

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: P732256

Luminaire Tested: **24CZ2-45-SQR-B2750-W2D-2700K**

Issue Date: 1/5/2024



Test Information

Test Method: LM-79-08
Report Number: P732256
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P388488)
Test Lab: INNOVATION CENTER (G2)
Issue Date: 1/5/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-45-SQR-B2750-W2D-2700K
Description: 2X4 4500 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 2700K CCT AND SQR LENS

Light Source: -
Ballast/Driver: -

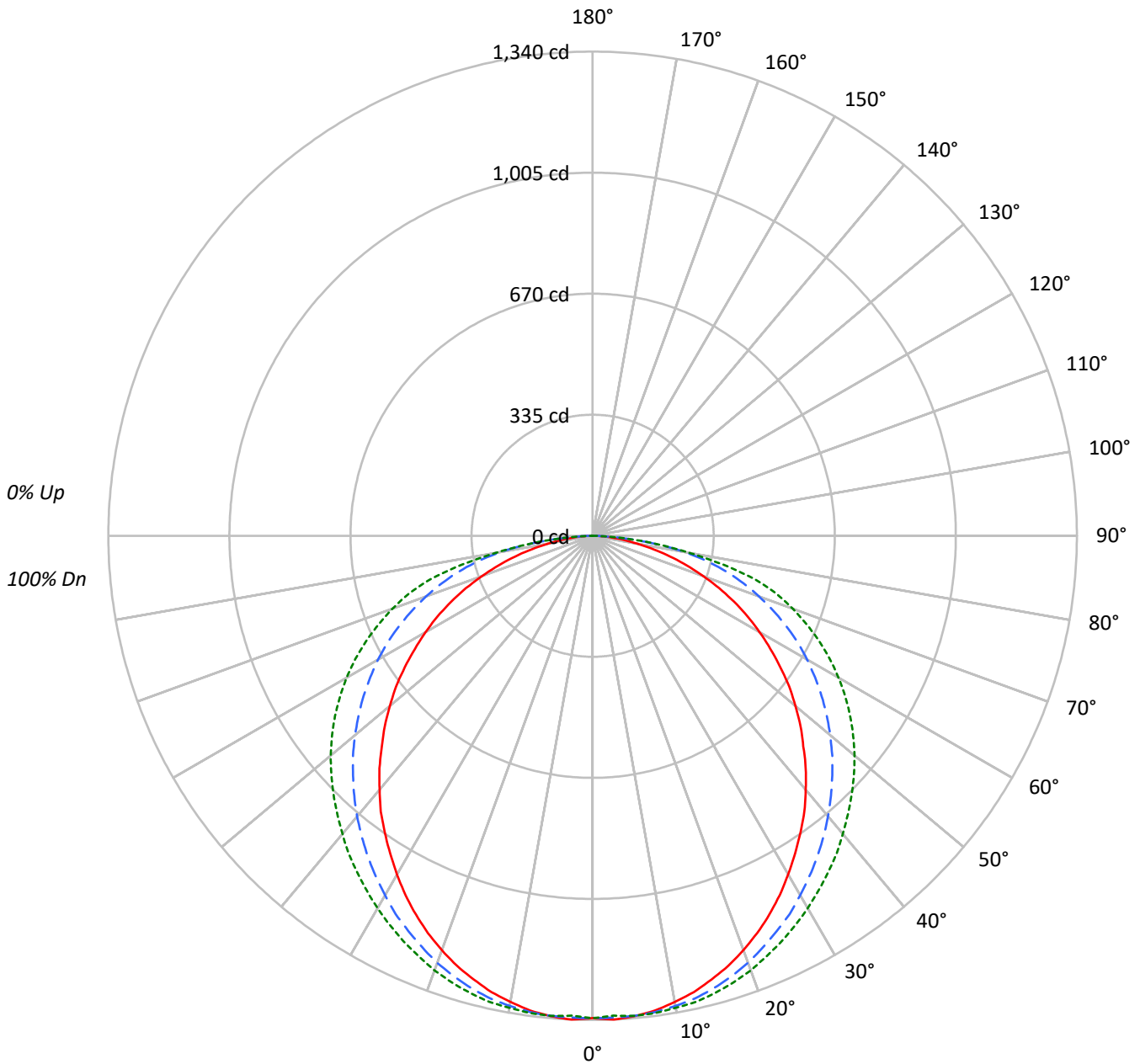
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4176.0 lumens
Efficiency: N/A
Efficacy: 116.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 1.92' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 36
Input Voltage (V): NR
Input Current (A_{in}): 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





TEST NUMBER: P732256

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|-----|
| RF | 20 | | | | 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 | 50 | 30 | 10 | 0 | |
| RCR | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | | | 100 |
| 1 | 108 | 103 | 98 | 94 | 105 | 100 | 96 | 92 | 96 | 93 | 89 | 92 | 89 | 87 | 89 | 86 | 84 | 82 | | | | 82 |
| 2 | 98 | 89 | 81 | 75 | 95 | 87 | 80 | 74 | 83 | 78 | 73 | 80 | 75 | 71 | 77 | 73 | 69 | 67 | | | | 67 |
| 3 | 89 | 77 | 69 | 62 | 86 | 76 | 68 | 61 | 73 | 66 | 60 | 70 | 64 | 59 | 67 | 62 | 58 | 56 | | | | 56 |
| 4 | 81 | 68 | 59 | 52 | 78 | 67 | 58 | 52 | 64 | 57 | 51 | 62 | 55 | 50 | 60 | 54 | 49 | 47 | | | | 47 |
| 5 | 74 | 61 | 51 | 44 | 72 | 60 | 51 | 44 | 57 | 50 | 44 | 55 | 49 | 43 | 54 | 48 | 43 | 41 | | | | 41 |
| 6 | 68 | 55 | 45 | 39 | 66 | 54 | 45 | 38 | 52 | 44 | 38 | 50 | 43 | 38 | 48 | 42 | 37 | 35 | | | | 35 |
| 7 | 63 | 49 | 40 | 34 | 62 | 49 | 40 | 34 | 47 | 39 | 34 | 45 | 39 | 33 | 44 | 38 | 33 | 31 | | | | 31 |
| 8 | 59 | 45 | 36 | 30 | 57 | 44 | 36 | 30 | 43 | 35 | 30 | 42 | 35 | 30 | 40 | 34 | 30 | 28 | | | | 28 |
| 9 | 55 | 41 | 33 | 27 | 54 | 41 | 33 | 27 | 39 | 32 | 27 | 38 | 32 | 27 | 37 | 31 | 27 | 25 | | | | 25 |
| 10 | 52 | 38 | 30 | 25 | 50 | 37 | 30 | 24 | 36 | 29 | 24 | 36 | 29 | 24 | 35 | 29 | 24 | 22 | | | | 22 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 1884 | 1884 | 1884 |
| 5° | 1891 | 1889 | 1889 |
| 10° | 1877 | 1893 | 1901 |
| 15° | 1858 | 1894 | 1914 |
| 20° | 1833 | 1889 | 1922 |
| 25° | 1802 | 1879 | 1928 |
| 30° | 1764 | 1872 | 1940 |
| 35° | 1727 | 1867 | 1958 |
| 40° | 1689 | 1867 | 1984 |
| 45° | 1646 | 1871 | 2023 |
| 50° | 1608 | 1883 | 2077 |
| 55° | 1561 | 1904 | 2141 |
| 60° | 1506 | 1934 | 2219 |
| 65° | 1441 | 1971 | 2312 |
| 70° | 1337 | 2020 | 2430 |
| 75° | 1211 | 2090 | 2542 |
| 80° | 1019 | 2096 | 2185 |
| 85° | 781 | 1585 | 1585 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 126.7 | 3.0 |
| 10°-20° | 364.6 | 8.7 |
| 20°-30° | 553.7 | 13.3 |
| 30°-40° | 673.5 | 16.1 |
| 40°-50° | 717.1 | 17.2 |
| 50°-60° | 683.0 | 16.4 |
| 60°-70° | 571.1 | 13.7 |
| 70°-80° | 380.8 | 9.1 |
| 80°-90° | 105.4 | 2.5 |
| 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° | 1045.0 | 25.0 |
| 0°-40° | 1718.5 | 41.2 |
| 0°-60° | 3118.7 | 74.7 |
| 0°-90° | 4176.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4176.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1335 | 1335 | 1335 | 1335 | 1335 | |
| 5° | 1335 | 1326 | 1334 | 1334 | 1334 | 127 |
| 15° | 1271 | 1274 | 1296 | 1306 | 1310 | 359 |
| 25° | 1157 | 1172 | 1207 | 1227 | 1238 | 533 |
| 35° | 1002 | 1032 | 1084 | 1120 | 1136 | 627 |
| 45° | 825 | 869 | 938 | 990 | 1014 | 637 |
| 55° | 634 | 689 | 774 | 841 | 870 | 567 |
| 65° | 432 | 495 | 590 | 663 | 692 | 426 |
| 75° | 222 | 292 | 383 | 448 | 466 | 235 |
| 85° | 48 | 90 | 98 | 97 | 98 | 58 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P732256

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1334.8 | 1334.8 | 1334.8 | 1334.8 | 1334.8 |
| 2.5° | 1340.3 | 1330.7 | 1334.8 | 1334.8 | 1329.4 |
| 5° | 1334.8 | 1326.5 | 1333.5 | 1333.5 | 1333.5 |
| 7.5° | 1325.3 | 1318.3 | 1329.4 | 1332.1 | 1332.1 |
| 10° | 1310.0 | 1307.4 | 1321.2 | 1325.3 | 1326.5 |
| 12.5° | 1293.6 | 1292.1 | 1311.5 | 1316.9 | 1321.2 |
| 15° | 1271.3 | 1274.2 | 1296.2 | 1305.9 | 1310.0 |
| 17.5° | 1248.0 | 1253.4 | 1278.3 | 1292.1 | 1296.2 |
| 20° | 1220.4 | 1228.7 | 1257.7 | 1271.3 | 1279.8 |
| 22.5° | 1190.2 | 1202.5 | 1232.8 | 1249.3 | 1259.0 |
| 25° | 1157.0 | 1172.1 | 1206.6 | 1227.3 | 1238.4 |
| 27.5° | 1121.2 | 1140.5 | 1180.5 | 1203.8 | 1214.9 |
| 30° | 1082.4 | 1104.5 | 1148.8 | 1176.4 | 1190.2 |
| 32.5° | 1042.5 | 1068.6 | 1117.0 | 1147.3 | 1163.8 |
| 35° | 1002.5 | 1031.6 | 1083.9 | 1119.7 | 1136.2 |
| 37.5° | 962.6 | 991.4 | 1049.5 | 1088.0 | 1108.8 |
| 40° | 917.0 | 951.4 | 1013.6 | 1056.3 | 1077.1 |
| 42.5° | 872.9 | 910.0 | 976.4 | 1023.1 | 1045.4 |
| 45° | 824.6 | 868.8 | 937.6 | 990.2 | 1013.6 |
| 47.5° | 780.5 | 824.6 | 899.1 | 954.3 | 980.5 |
| 50° | 732.3 | 779.0 | 857.7 | 918.5 | 946.1 |
| 52.5° | 685.3 | 733.7 | 816.3 | 881.2 | 908.8 |
| 55° | 634.4 | 689.4 | 773.7 | 841.2 | 870.1 |
| 57.5° | 583.3 | 642.7 | 729.4 | 799.8 | 828.9 |
| 60° | 533.7 | 594.3 | 685.3 | 755.7 | 786.0 |
| 62.5° | 484.1 | 544.6 | 639.8 | 711.5 | 740.5 |
| 65° | 431.5 | 495.0 | 590.1 | 663.3 | 692.3 |
| 67.5° | 379.2 | 445.3 | 540.5 | 613.6 | 641.2 |
| 70° | 324.0 | 394.4 | 489.6 | 561.3 | 588.9 |
| 72.5° | 273.1 | 343.4 | 437.1 | 507.5 | 533.7 |
| 75° | 222.0 | 292.3 | 383.3 | 448.2 | 466.1 |
| 77.5° | 172.4 | 242.7 | 324.0 | 366.8 | 371.0 |
| 80° | 125.4 | 191.8 | 257.9 | 270.3 | 268.8 |
| 82.5° | 84.1 | 143.4 | 178.0 | 179.2 | 183.3 |
| 85° | 48.2 | 89.6 | 97.9 | 96.6 | 97.9 |
| 87.5° | 19.4 | 31.7 | 27.6 | 20.6 | 20.6 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



Report Generated By 670246072 / DESKTOP-50001EG





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







(END OF REPORT)