

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: 227P110

Luminaire Tested: **SM-128T5**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 227P110
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SM-128T5
Description: SM Series Commercial Micro-Striplight
Light Source: One - F28T5/835 - 2900 Lumens - 28 Watts
Ballast/Driver: Magnetek BT5-128/120 Electronic - L.O.B.F. = 97.5%

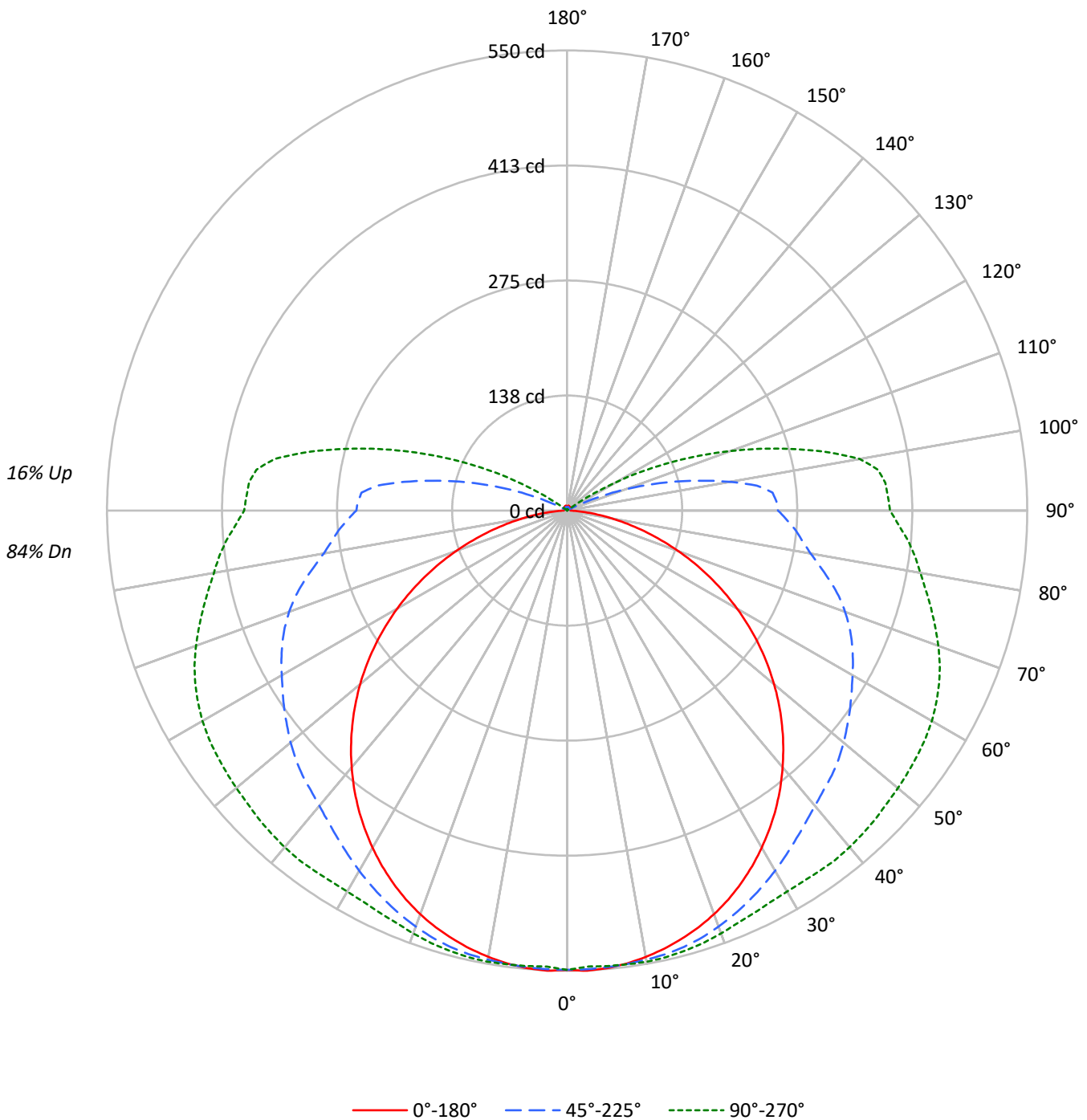
Summary

Lumens per Lamp: 2900 (1 lamp)
Luminaire Lumens: 2835.8 lumens
Efficiency: 97.8%
Efficacy: 74.6 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.47 / 1.55
Luminous Opening: Rectangular w/ Sides (W: 0.19' x L: 3.76' x H: 0.05')
CIE Type: Semi-Direct

Input Watts (W): 38
Input Voltage (V): NR
Input Current (A_{in}): 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	113	113	113	113	108	108	108	108	100	100	100	93	93	93	86	86	86	83
1	99	92	87	82	94	89	83	79	81	77	73	75	72	68	69	66	64	60
2	88	78	70	63	84	75	68	61	69	63	57	63	58	54	58	54	50	47
3	79	67	58	51	76	65	56	49	59	52	46	55	49	44	50	45	41	38
4	72	59	49	42	69	57	48	41	52	45	39	48	42	36	44	39	34	31
5	66	52	43	35	63	50	41	35	46	39	33	43	36	31	39	34	29	27
6	61	47	37	30	58	45	36	30	42	34	28	38	32	27	35	30	25	23
7	56	42	33	26	53	40	32	26	38	30	25	35	28	23	32	27	22	20
8	52	38	29	23	50	37	29	23	34	27	22	32	25	21	29	24	20	17
9	49	35	26	21	46	34	26	20	31	24	19	29	23	18	27	22	18	16
10	45	32	24	19	43	31	23	18	29	22	17	27	21	17	25	20	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8272	8272	8272
5°	8294	8147	8078
10°	8268	8060	8005
15°	8235	8003	7934
20°	8192	7922	7869
25°	8124	7839	7852
30°	8032	7771	7940
35°	7927	7735	8168
40°	7796	7784	8462
45°	7640	7974	8792
50°	7453	8201	9209
55°	7216	8477	9755
60°	6913	8865	10418
65°	6520	9438	11176
70°	5997	10134	12070
75°	5297	10949	13222
80°	4405	12159	14924
85°	3196	14666	17633



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	52.2	1.8	1.8	0°	549	549	549	549	549	
10°-20°	152.3	5.4	5.3	5°	549	548	548	549	546	52
20°-30°	237.1	8.4	8.2	15°	530	533	540	546	544	150
30°-40°	301.5	10.6	10.4	25°	492	501	514	527	530	227
40°-50°	343.9	12.1	11.9	35°	435	452	478	513	526	272
50°-60°	360.8	12.7	12.4	45°	363	388	447	502	521	280
60°-70°	354.2	12.5	12.2	55°	280	318	413	484	511	250
70°-80°	319.9	11.3	11.0	65°	188	255	376	460	490	186
80°-90°	271.5	9.6	9.4	75°	96	195	325	418	450	102
90°-100°	233.6	8.2	8.1	85°	21	129	274	374	409	24
100°-110°	142.4	5.0	4.9	90°	4	111	252	351	386	3
110°-120°	52.1	1.8	1.8	95°	4	91	247	347	382	3
120°-130°	7.1	0.3	0.2	105°	4	9	134	244	284	4
130°-140°	2.2	0.1	0.1	115°	4	4	23	104	136	4
140°-150°	2.0	0.1	0.1	125°	4	4	3	4	14	4
150°-160°	1.7	0.1	0.1	135°	5	4	3	2	0	4
160°-170°	1.1	0.0	0.0	145°	5	5	4	2	1	3
170°-180°	0.1	0.0	0.0	155°	6	5	4	2	1	3
0°-30°	441.5	15.6	15.2	165°	6	6	4	2	1	2
0°-40°	743.0	26.2	25.6	175°	0	0	0	0	0	0
0°-60°	1447.7	51.1	49.9	180°	0	0	0	0	0	
0°-90°	2393.4	84.4	82.5							
90°-120°	428.2	15.1	14.8							
90°-150°	439.5	15.5	15.2							
90°-180°	442.0	15.6	15.2							
0°-180°	2835.8	100.0	97.8							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	549.0	549.0	549.0	549.0	549.0
2.5°	550.5	549.5	548.7	548.4	545.5
5°	549.0	547.9	547.9	548.9	546.4
7.5°	546.0	545.5	546.6	549.0	547.1
10°	541.7	542.2	545.0	548.6	547.5
12.5°	536.4	537.8	543.1	547.8	546.8
15°	529.8	532.7	539.9	545.8	544.5
17.5°	522.3	526.6	535.2	542.3	541.8
20°	513.4	519.1	529.2	537.0	537.8
22.5°	503.2	510.7	522.2	532.2	533.4
25°	491.7	501.0	514.5	527.2	530.3
27.5°	479.0	490.2	506.0	522.4	527.2
30°	465.2	478.4	497.1	517.9	525.7
32.5°	450.5	465.7	487.6	514.6	525.4
35°	435.0	451.8	478.1	512.7	525.9
37.5°	418.4	436.8	469.0	511.5	526.3
40°	400.8	421.0	460.7	509.5	525.2
42.5°	382.4	404.7	453.6	506.3	523.4
45°	363.3	387.8	447.4	502.3	521.2
47.5°	343.6	370.3	440.1	498.4	518.3
50°	323.0	352.7	431.4	493.6	516.1
52.5°	301.8	335.1	422.0	488.9	513.6
55°	279.9	318.0	412.8	484.2	510.9
57.5°	257.6	301.7	403.1	479.8	507.6
60°	234.7	286.3	393.8	474.5	503.3
62.5°	211.5	271.0	385.1	468.0	497.4
65°	188.1	255.3	375.7	460.4	490.4
67.5°	164.6	239.7	365.3	451.8	482.2
70°	141.1	224.6	353.6	441.5	472.1
72.5°	118.0	209.8	340.5	429.7	461.2
75°	95.5	195.3	325.3	417.6	450.2
77.5°	74.4	179.6	309.6	405.6	439.1
80°	54.6	162.4	295.5	394.3	428.7
82.5°	36.7	144.3	284.0	384.6	419.5
85°	21.3	129.0	274.4	374.1	408.8
87.5°	9.4	119.5	263.1	361.6	396.6
90°	4.2	110.8	252.1	351.1	386.0
92.5°	4.1	108.3	250.3	349.0	383.8
95°	4.0	91.0	246.6	346.7	381.8
97.5°	4.0	66.6	228.9	338.7	374.7
100°	4.0	44.1	197.5	315.5	355.0
102.5°	4.0	24.3	164.8	280.6	321.2
105°	4.0	9.0	133.7	243.8	283.5
107.5°	4.0	4.0	103.4	207.2	245.6
110°	4.0	3.8	74.6	171.9	208.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	4.0	3.7	47.3	137.2	171.6
115°	3.9	3.7	23.2	103.7	135.8
117.5°	4.0	3.8	7.0	72.2	101.7
120°	4.1	3.8	2.9	42.7	69.0
122.5°	4.2	3.9	2.8	17.3	38.6
125°	4.3	4.0	2.8	3.8	13.8
127.5°	4.3	4.0	2.9	1.3	2.0
130°	4.5	4.1	3.0	1.3	0.1
132.5°	4.5	4.2	3.0	1.4	0.1
135°	4.7	4.3	3.1	1.5	0.2
137.5°	4.8	4.5	3.2	1.5	0.3
140°	4.9	4.5	3.3	1.6	0.4
142.5°	5.0	4.6	3.4	1.7	0.5
145°	5.1	4.7	3.5	1.8	0.6
147.5°	5.3	4.9	3.6	1.8	0.6
150°	5.3	5.0	3.7	2.0	0.7
152.5°	5.5	5.1	3.8	2.1	0.8
155°	5.5	5.1	3.9	2.2	0.9
157.5°	5.7	5.3	4.0	2.3	0.9
160°	5.8	5.4	4.1	2.3	1.0
162.5°	5.8	5.4	4.2	2.5	1.1
165°	6.0	5.5	4.3	2.5	1.2
167.5°	6.0	5.6	4.3	2.6	1.3
170°	6.0	5.7	4.5	2.7	1.4
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)