

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: 227P104

Luminaire Tested: **SM-228T5 (SM-RP-2IN-ASY-4FT-REFL-B)**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 227P104
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SM-228T5 (SM-RP-2IN-ASY-4FT-REFL-B)
Description: SM Series Commercial Micro-Striplight with a perforated asymmetrical reflector.
Light Source: Two - F28T5/835 - 2900 Lumens ea. - 28 Watts ea.
Ballast/Driver: Magnetek BT5-228/120 Electronic - L.O.B.F.= 97.5%

Summary

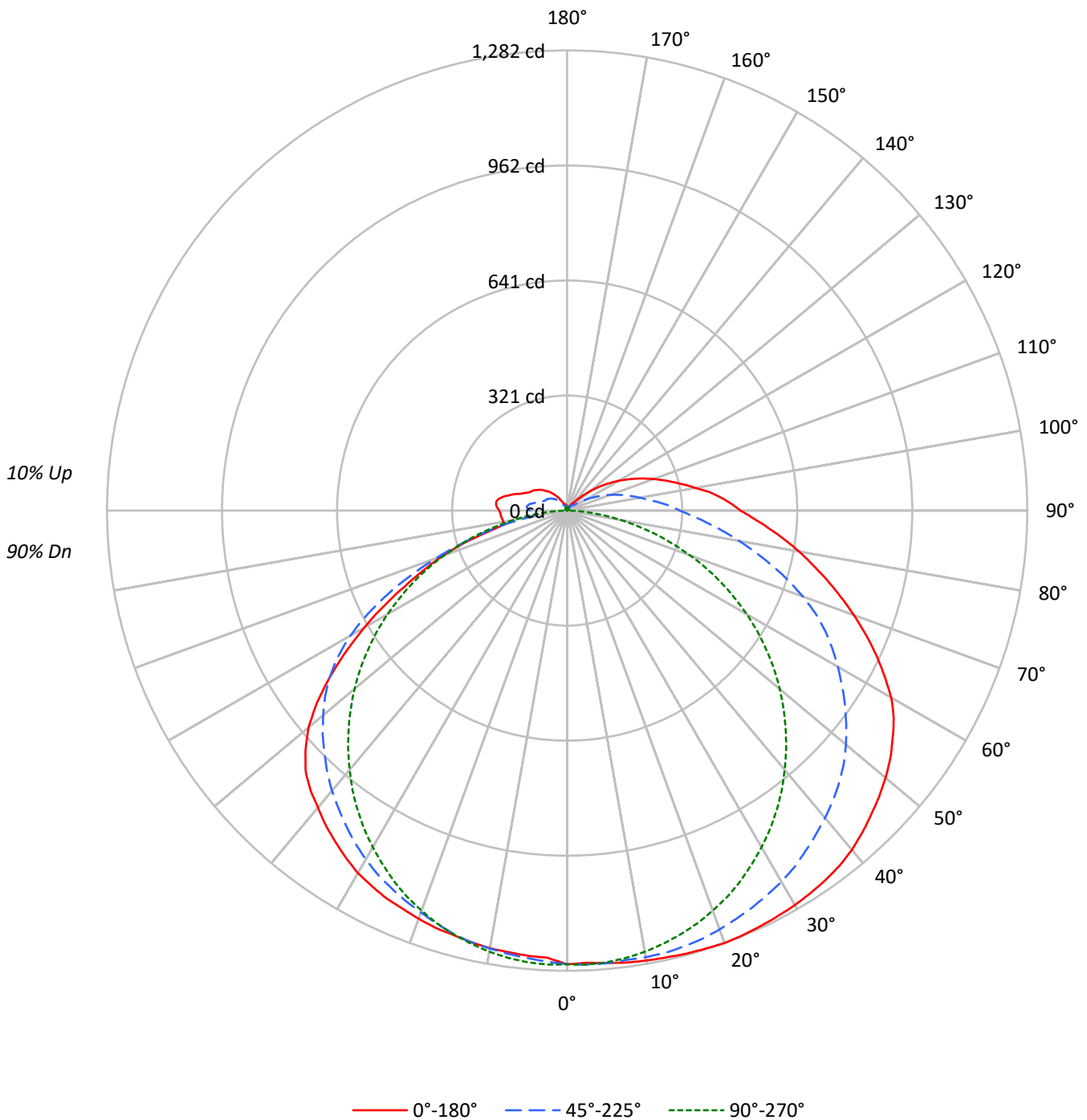
Lumens per Lamp: 2900 (2 lamps)
Luminaire Lumens: 5056.2 lumens
Efficiency: 87.2%
Efficacy: 77.8 lumens/watt
Spacing Criteria (0/90/45): 1.44 / 1.27 / 1.51
Luminous Opening: Rectangular w/ Sides (W: 3.76' x L: 0.25' x H: 0.1')
CIE Type: Direct

Input Watts (W): 65
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	102	102	102	102	98	98	98	98	92	92	92	86	86	86	81	81	81	79
1	91	86	82	78	88	84	80	76	78	75	72	73	71	68	69	67	65	62
2	82	74	68	62	79	72	66	61	67	62	58	63	59	55	59	56	53	50
3	74	65	57	51	71	62	55	50	59	53	48	55	50	46	52	48	44	42
4	68	57	49	42	65	55	47	42	52	45	40	49	43	39	46	41	37	35
5	62	50	42	36	60	49	41	35	46	39	34	43	38	33	41	36	32	30
6	57	45	37	31	55	44	36	31	41	35	30	39	33	29	37	32	28	26
7	53	41	33	27	51	40	32	27	37	31	26	35	30	25	34	28	24	23
8	49	37	29	24	47	36	29	24	34	28	23	32	27	22	31	26	22	20
9	46	34	26	21	44	33	26	21	31	25	21	30	24	20	28	23	20	18
10	43	31	24	19	41	30	24	19	29	23	19	27	22	18	26	21	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	14474	14474	14474
5°	14049	14484	13827
10°	13827	14444	13447
15°	13684	14384	13106
20°	13637	14314	12871
25°	13598	14227	12693
30°	13631	14103	12525
35°	13716	13971	12296
40°	13811	13788	12087
45°	13858	13582	11914
50°	13970	13348	11340
55°	14065	13040	10241
60°	14111	12654	8834
65°	13855	12125	7278
70°	13558	11357	5902
75°	13311	10263	4029
80°	13235	8710	3652
85°	13299	6045	4362



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	45°	90°	135°	180°	Flux
0°-10°	120.0	2.4	2.1	0°	1264	1264	1264	1264	1264	
10°-20°	350.2	6.9	6.0	5°	1265	1266	1263	1252	1245	121
20°-30°	549.2	10.9	9.5	15°	1278	1257	1222	1221	1224	362
30°-40°	696.0	13.8	12.0	25°	1277	1220	1140	1160	1192	591
40°-50°	772.8	15.3	13.3	35°	1256	1158	1018	1073	1126	788
50°-60°	756.3	15.0	13.0	45°	1198	1072	861	956	1030	927
60°-70°	630.9	12.5	10.9	55°	1107	945	678	807	806	991
70°-80°	428.5	8.5	7.4	65°	950	793	473	552	499	940
80°-90°	257.4	5.1	4.4	75°	750	591	255	242	227	793
90°-100°	185.5	3.7	3.2	85°	564	392	60	91	185	480
100°-110°	129.6	2.6	2.2	90°	483	314	1	103	189	266
110°-120°	82.0	1.6	1.4	95°	428	258	0	113	199	337
120°-130°	49.4	1.0	0.9	105°	306	165	0	87	166	326
130°-140°	26.4	0.5	0.5	115°	210	93	2	67	119	210
140°-150°	12.7	0.3	0.2	125°	123	38	5	58	100	112
150°-160°	5.8	0.1	0.1	135°	53	21	7	43	76	43
160°-170°	3.0	0.1	0.1	145°	24	12	8	21	46	14
170°-180°	0.2	0.0	0.0	155°	8	10	9	14	20	4
0°-30°	1019.4	20.2	17.6	165°	6	9	12	11	18	2
0°-40°	1715.4	33.9	29.6	175°	0	0	0	0	0	0
0°-60°	3244.6	64.2	55.9	180°	0	0	0	0	0	0
0°-90°	4561.5	90.2	78.6							
90°-120°	397.1	7.9	6.8							
90°-150°	485.7	9.6	8.4							
90°-180°	495.0	9.8	8.5							
0°-180°	5056.2	100.0	87.2							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1264	1264	1264	1264	1264	1264	1264	1264	1264
2.5°	1261	1269	1266	1265	1266	1262	1258	1257	1247
5°	1265	1271	1266	1264	1263	1255	1252	1253	1245
7.5°	1270	1273	1263	1259	1257	1248	1246	1249	1241
10°	1273	1275	1263	1253	1248	1238	1239	1245	1238
12.5°	1275	1277	1262	1245	1236	1227	1232	1239	1232
15°	1278	1278	1257	1235	1222	1213	1221	1232	1224
17.5°	1280	1278	1251	1223	1206	1199	1207	1222	1219
20°	1282	1275	1242	1208	1186	1181	1191	1209	1210
22.5°	1280	1271	1231	1190	1165	1162	1177	1200	1200
25°	1277	1266	1220	1170	1140	1138	1160	1189	1192
27.5°	1273	1261	1207	1148	1112	1114	1143	1174	1179
30°	1269	1252	1194	1123	1083	1087	1122	1158	1166
32.5°	1263	1243	1178	1098	1052	1058	1099	1141	1147
35°	1256	1232	1158	1070	1018	1027	1073	1120	1126
37.5°	1247	1220	1138	1041	982	993	1046	1096	1105
40°	1234	1203	1118	1012	943	958	1019	1072	1080
42.5°	1217	1185	1096	979	903	921	989	1045	1058
45°	1198	1164	1072	945	861	884	956	1019	1030
47.5°	1179	1141	1045	908	818	843	924	985	989
50°	1158	1116	1014	871	773	802	887	944	940
52.5°	1135	1089	980	831	727	759	850	891	878
55°	1107	1059	945	790	678	715	807	826	806
57.5°	1079	1028	908	748	629	669	757	755	730
60°	1043	994	871	705	578	621	698	677	653
62.5°	996	951	833	660	525	572	629	599	576
65°	950	904	793	614	473	523	552	519	499
67.5°	900	855	749	565	419	473	471	445	432
70°	850	805	698	517	364	419	389	376	370
72.5°	799	753	645	468	309	356	312	313	301
75°	750	703	591	421	255	287	242	242	227
77.5°	701	653	537	372	202	216	176	176	177
80°	656	606	486	319	152	147	109	150	181
82.5°	609	560	438	264	104	86	84	158	182
85°	564	516	392	215	60	34	91	162	185
87.5°	521	474	349	174	24	27	97	164	186
90°	483	438	314	139	1	31	103	167	189
92.5°	456	410	287	112	0	34	109	173	195
95°	428	381	258	89	0	34	113	177	199
97.5°	398	352	228	75	0	33	111	176	199
100°	363	319	206	62	0	33	105	170	192
102.5°	334	293	185	50	0	33	96	159	181
105°	306	268	165	38	0	33	87	147	166
107.5°	281	244	146	28	1	33	81	133	153
110°	257	222	128	19	1	32	75	122	137



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	233	199	110	13	2	32	70	113	128
115°	210	177	93	10	2	32	67	105	119
117.5°	188	157	78	10	2	32	65	101	114
120°	166	137	63	11	3	31	64	97	111
122.5°	144	118	49	9	4	29	61	93	106
125°	123	99	38	9	5	27	58	89	100
127.5°	104	81	29	9	5	25	55	84	95
130°	85	64	24	8	6	24	51	78	89
132.5°	68	49	22	9	6	23	47	73	81
135°	53	37	21	9	7	21	43	67	76
137.5°	39	30	19	9	7	20	37	60	69
140°	30	26	15	9	8	18	32	53	61
142.5°	25	24	14	9	8	17	26	47	53
145°	24	21	12	8	8	16	21	39	46
147.5°	19	16	10	8	8	15	18	32	36
150°	15	13	10	8	9	14	17	27	30
152.5°	11	10	10	9	9	13	15	22	24
155°	8	9	10	9	9	13	14	19	20
157.5°	7	9	10	8	10	13	13	16	19
160°	7	8	9	8	11	13	12	14	18
162.5°	7	8	9	7	11	14	12	12	18
165°	6	7	9	7	12	14	11	11	18
167.5°	5	8	8	7	13	15	12	8	17
170°	5	7	7	9	14	15	13	8	15
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)