

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: P557290

Luminaire Tested: **FUSL-12-4-LD4-2LO-35-UNV-93-94-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: P557290  
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-93-94-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS 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**

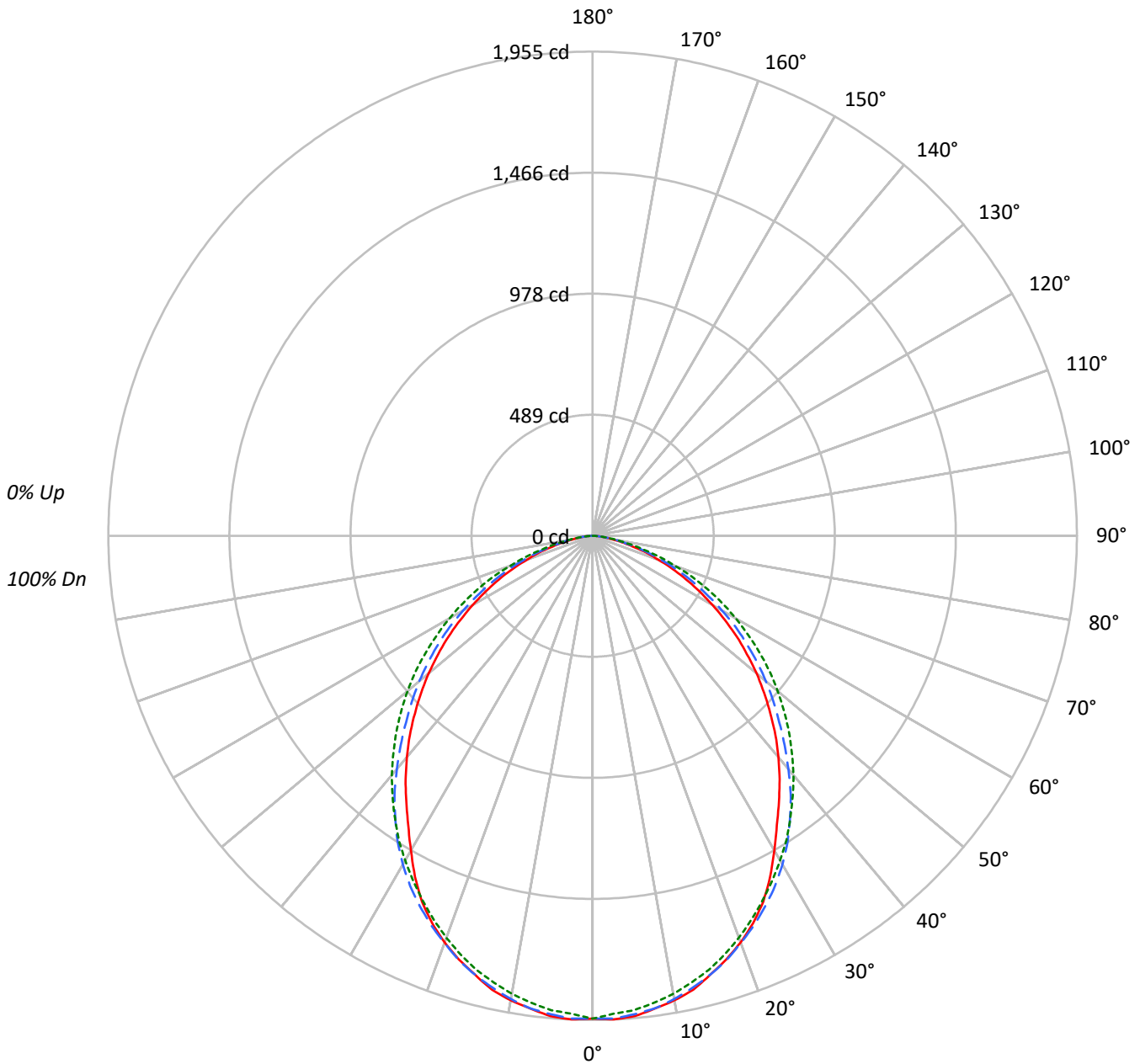
Lumens per Lamp: N/A  
Luminaire Lumens: 4508.0 lumens  
Efficiency: N/A  
Efficacy: 96.3 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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: P557290

CATALOG NUMBER: FUSL-12-4-LD4-2LO-35-UNV-93-94-EDD-90

### Luminous Intensity Polar Plot





TEST NUMBER: P557290

CATALOG NUMBER: FUSL-12-4-LD4-2LO-35-UNV-93-94-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°	5246	5246	5246
5°	5260	5238	5193
10°	5205	5190	5131
15°	5112	5112	5054
20°	5004	5010	4946
25°	4839	4899	4821
30°	4557	4762	4703
35°	4306	4564	4572
40°	4097	4318	4431
45°	3862	4056	4264
50°	3615	3822	4083
55°	3335	3556	3862
60°	3003	3245	3591
65°	2651	2885	3267
70°	2210	2457	2776
75°	1736	1962	2173
80°	1241	1381	1533
85°	809	809	763



TEST NUMBER: P557290

CATALOG NUMBER: FUSL-12-4-LD4-2LO-35-UNV-93-94-EDD-90

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	183.6	4.1
10°-20°	515.7	11.4
20°-30°	753.6	16.7
30°-40°	855.4	19.0
40°-50°	825.7	18.3
50°-60°	681.2	15.1
60°-70°	453.6	10.1
70°-80°	203.0	4.5
80°-90°	36.3	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°	1452.8	32.2
0°-40°	2308.2	51.2
0°-60°	3815.1	84.6
0°-90°	4508.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4508.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1950	1950	1950	1950	1950	
5°	1947	1947	1939	1929	1923	184
15°	1835	1840	1835	1827	1814	517
25°	1630	1642	1650	1638	1624	746
35°	1311	1329	1389	1397	1392	821
45°	1015	1032	1066	1114	1120	783
55°	711	723	758	800	823	634
65°	416	428	453	485	513	413
75°	167	176	189	198	209	183
85°	26	26	26	25	25	35
90°	0	0	0	0	0	



TEST NUMBER: P557290

CATALOG NUMBER: FUSL-12-4-LD4-2LO-35-UNV-93-94-EDD-90

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1949.6	1949.6	1949.6	1949.6	1949.6
2.5°	1954.8	1955.6	1951.1	1939.1	1931.6
5°	1947.3	1946.6	1939.1	1928.6	1922.6
7.5°	1925.6	1927.1	1924.9	1909.9	1901.7
10°	1904.7	1905.4	1899.4	1887.4	1877.7
12.5°	1877.7	1876.9	1868.7	1862.7	1847.0
15°	1835.0	1839.5	1835.0	1826.8	1814.0
17.5°	1793.8	1793.8	1796.8	1782.6	1772.8
20°	1747.4	1749.6	1749.6	1738.4	1727.1
22.5°	1693.4	1700.2	1702.4	1690.4	1677.0
25°	1629.8	1642.5	1650.0	1638.0	1623.8
27.5°	1552.6	1572.1	1594.6	1585.6	1569.9
30°	1466.5	1495.0	1532.4	1524.9	1513.7
32.5°	1384.9	1413.3	1465.0	1462.0	1456.0
35°	1310.7	1328.7	1389.4	1396.8	1391.6
37.5°	1240.3	1256.8	1313.7	1330.9	1326.4
40°	1166.2	1184.1	1229.1	1259.8	1261.3
42.5°	1092.8	1110.0	1146.7	1190.9	1190.9
45°	1014.9	1032.1	1065.8	1114.5	1120.5
47.5°	938.5	956.4	989.4	1038.1	1047.8
50°	863.6	880.1	913.0	960.2	975.2
52.5°	785.7	803.7	835.9	879.3	901.0
55°	710.8	722.8	758.0	799.9	823.1
57.5°	632.9	644.1	683.8	719.8	743.7
60°	558.0	572.2	602.9	639.6	667.3
62.5°	486.1	501.1	527.3	559.5	590.9
65°	416.4	427.7	453.1	485.3	513.1
67.5°	349.0	358.8	384.2	406.7	435.9
70°	280.9	293.6	312.3	334.0	352.8
72.5°	226.2	231.4	247.2	262.9	282.4
75°	167.0	176.0	188.7	197.7	209.0
77.5°	119.8	125.1	132.6	140.1	150.5
80°	80.1	82.4	89.1	90.6	98.9
82.5°	48.7	50.2	51.7	52.4	55.4
85°	26.2	26.2	26.2	24.7	24.7
87.5°	15.0	15.0	12.7	10.5	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)