

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: P557289

Luminaire Tested: **FUSL-12-4-LD4-2LO-35-UNV-93-88-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: P557289  
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-35-UNV-93-88-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS 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**

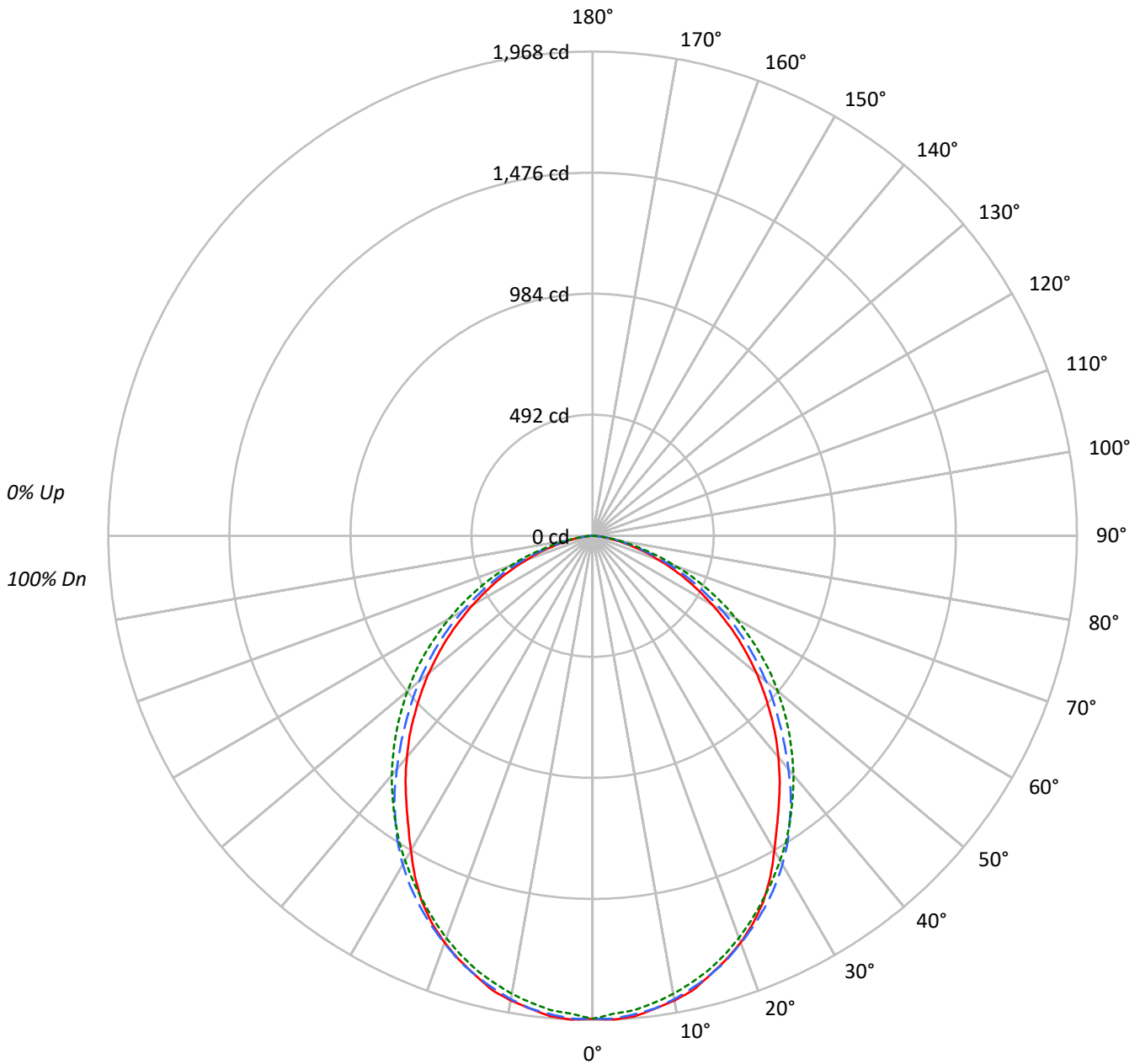
Lumens per Lamp: N/A  
Luminaire Lumens: 4539.0 lumens  
Efficiency: N/A  
Efficacy: 97.0 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 46.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: P557289

CATALOG NUMBER: FUSL-12-4-LD4-2LO-35-UNV-93-88-EDD

### Luminous Intensity Polar Plot





TEST NUMBER: P557289

CATALOG NUMBER: FUSL-12-4-LD4-2LO-35-UNV-93-88-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°	5282	5282	5282
5°	5296	5274	5229
10°	5240	5226	5166
15°	5147	5147	5088
20°	5038	5045	4980
25°	4872	4933	4855
30°	4588	4794	4736
35°	4335	4595	4603
40°	4125	4347	4461
45°	3889	4084	4293
50°	3640	3849	4111
55°	3358	3581	3888
60°	3024	3267	3616
65°	2670	2905	3289
70°	2225	2474	2795
75°	1749	1975	2188
80°	1251	1390	1542
85°	815	815	769



TEST NUMBER: P557289

CATALOG NUMBER: FUSL-12-4-LD4-2LO-35-UNV-93-88-EDD

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	184.8	4.1
10°-20°	519.2	11.4
20°-30°	758.7	16.7
30°-40°	861.3	19.0
40°-50°	831.4	18.3
50°-60°	685.9	15.1
60°-70°	456.7	10.1
70°-80°	204.4	4.5
80°-90°	36.6	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°	1462.8	32.2
0°-40°	2324.0	51.2
0°-60°	3841.3	84.6
0°-90°	4539.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4539.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1963	1963	1963	1963	1963	
5°	1961	1960	1952	1942	1936	186
15°	1848	1852	1848	1839	1826	521
25°	1641	1654	1661	1649	1635	751
35°	1320	1338	1399	1406	1401	827
45°	1022	1039	1073	1122	1128	788
55°	716	728	763	805	829	639
65°	419	431	456	489	517	416
75°	168	177	190	199	210	184
85°	26	26	26	25	25	36
90°	0	0	0	0	0	



TEST NUMBER: P557289

CATALOG NUMBER: FUSL-12-4-LD4-2LO-35-UNV-93-88-EDD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1963.0	1963.0	1963.0	1963.0	1963.0
2.5°	1968.3	1969.0	1964.5	1952.4	1944.9
5°	1960.7	1960.0	1952.4	1941.9	1935.9
7.5°	1938.9	1940.4	1938.1	1923.0	1914.7
10°	1917.8	1918.5	1912.5	1900.4	1890.6
12.5°	1890.6	1889.8	1881.6	1875.5	1859.7
15°	1847.6	1852.1	1847.6	1839.3	1826.5
17.5°	1806.1	1806.1	1809.2	1794.8	1785.0
20°	1759.4	1761.6	1761.6	1750.3	1739.0
22.5°	1705.1	1711.9	1714.1	1702.1	1688.5
25°	1641.0	1653.8	1661.3	1649.3	1635.0
27.5°	1563.3	1582.9	1605.5	1596.5	1580.7
30°	1476.6	1505.2	1542.9	1535.4	1524.1
32.5°	1394.4	1423.0	1475.1	1472.1	1466.0
35°	1319.7	1337.8	1398.9	1406.5	1401.2
37.5°	1248.8	1265.4	1322.7	1340.1	1335.6
40°	1174.2	1192.3	1237.5	1268.4	1270.0
42.5°	1100.3	1117.6	1154.6	1199.1	1199.1
45°	1021.8	1039.2	1073.1	1122.1	1128.2
47.5°	944.9	963.0	996.2	1045.2	1055.0
50°	869.5	886.1	919.3	966.8	981.9
52.5°	791.1	809.2	841.6	885.3	907.2
55°	715.7	727.7	763.2	805.4	828.8
57.5°	637.2	648.6	688.5	724.7	748.9
60°	561.8	576.2	607.1	644.0	671.9
62.5°	489.4	504.5	530.9	563.3	595.0
65°	419.3	430.6	456.2	488.7	516.6
67.5°	351.4	361.2	386.9	409.5	438.9
70°	282.8	295.6	314.5	336.3	355.2
72.5°	227.7	233.0	248.9	264.7	284.3
75°	168.2	177.2	190.0	199.1	210.4
77.5°	120.7	125.9	133.5	141.0	151.6
80°	80.7	83.0	89.7	91.2	99.5
82.5°	49.0	50.5	52.0	52.8	55.8
85°	26.4	26.4	26.4	24.9	24.9
87.5°	15.1	15.1	12.8	10.6	7.5
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)