

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: P233064

Luminaire Tested: **FCB-12-4-LD4-25-50-UNV-EDD1-WDA12**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P233064  
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-WDA12  
Description: FAILSAFE 1X4 FCB LED TROFFER  
.125 ACRYLIC LENS  
Light Source: (84)5000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

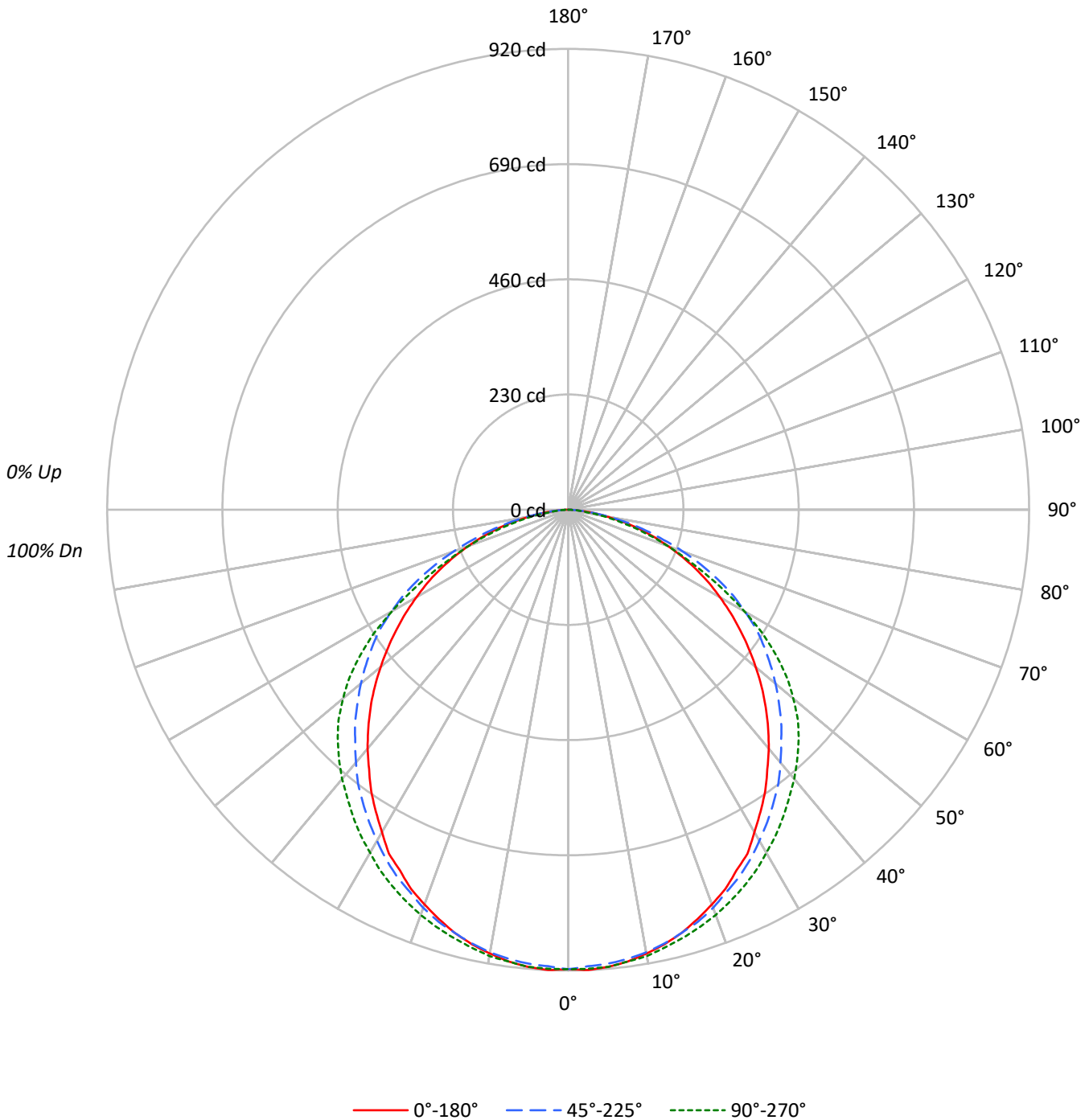
Lumens per Lamp: N/A  
Luminaire Lumens: 2542.0 lumens  
Efficiency: N/A  
Efficacy: 124.0 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 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°	2468	2468	2468
5°	2475	2458	2475
10°	2459	2452	2472
15°	2437	2437	2465
20°	2401	2422	2465
25°	2359	2400	2463
30°	2309	2371	2457
35°	2252	2347	2458
40°	2188	2316	2465
45°	2122	2289	2475
50°	2046	2261	2455
55°	1964	2240	2375
60°	1882	2192	2185
65°	1796	2099	1915
70°	1666	1913	1656
75°	1512	1668	1368
80°	1204	1320	1010
85°	852	735	580



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.8	3.4
10°-20°	248.0	9.8
20°-30°	373.9	14.7
30°-40°	448.1	17.6
40°-50°	465.1	18.3
50°-60°	419.5	16.5
60°-70°	306.0	12.0
70°-80°	160.5	6.3
80°-90°	34.2	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°	708.6	27.9
0°-40°	1156.7	45.5
0°-60°	2041.2	80.3
0°-90°	2542.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2542.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	917	917	917	917	917	
5°	916	914	910	916	916	87
15°	875	875	875	885	885	246
25°	794	798	808	826	830	367
35°	686	693	714	741	748	428
45°	558	569	602	638	650	430
55°	419	434	478	509	506	375
65°	282	298	330	317	301	279
75°	145	165	160	139	132	152
85°	28	34	24	20	19	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	917.3	917.3	917.3	917.3	917.3
2.5°	919.8	917.3	912.3	917.3	917.3
5°	916.1	913.6	909.8	916.1	916.1
7.5°	909.8	907.3	904.8	911.1	909.8
10°	899.8	898.5	897.3	904.8	904.8
12.5°	888.5	888.5	887.3	896.0	894.8
15°	874.7	874.7	874.7	884.8	884.8
17.5°	857.2	859.7	862.2	873.5	873.5
20°	838.4	840.9	845.9	859.7	860.9
22.5°	819.6	820.8	825.9	842.1	845.9
25°	794.5	798.3	808.3	825.9	829.6
27.5°	774.5	775.7	787.0	807.1	812.1
30°	743.1	751.9	763.2	785.8	790.8
32.5°	714.3	721.8	739.4	763.2	770.7
35°	685.5	693.0	714.3	740.6	748.2
37.5°	652.9	664.2	689.3	715.6	724.3
40°	622.8	632.9	659.2	691.8	701.8
42.5°	590.3	600.3	629.1	665.4	676.7
45°	557.7	568.9	601.5	637.9	650.4
47.5°	523.8	536.4	570.2	610.3	621.6
50°	488.7	502.5	540.1	581.5	586.5
52.5°	453.7	468.7	508.8	545.1	550.2
55°	418.6	433.6	477.5	508.8	506.3
57.5°	384.7	401.0	446.1	462.4	459.9
60°	349.6	367.2	407.3	414.8	406.0
62.5°	317.1	333.3	370.9	364.7	353.4
65°	282.0	298.3	329.6	317.1	300.8
67.5°	246.9	266.9	287.0	265.7	253.1
70°	211.8	234.3	243.1	221.8	210.5
72.5°	178.0	201.8	199.3	178.0	170.4
75°	145.4	165.4	160.4	139.1	131.6
77.5°	110.3	132.8	121.6	104.0	97.7
80°	77.7	97.7	85.2	70.2	65.2
82.5°	51.4	65.2	52.6	41.4	37.6
85°	27.6	33.8	23.8	20.1	18.8
87.5°	11.3	10.0	8.8	8.8	7.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)