

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: P557967

Luminaire Tested: **FUSL-12-4-LD4-3LO-30-UNV-81-97-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: P557967
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-LD4-3LO-30-UNV-81-97-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

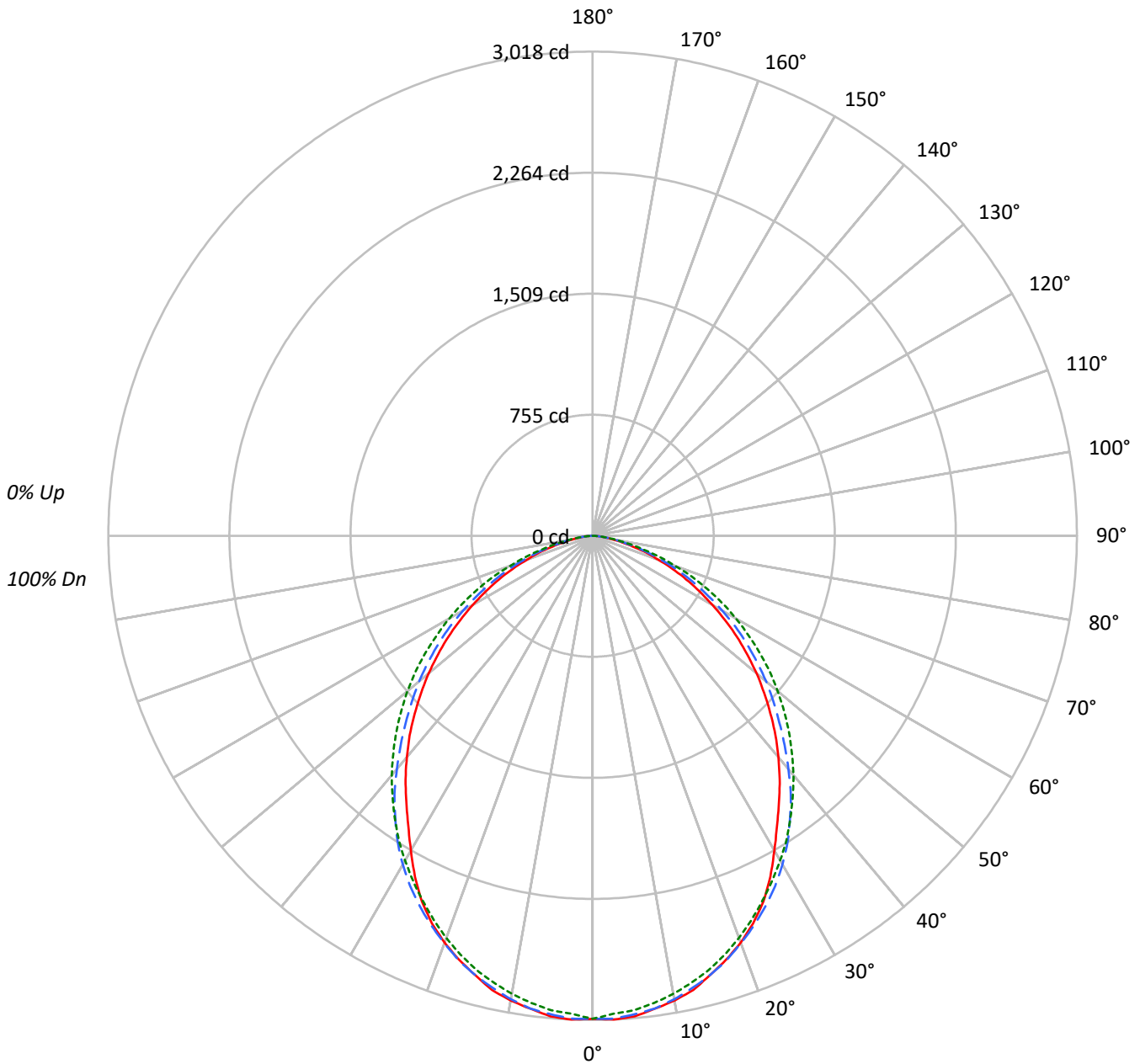
Lumens per Lamp: N/A
Luminaire Lumens: 6961.0 lumens
Efficiency: N/A
Efficacy: 99.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
Input Voltage (V): NR
Input Current (A_{in}): 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°	8101	8101	8101
5°	8123	8088	8019
10°	8037	8014	7923
15°	7894	7894	7804
20°	7727	7737	7637
25°	7472	7565	7445
30°	7036	7353	7263
35°	6649	7048	7059
40°	6326	6667	6842
45°	5964	6263	6584
50°	5583	5902	6304
55°	5149	5491	5963
60°	4637	5011	5546
65°	4094	4455	5044
70°	3412	3795	4286
75°	2681	3030	3355
80°	1917	2132	2366
85°	1250	1250	1179



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	283.4	4.1
10°-20°	796.3	11.4
20°-30°	1163.6	16.7
30°-40°	1320.8	19.0
40°-50°	1275.1	18.3
50°-60°	1051.8	15.1
60°-70°	700.4	10.1
70°-80°	313.4	4.5
80°-90°	56.1	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°	2243.3	32.2
0°-40°	3564.2	51.2
0°-60°	5891.1	84.6
0°-90°	6961.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6961.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3010	3010	3010	3010	3010	
5°	3007	3006	2994	2978	2969	285
15°	2834	2840	2834	2821	2801	799
25°	2517	2536	2548	2529	2507	1152
35°	2024	2052	2145	2157	2149	1268
45°	1567	1594	1646	1721	1730	1209
55°	1098	1116	1170	1235	1271	980
65°	643	660	700	749	792	638
75°	258	272	291	305	323	282
85°	40	40	40	38	38	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3010.5	3010.5	3010.5	3010.5	3010.5
2.5°	3018.5	3019.7	3012.8	2994.3	2982.7
5°	3007.0	3005.8	2994.3	2978.1	2968.8
7.5°	2973.4	2975.8	2972.3	2949.2	2936.4
10°	2941.1	2942.2	2933.0	2914.5	2899.4
12.5°	2899.4	2898.3	2885.5	2876.3	2852.0
15°	2833.5	2840.4	2833.5	2820.8	2801.1
17.5°	2769.9	2769.9	2774.5	2752.5	2737.5
20°	2698.2	2701.7	2701.7	2684.3	2667.0
22.5°	2614.9	2625.3	2628.8	2610.3	2589.5
25°	2516.6	2536.3	2547.8	2529.3	2507.4
27.5°	2397.5	2427.6	2462.3	2448.4	2424.1
30°	2264.5	2308.4	2366.3	2354.7	2337.4
32.5°	2138.4	2182.4	2262.2	2257.6	2248.3
35°	2023.9	2051.7	2145.4	2156.9	2148.8
37.5°	1915.2	1940.7	2028.6	2055.2	2048.2
40°	1800.7	1828.5	1897.9	1945.3	1947.6
42.5°	1687.4	1714.0	1770.7	1838.9	1838.9
45°	1567.1	1593.7	1645.7	1720.9	1730.2
47.5°	1449.1	1476.9	1527.8	1603.0	1618.0
50°	1333.5	1358.9	1409.8	1482.7	1505.8
52.5°	1213.2	1241.0	1290.7	1357.8	1391.3
55°	1097.5	1116.1	1170.4	1235.2	1271.0
57.5°	977.3	994.6	1055.9	1111.4	1148.4
60°	861.6	883.6	931.0	987.7	1030.5
62.5°	750.6	773.7	814.2	863.9	912.5
65°	643.0	660.4	699.7	749.4	792.2
67.5°	538.9	554.0	593.3	628.0	673.1
70°	433.7	453.4	482.3	515.8	544.7
72.5°	349.3	357.4	381.7	405.9	436.0
75°	257.9	271.8	291.4	305.3	322.7
77.5°	185.0	193.1	204.7	216.3	232.5
80°	123.7	127.2	137.6	139.9	152.7
82.5°	75.2	77.5	79.8	81.0	85.6
85°	40.5	40.5	40.5	38.2	38.2
87.5°	23.1	23.1	19.7	16.2	11.6
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)