810 | 2736  | 2721 | 1372 |
| 35° | 2698 | 2612  | 2488 | 2370  | 2335 | 1688 |
| 45° | 2326 | 2249  | 2078 | 1919  | 1709 | 1793 |
| 55° | 1868 | 1812  | 1618 | 1296  | 1151 | 1671 |
| 65° | 1352 | 1299  | 1116 | 880   | 838  | 1339 |
| 75° | 759  | 720   | 605  | 490   | 499  | 802  |
| 85° | 210  | 186   | 136  | 109   | 109  | 230  |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 3202.5 | 3202.5 | 3202.5 | 3202.5 | 3202.5 |
| 2.5°  | 3223.2 | 3190.7 | 3214.3 | 3208.4 | 3193.7 |
| 5°    | 3220.2 | 3190.7 | 3214.3 | 3202.5 | 3193.7 |
| 7.5°  | 3211.4 | 3181.9 | 3196.6 | 3178.9 | 3167.1 |
| 10°   | 3196.6 | 3164.1 | 3167.1 | 3137.6 | 3116.9 |
| 12.5° | 3175.9 | 3137.6 | 3128.7 | 3069.7 | 3040.2 |
| 15°   | 3146.4 | 3102.2 | 3075.6 | 2998.9 | 2963.4 |
| 17.5° | 3114.0 | 3063.8 | 3016.6 | 2931.0 | 2904.4 |
| 20°   | 3075.6 | 3016.6 | 2951.6 | 2863.1 | 2842.4 |
| 22.5° | 3028.4 | 2966.4 | 2880.8 | 2801.1 | 2789.3 |
| 25°   | 2975.2 | 2907.3 | 2809.9 | 2736.2 | 2721.4 |
| 27.5° | 2916.2 | 2836.5 | 2736.2 | 2662.4 | 2644.7 |
| 30°   | 2848.3 | 2765.7 | 2662.4 | 2576.8 | 2535.4 |
| 32.5° | 2777.5 | 2691.9 | 2579.7 | 2470.5 | 2432.1 |
| 35°   | 2697.8 | 2612.2 | 2488.2 | 2370.2 | 2334.7 |
| 37.5° | 2615.1 | 2526.6 | 2393.8 | 2269.8 | 2240.3 |
| 40°   | 2523.6 | 2438.0 | 2290.5 | 2169.4 | 2139.9 |
| 42.5° | 2429.2 | 2346.5 | 2187.2 | 2066.1 | 2018.9 |
| 45°   | 2325.9 | 2249.1 | 2077.9 | 1918.6 | 1709.0 |
| 47.5° | 2216.7 | 2145.8 | 1968.7 | 1732.6 | 1490.6 |
| 50°   | 2104.5 | 2039.6 | 1856.6 | 1567.3 | 1345.9 |
| 52.5° | 1989.4 | 1930.4 | 1741.5 | 1422.7 | 1245.6 |
| 55°   | 1868.4 | 1812.3 | 1617.5 | 1295.8 | 1151.1 |
| 57.5° | 1747.4 | 1691.3 | 1499.4 | 1180.6 | 1071.4 |
| 60°   | 1620.4 | 1567.3 | 1369.6 | 1074.4 | 991.7  |
| 62.5° | 1496.5 | 1437.4 | 1242.6 | 977.0  | 918.0  |
| 65°   | 1351.8 | 1298.7 | 1115.7 | 879.6  | 838.3  |
| 67.5° | 1216.1 | 1160.0 | 991.7  | 785.1  | 761.5  |
| 70°   | 1071.4 | 1015.4 | 867.8  | 687.7  | 678.9  |
| 72.5° | 918.0  | 873.7  | 737.9  | 593.3  | 587.4  |
| 75°   | 758.6  | 720.2  | 605.1  | 490.0  | 498.8  |
| 77.5° | 602.1  | 578.5  | 478.2  | 392.6  | 398.5  |
| 80°   | 454.6  | 436.8  | 351.2  | 292.2  | 298.1  |
| 82.5° | 324.7  | 309.9  | 239.1  | 194.8  | 194.8  |
| 85°   | 209.6  | 186.0  | 135.8  | 109.2  | 109.2  |
| 87.5° | 82.6   | 67.9   | 41.3   | 11.8   | 5.9    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)