

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: 144P111

Luminaire Tested: **SA-432IMA**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 144P111
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SA-432IMA
Description: Surface Mount Architectural Wrap with an
injection molded acrylic lens.
Light Source: Four-F32T8/35K - 2850 Lumens ea. - 32 Watts ea.
Ballast/Driver: Two-Triad-Utrad B232I120RH Electronic

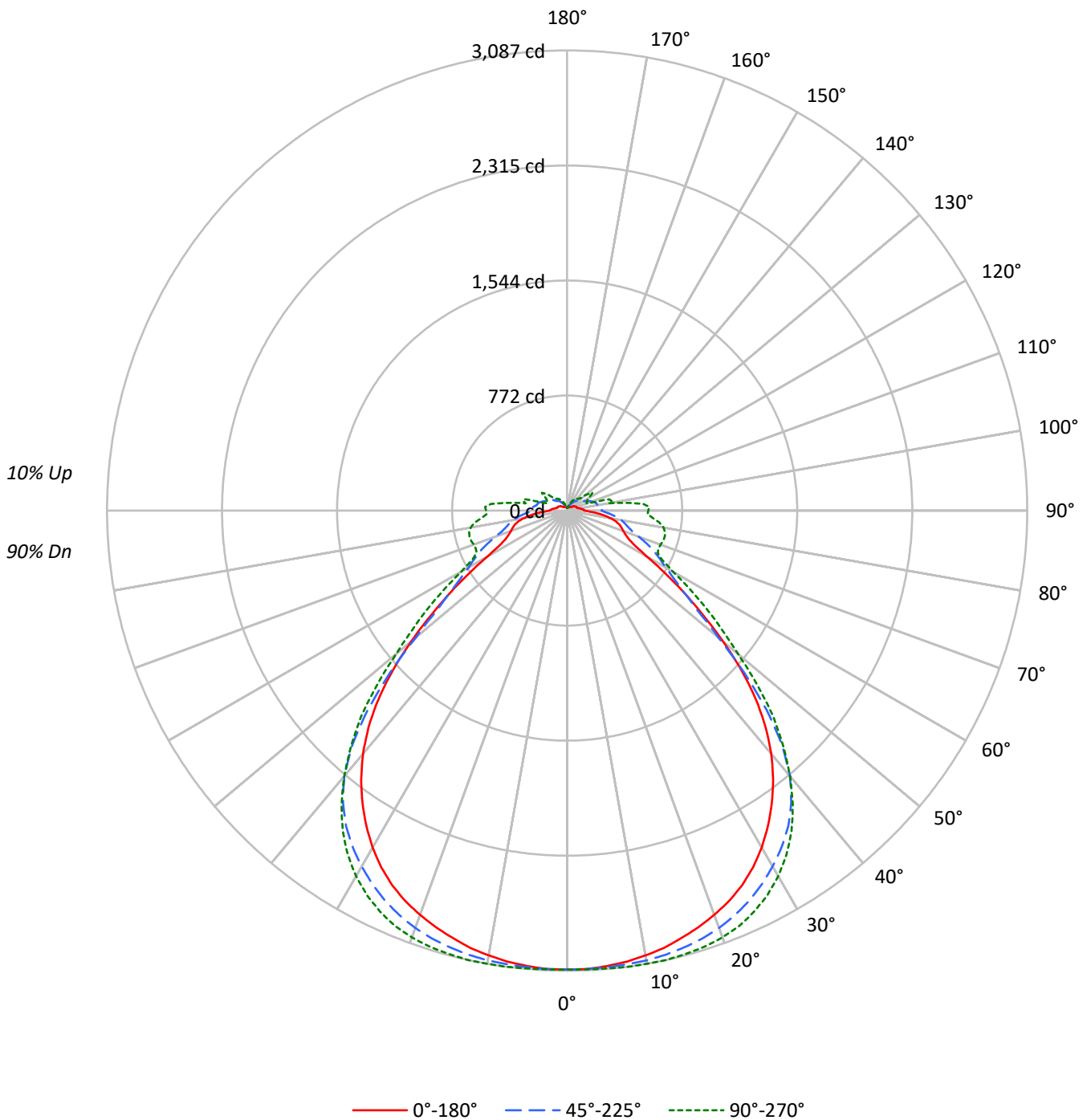
Summary

Lumens per Lamp: 2850 (4 lamps)
Luminaire Lumens: 8837.1 lumens
Efficiency: 77.5%
Efficacy: 75.3 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.34 / 1.35
Luminous Opening: Rectangular w/ Sides (W: 1.3' x L: 4.05' x H: 0.2')
CIE Type: Direct

Input Watts (W): 117.3
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	50	30	10	0	
RCR																						
0	91	91	91	91	88	88	88	88	82	82	82	77	77	77	72	72	72	70				
1	82	78	75	72	79	76	73	70	71	69	67	67	65	63	63	62	60	58				
2	75	69	64	59	73	67	62	58	63	59	56	59	56	53	56	53	51	49				
3	69	61	55	50	66	59	54	49	56	51	47	53	49	46	50	47	44	42				
4	64	55	48	43	61	53	47	42	50	45	41	48	43	40	45	41	38	37				
5	59	49	42	38	57	48	42	37	45	40	36	43	38	35	41	37	34	32				
6	54	44	38	33	52	43	37	33	41	36	32	39	35	31	37	33	30	28				
7	51	40	34	29	49	39	33	29	38	32	28	36	31	28	34	30	27	25				
8	47	37	31	26	45	36	30	26	35	29	25	33	28	25	32	27	24	23				
9	44	34	28	24	43	33	27	24	32	27	23	31	26	23	29	25	22	21				
10	41	31	26	22	40	31	25	21	30	24	21	28	24	21	27	23	20	19				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6307	6307	6307
5°	6280	6243	6256
10°	6249	6217	6253
15°	6213	6198	6271
20°	6181	6174	6293
25°	6130	6121	6265
30°	6004	6026	6156
35°	5789	5878	5928
40°	5474	5553	5514
45°	4947	4798	4914
50°	4111	3607	4036
55°	3172	2837	3328
60°	2334	2511	2657
65°	2009	2384	2447
70°	2118	2191	2815
75°	2430	2181	3419
80°	2744	2401	4155
85°	3032	2647	4942



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	293.0	3.3	2.6	0°	3079	3079	3079	3079	3079	
10°-20°	855.9	9.7	7.5	5°	3067	3068	3074	3076	3083	292
20°-30°	1325.3	15.0	11.6	15°	2968	2994	3034	3062	3078	838
30°-40°	1582.4	17.9	13.9	25°	2774	2814	2888	2943	2969	1276
40°-50°	1438.9	16.3	12.6	35°	2394	2461	2585	2615	2624	1493
50°-60°	957.1	10.8	8.4	45°	1791	1833	1892	1958	1955	1366
60°-70°	623.7	7.1	5.5	55°	950	1061	956	1171	1135	859
70°-80°	508.6	5.8	4.5	65°	458	554	642	695	670	472
80°-90°	398.6	4.5	3.5	75°	363	385	422	595	678	378
90°-100°	295.2	3.3	2.6	85°	201	254	296	519	577	184
100°-110°	193.6	2.2	1.7	90°	116	160	231	464	544	67
110°-120°	123.7	1.4	1.1	95°	104	150	234	437	512	80
120°-130°	106.1	1.2	0.9	105°	70	116	200	262	291	77
130°-140°	64.3	0.7	0.6	115°	64	93	152	142	148	62
140°-150°	40.7	0.5	0.4	125°	49	67	121	189	208	44
150°-160°	20.4	0.2	0.2	135°	34	48	91	107	113	27
160°-170°	7.7	0.1	0.1	145°	28	41	68	88	94	18
170°-180°	1.9	0.0	0.0	155°	25	31	43	57	61	12
0°-30°	2474.3	28.0	21.7	165°	23	22	25	30	31	7
0°-40°	4056.6	45.9	35.6	175°	22	21	19	18	18	2
0°-60°	6452.6	73.0	56.6	180°	20	20	20	20	20	
0°-90°	7983.4	90.3	70.0							
90°-120°	612.5	6.9	5.4							
90°-150°	823.6	9.3	7.2							
90°-180°	854.0	9.7	7.5							
0°-180°	8837.1	100.0	77.5							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3079	3079	3079	3079	3079
2.5°	3078	3076	3078	3074	3081
5°	3067	3068	3074	3076	3083
7.5°	3052	3057	3070	3078	3087
10°	3030	3042	3064	3076	3087
12.5°	3004	3021	3052	3072	3087
15°	2968	2994	3034	3062	3078
17.5°	2930	2960	3011	3047	3067
20°	2886	2920	2979	3023	3047
22.5°	2836	2871	2939	2990	3016
25°	2774	2814	2888	2943	2969
27.5°	2699	2746	2827	2882	2908
30°	2610	2667	2757	2809	2832
32.5°	2507	2571	2678	2722	2738
35°	2394	2461	2585	2615	2624
37.5°	2270	2332	2470	2490	2487
40°	2131	2186	2325	2335	2326
42.5°	1972	2022	2134	2155	2147
45°	1791	1833	1892	1958	1955
47.5°	1587	1625	1611	1729	1729
50°	1365	1408	1324	1494	1497
52.5°	1146	1218	1104	1317	1303
55°	950	1061	956	1171	1135
57.5°	771	914	847	1033	969
60°	618	773	764	897	820
62.5°	516	648	700	780	718
65°	458	554	642	695	670
67.5°	424	487	578	644	664
70°	401	443	509	614	667
72.5°	383	410	456	599	675
75°	363	385	422	595	678
77.5°	334	362	396	590	673
80°	297	334	368	578	657
82.5°	251	298	335	554	625
85°	201	254	296	519	577
87.5°	149	207	257	485	540
90°	116	160	231	464	544
92.5°	110	157	237	470	551
95°	104	150	234	437	512
97.5°	94	141	221	377	394
100°	84	133	208	332	282
102.5°	76	124	204	315	304
105°	70	116	200	262	291
107.5°	68	109	187	204	182
110°	67	103	177	173	140



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	66	98	165	144	140
115°	64	93	152	142	148
117.5°	60	87	137	146	154
120°	56	80	122	155	164
122.5°	53	73	117	173	186
125°	49	67	121	189	208
127.5°	45	61	116	173	188
130°	41	56	103	144	163
132.5°	37	51	94	118	125
135°	34	48	91	107	113
137.5°	32	47	89	104	107
140°	31	46	84	99	104
142.5°	29	44	76	94	99
145°	28	41	68	88	94
147.5°	28	39	60	81	87
150°	27	36	54	73	79
152.5°	26	33	48	65	70
155°	25	31	43	57	61
157.5°	25	28	38	49	52
160°	24	26	33	42	44
162.5°	24	23	29	36	36
165°	23	22	25	30	31
167.5°	23	22	22	25	26
170°	23	22	19	21	22
172.5°	22	21	19	19	19
175°	22	21	19	18	18
177.5°	22	21	19	18	18
180°	20	20	20	20	20

(END OF REPORT)