

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: P233077

Luminaire Tested: **FCB-12-4-LD4-35-30-UNV-EDD1-WDP12**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P233077  
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-WDP12  
Description: FAILSAFE 1X4 FCB LED TROFFER  
.125 POLYCARBONATE LENS  
Light Source: (84)3000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

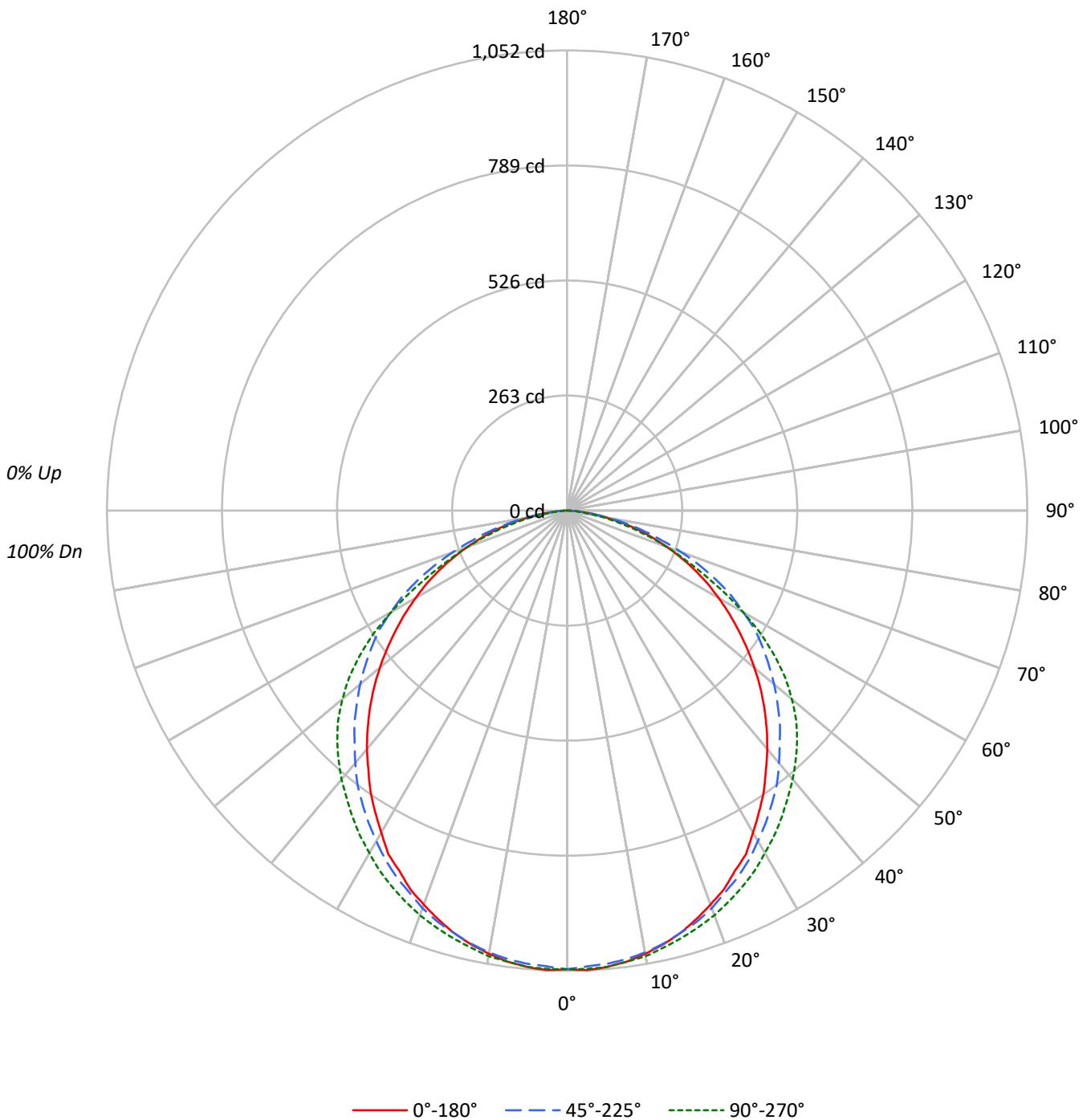
Lumens per Lamp: N/A  
Luminaire Lumens: 2906.0 lumens  
Efficiency: N/A  
Efficacy: 92.3 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	2822	2822	2822
5°	2829	2810	2829
10°	2811	2803	2826
15°	2786	2786	2818
20°	2745	2769	2818
25°	2697	2744	2816
30°	2640	2711	2809
35°	2575	2683	2810
40°	2501	2647	2818
45°	2426	2617	2829
50°	2339	2585	2807
55°	2245	2561	2715
60°	2151	2506	2498
65°	2052	2399	2189
70°	1905	2186	1894
75°	1728	1907	1564
80°	1376	1509	1155
85°	973	840	664



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	99.2	3.4
10°-20°	283.5	9.8
20°-30°	427.4	14.7
30°-40°	512.3	17.6
40°-50°	531.6	18.3
50°-60°	479.5	16.5
60°-70°	349.8	12.0
70°-80°	183.5	6.3
80°-90°	39.1	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°	810.1	27.9
0°-40°	1322.4	45.5
0°-60°	2333.5	80.3
0°-90°	2906.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2906.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1049	1049	1049	1049	1049	
5°	1047	1044	1040	1047	1047	99
15°	1000	1000	1000	1011	1011	282
25°	908	913	924	944	948	419
35°	784	792	817	847	855	489
45°	638	650	688	729	744	491
55°	478	496	546	582	579	428
65°	322	341	377	362	344	319
75°	166	189	183	159	150	174
85°	32	39	27	23	22	40
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1048.7	1048.7	1048.7	1048.7	1048.7
2.5°	1051.6	1048.7	1043.0	1048.7	1048.7
5°	1047.3	1044.4	1040.1	1047.3	1047.3
7.5°	1040.1	1037.2	1034.4	1041.5	1040.1
10°	1028.6	1027.2	1025.8	1034.4	1034.4
12.5°	1015.7	1015.7	1014.3	1024.3	1022.9
15°	1000.0	1000.0	1000.0	1011.4	1011.4
17.5°	979.9	982.8	985.7	998.6	998.6
20°	958.4	961.3	967.0	982.8	984.2
22.5°	936.9	938.4	944.1	962.7	967.0
25°	908.3	912.6	924.1	944.1	948.4
27.5°	885.4	886.8	899.7	922.6	928.4
30°	849.6	859.6	872.5	898.3	904.0
32.5°	816.6	825.2	845.3	872.5	881.1
35°	783.7	792.3	816.6	846.7	855.3
37.5°	746.4	759.3	788.0	818.0	828.1
40°	712.0	723.5	753.6	790.8	802.3
42.5°	674.8	686.2	719.2	760.7	773.6
45°	637.5	650.4	687.7	729.2	743.5
47.5°	598.8	613.2	651.9	697.7	710.6
50°	558.7	574.5	617.5	664.7	670.5
52.5°	518.6	535.8	581.7	623.2	628.9
55°	478.5	495.7	545.8	581.7	578.8
57.5°	439.8	458.4	510.0	528.6	525.8
60°	399.7	419.8	465.6	474.2	464.2
62.5°	362.5	381.1	424.1	416.9	404.0
65°	322.3	341.0	376.8	362.5	343.8
67.5°	282.2	305.2	328.1	303.7	289.4
70°	242.1	267.9	277.9	253.6	240.7
72.5°	203.4	230.7	227.8	203.4	194.8
75°	166.2	189.1	183.4	159.0	150.4
77.5°	126.1	151.9	139.0	118.9	111.7
80°	88.8	111.7	97.4	80.2	74.5
82.5°	58.7	74.5	60.2	47.3	43.0
85°	31.5	38.7	27.2	22.9	21.5
87.5°	12.9	11.5	10.0	10.0	8.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)