

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: P296513

Luminaire Tested: **22RLN-LD5-31-UNV-L92765-W2A1-U-6500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P296513
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-085-11)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22RLN-LD5-31-UNV-L92765-W2A1-U-6500K
Description: RLN LED 2x2 TUNABLE WHITE TROFFER WITH STANDARD LENS
Light Source: (252) 90 CRI LEDS TUNED TO 6500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2985.0 lumens
Efficiency: N/A
Efficacy: 116.7 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.23 / 1.3
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

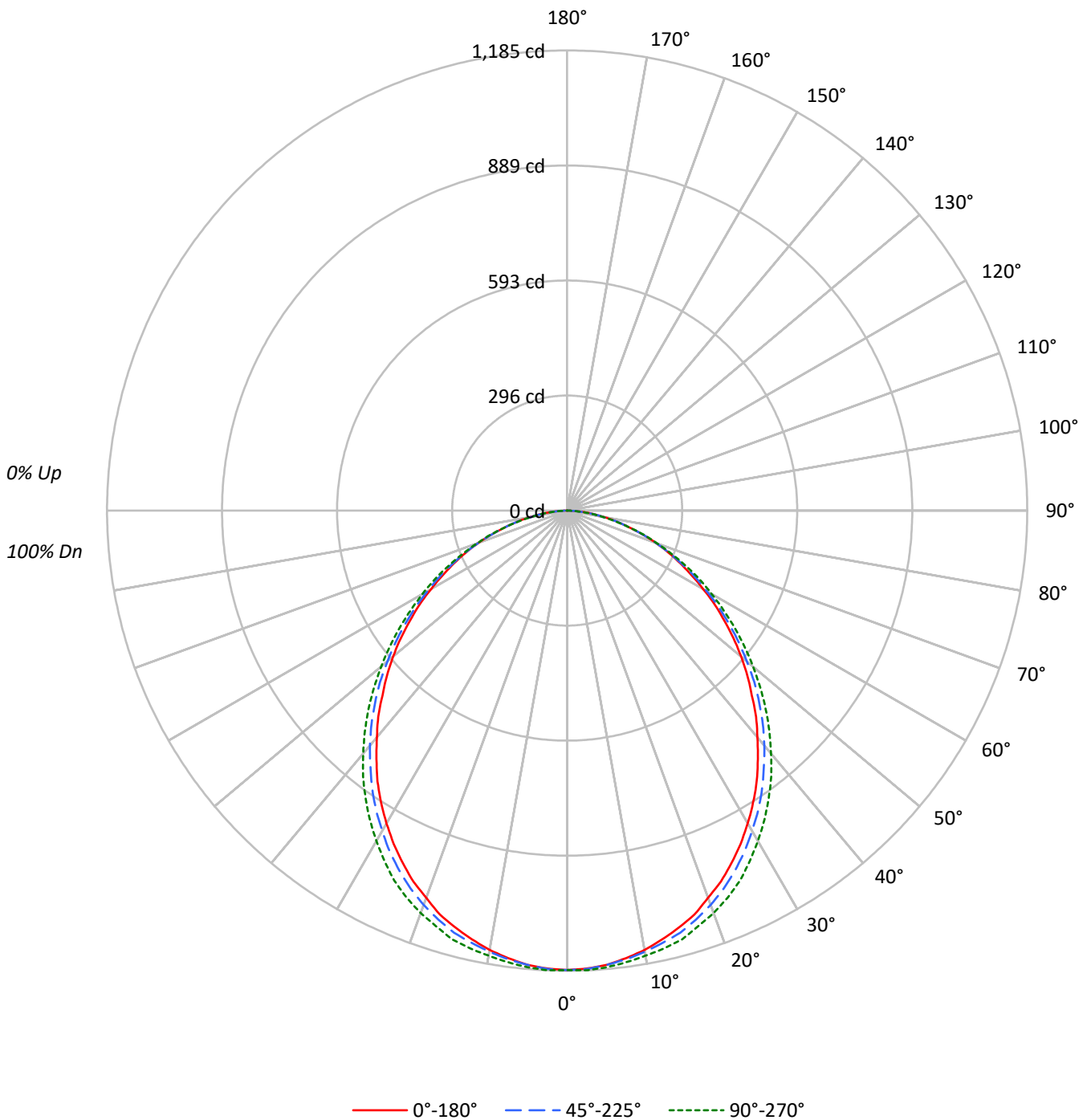
Input Watts (W): 25.575
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 109 | 105 | 101 | 97 | 107 | 102 | 99 | 95 | 98 | 95 | 92 | 94 | 92 | 90 | 91 | 89 | 87 | 85 | | | | | 85 | | | |
| 2 | 100 | 92 | 85 | 80 | 97 | 90 | 84 | 79 | 86 | 81 | 77 | 83 | 79 | 75 | 80 | 77 | 74 | 71 | | | | | 71 | | | |
| 3 | 91 | 81 | 73 | 67 | 89 | 79 | 72 | 66 | 77 | 70 | 65 | 74 | 68 | 64 | 71 | 67 | 63 | 61 | | | | | 61 | | | |
| 4 | 84 | 72 | 64 | 57 | 81 | 71 | 63 | 57 | 68 | 61 | 56 | 66 | 60 | 55 | 64 | 59 | 54 | 52 | | | | | 52 | | | |
| 5 | 77 | 65 | 56 | 49 | 75 | 64 | 55 | 49 | 61 | 54 | 49 | 59 | 53 | 48 | 58 | 52 | 48 | 46 | | | | | 46 | | | |
| 6 | 71 | 58 | 50 | 43 | 70 | 57 | 49 | 43 | 56 | 48 | 43 | 54 | 47 | 42 | 52 | 47 | 42 | 40 | | | | | 40 | | | |
| 7 | 66 | 53 | 44 | 38 | 65 | 52 | 44 | 38 | 51 | 43 | 38 | 49 | 43 | 38 | 48 | 42 | 38 | 36 | | | | | 36 | | | |
| 8 | 62 | 49 | 40 | 34 | 60 | 48 | 40 | 34 | 47 | 39 | 34 | 45 | 39 | 34 | 44 | 38 | 34 | 32 | | | | | 32 | | | |
| 9 | 58 | 45 | 37 | 31 | 56 | 44 | 36 | 31 | 43 | 36 | 31 | 42 | 35 | 31 | 41 | 35 | 31 | 29 | | | | | 29 | | | |
| 10 | 54 | 41 | 33 | 28 | 53 | 41 | 33 | 28 | 40 | 33 | 28 | 39 | 32 | 28 | 38 | 32 | 28 | 26 | | | | | 26 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 3184 | 3184 | 3184 |
| 5° | 3172 | 3172 | 3188 |
| 10° | 3140 | 3152 | 3180 |
| 15° | 3097 | 3134 | 3184 |
| 20° | 3039 | 3094 | 3158 |
| 25° | 2974 | 3036 | 3124 |
| 30° | 2890 | 2960 | 3052 |
| 35° | 2797 | 2875 | 2973 |
| 40° | 2677 | 2776 | 2870 |
| 45° | 2560 | 2662 | 2753 |
| 50° | 2449 | 2529 | 2617 |
| 55° | 2318 | 2388 | 2472 |
| 60° | 2179 | 2235 | 2315 |
| 65° | 2047 | 2085 | 2151 |
| 70° | 1909 | 1909 | 1944 |
| 75° | 1702 | 1702 | 1702 |
| 80° | 1499 | 1454 | 1454 |
| 85° | 1195 | 1149 | 1056 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 111.6 | 3.7 |
| 10°-20° | 317.2 | 10.6 |
| 20°-30° | 471.3 | 15.8 |
| 30°-40° | 546.9 | 18.3 |
| 40°-50° | 538.5 | 18.0 |
| 50°-60° | 455.7 | 15.3 |
| 60°-70° | 325.0 | 10.9 |
| 70°-80° | 174.7 | 5.9 |
| 80°-90° | 44.0 | 1.5 |
| 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° | 900.1 | 30.2 |
| 0°-40° | 1447.0 | 48.5 |
| 0°-60° | 2441.3 | 81.8 |
| 0°-90° | 2985.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2985.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1183 | 1183 | 1183 | 1183 | 1183 | |
| 5° | 1174 | 1174 | 1174 | 1179 | 1180 | 111 |
| 15° | 1112 | 1115 | 1125 | 1136 | 1143 | 313 |
| 25° | 1002 | 1005 | 1022 | 1042 | 1052 | 461 |
| 35° | 851 | 853 | 875 | 896 | 905 | 531 |
| 45° | 673 | 677 | 700 | 716 | 723 | 520 |
| 55° | 494 | 496 | 509 | 522 | 527 | 443 |
| 65° | 322 | 322 | 327 | 333 | 338 | 319 |
| 75° | 164 | 162 | 164 | 164 | 164 | 176 |
| 85° | 39 | 37 | 37 | 34 | 34 | 46 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|---------------|---------------|---------------|---------------|---------------|
| 0° | 1183.2 | 1183.2 | 1183.2 | 1183.2 | <i>1183.2</i> |
| 2.5° | <i>1180.2</i> | <i>1180.2</i> | <i>1181.7</i> | <i>1183.2</i> | <i>1184.7</i> |
| 5° | 1174.3 | 1174.3 | 1174.3 | 1178.7 | <i>1180.2</i> |
| 7.5° | 1162.4 | 1163.8 | 1165.3 | 1169.8 | <i>1172.8</i> |
| 10° | 1149.0 | 1150.4 | 1153.4 | 1160.9 | <i>1163.8</i> |
| 12.5° | 1131.1 | 1135.6 | 1140.0 | 1150.4 | <i>1154.9</i> |
| 15° | 1111.8 | 1114.7 | 1125.1 | 1135.6 | <i>1143.0</i> |
| 17.5° | 1090.9 | 1092.4 | 1104.3 | 1119.2 | <i>1122.2</i> |
| 20° | 1061.1 | 1065.6 | 1080.5 | 1095.4 | <i>1102.8</i> |
| 22.5° | 1034.4 | 1037.3 | 1053.7 | 1073.1 | <i>1079.0</i> |
| 25° | 1001.6 | 1004.6 | 1022.5 | 1041.8 | <i>1052.2</i> |
| 27.5° | 967.4 | 970.4 | 989.7 | 1010.5 | <i>1018.0</i> |
| 30° | 930.2 | 933.2 | 952.5 | 974.8 | <i>982.3</i> |
| 32.5° | 891.5 | 894.5 | 915.3 | 934.6 | <i>945.1</i> |
| 35° | 851.3 | 852.8 | 875.1 | 895.9 | <i>904.9</i> |
| 37.5° | 806.7 | 811.1 | 832.0 | 852.8 | <i>863.2</i> |
| 40° | 762.0 | 766.5 | 790.3 | 809.6 | <i>817.1</i> |
| 42.5° | 720.3 | 726.3 | 745.6 | 763.5 | <i>770.9</i> |
| 45° | 672.7 | 677.2 | 699.5 | 715.9 | <i>723.3</i> |
| 47.5° | 629.5 | 634.0 | 653.4 | 669.7 | <i>674.2</i> |
| 50° | 584.9 | 587.9 | 604.2 | 619.1 | <i>625.1</i> |
| 52.5° | 540.2 | 541.7 | 556.6 | 571.5 | <i>576.0</i> |
| 55° | 494.1 | 495.6 | 509.0 | 522.4 | <i>526.9</i> |
| 57.5° | 451.0 | 451.0 | 462.9 | 473.3 | <i>477.7</i> |
| 60° | 404.8 | 404.8 | 415.2 | 425.7 | <i>430.1</i> |
| 62.5° | 361.7 | 361.7 | 372.1 | 379.5 | <i>385.5</i> |
| 65° | 321.5 | 321.5 | 327.4 | 333.4 | <i>337.8</i> |
| 67.5° | 282.8 | 278.3 | 284.3 | 291.7 | <i>290.2</i> |
| 70° | 242.6 | 238.1 | 242.6 | 245.6 | <i>247.1</i> |
| 72.5° | 202.4 | 199.4 | 202.4 | 203.9 | <i>206.9</i> |
| 75° | 163.7 | 162.2 | 163.7 | 163.7 | <i>163.7</i> |
| 77.5° | 131.0 | 126.5 | 129.5 | 128.0 | <i>126.5</i> |
| 80° | 96.7 | 95.3 | 93.8 | 92.3 | <i>93.8</i> |
| 82.5° | 67.0 | 65.5 | 65.5 | 62.5 | <i>62.5</i> |
| 85° | 38.7 | 37.2 | 37.2 | 34.2 | <i>34.2</i> |
| 87.5° | 14.9 | 14.9 | 13.4 | 13.4 | <i>13.4</i> |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | <i>0.0</i> |

(END OF REPORT)