

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: P732038

Luminaire Tested: **22CZ2-39HE-B2750-W2D-3500K**

Issue Date: 1/5/2024



Test Information

Test Method: LM-79-08
Report Number: P732038
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P271965)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 1/5/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-39HE-B2750-W2D-3500K
Description: 2X2 3900 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 3500K CCT AND RIBBED LENS

Light Source: -
Ballast/Driver: -

Summary

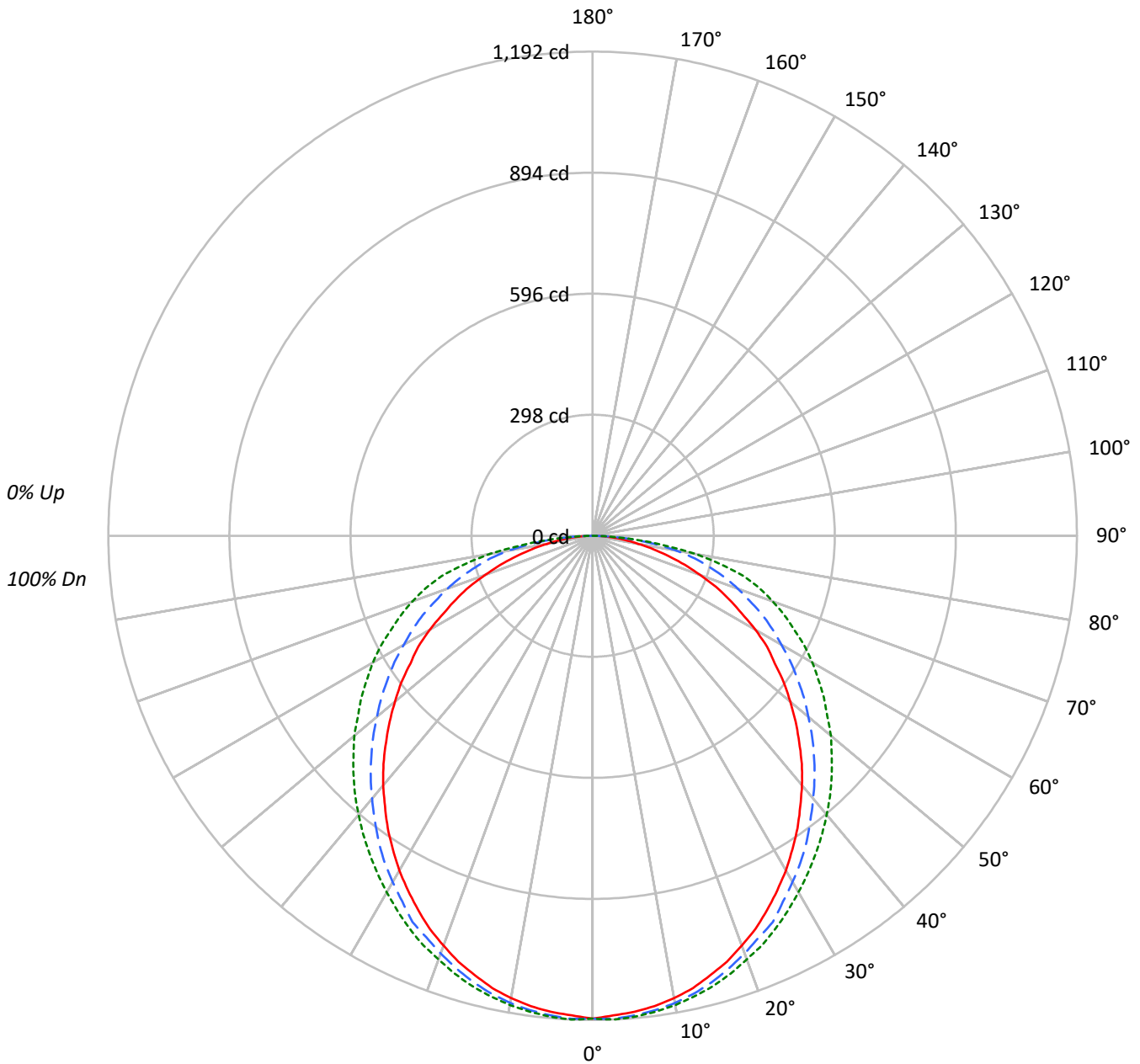
Lumens per Lamp: N/A
Luminaire Lumens: 3496.0 lumens
Efficiency: N/A
Efficacy: 109.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36
Luminous Opening: Rectangular (W 1.92' x L: 1.98' x H: 0')
CIE Type: Direct

Input Watts (W): 32
Input Voltage (V): NR
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: 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 | 101 | 96 | 93 | 96 | 93 | 90 | 92 | 90 | 87 | 89 | 86 | 84 | 82 | | | |
| 2 | 98 | 89 | 82 | 76 | 95 | 87 | 81 | 75 | 84 | 78 | 73 | 80 | 76 | 71 | 77 | 73 | 70 | 68 | | | |
| 3 | 89 | 78 | 69 | 63 | 86 | 76 | 68 | 62 | 73 | 66 | 61 | 70 | 65 | 60 | 68 | 63 | 59 | 56 | | | |
| 4 | 81 | 69 | 60 | 53 | 79 | 67 | 59 | 52 | 65 | 57 | 52 | 63 | 56 | 51 | 60 | 55 | 50 | 48 | | | |
| 5 | 75 | 61 | 52 | 45 | 72 | 60 | 52 | 45 | 58 | 50 | 44 | 56 | 49 | 44 | 54 | 48 | 43 | 41 | | | |
| 6 | 69 | 55 | 46 | 39 | 67 | 54 | 46 | 39 | 52 | 45 | 39 | 51 | 44 | 39 | 49 | 43 | 38 | 36 | | | |
| 7 | 64 | 50 | 41 | 35 | 62 | 49 | 41 | 35 | 48 | 40 | 34 | 46 | 39 | 34 | 45 | 39 | 34 | 32 | | | |
| 8 | 59 | 46 | 37 | 31 | 58 | 45 | 37 | 31 | 44 | 36 | 31 | 42 | 35 | 30 | 41 | 35 | 30 | 28 | | | |
| 9 | 56 | 42 | 34 | 28 | 54 | 41 | 33 | 28 | 40 | 33 | 28 | 39 | 32 | 27 | 38 | 32 | 27 | 25 | | | |
| 10 | 52 | 39 | 31 | 25 | 51 | 38 | 30 | 25 | 37 | 30 | 25 | 36 | 30 | 25 | 35 | 29 | 25 | 23 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 3373 | 3373 | 3373 |
| 5° | 3352 | 3376 | 3386 |
| 10° | 3331 | 3365 | 3380 |
| 15° | 3290 | 3340 | 3371 |
| 20° | 3241 | 3304 | 3350 |
| 25° | 3183 | 3286 | 3339 |
| 30° | 3117 | 3224 | 3320 |
| 35° | 3045 | 3182 | 3313 |
| 40° | 2969 | 3129 | 3320 |
| 45° | 2886 | 3093 | 3341 |
| 50° | 2802 | 3060 | 3380 |
| 55° | 2707 | 3047 | 3438 |
| 60° | 2626 | 3046 | 3544 |
| 65° | 2494 | 3095 | 3673 |
| 70° | 2327 | 3154 | 3911 |
| 75° | 2132 | 3264 | 4225 |
| 80° | 1856 | 3401 | 4160 |
| 85° | 1628 | 3025 | 3308 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 112.4 | 3.2 |
| 10°-20° | 320.2 | 9.2 |
| 20°-30° | 480.7 | 13.7 |
| 30°-40° | 574.4 | 16.4 |
| 40°-50° | 597.3 | 17.1 |
| 50°-60° | 553.6 | 15.8 |
| 60°-70° | 454.1 | 13.0 |
| 70°-80° | 307.0 | 8.8 |
| 80°-90° | 96.5 | 2.8 |
| 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° | 913.3 | 26.1 |
| 0°-40° | 1487.7 | 42.6 |
| 0°-60° | 2638.5 | 75.5 |
| 0°-90° | 3496.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3496.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1189 | 1189 | 1189 | 1189 | 1189 | |
| 5° | 1177 | 1178 | 1185 | 1187 | 1189 | 112 |
| 15° | 1120 | 1125 | 1137 | 1144 | 1147 | 316 |
| 25° | 1017 | 1025 | 1049 | 1061 | 1067 | 468 |
| 35° | 879 | 891 | 919 | 946 | 956 | 549 |
| 45° | 719 | 733 | 771 | 815 | 832 | 555 |
| 55° | 547 | 564 | 616 | 671 | 695 | 492 |
| 65° | 372 | 392 | 461 | 521 | 547 | 367 |
| 75° | 194 | 227 | 298 | 358 | 385 | 206 |
| 85° | 50 | 69 | 93 | 103 | 102 | 57 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|---------------|---------------|---------------|---------------|---------------|
| 0° | 1188.7 | 1188.7 | 1188.7 | <i>1188.7</i> | 1188.7 |
| 2.5° | <i>1181.8</i> | <i>1185.2</i> | <i>1190.3</i> | <i>1192.2</i> | <i>1192.2</i> |
| 5° | 1176.7 | 1178.3 | 1185.2 | <i>1187.0</i> | 1188.7 |
| 7.5° | 1167.9 | 1171.5 | 1178.3 | <i>1180.2</i> | 1181.8 |
| 10° | 1155.9 | 1159.4 | 1167.9 | <i>1171.5</i> | 1173.1 |
| 12.5° | 1140.6 | 1143.9 | 1154.3 | <i>1159.4</i> | 1161.1 |
| 15° | 1119.9 | 1125.0 | 1137.1 | <i>1143.9</i> | 1147.4 |
| 17.5° | 1099.3 | 1104.3 | 1116.5 | <i>1126.7</i> | 1130.2 |
| 20° | 1073.4 | 1085.4 | 1094.1 | <i>1107.8</i> | 1109.5 |
| 22.5° | 1047.7 | 1054.5 | 1069.9 | <i>1083.8</i> | 1090.6 |
| 25° | 1016.6 | 1025.3 | 1049.4 | <i>1061.4</i> | 1066.6 |
| 27.5° | 984.1 | 996.1 | 1015.0 | <i>1033.8</i> | 1040.7 |
| 30° | 951.3 | 959.8 | 984.1 | <i>1006.2</i> | 1013.3 |
| 32.5° | 915.2 | 927.3 | 953.0 | <i>975.4</i> | 985.7 |
| 35° | 879.0 | 891.0 | 918.6 | <i>946.1</i> | 956.5 |
| 37.5° | 839.6 | 853.3 | 880.8 | <i>913.4</i> | 927.3 |
| 40° | 801.6 | 812.0 | 844.6 | <i>884.1</i> | 896.2 |
| 42.5° | 762.0 | 774.1 | 808.5 | <i>851.6</i> | 865.3 |
| 45° | 719.1 | 732.8 | 770.8 | <i>815.3</i> | 832.5 |
| 47.5° | 677.7 | 691.6 | 732.8 | <i>777.6</i> | 798.1 |
| 50° | 634.8 | 652.0 | 693.2 | <i>744.8</i> | 765.6 |
| 52.5° | 593.5 | 609.1 | 655.5 | <i>708.8</i> | 727.6 |
| 55° | 547.1 | 564.3 | 615.9 | <i>670.8</i> | 694.9 |
| 57.5° | 509.1 | 521.2 | 578.0 | <i>634.8</i> | 658.8 |
| 60° | 462.7 | 478.2 | 536.7 | <i>596.8</i> | 624.4 |
| 62.5° | 412.9 | 438.7 | 498.8 | <i>560.8</i> | 588.3 |
| 65° | 371.5 | 392.2 | 461.0 | <i>521.2</i> | 547.1 |
| 67.5° | 328.6 | 351.0 | 417.9 | <i>481.8</i> | 511.0 |
| 70° | 280.5 | 309.7 | 380.2 | <i>443.8</i> | 471.4 |
| 72.5° | 237.4 | 268.5 | 340.6 | <i>402.6</i> | 431.8 |
| 75° | 194.5 | 227.0 | 297.7 | <i>357.8</i> | 385.4 |
| 77.5° | 153.2 | 189.3 | 258.1 | <i>304.5</i> | 321.7 |
| 80° | 113.6 | 148.0 | 208.1 | <i>240.9</i> | 254.6 |
| 82.5° | 79.2 | 108.4 | 153.2 | <i>170.4</i> | 173.7 |
| 85° | 50.0 | 68.8 | 92.9 | <i>103.2</i> | 101.6 |
| 87.5° | 22.4 | 27.6 | 34.4 | <i>37.9</i> | 36.1 |
| 90° | 0.0 | 0.0 | 0.0 | <i>0.0</i> | 0.0 |



Report Generated By 670246072 / DESKTOP-50001EG





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







(END OF REPORT)