

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: P233145

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233145
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
Description: FAILSAFE 2X4 FCB LED TROFFER
OPAL DIFFUSER, NO LENS
Light Source: (168)3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

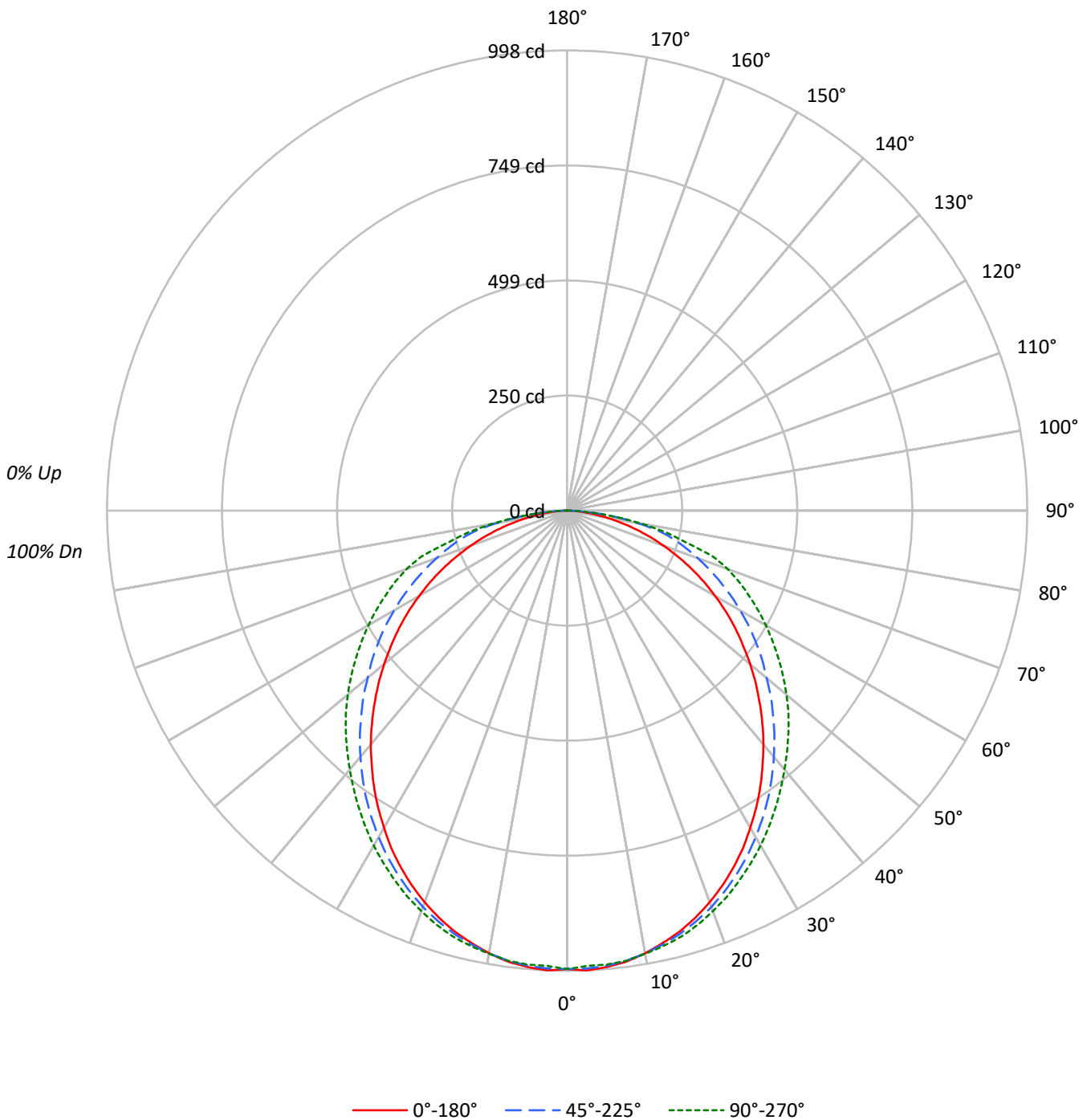
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2833.0 lumens
Efficiency: N/A
Efficacy: 131.2 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 (A_{in}): 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°	1338	1338	1338
5°	1342	1338	1335
10°	1332	1332	1333
15°	1316	1323	1332
20°	1294	1310	1324
25°	1267	1292	1313
30°	1234	1270	1304
35°	1200	1249	1294
40°	1164	1225	1288
45°	1124	1202	1292
50°	1084	1182	1299
55°	1044	1174	1313
60°	997	1167	1339
65°	945	1167	1384
70°	874	1187	1458
75°	781	1240	1386
80°	654	1188	1270
85°	494	914	869



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.0	3.3
10°-20°	267.4	9.4
20°-30°	399.8	14.1
30°-40°	474.2	16.7
40°-50°	488.1	17.2
50°-60°	447.8	15.8
60°-70°	362.1	12.8
70°-80°	235.0	8.3
80°-90°	64.8	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°	761.1	26.9
0°-40°	1235.3	43.6
0°-60°	2171.2	76.6
0°-90°	2833.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2833.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	994	994	994	994	994	
5°	993	986	990	989	988	94
15°	945	941	950	954	956	266
25°	854	855	870	878	885	393
35°	730	736	760	777	788	457
45°	591	600	632	662	679	456
55°	445	459	500	541	560	398
65°	297	314	367	415	435	293
75°	150	178	239	267	267	160
85°	32	54	59	57	56	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	994.2	994.2	994.2	994.2	994.2
2.5°	998.1	990.4	994.2	993.3	988.4
5°	993.3	986.5	990.4	989.4	988.4
7.5°	986.5	979.7	984.5	983.6	984.5
10°	974.8	969.0	974.8	975.8	975.8
12.5°	960.3	955.4	963.2	965.1	967.1
15°	944.8	940.9	949.6	953.5	956.4
17.5°	925.4	922.5	933.1	938.0	941.9
20°	904.0	903.1	914.7	919.5	924.4
22.5°	879.8	879.8	893.4	899.2	906.0
25°	853.6	854.6	870.1	877.8	884.6
27.5°	825.5	826.4	844.9	854.6	862.3
30°	794.4	798.3	817.7	830.3	839.0
32.5°	763.4	768.2	789.6	804.1	813.8
35°	730.4	736.2	760.5	777.0	787.6
37.5°	696.4	703.2	729.4	747.9	760.5
40°	662.5	670.3	697.4	718.8	733.3
42.5°	626.6	635.3	665.4	690.6	706.1
45°	590.7	600.4	631.5	661.5	679.0
47.5°	554.8	566.5	599.5	632.4	650.9
50°	518.0	529.6	564.5	602.4	620.8
52.5°	481.1	494.7	533.5	572.3	590.7
55°	445.2	458.8	500.5	541.3	559.7
57.5°	408.4	421.9	467.5	510.2	528.6
60°	370.5	386.1	433.6	477.2	497.6
62.5°	333.7	350.2	400.6	447.2	466.6
65°	296.8	314.3	366.7	415.2	434.6
67.5°	259.0	279.4	333.7	383.1	403.5
70°	222.1	244.4	301.7	351.1	370.5
72.5°	186.2	210.5	269.7	320.1	331.7
75°	150.3	178.5	238.6	266.7	266.7
77.5°	116.4	147.4	203.7	214.4	220.2
80°	84.4	118.3	153.3	165.9	163.9
82.5°	56.3	90.2	109.6	109.6	106.7
85°	32.0	54.3	59.2	57.2	56.3
87.5°	13.6	20.4	18.4	14.5	12.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)