

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: 109P170

Luminaire Tested: **2EP3GX-2U6T8S23I-PAF**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: 109P170  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 2EP3GX-2U6T8S23I-PAF  
Description: 2 X 2 Recessed Troffer with a 3" deep 6 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: 3662.3 lumens  
Efficiency: 70.4%  
Efficacy: 66.2 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.31  
Luminous Opening: Rectangular (W 1.73' x L: 1.75' x H: 0')  
CIE Type: Direct

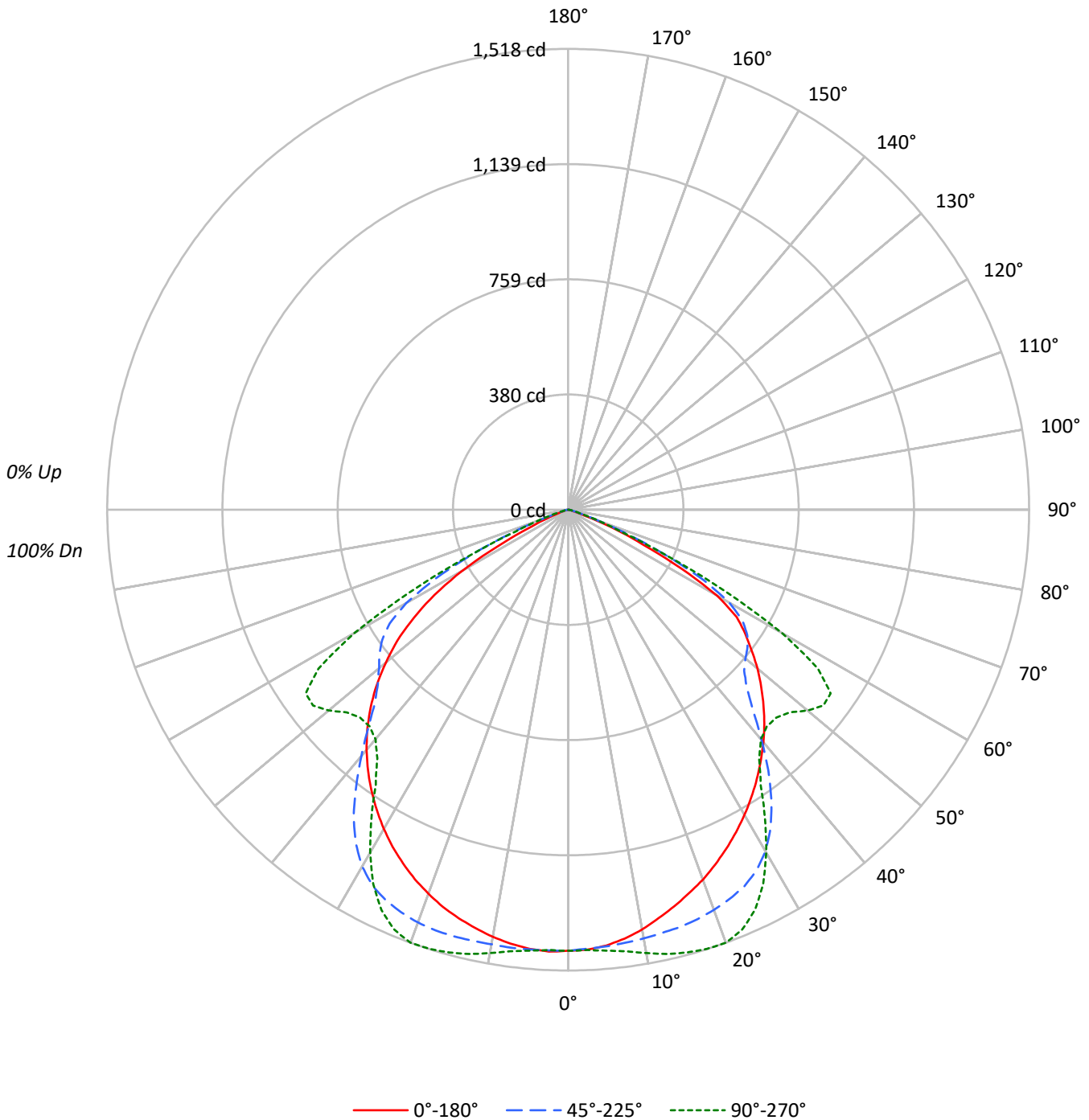
Input Watts (W): 55.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	84	84	84	84	82	82	82	82	78	78	78	75	75	75	72	72	72	70
1	78	75	73	71	76	74	71	69	71	69	67	68	67	65	66	64	63	62
2	72	67	63	59	70	65	62	58	63	60	57	61	58	56	59	57	55	53
3	66	59	54	50	64	58	53	50	56	52	49	54	51	48	53	50	47	46
4	61	53	47	43	59	52	47	43	50	46	42	49	45	42	47	44	41	40
5	56	47	42	37	54	47	41	37	45	40	37	44	40	36	43	39	36	34
6	52	43	37	33	50	42	37	32	41	36	32	40	35	32	39	35	32	30
7	48	39	33	29	47	38	33	29	37	32	29	36	32	28	35	31	28	27
8	45	35	30	26	44	35	30	26	34	29	26	33	29	25	32	28	25	24
9	42	33	27	23	41	32	27	23	31	26	23	31	26	23	30	26	23	22
10	39	30	25	21	38	30	25	21	29	24	21	28	24	21	28	24	21	20

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	5168	5168	5168
5°	5145	5206	5185
10°	5071	5356	5161
15°	4979	5561	5130
20°	4910	5746	5095
25°	4835	5711	5047
30°	4769	5356	4986
35°	4703	4798	4902
40°	4643	4583	4797
45°	4573	4874	4628
50°	4504	5694	4338
55°	4409	6543	3845
60°	4027	5791	2881
65°	2281	2996	1212
70°	676	1102	343
75°	206	289	151
80°	102	184	82
85°	41	82	0



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	45°	90°	135°	180°	Flux
0°-10°	138.3	3.8	2.7	0°	1453	1453	1453	1453	1453	
10°-20°	407.2	11.1	7.8	5°	1441	1444	1458	1454	1452	136
20°-30°	630.7	17.2	12.1	15°	1352	1423	1510	1455	1393	381
30°-40°	719.5	19.6	13.8	25°	1232	1370	1455	1420	1286	568
40°-50°	716.4	19.6	13.8	35°	1083	1167	1105	1232	1129	678
50°-60°	693.8	18.9	13.3	45°	909	831	969	899	920	702
60°-70°	322.8	8.8	6.2	55°	711	720	1055	748	620	631
70°-80°	31.0	0.8	0.6	65°	271	357	356	346	144	288
80°-90°	2.5	0.1	0.0	75°	15	21	21	19	11	23
90°-100°	0.0	0.0	0.0	85°	1	2	2	2	0	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°	1176.3	32.1	22.6	165°	0	0	0	0	0	0
0°-40°	1895.7	51.8	36.5	175°	0	0	0	0	0	0
0°-60°	3305.9	90.3	63.6	180°	0	0	0	0	0	0
0°-90°	3662.3	100.0	70.4							
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°	3662.3	100.0	70.4							



TEST NUMBER: 109P170

CATALOG NUMBER: 2EP3GX-2U6T8S23I-PAF

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1453	1453	1453	1453	1453	1453	1453	1453	1453
2.5°	1451	1447	1447	1454	1452	1455	1453	1453	1457
5°	1441	1438	1444	1455	1458	1460	1454	1452	1452
7.5°	1425	1424	1439	1459	1467	1466	1455	1445	1442
10°	1404	1407	1434	1468	1483	1477	1454	1436	1429
12.5°	1378	1387	1428	1478	1499	1491	1454	1424	1412
15°	1352	1365	1423	1485	1510	1500	1455	1410	1393
17.5°	1324	1343	1415	1485	1517	1502	1453	1395	1372
20°	1297	1322	1403	1481	1518	1502	1447	1377	1346
22.5°	1265	1299	1388	1464	1497	1489	1436	1358	1318
25°	1232	1276	1370	1427	1455	1458	1420	1337	1286
27.5°	1197	1250	1341	1368	1390	1405	1396	1311	1252
30°	1161	1221	1299	1290	1304	1331	1357	1283	1214
32.5°	1123	1189	1241	1195	1206	1242	1302	1249	1173
35°	1083	1152	1167	1091	1105	1143	1232	1208	1129
37.5°	1042	1112	1082	991	1032	1049	1147	1163	1083
40°	1000	1067	991	923	987	983	1060	1111	1033
42.5°	956	1016	903	884	968	944	974	1055	979
45°	909	959	831	868	969	927	899	991	920
47.5°	862	895	786	870	988	926	850	915	855
50°	814	829	762	883	1029	936	813	834	784
52.5°	761	760	744	902	1059	947	783	746	710
55°	711	690	720	899	1055	928	748	655	620
57.5°	658	623	681	853	975	865	697	554	522
60°	566	537	613	741	814	739	616	447	405
62.5°	419	412	502	577	587	563	495	329	264
65°	271	270	357	371	356	359	346	205	144
67.5°	168	160	216	202	188	197	205	109	75
70°	65	74	108	105	106	104	99	53	33
72.5°	28	32	45	53	49	52	39	26	19
75°	15	18	21	24	21	24	19	15	11
77.5°	9	11	13	14	14	14	11	9	7
80°	5	6	8	9	9	9	7	5	4
82.5°	3	3	5	5	5	5	4	3	2
85°	1	1	2	3	2	2	2	1	0
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



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CATALOG NUMBER: 2EP3GX-2U6T8S23I-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)