

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: P233082

Luminaire Tested: **FCB-12-4-LD4-44-35-UNV-EDD1-WDP12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233082
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-LD4-44-35-UNV-EDD1-WDP12
Description: FAILSAFE 1X4 FCB LED TROFFER
.125 POLYCARBONATE LENS
Light Source: (84)3500K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

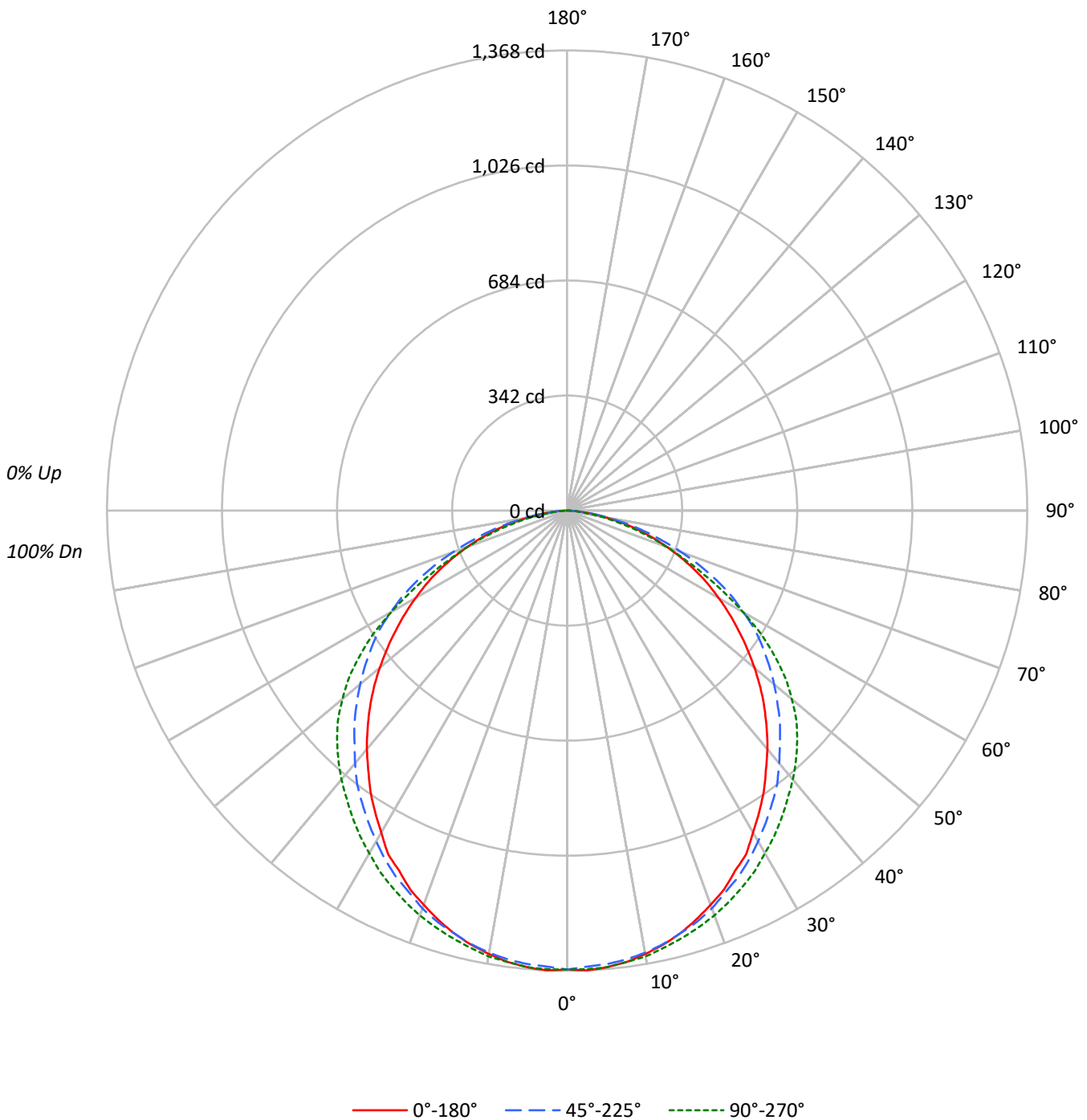
Lumens per Lamp: N/A
Luminaire Lumens: 3781.0 lumens
Efficiency: N/A
Efficacy: 92.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.1
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	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°	3672	3672	3672
5°	3681	3656	3681
10°	3657	3647	3677
15°	3625	3625	3666
20°	3571	3603	3667
25°	3509	3570	3664
30°	3435	3527	3655
35°	3349	3490	3656
40°	3254	3444	3667
45°	3157	3405	3682
50°	3044	3363	3652
55°	2921	3332	3533
60°	2799	3260	3250
65°	2670	3121	2849
70°	2478	2845	2464
75°	2248	2481	2035
80°	1791	1965	1502
85°	1266	1093	865



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.1	3.4
10°-20°	368.8	9.8
20°-30°	556.1	14.7
30°-40°	666.5	17.6
40°-50°	691.7	18.3
50°-60°	623.9	16.5
60°-70°	455.1	12.0
70°-80°	238.8	6.3
80°-90°	50.9	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°	1054.0	27.9
0°-40°	1720.5	45.5
0°-60°	3036.2	80.3
0°-90°	3781.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3781.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1364	1364	1364	1364	1364	
5°	1363	1359	1353	1363	1363	129
15°	1301	1301	1301	1316	1316	366
25°	1182	1187	1202	1228	1234	545
35°	1020	1031	1062	1102	1113	637
45°	830	846	895	949	967	639
55°	623	645	710	757	753	557
65°	419	444	490	472	447	415
75°	216	246	239	207	196	227
85°	41	50	35	30	28	52
90°	0	0	0	0	0	



TEST NUMBER: P233082

CATALOG NUMBER: FCB-12-4-LD4-44-35-UNV-EDD1-WDP12

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1364.5	1364.5	1364.5	1364.5	1364.5
2.5°	1368.2	1364.5	1357.0	1364.5	1364.5
5°	1362.6	1358.9	1353.3	1362.6	1362.6
7.5°	1353.3	1349.5	1345.8	1355.1	1353.3
10°	1338.4	1336.5	1334.6	1345.8	1345.8
12.5°	1321.6	1321.6	1319.7	1332.8	1330.9
15°	1301.1	1301.1	1301.1	1316.0	1316.0
17.5°	1275.0	1278.7	1282.4	1299.2	1299.2
20°	1247.0	1250.8	1258.2	1278.7	1280.6
22.5°	1219.1	1220.9	1228.4	1252.6	1258.2
25°	1181.8	1187.4	1202.3	1228.4	1234.0
27.5°	1152.0	1153.8	1170.6	1200.4	1207.9
30°	1105.4	1118.4	1135.2	1168.7	1176.2
32.5°	1062.5	1073.7	1099.8	1135.2	1146.4
35°	1019.6	1030.8	1062.5	1101.6	1112.8
37.5°	971.1	987.9	1025.2	1064.4	1077.4
40°	926.4	941.3	980.5	1028.9	1043.8
42.5°	877.9	892.9	935.7	989.8	1006.6
45°	829.5	846.3	894.7	948.8	967.4
47.5°	779.2	797.8	848.1	907.8	924.5
50°	727.0	747.5	803.4	864.9	872.4
52.5°	674.8	697.1	756.8	810.8	818.3
55°	622.6	644.9	710.2	756.8	753.1
57.5°	572.3	596.5	663.6	687.8	684.1
60°	520.1	546.2	605.8	617.0	603.9
62.5°	471.6	495.8	551.7	542.4	525.7
65°	419.4	443.6	490.2	471.6	447.4
67.5°	367.2	397.0	426.9	395.2	376.5
70°	315.0	348.6	361.6	329.9	313.2
72.5°	264.7	300.1	296.4	264.7	253.5
75°	216.2	246.0	238.6	206.9	195.7
77.5°	164.0	197.6	180.8	154.7	145.4
80°	115.6	145.4	126.8	104.4	96.9
82.5°	76.4	96.9	78.3	61.5	55.9
85°	41.0	50.3	35.4	29.8	28.0
87.5°	16.8	14.9	13.0	13.0	11.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)