

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: P345153

Luminaire Tested: **22CZ-44SE-L850-HRP-UNV-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P345153  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1905-313-3)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ-44SE-L850-HRP-UNV-CD1-U  
Description: CRUZE 2X2 WITH HRP LENS INSERT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4263.5 lumens  
Efficiency: N/A  
Efficacy: 106.6 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

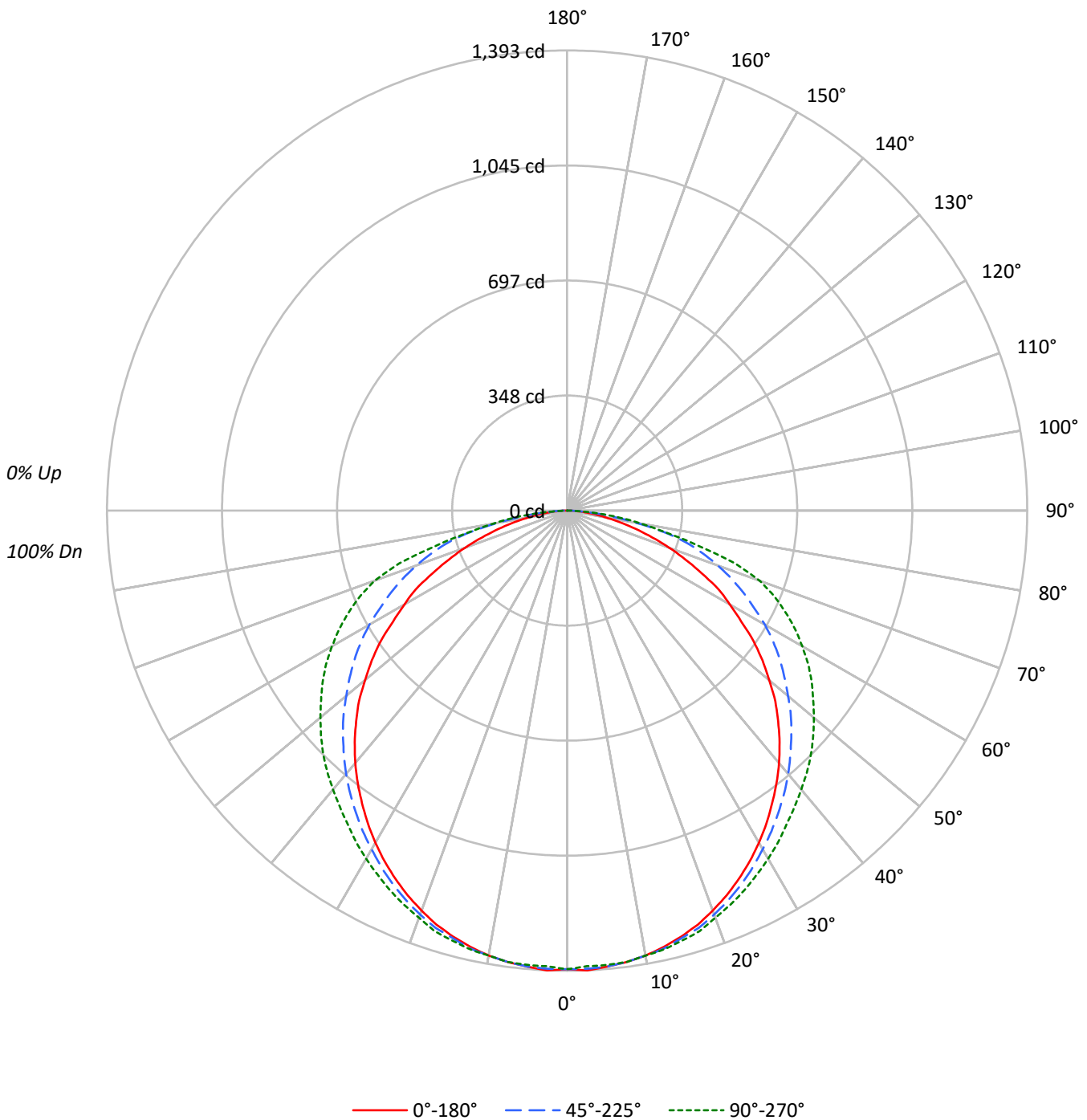
Input Watts (W): 40  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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   | 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  | 72  |  | 77  | 74  | 70  | 68  |
| 3   | 89  | 78  | 69  | 63  | 86  | 76  | 68  | 62  | 73  | 67  | 61  |  | 71  | 65  | 60  |  | 68  | 63  | 59  | 57  |
| 4   | 81  | 69  | 60  | 53  | 79  | 67  | 59  | 52  | 65  | 57  | 52  |  | 63  | 56  | 51  |  | 60  | 55  | 50  | 48  |
| 5   | 75  | 61  | 52  | 45  | 72  | 60  | 51  | 45  | 58  | 50  | 44  |  | 56  | 49  | 44  |  | 54  | 48  | 43  | 41  |
| 6   | 69  | 55  | 46  | 39  | 67  | 54  | 45  | 39  | 52  | 44  | 39  |  | 50  | 44  | 38  |  | 49  | 43  | 38  | 36  |
| 7   | 64  | 50  | 41  | 34  | 62  | 49  | 40  | 34  | 47  | 40  | 34  |  | 46  | 39  | 34  |  | 45  | 38  | 34  | 32  |
| 8   | 59  | 45  | 37  | 31  | 58  | 45  | 36  | 31  | 43  | 36  | 30  |  | 42  | 35  | 30  |  | 41  | 35  | 30  | 28  |
| 9   | 55  | 42  | 33  | 28  | 54  | 41  | 33  | 27  | 40  | 32  | 27  |  | 39  | 32  | 27  |  | 38  | 32  | 27  | 25  |
| 10  | 52  | 38  | 30  | 25  | 50  | 38  | 30  | 25  | 37  | 30  | 25  |  | 36  | 29  | 25  |  | 35  | 29  | 24  | 23  |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 3736 | 3736 | 3736 |
| 5°  | 3743 | 3743 | 3729 |
| 10° | 3738 | 3738 | 3738 |
| 15° | 3718 | 3733 | 3754 |
| 20° | 3691 | 3727 | 3756 |
| 25° | 3652 | 3705 | 3766 |
| 30° | 3608 | 3679 | 3782 |
| 35° | 3555 | 3664 | 3806 |
| 40° | 3505 | 3658 | 3873 |
| 45° | 3438 | 3652 | 3972 |
| 50° | 3344 | 3654 | 4081 |
| 55° | 3232 | 3688 | 4238 |
| 60° | 3063 | 3722 | 4423 |
| 65° | 2860 | 3754 | 4648 |
| 70° | 2590 | 3815 | 4879 |
| 75° | 2229 | 3874 | 4272 |
| 80° | 1819 | 3243 | 3519 |
| 85° | 1497 | 2365 | 2600 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 131.6  | 3.1       |
| 10°-20°   | 378.5  | 8.9       |
| 20°-30°   | 575.4  | 13.5      |
| 30°-40°   | 700.2  | 16.4      |
| 40°-50°   | 745.8  | 17.5      |
| 50°-60°   | 705.5  | 16.5      |
| 60°-70°   | 581.5  | 13.6      |
| 70°-80°   | 357.7  | 8.4       |
| 80°-90°   | 87.3   | 2.0       |
| 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°    | 1085.6 | 25.5      |
| 0°-40°    | 1785.7 | 41.9      |
| 0°-60°    | 3237.1 | 75.9      |
| 0°-90°    | 4263.5 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4263.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1388 | 1388  | 1388 | 1388  | 1388 |      |
| 5°  | 1386 | 1386  | 1386 | 1383  | 1381 | 132  |
| 15° | 1335 | 1337  | 1340 | 1345  | 1348 | 377  |
| 25° | 1230 | 1235  | 1248 | 1261  | 1268 | 567  |
| 35° | 1082 | 1092  | 1115 | 1143  | 1159 | 677  |
| 45° | 903  | 919   | 960  | 1013  | 1044 | 697  |
| 55° | 689  | 715   | 786  | 863   | 903  | 613  |
| 65° | 449  | 492   | 590  | 684   | 730  | 446  |
| 75° | 214  | 273   | 373  | 406   | 411  | 230  |
| 85° | 48   | 64    | 77   | 82    | 84   | 57   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1388.3 | 1388.3 | 1388.3 | 1388.3 | 1388.3 |
| 2.5°  | 1393.4 | 1390.9 | 1388.3 | 1383.2 | 1380.6 |
| 5°    | 1385.7 | 1385.7 | 1385.7 | 1383.2 | 1380.6 |
| 7.5°  | 1378.1 | 1378.1 | 1378.1 | 1378.1 | 1378.1 |
| 10°   | 1367.9 | 1367.9 | 1367.9 | 1367.9 | 1367.9 |
| 12.5° | 1352.6 | 1355.1 | 1357.7 | 1357.7 | 1360.2 |
| 15°   | 1334.7 | 1337.3 | 1339.8 | 1344.9 | 1347.5 |
| 17.5° | 1314.3 | 1316.8 | 1324.5 | 1329.6 | 1334.7 |
| 20°   | 1288.8 | 1291.3 | 1301.5 | 1306.6 | 1311.7 |
| 22.5° | 1260.7 | 1265.8 | 1276.0 | 1286.2 | 1291.3 |
| 25°   | 1230.1 | 1235.2 | 1247.9 | 1260.7 | 1268.4 |
| 27.5° | 1196.9 | 1202.0 | 1217.3 | 1235.2 | 1242.8 |
| 30°   | 1161.2 | 1166.3 | 1184.1 | 1204.6 | 1217.3 |
| 32.5° | 1122.9 | 1130.5 | 1151.0 | 1176.5 | 1189.2 |
| 35°   | 1082.1 | 1092.3 | 1115.2 | 1143.3 | 1158.6 |
| 37.5° | 1041.2 | 1051.4 | 1079.5 | 1112.7 | 1130.5 |
| 40°   | 997.8  | 1010.6 | 1041.2 | 1079.5 | 1102.5 |
| 42.5° | 951.9  | 967.2  | 1000.4 | 1046.3 | 1074.4 |
| 45°   | 903.4  | 918.7  | 959.6  | 1013.2 | 1043.8 |
| 47.5° | 854.9  | 872.8  | 918.7  | 977.4  | 1010.6 |
| 50°   | 798.8  | 819.2  | 872.8  | 941.7  | 974.9  |
| 52.5° | 745.2  | 770.7  | 829.4  | 903.4  | 939.1  |
| 55°   | 689.0  | 714.6  | 786.0  | 862.6  | 903.4  |
| 57.5° | 625.2  | 655.9  | 740.1  | 821.8  | 865.1  |
| 60°   | 569.1  | 599.7  | 691.6  | 778.4  | 821.8  |
| 62.5° | 518.1  | 546.1  | 638.0  | 732.4  | 778.4  |
| 65°   | 449.2  | 492.5  | 589.5  | 683.9  | 729.9  |
| 67.5° | 387.9  | 436.4  | 538.5  | 627.8  | 678.8  |
| 70°   | 329.2  | 380.3  | 484.9  | 571.7  | 620.1  |
| 72.5° | 270.5  | 326.7  | 431.3  | 507.9  | 533.4  |
| 75°   | 214.4  | 273.1  | 372.6  | 405.8  | 410.9  |
| 77.5° | 163.3  | 222.0  | 301.1  | 298.6  | 303.7  |
| 80°   | 117.4  | 168.4  | 209.3  | 216.9  | 227.1  |
| 82.5° | 79.1   | 117.4  | 135.3  | 148.0  | 158.2  |
| 85°   | 48.5   | 63.8   | 76.6   | 81.7   | 84.2   |
| 87.5° | 23.0   | 25.5   | 25.5   | 20.4   | 20.4   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)