

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: P233163

Luminaire Tested: **FCB-24-4-LD4-75-40-UNV-EDD1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233163
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-LD4-75-40-UNV-EDD1
Description: FAILSAFE 2X4 FCB LED TROFFER
OPAL DIFFUSER, NO LENS
Light Source: (168)4000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

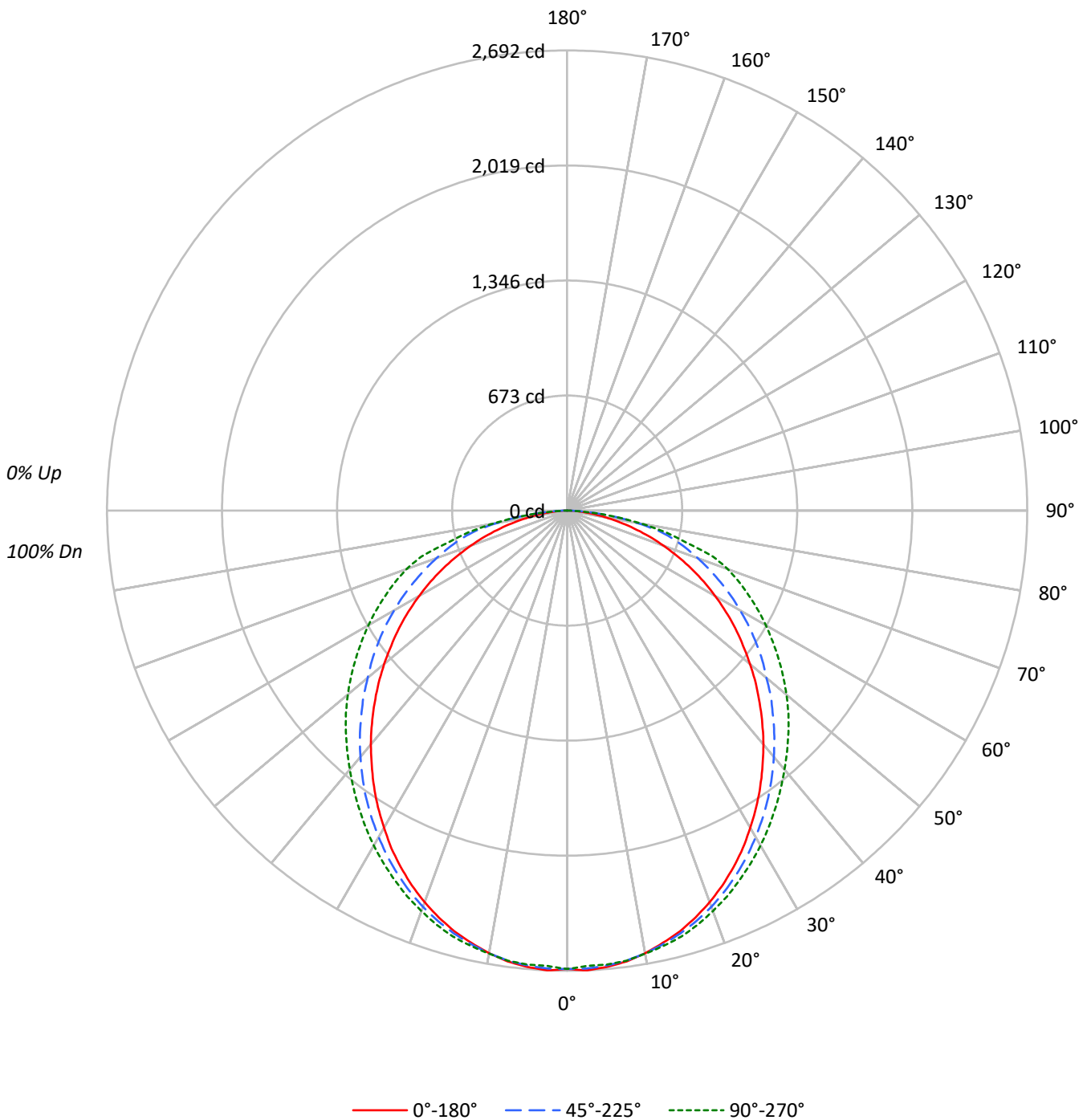
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7641.0 lumens
Efficiency: N/A
Efficacy: 110.6 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 (A_{in}): 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°	3608	3608	3608
5°	3618	3608	3601
10°	3592	3592	3596
15°	3550	3568	3593
20°	3491	3532	3570
25°	3418	3484	3542
30°	3329	3426	3516
35°	3236	3369	3489
40°	3139	3304	3474
45°	3032	3241	3485
50°	2924	3187	3505
55°	2817	3167	3541
60°	2689	3147	3612
65°	2549	3148	3732
70°	2357	3201	3932
75°	2108	3346	3740
80°	1764	3203	3426
85°	1332	2464	2342



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	253.4	3.3
10°-20°	721.2	9.4
20°-30°	1078.2	14.1
30°-40°	1279.1	16.7
40°-50°	1316.5	17.2
50°-60°	1207.7	15.8
60°-70°	976.5	12.8
70°-80°	633.7	8.3
80°-90°	174.7	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°	2052.8	26.9
0°-40°	3331.9	43.6
0°-60°	5856.0	76.6
0°-90°	7641.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7641.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2682	2682	2682	2682	2682	
5°	2679	2661	2671	2668	2666	254
15°	2548	2538	2561	2572	2580	718
25°	2302	2305	2347	2368	2386	1060
35°	1970	1986	2051	2096	2124	1232
45°	1593	1619	1703	1784	1831	1230
55°	1201	1238	1350	1460	1510	1073
65°	801	848	989	1120	1172	791
75°	406	481	644	720	720	431
85°	86	146	160	154	152	106
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2681.6	2681.6	2681.6	2681.6	2681.6
2.5°	2692.1	2671.1	2681.6	2679.0	2665.9
5°	2679.0	2660.7	2671.1	2668.5	2665.9
7.5°	2660.7	2642.4	2655.4	2652.8	2655.4
10°	2629.3	2613.6	2629.3	2631.9	2631.9
12.5°	2590.0	2576.9	2597.9	2603.1	2608.3
15°	2548.2	2537.7	2561.2	2571.7	2579.6
17.5°	2495.8	2488.0	2516.8	2529.9	2540.3
20°	2438.3	2435.7	2467.1	2480.1	2493.2
22.5°	2372.9	2372.9	2409.5	2425.2	2443.5
25°	2302.2	2304.9	2346.7	2367.7	2386.0
27.5°	2226.4	2229.0	2278.7	2304.9	2325.8
30°	2142.7	2153.1	2205.4	2239.5	2263.0
32.5°	2058.9	2072.0	2129.6	2168.8	2195.0
35°	1970.0	1985.7	2051.1	2095.6	2124.3
37.5°	1878.4	1896.7	1967.4	2017.1	2051.1
40°	1786.9	1807.8	1881.0	1938.6	1977.8
42.5°	1690.1	1713.6	1794.7	1862.7	1904.6
45°	1593.3	1619.4	1703.1	1784.2	1831.3
47.5°	1496.5	1527.9	1616.8	1705.8	1755.5
50°	1397.0	1428.4	1522.6	1624.7	1674.4
52.5°	1297.6	1334.3	1438.9	1543.6	1593.3
55°	1200.8	1237.5	1350.0	1459.8	1509.5
57.5°	1101.4	1138.0	1261.0	1376.1	1425.8
60°	999.4	1041.2	1169.4	1287.2	1342.1
62.5°	900.0	944.4	1080.5	1206.1	1258.4
65°	800.6	847.6	988.9	1119.7	1172.1
67.5°	698.5	753.5	900.0	1033.4	1088.3
70°	599.1	659.3	813.6	947.1	999.4
72.5°	502.3	567.7	727.3	863.3	894.7
75°	405.5	481.4	643.6	719.5	719.5
77.5°	313.9	397.7	549.4	578.2	593.9
80°	227.6	319.2	413.4	447.4	442.1
82.5°	151.7	243.3	295.6	295.6	287.8
85°	86.3	146.5	159.6	154.4	151.7
87.5°	36.6	54.9	49.7	39.2	34.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)