

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: P393386

Luminaire Tested: **22EN-LD2-43-UNV-L83050-W2A-1-U (2700K)**

Issue Date: 3/28/2020

Test Information

Test Method: LM-79-08
Report Number: P393386
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-563-12)
Test Lab: INNOVATION CENTER
Issue Date: 3/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22EN-LD2-43-UNV-L83050-W2A-1-U (2700K)
Description: 2X2 ENCOUNTER, 4300 LUMENS, VIVIDTUNE TUNABLE WHITE
Light Source: 2700K/6500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4145.8 lumens
Efficiency: N/A
Efficacy: 128.0 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.25 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

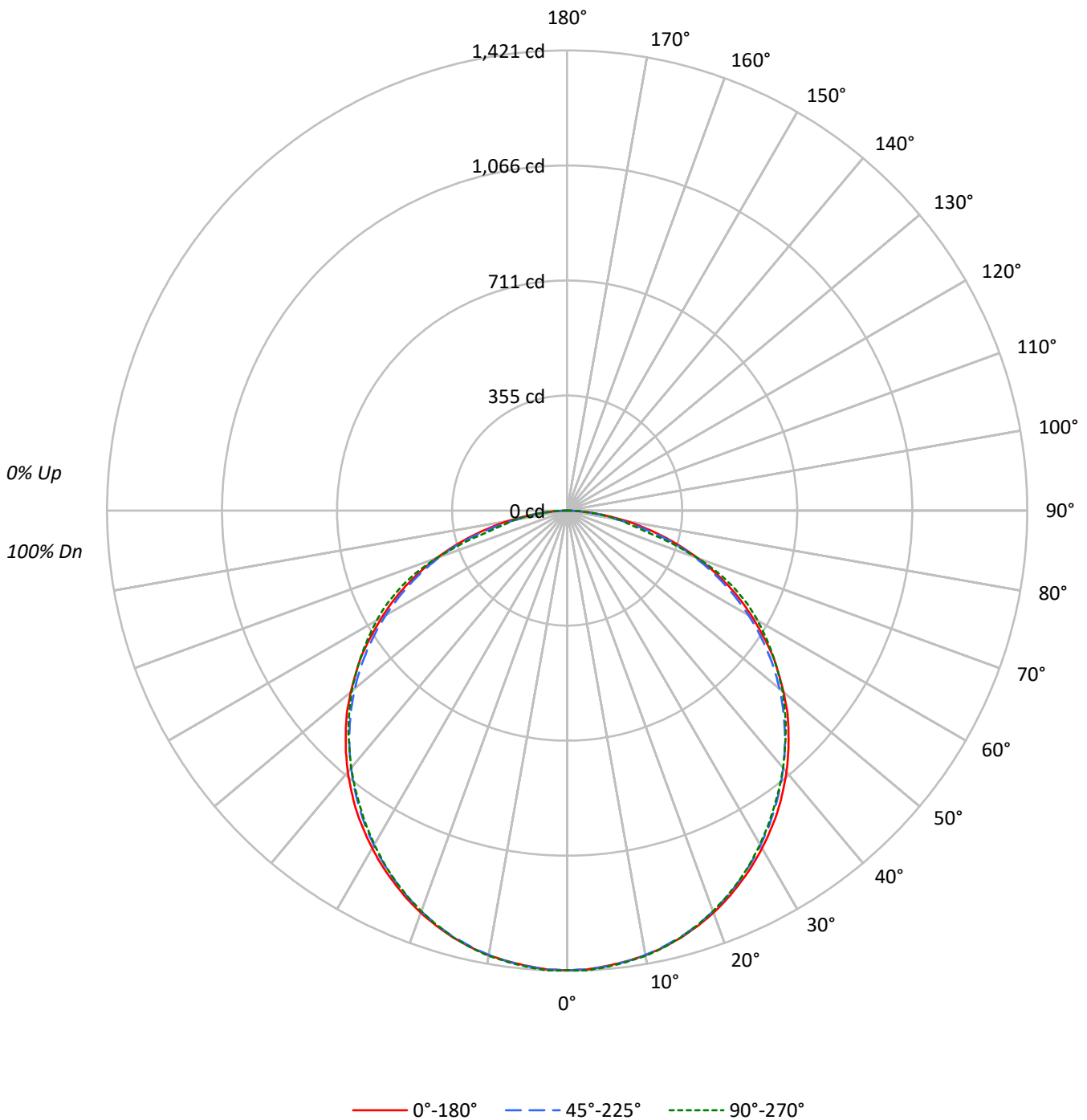
Input Watts (W): 32.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P393386

CATALOG NUMBER: 22EN-LD2-43-UNV-L83050-W2A-1-U (2700K)

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 | 109 | 104 | 99 | 95 | 106 | 101 | 97 | 94 | 97 | 94 | 91 | 93 | 90 | 88 | 90 | 87 | 85 | 83 | | | | | 83 | | | |
| 2 | 98 | 90 | 83 | 77 | 96 | 88 | 82 | 76 | 85 | 79 | 74 | 81 | 77 | 73 | 78 | 74 | 71 | 69 | | | | | 69 | | | |
| 3 | 90 | 79 | 71 | 64 | 87 | 77 | 70 | 63 | 74 | 68 | 62 | 71 | 66 | 61 | 69 | 64 | 60 | 58 | | | | | 58 | | | |
| 4 | 82 | 70 | 61 | 54 | 80 | 68 | 60 | 54 | 66 | 59 | 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 | 45 | 39 | 50 | 44 | 39 | 37 | | | | | 37 | | | |
| 7 | 64 | 51 | 42 | 35 | 63 | 50 | 41 | 35 | 48 | 41 | 35 | 47 | 40 | 35 | 45 | 39 | 35 | 33 | | | | | 33 | | | |
| 8 | 60 | 46 | 38 | 32 | 58 | 45 | 37 | 32 | 44 | 37 | 31 | 43 | 36 | 31 | 42 | 36 | 31 | 29 | | | | | 29 | | | |
| 9 | 56 | 42 | 34 | 28 | 54 | 42 | 34 | 28 | 41 | 33 | 28 | 39 | 33 | 28 | 38 | 32 | 28 | 26 | | | | | 26 | | | |
| 10 | 52 | 39 | 31 | 26 | 51 | 39 | 31 | 26 | 38 | 30 | 26 | 37 | 30 | 25 | 36 | 30 | 25 | 24 | | | | | 24 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 3819 | 3819 | 3819 |
| 5° | 3813 | 3816 | 3821 |
| 10° | 3810 | 3807 | 3815 |
| 15° | 3801 | 3793 | 3798 |
| 20° | 3785 | 3771 | 3771 |
| 25° | 3761 | 3741 | 3738 |
| 30° | 3741 | 3709 | 3700 |
| 35° | 3724 | 3677 | 3664 |
| 40° | 3701 | 3647 | 3644 |
| 45° | 3679 | 3616 | 3635 |
| 50° | 3651 | 3583 | 3635 |
| 55° | 3626 | 3540 | 3635 |
| 60° | 3557 | 3484 | 3655 |
| 65° | 3496 | 3403 | 3643 |
| 70° | 3371 | 3294 | 3378 |
| 75° | 3179 | 3009 | 2618 |
| 80° | 2856 | 2393 | 2571 |
| 85° | 2115 | 2174 | 2084 |



TEST NUMBER: P393386

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 134.2 | 3.2 |
| 10°-20° | 384.3 | 9.3 |
| 20°-30° | 581.3 | 14.0 |
| 30°-40° | 701.9 | 16.9 |
| 40°-50° | 736.9 | 17.8 |
| 50°-60° | 682.3 | 16.5 |
| 60°-70° | 539.9 | 13.0 |
| 70°-80° | 303.6 | 7.3 |
| 80°-90° | 81.2 | 2.0 |
| 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° | 1099.9 | 26.5 |
| 0°-40° | 1801.8 | 43.5 |
| 0°-60° | 3221.0 | 77.7 |
| 0°-90° | 4145.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4145.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1419 | 1419 | 1419 | 1419 | 1419 | |
| 5° | 1412 | 1411 | 1412 | 1412 | 1414 | 134 |
| 15° | 1364 | 1362 | 1361 | 1361 | 1363 | 385 |
| 25° | 1267 | 1265 | 1260 | 1258 | 1259 | 584 |
| 35° | 1134 | 1129 | 1119 | 1113 | 1115 | 709 |
| 45° | 967 | 962 | 950 | 948 | 955 | 746 |
| 55° | 773 | 765 | 754 | 761 | 775 | 688 |
| 65° | 549 | 542 | 534 | 555 | 572 | 542 |
| 75° | 306 | 301 | 289 | 264 | 252 | 323 |
| 85° | 68 | 67 | 70 | 67 | 68 | 85 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P393386

CATALOG NUMBER: 22EN-LD2-43-UNV-L83050-W2A-1-U (2700K)

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1419.3 | 1419.3 | 1419.3 | 1419.3 | 1419.3 |
| 2.5° | 1418.3 | 1417.3 | 1418.3 | 1418.3 | 1421.2 |
| 5° | 1411.5 | 1410.6 | 1412.5 | 1412.5 | 1414.4 |
| 7.5° | 1403.8 | 1402.9 | 1404.8 | 1404.8 | 1405.7 |
| 10° | 1394.2 | 1392.2 | 1393.2 | 1394.2 | 1396.1 |
| 12.5° | 1380.7 | 1378.7 | 1378.7 | 1379.7 | 1381.6 |
| 15° | 1364.3 | 1362.3 | 1361.4 | 1361.4 | 1363.3 |
| 17.5° | 1344.0 | 1341.1 | 1341.1 | 1339.2 | 1341.1 |
| 20° | 1321.8 | 1318.9 | 1317.0 | 1315.1 | 1317.0 |
| 22.5° | 1295.8 | 1292.9 | 1290.0 | 1288.0 | 1289.0 |
| 25° | 1266.8 | 1264.9 | 1260.1 | 1258.1 | 1259.1 |
| 27.5° | 1236.9 | 1234.0 | 1228.2 | 1224.4 | 1226.3 |
| 30° | 1204.1 | 1200.2 | 1193.5 | 1188.7 | 1190.6 |
| 32.5° | 1169.4 | 1165.5 | 1157.8 | 1152.0 | 1153.9 |
| 35° | 1133.7 | 1128.8 | 1119.2 | 1113.4 | 1115.3 |
| 37.5° | 1094.1 | 1090.2 | 1079.6 | 1073.8 | 1076.7 |
| 40° | 1053.6 | 1049.7 | 1038.1 | 1033.3 | 1037.2 |
| 42.5° | 1011.1 | 1007.3 | 994.7 | 989.9 | 995.7 |
| 45° | 966.8 | 961.9 | 950.3 | 947.5 | 955.2 |
| 47.5° | 922.4 | 915.6 | 904.0 | 902.1 | 911.8 |
| 50° | 872.2 | 867.4 | 855.8 | 856.8 | 868.3 |
| 52.5° | 822.0 | 818.2 | 806.6 | 810.4 | 821.1 |
| 55° | 772.8 | 765.1 | 754.5 | 761.2 | 774.8 |
| 57.5° | 715.9 | 711.1 | 701.4 | 712.0 | 726.5 |
| 60° | 660.9 | 657.0 | 647.4 | 660.9 | 679.2 |
| 62.5° | 606.9 | 599.2 | 590.5 | 609.8 | 629.1 |
| 65° | 549.0 | 542.2 | 534.5 | 554.8 | 572.1 |
| 67.5° | 489.2 | 482.4 | 476.6 | 495.0 | 507.5 |
| 70° | 428.4 | 422.6 | 418.7 | 424.5 | 429.3 |
| 72.5° | 367.6 | 361.8 | 358.9 | 345.4 | 341.5 |
| 75° | 305.8 | 301.0 | 289.4 | 264.4 | 251.8 |
| 77.5° | 244.1 | 238.3 | 219.0 | 194.9 | 195.9 |
| 80° | 184.3 | 177.5 | 154.4 | 161.1 | 165.9 |
| 82.5° | 125.4 | 120.6 | 115.8 | 113.8 | 114.8 |
| 85° | 68.5 | 66.6 | 70.4 | 66.6 | 67.5 |
| 87.5° | 28.0 | 28.9 | 30.9 | 29.9 | 29.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)