

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: P233206

Luminaire Tested: **FCB-24-4-LD4-30-35-UNV-EDD1-WDA12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233206
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-WDA12
Description: FAILSAFE 2X4 FCB LED TROFFER
.125 ACRYLIC LENS
Light Source: (168)3500K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

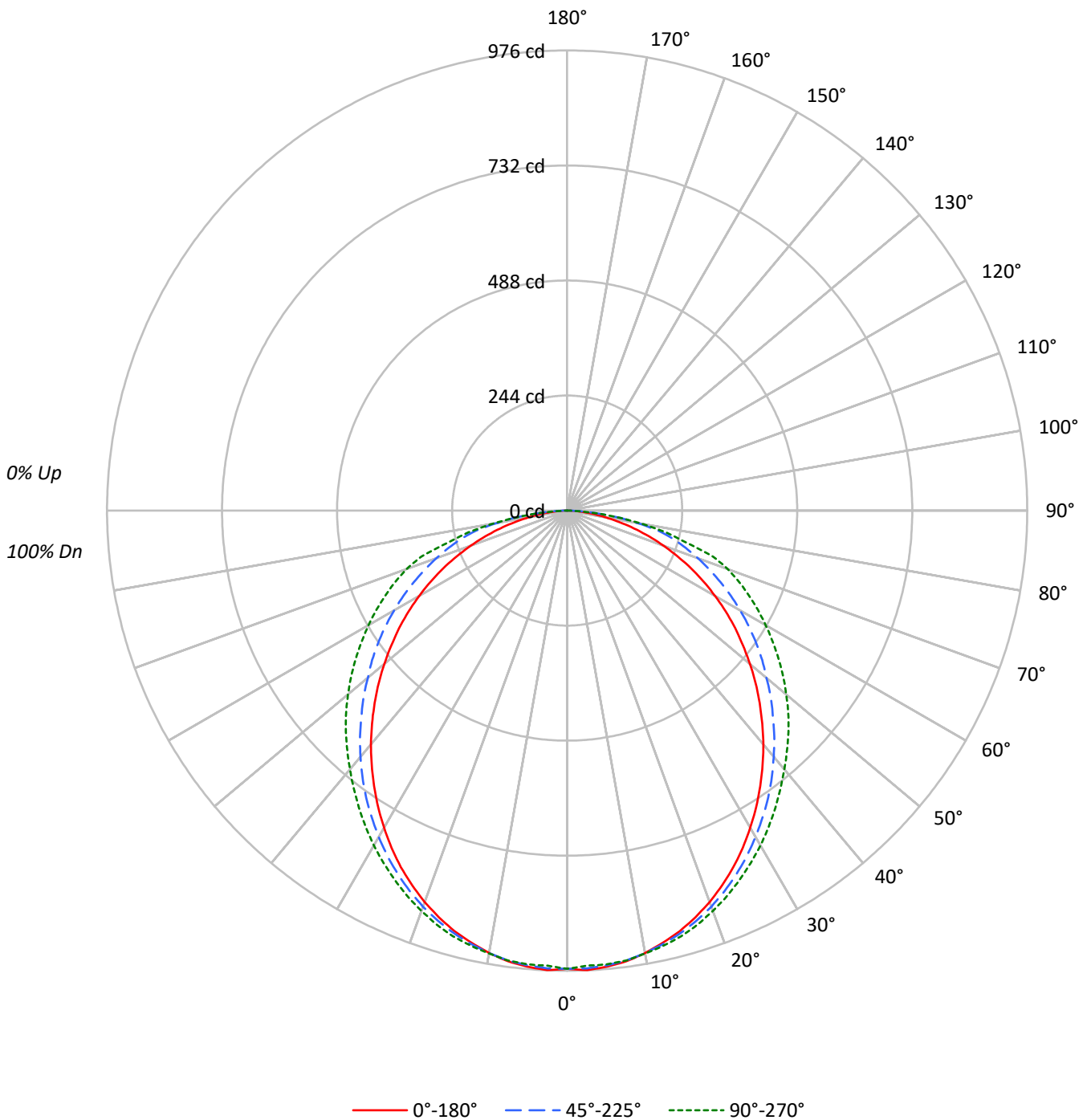
Lumens per Lamp: N/A
Luminaire Lumens: 2769.0 lumens
Efficiency: N/A
Efficacy: 128.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	1308	1308	1308
5°	1311	1307	1305
10°	1302	1302	1303
15°	1286	1293	1302
20°	1265	1280	1294
25°	1239	1262	1284
30°	1206	1242	1274
35°	1173	1221	1264
40°	1137	1197	1259
45°	1099	1174	1263
50°	1060	1155	1270
55°	1021	1148	1283
60°	975	1140	1309
65°	924	1141	1352
70°	854	1160	1425
75°	764	1212	1355
80°	639	1161	1241
85°	483	892	849



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.8	3.3
10°-20°	261.4	9.4
20°-30°	390.7	14.1
30°-40°	463.5	16.7
40°-50°	477.1	17.2
50°-60°	437.7	15.8
60°-70°	353.9	12.8
70°-80°	229.7	8.3
80°-90°	63.3	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°	743.9	26.9
0°-40°	1207.4	43.6
0°-60°	2122.2	76.6
0°-90°	2769.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2769.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	972	972	972	972	972	
5°	971	964	968	967	966	92
15°	923	920	928	932	935	260
25°	834	835	850	858	865	384
35°	714	720	743	759	770	446
45°	577	587	617	647	664	446
55°	435	448	489	529	547	389
65°	290	307	358	406	425	287
75°	147	174	233	261	261	156
85°	31	53	58	56	55	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	971.8	971.8	971.8	971.8	971.8
2.5°	975.6	968.0	971.8	970.8	966.1
5°	970.8	964.2	968.0	967.0	966.1
7.5°	964.2	957.6	962.3	961.3	962.3
10°	952.8	947.1	952.8	953.8	953.8
12.5°	938.6	933.9	941.4	943.3	945.2
15°	923.4	919.6	928.2	932.0	934.8
17.5°	904.5	901.6	912.0	916.8	920.6
20°	883.6	882.7	894.0	898.8	903.5
22.5°	859.9	859.9	873.2	878.9	885.5
25°	834.3	835.3	850.4	858.0	864.6
27.5°	806.8	807.8	825.8	835.3	842.8
30°	776.5	780.3	799.2	811.6	820.1
32.5°	746.1	750.9	771.7	786.0	795.4
35°	713.9	719.6	743.3	759.4	769.8
37.5°	680.7	687.4	713.0	731.0	743.3
40°	647.5	655.1	681.7	702.5	716.7
42.5°	612.5	621.0	650.4	675.0	690.2
45°	577.4	586.9	617.2	646.6	663.7
47.5°	542.3	553.7	585.9	618.1	636.2
50°	506.3	517.6	551.8	588.8	606.8
52.5°	470.2	483.5	521.4	559.4	577.4
55°	435.2	448.4	489.2	529.0	547.0
57.5°	399.1	412.4	457.0	498.7	516.7
60°	362.2	377.3	423.8	466.5	486.4
62.5°	326.1	342.3	391.6	437.1	456.0
65°	290.1	307.2	358.4	405.8	424.7
67.5°	253.1	273.0	326.1	374.5	394.4
70°	217.1	238.9	294.9	343.2	362.2
72.5°	182.0	205.7	263.6	312.9	324.2
75°	147.0	174.4	233.2	260.7	260.7
77.5°	113.8	144.1	199.1	209.5	215.2
80°	82.5	115.7	149.8	162.1	160.2
82.5°	55.0	88.2	107.1	107.1	104.3
85°	31.3	53.1	57.8	55.9	55.0
87.5°	13.3	19.9	18.0	14.2	12.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)