

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: P556487

Luminaire Tested: **FUSL-12-4-LD4-1LO-35-UNV-81-87-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: P556487
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-35-UNV-81-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

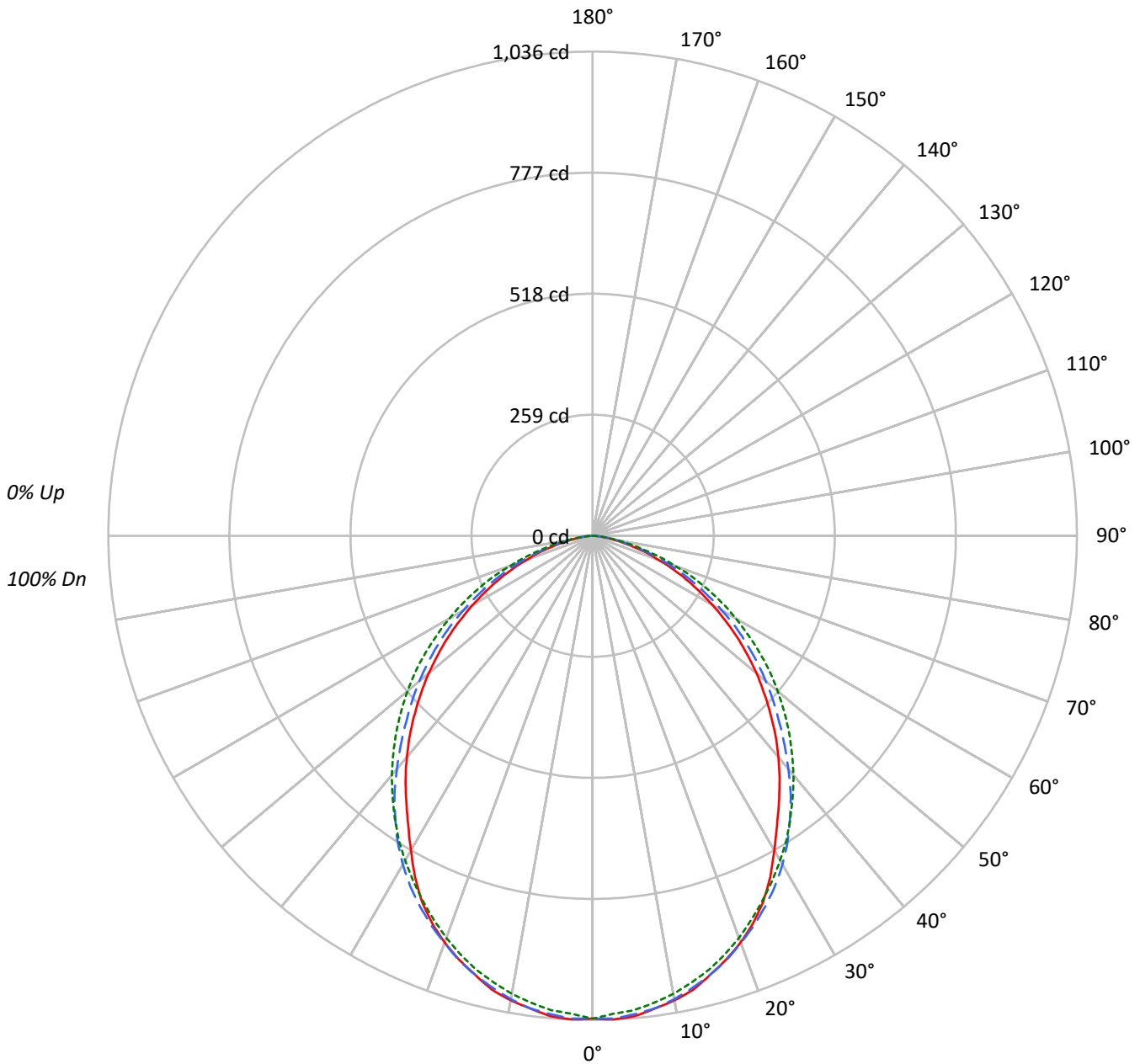
Lumens per Lamp: N/A
Luminaire Lumens: 2389.0 lumens
Efficiency: N/A
Efficacy: 102.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P556487

CATALOG NUMBER: FUSL-12-4-LD4-1LO-35-UNV-81-87-EDD

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°	2780	2780	2780
5°	2788	2776	2752
10°	2758	2751	2719
15°	2709	2709	2678
20°	2652	2655	2621
25°	2564	2596	2555
30°	2415	2523	2493
35°	2282	2419	2423
40°	2171	2288	2348
45°	2047	2149	2260
50°	1916	2025	2164
55°	1767	1885	2046
60°	1591	1720	1904
65°	1405	1529	1731
70°	1171	1302	1471
75°	920	1040	1151
80°	659	731	812
85°	429	429	404



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.3	4.1
10°-20°	273.3	11.4
20°-30°	399.3	16.7
30°-40°	453.3	19.0
40°-50°	437.6	18.3
50°-60°	361.0	15.1
60°-70°	240.4	10.1
70°-80°	107.6	4.5
80°-90°	19.2	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°	769.9	32.2
0°-40°	1223.2	51.2
0°-60°	2021.8	84.6
0°-90°	2389.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2389.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1033	1033	1033	1033	1033	
5°	1032	1032	1028	1022	1019	98
15°	972	975	972	968	961	274
25°	864	870	874	868	860	396
35°	695	704	736	740	738	435
45°	538	547	565	591	594	415
55°	377	383	402	424	436	336
65°	221	227	240	257	272	219
75°	88	93	100	105	111	97
85°	14	14	14	13	13	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1033.2	1033.2	1033.2	1033.2	1033.2
2.5°	1036.0	1036.4	1034.0	1027.6	1023.7
5°	1032.0	1031.6	1027.6	1022.1	1018.9
7.5°	1020.5	1021.3	1020.1	1012.1	1007.8
10°	1009.4	1009.8	1006.6	1000.2	995.1
12.5°	995.1	994.7	990.3	987.1	978.8
15°	972.5	974.8	972.5	968.1	961.3
17.5°	950.6	950.6	952.2	944.7	939.5
20°	926.0	927.2	927.2	921.2	915.3
22.5°	897.4	901.0	902.2	895.8	888.7
25°	863.7	870.4	874.4	868.1	860.5
27.5°	822.8	833.1	845.0	840.3	831.9
30°	777.2	792.3	812.1	808.1	802.2
32.5°	733.9	749.0	776.4	774.8	771.6
35°	694.6	704.1	736.3	740.3	737.5
37.5°	657.3	666.0	696.2	705.3	702.9
40°	618.0	627.5	651.3	667.6	668.4
42.5°	579.1	588.2	607.7	631.1	631.1
45°	537.8	547.0	564.8	590.6	593.8
47.5°	497.3	506.9	524.3	550.1	555.3
50°	457.6	466.4	483.8	508.9	516.8
52.5°	416.4	425.9	443.0	466.0	477.5
55°	376.7	383.0	401.7	423.9	436.2
57.5°	335.4	341.4	362.4	381.4	394.1
60°	295.7	303.2	319.5	339.0	353.7
62.5°	257.6	265.5	279.4	296.5	313.2
65°	220.7	226.6	240.1	257.2	271.9
67.5°	185.0	190.1	203.6	215.5	231.0
70°	148.8	155.6	165.5	177.0	186.9
72.5°	119.9	122.6	131.0	139.3	149.6
75°	88.5	93.3	100.0	104.8	110.7
77.5°	63.5	66.3	70.3	74.2	79.8
80°	42.5	43.7	47.2	48.0	52.4
82.5°	25.8	26.6	27.4	27.8	29.4
85°	13.9	13.9	13.9	13.1	13.1
87.5°	7.9	7.9	6.7	5.6	4.0
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)