

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: P556490

Luminaire Tested: **FUSL-12-4-LD4-1LO-35-UNV-81-94-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: P556490
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-35-UNV-81-94-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC 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

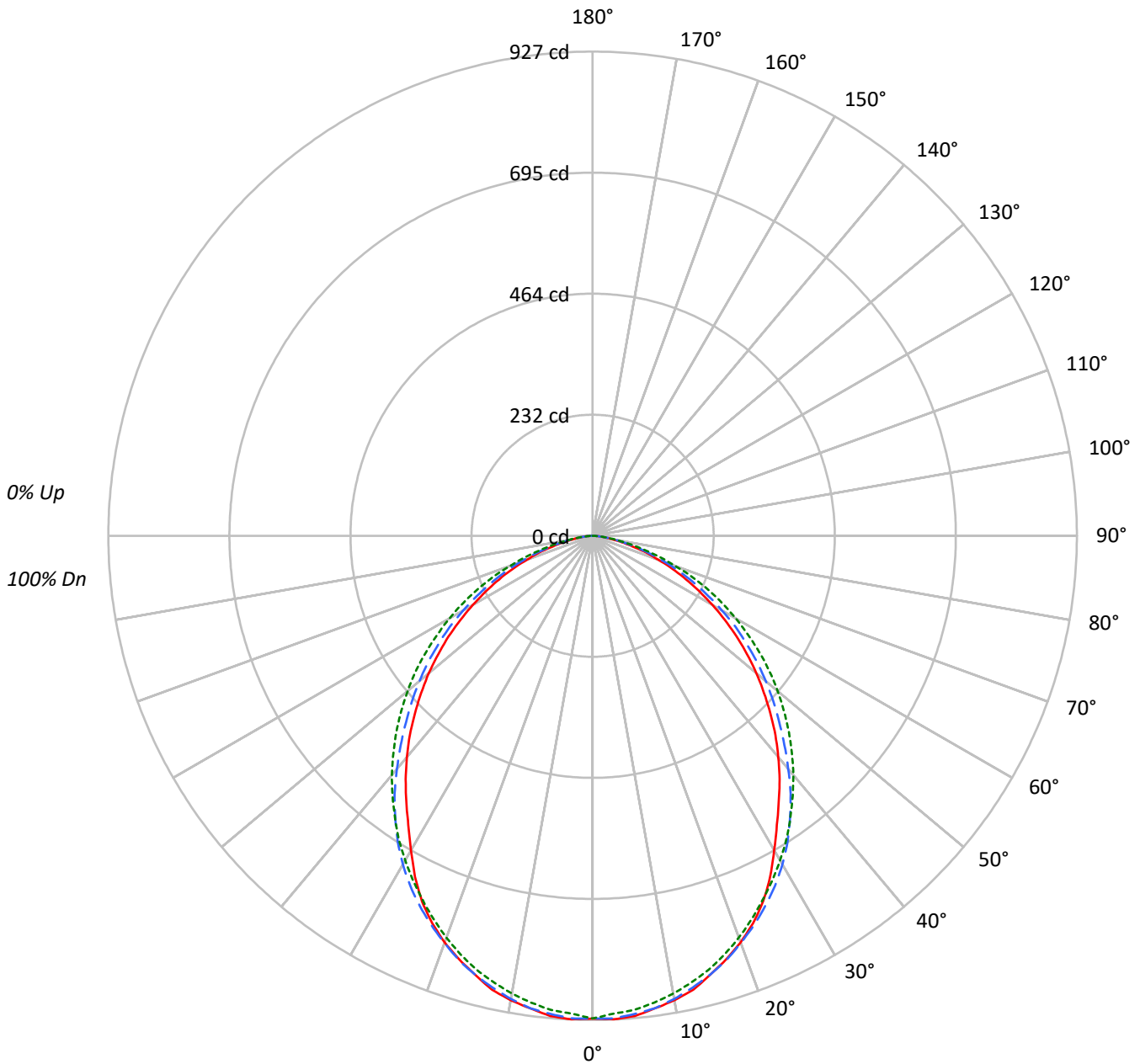
Lumens per Lamp: N/A
Luminaire Lumens: 2137.0 lumens
Efficiency: N/A
Efficacy: 91.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (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°	2487	2487	2487
5°	2494	2483	2462
10°	2467	2460	2432
15°	2423	2423	2396
20°	2372	2375	2344
25°	2294	2322	2286
30°	2160	2257	2230
35°	2041	2164	2167
40°	1942	2047	2100
45°	1831	1923	2022
50°	1714	1812	1935
55°	1581	1686	1831
60°	1424	1538	1703
65°	1257	1368	1549
70°	1047	1165	1316
75°	823	931	1030
80°	589	656	727
85°	383	383	361



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.0	4.1
10°-20°	244.5	11.4
20°-30°	357.2	16.7
30°-40°	405.5	19.0
40°-50°	391.4	18.3
50°-60°	322.9	15.1
60°-70°	215.0	10.1
70°-80°	96.2	4.5
80°-90°	17.2	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°	688.7	32.2
0°-40°	1094.2	51.2
0°-60°	1808.5	84.6
0°-90°	2137.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2137.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	924	924	924	924	924	
5°	923	923	919	914	911	87
15°	870	872	870	866	860	245
25°	773	779	782	776	770	354
35°	621	630	659	662	660	389
45°	481	489	505	528	531	371
55°	337	343	359	379	390	301
65°	197	203	215	230	243	196
75°	79	83	90	94	99	87
85°	12	12	12	12	12	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	924.2	924.2	924.2	924.2	924.2
2.5°	926.7	927.0	924.9	919.2	915.7
5°	923.1	922.8	919.2	914.3	911.4
7.5°	912.8	913.5	912.5	905.4	901.5
10°	902.9	903.2	900.4	894.7	890.1
12.5°	890.1	889.8	885.9	883.0	875.6
15°	869.9	872.0	869.9	866.0	859.9
17.5°	850.3	850.3	851.8	845.0	840.4
20°	828.3	829.4	829.4	824.1	818.7
22.5°	802.8	806.0	807.0	801.3	795.0
25°	772.6	778.6	782.2	776.5	769.8
27.5°	736.0	745.3	755.9	751.6	744.2
30°	695.2	708.7	726.4	722.9	717.6
32.5°	656.5	670.0	694.5	693.1	690.2
35°	621.3	629.9	658.6	662.2	659.7
37.5°	588.0	595.8	622.8	630.9	628.8
40°	552.8	561.3	582.6	597.2	597.9
42.5°	518.0	526.2	543.6	564.5	564.5
45°	481.1	489.3	505.2	528.3	531.2
47.5°	444.9	453.4	469.0	492.1	496.7
50°	409.4	417.2	432.8	455.2	462.3
52.5°	372.4	381.0	396.2	416.8	427.1
55°	336.9	342.6	359.3	379.2	390.2
57.5°	300.0	305.3	324.2	341.2	352.6
60°	264.5	271.3	285.8	303.2	316.4
62.5°	230.4	237.5	250.0	265.2	280.1
65°	197.4	202.7	214.8	230.1	243.2
67.5°	165.5	170.1	182.1	192.8	206.6
70°	133.1	139.2	148.1	158.4	167.2
72.5°	107.2	109.7	117.2	124.6	133.9
75°	79.2	83.4	89.5	93.7	99.1
77.5°	56.8	59.3	62.8	66.4	71.4
80°	38.0	39.1	42.3	43.0	46.9
82.5°	23.1	23.8	24.5	24.9	26.3
85°	12.4	12.4	12.4	11.7	11.7
87.5°	7.1	7.1	6.0	5.0	3.6
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)