

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: P556432

Luminaire Tested: **FUSL-12-4-LD4-1LO-30-UNV-82-84-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: P556432
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-82-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

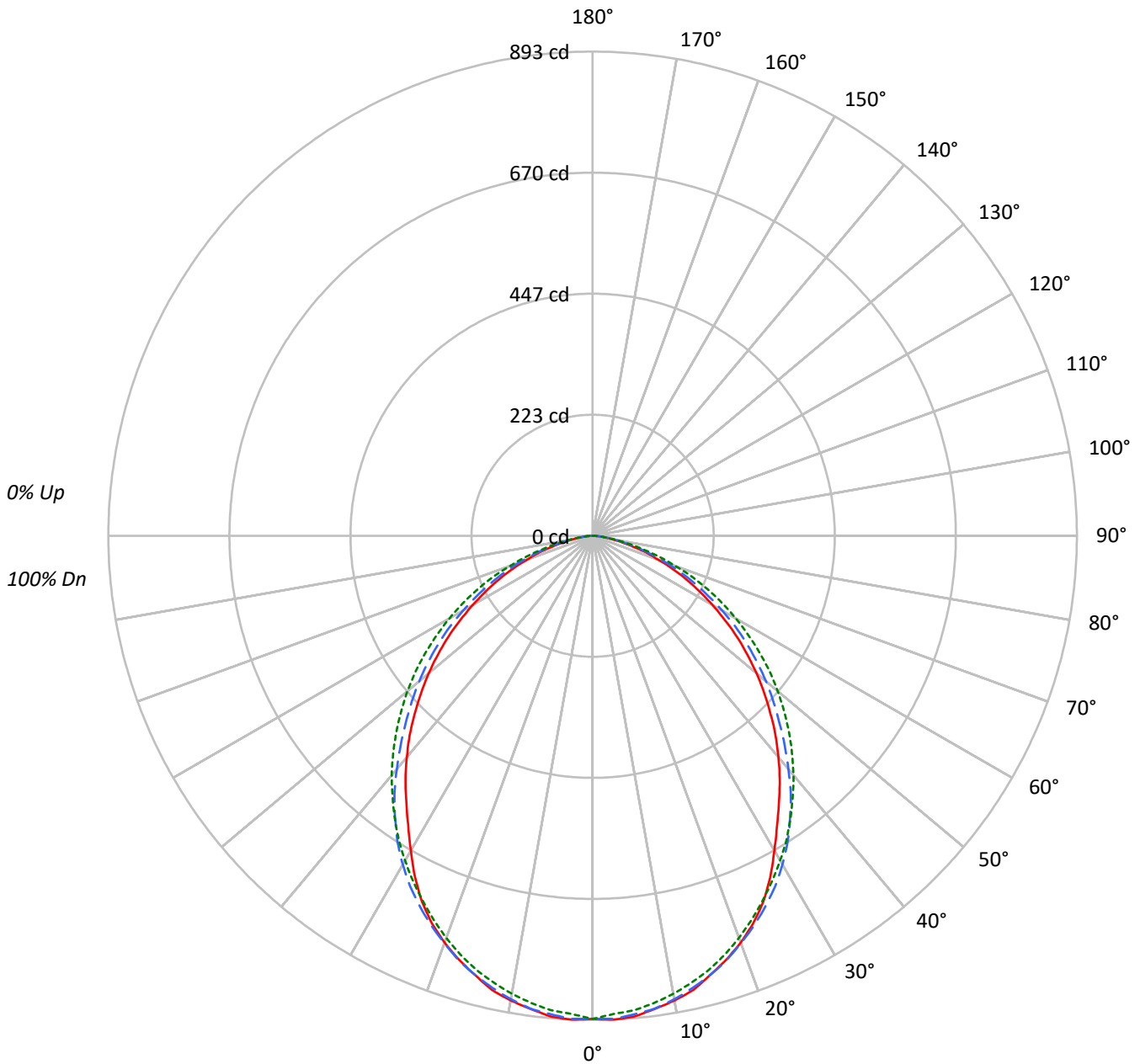
Lumens per Lamp: N/A
Luminaire Lumens: 2060.0 lumens
Efficiency: N/A
Efficacy: 88.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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				20				20	
RC	80				70				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				100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86				86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73				73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63				63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54				54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47				47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42				42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37				37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34				34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30				30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28				28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2397	2397	2397
5°	2404	2394	2373
10°	2378	2372	2344
15°	2336	2336	2309
20°	2287	2290	2260
25°	2211	2239	2203
30°	2082	2176	2149
35°	1968	2086	2089
40°	1872	1973	2025
45°	1765	1853	1948
50°	1652	1747	1865
55°	1524	1625	1765
60°	1372	1483	1641
65°	1212	1319	1493
70°	1009	1123	1268
75°	793	896	993
80°	567	631	700
85°	371	371	349



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.9	4.1
10°-20°	235.6	11.4
20°-30°	344.4	16.7
30°-40°	390.9	19.0
40°-50°	377.3	18.3
50°-60°	311.3	15.1
60°-70°	207.3	10.1
70°-80°	92.8	4.5
80°-90°	16.6	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°	663.9	32.2
0°-40°	1054.8	51.2
0°-60°	1743.4	84.6
0°-90°	2060.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2060.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	891	891	891	891	891	
5°	890	890	886	881	879	84
15°	838	841	838	835	829	236
25°	745	751	754	748	742	341
35°	599	607	635	638	636	375
45°	464	472	487	509	512	358
55°	325	330	346	366	376	290
65°	190	195	207	222	234	189
75°	76	80	86	90	96	83
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°	890.9	890.9	890.9	890.9	890.9
2.5°	893.3	893.6	891.6	886.1	882.7
5°	889.9	889.5	886.1	881.3	878.6
7.5°	879.9	880.6	879.6	872.8	869.0
10°	870.4	870.7	868.0	862.5	858.0
12.5°	858.0	857.7	853.9	851.2	844.0
15°	838.5	840.6	838.5	834.8	828.9
17.5°	819.7	819.7	821.1	814.6	810.1
20°	798.5	799.5	799.5	794.4	789.2
22.5°	773.8	776.9	778.0	772.5	766.3
25°	744.8	750.6	754.0	748.5	742.0
27.5°	709.5	718.4	728.7	724.6	717.4
30°	670.1	683.1	700.3	696.8	691.7
32.5°	632.8	645.8	669.5	668.1	665.3
35°	599.0	607.2	634.9	638.3	635.9
37.5°	566.8	574.3	600.3	608.2	606.1
40°	532.9	541.1	561.6	575.7	576.4
42.5°	499.4	507.2	524.0	544.2	544.2
45°	463.8	471.6	487.0	509.3	512.0
47.5°	428.8	437.1	452.1	474.4	478.8
50°	394.6	402.2	417.2	438.8	445.6
52.5°	359.0	367.2	382.0	401.8	411.7
55°	324.8	330.3	346.4	365.5	376.1
57.5°	289.2	294.3	312.5	328.9	339.9
60°	255.0	261.5	275.5	292.3	305.0
62.5°	222.1	229.0	240.9	255.7	270.0
65°	190.3	195.4	207.1	221.8	234.4
67.5°	159.5	163.9	175.6	185.8	199.2
70°	128.3	134.2	142.7	152.6	161.2
72.5°	103.4	105.8	112.9	120.1	129.0
75°	76.3	80.4	86.2	90.4	95.5
77.5°	54.8	57.2	60.6	64.0	68.8
80°	36.6	37.6	40.7	41.4	45.2
82.5°	22.2	22.9	23.6	24.0	25.3
85°	12.0	12.0	12.0	11.3	11.3
87.5°	6.8	6.8	5.8	4.8	3.4
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)