

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: 227P112

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 227P112
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SM-128T5 (SM-2IN-ASY-4FT-REFL-B)
Description: SM Series Commercial Micro-Striplight
with a solid 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

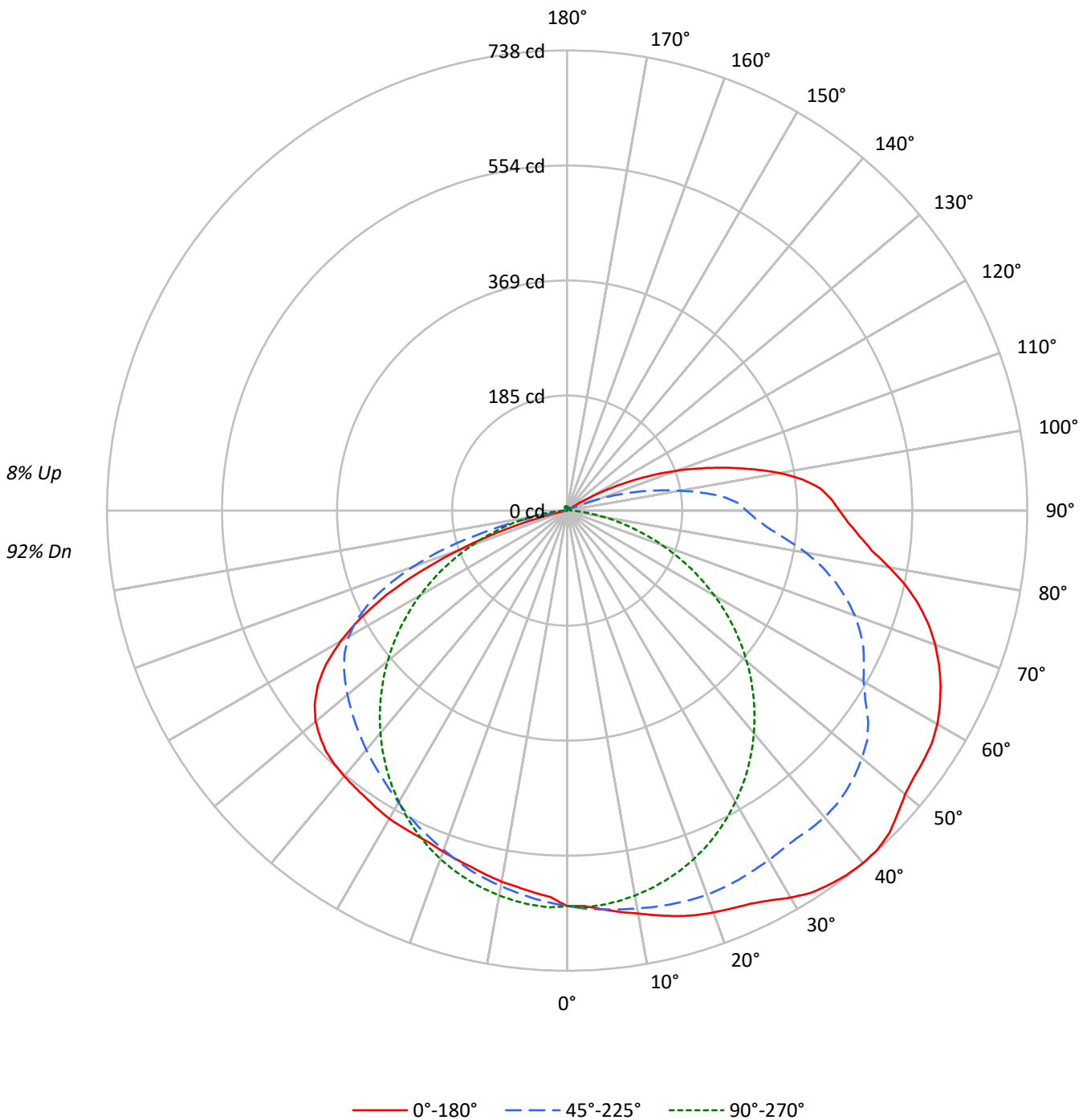
Lumens per Lamp: 2900 (1 lamp)
Luminaire Lumens: 2808.9 lumens
Efficiency: 96.9%
Efficacy: 75.9 lumens/watt
Spacing Criteria (0/90/45): 1.56 / 1.26 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 3.76' x L: 0.29' x H: 0.13')
CIE Type: Direct

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	113	113	113	113	110	110	110	110	103	103	103	97	97	97	92	92	92	89
1	101	95	90	86	97	92	88	83	87	83	79	81	78	75	77	74	72	69
2	91	81	74	67	87	79	72	66	74	68	63	69	65	60	65	61	58	55
3	82	70	61	54	78	68	60	53	64	57	51	60	54	49	57	52	47	45
4	74	61	52	45	71	60	51	44	56	49	43	53	46	41	50	44	40	37
5	68	54	45	38	65	53	44	37	50	42	36	47	40	35	44	39	34	32
6	62	49	39	33	60	47	38	32	45	37	31	42	35	30	40	34	29	27
7	58	44	35	28	55	43	34	28	40	33	27	38	31	26	36	30	26	24
8	53	40	31	25	51	39	30	25	37	29	24	35	28	23	33	27	23	21
9	50	36	28	22	48	35	27	22	34	26	21	32	26	21	30	25	20	18
10	47	33	25	20	45	32	25	20	31	24	19	30	23	19	28	22	18	17

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	6262	6262	6262
5°	6120	6274	5861
10°	6096	6245	5616
15°	6143	6211	5402
20°	6194	6168	5257
25°	6267	6109	5172
30°	6491	6031	5167
35°	6719	5943	5159
40°	6913	5834	5206
45°	7046	5704	5269
50°	7083	5546	5271
55°	7323	5347	5122
60°	7619	5085	4664
65°	7870	4738	3803
70°	8123	4275	2393
75°	8333	3665	771
80°	8417	2880	6
85°	8706	1875	6



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	45°	90°	135°	180°	Flux
0°-10°	60.3	2.1	2.1	0°	634	634	634	634	634	
10°-20°	176.8	6.3	6.1	5°	642	642	635	624	615	62
20°-30°	279.8	10.0	9.6	15°	673	653	613	598	592	191
30°-40°	364.1	13.0	12.6	25°	696	653	570	561	574	323
40°-50°	419.7	14.9	14.5	35°	733	642	505	520	562	459
50°-60°	435.1	15.5	15.0	45°	731	634	423	481	547	563
60°-70°	395.6	14.1	13.6	55°	698	589	326	437	488	626
70°-80°	281.5	10.0	9.7	65°	661	524	218	350	319	654
80°-90°	170.6	6.1	5.9	75°	584	446	108	147	54	614
90°-100°	124.3	4.4	4.3	85°	471	324	23	4	0	395
100°-110°	66.4	2.4	2.3	90°	437	287	5	4	0	240
110°-120°	21.4	0.8	0.7	95°	408	252	5	4	0	320
120°-130°	4.0	0.1	0.1	105°	265	116	5	3	0	282
130°-140°	2.9	0.1	0.1	115°	110	11	5	3	0	112
140°-150°	2.7	0.1	0.1	125°	5	4	5	4	1	10
150°-160°	2.2	0.1	0.1	135°	1	4	6	4	1	1
160°-170°	1.4	0.1	0.0	145°	1	4	6	5	2	1
170°-180°	0.1	0.0	0.0	155°	2	5	7	5	2	1
0°-30°	516.9	18.4	17.8	165°	2	5	7	5	2	1
0°-40°	881.0	31.4	30.4	175°	0	0	0	0	0	0
0°-60°	1735.8	61.8	59.9	180°	0	0	0	0	0	
0°-90°	2583.5	92.0	89.1							
90°-120°	212.1	7.5	7.3							
90°-150°	221.7	7.9	7.6							
90°-180°	225.0	8.0	7.8							
0°-180°	2808.9	100.0	96.9							



TEST NUMBER: 227P112

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	634.3	634.3	634.3	634.3	634.3	634.3	634.3	634.3	634.3
2.5°	634.7	640.3	638.8	637.6	636.9	632.9	629.5	627.4	620.3
5°	641.8	646.5	642.1	638.2	635.1	628.6	624.1	622.0	614.7
7.5°	649.2	652.5	645.0	638.0	631.7	623.1	618.1	616.4	609.0
10°	656.2	657.9	648.0	636.7	626.8	616.7	611.5	610.8	604.5
12.5°	664.8	665.1	650.8	634.4	620.8	609.0	605.0	605.1	598.3
15°	673.3	672.6	653.2	631.1	613.4	600.5	597.6	598.5	592.1
17.5°	680.7	678.8	655.0	626.4	604.7	591.4	588.3	591.6	587.2
20°	685.8	682.8	655.7	620.3	594.5	580.8	579.1	583.9	582.1
22.5°	690.5	685.4	654.6	613.3	582.9	569.1	570.0	578.6	576.7
25°	695.7	688.7	652.7	605.2	569.9	556.3	560.9	573.2	574.1
27.5°	704.5	693.7	649.7	596.4	555.4	542.7	551.1	567.2	572.4
30°	716.8	702.6	647.1	586.6	539.7	527.9	540.8	563.6	570.6
32.5°	726.8	710.9	643.5	576.3	523.1	512.1	530.2	559.4	566.8
35°	732.6	716.0	641.6	564.8	505.1	495.5	520.0	554.2	562.5
37.5°	736.5	718.3	642.5	552.3	486.0	477.9	510.9	548.8	559.3
40°	738.2	718.4	642.1	538.8	465.9	460.0	501.1	543.2	556.0
42.5°	737.0	716.0	639.3	523.9	444.7	441.8	490.8	537.5	552.2
45°	731.0	711.6	633.9	508.3	422.7	423.5	480.9	531.7	546.6
47.5°	719.2	700.9	626.7	492.5	399.8	403.3	470.5	525.0	537.6
50°	707.6	684.9	617.4	476.9	376.0	385.7	459.9	515.5	526.6
52.5°	701.5	672.8	606.2	463.7	351.5	367.4	448.9	502.0	510.3
55°	697.9	665.0	589.4	452.7	326.0	350.2	437.0	483.9	488.1
57.5°	693.7	659.3	567.1	440.2	299.7	332.1	422.7	460.6	458.6
60°	685.5	651.4	548.7	423.7	273.0	314.2	404.6	429.6	419.7
62.5°	674.0	640.0	536.3	406.1	245.3	296.1	380.5	388.5	373.6
65°	660.8	626.0	524.3	388.4	217.9	278.8	349.8	342.0	319.3
67.5°	645.5	610.5	508.9	368.3	189.9	261.8	309.8	286.1	252.9
70°	628.1	592.8	490.7	338.5	162.2	244.2	263.5	220.2	185.0
72.5°	607.7	572.1	469.6	305.3	134.9	221.5	209.9	152.9	118.1
75°	584.0	548.1	445.9	283.4	108.5	189.1	147.4	87.4	54.0
77.5°	556.2	519.9	419.3	262.1	83.7	147.1	85.7	28.6	5.9
80°	524.5	487.6	389.1	236.7	60.6	104.5	30.0	2.4	0.4
82.5°	492.9	456.0	354.7	207.7	40.2	56.6	4.9	1.7	0.3
85°	470.7	432.3	324.0	174.5	23.1	17.3	4.4	1.7	0.3
87.5°	451.5	413.1	302.5	143.2	10.6	11.9	4.3	1.6	0.2
90°	436.6	398.2	287.3	127.4	5.4	10.9	4.1	1.5	0.2
92.5°	423.8	386.0	274.8	112.9	5.2	10.3	4.0	1.5	0.1
95°	407.7	367.1	251.9	86.0	5.1	9.3	3.9	1.5	0.1
97.5°	381.1	337.9	219.1	60.3	5.1	7.8	3.8	1.4	0.1
100°	346.3	300.6	183.8	36.7	5.0	6.6	3.6	1.4	0.0
102.5°	305.5	261.4	149.2	16.9	5.0	5.7	3.5	1.4	0.0
105°	265.2	222.5	116.1	6.8	5.0	5.0	3.4	1.4	0.0
107.5°	225.3	184.3	84.1	5.1	5.0	4.7	3.3	1.4	0.1
110°	186.8	146.7	53.7	5.0	5.0	4.7	3.3	1.4	0.1



TEST NUMBER: 227P112

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

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	148.2	109.9	27.3	4.8	5.0	4.6	3.4	1.4	0.1
115°	110.3	75.0	10.9	4.8	5.1	4.7	3.3	1.4	0.2
117.5°	75.0	43.3	4.2	4.8	5.2	4.7	3.4	1.5	0.3
120°	42.4	19.5	3.7	4.8	5.2	4.8	3.5	1.6	0.4
122.5°	18.2	6.1	3.6	4.8	5.3	4.8	3.6	1.8	0.6
125°	4.6	2.0	3.7	4.9	5.4	4.9	3.6	1.8	0.7
127.5°	0.6	1.9	3.7	5.0	5.5	5.0	3.8	1.9	0.8
130°	0.6	2.0	3.8	5.1	5.6	5.2	3.9	2.1	0.9
132.5°	0.7	2.1	3.9	5.2	5.7	5.3	4.1	2.2	1.1
135°	0.8	2.2	4.0	5.3	5.9	5.5	4.1	2.3	1.2
137.5°	0.8	2.3	4.1	5.4	6.0	5.6	4.3	2.5	1.4
140°	0.9	2.3	4.2	5.6	6.1	5.7	4.4	2.7	1.5
142.5°	1.0	2.4	4.3	5.7	6.3	5.8	4.5	2.7	1.6
145°	1.1	2.6	4.4	5.8	6.4	5.9	4.6	2.8	1.7
147.5°	1.2	2.7	4.6	5.9	6.5	6.1	4.7	2.9	1.8
150°	1.3	2.8	4.6	6.1	6.6	6.2	4.9	3.0	1.9
152.5°	1.4	2.9	4.8	6.2	6.7	6.3	5.0	3.1	2.0
155°	1.5	3.0	4.8	6.3	6.8	6.4	5.1	3.2	2.1
157.5°	1.6	3.1	5.0	6.4	7.0	6.5	5.1	3.3	2.1
160°	1.7	3.2	5.1	6.6	7.1	6.6	5.3	3.4	2.3
162.5°	1.9	3.4	5.3	6.6	7.2	6.7	5.4	3.6	2.4
165°	2.0	3.5	5.4	6.8	7.2	6.8	5.4	3.6	2.4
167.5°	2.1	3.6	5.5	6.9	7.4	6.9	5.6	3.7	2.5
170°	2.2	3.7	5.6	7.0	7.4	7.0	5.6	3.8	2.6
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)