

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: P233227

Luminaire Tested: **FCB-24-4-LD4-30-40-UNV-EDD1-WDP12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233227
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-WDP12
Description: FAILSAFE 2X4 FCB LED TROFFER
.125 POLYCARBONATE LENS
Light Source: (168)4000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

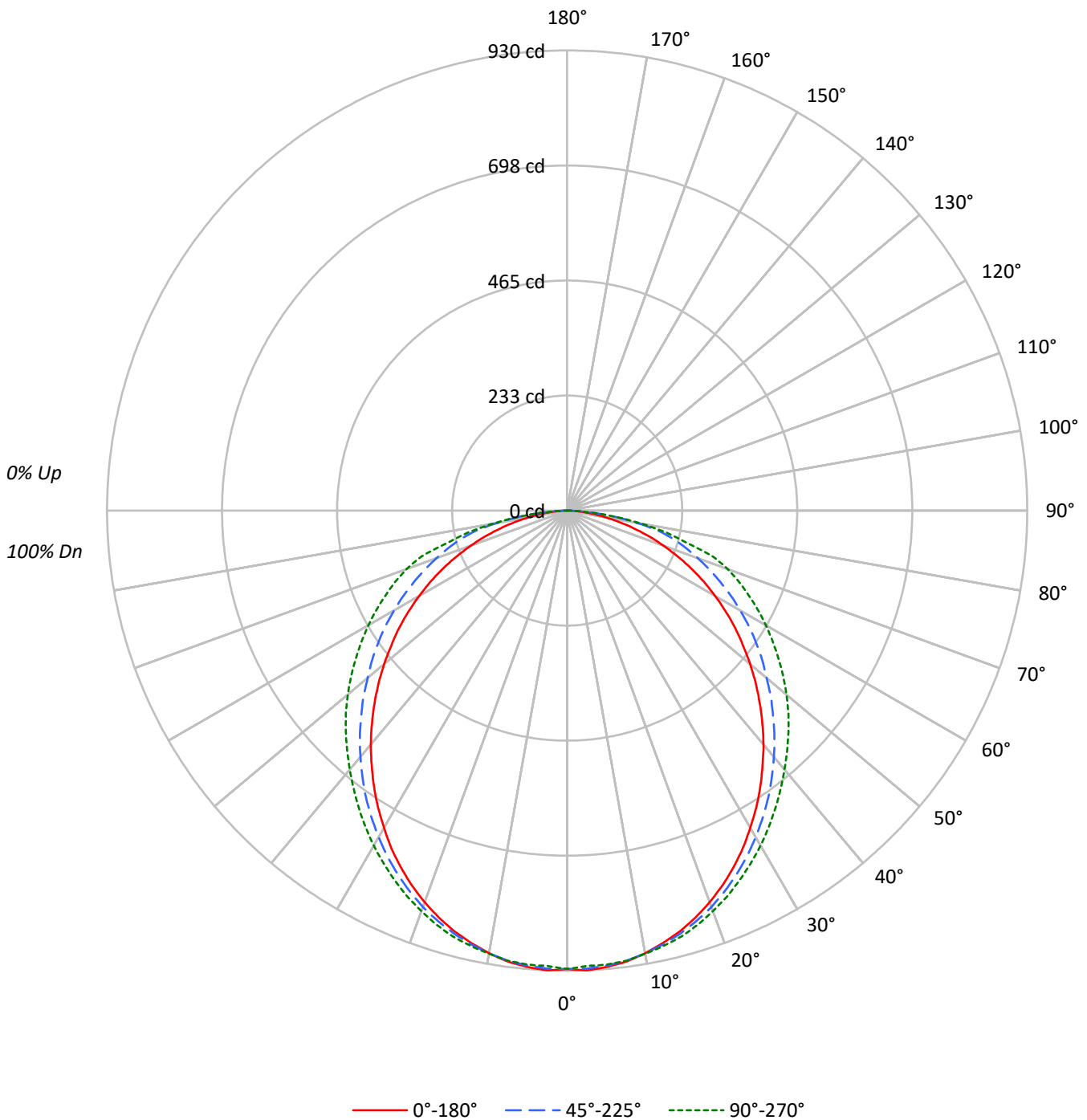
Lumens per Lamp: N/A
Luminaire Lumens: 2640.0 lumens
Efficiency: N/A
Efficacy: 122.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	1247	1247	1247
5°	1250	1246	1244
10°	1241	1241	1242
15°	1226	1233	1242
20°	1206	1221	1233
25°	1181	1204	1224
30°	1150	1184	1215
35°	1118	1164	1206
40°	1084	1141	1200
45°	1047	1120	1204
50°	1010	1101	1211
55°	973	1094	1224
60°	929	1087	1248
65°	881	1088	1289
70°	814	1106	1358
75°	728	1156	1292
80°	609	1106	1184
85°	460	851	809



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.6	3.3
10°-20°	249.2	9.4
20°-30°	372.5	14.1
30°-40°	441.9	16.7
40°-50°	454.8	17.2
50°-60°	417.3	15.8
60°-70°	337.4	12.8
70°-80°	219.0	8.3
80°-90°	60.4	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°	709.2	26.9
0°-40°	1151.2	43.6
0°-60°	2023.3	76.6
0°-90°	2640.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2640.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	926	926	926	926	926	
5°	926	919	923	922	921	88
15°	880	877	885	888	891	248
25°	795	796	811	818	824	366
35°	681	686	709	724	734	426
45°	550	560	588	616	633	425
55°	415	428	466	504	522	371
65°	277	293	342	387	405	273
75°	140	166	222	249	249	149
85°	30	51	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°	926.5	926.5	926.5	926.5	926.5
2.5°	930.1	922.9	926.5	925.6	921.1
5°	925.6	919.3	922.9	922.0	921.1
7.5°	919.3	912.9	917.5	916.6	917.5
10°	908.4	903.0	908.4	909.3	909.3
12.5°	894.9	890.3	897.6	899.4	901.2
15°	880.4	876.8	884.9	888.5	891.3
17.5°	862.3	859.6	869.6	874.1	877.7
20°	842.4	841.5	852.4	856.9	861.4
22.5°	819.8	819.8	832.5	837.9	844.2
25°	795.4	796.3	810.8	818.0	824.4
27.5°	769.2	770.1	787.3	796.3	803.6
30°	740.3	743.9	762.0	773.7	781.9
32.5°	711.4	715.9	735.8	749.3	758.4
35°	680.6	686.1	708.7	724.0	734.0
37.5°	649.0	655.3	679.7	696.9	708.7
40°	617.4	624.6	649.9	669.8	683.4
42.5°	583.9	592.1	620.1	643.6	658.0
45°	550.5	559.5	588.4	616.5	632.7
47.5°	517.0	527.9	558.6	589.3	606.5
50°	482.7	493.5	526.1	561.3	578.5
52.5°	448.3	461.0	497.1	533.3	550.5
55°	414.9	427.5	466.4	504.4	521.6
57.5°	380.5	393.2	435.7	475.5	492.6
60°	345.3	359.8	404.0	444.7	463.7
62.5°	310.9	326.3	373.3	416.7	434.8
65°	276.6	292.9	341.7	386.9	404.9
67.5°	241.3	260.3	310.9	357.0	376.0
70°	207.0	227.8	281.1	327.2	345.3
72.5°	173.5	196.1	251.3	298.3	309.1
75°	140.1	166.3	222.4	248.6	248.6
77.5°	108.5	137.4	189.8	199.8	205.2
80°	78.6	110.3	142.8	154.6	152.8
82.5°	52.4	84.1	102.1	102.1	99.4
85°	29.8	50.6	55.1	53.3	52.4
87.5°	12.7	19.0	17.2	13.6	11.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)