

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: P556635

Luminaire Tested: **FUSL-12-4-LD4-1LO-50-UNV-82-94-EDD**

Issue Date: 7/16/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P556635
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2105-257-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FUSL-12-4-LD4-1LO-50-UNV-82-94-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

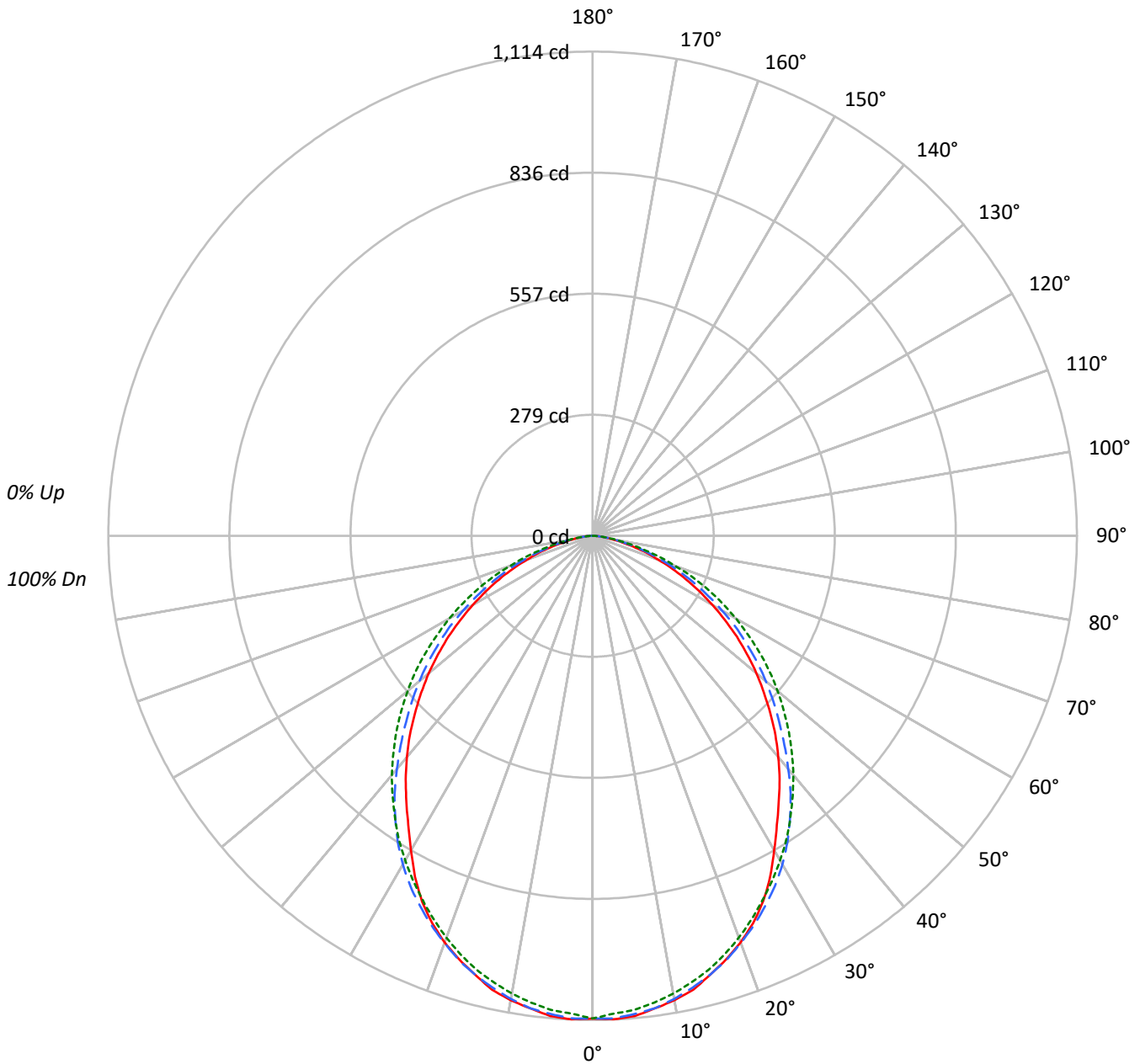
Lumens per Lamp: N/A
Luminaire Lumens: 2568.0 lumens
Efficiency: N/A
Efficacy: 109.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
Input Voltage (V): NR
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

TEST NUMBER: P556635

CATALOG NUMBER: FUSL-12-4-LD4-1LO-50-UNV-82-94-EDD

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	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	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86																			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73																			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63																			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54																			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47																			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42																			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37																			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34																			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30																			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2989	2989	2989
5°	2997	2984	2958
10°	2965	2957	2923
15°	2912	2912	2879
20°	2851	2854	2818
25°	2757	2791	2746
30°	2596	2712	2679
35°	2453	2600	2604
40°	2334	2459	2524
45°	2200	2310	2429
50°	2059	2177	2326
55°	1900	2026	2200
60°	1711	1849	2046
65°	1510	1643	1861
70°	1259	1400	1581
75°	989	1118	1237
80°	708	787	872
85°	460	460	435



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.6	4.1
10°-20°	293.8	11.4
20°-30°	429.3	16.7
30°-40°	487.3	19.0
40°-50°	470.4	18.3
50°-60°	388.0	15.1
60°-70°	258.4	10.1
70°-80°	115.6	4.5
80°-90°	20.7	0.8
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°	827.6	32.2
0°-40°	1314.9	51.2
0°-60°	2173.3	84.6
0°-90°	2568.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2568.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1111	1111	1111	1111	1111	
5°	1109	1109	1105	1099	1095	105
15°	1045	1048	1045	1041	1033	295
25°	928	936	940	933	925	425
35°	747	757	792	796	793	468
45°	578	588	607	635	638	446
55°	405	412	432	456	469	361
65°	237	244	258	276	292	235
75°	95	100	108	113	119	104
85°	15	15	15	14	14	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1110.6	1110.6	1110.6	1110.6	1110.6
2.5°	1113.6	1114.0	1111.4	1104.6	1100.4
5°	1109.3	1108.9	1104.6	1098.6	1095.2
7.5°	1096.9	1097.8	1096.5	1088.0	1083.3
10°	1085.0	1085.4	1082.0	1075.2	1069.6
12.5°	1069.6	1069.2	1064.5	1061.1	1052.1
15°	1045.3	1047.9	1045.3	1040.6	1033.4
17.5°	1021.8	1021.8	1023.6	1015.4	1009.9
20°	995.4	996.7	996.7	990.3	983.9
22.5°	964.7	968.5	969.8	963.0	955.3
25°	928.4	935.7	939.9	933.1	925.0
27.5°	884.5	895.6	908.4	903.2	894.3
30°	835.4	851.6	872.9	868.7	862.3
32.5°	788.9	805.1	834.5	832.8	829.4
35°	746.7	756.9	791.5	795.7	792.7
37.5°	706.5	715.9	748.4	758.2	755.6
40°	664.3	674.5	700.1	717.6	718.5
42.5°	622.5	632.3	653.2	678.4	678.4
45°	578.1	587.9	607.1	634.9	638.3
47.5°	534.6	544.8	563.6	591.3	596.9
50°	491.9	501.3	520.1	547.0	555.5
52.5°	447.6	457.8	476.2	500.9	513.3
55°	404.9	411.7	431.8	455.7	468.9
57.5°	360.5	366.9	389.5	410.0	423.7
60°	317.9	326.0	343.5	364.4	380.2
62.5°	276.9	285.4	300.4	318.7	336.6
65°	237.2	243.6	258.1	276.5	292.3
67.5°	198.8	204.4	218.9	231.7	248.3
70°	160.0	167.3	177.9	190.3	201.0
72.5°	128.9	131.8	140.8	149.8	160.9
75°	95.1	100.3	107.5	112.6	119.0
77.5°	68.3	71.3	75.5	79.8	85.8
80°	45.7	46.9	50.8	51.6	56.3
82.5°	27.7	28.6	29.4	29.9	31.6
85°	14.9	14.9	14.9	14.1	14.1
87.5°	8.5	8.5	7.3	6.0	4.3
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)