

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: P233027

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233027
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
Description: FAILSAFE 1X4 FCB LED TROFFER
OPAL DIFFUSER, NO LENS
Light Source: (84)4000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

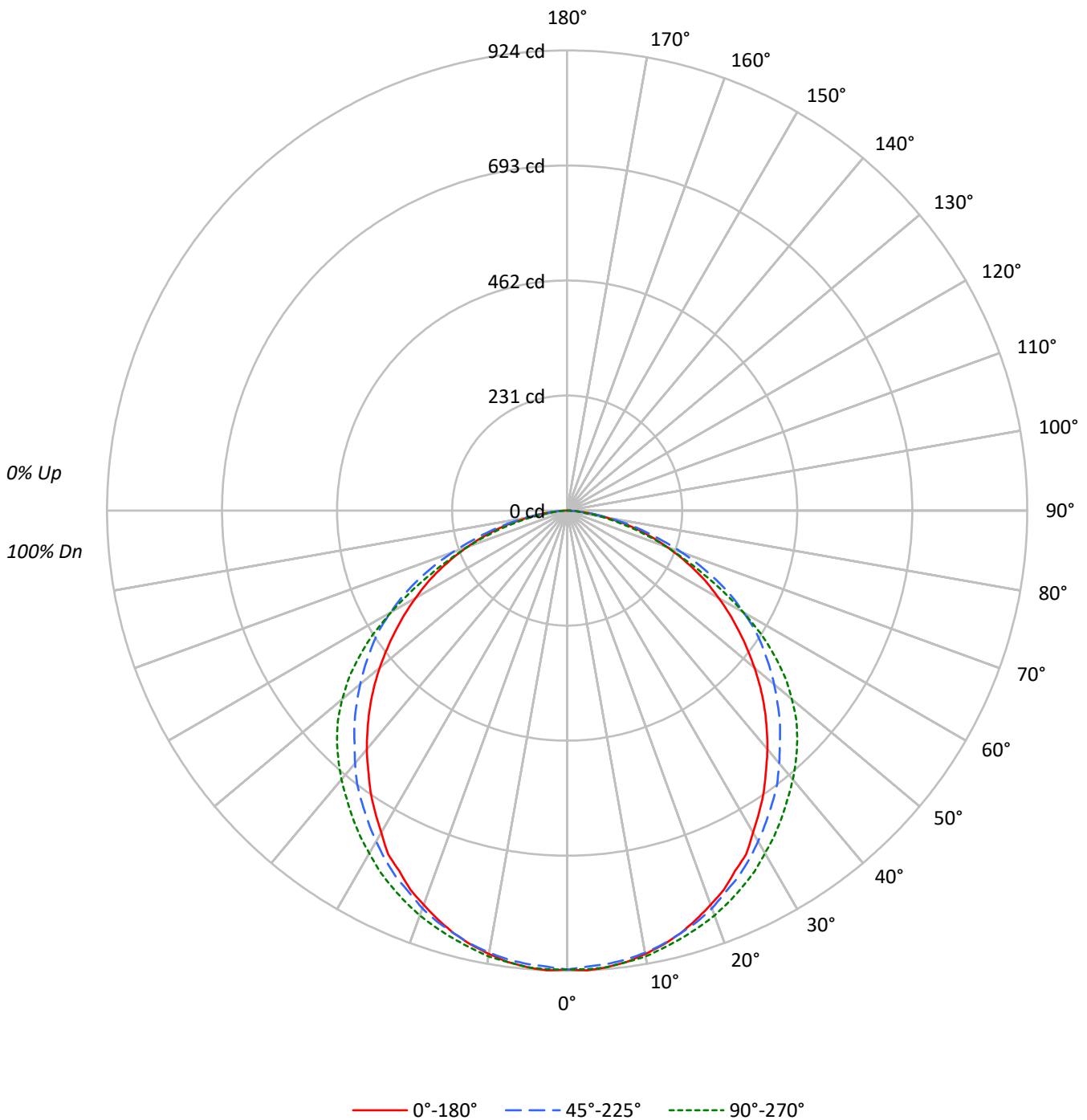
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2554.0 lumens
Efficiency: N/A
Efficacy: 124.6 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): 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: P233027
CATALOG NUMBER: FCB-12-4-LD4-25-40-UNV-EDD1

Luminous Intensity Polar Plot





TEST NUMBER: P233027

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

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°	2480	2480	2480
5°	2486	2469	2486
10°	2470	2463	2484
15°	2449	2449	2476
20°	2412	2434	2477
25°	2370	2411	2475
30°	2320	2383	2469
35°	2262	2358	2469
40°	2198	2327	2477
45°	2132	2300	2487
50°	2056	2272	2467
55°	1973	2251	2387
60°	1891	2202	2196
65°	1804	2108	1924
70°	1674	1922	1664
75°	1519	1676	1375
80°	1210	1327	1015
85°	855	738	584



TEST NUMBER: P233027

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.2	3.4
10°-20°	249.1	9.8
20°-30°	375.6	14.7
30°-40°	450.2	17.6
40°-50°	467.2	18.3
50°-60°	421.4	16.5
60°-70°	307.4	12.0
70°-80°	161.3	6.3
80°-90°	34.4	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°	712.0	27.9
0°-40°	1162.2	45.5
0°-60°	2050.9	80.3
0°-90°	2554.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2554.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	922	922	922	922	922	
5°	920	918	914	920	920	87
15°	879	879	879	889	889	248
25°	798	802	812	830	834	368
35°	689	696	718	744	752	430
45°	560	572	604	641	654	432
55°	420	436	480	511	509	377
65°	283	300	331	319	302	280
75°	146	166	161	140	132	153
85°	28	34	24	20	19	35
90°	0	0	0	0	0	



TEST NUMBER: P233027

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	921.7	921.7	921.7	921.7	921.7
2.5°	924.2	921.7	916.6	921.7	921.7
5°	920.4	917.9	914.1	920.4	920.4
7.5°	914.1	911.6	909.1	915.4	914.1
10°	904.0	902.8	901.5	909.1	909.1
12.5°	892.7	892.7	891.4	900.3	899.0
15°	878.9	878.9	878.9	888.9	888.9
17.5°	861.2	863.7	866.3	877.6	877.6
20°	842.3	844.9	849.9	863.7	865.0
22.5°	823.5	824.7	829.8	846.1	849.9
25°	798.3	802.1	812.1	829.8	833.5
27.5°	778.1	779.4	790.7	810.9	815.9
30°	746.7	755.5	766.8	789.5	794.5
32.5°	717.7	725.2	742.9	766.8	774.4
35°	688.7	696.3	717.7	744.1	751.7
37.5°	656.0	667.3	692.5	719.0	727.8
40°	625.8	635.8	662.3	695.0	705.1
42.5°	593.0	603.1	632.1	668.6	679.9
45°	560.3	571.6	604.4	640.9	653.5
47.5°	526.3	538.9	572.9	613.2	624.5
50°	491.1	504.9	542.7	584.2	589.3
52.5°	455.8	470.9	511.2	547.7	552.7
55°	420.5	435.7	479.7	511.2	508.7
57.5°	386.5	402.9	448.2	464.6	462.1
60°	351.3	368.9	409.2	416.8	408.0
62.5°	318.6	334.9	372.7	366.4	355.1
65°	283.3	299.7	331.1	318.6	302.2
67.5°	248.0	268.2	288.3	266.9	254.3
70°	212.8	235.5	244.3	222.9	211.5
72.5°	178.8	202.7	200.2	178.8	171.2
75°	146.1	166.2	161.2	139.8	132.2
77.5°	110.8	133.5	122.1	104.5	98.2
80°	78.1	98.2	85.6	70.5	65.5
82.5°	51.6	65.5	52.9	41.6	37.8
85°	27.7	34.0	23.9	20.1	18.9
87.5°	11.3	10.1	8.8	8.8	7.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)