

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: P260337

Luminaire Tested: **22CZ-LD5-20-SQP-UNV-L92765-W2A1-U-5700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P260337  
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-LD5-20-SQP-UNV-L92765-W2A1-U-5700K  
Description: CRUZE 2x2 TUNABLE WHITE LED TROFFER  
WITH SQP LENS  
Light Source: (168) 90 CRI LEDS TUNED AT 5700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1275.0 lumens  
Efficiency: N/A  
Efficacy: 79.7 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

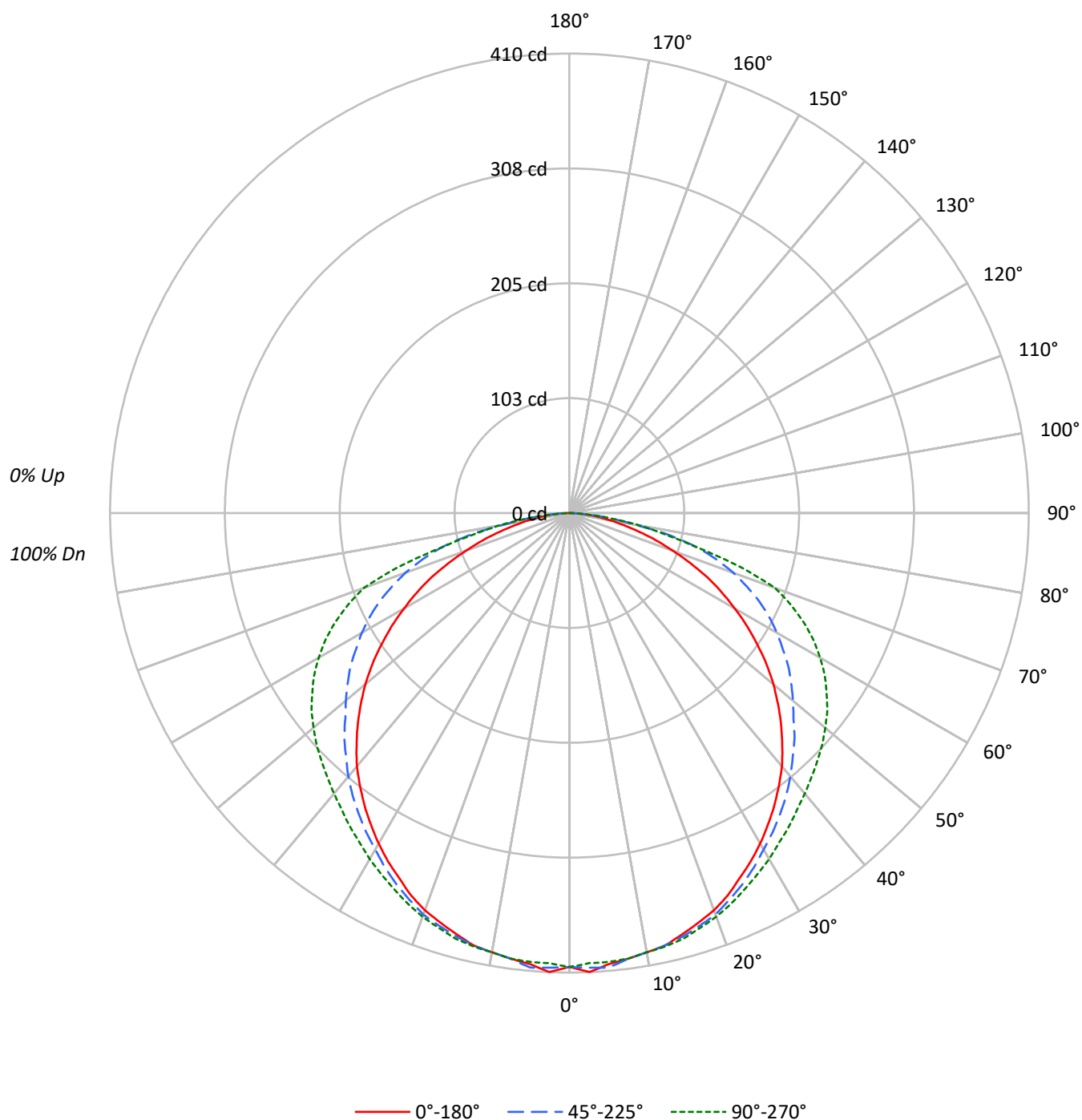
Input Watts (W): 15.996  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  |     |     |  |  | 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°  | 1090 | 1090 | 1090 |
| 5°  | 1091 | 1099 | 1086 |
| 10° | 1088 | 1088 | 1088 |
| 15° | 1084 | 1090 | 1095 |
| 20° | 1080 | 1092 | 1097 |
| 25° | 1067 | 1085 | 1099 |
| 30° | 1058 | 1077 | 1108 |
| 35° | 1047 | 1077 | 1122 |
| 40° | 1037 | 1078 | 1148 |
| 45° | 1017 | 1082 | 1191 |
| 50° | 995  | 1090 | 1248 |
| 55° | 962  | 1119 | 1315 |
| 60° | 917  | 1151 | 1391 |
| 65° | 864  | 1191 | 1469 |
| 70° | 771  | 1223 | 1535 |
| 75° | 670  | 1225 | 1214 |
| 80° | 567  | 905  | 982  |
| 85° | 488  | 611  | 550  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 38.4   | 3.0       |
| 10°-20°   | 110.4  | 8.7       |
| 20°-30°   | 168.3  | 13.2      |
| 30°-40°   | 205.9  | 16.1      |
| 40°-50°   | 221.5  | 17.4      |
| 50°-60°   | 214.6  | 16.8      |
| 60°-70°   | 181.8  | 14.3      |
| 70°-80°   | 109.9  | 8.6       |
| 80°-90°   | 24.1   | 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°    | 317.2  | 24.9      |
| 0°-40°    | 523.0  | 41.0      |
| 0°-60°    | 959.2  | 75.2      |
| 0°-90°    | 1275.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1275.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 405 | 405   | 405 | 405   | 405 |      |
| 5°  | 404 | 404   | 407 | 405   | 402 | 38   |
| 15° | 389 | 390   | 391 | 392   | 393 | 110  |
| 25° | 359 | 361   | 365 | 368   | 370 | 166  |
| 35° | 319 | 321   | 328 | 337   | 342 | 199  |
| 45° | 267 | 272   | 284 | 302   | 313 | 206  |
| 55° | 205 | 214   | 239 | 266   | 280 | 183  |
| 65° | 136 | 150   | 187 | 217   | 231 | 134  |
| 75° | 64  | 87    | 118 | 120   | 117 | 69   |
| 85° | 16  | 19    | 20  | 19    | 18  | 18   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 405.0 | 405.0 | 405.0 | 405.0 | 405.0 |
| 2.5°  | 409.9 | 408.9 | 406.0 | 404.0 | 402.0 |
| 5°    | 404.0 | 404.0 | 407.0 | 405.0 | 402.0 |
| 7.5°  | 401.0 | 401.0 | 401.0 | 406.0 | 401.0 |
| 10°   | 398.0 | 399.0 | 398.0 | 402.0 | 398.0 |
| 12.5° | 395.1 | 395.1 | 395.1 | 396.1 | 396.1 |
| 15°   | 389.1 | 390.1 | 391.1 | 392.1 | 393.1 |
| 17.5° | 383.2 | 384.2 | 386.2 | 387.2 | 388.1 |
| 20°   | 377.2 | 378.2 | 381.2 | 381.2 | 383.2 |
| 22.5° | 369.3 | 369.3 | 373.3 | 374.3 | 377.2 |
| 25°   | 359.4 | 361.4 | 365.4 | 368.3 | 370.3 |
| 27.5° | 350.5 | 352.5 | 356.5 | 360.4 | 363.4 |
| 30°   | 340.6 | 342.6 | 346.6 | 352.5 | 356.5 |
| 32.5° | 329.7 | 331.7 | 337.6 | 344.6 | 348.5 |
| 35°   | 318.8 | 320.8 | 327.7 | 336.7 | 341.6 |
| 37.5° | 306.9 | 309.9 | 317.8 | 327.7 | 333.7 |
| 40°   | 295.1 | 298.0 | 306.9 | 317.8 | 326.8 |
| 42.5° | 281.2 | 285.2 | 295.1 | 309.9 | 319.8 |
| 45°   | 267.3 | 272.3 | 284.2 | 302.0 | 312.9 |
| 47.5° | 252.5 | 257.4 | 271.3 | 294.1 | 306.0 |
| 50°   | 237.6 | 243.6 | 260.4 | 285.2 | 298.0 |
| 52.5° | 221.8 | 227.7 | 249.5 | 276.3 | 290.1 |
| 55°   | 205.0 | 213.9 | 238.6 | 266.4 | 280.2 |
| 57.5° | 188.1 | 198.0 | 225.8 | 255.5 | 270.3 |
| 60°   | 170.3 | 182.2 | 213.9 | 243.6 | 258.4 |
| 62.5° | 153.5 | 166.3 | 201.0 | 230.7 | 245.6 |
| 65°   | 135.7 | 150.5 | 187.1 | 216.8 | 230.7 |
| 67.5° | 116.8 | 135.7 | 171.3 | 200.0 | 213.9 |
| 70°   | 98.0  | 119.8 | 155.5 | 182.2 | 195.1 |
| 72.5° | 81.2  | 104.0 | 137.6 | 160.4 | 160.4 |
| 75°   | 64.4  | 87.1  | 117.8 | 119.8 | 116.8 |
| 77.5° | 49.5  | 71.3  | 92.1  | 84.2  | 86.1  |
| 80°   | 36.6  | 54.5  | 58.4  | 61.4  | 63.4  |
| 82.5° | 24.8  | 36.6  | 37.6  | 39.6  | 39.6  |
| 85°   | 15.8  | 18.8  | 19.8  | 18.8  | 17.8  |
| 87.5° | 6.9   | 7.9   | 5.9   | 4.0   | 3.0   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)