

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: P392917

Luminaire Tested: **12EN-LD2-35-UNV-L92765-W2A-1-U (4000K)**

Issue Date: 3/28/2020

Test Information

Test Method: LM-79-08
Report Number: P392917
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-L92765-W2A-1-U (4000K)
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: 2889.1 lumens
Efficiency: N/A
Efficacy: 94.7 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

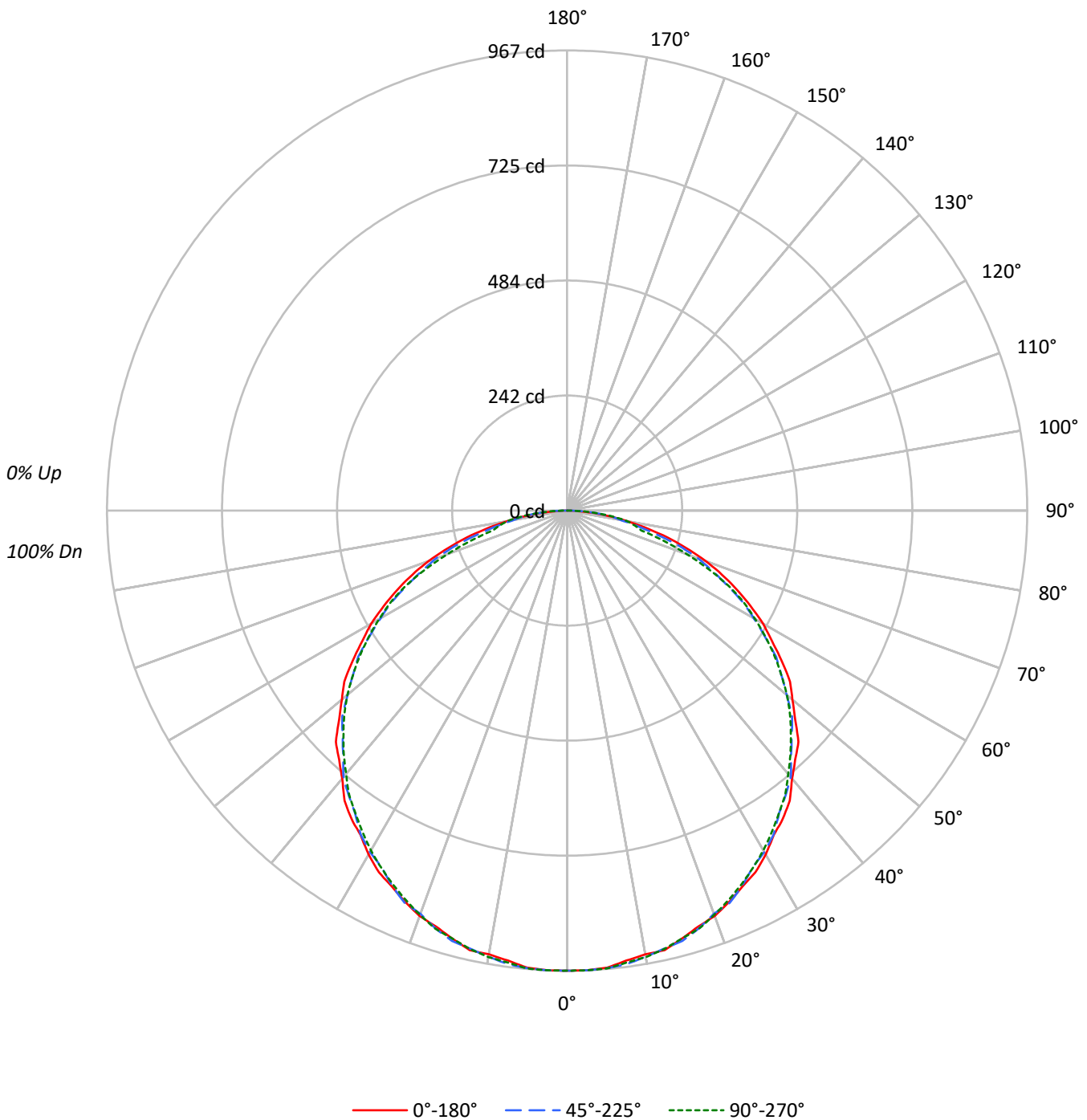
Input Watts (W): 30.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P392917

CATALOG NUMBER: 12EN-LD2-35-UNV-L92765-W2A-1-U (4000K)

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° | 5203 | 5203 | 5203 |
| 5° | 5210 | 5215 | 5219 |
| 10° | 5175 | 5202 | 5206 |
| 15° | 5188 | 5216 | 5188 |
| 20° | 5191 | 5163 | 5178 |
| 25° | 5176 | 5166 | 5147 |
| 30° | 5186 | 5150 | 5125 |
| 35° | 5194 | 5102 | 5097 |
| 40° | 5165 | 5136 | 5078 |
| 45° | 5231 | 5080 | 5061 |
| 50° | 5173 | 5041 | 5048 |
| 55° | 5161 | 5028 | 4990 |
| 60° | 5118 | 4878 | 4914 |
| 65° | 5014 | 4718 | 4770 |
| 70° | 4867 | 4593 | 4217 |
| 75° | 4523 | 4076 | 3371 |
| 80° | 3949 | 3512 | 3973 |
| 85° | 3168 | 3779 | 3829 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 91.6 | 3.2 |
| 10°-20° | 263.3 | 9.1 |
| 20°-30° | 400.9 | 13.9 |
| 30°-40° | 489.0 | 16.9 |
| 40°-50° | 517.5 | 17.9 |
| 50°-60° | 479.4 | 16.6 |
| 60°-70° | 373.4 | 12.9 |
| 70°-80° | 209.5 | 7.3 |
| 80°-90° | 64.6 | 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° | 755.8 | 26.2 |
| 0°-40° | 1244.8 | 43.1 |
| 0°-60° | 2241.6 | 77.6 |
| 0°-90° | 2889.1 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2889.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 967 | 967 | 967 | 967 | 967 | |
| 5° | 964 | 965 | 965 | 967 | 966 | 91 |
| 15° | 931 | 933 | 936 | 933 | 931 | 263 |
| 25° | 872 | 870 | 870 | 864 | 867 | 403 |
| 35° | 791 | 784 | 777 | 775 | 776 | 494 |
| 45° | 687 | 679 | 667 | 666 | 665 | 526 |
| 55° | 550 | 546 | 536 | 528 | 532 | 492 |
| 65° | 394 | 386 | 370 | 373 | 375 | 389 |
| 75° | 218 | 211 | 196 | 175 | 162 | 229 |
| 85° | 51 | 53 | 61 | 62 | 62 | 61 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P392917

CATALOG NUMBER: 12EN-LD2-35-UNV-L92765-W2A-1-U (4000K)

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 966.8 | 966.8 | 966.8 | 966.8 | 966.8 |
| 2.5° | 966.8 | 965.2 | 966.8 | 966.0 | 966.8 |
| 5° | 964.3 | 965.2 | 965.2 | 966.8 | 966.0 |
| 7.5° | 953.6 | 957.7 | 961.0 | 960.2 | 957.7 |
| 10° | 947.0 | 951.1 | 951.9 | 950.3 | 952.7 |
| 12.5° | 946.1 | 947.0 | 942.8 | 945.3 | 943.6 |
| 15° | 931.2 | 932.9 | 936.2 | 932.9 | 931.2 |
| 17.5° | 916.4 | 919.7 | 920.5 | 918.0 | 921.3 |
| 20° | 906.4 | 908.9 | 901.5 | 904.8 | 904.0 |
| 22.5° | 889.9 | 890.7 | 892.4 | 886.6 | 885.8 |
| 25° | 871.7 | 870.0 | 870.0 | 864.3 | 866.7 |
| 27.5° | 856.8 | 851.0 | 844.4 | 847.7 | 846.1 |
| 30° | 834.5 | 833.7 | 828.7 | 825.4 | 824.6 |
| 32.5° | 808.0 | 808.8 | 807.2 | 799.7 | 800.6 |
| 35° | 790.6 | 784.0 | 776.6 | 774.9 | 775.8 |
| 37.5° | 768.3 | 762.5 | 754.3 | 751.8 | 752.6 |
| 40° | 735.2 | 734.4 | 731.1 | 721.2 | 722.8 |
| 42.5° | 709.6 | 704.6 | 696.4 | 692.2 | 694.7 |
| 45° | 687.3 | 679.0 | 667.4 | 665.8 | 664.9 |
| 47.5° | 650.1 | 648.4 | 641.0 | 631.9 | 635.2 |
| 50° | 617.8 | 614.5 | 602.1 | 597.1 | 602.9 |
| 52.5° | 590.5 | 582.2 | 567.3 | 566.5 | 567.3 |
| 55° | 550.0 | 545.8 | 535.9 | 528.5 | 531.8 |
| 57.5° | 510.3 | 507.0 | 492.9 | 490.4 | 494.6 |
| 60° | 475.5 | 469.8 | 453.2 | 452.4 | 456.5 |
| 62.5° | 434.2 | 430.1 | 415.2 | 415.2 | 419.3 |
| 65° | 393.7 | 386.2 | 370.5 | 373.0 | 374.6 |
| 67.5° | 352.3 | 343.2 | 329.2 | 326.7 | 321.7 |
| 70° | 309.3 | 300.2 | 291.9 | 276.2 | 268.0 |
| 72.5° | 262.2 | 255.6 | 246.5 | 222.5 | 214.2 |
| 75° | 217.5 | 210.9 | 196.0 | 175.3 | 162.1 |
| 77.5° | 170.4 | 167.9 | 150.5 | 142.3 | 145.6 |
| 80° | 127.4 | 126.5 | 113.3 | 124.1 | 128.2 |
| 82.5° | 86.8 | 83.5 | 91.8 | 96.8 | 96.8 |
| 85° | 51.3 | 52.9 | 61.2 | 62.0 | 62.0 |
| 87.5° | 20.7 | 24.0 | 28.1 | 29.8 | 29.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)