

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: P276130

Luminaire Tested: **24CZ2-75HE-UNV-L82765-W2A1-U-5700K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P276130
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-75HE-UNV-L82765-W2A1-U-5700K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER
WITH RIBBED LENS
Light Source: (336) 80 CRI LEDS TUNED TO 5700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7434.6 lumens
Efficiency: N/A
Efficacy: 123.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

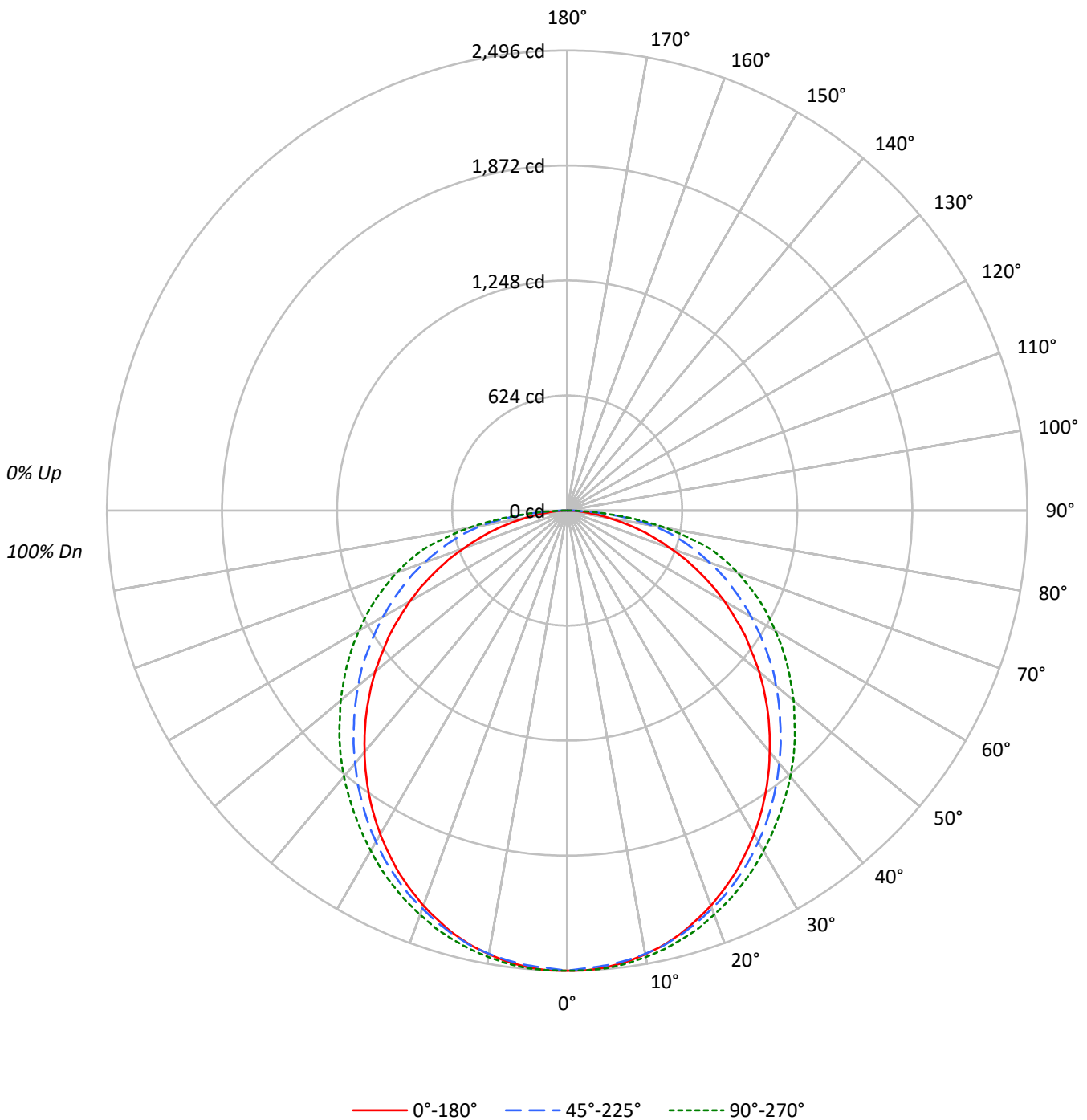
Input Watts (W): 60.078
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 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 | | | | | 100 | | | |
| 1 | 108 | 103 | 98 | 94 | 105 | 100 | 96 | 92 | 96 | 93 | 89 | 92 | 89 | 87 | 89 | 86 | 84 | 82 | | | | | 82 | | | |
| 2 | 98 | 89 | 82 | 76 | 95 | 87 | 80 | 75 | 83 | 78 | 73 | 80 | 75 | 71 | 77 | 73 | 70 | 67 | | | | | 67 | | | |
| 3 | 89 | 78 | 69 | 62 | 86 | 76 | 68 | 62 | 73 | 66 | 61 | 70 | 64 | 60 | 68 | 63 | 58 | 56 | | | | | 56 | | | |
| 4 | 81 | 69 | 59 | 52 | 79 | 67 | 59 | 52 | 65 | 57 | 51 | 62 | 56 | 51 | 60 | 55 | 50 | 48 | | | | | 48 | | | |
| 5 | 74 | 61 | 52 | 45 | 72 | 60 | 51 | 45 | 58 | 50 | 44 | 56 | 49 | 44 | 54 | 48 | 43 | 41 | | | | | 41 | | | |
| 6 | 69 | 55 | 46 | 39 | 67 | 54 | 45 | 39 | 52 | 44 | 39 | 50 | 44 | 38 | 49 | 43 | 38 | 36 | | | | | 36 | | | |
| 7 | 64 | 50 | 41 | 35 | 62 | 49 | 40 | 34 | 47 | 40 | 34 | 46 | 39 | 34 | 45 | 38 | 34 | 32 | | | | | 32 | | | |
| 8 | 59 | 45 | 37 | 31 | 58 | 45 | 36 | 31 | 43 | 36 | 30 | 42 | 35 | 30 | 41 | 35 | 30 | 28 | | | | | 28 | | | |
| 9 | 55 | 42 | 33 | 28 | 54 | 41 | 33 | 28 | 40 | 33 | 27 | 39 | 32 | 27 | 38 | 32 | 27 | 25 | | | | | 25 | | | |
| 10 | 52 | 38 | 30 | 25 | 51 | 38 | 30 | 25 | 37 | 30 | 25 | 36 | 29 | 25 | 35 | 29 | 25 | 23 | | | | | 23 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 3358 | 3358 | 3358 |
| 5° | 3358 | 3345 | 3365 |
| 10° | 3339 | 3336 | 3359 |
| 15° | 3311 | 3318 | 3353 |
| 20° | 3265 | 3290 | 3340 |
| 25° | 3212 | 3260 | 3326 |
| 30° | 3150 | 3223 | 3311 |
| 35° | 3081 | 3183 | 3301 |
| 40° | 3003 | 3142 | 3308 |
| 45° | 2927 | 3111 | 3324 |
| 50° | 2846 | 3095 | 3355 |
| 55° | 2759 | 3091 | 3417 |
| 60° | 2651 | 3105 | 3506 |
| 65° | 2512 | 3152 | 3657 |
| 70° | 2333 | 3231 | 3865 |
| 75° | 2128 | 3393 | 4192 |
| 80° | 1750 | 3653 | 4191 |
| 85° | 1340 | 3372 | 3600 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 236.1 | 3.2 |
| 10°-20° | 674.0 | 9.1 |
| 20°-30° | 1014.2 | 13.6 |
| 30°-40° | 1215.5 | 16.3 |
| 40°-50° | 1266.6 | 17.0 |
| 50°-60° | 1178.4 | 15.9 |
| 60°-70° | 970.6 | 13.1 |
| 70°-80° | 661.0 | 8.9 |
| 80°-90° | 218.2 | 2.9 |
| 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° | 1924.3 | 25.9 |
| 0°-40° | 3139.7 | 42.2 |
| 0°-60° | 5584.8 | 75.1 |
| 0°-90° | 7434.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 7434.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2496 | 2496 | 2496 | 2496 | 2496 | |
| 5° | 2486 | 2486 | 2476 | 2489 | 2491 | 236 |
| 15° | 2377 | 2380 | 2382 | 2404 | 2407 | 670 |
| 25° | 2164 | 2174 | 2196 | 2233 | 2241 | 996 |
| 35° | 1876 | 1898 | 1938 | 1990 | 2010 | 1173 |
| 45° | 1538 | 1571 | 1635 | 1717 | 1747 | 1186 |
| 55° | 1176 | 1216 | 1318 | 1422 | 1456 | 1048 |
| 65° | 789 | 856 | 990 | 1107 | 1149 | 783 |
| 75° | 409 | 501 | 653 | 769 | 806 | 432 |
| 85° | 87 | 169 | 218 | 233 | 233 | 108 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P276130

CATALOG NUMBER: 24CZ2-75HE-UNV-L82765-W2A1-U-5700K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2496.1 | 2496.1 | 2496.1 | 2496.1 | 2496.1 |
| 2.5° | 2496.1 | 2496.1 | 2483.7 | 2496.1 | 2496.1 |
| 5° | 2486.2 | 2486.2 | 2476.3 | 2488.7 | 2491.2 |
| 7.5° | 2468.9 | 2471.3 | 2461.4 | 2476.3 | 2478.8 |
| 10° | 2444.0 | 2446.5 | 2441.6 | 2456.4 | 2458.9 |
| 12.5° | 2414.3 | 2416.7 | 2416.7 | 2434.1 | 2436.6 |
| 15° | 2377.0 | 2379.5 | 2382.0 | 2404.3 | 2406.8 |
| 17.5° | 2329.9 | 2337.3 | 2342.3 | 2369.6 | 2374.6 |
| 20° | 2280.3 | 2287.7 | 2297.6 | 2327.4 | 2332.4 |
| 22.5° | 2223.2 | 2233.1 | 2250.5 | 2282.8 | 2290.2 |
| 25° | 2163.7 | 2173.6 | 2195.9 | 2233.1 | 2240.6 |
| 27.5° | 2096.7 | 2111.6 | 2138.8 | 2178.5 | 2188.5 |
| 30° | 2027.2 | 2042.1 | 2074.3 | 2116.5 | 2131.4 |
| 32.5° | 1952.8 | 1972.6 | 2009.8 | 2057.0 | 2071.9 |
| 35° | 1875.8 | 1898.2 | 1937.9 | 1990.0 | 2009.8 |
| 37.5° | 1793.9 | 1818.8 | 1865.9 | 1923.0 | 1947.8 |
| 40° | 1709.6 | 1739.4 | 1789.0 | 1856.0 | 1883.3 |
| 42.5° | 1625.2 | 1652.5 | 1714.5 | 1786.5 | 1816.3 |
| 45° | 1538.4 | 1570.6 | 1635.1 | 1717.0 | 1746.8 |
| 47.5° | 1449.1 | 1481.3 | 1558.2 | 1645.1 | 1672.4 |
| 50° | 1359.7 | 1392.0 | 1478.8 | 1570.6 | 1602.9 |
| 52.5° | 1263.0 | 1305.1 | 1404.4 | 1496.2 | 1528.5 |
| 55° | 1176.1 | 1215.8 | 1317.5 | 1421.8 | 1456.5 |
| 57.5° | 1076.9 | 1124.0 | 1235.7 | 1344.8 | 1382.1 |
| 60° | 985.1 | 1034.7 | 1153.8 | 1265.4 | 1302.7 |
| 62.5° | 890.8 | 945.4 | 1071.9 | 1186.0 | 1228.2 |
| 65° | 789.0 | 856.0 | 990.0 | 1106.6 | 1148.8 |
| 67.5° | 697.2 | 766.7 | 908.1 | 1027.2 | 1064.5 |
| 70° | 593.0 | 677.4 | 821.3 | 940.4 | 982.6 |
| 72.5° | 503.7 | 588.1 | 739.4 | 856.0 | 898.2 |
| 75° | 409.4 | 501.2 | 652.6 | 769.2 | 806.4 |
| 77.5° | 315.1 | 416.9 | 568.2 | 657.5 | 669.9 |
| 80° | 225.8 | 332.5 | 471.4 | 523.5 | 540.9 |
| 82.5° | 158.8 | 255.6 | 347.4 | 382.1 | 392.0 |
| 85° | 86.8 | 168.7 | 218.4 | 233.2 | 233.2 |
| 87.5° | 37.2 | 72.0 | 86.8 | 89.3 | 91.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)