

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: P233093

Luminaire Tested: **FCB-24-2-LD4-44-30-UNV-EDD1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233093
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-LD4-44-30-UNV-EDD1
Description: FAILSAFE 2X2 FCB LED TROFFER
OPAL DIFFUSER, NO LENS
Light Source: (84)3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

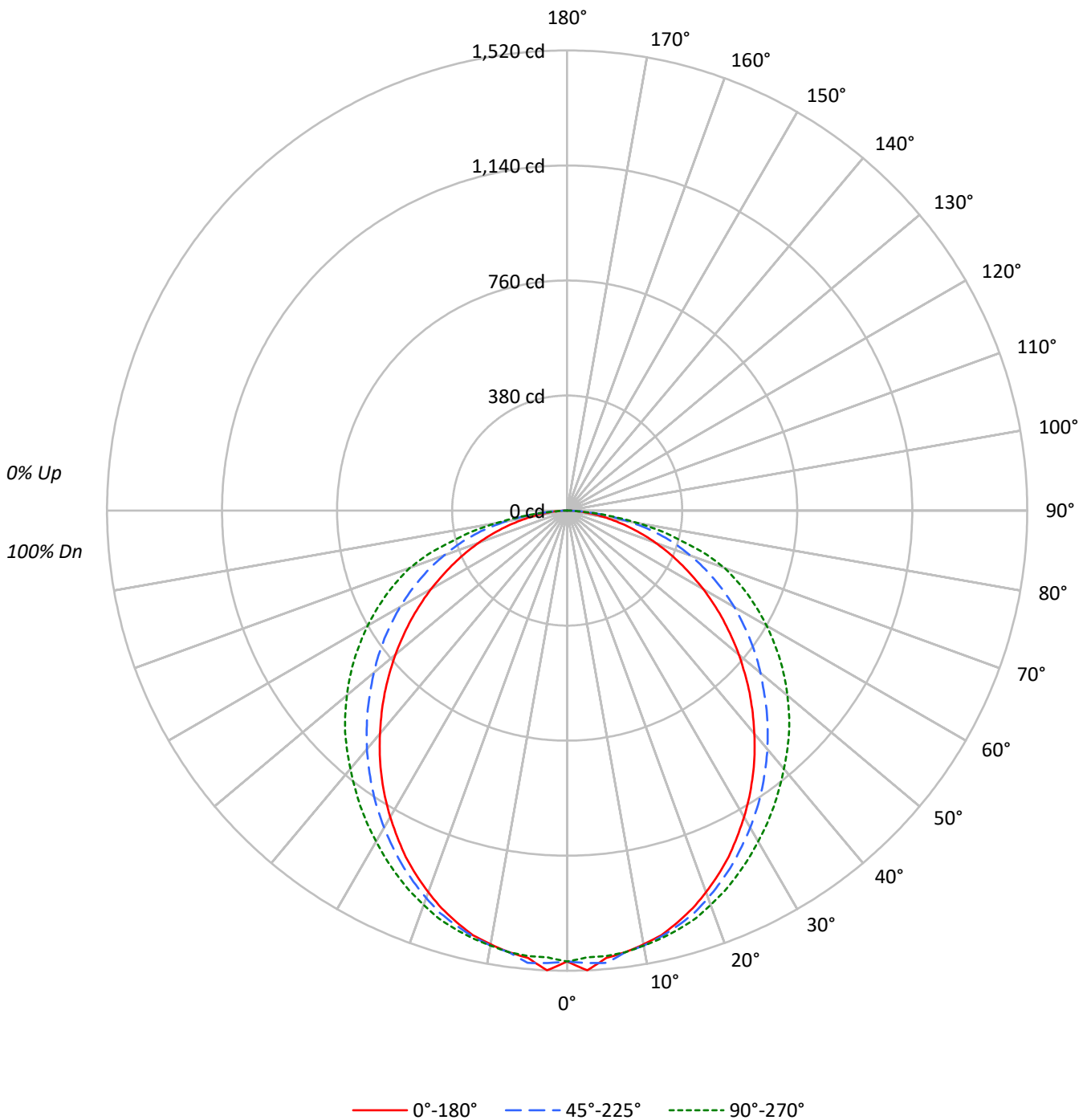
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4173.0 lumens
Efficiency: N/A
Efficacy: 99.8 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): 41.8
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°	4008	4008	4008
5°	4007	4051	3991
10°	3976	3987	3987
15°	3923	3952	3986
20°	3841	3899	3969
25°	3748	3832	3947
30°	3632	3758	3922
35°	3513	3687	3913
40°	3379	3614	3914
45°	3244	3545	3946
50°	3101	3491	3976
55°	2951	3456	4027
60°	2796	3429	4096
65°	2623	3411	4199
70°	2443	3401	4343
75°	2216	3397	4114
80°	1918	3144	3648
85°	1630	2381	2319



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.3	3.4
10°-20°	400.2	9.6
20°-30°	595.3	14.3
30°-40°	704.0	16.9
40°-50°	723.6	17.3
50°-60°	661.2	15.8
60°-70°	529.0	12.7
70°-80°	332.0	8.0
80°-90°	86.5	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°	1136.7	27.2
0°-40°	1840.7	44.1
0°-60°	3225.6	77.3
0°-90°	4173.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4173.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1490	1490	1490	1490	1490	
5°	1483	1483	1500	1490	1477	141
15°	1408	1410	1418	1427	1431	397
25°	1262	1270	1291	1313	1329	580
35°	1069	1084	1122	1165	1191	668
45°	852	875	931	1000	1037	657
55°	629	660	737	818	858	563
65°	412	448	536	617	660	409
75°	213	254	327	375	396	226
85°	53	67	77	75	75	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1489.5	1489.5	1489.5	1489.5	1489.5
2.5°	1519.9	1513.8	1495.6	1483.4	1477.3
5°	1483.4	1483.4	1499.6	1489.5	1477.3
7.5°	1471.2	1471.2	1471.2	1501.7	1471.2
10°	1455.0	1457.0	1459.0	1471.2	1459.0
12.5°	1436.7	1436.7	1440.8	1444.8	1446.9
15°	1408.3	1410.3	1418.5	1426.6	1430.6
17.5°	1377.9	1384.0	1394.1	1404.3	1412.4
20°	1341.3	1349.5	1361.6	1377.9	1386.0
22.5°	1302.8	1310.9	1327.1	1345.4	1359.6
25°	1262.2	1270.3	1290.6	1312.9	1329.2
27.5°	1215.5	1225.7	1250.0	1280.5	1296.7
30°	1168.9	1181.0	1209.4	1243.9	1262.2
32.5°	1120.2	1134.4	1166.8	1205.4	1227.7
35°	1069.4	1083.6	1122.2	1164.8	1191.2
37.5°	1016.7	1032.9	1075.5	1124.2	1152.6
40°	961.9	980.1	1028.8	1081.6	1114.1
42.5°	907.1	927.4	980.1	1043.0	1075.5
45°	852.3	874.6	931.4	1000.4	1037.0
47.5°	795.5	821.9	880.7	957.8	994.3
50°	740.7	767.1	834.0	913.2	949.7
52.5°	683.9	714.3	785.3	866.5	905.1
55°	629.1	659.5	736.6	817.8	858.4
57.5°	574.3	604.7	685.9	769.1	809.7
60°	519.5	552.0	637.2	718.4	761.0
62.5°	464.7	499.2	586.5	669.7	710.2
65°	411.9	448.5	535.7	616.9	659.5
67.5°	361.2	399.8	485.0	564.1	606.8
70°	310.5	349.0	432.2	509.3	552.0
72.5°	261.8	300.3	381.5	450.5	483.0
75°	213.1	253.7	326.7	375.4	395.7
77.5°	166.4	207.0	269.9	302.4	324.7
80°	123.8	158.3	202.9	227.3	235.4
82.5°	85.2	113.6	142.0	148.1	152.2
85°	52.8	67.0	77.1	75.1	75.1
87.5°	24.4	26.4	22.3	16.2	10.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)