

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: P557685

Luminaire Tested: **FUSL-12-4-LD4-3HI-30-UNV-80-86-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: P557685
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-30-UNV-80-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

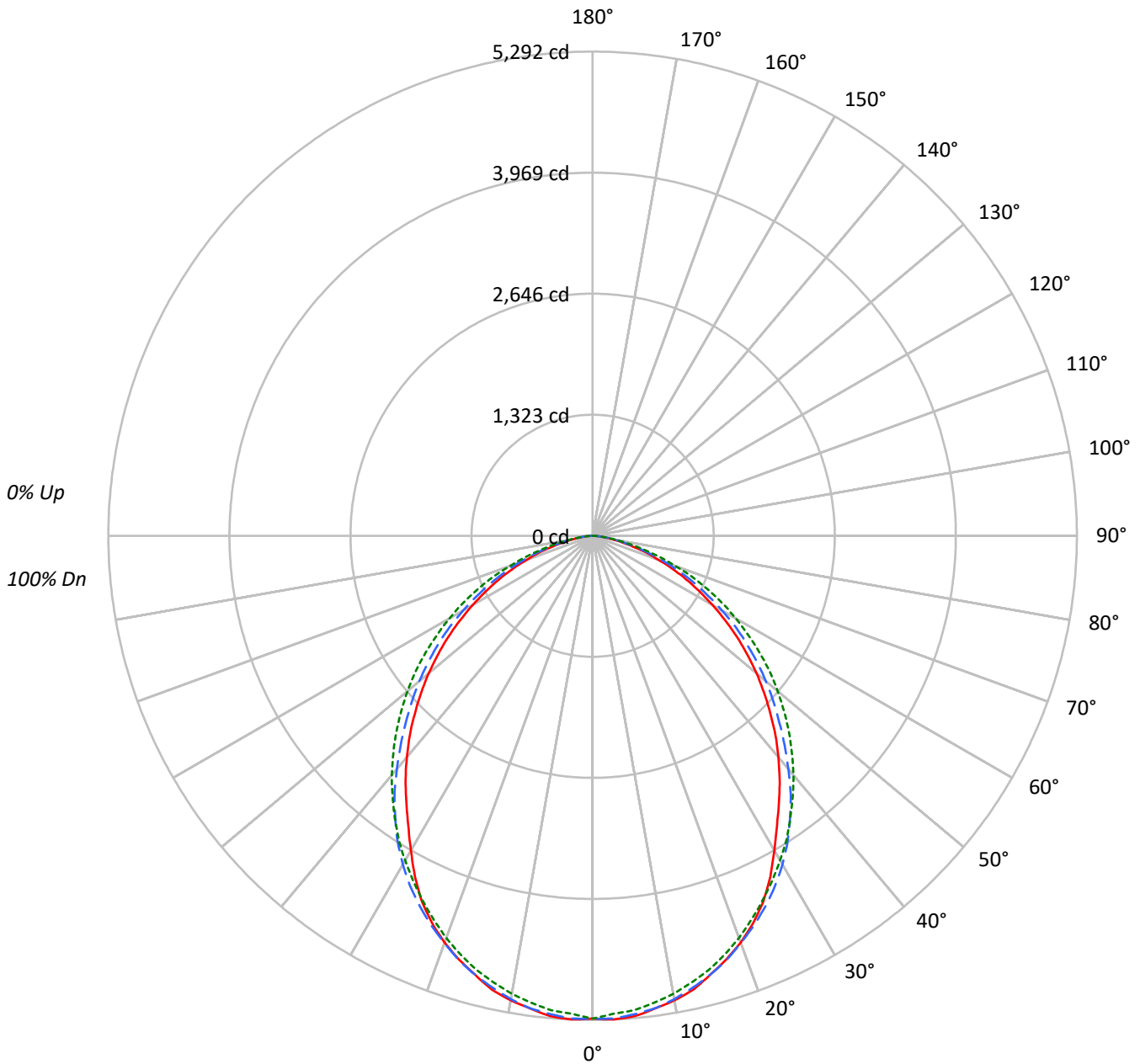
Lumens per Lamp: N/A
Luminaire Lumens: 12204.0 lumens
Efficiency: N/A
Efficacy: 94.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	14203	14203	14203
5°	14240	14180	14060
10°	14090	14051	13890
15°	13840	13840	13681
20°	13547	13564	13390
25°	13100	13263	13052
30°	12336	12891	12733
35°	11656	12356	12376
40°	11090	11688	11995
45°	10456	10980	11544
50°	9787	10348	11052
55°	9028	9627	10455
60°	8130	8784	9723
65°	7179	7811	8844
70°	5983	6652	7514
75°	4702	5313	5882
80°	3363	3739	4147
85°	2192	2192	2066



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	496.9	4.1
10°-20°	1396.0	11.4
20°-30°	2040.0	16.7
30°-40°	2315.7	19.0
40°-50°	2235.4	18.3
50°-60°	1844.1	15.1
60°-70°	1228.0	10.1
70°-80°	549.5	4.5
80°-90°	98.3	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°	3933.0	32.2
0°-40°	6248.7	51.2
0°-60°	10328.2	84.6
0°-90°	12204.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12204.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5278	5278	5278	5278	5278	
5°	5272	5270	5250	5221	5205	499
15°	4968	4980	4968	4945	4911	1400
25°	4412	4447	4467	4434	4396	2021
35°	3548	3597	3761	3782	3767	2223
45°	2747	2794	2885	3017	3033	2120
55°	1924	1957	2052	2166	2228	1717
65°	1127	1158	1227	1314	1389	1118
75°	452	476	511	535	566	494
85°	71	71	71	67	67	96
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5277.9	5277.9	5277.9	5277.9	5277.9
2.5°	5292.1	5294.1	5282.0	5249.5	5229.3
5°	5271.8	5269.8	5249.5	5221.1	5204.9
7.5°	5213.0	5217.1	5211.0	5170.5	5148.1
10°	5156.3	5158.3	5142.1	5109.6	5083.3
12.5°	5083.3	5081.2	5058.9	5042.7	5000.1
15°	4967.7	4979.9	4967.7	4945.4	4910.9
17.5°	4856.2	4856.2	4864.3	4825.8	4799.4
20°	4730.5	4736.5	4736.5	4706.1	4675.7
22.5°	4584.5	4602.7	4608.8	4576.4	4539.9
25°	4412.1	4446.6	4466.9	4434.4	4395.9
27.5°	4203.3	4256.0	4316.8	4292.5	4249.9
30°	3970.1	4047.1	4148.5	4128.2	4097.8
32.5°	3749.1	3826.1	3966.0	3957.9	3941.7
35°	3548.3	3597.0	3761.2	3781.5	3767.3
37.5°	3357.8	3402.4	3556.5	3603.1	3590.9
40°	3157.0	3205.7	3327.3	3410.5	3414.5
42.5°	2958.3	3004.9	3104.3	3223.9	3223.9
45°	2747.4	2794.1	2885.3	3017.1	3033.3
47.5°	2540.6	2589.3	2678.5	2810.3	2836.7
50°	2337.9	2382.5	2471.7	2599.4	2640.0
52.5°	2127.0	2175.6	2262.8	2380.4	2439.2
55°	1924.2	1956.7	2052.0	2165.5	2228.4
57.5°	1713.3	1743.8	1851.2	1948.6	2013.4
60°	1510.6	1549.1	1632.2	1731.6	1806.6
62.5°	1315.9	1356.5	1427.4	1514.6	1599.8
65°	1127.4	1157.8	1226.7	1313.9	1388.9
67.5°	944.9	971.2	1040.2	1101.0	1180.1
70°	760.4	794.8	845.5	904.3	955.0
72.5°	612.3	626.5	669.1	711.7	764.4
75°	452.2	476.5	511.0	535.3	565.7
77.5°	324.4	338.6	358.9	379.2	407.6
80°	217.0	223.0	241.3	245.3	267.6
82.5°	131.8	135.9	139.9	141.9	150.0
85°	71.0	71.0	71.0	66.9	66.9
87.5°	40.6	40.6	34.5	28.4	20.3
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)