

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: P557278

Luminaire Tested: **FUSL-12-4-LD4-2LO-35-UNV-82-97-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: P557278  
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-82-97-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375  
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

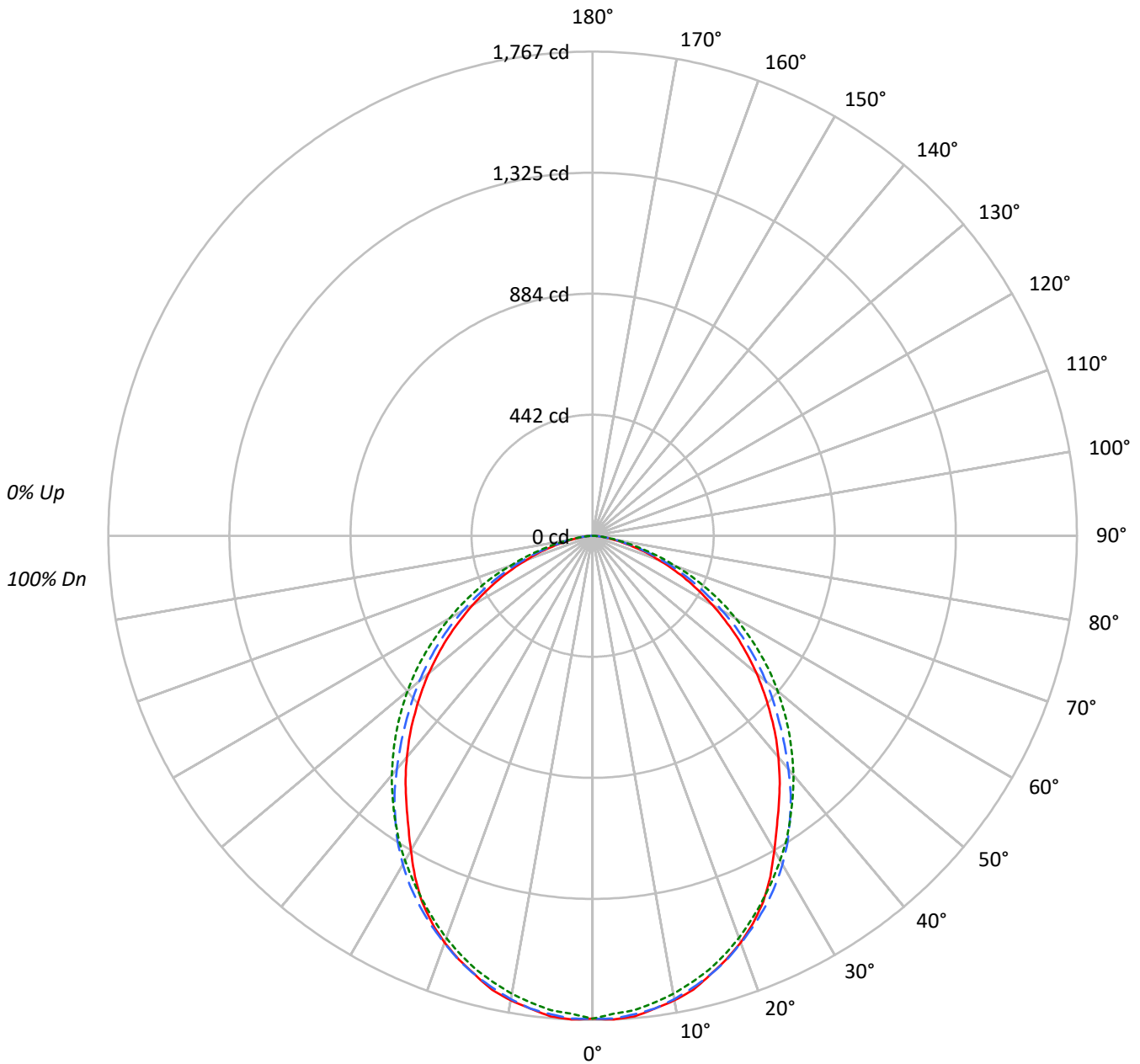
Lumens per Lamp: N/A  
Luminaire Lumens: 4075.0 lumens  
Efficiency: N/A  
Efficacy: 87.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	4742	4742	4742
5°	4755	4735	4695
10°	4705	4692	4638
15°	4621	4621	4568
20°	4523	4529	4471
25°	4374	4429	4358
30°	4119	4304	4252
35°	3892	4126	4132
40°	3703	3903	4005
45°	3491	3666	3855
50°	3268	3455	3690
55°	3014	3215	3491
60°	2715	2933	3246
65°	2397	2608	2953
70°	1998	2221	2509
75°	1570	1774	1964
80°	1122	1249	1385
85°	732	732	689



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	165.9	4.1
10°-20°	466.1	11.4
20°-30°	681.2	16.7
30°-40°	773.2	19.0
40°-50°	746.4	18.3
50°-60°	615.8	15.1
60°-70°	410.0	10.1
70°-80°	183.5	4.5
80°-90°	32.8	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°	1313.3	32.2
0°-40°	2086.5	51.2
0°-60°	3448.7	84.6
0°-90°	4075.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4075.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1762	1762	1762	1762	1762	
5°	1760	1760	1753	1743	1738	167
15°	1659	1663	1659	1651	1640	468
25°	1473	1485	1492	1481	1468	675
35°	1185	1201	1256	1263	1258	742
45°	917	933	963	1007	1013	708
55°	642	653	685	723	744	573
65°	376	387	410	439	464	373
75°	151	159	171	179	189	165
85°	24	24	24	22	22	32
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1762.3	1762.3	1762.3	1762.3	1762.3
2.5°	1767.1	1767.7	1763.7	1752.9	1746.1
5°	1760.3	1759.6	1752.9	1743.4	1738.0
7.5°	1740.7	1742.0	1740.0	1726.4	1719.0
10°	1721.7	1722.4	1717.0	1706.1	1697.3
12.5°	1697.3	1696.7	1689.2	1683.8	1669.6
15°	1658.7	1662.8	1658.7	1651.3	1639.8
17.5°	1621.5	1621.5	1624.2	1611.4	1602.6
20°	1579.5	1581.6	1581.6	1571.4	1561.3
22.5°	1530.8	1536.9	1538.9	1528.1	1515.9
25°	1473.2	1484.7	1491.5	1480.7	1467.8
27.5°	1403.5	1421.1	1441.4	1433.3	1419.1
30°	1325.6	1351.4	1385.2	1378.5	1368.3
32.5°	1251.8	1277.6	1324.3	1321.6	1316.2
35°	1184.8	1201.1	1255.9	1262.7	1257.9
37.5°	1121.2	1136.1	1187.5	1203.1	1199.0
40°	1054.1	1070.4	1111.0	1138.8	1140.1
42.5°	987.8	1003.4	1036.5	1076.5	1076.5
45°	917.4	933.0	963.4	1007.4	1012.9
47.5°	848.3	864.6	894.4	938.4	947.2
50°	780.6	795.5	825.3	868.0	881.5
52.5°	710.2	726.5	755.6	794.8	814.5
55°	642.5	653.3	685.2	723.1	744.1
57.5°	572.1	582.3	618.1	650.6	672.3
60°	504.4	517.3	545.0	578.2	603.2
62.5°	439.4	452.9	476.6	505.7	534.2
65°	376.4	386.6	409.6	438.7	463.8
67.5°	315.5	324.3	347.3	367.6	394.0
70°	253.9	265.4	282.3	302.0	318.9
72.5°	204.5	209.2	223.4	237.6	255.2
75°	151.0	159.1	170.6	178.7	188.9
77.5°	108.3	113.1	119.8	126.6	136.1
80°	72.4	74.5	80.6	81.9	89.4
82.5°	44.0	45.4	46.7	47.4	50.1
85°	23.7	23.7	23.7	22.3	22.3
87.5°	13.5	13.5	11.5	9.5	6.8
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)