

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: LUMIERE

Report Number: P247009

Luminaire Tested: **230-8LED2710-12-BK-LSL**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P247009  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1802-569-25)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMIERE  
Catalog Number: 230-8LED2710-12-BK-LSL  
Description: CAMBRIA 203 LED LUMINAIRE, 8 WATT, 2700K CCT, 10 DEGREE SPOT OPTIC,  
REGRESSED HOOD BLACK, LINEAR SPREAD LENS  
Light Source: (1) SORAA 2700K 95 CRI 10°NSP LED  
SM16-07-10D-927-03  
Ballast/Driver: CHROMA POWER SUPPLY IN0004

**Summary**

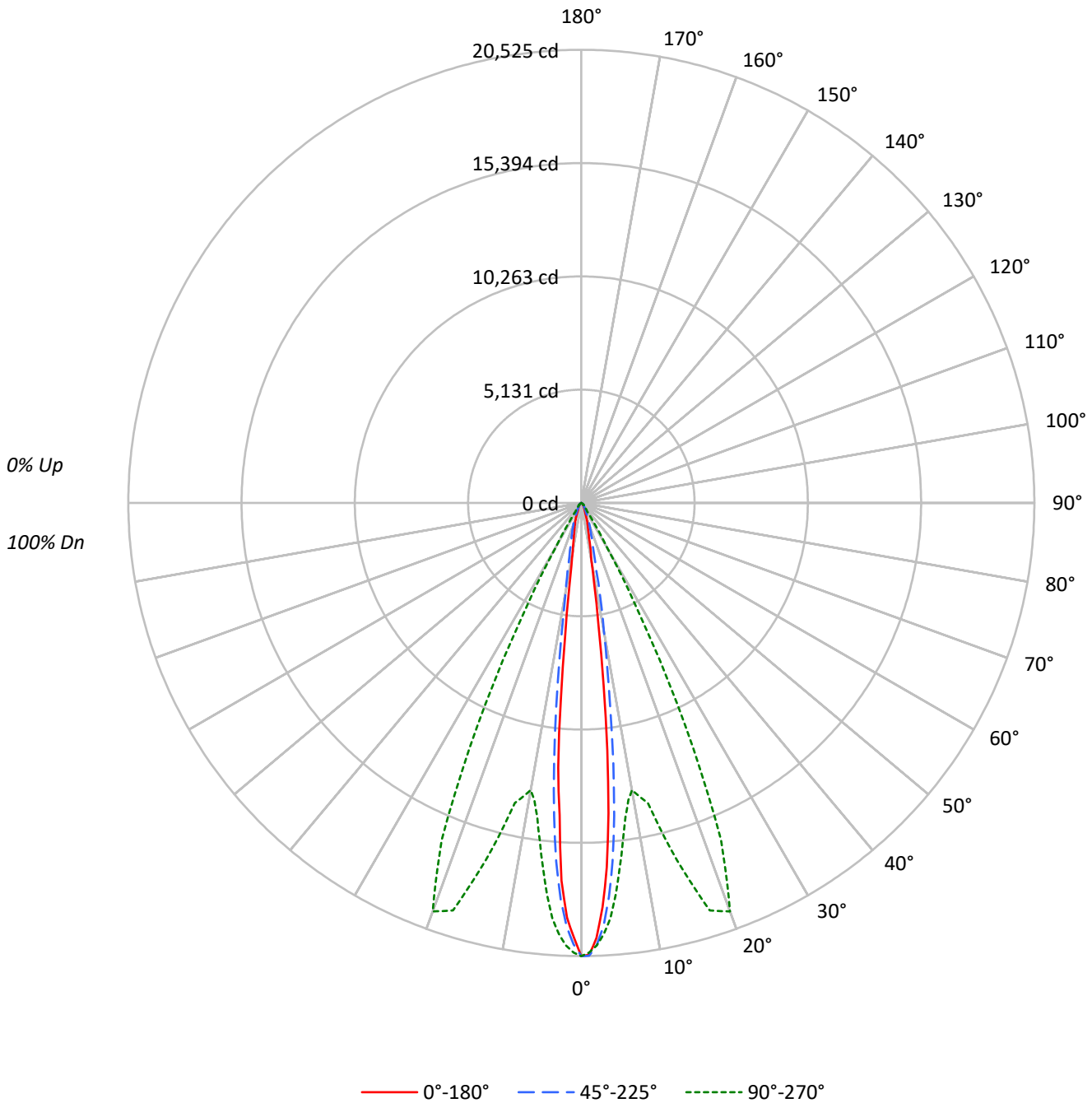
Lumens per Lamp: N/A  
Luminaire Lumens: 4000.0 lumens  
Efficiency: N/A  
Efficacy: 500.0 lumens/watt  
Spacing Criteria (0/90/45): 0.21 / 0.89 / 0.26  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

Input Watts (W): 8  
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   | 115 | 112 | 110 | 108 | 112 | 110 | 108 | 107 | 106 | 105 | 103 | 102 | 101 | 100 | 99  | 98  | 97  | 96  |
| 2   | 110 | 106 | 103 | 100 | 108 | 105 | 102 | 99  | 101 | 99  | 97  | 99  | 97  | 95  | 96  | 94  | 93  | 91  |
| 3   | 106 | 101 | 97  | 94  | 104 | 100 | 96  | 93  | 97  | 94  | 92  | 95  | 92  | 90  | 93  | 91  | 89  | 87  |
| 4   | 102 | 96  | 92  | 88  | 101 | 95  | 91  | 88  | 93  | 90  | 87  | 91  | 88  | 86  | 89  | 87  | 85  | 84  |
| 5   | 99  | 92  | 87  | 84  | 97  | 91  | 87  | 84  | 89  | 86  | 83  | 88  | 85  | 82  | 86  | 84  | 81  | 80  |
| 6   | 95  | 88  | 83  | 80  | 94  | 87  | 83  | 80  | 86  | 82  | 79  | 85  | 81  | 79  | 83  | 81  | 78  | 77  |
| 7   | 92  | 85  | 80  | 77  | 91  | 84  | 79  | 76  | 83  | 79  | 76  | 82  | 78  | 76  | 81  | 78  | 75  | 74  |
| 8   | 89  | 81  | 77  | 73  | 88  | 81  | 76  | 73  | 80  | 76  | 73  | 79  | 75  | 73  | 78  | 75  | 72  | 71  |
| 9   | 86  | 78  | 74  | 71  | 85  | 78  | 74  | 71  | 77  | 73  | 70  | 76  | 73  | 70  | 76  | 72  | 70  | 69  |
| 10  | 83  | 76  | 71  | 68  | 82  | 75  | 71  | 68  | 75  | 71  | 68  | 74  | 70  | 68  | 73  | 70  | 68  | 67  |

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

|     | 0°       | 90°      | 180°     |
|-----|----------|----------|----------|
| 0°  | 10126467 | 10126467 | 10126467 |
| 5°  | 6988227  | 8819268  | 5955255  |
| 10° | 1298117  | 6618087  | 1123822  |
| 15° | 580864   | 8563449  | 613554   |
| 20° | 299012   | 10337425 | 373516   |
| 25° | 189391   | 6072877  | 197884   |
| 30° | 135077   | 1368718  | 152852   |
| 35° | 104259   | 285673   | 114679   |
| 40° | 81409    | 172802   | 91392    |
| 45° | 66425    | 132850   | 77310    |
| 50° | 49124    | 97020    | 61098    |
| 55° | 40170    | 68470    | 55052    |
| 60° | 15393    | 15393    | 30787    |
| 65° | 0        | 0        | 0        |
| 70° | 0        | 0        | 0        |
| 75° | 0        | 0        | 0        |
| 80° | 0        | 0        | 0        |
| 85° | 0        | 0        | 0        |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 1131.7 | 28.3      |
| 10°-20°   | 1436.0 | 35.9      |
| 20°-30°   | 1071.4 | 26.8      |
| 30°-40°   | 200.2  | 5.0       |
| 40°-50°   | 105.7  | 2.6       |
| 50°-60°   | 50.3   | 1.3       |
| 60°-70°   | 4.6    | 0.1       |
| 70°-80°   | 0.0    | 0.0       |
| 80°-90°   | 0.0    | 0.0       |
| 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°    | 3639.2 | 91.0      |
| 0°-40°    | 3839.4 | 96.0      |
| 0°-60°    | 3995.4 | 99.9      |
| 0°-90°    | 4000.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4000.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°    | 45°   | 90°   | 135°  | 180°  | Flux |
|-----|-------|-------|-------|-------|-------|------|
| 0°  | 20525 | 20525 | 20525 | 20525 | 20525 |      |
| 5°  | 14110 | 16275 | 17807 | 14221 | 12024 | 902  |
| 15° | 1137  | 1944  | 16765 | 1769  | 1201  | 340  |
| 25° | 348   | 601   | 11156 | 632   | 364   | 165  |
| 35° | 173   | 237   | 474   | 237   | 190   | 107  |
| 45° | 95    | 126   | 190   | 126   | 111   | 73   |
| 55° | 47    | 47    | 80    | 64    | 64    | 37   |
| 65° | 0     | 0     | 0     | 0     | 0     | 2    |
| 75° | 0     | 0     | 0     | 0     | 0     | 0    |
| 85° | 0     | 0     | 0     | 0     | 0     | 0    |
| 90° | 0     | 0     | 0     | 0     | 0     |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 22.5°   | 45°     | 67.5°   | 90°     | 112.5°  | 135°    | 157.5°  | 180°    |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 20524.7 | 20524.7 | 20524.7 | 20524.7 | 20524.7 | 20524.7 | 20524.7 | 20524.7 | 20524.7 |
| 1°    | 20462.4 | 20524.7 | 20509.1 | 20493.6 | 20367.2 | 20178.5 | 20003.7 | 19830.6 | 19671.4 |
| 2°    | 19704.3 | 19941.4 | 20034.9 | 20161.2 | 20052.2 | 19688.7 | 19166.0 | 18755.8 | 18786.9 |
| 3°    | 18328.2 | 18897.7 | 19181.6 | 19609.1 | 19545.0 | 18928.8 | 17982.1 | 17159.9 | 17128.7 |
| 4°    | 16543.7 | 17270.7 | 17902.4 | 18802.5 | 18851.0 | 17886.9 | 16291.0 | 14963.4 | 14174.1 |
| 5°    | 14110.1 | 15136.5 | 16275.4 | 17680.9 | 17807.2 | 16574.9 | 14220.9 | 12292.7 | 12024.4 |
| 6°    | 11250.7 | 12625.0 | 14236.4 | 16227.0 | 16623.3 | 14901.1 | 11851.3 | 9260.2  | 8879.4  |
| 7°    | 8311.7  | 9843.5  | 11882.5 | 14710.7 | 15437.7 | 13287.9 | 9306.9  | 6463.1  | 6051.1  |
| 8°    | 5530.1  | 7015.2  | 9512.9  | 13146.0 | 14362.8 | 11724.9 | 7046.4  | 4377.4  | 4060.6  |
| 9°    | 3681.6  | 4708.0  | 7427.2  | 11882.5 | 13620.3 | 10475.3 | 5308.6  | 3112.1  | 2843.8  |
| 10°   | 2591.1  | 3191.7  | 5909.2  | 10965.1 | 13210.0 | 9528.5  | 4060.6  | 2433.6  | 2243.2  |
| 12.5° | 1595.9  | 1801.8  | 3129.4  | 9402.1  | 13921.4 | 7679.9  | 2495.9  | 1691.1  | 1580.3  |
| 15°   | 1137.2  | 1296.4  | 1943.8  | 8675.1  | 16765.3 | 6651.8  | 1769.0  | 1296.4  | 1201.2  |
| 17.5° | 853.3   | 979.7   | 1438.4  | 8247.6  | 19356.4 | 5924.8  | 1374.3  | 1010.8  | 932.9   |
| 20°   | 569.5   | 680.2   | 1090.5  | 7283.5  | 19688.7 | 4867.2  | 1074.9  | 806.6   | 711.4   |
| 22.5° | 425.8   | 489.8   | 822.2   | 5261.9  | 16528.1 | 3413.3  | 822.2   | 585.0   | 474.3   |
| 25°   | 347.9   | 379.1   | 600.6   | 2954.6  | 11155.5 | 1990.5  | 631.8   | 425.8   | 363.5   |
| 27.5° | 283.9   | 316.8   | 443.1   | 1453.9  | 5846.9  | 1170.1  | 458.7   | 332.3   | 316.8   |
| 30°   | 237.1   | 252.7   | 347.9   | 758.1   | 2402.5  | 680.2   | 363.5   | 283.9   | 268.3   |
| 32.5° | 190.4   | 221.6   | 283.9   | 458.7   | 964.1   | 443.1   | 283.9   | 237.1   | 221.6   |
| 35°   | 173.1   | 190.4   | 237.1   | 332.3   | 474.3   | 316.8   | 237.1   | 206.0   | 190.4   |
| 37.5° | 141.9   | 173.1   | 206.0   | 252.7   | 332.3   | 252.7   | 206.0   | 190.4   | 173.1   |
| 40°   | 126.4   | 141.9   | 173.1   | 221.6   | 268.3   | 221.6   | 173.1   | 157.5   | 141.9   |
| 42.5° | 110.8   | 126.4   | 157.5   | 173.1   | 221.6   | 173.1   | 157.5   | 141.9   | 126.4   |
| 45°   | 95.2    | 110.8   | 126.4   | 157.5   | 190.4   | 157.5   | 126.4   | 126.4   | 110.8   |
| 47.5° | 79.6    | 95.2    | 110.8   | 126.4   | 157.5   | 126.4   | 110.8   | 95.2    | 95.2    |
| 50°   | 64.0    | 79.6    | 95.2    | 110.8   | 126.4   | 110.8   | 95.2    | 79.6    | 79.6    |
| 52.5° | 46.7    | 64.0    | 79.6    | 79.6    | 95.2    | 79.6    | 79.6    | 64.0    | 64.0    |
| 55°   | 46.7    | 46.7    | 46.7    | 64.0    | 79.6    | 64.0    | 64.0    | 46.7    | 64.0    |
| 57.5° | 31.2    | 31.2    | 31.2    | 31.2    | 31.2    | 31.2    | 46.7    | 46.7    | 46.7    |
| 60°   | 15.6    | 15.6    | 15.6    | 15.6    | 15.6    | 15.6    | 31.2    | 31.2    | 31.2    |
| 62.5° | 0.0     | 0.0     | 0.0     | 0.0     | 15.6    | 15.6    | 15.6    | 15.6    | 15.6    |
| 65°   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 67.5° | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 70°   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 72.5° | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 75°   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 77.5° | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 80°   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 82.5° | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 85°   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 87.5° | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 90°   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |

(END OF REPORT)