

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: P556459

Luminaire Tested: **FUSL-12-4-LD4-1LO-30-UNV-93-94-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: P556459
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-30-UNV-93-94-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE
AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND
3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

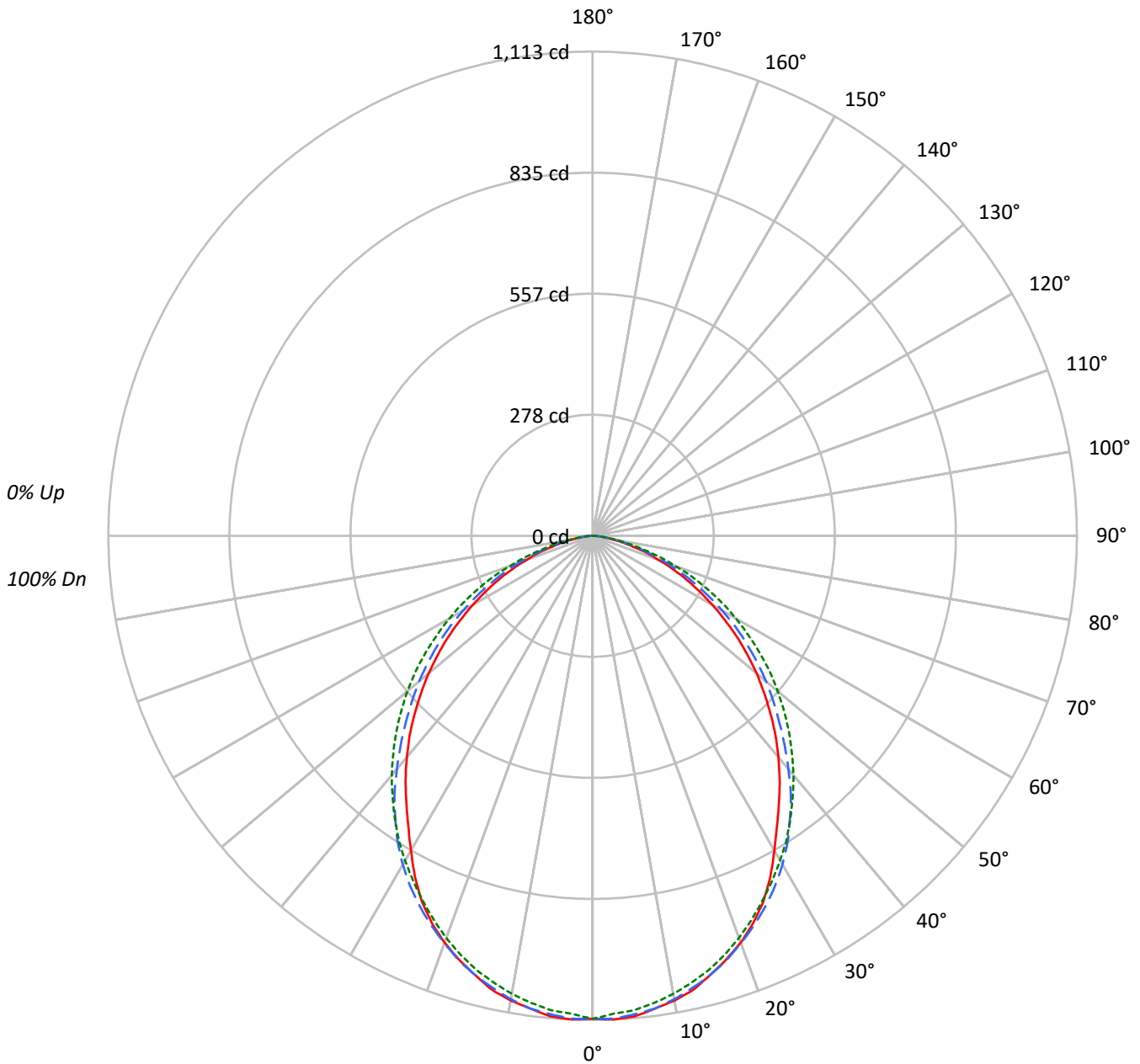
Lumens per Lamp: N/A
Luminaire Lumens: 2567.0 lumens
Efficiency: N/A
Efficacy: 109.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

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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°	2988	2988	2988
5°	2995	2983	2957
10°	2964	2955	2922
15°	2911	2911	2878
20°	2849	2853	2816
25°	2755	2790	2745
30°	2595	2711	2678
35°	2452	2599	2603
40°	2333	2459	2523
45°	2199	2310	2428
50°	2058	2177	2325
55°	1899	2025	2199
60°	1710	1848	2045
65°	1510	1643	1860
70°	1258	1399	1581
75°	989	1118	1237
80°	707	787	872
85°	460	460	435



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.5	4.1
10°-20°	293.6	11.4
20°-30°	429.1	16.7
30°-40°	487.1	19.0
40°-50°	470.2	18.3
50°-60°	387.9	15.1
60°-70°	258.3	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°	827.3	32.2
0°-40°	1314.4	51.2
0°-60°	2172.4	84.6
0°-90°	2567.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2567.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1110	1110	1110	1110	1110	
5°	1109	1108	1104	1098	1095	105
15°	1045	1048	1045	1040	1033	295
25°	928	935	940	933	925	425
35°	746	757	791	795	792	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°	1110.2	1110.2	1110.2	1110.2	1110.2
2.5°	1113.1	1113.6	1111.0	1104.2	1099.9
5°	1108.9	1108.5	1104.2	1098.2	1094.8
7.5°	1096.5	1097.4	1096.1	1087.6	1082.9
10°	1084.6	1085.0	1081.6	1074.8	1069.2
12.5°	1069.2	1068.8	1064.1	1060.7	1051.7
15°	1044.9	1047.5	1044.9	1040.2	1033.0
17.5°	1021.5	1021.5	1023.2	1015.1	1009.5
20°	995.0	996.3	996.3	989.9	983.5
22.5°	964.3	968.1	969.4	962.6	954.9
25°	928.0	935.3	939.6	932.7	924.6
27.5°	884.1	895.2	908.0	902.9	893.9
30°	835.1	851.3	872.6	868.3	861.9
32.5°	788.6	804.8	834.2	832.5	829.1
35°	746.4	756.6	791.1	795.4	792.4
37.5°	706.3	715.7	748.1	757.9	755.3
40°	664.0	674.3	699.9	717.4	718.2
42.5°	622.3	632.1	653.0	678.1	678.1
45°	577.9	587.7	606.9	634.6	638.0
47.5°	534.4	544.6	563.4	591.1	596.7
50°	491.7	501.1	519.9	546.8	555.3
52.5°	447.4	457.6	476.0	500.7	513.1
55°	404.7	411.6	431.6	455.5	468.7
57.5°	360.4	366.8	389.4	409.9	423.5
60°	317.7	325.8	343.3	364.2	380.0
62.5°	276.8	285.3	300.3	318.6	336.5
65°	237.1	243.5	258.0	276.4	292.1
67.5°	198.7	204.3	218.8	231.6	248.2
70°	159.9	167.2	177.8	190.2	200.9
72.5°	128.8	131.8	140.7	149.7	160.8
75°	95.1	100.2	107.5	112.6	119.0
77.5°	68.2	71.2	75.5	79.8	85.7
80°	45.6	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)