

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: P233166

Luminaire Tested: **FCB-24-4-LD4-30-35-UNV-EDD1-WDA6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233166
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-LD4-30-35-UNV-EDD1-WDA6
Description: FAILSAFE 2X4 FCB LED TROFFER
.060 ACRYLIC LENS
Light Source: (168)3500K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

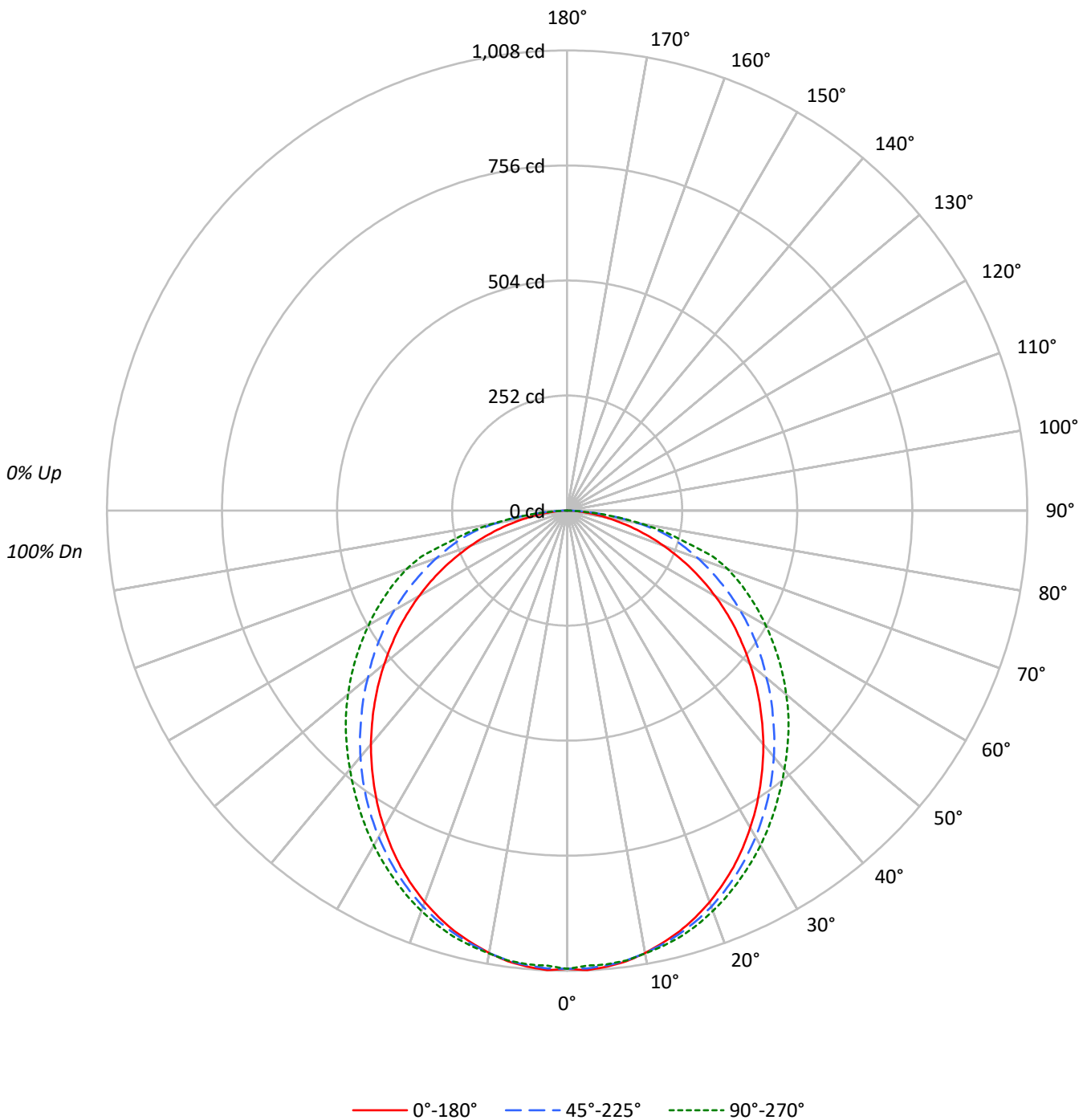
Lumens per Lamp: N/A
Luminaire Lumens: 2860.0 lumens
Efficiency: N/A
Efficacy: 132.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
Input Voltage (V): 120
Input Current (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: P233166

CATALOG NUMBER: FCB-24-4-LD4-30-35-UNV-EDD1-WDA6

Luminous Intensity Polar Plot





TEST NUMBER: P233166

CATALOG NUMBER: FCB-24-4-LD4-30-35-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°	1350	1350	1350
5°	1354	1350	1348
10°	1345	1345	1346
15°	1329	1335	1345
20°	1307	1322	1336
25°	1279	1304	1326
30°	1246	1283	1316
35°	1211	1261	1306
40°	1175	1237	1300
45°	1135	1213	1304
50°	1095	1193	1312
55°	1054	1185	1325
60°	1007	1178	1352
65°	954	1178	1397
70°	882	1198	1472
75°	789	1252	1400
80°	660	1199	1282
85°	499	922	877



TEST NUMBER: P233166

CATALOG NUMBER: FCB-24-4-LD4-30-35-UNV-EDD1-WDA6

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.8	3.3
10°-20°	269.9	9.4
20°-30°	403.6	14.1
30°-40°	478.7	16.7
40°-50°	492.8	17.2
50°-60°	452.0	15.8
60°-70°	365.5	12.8
70°-80°	237.2	8.3
80°-90°	65.4	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°	768.4	26.9
0°-40°	1247.1	43.6
0°-60°	2191.9	76.6
0°-90°	2860.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2860.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1004	1004	1004	1004	1004	
5°	1003	996	1000	999	998	95
15°	954	950	959	963	966	269
25°	862	863	878	886	893	397
35°	737	743	768	784	795	461
45°	596	606	638	668	686	460
55°	450	463	505	546	565	402
65°	300	317	370	419	439	296
75°	152	180	241	269	269	161
85°	32	55	60	58	57	40
90°	0	0	0	0	0	



TEST NUMBER: P233166

CATALOG NUMBER: FCB-24-4-LD4-30-35-UNV-EDD1-WDA6

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1003.7	1003.7	1003.7	1003.7	1003.7
2.5°	1007.6	999.8	1003.7	1002.7	997.8
5°	1002.7	995.9	999.8	998.8	997.8
7.5°	995.9	989.0	993.9	992.9	993.9
10°	984.1	978.3	984.1	985.1	985.1
12.5°	969.4	964.5	972.4	974.3	976.3
15°	953.8	949.9	958.7	962.6	965.5
17.5°	934.2	931.2	942.0	946.9	950.8
20°	912.6	911.7	923.4	928.3	933.2
22.5°	888.2	888.2	901.9	907.7	914.6
25°	861.7	862.7	878.4	886.2	893.1
27.5°	833.3	834.3	852.9	862.7	870.5
30°	802.0	805.9	825.5	838.2	847.0
32.5°	770.7	775.6	797.1	811.8	821.6
35°	737.4	743.2	767.7	784.4	795.1
37.5°	703.1	709.9	736.4	755.0	767.7
40°	668.8	676.6	704.1	725.6	740.3
42.5°	632.6	641.4	671.8	697.2	712.9
45°	596.4	606.1	637.5	667.8	685.5
47.5°	560.1	571.9	605.2	638.5	657.1
50°	522.9	534.7	569.9	608.1	626.7
52.5°	485.7	499.4	538.6	577.7	596.4
55°	449.5	463.2	505.3	546.4	565.0
57.5°	412.3	426.0	472.0	515.1	533.7
60°	374.1	389.7	437.7	481.8	502.3
62.5°	336.9	353.5	404.4	451.4	471.0
65°	299.6	317.3	370.1	419.1	438.7
67.5°	261.5	282.0	336.9	386.8	407.4
70°	224.2	246.8	304.5	354.5	374.1
72.5°	188.0	212.5	272.2	323.1	334.9
75°	151.8	180.2	240.9	269.3	269.3
77.5°	117.5	148.8	205.6	216.4	222.3
80°	85.2	119.5	154.7	167.4	165.5
82.5°	56.8	91.1	110.7	110.7	107.7
85°	32.3	54.8	59.7	57.8	56.8
87.5°	13.7	20.6	18.6	14.7	12.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)