

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: P557361

Luminaire Tested: **FUSL-12-4-LD4-2LO-50-UNV-80-84-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: P557361
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-LD4-2LO-50-UNV-80-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

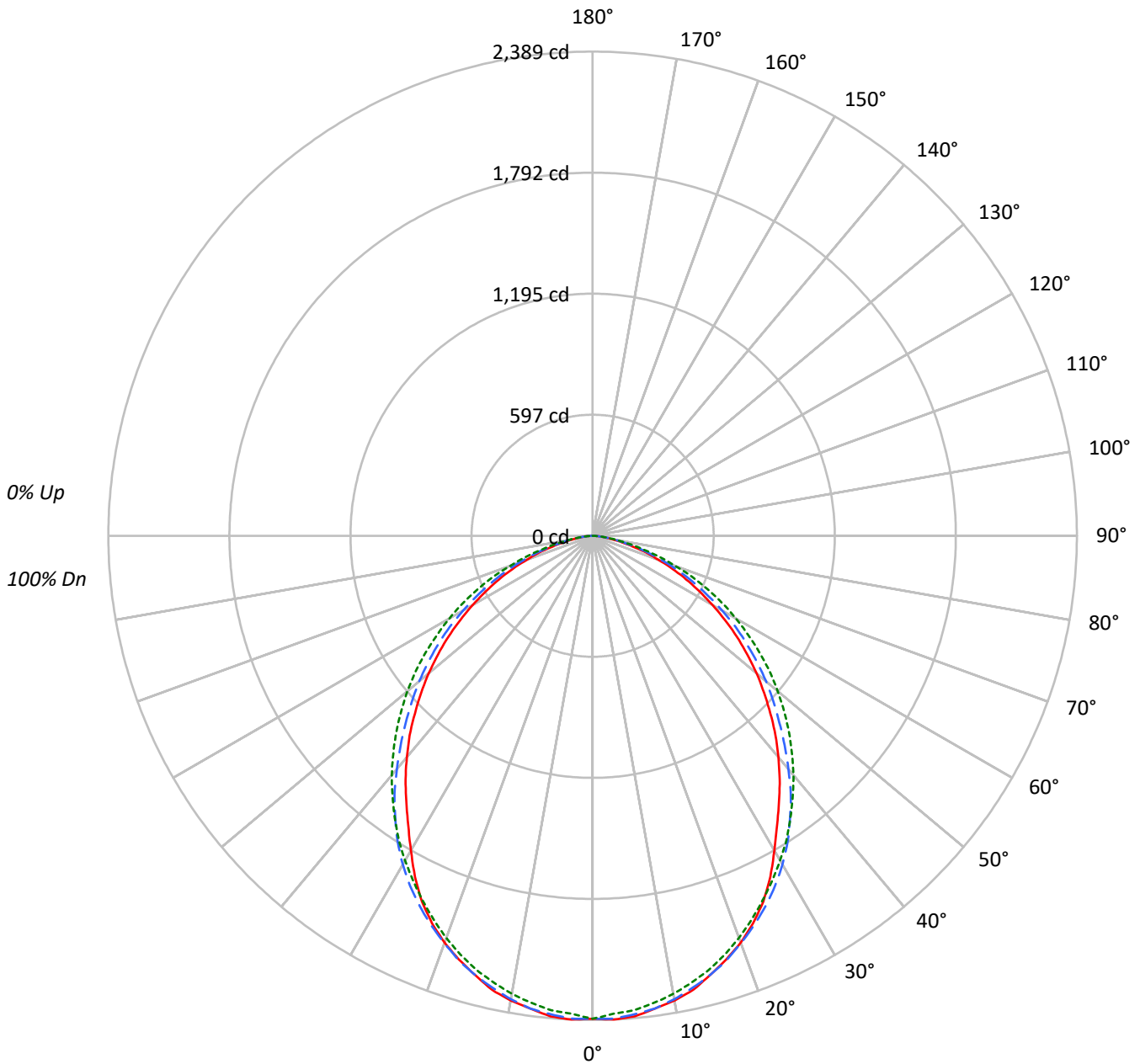
Lumens per Lamp: N/A
Luminaire Lumens: 5510.0 lumens
Efficiency: N/A
Efficacy: 117.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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°	6412	6412	6412
5°	6430	6402	6348
10°	6361	6344	6271
15°	6249	6249	6177
20°	6116	6124	6045
25°	5915	5988	5893
30°	5570	5820	5749
35°	5263	5579	5588
40°	5007	5277	5415
45°	4720	4958	5212
50°	4419	4672	4990
55°	4076	4346	4720
60°	3670	3966	4390
65°	3241	3527	3993
70°	2701	3003	3393
75°	2122	2399	2655
80°	1519	1688	1872
85°	988	988	932



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	224.4	4.1
10°-20°	630.3	11.4
20°-30°	921.1	16.7
30°-40°	1045.5	19.0
40°-50°	1009.3	18.3
50°-60°	832.6	15.1
60°-70°	554.4	10.1
70°-80°	248.1	4.5
80°-90°	44.4	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°	1775.7	32.2
0°-40°	2821.2	51.2
0°-60°	4663.1	84.6
0°-90°	5510.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5510.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2383	2383	2383	2383	2383	
5°	2380	2379	2370	2357	2350	225
15°	2243	2248	2243	2233	2217	632
25°	1992	2008	2017	2002	1985	912
35°	1602	1624	1698	1707	1701	1004
45°	1240	1262	1303	1362	1370	957
55°	869	883	926	978	1006	775
65°	509	523	554	593	627	505
75°	204	215	231	242	255	223
85°	32	32	32	30	30	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2382.9	2382.9	2382.9	2382.9	2382.9
2.5°	2389.3	2390.3	2384.8	2370.1	2361.0
5°	2380.2	2379.3	2370.1	2357.3	2350.0
7.5°	2353.6	2355.5	2352.7	2334.4	2324.3
10°	2328.0	2328.9	2321.6	2306.9	2295.0
12.5°	2295.0	2294.1	2284.1	2276.7	2257.5
15°	2242.9	2248.4	2242.9	2232.8	2217.2
17.5°	2192.5	2192.5	2196.2	2178.8	2166.9
20°	2135.8	2138.5	2138.5	2124.8	2111.0
22.5°	2069.8	2078.1	2080.8	2066.2	2049.7
25°	1992.0	2007.6	2016.8	2002.1	1984.7
27.5°	1897.7	1921.5	1949.0	1938.0	1918.8
30°	1792.5	1827.3	1873.0	1863.9	1850.1
32.5°	1692.7	1727.5	1790.6	1787.0	1779.6
35°	1602.0	1624.0	1698.2	1707.3	1700.9
37.5°	1516.0	1536.1	1605.7	1626.8	1621.3
40°	1425.4	1447.3	1502.3	1539.8	1541.6
42.5°	1335.7	1356.7	1401.6	1455.6	1455.6
45°	1240.4	1261.5	1302.7	1362.2	1369.5
47.5°	1147.1	1169.0	1209.3	1268.8	1280.7
50°	1055.5	1075.7	1115.9	1173.6	1191.9
52.5°	960.3	982.3	1021.6	1074.7	1101.3
55°	868.8	883.4	926.4	977.7	1006.1
57.5°	773.6	787.3	835.8	879.8	909.0
60°	682.0	699.4	736.9	781.8	815.7
62.5°	594.1	612.4	644.5	683.8	722.3
65°	509.0	522.7	553.9	593.2	627.1
67.5°	426.6	438.5	469.6	497.1	532.8
70°	343.3	358.9	381.7	408.3	431.2
72.5°	276.5	282.9	302.1	321.3	345.1
75°	204.1	215.1	230.7	241.7	255.4
77.5°	146.5	152.9	162.0	171.2	184.0
80°	98.0	100.7	108.9	110.8	120.8
82.5°	59.5	61.3	63.2	64.1	67.7
85°	32.0	32.0	32.0	30.2	30.2
87.5°	18.3	18.3	15.6	12.8	9.2
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)