

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: P233184

Luminaire Tested: **FCB-24-4-LD4-75-50-UNV-EDD1-WDA6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233184
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-WDA6
Description: FAILSAFE 2X4 FCB LED TROFFER
.060 ACRYLIC LENS
Light Source: (168)5000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

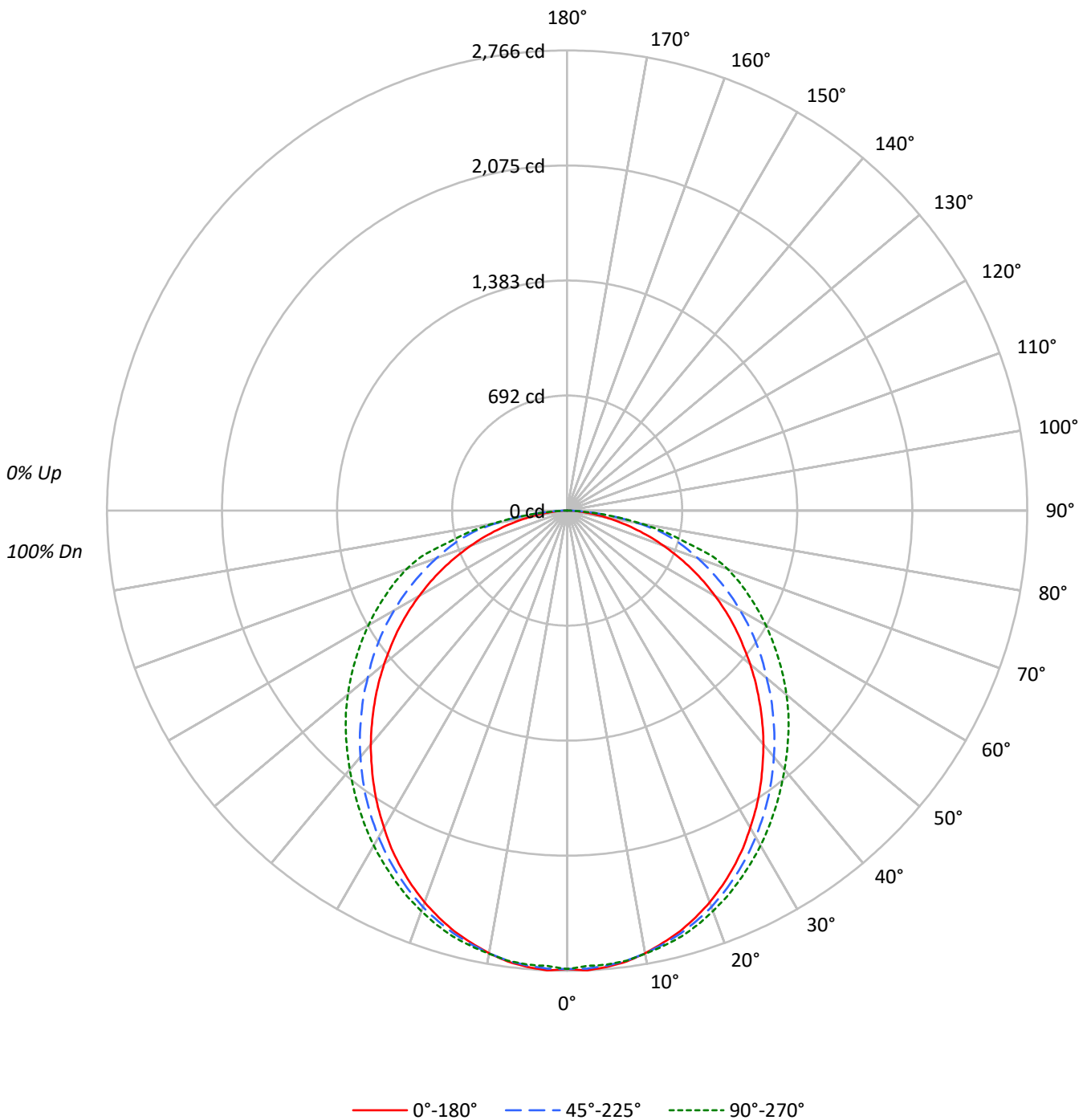
Lumens per Lamp: N/A
Luminaire Lumens: 7852.0 lumens
Efficiency: N/A
Efficacy: 113.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	3708	3708	3708
5°	3718	3707	3700
10°	3691	3691	3695
15°	3647	3666	3692
20°	3588	3630	3669
25°	3512	3580	3640
30°	3421	3521	3613
35°	3325	3462	3586
40°	3225	3395	3570
45°	3115	3330	3581
50°	3005	3275	3602
55°	2895	3254	3639
60°	2764	3234	3711
65°	2619	3235	3834
70°	2422	3289	4040
75°	2166	3438	3843
80°	1812	3292	3520
85°	1369	2532	2407



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	260.4	3.3
10°-20°	741.1	9.4
20°-30°	1107.9	14.1
30°-40°	1314.4	16.7
40°-50°	1352.8	17.2
50°-60°	1241.0	15.8
60°-70°	1003.4	12.8
70°-80°	651.2	8.3
80°-90°	179.6	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°	2109.5	26.9
0°-40°	3423.8	43.6
0°-60°	6017.7	76.6
0°-90°	7852.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7852.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2756	2756	2756	2756	2756	
5°	2753	2734	2745	2742	2740	261
15°	2618	2608	2632	2643	2651	738
25°	2366	2368	2412	2433	2452	1089
35°	2024	2040	2108	2153	2183	1266
45°	1637	1664	1750	1834	1882	1263
55°	1234	1272	1387	1500	1551	1102
65°	823	871	1016	1151	1204	813
75°	417	495	661	739	739	443
85°	89	151	164	159	156	109
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2755.6	2755.6	2755.6	2755.6	2755.6
2.5°	2766.4	2744.9	2755.6	2753.0	2739.5
5°	2753.0	2734.1	2744.9	2742.2	2739.5
7.5°	2734.1	2715.3	2728.8	2726.1	2728.8
10°	2701.9	2685.7	2701.9	2704.6	2704.6
12.5°	2661.5	2648.1	2669.6	2675.0	2680.4
15°	2618.5	2607.8	2632.0	2642.7	2650.8
17.5°	2564.8	2556.7	2586.3	2599.7	2610.5
20°	2505.6	2502.9	2535.2	2548.6	2562.1
22.5°	2438.4	2438.4	2476.0	2492.2	2511.0
25°	2365.8	2368.5	2411.5	2433.0	2451.9
27.5°	2287.9	2290.5	2341.6	2368.5	2390.0
30°	2201.8	2212.6	2266.3	2301.3	2325.5
32.5°	2115.8	2129.2	2188.4	2228.7	2255.6
35°	2024.4	2040.5	2107.7	2153.4	2183.0
37.5°	1930.3	1949.1	2021.7	2072.8	2107.7
40°	1836.2	1857.7	1933.0	1992.1	2032.5
42.5°	1736.7	1760.9	1844.3	1914.2	1957.2
45°	1637.3	1664.1	1750.2	1833.5	1881.9
47.5°	1537.8	1570.0	1661.5	1752.9	1803.9
50°	1435.6	1467.9	1564.7	1669.5	1720.6
52.5°	1333.5	1371.1	1478.6	1586.2	1637.3
55°	1234.0	1271.6	1387.2	1500.1	1551.2
57.5°	1131.8	1169.5	1295.8	1414.1	1465.2
60°	1027.0	1070.0	1201.7	1322.7	1379.2
62.5°	924.8	970.5	1110.3	1239.4	1293.1
65°	822.7	871.1	1016.2	1150.6	1204.4
67.5°	717.8	774.3	924.8	1061.9	1118.4
70°	615.7	677.5	836.1	973.2	1027.0
72.5°	516.2	583.4	747.4	887.2	919.4
75°	416.7	494.7	661.4	739.3	739.3
77.5°	322.6	408.6	564.6	594.1	610.3
80°	233.9	328.0	424.8	459.7	454.3
82.5°	155.9	250.0	303.8	303.8	295.7
85°	88.7	150.6	164.0	158.6	155.9
87.5°	37.6	56.5	51.1	40.3	34.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)