

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: P557672

Luminaire Tested: **FUSL-12-4-LD4-2STD-50-UNV-93-88-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: P557672
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-LD4-2STD-50-UNV-93-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

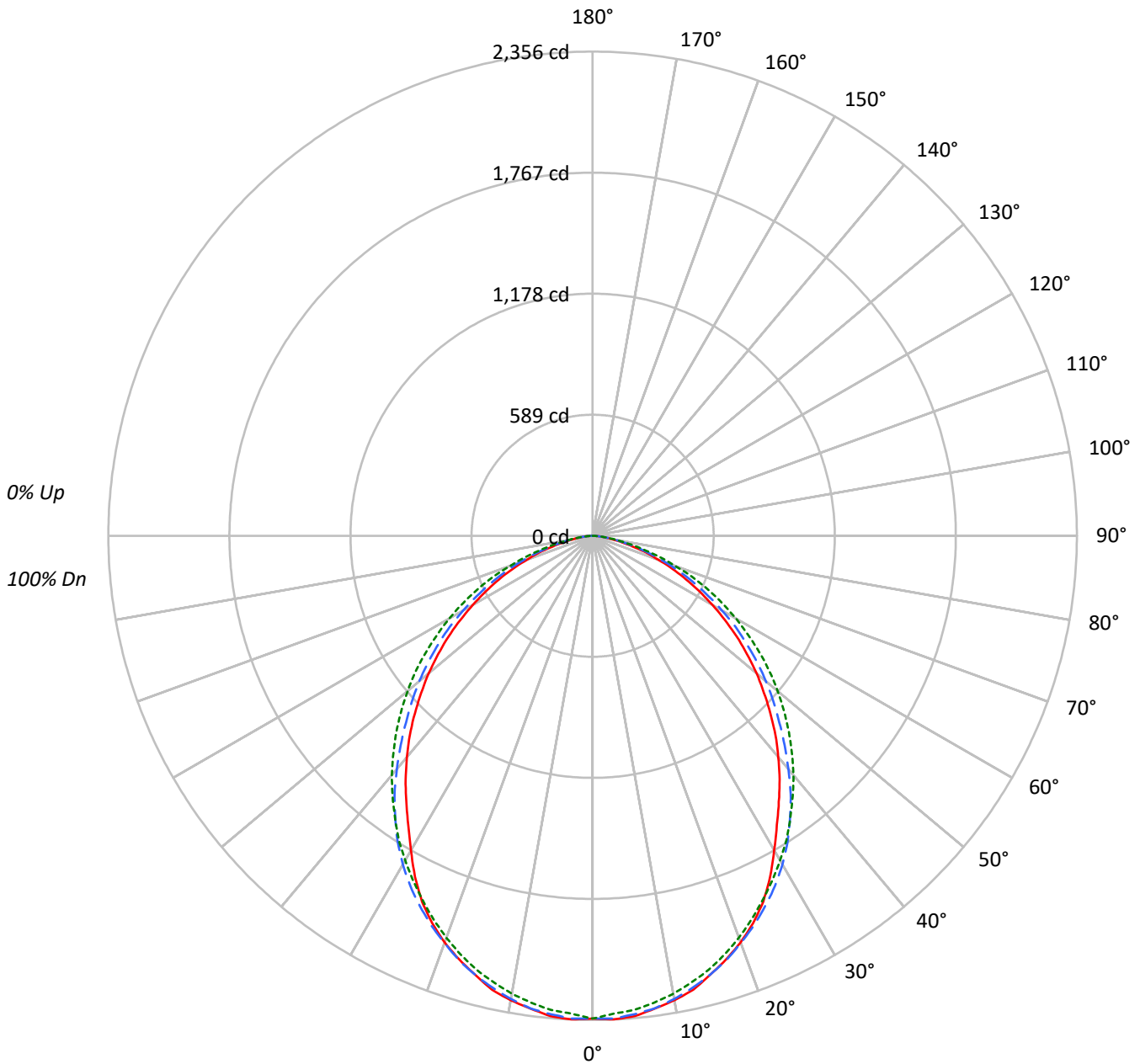
Lumens per Lamp: N/A
Luminaire Lumens: 5432.0 lumens
Efficiency: N/A
Efficacy: 81.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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				20				20	
RC	80				70				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				100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86				86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73				73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63				63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54				54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47				47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42				42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37				37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34				34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30				30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28				28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6322	6322	6322
5°	6339	6312	6258
10°	6271	6254	6183
15°	6160	6160	6089
20°	6029	6037	5960
25°	5831	5903	5809
30°	5491	5738	5667
35°	5188	5500	5508
40°	4936	5202	5339
45°	4654	4888	5138
50°	4356	4605	4919
55°	4018	4285	4653
60°	3619	3910	4328
65°	3195	3477	3936
70°	2662	2961	3345
75°	2093	2364	2618
80°	1497	1664	1846
85°	976	976	920



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	221.2	4.1
10°-20°	621.4	11.4
20°-30°	908.0	16.7
30°-40°	1030.7	19.0
40°-50°	995.0	18.3
50°-60°	820.8	15.1
60°-70°	546.6	10.1
70°-80°	244.6	4.5
80°-90°	43.8	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°	1750.6	32.2
0°-40°	2781.3	51.2
0°-60°	4597.1	84.6
0°-90°	5432.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5432.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2349	2349	2349	2349	2349	
5°	2346	2346	2337	2324	2317	222
15°	2211	2216	2211	2201	2186	623
25°	1964	1979	1988	1974	1957	899
35°	1579	1601	1674	1683	1677	990
45°	1223	1244	1284	1343	1350	944
55°	856	871	913	964	992	764
65°	502	515	546	585	618	498
75°	201	212	227	238	252	220
85°	32	32	32	30	30	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2349.2	2349.2	2349.2	2349.2	2349.2
2.5°	2355.5	2356.4	2351.0	2336.6	2327.5
5°	2346.5	2345.6	2336.6	2323.9	2316.7
7.5°	2320.3	2322.1	2319.4	2301.4	2291.4
10°	2295.0	2296.0	2288.7	2274.3	2262.6
12.5°	2262.6	2261.7	2251.7	2244.5	2225.6
15°	2211.1	2216.5	2211.1	2201.2	2185.8
17.5°	2161.5	2161.5	2165.1	2147.9	2136.2
20°	2105.5	2108.2	2108.2	2094.7	2081.2
22.5°	2040.5	2048.7	2051.4	2036.9	2020.7
25°	1963.8	1979.2	1988.2	1973.8	1956.6
27.5°	1870.9	1894.3	1921.4	1910.6	1891.6
30°	1767.1	1801.4	1846.5	1837.5	1823.9
32.5°	1668.7	1703.0	1765.3	1761.7	1754.5
35°	1579.4	1601.0	1674.1	1683.2	1676.8
37.5°	1494.5	1514.4	1583.0	1603.7	1598.3
40°	1405.2	1426.8	1481.0	1518.0	1519.8
42.5°	1316.7	1337.5	1381.7	1435.0	1435.0
45°	1222.9	1243.6	1284.3	1342.9	1350.1
47.5°	1130.8	1152.5	1192.2	1250.9	1262.6
50°	1040.6	1060.4	1100.1	1157.0	1175.1
52.5°	946.7	968.4	1007.2	1059.5	1085.7
55°	856.5	870.9	913.3	963.9	991.8
57.5°	762.6	776.1	824.0	867.3	896.2
60°	672.4	689.5	726.5	770.7	804.1
62.5°	585.7	603.8	635.4	674.2	712.1
65°	501.8	515.3	546.0	584.8	618.2
67.5°	420.6	432.3	463.0	490.1	525.3
70°	338.4	353.8	376.3	402.5	425.1
72.5°	272.6	278.9	297.8	316.8	340.2
75°	201.3	212.1	227.4	238.3	251.8
77.5°	144.4	150.7	159.7	168.8	181.4
80°	96.6	99.3	107.4	109.2	119.1
82.5°	58.7	60.5	62.3	63.2	66.8
85°	31.6	31.6	31.6	29.8	29.8
87.5°	18.0	18.0	15.3	12.6	9.0
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)