

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: P275595

Luminaire Tested: **14CZ2-25-S-UNV-L93050-W2A1-U-5000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P275595
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-25-S-UNV-L93050-W2A1-U-5000K
Description: CRUZE 2.0 1x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED TO 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2289.0 lumens
Efficiency: N/A
Efficacy: 120.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

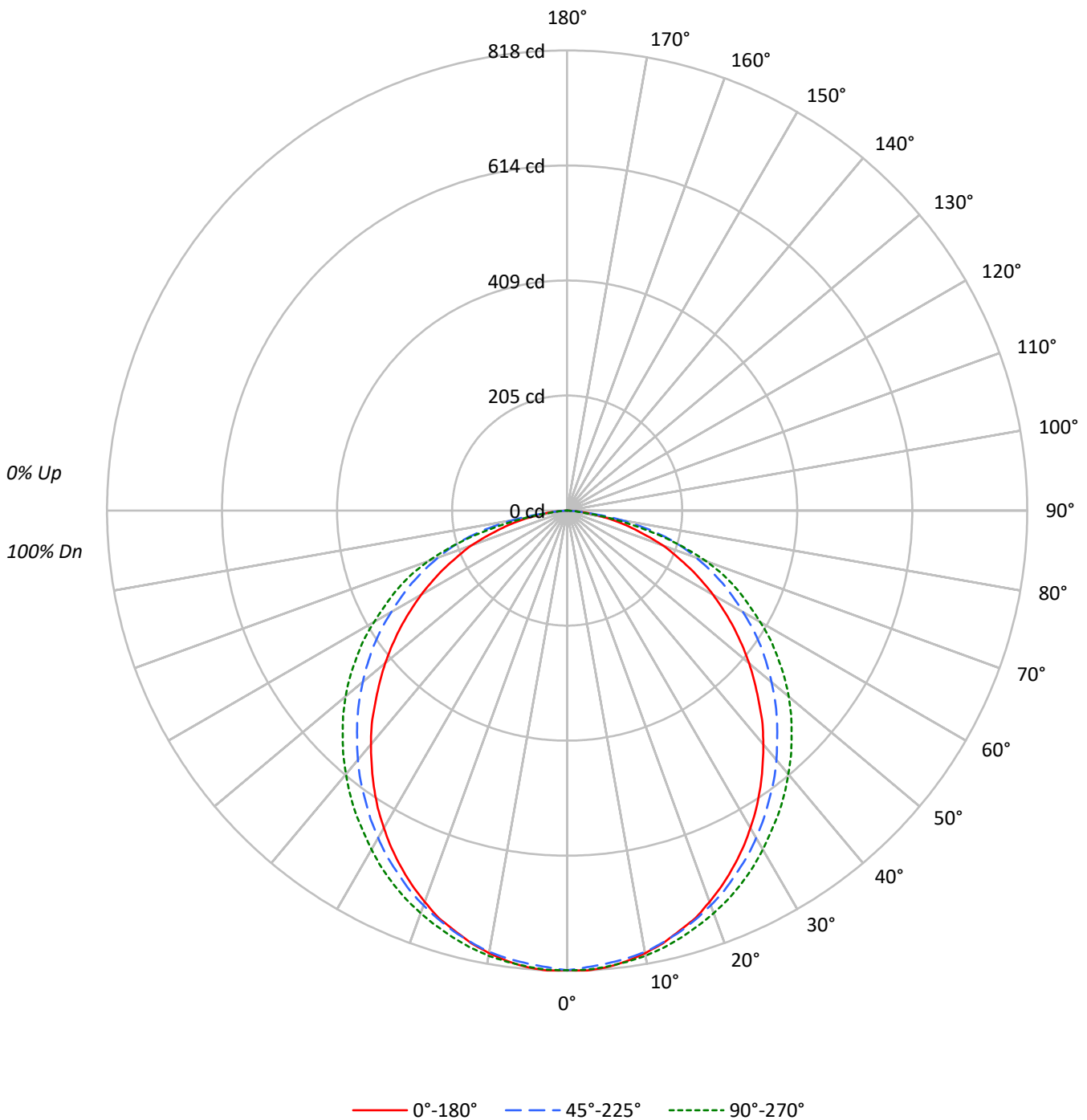
Input Watts (W): 18.972
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 109 | 104 | 100 | 96 | 106 | 102 | 98 | 94 | 97 | 94 | 91 | 94 | 91 | 89 | 90 | 88 | 86 | 84 |
| 2 | 99 | 90 | 84 | 78 | 96 | 89 | 82 | 77 | 85 | 80 | 75 | 82 | 77 | 73 | 79 | 75 | 72 | 70 |
| 3 | 90 | 79 | 71 | 65 | 87 | 78 | 70 | 64 | 75 | 68 | 63 | 72 | 66 | 62 | 69 | 65 | 61 | 58 |
| 4 | 82 | 70 | 61 | 55 | 80 | 69 | 61 | 54 | 66 | 59 | 53 | 64 | 58 | 53 | 62 | 56 | 52 | 50 |
| 5 | 76 | 63 | 54 | 47 | 74 | 62 | 53 | 47 | 59 | 52 | 46 | 57 | 51 | 46 | 56 | 50 | 45 | 43 |
| 6 | 70 | 56 | 47 | 41 | 68 | 55 | 47 | 41 | 54 | 46 | 40 | 52 | 45 | 40 | 50 | 44 | 40 | 38 |
| 7 | 65 | 51 | 42 | 36 | 63 | 50 | 42 | 36 | 49 | 41 | 36 | 47 | 41 | 35 | 46 | 40 | 35 | 33 |
| 8 | 60 | 47 | 38 | 32 | 59 | 46 | 38 | 32 | 45 | 37 | 32 | 43 | 37 | 32 | 42 | 36 | 32 | 30 |
| 9 | 56 | 43 | 35 | 29 | 55 | 42 | 34 | 29 | 41 | 34 | 29 | 40 | 33 | 29 | 39 | 33 | 28 | 27 |
| 10 | 53 | 40 | 32 | 26 | 52 | 39 | 31 | 26 | 38 | 31 | 26 | 37 | 31 | 26 | 36 | 30 | 26 | 24 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2199 | 2199 | 2199 |
| 5° | 2201 | 2183 | 2198 |
| 10° | 2183 | 2177 | 2196 |
| 15° | 2153 | 2159 | 2188 |
| 20° | 2119 | 2139 | 2181 |
| 25° | 2076 | 2113 | 2173 |
| 30° | 2024 | 2088 | 2162 |
| 35° | 1968 | 2058 | 2155 |
| 40° | 1906 | 2033 | 2149 |
| 45° | 1835 | 2008 | 2147 |
| 50° | 1768 | 1986 | 2152 |
| 55° | 1693 | 1970 | 2146 |
| 60° | 1612 | 1942 | 2132 |
| 65° | 1517 | 1937 | 2132 |
| 70° | 1429 | 1920 | 2072 |
| 75° | 1239 | 1877 | 1770 |
| 80° | 1003 | 1512 | 1178 |
| 85° | 667 | 525 | 349 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 77.2 | 3.4 |
| 10°-20° | 219.6 | 9.6 |
| 20°-30° | 329.4 | 14.4 |
| 30°-40° | 392.9 | 17.2 |
| 40°-50° | 406.2 | 17.7 |
| 50°-60° | 370.8 | 16.2 |
| 60°-70° | 291.8 | 12.7 |
| 70°-80° | 169.9 | 7.4 |
| 80°-90° | 31.3 | 1.4 |
| 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° | 626.1 | 27.4 |
| 0°-40° | 1019.0 | 44.5 |
| 0°-60° | 1796.0 | 78.5 |
| 0°-90° | 2289.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2289.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 817 | 817 | 817 | 817 | 817 | |
| 5° | 815 | 813 | 808 | 815 | 814 | 77 |
| 15° | 773 | 774 | 775 | 785 | 785 | 218 |
| 25° | 699 | 702 | 712 | 729 | 732 | 322 |
| 35° | 599 | 607 | 626 | 650 | 656 | 375 |
| 45° | 482 | 498 | 528 | 557 | 564 | 372 |
| 55° | 361 | 380 | 420 | 451 | 457 | 323 |
| 65° | 238 | 263 | 304 | 328 | 335 | 237 |
| 75° | 119 | 148 | 180 | 177 | 170 | 127 |
| 85° | 22 | 31 | 17 | 14 | 11 | 28 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P275595

CATALOG NUMBER: 14CZ2-25-S-UNV-L93050-W2A1-U-5000K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 817.1 | 817.1 | 817.1 | 817.1 | 817.1 |
| 2.5° | 818.3 | 816.0 | 812.6 | 818.3 | 817.1 |
| 5° | 814.9 | 812.6 | 808.1 | 814.9 | 813.7 |
| 7.5° | 808.1 | 805.8 | 803.5 | 810.3 | 809.2 |
| 10° | 799.0 | 797.8 | 796.7 | 804.7 | 803.5 |
| 12.5° | 787.6 | 787.6 | 786.5 | 795.6 | 795.6 |
| 15° | 772.9 | 774.0 | 775.1 | 785.4 | 785.4 |
| 17.5° | 759.3 | 758.1 | 761.5 | 772.9 | 774.0 |
| 20° | 740.0 | 742.2 | 746.8 | 760.4 | 761.5 |
| 22.5° | 720.7 | 722.9 | 730.9 | 744.5 | 747.9 |
| 25° | 699.1 | 702.5 | 711.6 | 728.6 | 732.0 |
| 27.5° | 676.4 | 680.9 | 693.4 | 711.6 | 715.0 |
| 30° | 651.4 | 658.2 | 671.9 | 692.3 | 695.7 |
| 32.5° | 626.5 | 633.3 | 650.3 | 670.7 | 675.3 |
| 35° | 599.2 | 607.2 | 626.5 | 650.3 | 656.0 |
| 37.5° | 570.9 | 581.1 | 603.8 | 627.6 | 634.4 |
| 40° | 542.5 | 553.8 | 578.8 | 603.8 | 611.7 |
| 42.5° | 514.1 | 525.5 | 552.7 | 581.1 | 589.0 |
| 45° | 482.3 | 498.2 | 527.7 | 557.2 | 564.1 |
| 47.5° | 451.7 | 468.7 | 501.6 | 531.1 | 540.2 |
| 50° | 422.2 | 439.2 | 474.4 | 505.0 | 514.1 |
| 52.5° | 391.5 | 409.7 | 447.2 | 478.9 | 486.9 |
| 55° | 360.9 | 380.2 | 419.9 | 450.6 | 457.4 |
| 57.5° | 330.3 | 350.7 | 391.5 | 421.1 | 429.0 |
| 60° | 299.6 | 321.2 | 360.9 | 390.4 | 396.1 |
| 62.5° | 269.0 | 291.7 | 332.5 | 358.6 | 364.3 |
| 65° | 238.3 | 263.3 | 304.2 | 328.0 | 334.8 |
| 67.5° | 208.8 | 233.8 | 273.5 | 296.2 | 301.9 |
| 70° | 181.6 | 204.3 | 244.0 | 261.0 | 263.3 |
| 72.5° | 147.5 | 175.9 | 214.5 | 223.6 | 217.9 |
| 75° | 119.2 | 147.5 | 180.5 | 177.0 | 170.2 |
| 77.5° | 90.8 | 119.2 | 140.7 | 129.4 | 120.3 |
| 80° | 64.7 | 93.1 | 97.6 | 80.6 | 76.0 |
| 82.5° | 42.0 | 64.7 | 54.5 | 42.0 | 34.0 |
| 85° | 21.6 | 30.6 | 17.0 | 13.6 | 11.3 |
| 87.5° | 6.8 | 4.5 | 2.3 | 2.3 | 1.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)