

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: METALUX

Report Number: P601498

Luminaire Tested: 22CGSB-60-L930

Issue Date: 1/24/2024

Test Information

Test Method: LM-79-2019
Report Number: P601498
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2307-104-1)
Test Lab: INNOVATION CENTER
Issue Date: 1/24/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 22CGSB-60-L930
Description: 2x2 CGSB AT 6000lm 3000K 90CRI
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

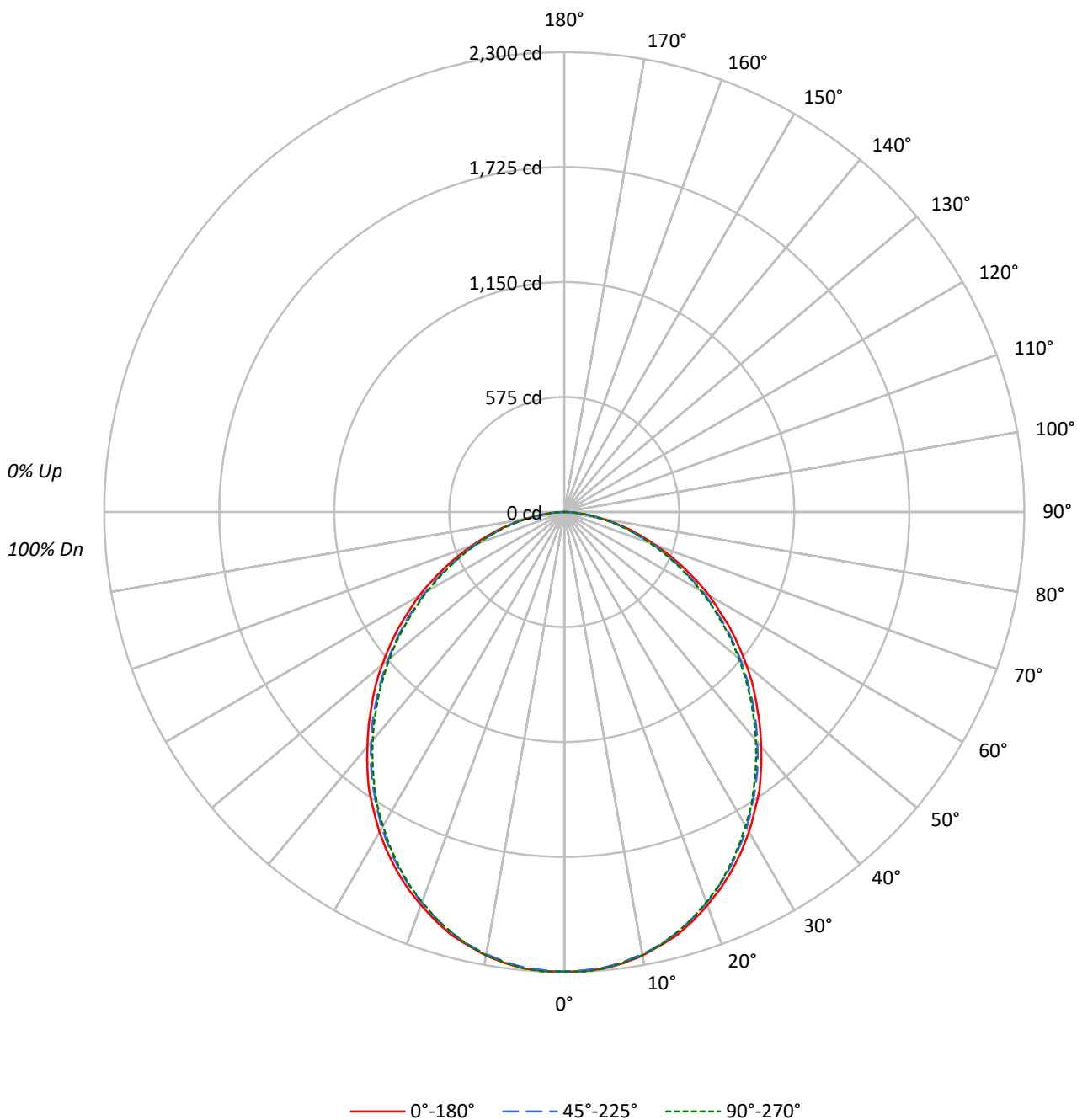
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5743.0 lumens
Efficiency: N/A
Efficacy: 107.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.18 / 1.29
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 53.6
Input Voltage (V): 120
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: 24 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 | 105 | 101 | 97 | 107 | 102 | 99 | 95 | 98 | 95 | 92 | 94 | 92 | 89 | 91 | 89 | 87 | 85 |
| 2 | 100 | 92 | 85 | 80 | 97 | 90 | 84 | 79 | 86 | 81 | 77 | 83 | 79 | 75 | 80 | 77 | 73 | 71 |
| 3 | 91 | 81 | 73 | 67 | 89 | 79 | 72 | 66 | 76 | 70 | 65 | 74 | 68 | 64 | 71 | 67 | 63 | 61 |
| 4 | 84 | 72 | 64 | 57 | 81 | 71 | 63 | 57 | 68 | 61 | 56 | 66 | 60 | 55 | 64 | 59 | 54 | 52 |
| 5 | 77 | 65 | 56 | 49 | 75 | 64 | 55 | 49 | 61 | 54 | 49 | 59 | 53 | 48 | 58 | 52 | 48 | 45 |
| 6 | 71 | 58 | 50 | 43 | 69 | 57 | 49 | 43 | 56 | 48 | 43 | 54 | 47 | 42 | 52 | 47 | 42 | 40 |
| 7 | 66 | 53 | 44 | 38 | 65 | 52 | 44 | 38 | 51 | 43 | 38 | 49 | 43 | 38 | 48 | 42 | 37 | 36 |
| 8 | 62 | 49 | 40 | 34 | 60 | 48 | 40 | 34 | 47 | 39 | 34 | 45 | 39 | 34 | 44 | 38 | 34 | 32 |
| 9 | 58 | 45 | 37 | 31 | 56 | 44 | 36 | 31 | 43 | 36 | 31 | 42 | 35 | 31 | 41 | 35 | 31 | 29 |
| 10 | 54 | 41 | 33 | 28 | 53 | 41 | 33 | 28 | 40 | 33 | 28 | 39 | 32 | 28 | 38 | 32 | 28 | 26 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 6184 | 6184 | 6184 |
| 5° | 6189 | 6177 | 6189 |
| 10° | 6155 | 6136 | 6148 |
| 15° | 6096 | 6065 | 6065 |
| 20° | 5991 | 5958 | 5946 |
| 25° | 5879 | 5825 | 5804 |
| 30° | 5740 | 5669 | 5633 |
| 35° | 5587 | 5482 | 5444 |
| 40° | 5380 | 5275 | 5235 |
| 45° | 5174 | 5052 | 5009 |
| 50° | 4973 | 4811 | 4772 |
| 55° | 4747 | 4575 | 4510 |
| 60° | 4509 | 4312 | 4250 |
| 65° | 4197 | 3994 | 3950 |
| 70° | 3836 | 3692 | 3602 |
| 75° | 3499 | 3284 | 3308 |
| 80° | 3016 | 2837 | 2873 |
| 85° | 2331 | 2260 | 2121 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5174 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 217.1 | 3.8 |
| 10°-20° | 613.8 | 10.7 |
| 20°-30° | 904.1 | 15.7 |
| 30°-40° | 1045.8 | 18.2 |
| 40°-50° | 1028.2 | 17.9 |
| 50°-60° | 876.2 | 15.3 |
| 60°-70° | 627.8 | 10.9 |
| 70°-80° | 341.0 | 5.9 |
| 80°-90° | 89.0 | 1.5 |
| 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° | 1735.0 | 30.2 |
| 0°-40° | 2780.8 | 48.4 |
| 0°-60° | 4685.2 | 81.6 |
| 0°-90° | 5743.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 5743.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2298 | 2298 | 2298 | 2298 | 2298 | |
| 5° | 2291 | 2287 | 2287 | 2287 | 2291 | 217 |
| 15° | 2188 | 2179 | 2177 | 2175 | 2177 | 616 |
| 25° | 1980 | 1971 | 1962 | 1957 | 1955 | 911 |
| 35° | 1701 | 1687 | 1669 | 1660 | 1657 | 1061 |
| 45° | 1360 | 1350 | 1328 | 1316 | 1316 | 1050 |
| 55° | 1012 | 993 | 975 | 964 | 961 | 903 |
| 65° | 659 | 646 | 627 | 620 | 620 | 653 |
| 75° | 336 | 325 | 316 | 311 | 318 | 355 |
| 85° | 76 | 76 | 73 | 71 | 69 | 92 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2298.2 | 2298.2 | 2298.2 | 2298.2 | 2298.2 |
| 2.5° | 2298.2 | 2295.9 | 2293.6 | 2295.9 | 2300.5 |
| 5° | 2291.3 | 2286.8 | 2286.8 | 2286.8 | 2291.3 |
| 7.5° | 2275.3 | 2270.7 | 2268.4 | 2270.7 | 2273.0 |
| 10° | 2252.4 | 2247.8 | 2245.6 | 2247.8 | 2250.1 |
| 12.5° | 2220.4 | 2218.1 | 2215.8 | 2215.8 | 2218.1 |
| 15° | 2188.3 | 2179.2 | 2176.9 | 2174.6 | 2176.9 |
| 17.5° | 2142.6 | 2140.3 | 2131.1 | 2131.1 | 2131.1 |
| 20° | 2092.2 | 2087.6 | 2080.7 | 2076.2 | 2076.2 |
| 22.5° | 2039.5 | 2035.0 | 2023.5 | 2018.9 | 2021.2 |
| 25° | 1980.0 | 1970.9 | 1961.7 | 1957.1 | 1954.8 |
| 27.5° | 1915.9 | 1906.8 | 1893.0 | 1886.2 | 1886.2 |
| 30° | 1847.3 | 1840.4 | 1824.4 | 1815.2 | 1812.9 |
| 32.5° | 1771.7 | 1767.1 | 1744.3 | 1739.7 | 1739.7 |
| 35° | 1700.8 | 1687.0 | 1668.7 | 1659.6 | 1657.3 |
| 37.5° | 1616.1 | 1606.9 | 1588.6 | 1577.2 | 1574.9 |
| 40° | 1531.4 | 1519.9 | 1501.6 | 1492.5 | 1490.2 |
| 42.5° | 1446.7 | 1435.2 | 1416.9 | 1405.5 | 1403.2 |
| 45° | 1359.7 | 1350.5 | 1327.6 | 1316.2 | 1316.2 |
| 47.5° | 1277.3 | 1259.0 | 1238.4 | 1229.2 | 1226.9 |
| 50° | 1188.0 | 1172.0 | 1149.1 | 1139.9 | 1139.9 |
| 52.5° | 1098.7 | 1087.3 | 1062.1 | 1057.5 | 1053.0 |
| 55° | 1011.8 | 993.4 | 975.1 | 963.7 | 961.4 |
| 57.5° | 917.9 | 901.9 | 883.6 | 874.4 | 874.4 |
| 60° | 837.8 | 817.2 | 801.2 | 789.7 | 789.7 |
| 62.5° | 746.2 | 727.9 | 711.9 | 705.0 | 702.7 |
| 65° | 659.2 | 645.5 | 627.2 | 620.3 | 620.3 |
| 67.5° | 572.3 | 560.8 | 544.8 | 537.9 | 540.2 |
| 70° | 487.6 | 480.7 | 469.3 | 460.1 | 457.8 |
| 72.5° | 409.7 | 400.6 | 389.1 | 386.8 | 386.8 |
| 75° | 336.5 | 325.0 | 315.9 | 311.3 | 318.2 |
| 77.5° | 261.0 | 254.1 | 249.5 | 247.2 | 249.5 |
| 80° | 194.6 | 185.4 | 183.1 | 185.4 | 185.4 |
| 82.5° | 135.1 | 130.5 | 128.2 | 128.2 | 128.2 |
| 85° | 75.5 | 75.5 | 73.2 | 71.0 | 68.7 |
| 87.5° | 29.8 | 29.8 | 32.0 | 32.0 | 34.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)