

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: P843123

Luminaire Tested: **24CZ2-50HE-S-UNV-B50**

Issue Date: 1/5/2024

Test Information

Test Method: LM-79-08
Report Number: P843123
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: 24CZ2-50HE-S-UNV-B50
Description: 2X4 5000 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 5000K CCT AND SMOOTH LENS

Light Source: -
Ballast/Driver: -

Summary

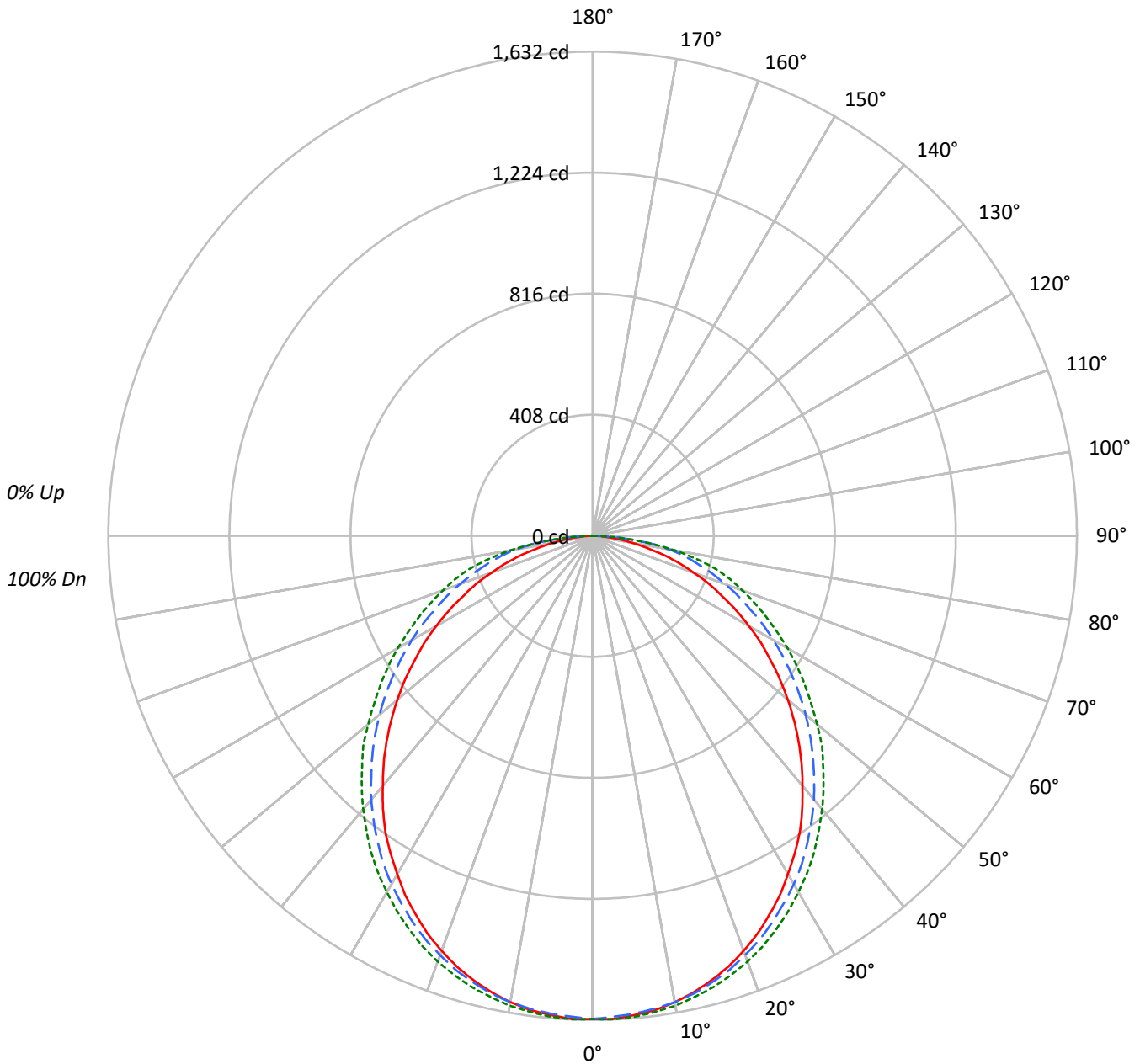
Lumens per Lamp: N/A
Luminaire Lumens: 4636.0 lumens
Efficiency: N/A
Efficacy: 125.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 1.92' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 37
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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CATALOG NUMBER: 24CZ2-50HE-S-UNV-B50

Luminous Intensity Polar Plot





TEST NUMBER: P843123

CATALOG NUMBER: 24CZ2-50HE-S-UNV-B50

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° | 2299 | 2299 | 2299 |
| 5° | 2297 | 2291 | 2305 |
| 10° | 2288 | 2288 | 2304 |
| 15° | 2266 | 2276 | 2300 |
| 20° | 2236 | 2258 | 2294 |
| 25° | 2195 | 2236 | 2279 |
| 30° | 2145 | 2210 | 2261 |
| 35° | 2098 | 2174 | 2243 |
| 40° | 2027 | 2138 | 2217 |
| 45° | 1960 | 2096 | 2193 |
| 50° | 1885 | 2056 | 2166 |
| 55° | 1801 | 2018 | 2145 |
| 60° | 1717 | 1987 | 2140 |
| 65° | 1608 | 1952 | 2154 |
| 70° | 1488 | 1963 | 2212 |
| 75° | 1333 | 2000 | 2337 |
| 80° | 1077 | 2118 | 2285 |
| 85° | 810 | 1859 | 1814 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 154.2 | 3.3 |
| 10°-20° | 440.6 | 9.5 |
| 20°-30° | 662.3 | 14.3 |
| 30°-40° | 788.9 | 17.0 |
| 40°-50° | 807.4 | 17.4 |
| 50°-60° | 726.9 | 15.7 |
| 60°-70° | 570.8 | 12.3 |
| 70°-80° | 370.5 | 8.0 |
| 80°-90° | 114.6 | 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° | 1257.0 | 27.1 |
| 0°-40° | 2045.9 | 44.1 |
| 0°-60° | 3580.1 | 77.2 |
| 0°-90° | 4636.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4636.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1629 | 1629 | 1629 | 1629 | 1629 | |
| 5° | 1621 | 1624 | 1617 | 1626 | 1627 | 154 |
| 15° | 1551 | 1555 | 1558 | 1571 | 1574 | 437 |
| 25° | 1409 | 1421 | 1436 | 1459 | 1464 | 649 |
| 35° | 1218 | 1232 | 1262 | 1293 | 1302 | 760 |
| 45° | 982 | 1006 | 1050 | 1090 | 1099 | 757 |
| 55° | 732 | 764 | 820 | 863 | 872 | 656 |
| 65° | 482 | 518 | 585 | 633 | 645 | 479 |
| 75° | 244 | 292 | 367 | 417 | 428 | 259 |
| 85° | 50 | 93 | 115 | 112 | 112 | 60 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P843123

CATALOG NUMBER: 24CZ2-50HE-S-UNV-B50

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1628.7 | 1628.7 | 1628.7 | 1628.7 | 1628.7 |
| 2.5° | 1630.2 | 1630.2 | 1622.7 | 1630.2 | 1631.6 |
| 5° | 1621.3 | 1624.3 | 1616.8 | 1625.7 | 1627.1 |
| 7.5° | 1612.4 | 1612.4 | 1608.0 | 1616.8 | 1618.4 |
| 10° | 1596.3 | 1597.7 | 1596.3 | 1606.6 | 1608.0 |
| 12.5° | 1575.7 | 1578.5 | 1580.1 | 1590.4 | 1591.8 |
| 15° | 1550.7 | 1555.1 | 1557.9 | 1571.2 | 1574.3 |
| 17.5° | 1522.6 | 1527.1 | 1534.3 | 1549.1 | 1552.1 |
| 20° | 1488.7 | 1494.6 | 1503.5 | 1522.6 | 1527.1 |
| 22.5° | 1452.0 | 1457.9 | 1472.6 | 1490.2 | 1497.6 |
| 25° | 1409.3 | 1421.0 | 1435.7 | 1459.3 | 1463.7 |
| 27.5° | 1366.5 | 1376.8 | 1396.0 | 1421.0 | 1427.0 |
| 30° | 1316.5 | 1332.6 | 1356.2 | 1381.2 | 1387.1 |
| 32.5° | 1267.9 | 1284.0 | 1312.0 | 1338.6 | 1345.9 |
| 35° | 1217.8 | 1232.5 | 1262.0 | 1292.9 | 1301.7 |
| 37.5° | 1160.3 | 1179.5 | 1212.0 | 1242.8 | 1251.7 |
| 40° | 1100.0 | 1123.6 | 1160.3 | 1192.8 | 1203.1 |
| 42.5° | 1042.5 | 1067.5 | 1104.5 | 1139.8 | 1151.5 |
| 45° | 982.2 | 1005.8 | 1050.0 | 1089.7 | 1098.6 |
| 47.5° | 920.3 | 946.9 | 993.9 | 1033.7 | 1048.4 |
| 50° | 858.5 | 886.6 | 936.6 | 977.8 | 986.6 |
| 52.5° | 796.6 | 826.1 | 879.1 | 923.3 | 927.7 |
| 55° | 731.9 | 764.3 | 820.2 | 863.0 | 871.9 |
| 57.5° | 673.0 | 701.0 | 761.3 | 805.5 | 815.8 |
| 60° | 608.2 | 639.1 | 703.8 | 745.2 | 758.3 |
| 62.5° | 546.3 | 578.8 | 646.5 | 687.7 | 699.4 |
| 65° | 481.5 | 518.4 | 584.6 | 633.2 | 644.9 |
| 67.5° | 425.6 | 460.9 | 531.6 | 578.8 | 590.5 |
| 70° | 360.7 | 400.6 | 475.7 | 524.3 | 536.0 |
| 72.5° | 304.8 | 346.0 | 421.2 | 468.2 | 486.0 |
| 75° | 244.5 | 291.5 | 366.7 | 416.8 | 428.5 |
| 77.5° | 185.6 | 240.1 | 316.5 | 354.8 | 354.8 |
| 80° | 132.5 | 190.0 | 260.6 | 278.4 | 281.2 |
| 82.5° | 86.9 | 142.8 | 192.9 | 191.4 | 191.4 |
| 85° | 50.0 | 92.8 | 114.8 | 112.0 | 112.0 |
| 87.5° | 19.2 | 38.3 | 41.2 | 41.2 | 39.7 |
| 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)