

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: 236P117

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

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-41-14  
Report Number: 236P117  
Test Lab: METALUX LABORATORIES  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: I5-254T5-UNV-EBT1-UPL  
Description: I5 SERIES LUMINAIRE WITH SPECULAR ALUMINUM MEDIUM  
DISTRIBUTION REFLECTOR AND UPLIGHT  
Light Source: TWO 54-WATT T5HO - 4400 LUMENS EA  
Ballast/Driver: ONE UNIVERSAL B254PUNV-D

**Summary**

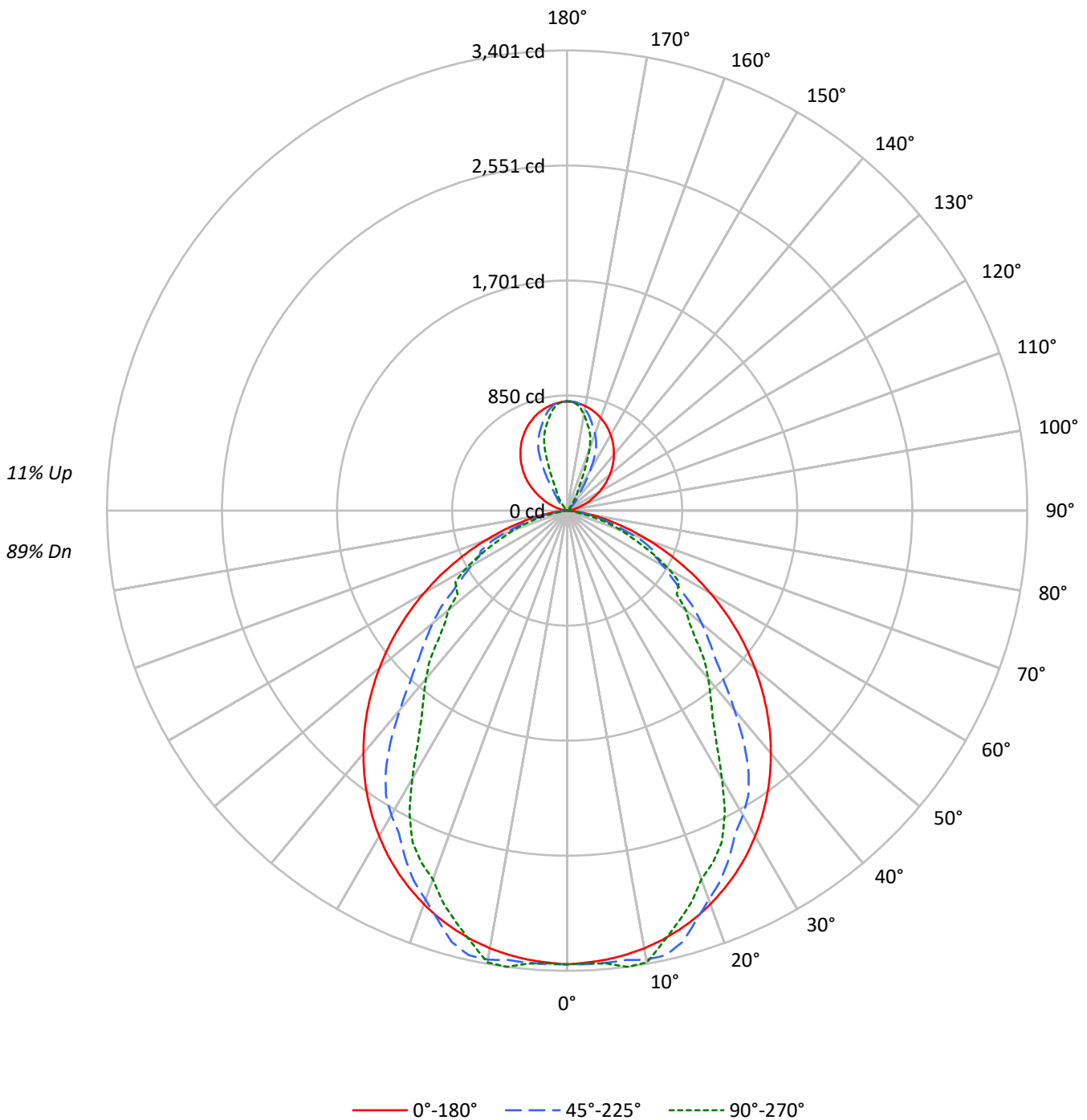
Lumens per Lamp: 4400 (2 lamps)  
Luminaire Lumens: 8281.5 lumens  
Efficiency: 94.1%  
Efficacy: 69.0 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.07 / 1.19  
Luminous Opening: Rectangular w/ Sides (W: 0.85' x L: 3.83' x H: 0.14')  
CIE Type: Semi-Direct

Input Watts (W): 120  
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				
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																				
0	109	109	109	109	106	106	106	106	99	99	99	92	92	92	86	86	86	83		
1	101	97	94	91	98	94	91	88	88	86	83	83	81	79	78	76	75	72		
2	93	86	80	75	89	83	78	74	78	74	70	74	70	67	70	67	64	62		
3	85	76	69	64	82	74	68	63	70	65	60	66	62	58	62	59	56	53		
4	79	68	61	55	76	66	59	54	63	57	52	59	54	50	56	52	49	46		
5	73	61	54	48	70	60	53	47	57	50	46	54	48	44	51	47	43	41		
6	67	56	48	42	65	54	47	42	52	45	41	49	44	39	47	42	38	36		
7	63	51	43	38	60	49	42	37	47	41	36	45	39	35	43	38	34	32		
8	58	46	39	34	56	45	38	33	43	37	33	41	36	32	39	35	31	29		
9	55	43	36	31	53	42	35	30	40	34	30	38	33	29	37	32	28	27		
10	51	40	33	28	50	39	32	28	37	31	27	36	30	26	34	29	26	24		

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

	0°	45°	90°
0°	11090	11090	11090
5°	11024	10995	10993
10°	10958	11037	11064
15°	10871	10881	10343
20°	10750	10237	9627
25°	10596	9692	9161
30°	10391	9169	7973
35°	10134	8574	6786
40°	9812	7411	6151
45°	9415	6349	5400
50°	8927	5704	4932
55°	8338	4911	4662
60°	7618	4345	4486
65°	6718	4226	3590
70°	5614	3482	2802
75°	4339	2411	1780
80°	2902	1254	404
85°	1124	202	158



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	320.1	3.9	3.6	0°	3354	3354	3354	3354	3354	
10°-20°	908.3	11.0	10.3	5°	3332	3341	3354	3361	3360	317
20°-30°	1310.2	15.8	14.9	15°	3207	3249	3300	3182	3155	905
30°-40°	1419.0	17.1	16.1	25°	2954	3047	2833	2748	2704	1360
40°-50°	1290.6	15.6	14.7	35°	2575	2543	2336	1969	1875	1609
50°-60°	1039.7	12.6	11.8	45°	2087	1970	1551	1432	1345	1608
60°-70°	701.8	8.5	8.0	55°	1522	1355	1025	961	999	1359
70°-80°	308.8	3.7	3.5	65°	926	712	705	662	621	918
80°-90°	41.0	0.5	0.5	75°	386	311	289	250	225	416
90°-100°	16.6	0.2	0.2	85°	42	38	14	13	12	68
100°-110°	29.4	0.4	0.3	90°	1	9	12	13	12	3
110°-120°	45.9	0.6	0.5	95°	11	11	16	18	19	15
120°-130°	70.8	0.9	0.8	105°	84	14	20	22	23	91
130°-140°	118.7	1.4	1.3	115°	201	19	22	26	27	201
140°-150°	173.6	2.1	2.0	125°	343	80	20	26	27	306
150°-160°	219.2	2.6	2.5	135°	477	270	66	25	24	367
160°-170°	192.8	2.3	2.2	145°	594	473	173	109	87	371
170°-180°	74.9	0.9	0.9	155°	690	622	506	324	256	317
0°-30°	2538.6	30.7	28.8	165°	759	745	684	641	624	214
0°-40°	3957.7	47.8	45.0	175°	798	802	802	798	791	76
0°-60°	6288.0	75.9	71.5	180°	807	807	807	807	807	
0°-90°	7339.6	88.6	83.4							
90°-120°	91.9	1.1	1.0							
90°-150°	455.0	5.5	5.2							
90°-180°	942.0	11.4	10.7							
0°-180°	8281.5	100.0	94.1							



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3354	3354	3354	3354	3354
2.5°	3343	3351	3355	3355	3350
5°	3332	3341	3354	3361	3360
7.5°	3312	3325	3350	3391	3401
10°	3285	3305	3370	3402	3391
12.5°	3250	3278	3365	3317	3269
15°	3207	3249	3300	3182	3155
17.5°	3156	3226	3173	3085	3043
20°	3096	3189	3060	2953	2900
22.5°	3028	3130	2961	2825	2816
25°	2954	3047	2833	2748	2704
27.5°	2871	2933	2690	2614	2523
30°	2779	2797	2599	2422	2287
32.5°	2681	2664	2492	2188	2058
35°	2575	2543	2336	1969	1875
37.5°	2463	2417	2138	1794	1742
40°	2343	2276	1922	1668	1622
42.5°	2218	2118	1720	1554	1503
45°	2087	1970	1551	1432	1345
47.5°	1951	1845	1421	1269	1222
50°	1811	1706	1297	1154	1147
52.5°	1668	1543	1177	1070	1021
55°	1522	1355	1025	961	999
57.5°	1373	1162	912	936	979
60°	1225	984	819	898	872
62.5°	1077	834	731	785	749
65°	926	712	705	662	621
67.5°	781	598	619	538	507
70°	639	471	501	435	421
72.5°	507	380	383	346	324
75°	386	311	289	250	225
77.5°	276	254	205	153	126
80°	184	164	119	64	41
82.5°	107	93	43	14	11
85°	42	38	14	13	12
87.5°	15	12	13	14	12
90°	1	9	12	13	12
92.5°	2	10	14	16	16
95°	11	11	16	18	19
97.5°	24	12	18	20	20
100°	39	14	19	22	22
102.5°	60	14	19	22	24
105°	84	14	20	22	23
107.5°	111	13	21	24	24
110°	140	13	22	25	25



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	170	13	21	25	26
115°	201	19	22	26	27
117.5°	235	31	23	26	28
120°	271	47	21	26	27
122.5°	307	64	20	26	27
125°	343	80	20	26	27
127.5°	378	103	21	24	27
130°	412	149	27	23	25
132.5°	445	211	44	24	24
135°	477	270	66	25	24
137.5°	508	332	91	31	25
140°	537	391	115	51	34
142.5°	566	433	136	80	57
145°	594	473	173	109	87
147.5°	620	512	249	139	118
150°	644	548	336	163	149
152.5°	668	583	424	222	177
155°	690	622	506	324	256
157.5°	709	659	558	430	367
160°	728	692	603	531	478
162.5°	745	720	643	593	570
165°	759	745	684	641	624
167.5°	772	766	727	684	669
170°	783	783	760	734	719
172.5°	792	795	786	772	762
175°	798	802	802	798	791
177.5°	803	805	808	811	807
180°	807	807	807	807	807

(END OF REPORT)