

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: 112P100

Luminaire Tested: **DI-248**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 112P100
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: DI-248
Description: Heavy-duty Industrial with Tombstone sockets and
uplight apertures.
Light Source: Two-F48T12/CW, 3000 lumens ea., 40 watts ea.
Ballast/Driver: -

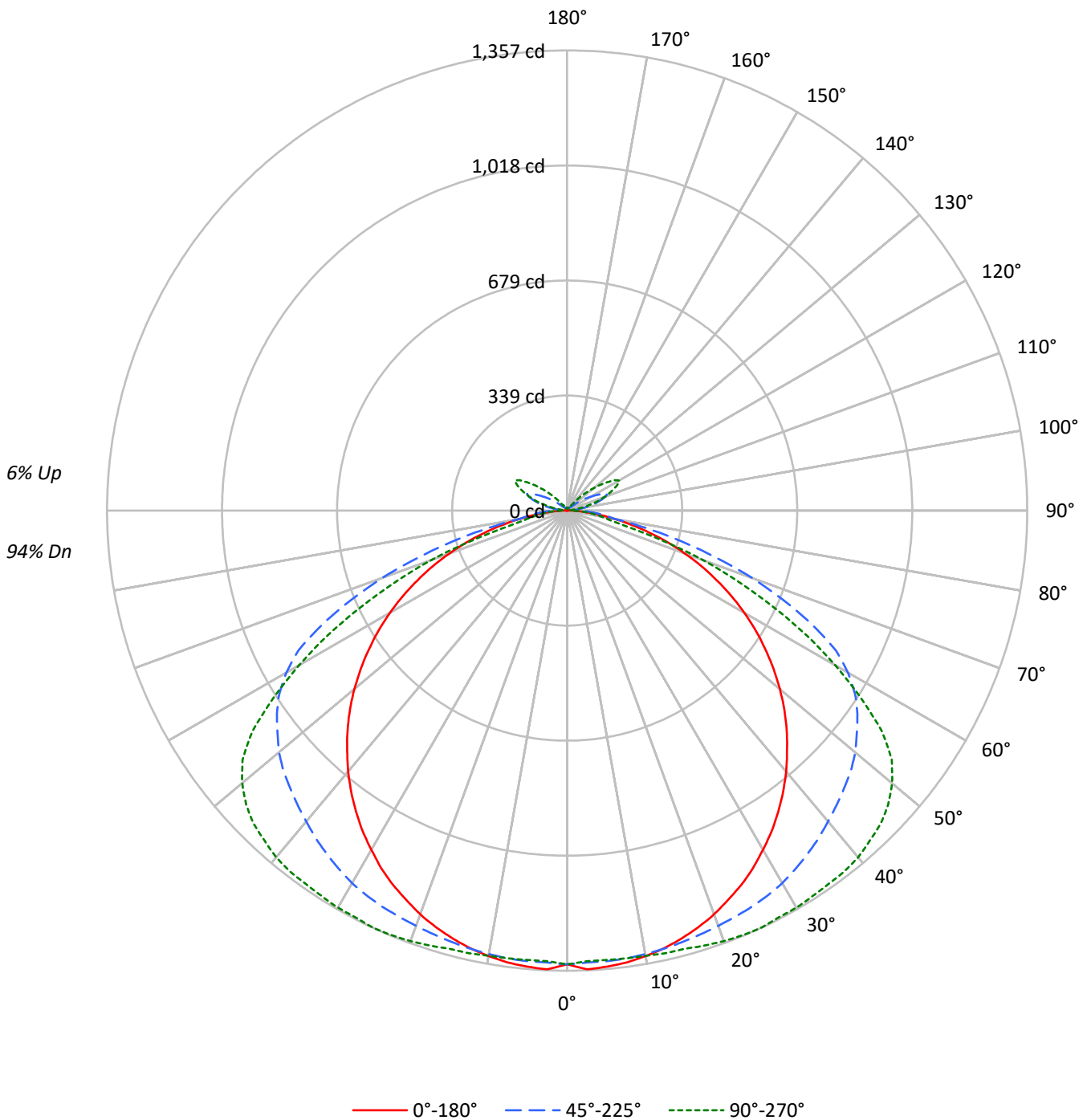
Summary

Lumens per Lamp: 3000 (2 lamps)
Luminaire Lumens: 5011.4 lumens
Efficiency: 83.5%
Efficacy: 48.8 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.54 / 1.59
Luminous Opening: Rectangular (W 1.09' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 102.6
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	98	98	98	98	96	96	96	96	90	90	90	85	85	85	81	81	81	79
1	89	85	82	78	87	83	80	77	79	76	73	74	72	70	71	69	67	65
2	81	74	68	63	78	72	66	62	68	63	60	65	61	58	61	58	56	53
3	73	64	57	51	71	62	56	51	59	54	49	56	52	48	54	50	46	44
4	67	56	49	43	64	55	48	42	52	46	41	50	45	40	47	43	39	37
5	61	50	42	37	59	49	42	36	46	40	35	44	39	34	42	38	34	32
6	56	45	37	31	54	44	36	31	42	35	31	40	34	30	38	33	29	27
7	52	40	33	27	50	39	32	27	38	31	27	36	30	26	35	30	26	24
8	48	37	29	24	47	36	29	24	34	28	24	33	27	23	32	27	23	21
9	45	33	26	22	43	33	26	21	31	25	21	30	25	21	29	24	20	19
10	42	31	24	19	41	30	24	19	29	23	19	28	22	19	27	22	18	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3291	3291	3291
5°	3333	3294	3284
10°	3332	3317	3329
15°	3326	3354	3407
20°	3317	3411	3536
25°	3303	3498	3683
30°	3281	3604	3840
35°	3258	3711	4036
40°	3227	3844	4287
45°	3186	4021	4547
50°	3134	4244	4787
55°	3062	4481	4859
60°	2971	4708	4496
65°	2834	4650	3888
70°	2654	4164	3071
75°	2385	3307	1711
80°	2026	2040	1459
85°	1609	2399	1580



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	127.4	2.5	2.1	0°	1338	1338	1338	1338	1338	
10°-20°	373.6	7.5	6.2	5°	1350	1338	1334	1335	1330	128
20°-30°	594.4	11.9	9.9	15°	1306	1304	1317	1335	1338	369
30°-40°	767.7	15.3	12.8	25°	1217	1232	1289	1342	1357	561
40°-50°	877.7	17.5	14.6	35°	1085	1130	1236	1316	1344	679
50°-60°	878.3	17.5	14.6	45°	916	1011	1156	1270	1307	706
60°-70°	682.5	13.6	11.4	55°	714	857	1045	1134	1133	638
70°-80°	336.9	6.7	5.6	65°	487	691	799	709	668	482
80°-90°	95.1	1.9	1.6	75°	251	460	348	217	180	267
90°-100°	28.1	0.6	0.5	85°	57	122	85	61	56	65
100°-110°	68.6	1.4	1.1	90°	8	56	32	14	11	6
110°-120°	88.4	1.8	1.5	95°	1	41	24	11	9	1
120°-130°	58.3	1.2	1.0	105°	2	55	89	81	76	2
130°-140°	20.8	0.4	0.3	115°	3	16	117	154	153	3
140°-150°	6.8	0.1	0.1	125°	4	9	53	121	146	4
150°-160°	3.7	0.1	0.1	135°	5	7	17	45	64	4
160°-170°	2.3	0.0	0.0	145°	6	7	10	15	19	4
170°-180°	0.7	0.0	0.0	155°	7	7	8	9	9	3
0°-30°	1095.5	21.9	18.3	165°	8	8	9	8	8	2
0°-40°	1863.1	37.2	31.1	175°	8	8	8	7	8	1
0°-60°	3619.1	72.2	60.3	180°	8	8	8	8	8	
0°-90°	4733.6	94.5	78.9							
90°-120°	185.1	3.7	3.1							
90°-150°	271.0	5.4	4.5							
90°-180°	278.0	5.5	4.6							
0°-180°	5011.4	100.0	83.5							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1338	1338	1338	1338	1338
2.5°	1354	1341	1334	1335	1330
5°	1350	1338	1334	1335	1330
7.5°	1344	1333	1332	1335	1332
10°	1334	1326	1328	1335	1333
12.5°	1322	1316	1323	1335	1337
15°	1306	1304	1317	1335	1338
17.5°	1288	1289	1310	1338	1345
20°	1267	1273	1303	1342	1351
22.5°	1242	1253	1296	1344	1355
25°	1217	1232	1289	1342	1357
27.5°	1188	1209	1280	1337	1352
30°	1155	1183	1269	1331	1352
32.5°	1122	1157	1253	1324	1348
35°	1085	1130	1236	1316	1344
37.5°	1046	1101	1218	1309	1342
40°	1005	1072	1197	1301	1335
42.5°	960	1043	1177	1288	1321
45°	916	1011	1156	1270	1307
47.5°	869	976	1135	1249	1284
50°	819	938	1109	1223	1251
52.5°	767	898	1077	1185	1207
55°	714	857	1045	1134	1133
57.5°	660	816	1007	1054	1026
60°	604	774	957	946	914
62.5°	546	734	894	831	796
65°	487	691	799	709	668
67.5°	429	639	691	583	543
70°	369	590	579	461	427
72.5°	310	532	459	346	293
75°	251	460	348	217	180
77.5°	195	367	236	134	127
80°	143	276	144	108	103
82.5°	96	190	111	84	80
85°	57	122	85	61	56
87.5°	28	91	59	38	32
90°	8	56	32	14	11
92.5°	2	41	25	11	10
95°	1	41	24	11	9
97.5°	2	48	37	16	12
100°	2	58	54	39	32
102.5°	1	63	72	61	55
105°	2	55	89	81	76
107.5°	3	44	106	101	98
110°	3	33	120	120	117



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3	23	128	138	136
115°	3	16	117	154	153
117.5°	4	12	100	164	168
120°	4	13	84	160	177
122.5°	4	10	68	140	167
125°	4	9	53	121	146
127.5°	4	8	38	101	126
130°	5	8	25	82	105
132.5°	5	7	17	63	84
135°	5	7	17	45	64
137.5°	6	7	15	29	45
140°	6	7	11	18	29
142.5°	5	7	10	18	18
145°	6	7	10	15	19
147.5°	6	7	10	10	14
150°	6	7	9	10	10
152.5°	6	7	9	9	9
155°	7	7	8	9	9
157.5°	7	7	8	9	8
160°	7	8	8	8	7
162.5°	8	8	9	8	8
165°	8	8	9	8	8
167.5°	8	8	9	8	8
170°	8	8	8	8	7
172.5°	8	8	8	8	7
175°	8	8	8	7	8
177.5°	8	8	8	7	7
180°	8	8	8	8	8

(END OF REPORT)