

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: P30649-R2

Luminaire Tested: **I5-354T5-UNV-EBT1**

Issue Date: 3/3/2020



**Test Information**

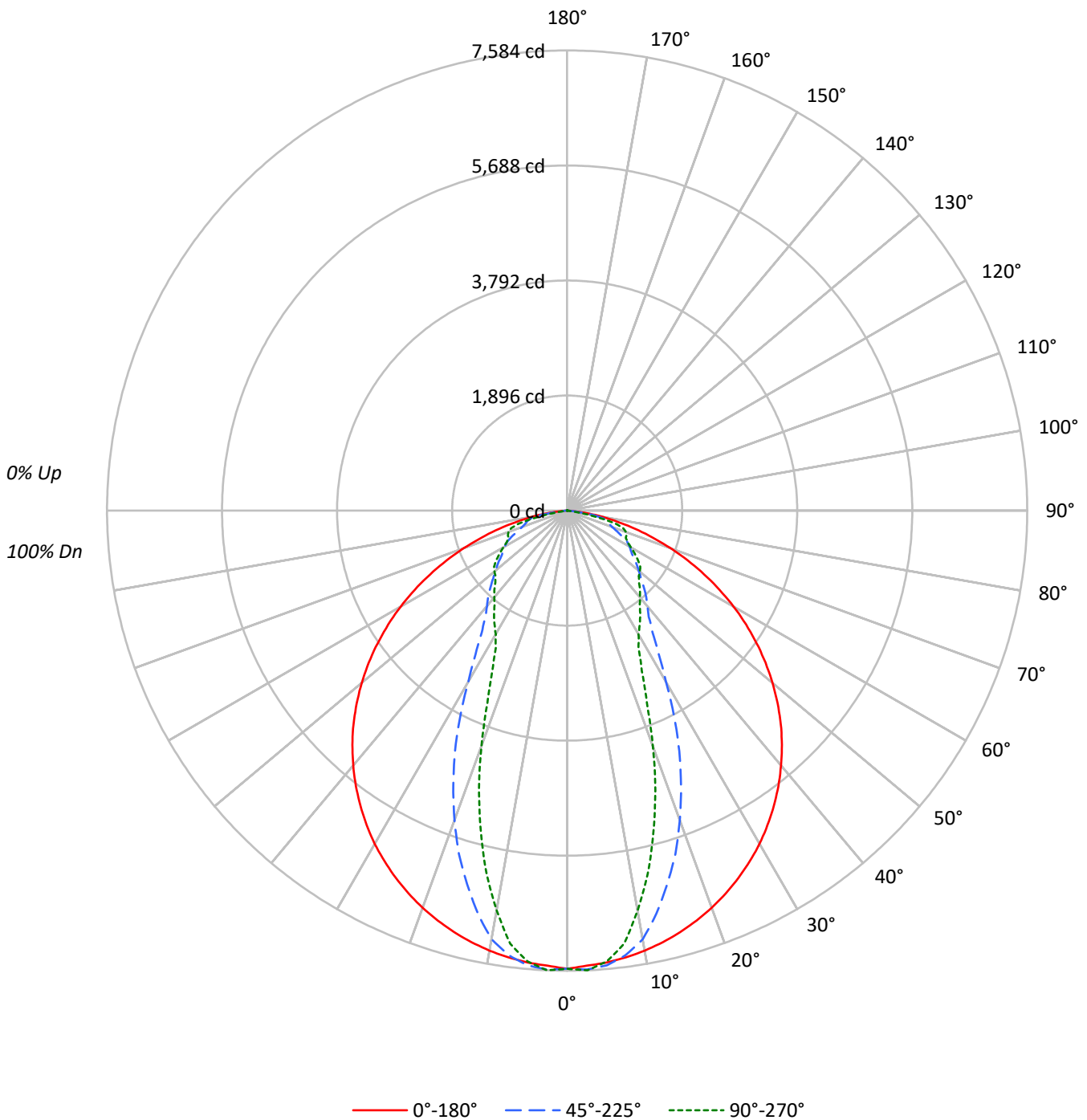
Test Method: LM-41-14  
Report Number: P30649-R2  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: I5-354T5-UNV-EBT1  
Description:  
Light Source: (3) BIPIN T5 LINEAR FLUORESCENT LAMP 5000K - 4400 LUMENS EA  
GE F54W-T5-850-ECO  
Ballast/Driver: -  
GE454MVPS90-E

**Summary**

Lumens per Lamp: 4400 (3 lamps)  
Luminaire Lumens: 12120.6 lumens  
Efficiency: 91.8%  
Efficacy: 67.4 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 0.68 / 0.85  
Luminous Opening: Rectangular (W 0.92' x L: 3.83' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 179.9  
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	109	109	109	109	107	107	107	107	102	102	102	98	98	98	94	94	94	92
1	101	97	93	90	98	95	92	89	91	88	86	87	85	83	84	82	81	79
2	93	86	80	75	90	84	79	74	81	76	73	78	74	71	75	72	69	68
3	85	76	70	64	83	75	69	64	72	67	62	70	65	61	68	64	60	58
4	79	69	61	56	77	68	61	55	65	59	55	63	58	54	61	57	53	51
5	73	62	55	49	71	61	54	49	59	53	48	58	52	48	56	51	47	45
6	68	57	49	44	66	56	49	44	54	48	43	53	47	43	51	46	42	41
7	64	52	45	39	62	51	44	39	50	44	39	49	43	39	48	42	39	37
8	60	48	41	36	58	48	41	36	46	40	36	45	40	35	44	39	35	34
9	56	45	38	33	55	44	37	33	43	37	33	42	37	32	41	36	32	31
10	53	42	35	30	52	41	35	30	40	34	30	39	34	30	39	34	30	28

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

	0°	45°	90°
0°	23131	23131	23131
5°	22988	23130	22942
10°	22906	22312	20806
15°	22811	20211	17417
20°	22708	17701	13466
25°	22585	14774	9856
30°	22436	11520	8323
35°	22213	9181	7853
40°	21933	8214	7462
45°	21578	7754	7256
50°	21059	7344	7453
55°	20369	7103	7610
60°	19433	7303	7450
65°	18070	7248	7734
70°	16229	7040	9207
75°	13717	8107	9670
80°	10108	7921	3846
85°	4429	668	70



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	703.6	5.8	5.3	0°	7551	7551	7551	7551	7551	
10°-20°	1781.0	14.7	13.5	5°	7476	7527	7522	7483	7461	710
20°-30°	2118.4	17.5	16.0	15°	7193	7094	6373	5755	5492	2030
30°-40°	2062.3	17.0	15.6	25°	6682	5987	4371	3206	2916	3079
40°-50°	1859.2	15.3	14.1	35°	5940	4503	2455	2165	2100	3715
50°-60°	1544.5	12.7	11.7	45°	4981	2798	1790	1710	1675	3837
60°-70°	1180.4	9.7	8.9	55°	3814	1506	1330	1425	1425	3404
70°-80°	753.6	6.2	5.7	65°	2493	909	1000	1029	1067	2465
80°-90°	116.5	1.0	0.9	75°	1159	512	685	827	817	1233
90°-100°	1.0	0.0	0.0	85°	126	150	19	8	2	204
100°-110°	0.0	0.0	0.0	90°	4	10	9	6	5	5
110°-120°	0.0	0.0	0.0	95°	0	0	0	0	0	0
120°-130°	0.0	0.0	0.0	105°	0	0	0	0	0	0
130°-140°	0.0	0.0	0.0	115°	0	0	0	0	0	0
140°-150°	0.0	0.0	0.0	125°	0	0	0	0	0	0
150°-160°	0.0	0.0	0.0	135°	0	0	0	0	0	0
160°-170°	0.0	0.0	0.0	145°	0	0	0	0	0	0
170°-180°	0.0	0.0	0.0	155°	0	0	0	0	0	0
0°-30°	4603.0	38.0	34.9	165°	0	0	0	0	0	0
0°-40°	6665.3	55.0	50.5	175°	0	0	0	0	0	0
0°-60°	10069.0	83.1	76.3	180°	0	0	0	0	0	0
0°-90°	12119.6	100.0	91.8							
90°-120°	1.0	0.0	0.0							
90°-150°	1.0	0.0	0.0							
90°-180°	1.0	0.0	0.0							
0°-180°	12120.6	100.0	91.8							



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	7551	7551	7551	7551	7551
2.5°	7507	7532	7570	7587	7584
5°	7476	7527	7522	7483	7461
7.5°	7427	7477	7391	7275	7200
10°	7364	7369	7173	6841	6689
12.5°	7286	7245	6803	6321	6135
15°	7193	7094	6373	5755	5492
17.5°	7087	6890	5932	5128	4835
20°	6966	6634	5430	4494	4131
22.5°	6831	6321	4904	3813	3432
25°	6682	5987	4371	3206	2916
27.5°	6518	5650	3809	2764	2546
30°	6343	5297	3257	2456	2353
32.5°	6147	4908	2807	2288	2227
35°	5940	4503	2455	2165	2100
37.5°	5721	4094	2210	2032	1965
40°	5485	3673	2054	1897	1866
42.5°	5240	3242	1926	1803	1776
45°	4981	2798	1790	1710	1675
47.5°	4705	2381	1652	1606	1602
50°	4419	2029	1541	1525	1564
52.5°	4121	1734	1440	1488	1519
55°	3814	1506	1330	1425	1425
57.5°	3495	1341	1246	1329	1322
60°	3172	1194	1192	1225	1216
62.5°	2834	1045	1113	1120	1121
65°	2493	909	1000	1029	1067
67.5°	2151	792	886	988	1056
70°	1812	683	786	975	1028
72.5°	1477	600	722	926	970
75°	1159	512	685	827	817
77.5°	853	403	613	593	522
80°	573	316	449	281	218
82.5°	324	260	188	62	24
85°	126	150	19	8	2
87.5°	30	19	11	7	5
90°	4	10	9	6	5
92.5°	0	0	0	0	0
95°	0	0	0	0	0
97.5°	0	0	0	0	0
100°	0	0	0	0	0
102.5°	0	0	0	0	0
105°	0	0	0	0	0
107.5°	0	0	0	0	0
110°	0	0	0	0	0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0	0	0	0	0
115°	0	0	0	0	0
117.5°	0	0	0	0	0
120°	0	0	0	0	0
122.5°	0	0	0	0	0
125°	0	0	0	0	0
127.5°	0	0	0	0	0
130°	0	0	0	0	0
132.5°	0	0	0	0	0
135°	0	0	0	0	0
137.5°	0	0	0	0	0
140°	0	0	0	0	0
142.5°	0	0	0	0	0
145°	0	0	0	0	0
147.5°	0	0	0	0	0
150°	0	0	0	0	0
152.5°	0	0	0	0	0
155°	0	0	0	0	0
157.5°	0	0	0	0	0
160°	0	0	0	0	0
162.5°	0	0	0	0	0
165°	0	0	0	0	0
167.5°	0	0	0	0	0
170°	0	0	0	0	0
172.5°	0	0	0	0	0
175°	0	0	0	0	0
177.5°	0	0	0	0	0
180°	0	0	0	0	0

(END OF REPORT)