

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: P392927

Luminaire Tested: **12EN-LD2-35-UNV-L93050-W2A-1-U (5000K)**

Issue Date: 3/28/2020

Test Information

Test Method: LM-79-08
Report Number: P392927
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-563-39)
Test Lab: INNOVATION CENTER
Issue Date: 3/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 12EN-LD2-35-UNV-L93050-W2A-1-U (5000K)
Description: 1X2 ENCOUNTER, 3500 LUMENS, VIVIDTUNE TUNABLE WHITE
Light Source: 2700K/6500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3081.6 lumens
Efficiency: N/A
Efficacy: 102.7 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.4
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

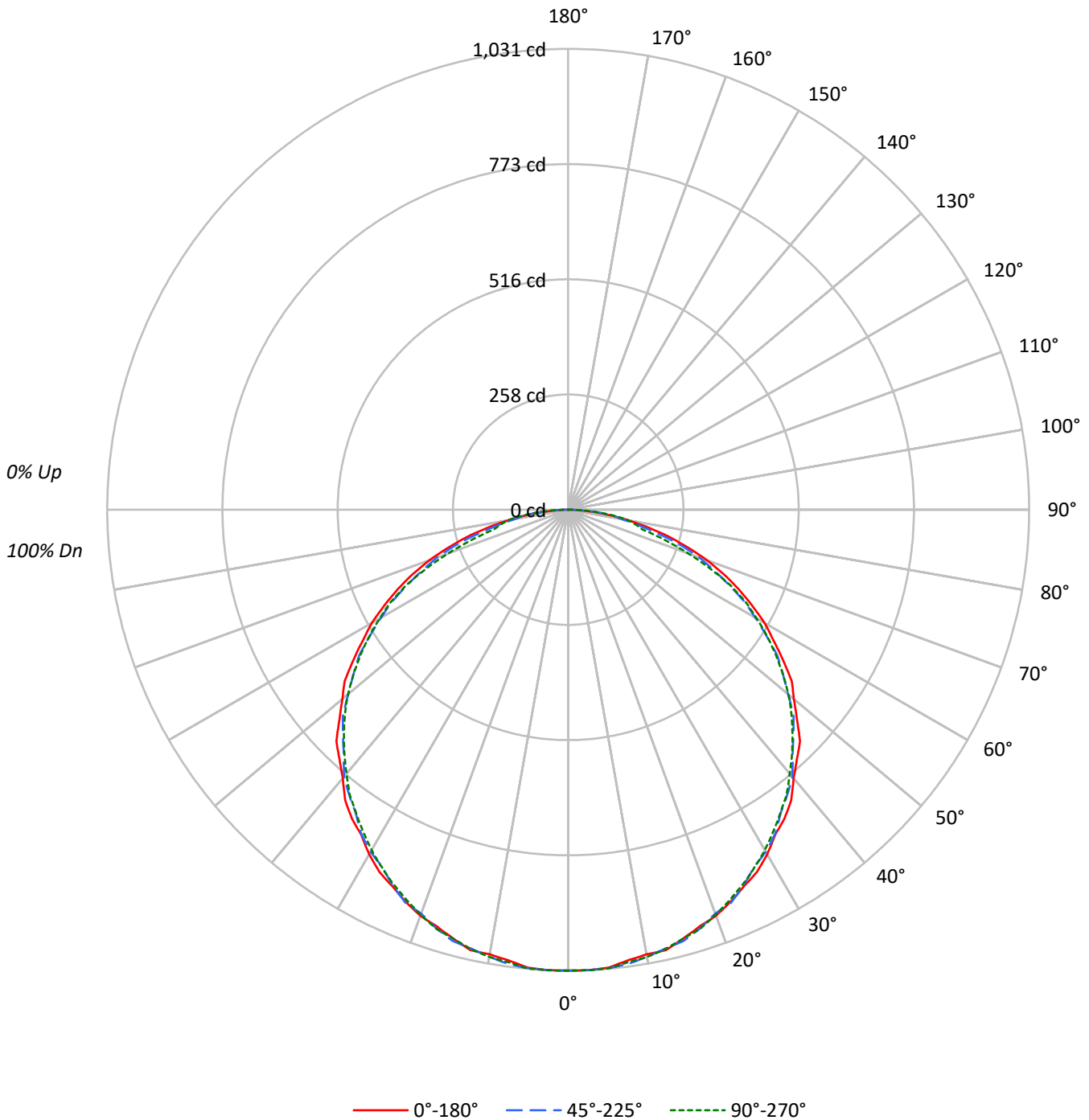
Input Watts (W): 30
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P392927

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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 | 108 | 103 | 99 | 95 | 106 | 101 | 97 | 94 | 97 | 94 | 91 | 93 | 90 | 88 | 89 | 87 | 85 | 83 | | | | | 83 | | | |
| 2 | 98 | 90 | 83 | 77 | 96 | 88 | 82 | 76 | 84 | 79 | 74 | 81 | 77 | 73 | 78 | 74 | 71 | 69 | | | | | 69 | | | |
| 3 | 89 | 79 | 70 | 64 | 87 | 77 | 69 | 63 | 74 | 67 | 62 | 71 | 66 | 61 | 69 | 64 | 60 | 58 | | | | | 58 | | | |
| 4 | 82 | 70 | 61 | 54 | 79 | 68 | 60 | 53 | 66 | 58 | 53 | 63 | 57 | 52 | 61 | 56 | 51 | 49 | | | | | 49 | | | |
| 5 | 75 | 62 | 53 | 46 | 73 | 61 | 52 | 46 | 59 | 51 | 45 | 57 | 50 | 45 | 55 | 49 | 44 | 42 | | | | | 42 | | | |
| 6 | 69 | 56 | 47 | 40 | 67 | 55 | 46 | 40 | 53 | 45 | 40 | 51 | 44 | 39 | 50 | 44 | 39 | 37 | | | | | 37 | | | |
| 7 | 64 | 50 | 42 | 35 | 62 | 50 | 41 | 35 | 48 | 40 | 35 | 47 | 40 | 35 | 45 | 39 | 34 | 32 | | | | | 32 | | | |
| 8 | 60 | 46 | 37 | 31 | 58 | 45 | 37 | 31 | 44 | 36 | 31 | 43 | 36 | 31 | 41 | 35 | 31 | 29 | | | | | 29 | | | |
| 9 | 56 | 42 | 34 | 28 | 54 | 42 | 34 | 28 | 40 | 33 | 28 | 39 | 33 | 28 | 38 | 32 | 28 | 26 | | | | | 26 | | | |
| 10 | 52 | 39 | 31 | 26 | 51 | 38 | 31 | 25 | 37 | 30 | 25 | 36 | 30 | 25 | 35 | 29 | 25 | 23 | | | | | 23 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 5550 | 5550 | 5550 |
| 5° | 5557 | 5562 | 5566 |
| 10° | 5520 | 5549 | 5554 |
| 15° | 5534 | 5564 | 5534 |
| 20° | 5537 | 5507 | 5522 |
| 25° | 5521 | 5511 | 5490 |
| 30° | 5532 | 5493 | 5466 |
| 35° | 5541 | 5442 | 5437 |
| 40° | 5510 | 5479 | 5417 |
| 45° | 5580 | 5418 | 5398 |
| 50° | 5518 | 5377 | 5385 |
| 55° | 5504 | 5363 | 5322 |
| 60° | 5459 | 5203 | 5241 |
| 65° | 5347 | 5033 | 5089 |
| 70° | 5191 | 4900 | 4497 |
| 75° | 4824 | 4348 | 3595 |
| 80° | 4212 | 3747 | 4237 |
| 85° | 3378 | 4032 | 4088 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 97.7 | 3.2 |
| 10°-20° | 280.9 | 9.1 |
| 20°-30° | 427.6 | 13.9 |
| 30°-40° | 521.5 | 16.9 |
| 40°-50° | 552.0 | 17.9 |
| 50°-60° | 511.3 | 16.6 |
| 60°-70° | 398.3 | 12.9 |
| 70°-80° | 223.4 | 7.2 |
| 80°-90° | 68.9 | 2.2 |
| 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° | 806.2 | 26.2 |
| 0°-40° | 1327.7 | 43.1 |
| 0°-60° | 2391.0 | 77.6 |
| 0°-90° | 3081.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3081.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1031 | 1031 | 1031 | 1031 | 1031 | |
| 5° | 1029 | 1030 | 1030 | 1031 | 1030 | 97 |
| 15° | 993 | 995 | 999 | 995 | 993 | 280 |
| 25° | 930 | 928 | 928 | 922 | 924 | 430 |
| 35° | 843 | 836 | 828 | 827 | 828 | 527 |
| 45° | 733 | 724 | 712 | 710 | 709 | 561 |
| 55° | 587 | 582 | 572 | 564 | 567 | 524 |
| 65° | 420 | 412 | 395 | 398 | 400 | 415 |
| 75° | 232 | 225 | 209 | 187 | 173 | 244 |
| 85° | 55 | 56 | 65 | 66 | 66 | 65 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P392927

CATALOG NUMBER: 12EN-LD2-35-UNV-L93050-W2A-1-U (5000K)

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1031.2 | 1031.2 | 1031.2 | 1031.2 | 1031.2 |
| 2.5° | 1031.2 | 1029.5 | 1031.2 | 1030.3 | 1031.2 |
| 5° | 1028.6 | 1029.5 | 1029.5 | 1031.2 | 1030.3 |
| 7.5° | 1017.1 | 1021.5 | 1025.1 | 1024.2 | 1021.5 |
| 10° | 1010.1 | 1014.5 | 1015.4 | 1013.6 | 1016.2 |
| 12.5° | 1009.2 | 1010.1 | 1005.6 | 1008.3 | 1006.5 |
| 15° | 993.3 | 995.1 | 998.6 | 995.1 | 993.3 |
| 17.5° | 977.4 | 980.9 | 981.8 | 979.2 | 982.7 |
| 20° | 966.8 | 969.5 | 961.5 | 965.1 | 964.2 |
| 22.5° | 949.2 | 950.1 | 951.8 | 945.7 | 944.8 |
| 25° | 929.8 | 928.0 | 928.0 | 921.8 | 924.5 |
| 27.5° | 913.9 | 907.7 | 900.7 | 904.2 | 902.4 |
| 30° | 890.1 | 889.2 | 883.9 | 880.4 | 879.5 |
| 32.5° | 861.9 | 862.7 | 861.0 | 853.0 | 853.9 |
| 35° | 843.3 | 836.3 | 828.3 | 826.6 | 827.5 |
| 37.5° | 819.5 | 813.3 | 804.5 | 801.9 | 802.8 |
| 40° | 784.2 | 783.3 | 779.8 | 769.2 | 771.0 |
| 42.5° | 756.9 | 751.6 | 742.8 | 738.4 | 741.0 |
| 45° | 733.1 | 724.2 | 711.9 | 710.1 | 709.2 |
| 47.5° | 693.4 | 691.6 | 683.7 | 674.0 | 677.5 |
| 50° | 659.0 | 655.4 | 642.2 | 636.9 | 643.1 |
| 52.5° | 629.9 | 621.0 | 605.2 | 604.3 | 605.2 |
| 55° | 586.6 | 582.2 | 571.6 | 563.7 | 567.2 |
| 57.5° | 544.3 | 540.8 | 525.8 | 523.1 | 527.5 |
| 60° | 507.2 | 501.1 | 483.4 | 482.5 | 486.9 |
| 62.5° | 463.1 | 458.7 | 442.8 | 442.8 | 447.2 |
| 65° | 419.9 | 412.0 | 395.2 | 397.8 | 399.6 |
| 67.5° | 375.8 | 366.1 | 351.1 | 348.4 | 343.2 |
| 70° | 329.9 | 320.2 | 311.4 | 294.6 | 285.8 |
| 72.5° | 279.6 | 272.6 | 262.9 | 237.3 | 228.5 |
| 75° | 232.0 | 224.9 | 209.1 | 187.0 | 172.9 |
| 77.5° | 181.7 | 179.1 | 160.6 | 151.7 | 155.3 |
| 80° | 135.9 | 135.0 | 120.9 | 132.3 | 136.7 |
| 82.5° | 92.6 | 89.1 | 97.9 | 103.2 | 103.2 |
| 85° | 54.7 | 56.5 | 65.3 | 66.2 | 66.2 |
| 87.5° | 22.1 | 25.6 | 30.0 | 31.8 | 31.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)