

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: P233117

Luminaire Tested: **FCB-24-2-LD4-44-30-UNV-EDD1-WDP6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233117
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25706)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FCB-24-2-LD4-44-30-UNV-EDD1-WDP6
Description: FAILSAFE 2X2 FCB LED TROFFER
.060 POLYCARBONATE LENS
Light Source: (84)3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

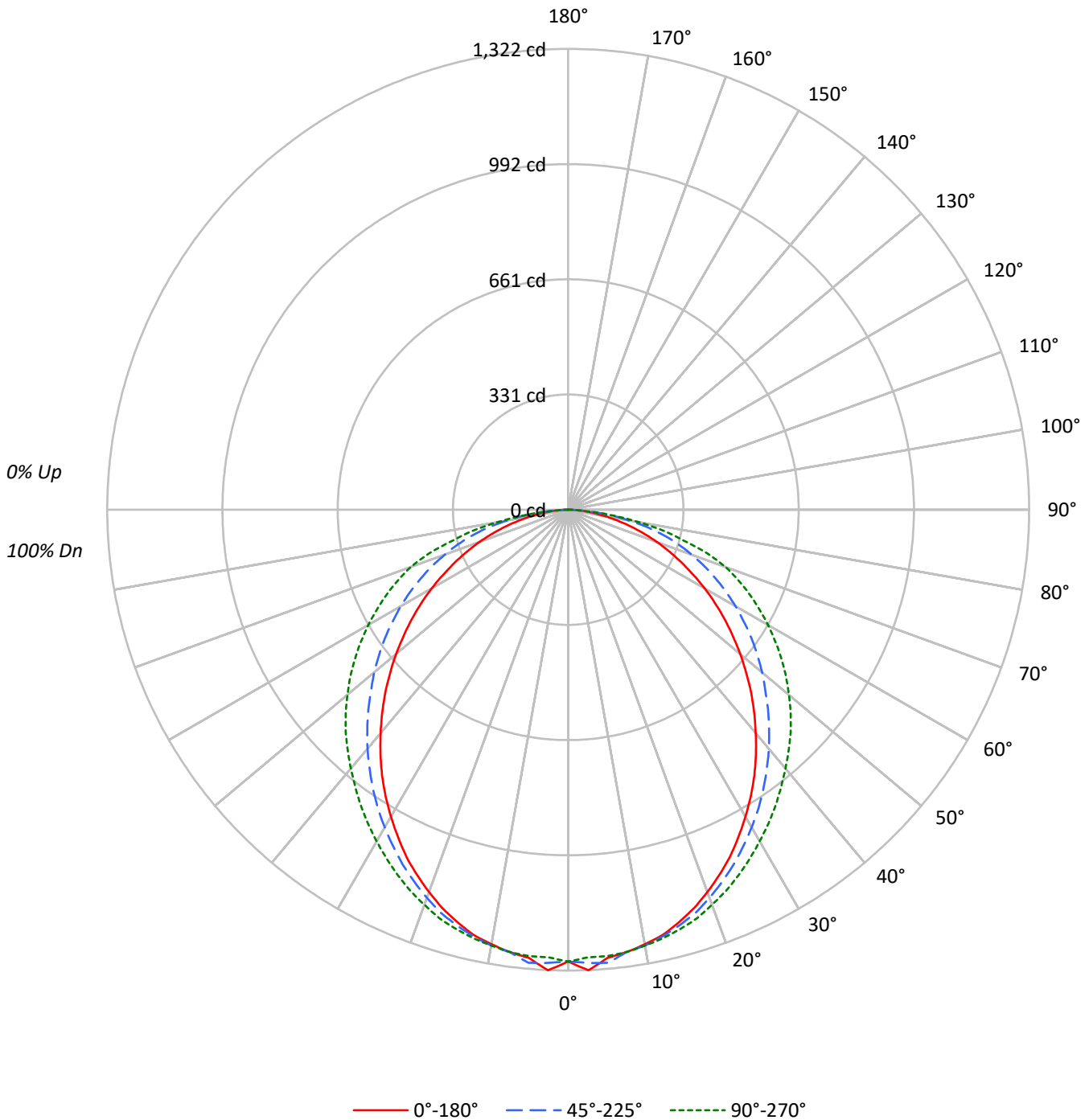
Lumens per Lamp: N/A
Luminaire Lumens: 3631.0 lumens
Efficiency: N/A
Efficacy: 86.9 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
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	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	70	64	87	77	69	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	48	41	35	47	40	35	46	40	35	33
8	60	46	38	32	58	46	38	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3488	3488	3488
5°	3487	3525	3472
10°	3459	3469	3469
15°	3414	3438	3468
20°	3342	3393	3454
25°	3261	3334	3434
30°	3160	3270	3413
35°	3057	3208	3405
40°	2940	3145	3405
45°	2822	3084	3434
50°	2698	3038	3459
55°	2568	3007	3504
60°	2433	2984	3563
65°	2282	2968	3654
70°	2126	2959	3779
75°	1928	2956	3580
80°	1669	2737	3174
85°	1417	2072	2016



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.9	3.4
10°-20°	348.2	9.6
20°-30°	518.0	14.3
30°-40°	612.6	16.9
40°-50°	629.6	17.3
50°-60°	575.4	15.8
60°-70°	460.3	12.7
70°-80°	288.9	8.0
80°-90°	75.2	2.1
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°	989.1	27.2
0°-40°	1601.7	44.1
0°-60°	2806.7	77.3
0°-90°	3631.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3631.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1296	1296	1296	1296	1296	
5°	1291	1291	1305	1296	1285	123
15°	1225	1227	1234	1241	1245	345
25°	1098	1105	1123	1142	1156	505
35°	930	943	976	1014	1036	582
45°	742	761	810	870	902	572
55°	547	574	641	712	747	490
65°	358	390	466	537	574	356
75°	185	221	284	327	344	197
85°	46	58	67	65	65	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1296.0	1296.0	1296.0	1296.0	1296.0
2.5°	1322.5	1317.2	1301.3	1290.7	1285.4
5°	1290.7	1290.7	1304.9	1296.0	1285.4
7.5°	1280.1	1280.1	1280.1	1306.6	1280.1
10°	1266.0	1267.8	1269.5	1280.1	1269.5
12.5°	1250.1	1250.1	1253.6	1257.2	1258.9
15°	1225.4	1227.2	1234.2	1241.3	1244.8
17.5°	1198.9	1204.2	1213.0	1221.9	1228.9
20°	1167.1	1174.2	1184.8	1198.9	1206.0
22.5°	1133.6	1140.6	1154.8	1170.7	1183.0
25°	1098.3	1105.3	1123.0	1142.4	1156.5
27.5°	1057.7	1066.5	1087.7	1114.2	1128.3
30°	1017.0	1027.6	1052.4	1082.4	1098.3
32.5°	974.7	987.0	1015.3	1048.8	1068.3
35°	930.5	942.9	976.4	1013.5	1036.5
37.5°	884.6	898.7	935.8	978.2	1002.9
40°	836.9	852.8	895.2	941.1	969.4
42.5°	789.3	806.9	852.8	907.6	935.8
45°	741.6	761.0	810.5	870.5	902.3
47.5°	692.2	715.1	766.3	833.4	865.2
50°	644.5	667.4	725.7	794.6	826.3
52.5°	595.0	621.5	683.3	754.0	787.5
55°	547.4	573.9	641.0	711.6	746.9
57.5°	499.7	526.2	596.8	669.2	704.5
60°	452.0	480.3	554.4	625.1	662.1
62.5°	404.3	434.4	510.3	582.7	618.0
65°	358.4	390.2	466.1	536.8	573.9
67.5°	314.3	347.8	422.0	490.9	527.9
70°	270.2	303.7	376.1	443.2	480.3
72.5°	227.8	261.3	332.0	392.0	420.2
75°	185.4	220.7	284.3	326.7	344.3
77.5°	144.8	180.1	234.8	263.1	282.5
80°	107.7	137.7	176.6	197.8	204.8
82.5°	74.2	98.9	123.6	128.9	132.4
85°	45.9	58.3	67.1	65.3	65.3
87.5°	21.2	23.0	19.4	14.1	8.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)