

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: P233138

Luminaire Tested: **FCB-24-2-LD4-34-35-UNV-EDD1-WDP12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233138
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-LD4-34-35-UNV-EDD1-WDP12
Description: FAILSAFE 2X2 FCB LED TROFFER
.125 POLYCARBONATE LENS
Light Source: (84)3500K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

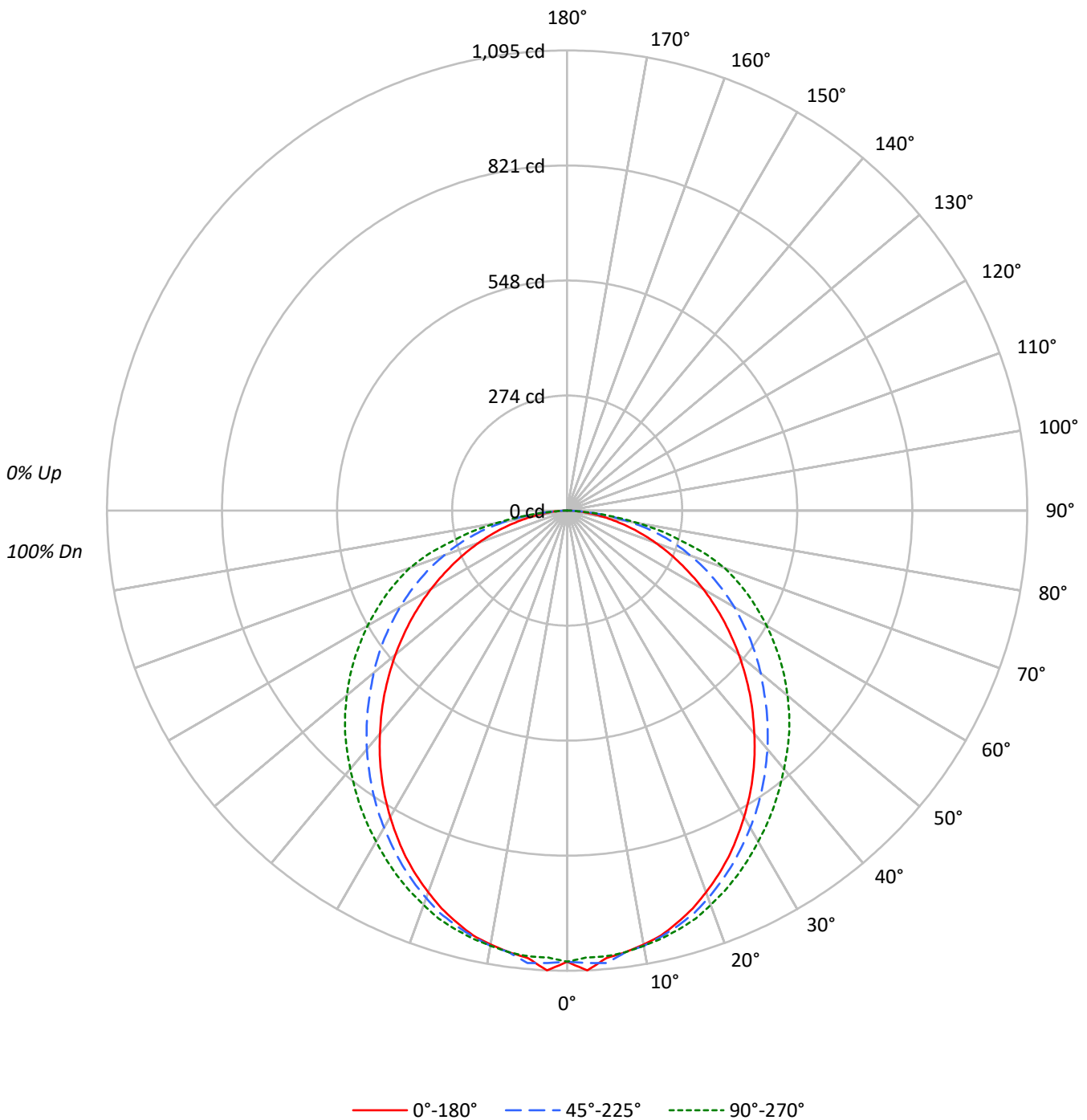
Lumens per Lamp: N/A
Luminaire Lumens: 3007.0 lumens
Efficiency: N/A
Efficacy: 102.3 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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: P233138

CATALOG NUMBER: FCB-24-2-LD4-34-35-UNV-EDD1-WDP12

Luminous Intensity Polar Plot





TEST NUMBER: P233138

CATALOG NUMBER: FCB-24-2-LD4-34-35-UNV-EDD1-WDP12

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°	2888	2888	2888
5°	2887	2919	2875
10°	2865	2873	2873
15°	2827	2847	2872
20°	2768	2810	2860
25°	2700	2761	2844
30°	2617	2708	2826
35°	2531	2656	2820
40°	2435	2604	2820
45°	2337	2554	2844
50°	2234	2516	2865
55°	2127	2490	2902
60°	2014	2471	2951
65°	1890	2458	3026
70°	1760	2451	3129
75°	1596	2447	2964
80°	1382	2266	2628
85°	1173	1717	1670



TEST NUMBER: P233138

CATALOG NUMBER: FCB-24-2-LD4-34-35-UNV-EDD1-WDP12

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.8	3.4
10°-20°	288.4	9.6
20°-30°	429.0	14.3
30°-40°	507.3	16.9
40°-50°	521.4	17.3
50°-60°	476.5	15.8
60°-70°	381.2	12.7
70°-80°	239.2	8.0
80°-90°	62.3	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°	819.1	27.2
0°-40°	1326.4	44.1
0°-60°	2324.3	77.3
0°-90°	3007.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3007.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1073	1073	1073	1073	1073	
5°	1069	1069	1081	1073	1064	102
15°	1015	1016	1022	1028	1031	286
25°	910	915	930	946	958	418
35°	771	781	809	839	858	482
45°	614	630	671	721	747	473
55°	453	475	531	589	618	405
65°	297	323	386	444	475	295
75°	154	183	235	270	285	163
85°	38	48	56	54	54	44
90°	0	0	0	0	0	



TEST NUMBER: P233138

CATALOG NUMBER: FCB-24-2-LD4-34-35-UNV-EDD1-WDP12

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1073.3	1073.3	1073.3	1073.3	1073.3
2.5°	1095.2	1090.8	1077.7	1068.9	1064.5
5°	1068.9	1068.9	1080.6	1073.3	1064.5
7.5°	1060.1	1060.1	1060.1	1082.1	1060.1
10°	1048.4	1049.9	1051.4	1060.1	1051.4
12.5°	1035.3	1035.3	1038.2	1041.1	1042.6
15°	1014.8	1016.3	1022.1	1028.0	1030.9
17.5°	992.9	997.3	1004.6	1011.9	1017.7
20°	966.6	972.4	981.2	992.9	998.7
22.5°	938.8	944.6	956.3	969.5	979.7
25°	909.5	915.4	930.0	946.1	957.8
27.5°	875.9	883.2	900.8	922.7	934.4
30°	842.3	851.0	871.5	896.4	909.5
32.5°	807.2	817.4	840.8	868.6	884.7
35°	770.6	780.8	808.6	839.3	858.3
37.5°	732.6	744.3	775.0	810.1	830.6
40°	693.1	706.3	741.4	779.4	802.8
42.5°	653.6	668.3	706.3	751.6	775.0
45°	614.1	630.2	671.2	720.9	747.2
47.5°	573.2	592.2	634.6	690.2	716.5
50°	533.7	552.7	601.0	658.0	684.3
52.5°	492.8	514.7	565.9	624.4	652.2
55°	453.3	475.2	530.8	589.3	618.5
57.5°	413.8	435.8	494.2	554.2	583.4
60°	374.3	397.7	459.1	517.6	548.3
62.5°	334.9	359.7	422.6	482.5	511.8
65°	296.8	323.2	386.0	444.5	475.2
67.5°	260.3	288.1	349.5	406.5	437.2
70°	223.7	251.5	311.5	367.0	397.7
72.5°	188.6	216.4	274.9	324.6	348.0
75°	153.5	182.8	235.4	270.5	285.1
77.5°	119.9	149.2	194.5	217.9	234.0
80°	89.2	114.1	146.2	163.8	169.6
82.5°	61.4	81.9	102.4	106.7	109.7
85°	38.0	48.3	55.6	54.1	54.1
87.5°	17.5	19.0	16.1	11.7	7.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)