

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: P393136

Luminaire Tested: **14EN-LD2-43-UNV-L83050-W2A-1-U (5700K)**

Issue Date: 3/28/2020

Test Information

Test Method: LM-79-08
Report Number: P393136
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-563-54)
Test Lab: INNOVATION CENTER
Issue Date: 3/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14EN-LD2-43-UNV-L83050-W2A-1-U (5700K)
Description: 1X4 ENCOUNTER, 4300 LUMENS, VIVIDTUNE TUNABLE WHITE
Light Source: 2700K/6500K CCT, CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4333.0 lumens
Efficiency: N/A
Efficacy: 104.7 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.27 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

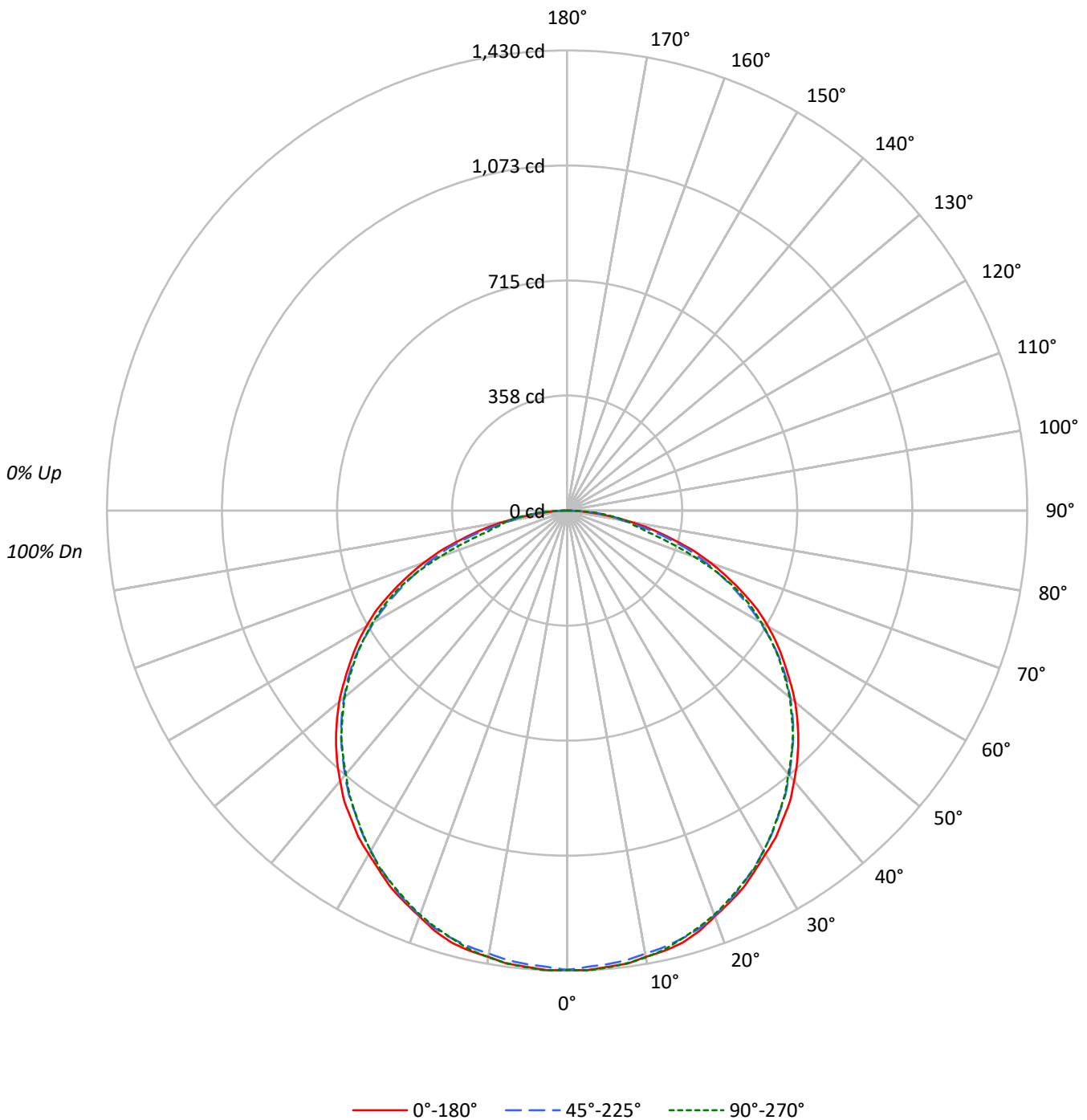
Input Watts (W): 41.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 93 | 97 | 93 | 90 | 93 | 90 | 88 | 89 | 87 | 85 | 83 |
| 2 | 98 | 90 | 83 | 77 | 96 | 88 | 81 | 76 | 84 | 79 | 74 | 81 | 76 | 72 | 78 | 74 | 71 | 68 |
| 3 | 89 | 78 | 70 | 63 | 87 | 77 | 69 | 63 | 74 | 67 | 62 | 71 | 65 | 60 | 68 | 64 | 59 | 57 |
| 4 | 82 | 69 | 60 | 53 | 79 | 68 | 59 | 53 | 65 | 58 | 52 | 63 | 57 | 51 | 61 | 55 | 51 | 48 |
| 5 | 75 | 62 | 52 | 46 | 73 | 61 | 52 | 45 | 58 | 51 | 45 | 56 | 50 | 44 | 54 | 49 | 44 | 42 |
| 6 | 69 | 55 | 46 | 40 | 67 | 54 | 46 | 39 | 53 | 45 | 39 | 51 | 44 | 39 | 49 | 43 | 38 | 36 |
| 7 | 64 | 50 | 41 | 35 | 62 | 49 | 41 | 35 | 48 | 40 | 35 | 46 | 39 | 34 | 45 | 39 | 34 | 32 |
| 8 | 59 | 46 | 37 | 31 | 58 | 45 | 37 | 31 | 44 | 36 | 31 | 42 | 36 | 31 | 41 | 35 | 30 | 28 |
| 9 | 56 | 42 | 34 | 28 | 54 | 41 | 33 | 28 | 40 | 33 | 28 | 39 | 32 | 27 | 38 | 32 | 27 | 25 |
| 10 | 52 | 39 | 31 | 25 | 51 | 38 | 30 | 25 | 37 | 30 | 25 | 36 | 30 | 25 | 35 | 29 | 25 | 23 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 3841 | 3841 | 3841 |
| 5° | 3845 | 3823 | 3850 |
| 10° | 3848 | 3820 | 3853 |
| 15° | 3872 | 3838 | 3838 |
| 20° | 3842 | 3834 | 3828 |
| 25° | 3842 | 3815 | 3809 |
| 30° | 3831 | 3793 | 3796 |
| 35° | 3843 | 3772 | 3769 |
| 40° | 3855 | 3772 | 3758 |
| 45° | 3866 | 3781 | 3777 |
| 50° | 3873 | 3788 | 3779 |
| 55° | 3862 | 3791 | 3772 |
| 60° | 3883 | 3729 | 3756 |
| 65° | 3834 | 3633 | 3705 |
| 70° | 3736 | 3527 | 3327 |
| 75° | 3464 | 3252 | 2712 |
| 80° | 3064 | 2653 | 2921 |
| 85° | 2232 | 2893 | 2958 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 135.3 | 3.1 |
| 10°-20° | 389.5 | 9.0 |
| 20°-30° | 592.7 | 13.7 |
| 30°-40° | 723.5 | 16.7 |
| 40°-50° | 770.9 | 17.8 |
| 50°-60° | 722.7 | 16.7 |
| 60°-70° | 574.1 | 13.2 |
| 70°-80° | 326.4 | 7.5 |
| 80°-90° | 98.0 | 2.3 |
| 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° | 1117.5 | 25.8 |
| 0°-40° | 1841.0 | 42.5 |
| 0°-60° | 3334.6 | 77.0 |
| 0°-90° | 4333.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4333.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1427 | 1427 | 1427 | 1427 | 1427 | |
| 5° | 1423 | 1420 | 1415 | 1426 | 1425 | 136 |
| 15° | 1390 | 1386 | 1378 | 1376 | 1378 | 391 |
| 25° | 1294 | 1288 | 1285 | 1281 | 1283 | 596 |
| 35° | 1170 | 1160 | 1148 | 1151 | 1147 | 733 |
| 45° | 1016 | 1011 | 993 | 990 | 992 | 784 |
| 55° | 823 | 816 | 808 | 798 | 804 | 737 |
| 65° | 602 | 592 | 571 | 578 | 582 | 595 |
| 75° | 333 | 330 | 313 | 278 | 261 | 355 |
| 85° | 72 | 80 | 94 | 94 | 96 | 89 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P393136

CATALOG NUMBER: 14EN-LD2-43-UNV-L83050-W2A-1-U (5700K)

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1427.4 | 1427.4 | 1427.4 | 1427.4 | 1427.4 |
| 2.5° | 1429.5 | 1425.4 | 1419.3 | 1432.5 | 1430.5 |
| 5° | 1423.4 | 1420.3 | 1415.2 | 1426.4 | 1425.4 |
| 7.5° | 1420.3 | 1414.2 | 1409.1 | 1421.3 | 1419.3 |
| 10° | 1408.1 | 1409.1 | 1397.9 | 1410.1 | 1410.1 |
| 12.5° | 1400.9 | 1398.9 | 1389.7 | 1393.8 | 1396.9 |
| 15° | 1389.7 | 1385.7 | 1377.5 | 1375.5 | 1377.5 |
| 17.5° | 1369.4 | 1365.3 | 1362.2 | 1355.1 | 1358.1 |
| 20° | 1341.8 | 1343.9 | 1338.8 | 1332.7 | 1336.8 |
| 22.5° | 1318.4 | 1316.4 | 1314.3 | 1308.2 | 1310.3 |
| 25° | 1294.0 | 1287.8 | 1284.8 | 1280.7 | 1282.8 |
| 27.5° | 1262.4 | 1258.3 | 1254.2 | 1252.2 | 1256.3 |
| 30° | 1232.8 | 1226.7 | 1220.6 | 1218.6 | 1221.6 |
| 32.5° | 1205.3 | 1194.1 | 1187.0 | 1188.0 | 1184.9 |
| 35° | 1169.7 | 1159.5 | 1148.3 | 1151.3 | 1147.2 |
| 37.5° | 1138.1 | 1125.8 | 1113.6 | 1116.7 | 1111.6 |
| 40° | 1097.3 | 1090.2 | 1073.9 | 1075.9 | 1069.8 |
| 42.5° | 1058.6 | 1054.5 | 1033.1 | 1034.1 | 1031.1 |
| 45° | 1015.8 | 1010.7 | 993.4 | 990.3 | 992.4 |
| 47.5° | 971.0 | 965.9 | 950.6 | 943.5 | 946.5 |
| 50° | 925.1 | 919.0 | 904.8 | 898.6 | 902.7 |
| 52.5° | 873.2 | 870.1 | 858.9 | 849.7 | 852.8 |
| 55° | 823.2 | 816.1 | 808.0 | 797.8 | 803.9 |
| 57.5° | 774.3 | 766.2 | 750.9 | 745.8 | 751.9 |
| 60° | 721.4 | 708.1 | 692.8 | 688.8 | 697.9 |
| 62.5° | 666.3 | 651.1 | 631.7 | 632.7 | 643.9 |
| 65° | 602.1 | 592.0 | 570.6 | 577.7 | 581.8 |
| 67.5° | 536.9 | 528.8 | 508.4 | 518.6 | 507.4 |
| 70° | 474.8 | 464.6 | 448.3 | 435.1 | 422.8 |
| 72.5° | 408.6 | 396.3 | 386.1 | 351.5 | 337.2 |
| 75° | 333.2 | 330.1 | 312.8 | 278.2 | 260.8 |
| 77.5° | 269.0 | 261.8 | 238.4 | 211.9 | 214.0 |
| 80° | 197.7 | 202.8 | 171.2 | 183.4 | 188.5 |
| 82.5° | 130.4 | 133.5 | 141.6 | 147.7 | 146.7 |
| 85° | 72.3 | 79.5 | 93.7 | 93.7 | 95.8 |
| 87.5° | 27.5 | 35.7 | 40.8 | 41.8 | 41.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)