

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: P556436

Luminaire Tested: **FUSL-12-4-LD4-1LO-30-UNV-82-86-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: P556436
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-82-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

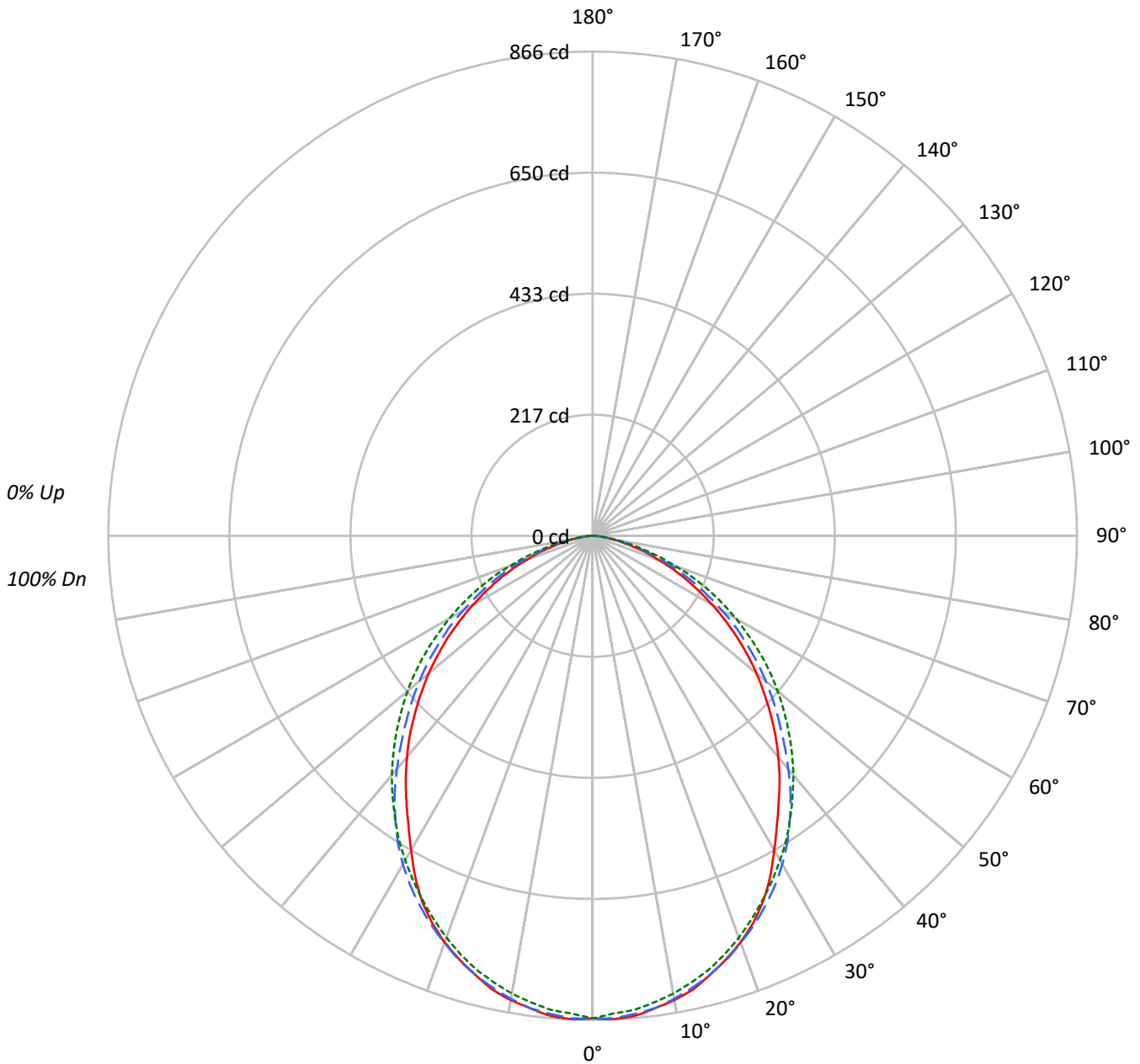
Lumens per Lamp: N/A
Luminaire Lumens: 1996.0 lumens
Efficiency: N/A
Efficacy: 85.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (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°	2323	2323	2323
5°	2329	2319	2300
10°	2304	2298	2272
15°	2264	2264	2238
20°	2216	2218	2190
25°	2143	2169	2135
30°	2018	2108	2082
35°	1906	2021	2024
40°	1814	1912	1962
45°	1710	1796	1888
50°	1601	1693	1808
55°	1476	1574	1710
60°	1330	1437	1590
65°	1174	1277	1447
70°	979	1088	1229
75°	769	869	962
80°	550	612	679
85°	358	358	337



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.3	4.1
10°-20°	228.3	11.4
20°-30°	333.7	16.7
30°-40°	378.7	19.0
40°-50°	365.6	18.3
50°-60°	301.6	15.1
60°-70°	200.9	10.1
70°-80°	89.9	4.5
80°-90°	16.1	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°	643.3	32.2
0°-40°	1022.0	51.2
0°-60°	1689.2	84.6
0°-90°	1996.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1996.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	863	863	863	863	863	
5°	862	862	859	854	851	82
15°	812	814	812	809	803	229
25°	722	727	731	725	719	330
35°	580	588	615	618	616	364
45°	449	457	472	494	496	347
55°	315	320	336	354	364	281
65°	184	189	201	215	227	183
75°	74	78	84	88	92	81
85°	12	12	12	11	11	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	863.2	863.2	863.2	863.2	863.2
2.5°	865.5	865.9	863.9	858.6	855.3
5°	862.2	861.9	858.6	853.9	851.3
7.5°	852.6	853.3	852.3	845.6	842.0
10°	843.3	843.7	841.0	835.7	831.4
12.5°	831.4	831.1	827.4	824.8	817.8
15°	812.5	814.5	812.5	808.8	803.2
17.5°	794.2	794.2	795.6	789.3	785.0
20°	773.7	774.7	774.7	769.7	764.7
22.5°	749.8	752.8	753.8	748.5	742.5
25°	721.6	727.3	730.6	725.3	719.0
27.5°	687.5	696.1	706.0	702.0	695.1
30°	649.3	661.9	678.5	675.2	670.2
32.5°	613.2	625.8	648.7	647.3	644.7
35°	580.3	588.3	615.2	618.5	616.2
37.5°	549.2	556.5	581.7	589.3	587.3
40°	516.3	524.3	544.2	557.8	558.5
42.5°	483.8	491.5	507.7	527.3	527.3
45°	449.4	457.0	471.9	493.5	496.1
47.5°	415.5	423.5	438.1	459.6	463.9
50°	382.4	389.7	404.3	425.1	431.8
52.5°	347.9	355.8	370.1	389.3	398.9
55°	314.7	320.0	335.6	354.2	364.5
57.5°	280.2	285.2	302.8	318.7	329.3
60°	247.1	253.4	267.0	283.2	295.5
62.5°	215.2	221.9	233.5	247.7	261.7
65°	184.4	189.4	200.6	214.9	227.2
67.5°	154.5	158.8	170.1	180.1	193.0
70°	124.4	130.0	138.3	147.9	156.2
72.5°	100.2	102.5	109.4	116.4	125.0
75°	74.0	77.9	83.6	87.5	92.5
77.5°	53.1	55.4	58.7	62.0	66.7
80°	35.5	36.5	39.5	40.1	43.8
82.5°	21.6	22.2	22.9	23.2	24.5
85°	11.6	11.6	11.6	10.9	10.9
87.5°	6.6	6.6	5.6	4.6	3.3
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)