

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: P556809

Luminaire Tested: **FUSL-12-4-LD4-1STD-40-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: P556809
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-LD4-1STD-40-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 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

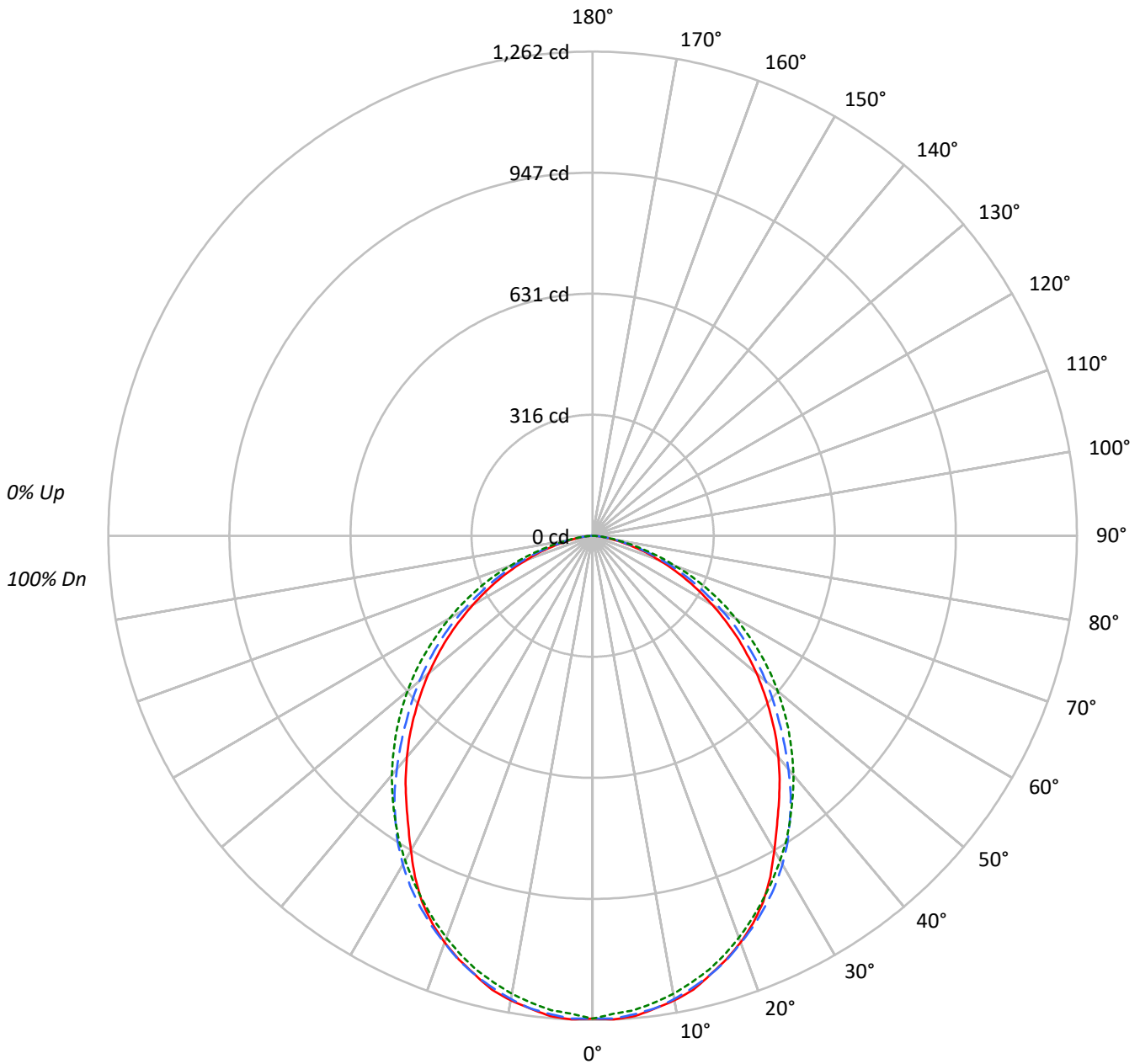
Lumens per Lamp: N/A
Luminaire Lumens: 2910.0 lumens
Efficiency: N/A
Efficacy: 87.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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: P556809

CATALOG NUMBER: FUSL-12-4-LD4-1STD-40-UNV-81-88-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P556809

CATALOG NUMBER: FUSL-12-4-LD4-1STD-40-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°	3387	3387	3387
5°	3395	3381	3353
10°	3360	3350	3312
15°	3300	3300	3262
20°	3230	3234	3193
25°	3124	3162	3112
30°	2942	3074	3036
35°	2780	2946	2951
40°	2644	2787	2860
45°	2493	2618	2753
50°	2334	2467	2635
55°	2152	2296	2493
60°	1939	2095	2319
65°	1712	1862	2109
70°	1426	1586	1792
75°	1121	1266	1403
80°	801	891	989
85°	522	522	494



TEST NUMBER: P556809

CATALOG NUMBER: FUSL-12-4-LD4-1STD-40-UNV-81-88-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.5	4.1
10°-20°	332.9	11.4
20°-30°	486.4	16.7
30°-40°	552.2	19.0
40°-50°	533.0	18.3
50°-60°	439.7	15.1
60°-70°	292.8	10.1
70°-80°	131.0	4.5
80°-90°	23.4	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°	937.8	32.2
0°-40°	1490.0	51.2
0°-60°	2462.7	84.6
0°-90°	2910.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2910.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1258	1258	1258	1258	1258	
5°	1257	1257	1252	1245	1241	119
15°	1184	1187	1184	1179	1171	334
25°	1052	1060	1065	1057	1048	482
35°	846	858	897	902	898	530
45°	655	666	688	719	723	505
55°	459	467	489	516	531	410
65°	269	276	292	313	331	267
75°	108	114	122	128	135	118
85°	17	17	17	16	16	23
90°	0	0	0	0	0	



TEST NUMBER: P556809

CATALOG NUMBER: FUSL-12-4-LD4-1STD-40-UNV-81-88-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1258.5	1258.5	1258.5	1258.5	1258.5
2.5°	1261.9	1262.4	1259.5	1251.7	1246.9
5°	1257.0	1256.6	1251.7	1245.0	1241.1
7.5°	1243.0	1244.0	1242.5	1232.9	1227.6
10°	1229.5	1230.0	1226.1	1218.4	1212.1
12.5°	1212.1	1211.6	1206.3	1202.4	1192.3
15°	1184.5	1187.4	1184.5	1179.2	1171.0
17.5°	1157.9	1157.9	1159.9	1150.7	1144.4
20°	1128.0	1129.4	1129.4	1122.2	1114.9
22.5°	1093.1	1097.5	1099.0	1091.2	1082.5
25°	1052.1	1060.3	1065.1	1057.4	1048.2
27.5°	1002.3	1014.8	1029.3	1023.5	1013.4
30°	946.7	965.0	989.2	984.4	977.1
32.5°	894.0	912.3	945.7	943.8	939.9
35°	846.1	857.7	896.9	901.7	898.3
37.5°	800.6	811.3	848.0	859.1	856.2
40°	752.8	764.4	793.4	813.2	814.2
42.5°	705.4	716.5	740.2	768.7	768.7
45°	655.1	666.2	688.0	719.4	723.3
47.5°	605.8	617.4	638.7	670.1	676.4
50°	557.5	568.1	589.4	619.8	629.5
52.5°	507.2	518.8	539.6	567.6	581.6
55°	458.8	466.6	489.3	516.4	531.3
57.5°	408.5	415.8	441.4	464.6	480.1
60°	360.2	369.4	389.2	412.9	430.8
62.5°	313.8	323.4	340.4	361.2	381.5
65°	268.8	276.1	292.5	313.3	331.2
67.5°	225.3	231.6	248.0	262.5	281.4
70°	181.3	189.5	201.6	215.6	227.7
72.5°	146.0	149.4	159.5	169.7	182.3
75°	107.8	113.6	121.8	127.6	134.9
77.5°	77.4	80.7	85.6	90.4	97.2
80°	51.7	53.2	57.5	58.5	63.8
82.5°	31.4	32.4	33.4	33.8	35.8
85°	16.9	16.9	16.9	16.0	16.0
87.5°	9.7	9.7	8.2	6.8	4.8
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)