

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: G2-1802-569-45

Luminaire Tested: **230-8LED4036-12-CS-LSL**

Test Date: 04/06/18

Test Information

Test Method: LM-79-08
Report Number: G2-1802-569-45
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1802-569-45)
Test Lab: INNOVATION CENTER(G2)
Test Date: 04/06/18
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMIERE
Catalog Number: 230-8LED4036-12-CS-LSL
Description: CAMBRIA 203 LED LUMINAIRE, 8 WATT, 4000K CCT, 36 DEGREE WIDE OPTIC,
REGRESSED HOOD SILVER, LINEAR SPREAD LENS
Light Source: (1) SORAA 4000K 90 CRI LED
SM16-07-36D-940-03
Ballast/Driver: (1) CHROMA POWER SUPPLY IN0004

Summary

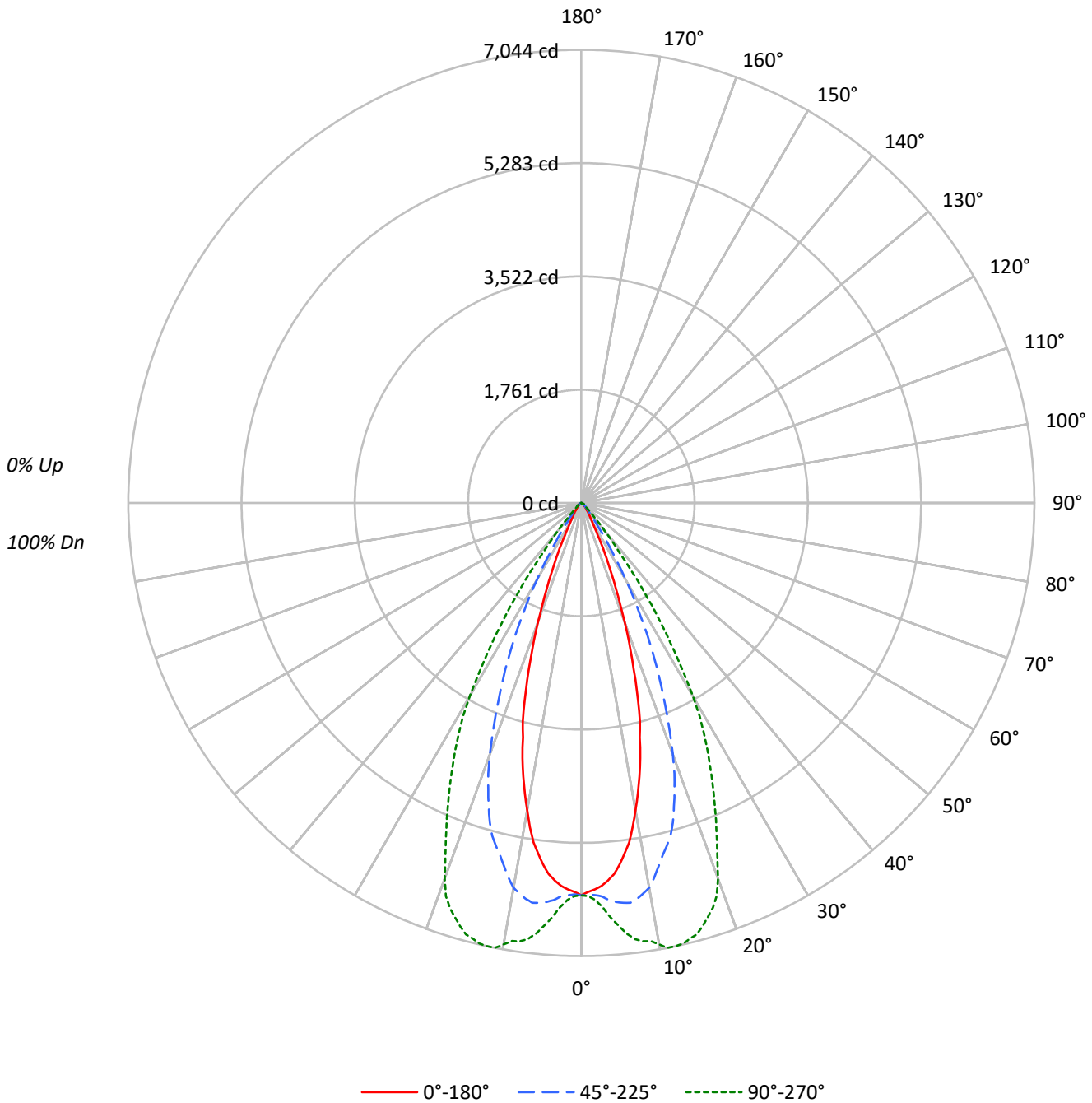
Lumens per Lamp: N/A
Luminaire Lumens: 4000.0 lumens
Efficiency: N/A
Efficacy: 526.3 lumens/watt
Spacing Criteria (0/90/45): 0.55 / 1.02 / 0.74
Luminous Opening: Circular (Dia: 0.17' x H: 0')
CIE Type: Direct

Input Watts (W): 7.6
Input Voltage (V): 12.0
Input Current (Ain): 0.669
Voltage Rise (V): NR
Power Factor: 0.9907
Total Harmonic Distortion (THDi): 27.4
Frequency (hertz): 60
Stabilization Time: 0.5 HR
Operation Time: 3 HR
Ambient Temperature (°C): 25.2
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 | 114 | 111 | 109 | 107 | 111 | 109 | 107 | 105 | 105 | 103 | 102 | 101 | 100 | 99 | 98 | 97 | 96 | 94 |
| 2 | 109 | 104 | 100 | 97 | 107 | 103 | 99 | 96 | 99 | 97 | 94 | 96 | 94 | 92 | 94 | 92 | 90 | 89 |
| 3 | 104 | 98 | 93 | 90 | 102 | 97 | 92 | 89 | 94 | 91 | 88 | 92 | 89 | 86 | 89 | 87 | 85 | 83 |
| 4 | 99 | 92 | 87 | 83 | 98 | 91 | 87 | 83 | 89 | 85 | 82 | 87 | 84 | 81 | 85 | 82 | 80 | 79 |
| 5 | 95 | 87 | 82 | 78 | 93 | 86 | 81 | 78 | 85 | 80 | 77 | 83 | 79 | 76 | 81 | 78 | 76 | 74 |
| 6 | 91 | 83 | 77 | 73 | 89 | 82 | 77 | 73 | 80 | 76 | 73 | 79 | 75 | 72 | 78 | 74 | 72 | 70 |
| 7 | 87 | 78 | 73 | 69 | 86 | 78 | 73 | 69 | 77 | 72 | 69 | 75 | 71 | 68 | 74 | 71 | 68 | 67 |
| 8 | 83 | 75 | 69 | 65 | 82 | 74 | 69 | 65 | 73 | 68 | 65 | 72 | 68 | 65 | 71 | 67 | 65 | 63 |
| 9 | 80 | 71 | 66 | 62 | 79 | 71 | 65 | 62 | 70 | 65 | 62 | 69 | 65 | 62 | 68 | 64 | 61 | 60 |
| 10 | 77 | 68 | 63 | 59 | 76 | 67 | 62 | 59 | 67 | 62 | 59 | 66 | 62 | 59 | 65 | 61 | 59 | 57 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|---------|---------|---------|
| 0° | 3009221 | 3009221 | 3009221 |
| 5° | 2870947 | 3083119 | 3264138 |
| 10° | 2430657 | 3043018 | 3491254 |
| 15° | 1795866 | 2735606 | 3546629 |
| 20° | 1025568 | 2183446 | 3261886 |
| 25° | 466483 | 1481814 | 2627415 |
| 30° | 193814 | 796904 | 1974315 |
| 35° | 113836 | 296033 | 1070176 |
| 40° | 73037 | 121728 | 365247 |
| 45° | 52749 | 70333 | 131874 |
| 50° | 48356 | 58028 | 67699 |
| 55° | 43353 | 43353 | 54191 |
| 60° | 37299 | 37299 | 49733 |
| 65° | 29419 | 29419 | 29419 |
| 70° | 18176 | 18176 | 36352 |
| 75° | 24019 | 24019 | 24019 |
| 80° | 0 | 35800 | 35800 |
| 85° | 0 | 0 | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 586.5 | 14.7 |
| 10°-20° | 1449.0 | 36.2 |
| 20°-30° | 1260.4 | 31.5 |
| 30°-40° | 508.6 | 12.7 |
| 40°-50° | 102.4 | 2.6 |
| 50°-60° | 49.4 | 1.2 |
| 60°-70° | 28.0 | 0.7 |
| 70°-80° | 13.3 | 0.3 |
| 80°-90° | 2.4 | 0.1 |
| 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° | 3295.9 | 82.4 |
| 0°-40° | 3804.5 | 95.1 |
| 0°-60° | 3956.3 | 98.9 |
| 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° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 6099 | 6099 | 6099 | 6099 | 6099 | |
| 5° | 5797 | 5935 | 6225 | 6490 | 6591 | 523 |
| 15° | 3516 | 4121 | 5356 | 6515 | 6944 | 935 |
| 25° | 857 | 1172 | 2722 | 4272 | 4826 | 416 |
| 35° | 189 | 214 | 492 | 1374 | 1777 | 122 |
| 45° | 76 | 88 | 101 | 151 | 189 | 63 |
| 55° | 50 | 50 | 50 | 63 | 63 | 42 |
| 65° | 25 | 25 | 25 | 25 | 25 | 25 |
| 75° | 13 | 13 | 13 | 13 | 13 | 12 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 6099.2 | 6099.2 | 6099.2 | 6099.2 | 6099.2 |
| 1° | 6048.8 | 6074.0 | 6086.6 | 6099.2 | 6111.8 |
| 2° | 6011.0 | 6036.2 | 6099.2 | 6162.2 | 6174.8 |
| 3° | 5960.6 | 6011.0 | 6124.4 | 6250.4 | 6288.2 |
| 4° | 5885.0 | 5985.8 | 6187.4 | 6376.5 | 6452.1 |
| 5° | 5796.8 | 5935.4 | 6225.2 | 6489.9 | 6590.7 |
| 6° | 5658.2 | 5872.4 | 6250.4 | 6590.7 | 6729.3 |
| 7° | 5494.3 | 5759.0 | 6263.0 | 6678.9 | 6830.1 |
| 8° | 5330.5 | 5620.4 | 6212.6 | 6716.7 | 6880.5 |
| 9° | 5103.7 | 5456.5 | 6149.6 | 6678.9 | 6893.1 |
| 10° | 4851.7 | 5280.1 | 6074.0 | 6666.3 | 6968.7 |
| 11° | 4599.6 | 5065.9 | 5935.4 | 6691.5 | 7044.3 |
| 12° | 4347.6 | 4839.1 | 5771.6 | 6716.7 | 7044.3 |
| 13° | 4070.3 | 4612.2 | 5620.4 | 6666.3 | 7031.7 |
| 14° | 3755.3 | 4372.8 | 5494.3 | 6603.3 | 6981.3 |
| 15° | 3515.9 | 4120.8 | 5355.7 | 6515.1 | 6943.5 |
| 16° | 3200.8 | 3843.5 | 5166.7 | 6401.7 | 6842.7 |
| 17° | 2873.2 | 3541.1 | 4927.3 | 6263.0 | 6729.3 |
| 18° | 2545.5 | 3200.8 | 4687.8 | 6111.8 | 6615.9 |
| 19° | 2268.3 | 2835.4 | 4448.4 | 5960.6 | 6464.7 |
| 20° | 1953.3 | 2495.1 | 4158.6 | 5784.2 | 6212.6 |
| 21° | 1688.6 | 2167.5 | 3856.1 | 5557.3 | 5897.6 |
| 22° | 1424.0 | 1877.7 | 3553.7 | 5242.3 | 5620.4 |
| 23° | 1209.8 | 1613.0 | 3263.8 | 4889.5 | 5355.7 |
| 24° | 1020.7 | 1373.6 | 2986.6 | 4574.4 | 5091.1 |
| 25° | 856.9 | 1172.0 | 2722.0 | 4272.0 | 4826.4 |
| 26° | 705.7 | 982.9 | 2444.7 | 3969.5 | 4574.4 |
| 27° | 567.1 | 806.5 | 2167.5 | 3704.9 | 4322.4 |
| 28° | 466.3 | 667.9 | 1890.3 | 3415.1 | 4057.7 |
| 29° | 390.7 | 554.5 | 1650.8 | 3112.6 | 3793.1 |
| 30° | 340.2 | 453.7 | 1398.8 | 2860.6 | 3465.5 |
| 32.5° | 239.4 | 302.4 | 856.9 | 2129.7 | 2583.3 |
| 35° | 189.0 | 214.2 | 491.5 | 1373.6 | 1776.8 |
| 37.5° | 138.6 | 163.8 | 289.8 | 781.3 | 995.5 |
| 40° | 113.4 | 126.0 | 189.0 | 390.7 | 567.1 |
| 42.5° | 100.8 | 100.8 | 138.6 | 226.8 | 289.8 |
| 45° | 75.6 | 88.2 | 100.8 | 151.2 | 189.0 |
| 47.5° | 63.0 | 75.6 | 88.2 | 100.8 | 113.4 |
| 50° | 63.0 | 63.0 | 75.6 | 75.6 | 88.2 |
| 52.5° | 50.4 | 63.0 | 63.0 | 63.0 | 75.6 |
| 55° | 50.4 | 50.4 | 50.4 | 63.0 | 63.0 |
| 57.5° | 37.8 | 37.8 | 50.4 | 50.4 | 50.4 |
| 60° | 37.8 | 37.8 | 37.8 | 50.4 | 50.4 |
| 62.5° | 25.2 | 25.2 | 37.8 | 37.8 | 37.8 |
| 65° | 25.2 | 25.2 | 25.2 | 25.2 | 25.2 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|------|-------|------|-------|------|
| 67.5° | 25.2 | 25.2 | 25.2 | 25.2 | 25.2 |
| 70° | 12.6 | 12.6 | 12.6 | 25.2 | 25.2 |
| 72.5° | 12.6 | 12.6 | 12.6 | 12.6 | 12.6 |
| 75° | 12.6 | 12.6 | 12.6 | 12.6 | 12.6 |
| 77.5° | 12.6 | 12.6 | 12.6 | 12.6 | 12.6 |
| 80° | 0.0 | 0.0 | 12.6 | 12.6 | 12.6 |
| 82.5° | 0.0 | 0.0 | 0.0 | 12.6 | 12.6 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)