

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: 116P104

Luminaire Tested: **P2GX2024-2U15/8S33I-PAF**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 116P104
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: P2GX2024-2U15/8S33I-PAF
Description: 20 X 24 Recessed Troffer with a 2" deep 9 cell
semi-specular parabolic louver.
Light Source: Two-FBO31/35K - 2750 Lumens ea. - 31 Watts ea.
Ballast/Driver: Triad B232I120RH Electronic

Summary

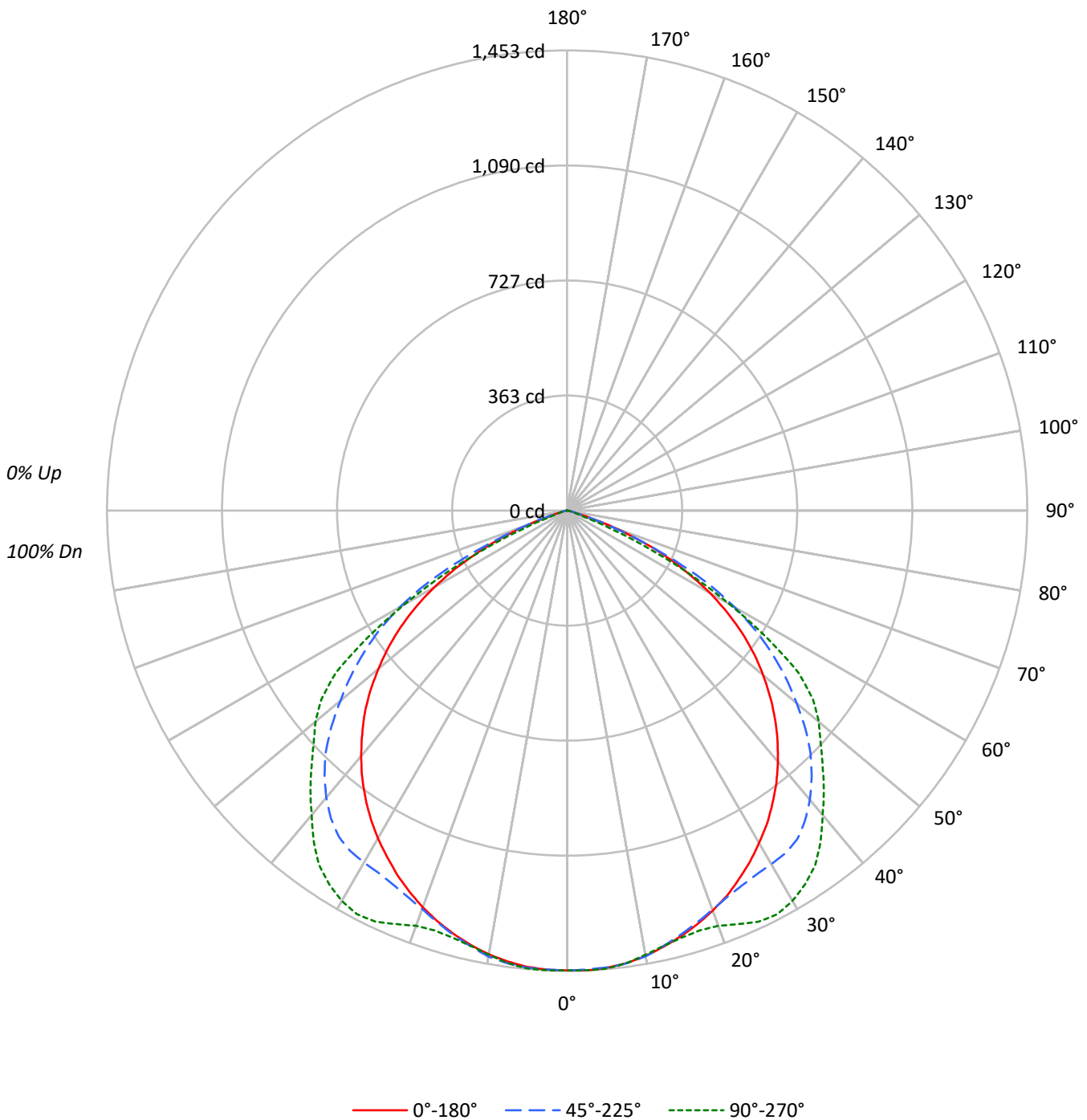
Lumens per Lamp: 2750 (2 lamps)
Luminaire Lumens: 3805.5 lumens
Efficiency: 69.2%
Efficacy: 70.7 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.43 / 1.45
Luminous Opening: Rectangular (W 1.41' x L: 1.75' x H: 0')
CIE Type: Direct

Input Watts (W): 53.8
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	82	82	82	82	80	80	80	80	77	77	77	74	74	74	71	71	71	69
1	77	74	71	69	75	72	70	68	69	68	66	67	65	64	64	63	62	61
2	70	65	61	58	69	64	60	57	62	59	56	60	57	55	57	55	53	52
3	65	58	53	49	63	57	52	48	55	51	48	53	50	47	51	48	46	45
4	59	52	46	42	58	51	46	41	49	45	41	47	44	40	46	43	40	38
5	55	46	40	36	53	45	40	36	44	39	36	43	38	35	41	38	35	33
6	50	42	36	32	49	41	35	31	40	35	31	39	34	31	38	34	31	29
7	47	38	32	28	46	37	32	28	36	31	28	35	31	27	34	30	27	26
8	43	34	29	25	42	34	29	25	33	28	25	32	28	24	31	27	24	23
9	41	32	26	22	40	31	26	22	30	26	22	30	25	22	29	25	22	21
10	38	29	24	20	37	29	24	20	28	23	20	27	23	20	27	23	20	19

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	6351	6351	6351
5°	6362	6371	6349
10°	6342	6324	6320
15°	6299	6321	6267
20°	6256	6493	6204
25°	6196	6911	6124
30°	6121	7187	6035
35°	6033	7294	5927
40°	5909	7165	5778
45°	5740	7058	5592
50°	5498	7056	5294
55°	5147	6794	4896
60°	4549	5196	4234
65°	3612	3012	3177
70°	2059	691	1637
75°	422	355	338
80°	252	227	201
85°	151	100	100



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	45°	90°	135°	180°	Flux
0°-10°	137.6	3.6	2.5	0°	1452	1452	1452	1452	1452	
10°-20°	393.2	10.3	7.1	5°	1449	1448	1451	1449	1446	138
20°-30°	614.9	16.2	11.2	15°	1391	1386	1396	1387	1384	393
30°-40°	774.4	20.3	14.1	25°	1284	1306	1432	1302	1269	592
40°-50°	805.6	21.2	14.6	35°	1130	1267	1366	1257	1110	707
50°-60°	692.1	18.2	12.6	45°	928	1087	1141	1078	904	714
60°-70°	339.5	8.9	6.2	55°	675	792	891	785	642	599
70°-80°	44.4	1.2	0.8	65°	349	379	291	370	307	340
80°-90°	3.9	0.1	0.1	75°	25	30	21	28	20	53
90°-100°	0.0	0.0	0.0	85°	3	3	2	3	2	4
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°	1145.7	30.1	20.8	165°	0	0	0	0	0	0
0°-40°	1920.1	50.5	34.9	175°	0	0	0	0	0	0
0°-60°	3417.8	89.8	62.1	180°	0	0	0	0	0	0
0°-90°	3805.5	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°	3805.5	100.0	69.2							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1452	1452	1452	1452	1452	1452	1452	1452	1452
2.5°	1453	1451	1450	1452	1453	1452	1450	1451	1451
5°	1449	1446	1448	1450	1451	1450	1449	1447	1446
7.5°	1441	1439	1442	1442	1441	1443	1442	1440	1436
10°	1428	1428	1429	1426	1424	1426	1430	1428	1423
12.5°	1410	1411	1408	1408	1408	1408	1409	1411	1405
15°	1391	1392	1386	1393	1396	1393	1387	1391	1384
17.5°	1369	1368	1364	1381	1390	1381	1363	1368	1360
20°	1344	1340	1341	1377	1395	1375	1339	1339	1333
22.5°	1317	1309	1321	1381	1413	1378	1319	1309	1302
25°	1284	1277	1306	1395	1432	1392	1302	1275	1269
27.5°	1250	1241	1295	1404	1437	1401	1290	1238	1232
30°	1212	1206	1289	1395	1423	1392	1283	1201	1195
32.5°	1174	1169	1283	1370	1399	1367	1275	1163	1154
35°	1130	1130	1267	1337	1366	1334	1257	1124	1110
37.5°	1085	1089	1234	1296	1315	1292	1225	1084	1063
40°	1035	1049	1192	1238	1255	1234	1183	1044	1012
42.5°	983	1009	1143	1173	1200	1171	1134	1002	958
45°	928	966	1087	1113	1141	1110	1078	959	904
47.5°	869	921	1021	1048	1085	1045	1009	912	843
50°	808	870	946	987	1037	985	935	860	778
52.5°	744	812	872	927	978	925	863	802	712
55°	675	741	792	853	891	853	785	731	642
57.5°	600	660	707	748	748	741	704	654	566
60°	520	570	611	604	594	596	611	566	484
62.5°	435	472	506	456	443	447	502	469	398
65°	349	371	379	316	291	306	370	366	307
67.5°	254	271	253	183	150	177	244	266	217
70°	161	176	148	81	54	77	139	170	128
72.5°	77	91	72	36	32	35	67	85	53
75°	25	35	30	23	21	23	28	30	20
77.5°	15	17	16	15	14	15	16	17	13
80°	10	11	10	10	9	10	10	11	8
82.5°	6	7	6	6	5	6	6	6	5
85°	3	3	3	3	2	3	3	3	2
87.5°	1	1	1	0	0	0	1	1	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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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)