

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: P556416

Luminaire Tested: **FUSL-12-4-LD4-1LO-30-UNV-81-84-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: P556416
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-81-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 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

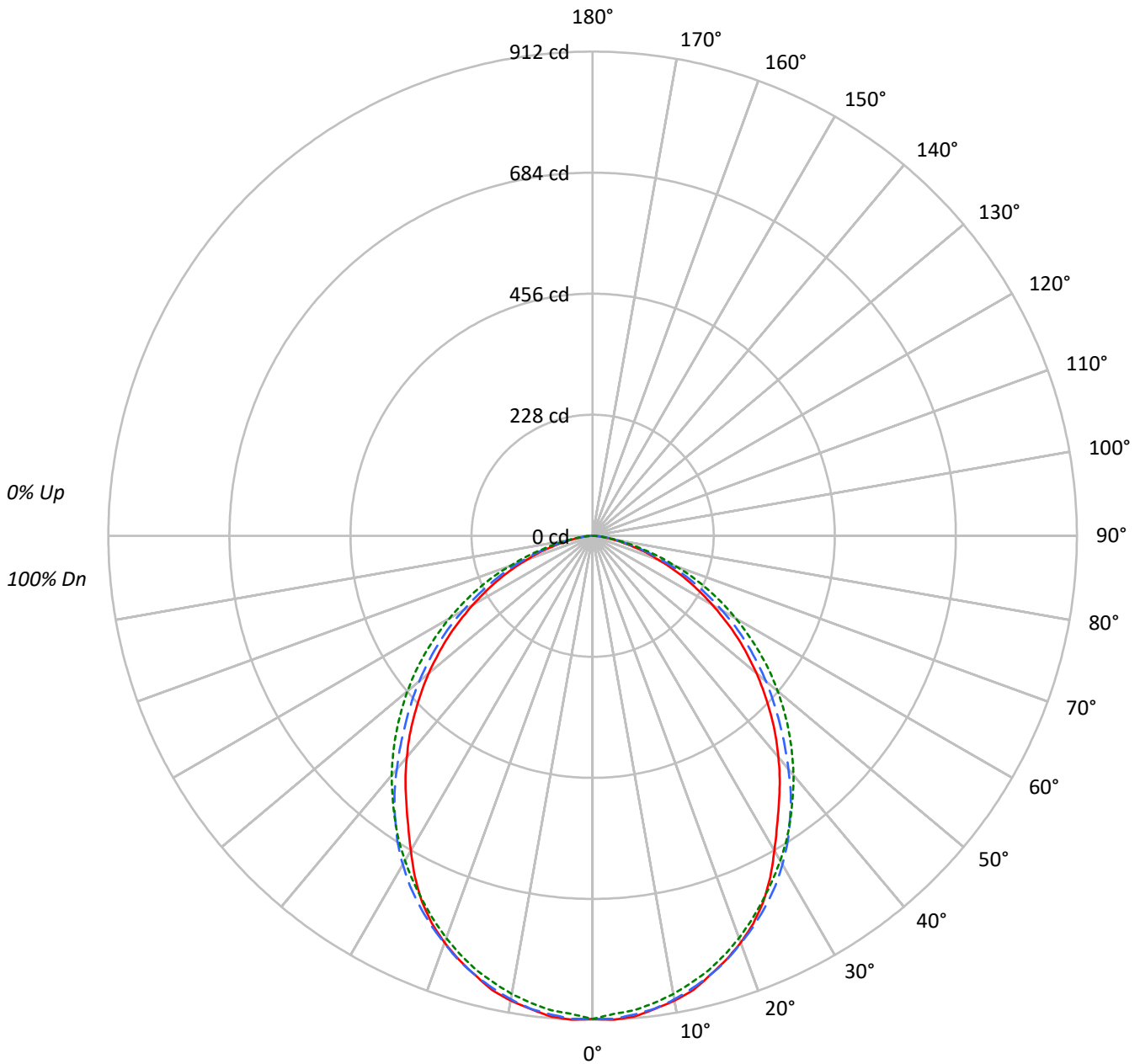
Lumens per Lamp: N/A
Luminaire Lumens: 2104.0 lumens
Efficiency: N/A
Efficacy: 89.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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					
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	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°	2449	2449	2449
5°	2455	2445	2424
10°	2429	2422	2395
15°	2386	2386	2359
20°	2335	2338	2308
25°	2259	2287	2250
30°	2127	2222	2195
35°	2009	2130	2134
40°	1912	2015	2068
45°	1803	1893	1990
50°	1688	1784	1905
55°	1556	1660	1803
60°	1401	1514	1676
65°	1238	1347	1525
70°	1031	1147	1295
75°	811	916	1014
80°	580	645	714
85°	377	377	355



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.7	4.1
10°-20°	240.7	11.4
20°-30°	351.7	16.7
30°-40°	399.2	19.0
40°-50°	385.4	18.3
50°-60°	317.9	15.1
60°-70°	211.7	10.1
70°-80°	94.7	4.5
80°-90°	16.9	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°	678.1	32.2
0°-40°	1077.3	51.2
0°-60°	1780.6	84.6
0°-90°	2104.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2104.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	910	910	910	910	910	
5°	909	908	905	900	897	86
15°	856	858	856	853	847	241
25°	761	767	770	764	758	348
35°	612	620	648	652	650	383
45°	474	482	497	520	523	365
55°	332	337	354	373	384	296
65°	194	200	212	226	240	193
75°	78	82	88	92	98	85
85°	12	12	12	12	12	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	909.9	909.9	909.9	909.9	909.9
2.5°	912.4	912.7	910.6	905.0	901.5
5°	908.9	908.5	905.0	900.1	897.3
7.5°	898.7	899.4	898.4	891.4	887.6
10°	889.0	889.3	886.5	880.9	876.4
12.5°	876.4	876.0	872.2	869.4	862.0
15°	856.4	858.5	856.4	852.6	846.7
17.5°	837.2	837.2	838.6	832.0	827.4
20°	815.5	816.6	816.6	811.3	806.1
22.5°	790.4	793.5	794.6	789.0	782.7
25°	760.7	766.6	770.1	764.5	757.9
27.5°	724.7	733.7	744.2	740.0	732.7
30°	684.5	697.7	715.2	711.7	706.5
32.5°	646.4	659.6	683.8	682.4	679.6
35°	611.7	620.1	648.4	651.9	649.5
37.5°	578.9	586.6	613.1	621.2	619.1
40°	544.3	552.7	573.6	588.0	588.7
42.5°	510.0	518.1	535.2	555.8	555.8
45°	473.7	481.7	497.4	520.2	523.0
47.5°	438.0	446.4	461.8	484.5	489.0
50°	403.1	410.7	426.1	448.1	455.1
52.5°	366.7	375.1	390.1	410.4	420.5
55°	331.7	337.3	353.8	373.3	384.2
57.5°	295.4	300.6	319.2	335.9	347.1
60°	260.4	267.1	281.4	298.5	311.5
62.5°	226.9	233.9	246.1	261.1	275.8
65°	194.4	199.6	211.5	226.5	239.5
67.5°	162.9	167.4	179.3	189.8	203.4
70°	131.1	137.0	145.8	155.9	164.6
72.5°	105.6	108.0	115.4	122.7	131.8
75°	78.0	82.1	88.1	92.3	97.5
77.5°	55.9	58.4	61.9	65.4	70.3
80°	37.4	38.5	41.6	42.3	46.1
82.5°	22.7	23.4	24.1	24.5	25.9
85°	12.2	12.2	12.2	11.5	11.5
87.5°	7.0	7.0	5.9	4.9	3.5
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)