

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: P260318

Luminaire Tested: **22CZ-LD5-39-SQP-UNV-L82765-W2A1-U-5500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P260318
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-L82765-W2A1-U-5500K
Description: CRUZE 2x2 TUNABLE WHITE LED TROFFER
WITH SQP LENS
Light Source: (168) 80 CRI LEDS TUNED AT 5500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2563.0 lumens
Efficiency: N/A
Efficacy: 82.8 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

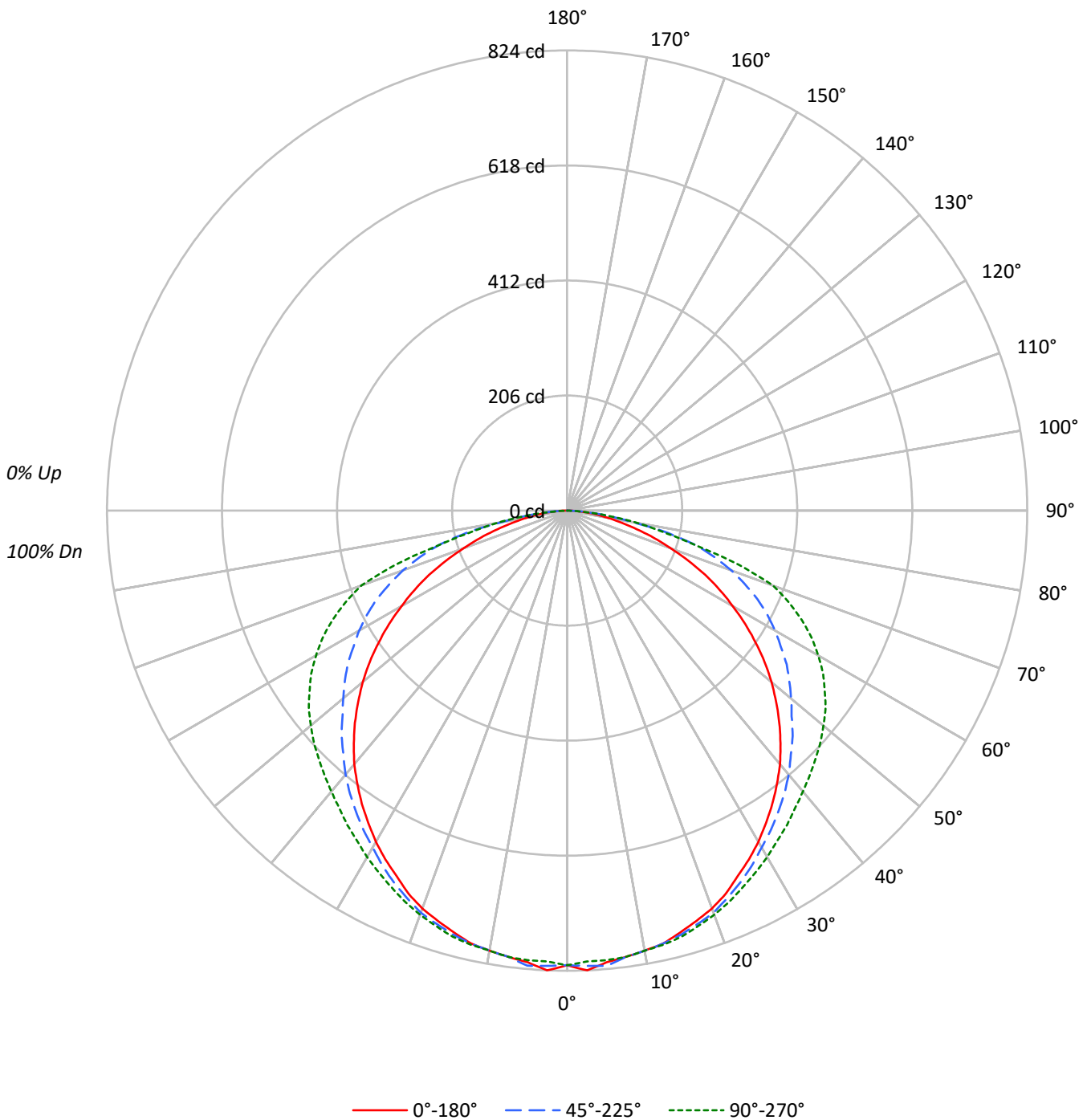
Input Watts (W): 30.969
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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° | 2191 | 2191 | 2191 |
| 5° | 2194 | 2210 | 2183 |
| 10° | 2186 | 2186 | 2186 |
| 15° | 2179 | 2190 | 2201 |
| 20° | 2172 | 2194 | 2206 |
| 25° | 2145 | 2181 | 2210 |
| 30° | 2128 | 2165 | 2226 |
| 35° | 2105 | 2164 | 2256 |
| 40° | 2083 | 2167 | 2307 |
| 45° | 2045 | 2174 | 2394 |
| 50° | 2000 | 2192 | 2508 |
| 55° | 1933 | 2251 | 2643 |
| 60° | 1843 | 2314 | 2796 |
| 65° | 1736 | 2395 | 2953 |
| 70° | 1551 | 2459 | 3085 |
| 75° | 1345 | 2463 | 2442 |
| 80° | 1141 | 1819 | 1974 |
| 85° | 982 | 1229 | 1105 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 77.3 | 3.0 |
| 10°-20° | 222.0 | 8.7 |
| 20°-30° | 338.3 | 13.2 |
| 30°-40° | 413.9 | 16.1 |
| 40°-50° | 445.3 | 17.4 |
| 50°-60° | 431.4 | 16.8 |
| 60°-70° | 365.4 | 14.3 |
| 70°-80° | 220.9 | 8.6 |
| 80°-90° | 48.5 | 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° | 637.5 | 24.9 |
| 0°-40° | 1051.4 | 41.0 |
| 0°-60° | 1928.1 | 75.2 |
| 0°-90° | 2563.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2563.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 814 | 814 | 814 | 814 | 814 | |
| 5° | 812 | 812 | 818 | 814 | 808 | 77 |
| 15° | 782 | 784 | 786 | 788 | 790 | 221 |
| 25° | 722 | 726 | 734 | 740 | 744 | 334 |
| 35° | 641 | 645 | 659 | 677 | 687 | 401 |
| 45° | 537 | 547 | 571 | 607 | 629 | 414 |
| 55° | 412 | 430 | 480 | 535 | 563 | 368 |
| 65° | 273 | 302 | 376 | 436 | 464 | 269 |
| 75° | 129 | 175 | 237 | 241 | 235 | 139 |
| 85° | 32 | 38 | 40 | 38 | 36 | 36 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P260318

CATALOG NUMBER: 22CZ-LD5-39-SQP-UNV-L82765-W2A1-U-5500K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 814.1 | 814.1 | 814.1 | 814.1 | 814.1 |
| 2.5° | 824.0 | 822.0 | 816.1 | 812.1 | 808.1 |
| 5° | 812.1 | 812.1 | 818.1 | 814.1 | 808.1 |
| 7.5° | 806.1 | 806.1 | 806.1 | 816.1 | 806.1 |
| 10° | 800.1 | 802.1 | 800.1 | 808.1 | 800.1 |
| 12.5° | 794.2 | 794.2 | 794.2 | 796.2 | 796.2 |
| 15° | 782.2 | 784.2 | 786.2 | 788.2 | 790.2 |
| 17.5° | 770.3 | 772.3 | 776.3 | 778.3 | 780.2 |
| 20° | 758.3 | 760.3 | 766.3 | 766.3 | 770.3 |
| 22.5° | 742.4 | 742.4 | 750.4 | 752.4 | 758.3 |
| 25° | 722.5 | 726.5 | 734.5 | 740.4 | 744.4 |
| 27.5° | 704.6 | 708.6 | 716.5 | 724.5 | 730.5 |
| 30° | 684.7 | 688.7 | 696.6 | 708.6 | 716.5 |
| 32.5° | 662.8 | 666.8 | 678.7 | 692.7 | 700.6 |
| 35° | 640.9 | 644.9 | 658.8 | 676.7 | 686.7 |
| 37.5° | 617.0 | 623.0 | 638.9 | 658.8 | 670.8 |
| 40° | 593.1 | 599.1 | 617.0 | 638.9 | 656.8 |
| 42.5° | 565.3 | 573.2 | 593.1 | 623.0 | 642.9 |
| 45° | 537.4 | 547.4 | 571.2 | 607.1 | 629.0 |
| 47.5° | 507.6 | 517.5 | 545.4 | 591.2 | 615.0 |
| 50° | 477.7 | 489.6 | 523.5 | 573.2 | 599.1 |
| 52.5° | 445.9 | 457.8 | 501.6 | 555.3 | 583.2 |
| 55° | 412.0 | 429.9 | 479.7 | 535.4 | 563.3 |
| 57.5° | 378.2 | 398.1 | 453.8 | 513.5 | 543.4 |
| 60° | 342.4 | 366.2 | 429.9 | 489.6 | 519.5 |
| 62.5° | 308.5 | 334.4 | 404.1 | 463.8 | 493.6 |
| 65° | 272.7 | 302.5 | 376.2 | 435.9 | 463.8 |
| 67.5° | 234.9 | 272.7 | 344.3 | 402.1 | 429.9 |
| 70° | 197.1 | 240.8 | 312.5 | 366.2 | 392.1 |
| 72.5° | 163.2 | 209.0 | 276.7 | 322.4 | 322.4 |
| 75° | 129.4 | 175.2 | 236.9 | 240.8 | 234.9 |
| 77.5° | 99.5 | 143.3 | 185.1 | 169.2 | 173.2 |
| 80° | 73.6 | 109.5 | 117.4 | 123.4 | 127.4 |
| 82.5° | 49.8 | 73.6 | 75.6 | 79.6 | 79.6 |
| 85° | 31.8 | 37.8 | 39.8 | 37.8 | 35.8 |
| 87.5° | 13.9 | 15.9 | 11.9 | 8.0 | 6.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)