

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: P233080

Luminaire Tested: **FCB-12-4-LD4-35-50-UNV-EDD1-WDP12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233080
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-LD4-35-50-UNV-EDD1-WDP12
Description: FAILSAFE 1X4 FCB LED TROFFER
.125 POLYCARBONATE LENS
Light Source: (84)5000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

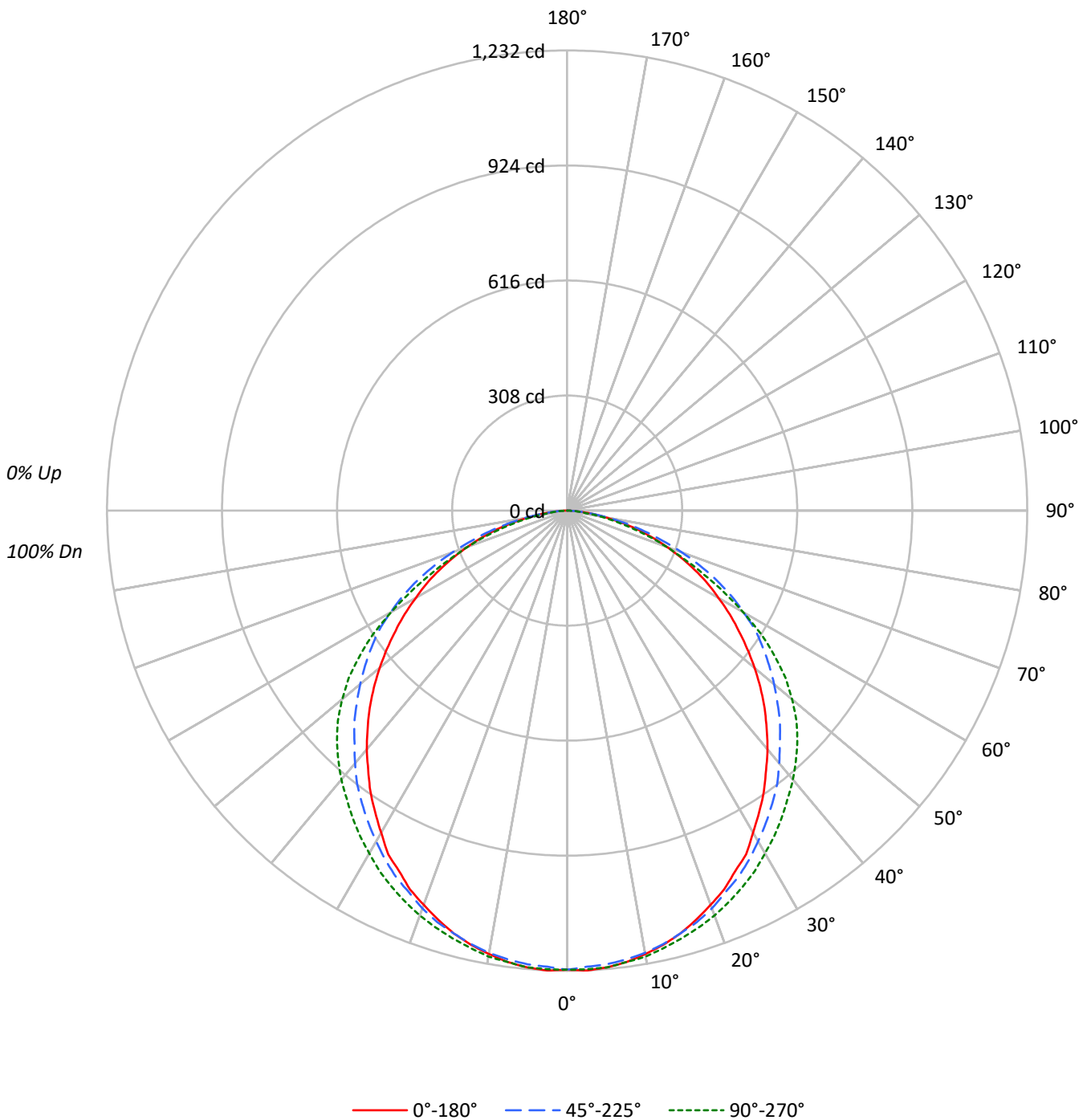
Lumens per Lamp: N/A
Luminaire Lumens: 3406.0 lumens
Efficiency: N/A
Efficacy: 108.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	3307	3307	3307
5°	3316	3293	3316
10°	3294	3285	3313
15°	3265	3265	3303
20°	3217	3246	3304
25°	3161	3216	3301
30°	3094	3177	3292
35°	3017	3144	3293
40°	2931	3103	3303
45°	2844	3067	3317
50°	2742	3030	3290
55°	2631	3002	3183
60°	2521	2937	2928
65°	2406	2812	2566
70°	2233	2563	2220
75°	2025	2234	1833
80°	1613	1770	1353
85°	1139	985	778



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.3	3.4
10°-20°	332.2	9.8
20°-30°	500.9	14.7
30°-40°	600.4	17.6
40°-50°	623.1	18.3
50°-60°	562.0	16.5
60°-70°	410.0	12.0
70°-80°	215.1	6.3
80°-90°	45.9	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°	949.5	27.9
0°-40°	1549.9	45.5
0°-60°	2735.0	80.3
0°-90°	3406.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3406.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1229	1229	1229	1229	1229	
5°	1227	1224	1219	1227	1227	116
15°	1172	1172	1172	1186	1186	330
25°	1065	1070	1083	1107	1112	491
35°	918	929	957	992	1002	574
45°	747	762	806	855	872	576
55°	561	581	640	682	678	502
65°	378	400	442	425	403	373
75°	195	222	215	186	176	204
85°	37	45	32	27	25	47
90°	0	0	0	0	0	



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CATALOG NUMBER: FCB-12-4-LD4-35-50-UNV-EDD1-WDP12

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1229.1	1229.1	1229.1	1229.1	1229.1
2.5°	1232.5	1229.1	1222.4	1229.1	1229.1
5°	1227.4	1224.1	1219.1	1227.4	1227.4
7.5°	1219.1	1215.7	1212.3	1220.7	1219.1
10°	1205.6	1203.9	1202.3	1212.3	1212.3
12.5°	1190.5	1190.5	1188.8	1200.6	1198.9
15°	1172.0	1172.0	1172.0	1185.5	1185.5
17.5°	1148.5	1151.9	1155.2	1170.4	1170.4
20°	1123.3	1126.7	1133.4	1151.9	1153.6
22.5°	1098.2	1099.8	1106.6	1128.4	1133.4
25°	1064.6	1069.6	1083.0	1106.6	1111.6
27.5°	1037.7	1039.4	1054.5	1081.4	1088.1
30°	995.7	1007.5	1022.6	1052.8	1059.5
32.5°	957.1	967.2	990.7	1022.6	1032.7
35°	918.5	928.6	957.1	992.4	1002.4
37.5°	874.8	889.9	923.5	958.8	970.5
40°	834.5	848.0	883.2	926.9	940.3
42.5°	790.9	804.3	842.9	891.6	906.7
45°	747.2	762.3	806.0	854.7	871.5
47.5°	701.9	718.7	764.0	817.7	832.9
50°	654.9	673.3	723.7	779.1	785.8
52.5°	607.8	628.0	681.7	730.4	737.1
55°	560.8	581.0	639.8	681.7	678.4
57.5°	515.5	537.3	597.8	619.6	616.2
60°	468.5	492.0	545.7	555.8	544.0
62.5°	424.8	446.7	497.0	488.6	473.5
65°	377.8	399.6	441.6	424.8	403.0
67.5°	330.8	357.7	384.5	356.0	339.2
70°	283.8	314.0	325.8	297.2	282.1
72.5°	238.4	270.3	267.0	238.4	228.4
75°	194.8	221.6	214.9	186.4	176.3
77.5°	147.8	178.0	162.9	139.4	131.0
80°	104.1	131.0	114.2	94.0	87.3
82.5°	68.8	87.3	70.5	55.4	50.4
85°	36.9	45.3	31.9	26.9	25.2
87.5°	15.1	13.4	11.8	11.8	10.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)