

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: 104P170

Luminaire Tested: **2PGX-332S36I-PAF**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: 104P170
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 2PGX-332S36I-PAF
Description: 2 X 4 Recessed Convertible Body Troffer with
a 4" deep 18 cell semi-specular low iridescent
parabolic louver.
Light Source: Three-F32T8/35K - 2900 Lumens ea. - 32 Watts ea.
Ballast/Driver: Triad-Utrad B332I120 Electronic

Summary

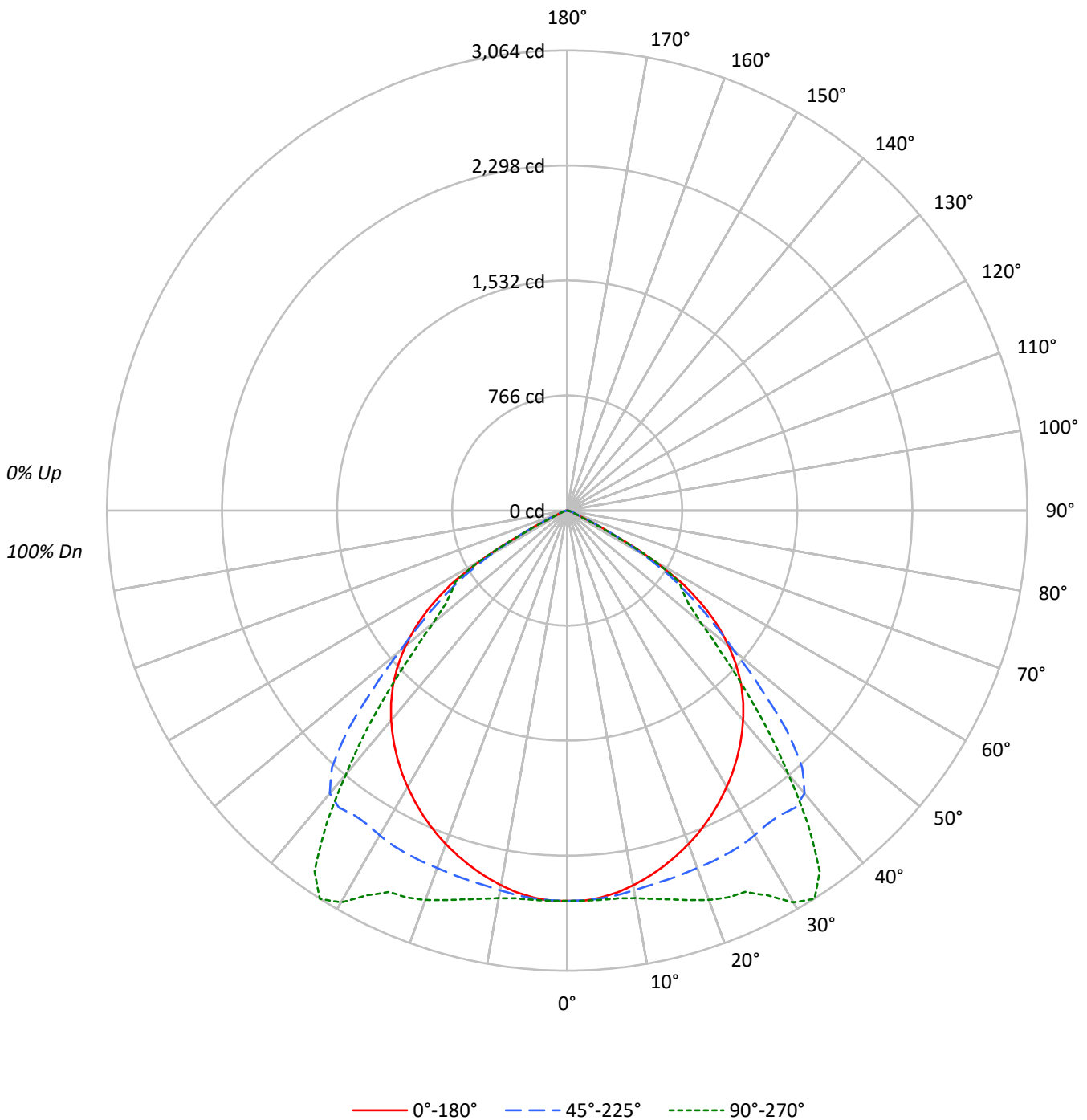
Lumens per Lamp: 2900 (3 lamps)
Luminaire Lumens: 6264.9 lumens
Efficiency: 72.0%
Efficacy: 68.7 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.54 / 1.46
Luminous Opening: Rectangular (W 1.74' x L: 3.76' x H: 0')
CIE Type: Direct

Input Watts (W): 91.2
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 | 50 | 30 | 10 | 50 | 30 | 10 | 0 | | |
| RCR | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 86 | 86 | 86 | 86 | 84 | 84 | 84 | 84 | 80 | 80 | 80 | 77 | 77 | 77 | 73 | 73 | 73 | 72 | | | | | 72 | | | |
| 1 | 80 | 78 | 75 | 73 | 78 | 76 | 74 | 72 | 73 | 71 | 70 | 70 | 69 | 68 | 68 | 67 | 66 | 64 | | | | | 64 | | | |
| 2 | 74 | 70 | 66 | 62 | 73 | 68 | 65 | 62 | 66 | 63 | 60 | 64 | 61 | 59 | 62 | 59 | 58 | 56 | | | | | 56 | | | |
| 3 | 69 | 62 | 58 | 54 | 67 | 61 | 57 | 53 | 59 | 55 | 52 | 57 | 54 | 51 | 56 | 53 | 51 | 49 | | | | | 49 | | | |
| 4 | 64 | 56 | 51 | 47 | 62 | 55 | 50 | 46 | 54 | 49 | 46 | 52 | 48 | 45 | 50 | 47 | 44 | 43 | | | | | 43 | | | |
| 5 | 59 | 51 | 45 | 41 | 57 | 50 | 45 | 41 | 48 | 44 | 40 | 47 | 43 | 40 | 46 | 42 | 39 | 38 | | | | | 38 | | | |
| 6 | 54 | 46 | 40 | 36 | 53 | 45 | 40 | 36 | 44 | 39 | 36 | 43 | 39 | 35 | 42 | 38 | 35 | 34 | | | | | 34 | | | |
| 7 | 51 | 42 | 36 | 32 | 49 | 41 | 36 | 32 | 40 | 35 | 32 | 39 | 35 | 31 | 38 | 34 | 31 | 30 | | | | | 30 | | | |
| 8 | 47 | 38 | 33 | 29 | 46 | 38 | 32 | 29 | 37 | 32 | 28 | 36 | 31 | 28 | 35 | 31 | 28 | 27 | | | | | 27 | | | |
| 9 | 44 | 35 | 30 | 26 | 43 | 35 | 29 | 26 | 34 | 29 | 26 | 33 | 29 | 26 | 32 | 28 | 25 | 24 | | | | | 24 | | | |
| 10 | 41 | 32 | 27 | 23 | 40 | 32 | 27 | 23 | 31 | 27 | 23 | 31 | 26 | 23 | 30 | 26 | 23 | 22 | | | | | 22 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 4277 | 4277 | 4277 |
| 5° | 4271 | 4281 | 4298 |
| 10° | 4232 | 4289 | 4378 |
| 15° | 4186 | 4339 | 4565 |
| 20° | 4138 | 4435 | 4831 |
| 25° | 4089 | 4579 | 5087 |
| 30° | 4036 | 4744 | 5723 |
| 35° | 3983 | 4970 | 5890 |
| 40° | 3916 | 5282 | 4921 |
| 45° | 3812 | 4803 | 3851 |
| 50° | 3599 | 3714 | 2967 |
| 55° | 3181 | 2895 | 2691 |
| 60° | 2182 | 1945 | 2215 |
| 65° | 576 | 639 | 440 |
| 70° | 216 | 269 | 212 |
| 75° | 140 | 184 | 140 |
| 80° | 104 | 133 | 104 |
| 85° | 76 | 94 | 76 |



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

| Zone | Lumens | % Fixture | % Lamp | | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----------|--------|-----------|--------|------|------|-------|------|-------|------|------|
| 0°-10° | 246.7 | 3.9 | 2.8 | 0° | 2599 | 2599 | 2599 | 2599 | 2599 | |
| 10°-20° | 724.3 | 11.6 | 8.3 | 5° | 2586 | 2585 | 2592 | 2597 | 2602 | 245 |
| 20°-30° | 1168.3 | 18.6 | 13.4 | 15° | 2457 | 2471 | 2547 | 2639 | 2680 | 693 |
| 30°-40° | 1528.7 | 24.4 | 17.6 | 25° | 2252 | 2315 | 2522 | 2713 | 2802 | 1038 |
| 40°-50° | 1401.3 | 22.4 | 16.1 | 35° | 1983 | 2127 | 2474 | 2864 | 2932 | 1240 |
| 50°-60° | 931.4 | 14.9 | 10.7 | 45° | 1638 | 1881 | 2064 | 1718 | 1655 | 1257 |
| 60°-70° | 228.4 | 3.6 | 2.6 | 55° | 1109 | 1311 | 1009 | 894 | 938 | 966 |
| 70°-80° | 30.0 | 0.5 | 0.3 | 65° | 148 | 170 | 164 | 169 | 113 | 229 |
| 80°-90° | 5.7 | 0.1 | 0.1 | 75° | 22 | 27 | 29 | 27 | 22 | 25 |
| 90°-100° | 0.0 | 0.0 | 0.0 | 85° | 4 | 5 | 5 | 4 | 4 | 5 |
| 100°-110° | 0.0 | 0.0 | 0.0 | 90° | 0 | 0 | 0 | 0 | 0 | 0 |
| 110°-120° | 0.0 | 0.0 | 0.0 | 95° | 0 | 0 | 0 | 0 | 0 | 0 |
| 120°-130° | 0.0 | 0.0 | 0.0 | 105° | 0 | 0 | 0 | 0 | 0 | 0 |
| 130°-140° | 0.0 | 0.0 | 0.0 | 115° | 0 | 0 | 0 | 0 | 0 | 0 |
| 140°-150° | 0.0 | 0.0 | 0.0 | 125° | 0 | 0 | 0 | 0 | 0 | 0 |
| 150°-160° | 0.0 | 0.0 | 0.0 | 135° | 0 | 0 | 0 | 0 | 0 | 0 |
| 160°-170° | 0.0 | 0.0 | 0.0 | 145° | 0 | 0 | 0 | 0 | 0 | 0 |
| 170°-180° | 0.0 | 0.0 | 0.0 | 155° | 0 | 0 | 0 | 0 | 0 | 0 |
| 0°-30° | 2139.3 | 34.1 | 24.6 | 165° | 0 | 0 | 0 | 0 | 0 | 0 |
| 0°-40° | 3668.1 | 58.5 | 42.2 | 175° | 0 | 0 | 0 | 0 | 0 | 0 |
| 0°-60° | 6000.7 | 95.8 | 69.0 | 180° | 0 | 0 | 0 | 0 | 0 | 0 |
| 0°-90° | 6264.9 | 100.0 | 72.0 | | | | | | | |
| 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° | 6264.9 | 100.0 | 72.0 | | | | | | | |



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CATALOG NUMBER: 2PGX-332S36I-PAF

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|------|-------|------|-------|------|
| 0° | 2599 | 2599 | 2599 | 2599 | 2599 |
| 2.5° | 2600 | 2594 | 2597 | 2598 | 2600 |
| 5° | 2586 | 2585 | 2592 | 2597 | 2602 |
| 7.5° | 2564 | 2566 | 2582 | 2595 | 2604 |
| 10° | 2533 | 2539 | 2567 | 2602 | 2620 |
| 12.5° | 2497 | 2506 | 2555 | 2618 | 2648 |
| 15° | 2457 | 2471 | 2547 | 2639 | 2680 |
| 17.5° | 2412 | 2433 | 2540 | 2662 | 2719 |
| 20° | 2363 | 2394 | 2533 | 2686 | 2759 |
| 22.5° | 2310 | 2355 | 2529 | 2708 | 2788 |
| 25° | 2252 | 2315 | 2522 | 2713 | 2802 |
| 27.5° | 2190 | 2271 | 2513 | 2722 | 2888 |
| 30° | 2124 | 2225 | 2497 | 2808 | 3012 |
| 32.5° | 2056 | 2177 | 2476 | 2889 | 3064 |
| 35° | 1983 | 2127 | 2474 | 2864 | 2932 |
| 37.5° | 1905 | 2073 | 2494 | 2676 | 2634 |
| 40° | 1823 | 2016 | 2459 | 2354 | 2291 |
| 42.5° | 1735 | 1953 | 2317 | 2019 | 1974 |
| 45° | 1638 | 1881 | 2064 | 1718 | 1655 |
| 47.5° | 1529 | 1796 | 1744 | 1434 | 1380 |
| 50° | 1406 | 1685 | 1451 | 1196 | 1159 |
| 52.5° | 1270 | 1533 | 1218 | 1015 | 1019 |
| 55° | 1109 | 1311 | 1009 | 894 | 938 |
| 57.5° | 921 | 1015 | 812 | 774 | 884 |
| 60° | 663 | 663 | 591 | 608 | 673 |
| 62.5° | 366 | 351 | 350 | 373 | 327 |
| 65° | 148 | 170 | 164 | 169 | 113 |
| 67.5° | 70 | 85 | 84 | 81 | 64 |
| 70° | 45 | 54 | 56 | 54 | 44 |
| 72.5° | 31 | 38 | 40 | 38 | 31 |
| 75° | 22 | 27 | 29 | 27 | 22 |
| 77.5° | 15 | 19 | 21 | 19 | 16 |
| 80° | 11 | 13 | 14 | 13 | 11 |
| 82.5° | 7 | 9 | 9 | 8 | 7 |
| 85° | 4 | 5 | 5 | 4 | 4 |
| 87.5° | 2 | 2 | 2 | 2 | 2 |
| 90° | 0 | 0 | 0 | 0 | 0 |
| 92.5° | 0 | 0 | 0 | 0 | 0 |
| 95° | 0 | 0 | 0 | 0 | 0 |
| 97.5° | 0 | 0 | 0 | 0 | 0 |
| 100° | 0 | 0 | 0 | 0 | 0 |
| 102.5° | 0 | 0 | 0 | 0 | 0 |
| 105° | 0 | 0 | 0 | 0 | 0 |
| 107.5° | 0 | 0 | 0 | 0 | 0 |
| 110° | 0 | 0 | 0 | 0 | 0 |



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CATALOG NUMBER: 2PGX-332S36I-PAF

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|----|-------|-----|-------|-----|
| 112.5° | 0 | 0 | 0 | 0 | 0 |
| 115° | 0 | 0 | 0 | 0 | 0 |
| 117.5° | 0 | 0 | 0 | 0 | 0 |
| 120° | 0 | 0 | 0 | 0 | 0 |
| 122.5° | 0 | 0 | 0 | 0 | 0 |
| 125° | 0 | 0 | 0 | 0 | 0 |
| 127.5° | 0 | 0 | 0 | 0 | 0 |
| 130° | 0 | 0 | 0 | 0 | 0 |
| 132.5° | 0 | 0 | 0 | 0 | 0 |
| 135° | 0 | 0 | 0 | 0 | 0 |
| 137.5° | 0 | 0 | 0 | 0 | 0 |
| 140° | 0 | 0 | 0 | 0 | 0 |
| 142.5° | 0 | 0 | 0 | 0 | 0 |
| 145° | 0 | 0 | 0 | 0 | 0 |
| 147.5° | 0 | 0 | 0 | 0 | 0 |
| 150° | 0 | 0 | 0 | 0 | 0 |
| 152.5° | 0 | 0 | 0 | 0 | 0 |
| 155° | 0 | 0 | 0 | 0 | 0 |
| 157.5° | 0 | 0 | 0 | 0 | 0 |
| 160° | 0 | 0 | 0 | 0 | 0 |
| 162.5° | 0 | 0 | 0 | 0 | 0 |
| 165° | 0 | 0 | 0 | 0 | 0 |
| 167.5° | 0 | 0 | 0 | 0 | 0 |
| 170° | 0 | 0 | 0 | 0 | 0 |
| 172.5° | 0 | 0 | 0 | 0 | 0 |
| 175° | 0 | 0 | 0 | 0 | 0 |
| 177.5° | 0 | 0 | 0 | 0 | 0 |
| 180° | 0 | 0 | 0 | 0 | 0 |

(END OF REPORT)