

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: P556219

Luminaire Tested: **FUSL-12-4-LD4-1HI-35-UNV-80-94-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: P556219  
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  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND  
3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

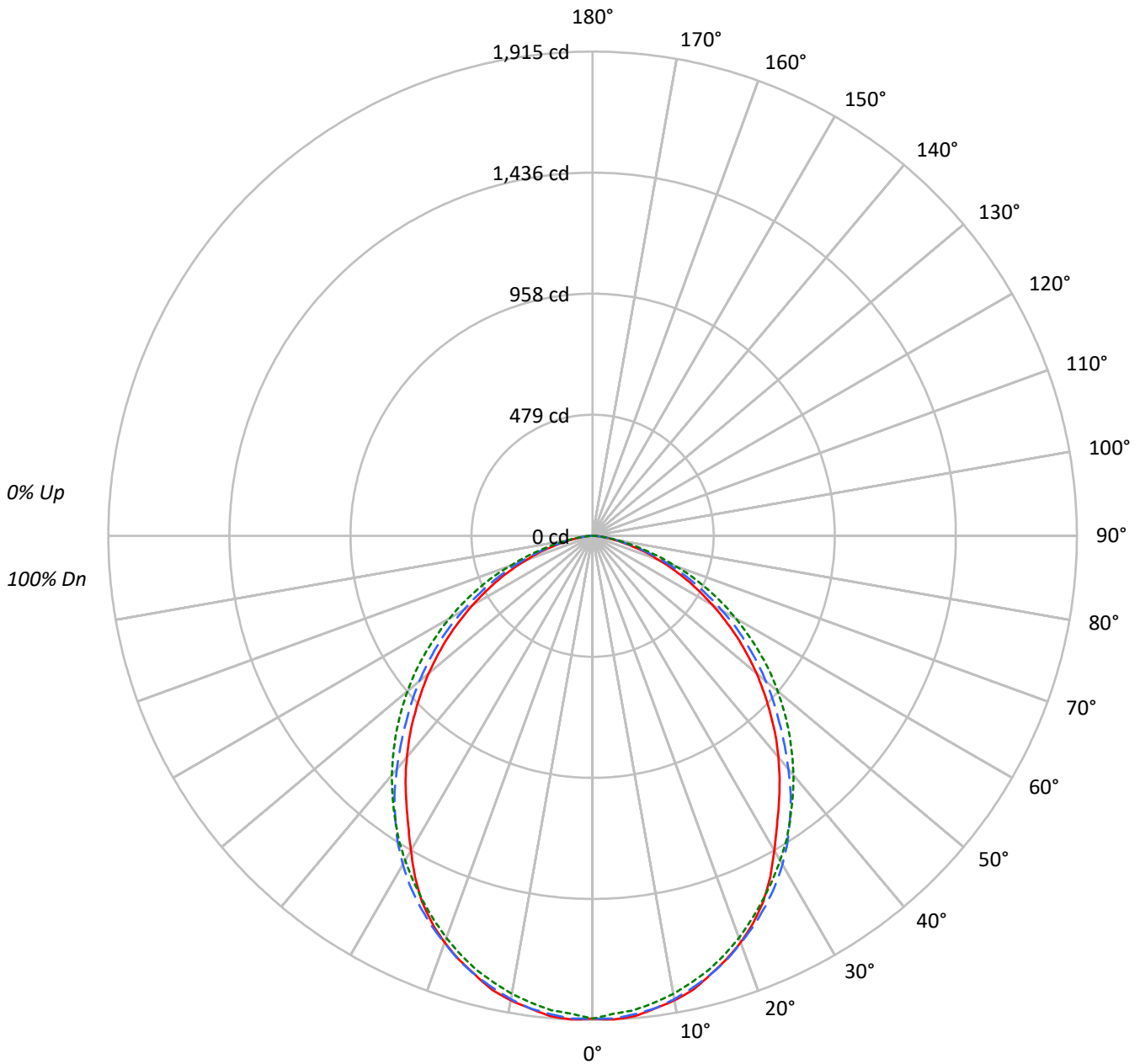
Lumens per Lamp: N/A  
Luminaire Lumens: 4416.0 lumens  
Efficiency: N/A  
Efficacy: 102.2 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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: P556219

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

### Luminous Intensity Polar Plot





TEST NUMBER: P556219

CATALOG NUMBER: FUSL-12-4-LD4-1HI-35-UNV-80-94-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°	5139	5139	5139
5°	5153	5131	5088
10°	5098	5084	5026
15°	5008	5008	4951
20°	4902	4908	4845
25°	4740	4799	4723
30°	4464	4664	4607
35°	4218	4471	4478
40°	4013	4229	4340
45°	3784	3973	4177
50°	3541	3744	3999
55°	3267	3483	3783
60°	2942	3179	3518
65°	2597	2826	3200
70°	2164	2408	2719
75°	1701	1922	2128
80°	1216	1353	1500
85°	794	794	747



TEST NUMBER: P556219

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

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	179.8	4.1
10°-20°	505.2	11.4
20°-30°	738.2	16.7
30°-40°	837.9	19.0
40°-50°	808.9	18.3
50°-60°	667.3	15.1
60°-70°	444.3	10.1
70°-80°	198.8	4.5
80°-90°	35.6	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°	1423.1	32.2
0°-40°	2261.1	51.2
0°-60°	3737.2	84.6
0°-90°	4416.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4416.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1910	1910	1910	1910	1910	
5°	1908	1907	1900	1889	1883	181
15°	1798	1802	1798	1790	1777	507
25°	1596	1609	1616	1605	1591	731
35°	1284	1302	1361	1368	1363	804
45°	994	1011	1044	1092	1098	767
55°	696	708	742	784	806	621
65°	408	419	444	475	503	404
75°	164	172	185	194	205	179
85°	26	26	26	24	24	35
90°	0	0	0	0	0	



TEST NUMBER: P556219

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

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1909.8	1909.8	1909.8	1909.8	1909.8
2.5°	1914.9	1915.7	1911.3	1899.5	1892.2
5°	1907.6	1906.9	1899.5	1889.3	1883.4
7.5°	1886.3	1887.8	1885.6	1870.9	1862.8
10°	1865.8	1866.5	1860.6	1848.9	1839.4
12.5°	1839.4	1838.6	1830.6	1824.7	1809.3
15°	1797.6	1802.0	1797.6	1789.5	1777.0
17.5°	1757.2	1757.2	1760.1	1746.2	1736.7
20°	1711.7	1713.9	1713.9	1702.9	1691.9
22.5°	1658.9	1665.5	1667.7	1655.9	1642.7
25°	1596.5	1609.0	1616.3	1604.6	1590.6
27.5°	1520.9	1540.0	1562.0	1553.2	1537.8
30°	1436.6	1464.5	1501.1	1493.8	1482.8
32.5°	1356.6	1384.5	1435.1	1432.2	1426.3
35°	1284.0	1301.6	1361.0	1368.3	1363.2
37.5°	1215.0	1231.1	1286.9	1303.8	1299.4
40°	1142.4	1160.0	1204.0	1234.1	1235.5
42.5°	1070.5	1087.3	1123.3	1166.6	1166.6
45°	994.2	1011.0	1044.0	1091.7	1097.6
47.5°	919.3	936.9	969.2	1016.9	1026.4
50°	845.9	862.1	894.4	940.6	955.3
52.5°	769.6	787.3	818.8	861.4	882.6
55°	696.3	708.0	742.5	783.6	806.3
57.5°	620.0	631.0	669.9	705.1	728.6
60°	546.6	560.5	590.6	626.6	653.7
62.5°	476.2	490.8	516.5	548.1	578.9
65°	407.9	418.9	443.9	475.4	502.6
67.5°	341.9	351.4	376.4	398.4	427.0
70°	275.1	287.6	306.0	327.2	345.6
72.5°	221.6	226.7	242.1	257.5	276.6
75°	163.6	172.4	184.9	193.7	204.7
77.5°	117.4	122.5	129.9	137.2	147.5
80°	78.5	80.7	87.3	88.8	96.8
82.5°	47.7	49.2	50.6	51.4	54.3
85°	25.7	25.7	25.7	24.2	24.2
87.5°	14.7	14.7	12.5	10.3	7.3
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)