

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: P557277

Luminaire Tested: **FUSL-12-4-LD4-2LO-35-UNV-82-96-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: P557277
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-82-96-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

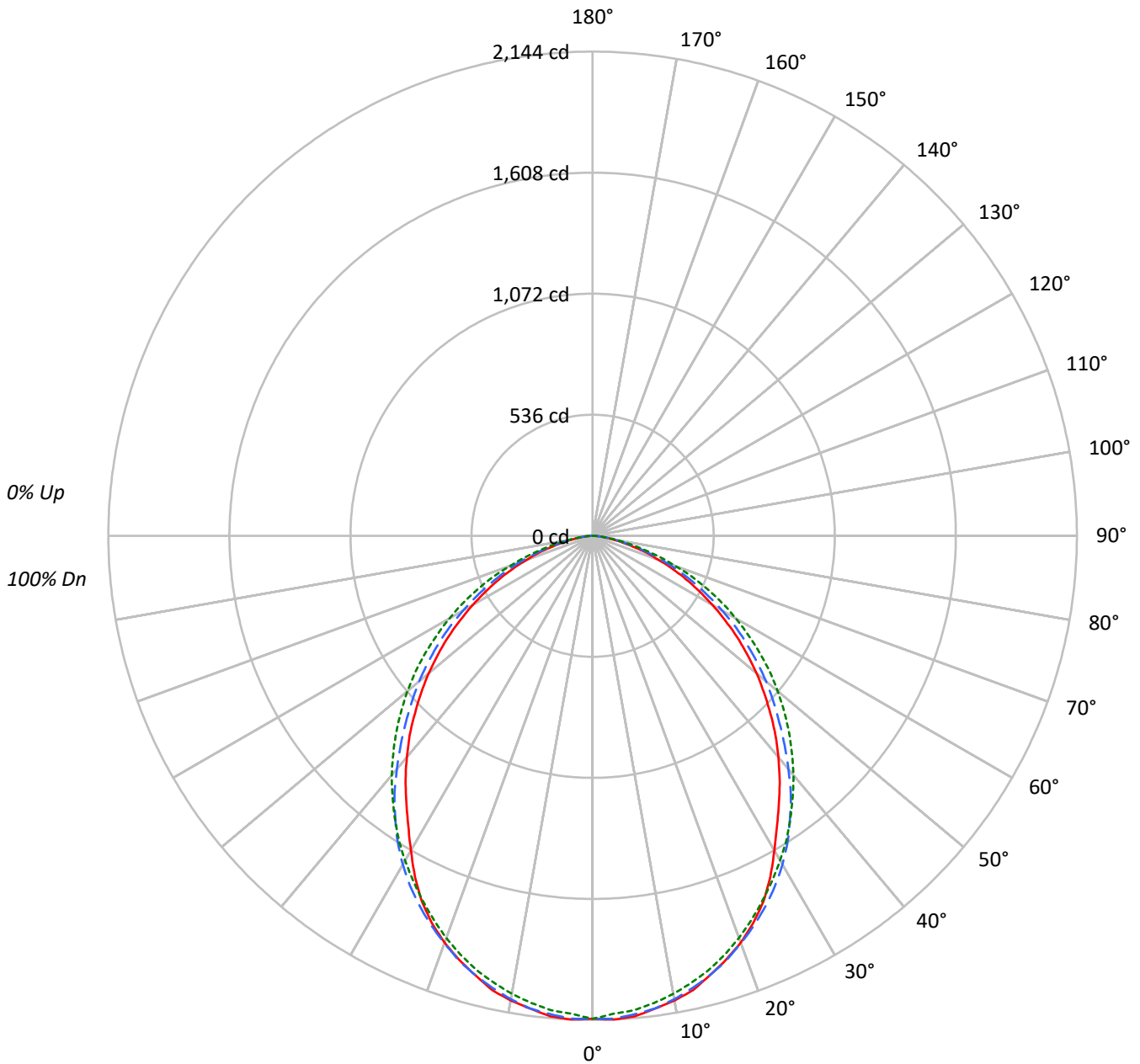
Lumens per Lamp: N/A
Luminaire Lumens: 4945.0 lumens
Efficiency: N/A
Efficacy: 105.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
Input Voltage (V): NR
Input Current (A_{in}): 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°	5755	5755	5755
5°	5770	5746	5697
10°	5709	5693	5628
15°	5608	5608	5544
20°	5489	5496	5426
25°	5308	5374	5289
30°	4999	5223	5159
35°	4723	5006	5015
40°	4494	4736	4860
45°	4236	4449	4677
50°	3966	4193	4478
55°	3658	3901	4236
60°	3294	3560	3940
65°	2909	3165	3584
70°	2424	2696	3045
75°	1905	2152	2383
80°	1362	1516	1680
85°	889	889	837



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	201.4	4.1
10°-20°	565.7	11.4
20°-30°	826.6	16.7
30°-40°	938.3	19.0
40°-50°	905.8	18.3
50°-60°	747.2	15.1
60°-70°	497.6	10.1
70°-80°	222.7	4.5
80°-90°	39.8	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°	1593.6	32.2
0°-40°	2531.9	51.2
0°-60°	4184.9	84.6
0°-90°	4945.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4945.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2139	2139	2139	2139	2139	
5°	2136	2135	2127	2116	2109	202
15°	2013	2018	2013	2004	1990	567
25°	1788	1802	1810	1797	1781	819
35°	1438	1458	1524	1532	1526	901
45°	1113	1132	1169	1222	1229	859
55°	780	793	831	878	903	696
65°	457	469	497	532	563	453
75°	183	193	207	217	229	200
85°	29	29	29	27	27	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2138.6	2138.6	2138.6	2138.6	2138.6
2.5°	2144.3	2145.2	2140.2	2127.1	2118.9
5°	2136.1	2135.3	2127.1	2115.6	2109.0
7.5°	2112.3	2113.9	2111.5	2095.0	2086.0
10°	2089.3	2090.1	2083.5	2070.4	2059.7
12.5°	2059.7	2058.9	2049.9	2043.3	2026.0
15°	2012.9	2017.8	2012.9	2003.8	1989.9
17.5°	1967.7	1967.7	1971.0	1955.4	1944.7
20°	1916.8	1919.2	1919.2	1906.9	1894.6
22.5°	1857.6	1865.0	1867.5	1854.3	1839.5
25°	1787.8	1801.7	1810.0	1796.8	1781.2
27.5°	1703.1	1724.5	1749.2	1739.3	1722.0
30°	1608.7	1639.9	1681.0	1672.7	1660.4
32.5°	1519.1	1550.3	1607.0	1603.7	1597.2
35°	1437.8	1457.5	1524.0	1532.3	1526.5
37.5°	1360.5	1378.6	1441.1	1460.0	1455.0
40°	1279.2	1298.9	1348.2	1381.9	1383.5
42.5°	1198.7	1217.6	1257.8	1306.3	1306.3
45°	1113.2	1132.1	1169.1	1222.5	1229.1
47.5°	1029.4	1049.2	1085.3	1138.7	1149.4
50°	947.3	965.4	1001.5	1053.3	1069.7
52.5°	861.8	881.6	916.9	964.5	988.4
55°	779.7	792.8	831.4	877.5	902.9
57.5°	694.2	706.6	750.1	789.5	815.8
60°	612.1	627.7	661.4	701.6	732.0
62.5°	533.2	549.6	578.4	613.7	648.2
65°	456.8	469.1	497.1	532.4	562.8
67.5°	382.9	393.5	421.5	446.1	478.2
70°	308.1	322.1	342.6	366.4	387.0
72.5°	248.1	253.9	271.1	288.4	309.7
75°	183.2	193.1	207.0	216.9	229.2
77.5°	131.5	137.2	145.4	153.6	165.1
80°	87.9	90.4	97.8	99.4	108.4
82.5°	53.4	55.0	56.7	57.5	60.8
85°	28.8	28.8	28.8	27.1	27.1
87.5°	16.4	16.4	14.0	11.5	8.2
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)