

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: P233081

Luminaire Tested: **FCB-12-4-LD4-44-30-UNV-EDD1-WDP12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233081
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-LD4-44-30-UNV-EDD1-WDP12
Description: FAILSAFE 1X4 FCB LED TROFFER
.125 POLYCARBONATE LENS
Light Source: (84)3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

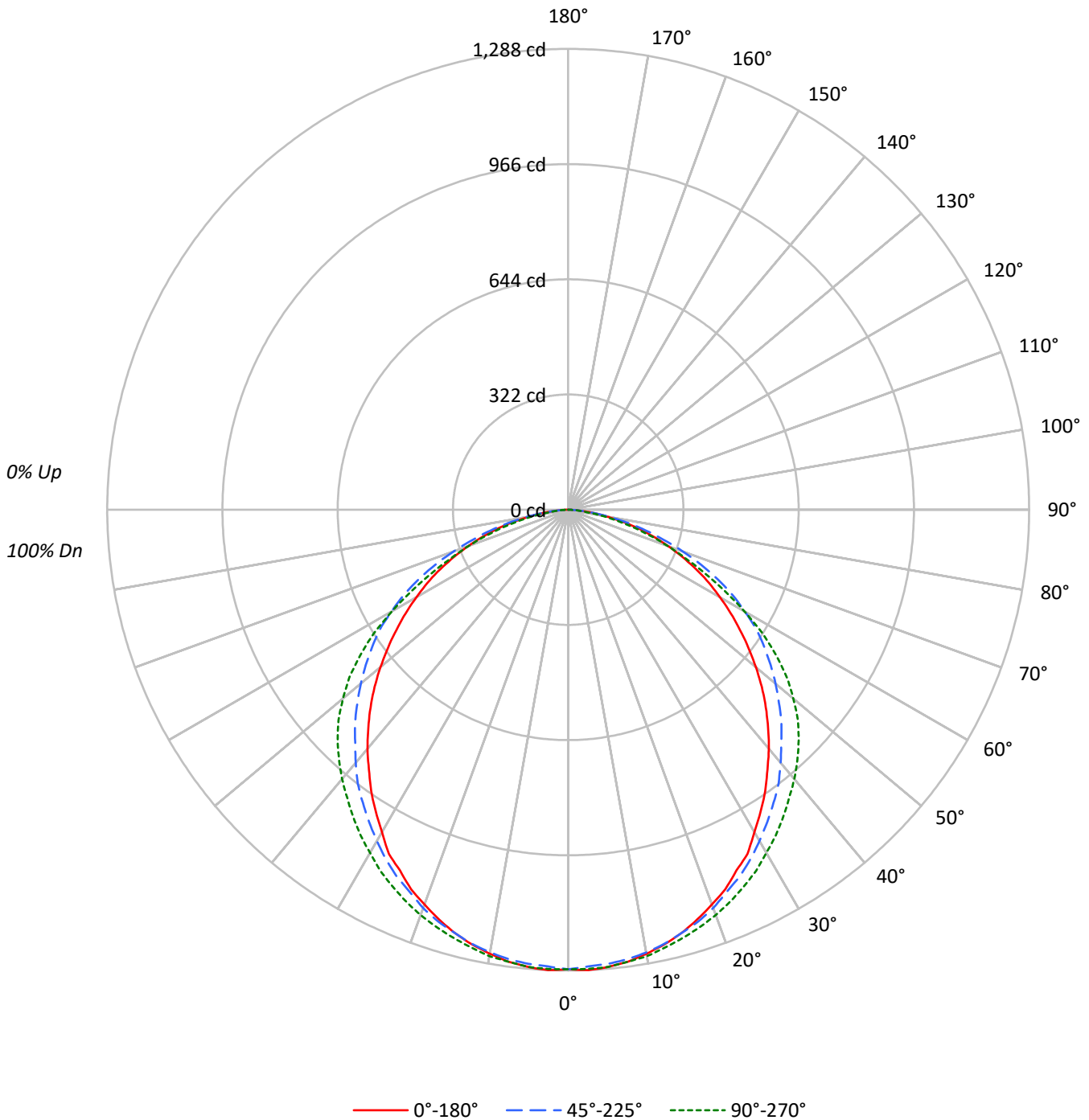
Lumens per Lamp: N/A
Luminaire Lumens: 3560.0 lumens
Efficiency: N/A
Efficacy: 86.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.1
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°	3457	3457	3457
5°	3465	3442	3465
10°	3443	3434	3463
15°	3413	3413	3452
20°	3362	3393	3453
25°	3304	3361	3450
30°	3234	3321	3441
35°	3154	3286	3442
40°	3064	3243	3452
45°	2972	3206	3467
50°	2866	3167	3439
55°	2750	3137	3326
60°	2636	3070	3060
65°	2514	2939	2682
70°	2334	2679	2319
75°	2117	2335	1916
80°	1686	1849	1415
85°	1192	1028	812



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.6	3.4
10°-20°	347.3	9.8
20°-30°	523.6	14.7
30°-40°	627.6	17.6
40°-50°	651.3	18.3
50°-60°	587.4	16.5
60°-70°	428.5	12.0
70°-80°	224.8	6.3
80°-90°	48.0	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°	992.4	27.9
0°-40°	1620.0	45.5
0°-60°	2858.7	80.3
0°-90°	3560.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3560.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1285	1285	1285	1285	1285	
5°	1283	1279	1274	1283	1283	122
15°	1225	1225	1225	1239	1239	345
25°	1113	1118	1132	1157	1162	513
35°	960	970	1000	1037	1048	600
45°	781	797	842	893	911	602
55°	586	607	669	713	709	525
65°	395	418	462	444	421	390
75°	204	232	225	195	184	213
85°	39	47	33	28	26	49
90°	0	0	0	0	0	



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CATALOG NUMBER: FCB-12-4-LD4-44-30-UNV-EDD1-WDP12

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1284.7	1284.7	1284.7	1284.7	1284.7
2.5°	1288.2	1284.7	1277.7	1284.7	1284.7
5°	1282.9	1279.4	1274.2	1282.9	1282.9
7.5°	1274.2	1270.7	1267.2	1275.9	1274.2
10°	1260.1	1258.4	1256.6	1267.2	1267.2
12.5°	1244.3	1244.3	1242.6	1254.9	1253.1
15°	1225.0	1225.0	1225.0	1239.1	1239.1
17.5°	1200.5	1204.0	1207.5	1223.3	1223.3
20°	1174.1	1177.6	1184.7	1204.0	1205.7
22.5°	1147.8	1149.6	1156.6	1179.4	1184.7
25°	1112.7	1118.0	1132.0	1156.6	1161.8
27.5°	1084.6	1086.4	1102.2	1130.3	1137.3
30°	1040.8	1053.0	1068.8	1100.4	1107.4
32.5°	1000.4	1010.9	1035.5	1068.8	1079.4
35°	960.0	970.5	1000.4	1037.2	1047.8
37.5°	914.4	930.2	965.3	1002.1	1014.4
40°	872.3	886.3	923.2	968.8	982.8
42.5°	826.6	840.7	881.0	931.9	947.7
45°	781.0	796.8	842.4	893.3	910.9
47.5°	733.6	751.2	798.6	854.7	870.5
50°	684.5	703.8	756.4	814.3	821.4
52.5°	635.3	656.4	712.6	763.5	770.5
55°	586.2	607.3	668.7	712.6	709.0
57.5°	538.8	561.6	624.8	647.6	644.1
60°	489.7	514.2	570.4	580.9	568.6
62.5°	444.0	466.8	519.5	510.7	494.9
65°	394.9	417.7	461.6	444.0	421.2
67.5°	345.7	373.8	401.9	372.1	354.5
70°	296.6	328.2	340.5	310.6	294.8
72.5°	249.2	282.6	279.1	249.2	238.7
75°	203.6	231.7	224.6	194.8	184.3
77.5°	154.4	186.0	170.2	145.7	136.9
80°	108.8	136.9	119.3	98.3	91.3
82.5°	72.0	91.3	73.7	57.9	52.7
85°	38.6	47.4	33.3	28.1	26.3
87.5°	15.8	14.0	12.3	12.3	10.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)