

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: P233056

Luminaire Tested: **FCB-12-4-LD4-35-50-UNV-EDD1-WDP6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233056
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-LD4-35-50-UNV-EDD1-WDP6
Description: FAILSAFE 1X4 FCB LED TROFFER
.060 POLYCARBONATE LENS
Light Source: (84)5000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

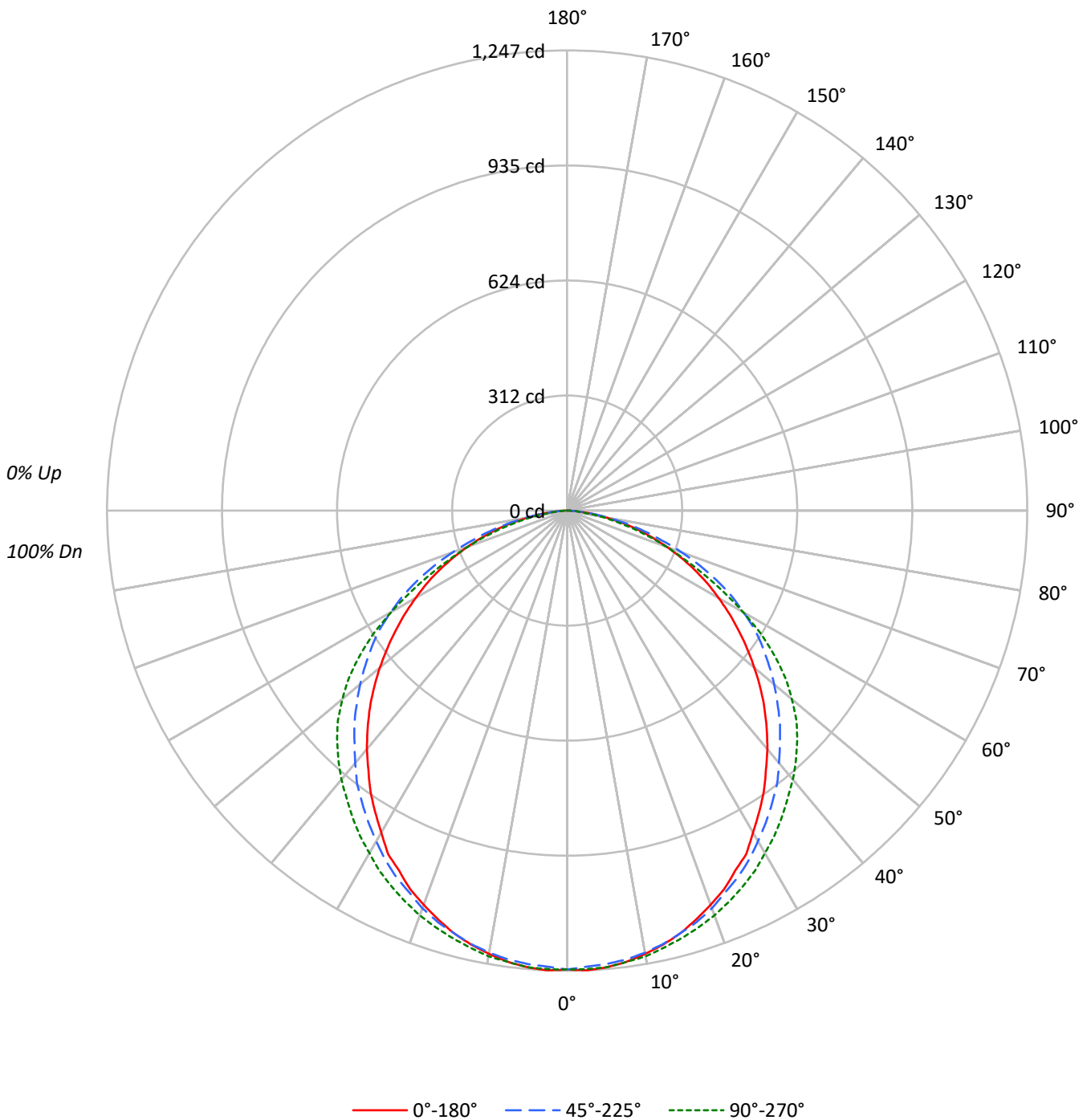
Lumens per Lamp: N/A
Luminaire Lumens: 3446.0 lumens
Efficiency: N/A
Efficacy: 109.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.5
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°	3347	3347	3347
5°	3355	3332	3355
10°	3333	3324	3352
15°	3304	3304	3341
20°	3255	3284	3342
25°	3198	3254	3339
30°	3130	3215	3331
35°	3053	3181	3332
40°	2966	3139	3342
45°	2877	3103	3355
50°	2774	3065	3329
55°	2662	3037	3220
60°	2551	2971	2962
65°	2434	2845	2596
70°	2259	2593	2245
75°	2049	2261	1855
80°	1632	1790	1368
85°	1155	997	787



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.7	3.4
10°-20°	336.1	9.8
20°-30°	506.8	14.7
30°-40°	607.5	17.6
40°-50°	630.4	18.3
50°-60°	568.6	16.5
60°-70°	414.8	12.0
70°-80°	217.6	6.3
80°-90°	46.4	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°	960.6	27.9
0°-40°	1568.1	45.5
0°-60°	2767.2	80.3
0°-90°	3446.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3446.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1244	1244	1244	1244	1244	
5°	1242	1238	1233	1242	1242	118
15°	1186	1186	1186	1199	1199	334
25°	1077	1082	1096	1120	1125	497
35°	929	940	968	1004	1014	580
45°	756	771	816	865	882	583
55°	567	588	647	690	686	508
65°	382	404	447	430	408	378
75°	197	224	218	189	178	207
85°	37	46	32	27	26	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1243.6	1243.6	1243.6	1243.6	1243.6
2.5°	1247.0	1243.6	1236.8	1243.6	1243.6
5°	1241.9	1238.5	1233.4	1241.9	1241.9
7.5°	1233.4	1230.0	1226.6	1235.1	1233.4
10°	1219.8	1218.1	1216.4	1226.6	1226.6
12.5°	1204.5	1204.5	1202.8	1214.7	1213.0
15°	1185.8	1185.8	1185.8	1199.4	1199.4
17.5°	1162.0	1165.4	1168.8	1184.1	1184.1
20°	1136.5	1139.9	1146.7	1165.4	1167.1
22.5°	1111.1	1112.8	1119.5	1141.6	1146.7
25°	1077.1	1082.2	1095.8	1119.5	1124.6
27.5°	1049.9	1051.6	1066.9	1094.1	1100.9
30°	1007.4	1019.3	1034.6	1065.2	1072.0
32.5°	968.3	978.5	1002.3	1034.6	1044.8
35°	929.3	939.5	968.3	1004.0	1014.2
37.5°	885.1	900.4	934.4	970.0	981.9
40°	844.3	857.9	893.6	937.8	951.4
42.5°	800.2	813.8	852.8	902.1	917.4
45°	756.0	771.3	815.5	864.7	881.7
47.5°	710.1	727.1	773.0	827.3	842.6
50°	662.6	681.2	732.2	788.3	795.1
52.5°	615.0	635.4	689.7	739.0	745.8
55°	567.4	587.8	647.3	689.7	686.3
57.5°	521.5	543.6	604.8	626.9	623.5
60°	474.0	497.8	552.1	562.3	550.4
62.5°	429.8	451.9	502.9	494.4	479.1
65°	382.2	404.3	446.8	429.8	407.7
67.5°	334.7	361.9	389.0	360.2	343.2
70°	287.1	317.7	329.6	300.7	285.4
72.5°	241.2	273.5	270.1	241.2	231.0
75°	197.1	224.2	217.5	188.6	178.4
77.5°	149.5	180.1	164.8	141.0	132.5
80°	105.3	132.5	115.5	95.1	88.3
82.5°	69.7	88.3	71.4	56.1	51.0
85°	37.4	45.9	32.3	27.2	25.5
87.5°	15.3	13.6	11.9	11.9	10.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)