

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: 236P118

Luminaire Tested: **I5-454T5-UNV-EBT2-UPL**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 236P118
Test Lab: METALUX LABORATORIES
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: I5-454T5-UNV-EBT2-UPL
Description: I5 SERIES LUMINAIRE WITH SPECULAR ALUMINUM MEDIUM
DISTRIBUTION REFLECTOR AND UPLIGHT
Light Source: FOUR 54-WATT T5HO - 4400 LUMENS EA
Ballast/Driver: TWO UNIVERSAL B254PUNV-D

Summary

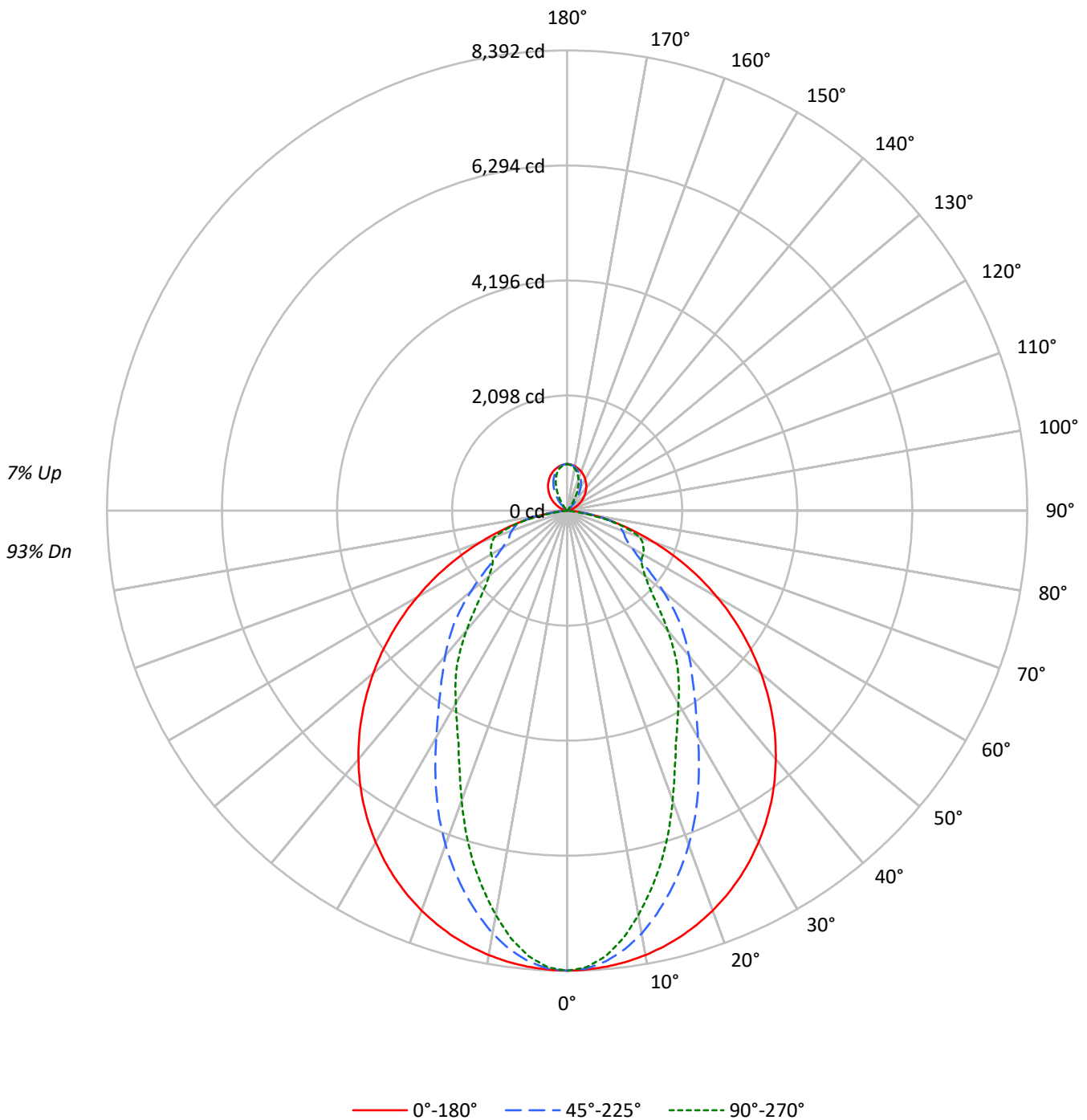
Lumens per Lamp: 4400 (4 lamps)
Luminaire Lumens: 16334.4 lumens
Efficiency: 92.8%
Efficacy: 69.5 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 0.8 / 1.01
Luminous Opening: Rectangular w/ Sides (W: 0.85' x L: 3.83' x H: 0.14')
CIE Type: Direct

Input Watts (W): 235
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										
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	50	30	10	50	30	10	0														
RCR																																						
0	109	109	109	109	106	106	106	106	100	100	100	94	94	94	89	89	89	86																				
1	101	97	93	90	97	94	91	88	89	86	84	84	82	80	80	78	77	74																				
2	92	85	80	75	89	83	78	73	79	74	71	75	71	68	71	68	66	64																				
3	85	76	69	63	82	74	68	62	70	65	61	67	63	59	64	60	57	55																				
4	78	68	61	55	76	66	59	54	63	57	53	60	55	51	58	54	50	48																				
5	72	61	54	48	70	60	53	48	57	51	46	55	50	45	53	48	44	42																				
6	67	56	48	43	65	55	47	42	52	46	41	50	45	41	48	43	40	38																				
7	63	51	43	38	61	50	43	38	48	42	37	46	41	37	45	40	36	34																				
8	59	47	40	35	57	46	39	34	44	38	34	43	37	33	41	36	33	31																				
9	55	43	36	31	53	43	36	31	41	35	31	40	34	30	38	33	30	28																				
10	52	40	33	29	50	40	33	29	38	32	28	37	32	28	36	31	27	26																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	27747	27747	27747
5°	27619	27025	26666
10°	27458	25648	24427
15°	27247	23780	21739
20°	26953	21708	18669
25°	26584	19330	15886
30°	26109	16829	14148
35°	25530	14811	12732
40°	24796	13333	10834
45°	23881	11936	8945
50°	22748	10054	7976
55°	21383	8202	7719
60°	19677	7241	8237
65°	17535	7013	8846
70°	14776	7464	9391
75°	11534	7818	7801
80°	7696	5774	3416
85°	3157	433	66



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	774.3	4.7	4.4	0°	8392	8392	8392	8392	8392	
10°-20°	2037.3	12.5	11.6	5°	8348	8309	8244	8184	8150	793
20°-30°	2684.9	16.4	15.3	15°	8038	7751	7212	6800	6631	2267
30°-40°	2817.2	17.2	16.0	25°	7411	6718	5650	4901	4689	3413
40°-50°	2483.4	15.2	14.1	35°	6487	5364	4035	3651	3518	4054
50°-60°	1924.2	11.8	10.9	45°	5294	3784	2916	2399	2228	4079
60°-70°	1460.0	8.9	8.3	55°	3903	2387	1712	1631	1654	3484
70°-80°	897.4	5.5	5.1	65°	2417	1267	1170	1461	1530	2391
80°-90°	141.6	0.9	0.8	75°	1026	542	937	1002	986	1103
90°-100°	9.7	0.1	0.1	85°	118	167	30	12	5	179
100°-110°	21.3	0.1	0.1	90°	1	11	10	8	3	4
110°-120°	43.4	0.3	0.2	95°	11	6	9	9	7	15
120°-130°	90.6	0.6	0.5	105°	80	11	12	12	11	87
130°-140°	154.0	0.9	0.9	115°	190	32	16	16	16	190
140°-150°	236.4	1.4	1.3	125°	333	179	21	24	23	297
150°-160°	269.8	1.7	1.5	135°	474	365	136	31	28	366
160°-170°	210.1	1.3	1.2	145°	603	533	370	226	178	376
170°-180°	78.8	0.5	0.4	155°	711	674	593	508	470	327
0°-30°	5496.5	33.7	31.2	165°	791	779	751	723	709	223
0°-40°	8313.8	50.9	47.2	175°	841	839	838	834	827	80
0°-60°	12721.4	77.9	72.3	180°	848	848	848	848	848	
0°-90°	15220.4	93.2	86.5							
90°-120°	74.3	0.5	0.4							
90°-150°	555.3	3.4	3.2							
90°-180°	1114.0	6.8	6.3							
0°-180°	16334.4	100.0	92.8							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8392	8392	8392	8392	8392
2.5°	8378	8363	8357	8346	8331
5°	8348	8309	8244	8184	8150
7.5°	8300	8218	8067	7928	7862
10°	8231	8094	7831	7590	7487
12.5°	8144	7937	7540	7210	7074
15°	8038	7751	7212	6800	6631
17.5°	7909	7533	6863	6352	6143
20°	7762	7286	6489	5867	5624
22.5°	7596	7013	6085	5367	5122
25°	7411	6718	5650	4901	4689
27.5°	7207	6403	5206	4514	4351
30°	6983	6072	4770	4191	4058
32.5°	6745	5727	4374	3912	3794
35°	6487	5364	4035	3651	3518
37.5°	6214	4987	3730	3370	3194
40°	5921	4589	3458	3050	2857
42.5°	5617	4188	3194	2717	2528
45°	5294	3784	2916	2399	2228
47.5°	4960	3391	2605	2110	2008
50°	4615	3022	2286	1899	1855
52.5°	4264	2694	1982	1757	1739
55°	3903	2387	1712	1631	1654
57.5°	3533	2106	1509	1548	1613
60°	3164	1832	1365	1511	1601
62.5°	2790	1550	1251	1491	1572
65°	2417	1267	1170	1461	1530
67.5°	2044	1009	1127	1419	1483
70°	1682	795	1074	1352	1411
72.5°	1341	648	1009	1217	1208
75°	1026	542	937	1002	986
77.5°	736	470	762	751	693
80°	488	400	548	432	347
82.5°	283	317	272	87	34
85°	118	167	30	12	5
87.5°	28	25	15	10	4
90°	1	11	10	8	3
92.5°	2	7	9	7	5
95°	11	6	9	9	7
97.5°	23	7	9	10	9
100°	37	8	10	9	10
102.5°	58	8	11	10	10
105°	80	11	12	12	11
107.5°	106	13	13	12	12
110°	132	14	13	14	13



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	160	17	13	15	14
115°	190	32	16	16	16
117.5°	224	59	19	15	16
120°	260	94	21	17	15
122.5°	296	135	21	21	18
125°	333	179	21	24	23
127.5°	369	225	26	26	26
130°	405	272	48	26	27
132.5°	441	320	87	26	28
135°	474	365	136	31	28
137.5°	508	410	190	56	35
140°	540	452	248	102	63
142.5°	572	493	308	161	114
145°	603	533	370	226	178
147.5°	630	571	431	295	246
150°	660	607	490	366	320
152.5°	686	641	544	437	396
155°	711	674	593	508	470
157.5°	734	703	639	571	543
160°	755	731	680	629	605
162.5°	774	756	718	679	661
165°	791	779	751	723	709
167.5°	807	798	780	761	750
170°	821	815	805	792	784
172.5°	832	828	824	816	809
175°	841	839	838	834	827
177.5°	847	845	847	845	839
180°	848	848	848	848	848

(END OF REPORT)