

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: P233066

Luminaire Tested: **FCB-12-4-LD4-35-35-UNV-EDD1-WDA12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233066
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-LD4-35-35-UNV-EDD1-WDA12
Description: FAILSAFE 1X4 FCB LED TROFFER
.125 ACRYLIC LENS
Light Source: (84)3500K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

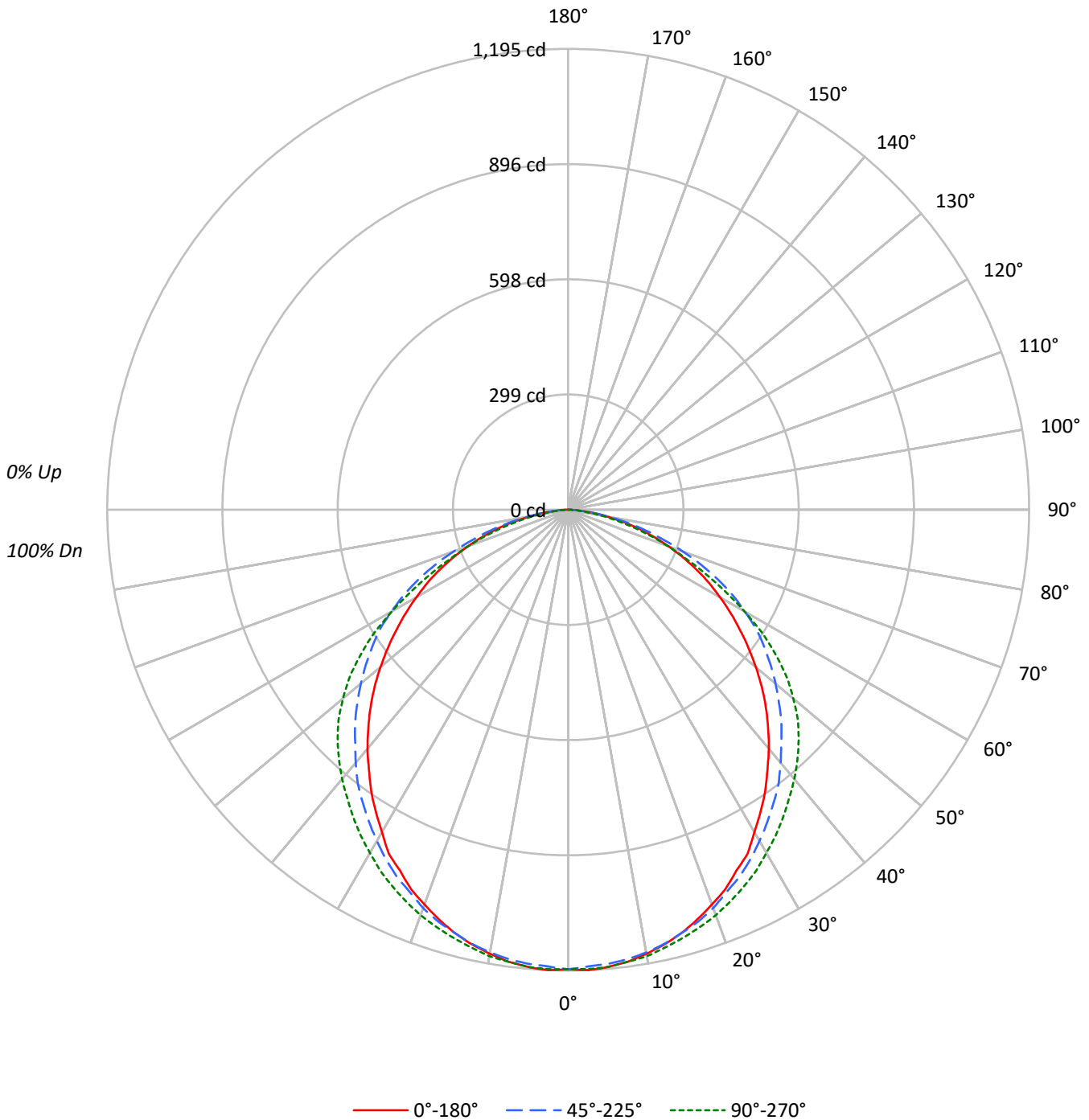
Lumens per Lamp: N/A
Luminaire Lumens: 3303.0 lumens
Efficiency: N/A
Efficacy: 104.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	3208	3208	3208
5°	3215	3193	3215
10°	3195	3186	3213
15°	3166	3166	3203
20°	3120	3147	3204
25°	3065	3119	3201
30°	3000	3081	3193
35°	2926	3049	3193
40°	2843	3009	3203
45°	2758	2974	3216
50°	2659	2938	3190
55°	2552	2911	3087
60°	2445	2848	2840
65°	2333	2727	2488
70°	2165	2485	2153
75°	1964	2167	1778
80°	1565	1715	1313
85°	1105	954	753



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.8	3.4
10°-20°	322.2	9.8
20°-30°	485.8	14.7
30°-40°	582.3	17.6
40°-50°	604.3	18.3
50°-60°	545.0	16.5
60°-70°	397.6	12.0
70°-80°	208.6	6.3
80°-90°	44.5	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°	920.8	27.9
0°-40°	1503.0	45.5
0°-60°	2652.3	80.3
0°-90°	3303.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3303.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1192	1192	1192	1192	1192	
5°	1190	1187	1182	1190	1190	113
15°	1137	1137	1137	1150	1150	320
25°	1032	1037	1050	1073	1078	476
35°	891	900	928	962	972	556
45°	725	739	782	829	845	559
55°	544	563	620	661	658	487
65°	366	388	428	412	391	362
75°	189	215	208	181	171	198
85°	36	44	31	26	24	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1192.0	1192.0	1192.0	1192.0	1192.0
2.5°	1195.2	1192.0	1185.4	1192.0	1192.0
5°	1190.3	1187.1	1182.2	1190.3	1190.3
7.5°	1182.2	1178.9	1175.7	1183.8	1182.2
10°	1169.2	1167.5	1165.9	1175.7	1175.7
12.5°	1154.5	1154.5	1152.9	1164.3	1162.6
15°	1136.6	1136.6	1136.6	1149.6	1149.6
17.5°	1113.8	1117.1	1120.3	1135.0	1135.0
20°	1089.4	1092.6	1099.1	1117.1	1118.7
22.5°	1064.9	1066.6	1073.1	1094.3	1099.1
25°	1032.4	1037.3	1050.3	1073.1	1078.0
27.5°	1006.3	1008.0	1022.6	1048.7	1055.2
30°	965.6	977.0	991.7	1021.0	1027.5
32.5°	928.2	937.9	960.7	991.7	1001.4
35°	890.7	900.5	928.2	962.4	972.1
37.5°	848.4	863.0	895.6	929.8	941.2
40°	809.3	822.3	856.5	898.9	911.9
42.5°	767.0	780.0	817.4	864.7	879.3
45°	724.6	739.3	781.6	828.8	845.1
47.5°	680.7	696.9	740.9	793.0	807.7
50°	635.1	653.0	701.8	755.6	762.1
52.5°	589.5	609.0	661.1	708.3	714.8
55°	543.9	563.4	620.4	661.1	657.9
57.5°	499.9	521.1	579.7	600.9	597.6
60°	454.3	477.1	529.2	539.0	527.6
62.5°	412.0	433.1	482.0	473.9	459.2
65°	366.4	387.5	428.3	412.0	390.8
67.5°	320.8	346.8	372.9	345.2	328.9
70°	275.2	304.5	315.9	288.2	273.6
72.5°	231.2	262.2	258.9	231.2	221.5
75°	188.9	214.9	208.4	180.7	171.0
77.5°	143.3	172.6	158.0	135.2	127.0
80°	101.0	127.0	110.7	91.2	84.7
82.5°	66.8	84.7	68.4	53.7	48.9
85°	35.8	44.0	30.9	26.1	24.4
87.5°	14.7	13.0	11.4	11.4	9.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)