

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: P393713

Luminaire Tested: **24EN-LD2-74-UNV-L83050-W2A-1-U (6500K)**

Issue Date: 3/28/2020

Test Information

Test Method: LM-79-08
Report Number: P393713
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-563-40)
Test Lab: INNOVATION CENTER
Issue Date: 3/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24EN-LD2-74-UNV-L83050-W2A-1-U (6500K)
Description: 2X4 ENCOUNTER, 7400 LUMENS, VIVIDTUNE TUNABLE WHITE
Light Source: 2700K/6500K CCT, CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7510.0 lumens
Efficiency: N/A
Efficacy: 137.0 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.28 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

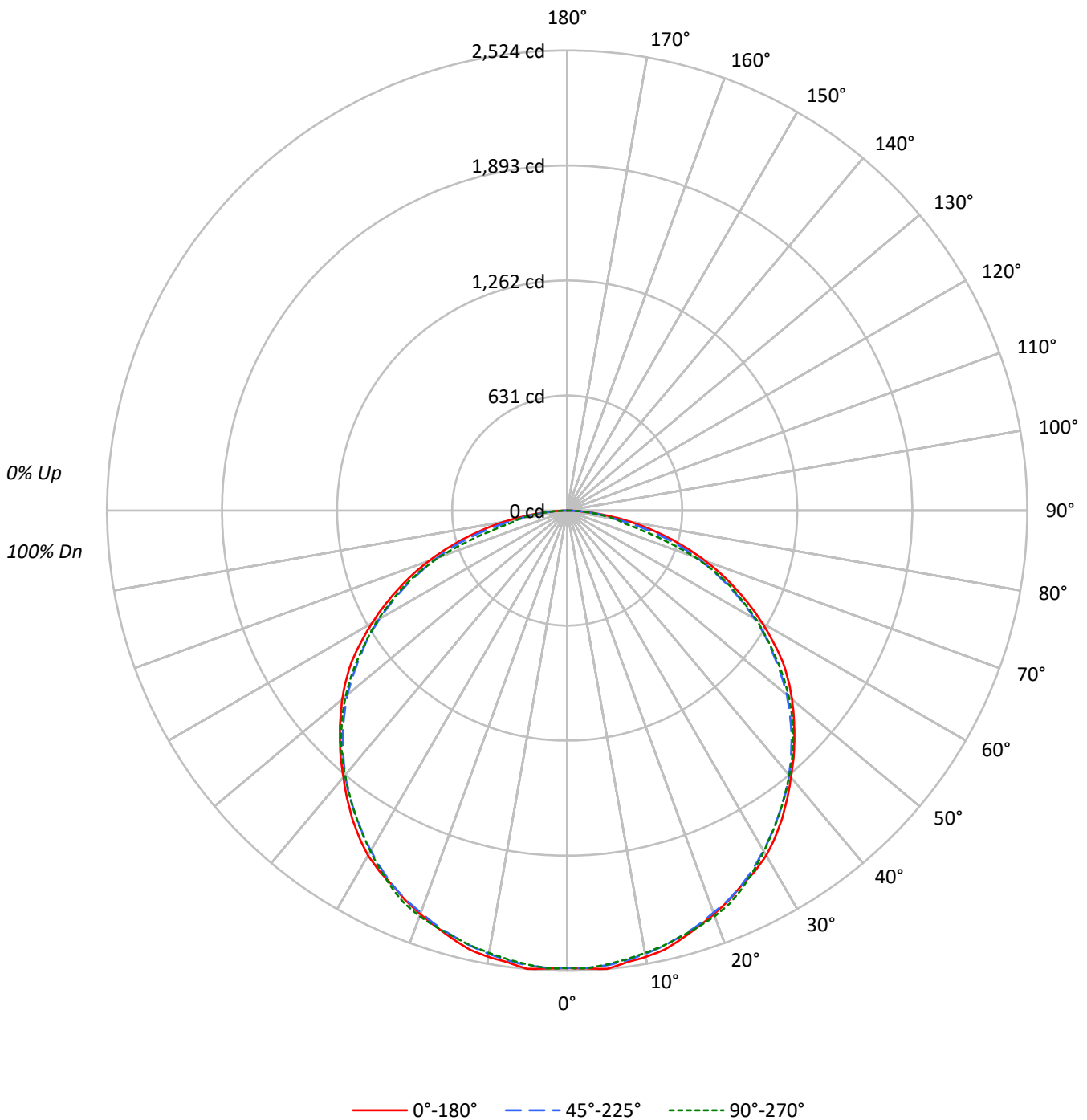
Input Watts (W): 54.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P393713

CATALOG NUMBER: 24EN-LD2-74-UNV-L83050-W2A-1-U (6500K)

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 | 70 | 64 | 87 | 77 | 69 | 63 | 74 | 68 | 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° | 3377 | 3377 | 3377 |
| 5° | 3409 | 3383 | 3376 |
| 10° | 3396 | 3374 | 3366 |
| 15° | 3386 | 3366 | 3368 |
| 20° | 3373 | 3361 | 3390 |
| 25° | 3366 | 3364 | 3385 |
| 30° | 3394 | 3346 | 3353 |
| 35° | 3379 | 3330 | 3334 |
| 40° | 3354 | 3327 | 3329 |
| 45° | 3354 | 3313 | 3337 |
| 50° | 3370 | 3293 | 3321 |
| 55° | 3384 | 3248 | 3272 |
| 60° | 3328 | 3197 | 3230 |
| 65° | 3266 | 3104 | 3156 |
| 70° | 3166 | 2994 | 2926 |
| 75° | 2993 | 2749 | 2256 |
| 80° | 2669 | 2124 | 2084 |
| 85° | 2092 | 1967 | 1809 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 237.9 | 3.2 |
| 10°-20° | 683.4 | 9.1 |
| 20°-30° | 1044.6 | 13.9 |
| 30°-40° | 1273.6 | 17.0 |
| 40°-50° | 1348.0 | 17.9 |
| 50°-60° | 1249.3 | 16.6 |
| 60°-70° | 980.1 | 13.1 |
| 70°-80° | 546.8 | 7.3 |
| 80°-90° | 146.2 | 1.9 |
| 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° | 1966.0 | 26.2 |
| 0°-40° | 3239.6 | 43.1 |
| 0°-60° | 5836.9 | 77.7 |
| 0°-90° | 7510.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 7510.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2510 | 2510 | 2510 | 2510 | 2510 | |
| 5° | 2524 | 2500 | 2504 | 2499 | 2499 | 239 |
| 15° | 2431 | 2422 | 2417 | 2416 | 2418 | 686 |
| 25° | 2267 | 2269 | 2266 | 2257 | 2280 | 1049 |
| 35° | 2057 | 2033 | 2028 | 2035 | 2030 | 1286 |
| 45° | 1763 | 1761 | 1741 | 1731 | 1754 | 1361 |
| 55° | 1443 | 1404 | 1385 | 1388 | 1395 | 1283 |
| 65° | 1026 | 1008 | 975 | 985 | 991 | 1014 |
| 75° | 576 | 552 | 529 | 463 | 434 | 606 |
| 85° | 136 | 128 | 127 | 119 | 117 | 162 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P393713

CATALOG NUMBER: 24EN-LD2-74-UNV-L83050-W2A-1-U (6500K)

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2509.5 | 2509.5 | 2509.5 | 2509.5 | 2509.5 |
| 2.5° | 2513.5 | 2507.4 | 2510.5 | 2501.3 | 2513.5 |
| 5° | 2523.7 | 2500.3 | 2504.4 | 2499.3 | 2499.3 |
| 7.5° | 2499.3 | 2489.1 | 2489.1 | 2490.1 | 2483.0 |
| 10° | 2486.0 | 2472.8 | 2469.7 | 2472.8 | 2463.6 |
| 12.5° | 2466.7 | 2447.3 | 2445.3 | 2447.3 | 2443.2 |
| 15° | 2431.0 | 2421.8 | 2416.7 | 2415.7 | 2417.8 |
| 17.5° | 2392.3 | 2390.3 | 2385.2 | 2381.1 | 2394.3 |
| 20° | 2355.6 | 2357.7 | 2347.5 | 2344.4 | 2367.8 |
| 22.5° | 2314.9 | 2314.9 | 2310.8 | 2300.6 | 2332.2 |
| 25° | 2267.0 | 2269.0 | 2266.0 | 2256.8 | 2280.2 |
| 27.5° | 2230.3 | 2215.0 | 2212.0 | 2208.9 | 2221.1 |
| 30° | 2184.4 | 2156.9 | 2153.9 | 2154.9 | 2158.0 |
| 32.5° | 2124.3 | 2096.8 | 2091.7 | 2097.8 | 2093.8 |
| 35° | 2057.1 | 2032.6 | 2027.5 | 2034.7 | 2029.6 |
| 37.5° | 1984.7 | 1970.5 | 1964.4 | 1964.4 | 1962.3 |
| 40° | 1909.4 | 1903.2 | 1894.1 | 1891.0 | 1895.1 |
| 42.5° | 1838.0 | 1837.0 | 1817.7 | 1813.6 | 1828.9 |
| 45° | 1762.6 | 1760.6 | 1741.2 | 1731.1 | 1753.5 |
| 47.5° | 1687.2 | 1679.1 | 1657.7 | 1647.5 | 1673.0 |
| 50° | 1609.8 | 1590.4 | 1573.1 | 1570.1 | 1586.4 |
| 52.5° | 1529.3 | 1498.8 | 1478.4 | 1476.3 | 1492.6 |
| 55° | 1442.7 | 1404.0 | 1384.6 | 1387.7 | 1394.8 |
| 57.5° | 1339.8 | 1310.3 | 1290.9 | 1289.9 | 1294.0 |
| 60° | 1236.9 | 1211.4 | 1188.0 | 1191.1 | 1200.2 |
| 62.5° | 1132.0 | 1111.6 | 1083.1 | 1092.2 | 1092.2 |
| 65° | 1026.0 | 1007.7 | 975.1 | 985.2 | 991.4 |
| 67.5° | 918.0 | 897.6 | 866.0 | 871.1 | 877.2 |
| 70° | 804.9 | 782.5 | 761.1 | 741.7 | 743.8 |
| 72.5° | 690.8 | 666.3 | 652.1 | 603.2 | 588.9 |
| 75° | 575.7 | 552.2 | 528.8 | 462.6 | 434.0 |
| 77.5° | 458.5 | 445.2 | 400.4 | 329.1 | 318.9 |
| 80° | 344.4 | 338.3 | 274.1 | 270.0 | 269.0 |
| 82.5° | 238.4 | 228.2 | 208.9 | 196.6 | 193.6 |
| 85° | 135.5 | 128.4 | 127.4 | 119.2 | 117.2 |
| 87.5° | 47.9 | 50.9 | 52.0 | 52.0 | 52.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)