

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: ITL44656

Luminaire Tested: **EIM-232**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: ITL44656
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: EIM-232
Description: FABRICATED METAL STRIP BALLAST HOUSING WITH WHITE PAINTED SOCKET HOUSINGS, WHITE PAINTED FABRICATED METAL REFLECTOR WITH UP-LIGHT APERTURES, OPEN ENDS AND BOTTOM.
Light Source: TWO 32-WATT F32T8-SPX35 FLUORESCENTS.
Ballast/Driver: MAGNETEK TRIAD B232I120RH (BALLAST FACTOR 88.1%). BALLAST FACTOR SUPPLIED BY CLIENT.

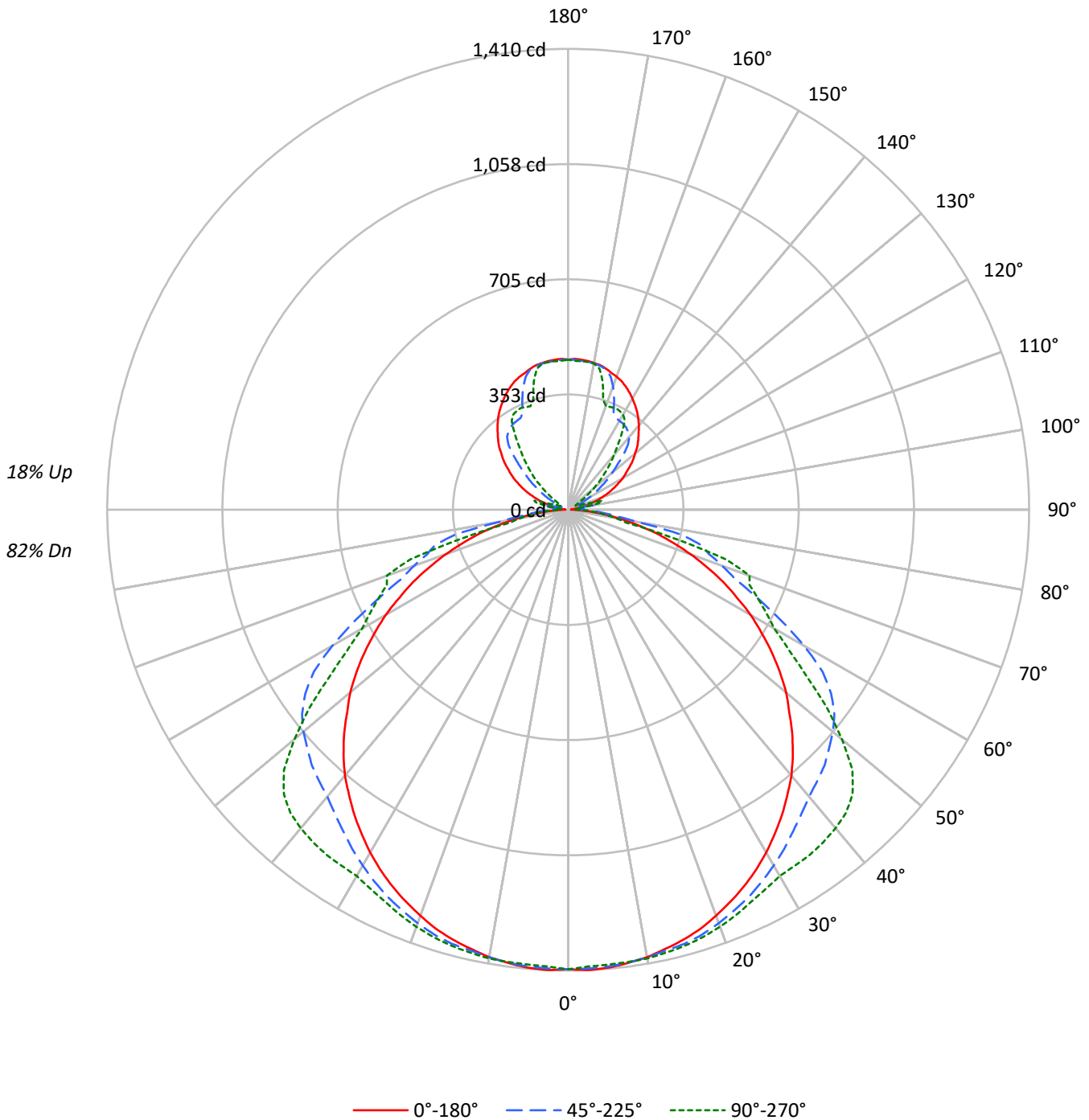
Summary

Lumens per Lamp: 2950 (2 lamps)
Luminaire Lumens: 5678.3 lumens
Efficiency: 96.2%
Efficacy: 95.0 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.41 / 1.51
Luminous Opening: Rectangular (W 1.09' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 59.8
Input Voltage (V): NR
Input Current (A_{in}): 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	50	30	10	0		
RCR																										
0	111	111	111	111	106	106	106	106	98	98	98	90	90	90	83	83	83	79								
1	100	96	91	87	96	92	88	84	85	82	79	78	76	73	72	70	68	65								
2	91	83	76	70	87	79	73	68	73	68	64	68	64	60	62	59	56	53								
3	82	72	64	58	79	69	62	56	64	58	53	59	54	50	55	51	47	44								
4	75	63	55	48	72	61	53	47	57	50	45	52	47	42	48	44	40	37								
5	69	56	48	41	66	54	46	40	50	44	38	47	41	36	43	38	35	32								
6	63	51	42	36	60	49	41	35	45	38	33	42	36	32	39	34	30	28								
7	59	46	37	31	56	44	36	31	41	34	29	38	32	28	36	30	27	24								
8	54	41	33	28	52	40	32	27	37	31	26	35	29	25	32	27	24	22								
9	51	38	30	25	48	37	29	24	34	28	23	32	26	22	30	25	21	19								
10	47	35	27	22	45	34	27	22	32	25	21	30	24	20	28	23	19	17								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3459	3459	3459
5°	3475	3465	3450
10°	3472	3475	3482
15°	3469	3502	3517
20°	3461	3524	3555
25°	3453	3548	3594
30°	3440	3571	3676
35°	3424	3604	3871
40°	3411	3680	4085
45°	3371	3855	4279
50°	3330	4046	4183
55°	3260	4212	3822
60°	3174	4099	3582
65°	3045	3702	3720
70°	2863	3604	4244
75°	2643	4021	3051
80°	2324	3018	2083
85°	1976	2964	2343



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	133.5	2.4	2.3	0°	1406	1406	1406	1406	1406	
10°-20°	388.1	6.8	6.6	5°	1407	1407	1403	1397	1397	134
20°-30°	602.2	10.6	10.2	15°	1362	1370	1375	1380	1381	384
30°-40°	760.4	13.4	12.9	25°	1272	1293	1307	1321	1324	586
40°-50°	853.3	15.0	14.5	35°	1140	1179	1200	1258	1289	713
50°-60°	802.4	14.1	13.6	45°	969	1023	1108	1211	1230	747
60°-70°	628.4	11.1	10.7	55°	760	836	982	955	891	679
70°-80°	397.1	7.0	6.7	65°	523	668	636	636	639	516
80°-90°	118.6	2.1	2.0	75°	278	402	423	424	321	293
90°-100°	38.4	0.7	0.7	85°	70	143	105	96	83	77
100°-110°	59.3	1.0	1.0	90°	9	46	37	28	23	8
110°-120°	68.0	1.2	1.2	95°	12	43	32	26	24	14
120°-130°	121.6	2.1	2.1	105°	67	31	38	66	107	73
130°-140°	173.5	3.1	2.9	115°	152	115	30	25	27	150
140°-150°	198.7	3.5	3.4	125°	230	205	122	75	49	206
150°-160°	169.8	3.0	2.9	135°	303	245	239	184	159	234
160°-170°	121.4	2.1	2.1	145°	367	341	308	315	286	229
170°-180°	43.6	0.8	0.7	155°	416	418	328	336	343	192
0°-30°	1123.8	19.8	19.0	165°	447	447	445	431	407	126
0°-40°	1884.2	33.2	31.9	175°	461	460	457	457	456	44
0°-60°	3540.0	62.3	60.0	180°	459	459	459	459	459	
0°-90°	4684.0	82.5	79.4							
90°-120°	165.7	2.9	2.8							
90°-150°	659.5	11.6	11.2							
90°-180°	994.0	17.5	16.8							
0°-180°	5678.3	100.0	96.2							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1406	1406	1406	1406	1406
2.5°	1410	1411	1405	1398	1399
5°	1407	1407	1403	1397	1397
7.5°	1399	1401	1398	1394	1396
10°	1390	1394	1391	1390	1394
12.5°	1376	1381	1381	1386	1388
15°	1362	1370	1375	1380	1381
17.5°	1345	1354	1363	1369	1371
20°	1322	1336	1346	1356	1358
22.5°	1298	1316	1327	1339	1342
25°	1272	1293	1307	1321	1324
27.5°	1243	1268	1283	1302	1308
30°	1211	1241	1257	1283	1294
32.5°	1176	1212	1230	1265	1291
35°	1140	1179	1200	1258	1289
37.5°	1101	1142	1172	1252	1282
40°	1062	1107	1146	1241	1272
42.5°	1017	1064	1127	1228	1258
45°	969	1023	1108	1211	1230
47.5°	917	974	1082	1178	1179
50°	870	931	1057	1130	1093
52.5°	816	884	1026	1052	999
55°	760	836	982	955	891
57.5°	701	793	923	852	801
60°	645	753	833	758	728
62.5°	581	711	734	682	682
65°	523	668	636	636	639
67.5°	459	621	551	595	600
70°	398	567	501	559	590
72.5°	337	494	452	537	506
75°	278	402	423	424	321
77.5°	217	316	356	250	181
80°	164	255	213	161	147
82.5°	114	213	143	129	113
85°	70	143	105	96	83
87.5°	32	87	71	67	53
90°	9	46	37	28	23
92.5°	8	38	32	25	22
95°	12	43	32	26	24
97.5°	19	33	54	46	27
100°	34	25	77	80	63
102.5°	50	23	48	104	100
105°	67	31	38	66	107
107.5°	90	51	28	50	60
110°	109	71	22	38	49



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	131	92	22	27	38
115°	152	115	30	25	27
117.5°	171	144	50	25	25
120°	193	172	74	31	26
122.5°	210	192	98	50	31
125°	230	205	122	75	49
127.5°	250	217	149	101	75
130°	267	226	175	128	102
132.5°	287	237	205	157	131
135°	303	245	239	184	159
137.5°	319	257	271	214	188
140°	336	277	291	245	217
142.5°	352	308	301	283	249
145°	367	341	308	315	286
147.5°	380	367	312	327	322
150°	393	391	314	333	336
152.5°	405	407	316	336	341
155°	416	418	328	336	343
157.5°	426	428	367	333	340
160°	433	435	401	346	337
162.5°	439	442	429	393	354
165°	447	447	445	431	407
167.5°	453	453	451	450	442
170°	456	455	454	454	454
172.5°	459	458	456	456	456
175°	461	460	457	457	456
177.5°	462	461	459	457	456
180°	459	459	459	459	459

(END OF REPORT)