

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: P233161

Luminaire Tested: **FCB-24-4-LD4-75-30-UNV-EDD1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233161
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-LD4-75-30-UNV-EDD1
Description: FAILSAFE 2X4 FCB LED TROFFER
OPAL DIFFUSER, NO LENS
Light Source: (168)3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

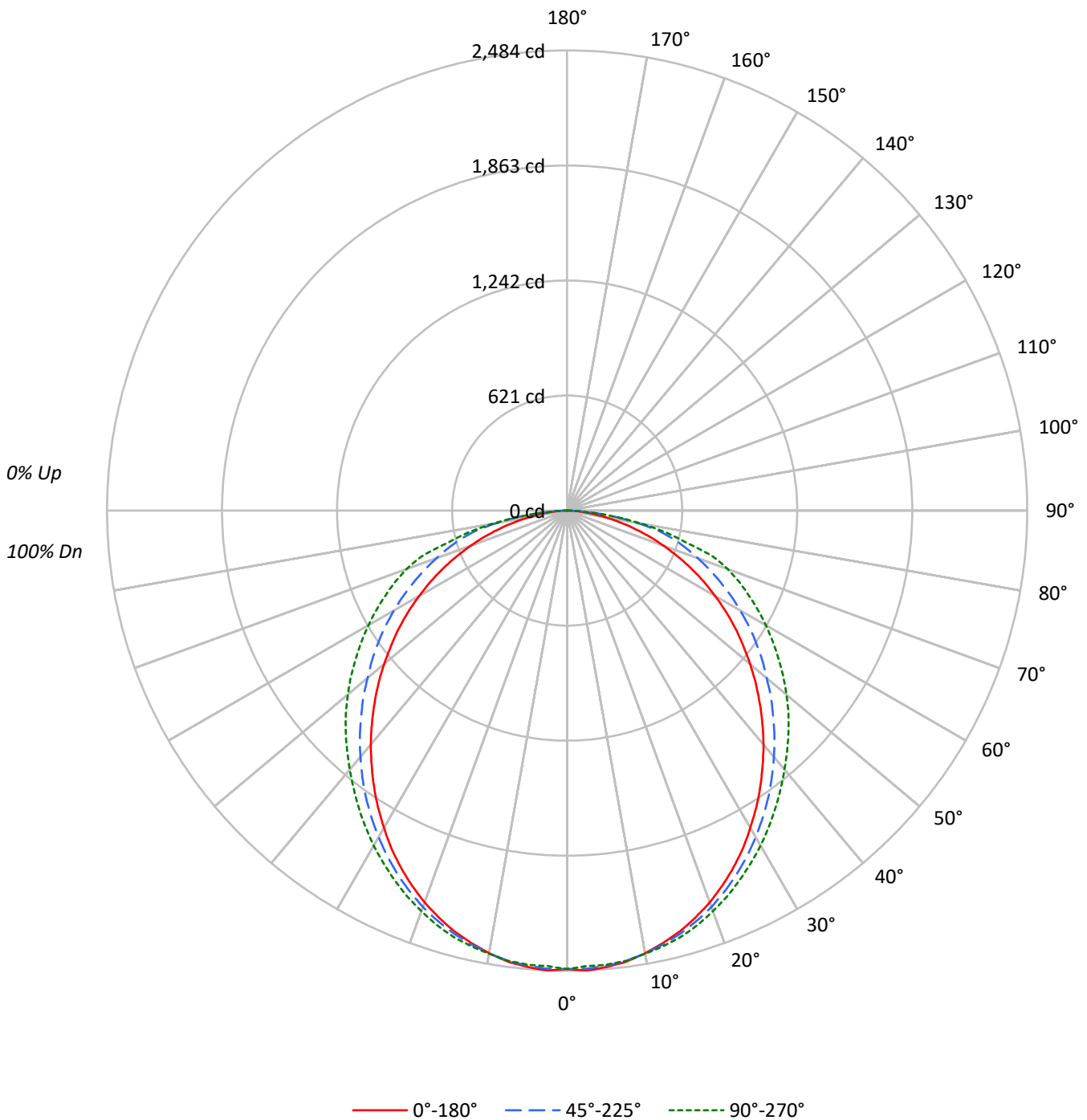
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7052.0 lumens
Efficiency: N/A
Efficacy: 102.1 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°	3330	3330	3330
5°	3339	3330	3323
10°	3315	3315	3319
15°	3276	3293	3316
20°	3222	3260	3295
25°	3154	3215	3269
30°	3072	3162	3245
35°	2986	3109	3220
40°	2896	3049	3206
45°	2798	2991	3216
50°	2699	2942	3235
55°	2600	2923	3268
60°	2482	2904	3333
65°	2352	2906	3444
70°	2175	2954	3628
75°	1946	3088	3452
80°	1628	2956	3162
85°	1230	2274	2161



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	233.9	3.3
10°-20°	665.6	9.4
20°-30°	995.1	14.1
30°-40°	1180.5	16.7
40°-50°	1215.0	17.2
50°-60°	1114.6	15.8
60°-70°	901.2	12.8
70°-80°	584.9	8.3
80°-90°	161.3	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°	1894.6	26.9
0°-40°	3075.0	43.6
0°-60°	5404.6	76.6
0°-90°	7052.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7052.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2475	2475	2475	2475	2475	
5°	2472	2456	2465	2463	2460	235
15°	2352	2342	2364	2374	2381	662
25°	2125	2127	2166	2185	2202	978
35°	1818	1833	1893	1934	1961	1137
45°	1470	1495	1572	1647	1690	1135
55°	1108	1142	1246	1347	1393	990
65°	739	782	913	1033	1082	730
75°	374	444	594	664	664	398
85°	80	135	147	142	140	98
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2474.9	2474.9	2474.9	2474.9	2474.9
2.5°	2484.5	2465.2	2474.9	2472.5	2460.4
5°	2472.5	2455.6	2465.2	2462.8	2460.4
7.5°	2455.6	2438.7	2450.7	2448.3	2450.7
10°	2426.6	2412.1	2426.6	2429.0	2429.0
12.5°	2390.4	2378.3	2397.6	2402.4	2407.3
15°	2351.7	2342.1	2363.8	2373.5	2380.7
17.5°	2303.5	2296.2	2322.8	2334.8	2344.5
20°	2250.3	2247.9	2276.9	2289.0	2301.0
22.5°	2190.0	2190.0	2223.8	2238.3	2255.2
25°	2124.8	2127.2	2165.8	2185.1	2202.0
27.5°	2054.8	2057.2	2103.0	2127.2	2146.5
30°	1977.5	1987.2	2035.4	2066.8	2088.6
32.5°	1900.2	1912.3	1965.4	2001.6	2025.8
35°	1818.1	1832.6	1893.0	1934.0	1960.6
37.5°	1733.6	1750.5	1815.7	1861.6	1893.0
40°	1649.1	1668.4	1736.0	1789.2	1825.4
42.5°	1559.8	1581.5	1656.4	1719.1	1757.8
45°	1470.4	1494.6	1571.9	1646.7	1690.2
47.5°	1381.1	1410.1	1492.2	1574.3	1620.1
50°	1289.4	1318.3	1405.3	1499.4	1545.3
52.5°	1197.6	1231.4	1328.0	1424.6	1470.4
55°	1108.3	1142.1	1245.9	1347.3	1393.2
57.5°	1016.5	1050.3	1163.8	1270.0	1315.9
60°	922.3	961.0	1079.3	1187.9	1238.6
62.5°	830.6	871.6	997.2	1113.1	1161.4
65°	738.8	782.3	912.7	1033.4	1081.7
67.5°	644.7	695.4	830.6	953.7	1004.4
70°	552.9	608.5	750.9	874.1	922.3
72.5°	463.6	524.0	671.2	796.8	825.8
75°	374.3	444.3	594.0	664.0	664.0
77.5°	289.7	367.0	507.0	533.6	548.1
80°	210.1	294.6	381.5	412.9	408.1
82.5°	140.0	224.6	272.8	272.8	265.6
85°	79.7	135.2	147.3	142.5	140.0
87.5°	33.8	50.7	45.9	36.2	31.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)