

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: P233054

Luminaire Tested: **FCB-12-4-LD4-35-35-UNV-EDD1-WDP6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233054
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35573)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FCB-12-4-LD4-35-35-UNV-EDD1-WDP6
Description: FAILSAFE 1X4 FCB LED TROFFER
.060 POLYCARBONATE LENS
Light Source: (84)3500K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

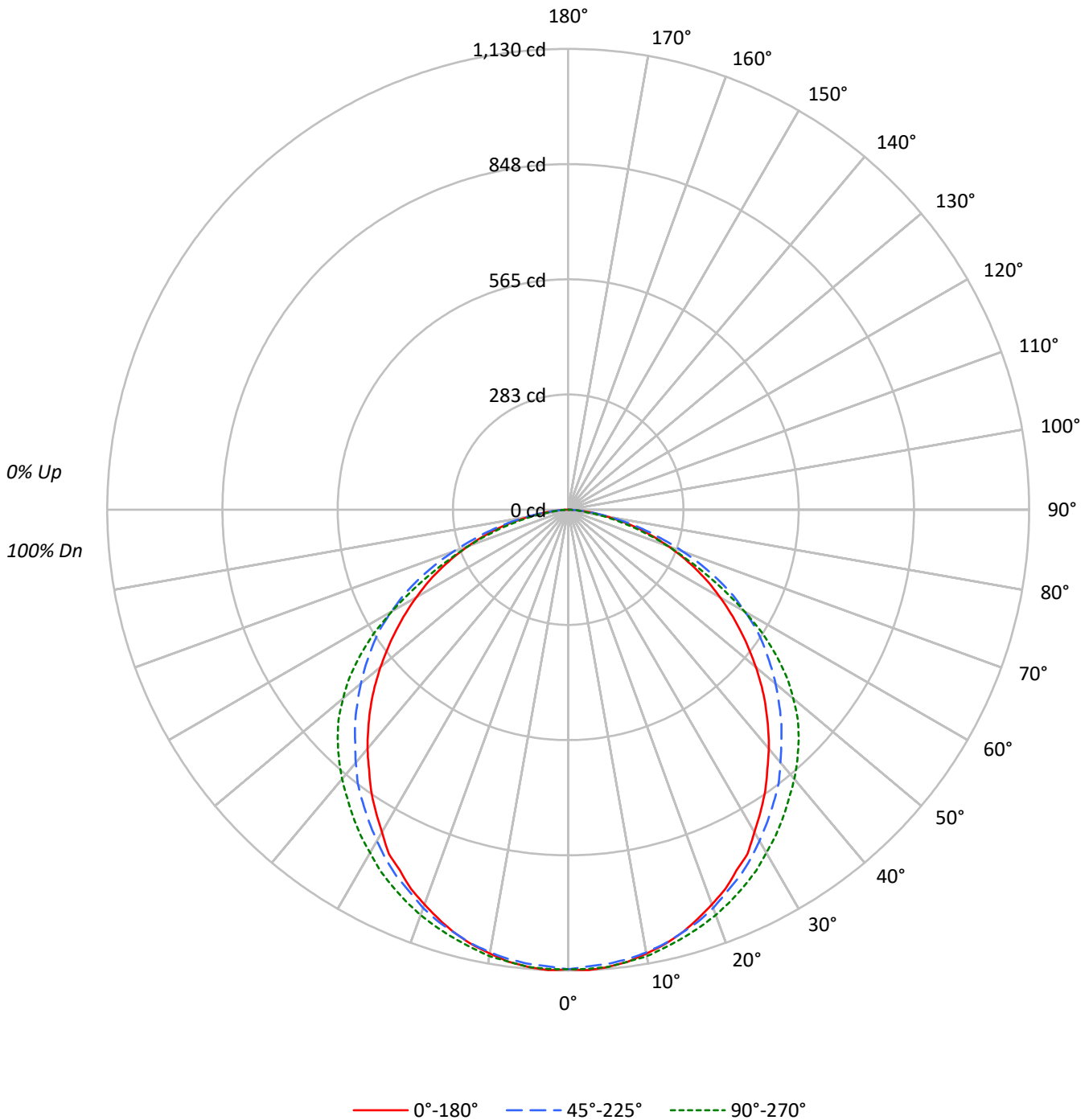
Lumens per Lamp: N/A
Luminaire Lumens: 3123.0 lumens
Efficiency: N/A
Efficacy: 99.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.5
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	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70
3	90	80	72	66	88	78	71	65	75	69	64	73	67	63	70	66	62	59
4	83	71	62	56	81	70	61	55	67	60	54	65	59	54	63	57	53	51
5	76	63	54	48	74	62	54	48	60	53	47	58	52	46	56	51	46	44
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	40	38
7	65	52	43	37	63	51	43	37	49	42	36	48	41	36	47	40	36	34
8	61	47	39	33	59	46	38	33	45	38	33	44	37	32	43	37	32	30
9	57	43	35	30	55	43	35	29	42	34	29	40	34	29	39	33	29	27
10	53	40	32	27	52	39	32	27	38	31	27	37	31	26	37	31	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3033	3033	3033
5°	3040	3019	3040
10°	3020	3012	3037
15°	2994	2994	3028
20°	2950	2976	3029
25°	2898	2949	3026
30°	2837	2913	3019
35°	2767	2883	3020
40°	2688	2845	3029
45°	2607	2812	3041
50°	2514	2778	3016
55°	2412	2752	2918
60°	2312	2693	2685
65°	2206	2578	2353
70°	2047	2350	2035
75°	1857	2049	1681
80°	1480	1623	1241
85°	1047	905	713



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.6	3.4
10°-20°	304.6	9.8
20°-30°	459.3	14.7
30°-40°	550.5	17.6
40°-50°	571.4	18.3
50°-60°	515.3	16.5
60°-70°	375.9	12.0
70°-80°	197.2	6.3
80°-90°	42.1	1.3
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°	870.6	27.9
0°-40°	1421.1	45.5
0°-60°	2507.8	80.3
0°-90°	3123.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3123.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1127	1127	1127	1127	1127	
5°	1126	1122	1118	1126	1126	107
15°	1075	1075	1075	1087	1087	303
25°	976	981	993	1015	1019	450
35°	842	851	878	910	919	526
45°	685	699	739	784	799	528
55°	514	533	587	625	622	460
65°	346	366	405	390	370	342
75°	179	203	197	171	162	187
85°	34	42	29	25	23	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1127.0	1127.0	1127.0	1127.0	1127.0
2.5°	1130.1	1127.0	1120.8	1127.0	1127.0
5°	1125.5	1122.4	1117.8	1125.5	1125.5
7.5°	1117.8	1114.7	1111.6	1119.3	1117.8
10°	1105.4	1103.9	1102.4	1111.6	1111.6
12.5°	1091.6	1091.6	1090.1	1100.8	1099.3
15°	1074.7	1074.7	1074.7	1087.0	1087.0
17.5°	1053.1	1056.2	1059.3	1073.1	1073.1
20°	1030.0	1033.1	1039.2	1056.2	1057.7
22.5°	1006.9	1008.5	1014.6	1034.6	1039.2
25°	976.1	980.7	993.1	1014.6	1019.2
27.5°	951.5	953.0	966.9	991.5	997.7
30°	913.0	923.8	937.6	965.3	971.5
32.5°	877.6	886.8	908.4	937.6	946.9
35°	842.2	851.4	877.6	909.9	919.2
37.5°	802.1	816.0	846.8	879.1	889.9
40°	765.2	777.5	809.8	849.9	862.2
42.5°	725.2	737.5	772.9	817.5	831.4
45°	685.1	699.0	739.0	783.7	799.1
47.5°	643.6	659.0	700.5	749.8	763.7
50°	600.5	617.4	663.6	714.4	720.5
52.5°	557.3	575.8	625.1	669.7	675.9
55°	514.2	532.7	586.6	625.1	622.0
57.5°	472.7	492.7	548.1	568.1	565.0
60°	429.6	451.1	500.4	509.6	498.8
62.5°	389.5	409.5	455.7	448.0	434.2
65°	346.4	366.4	404.9	389.5	369.5
67.5°	303.3	327.9	352.6	326.4	311.0
70°	260.2	287.9	298.7	272.5	258.7
72.5°	218.6	247.9	244.8	218.6	209.4
75°	178.6	203.2	197.1	170.9	161.7
77.5°	135.5	163.2	149.3	127.8	120.1
80°	95.5	120.1	104.7	86.2	80.1
82.5°	63.1	80.1	64.7	50.8	46.2
85°	33.9	41.6	29.3	24.6	23.1
87.5°	13.9	12.3	10.8	10.8	9.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)