

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: P233089

Luminaire Tested: **FCB-24-2-LD4-34-30-UNV-EDD1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233089
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-LD4-34-30-UNV-EDD1
Description: FAILSAFE 2X2 FCB LED TROFFER
OPAL DIFFUSER, NO LENS
Light Source: (84)3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

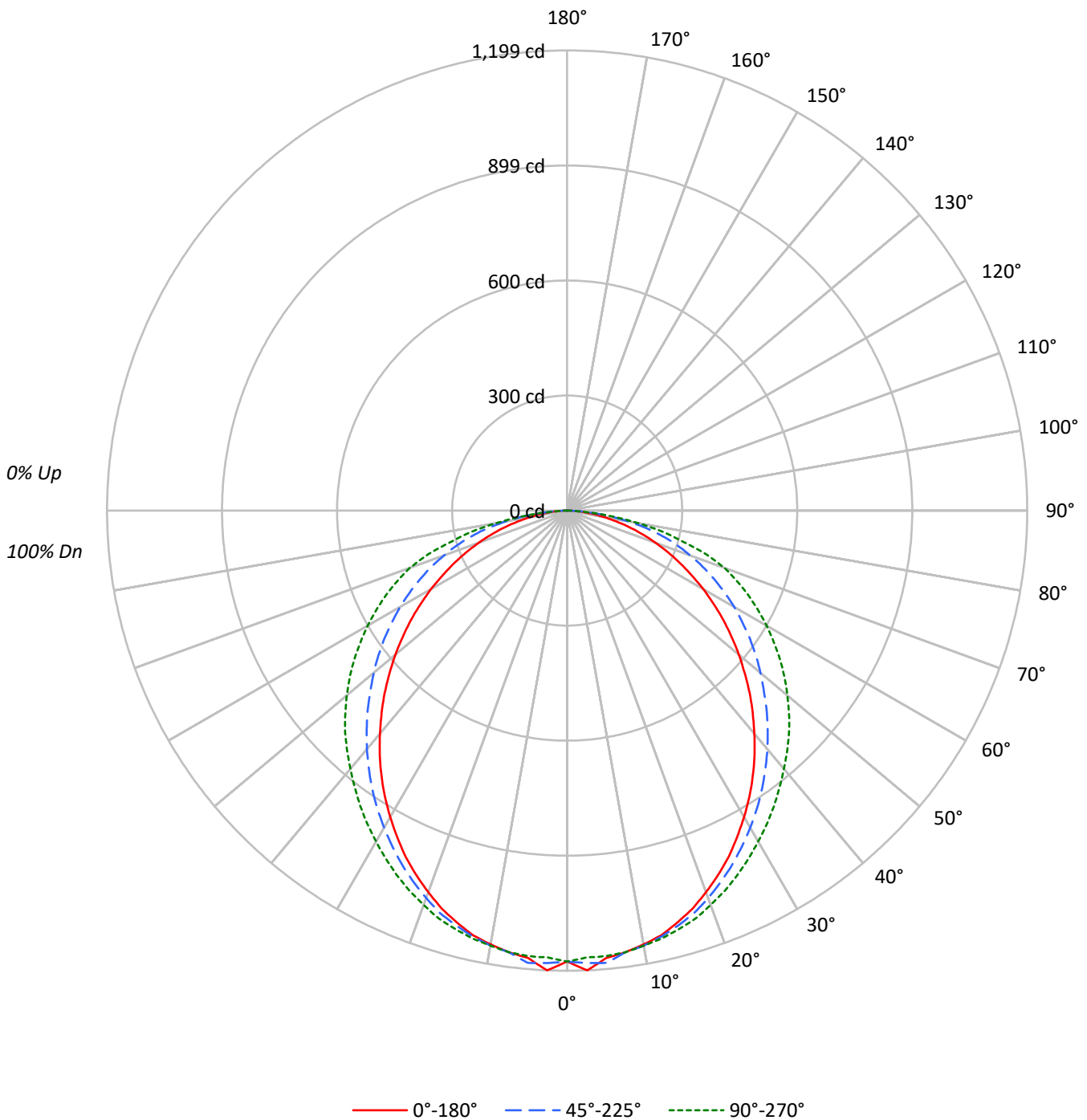
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3292.0 lumens
Efficiency: N/A
Efficacy: 112.0 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): 29.4
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°	3162	3162	3162
5°	3161	3196	3148
10°	3136	3145	3145
15°	3095	3117	3144
20°	3030	3076	3131
25°	2956	3023	3113
30°	2865	2965	3094
35°	2771	2908	3087
40°	2666	2851	3087
45°	2559	2796	3113
50°	2446	2755	3136
55°	2328	2726	3177
60°	2206	2706	3231
65°	2069	2691	3313
70°	1927	2683	3426
75°	1748	2679	3246
80°	1514	2481	2878
85°	1284	1877	1828



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.4	3.4
10°-20°	315.7	9.6
20°-30°	469.6	14.3
30°-40°	555.4	16.9
40°-50°	570.9	17.3
50°-60°	521.6	15.8
60°-70°	417.3	12.7
70°-80°	261.9	8.0
80°-90°	68.2	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°	896.7	27.2
0°-40°	1452.1	44.1
0°-60°	2544.6	77.3
0°-90°	3292.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3292.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1175	1175	1175	1175	1175	
5°	1170	1170	1183	1175	1165	111
15°	1111	1113	1119	1125	1129	313
25°	996	1002	1018	1036	1049	458
35°	844	855	885	919	940	527
45°	672	690	735	789	818	518
55°	496	520	581	645	677	444
65°	325	354	423	487	520	323
75°	168	200	258	296	312	179
85°	42	53	61	59	59	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1175.0	1175.0	1175.0	1175.0	1175.0
2.5°	1199.0	1194.2	1179.8	1170.2	1165.4
5°	1170.2	1170.2	1183.0	1175.0	1165.4
7.5°	1160.6	1160.6	1160.6	1184.6	1160.6
10°	1147.8	1149.4	1151.0	1160.6	1151.0
12.5°	1133.4	1133.4	1136.6	1139.8	1141.4
15°	1111.0	1112.6	1119.0	1125.4	1128.6
17.5°	1087.0	1091.8	1099.8	1107.8	1114.2
20°	1058.2	1064.6	1074.2	1087.0	1093.4
22.5°	1027.7	1034.2	1047.0	1061.4	1072.6
25°	995.7	1002.1	1018.1	1035.8	1048.6
27.5°	958.9	966.9	986.1	1010.1	1022.9
30°	922.1	931.7	954.1	981.3	995.7
32.5°	883.7	894.9	920.5	950.9	968.5
35°	843.6	854.9	885.3	918.9	939.7
37.5°	802.0	814.8	848.5	886.9	909.3
40°	758.8	773.2	811.6	853.3	878.9
42.5°	715.6	731.6	773.2	822.8	848.5
45°	672.4	690.0	734.8	789.2	818.0
47.5°	627.5	648.3	694.8	755.6	784.4
50°	584.3	605.1	658.0	720.4	749.2
52.5°	539.5	563.5	619.5	683.6	714.0
55°	496.3	520.3	581.1	645.1	677.2
57.5°	453.0	477.1	541.1	606.7	638.7
60°	409.8	435.4	502.7	566.7	600.3
62.5°	366.6	393.8	462.6	528.3	560.3
65°	325.0	353.8	422.6	486.7	520.3
67.5°	285.0	315.4	382.6	445.0	478.7
70°	244.9	275.3	341.0	401.8	435.4
72.5°	206.5	236.9	301.0	355.4	381.0
75°	168.1	200.1	257.7	296.2	312.2
77.5°	131.3	163.3	212.9	238.5	256.1
80°	97.7	124.9	160.1	179.3	185.7
82.5°	67.2	89.6	112.1	116.9	120.1
85°	41.6	52.8	60.8	59.2	59.2
87.5°	19.2	20.8	17.6	12.8	8.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)