

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: P233087

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233087
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-LD4-24-40-UNV-EDD1
Description: FAILSAFE 2X2 FCB LED TROFFER
OPAL DIFFUSER, NO LENS
Light Source: (84)4000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

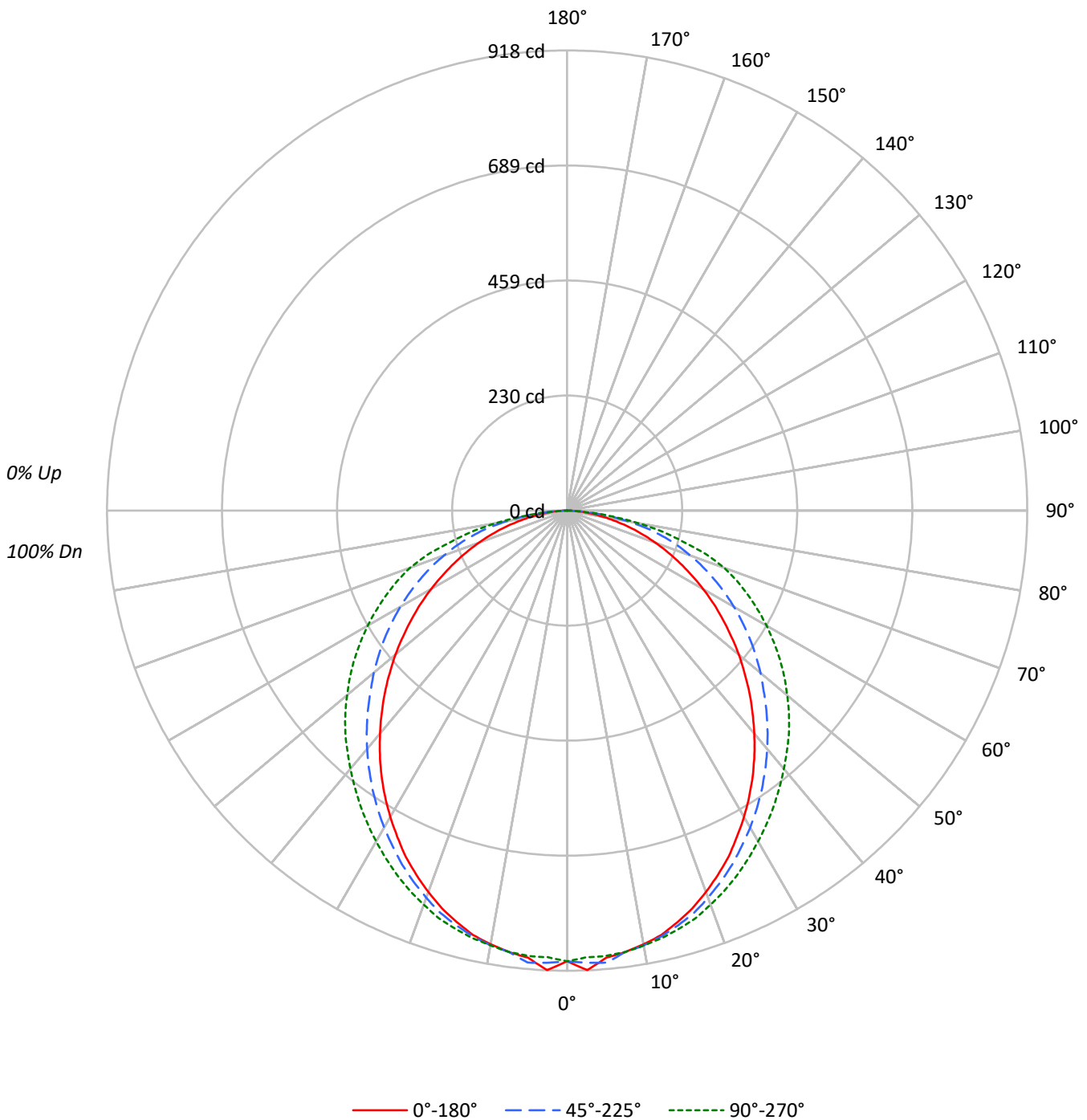
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2519.0 lumens
Efficiency: N/A
Efficacy: 128.5 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): 19.6
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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	108	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83				83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69				69
3	90	79	70	64	87	77	69	63	74	68	62	71	66	61	69	64	60	58				58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49				49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43				43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37				37
7	65	51	42	36	63	50	42	36	48	41	35	47	40	35	46	40	35	33				33
8	60	46	38	32	58	46	38	32	44	37	32	43	36	31	42	36	31	29				29
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26				26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24				24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2419	2419	2419
5°	2419	2445	2409
10°	2400	2407	2407
15°	2368	2385	2406
20°	2319	2354	2396
25°	2262	2313	2382
30°	2192	2269	2367
35°	2121	2225	2362
40°	2040	2182	2362
45°	1958	2140	2382
50°	1872	2108	2400
55°	1781	2086	2431
60°	1688	2070	2472
65°	1584	2059	2535
70°	1474	2053	2622
75°	1337	2050	2484
80°	1158	1898	2202
85°	982	1436	1399



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.3	3.4
10°-20°	241.6	9.6
20°-30°	359.3	14.3
30°-40°	425.0	16.9
40°-50°	436.8	17.3
50°-60°	399.2	15.8
60°-70°	319.3	12.7
70°-80°	200.4	8.0
80°-90°	52.2	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°	686.2	27.2
0°-40°	1111.1	44.1
0°-60°	1947.1	77.3
0°-90°	2519.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2519.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	899	899	899	899	899	
5°	895	895	905	899	892	85
15°	850	851	856	861	864	239
25°	762	767	779	792	802	350
35°	646	654	677	703	719	403
45°	514	528	562	604	626	397
55°	380	398	445	494	518	340
65°	249	271	323	372	398	247
75°	129	153	197	227	239	137
85°	32	40	46	45	45	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	899.1	899.1	899.1	899.1	899.1
2.5°	917.5	913.8	902.8	895.4	891.8
5°	895.4	895.4	905.2	899.1	891.8
7.5°	888.1	888.1	888.1	906.5	888.1
10°	878.3	879.5	880.7	888.1	880.7
12.5°	867.3	867.3	869.7	872.2	873.4
15°	850.1	851.3	856.2	861.1	863.6
17.5°	831.7	835.4	841.5	847.7	852.6
20°	809.7	814.6	821.9	831.7	836.6
22.5°	786.4	791.3	801.1	812.1	820.7
25°	761.9	766.8	779.1	792.5	802.3
27.5°	733.7	739.9	754.6	772.9	782.7
30°	705.6	712.9	730.1	750.9	761.9
32.5°	676.2	684.7	704.3	727.6	741.1
35°	645.6	654.1	677.4	703.1	719.0
37.5°	613.7	623.5	649.2	678.6	695.8
40°	580.6	591.7	621.1	652.9	672.5
42.5°	547.6	559.8	591.7	629.6	649.2
45°	514.5	528.0	562.3	603.9	626.0
47.5°	480.2	496.1	531.6	578.2	600.2
50°	447.1	463.0	503.5	551.2	573.3
52.5°	412.8	431.2	474.1	523.1	546.3
55°	379.7	398.1	444.7	493.7	518.2
57.5°	346.7	365.0	414.0	464.3	488.8
60°	313.6	333.2	384.6	433.6	459.4
62.5°	280.5	301.3	354.0	404.2	428.7
65°	248.7	270.7	323.4	372.4	398.1
67.5°	218.0	241.3	292.8	340.5	366.3
70°	187.4	210.7	260.9	307.5	333.2
72.5°	158.0	181.3	230.3	271.9	291.5
75°	128.6	153.1	197.2	226.6	238.9
77.5°	100.4	124.9	162.9	182.5	196.0
80°	74.7	95.5	122.5	137.2	142.1
82.5°	51.4	68.6	85.7	89.4	91.9
85°	31.8	40.4	46.5	45.3	45.3
87.5°	14.7	15.9	13.5	9.8	6.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)