

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: P556558

Luminaire Tested: **FUSL-12-4-LD4-1LO-40-UNV-81-97-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: P556558
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-40-UNV-81-97-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

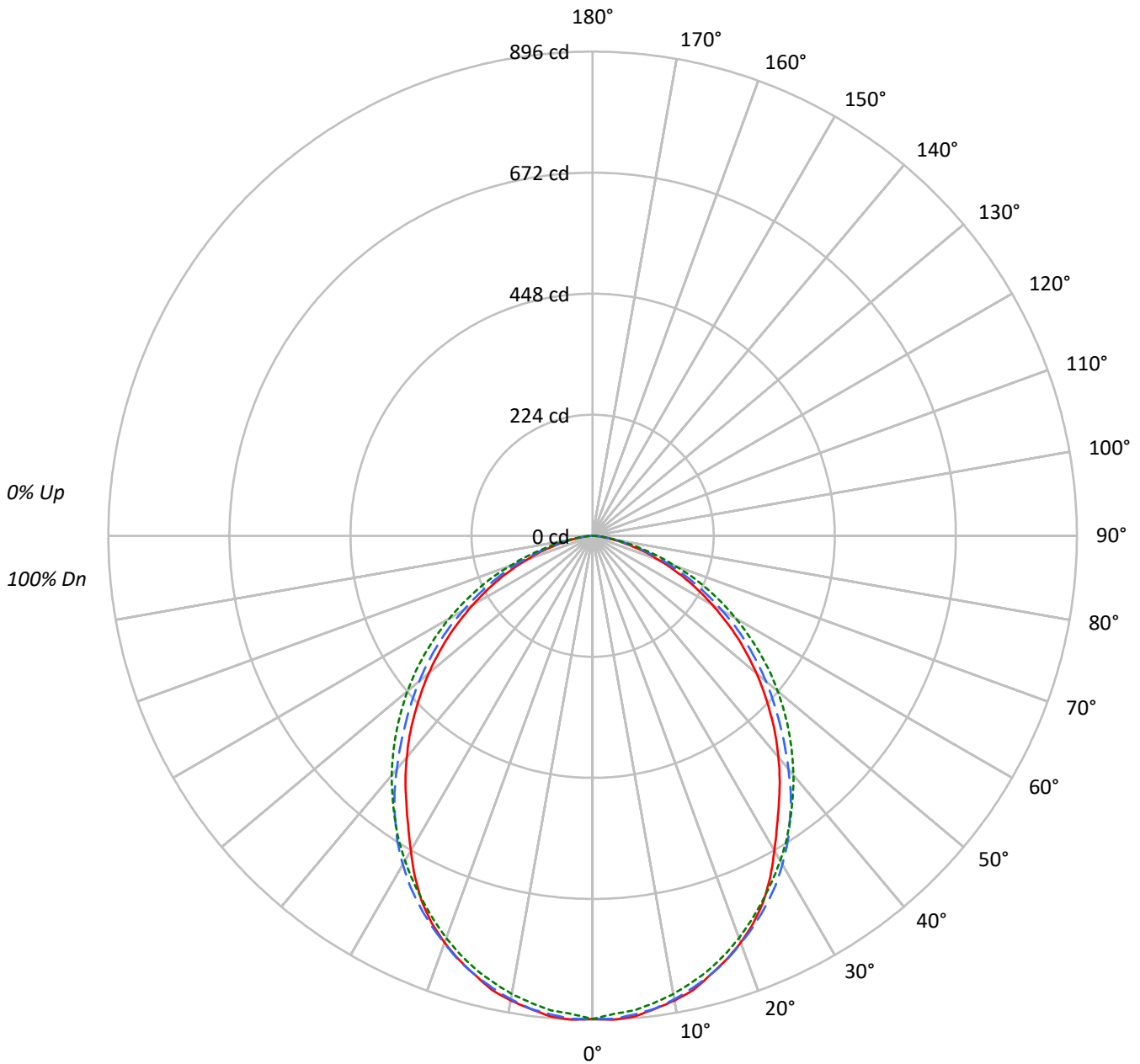
Lumens per Lamp: N/A
Luminaire Lumens: 2067.0 lumens
Efficiency: N/A
Efficacy: 88.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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									
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°	2405	2405	2405
5°	2412	2402	2381
10°	2386	2380	2353
15°	2344	2344	2317
20°	2294	2297	2268
25°	2219	2246	2211
30°	2089	2183	2157
35°	1974	2093	2096
40°	1878	1980	2031
45°	1771	1860	1955
50°	1658	1752	1872
55°	1529	1630	1771
60°	1377	1488	1647
65°	1216	1323	1498
70°	1013	1127	1273
75°	796	899	996
80°	569	634	702
85°	371	371	349



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.2	4.1
10°-20°	236.4	11.4
20°-30°	345.5	16.7
30°-40°	392.2	19.0
40°-50°	378.6	18.3
50°-60°	312.3	15.1
60°-70°	208.0	10.1
70°-80°	93.1	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°	666.1	32.2
0°-40°	1058.3	51.2
0°-60°	1749.3	84.6
0°-90°	2067.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2067.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	894	894	894	894	894	
5°	893	893	889	884	882	85
15°	841	843	841	838	832	237
25°	747	753	757	751	744	342
35°	601	609	637	640	638	377
45°	465	473	489	511	514	359
55°	326	331	348	367	377	291
65°	191	196	208	222	235	189
75°	77	81	86	91	96	84
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°	893.9	893.9	893.9	893.9	893.9
2.5°	896.3	896.7	894.6	889.1	885.7
5°	892.9	892.6	889.1	884.3	881.6
7.5°	882.9	883.6	882.6	875.7	871.9
10°	873.3	873.7	870.9	865.4	861.0
12.5°	861.0	860.6	856.8	854.1	846.9
15°	841.4	843.4	841.4	837.6	831.8
17.5°	822.5	822.5	823.9	817.3	812.9
20°	801.2	802.2	802.2	797.1	791.9
22.5°	776.5	779.6	780.6	775.1	768.9
25°	747.3	753.1	756.6	751.1	744.5
27.5°	711.9	720.8	731.1	727.0	719.8
30°	672.4	685.5	702.6	699.2	694.1
32.5°	635.0	648.0	671.7	670.4	667.6
35°	601.0	609.2	637.0	640.5	638.1
37.5°	568.7	576.3	602.4	610.3	608.2
40°	534.7	542.9	563.6	577.6	578.3
42.5°	501.1	508.9	525.8	546.0	546.0
45°	465.3	473.2	488.7	511.0	513.8
47.5°	430.3	438.5	453.7	476.0	480.4
50°	396.0	403.5	418.6	440.3	447.1
52.5°	360.2	368.5	383.3	403.2	413.1
55°	325.9	331.4	347.5	366.8	377.4
57.5°	290.2	295.3	313.5	330.0	341.0
60°	255.8	262.4	276.5	293.3	306.0
62.5°	222.9	229.7	241.8	256.5	271.0
65°	190.9	196.1	207.8	222.5	235.2
67.5°	160.0	164.5	176.2	186.5	199.9
70°	128.8	134.6	143.2	153.2	161.8
72.5°	103.7	106.1	113.3	120.5	129.5
75°	76.6	80.7	86.5	90.7	95.8
77.5°	54.9	57.4	60.8	64.2	69.0
80°	36.7	37.8	40.9	41.6	45.3
82.5°	22.3	23.0	23.7	24.0	25.4
85°	12.0	12.0	12.0	11.3	11.3
87.5°	6.9	6.9	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)