

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: P557138

Luminaire Tested: **FUSL-12-4-LD4-2HI-50-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: P557138
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-LD4-2HI-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

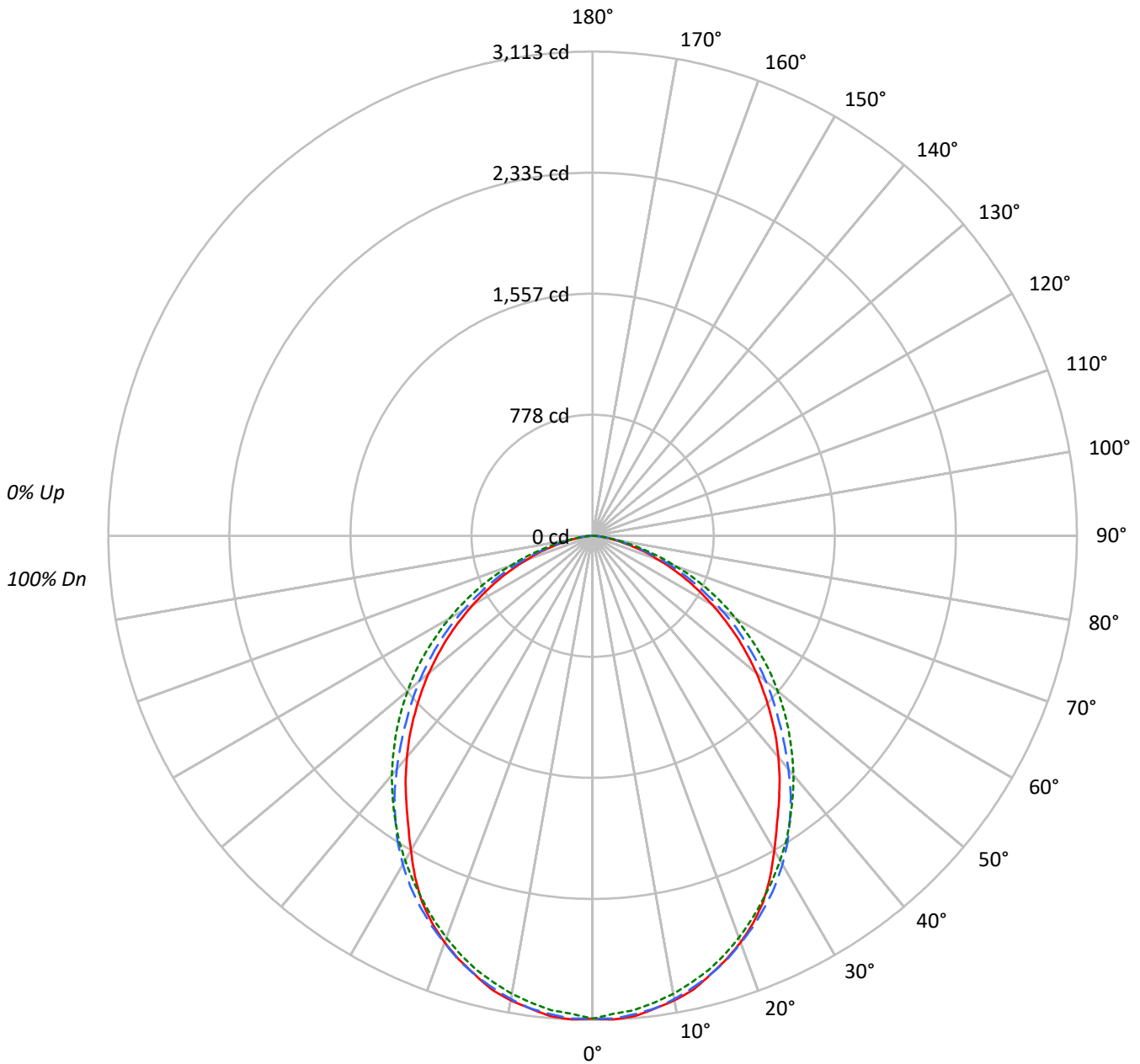
Lumens per Lamp: N/A
Luminaire Lumens: 7178.0 lumens
Efficiency: N/A
Efficacy: 83.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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									
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°	8354	8354	8354
5°	8376	8340	8270
10°	8287	8264	8170
15°	8140	8140	8047
20°	7968	7978	7875
25°	7705	7801	7677
30°	7256	7582	7489
35°	6856	7267	7279
40°	6523	6875	7055
45°	6150	6458	6790
50°	5757	6086	6500
55°	5310	5662	6149
60°	4782	5167	5719
65°	4222	4594	5202
70°	3519	3913	4419
75°	2765	3124	3459
80°	1977	2199	2439
85°	1288	1288	1216



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	292.3	4.1
10°-20°	821.1	11.4
20°-30°	1199.9	16.7
30°-40°	1362.0	19.0
40°-50°	1314.8	18.3
50°-60°	1084.6	15.1
60°-70°	722.3	10.1
70°-80°	323.2	4.5
80°-90°	57.8	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°	2313.3	32.2
0°-40°	3675.3	51.2
0°-60°	6074.7	84.6
0°-90°	7178.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7178.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3104	3104	3104	3104	3104	
5°	3101	3100	3088	3071	3061	293
15°	2922	2929	2922	2909	2888	824
25°	2595	2615	2627	2608	2586	1188
35°	2087	2116	2212	2224	2216	1308
45°	1616	1643	1697	1775	1784	1247
55°	1132	1151	1207	1274	1311	1010
65°	663	681	722	773	817	657
75°	266	280	300	315	333	291
85°	42	42	42	39	39	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3104.3	3104.3	3104.3	3104.3	3104.3
2.5°	3112.6	3113.8	3106.7	3087.6	3075.7
5°	3100.7	3099.5	3087.6	3070.9	3061.4
7.5°	3066.1	3068.5	3064.9	3041.1	3028.0
10°	3032.7	3033.9	3024.4	3005.3	2989.8
12.5°	2989.8	2988.6	2975.5	2966.0	2940.9
15°	2921.8	2929.0	2921.8	2908.7	2888.4
17.5°	2856.2	2856.2	2861.0	2838.4	2822.8
20°	2782.3	2785.9	2785.9	2768.0	2750.1
22.5°	2696.4	2707.2	2710.7	2691.7	2670.2
25°	2595.1	2615.3	2627.3	2608.2	2585.5
27.5°	2472.2	2503.2	2539.0	2524.7	2499.7
30°	2335.1	2380.4	2440.0	2428.1	2410.2
32.5°	2205.1	2250.4	2332.7	2327.9	2318.4
35°	2087.0	2115.6	2212.2	2224.2	2215.8
37.5°	1974.9	2001.2	2091.8	2119.2	2112.1
40°	1856.9	1885.5	1957.0	2005.9	2008.3
42.5°	1740.0	1767.4	1825.8	1896.2	1896.2
45°	1616.0	1643.4	1697.0	1774.6	1784.1
47.5°	1494.3	1522.9	1575.4	1652.9	1668.4
50°	1375.1	1401.3	1453.8	1528.9	1552.7
52.5°	1251.0	1279.6	1330.9	1400.1	1434.7
55°	1131.8	1150.8	1206.9	1273.7	1310.7
57.5°	1007.7	1025.6	1088.8	1146.1	1184.2
60°	888.5	911.1	960.0	1018.5	1062.6
62.5°	774.0	797.8	839.6	890.9	940.9
65°	663.1	681.0	721.5	772.8	816.9
67.5°	555.7	571.2	611.8	647.6	694.1
70°	447.2	467.5	497.3	531.9	561.7
72.5°	360.2	368.5	393.6	418.6	449.6
75°	265.9	280.3	300.5	314.8	332.7
77.5°	190.8	199.2	211.1	223.0	239.7
80°	127.6	131.2	141.9	144.3	157.4
82.5°	77.5	79.9	82.3	83.5	88.3
85°	41.7	41.7	41.7	39.4	39.4
87.5°	23.9	23.9	20.3	16.7	11.9
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)