

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: P233057

Luminaire Tested: **FCB-12-4-LD4-44-30-UNV-EDD1-WDP6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233057
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-WDP6
Description: FAILSAFE 1X4 FCB LED TROFFER
.060 POLYCARBONATE LENS
Light Source: (84)3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

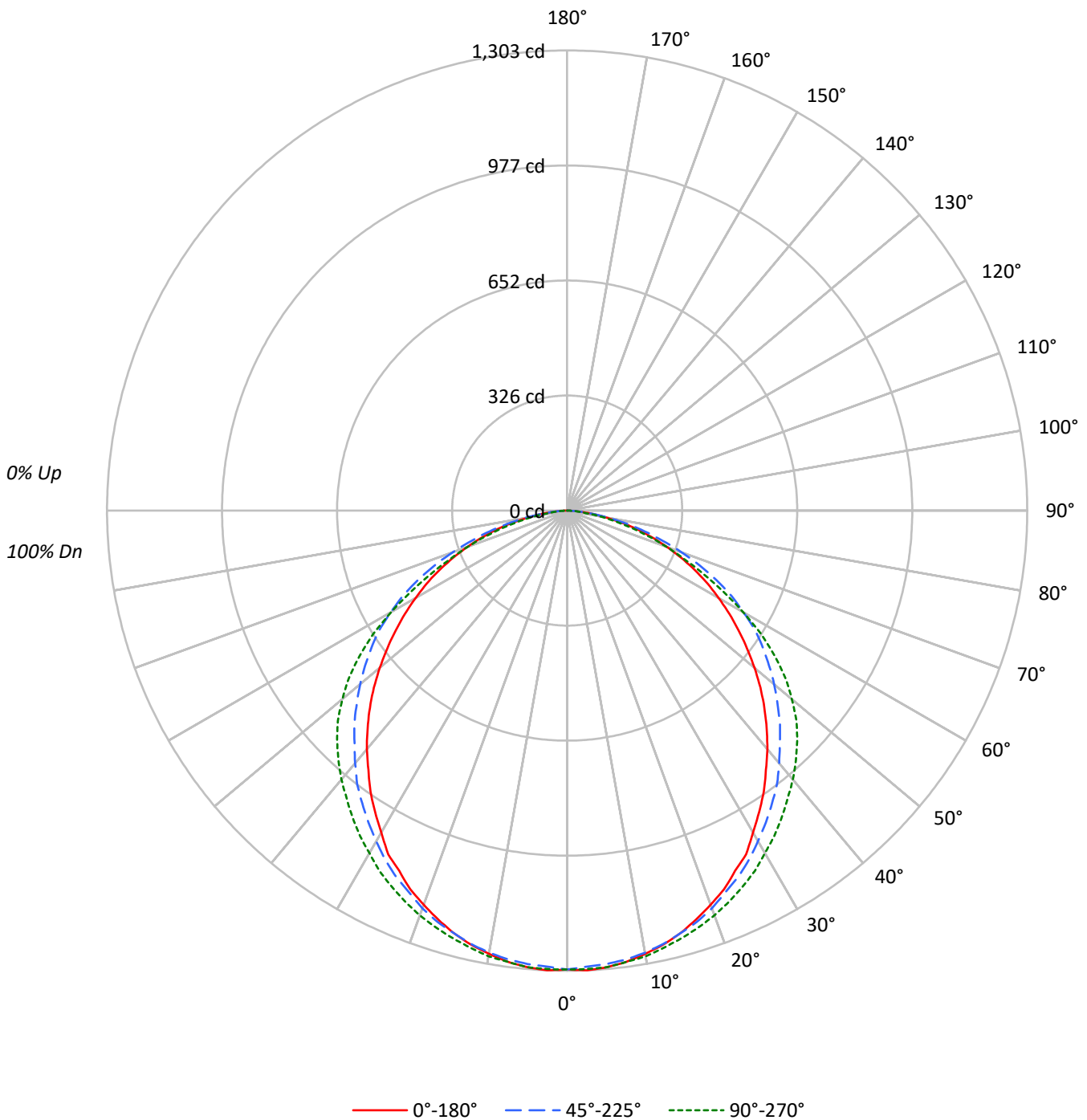
Lumens per Lamp: N/A
Luminaire Lumens: 3601.0 lumens
Efficiency: N/A
Efficacy: 87.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	3497	3497	3497
5°	3505	3481	3505
10°	3483	3473	3502
15°	3452	3452	3492
20°	3401	3432	3493
25°	3342	3400	3489
30°	3271	3359	3481
35°	3190	3324	3482
40°	3099	3280	3492
45°	3006	3243	3506
50°	2899	3203	3478
55°	2782	3173	3365
60°	2666	3105	3096
65°	2543	2973	2713
70°	2360	2710	2346
75°	2141	2362	1938
80°	1706	1870	1430
85°	1207	1041	821



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.0	3.4
10°-20°	351.3	9.8
20°-30°	529.6	14.7
30°-40°	634.8	17.6
40°-50°	658.8	18.3
50°-60°	594.2	16.5
60°-70°	433.4	12.0
70°-80°	227.4	6.3
80°-90°	48.5	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°	1003.8	27.9
0°-40°	1638.6	45.5
0°-60°	2891.6	80.3
0°-90°	3601.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3601.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1300	1300	1300	1300	1300	
5°	1298	1294	1289	1298	1298	123
15°	1239	1239	1239	1253	1253	349
25°	1126	1131	1145	1170	1175	519
35°	971	982	1012	1049	1060	607
45°	790	806	852	904	921	609
55°	593	614	676	721	717	531
65°	399	422	467	449	426	395
75°	206	234	227	197	186	216
85°	39	48	34	28	27	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1299.5	1299.5	1299.5	1299.5	1299.5
2.5°	1303.0	1299.5	1292.4	1299.5	1299.5
5°	1297.7	1294.2	1288.8	1297.7	1297.7
7.5°	1288.8	1285.3	1281.7	1290.6	1288.8
10°	1274.6	1272.9	1271.1	1281.7	1281.7
12.5°	1258.7	1258.7	1256.9	1269.3	1267.5
15°	1239.1	1239.1	1239.1	1253.3	1253.3
17.5°	1214.3	1217.8	1221.4	1237.4	1237.4
20°	1187.7	1191.2	1198.3	1217.8	1219.6
22.5°	1161.0	1162.8	1169.9	1193.0	1198.3
25°	1125.5	1130.8	1145.1	1169.9	1175.2
27.5°	1097.1	1098.9	1114.9	1143.3	1150.4
30°	1052.7	1065.2	1081.1	1113.1	1120.2
32.5°	1011.9	1022.6	1047.4	1081.1	1091.8
35°	971.1	981.7	1011.9	1049.2	1059.8
37.5°	924.9	940.9	976.4	1013.7	1026.1
40°	882.3	896.5	933.8	980.0	994.2
42.5°	836.2	850.4	891.2	942.7	958.6
45°	790.0	806.0	852.1	903.6	921.4
47.5°	742.1	759.8	807.7	864.6	880.5
50°	692.4	711.9	765.1	823.7	830.8
52.5°	642.6	664.0	720.8	772.2	779.3
55°	592.9	614.2	676.4	720.8	717.2
57.5°	545.0	568.1	632.0	655.1	651.5
60°	495.3	520.2	577.0	587.6	575.2
62.5°	449.1	472.2	525.5	516.6	500.6
65°	399.4	422.5	466.9	449.1	426.1
67.5°	349.7	378.1	406.5	376.4	358.6
70°	300.0	332.0	344.4	314.2	298.2
72.5°	252.1	285.8	282.3	252.1	241.4
75°	205.9	234.3	227.2	197.1	186.4
77.5°	156.2	188.2	172.2	147.3	138.5
80°	110.1	138.5	120.7	99.4	92.3
82.5°	72.8	92.3	74.6	58.6	53.3
85°	39.1	47.9	33.7	28.4	26.6
87.5°	16.0	14.2	12.4	12.4	10.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)