

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: P233216

Luminaire Tested: **FCB-24-4-LD4-50-50-UNV-EDD1-WDA12**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P233216  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25697)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FCB-24-4-LD4-50-50-UNV-EDD1-WDA12  
Description: FAILSAFE 2X4 FCB LED TROFFER  
.125 ACRYLIC LENS  
Light Source: (168)5000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

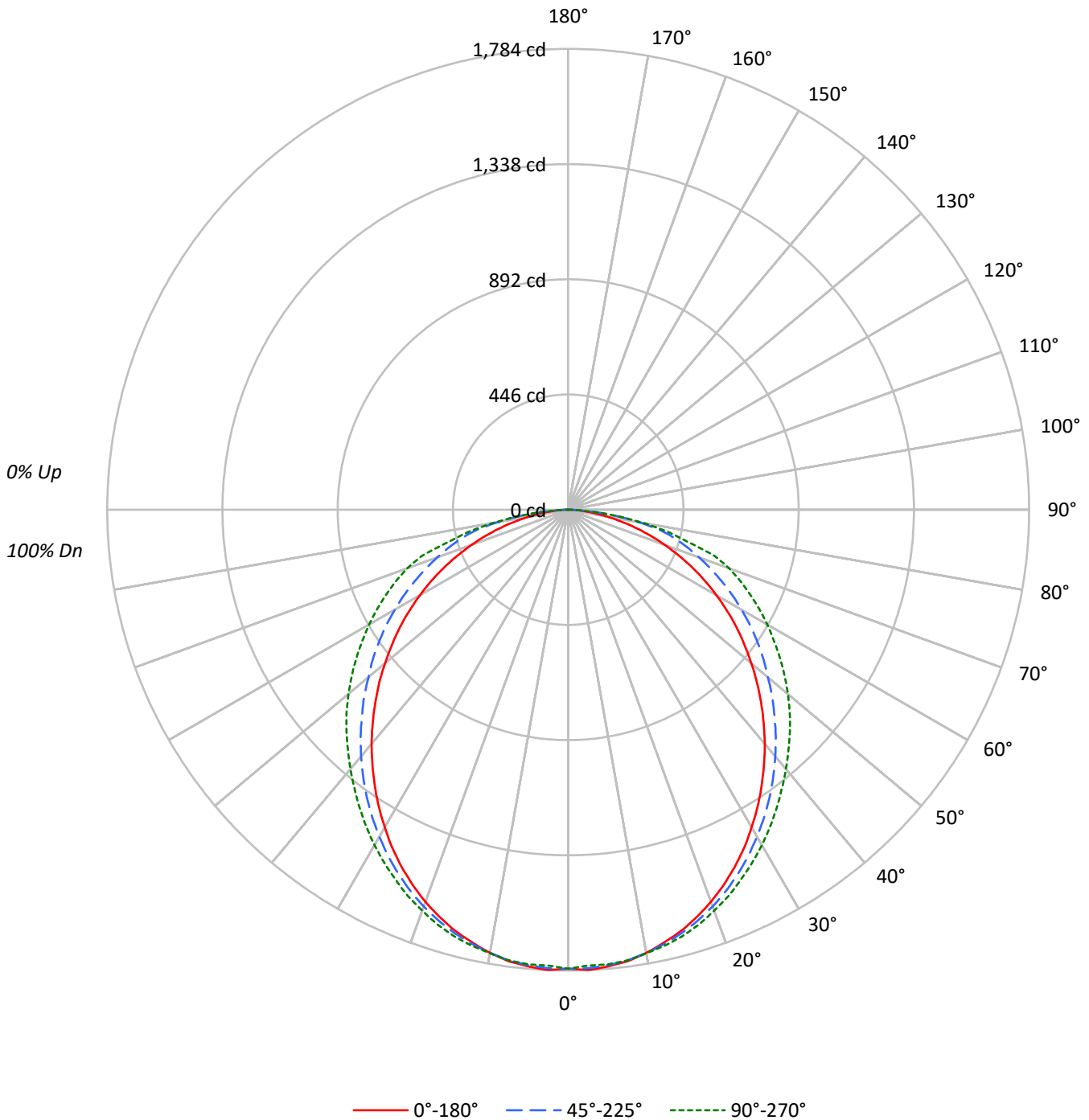
Lumens per Lamp: N/A  
Luminaire Lumens: 5063.0 lumens  
Efficiency: N/A  
Efficacy: 124.4 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 40.7  
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	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	60	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	35	32
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	40	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	31	26	37	30	25	36	30	25	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2391	2391	2391
5°	2398	2390	2386
10°	2380	2380	2383
15°	2352	2364	2381
20°	2313	2341	2365
25°	2265	2309	2347
30°	2206	2270	2330
35°	2144	2232	2312
40°	2080	2189	2302
45°	2009	2147	2309
50°	1938	2112	2322
55°	1867	2098	2346
60°	1782	2085	2393
65°	1689	2086	2472
70°	1562	2121	2605
75°	1397	2217	2478
80°	1168	2122	2270
85°	883	1632	1551



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	167.9	3.3
10°-20°	477.9	9.4
20°-30°	714.4	14.1
30°-40°	847.5	16.7
40°-50°	872.3	17.2
50°-60°	800.2	15.8
60°-70°	647.0	12.8
70°-80°	419.9	8.3
80°-90°	115.8	2.3
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°	1360.2	26.9
0°-40°	2207.7	43.6
0°-60°	3880.3	76.6
0°-90°	5063.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5063.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1777	1777	1777	1777	1777	
5°	1775	1763	1770	1768	1766	168
15°	1688	1682	1697	1704	1709	476
25°	1526	1527	1555	1569	1581	702
35°	1305	1316	1359	1388	1408	816
45°	1056	1073	1128	1182	1214	815
55°	796	820	894	967	1000	711
65°	530	562	655	742	777	524
75°	269	319	426	477	477	286
85°	57	97	106	102	100	70
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1776.8	1776.8	1776.8	1776.8	1776.8
2.5°	1783.8	1769.9	1776.8	1775.1	1766.4
5°	1775.1	1763.0	1769.9	1768.2	1766.4
7.5°	1763.0	1750.8	1759.5	1757.8	1759.5
10°	1742.2	1731.8	1742.2	1743.9	1743.9
12.5°	1716.2	1707.5	1721.4	1724.8	1728.3
15°	1688.4	1681.5	1697.1	1704.0	1709.2
17.5°	1653.8	1648.6	1667.6	1676.3	1683.2
20°	1615.6	1613.9	1634.7	1643.4	1652.0
22.5°	1572.3	1572.3	1596.6	1607.0	1619.1
25°	1525.5	1527.2	1555.0	1568.8	1581.0
27.5°	1475.2	1477.0	1509.9	1527.2	1541.1
30°	1419.7	1426.7	1461.4	1483.9	1499.5
32.5°	1364.3	1372.9	1411.1	1437.1	1454.4
35°	1305.3	1315.7	1359.1	1388.5	1407.6
37.5°	1244.7	1256.8	1303.6	1336.5	1359.1
40°	1184.0	1197.9	1246.4	1284.5	1310.5
42.5°	1119.8	1135.5	1189.2	1234.3	1262.0
45°	1055.7	1073.0	1128.5	1182.3	1213.5
47.5°	991.6	1012.4	1071.3	1130.2	1163.2
50°	925.7	946.5	1008.9	1076.5	1109.4
52.5°	859.8	884.1	953.4	1022.8	1055.7
55°	795.7	820.0	894.5	967.3	1000.2
57.5°	729.8	754.1	835.6	911.8	944.8
60°	662.2	689.9	774.9	852.9	889.3
62.5°	596.3	625.8	715.9	799.1	833.8
65°	530.5	561.7	655.3	741.9	776.6
67.5°	462.8	499.3	596.3	684.7	721.1
70°	397.0	436.8	539.1	627.5	662.2
72.5°	332.8	376.2	481.9	572.1	592.9
75°	268.7	319.0	426.4	476.7	476.7
77.5°	208.0	263.5	364.0	383.1	393.5
80°	150.8	211.5	273.9	296.4	293.0
82.5°	100.5	161.2	195.9	195.9	190.7
85°	57.2	97.1	105.7	102.3	100.5
87.5°	24.3	36.4	32.9	26.0	22.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)