

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: P233069

Luminaire Tested: **FCB-12-4-LD4-44-30-UNV-EDD1-WDA12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233069
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-LD4-44-30-UNV-EDD1-WDA12
Description: FAILSAFE 1X4 FCB LED TROFFER
.125 ACRYLIC LENS
Light Source: (84)3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

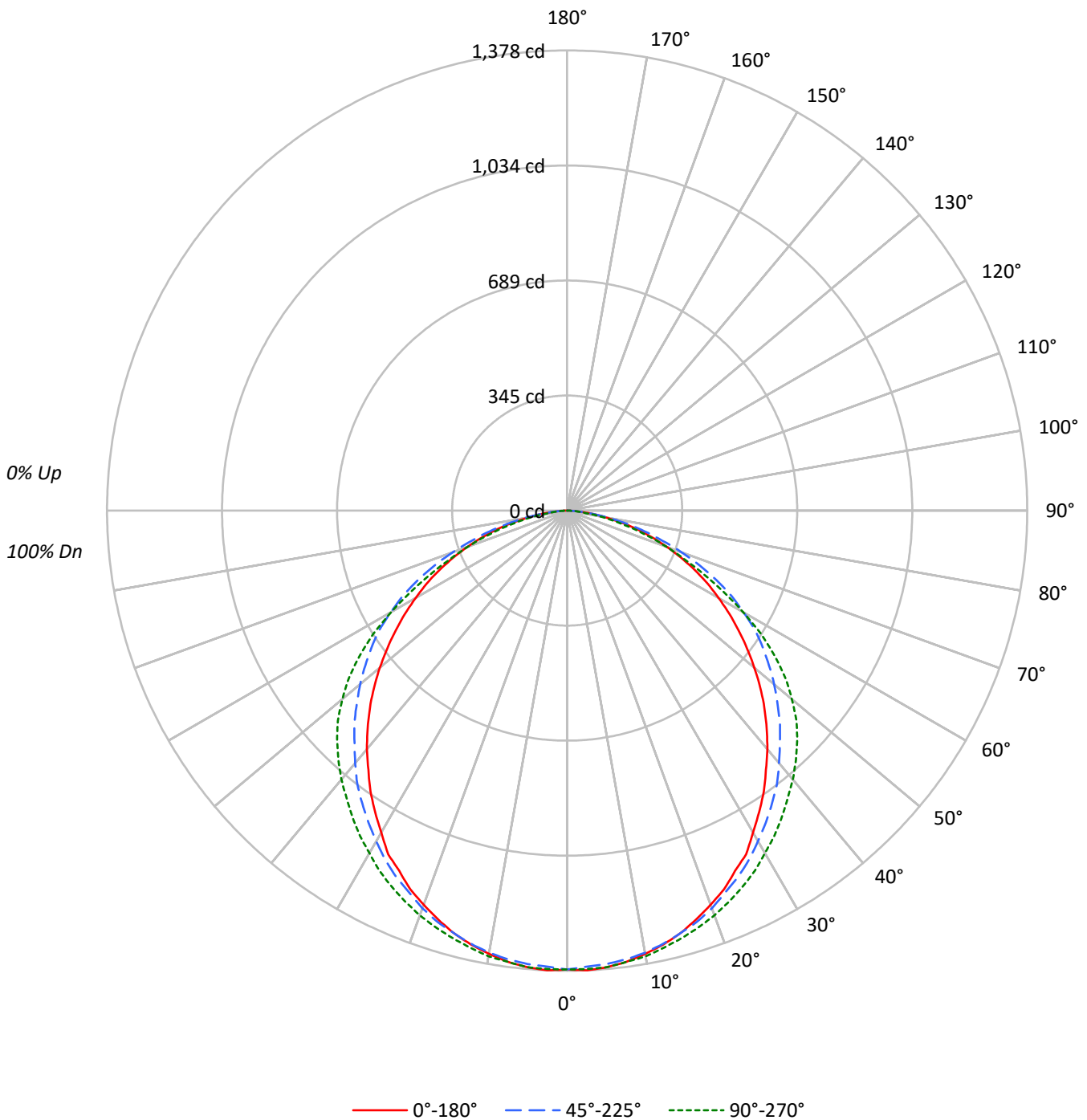
Lumens per Lamp: N/A
Luminaire Lumens: 3808.0 lumens
Efficiency: N/A
Efficacy: 92.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	3698	3698	3698
5°	3707	3682	3707
10°	3683	3673	3704
15°	3651	3651	3692
20°	3596	3629	3693
25°	3534	3595	3690
30°	3459	3553	3681
35°	3373	3515	3682
40°	3277	3469	3693
45°	3179	3429	3708
50°	3065	3387	3678
55°	2942	3356	3558
60°	2819	3284	3274
65°	2690	3144	2869
70°	2496	2865	2482
75°	2264	2498	2049
80°	1804	1979	1512
85°	1275	1102	871



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.0	3.4
10°-20°	371.4	9.8
20°-30°	560.1	14.7
30°-40°	671.3	17.6
40°-50°	696.7	18.3
50°-60°	628.4	16.5
60°-70°	458.4	12.0
70°-80°	240.5	6.3
80°-90°	51.3	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°	1061.5	27.9
0°-40°	1732.8	45.5
0°-60°	3057.9	80.3
0°-90°	3808.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3808.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1374	1374	1374	1374	1374	
5°	1372	1369	1363	1372	1372	130
15°	1310	1310	1310	1325	1325	369
25°	1190	1196	1211	1237	1243	549
35°	1027	1038	1070	1110	1121	641
45°	835	852	901	956	974	644
55°	627	650	715	762	758	561
65°	422	447	494	475	451	418
75°	218	248	240	208	197	228
85°	41	51	36	30	28	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1374.2	1374.2	1374.2	1374.2	1374.2
2.5°	1378.0	1374.2	1366.7	1374.2	1374.2
5°	1372.3	1368.6	1362.9	1372.3	1372.3
7.5°	1362.9	1359.2	1355.4	1364.8	1362.9
10°	1347.9	1346.0	1344.2	1355.4	1355.4
12.5°	1331.0	1331.0	1329.1	1342.3	1340.4
15°	1310.4	1310.4	1310.4	1325.4	1325.4
17.5°	1284.1	1287.8	1291.6	1308.5	1308.5
20°	1255.9	1259.7	1267.2	1287.8	1289.7
22.5°	1227.8	1229.6	1237.2	1261.6	1267.2
25°	1190.2	1195.9	1210.9	1237.2	1242.8
27.5°	1160.2	1162.1	1179.0	1209.0	1216.5
30°	1113.3	1126.4	1143.3	1177.1	1184.6
32.5°	1070.1	1081.3	1107.6	1143.3	1154.6
35°	1026.9	1038.2	1070.1	1109.5	1120.8
37.5°	978.1	995.0	1032.5	1072.0	1085.1
40°	933.0	948.0	987.5	1036.3	1051.3
42.5°	884.2	899.2	942.4	996.9	1013.8
45°	835.4	852.3	901.1	955.6	974.3
47.5°	784.7	803.5	854.2	914.3	931.2
50°	732.2	752.8	809.1	871.1	878.6
52.5°	679.6	702.1	762.2	816.6	824.1
55°	627.0	649.6	715.3	762.2	758.4
57.5°	576.3	600.7	668.3	692.7	689.0
60°	523.8	550.1	610.1	621.4	608.3
62.5°	475.0	499.4	555.7	546.3	529.4
65°	422.4	446.8	493.7	475.0	450.6
67.5°	369.8	399.9	429.9	398.0	379.2
70°	317.3	351.1	364.2	332.3	315.4
72.5°	266.6	302.2	298.5	266.6	255.3
75°	217.8	247.8	240.3	208.4	197.1
77.5°	165.2	199.0	182.1	155.8	146.4
80°	116.4	146.4	127.7	105.1	97.6
82.5°	77.0	97.6	78.8	62.0	56.3
85°	41.3	50.7	35.7	30.0	28.2
87.5°	16.9	15.0	13.1	13.1	11.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)