

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: P277554

Luminaire Tested: **22CZ2-20HE-RDP-UNV-L82765-W2A1-U-5500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P277554
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-20HE-RDP-UNV-L82765-W2A1-U-5500K
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER WITH RDP LENS
Light Source: (168) 80 CRI LEDS TUNED TO 5500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1401.0 lumens
Efficiency: N/A
Efficacy: 87.6 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

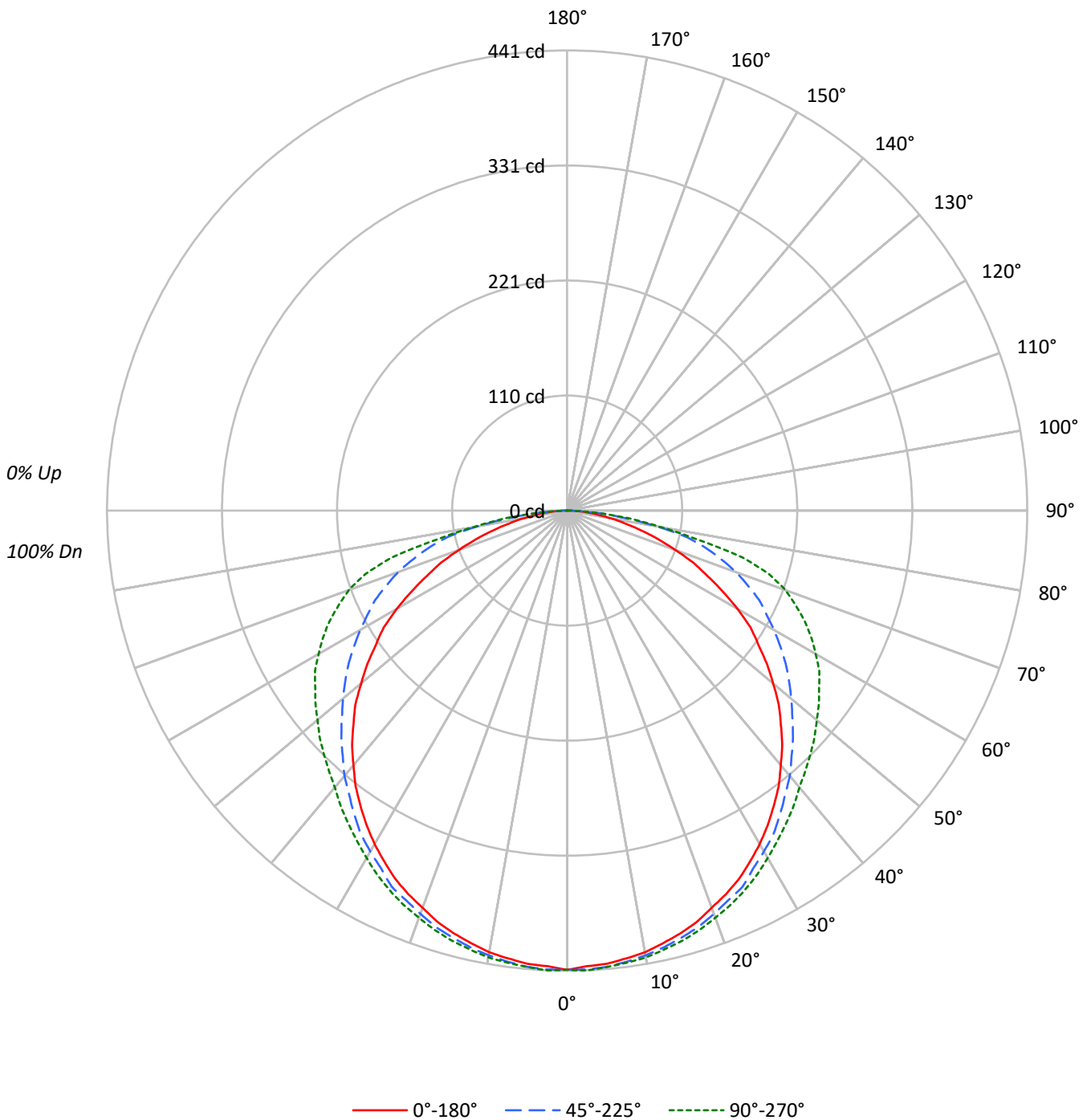
Input Watts (W): 15.996
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | | | | | 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 | 92 | 89 | 92 | 89 | 86 | 88 | 86 | 84 | 82 | | | | | 82 | | | |
| 2 | 97 | 88 | 81 | 75 | 95 | 86 | 80 | 74 | 83 | 77 | 72 | 80 | 75 | 71 | 76 | 72 | 69 | 67 | | | | | 67 | | | |
| 3 | 88 | 77 | 68 | 61 | 86 | 75 | 67 | 61 | 72 | 65 | 60 | 70 | 64 | 59 | 67 | 62 | 58 | 55 | | | | | 55 | | | |
| 4 | 80 | 68 | 59 | 51 | 78 | 66 | 58 | 51 | 64 | 56 | 50 | 61 | 55 | 50 | 59 | 54 | 49 | 47 | | | | | 47 | | | |
| 5 | 74 | 60 | 51 | 44 | 72 | 59 | 50 | 44 | 57 | 49 | 43 | 55 | 48 | 43 | 53 | 47 | 42 | 40 | | | | | 40 | | | |
| 6 | 68 | 54 | 45 | 38 | 66 | 53 | 44 | 38 | 51 | 43 | 38 | 50 | 43 | 37 | 48 | 42 | 37 | 35 | | | | | 35 | | | |
| 7 | 63 | 49 | 40 | 33 | 61 | 48 | 39 | 33 | 47 | 39 | 33 | 45 | 38 | 33 | 44 | 37 | 33 | 31 | | | | | 31 | | | |
| 8 | 59 | 45 | 36 | 30 | 57 | 44 | 35 | 30 | 43 | 35 | 29 | 41 | 34 | 29 | 40 | 34 | 29 | 27 | | | | | 27 | | | |
| 9 | 55 | 41 | 32 | 27 | 53 | 40 | 32 | 27 | 39 | 32 | 26 | 38 | 31 | 26 | 37 | 31 | 26 | 24 | | | | | 24 | | | |
| 10 | 51 | 38 | 30 | 24 | 50 | 37 | 29 | 24 | 36 | 29 | 24 | 35 | 29 | 24 | 34 | 28 | 24 | 22 | | | | | 22 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 1184 | 1184 | 1184 |
| 5° | 1178 | 1186 | 1186 |
| 10° | 1174 | 1183 | 1188 |
| 15° | 1169 | 1180 | 1189 |
| 20° | 1160 | 1178 | 1189 |
| 25° | 1157 | 1181 | 1193 |
| 30° | 1147 | 1172 | 1194 |
| 35° | 1134 | 1168 | 1202 |
| 40° | 1119 | 1166 | 1216 |
| 45° | 1102 | 1165 | 1255 |
| 50° | 1079 | 1173 | 1307 |
| 55° | 1049 | 1199 | 1383 |
| 60° | 1015 | 1231 | 1481 |
| 65° | 945 | 1293 | 1601 |
| 70° | 868 | 1354 | 1751 |
| 75° | 761 | 1425 | 1811 |
| 80° | 656 | 1358 | 1421 |
| 85° | 574 | 985 | 1081 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 41.6 | 3.0 |
| 10°-20° | 119.5 | 8.5 |
| 20°-30° | 182.4 | 13.0 |
| 30°-40° | 222.7 | 15.9 |
| 40°-50° | 238.1 | 17.0 |
| 50°-60° | 229.8 | 16.4 |
| 60°-70° | 197.8 | 14.1 |
| 70°-80° | 133.8 | 9.6 |
| 80°-90° | 35.3 | 2.5 |
| 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° | 343.5 | 24.5 |
| 0°-40° | 566.2 | 40.4 |
| 0°-60° | 1034.1 | 73.8 |
| 0°-90° | 1401.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1401.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 440 | 440 | 440 | 440 | 440 | |
| 5° | 436 | 437 | 439 | 439 | 439 | 41 |
| 15° | 420 | 420 | 424 | 426 | 427 | 118 |
| 25° | 390 | 392 | 398 | 400 | 402 | 179 |
| 35° | 345 | 348 | 356 | 363 | 366 | 216 |
| 45° | 290 | 295 | 306 | 322 | 330 | 224 |
| 55° | 224 | 231 | 256 | 281 | 295 | 200 |
| 65° | 148 | 163 | 203 | 235 | 252 | 148 |
| 75° | 73 | 97 | 137 | 165 | 174 | 79 |
| 85° | 19 | 26 | 32 | 33 | 35 | 21 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P277554

CATALOG NUMBER: 22CZ2-20HE-RDP-UNV-L82765-W2A1-U-5500K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 440.1 | 440.1 | 440.1 | 440.1 | 440.1 |
| 2.5° | 437.0 | 438.0 | 440.1 | 440.1 | 441.1 |
| 5° | 436.0 | 437.0 | 439.0 | 439.0 | 439.0 |
| 7.5° | 432.9 | 433.9 | 436.0 | 437.0 | 437.0 |
| 10° | 429.8 | 430.8 | 432.9 | 433.9 | 434.9 |
| 12.5° | 424.6 | 425.6 | 428.7 | 430.8 | 430.8 |
| 15° | 419.5 | 420.5 | 423.6 | 425.6 | 426.7 |
| 17.5° | 413.3 | 415.3 | 418.4 | 420.5 | 421.5 |
| 20° | 405.0 | 407.1 | 411.2 | 414.3 | 415.3 |
| 22.5° | 397.8 | 399.9 | 404.0 | 407.1 | 409.2 |
| 25° | 389.6 | 391.6 | 397.8 | 399.9 | 401.9 |
| 27.5° | 379.3 | 381.3 | 386.5 | 390.6 | 393.7 |
| 30° | 369.0 | 371.0 | 377.2 | 382.4 | 384.4 |
| 32.5° | 357.6 | 360.7 | 367.9 | 372.1 | 375.1 |
| 35° | 345.3 | 348.4 | 355.6 | 362.8 | 365.9 |
| 37.5° | 332.9 | 336.0 | 343.2 | 352.5 | 356.6 |
| 40° | 318.5 | 322.6 | 331.9 | 344.2 | 346.3 |
| 42.5° | 305.1 | 310.2 | 318.5 | 332.9 | 338.0 |
| 45° | 289.6 | 294.8 | 306.1 | 321.6 | 329.8 |
| 47.5° | 275.2 | 280.3 | 292.7 | 311.2 | 321.6 |
| 50° | 257.7 | 264.9 | 280.3 | 302.0 | 312.3 |
| 52.5° | 241.2 | 247.4 | 268.0 | 291.7 | 304.0 |
| 55° | 223.6 | 230.9 | 255.6 | 281.4 | 294.8 |
| 57.5° | 208.2 | 214.4 | 242.2 | 271.1 | 286.5 |
| 60° | 188.6 | 196.9 | 228.8 | 259.7 | 275.2 |
| 62.5° | 168.0 | 180.4 | 215.4 | 247.4 | 263.8 |
| 65° | 148.4 | 162.8 | 203.0 | 235.0 | 251.5 |
| 67.5° | 130.9 | 146.3 | 187.6 | 221.6 | 237.0 |
| 70° | 110.3 | 129.9 | 172.1 | 205.1 | 222.6 |
| 72.5° | 91.7 | 113.4 | 154.6 | 187.6 | 203.0 |
| 75° | 73.2 | 96.9 | 137.1 | 164.9 | 174.2 |
| 77.5° | 56.7 | 79.4 | 117.5 | 125.7 | 126.8 |
| 80° | 42.3 | 62.9 | 87.6 | 88.6 | 91.7 |
| 82.5° | 28.9 | 44.3 | 56.7 | 61.8 | 62.9 |
| 85° | 18.6 | 25.8 | 31.9 | 33.0 | 35.0 |
| 87.5° | 8.2 | 9.3 | 11.3 | 10.3 | 10.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)