

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: ITL52441-1

Luminaire Tested: **8TP410T5-354-UPL-TBW**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: ITL52441-1
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 8TP410T5-354-UPL-TBW
Description: FABRICATED METAL HOUSING WITH WHITE PAINTED GENERAL INTERIOR FINISH AND SIXTEEN APERTURES PER SIDE MEASURING APPROXIMATELY 1" X 5-3/16", TWO FORMED METAL REFLECTORS WITH PREMIUM SPECULAR FINISH, TWO FABRICATED WHITE PAINTED METAL 29-CELL LOUVERS.
Light Source: SIX 54-WATT T-5 SYLVANIA FP54/835/HO LINEAR FLUORESCENTS.
Ballast/Driver: THREE UNIVERSAL B254PUNV-D

Summary

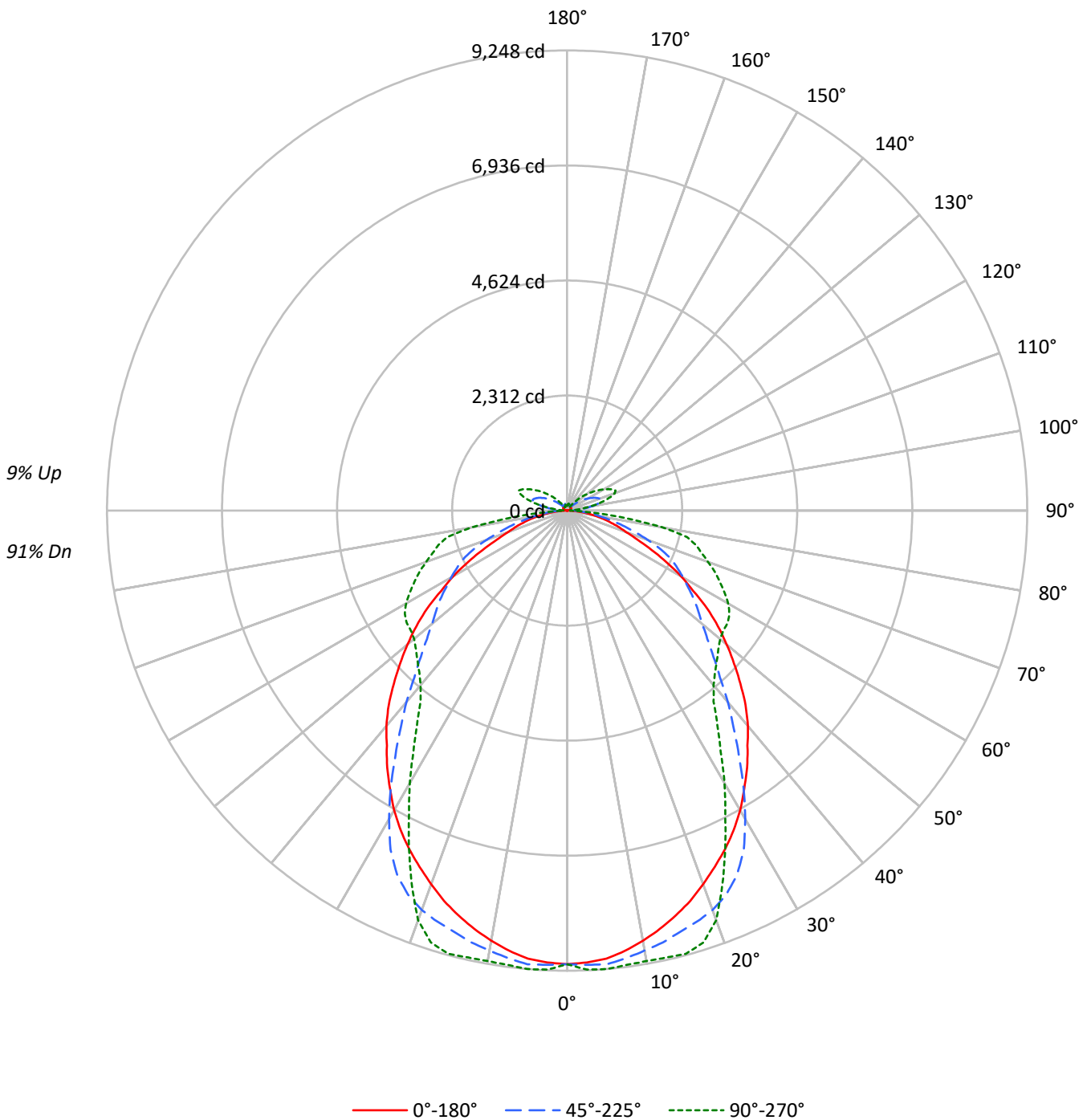
Lumens per Lamp: 4400 (6 lamps)
Luminaire Lumens: 23678.3 lumens
Efficiency: 89.7%
Efficacy: 65.2 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.08 / 1.18
Luminous Opening: Rectangular w/ Sides (W: 0.76' x L: 7.67' x H: 0.12')
CIE Type: Direct

Input Watts (W): 363
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	105	105	105	105	102	102	102	102	95	95	95		90	90	90		84	84	84	82
1	96	92	88	85	93	89	86	82	84	81	78		79	77	75		75	73	71	69
2	87	80	74	69	84	78	73	68	74	69	65		70	66	63		66	63	60	58
3	80	71	64	58	77	69	62	57	65	60	55		62	57	53		58	55	51	49
4	74	63	56	50	71	61	54	49	58	52	47		55	50	46		53	48	45	42
5	68	57	49	43	65	55	48	43	52	46	41		50	45	40		48	43	39	37
6	63	51	44	38	61	50	43	38	48	41	37		45	40	36		43	39	35	33
7	58	47	39	34	56	46	38	33	44	37	33		42	36	32		40	35	31	29
8	54	43	35	30	53	42	35	30	40	34	29		38	33	29		37	32	28	26
9	51	39	32	27	49	39	32	27	37	31	27		35	30	26		34	29	26	24
10	48	36	30	25	46	36	29	25	34	28	24		33	28	24		32	27	23	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16833	16833	16833
5°	16733	16775	16897
10°	16412	16463	16750
15°	16036	16200	16882
20°	15609	16042	16237
25°	15180	15532	14220
30°	14690	14214	12320
35°	14053	12453	10638
40°	13434	10930	9699
45°	12654	9634	9542
50°	11795	8832	9639
55°	10822	8480	10264
60°	9524	8146	10741
65°	7932	7887	10931
70°	6531	6885	11197
75°	5945	5570	11849
80°	5178	4217	10681
85°	4071	3005	4371



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	866.1	3.7	3.3	0°	9117	9117	9117	9117	9117	
10°-20°	2479.7	10.5	9.4	5°	9041	9045	9152	9190	9248	854
20°-30°	3558.2	15.0	13.5	15°	8426	8540	8765	9058	9221	2373
30°-40°	3751.7	15.8	14.2	25°	7508	7715	8078	7767	7515	3455
40°-50°	3490.1	14.7	13.2	35°	6306	6669	6019	5481	5263	3939
50°-60°	3062.4	12.9	11.6	45°	4925	5142	4161	4165	4255	3800
60°-70°	2417.6	10.2	9.2	55°	3440	3288	3115	3588	3937	3055
70°-80°	1532.5	6.5	5.8	65°	1879	1903	2300	2956	3384	1881
80°-90°	486.8	2.1	1.8	75°	884	946	1153	1955	2680	940
90°-100°	236.1	1.0	0.9	85°	228	280	349	535	594	245
100°-110°	578.5	2.4	2.2	90°	0	81	151	198	63	10
110°-120°	554.3	2.3	2.1	95°	12	231	225	224	142	15
120°-130°	335.2	1.4	1.3	105°	55	314	713	820	789	57
130°-140°	156.6	0.7	0.6	115°	84	202	607	901	1004	83
140°-150°	75.5	0.3	0.3	125°	99	140	361	596	682	88
150°-160°	52.8	0.2	0.2	135°	108	121	147	284	353	83
160°-170°	34.1	0.1	0.1	145°	114	136	121	97	91	71
170°-180°	10.1	0.0	0.0	155°	109	135	115	103	89	51
0°-30°	6904.0	29.2	26.2	165°	104	109	133	137	124	30
0°-40°	10655.7	45.0	40.4	175°	100	100	101	106	106	10
0°-60°	17208.2	72.7	65.2	180°	100	100	100	100	100	
0°-90°	21645.0	91.4	82.0							
90°-120°	1368.9	5.8	5.2							
90°-150°	1936.2	8.2	7.3							
90°-180°	2033.0	8.6	7.7							
0°-180°	23678.3	100.0	89.7							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9117	9117	9117	9117	9117
2.5°	9089	9065	9138	9162	9234
5°	9041	9045	9152	9190	9248
7.5°	8924	8979	9072	9134	9207
10°	8779	8872	8979	9096	9193
12.5°	8613	8734	8889	9062	9200
15°	8426	8540	8765	9058	9221
17.5°	8226	8371	8665	9013	9103
20°	7991	8136	8544	8765	8758
22.5°	7750	7929	8354	8337	8150
25°	7508	7715	8078	7767	7515
27.5°	7245	7484	7687	7142	6879
30°	6955	7228	7159	6582	6327
32.5°	6624	6959	6596	5999	5747
35°	6306	6669	6019	5481	5263
37.5°	5954	6327	5491	5025	4835
40°	5650	5974	5021	4610	4579
42.5°	5311	5581	4545	4344	4400
45°	4925	5142	4161	4165	4255
47.5°	4552	4655	3823	4003	4123
50°	4186	4161	3543	3837	4013
52.5°	3820	3716	3322	3699	3958
55°	3440	3288	3115	3588	3937
57.5°	3004	2904	2887	3502	3868
60°	2652	2545	2694	3377	3737
62.5°	2252	2207	2497	3181	3564
65°	1879	1903	2300	2956	3384
67.5°	1526	1627	2038	2718	3212
70°	1264	1350	1723	2455	3011
72.5°	1071	1126	1412	2200	2832
75°	884	946	1153	1955	2680
77.5°	711	763	888	1696	2466
80°	532	587	684	1368	1941
82.5°	373	425	501	912	1202
85°	228	280	349	535	594
87.5°	69	148	221	307	152
90°	0	81	151	198	63
92.5°	2	122	136	153	54
95°	12	231	225	224	142
97.5°	25	319	371	371	302
100°	34	345	515	525	466
102.5°	44	334	634	688	639
105°	55	314	713	820	789
107.5°	64	292	726	923	918
110°	72	268	699	980	1017



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	78	239	660	955	1053
115°	84	202	607	901	1004
117.5°	90	174	548	829	934
120°	92	154	490	755	853
122.5°	95	144	429	677	768
125°	99	140	361	596	682
127.5°	101	133	297	514	592
130°	102	127	236	439	509
132.5°	106	124	184	360	434
135°	108	121	147	284	353
137.5°	109	121	126	212	276
140°	112	125	124	155	197
142.5°	113	131	125	115	135
145°	114	136	121	97	91
147.5°	115	142	117	102	76
150°	113	143	113	104	83
152.5°	111	140	112	103	88
155°	109	135	115	103	89
157.5°	110	128	123	105	93
160°	108	119	131	111	97
162.5°	106	115	139	124	109
165°	104	109	133	137	124
167.5°	103	104	124	138	140
170°	102	102	112	126	133
172.5°	100	100	103	114	117
175°	100	100	101	106	106
177.5°	99	98	100	104	101
180°	100	100	100	100	100

(END OF REPORT)