

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: 227P113

Luminaire Tested: **SM-128T5 (RP-2IN-ASY-4FT-REFL-B)**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 227P113
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SM-128T5 (RP-2IN-ASY-4FT-REFL-B)
Description: SM Series Commercial Micro-Striplight
with a perforated asymmetric reflector.
Light Source: One - F28T5/835 - 2900 Lumens - 28 Watts
Ballast/Driver: Magnetek BT5-128/120 Electronic - L.O.B.F. = 97.5%

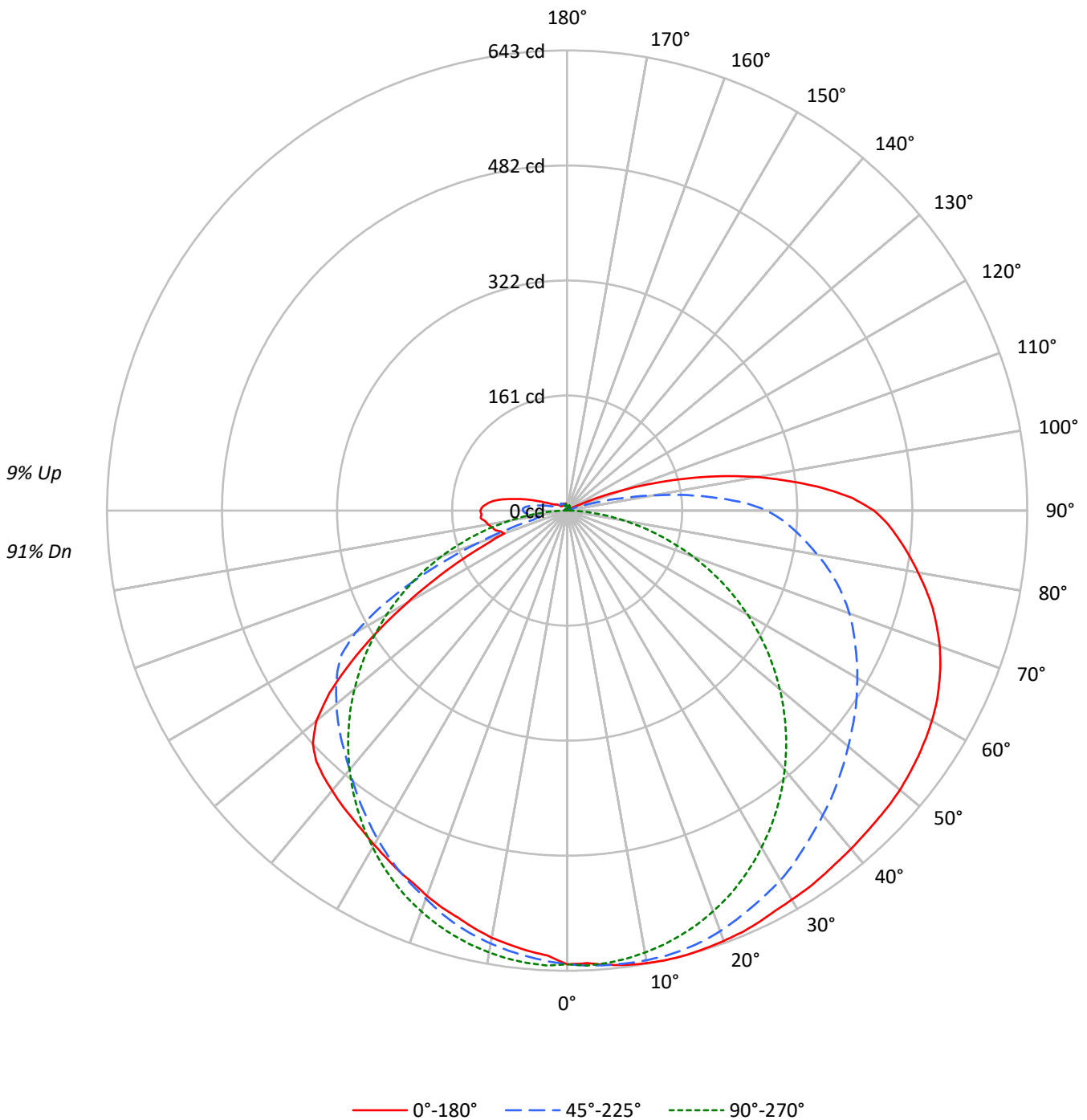
Summary

Lumens per Lamp: 2900 (1 lamp)
Luminaire Lumens: 2583.9 lumens
Efficiency: 89.1%
Efficacy: 69.8 lumens/watt
Spacing Criteria (0/90/45): 1.39 / 1.27 / 1.48
Luminous Opening: Rectangular w/ Sides (W: 3.76' x L: 0.25' x H: 0.1')
CIE Type: Direct

Input Watts (W): 37
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	104	104	104	104	101	101	101	101	95	95	95	89	89	89	84	84	84	81
1	93	87	82	78	89	84	80	76	79	75	72	74	71	69	70	67	65	63
2	83	75	68	62	80	72	66	60	68	62	58	64	59	55	60	56	53	50
3	75	65	57	50	72	63	55	49	59	53	47	55	50	45	52	48	44	41
4	69	57	48	42	66	55	47	41	52	45	40	49	43	38	46	41	37	35
5	63	50	42	36	60	49	41	35	46	39	34	44	37	33	41	36	32	29
6	58	45	37	31	56	44	36	30	41	34	29	39	33	28	37	32	28	25
7	53	41	33	27	51	40	32	26	38	31	26	36	29	25	34	28	24	22
8	50	37	29	24	48	36	29	23	34	28	23	33	27	22	31	26	22	20
9	46	34	26	21	45	33	26	21	31	25	20	30	24	20	28	23	19	18
10	43	31	24	19	42	30	23	19	29	23	18	28	22	18	26	21	17	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	7259	7259	7259
5°	7076	7279	6861
10°	6974	7258	6583
15°	6884	7231	6306
20°	6807	7194	6094
25°	6757	7145	5920
30°	6743	7078	5793
35°	6800	7004	5723
40°	6906	6915	5716
45°	7079	6815	5733
50°	7324	6700	5519
55°	7608	6561	4677
60°	7960	6382	3504
65°	8366	6147	2364
70°	8841	5813	1491
75°	9389	5353	1858
80°	10045	4670	2260
85°	10983	3547	2863



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	45°	90°	135°	180°	Flux
0°-10°	60.1	2.3	2.1	0°	634	634	634	634	634	
10°-20°	174.1	6.7	6.0	5°	637	638	635	626	618	61
20°-30°	269.6	10.4	9.3	15°	643	635	614	599	589	182
30°-40°	339.2	13.1	11.7	25°	634	611	572	555	556	293
40°-50°	380.3	14.7	13.1	35°	623	576	510	502	524	391
50°-60°	379.3	14.7	13.1	45°	612	535	432	448	496	474
60°-70°	320.5	12.4	11.1	55°	599	491	341	392	368	537
70°-80°	245.0	9.5	8.4	65°	574	444	240	243	162	568
80°-90°	192.6	7.5	6.6	75°	529	390	133	48	105	558
90°-100°	134.4	5.2	4.6	85°	466	320	35	54	121	387
100°-110°	54.3	2.1	1.9	90°	429	279	2	62	121	234
110°-120°	13.1	0.5	0.5	95°	360	208	2	58	112	275
120°-130°	6.7	0.3	0.2	105°	174	48	2	24	61	186
130°-140°	5.4	0.2	0.2	115°	25	4	3	15	19	33
140°-150°	4.2	0.2	0.1	125°	2	3	4	13	11	2
150°-160°	3.0	0.1	0.1	135°	0	3	6	13	10	0
160°-170°	1.8	0.1	0.1	145°	1	3	7	12	10	0
170°-180°	0.1	0.0	0.0	155°	0	4	7	9	10	0
0°-30°	503.9	19.5	17.4	165°	1	4	8	8	10	0
0°-40°	843.1	32.6	29.1	175°	0	0	0	0	0	0
0°-60°	1602.7	62.0	55.3	180°	0	0	0	0	0	0
0°-90°	2360.7	91.4	81.4							
90°-120°	201.8	7.8	7.0							
90°-150°	218.3	8.4	7.5							
90°-180°	223.0	8.6	7.7							
0°-180°	2583.9	100.0	89.1							



TEST NUMBER: 227P113

CATALOG NUMBER: SM-128T5 (RP-2IN-ASY-4FT-REFL-B)

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	633.9	633.9	633.9	633.9	633.9	633.9	633.9	633.9	633.9
2.5°	633.0	637.7	636.3	635.8	636.4	632.8	630.3	628.7	622.5
5°	637.1	640.8	637.6	635.6	634.7	629.3	625.8	624.1	617.8
7.5°	640.4	642.9	638.1	634.2	631.6	624.8	620.5	618.9	612.0
10°	642.1	643.2	637.9	632.1	627.1	619.0	614.3	612.4	606.1
12.5°	643.1	643.6	637.2	628.5	621.5	611.8	607.3	605.5	598.0
15°	642.9	643.1	634.6	624.0	614.3	603.6	599.1	596.9	588.9
17.5°	641.6	641.3	630.9	617.9	606.0	594.6	588.7	587.6	581.6
20°	639.9	638.1	625.4	610.1	596.1	584.0	577.2	577.2	572.9
22.5°	637.9	634.9	618.5	601.1	585.1	572.3	566.4	568.4	563.0
25°	634.5	631.0	611.1	590.8	572.5	559.2	555.3	558.8	555.9
27.5°	630.3	626.3	603.9	579.3	558.7	545.1	543.2	548.8	547.1
30°	627.7	621.2	596.3	566.5	543.5	529.7	529.9	538.8	539.3
32.5°	625.9	616.7	587.0	553.5	527.5	513.5	516.0	528.8	531.1
35°	622.7	612.4	575.9	539.0	510.4	495.8	502.0	519.6	524.1
37.5°	619.5	607.1	565.8	523.6	492.3	477.5	487.5	511.6	517.9
40°	617.1	602.1	555.7	507.8	472.9	458.8	473.0	503.2	510.7
42.5°	614.3	597.3	546.0	491.0	453.0	439.6	459.6	494.1	504.0
45°	612.0	592.5	534.9	473.5	432.0	419.6	447.5	485.1	495.6
47.5°	609.9	588.3	524.0	454.8	410.5	398.3	434.6	475.7	482.1
50°	607.1	582.7	512.8	435.5	388.0	376.9	420.8	461.8	457.5
52.5°	603.1	577.2	501.7	415.1	364.8	355.4	406.8	436.1	418.6
55°	598.8	570.4	491.4	395.4	341.1	333.4	392.0	396.4	368.1
57.5°	593.9	563.4	479.8	375.7	316.3	311.6	373.4	345.8	313.7
60°	588.4	556.6	468.1	355.1	291.5	291.0	341.8	290.2	259.0
62.5°	582.0	549.3	456.5	334.5	265.7	271.1	296.4	234.8	208.4
65°	573.6	540.5	444.1	314.8	239.8	250.8	243.2	184.2	162.1
67.5°	564.5	530.4	432.4	295.0	213.3	230.6	186.7	139.4	121.3
70°	554.3	520.0	419.7	277.0	186.3	209.5	134.0	99.9	93.5
72.5°	541.8	507.6	405.6	258.7	159.6	178.9	86.9	79.1	97.3
75°	529.0	494.5	390.1	240.1	133.0	131.0	48.3	85.9	104.7
77.5°	513.8	478.0	373.2	222.7	106.8	83.2	39.4	90.5	107.3
80°	497.9	460.9	355.3	204.7	81.5	41.9	44.2	93.1	112.0
82.5°	482.2	445.0	336.8	184.5	57.6	15.1	48.3	98.2	115.2
85°	465.8	428.5	319.5	162.7	35.2	13.3	54.3	103.8	121.4
87.5°	449.3	410.7	300.9	143.7	15.7	15.1	59.7	104.9	119.7
90°	428.8	388.9	279.3	124.1	2.3	17.0	62.0	105.6	121.3
92.5°	399.2	357.8	248.2	92.8	1.9	17.4	61.9	104.2	118.5
95°	359.5	316.3	207.5	58.3	2.0	16.2	58.5	98.5	112.0
97.5°	314.2	273.4	166.3	28.5	2.0	15.5	51.4	91.4	103.9
100°	270.1	228.3	122.8	10.1	2.1	15.1	41.3	78.8	90.8
102.5°	222.1	180.6	82.3	4.0	2.2	15.0	32.4	63.8	73.9
105°	173.7	134.7	48.1	3.6	2.3	15.0	23.9	51.3	60.8
107.5°	126.6	90.9	22.8	3.5	2.5	15.1	18.1	37.9	45.9
110°	83.8	55.7	8.6	3.4	2.7	15.2	15.1	27.6	32.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	49.7	28.4	3.6	3.4	2.9	15.3	14.9	20.2	25.4
115°	24.8	12.1	3.5	3.4	3.1	15.1	14.8	17.0	19.1
117.5°	10.8	4.8	3.3	3.4	3.5	15.0	13.7	17.2	18.8
120°	4.5	4.0	3.1	3.4	3.8	14.9	13.2	15.6	17.1
122.5°	3.7	3.1	3.1	3.2	4.0	14.6	12.9	13.3	14.6
125°	2.2	2.1	3.0	3.2	4.4	14.5	12.7	11.2	11.2
127.5°	0.8	1.8	3.1	3.3	4.9	14.3	12.7	10.8	9.8
130°	0.6	1.8	3.1	3.5	5.2	14.3	12.6	10.7	9.7
132.5°	0.5	1.8	3.1	3.5	5.5	14.0	12.7	10.5	9.5
135°	0.4	1.9	3.2	3.7	5.8	13.4	12.7	10.5	9.5
137.5°	0.5	1.8	3.3	3.8	6.0	12.8	12.8	10.6	9.5
140°	0.5	1.9	3.0	3.9	6.2	12.1	12.5	10.7	9.7
142.5°	0.6	1.9	2.9	4.1	6.4	11.5	12.0	10.8	9.7
145°	0.6	2.0	3.1	4.2	6.6	11.0	11.5	10.8	9.8
147.5°	0.6	1.6	3.2	4.2	6.7	10.7	10.8	10.8	9.8
150°	0.2	1.5	3.3	4.2	6.8	10.1	10.2	10.9	9.9
152.5°	0.2	1.6	3.5	4.4	6.9	9.7	9.6	11.0	10.0
155°	0.3	1.7	3.5	4.6	7.1	9.8	9.0	10.4	10.2
157.5°	0.3	1.9	3.6	4.8	7.4	10.0	8.5	9.4	10.1
160°	0.4	1.9	3.7	5.0	7.9	10.1	8.3	8.3	10.1
162.5°	0.5	2.0	3.7	5.1	8.2	10.4	8.3	7.4	10.0
165°	0.6	2.0	4.0	5.4	8.5	10.6	8.5	6.7	10.1
167.5°	0.5	2.3	4.3	5.6	9.0	10.8	8.9	5.9	10.1
170°	0.9	2.6	4.4	6.0	9.3	11.0	9.2	5.6	10.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)