

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: P557899

Luminaire Tested: **FUSL-12-4-LD4-3HI-50-UNV-81-94-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: P557899
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-81-94-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 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

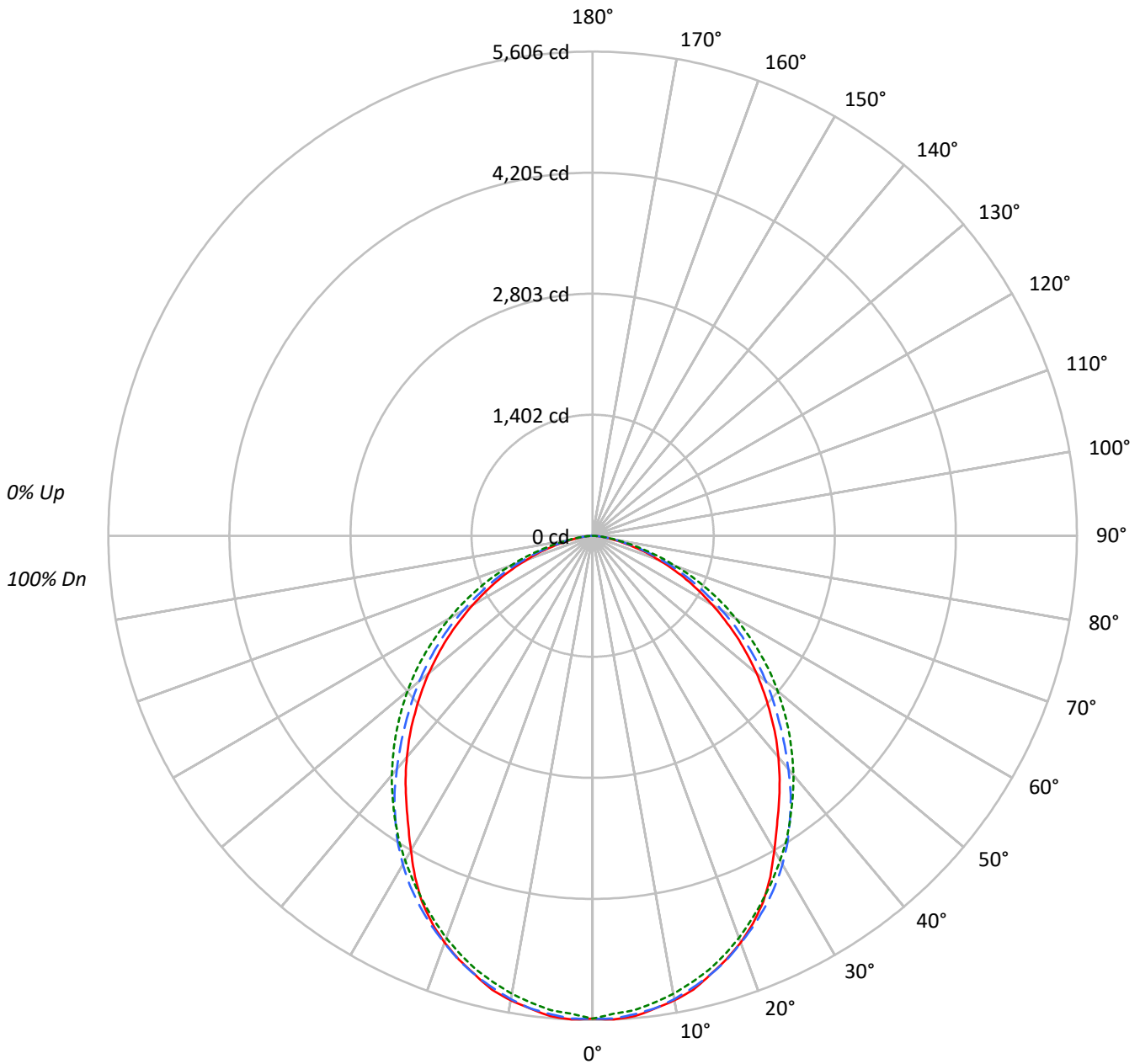
Lumens per Lamp: N/A
Luminaire Lumens: 12928.0 lumens
Efficiency: N/A
Efficacy: 99.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
Input Voltage (V): NR
Input Current (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									
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°	15045	15045	15045
5°	15085	15022	14894
10°	14925	14884	14714
15°	14661	14661	14493
20°	14350	14369	14184
25°	13878	14050	13827
30°	13068	13655	13488
35°	12348	13089	13110
40°	11748	12382	12706
45°	11076	11632	12229
50°	10368	10961	11708
55°	9563	10198	11075
60°	8612	9306	10300
65°	7604	8274	9368
70°	6338	7047	7960
75°	4980	5628	6231
80°	3561	3961	4393
85°	2322	2322	2189



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	526.4	4.1
10°-20°	1478.8	11.4
20°-30°	2161.1	16.7
30°-40°	2453.0	19.0
40°-50°	2368.0	18.3
50°-60°	1953.5	15.1
60°-70°	1300.9	10.1
70°-80°	582.1	4.5
80°-90°	104.2	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°	4166.3	32.2
0°-40°	6619.4	51.2
0°-60°	10940.9	84.6
0°-90°	12928.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12928.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5591	5591	5591	5591	5591	
5°	5585	5582	5561	5531	5514	529
15°	5262	5275	5262	5239	5202	1484
25°	4674	4710	4732	4698	4657	2140
35°	3759	3810	3984	4006	3991	2355
45°	2910	2960	3056	3196	3213	2246
55°	2038	2073	2174	2294	2361	1819
65°	1194	1226	1300	1392	1471	1184
75°	479	505	541	567	599	524
85°	75	75	75	71	71	101
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5591.0	5591.0	5591.0	5591.0	5591.0
2.5°	5606.1	5608.2	5595.3	5561.0	5539.5
5°	5584.6	5582.4	5561.0	5530.9	5513.7
7.5°	5522.3	5526.6	5520.1	5477.2	5453.6
10°	5462.2	5464.3	5447.1	5412.7	5384.8
12.5°	5384.8	5382.7	5359.1	5341.9	5296.8
15°	5262.4	5275.3	5262.4	5238.8	5202.3
17.5°	5144.3	5144.3	5152.9	5112.0	5084.1
20°	5011.1	5017.5	5017.5	4985.3	4953.1
22.5°	4856.4	4875.8	4882.2	4847.8	4809.2
25°	4673.9	4710.4	4731.9	4697.5	4656.7
27.5°	4452.6	4508.5	4572.9	4547.1	4502.0
30°	4205.6	4287.2	4394.6	4373.2	4340.9
32.5°	3971.5	4053.1	4201.3	4192.7	4175.5
35°	3758.9	3810.4	3984.4	4005.9	3990.8
37.5°	3556.9	3604.2	3767.4	3816.8	3804.0
40°	3344.3	3395.9	3524.7	3612.8	3617.1
42.5°	3133.8	3183.2	3288.5	3415.2	3415.2
45°	2910.4	2959.8	3056.5	3196.1	3213.3
47.5°	2691.3	2742.9	2837.4	2977.0	3004.9
50°	2476.5	2523.8	2618.3	2753.6	2796.6
52.5°	2253.2	2304.7	2397.1	2521.7	2583.9
55°	2038.4	2072.7	2173.7	2294.0	2360.6
57.5°	1815.0	1847.2	1961.0	2064.1	2132.9
60°	1600.2	1641.0	1729.1	1834.3	1913.8
62.5°	1394.0	1437.0	1512.1	1604.5	1694.7
65°	1194.2	1226.5	1299.5	1391.8	1471.3
67.5°	1000.9	1028.9	1101.9	1166.3	1250.1
70°	805.5	842.0	895.7	958.0	1011.7
72.5°	648.7	663.7	708.8	753.9	809.8
75°	479.0	504.8	541.3	567.0	599.3
77.5°	343.7	358.7	380.2	401.7	431.7
80°	229.8	236.3	255.6	259.9	283.5
82.5°	139.6	143.9	148.2	150.4	158.9
85°	75.2	75.2	75.2	70.9	70.9
87.5°	43.0	43.0	36.5	30.1	21.5
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)