

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: P843159

Luminaire Tested: **24CZ2-60HE-UNV-B50**

Issue Date: 1/5/2024



Test Information

Test Method: LM-79-08
Report Number: P843159
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P272125)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 1/5/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-60HE-UNV-B50
Description: 2X4 6000 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 5000K CCT AND RIBBED LENS

Light Source: -
Ballast/Driver: -

Summary

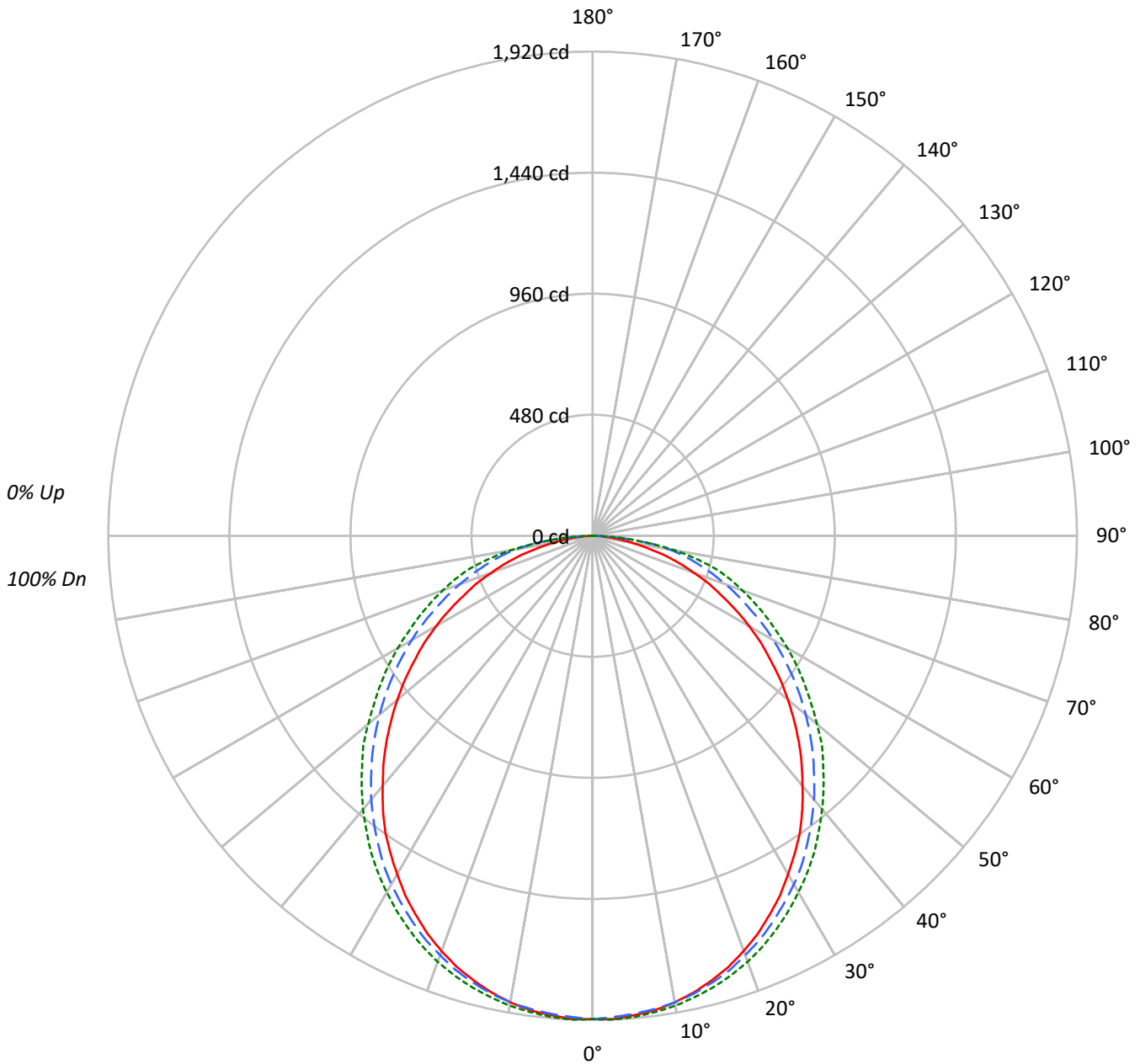
Lumens per Lamp: N/A
Luminaire Lumens: 5456.0 lumens
Efficiency: N/A
Efficacy: 121.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 1.92' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 45
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 | | | | | | | | | |
| RC | 80 | | | | | | | | | 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 | 99 | 95 | 106 | 101 | 97 | 93 | 97 | 93 | 90 | 93 | 90 | 88 | 89 | 87 | 85 | 83 | | | | | | | | | | | | | | | | | | | |
| 2 | 98 | 90 | 83 | 77 | 96 | 88 | 81 | 76 | 84 | 79 | 74 | 81 | 76 | 72 | 78 | 74 | 71 | 69 | | | | | | | | | | | | | | | | | | | |
| 3 | 89 | 79 | 70 | 64 | 87 | 77 | 69 | 63 | 74 | 67 | 62 | 71 | 66 | 61 | 69 | 64 | 60 | 58 | | | | | | | | | | | | | | | | | | | |
| 4 | 82 | 70 | 61 | 54 | 80 | 68 | 60 | 54 | 66 | 59 | 53 | 63 | 57 | 52 | 61 | 56 | 51 | 49 | | | | | | | | | | | | | | | | | | | |
| 5 | 75 | 62 | 53 | 46 | 73 | 61 | 53 | 46 | 59 | 51 | 46 | 57 | 50 | 45 | 55 | 49 | 45 | 42 | | | | | | | | | | | | | | | | | | | |
| 6 | 70 | 56 | 47 | 40 | 68 | 55 | 47 | 40 | 53 | 46 | 40 | 52 | 45 | 40 | 50 | 44 | 39 | 37 | | | | | | | | | | | | | | | | | | | |
| 7 | 64 | 51 | 42 | 36 | 63 | 50 | 42 | 36 | 48 | 41 | 35 | 47 | 40 | 35 | 46 | 39 | 35 | 33 | | | | | | | | | | | | | | | | | | | |
| 8 | 60 | 46 | 38 | 32 | 58 | 46 | 37 | 32 | 44 | 37 | 32 | 43 | 36 | 31 | 42 | 36 | 31 | 29 | | | | | | | | | | | | | | | | | | | |
| 9 | 56 | 43 | 34 | 29 | 55 | 42 | 34 | 29 | 41 | 34 | 28 | 40 | 33 | 28 | 39 | 33 | 28 | 26 | | | | | | | | | | | | | | | | | | | |
| 10 | 53 | 39 | 31 | 26 | 51 | 39 | 31 | 26 | 38 | 31 | 26 | 37 | 30 | 26 | 36 | 30 | 26 | 24 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2705 | 2705 | 2705 |
| 5° | 2703 | 2696 | 2713 |
| 10° | 2692 | 2692 | 2712 |
| 15° | 2666 | 2679 | 2707 |
| 20° | 2632 | 2657 | 2699 |
| 25° | 2583 | 2631 | 2683 |
| 30° | 2525 | 2601 | 2660 |
| 35° | 2469 | 2559 | 2640 |
| 40° | 2385 | 2516 | 2609 |
| 45° | 2307 | 2466 | 2581 |
| 50° | 2218 | 2420 | 2550 |
| 55° | 2119 | 2375 | 2525 |
| 60° | 2020 | 2338 | 2519 |
| 65° | 1893 | 2298 | 2535 |
| 70° | 1752 | 2310 | 2603 |
| 75° | 1569 | 2354 | 2750 |
| 80° | 1268 | 2493 | 2690 |
| 85° | 954 | 2188 | 2134 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 181.5 | 3.3 |
| 10°-20° | 518.5 | 9.5 |
| 20°-30° | 779.4 | 14.3 |
| 30°-40° | 928.4 | 17.0 |
| 40°-50° | 950.2 | 17.4 |
| 50°-60° | 855.5 | 15.7 |
| 60°-70° | 671.8 | 12.3 |
| 70°-80° | 436.0 | 8.0 |
| 80°-90° | 134.8 | 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° | 1479.3 | 27.1 |
| 0°-40° | 2407.7 | 44.1 |
| 0°-60° | 4213.4 | 77.2 |
| 0°-90° | 5456.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 5456.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1917 | 1917 | 1917 | 1917 | 1917 | |
| 5° | 1908 | 1912 | 1903 | 1913 | 1915 | 181 |
| 15° | 1825 | 1830 | 1834 | 1849 | 1853 | 515 |
| 25° | 1658 | 1672 | 1690 | 1717 | 1723 | 764 |
| 35° | 1433 | 1451 | 1485 | 1522 | 1532 | 894 |
| 45° | 1156 | 1184 | 1236 | 1282 | 1293 | 891 |
| 55° | 861 | 900 | 965 | 1016 | 1026 | 772 |
| 65° | 567 | 610 | 688 | 745 | 759 | 564 |
| 75° | 288 | 343 | 432 | 490 | 504 | 304 |
| 85° | 59 | 109 | 135 | 132 | 132 | 71 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P843159

CATALOG NUMBER: 24CZ2-60HE-UNV-B50

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1916.8 | 1916.8 | 1916.8 | 1916.8 | 1916.8 |
| 2.5° | 1918.5 | 1918.5 | 1909.7 | 1918.5 | 1920.2 |
| 5° | 1908.0 | 1911.6 | 1902.8 | 1913.3 | 1914.9 |
| 7.5° | 1897.6 | 1897.6 | 1892.4 | 1902.8 | 1904.7 |
| 10° | 1878.6 | 1880.3 | 1878.6 | 1890.7 | 1892.4 |
| 12.5° | 1854.4 | 1857.7 | 1859.6 | 1871.7 | 1873.4 |
| 15° | 1824.9 | 1830.2 | 1833.5 | 1849.2 | 1852.7 |
| 17.5° | 1792.0 | 1797.2 | 1805.7 | 1823.1 | 1826.6 |
| 20° | 1752.1 | 1759.0 | 1769.4 | 1792.0 | 1797.2 |
| 22.5° | 1708.8 | 1715.7 | 1733.1 | 1753.7 | 1762.5 |
| 25° | 1658.5 | 1672.3 | 1689.6 | 1717.4 | 1722.6 |
| 27.5° | 1608.2 | 1620.3 | 1642.9 | 1672.3 | 1679.4 |
| 30° | 1549.3 | 1568.3 | 1596.1 | 1625.5 | 1632.4 |
| 32.5° | 1492.1 | 1511.1 | 1544.1 | 1575.4 | 1584.0 |
| 35° | 1433.2 | 1450.6 | 1485.2 | 1521.6 | 1532.0 |
| 37.5° | 1365.6 | 1388.1 | 1426.3 | 1462.7 | 1473.1 |
| 40° | 1294.6 | 1322.4 | 1365.6 | 1403.8 | 1415.9 |
| 42.5° | 1226.9 | 1256.4 | 1299.8 | 1341.4 | 1355.1 |
| 45° | 1155.9 | 1183.7 | 1235.7 | 1282.5 | 1292.9 |
| 47.5° | 1083.1 | 1114.4 | 1169.7 | 1216.5 | 1233.8 |
| 50° | 1010.4 | 1043.4 | 1102.3 | 1150.7 | 1161.2 |
| 52.5° | 937.5 | 972.2 | 1034.6 | 1086.6 | 1091.8 |
| 55° | 861.3 | 899.5 | 965.3 | 1015.6 | 1026.1 |
| 57.5° | 792.0 | 825.0 | 896.0 | 948.0 | 960.1 |
| 60° | 715.8 | 752.1 | 828.3 | 877.0 | 892.4 |
| 62.5° | 642.9 | 681.1 | 760.9 | 809.3 | 823.1 |
| 65° | 566.7 | 610.1 | 688.0 | 745.2 | 759.0 |
| 67.5° | 500.9 | 542.5 | 625.6 | 681.1 | 694.9 |
| 70° | 424.5 | 471.5 | 559.8 | 617.0 | 630.8 |
| 72.5° | 358.7 | 407.2 | 495.7 | 551.0 | 571.9 |
| 75° | 287.7 | 343.1 | 431.6 | 490.5 | 504.3 |
| 77.5° | 218.4 | 282.5 | 372.5 | 417.6 | 417.6 |
| 80° | 156.0 | 223.6 | 306.7 | 327.6 | 331.0 |
| 82.5° | 102.3 | 168.1 | 227.0 | 225.3 | 225.3 |
| 85° | 58.9 | 109.2 | 135.1 | 131.8 | 131.8 |
| 87.5° | 22.6 | 45.1 | 48.4 | 48.4 | 46.8 |
| 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)