

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: P557933

Luminaire Tested: **FUSL-12-4-LD4-3HI-50-UNV-93-96-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: P557933
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-LD4-3HI-50-UNV-93-96-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE
AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND
5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

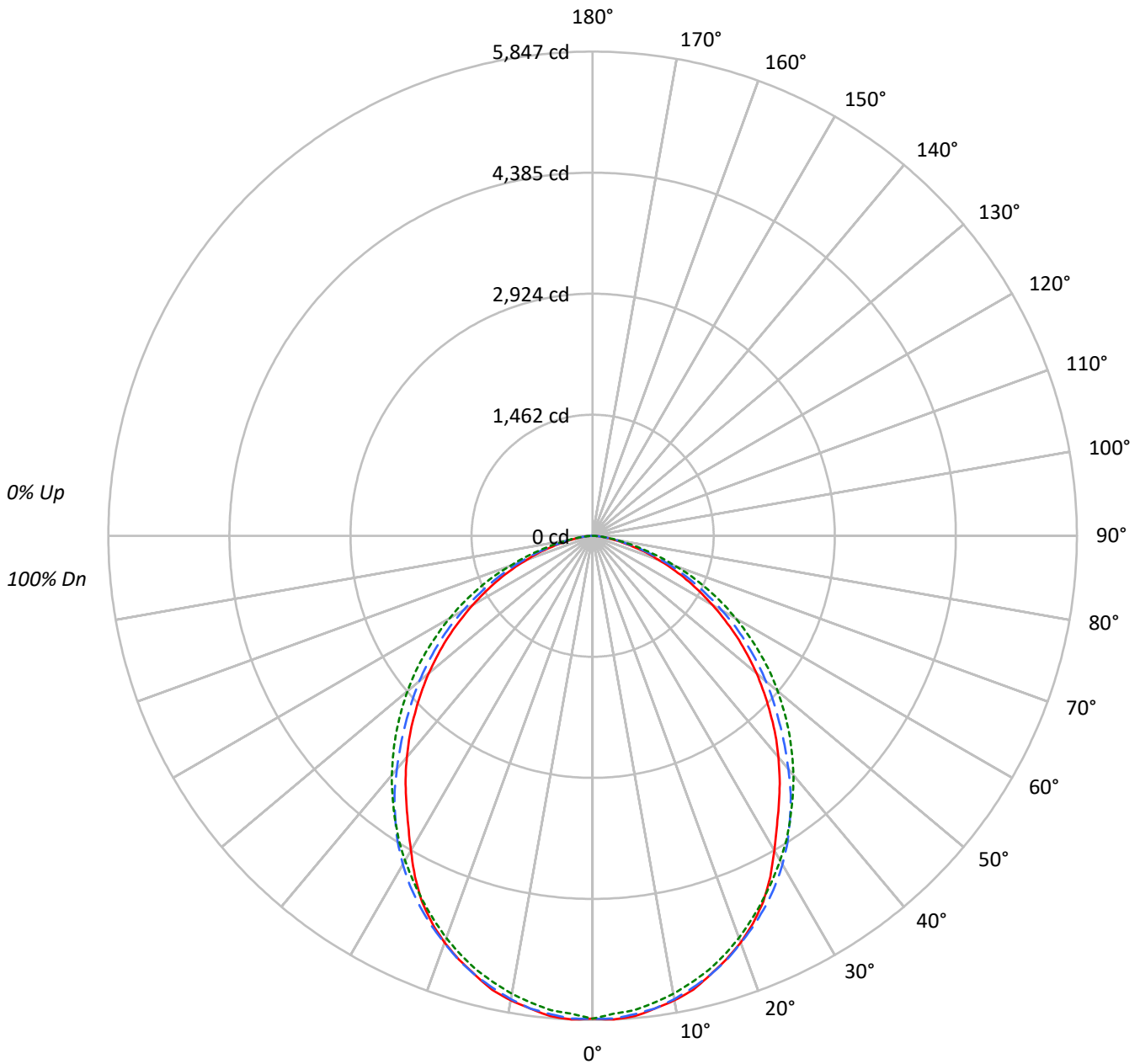
Lumens per Lamp: N/A
Luminaire Lumens: 13484.0 lumens
Efficiency: N/A
Efficacy: 104.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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°	15692	15692	15692
5°	15734	15668	15534
10°	15567	15524	15347
15°	15291	15291	15116
20°	14967	14986	14794
25°	14474	14654	14421
30°	13630	14243	14068
35°	12879	13652	13674
40°	12253	12914	13253
45°	11552	12132	12755
50°	10814	11433	12211
55°	9974	10637	11551
60°	8982	9706	10743
65°	7931	8630	9771
70°	6610	7350	8302
75°	5194	5870	6498
80°	3715	4131	4582
85°	2421	2421	2282



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	549.1	4.1
10°-20°	1542.4	11.4
20°-30°	2254.0	16.7
30°-40°	2558.5	19.0
40°-50°	2469.9	18.3
50°-60°	2037.5	15.1
60°-70°	1356.8	10.1
70°-80°	607.1	4.5
80°-90°	108.6	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°	4345.5	32.2
0°-40°	6904.1	51.2
0°-60°	11411.4	84.6
0°-90°	13484.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13484.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5832	5832	5832	5832	5832	
5°	5825	5822	5800	5769	5751	551
15°	5489	5502	5489	5464	5426	1547
25°	4875	4913	4935	4900	4857	2232
35°	3920	3974	4156	4178	4162	2456
45°	3036	3087	3188	3334	3352	2342
55°	2126	2162	2267	2393	2462	1898
65°	1246	1279	1355	1452	1535	1235
75°	500	526	565	591	625	546
85°	78	78	78	74	74	106
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5831.5	5831.5	5831.5	5831.5	5831.5
2.5°	5847.2	5849.4	5836.0	5800.1	5777.7
5°	5824.8	5822.5	5800.1	5768.8	5750.8
7.5°	5759.8	5764.3	5757.6	5712.7	5688.1
10°	5697.1	5699.3	5681.4	5645.5	5616.4
12.5°	5616.4	5614.2	5589.5	5571.6	5524.6
15°	5488.7	5502.2	5488.7	5464.1	5426.0
17.5°	5365.5	5365.5	5374.5	5331.9	5302.8
20°	5226.6	5233.3	5233.3	5199.7	5166.1
22.5°	5065.3	5085.5	5092.2	5056.3	5016.0
25°	4874.9	4913.0	4935.4	4899.5	4857.0
27.5°	4644.1	4702.4	4769.6	4742.7	4695.7
30°	4386.5	4471.6	4583.6	4561.2	4527.6
32.5°	4142.3	4227.4	4382.0	4373.1	4355.1
35°	3920.5	3974.3	4155.7	4178.1	4162.5
37.5°	3709.9	3759.2	3929.5	3981.0	3967.6
40°	3488.1	3541.9	3676.3	3768.2	3772.7
42.5°	3268.6	3320.1	3429.9	3562.1	3562.1
45°	3035.6	3087.1	3187.9	3333.6	3351.5
47.5°	2807.1	2860.9	2959.4	3105.0	3134.2
50°	2583.1	2632.3	2730.9	2872.1	2916.9
52.5°	2350.1	2403.8	2500.2	2630.1	2695.1
55°	2126.0	2161.9	2267.2	2392.6	2462.1
57.5°	1893.0	1926.7	2045.4	2152.9	2224.6
60°	1669.0	1711.6	1803.4	1913.2	1996.1
62.5°	1453.9	1498.8	1577.2	1673.5	1767.6
65°	1245.6	1279.2	1355.4	1451.7	1534.6
67.5°	1044.0	1073.1	1149.3	1216.5	1303.9
70°	840.1	878.2	934.2	999.2	1055.2
72.5°	676.6	692.3	739.3	786.3	844.6
75°	499.6	526.5	564.6	591.4	625.0
77.5°	358.4	374.1	396.5	418.9	450.3
80°	239.7	246.4	266.6	271.1	295.7
82.5°	145.6	150.1	154.6	156.8	165.8
85°	78.4	78.4	78.4	73.9	73.9
87.5°	44.8	44.8	38.1	31.4	22.4
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)