

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: P233090

Luminaire Tested: **FCB-24-2-LD4-34-35-UNV-EDD1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P233090  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25706)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FCB-24-2-LD4-34-35-UNV-EDD1  
Description: FAILSAFE 2X2 FCB LED TROFFER  
OPAL DIFFUSER, NO LENS  
Light Source: (84)3500K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

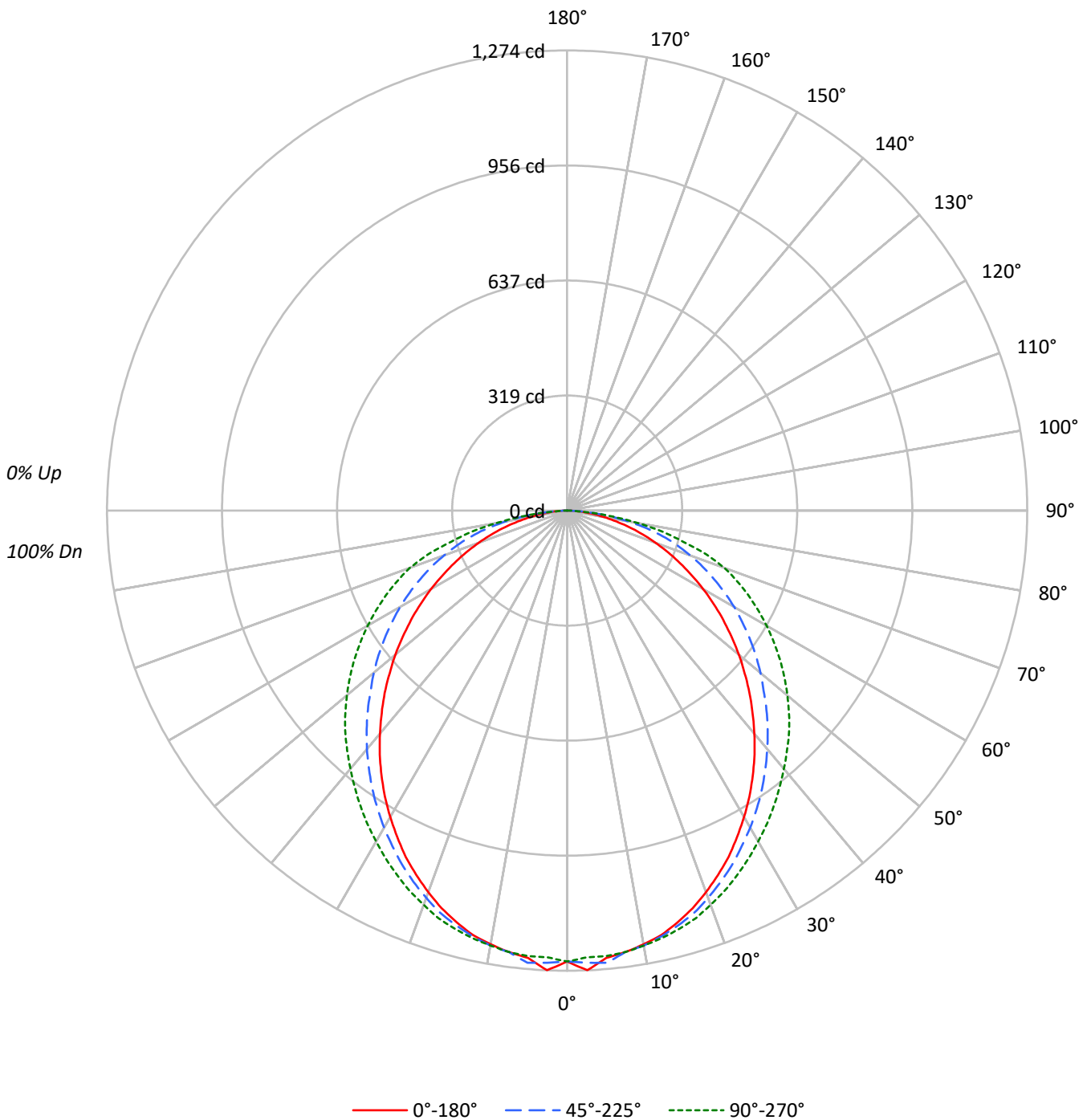
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3497.0 lumens  
Efficiency: N/A  
Efficacy: 118.9 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 29.4  
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	108	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	70	64	87	77	69	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	48	41	35	47	40	35	46	40	35	33
8	60	46	38	32	58	46	38	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3359	3359	3359
5°	3358	3395	3344
10°	3332	3341	3341
15°	3288	3312	3340
20°	3219	3268	3326
25°	3140	3211	3307
30°	3044	3149	3287
35°	2944	3089	3279
40°	2832	3029	3280
45°	2718	2970	3307
50°	2599	2926	3332
55°	2473	2896	3375
60°	2343	2874	3432
65°	2198	2858	3519
70°	2047	2850	3639
75°	1857	2847	3448
80°	1607	2636	3058
85°	1365	1995	1942



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	118.4	3.4
10°-20°	335.3	9.6
20°-30°	498.8	14.3
30°-40°	590.0	16.9
40°-50°	606.4	17.3
50°-60°	554.1	15.8
60°-70°	443.3	12.7
70°-80°	278.2	8.0
80°-90°	72.4	2.1
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°	952.6	27.2
0°-40°	1542.6	44.1
0°-60°	2703.1	77.3
0°-90°	3497.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3497.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1248	1248	1248	1248	1248	
5°	1243	1243	1257	1248	1238	118
15°	1180	1182	1189	1196	1199	332
25°	1058	1064	1082	1100	1114	486
35°	896	908	940	976	998	560
45°	714	733	780	838	869	551
55°	527	553	617	685	719	472
65°	345	376	449	517	553	343
75°	179	213	274	315	332	190
85°	44	56	65	63	63	51
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1248.2	1248.2	1248.2	1248.2	1248.2
2.5°	1273.7	1268.6	1253.3	1243.1	1238.0
5°	1243.1	1243.1	1256.7	1248.2	1238.0
7.5°	1232.9	1232.9	1232.9	1258.4	1232.9
10°	1219.3	1221.0	1222.7	1232.9	1222.7
12.5°	1204.0	1204.0	1207.4	1210.8	1212.5
15°	1180.2	1181.9	1188.7	1195.5	1198.9
17.5°	1154.7	1159.8	1168.3	1176.8	1183.6
20°	1124.1	1130.9	1141.1	1154.7	1161.5
22.5°	1091.7	1098.5	1112.2	1127.5	1139.4
25°	1057.7	1064.5	1081.5	1100.3	1113.9
27.5°	1018.6	1027.1	1047.5	1073.0	1086.6
30°	979.5	989.7	1013.5	1042.4	1057.7
32.5°	938.7	950.6	977.8	1010.1	1028.8
35°	896.2	908.1	940.4	976.1	998.2
37.5°	852.0	865.6	901.3	942.1	965.9
40°	806.1	821.4	862.2	906.4	933.6
42.5°	760.1	777.1	821.4	874.1	901.3
45°	714.2	732.9	780.5	838.4	869.0
47.5°	666.6	688.7	738.0	802.7	833.3
50°	620.7	642.8	698.9	765.2	795.9
52.5°	573.1	598.6	658.1	726.1	758.4
55°	527.2	552.7	617.3	685.3	719.3
57.5°	481.3	506.8	574.8	644.5	678.5
60°	435.3	462.5	534.0	602.0	637.7
62.5°	389.4	418.3	491.5	561.2	595.2
65°	345.2	375.8	448.9	517.0	552.7
67.5°	302.7	335.0	406.4	472.8	508.5
70°	260.2	292.5	362.2	426.8	462.5
72.5°	219.4	251.7	319.7	377.5	404.7
75°	178.6	212.6	273.8	314.6	331.6
77.5°	139.4	173.5	226.2	253.4	272.1
80°	103.7	132.6	170.1	190.5	197.3
82.5°	71.4	95.2	119.0	124.1	127.5
85°	44.2	56.1	64.6	62.9	62.9
87.5°	20.4	22.1	18.7	13.6	8.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)