

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: P557866

Luminaire Tested: **FUSL-12-4-LD4-3HI-40-UNV-93-94-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: P557866
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-93-94-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

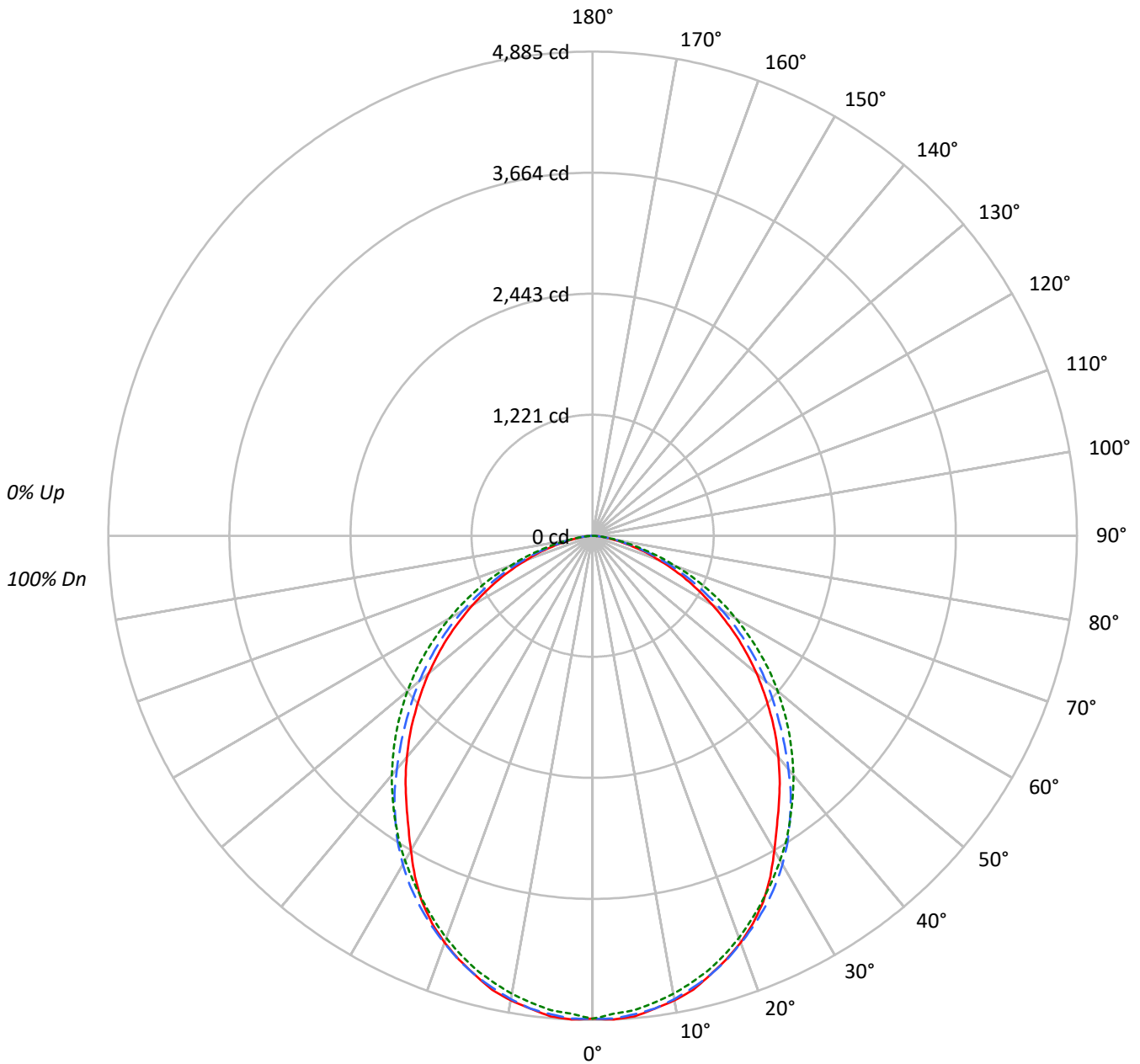
Lumens per Lamp: N/A
Luminaire Lumens: 11266.0 lumens
Efficiency: N/A
Efficacy: 86.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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									
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°	13111	13111	13111
5°	13146	13090	12979
10°	13006	12971	12822
15°	12776	12776	12630
20°	12505	12521	12361
25°	12093	12243	12049
30°	11388	11900	11755
35°	10761	11406	11425
40°	10238	10790	11073
45°	9652	10136	10656
50°	9035	9552	10203
55°	8334	8887	9651
60°	7505	8110	8976
65°	6627	7210	8164
70°	5522	6141	6936
75°	4340	4904	5429
80°	3104	3451	3829
85°	2022	2022	1908



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	458.7	4.1
10°-20°	1288.7	11.4
20°-30°	1883.2	16.7
30°-40°	2137.7	19.0
40°-50°	2063.6	18.3
50°-60°	1702.3	15.1
60°-70°	1133.6	10.1
70°-80°	507.3	4.5
80°-90°	90.7	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°	3630.7	32.2
0°-40°	5768.4	51.2
0°-60°	9534.3	84.6
0°-90°	11266.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11266.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4872	4872	4872	4872	4872	
5°	4867	4865	4846	4820	4805	461
15°	4586	4597	4586	4565	4534	1293
25°	4073	4105	4124	4094	4058	1865
35°	3276	3320	3472	3491	3478	2052
45°	2536	2579	2664	2785	2800	1957
55°	1776	1806	1894	1999	2057	1585
65°	1041	1069	1132	1213	1282	1032
75°	417	440	472	494	522	456
85°	66	66	66	62	62	88
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4872.3	4872.3	4872.3	4872.3	4872.3
2.5°	4885.4	4887.2	4876.0	4846.0	4827.3
5°	4866.6	4864.8	4846.0	4819.8	4804.9
7.5°	4812.4	4816.1	4810.5	4773.0	4752.5
10°	4759.9	4761.8	4746.8	4716.9	4692.6
12.5°	4692.6	4690.7	4670.1	4655.1	4615.8
15°	4585.9	4597.1	4585.9	4565.3	4533.5
17.5°	4482.9	4482.9	4490.4	4454.8	4430.5
20°	4366.9	4372.5	4372.5	4344.4	4316.3
22.5°	4232.1	4248.9	4254.6	4224.6	4190.9
25°	4073.0	4104.8	4123.5	4093.6	4058.0
27.5°	3880.2	3928.9	3985.0	3962.6	3923.3
30°	3665.0	3736.1	3829.7	3811.0	3782.9
32.5°	3460.9	3532.1	3661.2	3653.7	3638.7
35°	3275.6	3320.5	3472.2	3490.9	3477.8
37.5°	3099.7	3140.9	3283.1	3326.2	3314.9
40°	2914.4	2959.3	3071.6	3148.3	3152.1
42.5°	2730.9	2774.0	2865.7	2976.1	2976.1
45°	2536.3	2579.3	2663.5	2785.2	2800.2
47.5°	2345.3	2390.3	2472.6	2594.3	2618.6
50°	2158.2	2199.3	2281.7	2399.6	2437.1
52.5°	1963.5	2008.4	2088.9	2197.5	2251.8
55°	1776.3	1806.3	1894.2	1999.1	2057.1
57.5°	1581.7	1609.7	1708.9	1798.8	1858.7
60°	1394.5	1430.0	1506.8	1598.5	1667.8
62.5°	1214.8	1252.2	1317.7	1398.2	1476.8
65°	1040.7	1068.8	1132.4	1212.9	1282.2
67.5°	872.3	896.6	960.2	1016.4	1089.4
70°	701.9	733.7	780.5	834.8	881.6
72.5°	565.3	578.4	617.7	657.0	705.7
75°	417.4	439.9	471.7	494.2	522.2
77.5°	299.5	312.6	331.3	350.0	376.2
80°	200.3	205.9	222.7	226.5	247.1
82.5°	121.7	125.4	129.2	131.0	138.5
85°	65.5	65.5	65.5	61.8	61.8
87.5°	37.4	37.4	31.8	26.2	18.7
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)