

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: ITL48344

Luminaire Tested: **2EP3GX-3BX40S33I**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: ITL48344
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 2EP3GX-3BX40S33I
Description: FABRICATED METAL HOUSING WITH WHITE PAINTED INTERIOR FINISH,
TWO WHITE PAINTED FORMED METAL BALLAST COVERS, FABRICATED
DIFFUSE METAL PARABOLIC 9-CELL LOUVER.
Light Source: THREE 40-WATT SINGLE ENDED TWIN TUBE FLUORESCENTS, G.E.
F40BX/SPX35/IS. LAMPS HORIZONTAL WITH TUBES VERTICAL.
Ballast/Driver: MAGNETEK B340I120HP

Summary

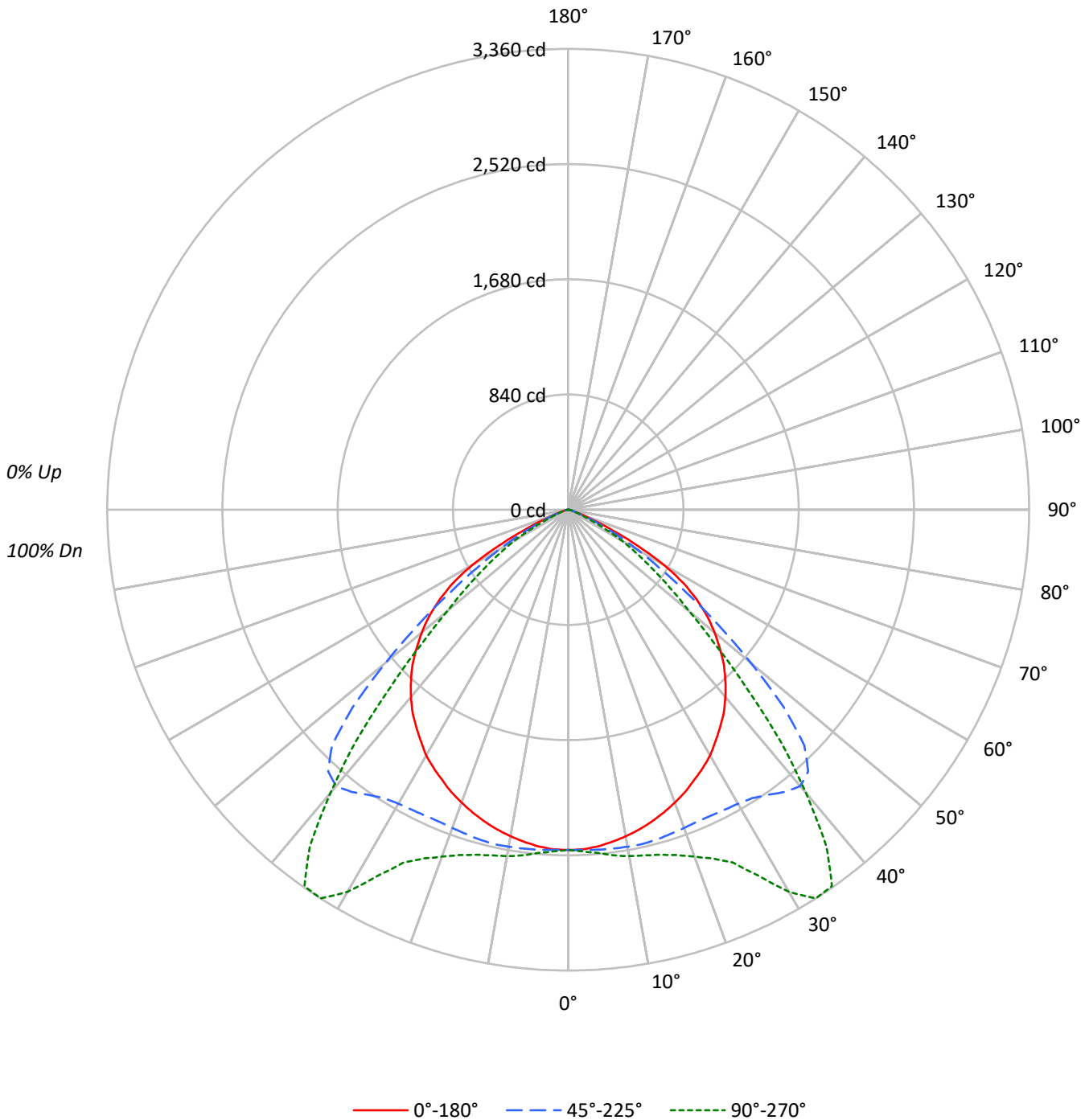
Lumens per Lamp: 3150 (3 lamps)
Luminaire Lumens: 6536.4 lumens
Efficiency: 69.2%
Efficacy: 64.9 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.66 / 1.55
Luminous Opening: Rectangular (W 1.73' x L: 1.75' x H: 0')
CIE Type: Direct

Input Watts (W): 100.7
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 | 50 | 30 | 10 | 0 | |
| RCR | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 82 | 82 | 82 | 82 | 80 | 80 | 80 | 80 | 77 | 77 | 77 | 74 | 74 | 74 | 71 | 71 | 71 | 69 | | | | |
| 1 | 77 | 74 | 72 | 70 | 75 | 73 | 71 | 69 | 70 | 68 | 67 | 67 | 66 | 65 | 65 | 64 | 63 | 61 | | | | |
| 2 | 71 | 67 | 63 | 59 | 70 | 65 | 62 | 59 | 63 | 60 | 57 | 61 | 58 | 56 | 59 | 57 | 55 | 54 | | | | |
| 3 | 66 | 60 | 55 | 51 | 64 | 58 | 54 | 50 | 56 | 53 | 50 | 55 | 51 | 49 | 53 | 50 | 48 | 47 | | | | |
| 4 | 61 | 53 | 48 | 44 | 59 | 52 | 48 | 44 | 51 | 47 | 43 | 49 | 46 | 43 | 48 | 45 | 42 | 41 | | | | |
| 5 | 56 | 48 | 42 | 38 | 55 | 47 | 42 | 38 | 46 | 41 | 38 | 45 | 41 | 37 | 43 | 40 | 37 | 36 | | | | |
| 6 | 52 | 43 | 38 | 34 | 51 | 43 | 38 | 34 | 42 | 37 | 33 | 41 | 36 | 33 | 39 | 36 | 33 | 32 | | | | |
| 7 | 48 | 39 | 34 | 30 | 47 | 39 | 34 | 30 | 38 | 33 | 30 | 37 | 33 | 29 | 36 | 32 | 29 | 28 | | | | |
| 8 | 45 | 36 | 31 | 27 | 44 | 36 | 30 | 27 | 35 | 30 | 27 | 34 | 30 | 26 | 33 | 29 | 26 | 25 | | | | |
| 9 | 42 | 33 | 28 | 24 | 41 | 33 | 28 | 24 | 32 | 27 | 24 | 31 | 27 | 24 | 30 | 27 | 24 | 22 | | | | |
| 10 | 39 | 30 | 25 | 22 | 38 | 30 | 25 | 22 | 29 | 25 | 22 | 29 | 25 | 22 | 28 | 24 | 21 | 20 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|-------|-------|
| 0° | 8799 | 8799 | 8799 |
| 5° | 8775 | 8857 | 8946 |
| 10° | 8707 | 8985 | 9237 |
| 15° | 8643 | 9142 | 9560 |
| 20° | 8574 | 9318 | 10159 |
| 25° | 8507 | 9630 | 11105 |
| 30° | 8473 | 10135 | 13174 |
| 35° | 8364 | 10988 | 14508 |
| 40° | 8254 | 12180 | 12472 |
| 45° | 8055 | 12207 | 9198 |
| 50° | 7685 | 9572 | 6339 |
| 55° | 7067 | 6467 | 4600 |
| 60° | 5738 | 4107 | 3213 |
| 65° | 3013 | 2157 | 1468 |
| 70° | 1203 | 881 | 736 |
| 75° | 507 | 493 | 507 |
| 80° | 306 | 347 | 347 |
| 85° | 163 | 203 | 203 |



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

| Zone | Lumens | % Fixture | % Lamp | | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----------|--------|-----------|--------|-----|------|-------|------|-------|------|------|
| 0°-10° | 237.8 | 3.6 | 2.5 | 0° | 2481 | 2481 | 2481 | 2481 | 2481 | |
| 10°-20° | 704.5 | 10.8 | 7.5 | 5° | 2465 | 2472 | 2488 | 2508 | 2513 | 234 |
| 20°-30° | 1158.7 | 17.7 | 12.3 | 15° | 2354 | 2405 | 2490 | 2570 | 2604 | 664 |
| 30°-40° | 1608.1 | 24.6 | 17.0 | 25° | 2174 | 2280 | 2461 | 2704 | 2838 | 1004 |
| 40°-50° | 1524.4 | 23.3 | 16.1 | 35° | 1932 | 2084 | 2538 | 3181 | 3351 | 1209 |
| 50°-60° | 941.7 | 14.4 | 10.0 | 45° | 1606 | 1848 | 2434 | 2023 | 1834 | 1233 |
| 60°-70° | 308.5 | 4.7 | 3.3 | 55° | 1143 | 1411 | 1046 | 784 | 744 | 1008 |
| 70°-80° | 45.5 | 0.7 | 0.5 | 65° | 359 | 377 | 257 | 200 | 175 | 392 |
| 80°-90° | 7.1 | 0.1 | 0.1 | 75° | 37 | 39 | 36 | 38 | 37 | 50 |
| 90°-100° | 0.0 | 0.0 | 0.0 | 85° | 4 | 6 | 5 | 6 | 5 | 6 |
| 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° | 2101.1 | 32.1 | 22.2 | | | | | | | |
| 0°-40° | 3709.2 | 56.7 | 39.3 | | | | | | | |
| 0°-60° | 6175.3 | 94.5 | 65.3 | | | | | | | |
| 0°-90° | 6536.4 | 100.0 | 69.2 | | | | | | | |
| 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° | 6536.4 | 100.0 | 69.2 | | | | | | | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|------|-------|------|-------|------|
| 0° | 2481 | 2481 | 2481 | 2481 | 2481 |
| 2.5° | 2478 | 2479 | 2483 | 2492 | 2494 |
| 5° | 2465 | 2472 | 2488 | 2508 | 2513 |
| 7.5° | 2443 | 2460 | 2493 | 2528 | 2542 |
| 10° | 2418 | 2445 | 2495 | 2547 | 2565 |
| 12.5° | 2388 | 2425 | 2497 | 2559 | 2581 |
| 15° | 2354 | 2405 | 2490 | 2570 | 2604 |
| 17.5° | 2315 | 2380 | 2479 | 2586 | 2640 |
| 20° | 2272 | 2351 | 2469 | 2618 | 2692 |
| 22.5° | 2228 | 2319 | 2461 | 2656 | 2752 |
| 25° | 2174 | 2280 | 2461 | 2704 | 2838 |
| 27.5° | 2124 | 2236 | 2467 | 2791 | 3010 |
| 30° | 2069 | 2190 | 2475 | 2935 | 3217 |
| 32.5° | 1999 | 2137 | 2494 | 3099 | 3360 |
| 35° | 1932 | 2084 | 2538 | 3181 | 3351 |
| 37.5° | 1863 | 2028 | 2593 | 3100 | 3091 |
| 40° | 1783 | 1972 | 2631 | 2809 | 2694 |
| 42.5° | 1696 | 1913 | 2589 | 2415 | 2292 |
| 45° | 1606 | 1848 | 2434 | 2023 | 1834 |
| 47.5° | 1500 | 1772 | 2128 | 1594 | 1450 |
| 50° | 1393 | 1682 | 1735 | 1250 | 1149 |
| 52.5° | 1278 | 1565 | 1378 | 1004 | 934 |
| 55° | 1143 | 1411 | 1046 | 784 | 744 |
| 57.5° | 995 | 1214 | 782 | 616 | 587 |
| 60° | 809 | 941 | 579 | 472 | 453 |
| 62.5° | 576 | 649 | 402 | 328 | 300 |
| 65° | 359 | 377 | 257 | 200 | 175 |
| 67.5° | 201 | 194 | 151 | 123 | 103 |
| 70° | 116 | 108 | 85 | 77 | 71 |
| 72.5° | 62 | 63 | 52 | 53 | 51 |
| 75° | 37 | 39 | 36 | 38 | 37 |
| 77.5° | 25 | 26 | 25 | 26 | 26 |
| 80° | 15 | 17 | 17 | 18 | 17 |
| 82.5° | 10 | 10 | 10 | 11 | 11 |
| 85° | 4 | 6 | 5 | 6 | 5 |
| 87.5° | 2 | 2 | 2 | 2 | 2 |
| 90° | 0 | 0 | 0 | 0 | 0 |

(END OF REPORT)