

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P233029

Luminaire Tested: **FCB-12-4-LD4-35-30-UNV-EDD1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233029
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35573)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FCB-12-4-LD4-35-30-UNV-EDD1
Description: FAILSAFE 1X4 FCB LED TROFFER
OPAL DIFFUSER, NO LENS
Light Source: (84)3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

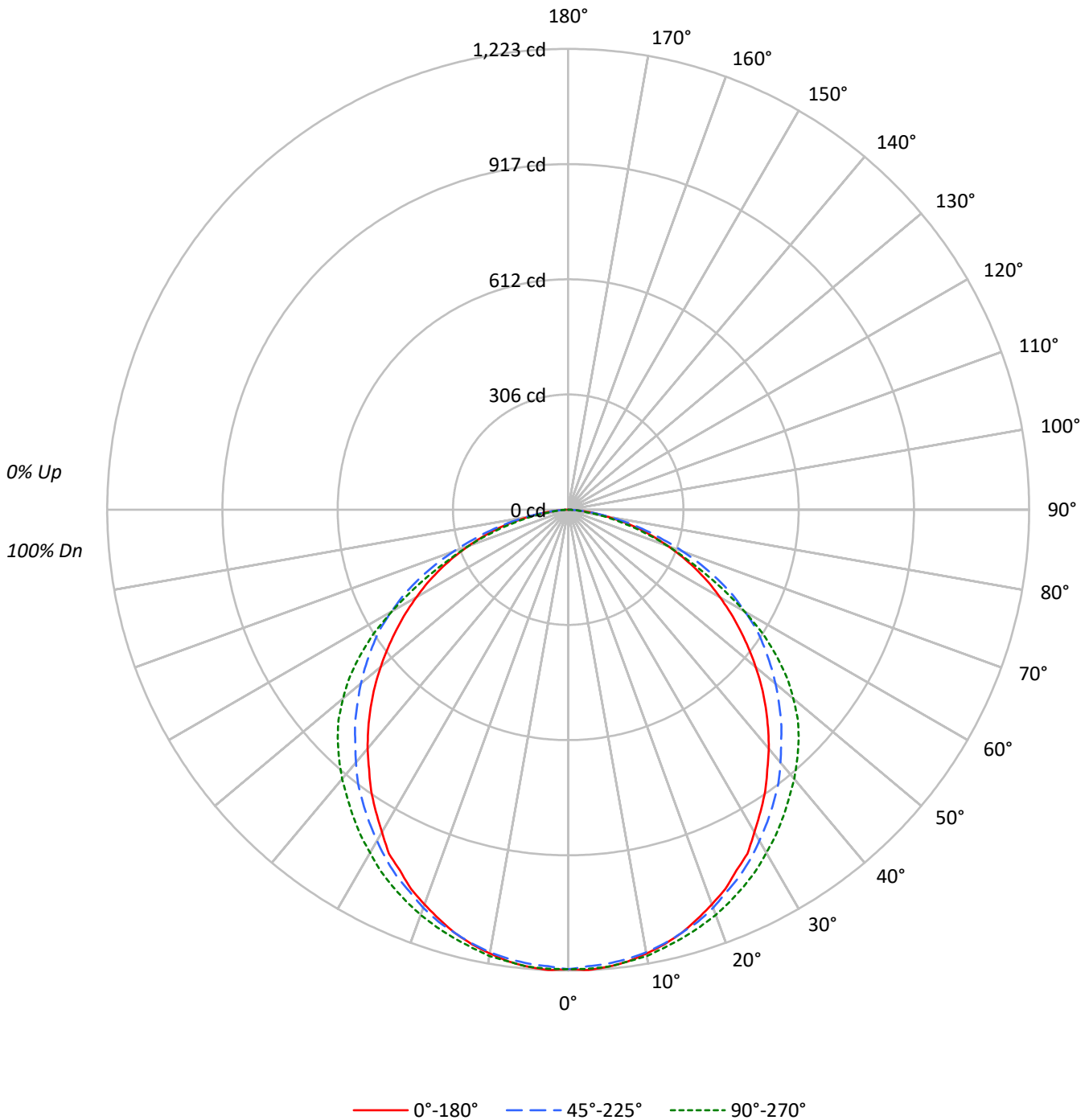
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3379.0 lumens
Efficiency: N/A
Efficacy: 107.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.5
Input Voltage (V): 120
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70
3	90	80	72	66	88	78	71	65	75	69	64	73	67	63	70	66	62	59
4	83	71	62	56	81	70	61	55	67	60	54	65	59	54	63	57	53	51
5	76	63	54	48	74	62	54	48	60	53	47	58	52	46	56	51	46	44
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	40	38
7	65	52	43	37	63	51	43	37	49	42	36	48	41	36	47	40	36	34
8	61	47	39	33	59	46	38	33	45	38	33	44	37	32	43	37	32	30
9	57	43	35	30	55	43	35	29	42	34	29	40	34	29	39	33	29	27
10	53	40	32	27	52	39	32	27	38	31	27	37	31	26	37	31	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3281	3281	3281
5°	3289	3267	3289
10°	3268	3259	3286
15°	3239	3239	3277
20°	3191	3220	3277
25°	3136	3190	3274
30°	3069	3152	3266
35°	2993	3119	3267
40°	2908	3078	3277
45°	2821	3043	3290
50°	2720	3006	3264
55°	2610	2978	3157
60°	2502	2914	2905
65°	2387	2790	2546
70°	2215	2543	2202
75°	2009	2217	1818
80°	1601	1756	1342
85°	1130	979	772



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.4	3.4
10°-20°	329.6	9.8
20°-30°	497.0	14.7
30°-40°	595.7	17.6
40°-50°	618.2	18.3
50°-60°	557.6	16.5
60°-70°	406.7	12.0
70°-80°	213.4	6.3
80°-90°	45.5	1.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	941.9	27.9
0°-40°	1537.6	45.5
0°-60°	2713.4	80.3
0°-90°	3379.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3379.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1219	1219	1219	1219	1219	
5°	1218	1214	1209	1218	1218	116
15°	1163	1163	1163	1176	1176	328
25°	1056	1061	1074	1098	1103	487
35°	911	921	950	984	994	569
45°	741	756	800	848	865	571
55°	556	576	635	676	673	498
65°	375	396	438	422	400	370
75°	193	220	213	185	175	203
85°	37	45	32	27	25	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1219.4	1219.4	1219.4	1219.4	1219.4
2.5°	1222.7	1219.4	1212.7	1219.4	1219.4
5°	1217.7	1214.4	1209.4	1217.7	1217.7
7.5°	1209.4	1206.1	1202.7	1211.1	1209.4
10°	1196.1	1194.4	1192.7	1202.7	1202.7
12.5°	1181.1	1181.1	1179.4	1191.1	1189.4
15°	1162.7	1162.7	1162.7	1176.1	1176.1
17.5°	1139.4	1142.8	1146.1	1161.1	1161.1
20°	1114.4	1117.8	1124.4	1142.8	1144.4
22.5°	1089.5	1091.1	1097.8	1119.4	1124.4
25°	1056.1	1061.1	1074.5	1097.8	1102.8
27.5°	1029.5	1031.1	1046.1	1072.8	1079.5
30°	987.8	999.5	1014.5	1044.5	1051.1
32.5°	949.5	959.5	982.8	1014.5	1024.5
35°	911.2	921.2	949.5	984.5	994.5
37.5°	867.9	882.9	916.2	951.2	962.8
40°	827.9	841.2	876.2	919.5	932.9
42.5°	784.6	797.9	836.2	884.6	899.5
45°	741.3	756.3	799.6	847.9	864.6
47.5°	696.3	713.0	758.0	811.3	826.3
50°	649.7	668.0	718.0	772.9	779.6
52.5°	603.0	623.0	676.3	724.6	731.3
55°	556.4	576.4	634.7	676.3	673.0
57.5°	511.4	533.1	593.0	614.7	611.4
60°	464.8	488.1	541.4	551.4	539.7
62.5°	421.5	443.1	493.1	484.8	469.8
65°	374.8	396.5	438.1	421.5	399.8
67.5°	328.2	354.8	381.5	353.2	336.5
70°	281.5	311.5	323.2	294.9	279.9
72.5°	236.5	268.2	264.9	236.5	226.6
75°	193.2	219.9	213.2	184.9	174.9
77.5°	146.6	176.6	161.6	138.3	129.9
80°	103.3	129.9	113.3	93.3	86.6
82.5°	68.3	86.6	70.0	55.0	50.0
85°	36.6	45.0	31.7	26.7	25.0
87.5°	15.0	13.3	11.7	11.7	10.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)