

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: P557869

Luminaire Tested: **FUSL-12-4-LD4-3HI-40-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: P557869
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-40-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 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

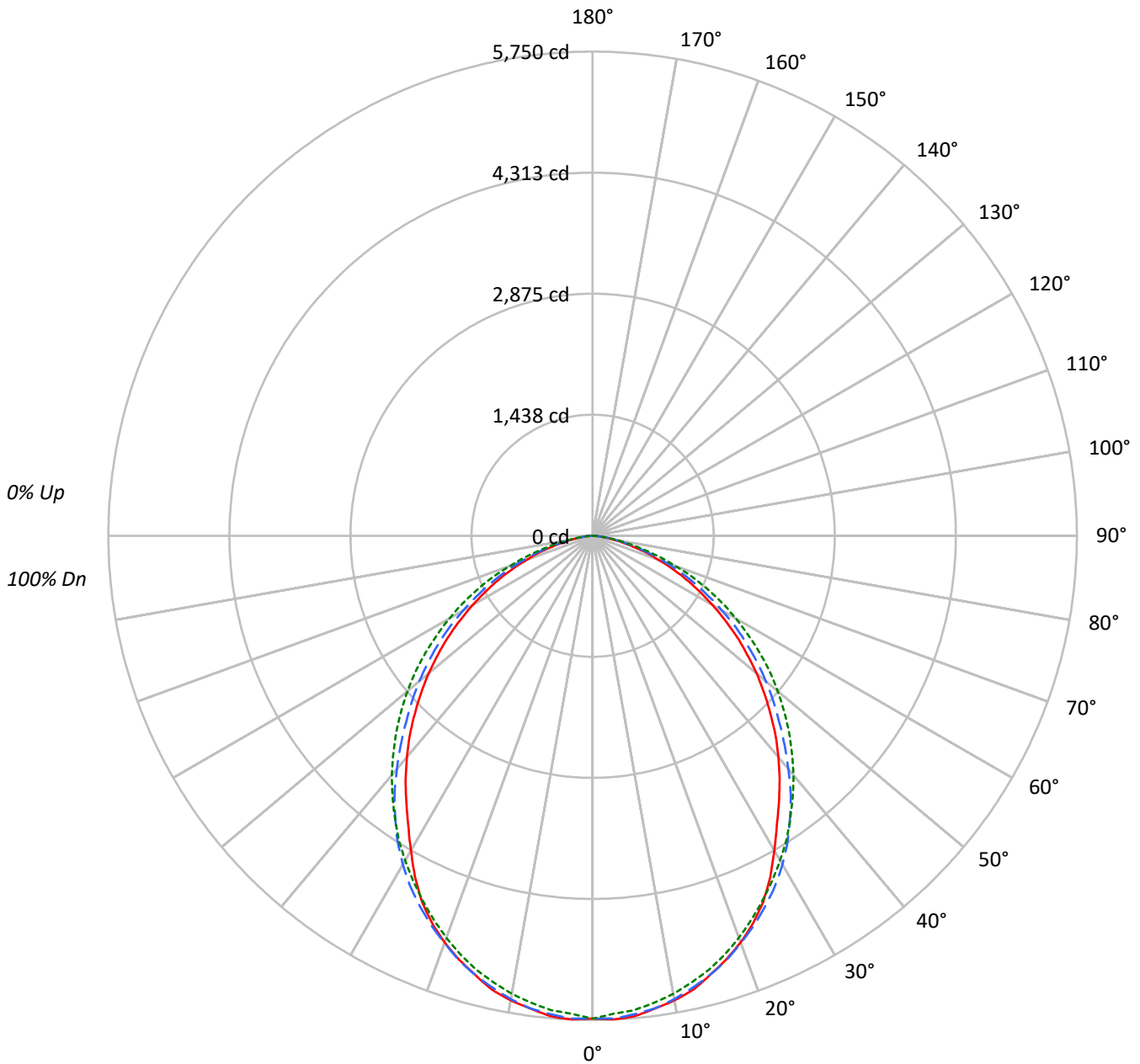
Lumens per Lamp: N/A
Luminaire Lumens: 13259.0 lumens
Efficiency: N/A
Efficacy: 102.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	15431	15431	15431
5°	15472	15406	15275
10°	15307	15265	15091
15°	15036	15036	14864
20°	14718	14736	14547
25°	14233	14409	14180
30°	13403	14005	13834
35°	12664	13424	13446
40°	12049	12699	13032
45°	11359	11929	12542
50°	10634	11242	12007
55°	9808	10459	11358
60°	8833	9544	10564
65°	7799	8486	9608
70°	6500	7227	8164
75°	5107	5771	6390
80°	3653	4062	4506
85°	2381	2381	2245



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	539.9	4.1
10°-20°	1516.7	11.4
20°-30°	2216.4	16.7
30°-40°	2515.9	19.0
40°-50°	2428.7	18.3
50°-60°	2003.5	15.1
60°-70°	1334.2	10.1
70°-80°	597.0	4.5
80°-90°	106.8	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°	4273.0	32.2
0°-40°	6788.9	51.2
0°-60°	11221.0	84.6
0°-90°	13259.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13259.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5734	5734	5734	5734	5734	
5°	5728	5725	5703	5672	5655	542
15°	5397	5410	5397	5373	5335	1521
25°	4794	4831	4853	4818	4776	2195
35°	3855	3908	4086	4108	4093	2415
45°	2985	3036	3135	3278	3296	2303
55°	2091	2126	2229	2353	2421	1866
65°	1225	1258	1333	1428	1509	1214
75°	491	518	555	582	615	537
85°	77	77	77	73	73	104
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5734.2	5734.2	5734.2	5734.2	5734.2
2.5°	5749.6	5751.8	5738.6	5703.3	5681.3
5°	5727.6	5725.4	5703.3	5672.5	5654.9
7.5°	5663.7	5668.1	5661.5	5617.4	5593.2
10°	5602.0	5604.2	5586.6	5551.3	5522.7
12.5°	5522.7	5520.5	5496.3	5478.6	5432.4
15°	5397.1	5410.3	5397.1	5372.9	5335.4
17.5°	5276.0	5276.0	5284.8	5242.9	5214.3
20°	5139.4	5146.0	5146.0	5113.0	5079.9
22.5°	4980.8	5000.6	5007.2	4972.0	4932.3
25°	4793.5	4831.0	4853.0	4817.8	4775.9
27.5°	4566.6	4623.9	4690.0	4663.6	4617.3
30°	4313.3	4397.0	4507.2	4485.1	4452.1
32.5°	4073.2	4156.9	4308.9	4300.1	4282.5
35°	3855.1	3908.0	4086.4	4108.4	4093.0
37.5°	3648.0	3696.5	3863.9	3914.6	3901.4
40°	3429.9	3482.8	3615.0	3705.3	3709.7
42.5°	3214.0	3264.7	3372.7	3502.6	3502.6
45°	2984.9	3035.6	3134.7	3277.9	3295.6
47.5°	2760.2	2813.1	2910.0	3053.2	3081.9
50°	2540.0	2588.4	2685.3	2824.1	2868.2
52.5°	2310.9	2363.7	2458.4	2586.2	2650.1
55°	2090.6	2125.8	2229.3	2352.7	2421.0
57.5°	1861.5	1894.5	2011.3	2117.0	2187.5
60°	1641.2	1683.0	1773.3	1881.3	1962.8
62.5°	1429.7	1473.7	1550.8	1645.6	1738.1
65°	1224.8	1257.9	1332.8	1427.5	1509.0
67.5°	1026.6	1055.2	1130.1	1196.2	1282.1
70°	826.1	863.5	918.6	982.5	1037.6
72.5°	665.3	680.7	727.0	773.2	830.5
75°	491.2	517.7	555.1	581.6	614.6
77.5°	352.5	367.9	389.9	411.9	442.8
80°	235.7	242.3	262.1	266.6	290.8
82.5°	143.2	147.6	152.0	154.2	163.0
85°	77.1	77.1	77.1	72.7	72.7
87.5°	44.1	44.1	37.4	30.8	22.0
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)