

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: P556580

Luminaire Tested: **FUSL-12-4-LD4-1LO-40-UNV-93-86-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: P556580
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-LD4-1LO-40-UNV-93-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

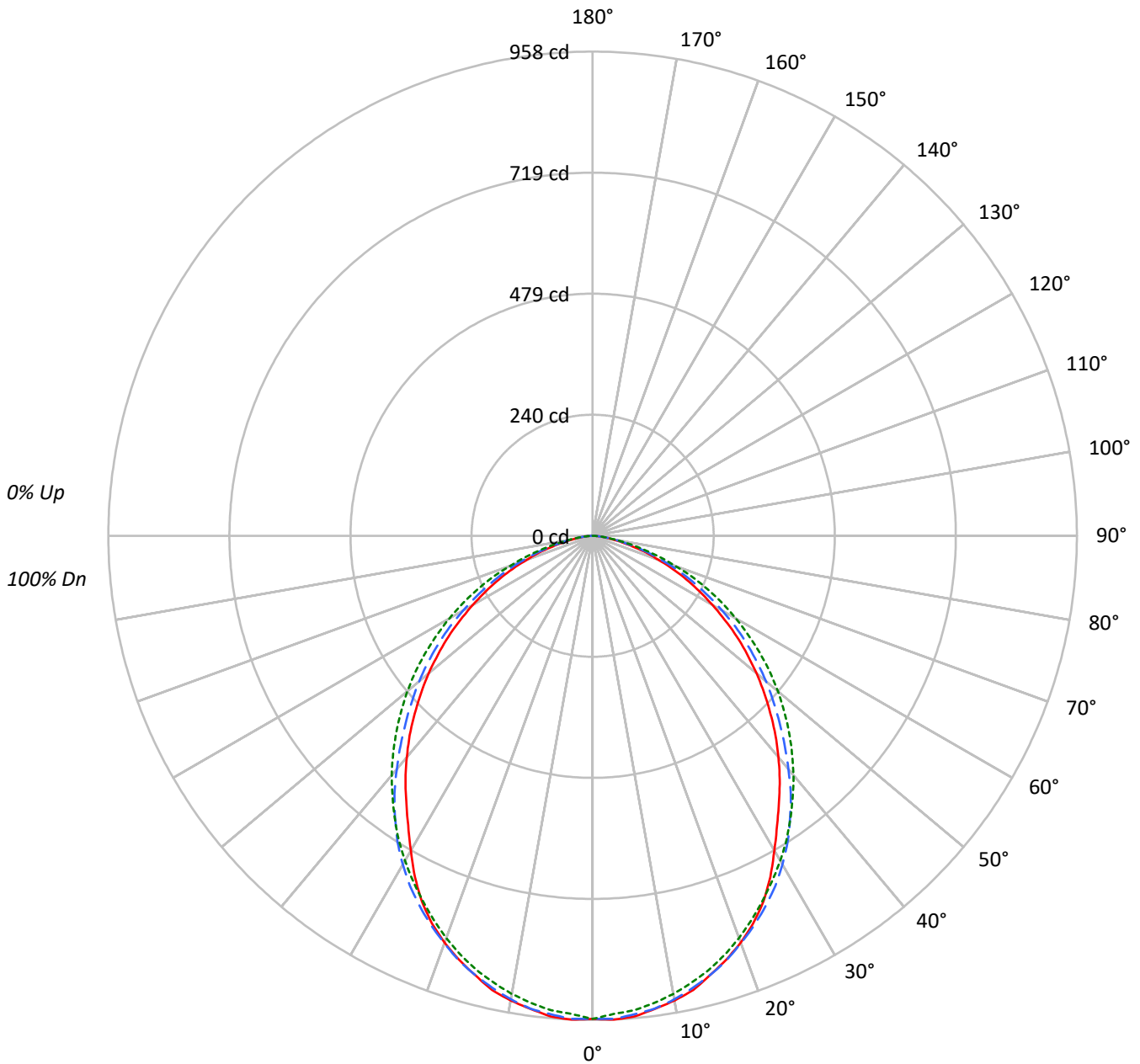
Lumens per Lamp: N/A
Luminaire Lumens: 2210.0 lumens
Efficiency: N/A
Efficacy: 94.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (Ain): 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: P556580

CATALOG NUMBER: FUSL-12-4-LD4-1LO-40-UNV-93-86-EDD-90

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°	2572	2572	2572
5°	2579	2568	2546
10°	2551	2544	2515
15°	2506	2506	2478
20°	2453	2456	2425
25°	2372	2402	2363
30°	2234	2334	2306
35°	2111	2237	2241
40°	2008	2116	2172
45°	1893	1988	2090
50°	1773	1874	2002
55°	1635	1743	1893
60°	1472	1591	1761
65°	1300	1414	1601
70°	1083	1205	1360
75°	852	962	1065
80°	609	677	752
85°	398	398	374



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.0	4.1
10°-20°	252.8	11.4
20°-30°	369.4	16.7
30°-40°	419.3	19.0
40°-50°	404.8	18.3
50°-60°	333.9	15.1
60°-70°	222.4	10.1
70°-80°	99.5	4.5
80°-90°	17.8	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°	712.2	32.2
0°-40°	1131.6	51.2
0°-60°	1870.3	84.6
0°-90°	2210.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2210.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	956	956	956	956	956	
5°	955	954	951	946	942	90
15°	900	902	900	896	889	254
25°	799	805	809	803	796	366
35°	643	651	681	685	682	403
45°	498	506	522	546	549	384
55°	348	354	372	392	404	311
65°	204	210	222	238	252	202
75°	82	86	92	97	102	90
85°	13	13	13	12	12	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	955.8	955.8	955.8	955.8	955.8
2.5°	958.3	958.7	956.5	950.6	947.0
5°	954.7	954.3	950.6	945.5	942.5
7.5°	944.0	944.8	943.7	936.3	932.3
10°	933.7	934.1	931.2	925.3	920.5
12.5°	920.5	920.2	916.1	913.2	905.5
15°	899.6	901.8	899.6	895.6	889.3
17.5°	879.4	879.4	880.9	873.9	869.1
20°	856.6	857.7	857.7	852.2	846.7
22.5°	830.2	833.5	834.6	828.7	822.1
25°	799.0	805.2	808.9	803.0	796.0
27.5°	761.2	770.7	781.7	777.3	769.6
30°	718.9	732.9	751.2	747.6	742.1
32.5°	678.9	692.9	718.2	716.7	713.8
35°	642.6	651.4	681.1	684.8	682.2
37.5°	608.0	616.1	644.0	652.5	650.3
40°	571.7	580.5	602.5	617.6	618.3
42.5°	535.7	544.2	562.2	583.8	583.8
45°	497.5	506.0	522.5	546.4	549.3
47.5°	460.1	468.9	485.0	508.9	513.7
50°	423.4	431.4	447.6	470.7	478.1
52.5°	385.2	394.0	409.8	431.1	441.7
55°	348.5	354.3	371.6	392.1	403.5
57.5°	310.3	315.8	335.2	352.9	364.6
60°	273.5	280.5	295.6	313.6	327.2
62.5°	238.3	245.6	258.5	274.3	289.7
65°	204.2	209.7	222.1	237.9	251.5
67.5°	171.1	175.9	188.4	199.4	213.7
70°	137.7	143.9	153.1	163.8	172.9
72.5°	110.9	113.5	121.2	128.9	138.4
75°	81.9	86.3	92.5	96.9	102.4
77.5°	58.7	61.3	65.0	68.7	73.8
80°	39.3	40.4	43.7	44.4	48.5
82.5°	23.9	24.6	25.3	25.7	27.2
85°	12.9	12.9	12.9	12.1	12.1
87.5°	7.3	7.3	6.2	5.1	3.7
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)