

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: P393190

Luminaire Tested: **14EN-LD2-51-UNV-L82765-W2A-1-U (4500K)**

Issue Date: 3/28/2020

Test Information

Test Method: LM-79-08
Report Number: P393190
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-563-56)
Test Lab: INNOVATION CENTER
Issue Date: 3/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14EN-LD2-51-UNV-L82765-W2A-1-U (4500K)
Description: 1X4 ENCOUNTER, 5100 LUMENS, VIVIDTUNE TUNABLE WHITE
Light Source: 3000K/5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4887.9 lumens
Efficiency: N/A
Efficacy: 96.2 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

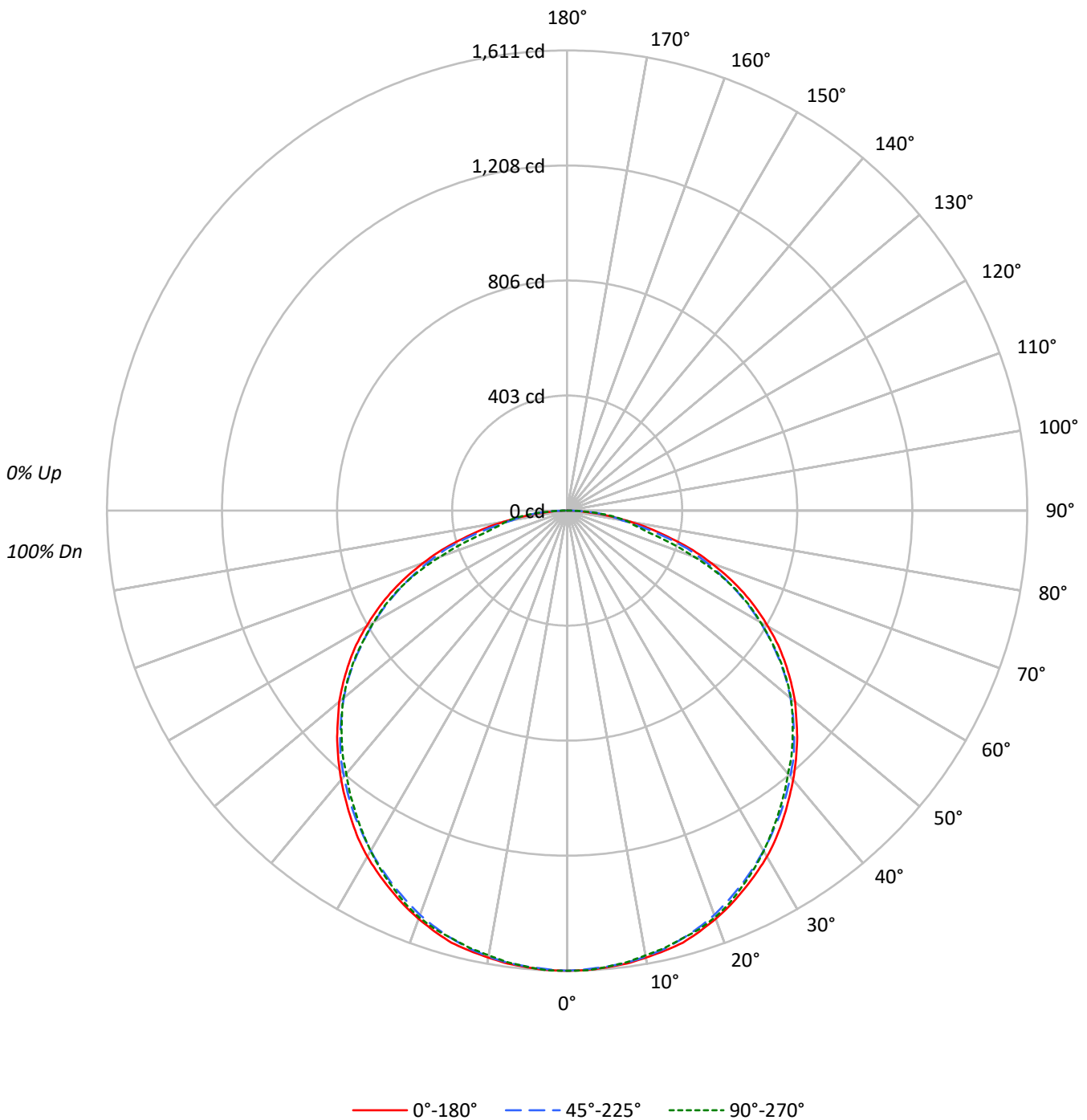
Input Watts (W): 50.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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° | 4335 | 4335 | 4335 |
| 5° | 4336 | 4328 | 4331 |
| 10° | 4342 | 4331 | 4321 |
| 15° | 4362 | 4325 | 4322 |
| 20° | 4355 | 4313 | 4338 |
| 25° | 4347 | 4290 | 4309 |
| 30° | 4349 | 4274 | 4277 |
| 35° | 4332 | 4269 | 4240 |
| 40° | 4325 | 4267 | 4227 |
| 45° | 4334 | 4275 | 4250 |
| 50° | 4361 | 4272 | 4284 |
| 55° | 4377 | 4246 | 4264 |
| 60° | 4369 | 4198 | 4209 |
| 65° | 4342 | 4110 | 4134 |
| 70° | 4223 | 3995 | 3738 |
| 75° | 3930 | 3681 | 3060 |
| 80° | 3473 | 3040 | 3324 |
| 85° | 2495 | 3267 | 3325 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 152.9 | 3.1 |
| 10°-20° | 439.2 | 9.0 |
| 20°-30° | 668.2 | 13.7 |
| 30°-40° | 816.3 | 16.7 |
| 40°-50° | 869.5 | 17.8 |
| 50°-60° | 815.4 | 16.7 |
| 60°-70° | 647.2 | 13.2 |
| 70°-80° | 368.4 | 7.5 |
| 80°-90° | 111.0 | 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° | 1260.3 | 25.8 |
| 0°-40° | 2076.5 | 42.5 |
| 0°-60° | 3761.4 | 77.0 |
| 0°-90° | 4887.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4887.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1611 | 1611 | 1611 | 1611 | 1611 | |
| 5° | 1605 | 1610 | 1602 | 1613 | 1603 | 153 |
| 15° | 1566 | 1559 | 1552 | 1554 | 1551 | 441 |
| 25° | 1464 | 1450 | 1445 | 1442 | 1451 | 675 |
| 35° | 1319 | 1312 | 1299 | 1298 | 1291 | 825 |
| 45° | 1139 | 1137 | 1123 | 1116 | 1117 | 879 |
| 55° | 933 | 924 | 905 | 901 | 909 | 833 |
| 65° | 682 | 668 | 645 | 650 | 649 | 672 |
| 75° | 378 | 368 | 354 | 314 | 294 | 402 |
| 85° | 81 | 90 | 106 | 105 | 108 | 101 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P393190

CATALOG NUMBER: 14EN-LD2-51-UNV-L82765-W2A-1-U (4500K)

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1611.1 | 1611.1 | 1611.1 | 1611.1 | 1611.1 |
| 2.5° | 1610.1 | 1616.8 | 1607.2 | 1614.9 | 1611.1 |
| 5° | 1605.3 | 1610.1 | 1602.4 | 1613.0 | 1603.4 |
| 7.5° | 1599.5 | 1602.4 | 1596.6 | 1606.3 | 1594.7 |
| 10° | 1588.9 | 1590.9 | 1585.1 | 1592.8 | 1581.2 |
| 12.5° | 1578.4 | 1575.5 | 1571.6 | 1574.5 | 1568.7 |
| 15° | 1565.9 | 1559.1 | 1552.4 | 1554.3 | 1551.4 |
| 17.5° | 1544.7 | 1536.0 | 1531.2 | 1529.3 | 1537.0 |
| 20° | 1520.7 | 1510.1 | 1506.2 | 1504.3 | 1514.9 |
| 22.5° | 1494.7 | 1481.2 | 1476.4 | 1474.5 | 1487.0 |
| 25° | 1463.9 | 1450.4 | 1444.7 | 1441.8 | 1451.4 |
| 27.5° | 1432.2 | 1417.7 | 1411.0 | 1409.1 | 1415.8 |
| 30° | 1399.5 | 1383.1 | 1375.4 | 1374.5 | 1376.4 |
| 32.5° | 1361.0 | 1348.5 | 1336.9 | 1337.9 | 1334.1 |
| 35° | 1318.7 | 1311.9 | 1299.4 | 1297.5 | 1290.8 |
| 37.5° | 1274.4 | 1274.4 | 1258.1 | 1261.0 | 1248.5 |
| 40° | 1231.1 | 1232.1 | 1214.8 | 1215.8 | 1203.2 |
| 42.5° | 1185.0 | 1187.9 | 1173.4 | 1165.7 | 1162.9 |
| 45° | 1138.8 | 1136.9 | 1123.4 | 1115.7 | 1116.7 |
| 47.5° | 1088.8 | 1088.8 | 1073.4 | 1066.7 | 1069.6 |
| 50° | 1041.7 | 1037.8 | 1020.5 | 1014.7 | 1023.4 |
| 52.5° | 987.8 | 983.0 | 965.7 | 958.9 | 967.6 |
| 55° | 933.0 | 924.3 | 905.1 | 901.2 | 908.9 |
| 57.5° | 876.2 | 864.7 | 843.5 | 841.6 | 845.4 |
| 60° | 811.8 | 802.2 | 780.0 | 776.2 | 782.0 |
| 62.5° | 749.3 | 735.8 | 713.7 | 713.7 | 719.4 |
| 65° | 681.9 | 668.5 | 645.4 | 650.2 | 649.2 |
| 67.5° | 610.8 | 597.3 | 577.1 | 579.0 | 568.4 |
| 70° | 536.7 | 521.3 | 507.8 | 489.6 | 475.1 |
| 72.5° | 461.7 | 445.3 | 440.5 | 398.2 | 383.8 |
| 75° | 378.0 | 368.4 | 354.0 | 313.6 | 294.3 |
| 77.5° | 303.9 | 294.3 | 268.4 | 237.6 | 242.4 |
| 80° | 224.1 | 226.0 | 196.2 | 207.8 | 214.5 |
| 82.5° | 147.2 | 152.0 | 158.7 | 167.4 | 169.3 |
| 85° | 80.8 | 90.4 | 105.8 | 104.8 | 107.7 |
| 87.5° | 31.7 | 42.3 | 46.2 | 48.1 | 45.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)