

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: P557458

Luminaire Tested: **FUSL-12-4-LD4-2STD-30-UNV-82-85-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: P557458
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-30-UNV-82-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

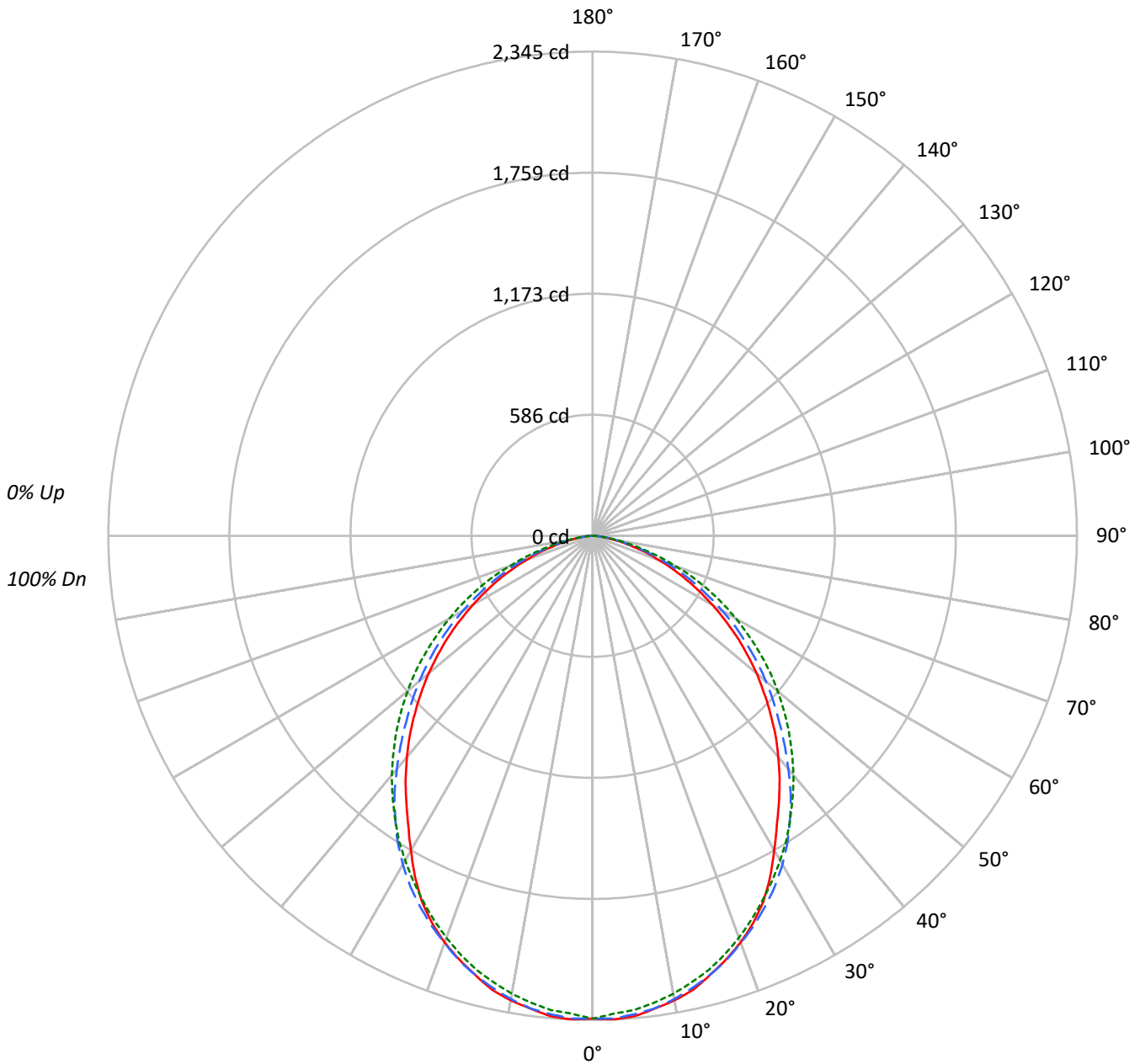
Lumens per Lamp: N/A
Luminaire Lumens: 5407.0 lumens
Efficiency: N/A
Efficacy: 81.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
Input Voltage (V): NR
Input Current (Ain): 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				
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			
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°	6293	6293	6293
5°	6309	6283	6229
10°	6242	6225	6154
15°	6132	6132	6062
20°	6002	6009	5932
25°	5804	5876	5783
30°	5466	5711	5642
35°	5164	5474	5483
40°	4913	5179	5314
45°	4633	4865	5114
50°	4336	4585	4896
55°	4000	4265	4632
60°	3602	3892	4308
65°	3181	3461	3918
70°	2651	2947	3329
75°	2083	2354	2606
80°	1489	1657	1838
85°	969	969	914



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	220.2	4.1
10°-20°	618.5	11.4
20°-30°	903.8	16.7
30°-40°	1026.0	19.0
40°-50°	990.4	18.3
50°-60°	817.0	15.1
60°-70°	544.1	10.1
70°-80°	243.5	4.5
80°-90°	43.6	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°	1742.5	32.2
0°-40°	2768.5	51.2
0°-60°	4575.9	84.6
0°-90°	5407.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5407.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2338	2338	2338	2338	2338	
5°	2336	2335	2326	2313	2306	221
15°	2201	2206	2201	2191	2176	620
25°	1955	1970	1979	1965	1948	895
35°	1572	1594	1666	1675	1669	985
45°	1217	1238	1278	1337	1344	939
55°	852	867	909	959	987	761
65°	500	513	544	582	615	495
75°	200	211	226	237	251	219
85°	31	31	31	30	30	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2338.4	2338.4	2338.4	2338.4	2338.4
2.5°	2344.7	2345.6	2340.2	2325.8	2316.8
5°	2335.7	2334.8	2325.8	2313.2	2306.0
7.5°	2309.6	2311.4	2308.7	2290.8	2280.9
10°	2284.5	2285.4	2278.2	2263.8	2252.1
12.5°	2252.1	2251.2	2241.4	2234.2	2215.3
15°	2200.9	2206.3	2200.9	2191.1	2175.8
17.5°	2151.5	2151.5	2155.1	2138.1	2126.4
20°	2095.8	2098.5	2098.5	2085.1	2071.6
22.5°	2031.2	2039.2	2041.9	2027.6	2011.4
25°	1954.8	1970.1	1979.1	1964.7	1947.6
27.5°	1862.3	1885.6	1912.6	1901.8	1882.9
30°	1759.0	1793.1	1838.0	1829.0	1815.6
32.5°	1661.0	1695.2	1757.2	1753.6	1746.4
35°	1572.1	1593.7	1666.4	1675.4	1669.1
37.5°	1487.7	1507.4	1575.7	1596.4	1591.0
40°	1398.7	1420.3	1474.2	1511.0	1512.8
42.5°	1310.7	1331.3	1375.4	1428.4	1428.4
45°	1217.3	1237.9	1278.3	1336.7	1343.9
47.5°	1125.6	1147.2	1186.7	1245.1	1256.8
50°	1035.8	1055.6	1095.1	1151.7	1169.6
52.5°	942.4	963.9	1002.6	1054.7	1080.7
55°	852.5	866.9	909.1	959.4	987.3
57.5°	759.1	772.6	820.2	863.3	892.1
60°	669.3	686.3	723.2	767.2	800.4
62.5°	583.0	601.0	632.4	671.1	708.8
65°	499.5	513.0	543.5	582.1	615.4
67.5°	418.6	430.3	460.9	487.8	522.8
70°	336.9	352.2	374.6	400.7	423.1
72.5°	271.3	277.6	296.5	315.3	338.7
75°	200.3	211.1	226.4	237.2	250.6
77.5°	143.7	150.0	159.0	168.0	180.6
80°	96.1	98.8	106.9	108.7	118.6
82.5°	58.4	60.2	62.0	62.9	66.5
85°	31.4	31.4	31.4	29.6	29.6
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)