

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: P556275

Luminaire Tested: **FUSL-12-4-LD4-1HI-40-UNV-80-85-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: P556275  
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-40-UNV-80-85-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

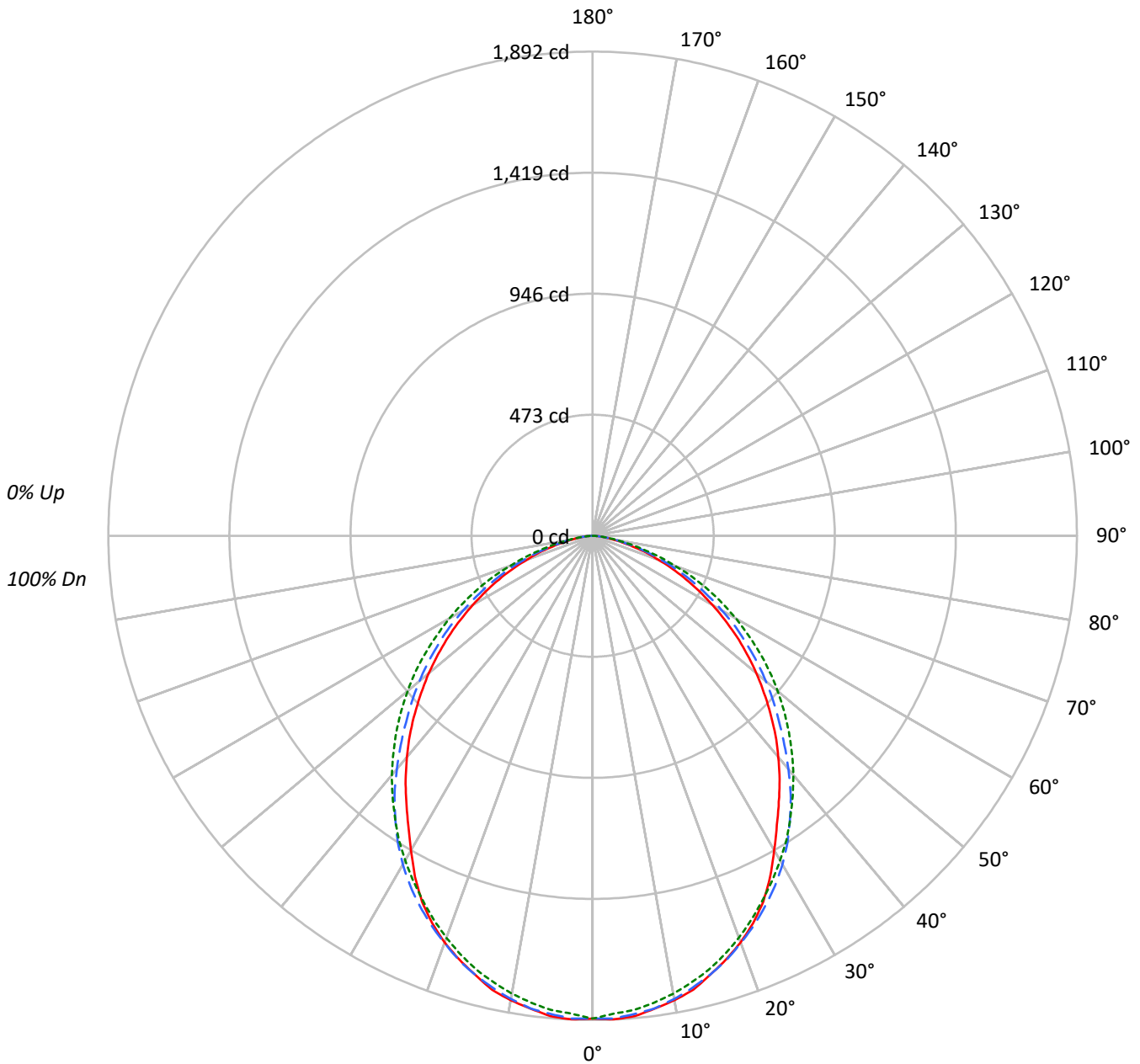
Lumens per Lamp: N/A  
Luminaire Lumens: 4362.0 lumens  
Efficiency: N/A  
Efficacy: 101.0 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 43.2  
Input Voltage (V): NR  
Input Current (Ain): 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°	5077	5077	5077
5°	5090	5068	5025
10°	5036	5022	4965
15°	4947	4947	4890
20°	4842	4848	4786
25°	4682	4741	4665
30°	4409	4607	4551
35°	4166	4416	4423
40°	3964	4178	4287
45°	3737	3925	4126
50°	3498	3698	3950
55°	3227	3441	3737
60°	2906	3140	3475
65°	2565	2792	3161
70°	2138	2378	2685
75°	1680	1899	2102
80°	1201	1336	1483
85°	784	784	738



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	177.6	4.1
10°-20°	499.0	11.4
20°-30°	729.2	16.7
30°-40°	827.7	19.0
40°-50°	799.0	18.3
50°-60°	659.1	15.1
60°-70°	438.9	10.1
70°-80°	196.4	4.5
80°-90°	35.1	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°	1405.7	32.2
0°-40°	2233.4	51.2
0°-60°	3691.6	84.6
0°-90°	4362.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4362.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1886	1886	1886	1886	1886	
5°	1884	1884	1876	1866	1860	178
15°	1776	1780	1776	1768	1755	501
25°	1577	1589	1597	1585	1571	722
35°	1268	1286	1344	1352	1346	795
45°	982	999	1031	1078	1084	758
55°	688	699	733	774	796	614
65°	403	414	438	470	496	400
75°	162	170	183	191	202	177
85°	25	25	25	24	24	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1886.5	1886.5	1886.5	1886.5	1886.5
2.5°	1891.5	1892.3	1887.9	1876.3	1869.1
5°	1884.3	1883.6	1876.3	1866.2	1860.4
7.5°	1863.3	1864.7	1862.5	1848.0	1840.1
10°	1843.0	1843.7	1837.9	1826.3	1816.9
12.5°	1816.9	1816.2	1808.2	1802.4	1787.2
15°	1775.6	1779.9	1775.6	1767.6	1755.3
17.5°	1735.7	1735.7	1738.6	1724.8	1715.4
20°	1690.8	1693.0	1693.0	1682.1	1671.2
22.5°	1638.6	1645.1	1647.3	1635.7	1622.7
25°	1577.0	1589.3	1596.6	1585.0	1571.2
27.5°	1502.3	1521.2	1542.9	1534.2	1519.0
30°	1419.0	1446.5	1482.8	1475.5	1464.7
32.5°	1340.0	1367.6	1417.6	1414.7	1408.9
35°	1268.3	1285.7	1344.4	1351.6	1346.5
37.5°	1200.1	1216.1	1271.2	1287.8	1283.5
40°	1128.4	1145.8	1189.3	1219.0	1220.4
42.5°	1057.4	1074.0	1109.5	1152.3	1152.3
45°	982.0	998.7	1031.3	1078.4	1084.2
47.5°	908.1	925.5	957.4	1004.5	1013.9
50°	835.6	851.5	883.4	929.1	943.6
52.5°	760.2	777.6	808.8	850.8	871.8
55°	687.8	699.4	733.4	774.0	796.5
57.5°	612.4	623.3	661.7	696.5	719.6
60°	539.9	553.7	583.4	618.9	645.7
62.5°	470.3	484.8	510.2	541.4	571.8
65°	402.9	413.8	438.5	469.6	496.4
67.5°	337.7	347.1	371.8	393.5	421.8
70°	271.8	284.1	302.2	323.2	341.3
72.5°	218.9	223.9	239.2	254.4	273.2
75°	161.6	170.3	182.6	191.3	202.2
77.5°	116.0	121.0	128.3	135.5	145.7
80°	77.5	79.7	86.2	87.7	95.7
82.5°	47.1	48.6	50.0	50.7	53.6
85°	25.4	25.4	25.4	23.9	23.9
87.5°	14.5	14.5	12.3	10.1	7.2
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)