

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: P557798

Luminaire Tested: **FUSL-12-4-LD4-3HI-35-UNV-93-87-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: P557798
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-93-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

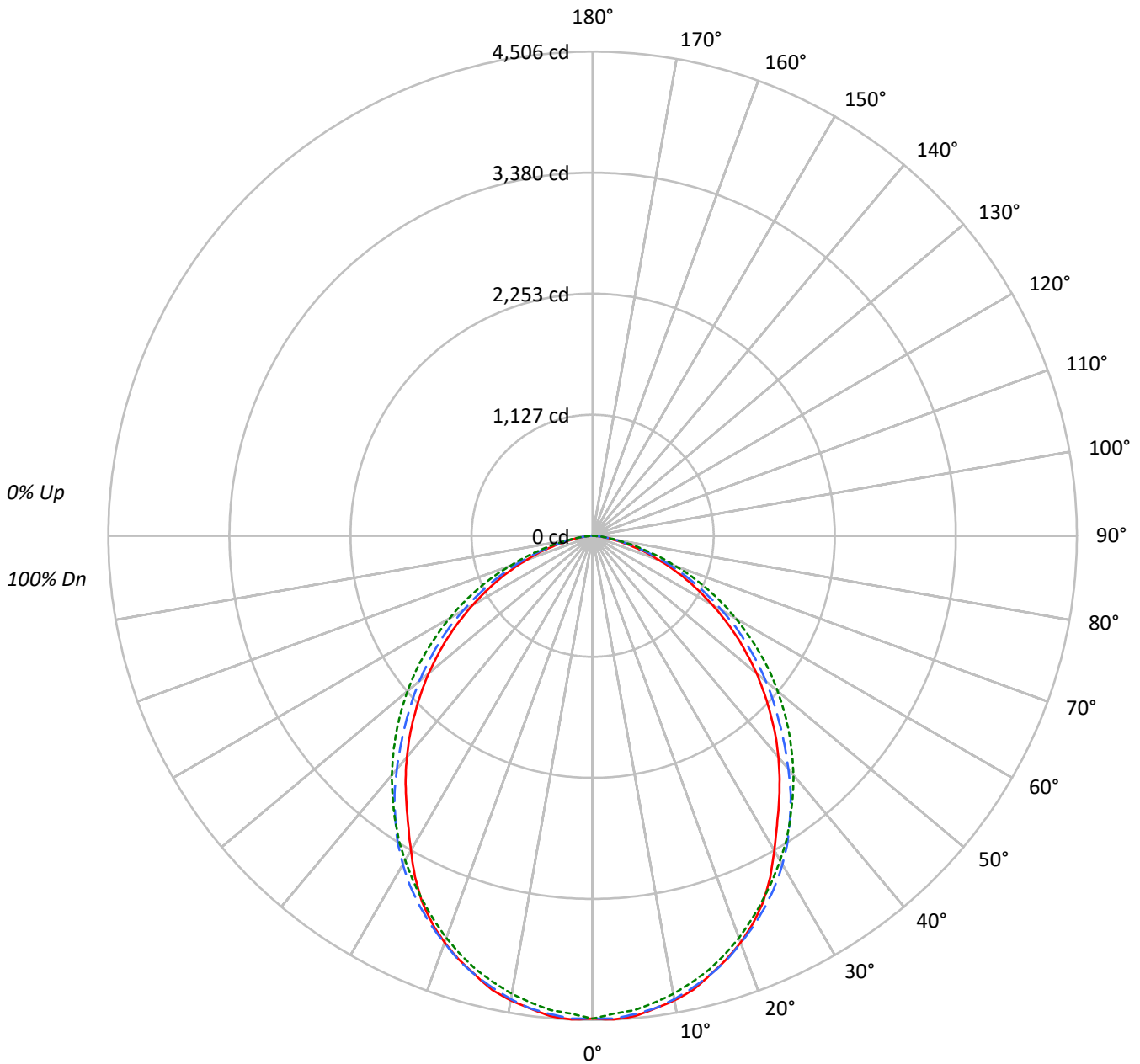
Lumens per Lamp: N/A
Luminaire Lumens: 10391.0 lumens
Efficiency: N/A
Efficacy: 80.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P557798

CATALOG NUMBER: FUSL-12-4-LD4-3HI-35-UNV-93-87-EDD-90

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°	12093	12093	12093
5°	12125	12074	11971
10°	11996	11963	11826
15°	11784	11784	11649
20°	11534	11549	11401
25°	11154	11293	11113
30°	10504	10976	10842
35°	9925	10520	10538
40°	9442	9952	10213
45°	8902	9349	9829
50°	8333	8810	9410
55°	7687	8197	8901
60°	6922	7480	8279
65°	6112	6651	7530
70°	5094	5664	6397
75°	4003	4524	5008
80°	2862	3183	3532
85°	1865	1865	1760



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	423.1	4.1
10°-20°	1188.6	11.4
20°-30°	1737.0	16.7
30°-40°	1971.7	19.0
40°-50°	1903.3	18.3
50°-60°	1570.1	15.1
60°-70°	1045.6	10.1
70°-80°	467.9	4.5
80°-90°	83.7	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°	3348.7	32.2
0°-40°	5320.4	51.2
0°-60°	8793.8	84.6
0°-90°	10391.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10391.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4494	4494	4494	4494	4494	
5°	4489	4487	4470	4446	4432	425
15°	4230	4240	4230	4211	4181	1192
25°	3757	3786	3803	3776	3743	1720
35°	3021	3063	3202	3220	3208	1893
45°	2339	2379	2457	2569	2583	1805
55°	1638	1666	1747	1844	1897	1462
65°	960	986	1044	1119	1183	952
75°	385	406	435	456	482	421
85°	60	60	60	57	57	81
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4493.8	4493.8	4493.8	4493.8	4493.8
2.5°	4505.9	4507.7	4497.3	4469.7	4452.4
5°	4488.7	4486.9	4469.7	4445.5	4431.7
7.5°	4438.6	4442.0	4436.9	4402.3	4383.3
10°	4390.3	4392.0	4378.2	4350.5	4328.1
12.5°	4328.1	4326.4	4307.4	4293.6	4257.3
15°	4229.7	4240.1	4229.7	4210.7	4181.4
17.5°	4134.7	4134.7	4141.7	4108.9	4086.4
20°	4027.7	4032.9	4032.9	4007.0	3981.1
22.5°	3903.4	3918.9	3924.1	3896.5	3865.4
25°	3756.7	3786.0	3803.3	3775.7	3742.9
27.5°	3578.8	3623.7	3675.5	3654.8	3618.6
30°	3380.3	3445.9	3532.2	3515.0	3489.1
32.5°	3192.1	3257.7	3376.9	3369.9	3356.1
35°	3021.2	3062.6	3202.5	3219.8	3207.7
37.5°	2858.9	2896.9	3028.1	3067.8	3057.5
40°	2688.0	2729.5	2833.0	2903.8	2907.3
42.5°	2518.8	2558.5	2643.1	2745.0	2745.0
45°	2339.3	2379.0	2456.7	2568.9	2582.7
47.5°	2163.2	2204.6	2280.6	2392.8	2415.2
50°	1990.5	2028.5	2104.5	2213.3	2247.8
52.5°	1811.0	1852.4	1926.7	2026.8	2076.9
55°	1638.4	1666.0	1747.1	1843.8	1897.3
57.5°	1458.8	1484.7	1576.2	1659.1	1714.3
60°	1286.2	1319.0	1389.8	1474.4	1538.2
62.5°	1120.4	1155.0	1215.4	1289.6	1362.1
65°	959.9	985.8	1044.5	1118.7	1182.6
67.5°	804.5	826.9	885.6	937.4	1004.8
70°	647.4	676.8	719.9	770.0	813.1
72.5°	521.4	533.5	569.7	606.0	650.9
75°	385.0	405.7	435.1	455.8	481.7
77.5°	276.2	288.3	305.6	322.8	347.0
80°	184.7	189.9	205.4	208.9	227.9
82.5°	112.2	115.7	119.1	120.8	127.8
85°	60.4	60.4	60.4	57.0	57.0
87.5°	34.5	34.5	29.3	24.2	17.3
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)