

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: P233086

Luminaire Tested: **FCB-24-2-LD4-24-35-UNV-EDD1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233086
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25706)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FCB-24-2-LD4-24-35-UNV-EDD1
Description: FAILSAFE 2X2 FCB LED TROFFER
OPAL DIFFUSER, NO LENS
Light Source: (84)3500K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

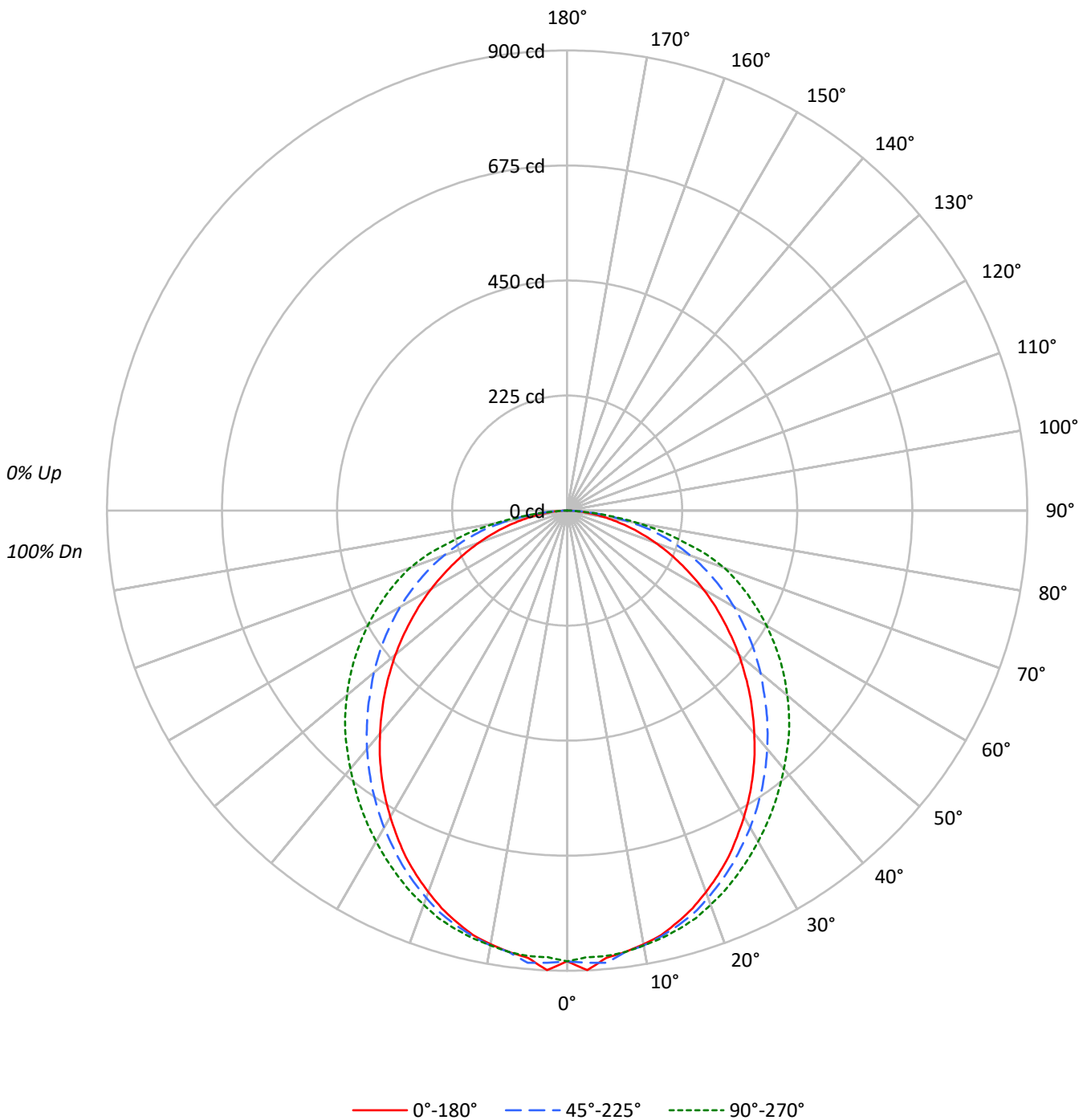
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2470.0 lumens
Efficiency: N/A
Efficacy: 126.0 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
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	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	70	64	87	77	69	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	48	41	35	47	40	35	46	40	35	33
8	60	46	38	32	58	46	38	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2372	2372	2372
5°	2372	2398	2362
10°	2353	2360	2360
15°	2322	2339	2359
20°	2273	2308	2349
25°	2218	2268	2336
30°	2150	2224	2321
35°	2079	2182	2316
40°	2000	2139	2316
45°	1920	2098	2336
50°	1835	2067	2353
55°	1747	2046	2384
60°	1655	2030	2424
65°	1552	2019	2486
70°	1446	2013	2570
75°	1311	2011	2435
80°	1136	1861	2159
85°	963	1408	1371



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.6	3.4
10°-20°	236.9	9.6
20°-30°	352.3	14.3
30°-40°	416.7	16.9
40°-50°	428.3	17.3
50°-60°	391.4	15.8
60°-70°	313.1	12.7
70°-80°	196.5	8.0
80°-90°	51.2	2.1
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°	672.8	27.2
0°-40°	1089.5	44.1
0°-60°	1909.2	77.3
0°-90°	2470.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2470.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	882	882	882	882	882	
5°	878	878	888	882	874	83
15°	834	835	840	844	847	235
25°	747	752	764	777	787	344
35°	633	641	664	689	705	396
45°	504	518	551	592	614	389
55°	372	390	436	484	508	333
65°	244	265	317	365	390	242
75°	126	150	193	222	234	134
85°	31	40	46	44	44	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	881.6	881.6	881.6	881.6	881.6
2.5°	899.6	896.0	885.2	878.0	874.4
5°	878.0	878.0	887.6	881.6	874.4
7.5°	870.8	870.8	870.8	888.8	870.8
10°	861.2	862.4	863.6	870.8	863.6
12.5°	850.4	850.4	852.8	855.2	856.4
15°	833.6	834.8	839.6	844.4	846.8
17.5°	815.6	819.2	825.2	831.2	836.0
20°	793.9	798.7	806.0	815.6	820.4
22.5°	771.1	775.9	785.5	796.3	804.8
25°	747.1	751.9	763.9	777.1	786.7
27.5°	719.5	725.5	739.9	757.9	767.5
30°	691.8	699.1	715.9	736.3	747.1
32.5°	663.0	671.4	690.6	713.5	726.7
35°	633.0	641.4	664.2	689.4	705.1
37.5°	601.8	611.4	636.6	665.4	682.2
40°	569.3	580.1	609.0	640.2	659.4
42.5°	536.9	548.9	580.1	617.4	636.6
45°	504.5	517.7	551.3	592.2	613.8
47.5°	470.8	486.5	521.3	566.9	588.6
50°	438.4	454.0	493.7	540.5	562.1
52.5°	404.8	422.8	464.8	512.9	535.7
55°	372.3	390.4	436.0	484.1	508.1
57.5°	339.9	357.9	406.0	455.2	479.2
60°	307.5	326.7	377.2	425.2	450.4
62.5°	275.1	295.5	347.1	396.4	420.4
65°	243.8	265.4	317.1	365.1	390.4
67.5°	213.8	236.6	287.1	333.9	359.1
70°	183.8	206.6	255.8	301.5	326.7
72.5°	154.9	177.8	225.8	266.6	285.9
75°	126.1	150.1	193.4	222.2	234.2
77.5°	98.5	122.5	159.7	179.0	192.2
80°	73.3	93.7	120.1	134.5	139.3
82.5°	50.4	67.3	84.1	87.7	90.1
85°	31.2	39.6	45.6	44.4	44.4
87.5°	14.4	15.6	13.2	9.6	6.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)