

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: P229617

Luminaire Tested: **22RLN-LD5-35-RDP-UNV-L835-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P229617  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P36060)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22RLN-LD5-35-RDP-UNV-L835-CD1-U  
Description: METALUX 2X2 RLN LED TROFFER WITH RDP LENS  
Light Source: (126)3500K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2886.0 lumens  
Efficiency: N/A  
Efficacy: 94.3 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.38 / 1.41  
Luminous Opening: Rectangular (W 1.83' x L: 1.83' x H: 0')  
CIE Type: Direct

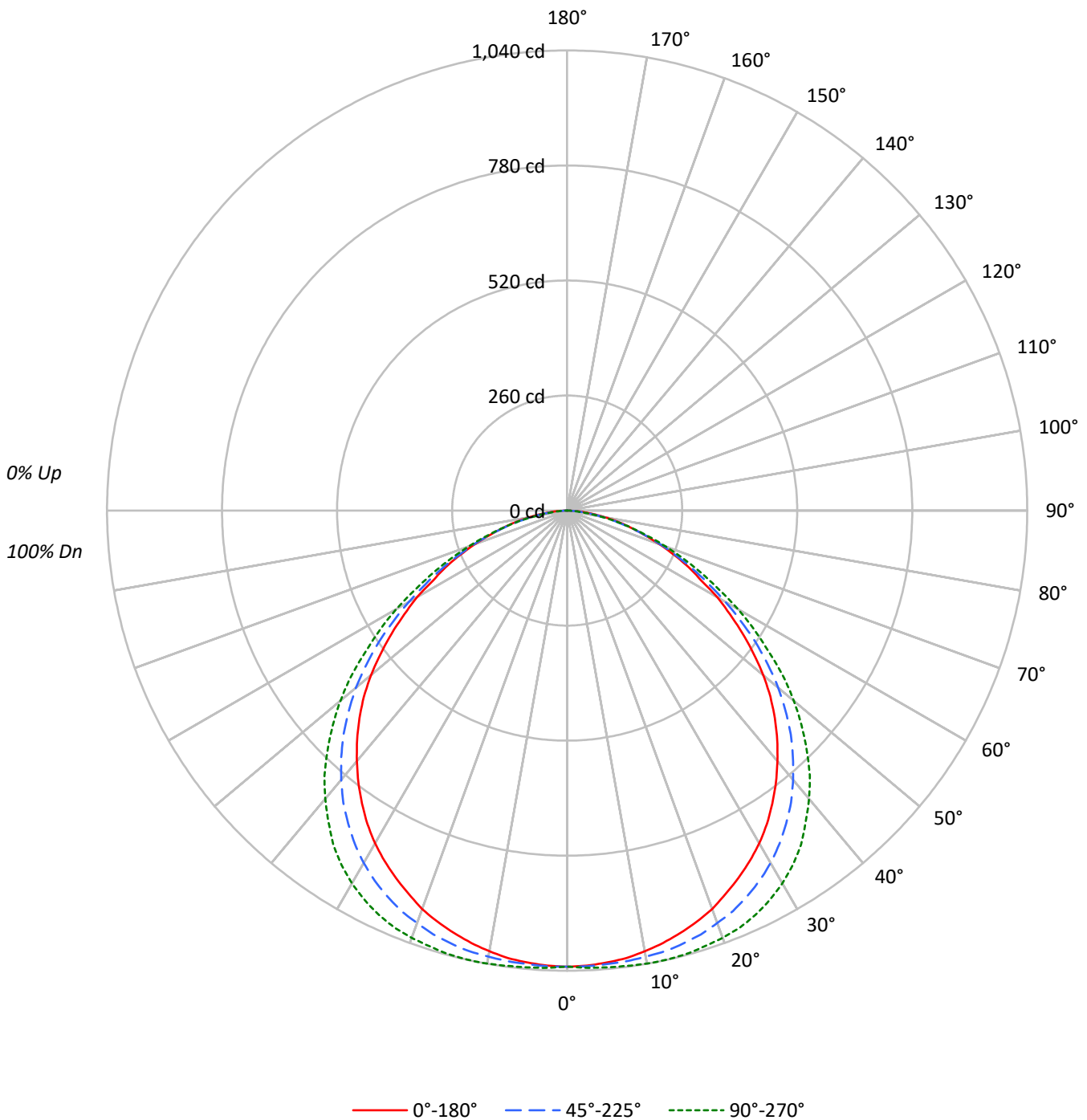
Input Watts (W): 30.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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 | 105 | 101 | 97  | 107 | 103 | 99  | 96  | 98  | 95  | 93  | 94  | 92  | 90  | 91  | 89  | 87  | 85  |
| 2   | 100 | 92  | 85  | 80  | 97  | 90  | 84  | 79  | 86  | 81  | 77  | 83  | 79  | 75  | 80  | 77  | 74  | 72  |
| 3   | 91  | 81  | 73  | 67  | 89  | 79  | 72  | 66  | 76  | 70  | 65  | 74  | 68  | 64  | 71  | 67  | 63  | 61  |
| 4   | 84  | 72  | 63  | 57  | 81  | 71  | 63  | 56  | 68  | 61  | 56  | 66  | 60  | 55  | 64  | 58  | 54  | 52  |
| 5   | 77  | 64  | 56  | 49  | 75  | 63  | 55  | 49  | 61  | 54  | 48  | 59  | 53  | 48  | 57  | 52  | 47  | 45  |
| 6   | 71  | 58  | 49  | 43  | 69  | 57  | 49  | 43  | 55  | 48  | 42  | 54  | 47  | 42  | 52  | 46  | 42  | 40  |
| 7   | 66  | 53  | 44  | 38  | 64  | 52  | 44  | 38  | 50  | 43  | 37  | 49  | 42  | 37  | 47  | 41  | 37  | 35  |
| 8   | 61  | 48  | 40  | 34  | 60  | 47  | 39  | 34  | 46  | 39  | 33  | 45  | 38  | 33  | 44  | 38  | 33  | 31  |
| 9   | 57  | 44  | 36  | 30  | 56  | 43  | 36  | 30  | 42  | 35  | 30  | 41  | 35  | 30  | 40  | 34  | 30  | 28  |
| 10  | 54  | 41  | 33  | 28  | 52  | 40  | 33  | 27  | 39  | 32  | 27  | 38  | 32  | 27  | 37  | 31  | 27  | 25  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 3302 | 3302 | 3302 |
| 5°  | 3297 | 3308 | 3331 |
| 10° | 3289 | 3329 | 3381 |
| 15° | 3277 | 3359 | 3441 |
| 20° | 3267 | 3381 | 3502 |
| 25° | 3237 | 3399 | 3562 |
| 30° | 3212 | 3401 | 3597 |
| 35° | 3161 | 3375 | 3602 |
| 40° | 3092 | 3321 | 3557 |
| 45° | 3006 | 3238 | 3470 |
| 50° | 2885 | 3105 | 3333 |
| 55° | 2701 | 2907 | 3104 |
| 60° | 2510 | 2646 | 2861 |
| 65° | 2301 | 2381 | 2542 |
| 70° | 2083 | 2115 | 2215 |
| 75° | 1835 | 1791 | 1856 |
| 80° | 1595 | 1464 | 1400 |
| 85° | 1297 | 974  | 841  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 98.2   | 3.4       |
| 10°-20°   | 286.2  | 9.9       |
| 20°-30°   | 443.5  | 15.4      |
| 30°-40°   | 539.7  | 18.7      |
| 40°-50°   | 549.7  | 19.0      |
| 50°-60°   | 463.6  | 16.1      |
| 60°-70°   | 313.6  | 10.9      |
| 70°-80°   | 156.7  | 5.4       |
| 80°-90°   | 34.9   | 1.2       |
| 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°    | 827.9  | 28.7      |
| 0°-40°    | 1367.6 | 47.4      |
| 0°-60°    | 2380.8 | 82.5      |
| 0°-90°    | 2886.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2886.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1031 | 1031  | 1031 | 1031  | 1031 |      |
| 5°  | 1026 | 1027  | 1029 | 1034  | 1036 | 97   |
| 15° | 988  | 996   | 1013 | 1031  | 1038 | 279  |
| 25° | 916  | 930   | 962  | 994   | 1008 | 422  |
| 35° | 808  | 826   | 863  | 904   | 921  | 505  |
| 45° | 664  | 676   | 715  | 752   | 766  | 511  |
| 55° | 484  | 491   | 521  | 546   | 556  | 433  |
| 65° | 304  | 298   | 314  | 328   | 335  | 300  |
| 75° | 148  | 143   | 145  | 146   | 150  | 159  |
| 85° | 35   | 30    | 26   | 23    | 23   | 41   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1030.9 | 1030.9 | 1030.9 | 1030.9 | 1030.9 |
| 2.5°  | 1029.1 | 1029.1 | 1030.9 | 1032.7 | 1034.4 |
| 5°    | 1025.6 | 1027.4 | 1029.1 | 1034.4 | 1036.2 |
| 7.5°  | 1020.3 | 1022.1 | 1027.4 | 1034.4 | 1037.9 |
| 10°   | 1011.5 | 1015.0 | 1023.8 | 1034.4 | 1039.7 |
| 12.5° | 1000.9 | 1006.2 | 1020.3 | 1032.7 | 1039.7 |
| 15°   | 988.5  | 995.6  | 1013.2 | 1030.9 | 1037.9 |
| 17.5° | 974.4  | 983.2  | 1004.4 | 1023.8 | 1032.7 |
| 20°   | 958.5  | 969.1  | 992.1  | 1016.8 | 1027.4 |
| 22.5° | 937.3  | 951.5  | 979.7  | 1007.9 | 1020.3 |
| 25°   | 916.1  | 930.3  | 962.0  | 993.8  | 1007.9 |
| 27.5° | 893.2  | 909.1  | 942.6  | 977.9  | 992.1  |
| 30°   | 868.5  | 882.6  | 919.7  | 956.7  | 972.6  |
| 32.5° | 840.2  | 854.4  | 893.2  | 932.0  | 949.7  |
| 35°   | 808.5  | 826.1  | 863.2  | 903.8  | 921.4  |
| 37.5° | 774.9  | 790.8  | 831.4  | 870.3  | 886.1  |
| 40°   | 739.6  | 755.5  | 794.3  | 834.9  | 850.8  |
| 42.5° | 702.6  | 718.4  | 755.5  | 794.3  | 812.0  |
| 45°   | 663.7  | 676.1  | 714.9  | 752.0  | 766.1  |
| 47.5° | 623.1  | 631.9  | 669.0  | 704.3  | 718.4  |
| 50°   | 579.0  | 587.8  | 623.1  | 654.9  | 669.0  |
| 52.5° | 531.3  | 538.4  | 571.9  | 600.2  | 616.1  |
| 55°   | 483.7  | 490.7  | 520.7  | 545.5  | 556.0  |
| 57.5° | 436.0  | 439.5  | 466.0  | 490.7  | 501.3  |
| 60°   | 391.9  | 391.9  | 413.1  | 432.5  | 446.6  |
| 62.5° | 340.7  | 346.0  | 361.9  | 381.3  | 386.6  |
| 65°   | 303.6  | 298.3  | 314.2  | 328.3  | 335.4  |
| 67.5° | 261.3  | 257.7  | 268.3  | 280.7  | 284.2  |
| 70°   | 222.4  | 217.1  | 225.9  | 233.0  | 236.5  |
| 72.5° | 181.8  | 180.1  | 183.6  | 188.9  | 190.6  |
| 75°   | 148.3  | 143.0  | 144.7  | 146.5  | 150.0  |
| 77.5° | 118.3  | 109.4  | 111.2  | 109.4  | 111.2  |
| 80°   | 86.5   | 79.4   | 79.4   | 77.7   | 75.9   |
| 82.5° | 58.3   | 54.7   | 51.2   | 47.7   | 45.9   |
| 85°   | 35.3   | 30.0   | 26.5   | 22.9   | 22.9   |
| 87.5° | 14.1   | 10.6   | 8.8    | 8.8    | 8.8    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)