

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: P392902

Luminaire Tested: **12EN-LD2-35-UNV-L82765-W2A-1-U (4500K)**

Issue Date: 3/28/2020

Test Information

Test Method: LM-79-08
Report Number: P392902
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-L82765-W2A-1-U (4500K)
Description: 1X2 ENCOUNTER, 3500 LUMENS, VIVIDTUNE TUNABLE WHITE
Light Source: 3000K/5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3360.0 lumens
Efficiency: N/A
Efficacy: 110.5 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

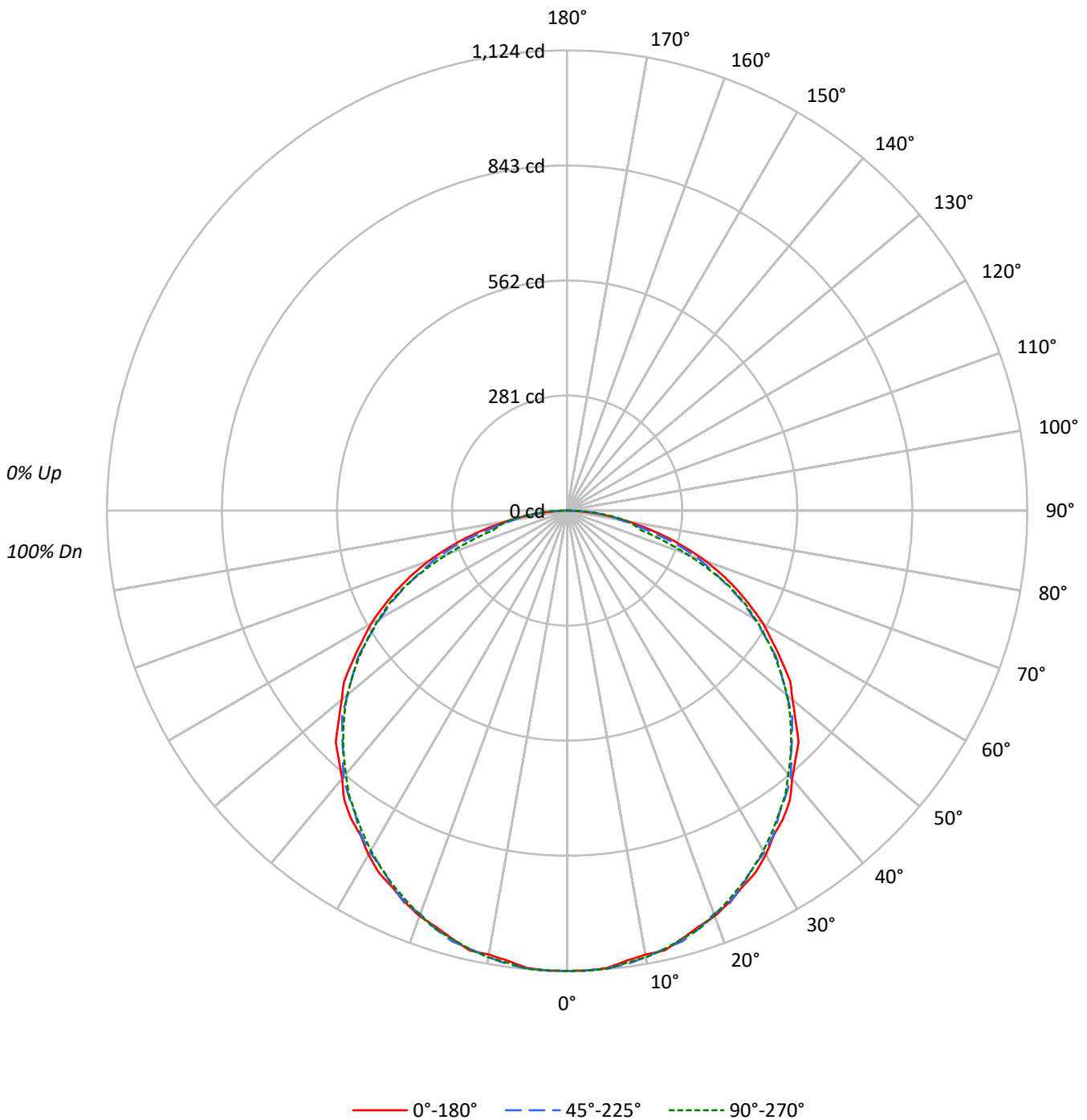
Input Watts (W): 30.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 6051 | 6051 | 6051 |
| 5° | 6059 | 6064 | 6069 |
| 10° | 6019 | 6050 | 6055 |
| 15° | 6034 | 6067 | 6034 |
| 20° | 6038 | 6005 | 6021 |
| 25° | 6020 | 6008 | 5986 |
| 30° | 6031 | 5990 | 5959 |
| 35° | 6041 | 5934 | 5928 |
| 40° | 6008 | 5974 | 5906 |
| 45° | 6084 | 5908 | 5886 |
| 50° | 6016 | 5863 | 5871 |
| 55° | 6001 | 5849 | 5803 |
| 60° | 5954 | 5674 | 5715 |
| 65° | 5830 | 5487 | 5549 |
| 70° | 5660 | 5342 | 4903 |
| 75° | 5261 | 4741 | 3920 |
| 80° | 4590 | 4085 | 4621 |
| 85° | 3680 | 4397 | 4452 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 106.6 | 3.2 |
| 10°-20° | 306.2 | 9.1 |
| 20°-30° | 466.2 | 13.9 |
| 30°-40° | 568.7 | 16.9 |
| 40°-50° | 601.8 | 17.9 |
| 50°-60° | 557.5 | 16.6 |
| 60°-70° | 434.2 | 12.9 |
| 70°-80° | 243.6 | 7.2 |
| 80°-90° | 75.1 | 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° | 879.0 | 26.2 |
| 0°-40° | 1447.7 | 43.1 |
| 0°-60° | 2607.0 | 77.6 |
| 0°-90° | 3360.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3360.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1124 | 1124 | 1124 | 1124 | 1124 | |
| 5° | 1122 | 1122 | 1122 | 1124 | 1123 | 106 |
| 15° | 1083 | 1085 | 1089 | 1085 | 1083 | 306 |
| 25° | 1014 | 1012 | 1012 | 1005 | 1008 | 468 |
| 35° | 920 | 912 | 903 | 901 | 902 | 574 |
| 45° | 799 | 790 | 776 | 774 | 773 | 612 |
| 55° | 640 | 635 | 623 | 615 | 618 | 572 |
| 65° | 458 | 449 | 431 | 434 | 436 | 453 |
| 75° | 253 | 245 | 228 | 204 | 188 | 266 |
| 85° | 60 | 62 | 71 | 72 | 72 | 70 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P392902

CATALOG NUMBER: 12EN-LD2-35-UNV-L82765-W2A-1-U (4500K)

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1124.4 | 1124.4 | 1124.4 | 1124.4 | 1124.4 |
| 2.5° | 1124.4 | 1122.5 | 1124.4 | 1123.4 | 1124.4 |
| 5° | 1121.5 | 1122.5 | 1122.5 | 1124.4 | 1123.4 |
| 7.5° | 1109.0 | 1113.8 | 1117.6 | 1116.7 | 1113.8 |
| 10° | 1101.3 | 1106.1 | 1107.1 | 1105.1 | 1108.0 |
| 12.5° | 1100.3 | 1101.3 | 1096.5 | 1099.4 | 1097.4 |
| 15° | 1083.0 | 1084.9 | 1088.8 | 1084.9 | 1083.0 |
| 17.5° | 1065.7 | 1069.6 | 1070.5 | 1067.6 | 1071.5 |
| 20° | 1054.2 | 1057.1 | 1048.4 | 1052.2 | 1051.3 |
| 22.5° | 1034.9 | 1035.9 | 1037.8 | 1031.1 | 1030.1 |
| 25° | 1013.8 | 1011.8 | 1011.8 | 1005.1 | 1008.0 |
| 27.5° | 996.5 | 989.7 | 982.0 | 985.9 | 984.0 |
| 30° | 970.5 | 969.5 | 963.8 | 959.9 | 958.9 |
| 32.5° | 939.7 | 940.7 | 938.7 | 930.1 | 931.1 |
| 35° | 919.5 | 911.8 | 903.2 | 901.2 | 902.2 |
| 37.5° | 893.5 | 886.8 | 877.2 | 874.3 | 875.3 |
| 40° | 855.1 | 854.1 | 850.3 | 838.7 | 840.6 |
| 42.5° | 825.2 | 819.5 | 809.9 | 805.1 | 807.9 |
| 45° | 799.3 | 789.7 | 776.2 | 774.3 | 773.3 |
| 47.5° | 756.0 | 754.1 | 745.4 | 734.8 | 738.7 |
| 50° | 718.5 | 714.6 | 700.2 | 694.4 | 701.2 |
| 52.5° | 686.7 | 677.1 | 659.8 | 658.9 | 659.8 |
| 55° | 639.6 | 634.8 | 623.3 | 614.6 | 618.5 |
| 57.5° | 593.4 | 589.6 | 573.3 | 570.4 | 575.2 |
| 60° | 553.1 | 546.3 | 527.1 | 526.1 | 530.9 |
| 62.5° | 505.0 | 500.2 | 482.8 | 482.8 | 487.6 |
| 65° | 457.8 | 449.2 | 430.9 | 433.8 | 435.7 |
| 67.5° | 409.7 | 399.2 | 382.8 | 379.9 | 374.2 |
| 70° | 359.7 | 349.1 | 339.5 | 321.3 | 311.6 |
| 72.5° | 304.9 | 297.2 | 286.6 | 258.7 | 249.1 |
| 75° | 253.0 | 245.3 | 228.0 | 203.9 | 188.5 |
| 77.5° | 198.1 | 195.3 | 175.1 | 165.4 | 169.3 |
| 80° | 148.1 | 147.2 | 131.8 | 144.3 | 149.1 |
| 82.5° | 101.0 | 97.1 | 106.8 | 112.5 | 112.5 |
| 85° | 59.6 | 61.6 | 71.2 | 72.1 | 72.1 |
| 87.5° | 24.0 | 27.9 | 32.7 | 34.6 | 34.6 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)