

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: P233188

Luminaire Tested: **FCB-24-4-LD4-30-50-UNV-EDD1-WDP6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233188
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25697)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FCB-24-4-LD4-30-50-UNV-EDD1-WDP6
Description: FAILSAFE 2X4 FCB LED TROFFER
.060 POLYCARBONATE LENS
Light Source: (168)5000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

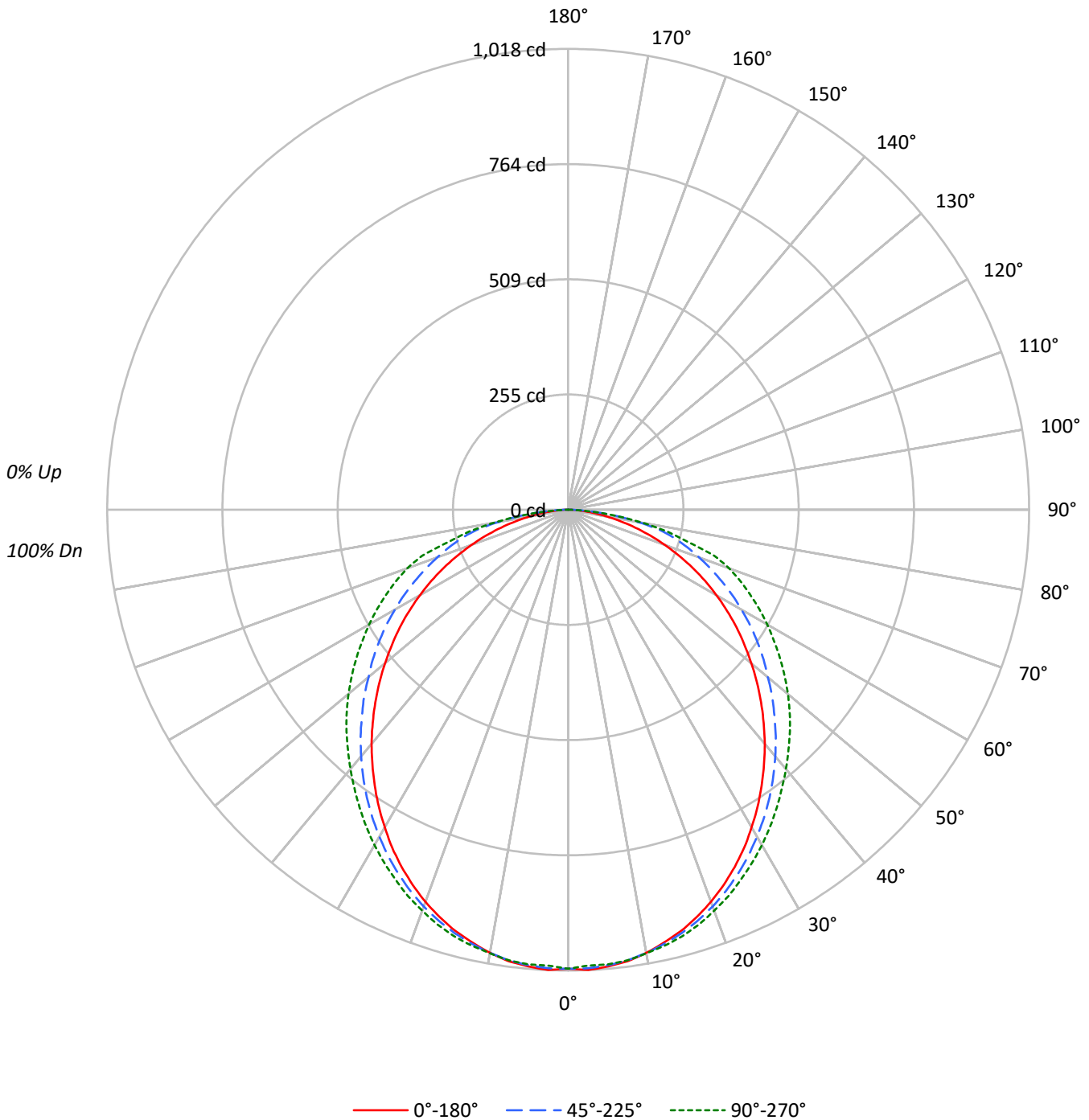
Lumens per Lamp: N/A
Luminaire Lumens: 2889.0 lumens
Efficiency: N/A
Efficacy: 133.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
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: P233188

CATALOG NUMBER: FCB-24-4-LD4-30-50-UNV-EDD1-WDP6

Luminous Intensity Polar Plot





TEST NUMBER: P233188

CATALOG NUMBER: FCB-24-4-LD4-30-50-UNV-EDD1-WDP6

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	103	99	95	106	101	97	93	97	93	90		93	90	88		89	87	85	83
2	98	90	83	77	95	88	81	76	84	79	74		81	76	72		78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62		71	65	61		68	64	60	57
4	82	69	60	54	79	68	60	53	66	58	52		63	57	52		61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45		57	50	45		55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40		51	44	39		50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35		47	40	35		45	39	35	32
8	60	46	38	32	58	45	37	32	44	37	31		43	36	31		42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28		40	33	28		38	32	28	26
10	52	39	31	26	51	39	31	26	38	31	26		37	30	25		36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1364	1364	1364
5°	1368	1364	1361
10°	1358	1358	1360
15°	1342	1349	1359
20°	1320	1336	1350
25°	1292	1317	1339
30°	1259	1296	1329
35°	1223	1274	1319
40°	1187	1249	1313
45°	1146	1225	1318
50°	1106	1205	1325
55°	1065	1197	1339
60°	1017	1190	1365
65°	964	1190	1411
70°	891	1210	1487
75°	797	1265	1414
80°	667	1211	1296
85°	503	931	886



TEST NUMBER: P233188

CATALOG NUMBER: FCB-24-4-LD4-30-50-UNV-EDD1-WDP6

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.8	3.3
10°-20°	272.7	9.4
20°-30°	407.7	14.1
30°-40°	483.6	16.7
40°-50°	497.8	17.2
50°-60°	456.6	15.8
60°-70°	369.2	12.8
70°-80°	239.6	8.3
80°-90°	66.1	2.3
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°	776.1	26.9
0°-40°	1259.7	43.6
0°-60°	2214.1	76.6
0°-90°	2889.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2889.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1014	1014	1014	1014	1014	
5°	1013	1006	1010	1009	1008	96
15°	963	960	968	972	975	271
25°	870	871	887	895	902	401
35°	745	751	776	792	803	466
45°	602	612	644	675	692	465
55°	454	468	510	552	571	406
65°	303	320	374	423	443	299
75°	153	182	243	272	272	163
85°	33	55	60	58	57	40
90°	0	0	0	0	0	



TEST NUMBER: P233188

CATALOG NUMBER: FCB-24-4-LD4-30-50-UNV-EDD1-WDP6

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1013.9	1013.9	1013.9	1013.9	1013.9
2.5°	1017.8	1009.9	1013.9	1012.9	1008.0
5°	1012.9	1006.0	1009.9	1008.9	1008.0
7.5°	1006.0	999.1	1004.0	1003.0	1004.0
10°	994.1	988.2	994.1	995.1	995.1
12.5°	979.3	974.3	982.2	984.2	986.2
15°	963.4	959.5	968.4	972.3	975.3
17.5°	943.7	940.7	951.6	956.5	960.5
20°	921.9	920.9	932.8	937.7	942.7
22.5°	897.2	897.2	911.0	917.0	923.9
25°	870.5	871.4	887.3	895.2	902.1
27.5°	841.8	842.8	861.6	871.4	879.4
30°	810.1	814.1	833.9	846.7	855.6
32.5°	778.5	783.4	805.2	820.0	829.9
35°	744.8	750.8	775.5	792.3	803.2
37.5°	710.2	717.1	743.8	762.6	775.5
40°	675.6	683.5	711.2	733.0	747.8
42.5°	639.0	647.9	678.6	704.3	720.1
45°	602.4	612.3	643.9	674.6	692.4
47.5°	565.8	577.7	611.3	644.9	663.7
50°	528.2	540.1	575.7	614.3	633.1
52.5°	490.6	504.5	544.0	583.6	602.4
55°	454.0	467.9	510.4	552.0	570.7
57.5°	416.4	430.3	476.8	520.3	539.1
60°	377.9	393.7	442.2	486.7	507.4
62.5°	340.3	357.1	408.5	456.0	475.8
65°	302.7	320.5	373.9	423.4	443.1
67.5°	264.1	284.9	340.3	390.7	411.5
70°	226.5	249.3	307.6	358.1	377.9
72.5°	189.9	214.6	275.0	326.4	338.3
75°	153.3	182.0	243.3	272.0	272.0
77.5°	118.7	150.4	207.7	218.6	224.5
80°	86.1	120.7	156.3	169.1	167.2
82.5°	57.4	92.0	111.8	111.8	108.8
85°	32.6	55.4	60.3	58.4	57.4
87.5°	13.8	20.8	18.8	14.8	12.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)