

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: P557510

Luminaire Tested: **FUSL-12-4-LD4-2STD-35-UNV-81-87-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: P557510
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-35-UNV-81-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

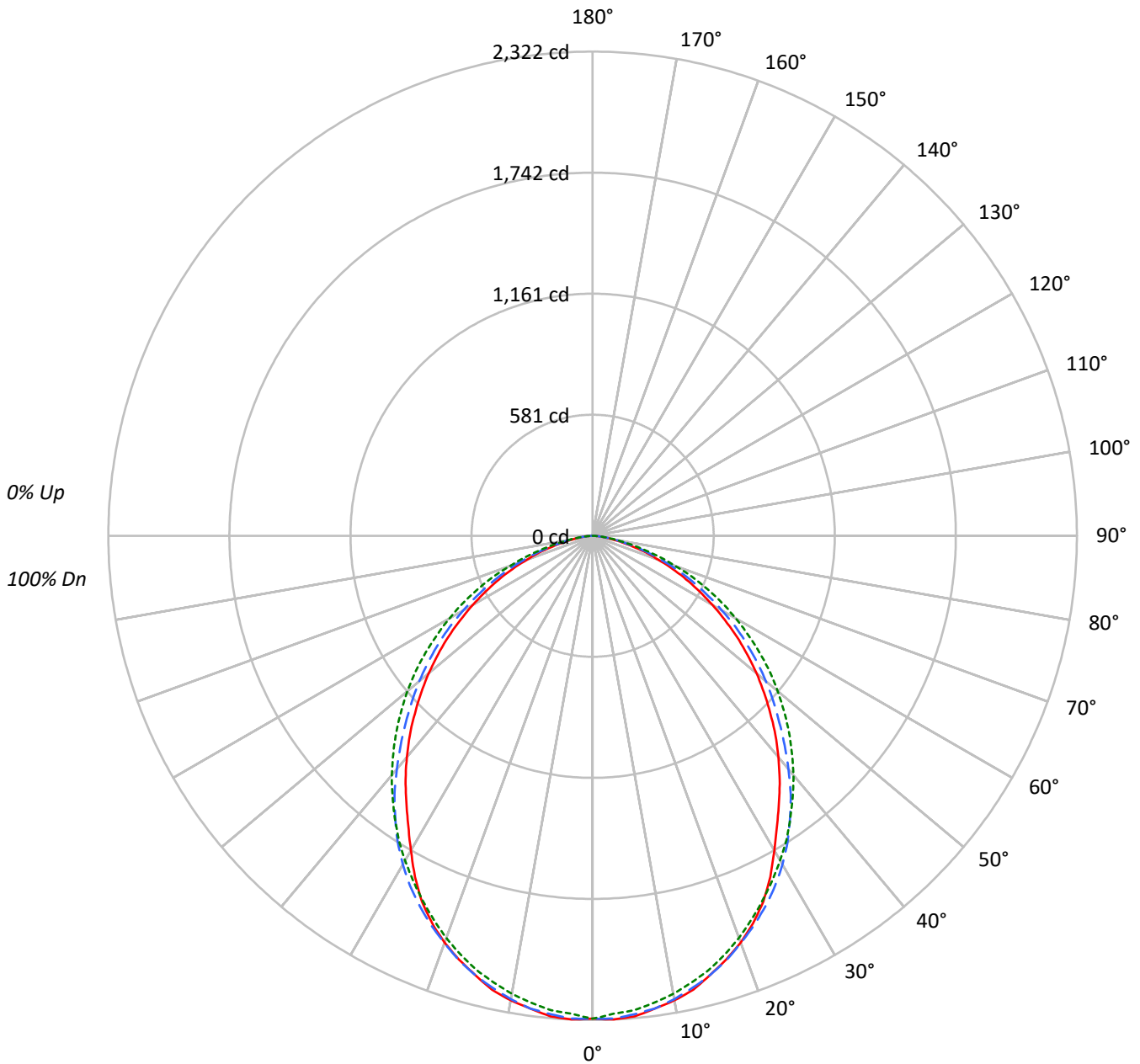
Lumens per Lamp: N/A
Luminaire Lumens: 5355.0 lumens
Efficiency: N/A
Efficacy: 80.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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									
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°	6232	6232	6232
5°	6249	6222	6169
10°	6182	6165	6095
15°	6073	6073	6003
20°	5944	5952	5875
25°	5748	5820	5727
30°	5413	5656	5587
35°	5115	5422	5431
40°	4866	5129	5263
45°	4588	4818	5065
50°	4294	4540	4850
55°	3961	4224	4587
60°	3567	3855	4266
65°	3150	3428	3880
70°	2625	2919	3297
75°	2063	2331	2581
80°	1475	1641	1819
85°	960	960	908



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	218.0	4.1
10°-20°	612.6	11.4
20°-30°	895.2	16.7
30°-40°	1016.1	19.0
40°-50°	980.9	18.3
50°-60°	809.2	15.1
60°-70°	538.8	10.1
70°-80°	241.1	4.5
80°-90°	43.1	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°	1725.8	32.2
0°-40°	2741.9	51.2
0°-60°	4531.9	84.6
0°-90°	5355.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5355.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2316	2316	2316	2316	2316	
5°	2313	2312	2303	2291	2284	219
15°	2180	2185	2180	2170	2155	614
25°	1936	1951	1960	1946	1929	887
35°	1557	1578	1650	1659	1653	976
45°	1206	1226	1266	1324	1331	930
55°	844	859	900	950	978	754
65°	495	508	538	576	609	490
75°	198	209	224	235	248	217
85°	31	31	31	29	29	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2315.9	2315.9	2315.9	2315.9	2315.9
2.5°	2322.1	2323.0	2317.7	2303.4	2294.5
5°	2313.2	2312.3	2303.4	2291.0	2283.9
7.5°	2287.4	2289.2	2286.5	2268.7	2259.0
10°	2262.5	2263.4	2256.3	2242.1	2230.5
12.5°	2230.5	2229.6	2219.8	2212.7	2194.0
15°	2179.8	2185.1	2179.8	2170.0	2154.9
17.5°	2130.8	2130.8	2134.4	2117.5	2105.9
20°	2075.7	2078.3	2078.3	2065.0	2051.7
22.5°	2011.6	2019.6	2022.3	2008.1	1992.0
25°	1936.0	1951.1	1960.0	1945.8	1928.9
27.5°	1844.4	1867.5	1894.2	1883.5	1864.8
30°	1742.0	1775.8	1820.3	1811.4	1798.1
32.5°	1645.1	1678.9	1740.3	1736.7	1729.6
35°	1557.0	1578.3	1650.4	1659.3	1653.1
37.5°	1473.3	1492.9	1560.5	1581.0	1575.7
40°	1385.3	1406.6	1460.0	1496.5	1498.3
42.5°	1298.1	1318.5	1362.1	1414.6	1414.6
45°	1205.5	1226.0	1266.0	1323.9	1331.0
47.5°	1114.8	1136.2	1175.3	1233.1	1244.7
50°	1025.8	1045.4	1084.5	1140.6	1158.4
52.5°	933.3	954.7	992.9	1044.5	1070.3
55°	844.3	858.6	900.4	950.2	977.8
57.5°	751.8	765.1	812.3	855.0	883.5
60°	662.8	679.7	716.2	759.8	792.7
62.5°	577.4	595.2	626.4	664.6	702.0
65°	494.7	508.0	538.3	576.5	609.4
67.5°	414.6	426.2	456.4	483.1	517.8
70°	333.6	348.8	371.0	396.8	419.1
72.5°	268.7	274.9	293.6	312.3	335.4
75°	198.4	209.1	224.2	234.9	248.2
77.5°	142.4	148.6	157.5	166.4	178.8
80°	95.2	97.9	105.9	107.7	117.4
82.5°	57.8	59.6	61.4	62.3	65.8
85°	31.1	31.1	31.1	29.4	29.4
87.5°	17.8	17.8	15.1	12.5	8.9
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)