

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: P392932

Luminaire Tested: **12EN-LD2-39-UNV-L82765-W2A-1-U (3500K)**

Issue Date: 3/28/2020

Test Information

Test Method: LM-79-08
Report Number: P392932
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-563-40)
Test Lab: INNOVATION CENTER
Issue Date: 3/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 12EN-LD2-39-UNV-L82765-W2A-1-U (3500K)
Description: 1X2 ENCOUNTER, 3900 LUMENS, VIVIDTUNE TUNABLE WHITE
Light Source: 3000K/5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3740.9 lumens
Efficiency: N/A
Efficacy: 105.4 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

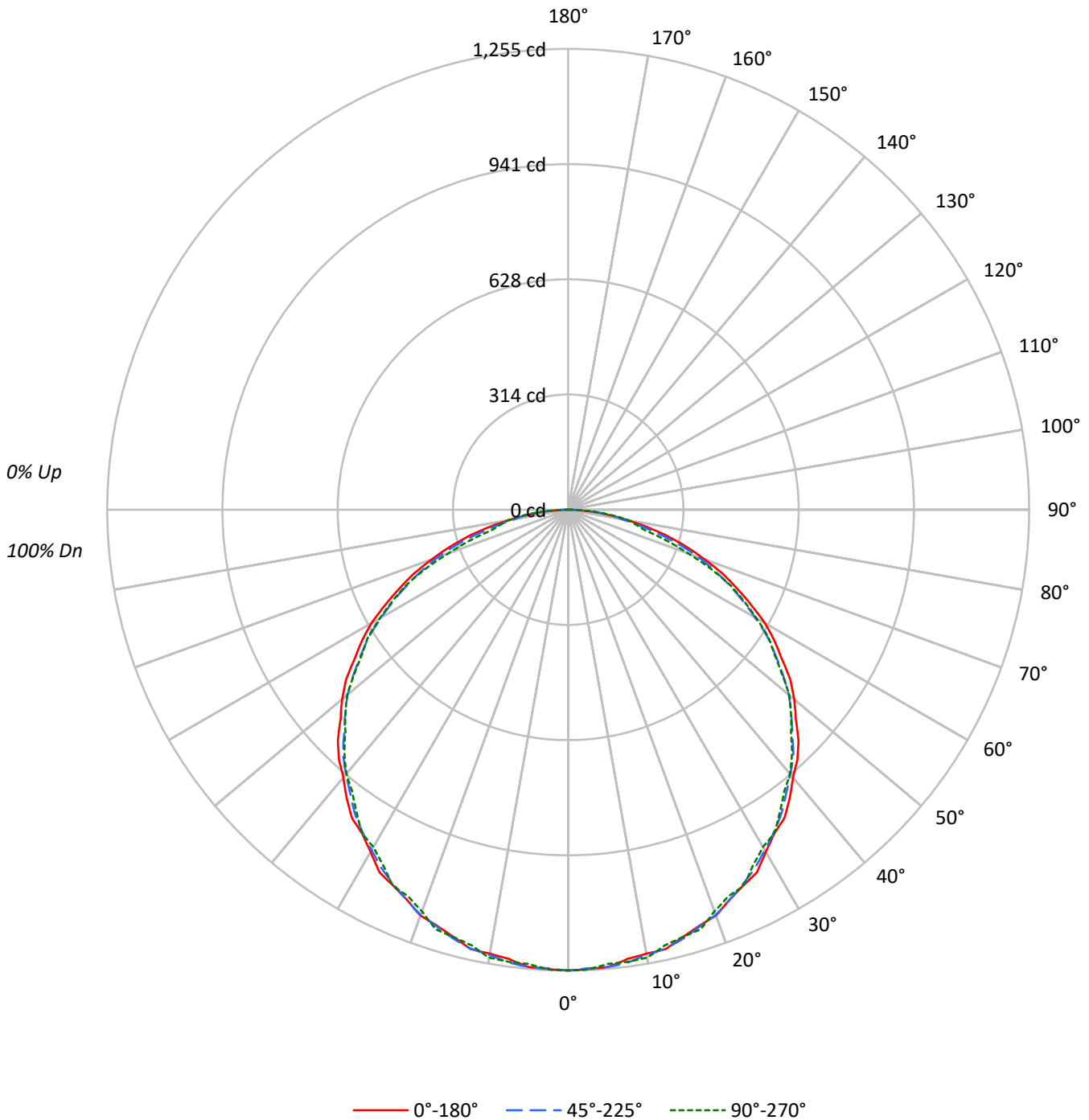
Input Watts (W): 35.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P392932

CATALOG NUMBER: 12EN-LD2-39-UNV-L82765-W2A-1-U (3500K)

Luminous Intensity Polar Plot





TEST NUMBER: P392932

CATALOG NUMBER: 12EN-LD2-39-UNV-L82765-W2A-1-U (3500K)

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 | 39 | 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° | 6754 | 6754 | 6754 |
| 5° | 6754 | 6754 | 6708 |
| 10° | 6708 | 6728 | 6770 |
| 15° | 6712 | 6739 | 6712 |
| 20° | 6737 | 6726 | 6667 |
| 25° | 6704 | 6682 | 6710 |
| 30° | 6686 | 6651 | 6592 |
| 35° | 6739 | 6646 | 6602 |
| 40° | 6687 | 6608 | 6601 |
| 45° | 6747 | 6567 | 6531 |
| 50° | 6725 | 6566 | 6574 |
| 55° | 6665 | 6461 | 6426 |
| 60° | 6657 | 6331 | 6371 |
| 65° | 6453 | 6139 | 6212 |
| 70° | 6214 | 5932 | 5454 |
| 75° | 5868 | 5317 | 4471 |
| 80° | 5080 | 4578 | 5195 |
| 85° | 4039 | 4736 | 5033 |



TEST NUMBER: P392932

CATALOG NUMBER: 12EN-LD2-39-UNV-L82765-W2A-1-U (3500K)

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 118.6 | 3.2 |
| 10°-20° | 341.0 | 9.1 |
| 20°-30° | 518.9 | 13.9 |
| 30°-40° | 632.5 | 16.9 |
| 40°-50° | 670.2 | 17.9 |
| 50°-60° | 621.4 | 16.6 |
| 60°-70° | 483.3 | 12.9 |
| 70°-80° | 271.5 | 7.3 |
| 80°-90° | 83.4 | 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° | 978.6 | 26.2 |
| 0°-40° | 1611.1 | 43.1 |
| 0°-60° | 2902.7 | 77.6 |
| 0°-90° | 3740.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3740.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1255 | 1255 | 1255 | 1255 | 1255 | |
| 5° | 1250 | 1246 | 1250 | 1247 | 1242 | 118 |
| 15° | 1205 | 1206 | 1210 | 1210 | 1205 | 341 |
| 25° | 1129 | 1129 | 1125 | 1121 | 1130 | 521 |
| 35° | 1026 | 1019 | 1012 | 1005 | 1005 | 639 |
| 45° | 886 | 877 | 863 | 860 | 858 | 681 |
| 55° | 710 | 706 | 689 | 685 | 685 | 637 |
| 65° | 507 | 502 | 482 | 481 | 488 | 502 |
| 75° | 282 | 273 | 256 | 229 | 215 | 296 |
| 85° | 65 | 67 | 77 | 79 | 82 | 78 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P392932

CATALOG NUMBER: 12EN-LD2-39-UNV-L82765-W2A-1-U (3500K)

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1254.9 | 1254.9 | 1254.9 | 1254.9 | 1254.9 |
| 2.5° | 1252.1 | 1254.9 | 1250.2 | 1252.1 | 1253.0 |
| 5° | 1250.2 | 1245.5 | 1250.2 | 1247.3 | 1241.7 |
| 7.5° | 1234.1 | 1238.8 | 1243.6 | 1244.5 | 1241.7 |
| 10° | 1227.5 | 1236.9 | 1231.2 | 1234.1 | 1238.8 |
| 12.5° | 1225.6 | 1221.8 | 1224.6 | 1219.9 | 1215.1 |
| 15° | 1204.7 | 1205.7 | 1209.5 | 1209.5 | 1204.7 |
| 17.5° | 1187.7 | 1195.3 | 1190.5 | 1189.6 | 1198.1 |
| 20° | 1176.3 | 1174.4 | 1174.4 | 1170.6 | 1164.0 |
| 22.5° | 1148.8 | 1149.8 | 1149.8 | 1147.9 | 1139.4 |
| 25° | 1129.0 | 1129.0 | 1125.2 | 1121.4 | 1129.9 |
| 27.5° | 1112.9 | 1104.3 | 1100.5 | 1095.8 | 1091.1 |
| 30° | 1075.9 | 1074.0 | 1070.2 | 1067.4 | 1060.8 |
| 32.5° | 1044.7 | 1045.6 | 1041.8 | 1036.1 | 1044.7 |
| 35° | 1025.7 | 1019.1 | 1011.5 | 1004.9 | 1004.9 |
| 37.5° | 990.7 | 984.1 | 974.6 | 968.9 | 966.1 |
| 40° | 951.8 | 949.0 | 940.5 | 934.8 | 939.5 |
| 42.5° | 923.4 | 917.8 | 907.3 | 898.8 | 901.7 |
| 45° | 886.5 | 877.0 | 862.8 | 860.0 | 858.1 |
| 47.5° | 840.1 | 837.2 | 823.0 | 819.3 | 823.0 |
| 50° | 803.2 | 798.4 | 784.2 | 776.6 | 785.2 |
| 52.5° | 762.4 | 752.0 | 735.9 | 734.0 | 733.1 |
| 55° | 710.3 | 706.5 | 688.6 | 684.8 | 684.8 |
| 57.5° | 665.8 | 660.1 | 642.1 | 635.5 | 645.9 |
| 60° | 618.5 | 608.0 | 588.2 | 586.3 | 591.9 |
| 62.5° | 561.6 | 555.0 | 535.1 | 535.1 | 538.9 |
| 65° | 506.7 | 502.0 | 482.1 | 481.1 | 487.8 |
| 67.5° | 454.6 | 445.1 | 430.0 | 423.4 | 419.6 |
| 70° | 394.9 | 388.3 | 377.0 | 355.2 | 346.6 |
| 72.5° | 338.1 | 331.5 | 319.2 | 285.1 | 282.2 |
| 75° | 282.2 | 272.8 | 255.7 | 229.2 | 215.0 |
| 77.5° | 221.6 | 218.8 | 195.1 | 182.8 | 188.5 |
| 80° | 163.9 | 164.8 | 147.7 | 160.1 | 167.6 |
| 82.5° | 111.8 | 108.0 | 120.3 | 125.0 | 127.9 |
| 85° | 65.4 | 67.2 | 76.7 | 78.6 | 81.5 |
| 87.5° | 26.5 | 31.3 | 36.0 | 36.9 | 40.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)