

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: P557217

Luminaire Tested: **FUSL-12-4-LD4-2LO-30-UNV-93-84-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: P557217
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-LD4-2LO-30-UNV-93-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

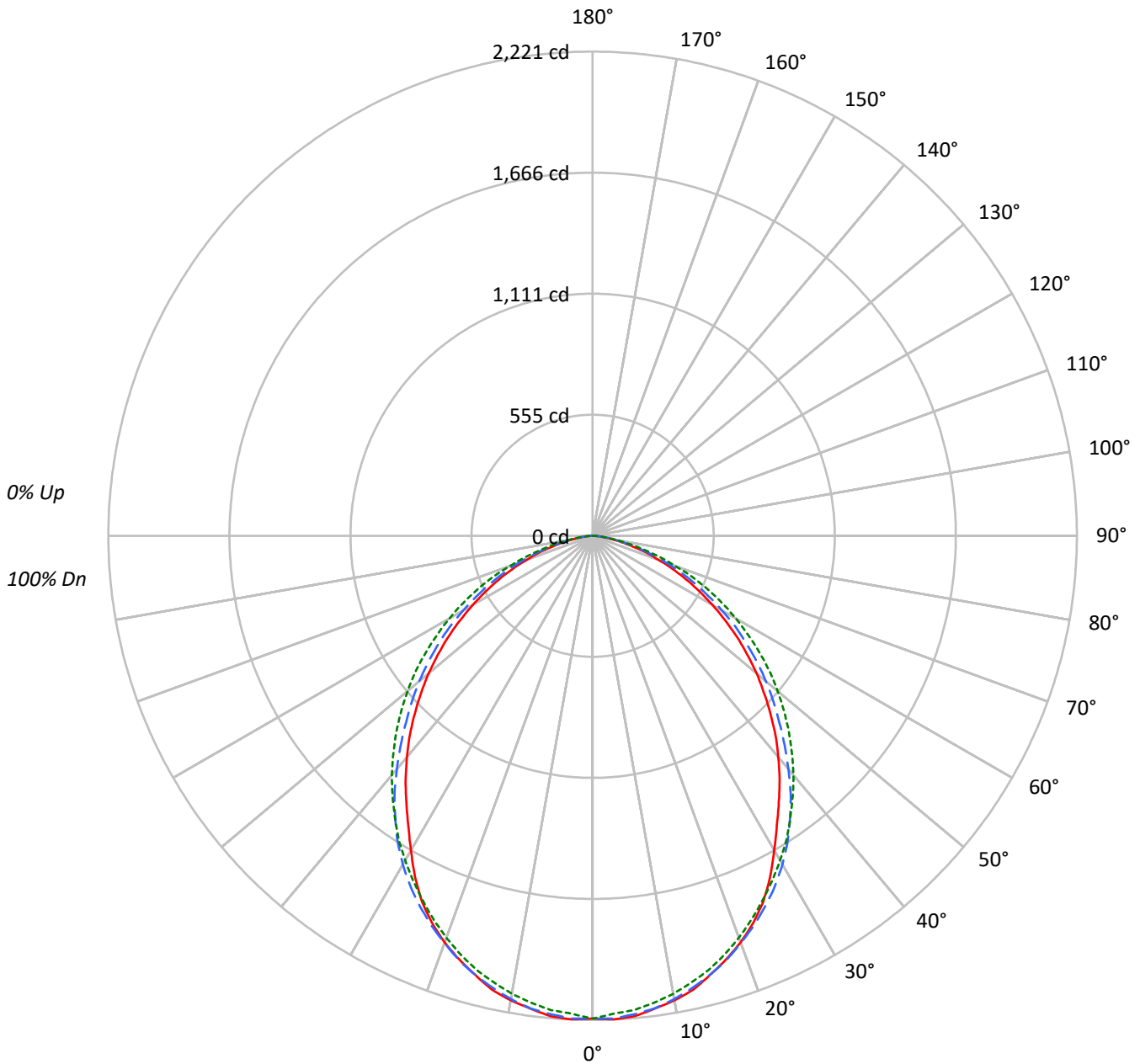
Lumens per Lamp: N/A
Luminaire Lumens: 5121.0 lumens
Efficiency: N/A
Efficacy: 109.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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

TEST NUMBER: P557217

CATALOG NUMBER: FUSL-12-4-LD4-2LO-30-UNV-93-84-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P557217

CATALOG NUMBER: FUSL-12-4-LD4-2LO-30-UNV-93-84-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°	5960	5960	5960
5°	5975	5950	5900
10°	5912	5896	5828
15°	5807	5807	5741
20°	5684	5692	5619
25°	5497	5565	5477
30°	5176	5409	5343
35°	4891	5185	5193
40°	4653	4905	5033
45°	4387	4607	4844
50°	4107	4342	4638
55°	3788	4039	4387
60°	3412	3686	4080
65°	3012	3277	3711
70°	2511	2792	3153
75°	1972	2229	2468
80°	1410	1568	1740
85°	920	920	868



TEST NUMBER: P557217

CATALOG NUMBER: FUSL-12-4-LD4-2LO-30-UNV-93-84-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	208.5	4.1
10°-20°	585.8	11.4
20°-30°	856.0	16.7
30°-40°	971.7	19.0
40°-50°	938.0	18.3
50°-60°	773.8	15.1
60°-70°	515.3	10.1
70°-80°	230.6	4.5
80°-90°	41.3	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°	1650.4	32.2
0°-40°	2622.0	51.2
0°-60°	4333.9	84.6
0°-90°	5121.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5121.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2215	2215	2215	2215	2215	
5°	2212	2211	2203	2191	2184	209
15°	2084	2090	2084	2075	2061	588
25°	1851	1866	1874	1861	1845	848
35°	1489	1509	1578	1587	1581	933
45°	1153	1172	1211	1266	1273	890
55°	807	821	861	909	935	721
65°	473	486	515	551	583	469
75°	190	200	214	225	237	207
85°	30	30	30	28	28	40
90°	0	0	0	0	0	



TEST NUMBER: P557217

CATALOG NUMBER: FUSL-12-4-LD4-2LO-30-UNV-93-84-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2214.7	2214.7	2214.7	2214.7	2214.7
2.5°	2220.7	2221.5	2216.4	2202.8	2194.3
5°	2212.1	2211.3	2202.8	2190.9	2184.1
7.5°	2187.5	2189.2	2186.6	2169.6	2160.2
10°	2163.7	2164.5	2157.7	2144.1	2133.0
12.5°	2133.0	2132.2	2122.8	2116.0	2098.1
15°	2084.5	2089.6	2084.5	2075.2	2060.7
17.5°	2037.7	2037.7	2041.1	2025.0	2013.9
20°	1985.0	1987.5	1987.5	1974.8	1962.0
22.5°	1923.7	1931.4	1933.9	1920.3	1905.0
25°	1851.4	1865.9	1874.4	1860.8	1844.6
27.5°	1763.8	1785.9	1811.4	1801.2	1783.3
30°	1665.9	1698.2	1740.8	1732.3	1719.5
32.5°	1573.2	1605.5	1664.2	1660.8	1654.0
35°	1488.9	1509.4	1578.3	1586.8	1580.8
37.5°	1409.0	1427.7	1492.3	1511.9	1506.8
40°	1324.7	1345.2	1396.2	1431.1	1432.8
42.5°	1241.4	1260.9	1302.6	1352.8	1352.8
45°	1152.9	1172.4	1210.7	1266.0	1272.8
47.5°	1066.1	1086.5	1123.9	1179.2	1190.3
50°	981.0	999.7	1037.2	1090.8	1107.8
52.5°	892.5	912.9	949.5	998.9	1023.5
55°	807.4	821.0	861.0	908.7	935.1
57.5°	718.9	731.7	776.8	817.6	844.9
60°	633.9	650.0	684.9	726.6	758.1
62.5°	552.2	569.2	599.0	635.6	671.3
65°	473.1	485.8	514.7	551.3	582.8
67.5°	396.5	407.5	436.5	462.0	495.2
70°	319.1	333.5	354.8	379.5	400.7
72.5°	256.9	262.9	280.8	298.6	320.8
75°	189.7	199.9	214.4	224.6	237.4
77.5°	136.1	142.1	150.6	159.1	171.0
80°	91.0	93.6	101.2	102.9	112.3
82.5°	55.3	57.0	58.7	59.6	63.0
85°	29.8	29.8	29.8	28.1	28.1
87.5°	17.0	17.0	14.5	11.9	8.5
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)