

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: P732409

Luminaire Tested: **24CZ2-65HE-SQR-B2750-W2D-4000K**

Issue Date: 1/5/2024



Test Information

Test Method: LM-79-08
Report Number: P732409
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: 24CZ2-65HE-SQR-B2750-W2D-4000K
Description: 2X4 6500 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 4000K CCT AND SQR LENS

Light Source: -
Ballast/Driver: -

Summary

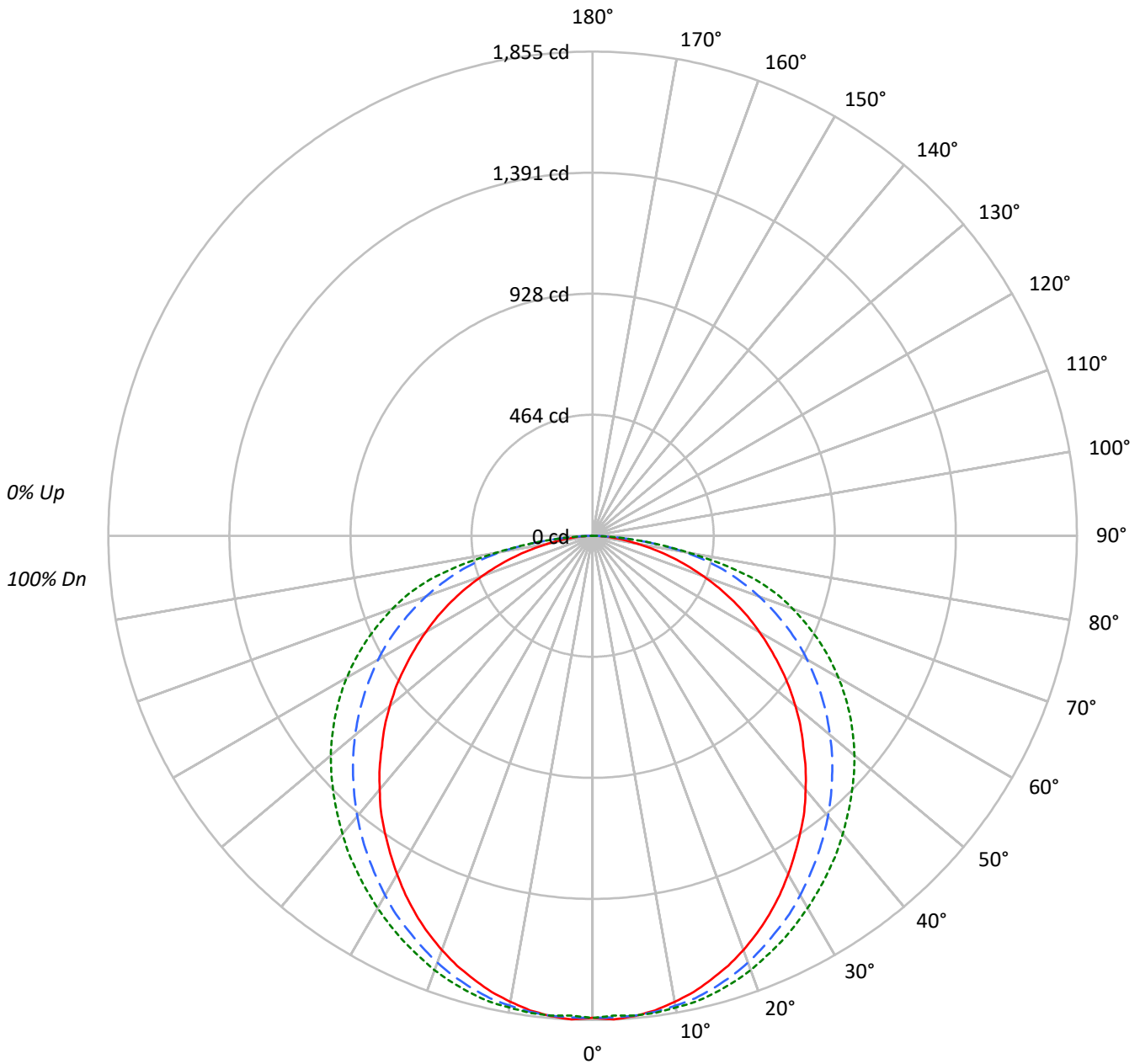
Lumens per Lamp: N/A
Luminaire Lumens: 5779.0 lumens
Efficiency: N/A
Efficacy: 115.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 1.92' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 50
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





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

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2607 | 2607 | 2607 |
| 5° | 2617 | 2614 | 2614 |
| 10° | 2598 | 2620 | 2631 |
| 15° | 2571 | 2621 | 2649 |
| 20° | 2537 | 2614 | 2660 |
| 25° | 2493 | 2600 | 2669 |
| 30° | 2441 | 2591 | 2684 |
| 35° | 2390 | 2584 | 2709 |
| 40° | 2338 | 2584 | 2746 |
| 45° | 2278 | 2590 | 2800 |
| 50° | 2225 | 2606 | 2875 |
| 55° | 2160 | 2634 | 2963 |
| 60° | 2085 | 2677 | 3071 |
| 65° | 1994 | 2727 | 3199 |
| 70° | 1850 | 2796 | 3363 |
| 75° | 1676 | 2893 | 3518 |
| 80° | 1411 | 2901 | 3023 |
| 85° | 1080 | 2193 | 2193 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 175.3 | 3.0 |
| 10°-20° | 504.5 | 8.7 |
| 20°-30° | 766.3 | 13.3 |
| 30°-40° | 932.1 | 16.1 |
| 40°-50° | 992.4 | 17.2 |
| 50°-60° | 945.2 | 16.4 |
| 60°-70° | 790.4 | 13.7 |
| 70°-80° | 527.0 | 9.1 |
| 80°-90° | 145.8 | 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° | 1446.1 | 25.0 |
| 0°-40° | 2378.2 | 41.2 |
| 0°-60° | 4315.8 | 74.7 |
| 0°-90° | 5779.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 5779.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1847 | 1847 | 1847 | 1847 | 1847 | |
| 5° | 1847 | 1836 | 1845 | 1845 | 1845 | 175 |
| 15° | 1759 | 1763 | 1794 | 1807 | 1813 | 496 |
| 25° | 1601 | 1622 | 1670 | 1698 | 1714 | 737 |
| 35° | 1387 | 1428 | 1500 | 1550 | 1572 | 868 |
| 45° | 1141 | 1202 | 1298 | 1370 | 1403 | 882 |
| 55° | 878 | 954 | 1071 | 1164 | 1204 | 785 |
| 65° | 597 | 685 | 817 | 918 | 958 | 590 |
| 75° | 307 | 404 | 530 | 620 | 645 | 326 |
| 85° | 67 | 124 | 135 | 134 | 135 | 81 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P732409

CATALOG NUMBER: 24CZ2-65HE-SQR-B2750-W2D-4000K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1847.1 | 1847.1 | 1847.1 | 1847.1 | 1847.1 |
| 2.5° | 1854.8 | 1841.4 | 1847.1 | 1847.1 | 1839.7 |
| 5° | 1847.1 | 1835.7 | 1845.4 | 1845.4 | 1845.4 |
| 7.5° | 1834.0 | 1824.3 | 1839.7 | 1843.4 | 1843.4 |
| 10° | 1812.9 | 1809.2 | 1828.3 | 1834.0 | 1835.7 |
| 12.5° | 1790.1 | 1788.1 | 1814.9 | 1822.3 | 1828.3 |
| 15° | 1759.4 | 1763.3 | 1793.8 | 1807.2 | 1812.9 |
| 17.5° | 1727.1 | 1734.6 | 1769.0 | 1788.1 | 1793.8 |
| 20° | 1688.9 | 1700.3 | 1740.5 | 1759.4 | 1771.0 |
| 22.5° | 1647.0 | 1664.1 | 1706.0 | 1728.8 | 1742.2 |
| 25° | 1601.1 | 1622.0 | 1669.8 | 1698.3 | 1713.7 |
| 27.5° | 1551.5 | 1578.3 | 1633.6 | 1665.9 | 1681.2 |
| 30° | 1498.0 | 1528.5 | 1589.7 | 1627.9 | 1647.0 |
| 32.5° | 1442.7 | 1478.9 | 1545.8 | 1587.7 | 1610.6 |
| 35° | 1387.3 | 1427.5 | 1499.9 | 1549.5 | 1572.4 |
| 37.5° | 1332.0 | 1372.0 | 1452.3 | 1505.6 | 1534.4 |
| 40° | 1269.0 | 1316.7 | 1402.7 | 1461.7 | 1490.5 |
| 42.5° | 1208.0 | 1259.4 | 1351.1 | 1415.9 | 1446.6 |
| 45° | 1141.1 | 1202.3 | 1297.6 | 1370.2 | 1402.7 |
| 47.5° | 1080.1 | 1141.1 | 1244.2 | 1320.6 | 1356.8 |
| 50° | 1013.4 | 1078.1 | 1187.0 | 1271.0 | 1309.2 |
| 52.5° | 948.4 | 1015.3 | 1129.7 | 1219.4 | 1257.6 |
| 55° | 877.9 | 954.1 | 1070.6 | 1164.1 | 1204.1 |
| 57.5° | 807.3 | 889.3 | 1009.4 | 1106.9 | 1147.0 |
| 60° | 738.6 | 822.4 | 948.4 | 1045.8 | 1087.8 |
| 62.5° | 669.9 | 753.7 | 885.4 | 984.6 | 1024.8 |
| 65° | 597.2 | 685.0 | 816.7 | 917.9 | 958.0 |
| 67.5° | 524.8 | 616.3 | 748.0 | 849.2 | 887.4 |
| 70° | 448.4 | 545.9 | 677.6 | 776.8 | 814.9 |
| 72.5° | 378.0 | 475.2 | 604.9 | 702.4 | 738.6 |
| 75° | 307.3 | 404.5 | 530.5 | 620.3 | 645.1 |
| 77.5° | 238.6 | 335.8 | 448.4 | 507.7 | 513.4 |
| 80° | 173.6 | 265.4 | 356.9 | 374.0 | 372.0 |
| 82.5° | 116.3 | 198.4 | 246.3 | 248.0 | 253.7 |
| 85° | 66.7 | 124.0 | 135.4 | 133.7 | 135.4 |
| 87.5° | 26.8 | 43.9 | 38.2 | 28.5 | 28.5 |
| 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)