

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: P260237

Luminaire Tested: **22CZ-LD5-39-SQP-UNV-L83050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P260237
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25713)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ-LD5-39-SQP-UNV-L83050-W2A1-U-3500K
Description: CRUZE 2x2 TUNABLE WHITE LED TROFFER WITH SQP LENS
Light Source: (168) 80 CRI LEDS TUNED AT 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2465.0 lumens
Efficiency: N/A
Efficacy: 81.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.31 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

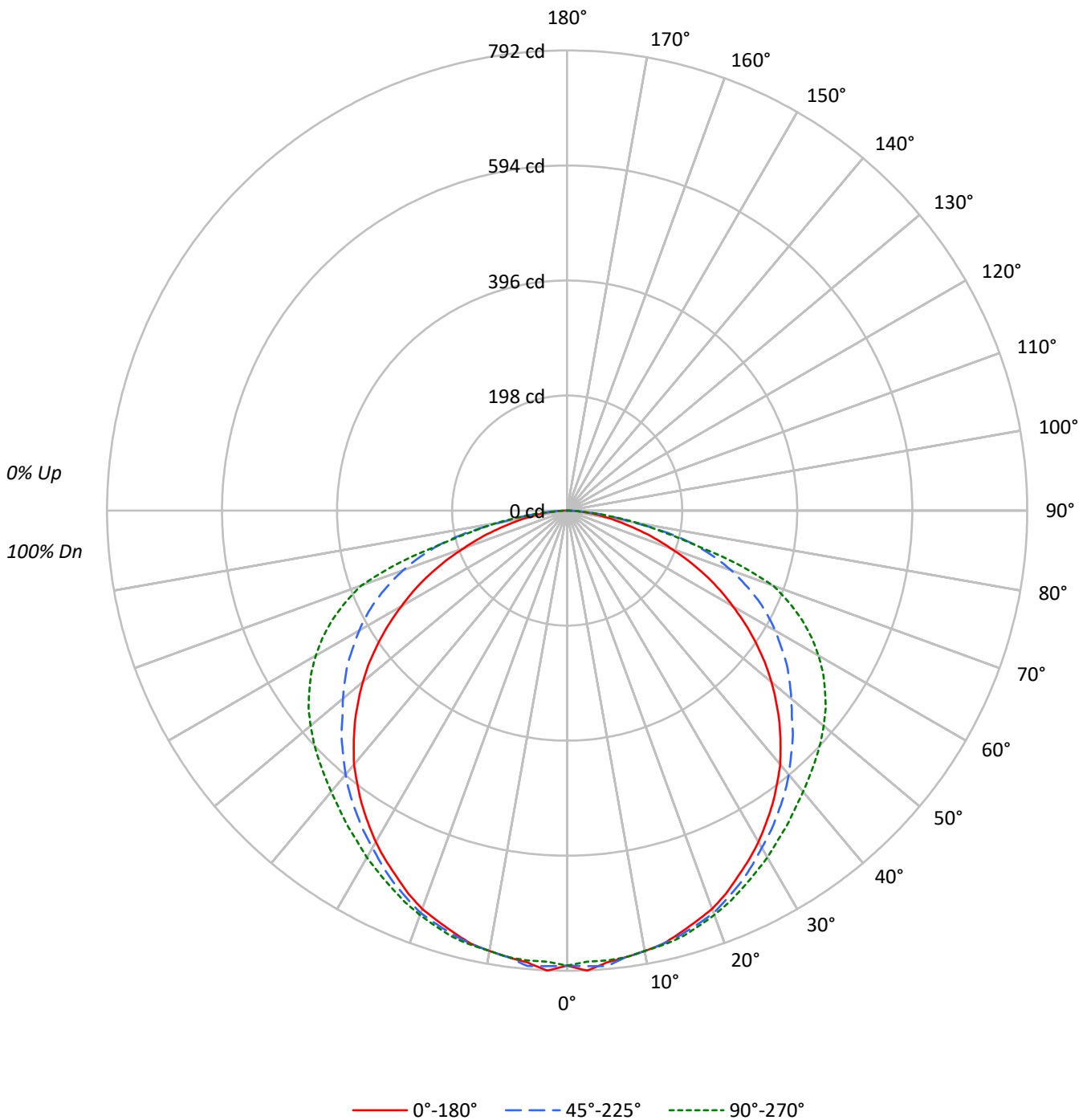
Input Watts (W): 30.132
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 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 | 105 | 101 | 97 | 93 | 97 | 93 | 90 | 93 | 90 | 87 | 89 | 87 | 85 | 83 |
| 2 | 98 | 89 | 82 | 76 | 95 | 87 | 81 | 75 | 84 | 78 | 73 | 80 | 76 | 71 | 77 | 73 | 70 | 68 |
| 3 | 89 | 78 | 69 | 62 | 86 | 76 | 68 | 62 | 73 | 66 | 61 | 70 | 64 | 59 | 68 | 63 | 58 | 56 |
| 4 | 81 | 68 | 59 | 52 | 79 | 67 | 58 | 52 | 64 | 57 | 51 | 62 | 56 | 50 | 60 | 54 | 50 | 47 |
| 5 | 74 | 61 | 52 | 45 | 72 | 60 | 51 | 44 | 58 | 50 | 44 | 56 | 49 | 43 | 54 | 48 | 43 | 41 |
| 6 | 68 | 55 | 45 | 39 | 66 | 54 | 45 | 39 | 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 | 29 | 28 |
| 9 | 55 | 41 | 33 | 27 | 54 | 41 | 33 | 27 | 39 | 32 | 27 | 38 | 32 | 27 | 37 | 31 | 27 | 25 |
| 10 | 51 | 38 | 30 | 24 | 50 | 37 | 30 | 24 | 36 | 29 | 24 | 35 | 29 | 24 | 35 | 28 | 24 | 22 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2107 | 2107 | 2107 |
| 5° | 2110 | 2125 | 2099 |
| 10° | 2103 | 2103 | 2103 |
| 15° | 2096 | 2106 | 2117 |
| 20° | 2088 | 2111 | 2121 |
| 25° | 2063 | 2097 | 2126 |
| 30° | 2046 | 2082 | 2141 |
| 35° | 2025 | 2081 | 2169 |
| 40° | 2004 | 2085 | 2219 |
| 45° | 1967 | 2091 | 2302 |
| 50° | 1923 | 2108 | 2412 |
| 55° | 1859 | 2164 | 2541 |
| 60° | 1772 | 2225 | 2689 |
| 65° | 1670 | 2304 | 2840 |
| 70° | 1491 | 2364 | 2967 |
| 75° | 1293 | 2368 | 2349 |
| 80° | 1097 | 1750 | 1898 |
| 85° | 945 | 1183 | 1065 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 74.3 | 3.0 |
| 10°-20° | 213.5 | 8.7 |
| 20°-30° | 325.3 | 13.2 |
| 30°-40° | 398.1 | 16.1 |
| 40°-50° | 428.3 | 17.4 |
| 50°-60° | 414.9 | 16.8 |
| 60°-70° | 351.4 | 14.3 |
| 70°-80° | 212.4 | 8.6 |
| 80°-90° | 46.7 | 1.9 |
| 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° | 613.2 | 24.9 |
| 0°-40° | 1011.2 | 41.0 |
| 0°-60° | 1854.4 | 75.2 |
| 0°-90° | 2465.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2465.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 783 | 783 | 783 | 783 | 783 | |
| 5° | 781 | 781 | 787 | 783 | 777 | 74 |
| 15° | 752 | 754 | 756 | 758 | 760 | 212 |
| 25° | 695 | 699 | 706 | 712 | 716 | 321 |
| 35° | 616 | 620 | 634 | 651 | 660 | 386 |
| 45° | 517 | 526 | 549 | 584 | 605 | 398 |
| 55° | 396 | 414 | 461 | 515 | 542 | 354 |
| 65° | 262 | 291 | 362 | 419 | 446 | 258 |
| 75° | 124 | 168 | 228 | 232 | 226 | 134 |
| 85° | 31 | 36 | 38 | 36 | 34 | 35 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P260237

CATALOG NUMBER: 22CZ-LD5-39-SQP-UNV-L83050-W2A1-U-3500K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 783.0 | 783.0 | 783.0 | 783.0 | 783.0 |
| 2.5° | 792.5 | 790.6 | 784.9 | 781.0 | 777.2 |
| 5° | 781.0 | 781.0 | 786.8 | 783.0 | 777.2 |
| 7.5° | 775.3 | 775.3 | 775.3 | 784.9 | 775.3 |
| 10° | 769.6 | 771.5 | 769.6 | 777.2 | 769.6 |
| 12.5° | 763.8 | 763.8 | 763.8 | 765.7 | 765.7 |
| 15° | 752.3 | 754.2 | 756.1 | 758.1 | 760.0 |
| 17.5° | 740.8 | 742.7 | 746.6 | 748.5 | 750.4 |
| 20° | 729.3 | 731.3 | 737.0 | 737.0 | 740.8 |
| 22.5° | 714.0 | 714.0 | 721.7 | 723.6 | 729.3 |
| 25° | 694.9 | 698.7 | 706.4 | 712.1 | 715.9 |
| 27.5° | 677.7 | 681.5 | 689.1 | 696.8 | 702.5 |
| 30° | 658.5 | 662.3 | 670.0 | 681.5 | 689.1 |
| 32.5° | 637.5 | 641.3 | 652.8 | 666.2 | 673.8 |
| 35° | 616.4 | 620.2 | 633.6 | 650.9 | 660.4 |
| 37.5° | 593.4 | 599.2 | 614.5 | 633.6 | 645.1 |
| 40° | 570.5 | 576.2 | 593.4 | 614.5 | 631.7 |
| 42.5° | 543.7 | 551.3 | 570.5 | 599.2 | 618.3 |
| 45° | 516.9 | 526.4 | 549.4 | 583.9 | 604.9 |
| 47.5° | 488.1 | 497.7 | 524.5 | 568.5 | 591.5 |
| 50° | 459.4 | 470.9 | 503.5 | 551.3 | 576.2 |
| 52.5° | 428.8 | 440.3 | 482.4 | 534.1 | 560.9 |
| 55° | 396.3 | 413.5 | 461.3 | 514.9 | 541.7 |
| 57.5° | 363.7 | 382.9 | 436.5 | 493.9 | 522.6 |
| 60° | 329.3 | 352.2 | 413.5 | 470.9 | 499.6 |
| 62.5° | 296.7 | 321.6 | 388.6 | 446.0 | 474.7 |
| 65° | 262.3 | 291.0 | 361.8 | 419.2 | 446.0 |
| 67.5° | 225.9 | 262.3 | 331.2 | 386.7 | 413.5 |
| 70° | 189.5 | 231.6 | 300.5 | 352.2 | 377.1 |
| 72.5° | 157.0 | 201.0 | 266.1 | 310.1 | 310.1 |
| 75° | 124.4 | 168.5 | 227.8 | 231.6 | 225.9 |
| 77.5° | 95.7 | 137.8 | 178.0 | 162.7 | 166.5 |
| 80° | 70.8 | 105.3 | 112.9 | 118.7 | 122.5 |
| 82.5° | 47.9 | 70.8 | 72.7 | 76.6 | 76.6 |
| 85° | 30.6 | 36.4 | 38.3 | 36.4 | 34.5 |
| 87.5° | 13.4 | 15.3 | 11.5 | 7.7 | 5.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)