

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: P233167

Luminaire Tested: **FCB-24-4-LD4-30-40-UNV-EDD1-WDA6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233167
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-LD4-30-40-UNV-EDD1-WDA6
Description: FAILSAFE 2X4 FCB LED TROFFER
.060 ACRYLIC LENS
Light Source: (168)4000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

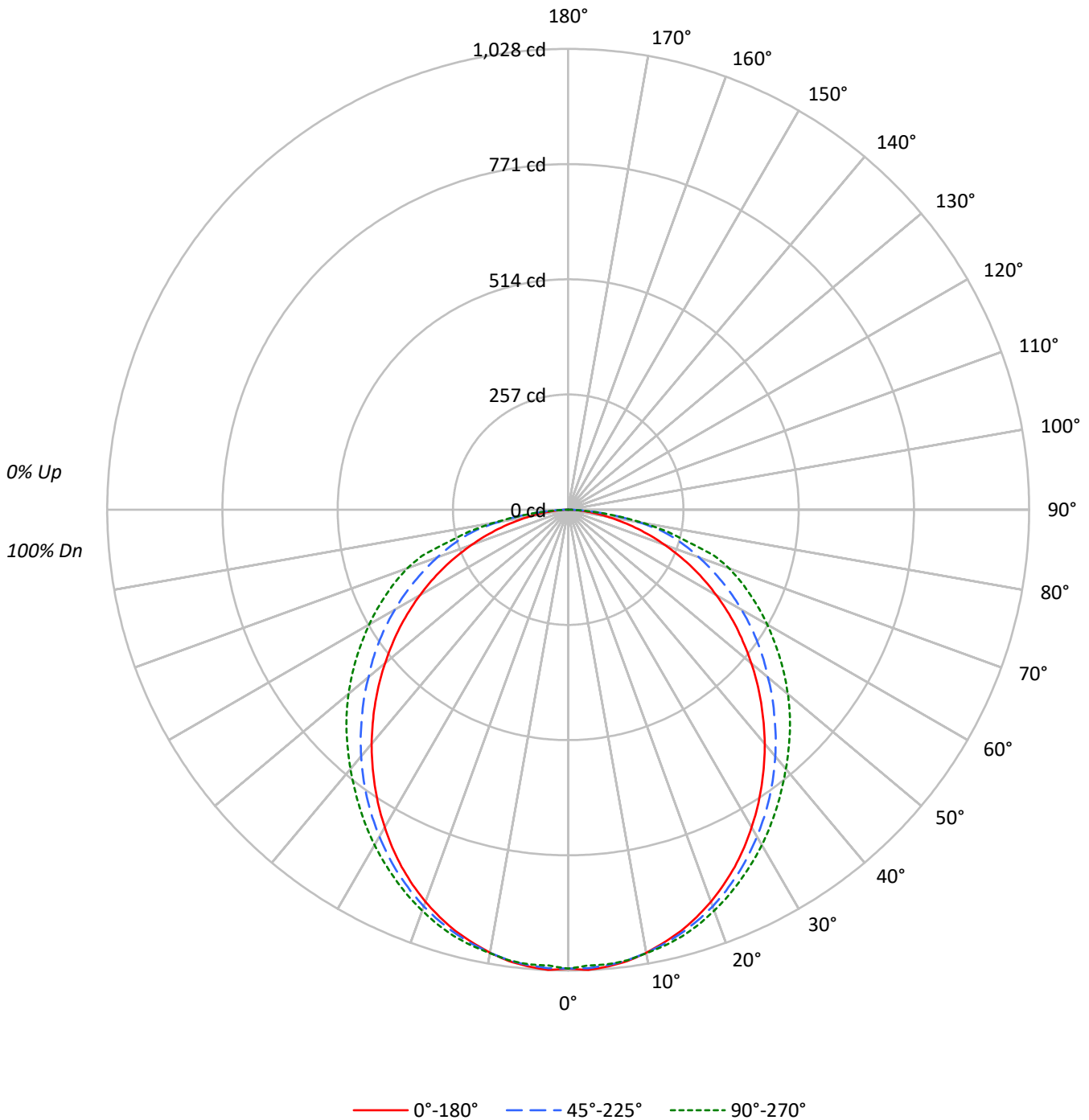
Lumens per Lamp: N/A
Luminaire Lumens: 2917.0 lumens
Efficiency: N/A
Efficacy: 135.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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: P233167

CATALOG NUMBER: FCB-24-4-LD4-30-40-UNV-EDD1-WDA6

Luminous Intensity Polar Plot





TEST NUMBER: P233167

CATALOG NUMBER: FCB-24-4-LD4-30-40-UNV-EDD1-WDA6

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°	1377	1377	1377
5°	1381	1377	1375
10°	1371	1371	1373
15°	1355	1362	1372
20°	1333	1349	1363
25°	1305	1330	1352
30°	1271	1308	1342
35°	1235	1286	1332
40°	1198	1261	1326
45°	1157	1237	1330
50°	1116	1217	1338
55°	1075	1209	1352
60°	1027	1201	1379
65°	973	1202	1424
70°	900	1222	1501
75°	805	1277	1428
80°	673	1223	1308
85°	509	940	894



TEST NUMBER: P233167

CATALOG NUMBER: FCB-24-4-LD4-30-40-UNV-EDD1-WDA6

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.7	3.3
10°-20°	275.3	9.4
20°-30°	411.6	14.1
30°-40°	488.3	16.7
40°-50°	502.6	17.2
50°-60°	461.1	15.8
60°-70°	372.8	12.8
70°-80°	241.9	8.3
80°-90°	66.7	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°	783.7	26.9
0°-40°	1272.0	43.6
0°-60°	2235.6	76.6
0°-90°	2917.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2917.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1024	1024	1024	1024	1024	
5°	1023	1016	1020	1019	1018	97
15°	973	969	978	982	985	274
25°	879	880	896	904	911	405
35°	752	758	783	800	811	470
45°	608	618	650	681	699	469
55°	458	472	515	557	576	410
65°	306	324	378	428	447	302
75°	155	184	246	275	275	165
85°	33	56	61	59	58	40
90°	0	0	0	0	0	



TEST NUMBER: P233167

CATALOG NUMBER: FCB-24-4-LD4-30-40-UNV-EDD1-WDA6

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1023.7	1023.7	1023.7	1023.7	1023.7
2.5°	1027.7	1019.7	1023.7	1022.7	1017.7
5°	1022.7	1015.7	1019.7	1018.7	1017.7
7.5°	1015.7	1008.7	1013.7	1012.7	1013.7
10°	1003.7	997.7	1003.7	1004.7	1004.7
12.5°	988.8	983.8	991.8	993.8	995.8
15°	972.8	968.8	977.8	981.8	984.8
17.5°	952.8	949.8	960.8	965.8	969.8
20°	930.8	929.8	941.8	946.8	951.8
22.5°	905.9	905.9	919.8	925.8	932.8
25°	878.9	879.9	895.9	903.9	910.9
27.5°	849.9	850.9	869.9	879.9	887.9
30°	818.0	822.0	841.9	854.9	863.9
32.5°	786.0	791.0	813.0	828.0	837.9
35°	752.1	758.0	783.0	800.0	811.0
37.5°	717.1	724.1	751.1	770.0	783.0
40°	682.1	690.1	718.1	740.1	755.1
42.5°	645.2	654.2	685.1	711.1	727.1
45°	608.2	618.2	650.2	681.1	699.1
47.5°	571.3	583.3	617.2	651.2	670.2
50°	533.3	545.3	581.3	620.2	639.2
52.5°	495.4	509.4	549.3	589.3	608.2
55°	458.4	472.4	515.4	557.3	576.3
57.5°	420.5	434.5	481.4	525.3	544.3
60°	381.5	397.5	446.4	491.4	512.4
62.5°	343.6	360.5	412.5	460.4	480.4
65°	305.6	323.6	377.5	427.5	447.4
67.5°	266.7	287.6	343.6	394.5	415.5
70°	228.7	251.7	310.6	361.5	381.5
72.5°	191.8	216.7	277.7	329.6	341.6
75°	154.8	183.8	245.7	274.7	274.7
77.5°	119.8	151.8	209.7	220.7	226.7
80°	86.9	121.8	157.8	170.8	168.8
82.5°	57.9	92.9	112.9	112.9	109.9
85°	33.0	55.9	60.9	58.9	57.9
87.5°	14.0	21.0	19.0	15.0	13.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)