

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: P556344

Luminaire Tested: **FUSL-12-4-LD4-1HI-50-UNV-80-88-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: P556344  
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-50-UNV-80-88-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

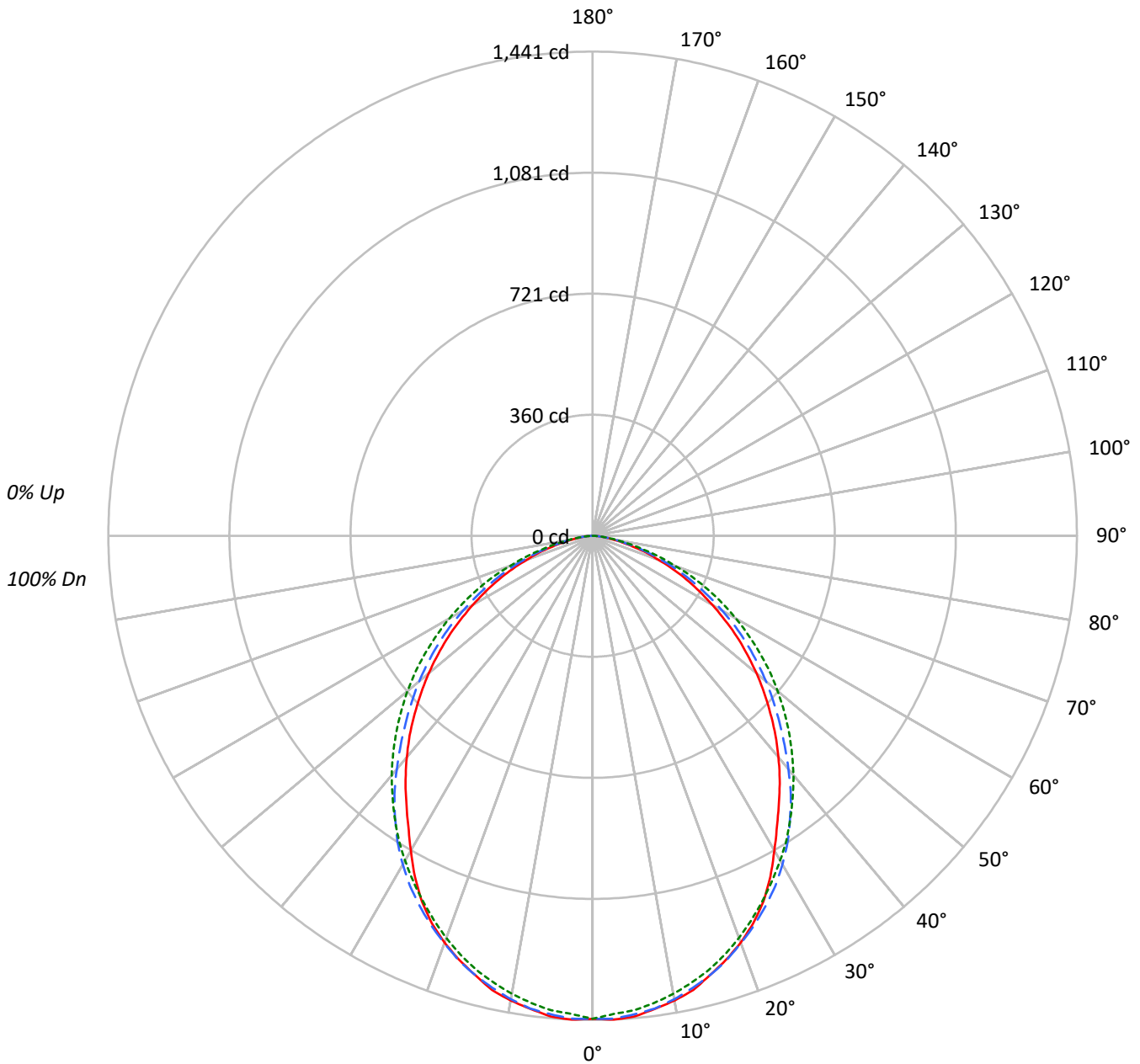
Lumens per Lamp: N/A  
Luminaire Lumens: 3324.0 lumens  
Efficiency: N/A  
Efficacy: 76.9 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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: P556344

CATALOG NUMBER: FUSL-12-4-LD4-1HI-50-UNV-80-88-EDD-90

### Luminous Intensity Polar Plot





TEST NUMBER: P556344

CATALOG NUMBER: FUSL-12-4-LD4-1HI-50-UNV-80-88-EDD-90

**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°	3868	3868	3868
5°	3879	3862	3830
10°	3838	3827	3783
15°	3769	3769	3726
20°	3690	3694	3647
25°	3568	3612	3555
30°	3360	3511	3468
35°	3175	3366	3371
40°	3021	3184	3267
45°	2848	2991	3144
50°	2666	2818	3010
55°	2459	2622	2847
60°	2214	2393	2648
65°	1955	2127	2409
70°	1629	1812	2046
75°	1281	1447	1602
80°	916	1018	1130
85°	596	596	562



TEST NUMBER: P556344

CATALOG NUMBER: FUSL-12-4-LD4-1HI-50-UNV-80-88-EDD-90

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	135.3	4.1
10°-20°	380.2	11.4
20°-30°	555.6	16.7
30°-40°	630.7	19.0
40°-50°	608.9	18.3
50°-60°	502.3	15.1
60°-70°	334.5	10.1
70°-80°	149.7	4.5
80°-90°	26.8	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°	1071.2	32.2
0°-40°	1701.9	51.2
0°-60°	2813.1	84.6
0°-90°	3324.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3324.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1438	1438	1438	1438	1438	
5°	1436	1435	1430	1422	1418	136
15°	1353	1356	1353	1347	1338	381
25°	1202	1211	1217	1208	1197	550
35°	966	980	1024	1030	1026	606
45°	748	761	786	822	826	577
55°	524	533	559	590	607	468
65°	307	315	334	358	378	304
75°	123	130	139	146	154	135
85°	19	19	19	18	18	26
90°	0	0	0	0	0	



TEST NUMBER: P556344

CATALOG NUMBER: FUSL-12-4-LD4-1HI-50-UNV-80-88-EDD-90

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1437.5	1437.5	1437.5	1437.5	1437.5
2.5°	1441.4	1442.0	1438.6	1429.8	1424.3
5°	1435.9	1435.3	1429.8	1422.1	1417.7
7.5°	1419.9	1421.0	1419.3	1408.3	1402.2
10°	1404.4	1405.0	1400.5	1391.7	1384.5
12.5°	1384.5	1384.0	1377.9	1373.5	1361.9
15°	1353.0	1356.4	1353.0	1347.0	1337.6
17.5°	1322.7	1322.7	1324.9	1314.4	1307.2
20°	1288.4	1290.1	1290.1	1281.8	1273.5
22.5°	1248.7	1253.6	1255.3	1246.5	1236.5
25°	1201.7	1211.1	1216.6	1207.8	1197.3
27.5°	1144.8	1159.2	1175.8	1169.1	1157.5
30°	1081.3	1102.3	1129.9	1124.4	1116.1
32.5°	1021.1	1042.1	1080.2	1078.0	1073.6
35°	966.5	979.7	1024.5	1030.0	1026.1
37.5°	914.5	926.7	968.7	981.4	978.1
40°	859.9	873.1	906.3	928.9	930.0
42.5°	805.8	818.5	845.5	878.1	878.1
45°	748.3	761.0	785.9	821.8	826.2
47.5°	692.0	705.2	729.5	765.4	772.6
50°	636.8	648.9	673.2	708.0	719.0
52.5°	579.3	592.6	616.3	648.4	664.4
55°	524.1	532.9	558.9	589.8	606.9
57.5°	466.7	474.9	504.2	530.7	548.4
60°	411.4	421.9	444.6	471.6	492.1
62.5°	358.4	369.5	388.8	412.5	435.7
65°	307.1	315.3	334.1	357.9	378.3
67.5°	257.4	264.5	283.3	299.9	321.4
70°	207.1	216.5	230.3	246.3	260.1
72.5°	166.8	170.6	182.2	193.8	208.2
75°	123.2	129.8	139.2	145.8	154.1
77.5°	88.4	92.2	97.8	103.3	111.0
80°	59.1	60.7	65.7	66.8	72.9
82.5°	35.9	37.0	38.1	38.7	40.9
85°	19.3	19.3	19.3	18.2	18.2
87.5°	11.0	11.0	9.4	7.7	5.5
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)