

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: 128P105

Luminaire Tested: **2MXF-2U15/8A**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 128P105
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 2MXF-2U15/8A
Description: 2 X 2 Surface Modular with a .095 pattern 12 lens.
Light Source: Two - FBO31/35K - 2750 Lumens ea. - 31 Watts ea.
Ballast/Driver: Advance REL-2P32-RH-TP Electronic - L.O.B.F. = 85.2

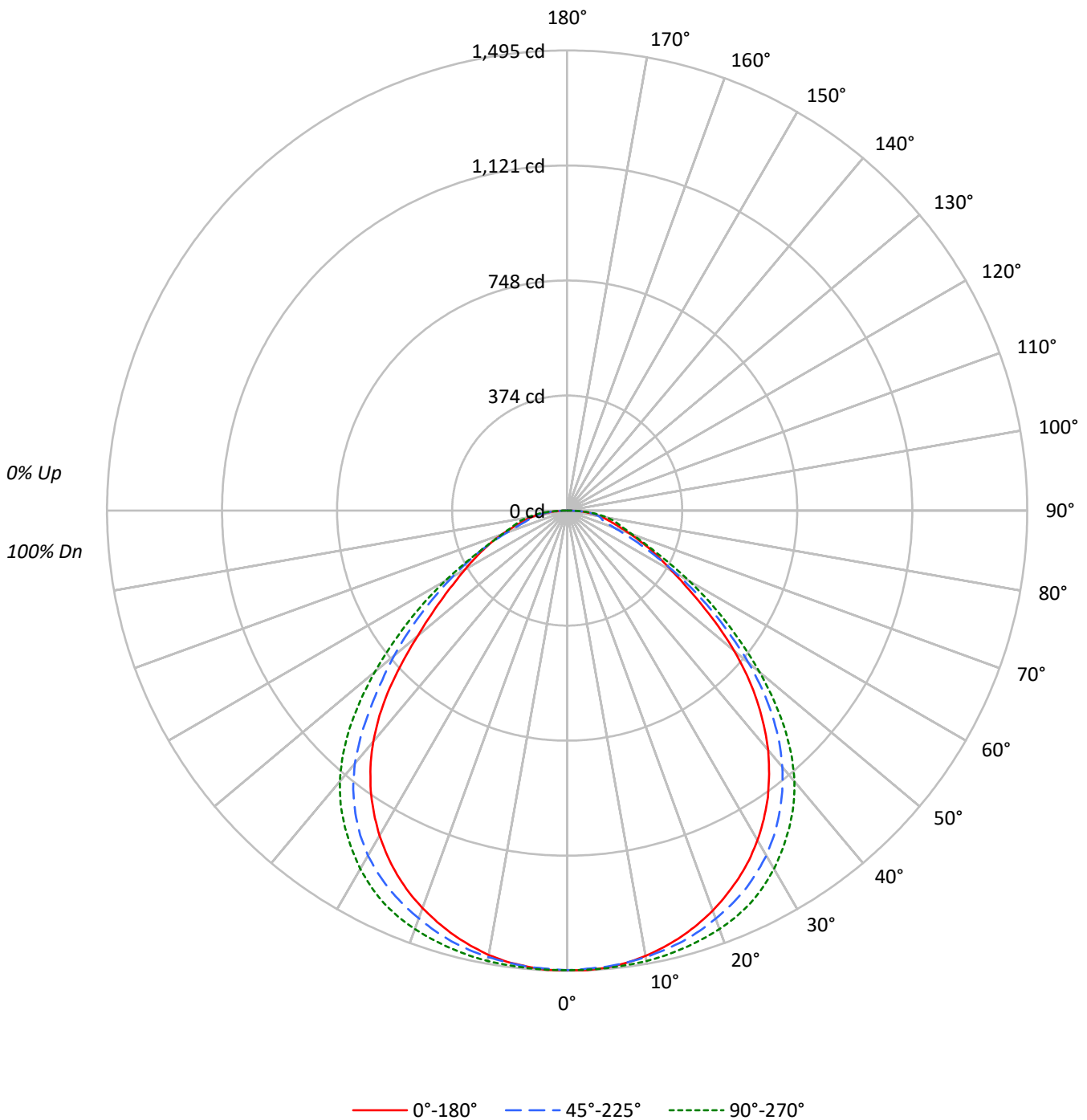
Summary

Lumens per Lamp: 2750 (2 lamps)
Luminaire Lumens: 3678.5 lumens
Efficiency: 66.9%
Efficacy: 69.9 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.32 / 1.34
Luminous Opening: Rectangular (W 1.74' x L: 1.76' x H: 0')
CIE Type: Direct

Input Watts (W): 52.6
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	80	80	80	80	78	78	78	78	74	74	74	71	71	71	68	68	68	67
1	73	70	68	65	72	69	67	64	66	64	62	63	62	60	61	60	59	57
2	67	62	58	54	66	61	57	54	59	55	53	56	54	51	54	52	50	49
3	62	55	50	46	60	54	50	46	52	48	45	50	47	44	49	46	43	42
4	57	49	44	40	55	49	43	39	47	42	39	45	42	38	44	41	38	37
5	53	44	39	35	51	44	38	34	42	38	34	41	37	34	40	36	33	32
6	49	40	35	30	47	40	34	30	38	34	30	37	33	30	36	33	30	28
7	45	37	31	27	44	36	31	27	35	30	27	34	30	27	33	29	26	25
8	42	34	28	24	41	33	28	24	32	27	24	31	27	24	31	27	24	23
9	40	31	26	22	39	30	25	22	30	25	22	29	25	22	28	24	22	20
10	37	29	23	20	36	28	23	20	28	23	20	27	23	20	26	22	20	19

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	5263	5263	5263
5°	5273	5280	5262
10°	5259	5319	5248
15°	5230	5369	5208
20°	5188	5428	5155
25°	5127	5477	5080
30°	5035	5471	4962
35°	4893	5414	4786
40°	4676	5288	4510
45°	4347	4981	4063
50°	3883	4475	3477
55°	3276	3866	3018
60°	2778	3229	2700
65°	2477	2611	2502
70°	2206	2299	2309
75°	2070	2370	2179
80°	2253	2720	2314
85°	2508	3155	2144



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	45°	90°	135°	180°	Flux
0°-10°	141.6	3.9	2.6	0°	1493	1493	1493	1493	1493	
10°-20°	409.3	11.1	7.4	5°	1490	1487	1492	1487	1487	142
20°-30°	626.3	17.0	11.4	15°	1433	1449	1471	1449	1427	404
30°-40°	745.4	20.3	13.6	25°	1318	1362	1408	1361	1306	607
40°-50°	707.6	19.2	12.9	35°	1137	1202	1258	1200	1112	709
50°-60°	511.6	13.9	9.3	45°	872	944	999	901	815	669
60°-70°	298.7	8.1	5.4	55°	533	583	629	572	491	482
70°-80°	169.9	4.6	3.1	65°	297	264	313	311	300	296
80°-90°	68.0	1.8	1.2	75°	152	119	174	141	160	165
90°-100°	0.0	0.0	0.0	85°	62	64	78	59	53	61
100°-110°	0.0	0.0	0.0	90°	0	0	0	0	0	5
110°-120°	0.0	0.0	0.0	95°	0	0	0	0	0	0
120°-130°	0.0	0.0	0.0	105°	0	0	0	0	0	0
130°-140°	0.0	0.0	0.0	115°	0	0	0	0	0	0
140°-150°	0.0	0.0	0.0	125°	0	0	0	0	0	0
150°-160°	0.0	0.0	0.0	135°	0	0	0	0	0	0
160°-170°	0.0	0.0	0.0	145°	0	0	0	0	0	0
170°-180°	0.0	0.0	0.0	155°	0	0	0	0	0	0
0°-30°	1177.3	32.0	21.4	165°	0	0	0	0	0	0
0°-40°	1922.7	52.3	35.0	175°	0	0	0	0	0	0
0°-60°	3141.9	85.4	57.1	180°	0	0	0	0	0	0
0°-90°	3678.5	100.0	66.9							
90°-120°	0.0	0.0	0.0							
90°-150°	0.0	0.0	0.0							
90°-180°	0.0	0.0	0.0							
0°-180°	3678.5	100.0	66.9							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1493	1493	1493	1493	1493	1493	1493	1493	1493
2.5°	1495	1492	1490	1492	1493	1492	1490	1492	1494
5°	1490	1487	1487	1490	1492	1490	1487	1488	1487
7.5°	1482	1478	1481	1486	1489	1486	1481	1480	1479
10°	1469	1467	1473	1481	1486	1481	1473	1469	1466
12.5°	1453	1452	1462	1474	1480	1474	1463	1454	1448
15°	1433	1434	1449	1465	1471	1464	1449	1436	1427
17.5°	1410	1413	1432	1453	1460	1450	1431	1414	1402
20°	1383	1387	1411	1437	1447	1435	1410	1388	1374
22.5°	1352	1359	1388	1417	1430	1416	1387	1359	1343
25°	1318	1327	1362	1394	1408	1394	1361	1327	1306
27.5°	1280	1291	1330	1365	1379	1365	1330	1290	1265
30°	1237	1250	1294	1329	1344	1329	1294	1248	1219
32.5°	1189	1206	1251	1286	1303	1286	1251	1201	1168
35°	1137	1154	1202	1238	1258	1237	1200	1148	1112
37.5°	1078	1097	1148	1187	1208	1182	1142	1088	1050
40°	1016	1033	1088	1130	1149	1118	1073	1019	980
42.5°	946	962	1020	1066	1079	1041	991	942	902
45°	872	888	944	992	999	952	901	856	815
47.5°	793	806	860	907	910	862	815	770	723
50°	708	717	769	809	816	774	734	689	634
52.5°	620	626	674	702	721	685	652	605	557
55°	533	539	583	595	629	598	572	522	491
57.5°	457	456	495	499	543	519	497	446	432
60°	394	378	410	415	458	451	430	384	383
62.5°	343	315	332	341	380	391	368	335	340
65°	297	266	264	283	313	335	311	293	300
67.5°	253	228	207	244	262	288	256	255	262
70°	214	195	162	216	223	252	207	223	224
72.5°	179	169	132	194	195	221	168	195	189
75°	152	147	119	173	174	189	141	171	160
77.5°	130	126	113	150	156	158	124	145	137
80°	111	104	105	127	134	128	109	117	114
82.5°	88	79	91	104	107	100	85	88	84
85°	62	56	64	76	78	71	59	60	53
87.5°	35	31	34	38	38	36	32	30	24
90°	0	0	0	0	0	0	0	0	0
92.5°	0	0	0	0	0	0	0	0	0
95°	0	0	0	0	0	0	0	0	0
97.5°	0	0	0	0	0	0	0	0	0
100°	0	0	0	0	0	0	0	0	0
102.5°	0	0	0	0	0	0	0	0	0
105°	0	0	0	0	0	0	0	0	0
107.5°	0	0	0	0	0	0	0	0	0
110°	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	0	0	0	0	0	0	0	0	0
115°	0	0	0	0	0	0	0	0	0
117.5°	0	0	0	0	0	0	0	0	0
120°	0	0	0	0	0	0	0	0	0
122.5°	0	0	0	0	0	0	0	0	0
125°	0	0	0	0	0	0	0	0	0
127.5°	0	0	0	0	0	0	0	0	0
130°	0	0	0	0	0	0	0	0	0
132.5°	0	0	0	0	0	0	0	0	0
135°	0	0	0	0	0	0	0	0	0
137.5°	0	0	0	0	0	0	0	0	0
140°	0	0	0	0	0	0	0	0	0
142.5°	0	0	0	0	0	0	0	0	0
145°	0	0	0	0	0	0	0	0	0
147.5°	0	0	0	0	0	0	0	0	0
150°	0	0	0	0	0	0	0	0	0
152.5°	0	0	0	0	0	0	0	0	0
155°	0	0	0	0	0	0	0	0	0
157.5°	0	0	0	0	0	0	0	0	0
160°	0	0	0	0	0	0	0	0	0
162.5°	0	0	0	0	0	0	0	0	0
165°	0	0	0	0	0	0	0	0	0
167.5°	0	0	0	0	0	0	0	0	0
170°	0	0	0	0	0	0	0	0	0
172.5°	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0
177.5°	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0

(END OF REPORT)