

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: P233052

Luminaire Tested: **FCB-12-4-LD4-25-50-UNV-EDD1-WDP6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233052
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-LD4-25-50-UNV-EDD1-WDP6
Description: FAILSAFE 1X4 FCB LED TROFFER
.060 POLYCARBONATE LENS
Light Source: (84)5000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

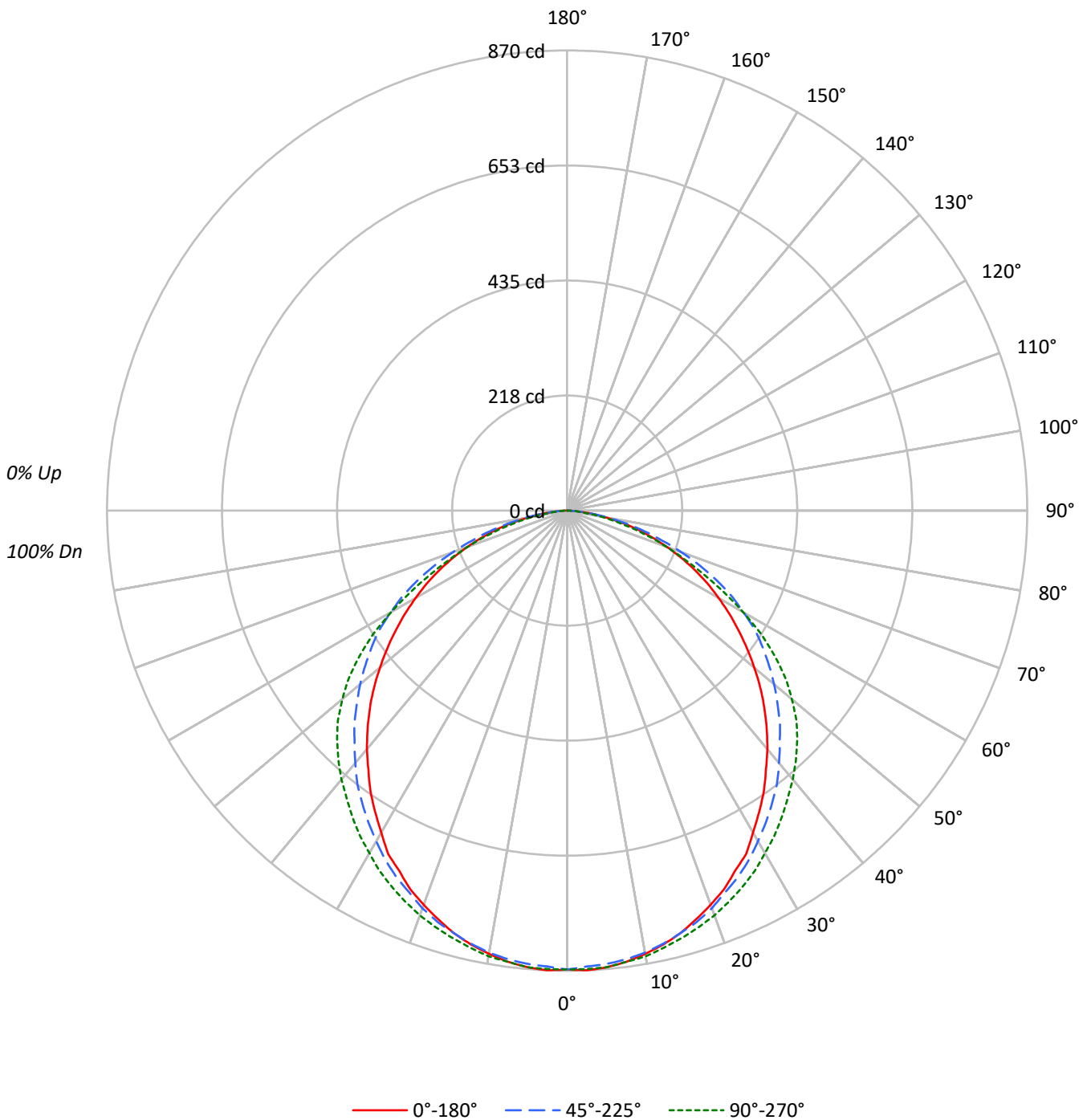
Lumens per Lamp: N/A
Luminaire Lumens: 2404.0 lumens
Efficiency: N/A
Efficacy: 117.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	2334	2334	2334
5°	2340	2324	2340
10°	2325	2319	2338
15°	2305	2305	2331
20°	2271	2291	2332
25°	2231	2270	2330
30°	2184	2243	2324
35°	2130	2219	2324
40°	2069	2190	2331
45°	2007	2165	2341
50°	1935	2138	2322
55°	1857	2118	2246
60°	1780	2073	2067
65°	1698	1985	1811
70°	1576	1809	1566
75°	1430	1577	1293
80°	1139	1249	955
85°	806	695	550



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.1	3.4
10°-20°	234.5	9.8
20°-30°	353.6	14.7
30°-40°	423.8	17.6
40°-50°	439.8	18.3
50°-60°	396.7	16.5
60°-70°	289.4	12.0
70°-80°	151.8	6.3
80°-90°	32.4	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°	670.1	27.9
0°-40°	1093.9	45.5
0°-60°	1930.4	80.3
0°-90°	2404.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2404.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	868	868	868	868	868	
5°	866	864	860	866	866	82
15°	827	827	827	837	837	233
25°	751	755	764	781	785	347
35°	648	655	676	700	708	405
45°	527	538	569	603	615	407
55°	396	410	452	481	479	354
65°	267	282	312	300	284	264
75°	138	156	152	132	124	144
85°	26	32	22	19	18	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	867.5	867.5	867.5	867.5	867.5
2.5°	869.9	867.5	862.8	867.5	867.5
5°	866.4	864.0	860.4	866.4	866.4
7.5°	860.4	858.1	855.7	861.6	860.4
10°	850.9	849.8	848.6	855.7	855.7
12.5°	840.3	840.3	839.1	847.4	846.2
15°	827.2	827.2	827.2	836.7	836.7
17.5°	810.6	813.0	815.4	826.1	826.1
20°	792.9	795.2	800.0	813.0	814.2
22.5°	775.1	776.3	781.0	796.4	800.0
25°	751.4	754.9	764.4	781.0	784.6
27.5°	732.4	733.6	744.3	763.2	768.0
30°	702.8	711.1	721.8	743.1	747.8
32.5°	675.5	682.7	699.2	721.8	728.9
35°	648.3	655.4	675.5	700.4	707.5
37.5°	617.5	628.1	651.8	676.7	685.0
40°	589.0	598.5	623.4	654.2	663.7
42.5°	558.2	567.7	594.9	629.3	640.0
45°	527.4	538.1	568.9	603.2	615.1
47.5°	495.4	507.2	539.2	577.2	587.8
50°	462.2	475.2	510.8	549.9	554.7
52.5°	429.0	443.2	481.2	515.5	520.3
55°	395.8	410.1	451.5	481.2	478.8
57.5°	363.8	379.3	421.9	437.3	435.0
60°	330.7	347.3	385.2	392.3	384.0
62.5°	299.8	315.3	350.8	344.9	334.2
65°	266.7	282.1	311.7	299.8	284.4
67.5°	233.5	252.4	271.4	251.3	239.4
70°	200.3	221.6	229.9	209.8	199.1
72.5°	168.3	190.8	188.4	168.3	161.2
75°	137.5	156.4	151.7	131.6	124.4
77.5°	104.3	125.6	115.0	98.4	92.4
80°	73.5	92.4	80.6	66.4	61.6
82.5°	48.6	61.6	49.8	39.1	35.6
85°	26.1	32.0	22.5	19.0	17.8
87.5°	10.7	9.5	8.3	8.3	7.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)