

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: P557802

Luminaire Tested: **FUSL-12-4-LD4-3HI-35-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: P557802
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-93-94-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

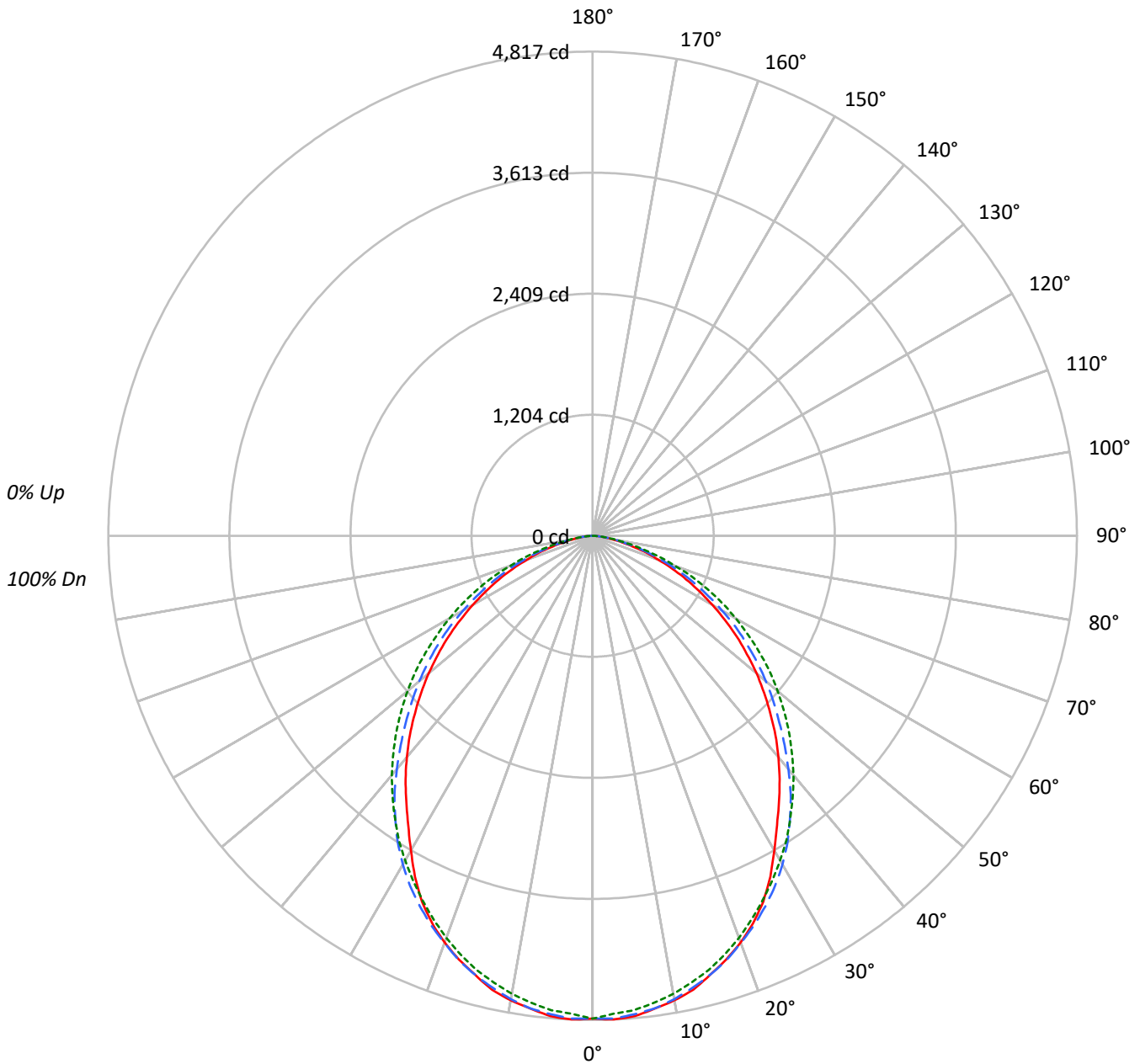
Lumens per Lamp: N/A
Luminaire Lumens: 11108.0 lumens
Efficiency: N/A
Efficacy: 85.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	12927	12927	12927
5°	12962	12907	12797
10°	12824	12789	12643
15°	12597	12597	12453
20°	12330	12346	12187
25°	11924	12072	11880
30°	11228	11733	11590
35°	10610	11246	11265
40°	10094	10639	10918
45°	9517	9994	10507
50°	8908	9418	10060
55°	8217	8762	9515
60°	7400	7996	8850
65°	6534	7109	8050
70°	5445	6055	6839
75°	4279	4836	5353
80°	3061	3403	3775
85°	1995	1995	1880



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	452.3	4.1
10°-20°	1270.7	11.4
20°-30°	1856.8	16.7
30°-40°	2107.7	19.0
40°-50°	2034.7	18.3
50°-60°	1678.5	15.1
60°-70°	1117.7	10.1
70°-80°	500.2	4.5
80°-90°	89.5	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°	3579.8	32.2
0°-40°	5687.5	51.2
0°-60°	9400.7	84.6
0°-90°	11108.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11108.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4804	4804	4804	4804	4804	
5°	4798	4796	4778	4752	4738	454
15°	4522	4533	4522	4501	4470	1275
25°	4016	4047	4066	4036	4001	1839
35°	3230	3274	3424	3442	3429	2024
45°	2501	2543	2626	2746	2761	1929
55°	1751	1781	1868	1971	2028	1563
65°	1026	1054	1116	1196	1264	1017
75°	412	434	465	487	515	450
85°	65	65	65	61	61	87
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4803.9	4803.9	4803.9	4803.9	4803.9
2.5°	4816.8	4818.7	4807.6	4778.1	4759.6
5°	4798.4	4796.5	4778.1	4752.2	4737.5
7.5°	4744.9	4748.6	4743.0	4706.1	4685.8
10°	4693.2	4695.0	4680.3	4650.7	4626.8
12.5°	4626.8	4624.9	4604.6	4589.8	4551.1
15°	4521.6	4532.6	4521.6	4501.3	4469.9
17.5°	4420.1	4420.1	4427.4	4392.4	4368.4
20°	4305.6	4311.2	4311.2	4283.5	4255.8
22.5°	4172.8	4189.4	4194.9	4165.4	4132.1
25°	4015.9	4047.3	4065.7	4036.2	4001.1
27.5°	3825.8	3873.8	3929.1	3907.0	3868.2
30°	3613.6	3683.7	3776.0	3757.5	3729.8
32.5°	3412.4	3482.5	3609.9	3602.5	3587.7
35°	3229.7	3274.0	3423.5	3441.9	3429.0
37.5°	3056.2	3096.8	3237.1	3279.5	3268.4
40°	2873.5	2917.8	3028.5	3104.2	3107.9
42.5°	2692.6	2735.1	2825.5	2934.4	2934.4
45°	2500.7	2543.1	2626.2	2746.2	2760.9
47.5°	2312.5	2356.7	2437.9	2557.9	2581.9
50°	2127.9	2168.5	2249.7	2366.0	2402.9
52.5°	1936.0	1980.3	2059.6	2166.7	2220.2
55°	1751.4	1780.9	1867.7	1971.0	2028.2
57.5°	1559.5	1587.2	1685.0	1773.6	1832.6
60°	1374.9	1410.0	1485.7	1576.1	1644.4
62.5°	1197.8	1234.7	1299.3	1378.6	1456.1
65°	1026.1	1053.8	1116.5	1195.9	1264.2
67.5°	860.0	884.0	946.8	1002.1	1074.1
70°	692.1	723.4	769.6	823.1	869.2
72.5°	557.4	570.3	609.0	647.8	695.8
75°	411.6	433.7	465.1	487.2	514.9
77.5°	295.3	308.2	326.7	345.1	371.0
80°	197.5	203.0	219.6	223.3	243.6
82.5°	120.0	123.7	127.3	129.2	136.6
85°	64.6	64.6	64.6	60.9	60.9
87.5°	36.9	36.9	31.4	25.8	18.5
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)