

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: P557932

Luminaire Tested: **FUSL-12-4-LD4-3HI-50-UNV-93-96-EDD-90**

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: P557932
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-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

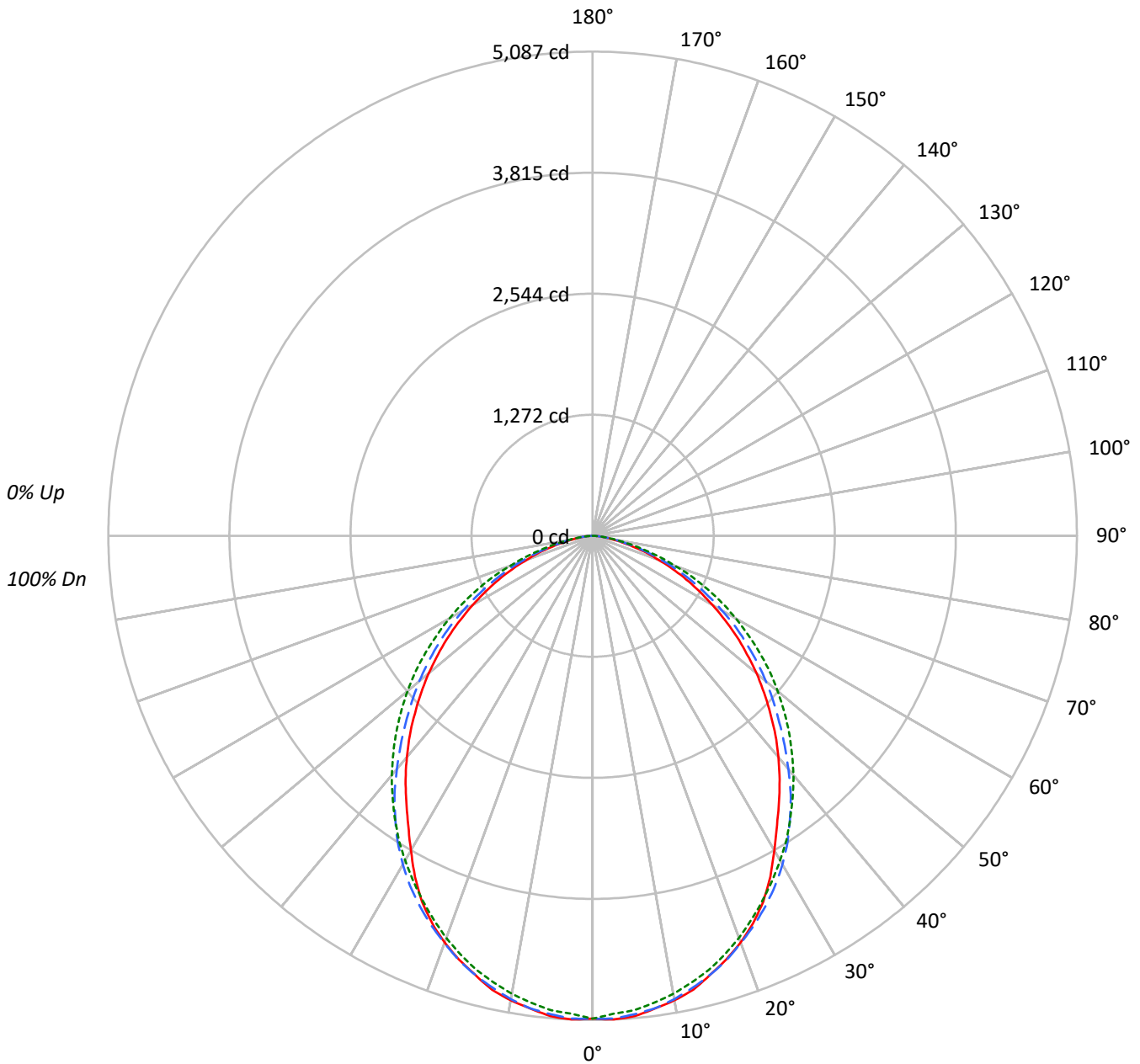
Lumens per Lamp: N/A
Luminaire Lumens: 11731.0 lumens
Efficiency: N/A
Efficacy: 90.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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					20					
RC	80					70					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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86					86			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73					73			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63					63			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54					54			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42					42			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34					34			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30					30			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28					28			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13652	13652	13652
5°	13689	13631	13515
10°	13543	13506	13351
15°	13303	13303	13151
20°	13021	13038	12871
25°	12593	12749	12546
30°	11858	12391	12240
35°	11205	11877	11896
40°	10660	11235	11530
45°	10051	10555	11096
50°	9408	9947	10624
55°	8678	9254	10049
60°	7815	8444	9346
65°	6900	7508	8501
70°	5751	6395	7223
75°	4519	5107	5654
80°	3231	3594	3987
85°	2106	2106	1985



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	477.7	4.1
10°-20°	1341.9	11.4
20°-30°	1961.0	16.7
30°-40°	2225.9	19.0
40°-50°	2148.8	18.3
50°-60°	1772.6	15.1
60°-70°	1180.4	10.1
70°-80°	528.2	4.5
80°-90°	94.5	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°	3780.6	32.2
0°-40°	6006.5	51.2
0°-60°	9927.9	84.6
0°-90°	11731.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11731.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5073	5073	5073	5073	5073	
5°	5068	5066	5046	5019	5003	480
15°	4775	4787	4775	4754	4721	1346
25°	4241	4274	4294	4263	4226	1942
35°	3411	3458	3616	3635	3621	2137
45°	2641	2686	2774	2900	2916	2038
55°	1850	1881	1972	2082	2142	1651
65°	1084	1113	1179	1263	1335	1075
75°	435	458	491	514	544	475
85°	68	68	68	64	64	92
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5073.4	5073.4	5073.4	5073.4	5073.4
2.5°	5087.0	5088.9	5077.3	5046.1	5026.6
5°	5067.5	5065.6	5046.1	5018.8	5003.2
7.5°	5011.0	5014.9	5009.0	4970.1	4948.6
10°	4956.4	4958.4	4942.8	4911.6	4886.2
12.5°	4886.2	4884.3	4862.9	4847.3	4806.3
15°	4775.2	4786.8	4775.2	4753.7	4720.6
17.5°	4668.0	4668.0	4675.8	4638.7	4613.4
20°	4547.1	4553.0	4553.0	4523.7	4494.5
22.5°	4406.8	4424.3	4430.2	4399.0	4363.9
25°	4241.1	4274.2	4293.7	4262.6	4225.5
27.5°	4040.4	4091.0	4149.5	4126.1	4085.2
30°	3816.2	3890.3	3987.7	3968.2	3939.0
32.5°	3603.8	3677.8	3812.3	3804.5	3788.9
35°	3410.8	3457.6	3615.5	3635.0	3621.3
37.5°	3227.6	3270.5	3418.6	3463.4	3451.8
40°	3034.7	3081.4	3198.4	3278.3	3282.2
42.5°	2843.7	2888.5	2984.0	3099.0	3099.0
45°	2641.0	2685.8	2773.5	2900.2	2915.8
47.5°	2442.1	2488.9	2574.7	2701.4	2726.7
50°	2247.2	2290.1	2375.9	2498.7	2537.7
52.5°	2044.5	2091.3	2175.1	2288.2	2344.7
55°	1849.6	1880.8	1972.4	2081.6	2142.0
57.5°	1646.9	1676.2	1779.5	1873.0	1935.4
60°	1452.0	1489.1	1569.0	1664.5	1736.6
62.5°	1264.9	1303.9	1372.1	1455.9	1537.8
65°	1083.7	1112.9	1179.2	1263.0	1335.1
67.5°	908.3	933.6	999.9	1058.3	1134.3
70°	730.9	764.0	812.8	869.3	918.0
72.5°	588.6	602.3	643.2	684.1	734.8
75°	434.6	458.0	491.2	514.5	543.8
77.5°	311.8	325.5	345.0	364.5	391.8
80°	208.5	214.4	231.9	235.8	257.3
82.5°	126.7	130.6	134.5	136.4	144.2
85°	68.2	68.2	68.2	64.3	64.3
87.5°	39.0	39.0	33.1	27.3	19.5
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)