

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: 144P104

Luminaire Tested: **SA-240A**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: 144P104  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: SA-240A  
Description: Surface Mount Architectural Wrap with an  
extruded acrylic lens.  
Light Source: Two-F40CW - 3150 Lumens ea. - 40 Watts ea.  
Ballast/Driver: -

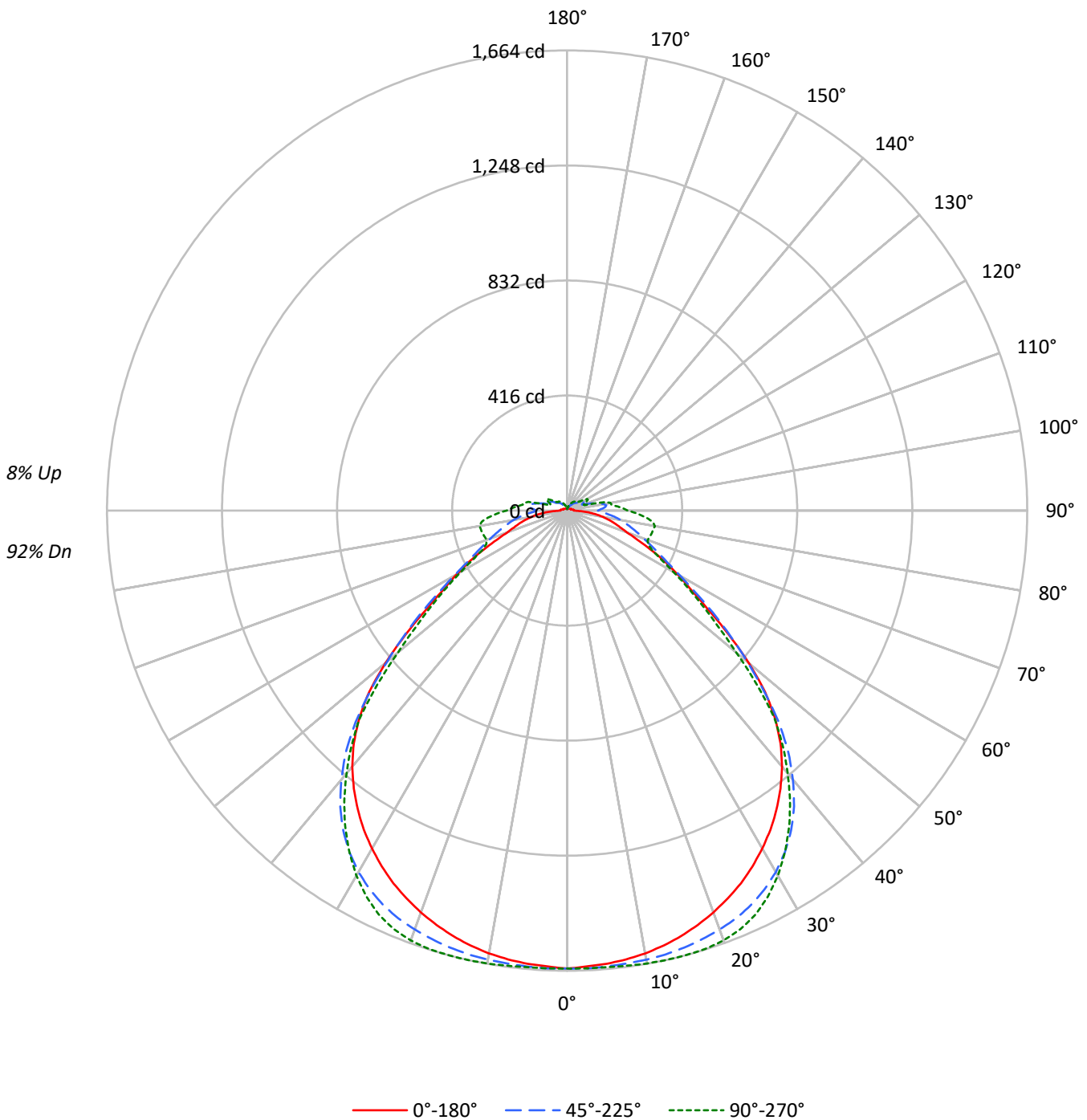
**Summary**

Lumens per Lamp: 3150 (2 lamps)  
Luminaire Lumens: 4759.8 lumens  
Efficiency: 75.6%  
Efficacy: 56.7 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.33 / 1.37  
Luminous Opening: Rectangular w/ Sides (W: 0.92' x L: 4.07' x H: 0.11')  
CIE Type: Direct

Input Watts (W): 84  
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

TEST NUMBER: 144P104  
CATALOG NUMBER: SA-240A

### 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	89	89	89	89	86	86	86	86	81	81	81	76	76	76	72	72	72	70
1	81	77	74	71	78	75	72	69	71	68	66	67	65	63	63	62	60	58
2	74	68	63	59	71	66	61	57	62	58	55	59	56	53	56	53	51	49
3	68	60	54	49	65	58	53	49	55	51	47	53	49	45	50	47	44	42
4	62	54	47	42	60	52	46	42	50	45	41	47	43	39	45	41	38	37
5	57	48	42	37	55	47	41	36	45	39	35	43	38	35	41	37	34	32
6	53	43	37	32	51	42	36	32	41	35	31	39	34	31	37	33	30	28
7	49	40	33	29	48	39	33	28	37	32	28	35	31	27	34	30	27	25
8	46	36	30	26	45	35	30	25	34	29	25	33	28	24	31	27	24	23
9	43	33	27	23	42	33	27	23	31	26	23	30	25	22	29	25	22	20
10	40	31	25	21	39	30	25	21	29	24	20	28	23	20	27	23	20	18

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

	0°	45°	90°
0°	4774	4774	4774
5°	4749	4745	4743
10°	4737	4737	4763
15°	4719	4745	4806
20°	4695	4758	4854
25°	4669	4766	4845
30°	4622	4728	4732
35°	4556	4619	4527
40°	4445	4381	4227
45°	4219	3980	3842
50°	3723	3377	3119
55°	2996	2795	2538
60°	2535	2287	2100
65°	2136	2015	1824
70°	1792	1916	1945
75°	1784	1912	2408
80°	1861	2026	3128
85°	1977	2188	3909



TEST NUMBER: 144P104  
 CATALOG NUMBER: SA-240A

**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	157.6	3.3	2.5	0°	1656	1656	1656	1656	1656	
10°-20°	461.5	9.7	7.3	5°	1645	1650	1655	1657	1657	156
20°-30°	718.8	15.1	11.4	15°	1593	1608	1636	1656	1664	450
30°-40°	863.7	18.1	13.7	25°	1487	1519	1574	1605	1612	685
40°-50°	817.4	17.2	13.0	35°	1320	1365	1412	1408	1399	824
50°-60°	571.4	12.0	9.1	45°	1064	1094	1082	1051	1060	812
60°-70°	360.5	7.6	5.7	55°	620	676	642	603	595	567
70°-80°	260.4	5.5	4.1	65°	332	346	364	378	339	333
80°-90°	185.7	3.9	2.9	75°	177	203	241	288	317	188
90°-100°	127.9	2.7	2.0	85°	79	111	148	250	287	75
100°-110°	85.5	1.8	1.4	90°	24	54	111	205	219	17
110°-120°	55.1	1.2	0.9	95°	24	57	137	180	180	19
120°-130°	40.3	0.8	0.6	105°	14	59	102	106	92	17
130°-140°	25.8	0.5	0.4	115°	15	38	63	74	76	15
140°-150°	16.1	0.3	0.3	125°	11	30	49	56	59	10
150°-160°	8.0	0.2	0.1	135°	9	23	39	44	45	7
160°-170°	3.2	0.1	0.1	145°	8	16	27	36	38	5
170°-180°	0.7	0.0	0.0	155°	7	11	17	23	26	3
0°-30°	1337.9	28.1	21.2	165°	6	8	11	13	15	2
0°-40°	2201.6	46.3	34.9	175°	6	7	7	8	8	1
0°-60°	3590.4	75.4	57.0	180°	6	6	6	6	6	
0°-90°	4397.1	92.4	69.8							
90°-120°	268.6	5.6	4.3							
90°-150°	350.8	7.4	5.6							
90°-180°	363.0	7.6	5.8							
0°-180°	4759.8	100.0	75.6							



TEST NUMBER: 144P104  
 CATALOG NUMBER: SA-240A

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1656	1656	1656	1656	1656
2.5°	1650	1654	1657	1657	1657
5°	1645	1650	1655	1657	1657
7.5°	1637	1644	1652	1658	1660
10°	1626	1634	1649	1659	1663
12.5°	1611	1622	1644	1659	1664
15°	1593	1608	1636	1656	1664
17.5°	1571	1590	1625	1652	1662
20°	1546	1570	1612	1644	1654
22.5°	1518	1546	1596	1629	1638
25°	1487	1519	1574	1605	1612
27.5°	1451	1487	1545	1571	1573
30°	1411	1452	1509	1526	1524
32.5°	1368	1411	1465	1471	1465
35°	1320	1365	1412	1408	1399
37.5°	1267	1311	1348	1335	1324
40°	1209	1249	1270	1253	1241
42.5°	1142	1176	1184	1162	1155
45°	1064	1094	1082	1051	1060
47.5°	971	1000	965	921	930
50°	858	895	850	792	799
52.5°	736	785	743	686	687
55°	620	676	642	603	595
57.5°	529	572	548	533	515
60°	461	480	471	469	443
62.5°	397	405	410	417	383
65°	332	346	364	378	339
67.5°	274	299	327	351	316
70°	229	259	295	328	310
72.5°	200	228	266	307	313
75°	177	203	241	288	317
77.5°	155	182	218	271	319
80°	130	162	197	261	322
82.5°	106	139	173	257	312
85°	79	111	148	250	287
87.5°	49	80	124	231	254
90°	24	54	111	205	219
92.5°	24	55	123	196	200
95°	24	57	137	180	180
97.5°	23	58	143	159	162
100°	20	59	134	147	159
102.5°	15	59	117	141	144
105°	14	59	102	106	92
107.5°	16	57	84	70	65
110°	16	50	61	64	64



TEST NUMBER: 144P104  
CATALOG NUMBER: SA-240A

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	16	42	58	66	67
115°	15	38	63	74	76
117.5°	14	38	69	82	84
120°	13	37	67	80	83
122.5°	12	33	57	69	72
125°	11	30	49	56	59
127.5°	11	28	46	50	52
130°	10	26	44	47	48
132.5°	10	25	41	45	46
135°	9	23	39	44	45
137.5°	9	21	36	43	44
140°	9	20	33	41	43
142.5°	8	18	30	38	41
145°	8	16	27	36	38
147.5°	8	15	24	33	35
150°	8	13	21	30	32
152.5°	7	12	19	27	29
155°	7	11	17	23	26
157.5°	7	11	15	20	23
160°	7	10	14	18	20
162.5°	6	9	12	16	17
165°	6	8	11	13	15
167.5°	6	8	10	12	13
170°	6	7	9	10	11
172.5°	6	7	8	9	10
175°	6	7	7	8	8
177.5°	6	6	7	7	7
180°	6	6	6	6	6

(END OF REPORT)