

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: 14310

Luminaire Tested: **2P2GX-2U6T8S55I**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 14310
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 2P2GX-2U6T8S55I
Description: 2 X 2 RECESSED FLUORESCENT LUMINAIRE WITH WHITE INTERIOR & 2" DEEP
25 CELL SEMI-SPECULAR LOW IRIDESCENT PARABOLIC LOUVER
Light Source: TWO SYLVANIA 31 WATT 6" U-LAMPS

FB31T8/TL741/6. LUMEN RATING = 2650 LMS.

Ballast/Driver: -

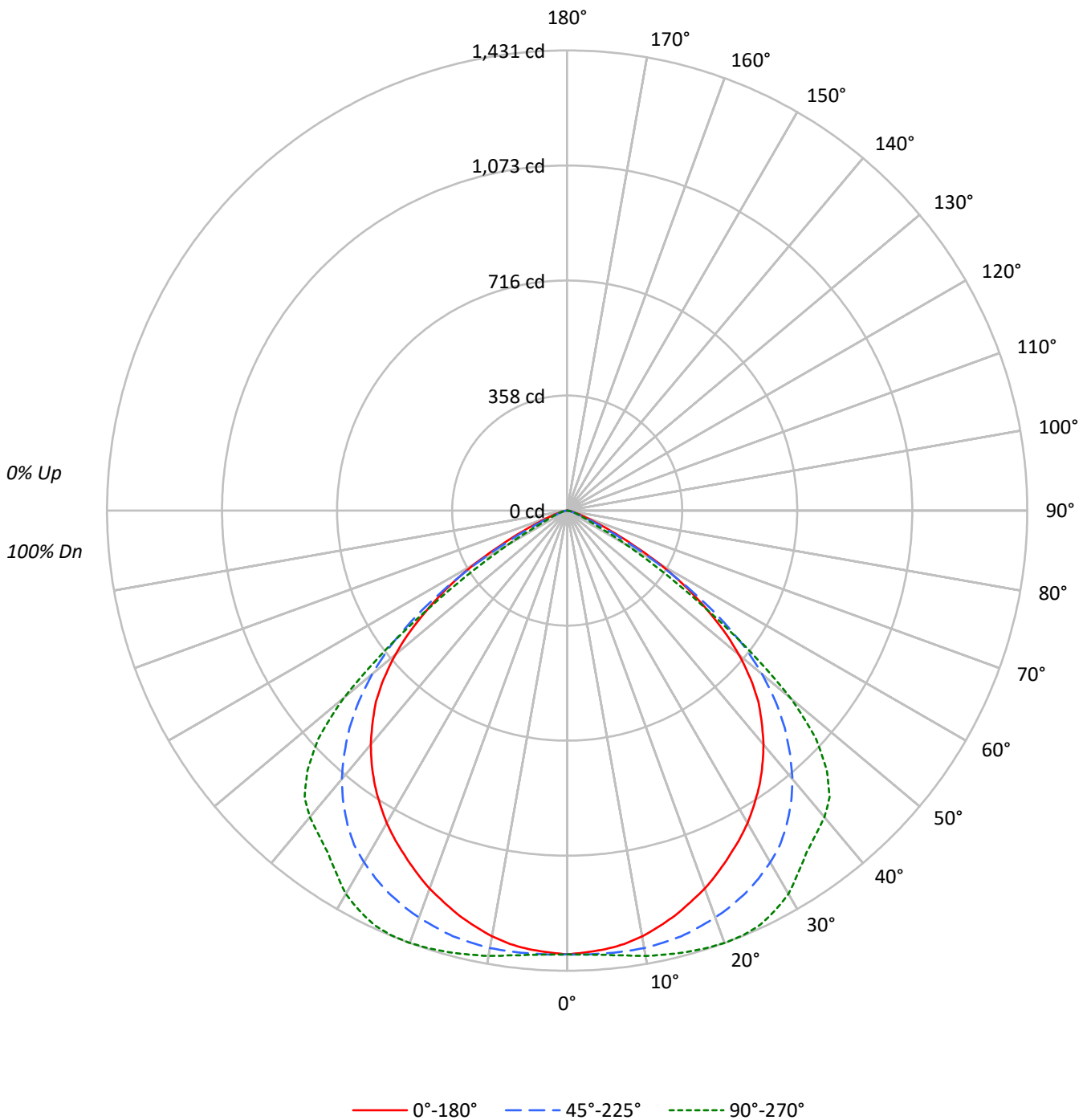
Summary

Lumens per Lamp: 2650 (2 lamps)
Luminaire Lumens: 3241.8 lumens
Efficiency: 61.2%
Efficacy: 56.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.44 / 1.41
Luminous Opening: Rectangular (W 1.74' x L: 1.76' x H: 0')
CIE Type: Direct

Input Watts (W): 57
Input Voltage (V): NR
Input Current (A_{in}): 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 | 73 | 73 | 73 | 73 | 71 | 71 | 71 | 71 | 68 | 68 | 68 | 65 | 65 | 65 | 62 | 62 | 62 | 61 |
| 1 | 68 | 66 | 64 | 62 | 67 | 65 | 63 | 61 | 62 | 60 | 59 | 60 | 58 | 57 | 57 | 57 | 56 | 54 |
| 2 | 63 | 59 | 56 | 53 | 62 | 58 | 55 | 52 | 56 | 53 | 51 | 54 | 52 | 50 | 52 | 50 | 49 | 48 |
| 3 | 58 | 53 | 49 | 45 | 57 | 52 | 48 | 45 | 50 | 47 | 44 | 49 | 46 | 44 | 47 | 45 | 43 | 42 |
| 4 | 54 | 48 | 43 | 39 | 53 | 47 | 42 | 39 | 45 | 42 | 39 | 44 | 41 | 38 | 43 | 40 | 38 | 36 |
| 5 | 50 | 43 | 38 | 34 | 49 | 42 | 38 | 34 | 41 | 37 | 34 | 40 | 36 | 34 | 39 | 36 | 33 | 32 |
| 6 | 46 | 39 | 34 | 30 | 45 | 38 | 34 | 30 | 37 | 33 | 30 | 36 | 33 | 30 | 35 | 32 | 30 | 28 |
| 7 | 43 | 35 | 31 | 27 | 42 | 35 | 30 | 27 | 34 | 30 | 27 | 33 | 29 | 27 | 32 | 29 | 26 | 25 |
| 8 | 40 | 32 | 28 | 24 | 39 | 32 | 27 | 24 | 31 | 27 | 24 | 30 | 27 | 24 | 30 | 26 | 24 | 23 |
| 9 | 37 | 30 | 25 | 22 | 37 | 29 | 25 | 22 | 29 | 25 | 22 | 28 | 24 | 22 | 28 | 24 | 22 | 21 |
| 10 | 35 | 27 | 23 | 20 | 34 | 27 | 23 | 20 | 27 | 23 | 20 | 26 | 22 | 20 | 26 | 22 | 20 | 19 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 4851 | 4851 | 4851 |
| 5° | 4831 | 4876 | 4894 |
| 10° | 4798 | 4930 | 5020 |
| 15° | 4740 | 4988 | 5173 |
| 20° | 4680 | 5038 | 5352 |
| 25° | 4609 | 5089 | 5512 |
| 30° | 4555 | 5127 | 5588 |
| 35° | 4474 | 5110 | 5569 |
| 40° | 4359 | 5003 | 5711 |
| 45° | 4181 | 4758 | 5675 |
| 50° | 3814 | 4326 | 4967 |
| 55° | 3199 | 3516 | 3120 |
| 60° | 2330 | 2193 | 1496 |
| 65° | 1245 | 961 | 593 |
| 70° | 638 | 356 | 376 |
| 75° | 365 | 249 | 262 |
| 80° | 277 | 174 | 154 |
| 85° | 161 | 137 | 97 |



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

| Zone | Lumens | % Fixture | % Lamp | | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----------|--------|-----------|--------|-----|------|-------|------|-------|------|------|
| 0°-10° | 131.7 | 4.1 | 2.5 | 0° | 1380 | 1380 | 1380 | 1380 | 1380 | |
| 10°-20° | 386.4 | 11.9 | 7.3 | 5° | 1369 | 1375 | 1382 | 1388 | 1387 | 130 |
| 20°-30° | 603.5 | 18.6 | 11.4 | 15° | 1302 | 1324 | 1371 | 1409 | 1422 | 367 |
| 30°-40° | 737.4 | 22.7 | 13.9 | 25° | 1188 | 1234 | 1312 | 1389 | 1421 | 548 |
| 40°-50° | 743.9 | 22.9 | 14.0 | 35° | 1043 | 1099 | 1191 | 1254 | 1298 | 651 |
| 50°-60° | 482.6 | 14.9 | 9.1 | 45° | 841 | 898 | 957 | 1060 | 1142 | 643 |
| 60°-70° | 128.4 | 4.0 | 2.4 | 55° | 522 | 548 | 574 | 527 | 509 | 464 |
| 70°-80° | 23.9 | 0.7 | 0.5 | 65° | 150 | 138 | 116 | 73 | 71 | 165 |
| 80°-90° | 4.0 | 0.1 | 0.1 | 75° | 27 | 24 | 18 | 18 | 19 | 33 |
| 90°-100° | 0.0 | 0.0 | 0.0 | 85° | 4 | 4 | 3 | 1 | 2 | 5 |
| 100°-110° | 0.0 | 0.0 | 0.0 | 90° | 0 | 0 | 0 | 0 | 0 | |
| 110°-120° | 0.0 | 0.0 | 0.0 | | | | | | | |
| 120°-130° | 0.0 | 0.0 | 0.0 | | | | | | | |
| 130°-140° | 0.0 | 0.0 | 0.0 | | | | | | | |
| 140°-150° | 0.0 | 0.0 | 0.0 | | | | | | | |
| 150°-160° | 0.0 | 0.0 | 0.0 | | | | | | | |
| 160°-170° | 0.0 | 0.0 | 0.0 | | | | | | | |
| 170°-180° | 0.0 | 0.0 | 0.0 | | | | | | | |
| 0°-30° | 1121.6 | 34.6 | 21.2 | | | | | | | |
| 0°-40° | 1859.0 | 57.3 | 35.1 | | | | | | | |
| 0°-60° | 3085.5 | 95.2 | 58.2 | | | | | | | |
| 0°-90° | 3241.8 | 100.0 | 61.2 | | | | | | | |
| 90°-120° | 0.0 | 0.0 | 0.0 | | | | | | | |
| 90°-150° | 0.0 | 0.0 | 0.0 | | | | | | | |
| 90°-180° | 0.0 | 0.0 | 0.0 | | | | | | | |
| 0°-180° | 3241.8 | 100.0 | 61.2 | | | | | | | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1380.1 | 1380.1 | 1380.1 | 1380.1 | 1380.1 |
| 2.5° | 1374.8 | 1378.9 | 1381.9 | 1383.4 | 1381.9 |
| 5° | 1369.3 | 1375.4 | 1382.1 | 1387.6 | 1387.1 |
| 7.5° | 1359.7 | 1368.3 | 1382.5 | 1393.0 | 1395.3 |
| 10° | 1344.4 | 1356.5 | 1381.4 | 1401.4 | 1406.4 |
| 12.5° | 1324.4 | 1340.8 | 1376.4 | 1407.9 | 1414.0 |
| 15° | 1302.5 | 1324.5 | 1370.8 | 1409.4 | 1421.7 |
| 17.5° | 1276.5 | 1305.5 | 1359.0 | 1411.0 | 1427.2 |
| 20° | 1251.1 | 1283.6 | 1346.9 | 1407.9 | 1430.8 |
| 22.5° | 1220.5 | 1260.8 | 1331.4 | 1400.8 | 1429.7 |
| 25° | 1188.5 | 1234.3 | 1312.3 | 1389.0 | 1421.3 |
| 27.5° | 1156.3 | 1204.8 | 1289.7 | 1368.8 | 1401.4 |
| 30° | 1122.2 | 1173.1 | 1263.3 | 1339.2 | 1376.9 |
| 32.5° | 1083.0 | 1138.6 | 1232.7 | 1303.0 | 1336.7 |
| 35° | 1042.7 | 1099.3 | 1191.0 | 1254.2 | 1297.9 |
| 37.5° | 997.5 | 1056.5 | 1144.2 | 1206.2 | 1270.0 |
| 40° | 950.1 | 1008.8 | 1090.3 | 1167.0 | 1244.6 |
| 42.5° | 895.6 | 957.2 | 1025.5 | 1120.7 | 1208.3 |
| 45° | 841.1 | 897.7 | 957.2 | 1060.2 | 1141.6 |
| 47.5° | 773.0 | 827.8 | 879.4 | 971.1 | 1049.9 |
| 50° | 697.5 | 746.9 | 791.2 | 856.4 | 908.4 |
| 52.5° | 614.1 | 653.7 | 693.5 | 708.8 | 711.9 |
| 55° | 522.0 | 547.9 | 573.8 | 527.0 | 509.2 |
| 57.5° | 430.8 | 438.8 | 444.4 | 361.9 | 342.2 |
| 60° | 331.4 | 328.9 | 312.0 | 233.2 | 212.8 |
| 62.5° | 231.1 | 227.7 | 200.1 | 134.9 | 109.9 |
| 65° | 149.7 | 138.4 | 115.5 | 72.8 | 71.3 |
| 67.5° | 95.7 | 82.9 | 61.1 | 49.3 | 51.4 |
| 70° | 62.1 | 49.9 | 34.6 | 34.6 | 36.6 |
| 72.5° | 41.2 | 34.6 | 24.8 | 24.8 | 27.5 |
| 75° | 26.9 | 23.9 | 18.3 | 17.7 | 19.3 |
| 77.5° | 19.7 | 16.2 | 13.2 | 12.2 | 12.6 |
| 80° | 13.7 | 11.6 | 8.6 | 7.5 | 7.6 |
| 82.5° | 7.6 | 6.1 | 5.9 | 3.6 | 4.5 |
| 85° | 4.0 | 4.0 | 3.4 | 1.3 | 2.4 |
| 87.5° | 1.5 | 2.4 | 1.5 | 0.5 | 0.9 |
| 90° | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |

(END OF REPORT)