

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: P393253

Luminaire Tested: **22EN-LD2-25-UNV-L82765-W2A-1-U (4000K)**

Issue Date: 3/28/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P393253  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-563-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22EN-LD2-25-UNV-L82765-W2A-1-U (4000K)  
Description: 2X2 ENCOUNTER, 2500 LUMENS, VIVIDTUNE TUNABLE WHITE  
Light Source: 2700K/6500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2337.2 lumens  
Efficiency: N/A  
Efficacy: 129.1 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.25 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

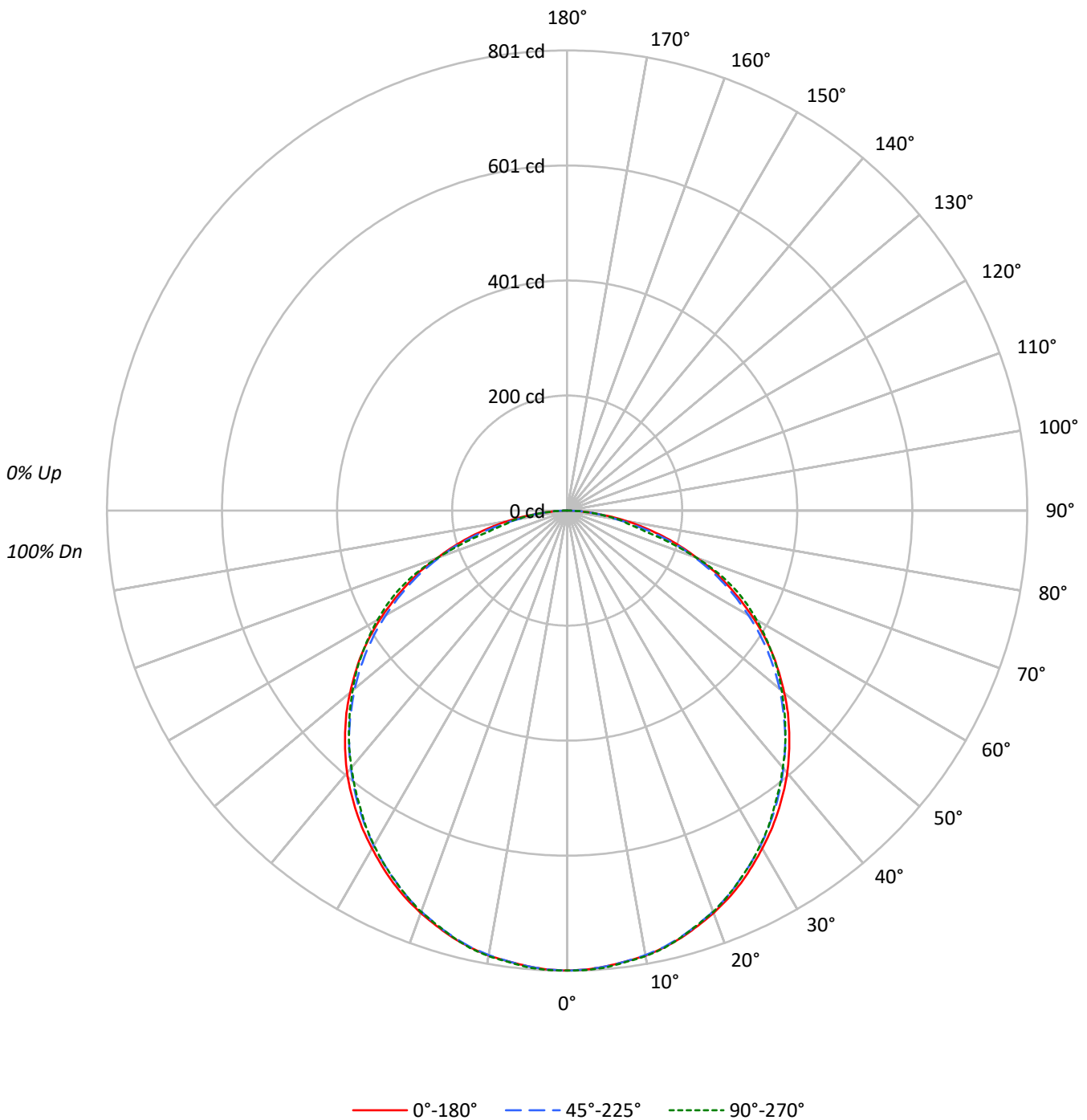
Input Watts (W): 18.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  | 0   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1   | 109 | 104 | 99  | 95  | 106 | 101 | 97  | 94  | 97  | 94  | 91  | 93  | 90  | 88  | 90  | 87  | 85  | 83  |
| 2   | 98  | 90  | 83  | 77  | 96  | 88  | 82  | 76  | 85  | 79  | 74  | 81  | 77  | 73  | 78  | 74  | 71  | 69  |
| 3   | 90  | 79  | 71  | 64  | 87  | 77  | 70  | 63  | 74  | 68  | 62  | 71  | 66  | 61  | 69  | 64  | 60  | 58  |
| 4   | 82  | 70  | 61  | 54  | 80  | 68  | 60  | 54  | 66  | 59  | 53  | 63  | 57  | 52  | 61  | 56  | 51  | 49  |
| 5   | 75  | 62  | 53  | 46  | 73  | 61  | 52  | 46  | 59  | 51  | 45  | 57  | 50  | 45  | 55  | 49  | 44  | 42  |
| 6   | 69  | 56  | 47  | 40  | 67  | 55  | 46  | 40  | 53  | 45  | 40  | 51  | 45  | 39  | 50  | 44  | 39  | 37  |
| 7   | 64  | 51  | 42  | 36  | 63  | 50  | 41  | 35  | 48  | 41  | 35  | 47  | 40  | 35  | 45  | 39  | 35  | 33  |
| 8   | 60  | 46  | 38  | 32  | 58  | 45  | 37  | 32  | 44  | 37  | 31  | 43  | 36  | 31  | 42  | 36  | 31  | 29  |
| 9   | 56  | 42  | 34  | 28  | 54  | 42  | 34  | 28  | 41  | 33  | 28  | 39  | 33  | 28  | 38  | 32  | 28  | 26  |
| 10  | 52  | 39  | 31  | 26  | 51  | 39  | 31  | 26  | 38  | 30  | 26  | 37  | 30  | 25  | 36  | 30  | 25  | 24  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 2154 | 2154 | 2154 |
| 5°  | 2150 | 2150 | 2155 |
| 10° | 2149 | 2147 | 2152 |
| 15° | 2144 | 2139 | 2142 |
| 20° | 2135 | 2127 | 2129 |
| 25° | 2125 | 2108 | 2108 |
| 30° | 2110 | 2093 | 2090 |
| 35° | 2102 | 2075 | 2065 |
| 40° | 2094 | 2057 | 2051 |
| 45° | 2080 | 2041 | 2044 |
| 50° | 2065 | 2022 | 2041 |
| 55° | 2051 | 1999 | 2046 |
| 60° | 2016 | 1961 | 2051 |
| 65° | 1969 | 1921 | 2046 |
| 70° | 1889 | 1845 | 1881 |
| 75° | 1787 | 1690 | 1467 |
| 80° | 1621 | 1361 | 1447 |
| 85° | 1183 | 1210 | 1183 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 75.7   | 3.2       |
| 10°-20°   | 216.8  | 9.3       |
| 20°-30°   | 327.8  | 14.0      |
| 30°-40°   | 395.9  | 16.9      |
| 40°-50°   | 415.6  | 17.8      |
| 50°-60°   | 385.0  | 16.5      |
| 60°-70°   | 304.0  | 13.0      |
| 70°-80°   | 170.5  | 7.3       |
| 80°-90°   | 46.0   | 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°    | 620.2  | 26.5      |
| 0°-40°    | 1016.1 | 43.5      |
| 0°-60°    | 1816.7 | 77.7      |
| 0°-90°    | 2337.2 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2337.2 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 801 | 801   | 801 | 801   | 801 |      |
| 5°  | 796 | 795   | 796 | 797   | 798 | 76   |
| 15° | 770 | 768   | 768 | 768   | 769 | 217  |
| 25° | 716 | 713   | 710 | 708   | 710 | 330  |
| 35° | 640 | 637   | 632 | 628   | 629 | 400  |
| 45° | 546 | 542   | 536 | 533   | 537 | 422  |
| 55° | 437 | 432   | 426 | 430   | 436 | 390  |
| 65° | 309 | 306   | 302 | 312   | 321 | 306  |
| 75° | 172 | 169   | 162 | 147   | 141 | 182  |
| 85° | 38  | 38    | 39  | 38    | 38  | 49   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 800.6 | 800.6 | 800.6 | 800.6 | 800.6 |
| 2.5°  | 799.6 | 798.7 | 799.6 | 799.6 | 800.6 |
| 5°    | 795.9 | 795.0 | 795.9 | 796.8 | 797.8 |
| 7.5°  | 791.2 | 790.3 | 791.2 | 792.2 | 792.2 |
| 10°   | 786.6 | 784.7 | 785.6 | 786.6 | 787.5 |
| 12.5° | 779.1 | 778.1 | 778.1 | 778.1 | 780.0 |
| 15°   | 769.7 | 767.9 | 767.9 | 767.9 | 768.8 |
| 17.5° | 757.6 | 756.7 | 755.7 | 755.7 | 755.7 |
| 20°   | 745.4 | 743.6 | 742.6 | 741.7 | 743.6 |
| 22.5° | 731.4 | 729.6 | 727.7 | 725.8 | 727.7 |
| 25°   | 715.6 | 712.8 | 710.0 | 708.1 | 710.0 |
| 27.5° | 697.8 | 695.9 | 692.2 | 689.4 | 692.2 |
| 30°   | 679.1 | 676.3 | 673.5 | 670.7 | 672.6 |
| 32.5° | 660.4 | 657.6 | 653.0 | 649.2 | 652.0 |
| 35°   | 639.9 | 637.1 | 631.5 | 627.7 | 628.7 |
| 37.5° | 618.4 | 614.7 | 609.1 | 605.3 | 607.2 |
| 40°   | 596.0 | 592.2 | 585.7 | 581.0 | 583.8 |
| 42.5° | 571.7 | 568.0 | 561.4 | 558.6 | 561.4 |
| 45°   | 546.5 | 541.8 | 536.2 | 533.4 | 537.1 |
| 47.5° | 521.3 | 517.5 | 509.1 | 509.1 | 512.8 |
| 50°   | 493.2 | 489.5 | 483.0 | 483.0 | 487.6 |
| 52.5° | 465.2 | 460.5 | 454.9 | 456.8 | 463.3 |
| 55°   | 437.2 | 432.5 | 426.0 | 429.7 | 436.2 |
| 57.5° | 406.4 | 402.6 | 396.1 | 401.7 | 409.2 |
| 60°   | 374.6 | 369.9 | 364.3 | 371.8 | 381.1 |
| 62.5° | 341.9 | 338.2 | 333.5 | 342.8 | 353.1 |
| 65°   | 309.2 | 305.5 | 301.7 | 312.0 | 321.3 |
| 67.5° | 277.4 | 272.8 | 269.0 | 278.4 | 284.9 |
| 70°   | 240.1 | 237.3 | 234.5 | 236.3 | 239.1 |
| 72.5° | 206.4 | 203.6 | 200.8 | 193.4 | 190.6 |
| 75°   | 171.9 | 169.1 | 162.5 | 146.7 | 141.1 |
| 77.5° | 138.3 | 135.5 | 123.3 | 109.3 | 110.2 |
| 80°   | 104.6 | 101.8 | 87.8  | 90.6  | 93.4  |
| 82.5° | 71.9  | 68.2  | 65.4  | 64.5  | 64.5  |
| 85°   | 38.3  | 38.3  | 39.2  | 38.3  | 38.3  |
| 87.5° | 15.9  | 16.8  | 16.8  | 16.8  | 16.8  |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)