

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: P233244

Luminaire Tested: **FCB-24-4-LD4-75-50-UNV-EDD1-WDP12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233244
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-LD4-75-50-UNV-EDD1-WDP12
Description: FAILSAFE 2X4 FCB LED TROFFER
.125 POLYCARBONATE LENS
Light Source: (168)5000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

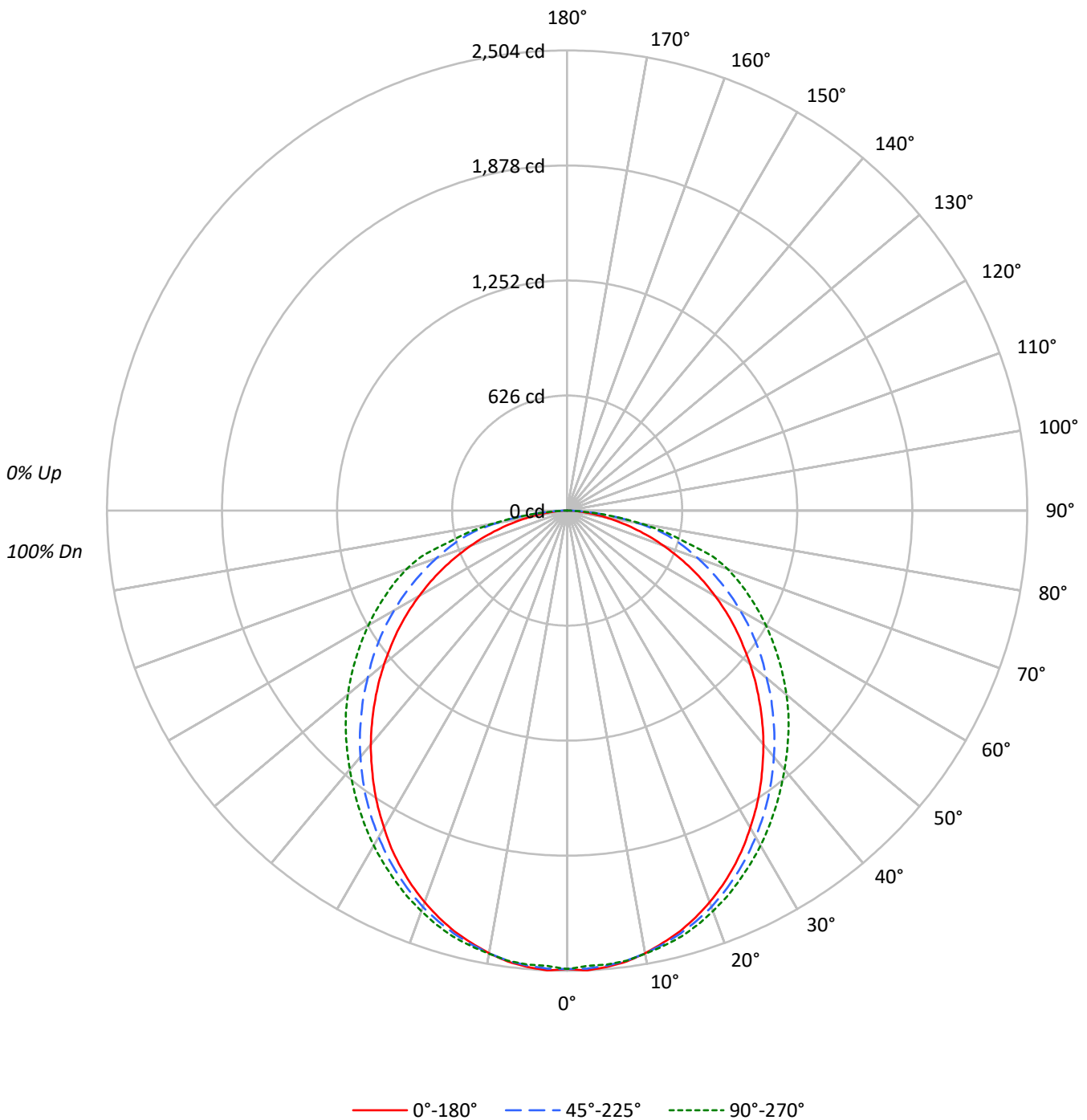
Lumens per Lamp: N/A
Luminaire Lumens: 7108.0 lumens
Efficiency: N/A
Efficacy: 102.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 69.1
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°	3356	3356	3356
5°	3366	3356	3349
10°	3342	3342	3345
15°	3302	3319	3343
20°	3248	3286	3321
25°	3180	3241	3295
30°	3097	3187	3271
35°	3010	3134	3246
40°	2920	3073	3232
45°	2820	3015	3242
50°	2720	2965	3260
55°	2620	2946	3294
60°	2502	2928	3360
65°	2371	2929	3471
70°	2192	2978	3657
75°	1961	3112	3479
80°	1640	2979	3187
85°	1240	2293	2180



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	235.7	3.3
10°-20°	670.9	9.4
20°-30°	1003.0	14.1
30°-40°	1189.8	16.7
40°-50°	1224.7	17.2
50°-60°	1123.5	15.8
60°-70°	908.4	12.8
70°-80°	589.5	8.3
80°-90°	162.6	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°	1909.6	26.9
0°-40°	3099.4	43.6
0°-60°	5447.5	76.6
0°-90°	7108.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7108.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2494	2494	2494	2494	2494	
5°	2492	2475	2485	2482	2480	236
15°	2370	2361	2383	2392	2400	668
25°	2142	2144	2183	2202	2220	986
35°	1833	1847	1908	1949	1976	1146
45°	1482	1506	1584	1660	1704	1144
55°	1117	1151	1256	1358	1404	998
65°	745	788	920	1042	1090	736
75°	377	448	599	669	669	401
85°	80	136	148	144	141	98
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2494.5	2494.5	2494.5	2494.5	2494.5
2.5°	2504.3	2484.8	2494.5	2492.1	2479.9
5°	2492.1	2475.1	2484.8	2482.4	2479.9
7.5°	2475.1	2458.0	2470.2	2467.8	2470.2
10°	2445.9	2431.3	2445.9	2448.3	2448.3
12.5°	2409.4	2397.2	2416.7	2421.5	2426.4
15°	2370.4	2360.7	2382.6	2392.3	2399.6
17.5°	2321.7	2314.4	2341.2	2353.4	2363.1
20°	2268.2	2265.8	2295.0	2307.1	2319.3
22.5°	2207.4	2207.4	2241.4	2256.0	2273.1
25°	2141.7	2144.1	2183.0	2202.5	2219.5
27.5°	2071.1	2073.5	2119.7	2144.1	2163.6
30°	1993.2	2002.9	2051.6	2083.2	2105.1
32.5°	1915.3	1927.5	1981.0	2017.5	2041.9
35°	1832.6	1847.2	1908.0	1949.4	1976.2
37.5°	1747.4	1764.4	1830.1	1876.4	1908.0
40°	1662.2	1681.7	1749.8	1803.4	1839.9
42.5°	1572.2	1594.1	1669.5	1732.8	1771.7
45°	1482.1	1506.5	1584.3	1659.8	1703.6
47.5°	1392.1	1421.3	1504.0	1586.8	1633.0
50°	1299.6	1328.8	1416.4	1511.3	1557.6
52.5°	1207.1	1241.2	1338.5	1435.9	1482.1
55°	1117.1	1151.1	1255.8	1358.0	1404.2
57.5°	1024.6	1058.7	1173.0	1280.1	1326.4
60°	929.7	968.6	1087.9	1197.4	1248.5
62.5°	837.2	878.6	1005.1	1121.9	1170.6
65°	744.7	788.5	919.9	1041.6	1090.3
67.5°	649.8	700.9	837.2	961.3	1012.4
70°	557.3	613.3	756.9	881.0	929.7
72.5°	467.3	528.1	676.6	803.1	832.3
75°	377.2	447.8	598.7	669.3	669.3
77.5°	292.0	369.9	511.1	537.8	552.4
80°	211.7	296.9	384.5	416.2	411.3
82.5°	141.2	226.3	275.0	275.0	267.7
85°	80.3	136.3	148.5	143.6	141.2
87.5°	34.1	51.1	46.2	36.5	31.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)