

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: P393375

Luminaire Tested: **22EN-LD2-39-UNV-L93050-W2A-1-U (5000K)**

Issue Date: 3/28/2020

Test Information

Test Method: LM-79-08
Report Number: P393375
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-563-11)
Test Lab: INNOVATION CENTER
Issue Date: 3/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22EN-LD2-39-UNV-L93050-W2A-1-U (5000K)
Description: 2X2 ENCOUNTER, 3900 LUMENS, VIVIDTUNE TUNABLE WHITE
Light Source: 2700K/6500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3468.0 lumens
Efficiency: N/A
Efficacy: 118.4 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.25 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

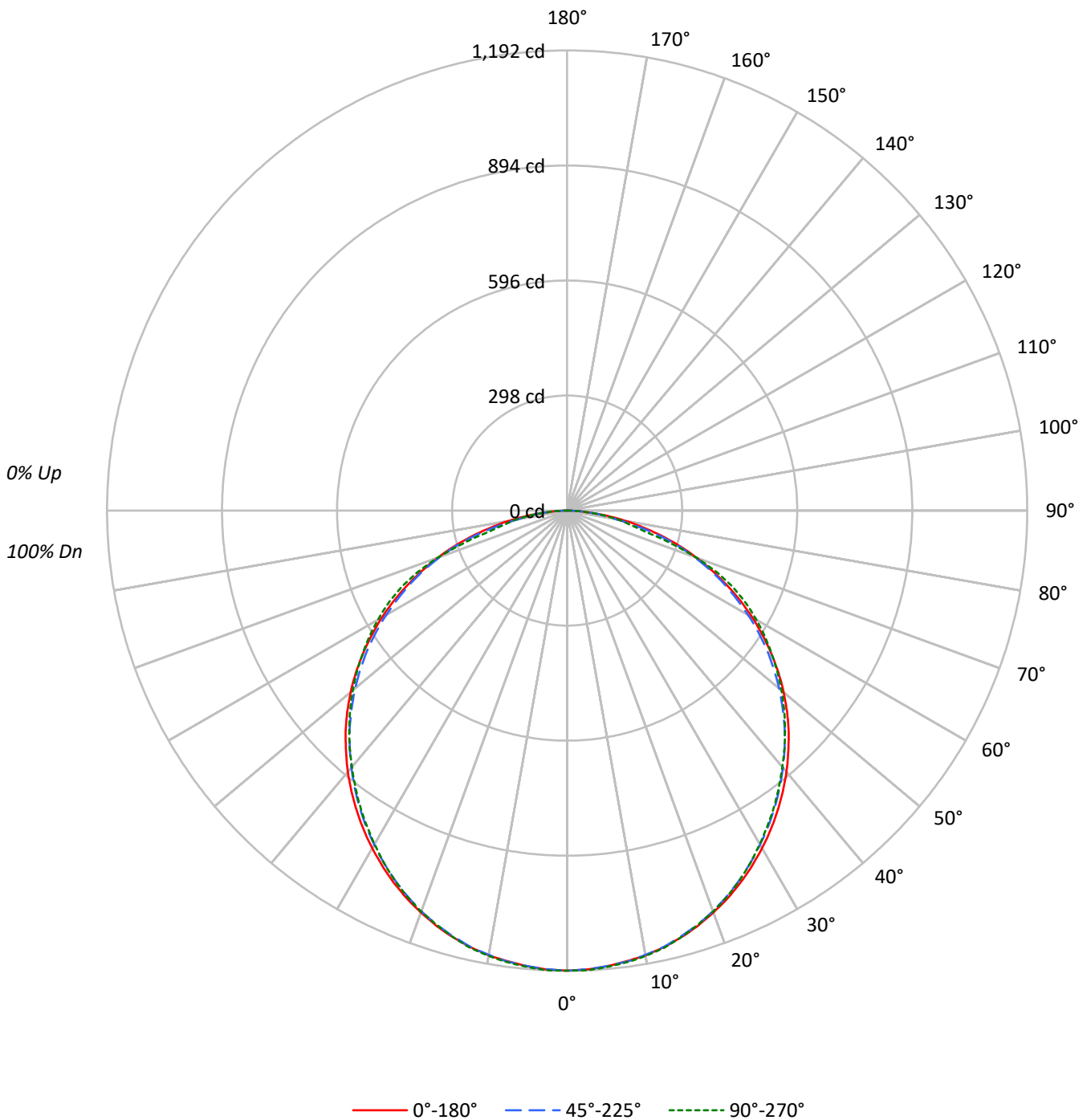
Input Watts (W): 29.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P393375

CATALOG NUMBER: 22EN-LD2-39-UNV-L93050-W2A-1-U (5000K)

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 | 104 | 99 | 95 | 106 | 101 | 97 | 94 | 97 | 94 | 91 | 93 | 91 | 88 | 90 | 87 | 85 | 83 | | | | | 83 | | | |
| 2 | 99 | 90 | 83 | 77 | 96 | 88 | 82 | 76 | 85 | 79 | 75 | 81 | 77 | 73 | 78 | 75 | 71 | 69 | | | | | 69 | | | |
| 3 | 90 | 79 | 71 | 64 | 87 | 77 | 70 | 63 | 74 | 68 | 62 | 72 | 66 | 61 | 69 | 64 | 60 | 58 | | | | | 58 | | | |
| 4 | 82 | 70 | 61 | 54 | 80 | 68 | 60 | 54 | 66 | 59 | 53 | 64 | 57 | 52 | 61 | 56 | 51 | 49 | | | | | 49 | | | |
| 5 | 75 | 62 | 53 | 46 | 73 | 61 | 52 | 46 | 59 | 51 | 46 | 57 | 50 | 45 | 55 | 49 | 45 | 42 | | | | | 42 | | | |
| 6 | 69 | 56 | 47 | 40 | 68 | 55 | 46 | 40 | 53 | 45 | 40 | 51 | 45 | 39 | 50 | 44 | 39 | 37 | | | | | 37 | | | |
| 7 | 64 | 51 | 42 | 36 | 63 | 50 | 41 | 35 | 48 | 41 | 35 | 47 | 40 | 35 | 45 | 39 | 35 | 33 | | | | | 33 | | | |
| 8 | 60 | 46 | 38 | 32 | 58 | 45 | 37 | 32 | 44 | 37 | 31 | 43 | 36 | 31 | 42 | 36 | 31 | 29 | | | | | 29 | | | |
| 9 | 56 | 42 | 34 | 28 | 54 | 42 | 34 | 28 | 41 | 33 | 28 | 40 | 33 | 28 | 38 | 32 | 28 | 26 | | | | | 26 | | | |
| 10 | 52 | 39 | 31 | 26 | 51 | 39 | 31 | 26 | 38 | 30 | 26 | 37 | 30 | 25 | 36 | 30 | 25 | 24 | | | | | 24 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 3207 | 3207 | 3207 |
| 5° | 3200 | 3200 | 3205 |
| 10° | 3196 | 3194 | 3201 |
| 15° | 3187 | 3180 | 3187 |
| 20° | 3173 | 3163 | 3165 |
| 25° | 3156 | 3135 | 3138 |
| 30° | 3139 | 3106 | 3100 |
| 35° | 3121 | 3080 | 3072 |
| 40° | 3105 | 3055 | 3046 |
| 45° | 3089 | 3032 | 3038 |
| 50° | 3065 | 3003 | 3036 |
| 55° | 3029 | 2967 | 3034 |
| 60° | 2982 | 2915 | 3048 |
| 65° | 2904 | 2853 | 3039 |
| 70° | 2797 | 2748 | 2804 |
| 75° | 2633 | 2522 | 2146 |
| 80° | 2365 | 1996 | 2118 |
| 85° | 1689 | 1717 | 1717 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 112.6 | 3.2 |
| 10°-20° | 322.4 | 9.3 |
| 20°-30° | 487.2 | 14.0 |
| 30°-40° | 588.0 | 17.0 |
| 40°-50° | 617.0 | 17.8 |
| 50°-60° | 571.0 | 16.5 |
| 60°-70° | 450.7 | 13.0 |
| 70°-80° | 252.4 | 7.3 |
| 80°-90° | 66.8 | 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° | 922.2 | 26.6 |
| 0°-40° | 1510.2 | 43.5 |
| 0°-60° | 2698.1 | 77.8 |
| 0°-90° | 3468.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3468.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1192 | 1192 | 1192 | 1192 | 1192 | |
| 5° | 1185 | 1183 | 1185 | 1185 | 1186 | 113 |
| 15° | 1144 | 1143 | 1142 | 1142 | 1144 | 323 |
| 25° | 1063 | 1060 | 1056 | 1053 | 1057 | 490 |
| 35° | 950 | 946 | 938 | 932 | 935 | 595 |
| 45° | 812 | 806 | 797 | 792 | 798 | 626 |
| 55° | 646 | 640 | 632 | 637 | 647 | 577 |
| 65° | 456 | 452 | 448 | 462 | 477 | 451 |
| 75° | 253 | 250 | 243 | 217 | 206 | 268 |
| 85° | 55 | 55 | 56 | 56 | 56 | 70 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P393375

CATALOG NUMBER: 22EN-LD2-39-UNV-L93050-W2A-1-U (5000K)

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1191.8 | 1191.8 | 1191.8 | 1191.8 | 1191.8 |
| 2.5° | 1190.0 | 1188.3 | 1189.1 | 1190.0 | 1191.8 |
| 5° | 1184.7 | 1183.0 | 1184.7 | 1184.7 | 1186.5 |
| 7.5° | 1177.7 | 1176.8 | 1178.6 | 1178.6 | 1180.3 |
| 10° | 1169.7 | 1168.0 | 1168.8 | 1168.8 | 1171.5 |
| 12.5° | 1158.3 | 1157.4 | 1157.4 | 1157.4 | 1160.0 |
| 15° | 1144.1 | 1143.3 | 1141.5 | 1141.5 | 1144.1 |
| 17.5° | 1127.4 | 1125.6 | 1124.7 | 1123.0 | 1124.7 |
| 20° | 1108.0 | 1106.2 | 1104.5 | 1102.7 | 1105.3 |
| 22.5° | 1086.8 | 1085.0 | 1081.5 | 1078.9 | 1082.4 |
| 25° | 1063.0 | 1059.5 | 1055.9 | 1053.3 | 1056.8 |
| 27.5° | 1037.4 | 1033.0 | 1028.6 | 1025.9 | 1028.6 |
| 30° | 1010.1 | 1005.6 | 999.5 | 995.1 | 997.7 |
| 32.5° | 980.9 | 976.5 | 969.5 | 965.1 | 966.8 |
| 35° | 950.1 | 945.7 | 937.7 | 932.4 | 935.1 |
| 37.5° | 917.4 | 913.0 | 904.2 | 898.9 | 901.6 |
| 40° | 883.9 | 878.6 | 869.8 | 864.5 | 867.2 |
| 42.5° | 847.7 | 843.3 | 833.6 | 827.5 | 833.6 |
| 45° | 811.6 | 806.3 | 796.6 | 792.2 | 798.3 |
| 47.5° | 772.8 | 766.6 | 756.9 | 755.1 | 762.2 |
| 50° | 732.2 | 726.9 | 717.2 | 716.3 | 725.1 |
| 52.5° | 689.8 | 683.7 | 674.8 | 676.6 | 686.3 |
| 55° | 645.7 | 640.4 | 632.5 | 636.9 | 646.6 |
| 57.5° | 599.9 | 595.5 | 587.5 | 596.3 | 607.8 |
| 60° | 554.0 | 548.7 | 541.6 | 553.1 | 566.3 |
| 62.5° | 506.4 | 500.2 | 494.0 | 509.0 | 524.0 |
| 65° | 456.1 | 452.5 | 448.1 | 462.2 | 477.2 |
| 67.5° | 405.8 | 403.1 | 399.6 | 412.8 | 421.7 |
| 70° | 355.5 | 352.0 | 349.3 | 353.7 | 356.4 |
| 72.5° | 307.0 | 300.8 | 299.0 | 287.6 | 282.3 |
| 75° | 253.2 | 250.5 | 242.6 | 217.0 | 206.4 |
| 77.5° | 202.0 | 198.5 | 180.8 | 162.3 | 163.2 |
| 80° | 152.6 | 147.3 | 128.8 | 135.0 | 136.7 |
| 82.5° | 104.1 | 99.7 | 95.3 | 95.3 | 93.5 |
| 85° | 54.7 | 54.7 | 55.6 | 55.6 | 55.6 |
| 87.5° | 22.1 | 23.8 | 23.8 | 23.8 | 23.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)