

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: P233063

Luminaire Tested: **FCB-12-4-LD4-25-40-UNV-EDD1-WDA12**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P233063  
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-LD4-25-40-UNV-EDD1-WDA12  
Description: FAILSAFE 1X4 FCB LED TROFFER  
.125 ACRYLIC LENS  
Light Source: (84)4000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

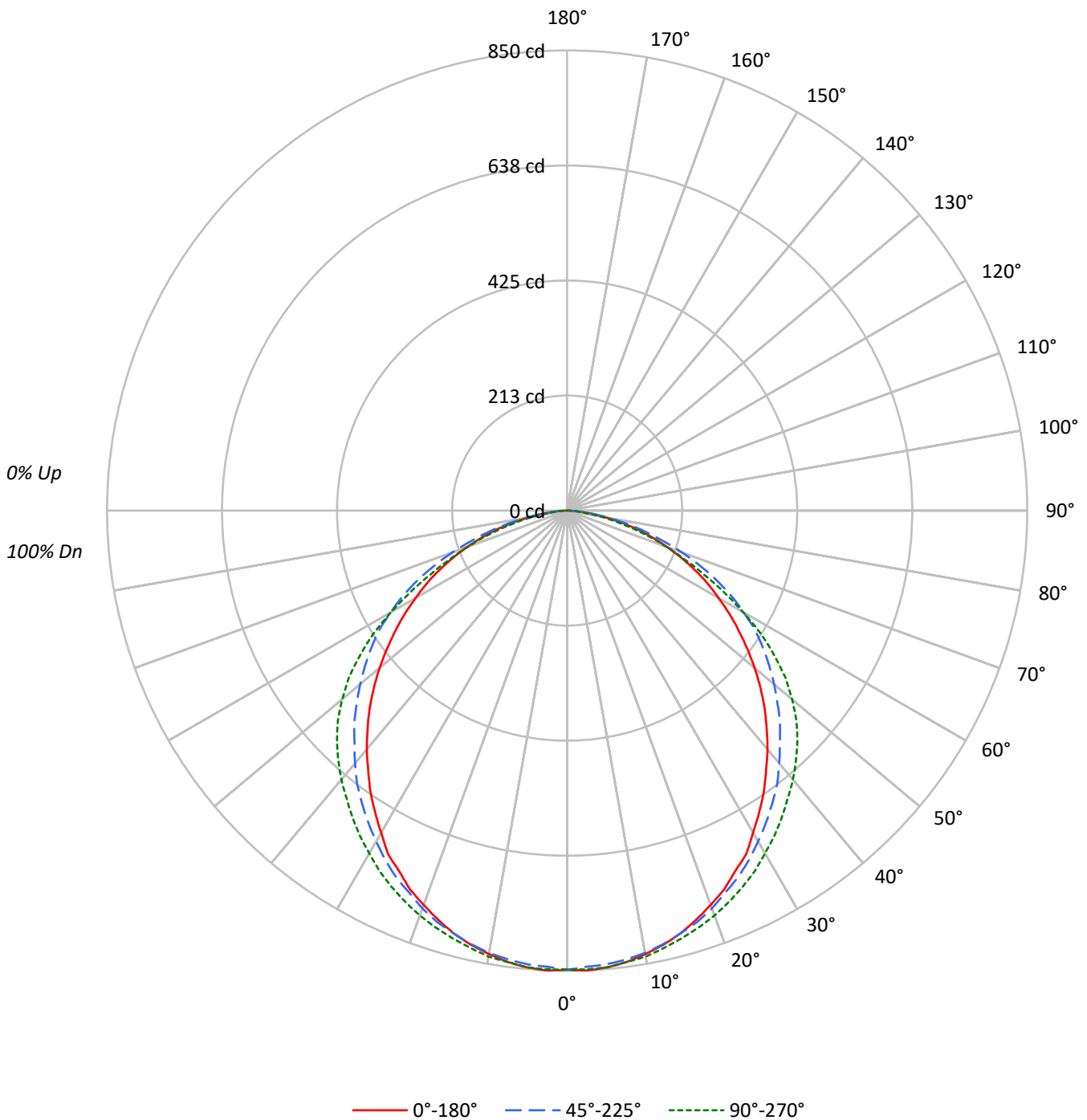
Lumens per Lamp: N/A  
Luminaire Lumens: 2350.0 lumens  
Efficiency: N/A  
Efficacy: 114.6 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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

TEST NUMBER: P233063

CATALOG NUMBER: FCB-12-4-LD4-25-40-UNV-EDD1-WDA12

### Luminous Intensity Polar Plot





TEST NUMBER: P233063

CATALOG NUMBER: FCB-12-4-LD4-25-40-UNV-EDD1-WDA12

**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°	2282	2282	2282
5°	2288	2272	2288
10°	2273	2267	2286
15°	2253	2253	2279
20°	2220	2239	2279
25°	2181	2219	2277
30°	2135	2192	2271
35°	2082	2169	2272
40°	2023	2141	2279
45°	1962	2116	2288
50°	1891	2090	2270
55°	1816	2071	2196
60°	1739	2026	2020
65°	1660	1940	1770
70°	1541	1769	1531
75°	1397	1542	1264
80°	1113	1221	933
85°	787	679	537



TEST NUMBER: P233063

CATALOG NUMBER: FCB-12-4-LD4-25-40-UNV-EDD1-WDA12

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.2	3.4
10°-20°	229.2	9.8
20°-30°	345.6	14.7
30°-40°	414.3	17.6
40°-50°	429.9	18.3
50°-60°	387.8	16.5
60°-70°	282.9	12.0
70°-80°	148.4	6.3
80°-90°	31.7	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°	655.1	27.9
0°-40°	1069.4	45.5
0°-60°	1887.1	80.3
0°-90°	2350.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2350.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	848	848	848	848	848	
5°	847	845	841	847	847	80
15°	809	809	809	818	818	228
25°	734	738	747	764	767	339
35°	634	641	660	685	692	396
45°	516	526	556	590	601	397
55°	387	401	441	470	468	346
65°	261	276	305	293	278	258
75°	134	153	148	129	122	141
85°	26	31	22	18	17	32
90°	0	0	0	0	0	



TEST NUMBER: P233063

CATALOG NUMBER: FCB-12-4-LD4-25-40-UNV-EDD1-WDA12

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	848.0	848.0	848.0	848.0	848.0
2.5°	850.4	848.0	843.4	848.0	848.0
5°	846.9	844.6	841.1	846.9	846.9
7.5°	841.1	838.8	836.5	842.3	841.1
10°	831.8	830.7	829.5	836.5	836.5
12.5°	821.4	821.4	820.2	828.4	827.2
15°	808.7	808.7	808.7	817.9	817.9
17.5°	792.4	794.8	797.1	807.5	807.5
20°	775.1	777.4	782.0	794.8	795.9
22.5°	757.7	758.8	763.5	778.5	782.0
25°	734.5	738.0	747.3	763.5	767.0
27.5°	716.0	717.1	727.6	746.1	750.7
30°	687.0	695.1	705.5	726.4	731.0
32.5°	660.4	667.3	683.5	705.5	712.5
35°	633.7	640.7	660.4	684.7	691.6
37.5°	603.6	614.0	637.2	661.5	669.6
40°	575.8	585.1	609.4	639.5	648.8
42.5°	545.7	554.9	581.6	615.2	625.6
45°	515.5	526.0	556.1	589.7	601.3
47.5°	484.3	495.9	527.1	564.2	574.6
50°	451.8	464.6	499.3	537.6	542.2
52.5°	419.4	433.3	470.4	504.0	508.6
55°	387.0	400.9	441.4	470.4	468.0
57.5°	355.7	370.7	412.4	427.5	425.2
60°	323.2	339.5	376.5	383.5	375.4
62.5°	293.1	308.2	342.9	337.1	326.7
65°	260.7	275.7	304.7	293.1	278.0
67.5°	228.2	246.8	265.3	245.6	234.0
70°	195.8	216.6	224.8	205.1	194.6
72.5°	164.5	186.5	184.2	164.5	157.6
75°	134.4	152.9	148.3	128.6	121.6
77.5°	102.0	122.8	112.4	96.2	90.4
80°	71.8	90.4	78.8	64.9	60.2
82.5°	47.5	60.2	48.7	38.2	34.8
85°	25.5	31.3	22.0	18.5	17.4
87.5°	10.4	9.3	8.1	8.1	7.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)