

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: P233058

Luminaire Tested: **FCB-12-4-LD4-44-35-UNV-EDD1-WDP6**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P233058  
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-LD4-44-35-UNV-EDD1-WDP6  
Description: FAILSAFE 1X4 FCB LED TROFFER  
.060 POLYCARBONATE LENS  
Light Source: (84)3500K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

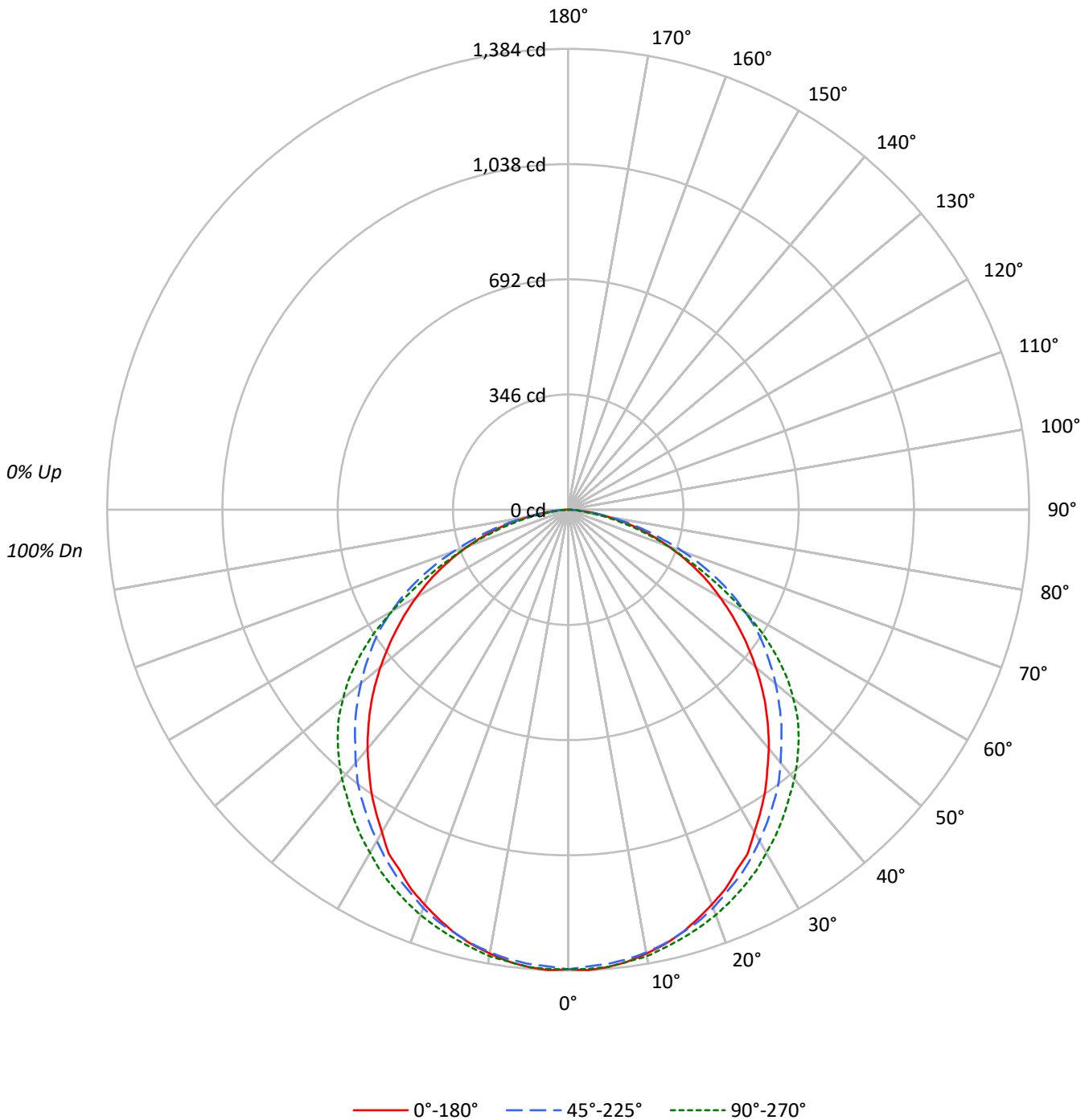
Lumens per Lamp: N/A  
Luminaire Lumens: 3825.0 lumens  
Efficiency: N/A  
Efficacy: 93.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 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°	3714	3714	3714
5°	3723	3698	3723
10°	3700	3689	3720
15°	3667	3667	3709
20°	3613	3645	3710
25°	3550	3611	3706
30°	3475	3568	3697
35°	3389	3531	3698
40°	3292	3484	3710
45°	3193	3444	3725
50°	3079	3402	3695
55°	2955	3371	3574
60°	2831	3299	3288
65°	2702	3158	2882
70°	2507	2878	2493
75°	2274	2510	2059
80°	1812	1987	1520
85°	1281	1105	874



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	130.6	3.4
10°-20°	373.1	9.8
20°-30°	562.5	14.7
30°-40°	674.3	17.6
40°-50°	699.8	18.3
50°-60°	631.2	16.5
60°-70°	460.4	12.0
70°-80°	241.6	6.3
80°-90°	51.5	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°	1066.3	27.9
0°-40°	1740.6	45.5
0°-60°	3071.5	80.3
0°-90°	3825.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3825.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1380	1380	1380	1380	1380	
5°	1378	1375	1369	1378	1378	131
15°	1316	1316	1316	1331	1331	371
25°	1196	1201	1216	1243	1248	552
35°	1032	1043	1075	1114	1126	644
45°	839	856	905	960	979	647
55°	630	652	718	766	762	564
65°	424	449	496	477	453	419
75°	219	249	241	209	198	229
85°	42	51	36	30	28	53
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1380.3	1380.3	1380.3	1380.3	1380.3
2.5°	1384.1	1380.3	1372.8	1380.3	1380.3
5°	1378.4	1374.7	1369.0	1378.4	1378.4
7.5°	1369.0	1365.2	1361.5	1370.9	1369.0
10°	1353.9	1352.0	1350.2	1361.5	1361.5
12.5°	1337.0	1337.0	1335.1	1348.3	1346.4
15°	1316.2	1316.2	1316.2	1331.3	1331.3
17.5°	1289.8	1293.6	1297.4	1314.3	1314.3
20°	1261.5	1265.3	1272.8	1293.6	1295.5
22.5°	1233.2	1235.1	1242.7	1267.2	1272.8
25°	1195.5	1201.2	1216.3	1242.7	1248.3
27.5°	1165.4	1167.2	1184.2	1214.4	1221.9
30°	1118.2	1131.4	1148.4	1182.3	1189.9
32.5°	1074.9	1086.2	1112.6	1148.4	1159.7
35°	1031.5	1042.8	1074.9	1114.5	1125.8
37.5°	982.5	999.4	1037.1	1076.7	1089.9
40°	937.2	952.3	991.9	1040.9	1056.0
42.5°	888.2	903.3	946.6	1001.3	1018.3
45°	839.1	856.1	905.1	959.8	978.7
47.5°	788.2	807.1	858.0	918.3	935.3
50°	735.4	756.2	812.7	875.0	882.5
52.5°	682.6	705.3	765.6	820.3	827.8
55°	629.8	652.5	718.5	765.6	761.8
57.5°	578.9	603.4	671.3	695.8	692.1
60°	526.1	552.5	612.9	624.2	611.0
62.5°	477.1	501.6	558.2	548.7	531.8
65°	424.3	448.8	495.9	477.1	452.6
67.5°	371.5	401.7	431.8	399.8	380.9
70°	318.7	352.6	365.8	333.8	316.8
72.5°	267.8	303.6	299.8	267.8	256.5
75°	218.7	248.9	241.4	209.3	198.0
77.5°	165.9	199.9	182.9	156.5	147.1
80°	116.9	147.1	128.2	105.6	98.1
82.5°	77.3	98.1	79.2	62.2	56.6
85°	41.5	50.9	35.8	30.2	28.3
87.5°	17.0	15.1	13.2	13.2	11.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)