

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: P557796

Luminaire Tested: **FUSL-12-4-LD4-3HI-35-UNV-93-86-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: P557796
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-35-UNV-93-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

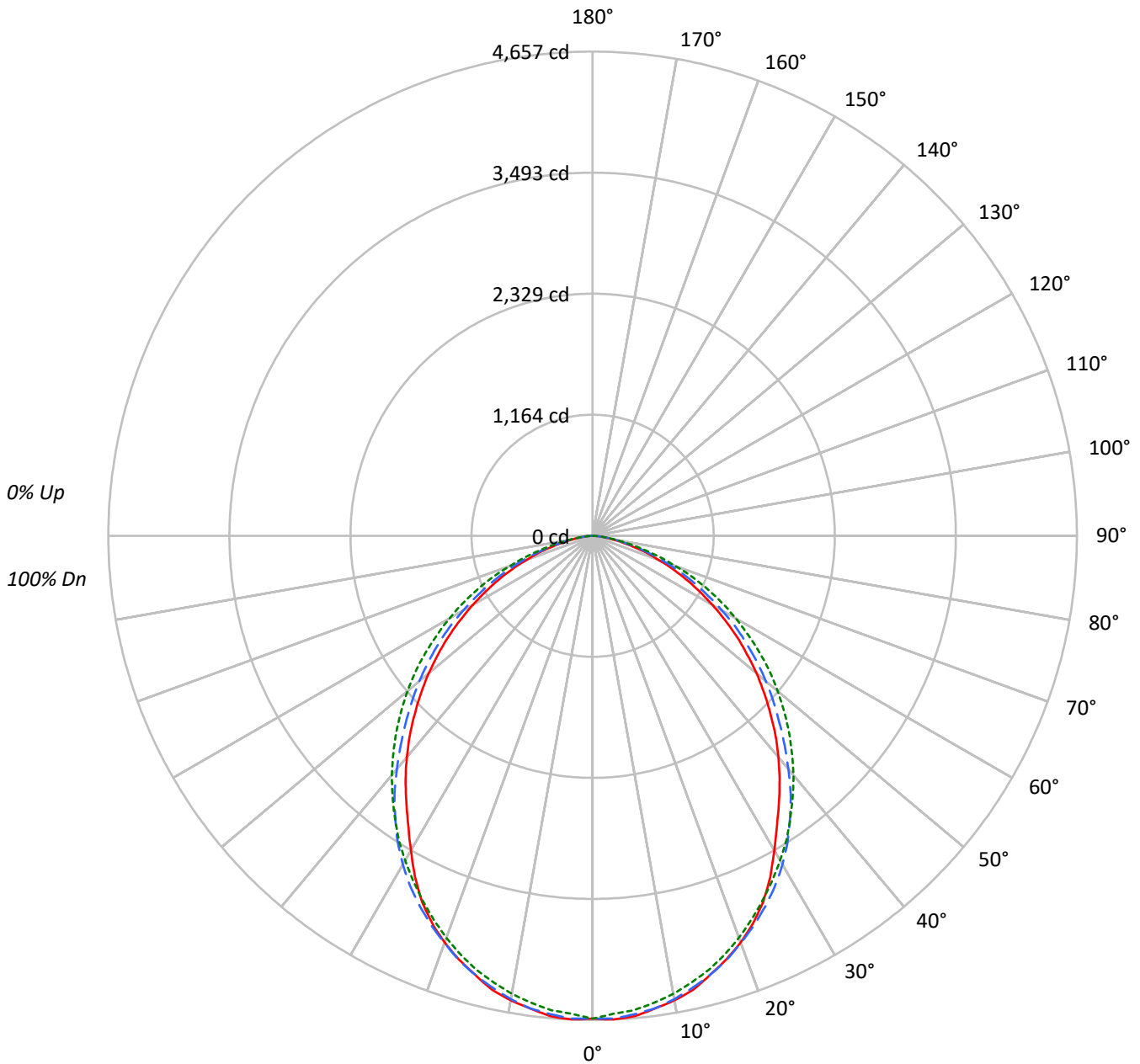
Lumens per Lamp: N/A
Luminaire Lumens: 10739.0 lumens
Efficiency: N/A
Efficacy: 82.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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				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	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°	12498	12498	12498
5°	12531	12478	12372
10°	12398	12364	12223
15°	12178	12178	12039
20°	11920	11936	11782
25°	11528	11671	11485
30°	10855	11343	11205
35°	10257	10873	10890
40°	9759	10285	10555
45°	9200	9662	10158
50°	8612	9105	9725
55°	7944	8471	9200
60°	7154	7730	8556
65°	6316	6874	7782
70°	5264	5854	6612
75°	4137	4675	5176
80°	2958	3290	3649
85°	1927	1927	1819



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	437.3	4.1
10°-20°	1228.4	11.4
20°-30°	1795.2	16.7
30°-40°	2037.7	19.0
40°-50°	1967.1	18.3
50°-60°	1622.7	15.1
60°-70°	1080.6	10.1
70°-80°	483.6	4.5
80°-90°	86.5	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°	3460.9	32.2
0°-40°	5498.6	51.2
0°-60°	9088.3	84.6
0°-90°	10739.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10739.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4644	4644	4644	4644	4644	
5°	4639	4637	4619	4594	4580	439
15°	4371	4382	4371	4352	4321	1232
25°	3882	3913	3931	3902	3868	1778
35°	3122	3165	3310	3328	3315	1956
45°	2418	2459	2539	2655	2669	1865
55°	1693	1722	1806	1906	1961	1511
65°	992	1019	1080	1156	1222	984
75°	398	419	450	471	498	435
85°	62	62	62	59	59	84
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4644.3	4644.3	4644.3	4644.3	4644.3
2.5°	4656.8	4658.6	4647.9	4619.4	4601.5
5°	4639.0	4637.2	4619.4	4594.4	4580.1
7.5°	4587.2	4590.8	4585.5	4549.8	4530.1
10°	4537.3	4539.1	4524.8	4496.2	4473.1
12.5°	4473.1	4471.3	4451.6	4437.4	4399.9
15°	4371.4	4382.1	4371.4	4351.7	4321.4
17.5°	4273.2	4273.2	4280.4	4246.5	4223.3
20°	4162.6	4168.0	4168.0	4141.2	4114.4
22.5°	4034.1	4050.2	4055.5	4027.0	3994.9
25°	3882.5	3912.8	3930.6	3902.1	3868.2
27.5°	3698.7	3745.1	3798.6	3777.2	3739.7
30°	3493.5	3561.3	3650.5	3632.7	3605.9
32.5°	3299.0	3366.8	3489.9	3482.8	3468.5
35°	3122.4	3165.2	3309.7	3327.6	3315.1
37.5°	2954.7	2993.9	3129.5	3170.6	3159.9
40°	2778.0	2820.9	2927.9	3001.1	3004.6
42.5°	2603.2	2644.2	2731.6	2836.9	2836.9
45°	2417.6	2458.7	2539.0	2654.9	2669.2
47.5°	2235.6	2278.5	2357.0	2472.9	2496.1
50°	2057.2	2096.5	2175.0	2287.4	2323.1
52.5°	1871.7	1914.5	1991.2	2094.7	2146.4
55°	1693.2	1721.8	1805.6	1905.6	1960.9
57.5°	1507.7	1534.4	1629.0	1714.6	1771.7
60°	1329.2	1363.1	1436.3	1523.7	1589.7
62.5°	1158.0	1193.6	1256.1	1332.8	1407.8
65°	992.0	1018.8	1079.5	1156.2	1222.2
67.5°	831.4	854.6	915.3	968.8	1038.4
70°	669.1	699.4	744.0	795.8	840.4
72.5°	538.8	551.3	588.8	626.3	672.7
75°	397.9	419.3	449.6	471.0	497.8
77.5°	285.5	298.0	315.8	333.7	358.6
80°	190.9	196.3	212.3	215.9	235.5
82.5°	116.0	119.5	123.1	124.9	132.0
85°	62.4	62.4	62.4	58.9	58.9
87.5°	35.7	35.7	30.3	25.0	17.8
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)