

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: P233075

Luminaire Tested: **FCB-12-4-LD4-25-40-UNV-EDD1-WDP12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233075
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-LD4-25-40-UNV-EDD1-WDP12
Description: FAILSAFE 1X4 FCB LED TROFFER
.125 POLYCARBONATE LENS
Light Source: (84)4000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

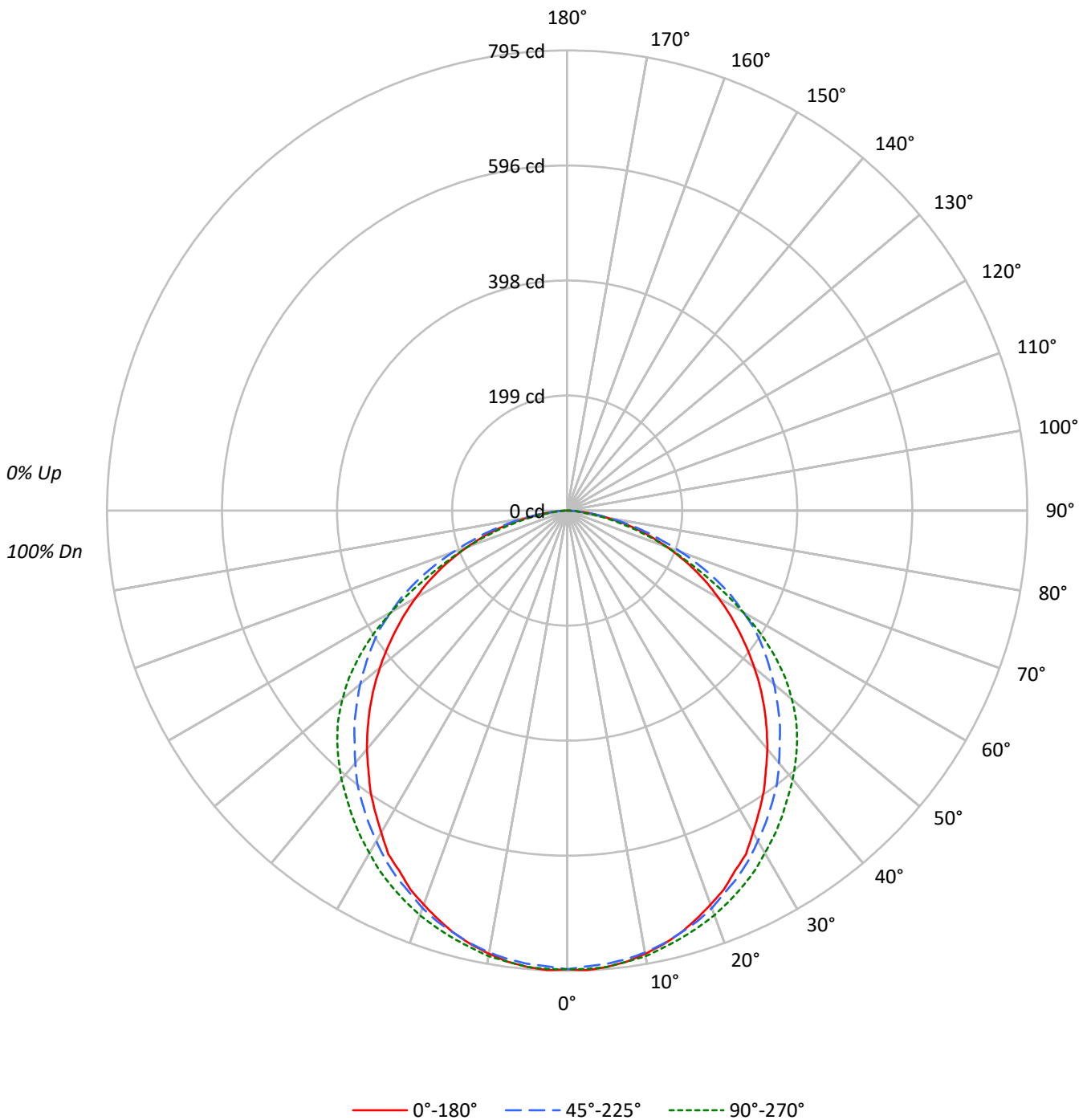
Lumens per Lamp: N/A
Luminaire Lumens: 2196.0 lumens
Efficiency: N/A
Efficacy: 107.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 20.5
Input Voltage (V): 120
Input Current (A_{in}): 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: P233075

CATALOG NUMBER: FCB-12-4-LD4-25-40-UNV-EDD1-WDP12

Luminous Intensity Polar Plot





TEST NUMBER: P233075

CATALOG NUMBER: FCB-12-4-LD4-25-40-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	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°	2133	2133	2133
5°	2138	2123	2138
10°	2124	2118	2136
15°	2105	2105	2129
20°	2074	2093	2130
25°	2038	2073	2128
30°	1995	2049	2123
35°	1945	2027	2123
40°	1890	2001	2130
45°	1834	1978	2138
50°	1768	1953	2121
55°	1696	1935	2052
60°	1625	1893	1888
65°	1551	1813	1654
70°	1440	1652	1431
75°	1306	1441	1182
80°	1040	1141	872
85°	735	636	500



TEST NUMBER: P233075

CATALOG NUMBER: FCB-12-4-LD4-25-40-UNV-EDD1-WDP12

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.0	3.4
10°-20°	214.2	9.8
20°-30°	323.0	14.7
30°-40°	387.1	17.6
40°-50°	401.8	18.3
50°-60°	362.4	16.5
60°-70°	264.3	12.0
70°-80°	138.7	6.3
80°-90°	29.6	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°	612.2	27.9
0°-40°	999.3	45.5
0°-60°	1763.4	80.3
0°-90°	2196.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2196.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	792	792	792	792	792	
5°	791	789	786	791	791	75
15°	756	756	756	764	764	213
25°	686	690	698	713	717	317
35°	592	599	617	640	646	370
45°	482	492	520	551	562	371
55°	362	375	412	440	437	324
65°	244	258	285	274	260	241
75°	126	143	139	120	114	132
85°	24	29	21	17	16	30
90°	0	0	0	0	0	



TEST NUMBER: P233075

CATALOG NUMBER: FCB-12-4-LD4-25-40-UNV-EDD1-WDP12

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	792.5	792.5	792.5	792.5	792.5
2.5°	794.6	792.5	788.1	792.5	792.5
5°	791.4	789.2	786.0	791.4	791.4
7.5°	786.0	783.8	781.6	787.1	786.0
10°	777.3	776.2	775.2	781.6	781.6
12.5°	767.6	767.6	766.5	774.1	773.0
15°	755.7	755.7	755.7	764.3	764.3
17.5°	740.5	742.7	744.8	754.6	754.6
20°	724.3	726.4	730.8	742.7	743.8
22.5°	708.0	709.1	713.4	727.5	730.8
25°	686.4	689.6	698.3	713.4	716.7
27.5°	669.1	670.1	679.9	697.2	701.5
30°	642.0	649.6	659.3	678.8	683.1
32.5°	617.1	623.6	638.7	659.3	665.8
35°	592.2	598.7	617.1	639.8	646.3
37.5°	564.0	573.8	595.4	618.2	625.8
40°	538.1	546.7	569.5	597.6	606.3
42.5°	509.9	518.6	543.5	574.9	584.6
45°	481.8	491.5	519.7	551.1	561.9
47.5°	452.5	463.4	492.6	527.2	537.0
50°	422.2	434.1	466.6	502.3	506.7
52.5°	391.9	404.9	439.5	470.9	475.3
55°	361.6	374.6	412.5	439.5	437.4
57.5°	332.4	346.4	385.4	399.5	397.3
60°	302.0	317.2	351.8	358.3	350.8
62.5°	273.9	288.0	320.5	315.0	305.3
65°	243.6	257.7	284.7	273.9	259.8
67.5°	213.3	230.6	247.9	229.5	218.7
70°	183.0	202.4	210.0	191.6	181.9
72.5°	153.7	174.3	172.1	153.7	147.2
75°	125.6	142.9	138.6	120.2	113.7
77.5°	95.3	114.8	105.0	89.9	84.4
80°	67.1	84.4	73.6	60.6	56.3
82.5°	44.4	56.3	45.5	35.7	32.5
85°	23.8	29.2	20.6	17.3	16.2
87.5°	9.7	8.7	7.6	7.6	6.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)