

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: ITL44164

Luminaire Tested: **IAF-296T8**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: ITL44164
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: IAF-296T8
Description: FABRICATED METAL STRIP BALLAST HOUSING, WHITE PAINTED FABRICATED METAL REFLECTOR WITH UP-LIGHT APERTURES, OPEN ENDS AND BOTTOM.
Light Source: TWO 59-WATT F96T8/SPX35 FLUORESCENTS.
Ballast/Driver: ONE MAGNETEK TRIAD B259I120HP (BALLAST FACTOR 96.8 %).

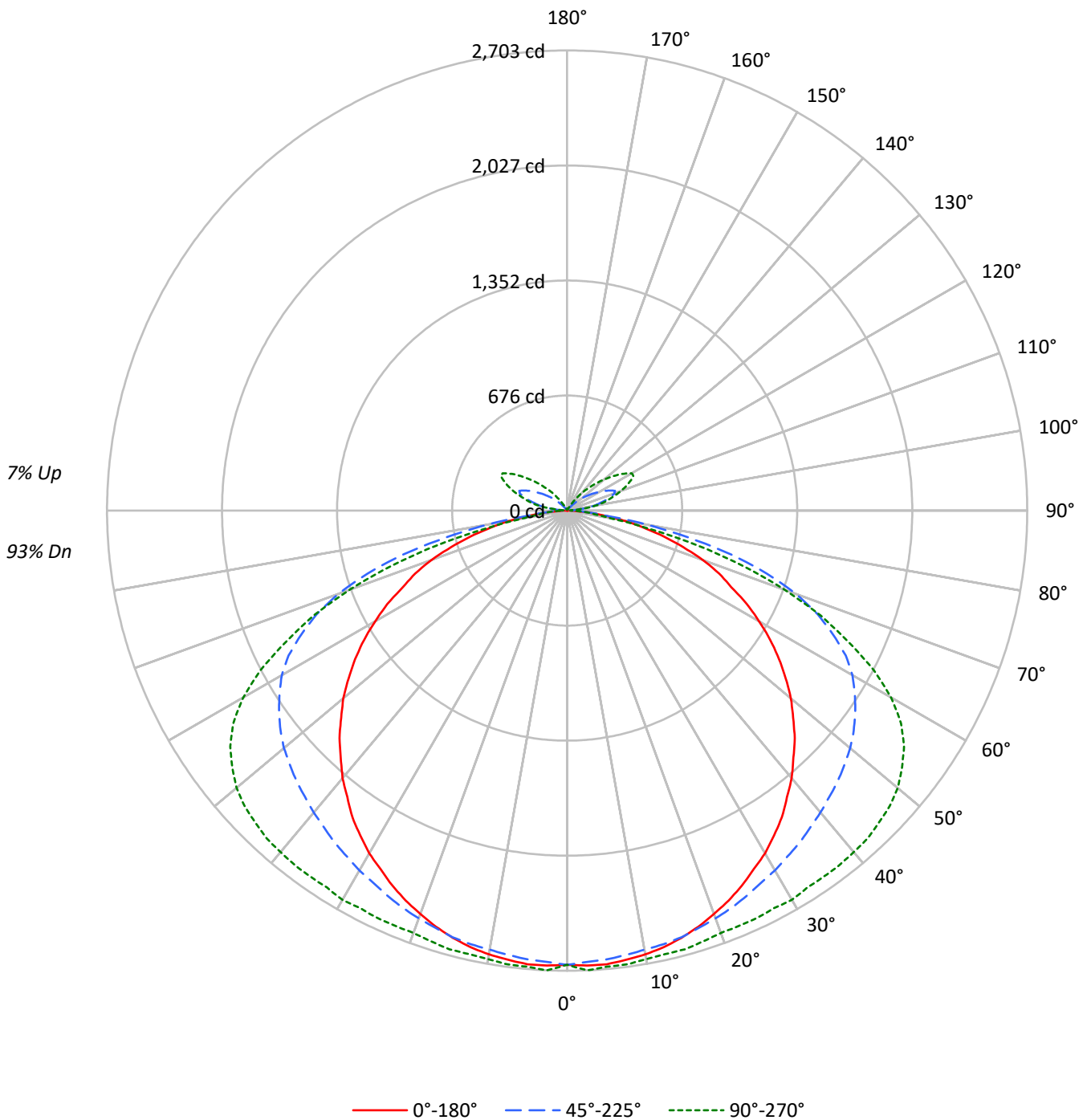
Summary

Lumens per Lamp: 5950 (2 lamps)
Luminaire Lumens: 10636.6 lumens
Efficiency: 89.4%
Efficacy: 87.2 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.51 / 1.57
Luminous Opening: Rectangular (W 1' x L: 8' x H: 0')
CIE Type: Direct

Input Watts (W): 122
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	105	105	105	105	102	102	102	102	96	96	96	90	90	90	86	86	86	83				
1	95	90	86	82	92	88	84	81	83	80	77	78	76	73	74	72	70	68				
2	85	78	71	65	82	75	69	64	71	66	62	67	63	59	64	60	57	55				
3	77	67	59	53	74	65	58	52	62	56	51	58	53	49	55	51	47	45				
4	70	59	50	44	68	57	49	43	54	47	42	51	46	41	49	44	40	37				
5	64	52	44	37	62	51	43	37	48	41	36	46	40	35	43	38	34	32				
6	59	46	38	32	57	45	37	32	43	36	31	41	35	30	39	34	29	27				
7	54	42	34	28	52	41	33	28	39	32	27	37	31	26	35	30	26	24				
8	51	38	30	25	49	37	30	24	35	29	24	34	28	23	32	27	23	21				
9	47	35	27	22	45	34	27	22	32	26	21	31	25	21	30	24	20	19				
10	44	32	25	20	43	31	24	20	30	24	19	29	23	19	27	22	18	17				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3590	3590	3590
5°	3613	3575	3632
10°	3616	3578	3655
15°	3619	3615	3716
20°	3610	3650	3780
25°	3608	3707	3919
30°	3612	3792	4102
35°	3612	3911	4313
40°	3604	4066	4600
45°	3598	4278	4930
50°	3592	4544	5306
55°	3566	4846	5667
60°	3506	5210	5917
65°	3387	5486	5798
70°	3332	5622	5346
75°	3057	5188	4148
80°	2603	3665	2007
85°	1729	1899	1837



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	253.1	2.4	2.1	0°	2668	2668	2668	2668	2668	
10°-20°	737.0	6.9	6.2	5°	2675	2647	2647	2665	2689	254
20°-30°	1161.3	10.9	9.8	15°	2598	2574	2595	2626	2668	733
30°-40°	1500.4	14.1	12.6	25°	2430	2441	2497	2584	2640	1120
40°-50°	1728.5	16.3	14.5	35°	2199	2234	2381	2546	2626	1374
50°-60°	1797.0	16.9	15.1	45°	1891	1971	2248	2497	2591	1457
60°-70°	1577.7	14.8	13.3	55°	1520	1677	2066	2346	2416	1356
70°-80°	941.9	8.9	7.9	65°	1064	1359	1723	1870	1821	1063
80°-90°	205.7	1.9	1.7	75°	588	991	998	935	798	619
90°-100°	74.2	0.7	0.6	85°	112	273	123	126	119	140
100°-110°	195.7	1.8	1.6	90°	8	44	29	22	22	7
110°-120°	226.4	2.1	1.9	95°	1	89	59	56	34	2
120°-130°	147.5	1.4	1.2	105°	2	124	230	259	256	3
130°-140°	65.5	0.6	0.6	115°	4	52	278	401	409	4
140°-150°	17.2	0.2	0.1	125°	5	9	162	292	367	5
150°-160°	4.6	0.0	0.0	135°	8	8	60	152	204	6
160°-170°	2.2	0.0	0.0	145°	8	8	13	36	68	5
170°-180°	0.6	0.0	0.0	155°	9	8	11	11	14	4
0°-30°	2151.4	20.2	18.1	165°	9	7	8	8	11	2
0°-40°	3651.9	34.3	30.7	175°	8	5	6	5	6	1
0°-60°	7177.4	67.5	60.3	180°	7	7	7	7	7	
0°-90°	9902.7	93.1	83.2							
90°-120°	496.3	4.7	4.2							
90°-150°	726.4	6.8	6.1							
90°-180°	734.0	6.9	6.2							
0°-180°	10636.6	100.0	89.4							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2668	2668	2668	2668	2668
2.5°	2675	2647	2654	2668	2703
5°	2675	2647	2647	2665	2689
7.5°	2661	2633	2633	2654	2689
10°	2647	2619	2619	2647	2675
12.5°	2626	2602	2609	2637	2668
15°	2598	2574	2595	2626	2668
17.5°	2563	2546	2570	2616	2654
20°	2521	2514	2549	2605	2640
22.5°	2479	2479	2525	2598	2640
25°	2430	2441	2497	2584	2640
27.5°	2374	2392	2465	2574	2633
30°	2325	2343	2441	2567	2640
32.5°	2262	2290	2409	2560	2626
35°	2199	2234	2381	2546	2626
37.5°	2122	2171	2346	2535	2626
40°	2052	2104	2315	2525	2619
42.5°	1968	2038	2280	2511	2612
45°	1891	1971	2248	2497	2591
47.5°	1800	1894	2209	2469	2570
50°	1716	1824	2171	2434	2535
52.5°	1618	1751	2122	2395	2479
55°	1520	1677	2066	2346	2416
57.5°	1415	1600	2003	2276	2325
60°	1303	1523	1936	2174	2199
62.5°	1191	1450	1845	2038	2031
65°	1064	1359	1723	1870	1821
67.5°	966	1292	1593	1681	1611
70°	847	1208	1429	1464	1359
72.5°	714	1106	1229	1219	1085
75°	588	991	998	935	798
77.5°	455	854	728	648	490
80°	336	693	473	378	259
82.5°	217	501	231	186	161
85°	112	273	123	126	119
87.5°	35	105	74	77	63
90°	8	44	29	22	22
92.5°	3	55	25	20	19
95°	1	89	59	56	34
97.5°	2	114	117	133	108
100°	3	139	160	182	174
102.5°	3	143	191	225	218
105°	2	124	230	259	256
107.5°	3	104	269	301	294
110°	3	85	296	341	336



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	4	68	304	377	377
115°	4	52	278	401	409
117.5°	4	36	250	400	439
120°	5	23	220	369	438
122.5°	5	14	192	332	405
125°	5	9	162	292	367
127.5°	6	9	137	254	324
130°	6	8	113	219	284
132.5°	8	8	91	183	246
135°	8	8	60	152	204
137.5°	8	8	39	125	168
140°	8	8	26	92	139
142.5°	9	8	17	58	102
145°	8	8	13	36	68
147.5°	9	8	11	22	43
150°	9	8	11	15	27
152.5°	8	7	9	10	16
155°	9	8	11	11	14
157.5°	9	8	10	9	12
160°	8	6	8	8	11
162.5°	9	7	9	9	11
165°	9	7	8	8	11
167.5°	8	5	6	6	8
170°	8	5	6	6	8
172.5°	6	5	6	5	8
175°	8	5	6	5	6
177.5°	8	6	7	6	8
180°	7	7	7	7	7

(END OF REPORT)