

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: P238840

Luminaire Tested: **22EN-LD2-30-UNV-L950-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P238840
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-LD2-30-UNV-L950-CD1-U
Description: METALUX ENCOUNTER 2X2 LED TROFFER
STANDARD OPTION
Light Source: (168)5000K CCT, 90 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2938.2 lumens
Efficiency: N/A
Efficacy: 118.0 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

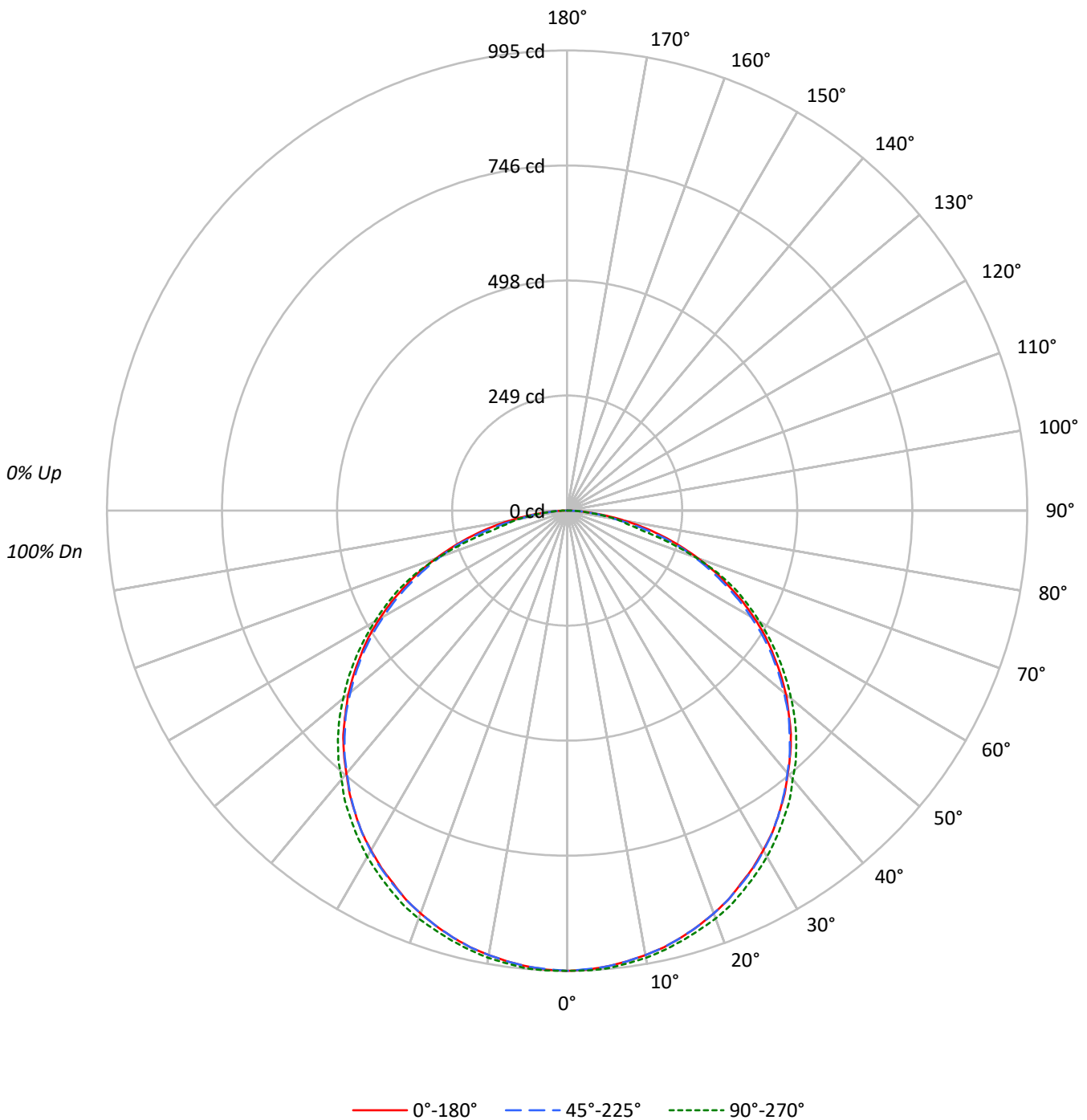
Input Watts (W): 24.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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° | 3187 | 3187 | 3187 |
| 5° | 3181 | 3181 | 3195 |
| 10° | 3174 | 3174 | 3193 |
| 15° | 3167 | 3167 | 3191 |
| 20° | 3159 | 3159 | 3199 |
| 25° | 3144 | 3149 | 3196 |
| 30° | 3136 | 3141 | 3196 |
| 35° | 3124 | 3124 | 3187 |
| 40° | 3104 | 3097 | 3172 |
| 45° | 3100 | 3079 | 3174 |
| 50° | 3076 | 3047 | 3150 |
| 55° | 3040 | 3007 | 3123 |
| 60° | 3002 | 2935 | 3078 |
| 65° | 2920 | 2841 | 3033 |
| 70° | 2814 | 2730 | 2773 |
| 75° | 2650 | 2486 | 2117 |
| 80° | 2333 | 1948 | 2031 |
| 85° | 1694 | 1639 | 1584 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 94.1 | 3.2 |
| 10°-20° | 270.2 | 9.2 |
| 20°-30° | 412.5 | 14.0 |
| 30°-40° | 502.4 | 17.1 |
| 40°-50° | 528.8 | 18.0 |
| 50°-60° | 486.9 | 16.6 |
| 60°-70° | 379.0 | 12.9 |
| 70°-80° | 210.3 | 7.2 |
| 80°-90° | 54.0 | 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° | 776.8 | 26.4 |
| 0°-40° | 1279.2 | 43.5 |
| 0°-60° | 2294.8 | 78.1 |
| 0°-90° | 2938.2 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2938.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 995 | 995 | 995 | 995 | 995 | |
| 5° | 989 | 989 | 989 | 992 | 994 | 94 |
| 15° | 955 | 955 | 955 | 960 | 963 | 270 |
| 25° | 890 | 891 | 891 | 899 | 905 | 411 |
| 35° | 799 | 799 | 799 | 808 | 815 | 500 |
| 45° | 684 | 680 | 680 | 690 | 701 | 527 |
| 55° | 544 | 543 | 539 | 548 | 559 | 487 |
| 65° | 385 | 381 | 375 | 387 | 400 | 382 |
| 75° | 214 | 210 | 201 | 178 | 171 | 226 |
| 85° | 46 | 43 | 45 | 43 | 43 | 58 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P238840

CATALOG NUMBER: 22EN-LD2-30-UNV-L950-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 995.3 | 995.3 | 995.3 | 995.3 | 995.3 |
| 2.5° | 993.9 | 992.4 | 992.4 | 995.3 | 995.3 |
| 5° | 989.4 | 989.4 | 989.4 | 992.4 | 993.9 |
| 7.5° | 983.4 | 983.4 | 983.4 | 987.9 | 987.9 |
| 10° | 976.0 | 974.5 | 976.0 | 979.0 | 982.0 |
| 12.5° | 967.1 | 965.6 | 967.1 | 970.1 | 973.0 |
| 15° | 955.2 | 955.2 | 955.2 | 959.6 | 962.6 |
| 17.5° | 941.8 | 940.3 | 941.8 | 946.3 | 950.7 |
| 20° | 926.9 | 926.9 | 926.9 | 932.9 | 938.8 |
| 22.5° | 910.5 | 909.1 | 910.5 | 918.0 | 923.9 |
| 25° | 889.7 | 891.2 | 891.2 | 898.6 | 904.6 |
| 27.5° | 870.4 | 868.9 | 871.9 | 877.8 | 885.3 |
| 30° | 848.1 | 848.1 | 849.5 | 857.0 | 864.4 |
| 32.5° | 825.7 | 824.3 | 825.7 | 833.2 | 840.6 |
| 35° | 799.0 | 799.0 | 799.0 | 807.9 | 815.3 |
| 37.5° | 772.2 | 770.7 | 770.7 | 779.6 | 790.0 |
| 40° | 742.4 | 740.9 | 740.9 | 751.3 | 758.8 |
| 42.5° | 714.2 | 712.7 | 712.7 | 721.6 | 732.0 |
| 45° | 684.4 | 679.9 | 679.9 | 690.3 | 700.8 |
| 47.5° | 650.2 | 647.2 | 648.7 | 657.6 | 668.0 |
| 50° | 617.4 | 613.0 | 611.5 | 621.9 | 632.3 |
| 52.5° | 581.7 | 580.2 | 575.8 | 584.7 | 596.6 |
| 55° | 544.5 | 543.1 | 538.6 | 547.5 | 559.4 |
| 57.5° | 508.8 | 504.4 | 499.9 | 507.3 | 520.7 |
| 60° | 468.7 | 464.2 | 458.2 | 468.7 | 480.6 |
| 62.5° | 428.5 | 422.5 | 418.1 | 427.0 | 440.4 |
| 65° | 385.3 | 380.9 | 374.9 | 386.8 | 400.2 |
| 67.5° | 345.2 | 340.7 | 333.3 | 343.7 | 352.6 |
| 70° | 300.5 | 294.6 | 291.6 | 293.1 | 296.1 |
| 72.5° | 257.4 | 254.4 | 250.0 | 238.1 | 235.1 |
| 75° | 214.2 | 209.8 | 200.9 | 178.5 | 171.1 |
| 77.5° | 171.1 | 168.1 | 151.8 | 132.4 | 132.4 |
| 80° | 126.5 | 125.0 | 105.6 | 108.6 | 110.1 |
| 82.5° | 86.3 | 83.3 | 77.4 | 75.9 | 75.9 |
| 85° | 46.1 | 43.1 | 44.6 | 43.1 | 43.1 |
| 87.5° | 17.9 | 17.9 | 19.3 | 17.9 | 17.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)