

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: P#

Luminaire Tested: **22CZ-LD5-29-SQP-UNV-L850-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P#  
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-LD5-29-SQP-UNV-L850-CD1-U  
Description:

Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2360.1 lumens  
Efficiency: N/A  
Efficacy: 100.4 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.31 / 1.41  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 2' x H: 0.1')  
CIE Type: Direct

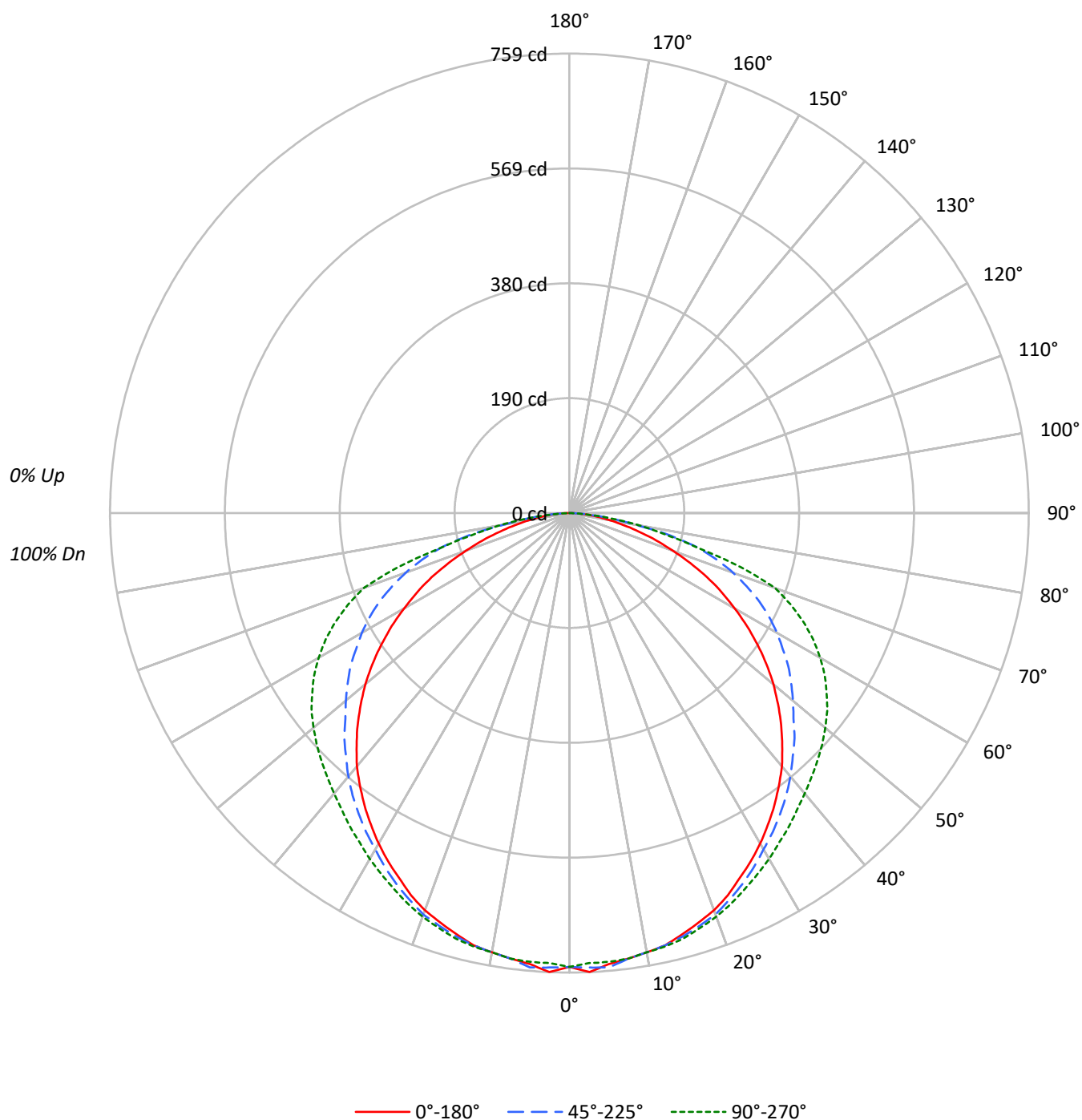
Input Watts (W): 23.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  |     |     |     | 0   |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 |
| 1   | 108 | 103 | 99  | 95  | 105 | 101 | 97  | 93  | 97  | 93  | 90  | 93  | 90  | 87  | 89  | 87  | 85  |
| 2   | 98  | 89  | 82  | 76  | 95  | 87  | 81  | 75  | 84  | 78  | 73  | 80  | 76  | 71  | 77  | 73  | 70  |
| 3   | 89  | 78  | 69  | 62  | 86  | 76  | 68  | 62  | 73  | 66  | 61  | 70  | 64  | 59  | 68  | 63  | 58  |
| 4   | 81  | 68  | 59  | 52  | 79  | 67  | 58  | 52  | 64  | 57  | 51  | 62  | 56  | 50  | 60  | 54  | 50  |
| 5   | 74  | 61  | 52  | 45  | 72  | 60  | 51  | 44  | 58  | 50  | 44  | 56  | 49  | 43  | 54  | 48  | 43  |
| 6   | 68  | 55  | 45  | 39  | 66  | 54  | 45  | 39  | 52  | 44  | 38  | 50  | 43  | 38  | 48  | 42  | 37  |
| 7   | 63  | 49  | 40  | 34  | 62  | 49  | 40  | 34  | 47  | 39  | 34  | 45  | 39  | 33  | 44  | 38  | 33  |
| 8   | 59  | 45  | 36  | 30  | 57  | 44  | 36  | 30  | 43  | 35  | 30  | 42  | 35  | 30  | 40  | 34  | 29  |
| 9   | 55  | 41  | 33  | 27  | 54  | 41  | 33  | 27  | 39  | 32  | 27  | 38  | 32  | 27  | 37  | 31  | 27  |
| 10  | 51  | 38  | 30  | 24  | 50  | 37  | 30  | 24  | 36  | 29  | 24  | 35  | 29  | 24  | 35  | 28  | 24  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 2017 | 2017 | 2017 |
| 5°  | 2011 | 2022 | 2001 |
| 10° | 1996 | 1989 | 1996 |
| 15° | 1980 | 1979 | 2000 |
| 20° | 1964 | 1970 | 1995 |
| 25° | 1930 | 1944 | 1989 |
| 30° | 1904 | 1915 | 1993 |
| 35° | 1873 | 1899 | 2007 |
| 40° | 1841 | 1884 | 2039 |
| 45° | 1794 | 1870 | 2099 |
| 50° | 1738 | 1861 | 2180 |
| 55° | 1661 | 1882 | 2271 |
| 60° | 1561 | 1898 | 2370 |
| 65° | 1444 | 1915 | 2456 |
| 70° | 1255 | 1895 | 2498 |
| 75° | 1044 | 1794 | 1895 |
| 80° | 819  | 1196 | 1416 |
| 85° | 576  | 627  | 648  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 71.2   | 3.0       |
| 10°-20°   | 204.4  | 8.7       |
| 20°-30°   | 311.5  | 13.2      |
| 30°-40°   | 381.1  | 16.1      |
| 40°-50°   | 410.1  | 17.4      |
| 50°-60°   | 397.2  | 16.8      |
| 60°-70°   | 336.5  | 14.3      |
| 70°-80°   | 203.4  | 8.6       |
| 80°-90°   | 44.7   | 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°    | 587.0  | 24.9      |
| 0°-40°    | 968.2  | 41.0      |
| 0°-60°    | 1775.5 | 75.2      |
| 0°-90°    | 2360.1 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2360.1 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 750 | 750   | 750 | 750   | 750 |      |
| 5°  | 748 | 748   | 753 | 750   | 744 | 71   |
| 15° | 720 | 722   | 724 | 726   | 728 | 203  |
| 25° | 665 | 669   | 676 | 682   | 686 | 307  |
| 35° | 590 | 594   | 607 | 623   | 632 | 369  |
| 45° | 495 | 504   | 526 | 559   | 579 | 381  |
| 55° | 379 | 396   | 442 | 493   | 519 | 339  |
| 65° | 251 | 279   | 346 | 401   | 427 | 247  |
| 75° | 119 | 161   | 218 | 222   | 216 | 128  |
| 85° | 29  | 35    | 37  | 35    | 33  | 33   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



TEST NUMBER: P#

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 749.6 | 749.6 | 749.6 | 749.6 | 749.6 |
| 2.5°  | 758.8 | 756.9 | 751.4 | 747.8 | 744.1 |
| 5°    | 747.8 | 747.8 | 753.3 | 749.6 | 744.1 |
| 7.5°  | 742.3 | 742.3 | 742.3 | 751.4 | 742.3 |
| 10°   | 736.8 | 738.6 | 736.8 | 744.1 | 736.8 |
| 12.5° | 731.3 | 731.3 | 731.3 | 733.1 | 733.1 |
| 15°   | 720.3 | 722.1 | 724.0 | 725.8 | 727.6 |
| 17.5° | 709.3 | 711.1 | 714.8 | 716.6 | 718.5 |
| 20°   | 698.3 | 700.1 | 705.6 | 705.6 | 709.3 |
| 22.5° | 683.6 | 683.6 | 691.0 | 692.8 | 698.3 |
| 25°   | 665.3 | 669.0 | 676.3 | 681.8 | 685.5 |
| 27.5° | 648.8 | 652.5 | 659.8 | 667.1 | 672.6 |
| 30°   | 630.5 | 634.1 | 641.5 | 652.5 | 659.8 |
| 32.5° | 610.3 | 614.0 | 625.0 | 637.8 | 645.1 |
| 35°   | 590.2 | 593.8 | 606.7 | 623.2 | 632.3 |
| 37.5° | 568.2 | 573.7 | 588.3 | 606.7 | 617.7 |
| 40°   | 546.2 | 551.7 | 568.2 | 588.3 | 604.8 |
| 42.5° | 520.5 | 527.8 | 546.2 | 573.7 | 592.0 |
| 45°   | 494.9 | 504.0 | 526.0 | 559.0 | 579.2 |
| 47.5° | 467.4 | 476.5 | 502.2 | 544.3 | 566.3 |
| 50°   | 439.9 | 450.9 | 482.0 | 527.8 | 551.7 |
| 52.5° | 410.5 | 421.5 | 461.9 | 511.4 | 537.0 |
| 55°   | 379.4 | 395.9 | 441.7 | 493.0 | 518.7 |
| 57.5° | 348.2 | 366.6 | 417.9 | 472.9 | 500.4 |
| 60°   | 315.2 | 337.2 | 395.9 | 450.9 | 478.4 |
| 62.5° | 284.1 | 307.9 | 372.1 | 427.0 | 454.5 |
| 65°   | 251.1 | 278.6 | 346.4 | 401.4 | 427.0 |
| 67.5° | 216.3 | 251.1 | 317.1 | 370.2 | 395.9 |
| 70°   | 181.4 | 221.8 | 287.7 | 337.2 | 361.1 |
| 72.5° | 150.3 | 192.4 | 254.8 | 296.9 | 296.9 |
| 75°   | 119.1 | 161.3 | 218.1 | 221.8 | 216.3 |
| 77.5° | 91.6  | 132.0 | 170.5 | 155.8 | 159.5 |
| 80°   | 67.8  | 100.8 | 108.1 | 113.6 | 117.3 |
| 82.5° | 45.8  | 67.8  | 69.6  | 73.3  | 73.3  |
| 85°   | 29.3  | 34.8  | 36.7  | 34.8  | 33.0  |
| 87.5° | 12.8  | 14.7  | 11.0  | 7.3   | 5.5   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)