

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: P557387

Luminaire Tested: **FUSL-12-4-LD4-2LO-50-UNV-81-94-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: P557387
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-50-UNV-81-94-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

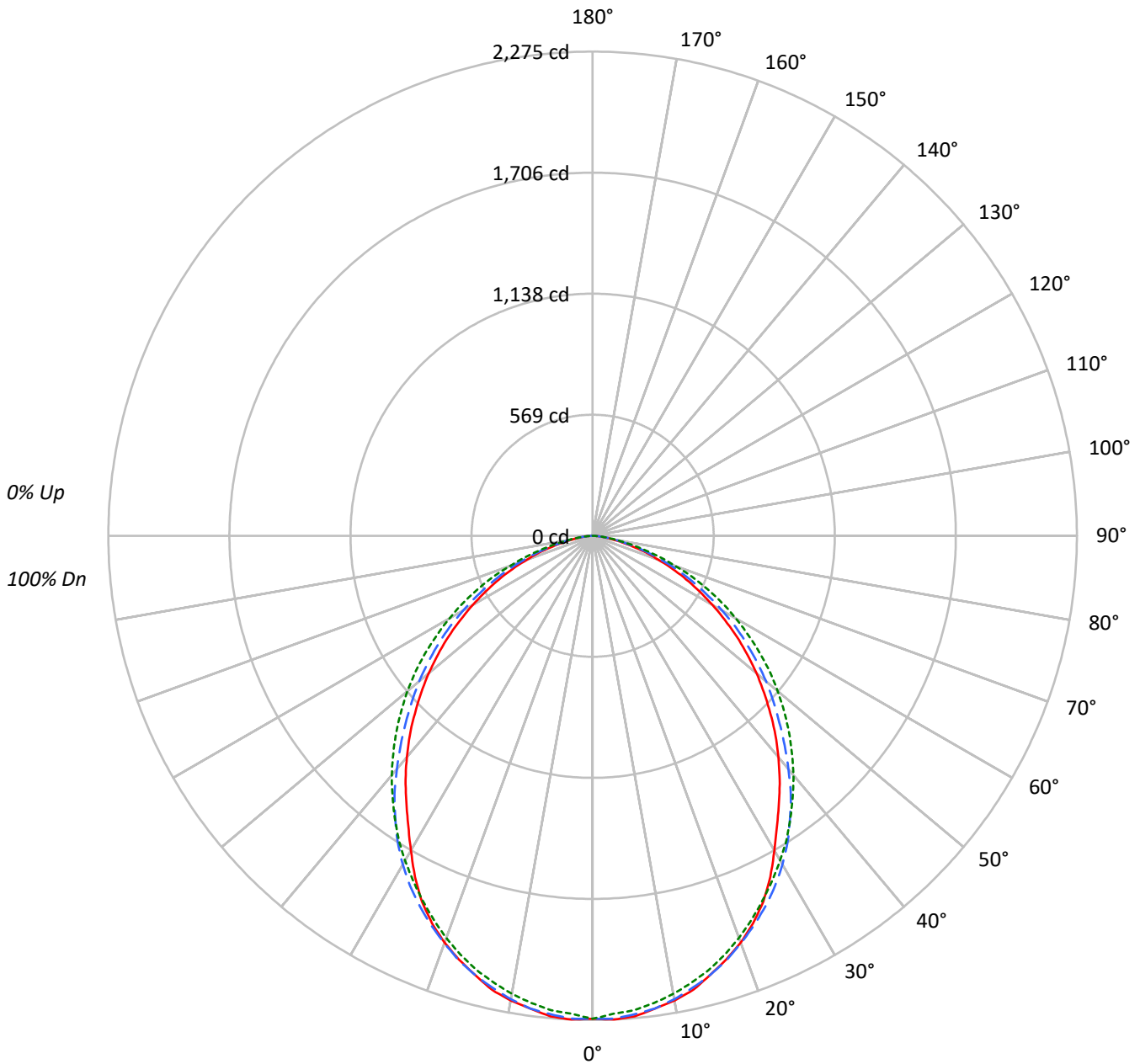
Lumens per Lamp: N/A
Luminaire Lumens: 5247.0 lumens
Efficiency: N/A
Efficacy: 112.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
Input Voltage (V): NR
Input Current (A_{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°	6106	6106	6106
5°	6123	6097	6045
10°	6058	6041	5972
15°	5950	5950	5882
20°	5824	5832	5757
25°	5633	5702	5612
30°	5304	5542	5474
35°	5012	5312	5321
40°	4768	5025	5157
45°	4495	4721	4963
50°	4208	4449	4752
55°	3881	4139	4495
60°	3496	3777	4180
65°	3086	3358	3803
70°	2572	2860	3231
75°	2021	2284	2529
80°	1446	1607	1784
85°	942	942	889



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	213.7	4.1
10°-20°	600.2	11.4
20°-30°	877.1	16.7
30°-40°	995.6	19.0
40°-50°	961.1	18.3
50°-60°	792.8	15.1
60°-70°	528.0	10.1
70°-80°	236.3	4.5
80°-90°	42.3	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°	1691.0	32.2
0°-40°	2686.6	51.2
0°-60°	4440.5	84.6
0°-90°	5247.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5247.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2269	2269	2269	2269	2269	
5°	2267	2266	2257	2245	2238	215
15°	2136	2141	2136	2126	2111	602
25°	1897	1912	1920	1906	1890	869
35°	1526	1546	1617	1626	1620	956
45°	1181	1201	1240	1297	1304	911
55°	827	841	882	931	958	738
65°	485	498	527	565	597	481
75°	194	205	220	230	243	213
85°	30	30	30	29	29	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2269.2	2269.2	2269.2	2269.2	2269.2
2.5°	2275.3	2276.2	2270.9	2257.0	2248.3
5°	2266.6	2265.7	2257.0	2244.8	2237.8
7.5°	2241.3	2243.0	2240.4	2223.0	2213.4
10°	2216.9	2217.8	2210.8	2196.8	2185.5
12.5°	2185.5	2184.6	2175.0	2168.1	2149.8
15°	2135.8	2141.0	2135.8	2126.2	2111.4
17.5°	2087.9	2087.9	2091.4	2074.8	2063.5
20°	2033.8	2036.4	2036.4	2023.4	2010.3
22.5°	1971.0	1978.9	1981.5	1967.6	1951.9
25°	1897.0	1911.8	1920.5	1906.5	1890.0
27.5°	1807.2	1829.8	1856.0	1845.5	1827.2
30°	1706.9	1740.0	1783.6	1774.9	1761.8
32.5°	1611.9	1645.0	1705.2	1701.7	1694.7
35°	1525.6	1546.5	1617.1	1625.8	1619.7
37.5°	1443.6	1462.8	1529.1	1549.1	1543.9
40°	1357.3	1378.3	1430.6	1466.3	1468.0
42.5°	1271.9	1291.9	1334.7	1386.1	1386.1
45°	1181.2	1201.3	1240.5	1297.2	1304.2
47.5°	1092.3	1113.2	1151.6	1208.3	1219.6
50°	1005.1	1024.3	1062.7	1117.6	1135.0
52.5°	914.5	935.4	972.9	1023.4	1048.7
55°	827.3	841.2	882.2	931.0	958.1
57.5°	736.6	749.7	795.9	837.8	865.7
60°	649.5	666.0	701.8	744.5	776.7
62.5°	565.8	583.2	613.7	651.2	687.8
65°	484.7	497.8	527.4	564.9	597.2
67.5°	406.2	417.6	447.2	473.4	507.4
70°	326.9	341.7	363.5	388.8	410.6
72.5°	263.3	269.4	287.7	306.0	328.7
75°	194.4	204.9	219.7	230.1	243.2
77.5°	139.5	145.6	154.3	163.0	175.2
80°	93.3	95.9	103.7	105.5	115.1
82.5°	56.7	58.4	60.2	61.0	64.5
85°	30.5	30.5	30.5	28.8	28.8
87.5°	17.4	17.4	14.8	12.2	8.7
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)