

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: ITL44176

Luminaire Tested: **EIM-396T8**

Issue Date: 3/3/2020



**Test Information**

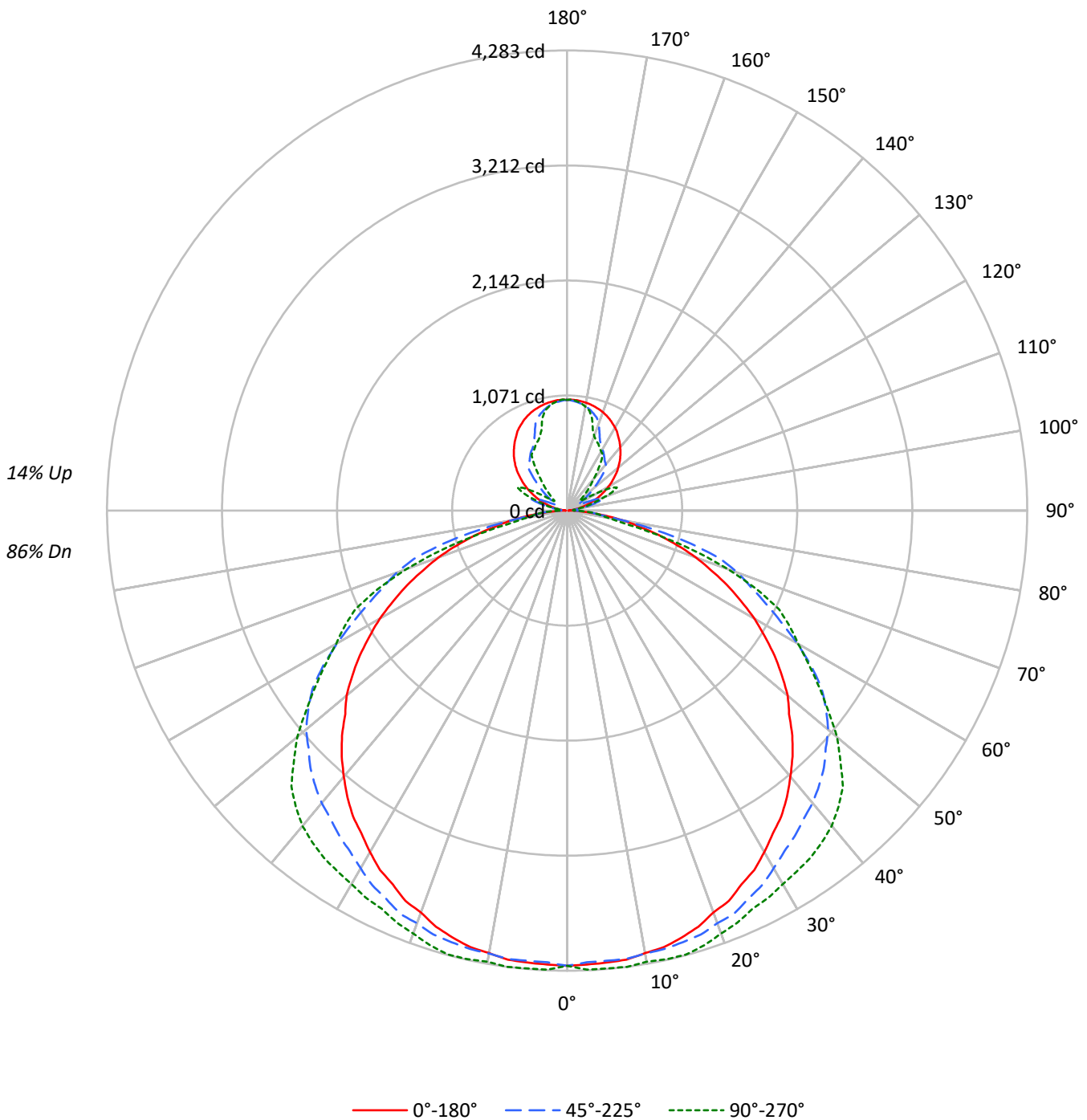
Test Method: LM-41-14  
Report Number: ITL44176  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: EIM-396T8  
Description: FABRICATED METAL STRIP BALLAST HOUSING, WHITE PAINTED FABRICATED METAL REFLECTOR WITH UP-LIGHT APERTURES, OPEN ENDS AND BOTTOM.  
Light Source: THREE 59-WATT F96T8/SPX35 FLUORESCENTS.  
Ballast/Driver: TWO MAGNETEK TRIAD B259I120HP (BALLAST FACTORS 110.6 % ONE LAMP, 96.6 % TWO-LAMP).

**Summary**

Lumens per Lamp: 5950 (3 lamps)  
Luminaire Lumens: 16556.3 lumens  
Efficiency: 92.8%  
Efficacy: 83.8 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.43 / 1.51  
Luminous Opening: Rectangular (W 1.08' x L: 8' x H: 0')  
CIE Type: Semi-Direct  
  
Input Watts (W): 197.6  
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	107	107	107	107	103	103	103	103	96	96	96	89	89	89	83	83	83	80
1	98	93	89	85	94	90	86	83	83	80	78	77	75	73	72	70	69	66
2	88	80	74	69	85	78	72	67	72	67	63	67	63	60	63	59	57	54
3	80	70	62	56	77	68	61	55	63	57	52	59	54	50	55	51	47	45
4	73	62	53	47	70	60	52	46	56	49	44	52	47	42	48	44	40	38
5	67	55	46	40	64	53	45	39	50	43	38	46	41	36	43	38	35	32
6	62	49	41	35	59	47	40	34	45	38	33	42	36	31	39	34	30	28
7	57	44	36	30	54	43	35	30	40	34	29	38	32	28	36	30	27	24
8	53	40	32	27	51	39	32	26	37	30	25	35	29	25	33	27	24	22
9	49	37	29	24	47	36	28	24	34	27	23	32	26	22	30	25	21	19
10	46	34	26	22	44	33	26	21	31	25	21	29	24	20	28	23	19	17

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

	0°	45°	90°
0°	5262	5262	5262
5°	5265	5244	5332
10°	5274	5279	5376
15°	5291	5348	5500
20°	5261	5403	5537
25°	5261	5464	5602
30°	5263	5514	5757
35°	5269	5606	5985
40°	5242	5761	6213
45°	5204	5939	6376
50°	5178	6129	6338
55°	5104	6265	6197
60°	5003	6141	6173
65°	4829	5978	6392
70°	4623	6126	5770
75°	4233	5735	4103
80°	3755	3684	2697
85°	2978	3363	3449



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	402.7	2.4	2.3	0°	4237	4237	4237	4237	4237	
10°-20°	1178.5	7.1	6.6	5°	4223	4192	4206	4236	4277	402
20°-30°	1837.4	11.1	10.3	15°	4115	4118	4159	4223	4277	1161
30°-40°	2326.9	14.1	13.0	25°	3839	3889	3987	4048	4088	1774
40°-50°	2580.1	15.6	14.5	35°	3475	3600	3697	3869	3947	2170
50°-60°	2461.3	14.9	13.8	45°	2963	3155	3381	3590	3630	2284
60°-70°	2005.1	12.1	11.2	55°	2357	2620	2893	2916	2862	2104
70°-80°	1136.4	6.9	6.4	65°	1643	2031	2034	2172	2175	1623
80°-90°	302.9	1.8	1.7	75°	882	1212	1195	1034	855	933
90°-100°	80.2	0.5	0.4	85°	209	317	236	253	242	239
100°-110°	219.3	1.3	1.2	90°	17	71	63	71	62	20
110°-120°	294.2	1.8	1.6	95°	27	75	55	60	62	35
120°-130°	258.9	1.6	1.5	105°	169	77	277	243	225	178
130°-140°	347.4	2.1	1.9	115°	350	213	151	430	510	346
140°-150°	405.3	2.4	2.3	125°	534	402	214	142	154	477
150°-160°	360.2	2.2	2.0	135°	699	532	459	322	271	539
160°-170°	263.1	1.6	1.5	145°	833	731	603	602	545	522
170°-180°	96.5	0.6	0.5	155°	938	890	721	692	685	432
0°-30°	3418.6	20.6	19.2	165°	1000	974	938	920	891	282
0°-40°	5745.4	34.7	32.2	175°	1031	1019	1016	1019	1022	98
0°-60°	10786.8	65.2	60.4	180°	1031	1031	1031	1031	1031	
0°-90°	14231.1	86.0	79.7							
90°-120°	593.7	3.6	3.3							
90°-150°	1605.3	9.7	9.0							
90°-180°	2325.0	14.0	13.0							
0°-180°	16556.3	100.0	92.8							



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4237	4237	4237	4237	4237
2.5°	4229	4196	4209	4233	4277
5°	4223	4192	4206	4236	4277
7.5°	4216	4196	4209	4246	4283
10°	4182	4162	4186	4223	4263
12.5°	4162	4149	4179	4229	4277
15°	4115	4118	4159	4223	4277
17.5°	4061	4074	4138	4202	4243
20°	3980	4017	4088	4155	4189
22.5°	3933	3970	4061	4115	4149
25°	3839	3889	3987	4048	4088
27.5°	3771	3839	3930	4007	4061
30°	3670	3751	3845	3943	4014
32.5°	3563	3674	3761	3899	3980
35°	3475	3600	3697	3869	3947
37.5°	3361	3502	3617	3819	3893
40°	3233	3391	3553	3751	3832
42.5°	3105	3276	3472	3674	3738
45°	2963	3155	3381	3590	3630
47.5°	2802	3004	3266	3458	3448
50°	2680	2886	3172	3313	3280
52.5°	2519	2758	3037	3122	3064
55°	2357	2620	2893	2916	2862
57.5°	2182	2485	2694	2690	2667
60°	2014	2350	2472	2499	2485
62.5°	1825	2199	2243	2313	2337
65°	1643	2031	2034	2172	2175
67.5°	1448	1859	1845	2004	1906
70°	1273	1650	1687	1721	1589
72.5°	1078	1428	1495	1387	1232
75°	882	1212	1195	1034	855
77.5°	680	1007	859	657	525
80°	525	835	515	414	377
82.5°	357	596	306	327	310
85°	209	317	236	253	242
87.5°	101	172	152	175	155
90°	17	71	63	71	62
92.5°	12	56	56	60	57
95°	27	75	55	60	62
97.5°	53	132	88	71	63
100°	87	169	139	129	102
102.5°	126	124	198	191	179
105°	169	77	277	243	225
107.5°	210	87	347	328	285
110°	255	122	334	412	374



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	305	164	240	470	458
115°	350	213	151	430	510
117.5°	397	272	115	319	458
120°	443	336	130	211	338
122.5°	489	377	169	146	223
125°	534	402	214	142	154
127.5°	580	436	266	175	148
130°	621	472	323	219	179
132.5°	661	502	387	268	220
135°	699	532	459	322	271
137.5°	735	569	530	385	326
140°	768	616	560	455	386
142.5°	803	670	576	540	461
145°	833	731	603	602	545
147.5°	866	790	632	622	616
150°	892	830	655	642	635
152.5°	914	861	681	669	653
155°	938	890	721	692	685
157.5°	957	915	785	719	705
160°	974	938	861	765	736
162.5°	988	957	909	843	791
165°	1000	974	938	920	891
167.5°	1011	990	964	956	952
170°	1019	1003	988	982	981
172.5°	1026	1013	1003	1004	1007
175°	1031	1019	1016	1019	1022
177.5°	1033	1024	1025	1029	1035
180°	1031	1031	1031	1031	1031

(END OF REPORT)