

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: P233127

Luminaire Tested: **FCB-24-2-LD4-34-40-UNV-EDD1-WDA12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233127
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25706)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FCB-24-2-LD4-34-40-UNV-EDD1-WDA12
Description: FAILSAFE 2X2 FCB LED TROFFER
.125 ACRYLIC LENS
Light Source: (84)4000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

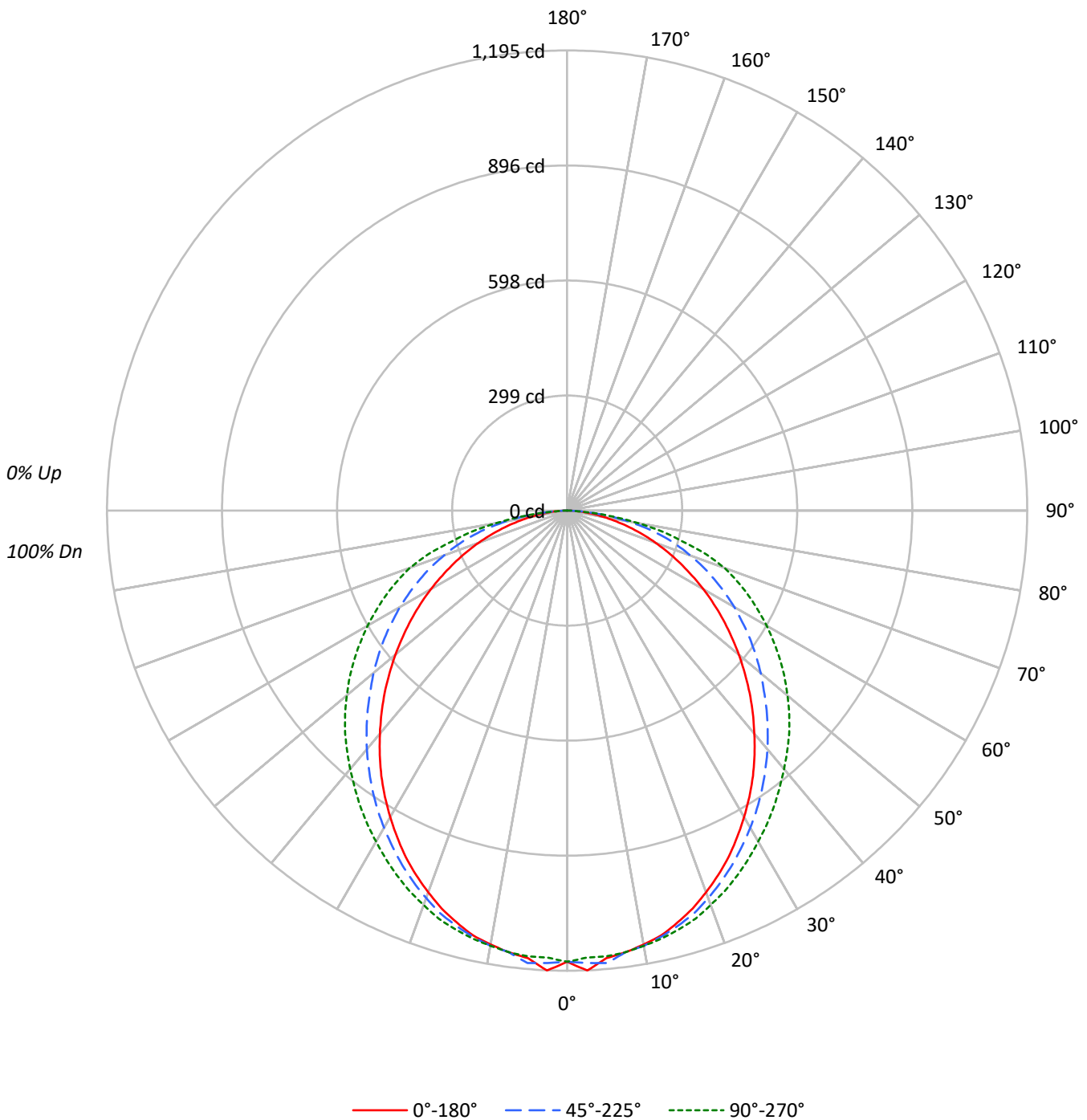
Lumens per Lamp: N/A
Luminaire Lumens: 3282.0 lumens
Efficiency: N/A
Efficacy: 111.6 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 29.4
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

TEST NUMBER: P233127

CATALOG NUMBER: FCB-24-2-LD4-34-40-UNV-EDD1-WDA12

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	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	70	64	87	77	69	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	48	41	35	47	40	35	46	40	35	33
8	60	46	38	32	58	46	38	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3152	3152	3152
5°	3152	3186	3139
10°	3127	3136	3136
15°	3086	3108	3135
20°	3021	3067	3122
25°	2947	3014	3104
30°	2857	2956	3085
35°	2763	2899	3077
40°	2657	2843	3078
45°	2551	2788	3104
50°	2439	2746	3127
55°	2321	2718	3167
60°	2199	2697	3221
65°	2063	2683	3303
70°	1921	2674	3415
75°	1743	2672	3236
80°	1509	2473	2868
85°	1281	1871	1825



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.1	3.4
10°-20°	314.7	9.6
20°-30°	468.2	14.3
30°-40°	553.7	16.9
40°-50°	569.1	17.3
50°-60°	520.0	15.8
60°-70°	416.0	12.7
70°-80°	261.1	8.0
80°-90°	68.0	2.1
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°	894.0	27.2
0°-40°	1447.7	44.1
0°-60°	2536.9	77.3
0°-90°	3282.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3282.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1172	1172	1172	1172	1172	
5°	1167	1167	1179	1172	1162	111
15°	1108	1109	1116	1122	1125	312
25°	993	999	1015	1033	1045	456
35°	841	852	883	916	937	526
45°	670	688	733	787	816	517
55°	495	519	579	643	675	443
65°	324	353	421	485	519	322
75°	168	200	257	295	311	178
85°	42	53	61	59	59	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1171.5	1171.5	1171.5	1171.5	1171.5
2.5°	1195.4	1190.6	1176.2	1166.7	1161.9
5°	1166.7	1166.7	1179.4	1171.5	1161.9
7.5°	1157.1	1157.1	1157.1	1181.0	1157.1
10°	1144.3	1145.9	1147.5	1157.1	1147.5
12.5°	1130.0	1130.0	1133.2	1136.3	1137.9
15°	1107.6	1109.2	1115.6	1122.0	1125.2
17.5°	1083.7	1088.5	1096.4	1104.4	1110.8
20°	1054.9	1061.3	1070.9	1083.7	1090.1
22.5°	1024.6	1031.0	1043.8	1058.1	1069.3
25°	992.7	999.1	1015.0	1032.6	1045.4
27.5°	956.0	964.0	983.1	1007.1	1019.8
30°	919.3	928.9	951.2	978.3	992.7
32.5°	881.0	892.2	917.7	948.0	965.6
35°	841.1	852.3	882.6	916.1	936.8
37.5°	799.6	812.4	845.9	884.2	906.5
40°	756.5	770.9	809.2	850.7	876.2
42.5°	713.4	729.4	770.9	820.3	845.9
45°	670.3	687.9	732.6	786.8	815.6
47.5°	625.6	646.4	692.7	753.3	782.0
50°	582.5	603.3	656.0	718.2	746.9
52.5°	537.8	561.8	617.6	681.5	711.8
55°	494.8	518.7	579.3	643.2	675.1
57.5°	451.7	475.6	539.4	604.9	636.8
60°	408.6	434.1	501.1	565.0	598.5
62.5°	365.5	392.6	461.2	526.7	558.6
65°	324.0	352.7	421.3	485.2	518.7
67.5°	284.1	314.4	381.4	443.7	477.2
70°	244.2	274.5	339.9	400.6	434.1
72.5°	205.9	236.2	300.0	354.3	379.8
75°	167.6	199.5	257.0	295.3	311.2
77.5°	130.9	162.8	212.3	237.8	255.4
80°	97.4	124.5	159.6	178.8	185.1
82.5°	67.0	89.4	111.7	116.5	119.7
85°	41.5	52.7	60.6	59.1	59.1
87.5°	19.2	20.7	17.6	12.8	8.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)