

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: 197P102

Luminaire Tested: **2P2GX-2U6T8S34I-PAF**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 197P102
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 2P2GX-2U6T8S34I-PAF
Description: 2 X 2 Recessed Troffer with a 2" deep 12 cell
semi-specular low iridescent parabolic louver.
Light Source: Two FB31T8/TL735/6 - 2600 Lumens ea. - 31 Watts ea.
Ballast/Driver: Advance REL-2P32-RH-TP Electronic - L.O.B.F. = 85.4

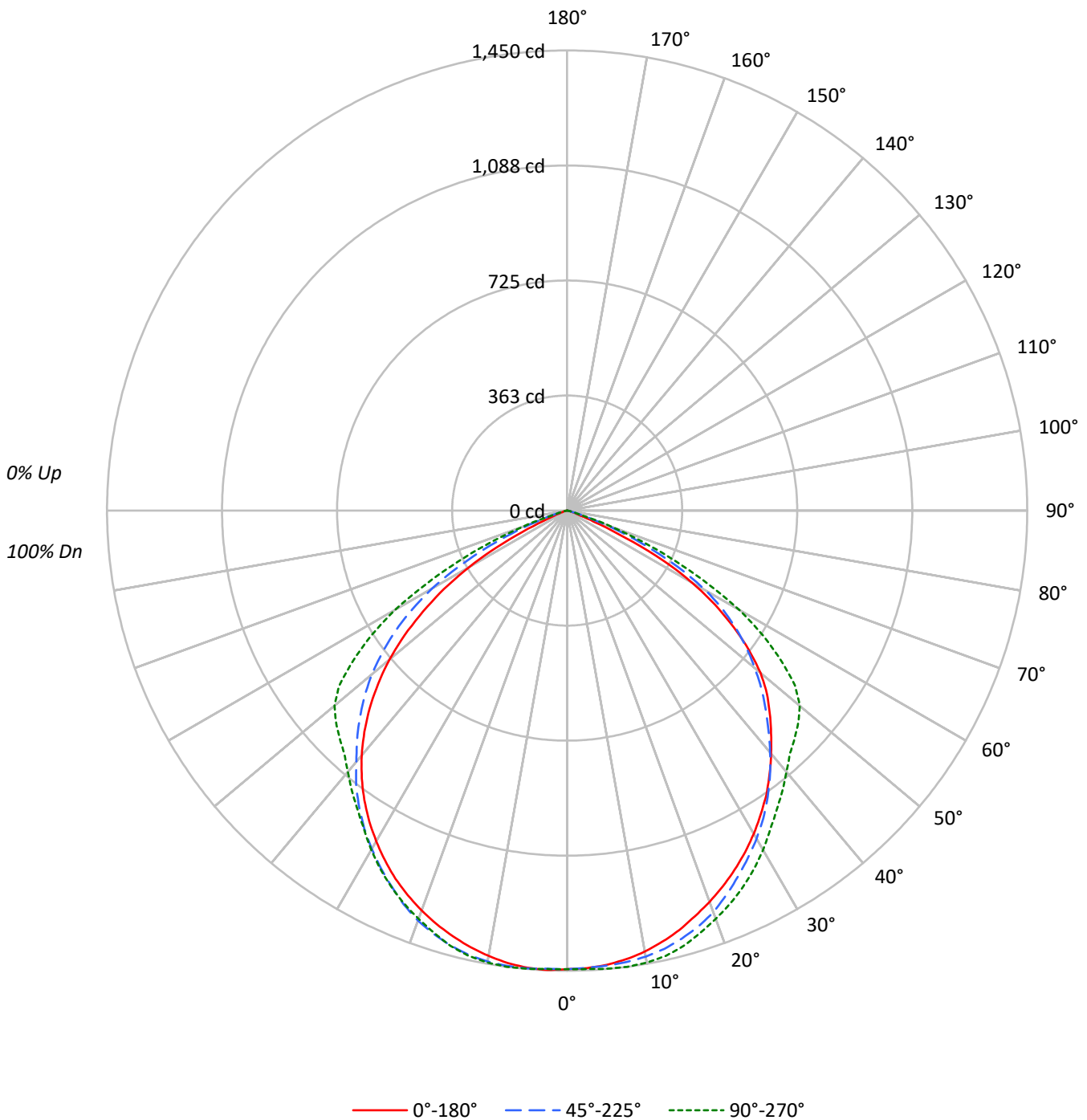
Summary

Lumens per Lamp: 2600 (2 lamps)
Luminaire Lumens: 3466.8 lumens
Efficiency: 66.7%
Efficacy: 63.0 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.26 / 1.34
Luminous Opening: Rectangular (W 1.74' x L: 1.76' x H: 0')
CIE Type: Direct

Input Watts (W): 55
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 | 79 | 79 | 79 | 79 | 78 | 78 | 78 | 78 | 74 | 74 | 74 | 71 | 71 | 71 | 68 | 68 | 68 | 67 |
| 1 | 74 | 71 | 69 | 67 | 72 | 70 | 68 | 66 | 67 | 65 | 64 | 65 | 63 | 62 | 62 | 61 | 60 | 59 |
| 2 | 68 | 63 | 60 | 56 | 66 | 62 | 59 | 56 | 60 | 57 | 54 | 58 | 55 | 53 | 56 | 54 | 52 | 51 |
| 3 | 63 | 56 | 52 | 48 | 61 | 55 | 51 | 47 | 54 | 50 | 47 | 52 | 49 | 46 | 50 | 47 | 45 | 44 |
| 4 | 58 | 50 | 45 | 41 | 56 | 50 | 45 | 41 | 48 | 44 | 40 | 46 | 43 | 40 | 45 | 42 | 39 | 38 |
| 5 | 53 | 45 | 40 | 36 | 52 | 45 | 39 | 36 | 43 | 39 | 35 | 42 | 38 | 35 | 41 | 37 | 34 | 33 |
| 6 | 49 | 41 | 35 | 31 | 48 | 40 | 35 | 31 | 39 | 34 | 31 | 38 | 34 | 31 | 37 | 33 | 30 | 29 |
| 7 | 46 | 37 | 32 | 28 | 45 | 37 | 31 | 28 | 36 | 31 | 28 | 35 | 31 | 27 | 34 | 30 | 27 | 26 |
| 8 | 43 | 34 | 29 | 25 | 42 | 34 | 28 | 25 | 33 | 28 | 25 | 32 | 28 | 25 | 31 | 27 | 24 | 23 |
| 9 | 40 | 31 | 26 | 22 | 39 | 31 | 26 | 22 | 30 | 26 | 22 | 29 | 25 | 22 | 29 | 25 | 22 | 21 |
| 10 | 37 | 29 | 24 | 20 | 36 | 28 | 24 | 20 | 28 | 23 | 20 | 27 | 23 | 20 | 27 | 23 | 20 | 19 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° |
|-----|------|------|------|
| 0° | 5094 | 5094 | 5094 |
| 5° | 5085 | 5128 | 5117 |
| 10° | 5051 | 5176 | 5101 |
| 15° | 4993 | 5182 | 5069 |
| 20° | 4922 | 5136 | 5031 |
| 25° | 4858 | 5096 | 4979 |
| 30° | 4787 | 5027 | 4897 |
| 35° | 4708 | 4953 | 4794 |
| 40° | 4602 | 4947 | 4634 |
| 45° | 4502 | 5055 | 4387 |
| 50° | 4360 | 5249 | 4009 |
| 55° | 3934 | 5052 | 3405 |
| 60° | 3215 | 4421 | 2524 |
| 65° | 1677 | 3145 | 1126 |
| 70° | 350 | 1536 | 247 |
| 75° | 191 | 150 | 150 |
| 80° | 122 | 102 | 102 |
| 85° | 40 | 40 | 40 |



TEST NUMBER: 197P102

CATALOG NUMBER: 2P2GX-2U6T8S34I-PAF

ZONAL LUMENS:

CANDELA DISTRIBUTION:

| Zone | Lumens | % Fixture | % Lamp | | 0° | 45° | 90° | 135° | 180° | Flux |
|-----------|--------|-----------|--------|------|------|------|------|------|------|------|
| 0°-10° | 137.6 | 4.0 | 2.6 | 0° | 1445 | 1445 | 1445 | 1445 | 1445 | |
| 10°-20° | 396.0 | 11.4 | 7.6 | 5° | 1437 | 1439 | 1449 | 1448 | 1446 | 136 |
| 20°-30° | 594.9 | 17.2 | 11.4 | 15° | 1368 | 1396 | 1420 | 1419 | 1389 | 386 |
| 30°-40° | 704.4 | 20.3 | 13.5 | 25° | 1249 | 1273 | 1310 | 1308 | 1280 | 575 |
| 40°-50° | 715.9 | 20.6 | 13.8 | 35° | 1094 | 1102 | 1151 | 1142 | 1114 | 683 |
| 50°-60° | 602.8 | 17.4 | 11.6 | 45° | 903 | 885 | 1014 | 924 | 880 | 696 |
| 60°-70° | 282.1 | 8.1 | 5.4 | 55° | 640 | 651 | 822 | 660 | 554 | 567 |
| 70°-80° | 31.0 | 0.9 | 0.6 | 65° | 201 | 309 | 377 | 288 | 135 | 216 |
| 80°-90° | 2.3 | 0.1 | 0.0 | 75° | 14 | 18 | 11 | 16 | 11 | 17 |
| 90°-100° | 0.0 | 0.0 | 0.0 | 85° | 1 | 2 | 1 | 2 | 1 | 2 |
| 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° | 1128.4 | 32.5 | 21.7 | 165° | 0 | 0 | 0 | 0 | 0 | 0 |
| 0°-40° | 1832.8 | 52.9 | 35.2 | 175° | 0 | 0 | 0 | 0 | 0 | 0 |
| 0°-60° | 3151.5 | 90.9 | 60.6 | 180° | 0 | 0 | 0 | 0 | 0 | 0 |
| 0°-90° | 3466.8 | 100.0 | 66.7 | | | | | | | |
| 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° | 3466.8 | 100.0 | 66.7 | | | | | | | |



TEST NUMBER: 197P102

CATALOG NUMBER: 2P2GX-2U6T8S34I-PAF

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° |
|--------|------|-------|------|-------|------|--------|------|--------|------|
| 0° | 1445 | 1445 | 1445 | 1445 | 1445 | 1445 | 1445 | 1445 | 1445 |
| 2.5° | 1443 | 1442 | 1442 | 1446 | 1446 | 1448 | 1445 | 1447 | 1449 |
| 5° | 1437 | 1437 | 1439 | 1447 | 1449 | 1451 | 1448 | 1448 | 1446 |
| 7.5° | 1426 | 1429 | 1435 | 1445 | 1450 | 1452 | 1447 | 1444 | 1438 |
| 10° | 1411 | 1415 | 1427 | 1440 | 1446 | 1449 | 1443 | 1434 | 1425 |
| 12.5° | 1391 | 1398 | 1415 | 1430 | 1437 | 1441 | 1434 | 1421 | 1409 |
| 15° | 1368 | 1377 | 1396 | 1416 | 1420 | 1429 | 1419 | 1404 | 1389 |
| 17.5° | 1340 | 1353 | 1374 | 1390 | 1395 | 1405 | 1399 | 1385 | 1367 |
| 20° | 1312 | 1326 | 1347 | 1360 | 1369 | 1376 | 1375 | 1363 | 1341 |
| 22.5° | 1282 | 1298 | 1311 | 1328 | 1341 | 1346 | 1344 | 1336 | 1312 |
| 25° | 1249 | 1265 | 1273 | 1293 | 1310 | 1312 | 1308 | 1305 | 1280 |
| 27.5° | 1214 | 1231 | 1234 | 1256 | 1274 | 1277 | 1271 | 1271 | 1243 |
| 30° | 1176 | 1192 | 1194 | 1213 | 1235 | 1237 | 1231 | 1232 | 1203 |
| 32.5° | 1135 | 1152 | 1150 | 1166 | 1191 | 1192 | 1189 | 1190 | 1161 |
| 35° | 1094 | 1107 | 1102 | 1116 | 1151 | 1146 | 1142 | 1142 | 1114 |
| 37.5° | 1048 | 1058 | 1050 | 1071 | 1114 | 1103 | 1092 | 1089 | 1063 |
| 40° | 1000 | 1006 | 995 | 1026 | 1075 | 1059 | 1033 | 1031 | 1007 |
| 42.5° | 951 | 951 | 939 | 979 | 1039 | 1013 | 980 | 971 | 946 |
| 45° | 903 | 896 | 885 | 936 | 1014 | 968 | 924 | 905 | 880 |
| 47.5° | 854 | 840 | 830 | 901 | 988 | 931 | 866 | 835 | 808 |
| 50° | 795 | 780 | 772 | 862 | 957 | 889 | 803 | 759 | 731 |
| 52.5° | 722 | 708 | 713 | 818 | 905 | 839 | 734 | 676 | 646 |
| 55° | 640 | 625 | 651 | 753 | 822 | 770 | 660 | 585 | 554 |
| 57.5° | 552 | 532 | 583 | 665 | 731 | 680 | 578 | 489 | 460 |
| 60° | 456 | 434 | 505 | 571 | 627 | 582 | 492 | 388 | 358 |
| 62.5° | 345 | 334 | 412 | 462 | 501 | 469 | 391 | 283 | 249 |
| 65° | 201 | 221 | 309 | 346 | 377 | 350 | 288 | 181 | 135 |
| 67.5° | 90 | 111 | 209 | 238 | 257 | 239 | 190 | 91 | 51 |
| 70° | 34 | 47 | 114 | 143 | 149 | 142 | 106 | 34 | 24 |
| 72.5° | 22 | 25 | 51 | 64 | 53 | 62 | 46 | 21 | 16 |
| 75° | 14 | 16 | 18 | 17 | 11 | 16 | 16 | 14 | 11 |
| 77.5° | 9 | 11 | 11 | 10 | 8 | 10 | 10 | 10 | 8 |
| 80° | 6 | 7 | 7 | 6 | 5 | 6 | 6 | 6 | 5 |
| 82.5° | 3 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 3 |
| 85° | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 1 |
| 87.5° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 92.5° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 95° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 97.5° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 102.5° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 105° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 107.5° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 110° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



TEST NUMBER: 197P102

CATALOG NUMBER: 2P2GX-2U6T8S34I-PAF

CANDELA DISTRIBUTION (continued):

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

(END OF REPORT)