

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: ITL44651

Luminaire Tested: **SMSL-232**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-41-14  
Report Number: ITL44651  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: SMSL-232  
Description: FABRICATED METAL STRIP BALLAST HOUSING WITH STAGGERED  
SIDE MOUNTED LAMPS, WHITE PAINTED FABRICATED METAL REFLECTORS,  
OPEN TOP AND BOTTOM.  
Light Source: TWO 32-WATT F32T8-SPX35 FLUORESCENTS.  
Ballast/Driver: MAGNETEK TRIAD B232I120RH (BALLAST FACTOR 87.6%). BALLAST FACTOR  
SUPPLIED BY CLIENT.

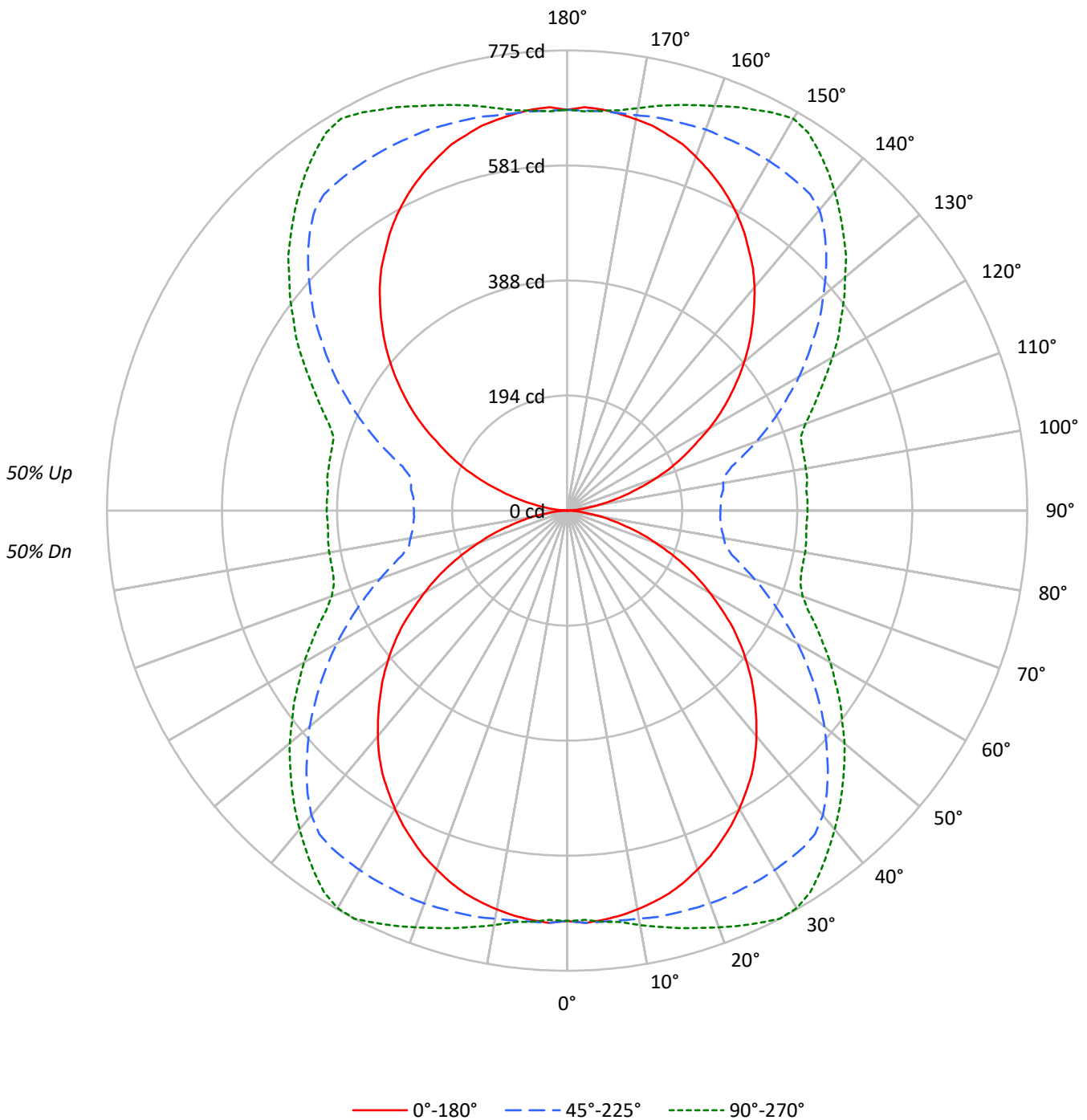
**Summary**

Lumens per Lamp: 2950 (2 lamps)  
Luminaire Lumens: 5649.7 lumens  
Efficiency: 95.8%  
Efficacy: 94.2 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.58 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 0.61' x L: 4' x H: 0.15')  
CIE Type: General Diffuse

Input Watts (W): 60  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	103	103	103	103	95	95	95	95	80	80	80	66	66	66	54	54	54	48
1	92	87	82	78	84	80	76	73	67	64	62	56	53	51	45	43	42	37
2	83	75	68	63	76	69	63	58	58	54	50	48	44	42	38	36	34	29
3	75	65	58	51	69	60	53	48	51	45	41	42	38	34	33	31	28	24
4	69	57	49	43	63	53	46	40	45	39	34	37	32	29	30	26	24	20
5	63	51	43	36	57	47	40	34	40	34	29	33	28	25	26	23	20	17
6	58	45	37	31	53	42	35	29	35	30	25	29	25	21	24	20	18	15
7	53	41	33	27	49	38	31	25	32	26	22	27	22	19	22	18	16	13
8	49	37	29	24	45	34	27	22	29	23	19	24	20	17	20	16	14	11
9	46	34	26	21	42	31	24	20	27	21	17	22	18	15	18	15	12	10
10	43	31	24	19	39	29	22	18	24	19	15	21	16	13	17	13	11	9

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

	0°	45°	90°
0°	3051	3051	3051
5°	3057	3027	3015
10°	3038	3022	3046
15°	3019	3045	3121
20°	2981	3082	3220
25°	2940	3126	3346
30°	2894	3192	3448
35°	2847	3273	3413
40°	2771	3303	3345
45°	2684	3227	3283
50°	2590	3134	3235
55°	2476	3030	3190
60°	2304	2931	3164
65°	2117	2844	3159
70°	1848	2782	3242
75°	1540	2792	3617
80°	1215	3177	4303
85°	708	3982	5341



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	66.3	1.2	1.1	0°	691	691	691	691	691	
10°-20°	198.2	3.5	3.4	5°	692	696	695	693	695	66
20°-30°	322.3	5.7	5.5	15°	667	681	702	718	728	188
30°-40°	418.2	7.4	7.1	25°	614	650	702	746	766	283
40°-50°	455.6	8.1	7.7	35°	542	601	693	741	743	338
50°-60°	439.3	7.8	7.4	45°	446	537	621	652	656	344
60°-70°	374.6	6.6	6.3	55°	339	459	507	553	561	302
70°-80°	299.8	5.3	5.1	65°	219	331	390	450	463	216
80°-90°	262.9	4.7	4.5	75°	103	204	287	375	408	111
90°-100°	263.3	4.7	4.5	85°	20	118	260	366	404	24
100°-110°	300.3	5.3	5.1	90°	0	109	258	366	405	2
110°-120°	377.2	6.7	6.4	95°	17	118	260	366	404	22
120°-130°	437.8	7.7	7.4	105°	102	205	287	374	410	109
130°-140°	451.6	8.0	7.7	115°	217	333	394	453	468	215
140°-150°	411.1	7.3	7.0	125°	334	450	507	553	563	298
150°-160°	313.8	5.6	5.3	135°	441	523	617	653	658	340
160°-170°	192.8	3.4	3.3	145°	534	585	675	734	739	334
170°-180°	64.5	1.1	1.1	155°	607	632	682	725	745	280
0°-30°	586.8	10.4	9.9	165°	655	663	680	697	707	185
0°-40°	1005.0	17.8	17.0	175°	678	676	675	673	676	64
0°-60°	1899.9	33.6	32.2	180°	675	675	675	675	675	
0°-90°	2837.2	50.2	48.1							
90°-120°	940.8	16.7	15.9							
90°-150°	2241.4	39.7	38.0							
90°-180°	2813.0	49.8	47.7							
0°-180°	5649.7	100.0	95.8							



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	691	691	691	691	691
2.5°	695	697	695	690	690
5°	692	696	695	693	695
7.5°	688	692	696	697	699
10°	682	689	698	703	709
12.5°	675	685	701	711	718
15°	667	681	702	718	728
17.5°	656	675	703	726	737
20°	643	668	704	732	747
22.5°	630	659	704	740	757
25°	614	650	702	746	766
27.5°	598	639	701	753	775
30°	580	628	699	758	773
32.5°	561	615	696	755	762
35°	542	601	693	741	743
37.5°	520	587	686	722	722
40°	496	570	670	698	701
42.5°	471	553	647	676	679
45°	446	537	621	652	656
47.5°	421	518	593	628	633
50°	394	499	566	604	610
52.5°	367	480	536	579	584
55°	339	459	507	553	561
57.5°	307	430	477	526	535
60°	278	399	448	501	512
62.5°	249	365	418	476	486
65°	219	331	390	450	463
67.5°	188	296	362	424	439
70°	158	263	335	402	422
72.5°	132	233	309	385	412
75°	103	204	287	375	408
77.5°	78	175	273	371	407
80°	58	151	268	370	407
82.5°	35	130	263	368	406
85°	20	118	260	366	404
87.5°	5	111	258	366	404
90°	0	109	258	366	405
92.5°	6	113	259	366	405
95°	17	118	260	366	404
97.5°	35	131	265	370	408
100°	54	151	267	369	408
102.5°	76	176	272	372	409
105°	102	205	287	374	410
107.5°	129	233	312	384	412
110°	159	269	339	406	427



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	189	301	366	429	447
115°	217	333	394	453	468
117.5°	244	364	421	476	491
120°	276	396	451	501	516
122.5°	306	426	479	528	541
125°	334	450	507	553	563
127.5°	362	469	537	580	588
130°	389	486	563	603	611
132.5°	416	505	591	628	637
135°	441	523	617	653	658
137.5°	466	540	641	673	680
140°	491	555	661	695	701
142.5°	514	571	672	717	721
145°	534	585	675	734	739
147.5°	555	599	678	743	755
150°	574	611	680	740	762
152.5°	591	622	681	731	755
155°	607	632	682	725	745
157.5°	621	641	682	717	736
160°	634	650	683	711	725
162.5°	647	656	681	704	716
165°	655	663	680	697	707
167.5°	664	669	679	690	698
170°	669	671	676	682	688
172.5°	674	675	675	677	680
175°	678	676	675	673	676
177.5°	680	677	674	672	673
180°	675	675	675	675	675

(END OF REPORT)