

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: P558447

Luminaire Tested: **FUSL-12-4-LD4-3STD-50-UNV-93-97-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: P558447
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-LD4-3STD-50-UNV-93-97-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

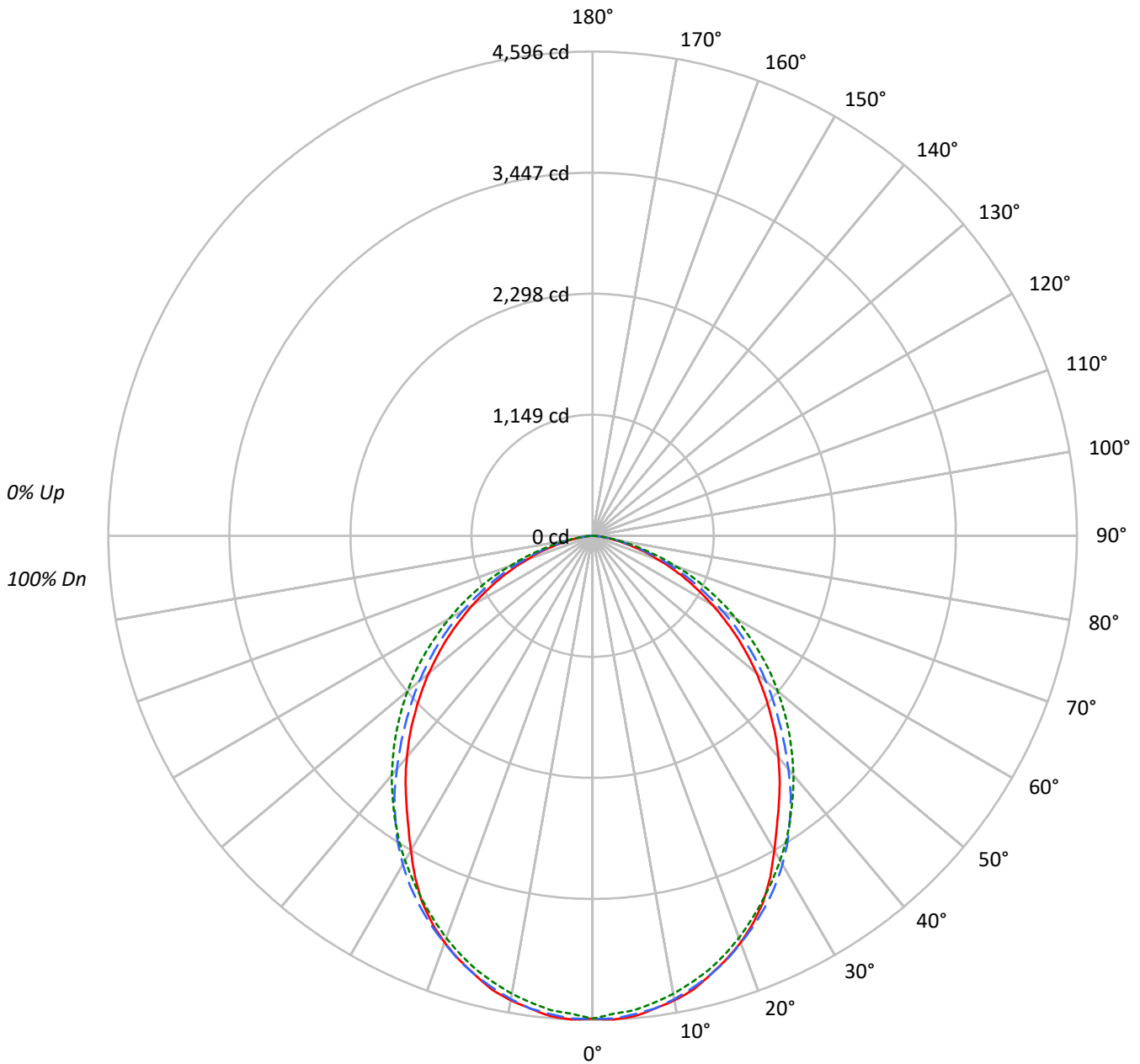
Lumens per Lamp: N/A
Luminaire Lumens: 10599.0 lumens
Efficiency: N/A
Efficacy: 106.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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					
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								
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°	12335	12335	12335
5°	12368	12315	12211
10°	12236	12203	12063
15°	12020	12020	11882
20°	11765	11780	11629
25°	11378	11519	11336
30°	10714	11195	11058
35°	10124	10731	10748
40°	9631	10151	10417
45°	9081	9536	10026
50°	8500	8987	9599
55°	7841	8361	9080
60°	7061	7629	8444
65°	6234	6784	7681
70°	5196	5777	6526
75°	4083	4614	5108
80°	2920	3248	3601
85°	1902	1902	1794



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	431.6	4.1
10°-20°	1212.4	11.4
20°-30°	1771.8	16.7
30°-40°	2011.1	19.0
40°-50°	1941.4	18.3
50°-60°	1601.6	15.1
60°-70°	1066.5	10.1
70°-80°	477.2	4.5
80°-90°	85.4	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°	3415.8	32.2
0°-40°	5426.9	51.2
0°-60°	8969.9	84.6
0°-90°	10599.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10599.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4584	4584	4584	4584	4584	
5°	4578	4577	4559	4534	4520	433
15°	4314	4325	4314	4295	4265	1216
25°	3832	3862	3879	3851	3818	1755
35°	3082	3124	3267	3284	3272	1931
45°	2386	2427	2506	2620	2634	1841
55°	1671	1699	1782	1881	1935	1492
65°	979	1006	1065	1141	1206	971
75°	393	414	444	465	491	429
85°	62	62	62	58	58	83
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4583.8	4583.8	4583.8	4583.8	4583.8
2.5°	4596.1	4597.9	4587.3	4559.1	4541.5
5°	4578.5	4576.7	4559.1	4534.5	4520.4
7.5°	4527.4	4531.0	4525.7	4490.5	4471.1
10°	4478.1	4479.9	4465.8	4437.6	4414.7
12.5°	4414.7	4413.0	4393.6	4379.5	4342.5
15°	4314.4	4324.9	4314.4	4295.0	4265.1
17.5°	4217.5	4217.5	4224.6	4191.1	4168.2
20°	4108.3	4113.6	4113.6	4087.2	4060.8
22.5°	3981.5	3997.4	4002.7	3974.5	3942.8
25°	3831.9	3861.8	3879.4	3851.2	3817.8
27.5°	3650.5	3696.3	3749.1	3728.0	3691.0
30°	3448.0	3514.9	3602.9	3585.3	3558.9
32.5°	3256.0	3322.9	3444.4	3437.4	3423.3
35°	3081.7	3124.0	3266.6	3284.2	3271.9
37.5°	2916.2	2954.9	3088.7	3129.2	3118.7
40°	2741.8	2784.1	2889.7	2961.9	2965.5
42.5°	2569.2	2609.8	2696.0	2799.9	2799.9
45°	2386.1	2426.6	2505.9	2620.3	2634.4
47.5°	2206.5	2248.8	2326.2	2440.7	2463.6
50°	2030.4	2069.1	2146.6	2257.6	2292.8
52.5°	1847.3	1889.5	1965.2	2067.4	2118.4
55°	1671.2	1699.3	1782.1	1880.7	1935.3
57.5°	1488.0	1514.4	1607.8	1692.3	1748.6
60°	1311.9	1345.4	1417.6	1503.9	1569.0
62.5°	1142.9	1178.1	1239.7	1315.4	1389.4
65°	979.1	1005.5	1065.4	1141.1	1206.3
67.5°	820.6	843.5	903.4	956.2	1024.9
70°	660.4	690.3	734.3	785.4	829.4
72.5°	531.8	544.1	581.1	618.1	663.9
75°	392.7	413.8	443.8	464.9	491.3
77.5°	281.8	294.1	311.7	329.3	354.0
80°	188.4	193.7	209.6	213.1	232.4
82.5°	114.5	118.0	121.5	123.3	130.3
85°	61.6	61.6	61.6	58.1	58.1
87.5°	35.2	35.2	29.9	24.7	17.6
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)