

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: P233185

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233185
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-LD4-30-30-UNV-EDD1-WDP6
Description: FAILSAFE 2X4 FCB LED TROFFER
.060 POLYCARBONATE LENS
Light Source: (168)3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

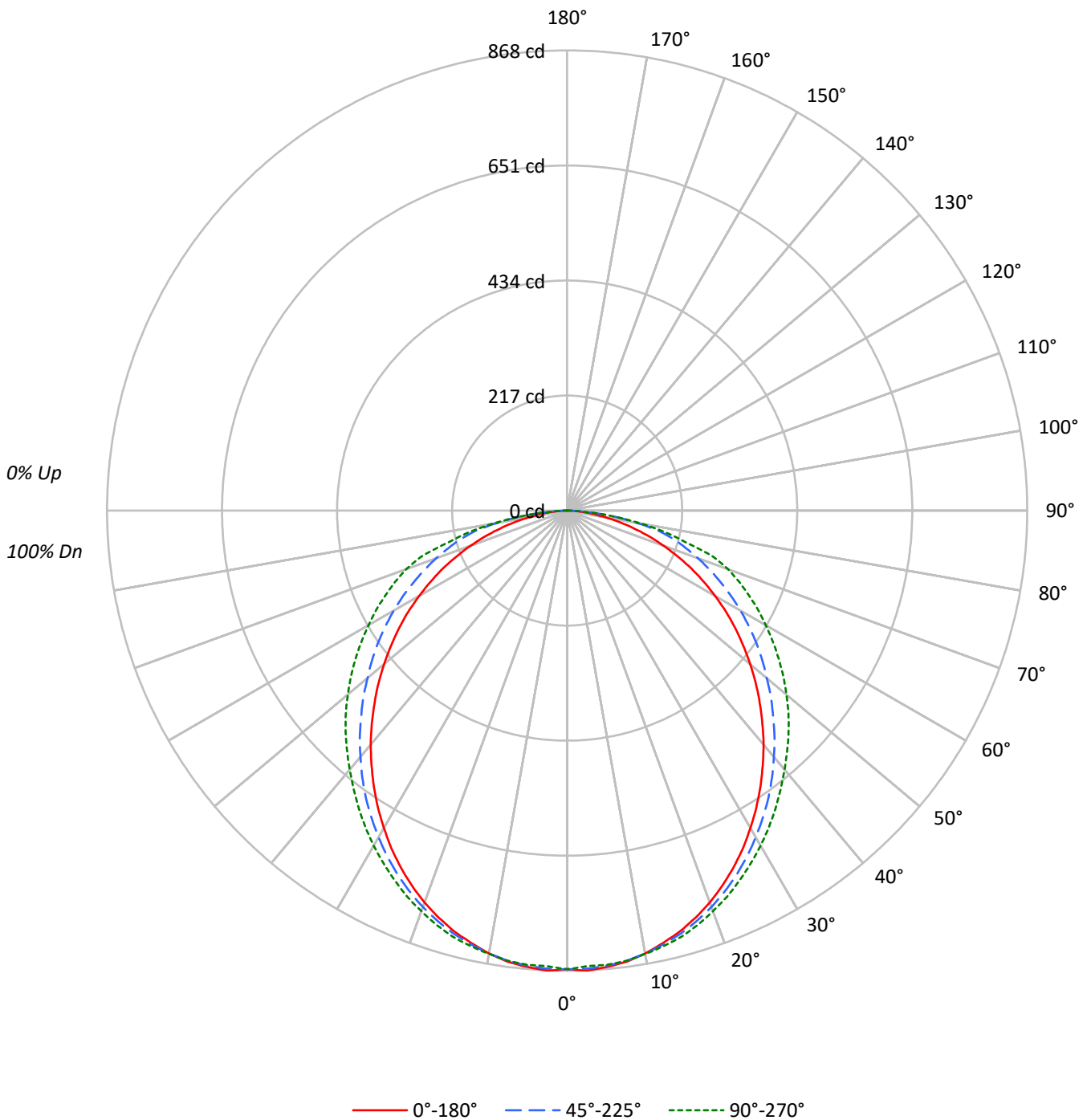
Lumens per Lamp: N/A
Luminaire Lumens: 2465.0 lumens
Efficiency: N/A
Efficacy: 114.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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: P233185

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

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°	1164	1164	1164
5°	1167	1164	1162
10°	1159	1159	1160
15°	1145	1151	1159
20°	1126	1140	1152
25°	1103	1124	1143
30°	1074	1105	1134
35°	1044	1087	1126
40°	1012	1066	1121
45°	978	1045	1124
50°	943	1028	1131
55°	909	1022	1142
60°	868	1015	1165
65°	822	1016	1204
70°	760	1033	1268
75°	680	1079	1207
80°	569	1033	1105
85°	431	795	756



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.7	3.3
10°-20°	232.7	9.4
20°-30°	347.8	14.1
30°-40°	412.6	16.7
40°-50°	424.7	17.2
50°-60°	389.6	15.8
60°-70°	315.0	12.8
70°-80°	204.4	8.3
80°-90°	56.4	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°	662.2	26.9
0°-40°	1074.9	43.6
0°-60°	1889.2	76.6
0°-90°	2465.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2465.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	865	865	865	865	865	
5°	864	858	862	861	860	82
15°	822	819	826	830	832	232
25°	743	744	757	764	770	342
35°	636	641	662	676	685	397
45°	514	522	549	576	591	397
55°	387	399	436	471	487	346
65°	258	274	319	361	378	255
75°	131	155	208	232	232	139
85°	28	47	52	50	49	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	865.1	865.1	865.1	865.1	865.1
2.5°	868.5	861.7	865.1	864.2	860.0
5°	864.2	858.3	861.7	860.9	860.0
7.5°	858.3	852.4	856.6	855.8	856.6
10°	848.2	843.1	848.2	849.1	849.1
12.5°	835.5	831.3	838.1	839.8	841.5
15°	822.0	818.7	826.3	829.6	832.2
17.5°	805.2	802.6	811.9	816.1	819.5
20°	786.6	785.8	795.9	800.1	804.3
22.5°	765.5	765.5	777.3	782.4	788.3
25°	742.7	743.6	757.1	763.8	769.7
27.5°	718.2	719.1	735.1	743.6	750.3
30°	691.2	694.6	711.5	722.5	730.0
32.5°	664.2	668.4	687.0	699.7	708.1
35°	635.5	640.6	661.7	676.0	685.3
37.5°	606.0	611.9	634.7	650.7	661.7
40°	576.4	583.2	606.8	625.4	638.1
42.5°	545.2	552.8	579.0	600.9	614.4
45°	514.0	522.4	549.4	575.6	590.8
47.5°	482.8	492.9	521.6	550.3	566.3
50°	450.7	460.8	491.2	524.1	540.2
52.5°	418.6	430.4	464.2	498.0	514.0
55°	387.4	399.2	435.5	470.9	487.0
57.5°	355.3	367.1	406.8	443.9	460.0
60°	322.4	335.9	377.3	415.2	433.0
62.5°	290.3	304.7	348.6	389.1	406.0
65°	258.3	273.5	319.0	361.2	378.1
67.5°	225.3	243.1	290.3	333.4	351.1
70°	193.3	212.7	262.5	305.5	322.4
72.5°	162.0	183.1	234.6	278.5	288.6
75°	130.8	155.3	207.6	232.1	232.1
77.5°	101.3	128.3	177.2	186.5	191.6
80°	73.4	103.0	133.3	144.3	142.6
82.5°	49.0	78.5	95.4	95.4	92.8
85°	27.9	47.3	51.5	49.8	49.0
87.5°	11.8	17.7	16.0	12.7	11.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)