

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: P556421

Luminaire Tested: **FUSL-12-4-LD4-1LO-30-UNV-81-86-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: P556421
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-30-UNV-81-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

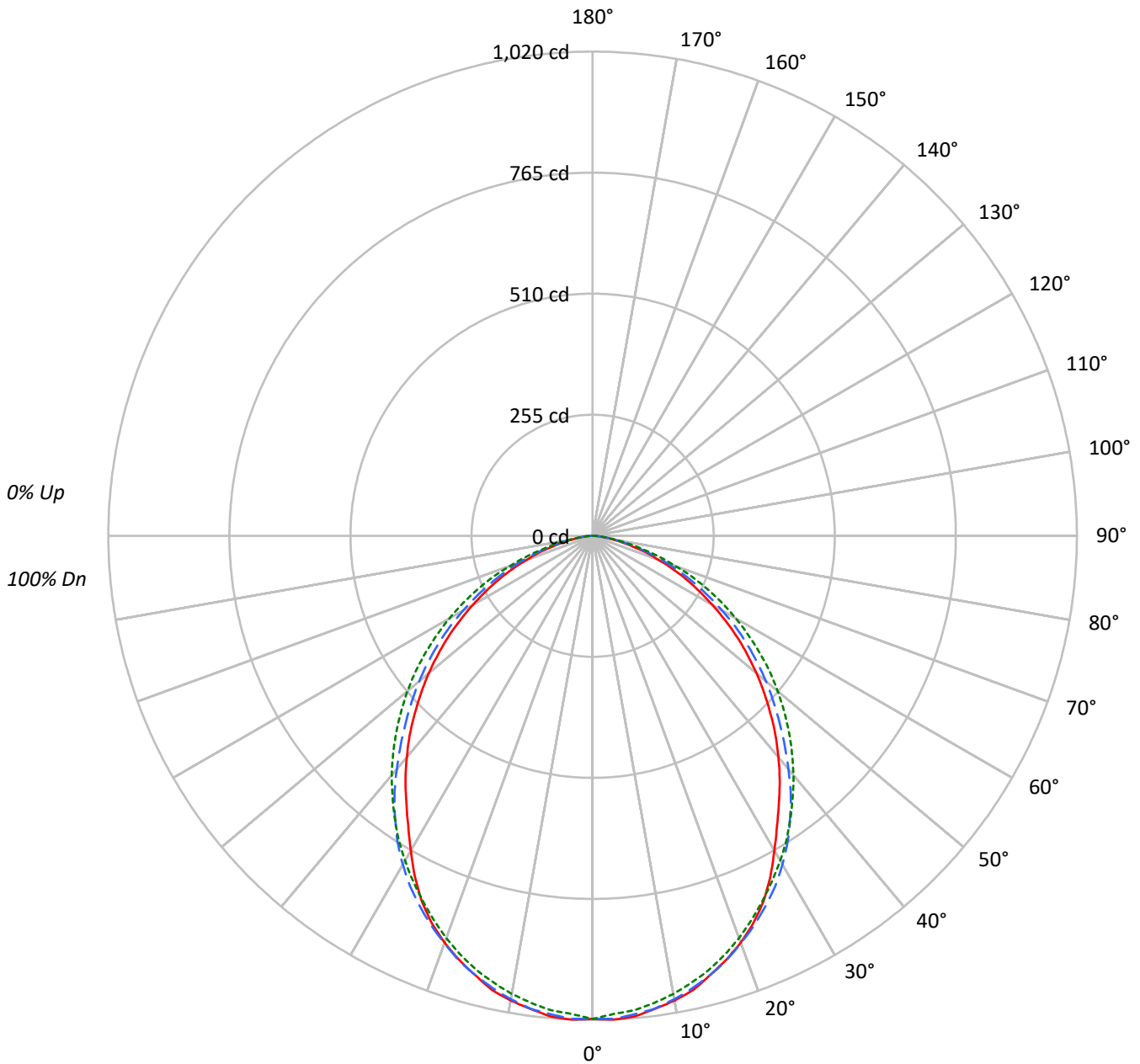
Lumens per Lamp: N/A
Luminaire Lumens: 2353.0 lumens
Efficiency: N/A
Efficacy: 100.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

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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°	2738	2738	2738
5°	2746	2734	2711
10°	2717	2709	2678
15°	2668	2668	2638
20°	2612	2615	2582
25°	2526	2557	2517
30°	2379	2486	2455
35°	2247	2382	2386
40°	2138	2253	2312
45°	2016	2117	2226
50°	1887	1995	2131
55°	1741	1856	2016
60°	1567	1694	1875
65°	1384	1506	1705
70°	1153	1282	1448
75°	907	1024	1134
80°	648	721	800
85°	423	423	398



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.8	4.1
10°-20°	269.2	11.4
20°-30°	393.3	16.7
30°-40°	446.5	19.0
40°-50°	431.0	18.3
50°-60°	355.6	15.1
60°-70°	236.8	10.1
70°-80°	106.0	4.5
80°-90°	19.0	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°	758.3	32.2
0°-40°	1204.8	51.2
0°-60°	1991.3	84.6
0°-90°	2353.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2353.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1018	1018	1018	1018	1018	
5°	1016	1016	1012	1007	1004	96
15°	958	960	958	954	947	270
25°	851	857	861	855	848	390
35°	684	694	725	729	726	429
45°	530	539	556	582	585	409
55°	371	377	396	418	430	331
65°	217	223	236	253	268	216
75°	87	92	98	103	109	95
85°	14	14	14	13	13	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1017.6	1017.6	1017.6	1017.6	1017.6
2.5°	1020.3	1020.7	1018.4	1012.1	1008.2
5°	1016.4	1016.0	1012.1	1006.7	1003.5
7.5°	1005.1	1005.9	1004.7	996.9	992.6
10°	994.2	994.5	991.4	985.2	980.1
12.5°	980.1	979.7	975.4	972.3	964.1
15°	957.8	960.1	957.8	953.5	946.9
17.5°	936.3	936.3	937.9	930.4	925.4
20°	912.1	913.2	913.2	907.4	901.5
22.5°	883.9	887.4	888.6	882.3	875.3
25°	850.7	857.3	861.2	855.0	847.6
27.5°	810.4	820.6	832.3	827.6	819.4
30°	765.5	780.3	799.9	795.9	790.1
32.5°	722.8	737.7	764.7	763.1	760.0
35°	684.1	693.5	725.2	729.1	726.4
37.5°	647.4	656.0	685.7	694.7	692.4
40°	608.7	618.1	641.5	657.6	658.3
42.5°	570.4	579.4	598.5	621.6	621.6
45°	529.7	538.7	556.3	581.7	584.8
47.5°	489.8	499.2	516.4	541.8	546.9
50°	450.8	459.4	476.6	501.2	509.0
52.5°	410.1	419.5	436.3	459.0	470.3
55°	371.0	377.3	395.6	417.5	429.6
57.5°	330.3	336.2	356.9	375.7	388.2
60°	291.2	298.7	314.7	333.9	348.3
62.5°	253.7	261.5	275.2	292.0	308.5
65°	217.4	223.2	236.5	253.3	267.8
67.5°	182.2	187.3	200.6	212.3	227.5
70°	146.6	153.2	163.0	174.4	184.1
72.5°	118.1	120.8	129.0	137.2	147.4
75°	87.2	91.9	98.5	103.2	109.1
77.5°	62.6	65.3	69.2	73.1	78.6
80°	41.8	43.0	46.5	47.3	51.6
82.5°	25.4	26.2	27.0	27.4	28.9
85°	13.7	13.7	13.7	12.9	12.9
87.5°	7.8	7.8	6.6	5.5	3.9
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)