

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: P233165

Luminaire Tested: **FCB-24-4-LD4-30-30-UNV-EDD1-WDA6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233165
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25697)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FCB-24-4-LD4-30-30-UNV-EDD1-WDA6
Description: FAILSAFE 2X4 FCB LED TROFFER
.060 ACRYLIC LENS
Light Source: (168)3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

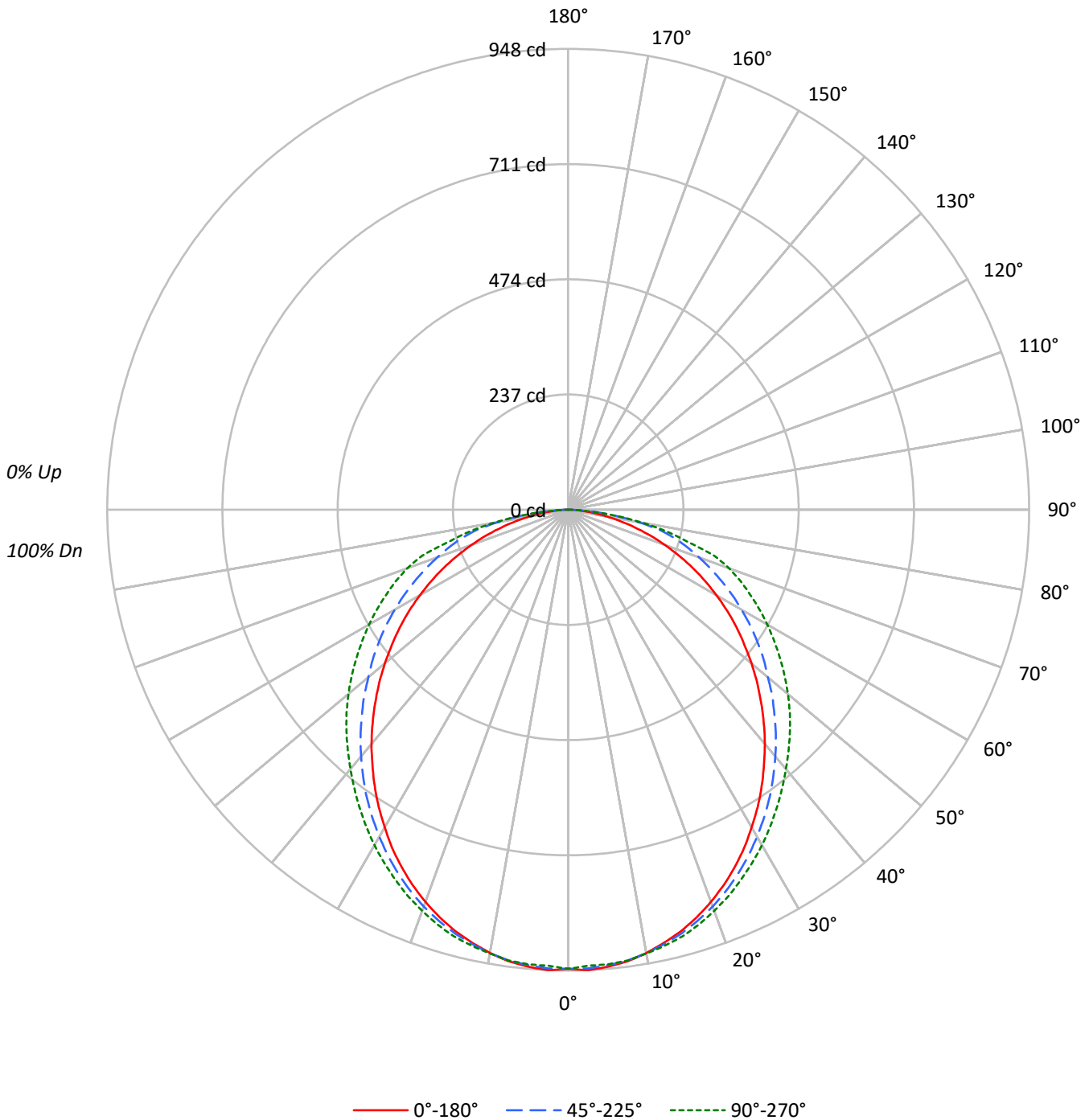
Lumens per Lamp: N/A
Luminaire Lumens: 2691.0 lumens
Efficiency: N/A
Efficacy: 124.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
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	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	60	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	35	32
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	40	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	31	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1271	1271	1271
5°	1274	1271	1268
10°	1265	1265	1266
15°	1250	1256	1265
20°	1230	1244	1257
25°	1204	1227	1247
30°	1172	1207	1238
35°	1140	1187	1229
40°	1105	1164	1224
45°	1068	1141	1227
50°	1030	1122	1234
55°	992	1115	1247
60°	947	1108	1272
65°	897	1109	1314
70°	830	1127	1385
75°	742	1179	1317
80°	621	1128	1206
85°	469	868	824



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.2	3.3
10°-20°	254.0	9.4
20°-30°	379.7	14.1
30°-40°	450.5	16.7
40°-50°	463.6	17.2
50°-60°	425.3	15.8
60°-70°	343.9	12.8
70°-80°	223.2	8.3
80°-90°	61.5	2.3
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°	723.0	26.9
0°-40°	1173.4	43.6
0°-60°	2062.4	76.6
0°-90°	2691.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2691.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	944	944	944	944	944	
5°	944	937	941	940	939	90
15°	897	894	902	906	908	253
25°	811	812	826	834	840	373
35°	694	699	722	738	748	434
45°	561	570	600	628	645	433
55°	423	436	475	514	532	378
65°	282	298	348	394	413	279
75°	143	170	227	253	253	152
85°	30	52	56	54	53	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	944.4	944.4	944.4	944.4	944.4
2.5°	948.1	940.7	944.4	943.5	938.9
5°	943.5	937.0	940.7	939.8	938.9
7.5°	937.0	930.6	935.2	934.3	935.2
10°	926.0	920.4	926.0	926.9	926.9
12.5°	912.2	907.5	914.9	916.8	918.6
15°	897.4	893.7	902.0	905.7	908.5
17.5°	879.0	876.2	886.4	891.0	894.6
20°	858.7	857.8	868.8	873.5	878.1
22.5°	835.7	835.7	848.6	854.1	860.6
25°	810.8	811.7	826.5	833.8	840.3
27.5°	784.1	785.0	802.5	811.7	819.1
30°	754.6	758.3	776.7	788.7	797.0
32.5°	725.1	729.7	750.0	763.8	773.0
35°	693.8	699.3	722.4	738.0	748.1
37.5°	661.5	668.0	692.9	710.4	722.4
40°	629.3	636.7	662.5	682.7	696.6
42.5°	595.2	603.5	632.1	656.0	670.8
45°	561.1	570.3	599.8	628.4	645.0
47.5°	527.0	538.1	569.4	600.7	618.2
50°	492.0	503.1	536.2	572.2	589.7
52.5°	457.0	469.9	506.8	543.6	561.1
55°	422.9	435.8	475.4	514.1	531.6
57.5°	387.9	400.8	444.1	484.6	502.1
60°	352.0	366.7	411.9	453.3	472.7
62.5°	317.0	332.6	380.5	424.8	443.2
65°	281.9	298.5	348.3	394.3	412.8
67.5°	246.0	265.4	317.0	363.9	383.3
70°	211.0	232.2	286.5	333.5	352.0
72.5°	176.9	199.9	256.1	304.1	315.1
75°	142.8	169.5	226.7	253.4	253.4
77.5°	110.6	140.0	193.5	203.6	209.2
80°	80.2	112.4	145.6	157.6	155.7
82.5°	53.4	85.7	104.1	104.1	101.4
85°	30.4	51.6	56.2	54.4	53.4
87.5°	12.9	19.3	17.5	13.8	12.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)