

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: P233226

Luminaire Tested: **FCB-24-4-LD4-30-35-UNV-EDD1-WDP12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233226
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-WDP12
Description: FAILSAFE 2X4 FCB LED TROFFER
.125 POLYCARBONATE LENS
Light Source: (168)3500K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

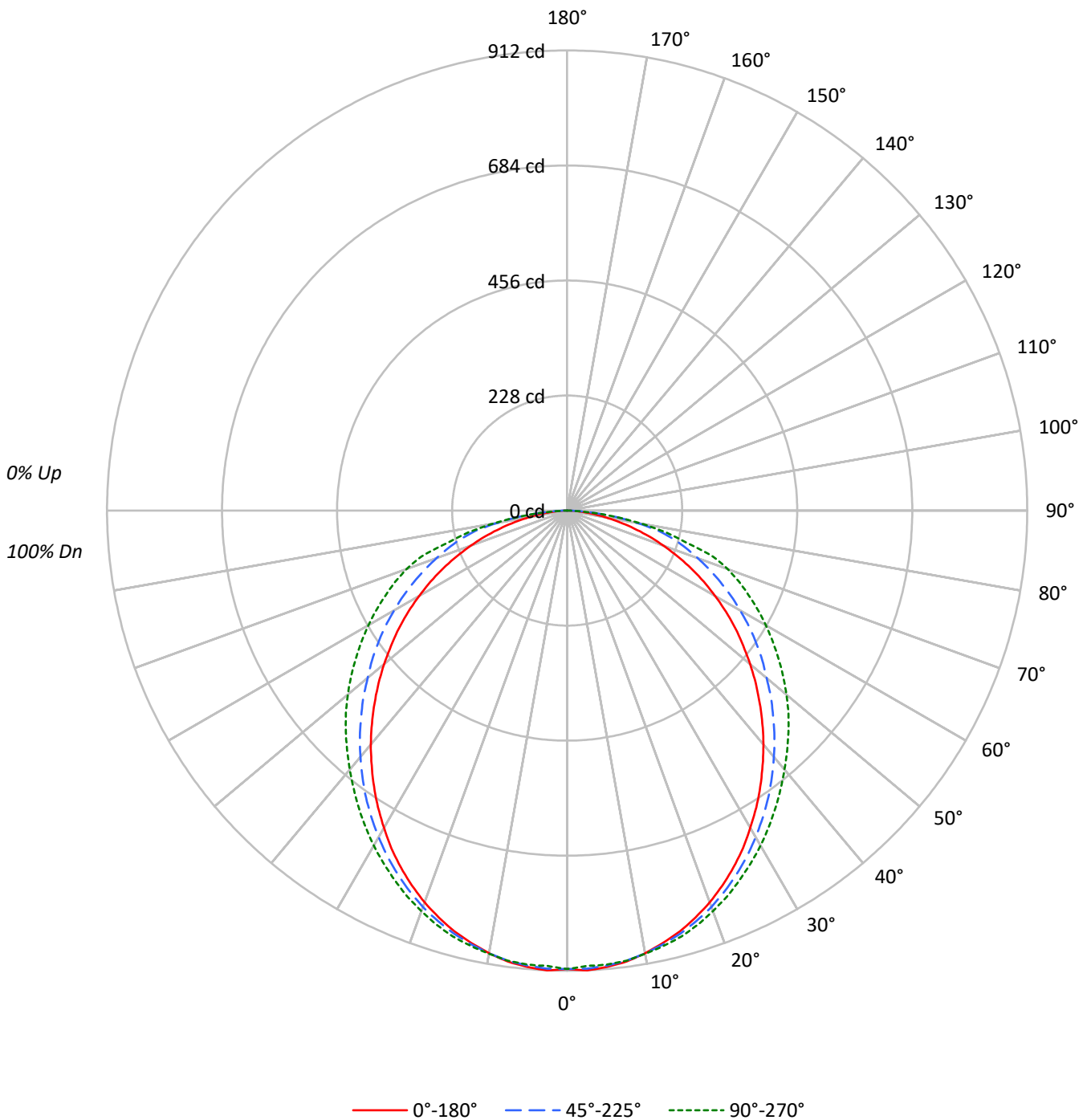
Lumens per Lamp: N/A
Luminaire Lumens: 2589.0 lumens
Efficiency: N/A
Efficacy: 119.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	1223	1223	1223
5°	1226	1222	1220
10°	1217	1217	1218
15°	1203	1209	1217
20°	1183	1197	1210
25°	1158	1180	1200
30°	1128	1161	1191
35°	1096	1142	1182
40°	1063	1120	1177
45°	1027	1098	1181
50°	991	1080	1187
55°	955	1073	1200
60°	911	1066	1224
65°	864	1067	1264
70°	799	1085	1332
75°	714	1134	1267
80°	597	1086	1161
85°	452	835	794



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.9	3.3
10°-20°	244.4	9.4
20°-30°	365.3	14.1
30°-40°	433.4	16.7
40°-50°	446.1	17.2
50°-60°	409.2	15.8
60°-70°	330.9	12.8
70°-80°	214.7	8.3
80°-90°	59.2	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°	695.5	26.9
0°-40°	1128.9	43.6
0°-60°	1984.2	76.6
0°-90°	2589.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2589.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	909	909	909	909	909	
5°	908	902	905	904	903	86
15°	863	860	868	871	874	243
25°	780	781	795	802	808	359
35°	668	673	695	710	720	417
45°	540	549	577	605	620	417
55°	407	419	457	495	512	364
65°	271	287	335	379	397	268
75°	137	163	218	244	244	146
85°	29	50	54	52	51	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	908.6	908.6	908.6	908.6	908.6
2.5°	912.2	905.1	908.6	907.7	903.3
5°	907.7	901.5	905.1	904.2	903.3
7.5°	901.5	895.3	899.7	898.9	899.7
10°	890.9	885.6	890.9	891.8	891.8
12.5°	877.6	873.1	880.2	882.0	883.8
15°	863.4	859.9	867.8	871.4	874.0
17.5°	845.7	843.0	852.8	857.2	860.7
20°	826.2	825.3	835.9	840.3	844.8
22.5°	804.0	804.0	816.4	821.7	827.9
25°	780.1	781.0	795.1	802.2	808.4
27.5°	754.4	755.2	772.1	781.0	788.0
30°	726.0	729.5	747.3	758.8	766.8
32.5°	697.6	702.1	721.6	734.9	743.7
35°	667.5	672.8	695.0	710.0	719.8
37.5°	636.5	642.7	666.6	683.4	695.0
40°	605.4	612.5	637.4	656.9	670.2
42.5°	572.6	580.6	608.1	631.1	645.3
45°	539.8	548.7	577.1	604.6	620.5
47.5°	507.0	517.7	547.8	578.0	594.8
50°	473.4	484.0	515.9	550.5	567.3
52.5°	439.7	452.1	487.5	523.0	539.8
55°	406.9	419.3	457.4	494.6	511.5
57.5°	373.2	385.6	427.3	466.3	483.1
60°	338.6	352.8	396.2	436.1	454.7
62.5°	304.9	320.0	366.1	408.7	426.4
65°	271.3	287.2	335.1	379.4	397.1
67.5°	236.7	255.3	304.9	350.1	368.8
70°	203.0	223.4	275.7	320.9	338.6
72.5°	170.2	192.4	246.4	292.5	303.2
75°	137.4	163.1	218.1	243.8	243.8
77.5°	106.4	134.7	186.2	195.9	201.2
80°	77.1	108.1	140.1	151.6	149.8
82.5°	51.4	82.4	100.2	100.2	97.5
85°	29.3	49.6	54.1	52.3	51.4
87.5°	12.4	18.6	16.8	13.3	11.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)