

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: P233078

Luminaire Tested: **FCB-12-4-LD4-35-35-UNV-EDD1-WDP12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233078
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-LD4-35-35-UNV-EDD1-WDP12
Description: FAILSAFE 1X4 FCB LED TROFFER
.125 POLYCARBONATE LENS
Light Source: (84)3500K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

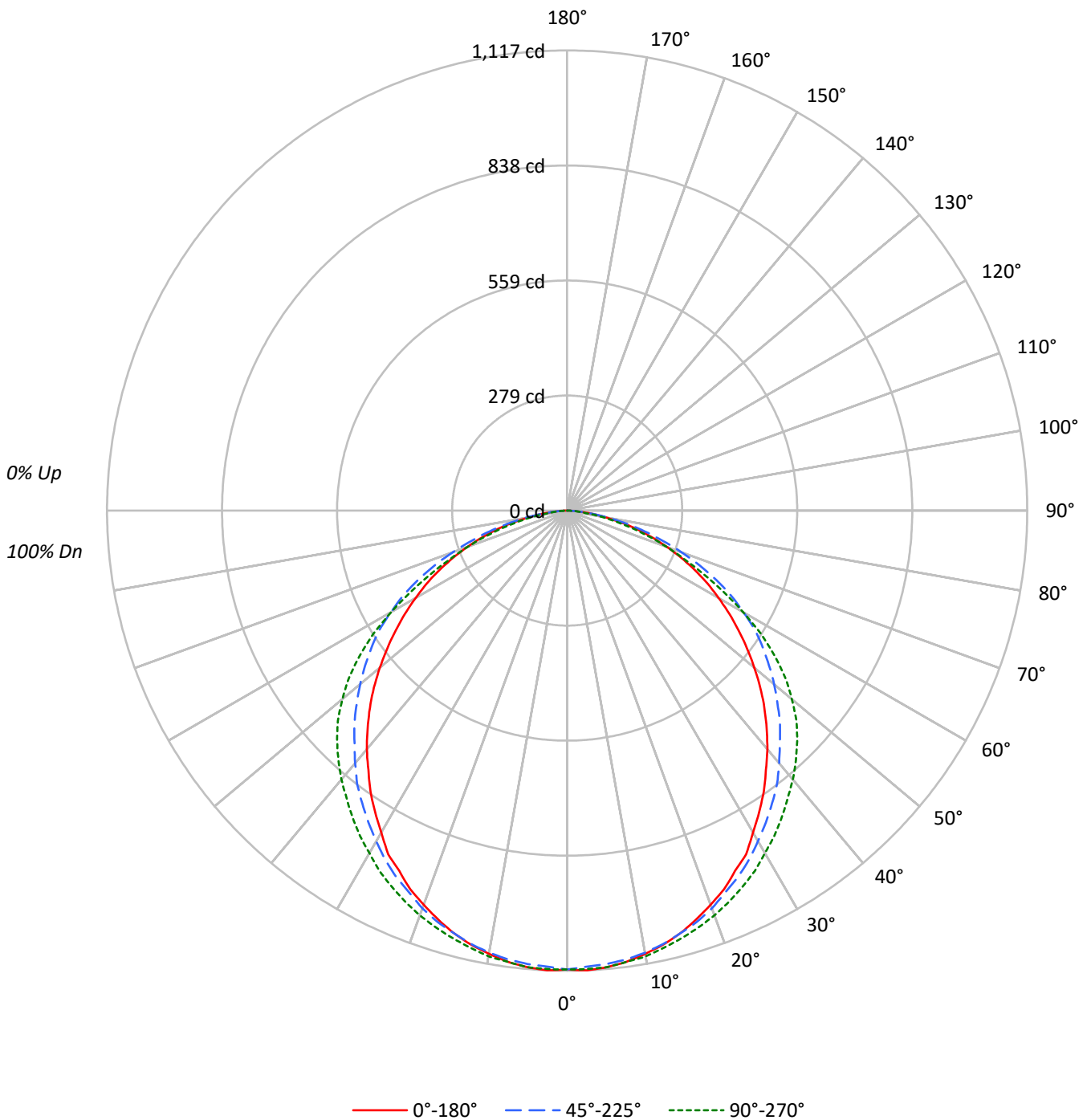
Lumens per Lamp: N/A
Luminaire Lumens: 3087.0 lumens
Efficiency: N/A
Efficacy: 98.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.5
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°	2998	2998	2998
5°	3005	2985	3005
10°	2986	2978	3002
15°	2959	2959	2993
20°	2916	2942	2994
25°	2865	2915	2991
30°	2804	2880	2984
35°	2735	2850	2985
40°	2657	2812	2994
45°	2577	2780	3006
50°	2485	2746	2982
55°	2385	2720	2884
60°	2285	2662	2654
65°	2180	2549	2325
70°	2024	2323	2012
75°	1835	2025	1661
80°	1463	1604	1226
85°	1034	892	704



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.4	3.4
10°-20°	301.1	9.8
20°-30°	454.0	14.7
30°-40°	544.2	17.6
40°-50°	564.8	18.3
50°-60°	509.4	16.5
60°-70°	371.6	12.0
70°-80°	194.9	6.3
80°-90°	41.6	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°	860.5	27.9
0°-40°	1404.7	45.5
0°-60°	2478.9	80.3
0°-90°	3087.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3087.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1114	1114	1114	1114	1114	
5°	1112	1109	1105	1112	1112	106
15°	1062	1062	1062	1074	1074	299
25°	965	969	982	1003	1008	445
35°	832	842	868	899	909	520
45°	677	691	730	775	790	522
55°	508	527	580	618	615	455
65°	342	362	400	385	365	338
75°	176	201	195	169	160	185
85°	34	41	29	24	23	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1114.0	1114.0	1114.0	1114.0	1114.0
2.5°	1117.1	1114.0	1107.9	1114.0	1114.0
5°	1112.5	1109.4	1104.9	1112.5	1112.5
7.5°	1104.9	1101.8	1098.8	1106.4	1104.9
10°	1092.7	1091.2	1089.7	1098.8	1098.8
12.5°	1079.0	1079.0	1077.5	1088.1	1086.6
15°	1062.3	1062.3	1062.3	1074.4	1074.4
17.5°	1041.0	1044.0	1047.0	1060.7	1060.7
20°	1018.1	1021.2	1027.3	1044.0	1045.5
22.5°	995.3	996.8	1002.9	1022.7	1027.3
25°	964.9	969.4	981.6	1002.9	1007.5
27.5°	940.5	942.0	955.7	980.1	986.2
30°	902.5	913.1	926.8	954.2	960.3
32.5°	867.5	876.6	897.9	926.8	936.0
35°	832.5	841.6	867.5	899.4	908.6
37.5°	792.9	806.6	837.0	869.0	879.6
40°	756.4	768.5	800.5	840.1	852.2
42.5°	716.8	729.0	764.0	808.1	821.8
45°	677.2	690.9	730.5	774.6	789.9
47.5°	636.1	651.4	692.5	741.2	754.8
50°	593.5	610.3	655.9	706.1	712.2
52.5°	550.9	569.2	617.9	662.0	668.1
55°	508.3	526.6	579.8	617.9	614.8
57.5°	467.2	487.0	541.8	561.6	558.5
60°	424.6	445.9	494.6	503.7	493.1
62.5°	385.0	404.8	450.5	442.9	429.2
65°	342.4	362.2	400.3	385.0	365.2
67.5°	299.8	324.2	348.5	322.6	307.4
70°	257.2	284.6	295.2	269.4	255.7
72.5°	216.1	245.0	242.0	216.1	207.0
75°	176.5	200.9	194.8	168.9	159.8
77.5°	133.9	161.3	147.6	126.3	118.7
80°	94.4	118.7	103.5	85.2	79.1
82.5°	62.4	79.1	63.9	50.2	45.7
85°	33.5	41.1	28.9	24.3	22.8
87.5°	13.7	12.2	10.7	10.7	9.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)