

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: P24856

Luminaire Tested: **FMLED12WH840PR**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-41-14  
Report Number: P24856  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: FMLED12WH840PR  
Description: METALUX 12" LED WHITE ROUND PUFF  
Light Source: (28) 4000K LEDS  
62-217D  
Ballast/Driver: COOPER LIGHTING ELECTRONIC DRIVER  
SX-AD01400120-0250

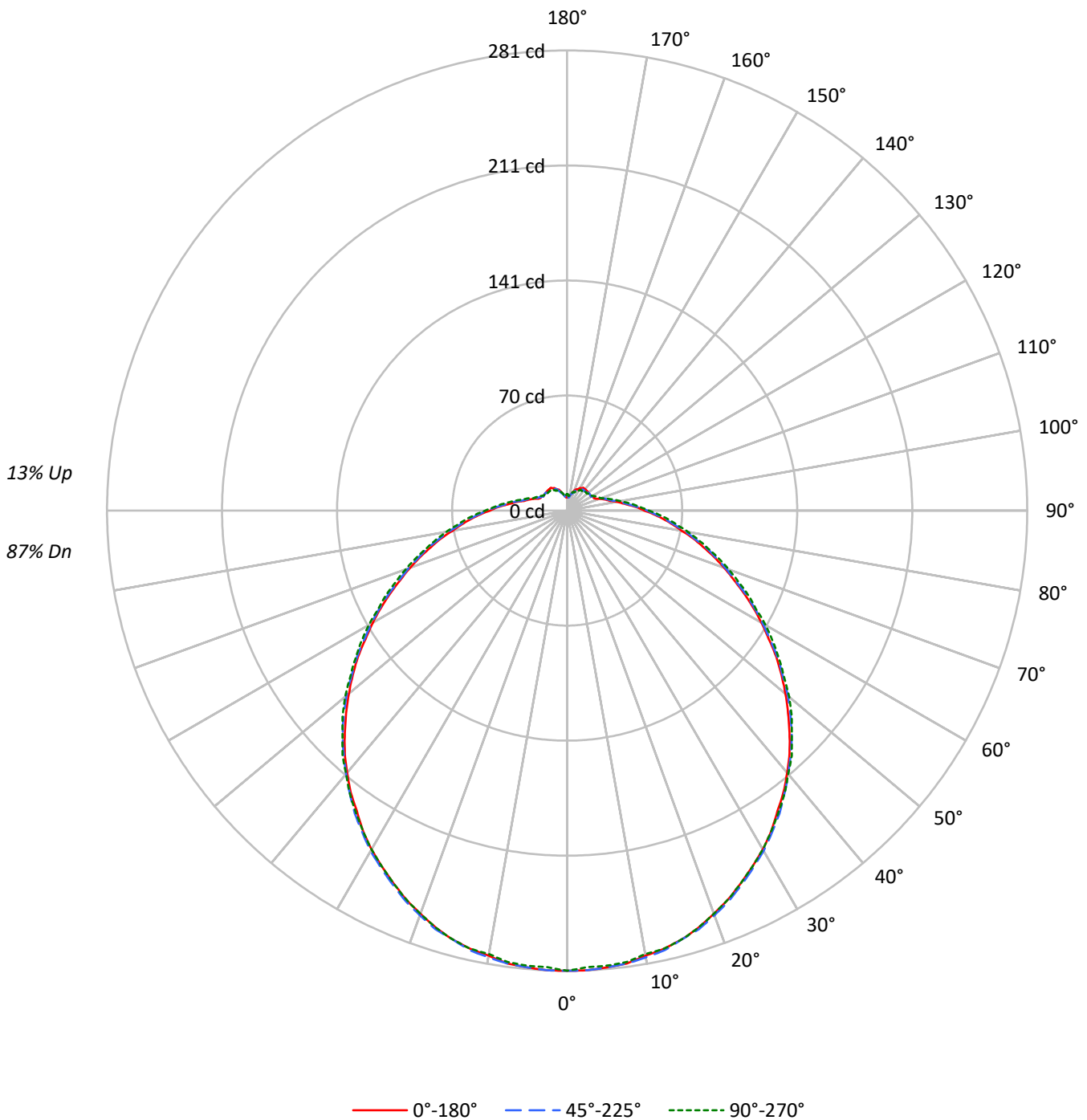
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1065.2 lumens  
Efficiency: N/A  
Efficacy: 75.0 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.26 / 1.4  
Luminous Opening: Vertical Cylinder (Dia: 1' x H: 0.25')  
CIE Type: Semi-Direct  
  
Input Watts (W): 14.2  
Input Voltage (V): 120.01  
Input Current (Ain): 0.12044  
Voltage Rise (V): NR  
Power Factor: 0.9883  
Total Harmonic Distortion (THDi): 12.4%  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: 24 HR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT

TEST NUMBER: P24856

CATALOG NUMBER: FMLED12WH840PR

### Luminous Intensity Polar Plot





TEST NUMBER: P24856

CATALOG NUMBER: FMLED12WH840PR

**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	116	116	116	116	112	112	112	112	104	104	104	97	97	97	90	90	90	87
1	104	98	93	88	99	94	90	86	88	84	81	81	79	76	76	73	71	68
2	93	84	77	70	89	81	74	69	76	70	65	70	66	62	65	62	58	55
3	85	73	65	58	81	71	63	56	66	59	54	61	56	51	57	53	49	46
4	77	65	55	48	74	63	54	47	58	51	45	54	48	43	51	46	41	39
5	71	58	48	41	68	56	47	41	52	45	39	49	42	37	46	40	36	33
6	65	52	42	36	63	50	41	35	47	39	34	44	38	33	41	36	31	29
7	61	47	38	32	58	45	37	31	43	35	30	40	34	29	38	32	28	25
8	56	43	34	28	54	41	33	27	39	32	27	37	30	26	35	29	25	23
9	53	39	31	25	50	38	30	25	36	29	24	34	28	23	32	26	22	20
10	49	36	28	23	47	35	27	22	33	26	22	31	25	21	30	24	20	18

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

	0°	45°	90°
0°	3851	3851	3851
5°	3748	3748	3734
10°	3637	3650	3624
15°	3543	3543	3543
20°	3424	3437	3424
25°	3305	3318	3305
30°	3195	3208	3195
35°	3065	3092	3078
40°	2951	2965	2965
45°	2823	2852	2852
50°	2690	2721	2736
55°	2563	2579	2595
60°	2421	2438	2474
65°	2293	2313	2351
70°	2180	2202	2245
75°	2081	2130	2154
80°	1998	2054	2110
85°	2000	2034	2102



TEST NUMBER: P24856

CATALOG NUMBER: FMLED12WH840PR

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	26.6	2.5
10°-20°	76.5	7.2
20°-30°	116.1	10.9
30°-40°	141.0	13.2
40°-50°	149.4	14.0
50°-60°	140.3	13.2
60°-70°	119.2	11.2
70°-80°	92.6	8.7
80°-90°	65.8	6.2
90°-100°	43.2	4.1
100°-110°	27.7	2.6
110°-120°	18.9	1.8
120°-130°	15.1	1.4
130°-140°	12.7	1.2
140°-150°	9.8	0.9
150°-160°	6.4	0.6
160°-170°	3.1	0.3
170°-180°	0.8	0.1
0°-30°	219.3	20.6
0°-40°	360.3	33.8
0°-60°	650.0	61.0
0°-90°	927.5	87.1
90°-120°	89.7	8.4
90°-150°	127.4	12.0
90°-180°	138.0	13.0
0°-180°	1065.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	281	281	281	281	281	
5°	280	280	280	281	279	27
15°	271	271	271	272	271	76
25°	251	251	252	253	251	116
35°	224	225	226	226	225	141
45°	192	193	194	195	194	148
55°	156	156	157	157	158	139
65°	119	119	120	121	122	118
75°	86	86	88	88	89	91
85°	59	59	60	61	62	51
90°	47	48	49	49	50	26
95°	38	38	39	40	41	30
105°	25	25	26	26	27	27
115°	18	18	19	19	20	18
125°	17	17	17	16	17	15
135°	17	17	16	16	16	13
145°	17	16	16	15	15	10
155°	14	14	14	13	13	7
165°	11	11	11	10	11	3
175°	8	8	8	8	9	1
180°	10	10	10	10	10	



TEST NUMBER: P24856

CATALOG NUMBER: FMLED12WH840PR

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	281	281	281	281	281
2.5°	281	280	281	281	279
5°	280	280	280	281	279
7.5°	279	279	279	280	278
10°	276	276	277	277	275
12.5°	274	274	275	275	274
15°	271	271	271	272	271
17.5°	267	267	268	269	267
20°	262	262	263	263	262
22.5°	257	257	258	258	257
25°	251	251	252	253	251
27.5°	245	245	246	247	245
30°	239	239	240	240	239
32.5°	232	232	233	233	232
35°	224	225	226	226	225
37.5°	217	217	218	218	218
40°	209	209	210	211	210
42.5°	201	202	202	203	203
45°	192	193	194	195	194
47.5°	183	184	185	185	186
50°	174	175	176	176	177
52.5°	165	165	166	167	167
55°	156	156	157	157	158
57.5°	146	147	147	148	149
60°	137	137	138	139	140
62.5°	128	128	129	130	130
65°	119	119	120	121	122
67.5°	110	111	111	112	113
70°	102	102	103	104	105
72.5°	94	94	95	96	97
75°	86	86	88	88	89
77.5°	79	79	80	81	82
80°	71	72	73	74	75
82.5°	65	65	66	67	68
85°	59	59	60	61	62
87.5°	53	53	54	55	56
90°	47	48	49	49	50
92.5°	43	43	44	44	45
95°	38	38	39	40	41
97.5°	34	34	35	36	37
100°	31	31	32	32	33
102.5°	27	28	28	29	30
105°	25	25	26	26	27
107.5°	23	23	24	24	25
110°	21	21	22	22	22



TEST NUMBER: P24856

CATALOG NUMBER: FMLED12WH840PR

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	19	19	20	20	21
115°	18	18	19	19	20
117.5°	18	18	18	18	19
120°	17	17	17	17	18
122.5°	17	17	17	17	17
125°	17	17	17	16	17
127.5°	17	17	17	16	17
130°	17	17	17	16	16
132.5°	17	17	16	16	16
135°	17	17	16	16	16
137.5°	17	17	16	16	16
140°	17	17	16	16	16
142.5°	17	16	16	15	15
145°	17	16	16	15	15
147.5°	16	16	15	15	15
150°	16	15	15	14	14
152.5°	15	15	15	14	14
155°	14	14	14	13	13
157.5°	14	13	13	13	12
160°	13	13	12	12	12
162.5°	12	12	11	11	12
165°	11	11	11	10	11
167.5°	10	10	10	10	10
170°	9	9	9	9	10
172.5°	9	9	8	9	9
175°	8	8	8	8	9
177.5°	8	9	10	10	10
180°	10	10	10	10	10

(END OF REPORT)