

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: P557259

Luminaire Tested: **FUSL-12-4-LD4-2LO-35-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: P557259
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-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 3500K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

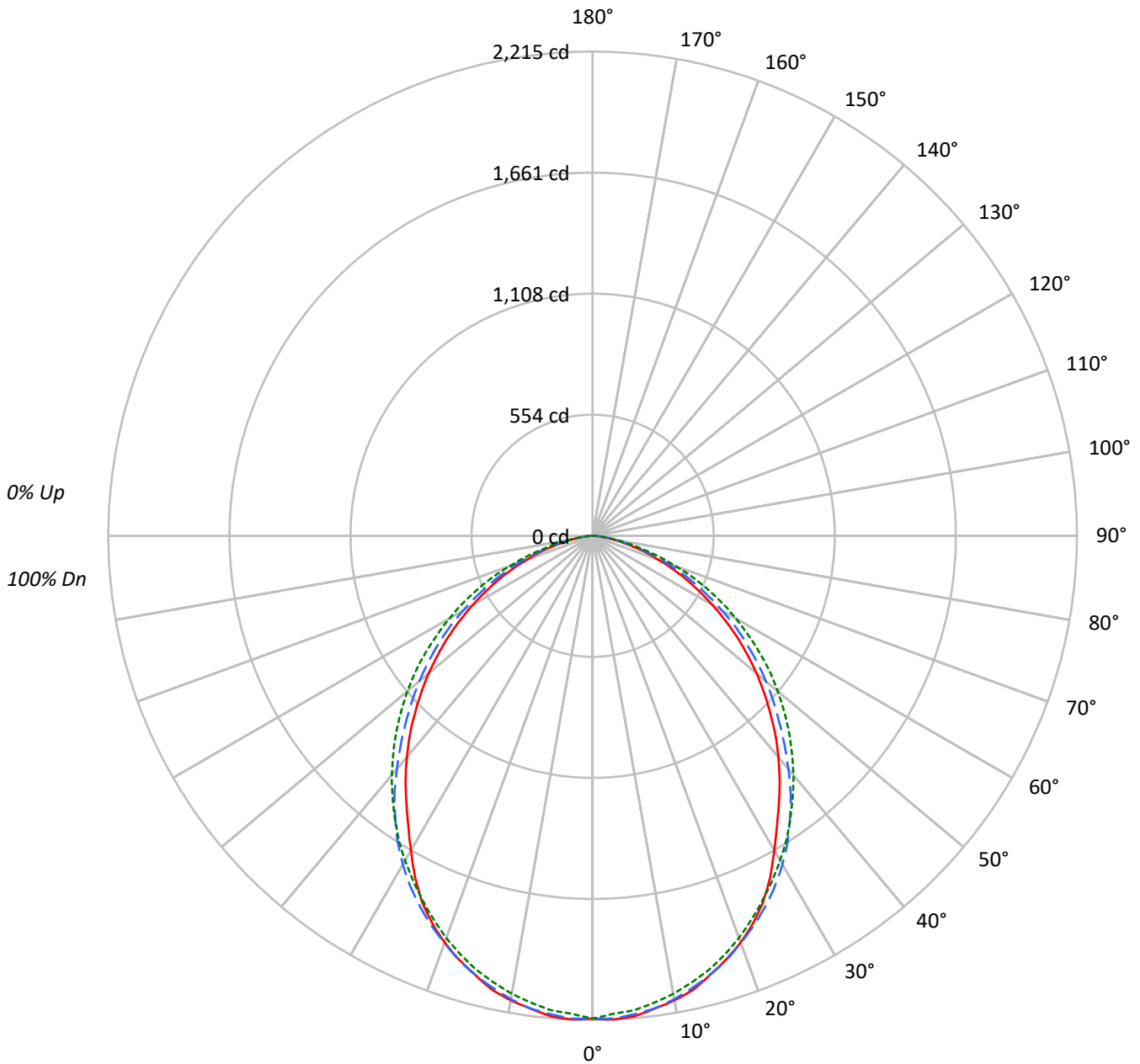
Lumens per Lamp: N/A
Luminaire Lumens: 5108.0 lumens
Efficiency: N/A
Efficacy: 109.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	5945	5945	5945
5°	5960	5935	5885
10°	5897	5881	5814
15°	5792	5792	5726
20°	5670	5677	5604
25°	5483	5551	5463
30°	5163	5395	5330
35°	4879	5172	5180
40°	4642	4892	5021
45°	4376	4596	4832
50°	4096	4331	4626
55°	3779	4030	4376
60°	3403	3677	4070
65°	3005	3269	3701
70°	2504	2784	3145
75°	1968	2224	2462
80°	1407	1565	1736
85°	917	917	865



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	208.0	4.1
10°-20°	584.3	11.4
20°-30°	853.9	16.7
30°-40°	969.2	19.0
40°-50°	935.6	18.3
50°-60°	771.8	15.1
60°-70°	514.0	10.1
70°-80°	230.0	4.5
80°-90°	41.2	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°	1646.2	32.2
0°-40°	2615.4	51.2
0°-60°	4322.9	84.6
0°-90°	5108.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5108.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2209	2209	2209	2209	2209	
5°	2206	2206	2197	2185	2178	209
15°	2079	2084	2079	2070	2056	586
25°	1847	1861	1870	1856	1840	846
35°	1485	1506	1574	1583	1577	931
45°	1150	1170	1208	1263	1270	887
55°	805	819	859	906	933	719
65°	472	485	513	550	581	468
75°	189	199	214	224	237	207
85°	30	30	30	28	28	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2209.1	2209.1	2209.1	2209.1	2209.1
2.5°	2215.0	2215.9	2210.8	2197.2	2188.7
5°	2206.5	2205.7	2197.2	2185.3	2178.5
7.5°	2181.9	2183.6	2181.1	2164.1	2154.8
10°	2158.2	2159.0	2152.2	2138.6	2127.6
12.5°	2127.6	2126.8	2117.4	2110.6	2092.8
15°	2079.2	2084.3	2079.2	2069.9	2055.5
17.5°	2032.6	2032.6	2036.0	2019.8	2008.8
20°	1979.9	1982.5	1982.5	1969.8	1957.0
22.5°	1918.8	1926.5	1929.0	1915.4	1900.2
25°	1846.7	1861.1	1869.6	1856.0	1839.9
27.5°	1759.3	1781.4	1806.8	1796.6	1778.8
30°	1661.7	1693.9	1736.4	1727.9	1715.2
32.5°	1569.2	1601.4	1660.0	1656.6	1649.8
35°	1485.2	1505.5	1574.3	1582.8	1576.8
37.5°	1405.4	1424.1	1488.6	1508.1	1503.0
40°	1321.4	1341.7	1392.7	1427.5	1429.2
42.5°	1238.2	1257.7	1299.3	1349.4	1349.4
45°	1149.9	1169.5	1207.7	1262.8	1269.6
47.5°	1063.4	1083.7	1121.1	1176.3	1187.3
50°	978.5	997.2	1034.5	1088.0	1105.0
52.5°	890.3	910.6	947.1	996.3	1020.9
55°	805.4	819.0	858.9	906.4	932.7
57.5°	717.1	729.9	774.8	815.6	842.7
60°	632.3	648.4	683.2	724.8	756.2
62.5°	550.8	567.8	597.5	634.0	669.6
65°	471.9	484.6	513.4	549.9	581.3
67.5°	395.5	406.5	435.4	460.8	493.9
70°	318.2	332.7	353.9	378.5	399.7
72.5°	256.3	262.2	280.1	297.9	319.9
75°	189.3	199.4	213.9	224.0	236.8
77.5°	135.8	141.7	150.2	158.7	170.6
80°	90.8	93.4	101.0	102.7	112.0
82.5°	55.2	56.9	58.6	59.4	62.8
85°	29.7	29.7	29.7	28.0	28.0
87.5°	17.0	17.0	14.4	11.9	8.5
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)