

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: P233079

Luminaire Tested: **FCB-12-4-LD4-35-40-UNV-EDD1-WDP12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233079
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-LD4-35-40-UNV-EDD1-WDP12
Description: FAILSAFE 1X4 FCB LED TROFFER
.125 POLYCARBONATE LENS
Light Source: (84)4000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

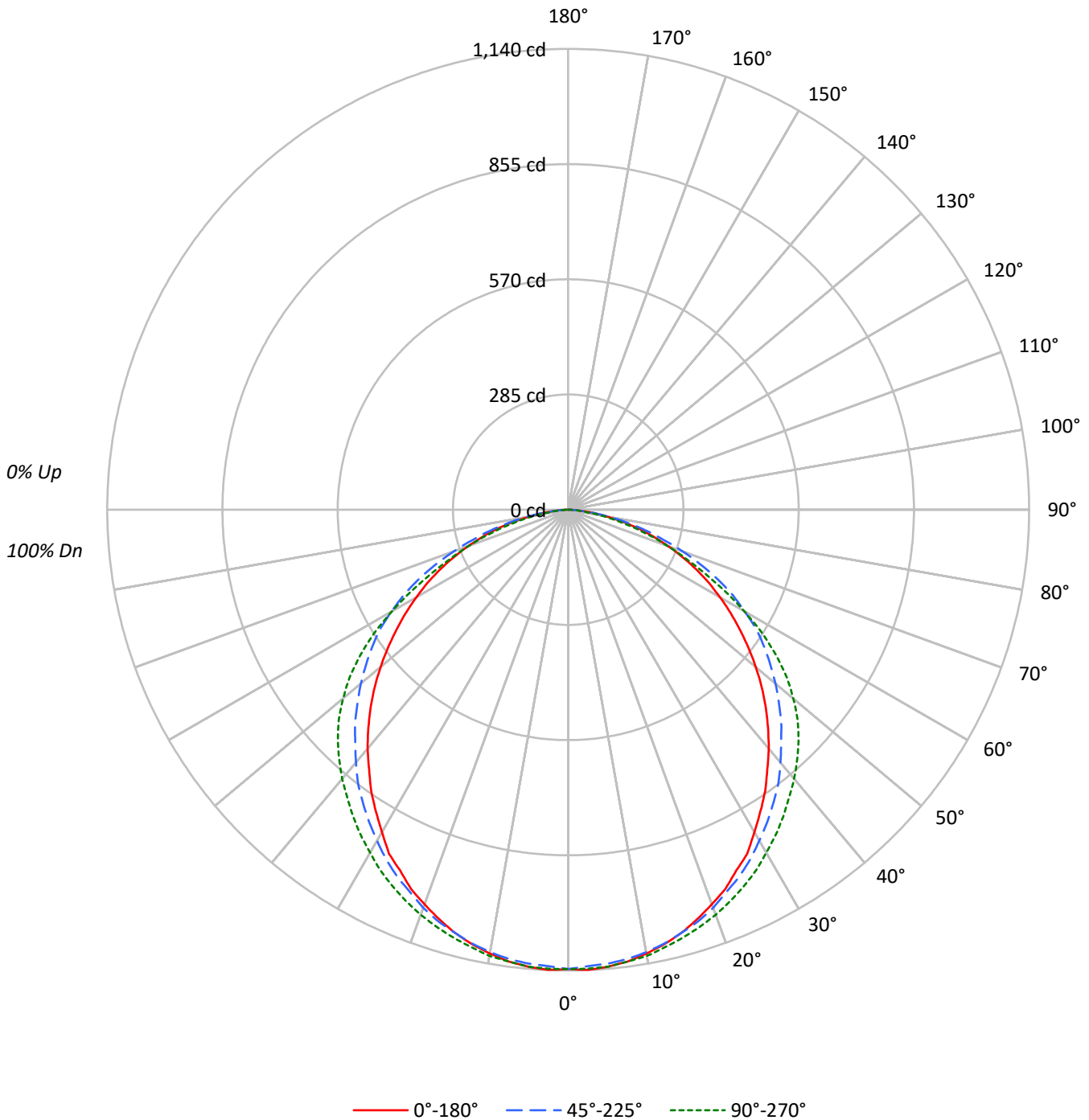
Lumens per Lamp: N/A
Luminaire Lumens: 3149.0 lumens
Efficiency: N/A
Efficacy: 100.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	3058	3058	3058
5°	3065	3045	3065
10°	3046	3037	3063
15°	3019	3019	3053
20°	2974	3001	3054
25°	2922	2973	3051
30°	2861	2938	3044
35°	2790	2907	3045
40°	2710	2869	3054
45°	2629	2836	3066
50°	2535	2801	3041
55°	2433	2775	2943
60°	2331	2715	2707
65°	2224	2600	2372
70°	2065	2370	2052
75°	1873	2066	1695
80°	1492	1636	1251
85°	1056	911	719



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.5	3.4
10°-20°	307.2	9.8
20°-30°	463.1	14.7
30°-40°	555.1	17.6
40°-50°	576.1	18.3
50°-60°	519.6	16.5
60°-70°	379.0	12.0
70°-80°	198.9	6.3
80°-90°	42.4	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°	877.8	27.9
0°-40°	1432.9	45.5
0°-60°	2528.7	80.3
0°-90°	3149.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3149.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1136	1136	1136	1136	1136	
5°	1135	1132	1127	1135	1135	108
15°	1084	1084	1084	1096	1096	305
25°	984	989	1001	1023	1028	454
35°	849	858	885	918	927	530
45°	691	705	745	790	806	533
55°	518	537	592	630	627	464
65°	349	370	408	393	373	345
75°	180	205	199	172	163	189
85°	34	42	30	25	23	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1136.4	1136.4	1136.4	1136.4	1136.4
2.5°	1139.5	1136.4	1130.2	1136.4	1136.4
5°	1134.8	1131.7	1127.1	1134.8	1134.8
7.5°	1127.1	1124.0	1120.9	1128.6	1127.1
10°	1114.7	1113.1	1111.5	1120.9	1120.9
12.5°	1100.7	1100.7	1099.1	1110.0	1108.4
15°	1083.6	1083.6	1083.6	1096.0	1096.0
17.5°	1061.9	1065.0	1068.1	1082.0	1082.0
20°	1038.6	1041.7	1047.9	1065.0	1066.5
22.5°	1015.3	1016.8	1023.1	1043.2	1047.9
25°	984.2	988.9	1001.3	1023.1	1027.7
27.5°	959.4	961.0	974.9	999.8	1006.0
30°	920.6	931.5	945.4	973.4	979.6
32.5°	884.9	894.2	915.9	945.4	954.7
35°	849.2	858.5	884.9	917.5	926.8
37.5°	808.8	822.8	853.8	886.4	897.3
40°	771.6	784.0	816.6	856.9	869.4
42.5°	731.2	743.6	779.3	824.3	838.3
45°	690.8	704.8	745.2	790.2	805.7
47.5°	648.9	664.4	706.4	756.0	770.0
50°	605.5	622.5	669.1	720.3	726.5
52.5°	562.0	580.6	630.3	675.3	681.5
55°	518.5	537.1	591.5	630.3	627.2
57.5°	476.6	496.8	552.7	572.8	569.7
60°	433.1	454.9	504.5	513.9	503.0
62.5°	392.8	412.9	459.5	451.8	437.8
65°	349.3	369.5	408.3	392.8	372.6
67.5°	305.8	330.7	355.5	329.1	313.6
70°	262.4	290.3	301.2	274.8	260.8
72.5°	220.4	249.9	246.8	220.4	211.1
75°	180.1	204.9	198.7	172.3	163.0
77.5°	136.6	164.6	150.6	128.9	121.1
80°	96.3	121.1	105.6	86.9	80.7
82.5°	63.6	80.7	65.2	51.2	46.6
85°	34.2	41.9	29.5	24.8	23.3
87.5°	14.0	12.4	10.9	10.9	9.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)