

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: P233143

Luminaire Tested: **FCB-24-2-LD4-44-40-UNV-EDD1-WDP12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233143
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-LD4-44-40-UNV-EDD1-WDP12
Description: FAILSAFE 2X2 FCB LED TROFFER
.125 POLYCARBONATE LENS
Light Source: (84)4000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

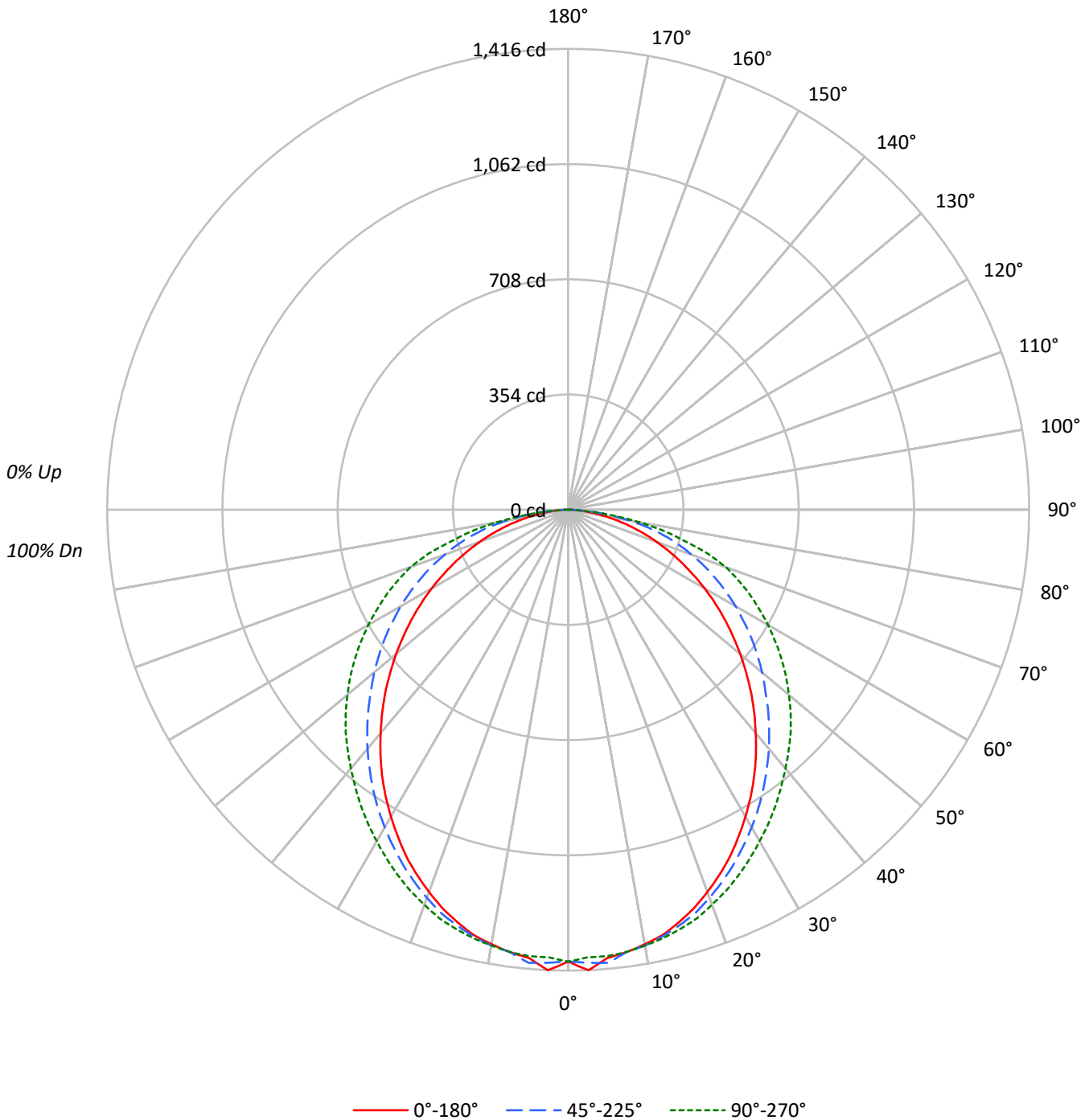
Lumens per Lamp: N/A
Luminaire Lumens: 3889.0 lumens
Efficiency: N/A
Efficacy: 93.0 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
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	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°	3735	3735	3735
5°	3734	3775	3719
10°	3705	3715	3715
15°	3657	3683	3714
20°	3580	3634	3699
25°	3493	3571	3678
30°	3385	3502	3655
35°	3274	3436	3647
40°	3149	3368	3647
45°	3023	3303	3678
50°	2890	3254	3705
55°	2751	3221	3753
60°	2605	3196	3817
65°	2444	3179	3913
70°	2276	3169	4047
75°	2065	3166	3834
80°	1788	2930	3400
85°	1519	2220	2161



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.7	3.4
10°-20°	372.9	9.6
20°-30°	554.8	14.3
30°-40°	656.1	16.9
40°-50°	674.4	17.3
50°-60°	616.2	15.8
60°-70°	493.0	12.7
70°-80°	309.4	8.0
80°-90°	80.6	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°	1059.4	27.2
0°-40°	1715.5	44.1
0°-60°	3006.1	77.3
0°-90°	3889.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3889.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1388	1388	1388	1388	1388	
5°	1382	1382	1398	1388	1377	131
15°	1312	1314	1322	1330	1333	370
25°	1176	1184	1203	1224	1239	541
35°	997	1010	1046	1086	1110	623
45°	794	815	868	932	966	612
55°	586	615	686	762	800	524
65°	384	418	499	575	615	381
75°	199	236	304	350	369	211
85°	49	62	72	70	70	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1388.1	1388.1	1388.1	1388.1	1388.1
2.5°	1416.5	1410.8	1393.8	1382.4	1376.8
5°	1382.4	1382.4	1397.6	1388.1	1376.8
7.5°	1371.1	1371.1	1371.1	1399.5	1371.1
10°	1356.0	1357.9	1359.7	1371.1	1359.7
12.5°	1338.9	1338.9	1342.7	1346.5	1348.4
15°	1312.5	1314.4	1321.9	1329.5	1333.3
17.5°	1284.1	1289.8	1299.2	1308.7	1316.3
20°	1250.1	1257.6	1269.0	1284.1	1291.7
22.5°	1214.1	1221.7	1236.8	1253.8	1267.1
25°	1176.3	1183.9	1202.8	1223.6	1238.7
27.5°	1132.8	1142.3	1165.0	1193.3	1208.5
30°	1089.3	1100.7	1127.1	1159.3	1176.3
32.5°	1043.9	1057.2	1087.4	1123.4	1144.2
35°	996.6	1009.9	1045.8	1085.5	1110.1
37.5°	947.5	962.6	1002.3	1047.7	1074.2
40°	896.4	913.4	958.8	1008.0	1038.2
42.5°	845.4	864.3	913.4	972.1	1002.3
45°	794.3	815.1	868.0	932.3	966.4
47.5°	741.3	765.9	820.8	892.6	926.7
50°	690.3	714.9	777.3	851.0	885.1
52.5°	637.3	665.7	731.9	807.5	843.5
55°	586.3	614.6	686.5	762.1	800.0
57.5°	535.2	563.6	639.2	716.8	754.6
60°	484.1	514.4	593.8	669.5	709.2
62.5°	433.1	465.2	546.5	624.1	661.9
65°	383.9	417.9	499.3	574.9	614.6
67.5°	336.6	372.6	452.0	525.7	565.5
70°	289.3	325.3	402.8	474.7	514.4
72.5°	244.0	279.9	355.5	419.8	450.1
75°	198.6	236.4	304.5	349.9	368.8
77.5°	155.1	192.9	251.5	281.8	302.6
80°	115.4	147.5	189.1	211.8	219.4
82.5°	79.4	105.9	132.4	138.1	141.8
85°	49.2	62.4	71.9	70.0	70.0
87.5°	22.7	24.6	20.8	15.1	9.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)