

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: P556435

Luminaire Tested: **FUSL-12-4-LD4-1LO-30-UNV-82-85-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: P556435
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-82-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

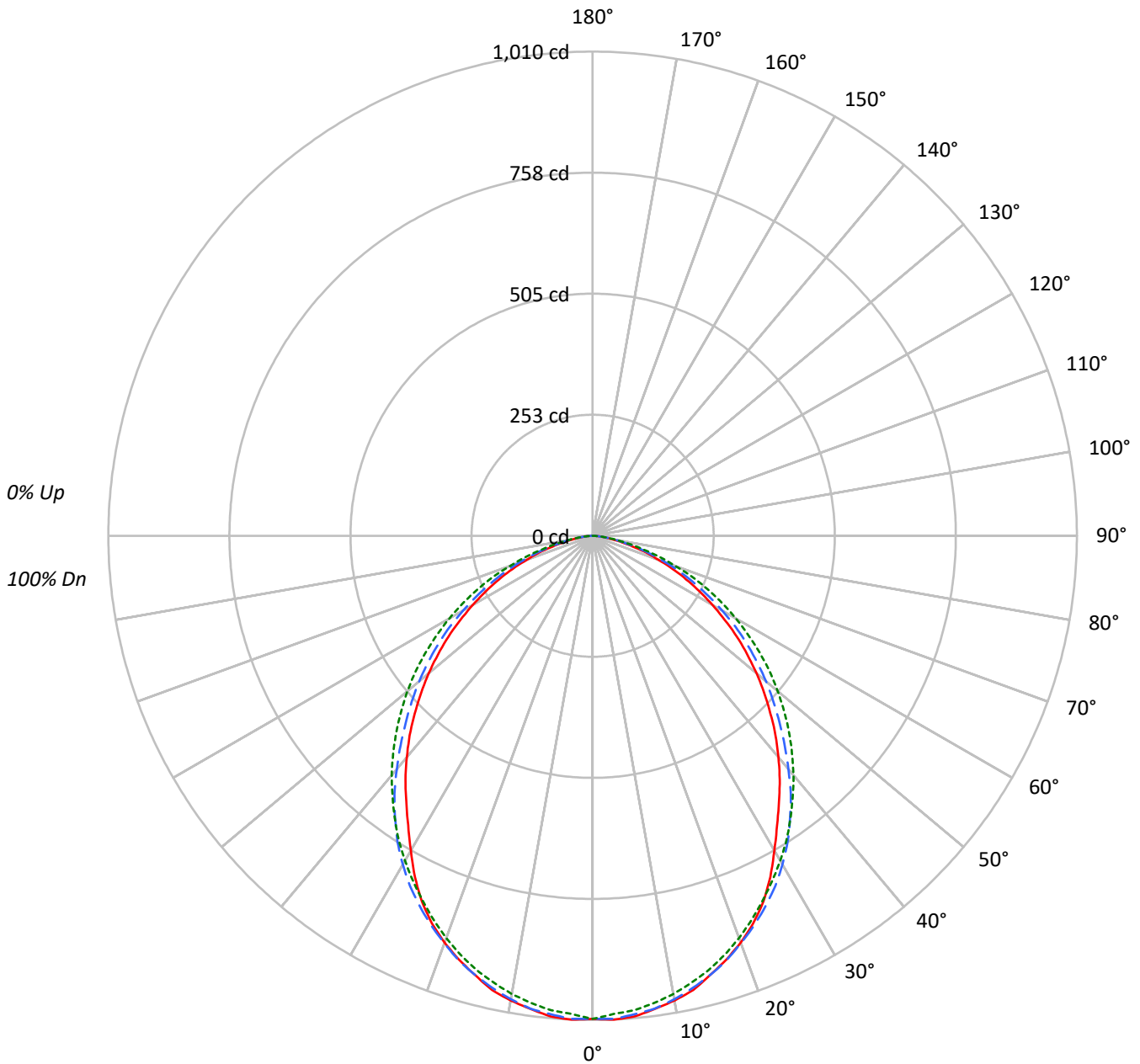
Lumens per Lamp: N/A
Luminaire Lumens: 2330.0 lumens
Efficiency: N/A
Efficacy: 99.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P556435

CATALOG NUMBER: FUSL-12-4-LD4-1LO-30-UNV-82-85-EDD

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°	2712	2712	2712
5°	2719	2707	2684
10°	2690	2682	2652
15°	2642	2642	2612
20°	2586	2590	2556
25°	2501	2532	2492
30°	2355	2461	2431
35°	2226	2359	2363
40°	2117	2232	2290
45°	1996	2097	2204
50°	1868	1976	2110
55°	1724	1838	1996
60°	1552	1677	1856
65°	1370	1491	1689
70°	1142	1270	1434
75°	897	1015	1123
80°	642	714	792
85°	417	417	395



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.9	4.1
10°-20°	266.5	11.4
20°-30°	389.5	16.7
30°-40°	442.1	19.0
40°-50°	426.8	18.3
50°-60°	352.1	15.1
60°-70°	234.4	10.1
70°-80°	104.9	4.5
80°-90°	18.8	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°	750.9	32.2
0°-40°	1193.0	51.2
0°-60°	1971.9	84.6
0°-90°	2330.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2330.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1008	1008	1008	1008	1008	
5°	1006	1006	1002	997	994	95
15°	948	951	948	944	938	267
25°	842	849	853	847	839	386
35°	678	687	718	722	719	424
45°	524	533	551	576	579	405
55°	367	374	392	413	425	328
65°	215	221	234	251	265	213
75°	86	91	98	102	108	94
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°	1007.7	1007.7	1007.7	1007.7	1007.7
2.5°	1010.4	1010.8	1008.4	1002.2	998.4
5°	1006.5	1006.1	1002.2	996.8	993.7
7.5°	995.3	996.1	994.9	987.1	982.9
10°	984.4	984.8	981.7	975.5	970.5
12.5°	970.5	970.1	965.9	962.8	954.6
15°	948.4	950.8	948.4	944.2	937.6
17.5°	927.1	927.1	928.7	921.3	916.3
20°	903.1	904.3	904.3	898.5	892.7
22.5°	875.3	878.8	879.9	873.7	866.8
25°	842.4	848.9	852.8	846.6	839.3
27.5°	802.5	812.6	824.2	819.5	811.4
30°	758.0	772.7	792.0	788.2	782.4
32.5°	715.8	730.5	757.2	755.7	752.6
35°	677.5	686.7	718.1	722.0	719.3
37.5°	641.1	649.6	679.0	687.9	685.6
40°	602.7	612.0	635.3	651.1	651.9
42.5°	564.8	573.7	592.7	615.5	615.5
45°	524.5	533.4	550.9	576.0	579.1
47.5°	485.1	494.3	511.4	536.5	541.6
50°	446.3	454.9	471.9	496.3	504.0
52.5°	406.1	415.4	432.0	454.5	465.7
55°	367.4	373.6	391.8	413.4	425.4
57.5°	327.1	332.9	353.4	372.0	384.4
60°	288.4	295.8	311.6	330.6	344.9
62.5°	251.2	259.0	272.5	289.2	305.4
65°	215.2	221.0	234.2	250.9	265.2
67.5°	180.4	185.4	198.6	210.2	225.3
70°	145.2	151.7	161.4	172.7	182.3
72.5°	116.9	119.6	127.7	135.9	145.9
75°	86.3	91.0	97.6	102.2	108.0
77.5°	61.9	64.6	68.5	72.4	77.8
80°	41.4	42.6	46.1	46.8	51.1
82.5°	25.2	25.9	26.7	27.1	28.6
85°	13.5	13.5	13.5	12.8	12.8
87.5°	7.7	7.7	6.6	5.4	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)