

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: P556489

Luminaire Tested: **FUSL-12-4-LD4-1LO-35-UNV-81-88-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: P556489
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-81-88-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

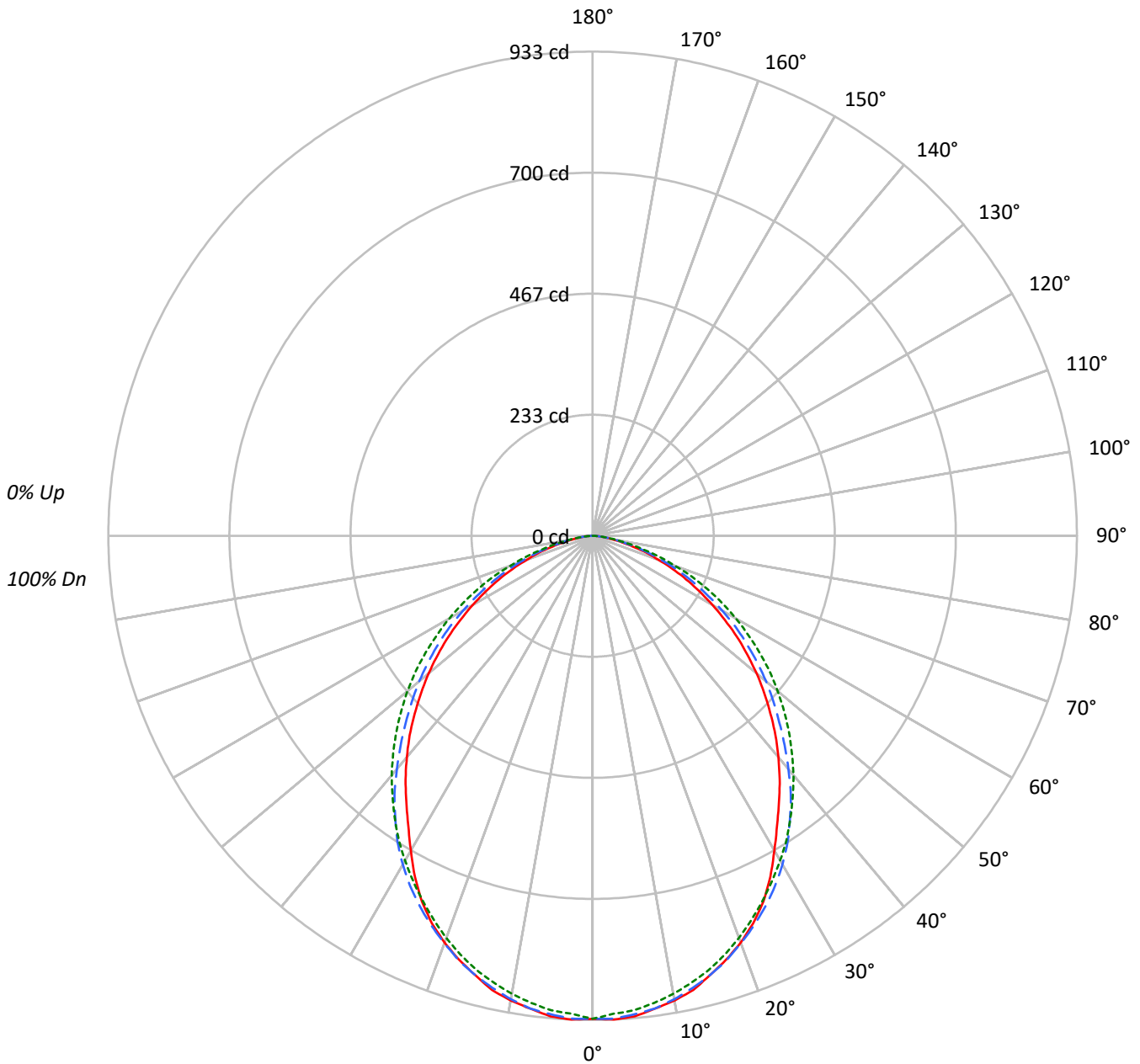
Lumens per Lamp: N/A
Luminaire Lumens: 2152.0 lumens
Efficiency: N/A
Efficacy: 92.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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: P556489

CATALOG NUMBER: FUSL-12-4-LD4-1LO-35-UNV-81-88-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P556489

CATALOG NUMBER: FUSL-12-4-LD4-1LO-35-UNV-81-88-EDD

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°	2504	2504	2504
5°	2511	2501	2479
10°	2484	2478	2449
15°	2440	2440	2413
20°	2389	2392	2361
25°	2310	2339	2302
30°	2175	2273	2245
35°	2055	2179	2182
40°	1956	2061	2115
45°	1844	1936	2036
50°	1726	1824	1949
55°	1592	1697	1843
60°	1434	1549	1715
65°	1266	1377	1559
70°	1055	1173	1325
75°	829	937	1038
80°	594	659	731
85°	386	386	364



TEST NUMBER: P556489

CATALOG NUMBER: FUSL-12-4-LD4-1LO-35-UNV-81-88-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.6	4.1
10°-20°	246.2	11.4
20°-30°	359.7	16.7
30°-40°	408.3	19.0
40°-50°	394.2	18.3
50°-60°	325.2	15.1
60°-70°	216.5	10.1
70°-80°	96.9	4.5
80°-90°	17.3	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°	693.5	32.2
0°-40°	1101.9	51.2
0°-60°	1821.2	84.6
0°-90°	2152.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2152.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	931	931	931	931	931	
5°	930	929	926	921	918	88
15°	876	878	876	872	866	247
25°	778	784	788	782	775	356
35°	626	634	663	667	664	392
45°	484	493	509	532	535	374
55°	339	345	362	382	393	303
65°	199	204	216	232	245	197
75°	80	84	90	94	100	87
85°	12	12	12	12	12	17
90°	0	0	0	0	0	



TEST NUMBER: P556489

CATALOG NUMBER: FUSL-12-4-LD4-1LO-35-UNV-81-88-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	930.7	930.7	930.7	930.7	930.7
2.5°	933.2	933.5	931.4	925.7	922.1
5°	929.6	929.3	925.7	920.7	917.8
7.5°	919.2	920.0	918.9	911.7	907.8
10°	909.2	909.6	906.7	901.0	896.4
12.5°	896.4	896.0	892.1	889.2	881.7
15°	876.0	878.1	876.0	872.0	866.0
17.5°	856.3	856.3	857.7	851.0	846.3
20°	834.1	835.2	835.2	829.9	824.5
22.5°	808.4	811.6	812.7	807.0	800.5
25°	778.0	784.1	787.7	781.9	775.2
27.5°	741.2	750.5	761.2	756.9	749.4
30°	700.1	713.7	731.5	728.0	722.6
32.5°	661.1	674.7	699.4	697.9	695.1
35°	625.7	634.3	663.2	666.8	664.3
37.5°	592.1	600.0	627.1	635.4	633.2
40°	556.7	565.3	586.7	601.4	602.1
42.5°	521.7	529.9	547.4	568.5	568.5
45°	484.5	492.7	508.8	532.0	534.9
47.5°	448.0	456.6	472.3	495.6	500.2
50°	412.2	420.1	435.8	458.4	465.5
52.5°	375.1	383.6	399.0	419.8	430.1
55°	339.3	345.0	361.8	381.9	392.9
57.5°	302.1	307.5	326.4	343.6	355.0
60°	266.4	273.2	287.8	305.3	318.6
62.5°	232.0	239.2	251.7	267.1	282.1
65°	198.8	204.2	216.3	231.7	244.9
67.5°	166.6	171.3	183.4	194.1	208.1
70°	134.1	140.2	149.1	159.5	168.4
72.5°	108.0	110.5	118.0	125.5	134.8
75°	79.7	84.0	90.1	94.4	99.8
77.5°	57.2	59.7	63.3	66.9	71.9
80°	38.3	39.3	42.5	43.3	47.2
82.5°	23.2	24.0	24.7	25.0	26.5
85°	12.5	12.5	12.5	11.8	11.8
87.5°	7.2	7.2	6.1	5.0	3.6
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)