

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: P233207

Luminaire Tested: **FCB-24-4-LD4-30-40-UNV-EDD1-WDA12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233207
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-WDA12
Description: FAILSAFE 2X4 FCB LED TROFFER
.125 ACRYLIC LENS
Light Source: (168)4000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

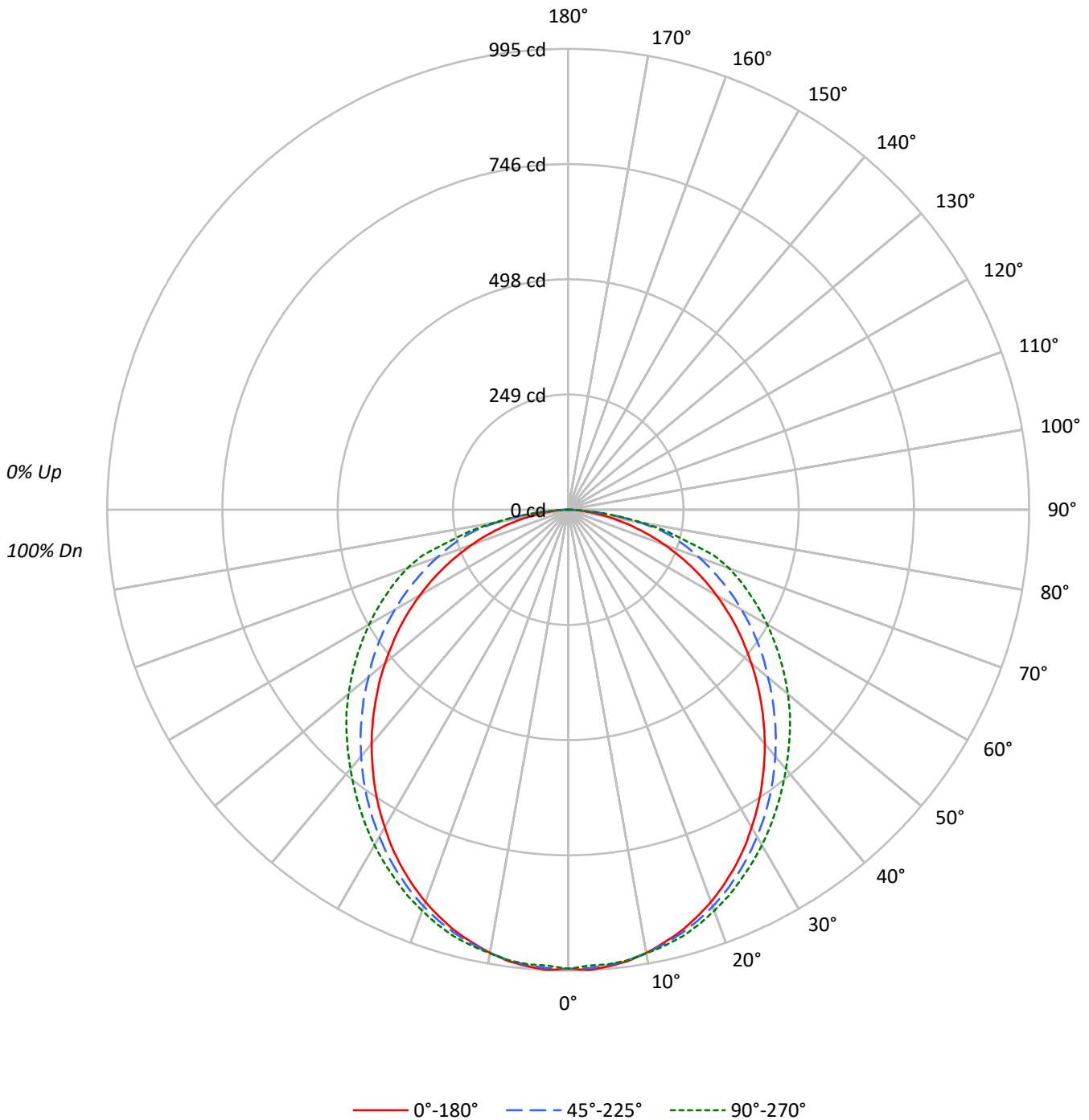
Lumens per Lamp: N/A
Luminaire Lumens: 2824.0 lumens
Efficiency: N/A
Efficacy: 130.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	1334	1334	1334
5°	1337	1333	1331
10°	1328	1328	1329
15°	1312	1319	1328
20°	1290	1306	1319
25°	1263	1288	1309
30°	1230	1266	1299
35°	1196	1245	1290
40°	1160	1221	1284
45°	1120	1198	1288
50°	1081	1178	1295
55°	1041	1170	1309
60°	994	1163	1335
65°	942	1164	1379
70°	871	1183	1453
75°	779	1237	1382
80°	652	1184	1266
85°	492	911	866



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.7	3.3
10°-20°	266.6	9.4
20°-30°	398.5	14.1
30°-40°	472.7	16.7
40°-50°	486.5	17.2
50°-60°	446.3	15.8
60°-70°	360.9	12.8
70°-80°	234.2	8.3
80°-90°	64.6	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°	758.7	26.9
0°-40°	1231.4	43.6
0°-60°	2164.3	76.6
0°-90°	2824.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2824.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	991	991	991	991	991	
5°	990	983	987	986	985	94
15°	942	938	947	950	953	265
25°	851	852	867	875	882	392
35°	728	734	758	774	785	455
45°	589	598	630	659	677	454
55°	444	457	499	540	558	396
65°	296	313	366	414	433	292
75°	150	178	238	266	266	159
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°	991.1	991.1	991.1	991.1	991.1
2.5°	994.9	987.2	991.1	990.1	985.3
5°	990.1	983.3	987.2	986.2	985.3
7.5°	983.3	976.6	981.4	980.4	981.4
10°	971.7	965.9	971.7	972.7	972.7
12.5°	957.2	952.4	960.1	962.1	964.0
15°	941.8	937.9	946.6	950.5	953.4
17.5°	922.4	919.5	930.2	935.0	938.9
20°	901.2	900.2	911.8	916.6	921.5
22.5°	877.0	877.0	890.5	896.3	903.1
25°	850.9	851.8	867.3	875.0	881.8
27.5°	822.8	823.8	842.2	851.8	859.6
30°	791.9	795.8	815.1	827.7	836.4
32.5°	761.0	765.8	787.1	801.6	811.2
35°	728.1	733.9	758.1	774.5	785.1
37.5°	694.2	701.0	727.1	745.5	758.1
40°	660.4	668.1	695.2	716.5	731.0
42.5°	624.6	633.3	663.3	688.4	703.9
45°	588.8	598.5	629.5	659.4	676.8
47.5°	553.1	564.7	597.5	630.4	648.8
50°	516.3	527.9	562.7	600.4	618.8
52.5°	479.6	493.1	531.8	570.5	588.8
55°	443.8	457.3	498.9	539.5	557.9
57.5°	407.1	420.6	466.0	508.6	527.0
60°	369.4	384.8	432.2	475.7	496.0
62.5°	332.6	349.1	399.3	445.7	465.1
65°	295.9	313.3	365.5	413.8	433.2
67.5°	258.2	278.5	332.6	381.9	402.2
70°	221.4	243.7	300.7	350.0	369.4
72.5°	185.6	209.8	268.8	319.1	330.7
75°	149.9	177.9	237.9	265.9	265.9
77.5°	116.0	147.0	203.0	213.7	219.5
80°	84.1	118.0	152.8	165.3	163.4
82.5°	56.1	89.9	109.3	109.3	106.4
85°	31.9	54.1	59.0	57.0	56.1
87.5°	13.5	20.3	18.4	14.5	12.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)