

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: P556410

Luminaire Tested: **FUSL-12-4-LD4-1LO-30-UNV-80-94-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: P556410
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-80-94-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND
3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

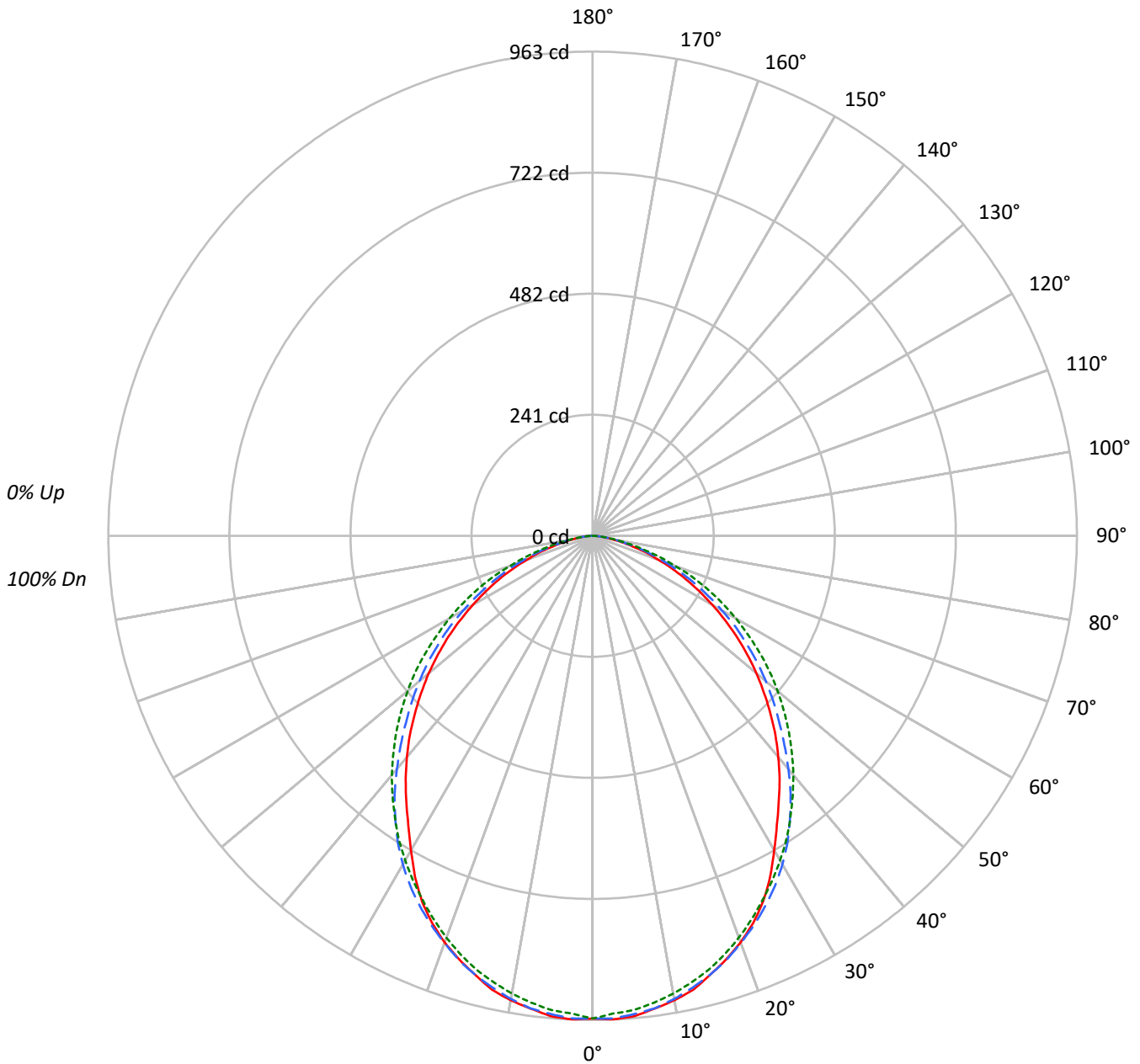
Lumens per Lamp: N/A
Luminaire Lumens: 2220.0 lumens
Efficiency: N/A
Efficacy: 94.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (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°	2584	2584	2584
5°	2591	2579	2558
10°	2563	2556	2527
15°	2518	2518	2489
20°	2464	2467	2436
25°	2383	2413	2374
30°	2244	2345	2316
35°	2121	2248	2251
40°	2017	2126	2182
45°	1902	1998	2100
50°	1780	1882	2010
55°	1642	1751	1902
60°	1479	1598	1769
65°	1306	1421	1609
70°	1088	1210	1367
75°	856	966	1070
80°	612	680	755
85°	398	398	377



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.4	4.1
10°-20°	253.9	11.4
20°-30°	371.1	16.7
30°-40°	421.2	19.0
40°-50°	406.6	18.3
50°-60°	335.5	15.1
60°-70°	223.4	10.1
70°-80°	100.0	4.5
80°-90°	17.9	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°	715.4	32.2
0°-40°	1136.7	51.2
0°-60°	1878.8	84.6
0°-90°	2220.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2220.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	960	960	960	960	960	
5°	959	959	955	950	947	91
15°	904	906	904	900	893	255
25°	803	809	813	807	800	368
35°	646	654	684	688	685	404
45°	500	508	525	549	552	386
55°	350	356	373	394	405	312
65°	205	211	223	239	253	203
75°	82	87	93	97	103	90
85°	13	13	13	12	12	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	960.1	960.1	960.1	960.1	960.1
2.5°	962.7	963.0	960.8	954.9	951.2
5°	959.0	958.6	954.9	949.8	946.8
7.5°	948.3	949.0	947.9	940.5	936.5
10°	938.0	938.3	935.4	929.5	924.7
12.5°	924.7	924.3	920.3	917.3	909.6
15°	903.7	905.9	903.7	899.6	893.3
17.5°	883.4	883.4	884.8	877.8	873.0
20°	860.5	861.6	861.6	856.1	850.5
22.5°	833.9	837.3	838.4	832.5	825.8
25°	802.6	808.9	812.6	806.7	799.6
27.5°	764.6	774.2	785.3	780.8	773.1
30°	722.2	736.2	754.6	751.0	745.4
32.5°	682.0	696.0	721.5	720.0	717.0
35°	645.5	654.3	684.2	687.9	685.3
37.5°	610.8	618.9	646.9	655.4	653.2
40°	574.3	583.1	605.3	620.4	621.1
42.5°	538.1	546.6	564.7	586.5	586.5
45°	499.8	508.3	524.9	548.8	551.8
47.5°	462.2	471.0	487.2	511.2	516.0
50°	425.3	433.4	449.6	472.9	480.2
52.5°	386.9	395.8	411.6	433.0	443.7
55°	350.0	355.9	373.3	393.9	405.4
57.5°	311.7	317.2	336.8	354.5	366.3
60°	274.8	281.8	296.9	315.0	328.6
62.5°	239.4	246.8	259.7	275.5	291.0
65°	205.1	210.6	223.1	239.0	252.7
67.5°	171.9	176.7	189.2	200.3	214.7
70°	138.3	144.6	153.8	164.5	173.7
72.5°	111.4	114.0	121.7	129.5	139.1
75°	82.3	86.7	92.9	97.4	102.9
77.5°	59.0	61.6	65.3	69.0	74.1
80°	39.5	40.6	43.9	44.6	48.7
82.5°	24.0	24.7	25.5	25.8	27.3
85°	12.9	12.9	12.9	12.2	12.2
87.5°	7.4	7.4	6.3	5.2	3.7
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)