

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: 236P107

Luminaire Tested: **I5-354T5-TBW-UNV-EBT2-UPL**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 236P107
Test Lab: METALUX LABORATORIES
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: I5-354T5-TBW-UNV-EBT2-UPL
Description: I5 SERIES LUMINAIRE WITH SPECULAR ALUMINUM MEDIUM
DISTRIBUTION REFLECTOR AND UPLIGHT, WITH THIN WHITE
LOUVER
Light Source: THREE 54-WATT T5HO - 4400 LUMENS EA
Ballast/Driver: TWO UNIVERSAL B254PUNV-D

Summary

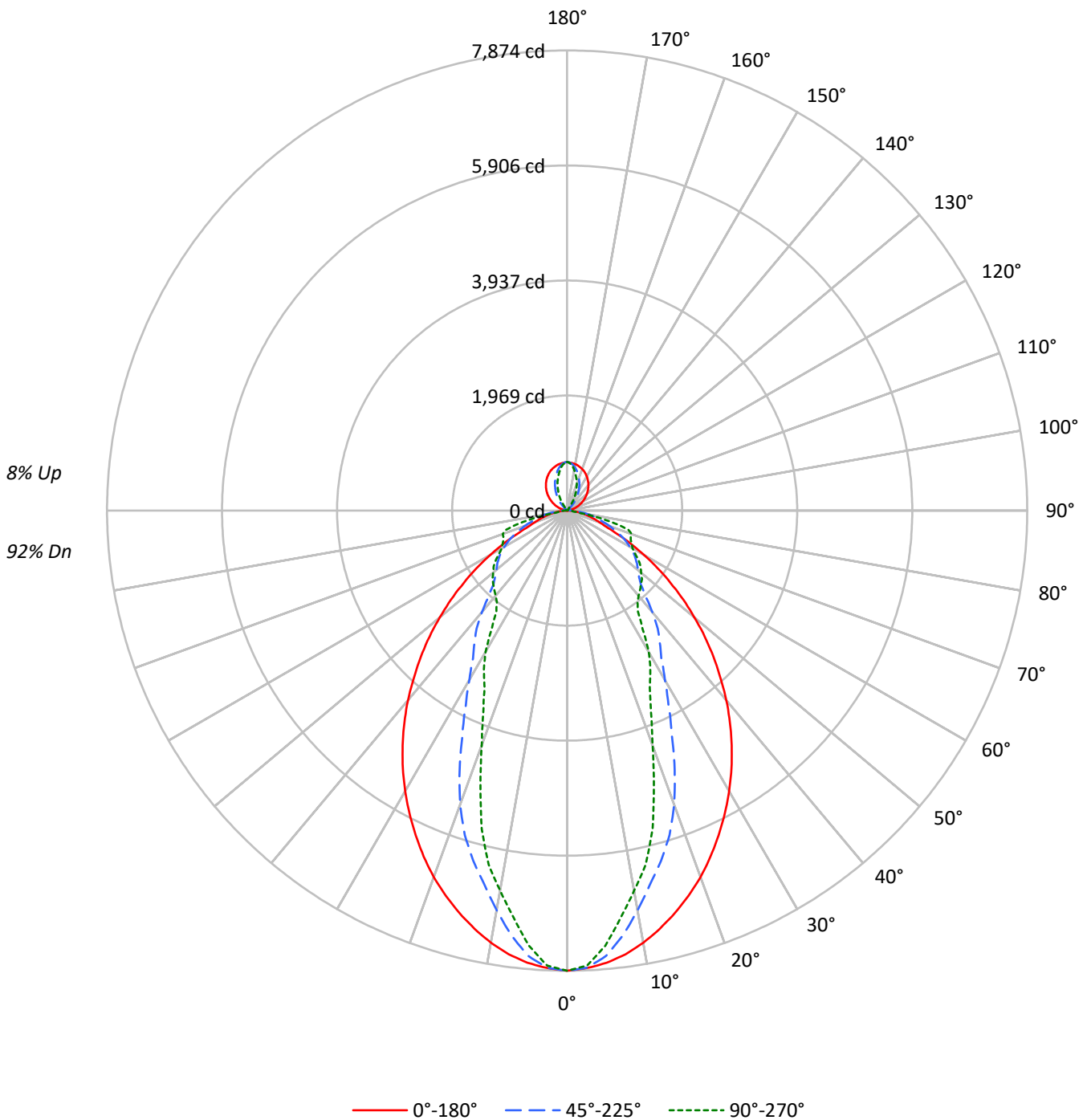
Lumens per Lamp: 4400 (3 lamps)
Luminaire Lumens: 12426.3 lumens
Efficiency: 94.1%
Efficacy: 70.6 lumens/watt
Spacing Criteria (0/90/45): 1.07 / 0.67 / 0.86
Luminous Opening: Rectangular w/ Sides (W: 0.83' x L: 3.83' x H: 0.05')
CIE Type: Direct

Input Watts (W): 176
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	110	110	110	110	107	107	107	107	100	100	100		94	94	94		89	89	89	86
1	102	98	94	91	98	95	91	89	89	87	84		84	82	80		80	78	77	74
2	93	87	81	76	90	84	79	75	80	75	72		75	72	69		72	69	66	64
3	86	77	70	65	83	75	69	64	71	66	62		68	63	60		65	61	58	56
4	80	70	62	57	77	68	61	56	65	59	54		62	57	53		59	55	51	49
5	74	63	55	50	72	62	55	49	59	53	48		56	51	47		54	49	46	44
6	69	58	50	45	67	56	49	44	54	48	43		52	46	42		50	45	41	39
7	64	53	45	40	62	52	45	40	50	43	39		48	42	38		46	41	37	36
8	60	49	42	37	59	48	41	36	46	40	36		44	39	35		43	38	34	32
9	57	45	38	33	55	44	38	33	43	37	33		41	36	32		40	35	32	30
10	54	42	35	31	52	41	35	31	40	34	30		39	33	30		37	33	29	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	26662	26662	26662
5°	26373	25885	25274
10°	25759	23646	22464
15°	24900	21450	19467
20°	23928	18939	15060
25°	22764	15478	12138
30°	21518	12702	10549
35°	20100	11033	8369
40°	18534	9611	7998
45°	16738	8113	8067
50°	14736	7839	8100
55°	12524	7860	8132
60°	10079	7675	7911
65°	7350	7290	8507
70°	5648	6708	9972
75°	5102	5931	9036
80°	4539	5606	2834
85°	3719	4294	2094



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	708.2	5.7	5.4	0°	7874	7874	7874	7874	7874	
10°-20°	1747.2	14.1	13.2	5°	7768	7744	7650	7537	7475	733
20°-30°	2067.0	16.6	15.7	15°	7128	6740	6204	5848	5643	2004
30°-40°	1960.8	15.8	14.9	25°	6130	5373	4243	3515	3340	2819
40°-50°	1678.2	13.5	12.7	35°	4907	3905	2766	2288	2110	3063
50°-60°	1392.5	11.2	10.5	45°	3541	2381	1782	1789	1786	2727
60°-70°	1009.6	8.1	7.6	55°	2161	1463	1430	1536	1496	1937
70°-80°	628.7	5.1	4.8	65°	943	819	1011	1144	1199	971
80°-90°	178.2	1.4	1.4	75°	409	458	541	837	846	437
90°-100°	42.5	0.3	0.3	85°	110	143	176	185	91	119
100°-110°	33.0	0.3	0.2	90°	1	40	85	117	31	7
110°-120°	51.4	0.4	0.4	95°	12	19	42	61	21	19
120°-130°	92.1	0.7	0.7	105°	103	19	19	22	18	111
130°-140°	136.3	1.1	1.0	115°	233	40	20	18	17	231
140°-150°	199.1	1.6	1.5	125°	371	171	27	21	17	332
150°-160°	234.9	1.9	1.8	135°	504	324	69	28	19	389
160°-170°	190.9	1.5	1.4	145°	621	480	297	138	65	388
170°-180°	75.6	0.6	0.6	155°	718	630	493	395	355	330
0°-30°	4522.4	36.4	34.3	165°	784	749	675	617	594	221
0°-40°	6483.2	52.2	49.1	175°	819	820	810	801	792	78
0°-60°	9553.9	76.9	72.4	180°	832	832	832	832	832	
0°-90°	11370.5	91.5	86.1							
90°-120°	126.9	1.0	1.0							
90°-150°	554.5	4.5	4.2							
90°-180°	1056.0	8.5	8.0							
0°-180°	12426.3	100.0	94.1							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7874	7874	7874	7874	7874
2.5°	7835	7837	7830	7812	7792
5°	7768	7744	7650	7537	7475
7.5°	7657	7584	7329	7107	7023
10°	7509	7355	6940	6679	6603
12.5°	7329	7067	6550	6317	6206
15°	7128	6740	6204	5848	5643
17.5°	6908	6399	5821	5224	4931
20°	6672	6056	5355	4540	4271
22.5°	6410	5709	4808	3988	3746
25°	6130	5373	4243	3515	3340
27.5°	5843	5036	3758	3193	3085
30°	5545	4686	3346	2949	2792
32.5°	5232	4311	3001	2648	2404
35°	4907	3905	2766	2288	2110
37.5°	4577	3479	2544	2033	1977
40°	4239	3075	2269	1918	1901
42.5°	3883	2712	1984	1850	1845
45°	3541	2381	1782	1789	1786
47.5°	3195	2085	1666	1736	1736
50°	2841	1863	1580	1688	1648
52.5°	2506	1668	1508	1597	1588
55°	2161	1463	1430	1536	1496
57.5°	1840	1263	1343	1428	1382
60°	1522	1078	1235	1308	1290
62.5°	1223	937	1139	1211	1248
65°	943	819	1011	1144	1199
67.5°	717	703	884	1062	1180
70°	591	606	774	1020	1174
72.5°	499	525	644	979	1099
75°	409	458	541	837	846
77.5°	327	367	463	613	505
80°	250	276	372	386	195
82.5°	179	202	270	229	95
85°	110	143	176	185	91
87.5°	44	78	124	154	81
90°	1	40	85	117	31
92.5°	4	24	58	85	22
95°	12	19	42	61	21
97.5°	30	16	34	45	19
100°	52	15	29	33	19
102.5°	75	16	22	26	19
105°	103	19	19	22	18
107.5°	133	22	18	20	18
110°	166	25	18	18	17



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	199	30	18	18	17
115°	233	40	20	18	17
117.5°	268	55	23	18	17
120°	302	79	24	18	17
122.5°	337	135	26	20	18
125°	371	171	27	21	17
127.5°	405	207	32	21	18
130°	440	245	40	22	17
132.5°	472	285	52	23	18
135°	504	324	69	28	19
137.5°	535	364	127	38	26
140°	565	402	198	48	36
142.5°	594	443	247	65	45
145°	621	480	297	138	65
147.5°	648	518	346	219	154
150°	673	556	397	277	232
152.5°	696	593	445	337	293
155°	718	630	493	395	355
157.5°	737	664	540	453	419
160°	755	696	586	510	478
162.5°	770	724	630	564	538
165°	784	749	675	617	594
167.5°	798	773	718	669	649
170°	807	793	755	721	705
172.5°	813	808	786	766	753
175°	819	820	810	801	792
177.5°	823	829	826	825	819
180°	832	832	832	832	832

(END OF REPORT)