

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: 144P115

Luminaire Tested: **SA-332IMA**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-41-14  
Report Number: 144P115  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: SA-332IMA  
Description: Surface Mount Architectural Wrap with an  
injection molded acrylic lens.  
Light Source: Three-F32T8/35K - 2850 Lumens ea. - 32 Watts ea.  
Ballast/Driver: Two-Triad-Utrad B232I120RH Electronic

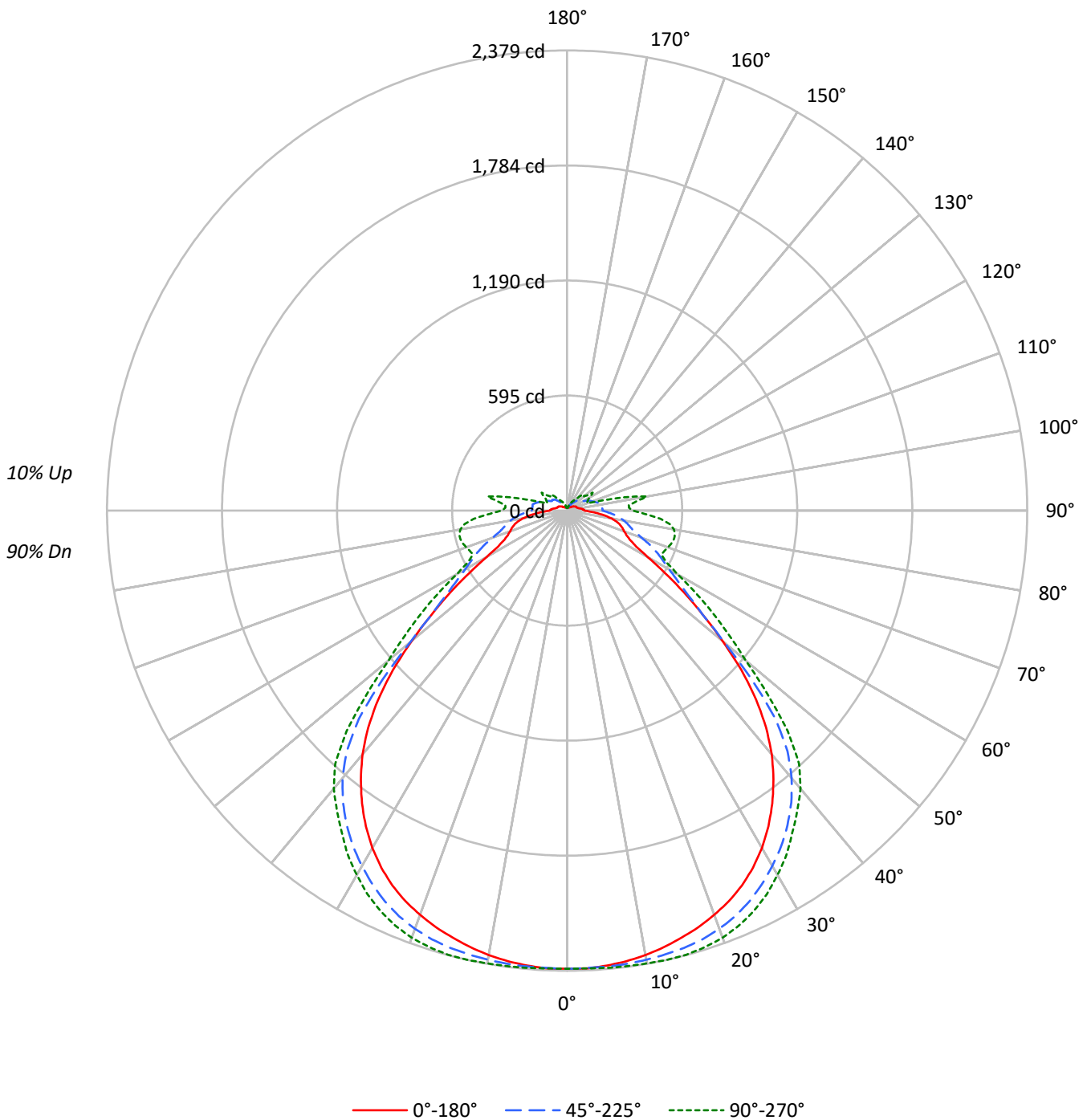
**Summary**

Lumens per Lamp: 2850 (3 lamps)  
Luminaire Lumens: 6953.6 lumens  
Efficiency: 81.3%  
Efficacy: 72.1 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.34 / 1.37  
Luminous Opening: Rectangular w/ Sides (W: 1.3' x L: 4.05' x H: 0.2')  
CIE Type: Direct

Input Watts (W): 96.5  
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										
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	50	30	10	50	30	10	0														
RCR																																						
0	95	95	95	95	92	92	92	92	86	86	86	81	81	81	76	76	76	73																				
1	86	82	79	75	83	80	76	73	75	72	70	70	68	66	66	64	63	60																				
2	79	72	67	62	76	70	65	61	66	62	58	62	59	56	58	56	53	51																				
3	72	64	57	52	70	62	56	51	58	54	49	55	51	48	52	49	46	44																				
4	66	57	50	45	64	55	49	44	52	47	43	50	45	41	47	43	40	38																				
5	61	51	44	39	59	50	43	38	47	42	37	45	40	36	43	38	35	33																				
6	57	46	39	34	55	45	39	34	43	37	33	41	36	32	39	35	31	29																				
7	53	42	35	30	51	41	35	30	39	33	29	37	32	29	36	31	28	26																				
8	49	39	32	27	47	38	31	27	36	30	26	34	29	26	33	28	25	24																				
9	46	35	29	25	44	35	29	24	33	28	24	32	27	23	30	26	23	21																				
10	43	33	26	22	42	32	26	22	31	25	22	29	25	21	28	24	21	19																				

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

	0°	45°	90°
0°	4853	4853	4853
5°	4834	4805	4815
10°	4811	4784	4815
15°	4785	4780	4843
20°	4763	4769	4853
25°	4725	4724	4819
30°	4633	4638	4728
35°	4471	4516	4589
40°	4228	4314	4449
45°	3817	3859	4052
50°	3156	2880	3249
55°	2454	2264	2680
60°	1817	2001	2135
65°	1571	1901	1965
70°	1653	1761	2342
75°	1894	1757	2884
80°	2134	1944	3547
85°	2368	2173	4154



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	225.5	3.2	2.6	0°	2369	2369	2369	2369	2369	
10°-20°	660.0	9.5	7.7	5°	2361	2362	2366	2368	2373	225
20°-30°	1021.7	14.7	11.9	15°	2286	2306	2340	2364	2377	646
30°-40°	1223.8	17.6	14.3	25°	2138	2173	2229	2266	2284	984
40°-50°	1143.8	16.4	13.4	35°	1849	1898	1986	2018	2031	1152
50°-60°	759.4	10.9	8.9	45°	1382	1420	1522	1606	1612	1053
60°-70°	498.5	7.2	5.8	55°	735	830	763	937	914	664
70°-80°	415.5	6.0	4.9	65°	358	439	512	559	538	369
80°-90°	322.3	4.6	3.8	75°	283	307	340	496	572	295
90°-100°	225.8	3.2	2.6	85°	157	205	243	438	485	143
100°-110°	169.7	2.4	2.0	90°	90	130	183	330	338	52
110°-120°	98.9	1.4	1.2	95°	81	123	181	304	320	63
120°-130°	82.3	1.2	1.0	105°	55	94	160	249	221	59
130°-140°	54.9	0.8	0.6	115°	49	75	122	114	118	48
140°-150°	29.6	0.4	0.3	125°	37	54	95	146	162	33
150°-160°	14.7	0.2	0.2	135°	25	37	74	107	118	20
160°-170°	5.7	0.1	0.1	145°	20	32	48	61	67	13
170°-180°	1.4	0.0	0.0	155°	18	23	31	40	43	8
0°-30°	1907.2	27.4	22.3	165°	16	17	19	22	23	5
0°-40°	3131.1	45.0	36.6	175°	15	16	14	14	13	1
0°-60°	5034.2	72.4	58.9	180°	15	15	15	15	15	
0°-90°	6270.6	90.2	73.3							
90°-120°	494.4	7.1	5.8							
90°-150°	661.2	9.5	7.7							
90°-180°	683.0	9.8	8.0							
0°-180°	6953.6	100.0	81.3							



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2369	2369	2369	2369	2369
2.5°	2369	2368	2367	2366	2369
5°	2361	2362	2366	2368	2373
7.5°	2350	2353	2364	2370	2376
10°	2333	2342	2358	2370	2377
12.5°	2312	2326	2350	2369	2379
15°	2286	2306	2340	2364	2377
17.5°	2258	2281	2324	2353	2367
20°	2224	2251	2301	2334	2350
22.5°	2186	2215	2270	2305	2322
25°	2138	2173	2229	2266	2284
27.5°	2081	2121	2179	2218	2236
30°	2014	2060	2122	2159	2175
32.5°	1936	1986	2059	2092	2111
35°	1849	1898	1986	2018	2031
37.5°	1752	1798	1903	1943	1955
40°	1646	1683	1806	1862	1877
42.5°	1522	1557	1686	1760	1774
45°	1382	1420	1522	1606	1612
47.5°	1222	1270	1296	1399	1404
50°	1048	1104	1057	1203	1205
52.5°	883	952	881	1057	1050
55°	735	830	763	937	914
57.5°	598	717	676	827	780
60°	481	609	609	718	659
62.5°	402	513	558	625	576
65°	358	439	512	559	538
67.5°	332	388	462	523	544
70°	313	353	409	501	555
72.5°	300	327	367	495	565
75°	283	307	340	496	572
77.5°	261	289	320	496	571
80°	231	268	298	489	561
82.5°	196	239	272	470	534
85°	157	205	243	438	485
87.5°	117	168	211	385	401
90°	90	130	183	330	338
92.5°	86	128	183	321	320
95°	81	123	181	304	320
97.5°	74	115	180	305	359
100°	65	108	182	313	418
102.5°	59	101	172	281	328
105°	55	94	160	249	221
107.5°	52	88	149	189	150
110°	52	84	139	140	112



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	51	80	131	115	112
115°	49	75	122	114	118
117.5°	46	70	110	117	123
120°	43	64	97	125	132
122.5°	40	59	93	137	148
125°	37	54	95	146	162
127.5°	34	49	91	122	129
130°	31	44	88	111	114
132.5°	28	40	84	114	118
135°	25	37	74	107	118
137.5°	23	36	66	92	105
140°	22	35	59	78	87
142.5°	21	34	54	69	73
145°	20	32	48	61	67
147.5°	19	30	44	56	60
150°	19	27	39	51	54
152.5°	18	25	35	46	48
155°	18	23	31	40	43
157.5°	18	21	28	35	37
160°	17	19	25	31	32
162.5°	17	17	22	26	27
165°	16	17	19	22	23
167.5°	16	16	16	19	19
170°	16	16	15	16	16
172.5°	15	16	14	14	14
175°	15	16	14	14	13
177.5°	15	16	14	14	13
180°	15	15	15	15	15

(END OF REPORT)