

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: 227P101

Luminaire Tested: **SM-114T5**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-41-14  
Report Number: 227P101  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: SM-114T5  
Description: SM Series Commercial Micro-Striplight  
Light Source: One - F14T5/835 - 1350 Lumens - 14 Watts  
Ballast/Driver: Magnetek BT5-128/120 Electronic - L.O.B.F. 112.5%

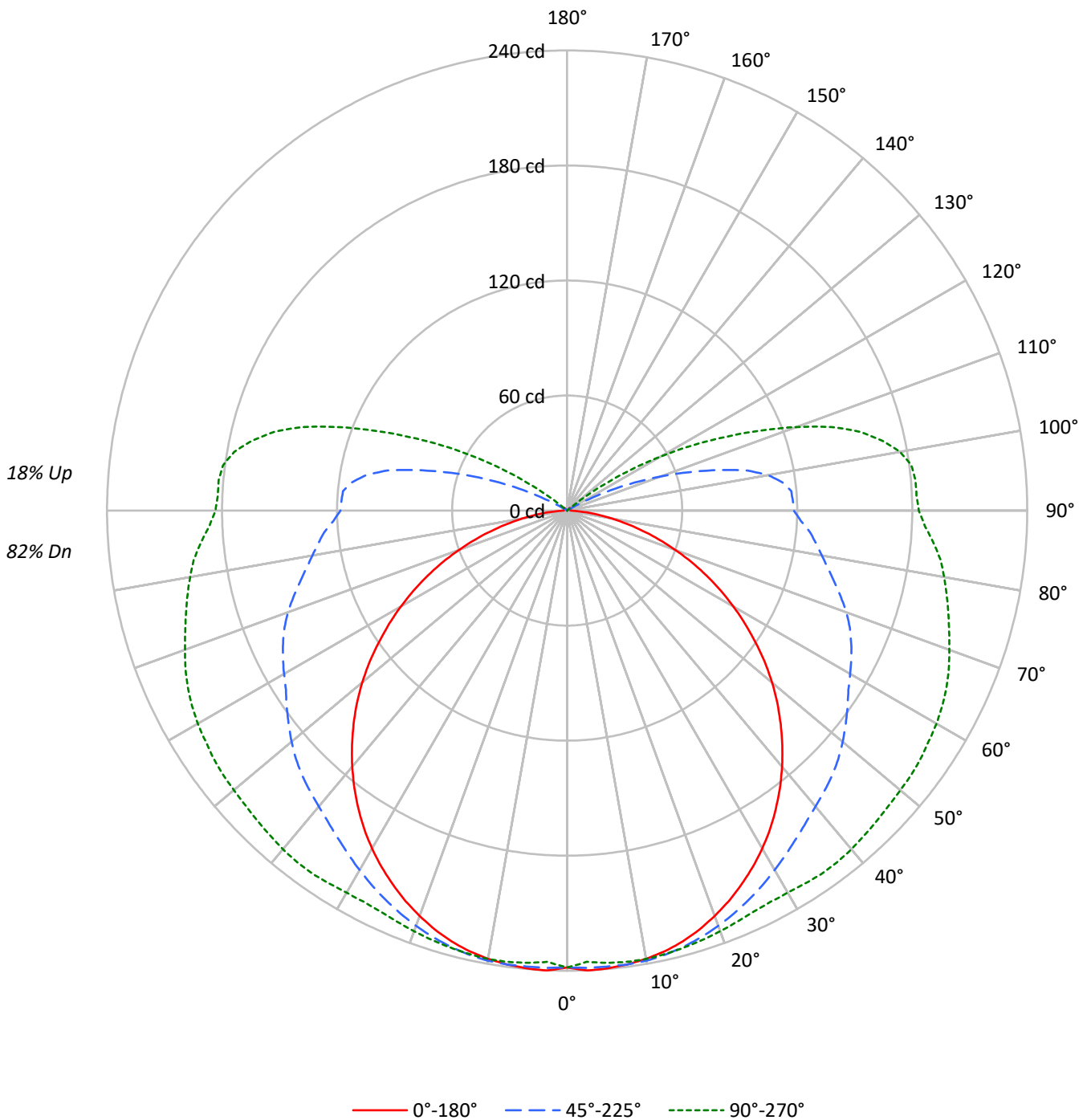
**Summary**

Lumens per Lamp: 1350 (1 lamp)  
Luminaire Lumens: 1294.0 lumens  
Efficiency: 95.8%  
Efficacy: 64.7 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.49 / 1.55  
Luminous Opening: Rectangular w/ Sides (W: 0.19' x L: 1.87' x H: 0.07')  
CIE Type: Semi-Direct

Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

TEST NUMBER: 227P101  
CATALOG NUMBER: SM-114T5

### Luminous Intensity Polar Plot





TEST NUMBER: 227P101  
 CATALOG NUMBER: SM-114T5

**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	110	110	110	110	105	105	105	105	97	97	97	89	89	89	82	82	82	78
1	96	90	84	79	91	86	81	76	78	74	71	72	68	65	65	63	60	57
2	86	76	68	61	81	73	65	59	66	60	55	60	56	51	55	51	48	44
3	77	66	57	49	73	63	54	48	57	50	45	52	46	42	47	43	39	36
4	70	57	48	41	67	55	46	40	50	43	37	46	40	35	42	37	32	29
5	64	51	41	34	61	49	40	33	45	37	31	41	34	29	37	32	28	25
6	59	45	36	30	56	44	35	29	40	33	27	37	30	25	33	28	24	21
7	55	41	32	26	52	39	31	25	36	29	24	33	27	22	30	25	21	19
8	51	37	29	23	48	36	28	22	33	26	21	30	24	20	28	23	19	16
9	47	34	26	20	45	33	25	20	30	23	19	28	22	18	26	20	17	15
10	44	31	23	18	42	30	23	18	28	21	17	26	20	16	24	19	15	13

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	7219	7219	7219
5°	7266	7081	6976
10°	7255	6981	6860
15°	7226	6856	6734
20°	7156	6728	6638
25°	7070	6604	6581
30°	6968	6497	6638
35°	6840	6421	6800
40°	6687	6422	6966
45°	6504	6505	7157
50°	6294	6588	7431
55°	6017	6687	7794
60°	5702	6901	8226
65°	5322	7255	8742
70°	4819	7672	9337
75°	4180	8156	10143
80°	3368	8957	11277
85°	2215	10314	12794



TEST NUMBER: 227P101  
 CATALOG NUMBER: SM-114T5

**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	22.7	1.8	1.7	0°	238	238	238	238	238	
10°-20°	66.3	5.1	4.9	5°	240	239	239	238	237	23
20°-30°	103.3	8.0	7.6	15°	233	233	235	236	236	66
30°-40°	131.6	10.2	9.8	25°	215	218	224	229	231	99
40°-50°	149.9	11.6	11.1	35°	190	196	208	225	231	119
50°-60°	157.0	12.1	11.6	45°	158	167	195	220	229	121
60°-70°	155.1	12.0	11.5	55°	120	136	178	213	225	107
70°-80°	142.9	11.0	10.6	65°	80	110	164	204	218	79
80°-90°	125.8	9.7	9.3	75°	41	83	144	190	206	43
90°-100°	113.2	8.7	8.4	85°	9	58	127	175	192	10
100°-110°	81.4	6.3	6.0	90°	2	51	118	166	183	1
110°-120°	36.7	2.8	2.7	95°	2	47	117	165	182	1
120°-130°	7.3	0.6	0.5	105°	2	9	82	139	158	2
130°-140°	0.6	0.0	0.0	115°	2	2	25	72	91	2
140°-150°	0.0	0.0	0.0	125°	2	2	1	12	25	2
150°-160°	0.0	0.0	0.0	135°	2	2	1	1	0	1
160°-170°	0.0	0.0	0.0	145°	0	0	0	0	0	0
170°-180°	0.0	0.0	0.0	155°	0	0	0	0	0	0
0°-30°	192.4	14.9	14.2	165°	0	0	0	0	0	0
0°-40°	324.0	25.0	24.0	175°	0	0	0	0	0	0
0°-60°	631.0	48.8	46.7	180°	0	0	0	0	0	0
0°-90°	1054.7	81.5	78.1							
90°-120°	231.3	17.9	17.1							
90°-150°	239.3	18.5	17.7							
90°-180°	239.0	18.5	17.7							
0°-180°	1294.0	100.0	95.8							



TEST NUMBER: 227P101  
 CATALOG NUMBER: SM-114T5

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	238.3	238.3	238.3	238.3	238.3
2.5°	240.1	239.0	238.7	237.3	235.6
5°	239.7	238.6	238.7	238.0	236.8
7.5°	238.8	238.0	238.8	238.6	237.4
10°	237.4	237.0	238.4	238.5	237.5
12.5°	235.4	235.4	237.2	237.7	236.8
15°	232.7	233.0	235.4	236.5	235.9
17.5°	229.2	230.0	233.2	235.0	234.8
20°	225.0	226.5	230.5	233.3	233.5
22.5°	220.4	222.5	227.4	231.4	232.0
25°	215.2	218.0	224.0	229.2	230.7
27.5°	209.6	213.1	220.4	227.5	230.0
30°	203.5	207.8	216.5	226.2	230.1
32.5°	197.0	201.9	212.5	225.5	230.7
35°	189.8	195.5	208.5	225.3	231.3
37.5°	182.3	188.9	204.8	224.8	231.2
40°	174.4	181.8	201.5	223.7	230.6
42.5°	166.1	174.6	198.5	222.1	229.6
45°	157.5	167.2	195.4	220.4	228.6
47.5°	148.7	159.5	191.8	218.5	227.6
50°	139.5	151.8	187.6	216.4	226.9
52.5°	129.9	144.0	183.1	214.8	226.3
55°	120.0	136.5	178.5	213.2	225.2
57.5°	110.1	129.5	173.9	211.0	223.7
60°	100.2	123.0	170.5	209.3	222.4
62.5°	90.2	116.3	167.1	207.1	220.6
65°	80.2	109.5	163.5	204.3	218.3
67.5°	70.1	102.3	159.6	201.0	215.5
70°	60.0	95.2	154.9	197.1	212.1
72.5°	50.2	88.8	149.7	193.2	208.9
75°	40.7	83.0	144.3	189.5	205.8
77.5°	31.7	76.8	139.3	186.0	202.8
80°	23.4	69.9	134.9	182.6	199.7
82.5°	15.8	63.2	130.9	179.2	196.4
85°	9.1	58.2	127.0	174.8	191.8
87.5°	3.9	54.5	122.0	169.9	186.8
90°	1.8	50.8	118.2	166.3	183.4
92.5°	1.7	50.8	117.8	165.4	182.4
95°	1.7	47.1	117.3	165.3	182.4
97.5°	1.7	39.2	113.2	163.6	181.1
100°	1.7	28.2	106.4	158.1	176.3
102.5°	1.7	18.3	96.3	149.8	168.3
105°	1.7	9.3	81.6	139.2	158.4
107.5°	1.7	2.7	66.5	124.0	144.9
110°	1.7	1.6	52.1	106.7	127.5



TEST NUMBER: 227P101  
CATALOG NUMBER: SM-114T5

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	1.7	1.6	38.0	89.4	109.0
115°	1.7	1.5	24.9	72.4	90.8
117.5°	1.7	1.5	12.9	56.2	73.5
120°	1.7	1.6	3.5	40.5	56.5
122.5°	1.8	1.6	1.1	25.5	40.1
125°	1.8	1.6	1.1	11.9	24.6
127.5°	1.9	1.7	1.2	2.3	10.7
130°	1.9	1.7	1.2	0.5	1.3
132.5°	1.9	1.7	1.2	0.6	0.0
135°	2.0	1.8	1.3	0.6	0.1
137.5°	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
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)