

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: 227P100

Luminaire Tested: **SM-228T5**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 227P100
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SM-228T5
Description: SM Series Commercial Micro-Striplight
Light Source: Two - F28T5/835 - 2900 Lumens ea. - 28 Watts ea.
Ballast/Driver: Energy Savings ES-2-T5-28-120-F Electronic - L.O.B.F. 92.7%

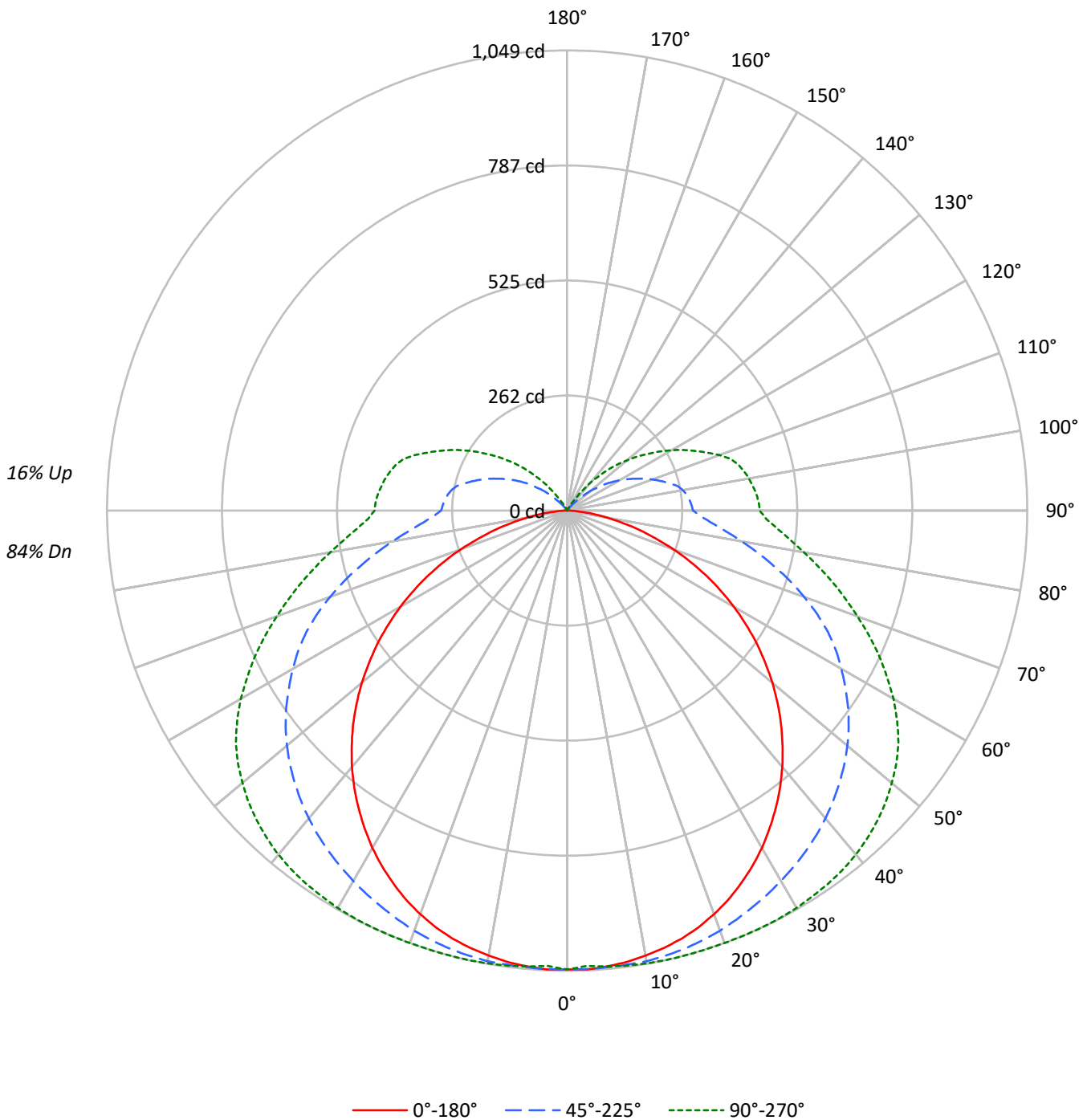
Summary

Lumens per Lamp: 2900 (2 lamps)
Luminaire Lumens: 5020.1 lumens
Efficiency: 86.6%
Efficacy: 81.0 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.52 / 1.56
Luminous Opening: Rectangular w/ Sides (W: 0.19' x L: 3.77' x H: 0.07')
CIE Type: Semi-Direct

Input Watts (W): 62
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	100	100	100	100	96	96	96	96	88	88	88		82	82	82		75	75	75	73
1	88	83	79	75	85	80	76	72	74	70	67		68	65	63		62	60	58	56
2	79	71	64	59	76	68	62	57	63	58	53		58	54	50		53	50	47	44
3	72	62	54	48	68	59	52	46	55	49	44		50	45	41		46	42	39	36
4	65	54	46	40	62	52	44	39	48	42	36		44	39	34		41	36	33	30
5	60	48	40	33	57	46	38	33	43	36	31		39	34	29		36	32	28	25
6	55	43	35	29	52	41	34	28	38	32	27		35	30	25		33	28	24	22
7	51	39	31	25	48	37	30	25	35	28	23		32	26	22		30	25	21	19
8	47	35	27	22	45	34	27	22	31	25	21		29	24	20		27	22	19	17
9	44	32	25	20	42	31	24	19	29	23	18		27	21	18		25	20	17	15
10	41	29	22	18	39	28	22	17	27	21	17		25	20	16		23	19	15	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15718	15718	15718
5°	15708	15395	15242
10°	15665	15182	15016
15°	15635	14987	14853
20°	15551	14819	14792
25°	15419	14675	14843
30°	15245	14610	14966
35°	15013	14594	15137
40°	14738	14613	15344
45°	14396	14650	15530
50°	13975	14703	15693
55°	13450	14731	15828
60°	12783	14722	15760
65°	11934	14699	15593
70°	10744	14421	15372
75°	9231	14018	15279
80°	7203	13700	15350
85°	4551	13868	15948



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	99.6	2.0	1.7	0°	1046	1046	1046	1046	1046	
10°-20°	292.1	5.8	5.0	5°	1043	1041	1045	1050	1043	99
20°-30°	460.6	9.2	7.9	15°	1010	1017	1034	1051	1049	285
30°-40°	590.3	11.8	10.2	25°	938	957	998	1040	1049	432
40°-50°	666.1	13.3	11.5	35°	829	868	948	1019	1038	518
50°-60°	675.2	13.5	11.6	45°	690	755	878	973	1000	532
60°-70°	608.8	12.1	10.5	55°	527	628	782	888	922	470
70°-80°	478.1	9.5	8.2	65°	349	487	656	753	785	345
80°-90°	334.2	6.7	5.8	75°	170	333	488	590	625	181
90°-100°	273.8	5.5	4.7	85°	32	175	332	442	482	39
100°-110°	232.3	4.6	4.0	90°	3	128	287	399	439	3
110°-120°	161.8	3.2	2.8	95°	2	118	280	393	433	2
120°-130°	94.4	1.9	1.6	105°	2	76	241	364	404	2
130°-140°	42.0	0.8	0.7	115°	2	35	172	281	322	2
140°-150°	9.8	0.2	0.2	125°	3	6	104	193	226	2
150°-160°	1.0	0.0	0.0	135°	3	3	35	105	131	3
160°-170°	0.0	0.0	0.0	145°	4	4	4	25	38	3
170°-180°	0.0	0.0	0.0	155°	5	4	3	1	0	1
0°-30°	852.4	17.0	14.7	165°	0	0	0	0	0	0
0°-40°	1442.6	28.7	24.9	175°	0	0	0	0	0	0
0°-60°	2784.0	55.5	48.0	180°	0	0	0	0	0	0
0°-90°	4205.0	83.8	72.5							
90°-120°	667.9	13.3	11.5							
90°-150°	814.0	16.2	14.0							
90°-180°	815.0	16.2	14.1							
0°-180°	5020.1	100.0	86.6							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1046	1046	1046	1046	1046
2.5°	1047	1045	1046	1048	1039
5°	1043	1041	1045	1050	1043
7.5°	1038	1037	1044	1052	1046
10°	1030	1033	1043	1053	1048
12.5°	1021	1026	1039	1052	1049
15°	1010	1017	1034	1051	1049
17.5°	996	1005	1027	1049	1049
20°	979	991	1019	1047	1049
22.5°	960	975	1009	1044	1049
25°	938	957	998	1040	1049
27.5°	914	937	987	1037	1048
30°	888	916	975	1032	1046
32.5°	859	893	962	1026	1042
35°	829	868	948	1019	1038
37.5°	797	841	933	1010	1032
40°	763	814	916	1000	1024
42.5°	727	785	898	987	1013
45°	690	755	878	973	1000
47.5°	651	724	857	955	985
50°	611	693	834	935	966
52.5°	569	661	809	913	946
55°	527	628	782	888	922
57.5°	483	594	752	860	892
60°	439	559	722	828	859
62.5°	394	523	691	791	822
65°	349	487	656	753	785
67.5°	303	450	617	713	745
70°	257	412	575	672	704
72.5°	212	372	532	630	664
75°	170	333	488	590	625
77.5°	129	294	445	550	586
80°	92	252	404	511	548
82.5°	60	211	366	474	513
85°	32	175	332	442	482
87.5°	12	145	305	415	455
90°	3	128	287	399	439
92.5°	2	123	284	397	437
95°	2	118	280	393	433
97.5°	2	109	275	387	427
100°	2	97	268	382	421
102.5°	2	86	258	374	413
105°	2	76	241	364	404
107.5°	2	66	224	348	391
110°	2	56	207	326	370



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2	44	190	303	345
115°	2	35	172	281	322
117.5°	2	24	155	259	299
120°	2	16	138	238	275
122.5°	2	10	121	216	251
125°	3	6	104	193	226
127.5°	3	3	85	172	202
130°	3	3	70	150	179
132.5°	3	3	52	128	155
135°	3	3	35	105	131
137.5°	4	3	23	85	106
140°	4	3	14	62	85
142.5°	4	3	7	40	60
145°	4	4	4	25	38
147.5°	4	4	3	13	23
150°	4	4	3	5	10
152.5°	5	4	3	2	3
155°	5	4	3	1	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)