

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: 190P100

Luminaire Tested: **2PGX-2BX40S331-PAF**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: 190P100
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 2PGX-2BX40S33I-PAF
Description: 2 X 2 Recessed Convertible Body Troffer with a 4" deep
9 cell semi-specular low iridescent precision cell
parabolic louver.
Light Source: Two-F40BX/SPX35/RS - 3150 Lumens ea. - 40 Watts ea.
Ballast/Driver: Valmont 8G3377W Magnetic: L.O.B.F. = 93.4

Summary

Lumens per Lamp: 3150 (2 lamps)
Luminaire Lumens: 3922.2 lumens
Efficiency: 62.3%
Efficacy: 45.3 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.6 / 1.57
Luminous Opening: Rectangular (W 1.73' x L: 1.76' x H: 0')
CIE Type: Direct

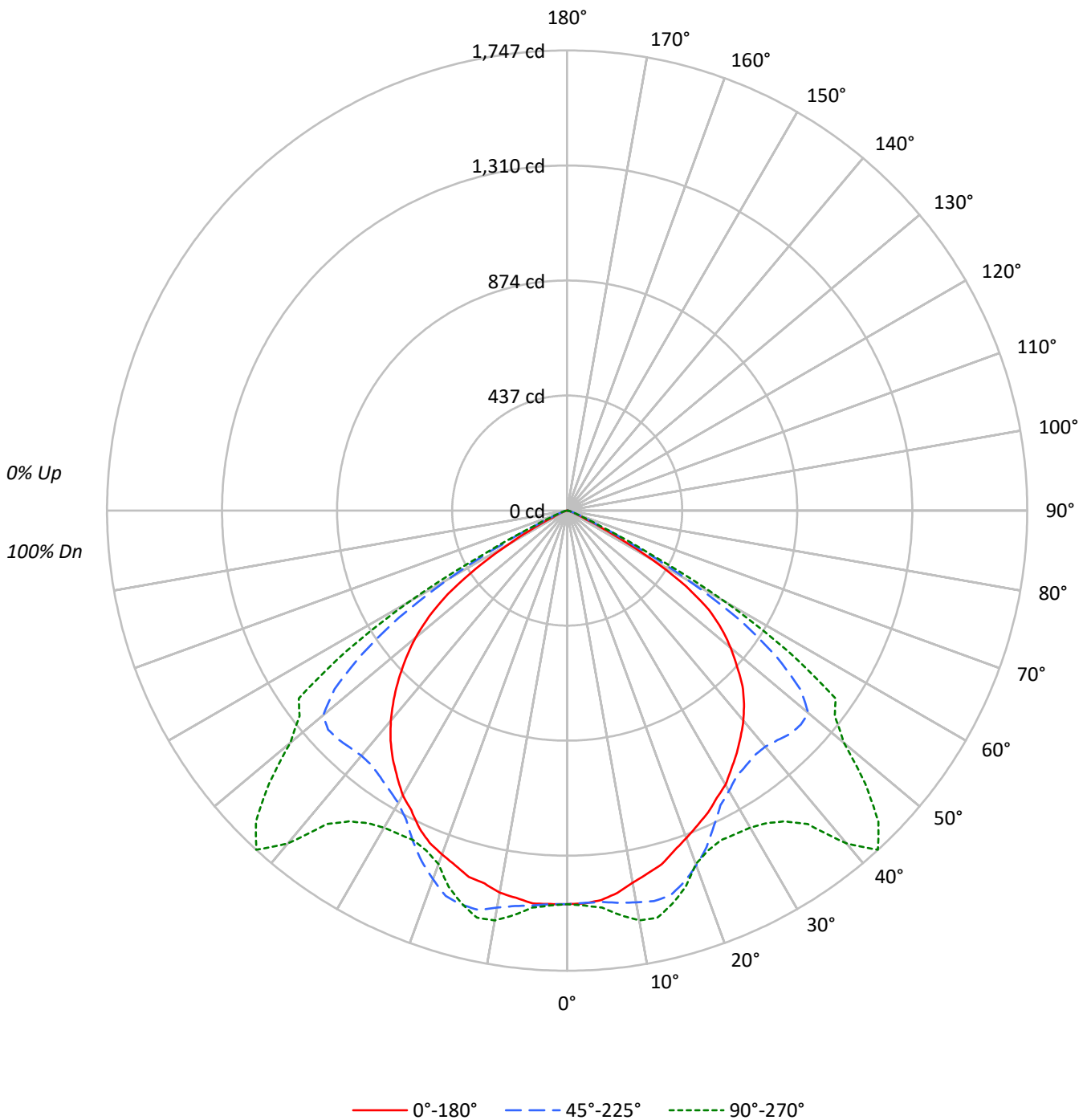
Input Watts (W): 86.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	74	74	74	74	72	72	72	72	69	69	69	66	66	66	64	64	64	62
1	69	67	65	63	68	65	63	62	63	61	60	60	59	58	58	57	56	55
2	64	59	56	53	62	58	55	52	56	53	51	54	52	50	52	51	49	48
3	59	53	49	45	57	52	48	45	50	47	44	49	46	43	47	45	42	41
4	54	47	42	39	53	46	42	38	45	41	38	44	40	37	42	39	37	36
5	50	42	37	33	48	42	37	33	40	36	33	39	35	33	38	35	32	31
6	46	38	33	29	45	38	33	29	36	32	29	35	32	29	35	31	28	27
7	43	35	29	26	41	34	29	26	33	29	26	32	28	25	31	28	25	24
8	40	31	26	23	39	31	26	23	30	26	23	29	26	23	29	25	22	21
9	37	29	24	21	36	28	24	21	28	23	20	27	23	20	26	23	20	19
10	34	27	22	19	34	26	22	19	26	21	18	25	21	18	24	21	18	17

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	5283	5283	5283
5°	5267	5370	5313
10°	5149	5673	5289
15°	5088	5656	5271
20°	4978	5373	5226
25°	4935	5388	5185
30°	4908	5675	5095
35°	4847	6216	4977
40°	4805	7611	4805
45°	4710	8356	4520
50°	4456	7547	4137
55°	4050	7669	3409
60°	2638	4908	1817
65°	653	1121	494
70°	300	403	227
75°	178	219	137
80°	102	122	102
85°	81	81	41



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	45°	90°	135°	180°	Flux
0°-10°	143.7	3.7	2.3	0°	1494	1494	1494	1494	1494	
10°-20°	421.4	10.7	6.7	5°	1484	1491	1513	1505	1497	140
20°-30°	627.2	16.0	10.0	15°	1390	1513	1545	1549	1440	390
30°-40°	794.6	20.3	12.6	25°	1265	1319	1381	1385	1329	583
40°-50°	949.1	24.2	15.1	35°	1123	1183	1440	1236	1153	703
50°-60°	782.2	19.9	12.4	45°	942	1198	1671	1229	904	721
60°-70°	183.2	4.7	2.9	55°	657	973	1244	949	553	563
70°-80°	18.0	0.5	0.3	65°	78	124	134	116	59	126
80°-90°	2.6	0.1	0.0	75°	13	16	16	15	10	15
90°-100°	0.0	0.0	0.0	85°	2	2	2	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°	1192.4	30.4	18.9	165°	0	0	0	0	0	0
0°-40°	1987.0	50.7	31.5	175°	0	0	0	0	0	0
0°-60°	3718.4	94.8	59.0	180°	0	0	0	0	0	0
0°-90°	3922.2	100.0	62.3							
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°	3922.2	100.0	62.3							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1494	1494	1494	1494	1494	1494	1494	1494	1494
2.5°	1493	1487	1491	1493	1501	1496	1495	1499	1495
5°	1484	1477	1491	1503	1513	1510	1505	1496	1497
7.5°	1464	1464	1502	1531	1549	1542	1514	1494	1483
10°	1434	1452	1510	1561	1580	1574	1530	1485	1473
12.5°	1411	1435	1519	1571	1583	1593	1553	1481	1450
15°	1390	1419	1513	1532	1545	1553	1549	1472	1440
17.5°	1353	1406	1478	1494	1497	1518	1534	1461	1412
20°	1323	1392	1434	1427	1428	1455	1489	1453	1389
22.5°	1293	1369	1383	1365	1397	1394	1442	1444	1365
25°	1265	1348	1319	1338	1381	1366	1385	1414	1329
27.5°	1230	1317	1261	1316	1384	1353	1323	1384	1282
30°	1202	1268	1229	1310	1390	1355	1282	1345	1248
32.5°	1161	1220	1196	1308	1407	1359	1257	1279	1200
35°	1123	1173	1183	1316	1440	1376	1236	1223	1153
37.5°	1082	1107	1170	1338	1500	1405	1219	1149	1101
40°	1041	1050	1170	1392	1649	1473	1215	1079	1041
42.5°	994	998	1182	1495	1747	1576	1220	1008	975
45°	942	951	1198	1526	1671	1608	1229	945	904
47.5°	874	910	1203	1425	1535	1505	1231	886	830
50°	810	870	1195	1277	1372	1349	1209	831	752
52.5°	740	831	1117	1131	1280	1193	1113	773	661
55°	657	774	973	1008	1244	1080	949	697	553
57.5°	536	668	787	875	995	937	759	577	412
60°	373	480	538	590	694	630	523	408	257
62.5°	191	266	289	351	348	370	278	234	140
65°	78	113	124	159	134	164	116	112	59
67.5°	46	58	61	72	66	73	57	52	35
70°	29	36	38	41	39	41	35	31	22
72.5°	19	23	24	25	25	25	22	20	15
75°	13	15	16	17	16	16	15	13	10
77.5°	9	10	11	11	10	11	10	9	7
80°	5	7	7	7	6	7	6	6	5
82.5°	4	4	4	4	4	4	4	4	3
85°	2	2	2	2	2	2	2	2	1
87.5°	1	1	1	0	0	1	0	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)