

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: P233073

Luminaire Tested: **FCB-12-4-LD4-25-30-UNV-EDD1-WDP12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233073
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-LD4-25-30-UNV-EDD1-WDP12
Description: FAILSAFE 1X4 FCB LED TROFFER
.125 POLYCARBONATE LENS
Light Source: (84)3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

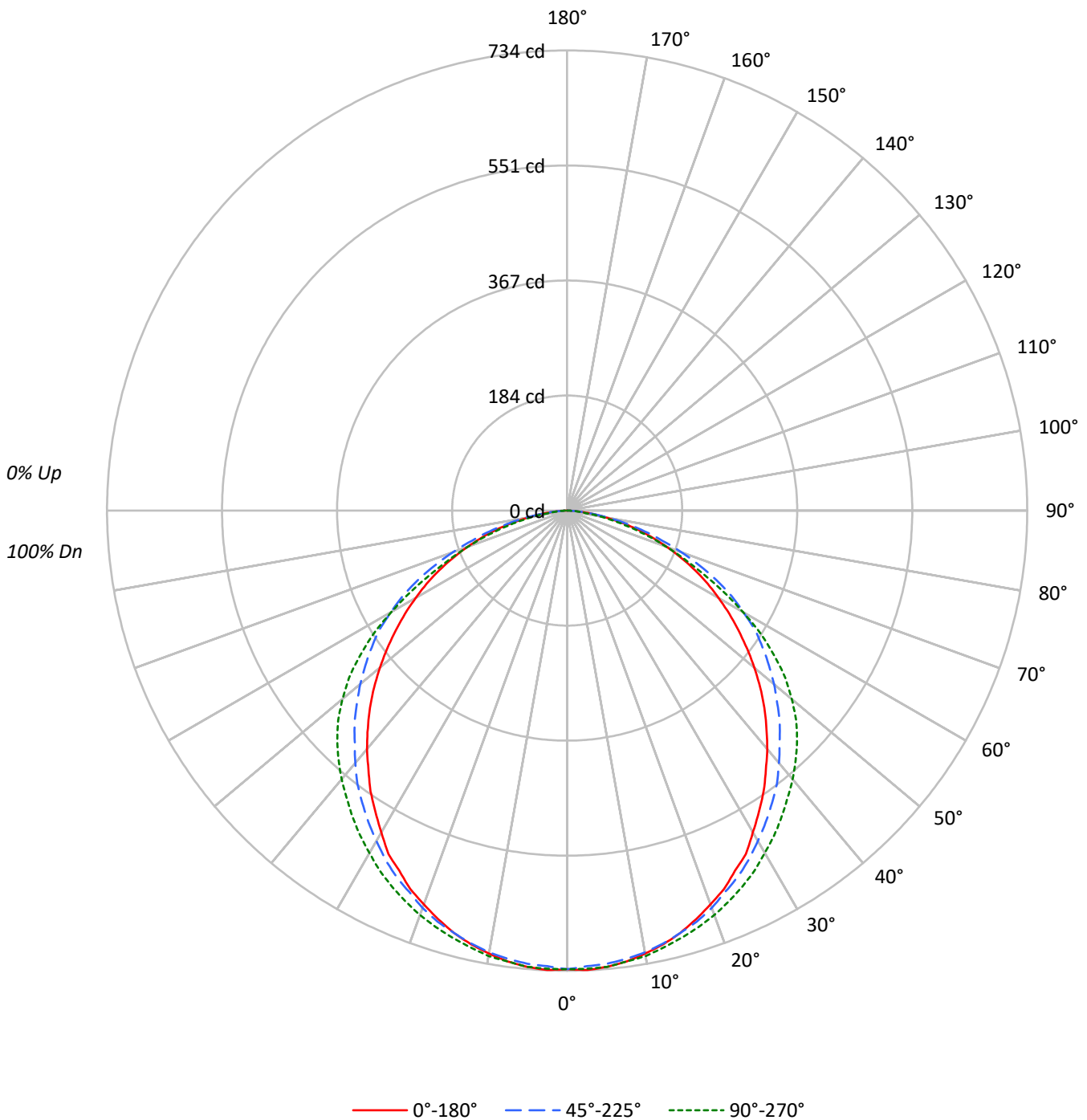
Lumens per Lamp: N/A
Luminaire Lumens: 2027.0 lumens
Efficiency: N/A
Efficacy: 98.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 20.5
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°	1968	1968	1968
5°	1973	1960	1973
10°	1961	1955	1971
15°	1943	1943	1965
20°	1914	1932	1966
25°	1881	1914	1964
30°	1841	1891	1959
35°	1796	1871	1960
40°	1745	1846	1966
45°	1692	1826	1974
50°	1631	1803	1958
55°	1566	1786	1894
60°	1500	1748	1743
65°	1431	1673	1527
70°	1329	1526	1321
75°	1205	1330	1091
80°	961	1054	806
85°	679	587	463



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.2	3.4
10°-20°	197.7	9.8
20°-30°	298.1	14.7
30°-40°	357.3	17.6
40°-50°	370.8	18.3
50°-60°	334.5	16.5
60°-70°	244.0	12.0
70°-80°	128.0	6.3
80°-90°	27.3	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°	565.0	27.9
0°-40°	922.4	45.5
0°-60°	1627.7	80.3
0°-90°	2027.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2027.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	732	732	732	732	732	
5°	730	728	726	730	730	69
15°	698	698	698	706	706	196
25°	634	637	644	658	662	292
35°	547	553	570	591	597	341
45°	445	454	480	509	519	343
55°	334	346	381	406	404	299
65°	225	238	263	253	240	222
75°	116	132	128	111	105	122
85°	22	27	19	16	15	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	731.5	731.5	731.5	731.5	731.5
2.5°	733.5	731.5	727.5	731.5	731.5
5°	730.5	728.5	725.5	730.5	730.5
7.5°	725.5	723.5	721.5	726.5	725.5
10°	717.5	716.5	715.5	721.5	721.5
12.5°	708.5	708.5	707.5	714.5	713.5
15°	697.5	697.5	697.5	705.5	705.5
17.5°	683.5	685.5	687.5	696.5	696.5
20°	668.5	670.5	674.5	685.5	686.5
22.5°	653.5	654.5	658.5	671.5	674.5
25°	633.6	636.6	644.5	658.5	661.5
27.5°	617.6	618.6	627.6	643.5	647.5
30°	592.6	599.6	608.6	626.6	630.6
32.5°	569.6	575.6	589.6	608.6	614.6
35°	546.6	552.6	569.6	590.6	596.6
37.5°	520.6	529.6	549.6	570.6	577.6
40°	496.7	504.6	525.6	551.6	559.6
42.5°	470.7	478.7	501.6	530.6	539.6
45°	444.7	453.7	479.7	508.6	518.6
47.5°	417.7	427.7	454.7	486.7	495.7
50°	389.7	400.7	430.7	463.7	467.7
52.5°	361.7	373.7	405.7	434.7	438.7
55°	333.8	345.8	380.7	405.7	403.7
57.5°	306.8	319.8	355.8	368.7	366.7
60°	278.8	292.8	324.8	330.8	323.8
62.5°	252.8	265.8	295.8	290.8	281.8
65°	224.8	237.8	262.8	252.8	239.8
67.5°	196.9	212.9	228.8	211.9	201.9
70°	168.9	186.9	193.9	176.9	167.9
72.5°	141.9	160.9	158.9	141.9	135.9
75°	115.9	131.9	127.9	110.9	104.9
77.5°	87.9	105.9	96.9	82.9	77.9
80°	62.0	77.9	68.0	56.0	52.0
82.5°	41.0	52.0	42.0	33.0	30.0
85°	22.0	27.0	19.0	16.0	15.0
87.5°	9.0	8.0	7.0	7.0	6.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)