

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: P233135

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233135
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-WDP12
Description: FAILSAFE 2X2 FCB LED TROFFER
.125 POLYCARBONATE LENS
Light Source: (84)4000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

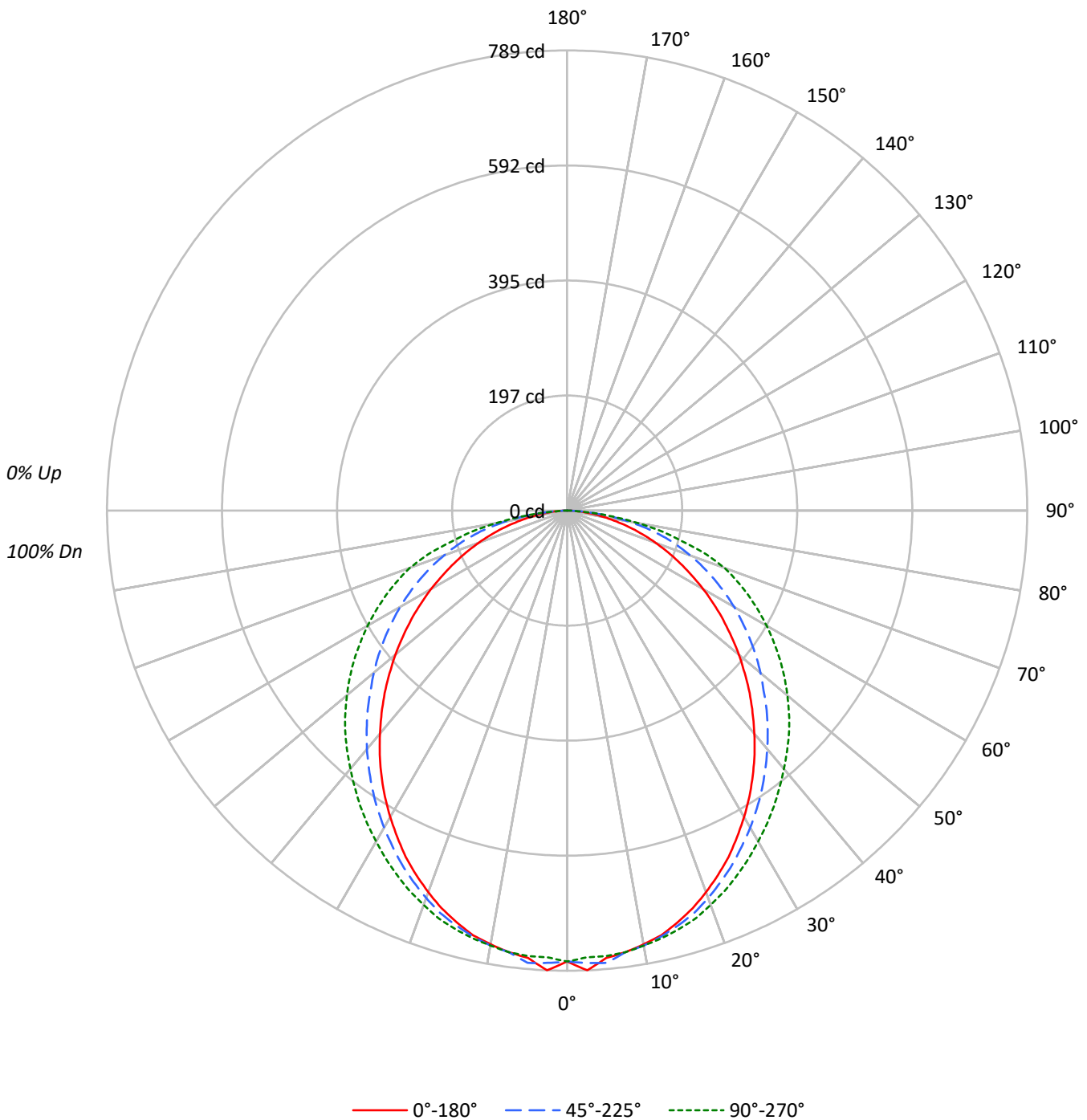
Lumens per Lamp: N/A
Luminaire Lumens: 2166.0 lumens
Efficiency: N/A
Efficacy: 110.5 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P233135

CATALOG NUMBER: FCB-24-2-LD4-24-40-UNV-EDD1-WDP12

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°	2080	2080	2080
5°	2080	2103	2071
10°	2064	2069	2069
15°	2036	2051	2069
20°	1994	2024	2060
25°	1945	1989	2048
30°	1885	1951	2036
35°	1824	1914	2031
40°	1754	1876	2031
45°	1684	1840	2048
50°	1610	1812	2063
55°	1532	1794	2090
60°	1451	1780	2126
65°	1361	1771	2180
70°	1268	1766	2254
75°	1150	1763	2136
80°	996	1632	1894
85°	846	1235	1204



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.3	3.4
10°-20°	207.7	9.6
20°-30°	309.0	14.3
30°-40°	365.4	16.9
40°-50°	375.6	17.3
50°-60°	343.2	15.8
60°-70°	274.6	12.7
70°-80°	172.3	8.0
80°-90°	44.9	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°	590.0	27.2
0°-40°	955.4	44.1
0°-60°	1674.3	77.3
0°-90°	2166.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2166.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	773	773	773	773	773	
5°	770	770	778	773	767	73
15°	731	732	736	740	743	206
25°	655	659	670	682	690	301
35°	555	562	582	605	618	347
45°	442	454	484	519	538	341
55°	326	342	382	424	446	292
65°	214	233	278	320	342	212
75°	111	132	170	195	205	117
85°	27	35	40	39	39	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	773.1	773.1	773.1	773.1	773.1
2.5°	788.9	785.8	776.3	770.0	766.8
5°	770.0	770.0	778.4	773.1	766.8
7.5°	763.6	763.6	763.6	779.4	763.6
10°	755.2	756.3	757.3	763.6	757.3
12.5°	745.7	745.7	747.8	749.9	751.0
15°	731.0	732.0	736.3	740.5	742.6
17.5°	715.2	718.3	723.6	728.9	733.1
20°	696.2	700.4	706.8	715.2	719.4
22.5°	676.2	680.4	688.9	698.3	705.7
25°	655.1	659.4	669.9	681.5	689.9
27.5°	630.9	636.2	648.8	664.6	673.1
30°	606.7	613.0	627.8	645.7	655.1
32.5°	581.4	588.8	605.6	625.7	637.2
35°	555.1	562.5	582.5	604.6	618.3
37.5°	527.7	536.1	558.2	583.5	598.3
40°	499.3	508.7	534.0	561.4	578.3
42.5°	470.8	481.4	508.7	541.4	558.2
45°	442.4	454.0	483.5	519.3	538.2
47.5°	412.9	426.6	457.1	497.2	516.1
50°	384.5	398.1	432.9	474.0	492.9
52.5°	355.0	370.8	407.6	449.8	469.8
55°	326.5	342.3	382.3	424.5	445.5
57.5°	298.1	313.9	356.0	399.2	420.3
60°	269.6	286.5	330.7	372.9	395.0
62.5°	241.2	259.1	304.4	347.6	368.7
65°	213.8	232.8	278.1	320.2	342.3
67.5°	187.5	207.5	251.7	292.8	314.9
70°	161.2	181.2	224.4	264.4	286.5
72.5°	135.9	155.9	198.0	233.8	250.7
75°	110.6	131.7	169.6	194.9	205.4
77.5°	86.4	107.4	140.1	156.9	168.5
80°	64.3	82.2	105.3	118.0	122.2
82.5°	44.2	59.0	73.7	76.9	79.0
85°	27.4	34.8	40.0	39.0	39.0
87.5°	12.6	13.7	11.6	8.4	5.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)