

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: 236P110

Luminaire Tested: **I5-254T5-TBW-UNV-EBT1-UPL**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-41-14  
Report Number: 236P110  
Test Lab: METALUX LABORATORIES  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: I5-254T5-TBW-UNV-EBT1-UPL  
Description: I5 SERIES LUMINAIRE WITH SPECULAR ALUMINUM MEDIUM  
DISTRIBUTION REFLECTOR AND UPLIGHT, WITH THIN WHITE  
LOUVER  
Light Source: TWO 54-WATT T5HO - 4400 LUMENS EA  
Ballast/Driver: ONE UNIVERSAL B254PUNV-D

**Summary**

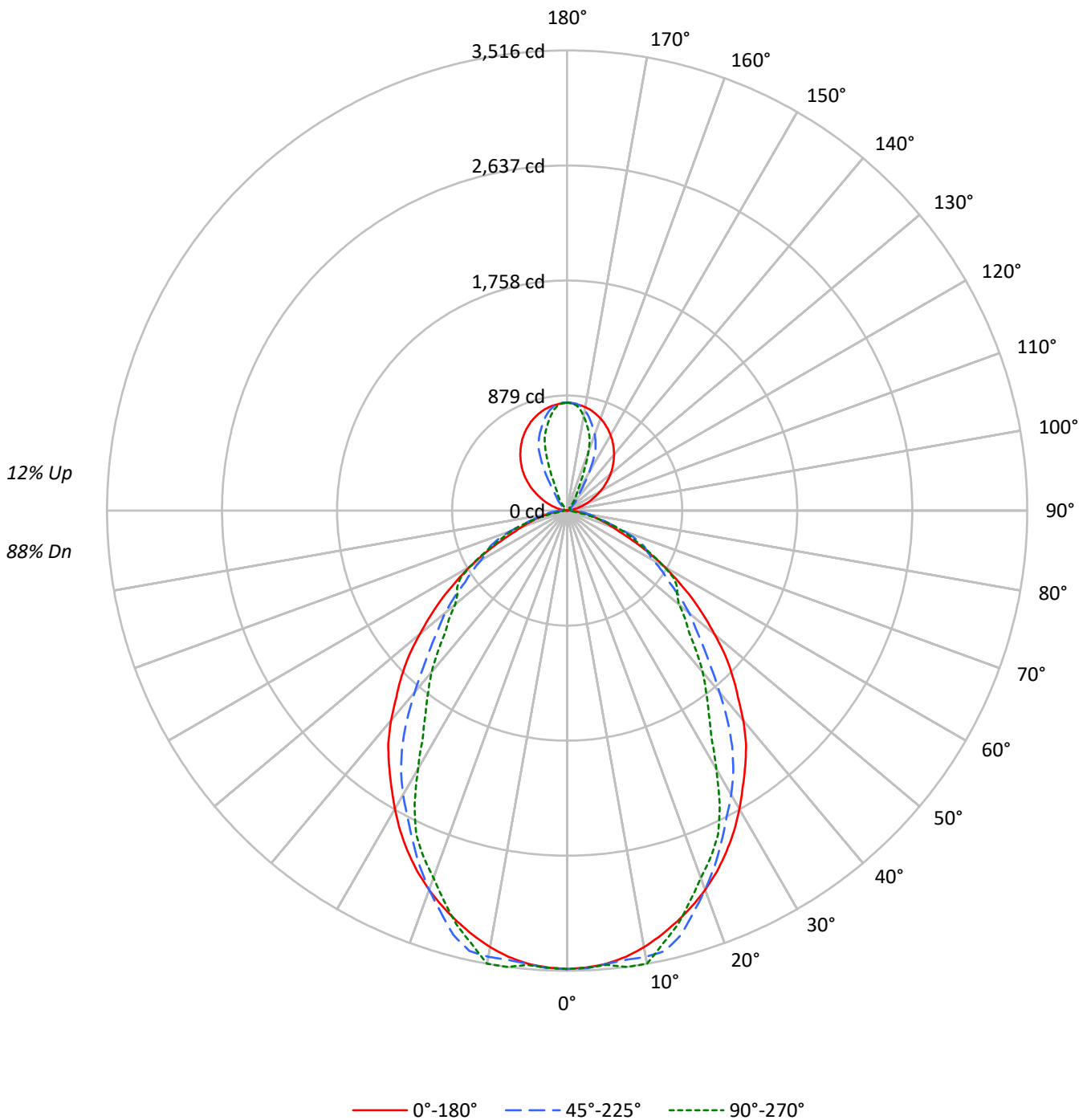
Lumens per Lamp: 4400 (2 lamps)  
Luminaire Lumens: 7986.4 lumens  
Efficiency: 90.8%  
Efficacy: 67.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.04 / 1.15  
Luminous Opening: Rectangular w/ Sides (W: 0.85' x L: 3.83' x H: 0.19')  
CIE Type: Semi-Direct

Input Watts (W): 118  
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	105	105	105	105	102	102	102	102	95	95	95	88	88	88	82	82	82	79
1	97	93	90	87	94	90	87	84	84	82	80	79	77	75	74	73	71	69
2	89	83	77	73	86	80	75	71	75	71	68	71	67	64	66	64	61	59
3	82	74	67	62	79	71	65	61	67	62	58	63	59	56	60	56	53	51
4	76	66	59	53	73	64	58	52	61	55	51	57	53	49	54	50	47	45
5	70	60	52	47	68	58	51	46	55	49	45	52	47	43	49	45	42	40
6	65	54	47	41	63	53	46	41	50	44	40	47	42	38	45	41	37	35
7	61	49	42	37	58	48	41	36	46	40	35	44	38	34	42	37	34	32
8	57	45	38	33	55	44	38	33	42	36	32	40	35	31	38	34	30	29
9	53	42	35	30	51	41	34	30	39	33	29	37	32	28	36	31	28	26
10	50	39	32	28	48	38	32	27	36	31	27	35	30	26	33	29	25	24

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

	0°	45°	90°
0°	11582	11582	11582
5°	11484	11345	11345
10°	11273	11240	11357
15°	10975	10929	10567
20°	10659	10135	9716
25°	10262	9337	9016
30°	9773	8615	7706
35°	9257	7815	6579
40°	8673	6726	5855
45°	7965	5761	5033
50°	7134	5085	4533
55°	6255	4292	4488
60°	5225	3766	4085
65°	4045	3601	3237
70°	3148	2949	2653
75°	2641	2049	1727
80°	2155	1590	554
85°	1501	1218	363



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	331.6	4.2	3.8	0°	3503	3503	3503	3503	3503	
10°-20°	925.0	11.6	10.5	5°	3475	3473	3476	3488	3485	329
20°-30°	1292.0	16.2	14.7	15°	3249	3271	3358	3296	3272	915
30°-40°	1347.5	16.9	15.3	25°	2878	2952	2790	2750	2729	1323
40°-50°	1180.7	14.8	13.4	35°	2373	2328	2198	1951	1885	1483
50°-60°	919.0	11.5	10.4	45°	1788	1695	1470	1380	1317	1376
60°-70°	607.7	7.6	6.9	55°	1162	1066	950	977	1027	1035
70°-80°	294.6	3.7	3.3	65°	572	550	651	656	612	579
80°-90°	96.3	1.2	1.1	75°	245	250	276	315	248	263
90°-100°	30.5	0.4	0.3	85°	62	80	103	106	34	68
100°-110°	32.3	0.4	0.4	90°	0	26	52	69	22	4
110°-120°	51.7	0.6	0.6	95°	12	15	31	40	20	17
120°-130°	77.3	1.0	0.9	105°	94	17	21	23	23	101
130°-140°	126.1	1.6	1.4	115°	217	35	24	26	26	216
140°-150°	178.5	2.2	2.0	125°	361	89	29	27	26	323
150°-160°	222.4	2.8	2.5	135°	496	281	79	31	25	382
160°-170°	196.9	2.5	2.2	145°	613	489	176	113	92	383
170°-180°	76.5	1.0	0.9	155°	709	643	513	315	245	327
0°-30°	2548.5	31.9	29.0	165°	779	765	701	652	630	220
0°-40°	3896.0	48.8	44.3	175°	816	819	819	815	807	77
0°-60°	5995.7	75.1	68.1	180°	824	824	824	824	824	
0°-90°	6994.2	87.6	79.5							
90°-120°	114.5	1.4	1.3							
90°-150°	496.4	6.2	5.6							
90°-180°	992.0	12.4	11.3							
0°-180°	7986.4	100.0	90.8							



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3503	3503	3503	3503	3503
2.5°	3494	3496	3500	3501	3495
5°	3475	3473	3476	3488	3485
7.5°	3439	3436	3462	3506	3516
10°	3387	3387	3462	3521	3516
12.5°	3322	3330	3447	3421	3387
15°	3249	3271	3358	3296	3272
17.5°	3171	3212	3215	3165	3127
20°	3084	3147	3083	3015	2986
22.5°	2987	3067	2943	2880	2867
25°	2878	2952	2790	2750	2729
27.5°	2761	2802	2640	2595	2524
30°	2633	2641	2508	2385	2279
32.5°	2499	2482	2363	2157	2051
35°	2373	2328	2198	1951	1885
37.5°	2246	2178	2008	1792	1744
40°	2093	2030	1811	1654	1611
42.5°	1932	1869	1629	1526	1462
45°	1788	1695	1470	1380	1317
47.5°	1638	1525	1333	1234	1223
50°	1469	1367	1216	1141	1116
52.5°	1312	1220	1084	1034	1057
55°	1162	1066	950	977	1027
57.5°	1001	911	860	944	970
60°	858	772	760	881	857
62.5°	711	650	694	772	732
65°	572	550	651	656	612
67.5°	449	458	568	546	529
70°	370	361	467	469	443
72.5°	305	296	357	392	348
75°	245	250	276	315	248
77.5°	192	219	220	239	152
80°	145	165	175	174	66
82.5°	102	118	140	124	35
85°	62	80	103	106	34
87.5°	25	48	75	86	33
90°	0	26	52	69	22
92.5°	2	18	39	52	18
95°	12	15	31	40	20
97.5°	26	14	27	33	20
100°	44	14	23	29	23
102.5°	67	14	21	24	24
105°	94	17	21	23	23
107.5°	123	18	22	24	24
110°	154	22	21	25	25



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	185	28	22	25	26
115°	217	35	24	26	26
117.5°	252	47	25	25	26
120°	289	61	25	26	26
122.5°	326	73	26	27	26
125°	361	89	29	27	26
127.5°	397	114	33	26	25
130°	431	159	41	26	24
132.5°	465	219	57	28	23
135°	496	281	79	31	25
137.5°	527	345	100	39	28
140°	557	404	118	60	38
142.5°	585	448	138	87	61
145°	613	489	176	113	92
147.5°	640	529	248	136	119
150°	665	566	336	159	144
152.5°	688	604	427	214	171
155°	709	643	513	315	245
157.5°	730	680	569	426	359
160°	748	712	616	532	474
162.5°	764	741	659	599	573
165°	779	765	701	652	630
167.5°	792	787	743	698	680
170°	802	803	777	749	731
172.5°	810	814	803	787	776
175°	816	819	819	815	807
177.5°	820	822	824	826	823
180°	824	824	824	824	824

(END OF REPORT)