

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: P233025

Luminaire Tested: **FCB-12-4-LD4-25-30-UNV-EDD1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233025
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35573)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FCB-12-4-LD4-25-30-UNV-EDD1
Description: FAILSAFE 1X4 FCB LED TROFFER
OPAL DIFFUSER, NO LENS
Light Source: (84)3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

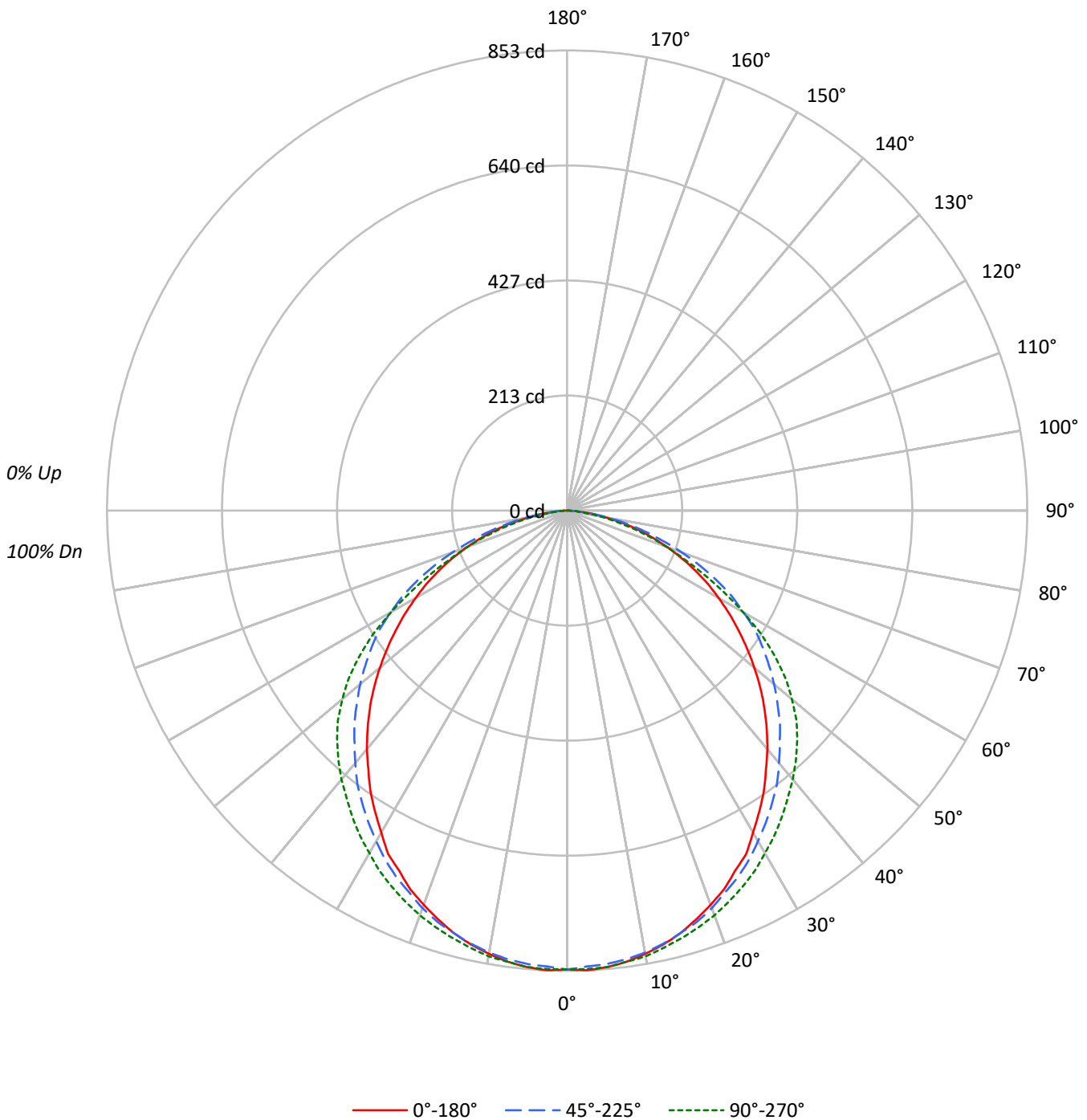
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2357.0 lumens
Efficiency: N/A
Efficacy: 115.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 20.5
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

TEST NUMBER: P233025
CATALOG NUMBER: FCB-12-4-LD4-25-30-UNV-EDD1

Luminous Intensity Polar Plot





TEST NUMBER: P233025

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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	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70
3	90	80	72	66	88	78	71	65	75	69	64	73	67	63	70	66	62	59
4	83	71	62	56	81	70	61	55	67	60	54	65	59	54	63	57	53	51
5	76	63	54	48	74	62	54	48	60	53	47	58	52	46	56	51	46	44
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	40	38
7	65	52	43	37	63	51	43	37	49	42	36	48	41	36	47	40	36	34
8	61	47	39	33	59	46	38	33	45	38	33	44	37	32	43	37	32	30
9	57	43	35	30	55	43	35	29	42	34	29	40	34	29	39	33	29	27
10	53	40	32	27	52	39	32	27	38	31	27	37	31	26	37	31	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2289	2289	2289
5°	2294	2279	2294
10°	2280	2273	2293
15°	2260	2260	2286
20°	2226	2246	2286
25°	2187	2225	2284
30°	2141	2199	2278
35°	2088	2176	2279
40°	2029	2147	2286
45°	1968	2123	2295
50°	1897	2097	2277
55°	1821	2077	2202
60°	1745	2032	2026
65°	1664	1946	1776
70°	1545	1773	1536
75°	1402	1546	1268
80°	1116	1224	936
85°	790	682	537



TEST NUMBER: P233025

CATALOG NUMBER: FCB-12-4-LD4-25-30-UNV-EDD1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.5	3.4
10°-20°	229.9	9.8
20°-30°	346.6	14.7
30°-40°	415.5	17.6
40°-50°	431.2	18.3
50°-60°	388.9	16.5
60°-70°	283.7	12.0
70°-80°	148.9	6.3
80°-90°	31.7	1.3
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°	657.0	27.9
0°-40°	1072.6	45.5
0°-60°	1892.7	80.3
0°-90°	2357.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2357.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	851	851	851	851	851	
5°	849	847	844	849	849	81
15°	811	811	811	820	820	228
25°	737	740	750	766	769	340
35°	636	643	662	687	694	397
45°	517	528	558	592	603	399
55°	388	402	443	472	469	347
65°	261	277	306	294	279	258
75°	135	153	149	129	122	141
85°	26	31	22	19	17	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	850.6	850.6	850.6	850.6	850.6
2.5°	852.9	850.6	845.9	850.6	850.6
5°	849.4	847.1	843.6	849.4	849.4
7.5°	843.6	841.3	839.0	844.8	843.6
10°	834.3	833.1	832.0	839.0	839.0
12.5°	823.8	823.8	822.7	830.8	829.7
15°	811.1	811.1	811.1	820.4	820.4
17.5°	794.8	797.1	799.4	809.9	809.9
20°	777.4	779.7	784.3	797.1	798.3
22.5°	759.9	761.1	765.7	780.9	784.3
25°	736.7	740.2	749.5	765.7	769.2
27.5°	718.1	719.3	729.7	748.3	753.0
30°	689.1	697.2	707.7	728.6	733.2
32.5°	662.3	669.3	685.6	707.7	714.6
35°	635.6	642.6	662.3	686.7	693.7
37.5°	605.4	615.9	639.1	663.5	671.6
40°	577.5	586.8	611.2	641.4	650.7
42.5°	547.3	556.6	583.3	617.0	627.5
45°	517.1	527.5	557.8	591.5	603.1
47.5°	485.7	497.3	528.7	565.9	576.3
50°	453.2	466.0	500.8	539.2	543.8
52.5°	420.6	434.6	471.8	505.5	510.1
55°	388.1	402.0	442.7	471.8	469.4
57.5°	356.7	371.8	413.7	428.8	426.4
60°	324.2	340.5	377.6	384.6	376.5
62.5°	294.0	309.1	343.9	338.1	327.7
65°	261.4	276.6	305.6	294.0	278.9
67.5°	228.9	247.5	266.1	246.3	234.7
70°	196.4	217.3	225.4	205.7	195.2
72.5°	165.0	187.1	184.8	165.0	158.0
75°	134.8	153.4	148.7	129.0	122.0
77.5°	102.3	123.2	112.7	96.4	90.6
80°	72.0	90.6	79.0	65.1	60.4
82.5°	47.6	60.4	48.8	38.3	34.9
85°	25.6	31.4	22.1	18.6	17.4
87.5°	10.5	9.3	8.1	8.1	7.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)