

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: P556218

Luminaire Tested: **FUSL-12-4-LD4-1HI-35-UNV-80-94-EDD-90**

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: P556218  
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-LD4-1HI-35-UNV-80-94-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND  
3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

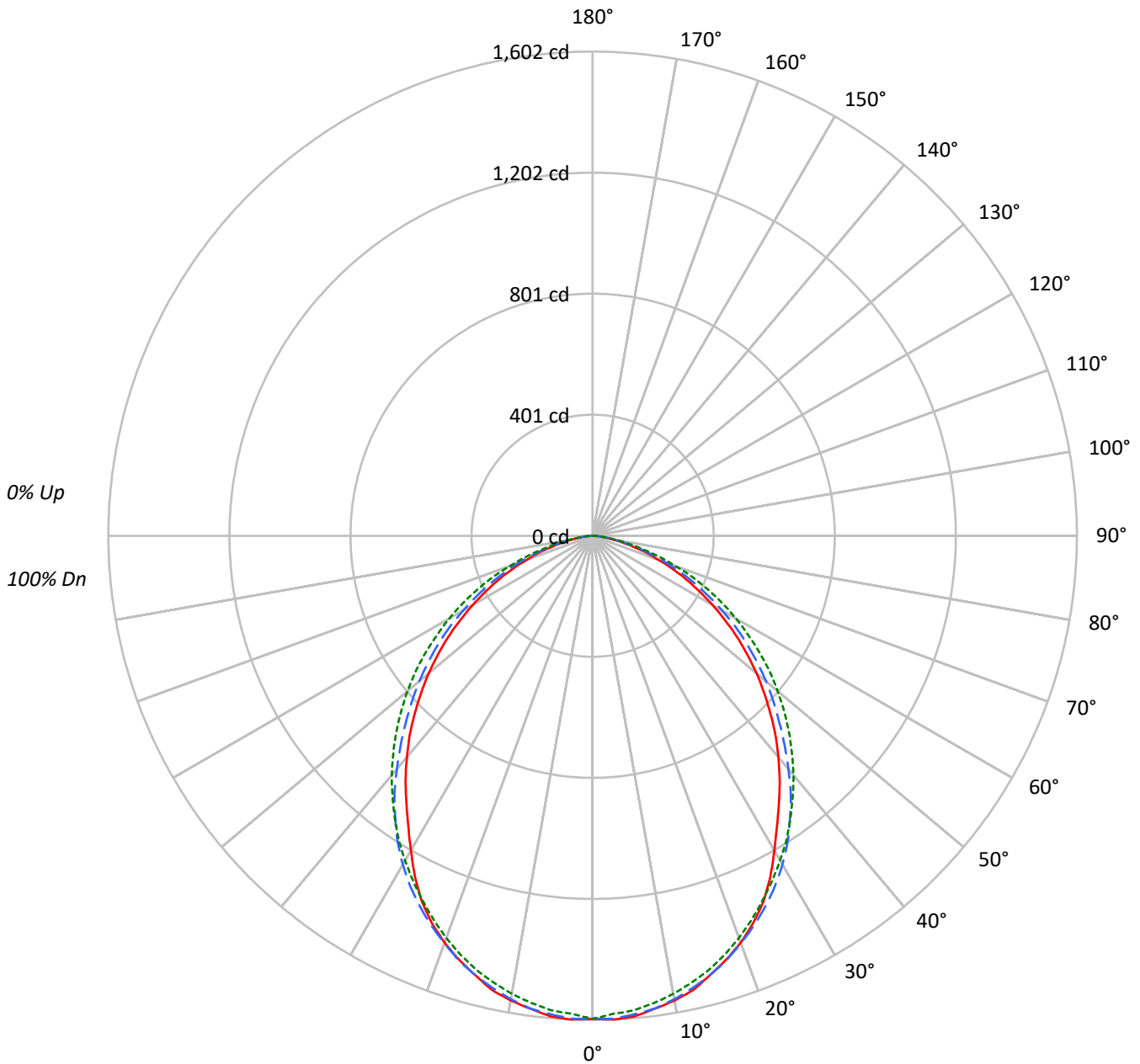
Lumens per Lamp: N/A  
Luminaire Lumens: 3695.0 lumens  
Efficiency: N/A  
Efficacy: 85.5 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 43.2  
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: P556218

CATALOG NUMBER: FUSL-12-4-LD4-1HI-35-UNV-80-94-EDD-90

### Luminous Intensity Polar Plot





TEST NUMBER: P556218

CATALOG NUMBER: FUSL-12-4-LD4-1HI-35-UNV-80-94-EDD-90

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20				
RC	80				70				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			100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86			86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73			73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63			63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54			54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47			47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42			42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37			37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34			34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30			30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28			28

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	4300	4300	4300
5°	4312	4293	4257
10°	4266	4254	4206
15°	4190	4190	4142
20°	4101	4107	4054
25°	3967	4016	3952
30°	3735	3903	3855
35°	3529	3741	3747
40°	3358	3539	3632
45°	3166	3325	3495
50°	2963	3133	3346
55°	2733	2915	3165
60°	2462	2660	2944
65°	2173	2365	2677
70°	1811	2014	2275
75°	1423	1608	1781
80°	1018	1133	1255
85°	664	664	627



TEST NUMBER: P556218

CATALOG NUMBER: FUSL-12-4-LD4-1HI-35-UNV-80-94-EDD-90

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	150.5	4.1
10°-20°	422.7	11.4
20°-30°	617.7	16.7
30°-40°	701.1	19.0
40°-50°	676.8	18.3
50°-60°	558.3	15.1
60°-70°	371.8	10.1
70°-80°	166.4	4.5
80°-90°	29.8	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°	1190.8	32.2
0°-40°	1891.9	51.2
0°-60°	3127.1	84.6
0°-90°	3695.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3695.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1598	1598	1598	1598	1598	
5°	1596	1596	1589	1581	1576	151
15°	1504	1508	1504	1497	1487	424
25°	1336	1346	1352	1343	1331	612
35°	1074	1089	1139	1145	1141	673
45°	832	846	874	914	918	642
55°	583	592	621	656	675	520
65°	341	350	371	398	420	338
75°	137	144	155	162	171	150
85°	22	22	22	20	20	29
90°	0	0	0	0	0	



TEST NUMBER: P556218

CATALOG NUMBER: FUSL-12-4-LD4-1HI-35-UNV-80-94-EDD-90

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1598.0	1598.0	1598.0	1598.0	1598.0
2.5°	1602.3	1602.9	1599.2	1589.4	1583.3
5°	1596.2	1595.5	1589.4	1580.8	1575.9
7.5°	1578.3	1579.6	1577.7	1565.5	1558.7
10°	1561.2	1561.8	1556.9	1547.0	1539.1
12.5°	1539.1	1538.4	1531.7	1526.8	1513.9
15°	1504.1	1507.7	1504.1	1497.3	1486.9
17.5°	1470.3	1470.3	1472.8	1461.1	1453.1
20°	1432.2	1434.1	1434.1	1424.9	1415.7
22.5°	1388.0	1393.6	1395.4	1385.6	1374.5
25°	1335.9	1346.3	1352.4	1342.6	1330.9
27.5°	1272.6	1288.6	1307.0	1299.6	1286.7
30°	1202.0	1225.4	1256.0	1249.9	1240.7
32.5°	1135.1	1158.4	1200.8	1198.3	1193.4
35°	1074.3	1089.1	1138.8	1144.9	1140.6
37.5°	1016.6	1030.1	1076.8	1090.9	1087.2
40°	955.8	970.6	1007.4	1032.6	1033.8
42.5°	895.7	909.8	939.9	976.1	976.1
45°	831.8	846.0	873.6	913.5	918.4
47.5°	769.2	784.0	811.0	850.9	858.9
50°	707.8	721.3	748.3	787.0	799.3
52.5°	644.0	658.7	685.1	720.7	738.5
55°	582.6	592.4	621.3	655.6	674.7
57.5°	518.7	528.0	560.5	590.0	609.6
60°	457.4	469.0	494.2	524.3	547.0
62.5°	398.4	410.7	432.2	458.6	484.4
65°	341.3	350.5	371.4	397.8	420.5
67.5°	286.1	294.1	314.9	333.3	357.3
70°	230.2	240.7	256.0	273.8	289.1
72.5°	185.4	189.7	202.6	215.5	231.4
75°	136.9	144.3	154.7	162.1	171.3
77.5°	98.2	102.5	108.7	114.8	123.4
80°	65.7	67.5	73.1	74.3	81.0
82.5°	39.9	41.1	42.4	43.0	45.4
85°	21.5	21.5	21.5	20.3	20.3
87.5°	12.3	12.3	10.4	8.6	6.1
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)