

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: P275716

Luminaire Tested: **14CZ2-44-S-UNV-L92765-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P275716
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: 14CZ2-44-S-UNV-L92765-W2A1-U-3000K
Description: CRUZE 2.0 1x4 TUNABLE WHITE LED TROFFER
WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3541.0 lumens
Efficiency: N/A
Efficacy: 100.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

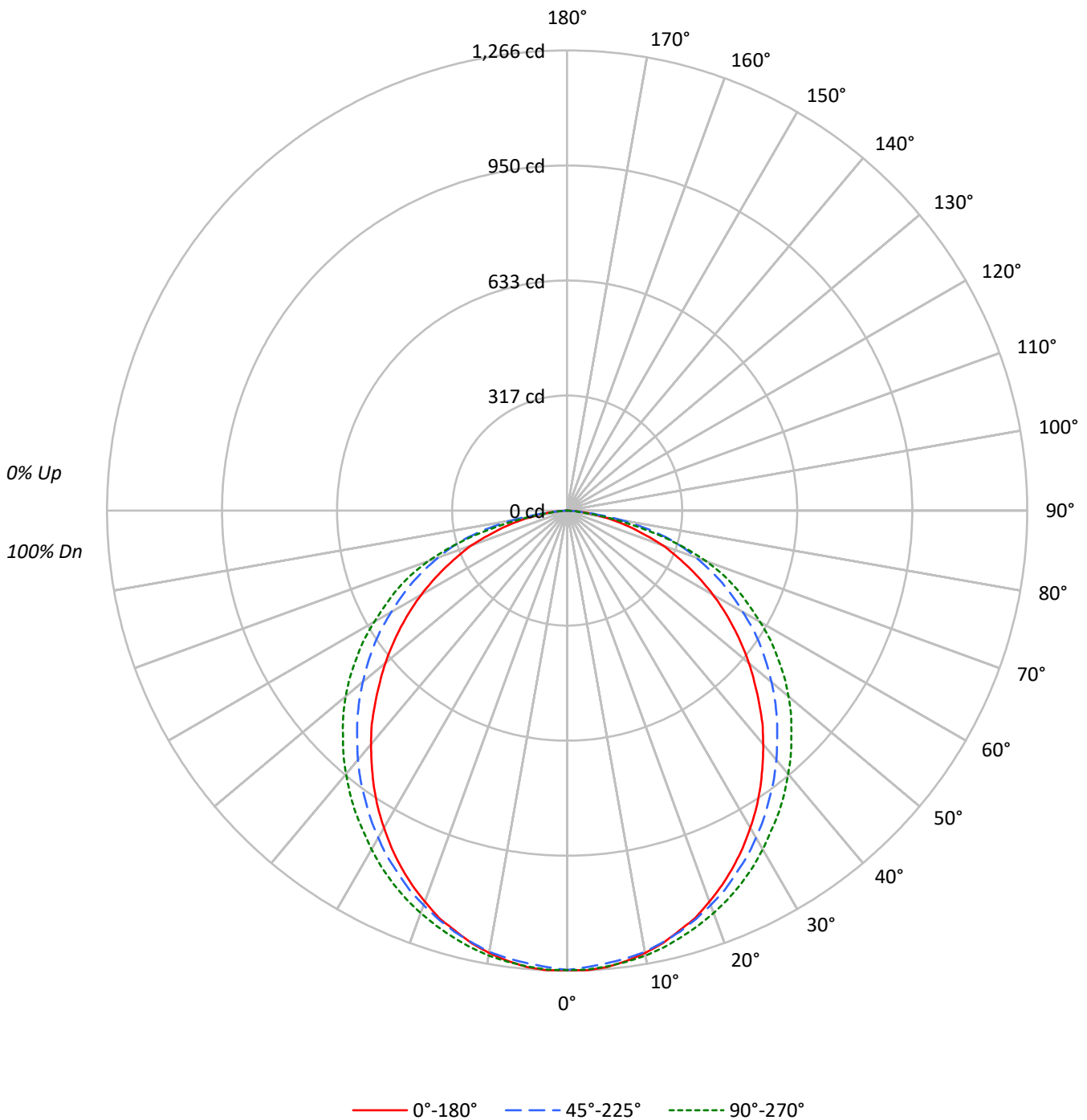
Input Watts (W): 35.247
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P275716

CATALOG NUMBER: 14CZ2-44-S-UNV-L92765-W2A1-U-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P275716

CATALOG NUMBER: 14CZ2-44-S-UNV-L92765-W2A1-U-3000K

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° | 3402 | 3402 | 3402 |
| 5° | 3405 | 3377 | 3400 |
| 10° | 3377 | 3368 | 3396 |
| 15° | 3331 | 3341 | 3385 |
| 20° | 3278 | 3308 | 3374 |
| 25° | 3211 | 3268 | 3362 |
| 30° | 3132 | 3230 | 3344 |
| 35° | 3045 | 3184 | 3334 |
| 40° | 2948 | 3145 | 3324 |
| 45° | 2840 | 3107 | 3321 |
| 50° | 2734 | 3072 | 3329 |
| 55° | 2619 | 3048 | 3319 |
| 60° | 2495 | 3005 | 3298 |
| 65° | 2348 | 2996 | 3298 |
| 70° | 2210 | 2970 | 3205 |
| 75° | 1916 | 2903 | 2738 |
| 80° | 1551 | 2340 | 1822 |
| 85° | 1031 | 812 | 543 |



TEST NUMBER: P275716

CATALOG NUMBER: 14CZ2-44-S-UNV-L92765-W2A1-U-3000K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 119.4 | 3.4 |
| 10°-20° | 339.7 | 9.6 |
| 20°-30° | 509.5 | 14.4 |
| 30°-40° | 607.8 | 17.2 |
| 40°-50° | 628.3 | 17.7 |
| 50°-60° | 573.7 | 16.2 |
| 60°-70° | 451.5 | 12.7 |
| 70°-80° | 262.8 | 7.4 |
| 80°-90° | 48.4 | 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° | 968.5 | 27.4 |
| 0°-40° | 1576.3 | 44.5 |
| 0°-60° | 2778.3 | 78.5 |
| 0°-90° | 3541.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3541.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1264 | 1264 | 1264 | 1264 | 1264 | |
| 5° | 1261 | 1257 | 1250 | 1261 | 1259 | 120 |
| 15° | 1196 | 1197 | 1199 | 1215 | 1215 | 337 |
| 25° | 1082 | 1087 | 1101 | 1127 | 1132 | 498 |
| 35° | 927 | 939 | 969 | 1006 | 1015 | 579 |
| 45° | 746 | 771 | 816 | 862 | 873 | 576 |
| 55° | 558 | 588 | 650 | 697 | 708 | 499 |
| 65° | 369 | 407 | 470 | 507 | 518 | 366 |
| 75° | 184 | 228 | 279 | 274 | 263 | 196 |
| 85° | 33 | 47 | 26 | 21 | 18 | 43 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P275716

CATALOG NUMBER: 14CZ2-44-S-UNV-L92765-W2A1-U-3000K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1264.1 | 1264.1 | 1264.1 | 1264.1 | 1264.1 |
| 2.5° | 1265.8 | 1262.3 | 1257.1 | 1265.8 | 1264.1 |
| 5° | 1260.6 | 1257.1 | 1250.0 | 1260.6 | 1258.8 |
| 7.5° | 1250.0 | 1246.5 | 1243.0 | 1253.5 | 1251.8 |
| 10° | 1236.0 | 1234.2 | 1232.5 | 1244.8 | 1243.0 |
| 12.5° | 1218.4 | 1218.4 | 1216.7 | 1230.7 | 1230.7 |
| 15° | 1195.6 | 1197.4 | 1199.1 | 1214.9 | 1214.9 |
| 17.5° | 1174.5 | 1172.8 | 1178.1 | 1195.6 | 1197.4 |
| 20° | 1144.7 | 1148.2 | 1155.2 | 1176.3 | 1178.1 |
| 22.5° | 1114.8 | 1118.4 | 1130.6 | 1151.7 | 1157.0 |
| 25° | 1081.5 | 1086.8 | 1100.8 | 1127.1 | 1132.4 |
| 27.5° | 1046.4 | 1053.4 | 1072.7 | 1100.8 | 1106.1 |
| 30° | 1007.8 | 1018.3 | 1039.4 | 1071.0 | 1076.2 |
| 32.5° | 969.1 | 979.7 | 1006.0 | 1037.6 | 1044.6 |
| 35° | 927.0 | 939.3 | 969.1 | 1006.0 | 1014.8 |
| 37.5° | 883.1 | 898.9 | 934.0 | 970.9 | 981.4 |
| 40° | 839.2 | 856.8 | 895.4 | 934.0 | 946.3 |
| 42.5° | 795.3 | 812.9 | 855.0 | 898.9 | 911.2 |
| 45° | 746.2 | 770.7 | 816.4 | 862.0 | 872.6 |
| 47.5° | 698.8 | 725.1 | 776.0 | 821.7 | 835.7 |
| 50° | 653.1 | 679.4 | 733.9 | 781.3 | 795.3 |
| 52.5° | 605.7 | 633.8 | 691.7 | 740.9 | 753.2 |
| 55° | 558.3 | 588.1 | 649.6 | 697.0 | 707.5 |
| 57.5° | 510.9 | 542.5 | 605.7 | 651.4 | 663.6 |
| 60° | 463.5 | 496.9 | 558.3 | 603.9 | 612.7 |
| 62.5° | 416.1 | 451.2 | 514.4 | 554.8 | 563.6 |
| 65° | 368.7 | 407.3 | 470.5 | 507.4 | 517.9 |
| 67.5° | 323.0 | 361.7 | 423.1 | 458.2 | 467.0 |
| 70° | 280.9 | 316.0 | 377.5 | 403.8 | 407.3 |
| 72.5° | 228.2 | 272.1 | 331.8 | 345.9 | 337.1 |
| 75° | 184.3 | 228.2 | 279.2 | 273.9 | 263.3 |
| 77.5° | 140.5 | 184.3 | 217.7 | 200.1 | 186.1 |
| 80° | 100.1 | 144.0 | 151.0 | 124.7 | 117.6 |
| 82.5° | 65.0 | 100.1 | 84.3 | 65.0 | 52.7 |
| 85° | 33.4 | 47.4 | 26.3 | 21.1 | 17.6 |
| 87.5° | 10.5 | 7.0 | 3.5 | 3.5 | 1.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)