

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: 144P105

Luminaire Tested: **SA-240IMA**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-41-14  
Report Number: 144P105  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: SA-240IMA  
Description: Surface Mount Architectural Wrap with  
an injection molded acrylic lens.  
Light Source: Two-F40CW - 3150 Lumens ea. - 40 Watts ea.  
Ballast/Driver: -

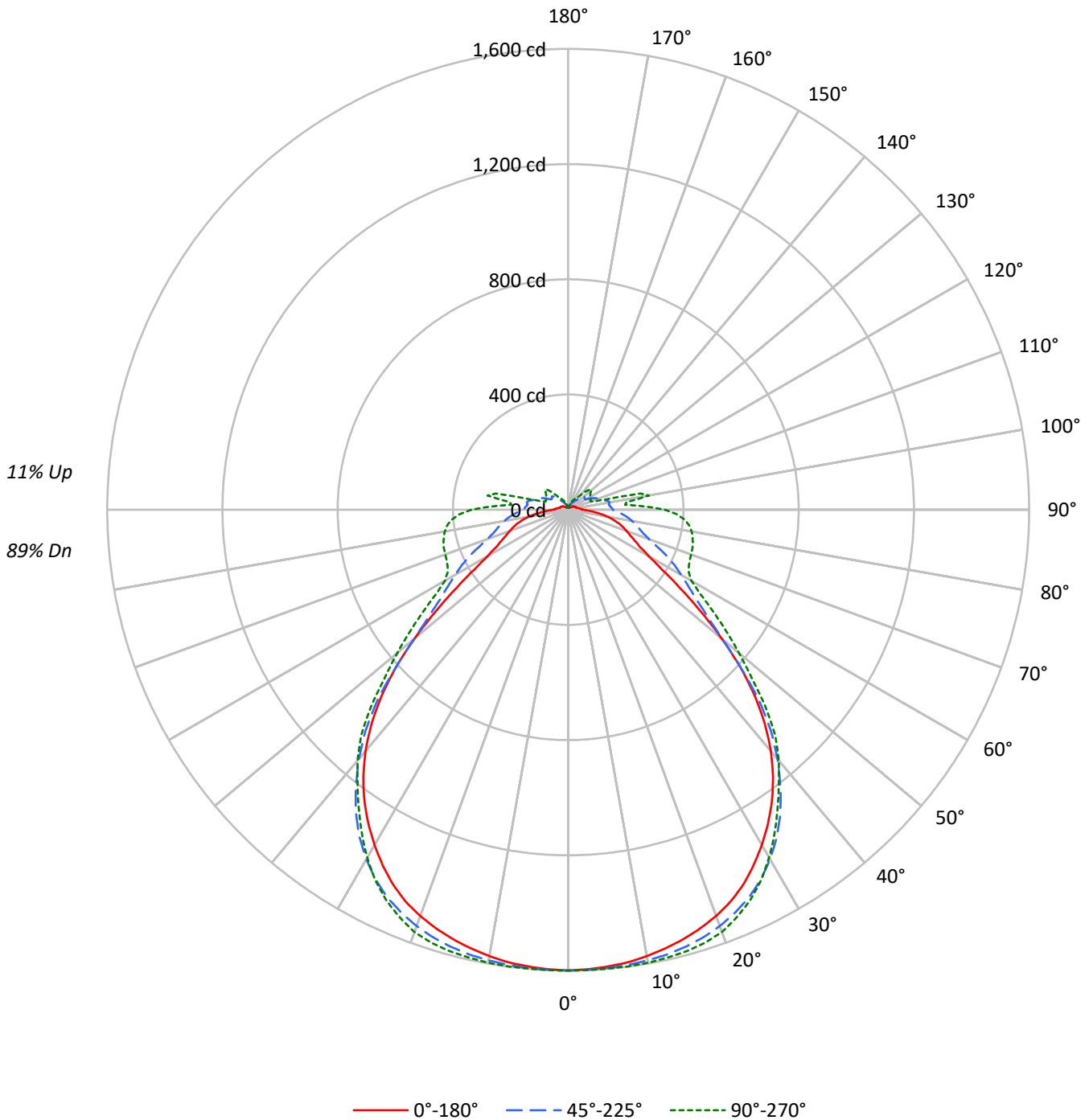
**Summary**

Lumens per Lamp: 3150 (2 lamps)  
Luminaire Lumens: 4723.1 lumens  
Efficiency: 75.0%  
Efficacy: 56.1 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.27 / 1.32  
Luminous Opening: Rectangular w/ Sides (W: 0.92' x L: 4.07' x H: 0.2')  
CIE Type: Semi-Direct

Input Watts (W): 84.2  
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	87	87	87	87	84	84	84	84	79	79	79	74	74	74	69	69	69	67
1	79	75	72	69	76	73	70	67	68	66	63	64	62	60	60	58	57	55
2	72	66	61	56	69	64	59	55	60	56	53	56	53	50	53	50	48	46
3	66	58	52	47	63	56	51	46	53	48	45	50	46	43	47	44	41	39
4	61	52	45	40	58	50	44	40	47	42	38	45	41	37	42	39	36	34
5	56	47	40	35	54	45	39	35	43	38	34	41	36	32	38	35	31	30
6	52	42	36	31	50	41	35	31	39	34	30	37	32	29	35	31	28	26
7	48	38	32	27	46	37	31	27	36	30	26	34	29	26	32	28	25	23
8	45	35	29	25	43	34	28	24	33	27	24	31	26	23	30	26	23	21
9	42	32	26	22	41	31	26	22	30	25	21	29	24	21	27	23	20	19
10	39	30	24	20	38	29	24	20	28	23	20	27	22	19	26	22	19	17

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

	0°	45°	90°
0°	4613	4613	4613
5°	4588	4547	4542
10°	4569	4503	4504
15°	4549	4465	4478
20°	4525	4418	4437
25°	4470	4345	4321
30°	4352	4209	4129
35°	4197	3996	3874
40°	3956	3676	3623
45°	3569	3218	3246
50°	2947	2553	2761
55°	2223	2154	2347
60°	1718	1973	2073
65°	1575	1826	2154
70°	1599	1659	2402
75°	1707	1679	2764
80°	1796	1813	3247
85°	1914	2014	3883



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	152.1	3.2	2.4	0°	1600	1600	1600	1600	1600	
10°-20°	443.0	9.4	7.0	5°	1592	1593	1597	1598	1599	151
20°-30°	678.0	14.4	10.8	15°	1544	1554	1571	1582	1587	436
30°-40°	788.7	16.7	12.5	25°	1437	1454	1485	1494	1495	660
40°-50°	720.7	15.3	11.4	35°	1233	1251	1284	1275	1267	768
50°-60°	513.4	10.9	8.1	45°	918	917	937	971	968	699
60°-70°	368.8	7.8	5.9	55°	473	547	543	640	611	433
70°-80°	311.1	6.6	4.9	65°	255	295	375	439	462	257
80°-90°	251.3	5.3	4.0	75°	181	208	256	398	448	189
90°-100°	168.8	3.6	2.7	85°	90	133	191	362	407	83
100°-110°	121.9	2.6	1.9	90°	49	87	155	305	335	29
110°-120°	71.5	1.5	1.1	95°	42	82	145	235	198	33
120°-130°	57.2	1.2	0.9	105°	28	66	128	165	140	31
130°-140°	41.9	0.9	0.7	115°	26	53	95	84	86	25
140°-150°	20.9	0.4	0.3	125°	19	36	69	91	94	17
150°-160°	10.0	0.2	0.2	135°	13	25	53	85	94	10
160°-170°	3.3	0.1	0.1	145°	9	20	36	46	49	6
170°-180°	0.7	0.0	0.0	155°	8	13	22	30	32	4
0°-30°	1273.0	27.0	20.2	165°	7	7	11	14	16	2
0°-40°	2061.7	43.7	32.7	175°	7	7	7	7	7	1
0°-60°	3295.8	69.8	52.3	180°	7	7	7	7	7	
0°-90°	4226.9	89.5	67.1							
90°-120°	362.1	7.7	5.7							
90°-150°	482.2	10.2	7.7							
90°-180°	496.0	10.5	7.9							
0°-180°	4723.1	100.0	75.0							



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1600	1600	1600	1600	1600
2.5°	1597	1598	1599	1599	1600
5°	1592	1593	1597	1598	1599
7.5°	1585	1586	1594	1597	1599
10°	1574	1578	1589	1594	1597
12.5°	1560	1568	1582	1590	1593
15°	1544	1554	1571	1582	1587
17.5°	1524	1536	1557	1571	1577
20°	1501	1515	1538	1554	1560
22.5°	1473	1488	1514	1528	1531
25°	1437	1454	1485	1494	1495
27.5°	1393	1415	1447	1453	1450
30°	1344	1368	1401	1402	1395
32.5°	1291	1314	1348	1341	1333
35°	1233	1251	1284	1275	1267
37.5°	1168	1179	1210	1208	1201
40°	1094	1099	1130	1141	1137
42.5°	1011	1011	1041	1067	1064
45°	918	917	937	971	968
47.5°	811	820	814	869	863
50°	695	723	696	783	774
52.5°	579	633	607	711	690
55°	473	547	543	640	611
57.5°	385	465	494	571	541
60°	323	392	453	512	494
62.5°	282	336	415	468	472
65°	255	295	375	439	462
67.5°	233	266	333	422	457
70°	215	244	298	411	454
72.5°	199	225	273	404	452
75°	181	208	256	398	448
77.5°	161	191	241	392	442
80°	138	174	225	385	435
82.5°	114	155	209	375	424
85°	90	133	191	362	407
87.5°	66	108	171	338	378
90°	49	87	155	305	335
92.5°	46	86	151	269	261
95°	42	82	145	235	198
97.5°	38	78	142	218	204
100°	34	74	146	229	284
102.5°	30	70	141	195	258
105°	28	66	128	165	140
107.5°	28	63	118	138	94
110°	28	60	111	97	84



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	27	57	104	83	83
115°	26	53	95	84	86
117.5°	24	48	84	85	87
120°	22	44	72	86	89
122.5°	21	40	68	87	90
125°	19	36	69	91	94
127.5°	17	33	72	95	98
130°	16	30	73	99	105
132.5°	14	27	65	95	103
135°	13	25	53	85	94
137.5°	11	24	48	69	80
140°	11	23	43	58	65
142.5°	10	22	39	51	54
145°	9	20	36	46	49
147.5°	9	18	32	42	45
150°	9	16	29	38	41
152.5°	9	15	25	34	36
155°	8	13	22	30	32
157.5°	8	11	19	26	28
160°	8	10	16	22	23
162.5°	8	8	13	18	19
165°	7	7	11	14	16
167.5°	7	7	9	11	12
170°	7	7	7	9	9
172.5°	7	7	7	7	7
175°	7	7	7	7	7
177.5°	7	7	7	7	7
180°	7	7	7	7	7

(END OF REPORT)