

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: P557308

Luminaire Tested: **FUSL-12-4-LD4-2LO-40-UNV-80-96-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: P557308  
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-40-UNV-80-96-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

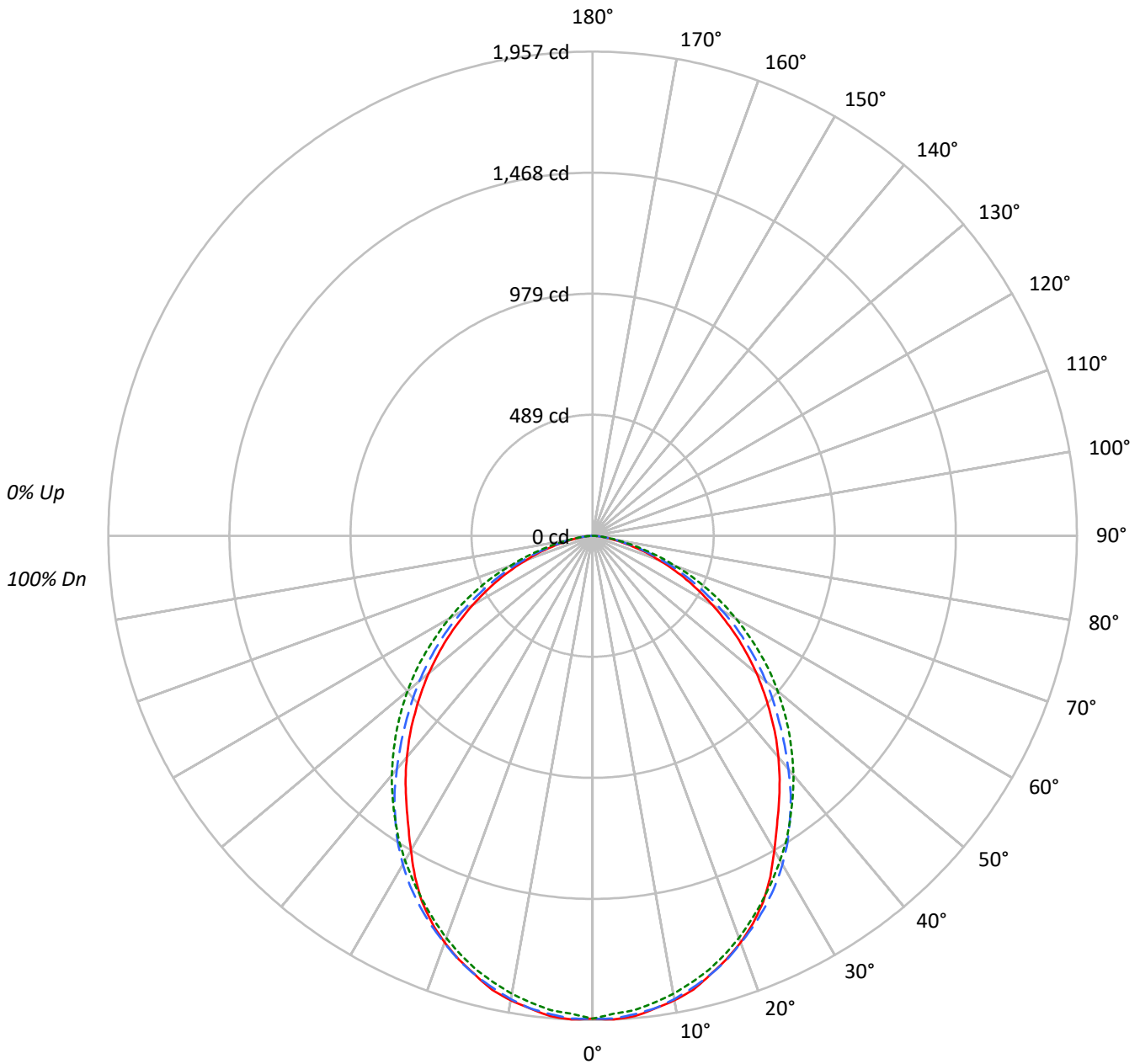
Lumens per Lamp: N/A  
Luminaire Lumens: 4513.0 lumens  
Efficiency: N/A  
Efficacy: 96.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 46.8  
Input Voltage (V): NR  
Input Current (A<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

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### Luminous Intensity Polar Plot





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**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°	5252	5252	5252
5°	5266	5244	5199
10°	5210	5196	5137
15°	5118	5118	5059
20°	5009	5016	4952
25°	4844	4904	4827
30°	4562	4767	4709
35°	4311	4569	4576
40°	4101	4322	4436
45°	3867	4061	4269
50°	3619	3826	4087
55°	3339	3560	3866
60°	3006	3249	3596
65°	2655	2888	3270
70°	2212	2460	2779
75°	1738	1965	2175
80°	1243	1382	1534
85°	809	809	763



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	183.8	4.1
10°-20°	516.2	11.4
20°-30°	754.4	16.7
30°-40°	856.3	19.0
40°-50°	826.6	18.3
50°-60°	681.9	15.1
60°-70°	454.1	10.1
70°-80°	203.2	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°	1454.4	32.2
0°-40°	2310.7	51.2
0°-60°	3819.3	84.6
0°-90°	4513.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4513.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1952	1952	1952	1952	1952	
5°	1950	1949	1941	1931	1925	185
15°	1837	1842	1837	1829	1816	518
25°	1632	1644	1652	1640	1626	747
35°	1312	1330	1391	1398	1393	822
45°	1016	1033	1067	1116	1122	784
55°	712	724	759	801	824	635
65°	417	428	454	486	514	413
75°	167	176	189	198	209	183
85°	26	26	26	25	25	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1951.8	1951.8	1951.8	1951.8	1951.8
2.5°	1957.0	1957.8	1953.3	1941.3	1933.8
5°	1949.5	1948.8	1941.3	1930.8	1924.8
7.5°	1927.8	1929.3	1927.0	1912.0	1903.8
10°	1906.8	1907.5	1901.5	1889.5	1879.8
12.5°	1879.8	1879.0	1870.8	1864.8	1849.0
15°	1837.0	1841.5	1837.0	1828.8	1816.0
17.5°	1795.8	1795.8	1798.8	1784.5	1774.8
20°	1749.3	1751.6	1751.6	1740.3	1729.1
22.5°	1695.3	1702.1	1704.3	1692.3	1678.8
25°	1631.6	1644.3	1651.8	1639.8	1625.6
27.5°	1554.4	1573.9	1596.3	1587.3	1571.6
30°	1468.1	1496.6	1534.1	1526.6	1515.4
32.5°	1386.4	1414.9	1466.6	1463.6	1457.6
35°	1312.2	1330.2	1390.9	1398.4	1393.1
37.5°	1241.7	1258.2	1315.2	1332.4	1327.9
40°	1167.5	1185.4	1230.4	1261.2	1262.7
42.5°	1094.0	1111.2	1148.0	1192.2	1192.2
45°	1016.0	1033.2	1067.0	1115.7	1121.7
47.5°	939.5	957.5	990.5	1039.2	1049.0
50°	864.5	881.0	914.0	961.3	976.3
52.5°	786.6	804.5	836.8	880.3	902.0
55°	711.6	723.6	758.8	800.8	824.0
57.5°	633.6	644.8	684.6	720.6	744.6
60°	558.6	572.9	603.6	640.3	668.1
62.5°	486.6	501.6	527.9	560.1	591.6
65°	416.9	428.1	453.6	485.9	513.6
67.5°	349.4	359.2	384.7	407.1	436.4
70°	281.2	293.9	312.7	334.4	353.2
72.5°	226.4	231.7	247.4	263.2	282.7
75°	167.2	176.2	189.0	197.9	209.2
77.5°	120.0	125.2	132.7	140.2	150.7
80°	80.2	82.5	89.2	90.7	99.0
82.5°	48.7	50.2	51.7	52.5	55.5
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)