

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: P233186

Luminaire Tested: **FCB-24-4-LD4-30-35-UNV-EDD1-WDP6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233186
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-WDP6
Description: FAILSAFE 2X4 FCB LED TROFFER
.060 POLYCARBONATE LENS
Light Source: (168)3500K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

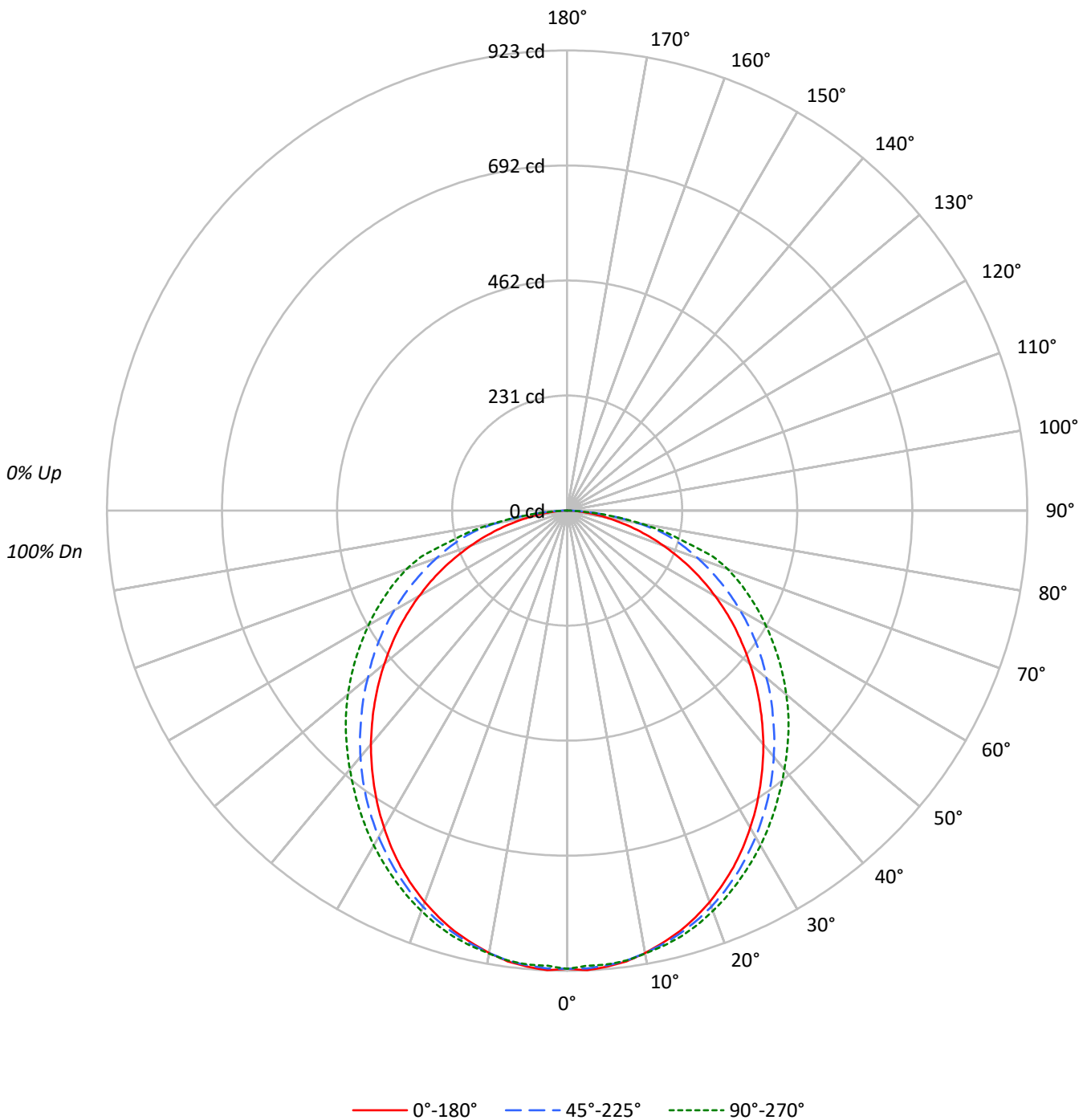
Lumens per Lamp: N/A
Luminaire Lumens: 2619.0 lumens
Efficiency: N/A
Efficacy: 121.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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

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Luminous Intensity Polar Plot





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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°	1237	1237	1237
5°	1240	1237	1234
10°	1231	1231	1232
15°	1217	1223	1232
20°	1197	1211	1224
25°	1171	1194	1214
30°	1141	1174	1205
35°	1109	1155	1196
40°	1076	1132	1191
45°	1039	1111	1194
50°	1002	1092	1201
55°	966	1085	1214
60°	922	1079	1238
65°	874	1079	1279
70°	808	1097	1347
75°	723	1147	1282
80°	604	1098	1174
85°	457	844	803



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.9	3.3
10°-20°	247.2	9.4
20°-30°	369.6	14.1
30°-40°	438.4	16.7
40°-50°	451.2	17.2
50°-60°	413.9	15.8
60°-70°	334.7	12.8
70°-80°	217.2	8.3
80°-90°	59.9	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°	703.6	26.9
0°-40°	1142.0	43.6
0°-60°	2007.2	76.6
0°-90°	2619.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2619.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	919	919	919	919	919	
5°	918	912	916	915	914	87
15°	873	870	878	882	884	246
25°	789	790	804	812	818	363
35°	675	681	703	718	728	422
45°	546	555	584	612	628	421
55°	412	424	463	500	517	368
65°	274	290	339	384	402	271
75°	139	165	221	247	247	148
85°	30	50	55	53	52	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	919.1	919.1	919.1	919.1	919.1
2.5°	922.7	915.5	919.1	918.2	913.8
5°	918.2	912.0	915.5	914.6	913.8
7.5°	912.0	905.7	910.2	909.3	910.2
10°	901.2	895.8	901.2	902.1	902.1
12.5°	887.7	883.3	890.4	892.2	894.0
15°	873.4	869.8	877.9	881.5	884.2
17.5°	855.5	852.8	862.6	867.1	870.7
20°	835.7	834.8	845.6	850.1	854.6
22.5°	813.3	813.3	825.9	831.3	837.5
25°	789.1	790.0	804.4	811.5	817.8
27.5°	763.1	764.0	781.0	790.0	797.2
30°	734.4	738.0	755.9	767.6	775.7
32.5°	705.7	710.2	729.9	743.4	752.3
35°	675.2	680.6	703.0	718.3	728.1
37.5°	643.8	650.1	674.3	691.4	703.0
40°	612.5	619.6	644.7	664.5	677.9
42.5°	579.3	587.3	615.1	638.5	652.8
45°	546.1	555.1	583.8	611.6	627.7
47.5°	512.9	523.7	554.2	584.7	601.7
50°	478.8	489.6	521.9	556.9	573.9
52.5°	444.8	457.3	493.2	529.1	546.1
55°	411.6	424.1	462.7	500.4	517.4
57.5°	377.5	390.1	432.2	471.7	488.7
60°	342.5	356.9	400.8	441.2	460.0
62.5°	308.5	323.7	370.3	413.4	431.3
65°	274.4	290.5	339.0	383.8	401.7
67.5°	239.4	258.3	308.5	354.2	373.0
70°	205.3	226.0	278.9	324.6	342.5
72.5°	172.2	194.6	249.3	295.9	306.7
75°	139.0	165.0	220.6	246.6	246.6
77.5°	107.6	136.3	188.3	198.2	203.6
80°	78.0	109.4	141.7	153.3	151.5
82.5°	52.0	83.4	101.3	101.3	98.6
85°	29.6	50.2	54.7	52.9	52.0
87.5°	12.6	18.8	17.0	13.5	11.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)