

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: 144P108

Luminaire Tested: **SA-440A**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 144P108
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SA-440A
Description: Surface Mount Architectural Wrap with an
extruded acrylic lens.
Light Source: Four-F40CW - 3150 Lumens ea. - 40 Watts ea.
Ballast/Driver: -

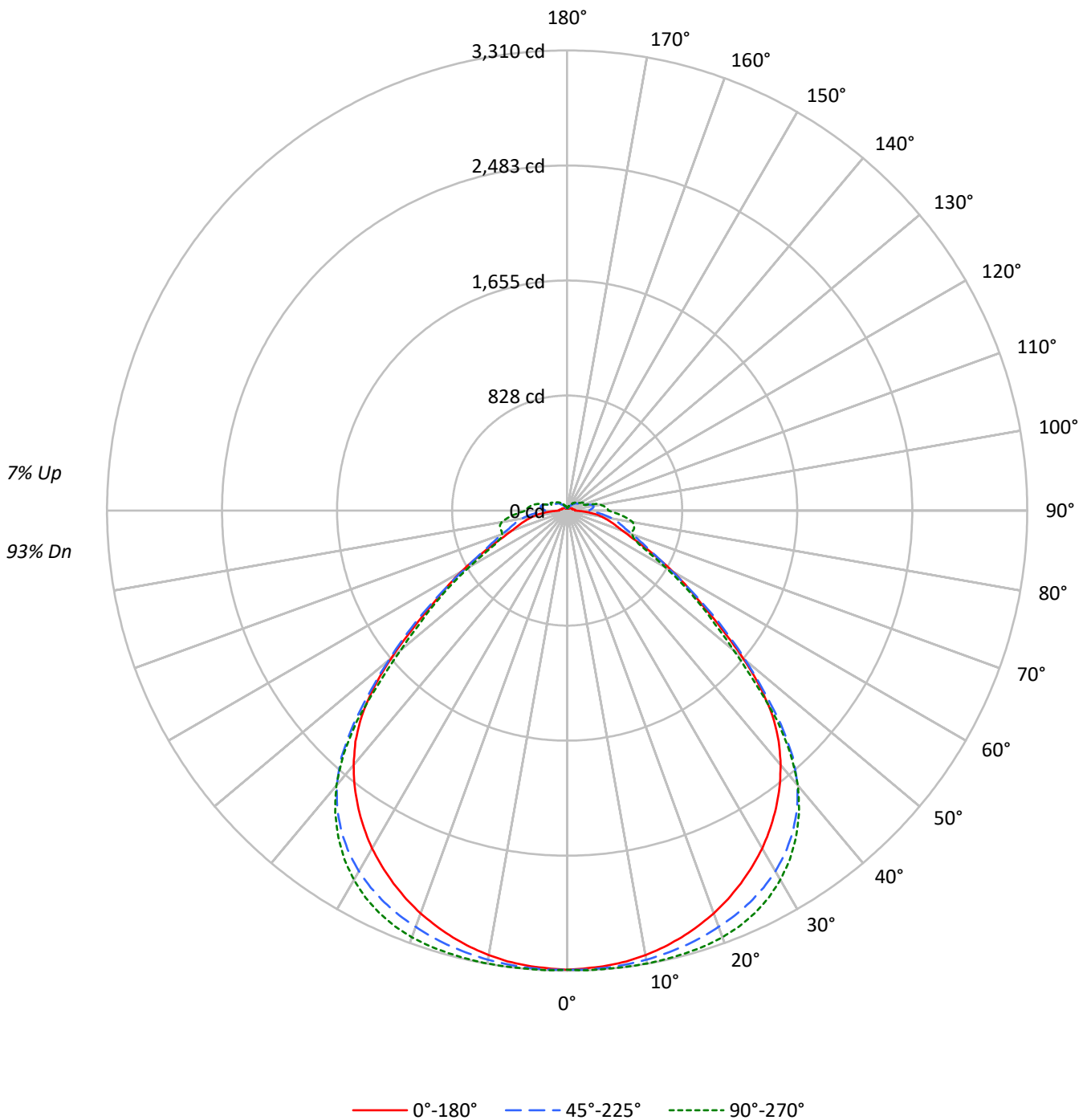
Summary

Lumens per Lamp: 3150 (4 lamps)
Luminaire Lumens: 9118.4 lumens
Efficiency: 72.4%
Efficacy: 55.3 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.35 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 1.32' x L: 4.07' x H: 0.11')
CIE Type: Direct

Input Watts (W): 164.8
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	85	85	85	85	83	83	83	83	78	78	78	73	73	73	70	70	70	68
1	78	74	71	69	75	72	70	67	68	66	64	65	63	61	62	60	59	57
2	71	66	61	57	69	64	60	56	61	57	54	58	55	52	55	52	50	48
3	65	58	53	48	63	57	52	48	54	50	46	51	48	45	49	46	43	42
4	60	52	46	41	58	51	45	41	48	44	40	46	42	39	44	41	38	36
5	56	47	41	36	54	46	40	36	44	39	35	42	37	34	40	36	33	32
6	52	42	36	32	50	41	36	31	40	35	31	38	34	30	36	33	30	28
7	48	39	32	28	46	38	32	28	36	31	27	35	30	27	33	29	26	25
8	45	35	29	25	43	35	29	25	33	28	25	32	27	24	31	27	24	22
9	42	32	27	23	40	32	26	23	31	26	22	30	25	22	28	24	22	20
10	39	30	24	21	38	29	24	21	28	24	20	27	23	20	26	22	20	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6599	6599	6599
5°	6573	6571	6584
10°	6554	6562	6610
15°	6524	6567	6662
20°	6488	6581	6731
25°	6436	6605	6769
30°	6369	6602	6738
35°	6261	6524	6597
40°	6086	6294	6280
45°	5743	5676	5554
50°	4968	4744	4397
55°	3985	3842	3574
60°	3341	3027	2835
65°	2666	2557	2260
70°	2293	2379	2345
75°	2312	2388	2905
80°	2520	2600	3695
85°	2706	2783	4526



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	314.2	3.4	2.5	0°	3303	3303	3303	3303	3303	
10°-20°	915.9	10.0	7.3	5°	3286	3292	3300	3300	3308	312
20°-30°	1425.0	15.6	11.3	15°	3178	3202	3244	3277	3296	897
30°-40°	1736.3	19.0	13.8	25°	2958	3012	3110	3171	3195	1363
40°-50°	1634.3	17.9	13.0	35°	2618	2707	2827	2865	2869	1635
50°-60°	1097.9	12.0	8.7	45°	2090	2178	2172	2127	2136	1590
60°-70°	657.5	7.2	5.2	55°	1190	1310	1231	1138	1153	1090
70°-80°	453.2	5.0	3.6	65°	598	676	635	685	567	610
80°-90°	289.9	3.2	2.3	75°	331	397	403	487	498	352
90°-100°	190.6	2.1	1.5	85°	156	204	234	356	393	148
100°-110°	143.0	1.6	1.1	90°	57	93	158	269	296	37
110°-120°	94.3	1.0	0.7	95°	57	97	183	261	278	44
120°-130°	69.5	0.8	0.6	105°	37	88	167	181	174	42
130°-140°	47.3	0.5	0.4	115°	37	71	106	126	131	37
140°-150°	27.2	0.3	0.2	125°	30	58	90	97	99	27
150°-160°	14.2	0.2	0.1	135°	26	43	69	78	81	20
160°-170°	6.3	0.1	0.0	145°	22	30	45	55	59	14
170°-180°	1.7	0.0	0.0	155°	19	23	30	38	40	9
0°-30°	2655.1	29.1	21.1	165°	17	19	21	25	27	5
0°-40°	4391.4	48.2	34.9	175°	16	18	18	19	19	2
0°-60°	7123.6	78.1	56.5	180°	17	17	17	17	17	
0°-90°	8524.3	93.5	67.7							
90°-120°	427.8	4.7	3.4							
90°-150°	571.9	6.3	4.5							
90°-180°	594.0	6.5	4.7							
0°-180°	9118.4	100.0	72.4							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3303	3303	3303	3303	3303
2.5°	3295	3299	3304	3302	3310
5°	3286	3292	3300	3300	3308
7.5°	3271	3280	3292	3299	3309
10°	3247	3259	3281	3295	3308
12.5°	3216	3233	3264	3288	3304
15°	3178	3202	3244	3277	3296
17.5°	3133	3164	3218	3262	3285
20°	3083	3120	3187	3241	3266
22.5°	3024	3069	3152	3211	3237
25°	2958	3012	3110	3171	3195
27.5°	2885	2948	3058	3118	3139
30°	2806	2877	2996	3052	3067
32.5°	2716	2798	2920	2968	2979
35°	2618	2707	2827	2865	2869
37.5°	2510	2603	2715	2740	2741
40°	2389	2483	2578	2587	2583
42.5°	2254	2342	2403	2389	2380
45°	2090	2178	2172	2127	2136
47.5°	1889	1977	1915	1820	1830
50°	1652	1756	1674	1530	1561
52.5°	1404	1531	1449	1303	1339
55°	1190	1310	1231	1138	1153
57.5°	1029	1108	1029	1005	980
60°	877	931	864	881	816
62.5°	729	789	734	770	670
65°	598	676	635	685	567
67.5°	493	584	561	629	517
70°	423	508	498	583	497
72.5°	374	448	442	536	494
75°	331	397	403	487	498
77.5°	290	353	371	447	495
80°	254	314	330	417	479
82.5°	211	265	283	388	439
85°	156	204	234	356	393
87.5°	101	146	186	311	341
90°	57	93	158	269	296
92.5°	57	95	169	267	291
95°	57	97	183	261	278
97.5°	53	97	192	252	262
100°	47	95	193	235	243
102.5°	39	92	185	215	219
105°	37	88	167	181	174
107.5°	40	91	142	140	133
110°	41	87	117	120	120



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	40	78	108	122	126
115°	37	71	106	126	131
117.5°	35	66	103	120	123
120°	33	62	97	109	112
122.5°	31	60	92	101	103
125°	30	58	90	97	99
127.5°	28	55	86	94	96
130°	27	51	81	90	93
132.5°	26	47	75	84	88
135°	26	43	69	78	81
137.5°	25	39	62	72	76
140°	23	36	56	67	71
142.5°	22	33	50	61	65
145°	22	30	45	55	59
147.5°	21	28	41	50	53
150°	20	26	37	46	49
152.5°	20	24	34	42	45
155°	19	23	30	38	40
157.5°	18	21	27	35	37
160°	18	20	25	31	33
162.5°	17	19	23	28	30
165°	17	19	21	25	27
167.5°	16	18	19	22	24
170°	16	18	18	20	22
172.5°	16	18	18	19	20
175°	16	18	18	19	19
177.5°	17	17	18	19	19
180°	17	17	17	17	17

(END OF REPORT)