

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: 227P120

Luminaire Tested: **SM-228T5 W/ WHITE THREE PIECE METAL LOUVER ASSEMBLY**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 227P120
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SM-228T5 W/ WHITE THREE PIECE METAL LOUVER ASSEMBLY
Description: Cricket Series Luminaire with a white three piece
louver assembly.
Light Source: Two - F28T5/835 - 2610 Lumens ea. - 28 Watts ea.
Ballast/Driver: ESI ES-2-T5-28-120-F Electronic L.O.B.F.=92.6%

Summary

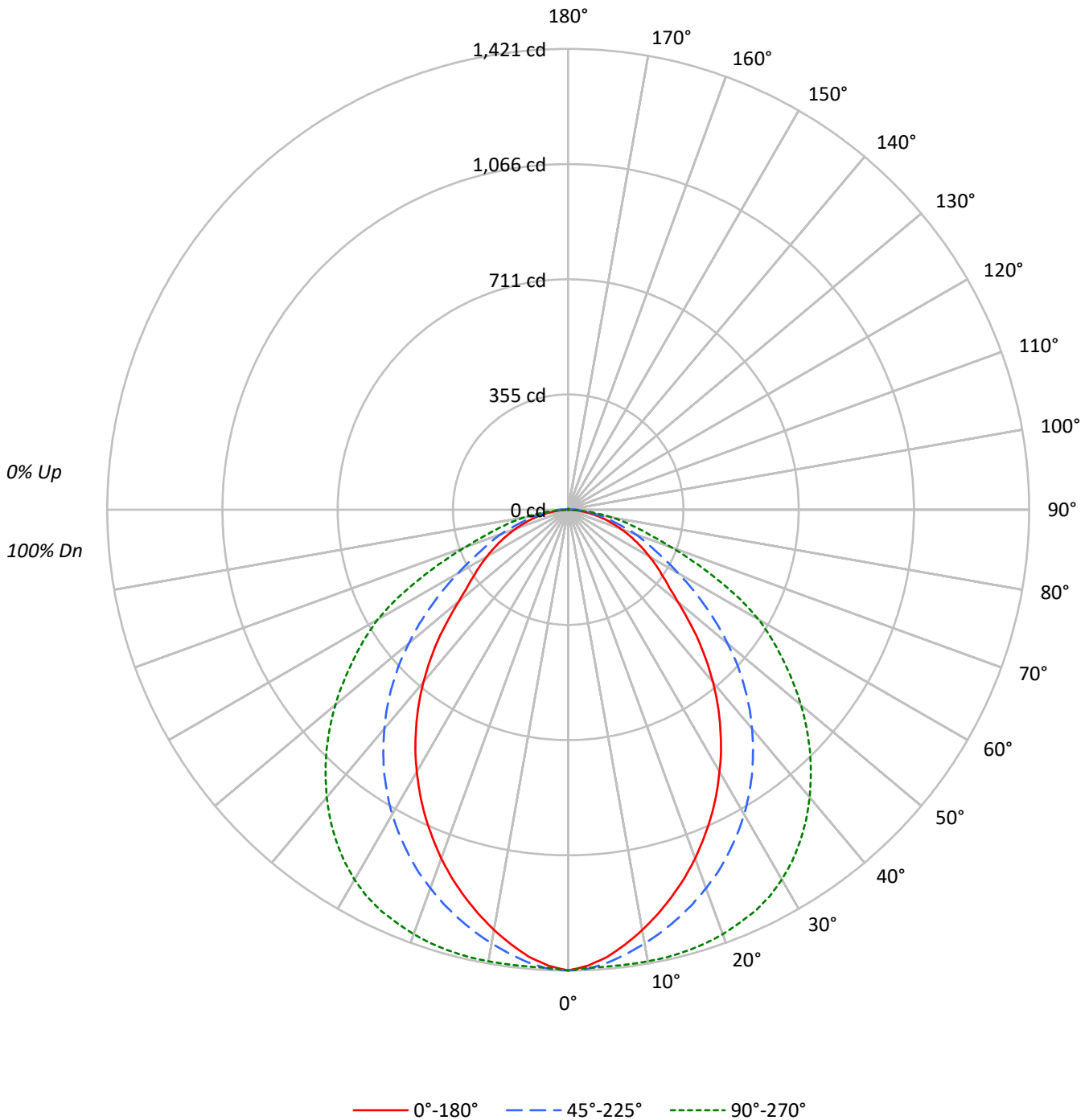
Lumens per Lamp: 2610 (2 lamps)
Luminaire Lumens: 3329.2 lumens
Efficiency: 63.8%
Efficacy: 61.7 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 1.36 / 1.27
Luminous Opening: Rectangular w/ Sides (W: 0.24' x L: 3.85' x H: 0.02')
CIE Type: Direct

Input Watts (W): 54
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	76	76	76	76	74	74	74	74	71	71	71	68	68	68	65	65	65	64
1	70	67	64	62	68	65	63	61	63	61	59	60	59	57	58	57	55	54
2	64	59	55	51	62	58	54	51	55	52	50	53	51	48	51	49	47	46
3	59	52	47	43	57	51	47	43	49	45	42	47	44	41	46	43	41	39
4	54	47	41	37	52	46	41	37	44	40	36	43	39	36	41	38	35	34
5	50	42	36	32	48	41	36	32	40	35	32	38	35	31	37	34	31	30
6	46	38	32	28	45	37	32	28	36	31	28	35	31	28	34	30	28	26
7	43	34	29	25	42	34	29	25	33	28	25	32	28	25	31	27	25	23
8	40	32	26	23	39	31	26	23	30	26	22	29	25	22	29	25	22	21
9	37	29	24	21	36	29	24	20	28	23	20	27	23	20	27	23	20	19
10	35	27	22	19	34	27	22	19	26	22	19	25	21	18	25	21	18	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16554	16554	16554
5°	16177	16305	16415
10°	15553	15888	16484
15°	14874	15479	16622
20°	14155	15054	16760
25°	13374	14600	16889
30°	12513	14086	16902
35°	11577	13474	16756
40°	10508	12743	16459
45°	9276	11892	16028
50°	7925	10810	15447
55°	7157	9583	14683
60°	6696	8240	13804
65°	6243	7121	11810
70°	5809	6394	9368
75°	5298	5363	7622
80°	4692	4654	6241
85°	3659	4207	3149



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	132.6	4.0	2.5	0°	1421	1421	1421	1421	1421	
10°-20°	370.4	11.1	7.1	5°	1384	1390	1402	1418	1414	130
20°-30°	544.9	16.4	10.4	15°	1235	1253	1305	1377	1409	347
30°-40°	628.3	18.9	12.0	25°	1043	1076	1169	1287	1365	479
40°-50°	601.6	18.1	11.5	35°	817	868	989	1137	1247	510
50°-60°	483.6	14.5	9.3	45°	566	627	767	922	1054	436
60°-70°	327.3	9.8	6.3	55°	355	387	514	672	809	320
70°-80°	168.6	5.1	3.2	65°	229	242	293	415	505	227
80°-90°	58.2	1.7	1.1	75°	120	131	147	175	222	128
90°-100°	8.3	0.2	0.2	85°	29	39	54	69	46	33
100°-110°	0.6	0.0	0.0	90°	1	12	26	36	5	2
110°-120°	0.7	0.0	0.0	95°	0	1	8	14	1	0
120°-130°	1.1	0.0	0.0	105°	0	1	1	0	0	0
130°-140°	1.8	0.1	0.0	115°	0	1	1	1	0	0
140°-150°	1.2	0.0	0.0	125°	1	1	1	1	1	1
150°-160°	0.0	0.0	0.0	135°	2	2	2	2	2	1
160°-170°	0.0	0.0	0.0	145°	3	3	3	3	3	1
170°-180°	0.0	0.0	0.0	155°	0	0	0	0	0	0
0°-30°	1047.9	31.5	20.1	165°	0	0	0	0	0	0
0°-40°	1676.2	50.3	32.1	175°	0	0	0	0	0	0
0°-60°	2761.5	82.9	52.9	180°	0	0	0	0	0	0
0°-90°	3315.5	99.6	63.5							
90°-120°	9.5	0.3	0.2							
90°-150°	13.6	0.4	0.3							
90°-180°	14.0	0.4	0.3							
0°-180°	3329.2	100.0	63.8							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1421	1421	1421	1421	1421
2.5°	1407	1411	1417	1423	1414
5°	1384	1390	1402	1418	1414
7.5°	1352	1360	1381	1411	1414
10°	1316	1327	1358	1401	1414
12.5°	1277	1291	1333	1390	1413
15°	1235	1253	1305	1377	1409
17.5°	1191	1213	1275	1359	1403
20°	1144	1170	1242	1337	1393
22.5°	1094	1125	1208	1313	1379
25°	1043	1076	1169	1287	1365
27.5°	989	1027	1128	1256	1344
30°	933	976	1085	1221	1317
32.5°	877	923	1038	1181	1285
35°	817	868	989	1137	1247
37.5°	757	811	936	1088	1205
40°	694	751	882	1036	1158
42.5°	630	690	826	980	1107
45°	566	627	767	922	1054
47.5°	501	563	706	862	997
50°	440	499	641	800	937
52.5°	392	438	578	737	874
55°	355	387	514	672	809
57.5°	322	344	451	608	746
60°	290	308	392	550	678
62.5°	259	274	338	487	597
65°	229	242	293	415	505
67.5°	200	211	257	342	418
70°	173	183	220	275	338
72.5°	146	156	181	218	272
75°	120	131	147	175	222
77.5°	96	106	118	143	180
80°	72	82	94	115	137
82.5°	50	59	73	90	92
85°	29	39	54	69	46
87.5°	11	23	39	51	15
90°	1	12	26	36	5
92.5°	0	4	16	24	3
95°	0	1	8	14	1
97.5°	0	1	3	7	1
100°	0	1	1	2	0
102.5°	0	1	1	0	0
105°	0	1	1	0	0
107.5°	0	1	1	0	0
110°	0	1	1	0	0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0	1	1	0	0
115°	0	1	1	1	0
117.5°	0	1	1	1	0
120°	0	1	1	1	1
122.5°	1	1	1	1	1
125°	1	1	1	1	1
127.5°	1	2	2	2	1
130°	1	2	2	2	2
132.5°	1	2	2	2	2
135°	2	2	2	2	2
137.5°	2	3	3	3	3
140°	2	3	3	3	3
142.5°	3	3	3	3	3
145°	3	3	3	3	3
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)