

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: 236P113

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 236P113
Test Lab: METALUX LABORATORIES
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: I5-454T5-G-TBW-UNV-EBT2-UPL
Description: I5 SERIES LUMINAIRE WITH HIGH REFLECTANCE WHITE WIDE
DISTRIBUTION REFLECTOR, UPLIGHT, AND THIN WHITE LOUVER
Light Source: FOUR 54-WATT T5HO - 4400 LUMENS EA
Ballast/Driver: TWO UNIVERSAL B254PUNV-D

Summary

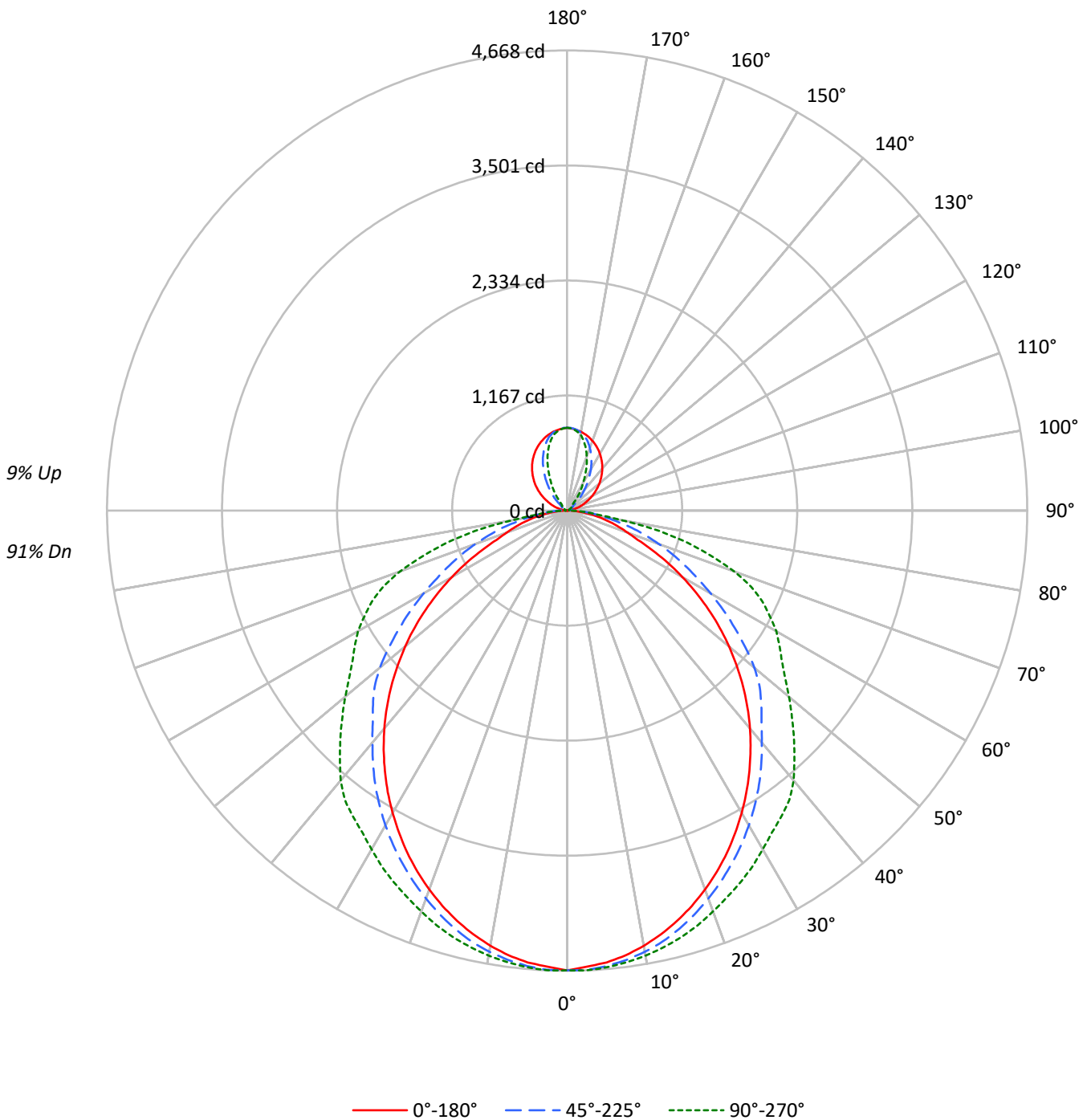
Lumens per Lamp: 4400 (4 lamps)
Luminaire Lumens: 13455.2 lumens
Efficiency: 76.4%
Efficacy: 59.5 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.27 / 1.31
Luminous Opening: Rectangular w/ Sides (W: 0.85' x L: 3.83' x H: 0.19')
CIE Type: Direct

Input Watts (W): 226
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	50	30	10	0	
RCR																						
0	89	89	89	89	86	86	86	86	81	81	81	76	76	76	72	72	72	69				69
1	82	78	75	72	79	76	73	70	71	69	67	67	65	63	63	62	60	58				58
2	74	68	63	59	72	66	62	58	62	59	55	59	56	53	56	53	51	49				49
3	68	60	54	49	65	58	53	48	55	50	46	52	48	45	49	46	43	41				41
4	62	53	47	42	60	52	46	41	49	44	40	46	42	38	44	40	37	35				35
5	57	48	41	36	55	46	40	35	44	39	34	42	37	33	40	36	32	31				31
6	53	43	36	31	51	42	36	31	40	34	30	38	33	29	36	32	29	27				27
7	49	39	32	28	47	38	32	27	36	31	27	34	30	26	33	29	25	24				24
8	46	35	29	25	44	35	29	24	33	28	24	32	27	23	30	26	23	21				21
9	43	33	26	22	41	32	26	22	30	25	22	29	24	21	28	24	21	19				19
10	40	30	24	20	39	29	24	20	28	23	20	27	22	19	26	22	19	17				17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15421	15421	15421
5°	15205	15138	15137
10°	14921	14757	14807
15°	14560	14301	14465
20°	14139	13768	14083
25°	13671	13226	13747
30°	13143	12664	13414
35°	12576	12067	13224
40°	11959	11414	12990
45°	11240	10918	12428
50°	10413	10366	11934
55°	9431	9380	11614
60°	8239	8325	11679
65°	6753	7297	11566
70°	5530	6240	10804
75°	4883	5048	8796
80°	4072	3562	4769
85°	2832	2306	2070



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	439.2	3.3	2.5	0°	4664	4664	4664	4664	4664	
10°-20°	1238.2	9.2	7.0	5°	4601	4611	4638	4652	4650	435
20°-30°	1831.8	13.6	10.4	15°	4310	4332	4394	4455	4479	1214
30°-40°	2157.7	16.0	12.3	25°	3834	3869	3952	4091	4161	1764
40°-50°	2184.2	16.2	12.4	35°	3224	3261	3394	3628	3789	2015
50°-60°	1899.4	14.1	10.8	45°	2523	2567	2786	3088	3252	1944
60°-70°	1433.0	10.7	8.1	55°	1752	1802	2076	2387	2658	1564
70°-80°	808.5	6.0	4.6	65°	955	1075	1319	1834	2187	960
80°-90°	222.7	1.7	1.3	75°	453	478	680	1046	1263	482
90°-100°	40.7	0.3	0.2	85°	117	148	195	240	194	128
100°-110°	35.7	0.3	0.2	90°	1	39	86	121	22	7
110°-120°	66.6	0.5	0.4	95°	18	17	39	58	17	22
120°-130°	118.1	0.9	0.7	105°	105	25	22	21	19	111
130°-140°	178.8	1.3	1.0	115°	221	69	35	30	30	221
140°-150°	246.3	1.8	1.4	125°	358	203	69	54	51	320
150°-160°	267.3	2.0	1.5	135°	492	376	185	79	75	379
160°-170°	208.7	1.6	1.2	145°	612	542	371	256	219	382
170°-180°	78.3	0.6	0.4	155°	712	686	582	487	452	328
0°-30°	3509.2	26.1	19.9	165°	786	781	754	712	694	221
0°-40°	5666.9	42.1	32.2	175°	829	833	833	828	824	79
0°-60°	9750.5	72.5	55.4	180°	840	840	840	840	840	
0°-90°	12214.6	90.8	69.4							
90°-120°	143.0	1.1	0.8							
90°-150°	686.2	5.1	3.9							
90°-180°	1241.0	9.2	7.1							
0°-180°	13455.2	100.0	76.4							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4664	4664	4664	4664	4664
2.5°	4630	4641	4663	4670	4668
5°	4601	4611	4638	4652	4650
7.5°	4550	4564	4597	4624	4622
10°	4483	4501	4545	4584	4584
12.5°	4402	4421	4478	4526	4536
15°	4310	4332	4394	4455	4479
17.5°	4205	4234	4296	4375	4410
20°	4091	4123	4188	4285	4328
22.5°	3967	4002	4075	4191	4243
25°	3834	3869	3952	4091	4161
27.5°	3690	3727	3824	3984	4070
30°	3541	3578	3687	3870	3967
32.5°	3386	3425	3543	3746	3869
35°	3224	3261	3394	3628	3789
37.5°	3057	3095	3235	3524	3703
40°	2886	2922	3073	3416	3574
42.5°	2707	2748	2919	3266	3412
45°	2523	2567	2786	3088	3252
47.5°	2334	2380	2651	2912	3093
50°	2144	2190	2479	2736	2938
52.5°	1951	1998	2279	2560	2786
55°	1752	1802	2076	2387	2658
57.5°	1550	1602	1878	2245	2554
60°	1353	1413	1680	2120	2450
62.5°	1155	1243	1488	1983	2318
65°	955	1075	1319	1834	2187
67.5°	774	893	1155	1686	2022
70°	650	729	988	1510	1804
72.5°	552	593	831	1282	1535
75°	453	478	680	1046	1263
77.5°	361	384	521	825	957
80°	274	301	392	566	568
82.5°	193	225	295	335	301
85°	117	148	195	240	194
87.5°	46	83	133	174	100
90°	1	39	86	121	22
92.5°	4	21	57	83	14
95°	18	17	39	58	17
97.5°	35	16	30	41	17
100°	55	18	24	28	15
102.5°	77	19	22	22	17
105°	105	25	22	21	19
107.5°	132	30	25	23	21
110°	162	43	26	26	24



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	191	52	27	29	27
115°	221	69	35	30	30
117.5°	255	101	44	30	31
120°	291	135	48	37	32
122.5°	323	167	57	47	39
125°	358	203	69	54	51
127.5°	393	244	74	57	57
130°	426	288	93	66	60
132.5°	459	332	135	74	69
135°	492	376	185	79	75
137.5°	523	417	226	100	80
140°	554	460	269	149	103
142.5°	584	501	317	207	158
145°	612	542	371	256	219
147.5°	639	583	426	307	270
150°	664	620	480	362	324
152.5°	689	655	531	425	386
155°	712	686	582	487	452
157.5°	733	714	629	550	519
160°	752	739	675	606	582
162.5°	770	762	717	661	640
165°	786	781	754	712	694
167.5°	799	799	782	756	743
170°	812	814	804	789	782
172.5°	821	825	821	813	806
175°	829	833	833	828	824
177.5°	834	838	839	836	836
180°	840	840	840	840	840

(END OF REPORT)