

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: 220p220

Luminaire Tested: **2EP3GX-332S36I**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: 220p220
Test Lab: METALUX RESEARCH LABS
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 2EP3GX-332S36I
Description: 2X4 EP3GX RECESSED LUMINAIRE WITH 86% RFL WHITE PAINTED HOUSING, 18 CELL SILVER PARABOLIC LOUVER, AND TWO BALLAST COVERS
Light Source: THREE LINEAR FLUORESCENT LAMPS, F32T8 32W - 3100 LUMENS EA
Ballast/Driver: -

Summary

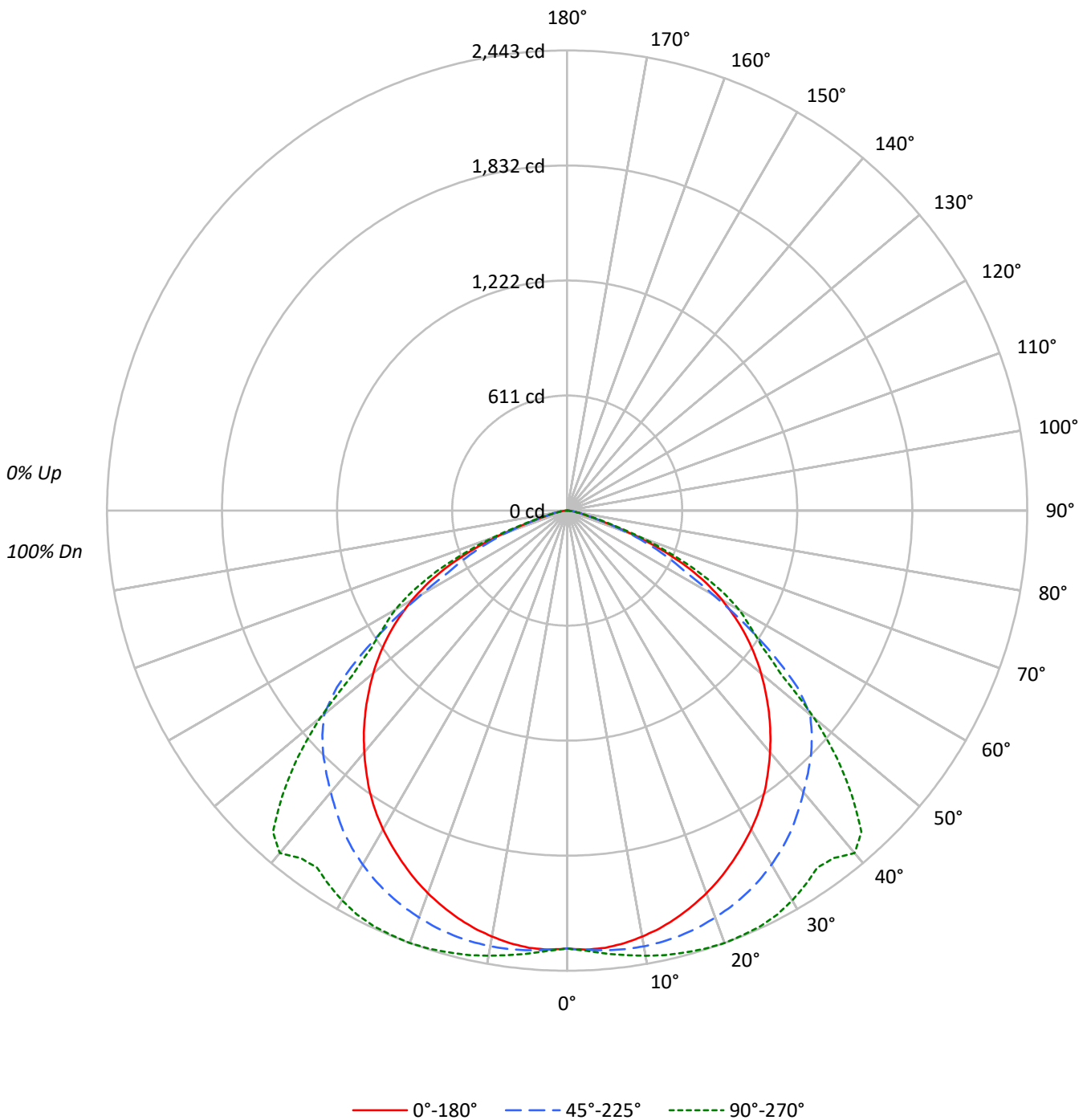
Lumens per Lamp: 3100 (3 lamps)
Luminaire Lumens: 6622.9 lumens
Efficiency: 71.2%
Efficacy: 74.4 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.53 / 1.5
Luminous Opening: Rectangular (W 1.73' x L: 3.75' x H: 0')
CIE Type: Direct

Input Watts (W): 89
Input Voltage (V): NR
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 | 85 | 85 | 85 | 85 | 83 | 83 | 83 | 83 | 79 | 79 | 79 | 76 | 76 | 76 | 73 | 73 | 73 | 71 |
| 1 | 79 | 76 | 73 | 71 | 77 | 74 | 72 | 69 | 71 | 69 | 67 | 68 | 67 | 65 | 66 | 64 | 63 | 62 |
| 2 | 72 | 67 | 62 | 59 | 70 | 65 | 61 | 58 | 63 | 59 | 57 | 61 | 58 | 55 | 58 | 56 | 54 | 53 |
| 3 | 66 | 59 | 54 | 49 | 64 | 58 | 53 | 49 | 56 | 51 | 48 | 54 | 50 | 47 | 52 | 49 | 46 | 45 |
| 4 | 60 | 52 | 46 | 42 | 59 | 51 | 46 | 42 | 50 | 45 | 41 | 48 | 44 | 41 | 47 | 43 | 40 | 39 |
| 5 | 56 | 47 | 41 | 36 | 54 | 46 | 40 | 36 | 45 | 39 | 36 | 43 | 39 | 35 | 42 | 38 | 35 | 33 |
| 6 | 51 | 42 | 36 | 32 | 50 | 41 | 36 | 31 | 40 | 35 | 31 | 39 | 34 | 31 | 38 | 34 | 31 | 29 |
| 7 | 48 | 38 | 32 | 28 | 46 | 38 | 32 | 28 | 37 | 31 | 28 | 36 | 31 | 27 | 35 | 30 | 27 | 26 |
| 8 | 44 | 35 | 29 | 25 | 43 | 34 | 29 | 25 | 33 | 28 | 25 | 32 | 28 | 24 | 32 | 27 | 24 | 23 |
| 9 | 41 | 32 | 26 | 22 | 40 | 31 | 26 | 22 | 31 | 26 | 22 | 30 | 25 | 22 | 29 | 25 | 22 | 21 |
| 10 | 39 | 29 | 24 | 20 | 38 | 29 | 24 | 20 | 28 | 23 | 20 | 28 | 23 | 20 | 27 | 23 | 20 | 19 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 3859 | 3859 | 3859 |
| 5° | 3883 | 3904 | 3934 |
| 10° | 3870 | 3959 | 4045 |
| 15° | 3850 | 4013 | 4173 |
| 20° | 3819 | 4061 | 4316 |
| 25° | 3782 | 4114 | 4456 |
| 30° | 3747 | 4159 | 4581 |
| 35° | 3700 | 4203 | 4689 |
| 40° | 3632 | 4230 | 5144 |
| 45° | 3557 | 4298 | 5021 |
| 50° | 3471 | 4346 | 4416 |
| 55° | 3357 | 3866 | 3667 |
| 60° | 3154 | 2978 | 3503 |
| 65° | 2734 | 2321 | 3009 |
| 70° | 1791 | 1640 | 2048 |
| 75° | 782 | 815 | 917 |
| 80° | 516 | 507 | 507 |
| 85° | 343 | 343 | 286 |



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CATALOG NUMBER: 2EP3GX-332S36I

ZONAL LUMENS:

CANDELA DISTRIBUTION:

| Zone | Lumens | % Fixture | % Lamp | | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----------|--------|-----------|--------|-----|------|-------|------|-------|------|------|
| 0°-10° | 223.8 | 3.4 | 2.4 | 0° | 2325 | 2325 | 2325 | 2325 | 2325 | |
| 10°-20° | 660.0 | 10.0 | 7.1 | 5° | 2330 | 2332 | 2343 | 2354 | 2361 | 221 |
| 20°-30° | 1036.5 | 15.6 | 11.1 | 15° | 2240 | 2273 | 2335 | 2395 | 2428 | 632 |
| 30°-40° | 1300.8 | 19.6 | 14.0 | 25° | 2065 | 2134 | 2246 | 2360 | 2433 | 952 |
| 40°-50° | 1409.1 | 21.3 | 15.2 | 35° | 1826 | 1927 | 2074 | 2214 | 2314 | 1141 |
| 50°-60° | 1134.1 | 17.1 | 12.2 | 45° | 1515 | 1651 | 1831 | 2073 | 2139 | 1168 |
| 60°-70° | 667.3 | 10.1 | 7.2 | 55° | 1160 | 1291 | 1336 | 1194 | 1267 | 1033 |
| 70°-80° | 169.1 | 2.6 | 1.8 | 65° | 696 | 720 | 591 | 692 | 766 | 673 |
| 80°-90° | 22.4 | 0.3 | 0.2 | 75° | 122 | 120 | 127 | 140 | 143 | 165 |
| 90°-100° | 0.0 | 0.0 | 0.0 | 85° | 18 | 18 | 18 | 16 | 15 | 23 |
| 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° | 1920.2 | 29.0 | 20.6 | | | | | | | |
| 0°-40° | 3221.0 | 48.6 | 34.6 | | | | | | | |
| 0°-60° | 5764.2 | 87.0 | 62.0 | | | | | | | |
| 0°-90° | 6622.9 | 100.0 | 71.2 | | | | | | | |
| 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° | 6622.9 | 100.0 | 71.2 | | | | | | | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|------|-------|------|-------|------|
| 0° | 2325 | 2325 | 2325 | 2325 | 2325 |
| 2.5° | 2333 | 2332 | 2334 | 2337 | 2339 |
| 5° | 2330 | 2332 | 2343 | 2354 | 2361 |
| 7.5° | 2317 | 2326 | 2349 | 2369 | 2380 |
| 10° | 2296 | 2314 | 2349 | 2381 | 2400 |
| 12.5° | 2272 | 2296 | 2344 | 2391 | 2417 |
| 15° | 2240 | 2273 | 2335 | 2395 | 2428 |
| 17.5° | 2203 | 2245 | 2320 | 2394 | 2438 |
| 20° | 2162 | 2212 | 2299 | 2389 | 2443 |
| 22.5° | 2116 | 2174 | 2275 | 2377 | 2439 |
| 25° | 2065 | 2134 | 2246 | 2360 | 2433 |
| 27.5° | 2011 | 2088 | 2211 | 2338 | 2417 |
| 30° | 1955 | 2039 | 2170 | 2305 | 2390 |
| 32.5° | 1893 | 1985 | 2125 | 2263 | 2355 |
| 35° | 1826 | 1927 | 2074 | 2214 | 2314 |
| 37.5° | 1752 | 1864 | 2014 | 2173 | 2325 |
| 40° | 1676 | 1797 | 1952 | 2176 | 2374 |
| 42.5° | 1597 | 1726 | 1892 | 2170 | 2312 |
| 45° | 1515 | 1651 | 1831 | 2073 | 2139 |
| 47.5° | 1430 | 1572 | 1763 | 1889 | 1942 |
| 50° | 1344 | 1488 | 1683 | 1681 | 1710 |
| 52.5° | 1254 | 1395 | 1541 | 1437 | 1436 |
| 55° | 1160 | 1291 | 1336 | 1194 | 1267 |
| 57.5° | 1059 | 1171 | 1113 | 1051 | 1155 |
| 60° | 950 | 1037 | 897 | 940 | 1055 |
| 62.5° | 833 | 886 | 715 | 828 | 924 |
| 65° | 696 | 720 | 591 | 692 | 766 |
| 67.5° | 538 | 531 | 469 | 541 | 589 |
| 70° | 369 | 344 | 338 | 389 | 422 |
| 72.5° | 214 | 200 | 216 | 241 | 247 |
| 75° | 122 | 120 | 127 | 140 | 143 |
| 77.5° | 81 | 78 | 81 | 86 | 87 |
| 80° | 54 | 52 | 53 | 53 | 53 |
| 82.5° | 34 | 33 | 33 | 31 | 30 |
| 85° | 18 | 18 | 18 | 16 | 15 |
| 87.5° | 7 | 7 | 7 | 6 | 5 |
| 90° | 0 | 0 | 0 | 0 | 0 |

(END OF REPORT)