

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: P233139

Luminaire Tested: **FCB-24-2-LD4-34-40-UNV-EDD1-WDP12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233139
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-LD4-34-40-UNV-EDD1-WDP12
Description: FAILSAFE 2X2 FCB LED TROFFER
.125 POLYCARBONATE LENS
Light Source: (84)4000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

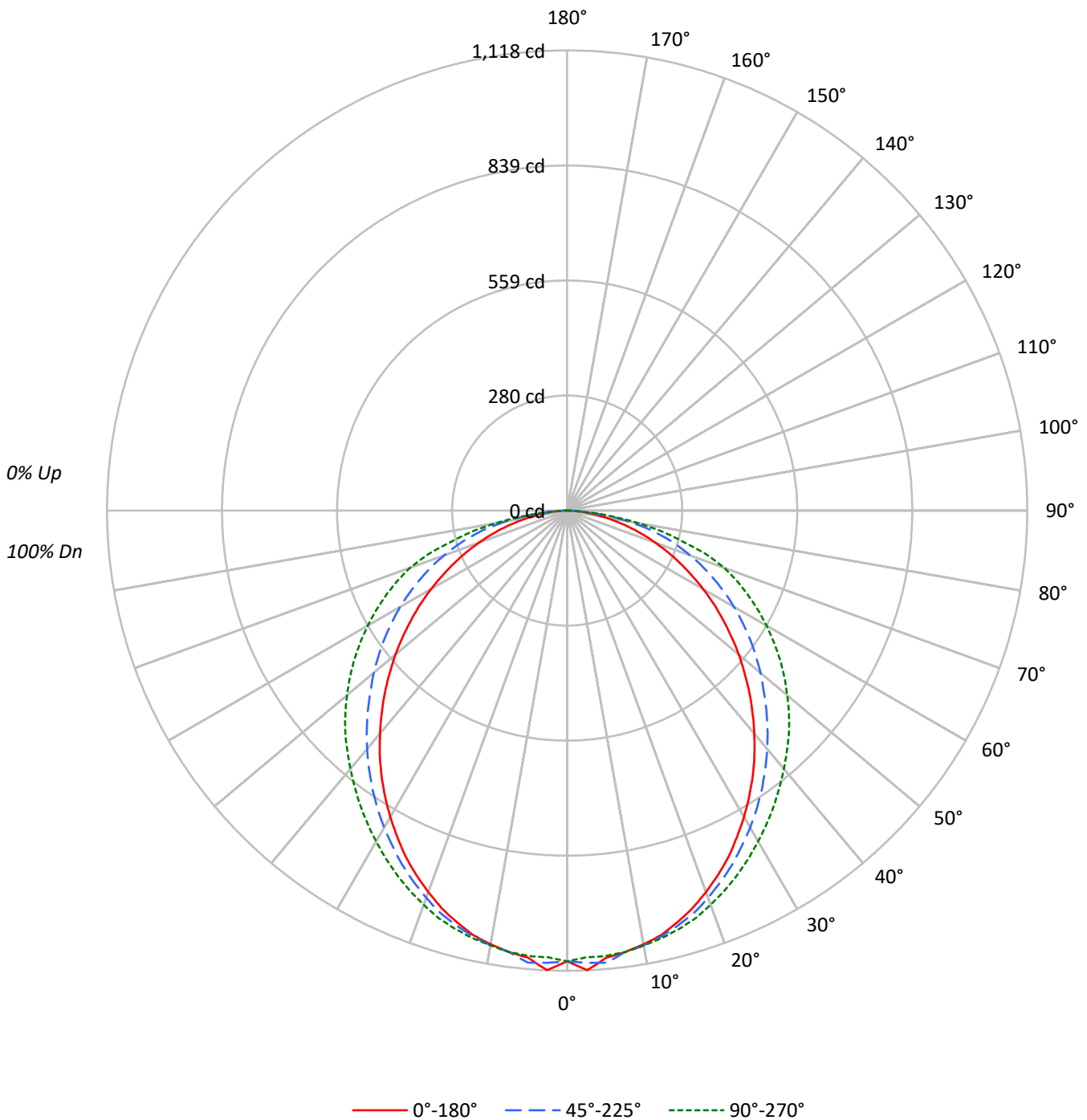
Lumens per Lamp: N/A
Luminaire Lumens: 3068.0 lumens
Efficiency: N/A
Efficacy: 104.4 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	2947	2947	2947
5°	2946	2978	2934
10°	2923	2931	2931
15°	2885	2905	2930
20°	2824	2867	2918
25°	2755	2817	2901
30°	2670	2763	2884
35°	2583	2710	2877
40°	2484	2657	2877
45°	2385	2606	2901
50°	2280	2567	2923
55°	2170	2541	2961
60°	2055	2521	3011
65°	1929	2508	3088
70°	1796	2500	3193
75°	1629	2497	3025
80°	1410	2312	2682
85°	1198	1751	1704



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.9	3.4
10°-20°	294.2	9.6
20°-30°	437.6	14.3
30°-40°	517.6	16.9
40°-50°	532.0	17.3
50°-60°	486.1	15.8
60°-70°	388.9	12.7
70°-80°	244.1	8.0
80°-90°	63.6	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°	835.7	27.2
0°-40°	1353.3	44.1
0°-60°	2371.5	77.3
0°-90°	3068.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3068.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1095	1095	1095	1095	1095	
5°	1091	1091	1102	1095	1086	104
15°	1035	1037	1043	1049	1052	292
25°	928	934	949	965	977	427
35°	786	797	825	856	876	491
45°	627	643	685	736	762	483
55°	462	485	542	601	631	414
65°	303	330	394	454	485	301
75°	157	186	240	276	291	166
85°	39	49	57	55	55	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1095.1	1095.1	1095.1	1095.1	1095.1
2.5°	1117.5	1113.0	1099.5	1090.6	1086.1
5°	1090.6	1090.6	1102.5	1095.1	1086.1
7.5°	1081.6	1081.6	1081.6	1104.0	1081.6
10°	1069.7	1071.2	1072.7	1081.6	1072.7
12.5°	1056.3	1056.3	1059.3	1062.3	1063.7
15°	1035.4	1036.9	1042.9	1048.8	1051.8
17.5°	1013.0	1017.5	1025.0	1032.4	1038.4
20°	986.2	992.1	1001.1	1013.0	1019.0
22.5°	957.8	963.8	975.7	989.1	999.6
25°	928.0	933.9	948.9	965.3	977.2
27.5°	893.7	901.1	919.0	941.4	953.3
30°	859.3	868.3	889.2	914.5	928.0
32.5°	823.5	834.0	857.9	886.2	902.6
35°	786.2	796.7	825.0	856.4	875.8
37.5°	747.5	759.4	790.7	826.5	847.4
40°	707.2	720.6	756.4	795.2	819.1
42.5°	666.9	681.8	720.6	766.8	790.7
45°	626.6	643.0	684.8	735.5	762.4
47.5°	584.8	604.2	647.5	704.2	731.0
50°	544.6	563.9	613.2	671.4	698.2
52.5°	502.8	525.2	577.4	637.1	665.4
55°	462.5	484.9	541.6	601.2	631.1
57.5°	422.2	444.6	504.3	565.4	595.3
60°	381.9	405.8	468.5	528.1	559.5
62.5°	341.7	367.0	431.2	492.3	522.2
65°	302.9	329.7	393.9	453.5	484.9
67.5°	265.6	293.9	356.6	414.8	446.1
70°	228.3	256.6	317.8	374.5	405.8
72.5°	192.5	220.8	280.5	331.2	355.1
75°	156.7	186.5	240.2	276.0	290.9
77.5°	122.3	152.2	198.4	222.3	238.7
80°	91.0	116.4	149.2	167.1	173.1
82.5°	62.7	83.5	104.4	108.9	111.9
85°	38.8	49.2	56.7	55.2	55.2
87.5°	17.9	19.4	16.4	11.9	7.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)