

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: P238850

Luminaire Tested: **22EN-LD2-43-UNV-L935-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P238850
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1706-118-11)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22EN-LD2-43-UNV-L935-CD1-U
Description: METALUX ENCOUNTER 2X2 LED TROFFER
STANDARD OPTION
Light Source: (168)3500K CCT, 90 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3855.9 lumens
Efficiency: N/A
Efficacy: 100.7 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1.83' x L: 1.83' x H: 0')
CIE Type: Direct

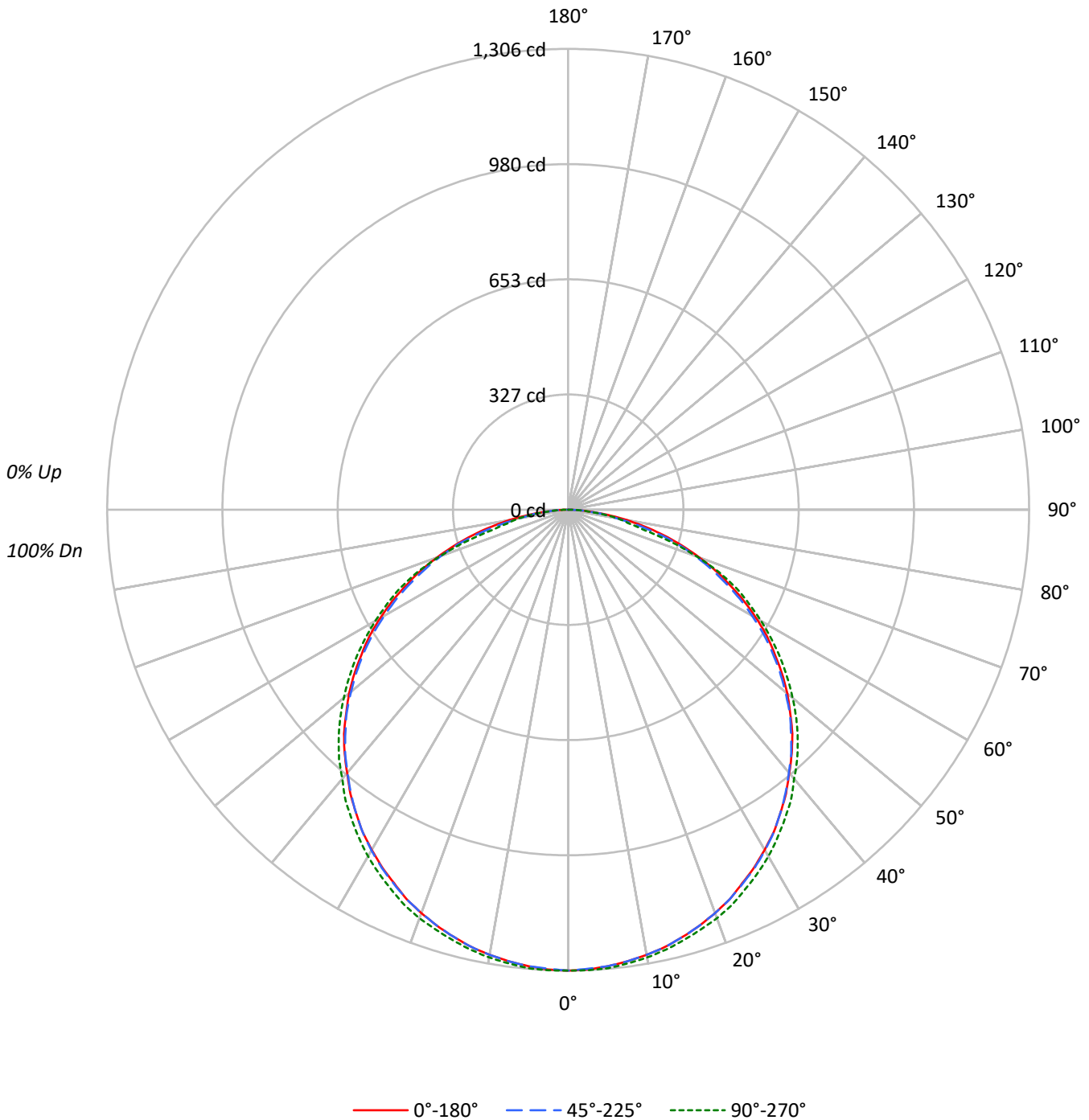
Input Watts (W): 38.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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 | 98 | 94 | 97 | 94 | 91 | 93 | 91 | 88 | 90 | 88 | 86 | 83 |
| 2 | 99 | 90 | 83 | 77 | 96 | 88 | 82 | 76 | 85 | 79 | 75 | 81 | 77 | 73 | 78 | 75 | 71 | 69 |
| 3 | 90 | 79 | 71 | 64 | 87 | 77 | 70 | 63 | 74 | 68 | 62 | 72 | 66 | 61 | 69 | 64 | 60 | 58 |
| 4 | 82 | 70 | 61 | 54 | 80 | 68 | 60 | 54 | 66 | 59 | 53 | 64 | 57 | 52 | 61 | 56 | 51 | 49 |
| 5 | 75 | 62 | 53 | 46 | 73 | 61 | 53 | 46 | 59 | 51 | 46 | 57 | 50 | 45 | 55 | 49 | 45 | 42 |
| 6 | 69 | 56 | 47 | 40 | 68 | 55 | 46 | 40 | 53 | 46 | 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° | 4183 | 4183 | 4183 |
| 5° | 4174 | 4174 | 4193 |
| 10° | 4165 | 4165 | 4191 |
| 15° | 4156 | 4156 | 4188 |
| 20° | 4146 | 4146 | 4199 |
| 25° | 4126 | 4133 | 4195 |
| 30° | 4115 | 4123 | 4195 |
| 35° | 4099 | 4099 | 4183 |
| 40° | 4073 | 4065 | 4163 |
| 45° | 4068 | 4041 | 4165 |
| 50° | 4037 | 3998 | 4134 |
| 55° | 3990 | 3946 | 4099 |
| 60° | 3939 | 3852 | 4040 |
| 65° | 3832 | 3728 | 3980 |
| 70° | 3693 | 3583 | 3639 |
| 75° | 3479 | 3262 | 2778 |
| 80° | 3061 | 2556 | 2665 |
| 85° | 2223 | 2153 | 2080 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 123.5 | 3.2 |
| 10°-20° | 354.6 | 9.2 |
| 20°-30° | 541.3 | 14.0 |
| 30°-40° | 659.3 | 17.1 |
| 40°-50° | 694.0 | 18.0 |
| 50°-60° | 638.9 | 16.6 |
| 60°-70° | 497.3 | 12.9 |
| 70°-80° | 276.0 | 7.2 |
| 80°-90° | 70.9 | 1.8 |
| 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° | 1019.4 | 26.4 |
| 0°-40° | 1678.7 | 43.5 |
| 0°-60° | 3011.6 | 78.1 |
| 0°-90° | 3855.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3855.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1306 | 1306 | 1306 | 1306 | 1306 | |
| 5° | 1298 | 1298 | 1298 | 1302 | 1304 | 123 |
| 15° | 1254 | 1254 | 1254 | 1259 | 1263 | 354 |
| 25° | 1168 | 1170 | 1170 | 1179 | 1187 | 539 |
| 35° | 1048 | 1048 | 1048 | 1060 | 1070 | 656 |
| 45° | 898 | 892 | 892 | 906 | 920 | 692 |
| 55° | 715 | 713 | 707 | 718 | 734 | 639 |
| 65° | 506 | 500 | 492 | 508 | 525 | 501 |
| 75° | 281 | 275 | 264 | 234 | 224 | 296 |
| 85° | 60 | 57 | 59 | 57 | 57 | 76 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P238850

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1306.2 | 1306.2 | 1306.2 | 1306.2 | 1306.2 |
| 2.5° | 1304.3 | 1302.3 | 1302.3 | 1306.2 | 1306.2 |
| 5° | 1298.4 | 1298.4 | 1298.4 | 1302.3 | 1304.3 |
| 7.5° | 1290.6 | 1290.6 | 1290.6 | 1296.5 | 1296.5 |
| 10° | 1280.9 | 1278.9 | 1280.9 | 1284.8 | 1288.7 |
| 12.5° | 1269.1 | 1267.2 | 1269.1 | 1273.1 | 1277.0 |
| 15° | 1253.5 | 1253.5 | 1253.5 | 1259.4 | 1263.3 |
| 17.5° | 1236.0 | 1234.0 | 1236.0 | 1241.8 | 1247.7 |
| 20° | 1216.4 | 1216.4 | 1216.4 | 1224.2 | 1232.0 |
| 22.5° | 1195.0 | 1193.0 | 1195.0 | 1204.7 | 1212.5 |
| 25° | 1167.6 | 1169.6 | 1169.6 | 1179.3 | 1187.1 |
| 27.5° | 1142.2 | 1140.3 | 1144.2 | 1152.0 | 1161.8 |
| 30° | 1112.9 | 1112.9 | 1114.9 | 1124.7 | 1134.4 |
| 32.5° | 1083.7 | 1081.7 | 1083.7 | 1093.4 | 1103.2 |
| 35° | 1048.5 | 1048.5 | 1048.5 | 1060.2 | 1070.0 |
| 37.5° | 1013.4 | 1011.4 | 1011.4 | 1023.1 | 1036.8 |
| 40° | 974.3 | 972.4 | 972.4 | 986.0 | 995.8 |
| 42.5° | 937.2 | 935.3 | 935.3 | 947.0 | 960.6 |
| 45° | 898.2 | 892.3 | 892.3 | 906.0 | 919.6 |
| 47.5° | 853.3 | 849.4 | 851.3 | 863.0 | 876.7 |
| 50° | 810.3 | 804.4 | 802.5 | 816.2 | 829.8 |
| 52.5° | 763.4 | 761.5 | 755.6 | 767.3 | 783.0 |
| 55° | 714.6 | 712.7 | 706.8 | 718.5 | 734.2 |
| 57.5° | 667.8 | 661.9 | 656.1 | 665.8 | 683.4 |
| 60° | 615.0 | 609.2 | 601.4 | 615.0 | 630.7 |
| 62.5° | 562.3 | 554.5 | 548.7 | 560.4 | 577.9 |
| 65° | 505.7 | 499.8 | 492.0 | 507.7 | 525.2 |
| 67.5° | 453.0 | 447.1 | 437.4 | 451.0 | 462.8 |
| 70° | 394.4 | 386.6 | 382.7 | 384.6 | 388.6 |
| 72.5° | 337.8 | 333.9 | 328.0 | 312.4 | 308.5 |
| 75° | 281.2 | 275.3 | 263.6 | 234.3 | 224.5 |
| 77.5° | 224.5 | 220.6 | 199.2 | 173.8 | 173.8 |
| 80° | 166.0 | 164.0 | 138.6 | 142.5 | 144.5 |
| 82.5° | 113.2 | 109.3 | 101.5 | 99.6 | 99.6 |
| 85° | 60.5 | 56.6 | 58.6 | 56.6 | 56.6 |
| 87.5° | 23.4 | 23.4 | 25.4 | 23.4 | 23.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)