

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: P557113

Luminaire Tested: **FUSL-12-4-LD4-2HI-50-UNV-80-88-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: P557113
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-80-88-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

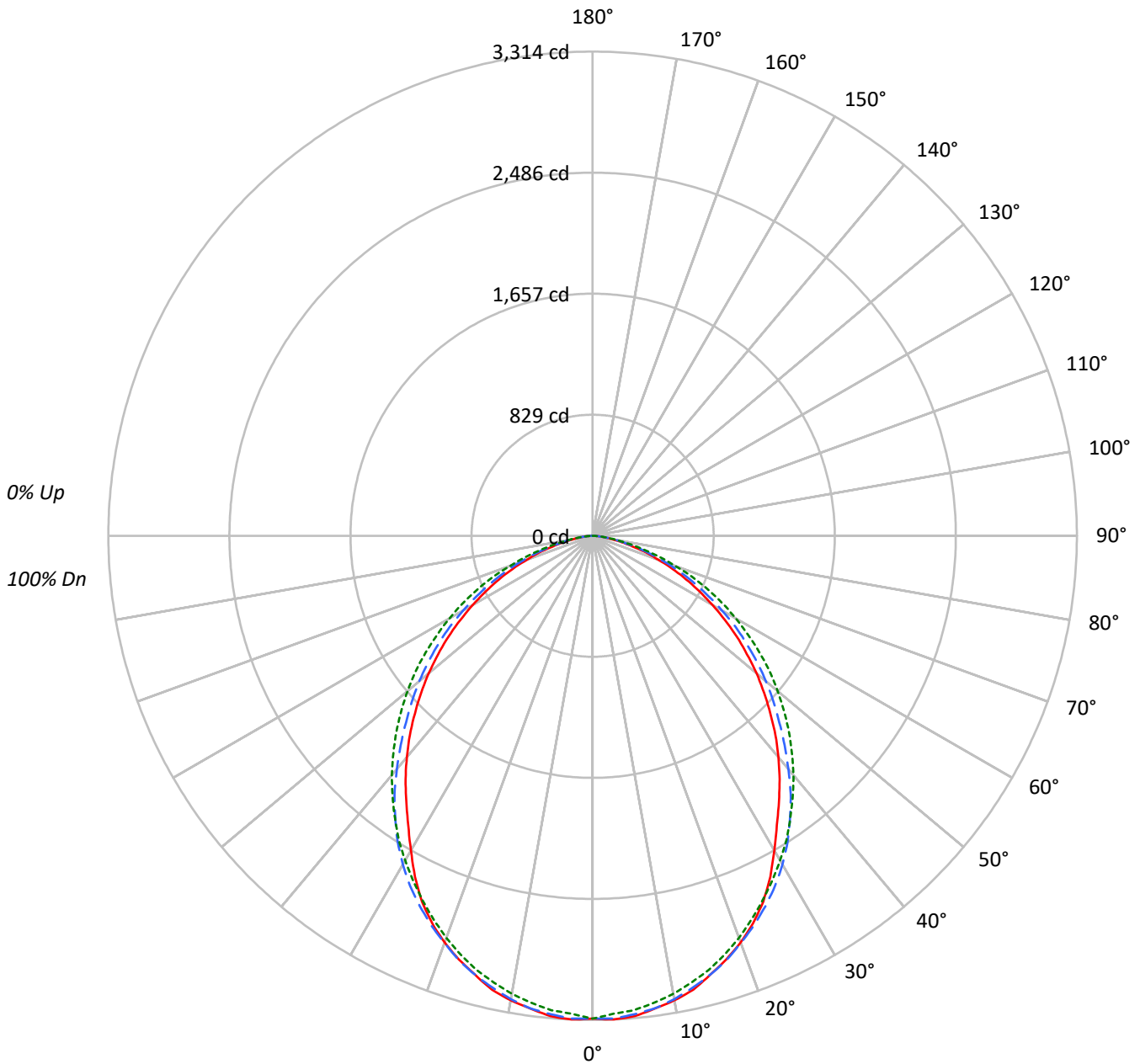
Lumens per Lamp: N/A
Luminaire Lumens: 7642.0 lumens
Efficiency: N/A
Efficacy: 88.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	8894	8894	8894
5°	8917	8880	8804
10°	8823	8798	8698
15°	8666	8666	8567
20°	8483	8494	8385
25°	8203	8305	8173
30°	7725	8072	7973
35°	7299	7737	7750
40°	6945	7319	7511
45°	6547	6876	7228
50°	6128	6479	6921
55°	5653	6028	6547
60°	5091	5501	6089
65°	4495	4891	5538
70°	3746	4166	4705
75°	2943	3327	3683
80°	2106	2342	2597
85°	1371	1371	1294



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	311.2	4.1
10°-20°	874.2	11.4
20°-30°	1277.5	16.7
30°-40°	1450.0	19.0
40°-50°	1399.8	18.3
50°-60°	1154.7	15.1
60°-70°	769.0	10.1
70°-80°	344.1	4.5
80°-90°	61.6	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°	2462.8	32.2
0°-40°	3912.8	51.2
0°-60°	6467.4	84.6
0°-90°	7642.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7642.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3305	3305	3305	3305	3305	
5°	3301	3300	3287	3269	3259	312
15°	3111	3118	3111	3097	3075	877
25°	2763	2784	2797	2777	2753	1265
35°	2222	2252	2355	2368	2359	1392
45°	1720	1750	1807	1889	1899	1327
55°	1205	1225	1285	1356	1395	1075
65°	706	725	768	823	870	700
75°	283	298	320	335	354	310
85°	44	44	44	42	42	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3305.0	3305.0	3305.0	3305.0	3305.0
2.5°	3313.9	3315.1	3307.5	3287.2	3274.5
5°	3301.2	3299.9	3287.2	3269.4	3259.3
7.5°	3264.3	3266.9	3263.1	3237.7	3223.7
10°	3228.8	3230.1	3219.9	3199.6	3183.1
12.5°	3183.1	3181.8	3167.8	3157.7	3131.0
15°	3110.7	3118.3	3110.7	3096.7	3075.2
17.5°	3040.9	3040.9	3046.0	3021.8	3005.3
20°	2962.2	2966.0	2966.0	2946.9	2927.9
22.5°	2870.7	2882.2	2886.0	2865.7	2842.8
25°	2762.8	2784.4	2797.1	2776.8	2752.7
27.5°	2632.0	2665.1	2703.1	2687.9	2661.2
30°	2486.0	2534.3	2597.8	2585.1	2566.0
32.5°	2347.6	2395.9	2483.5	2478.4	2468.3
35°	2221.9	2252.4	2355.2	2367.9	2359.1
37.5°	2102.6	2130.5	2227.0	2256.2	2248.6
40°	1976.9	2007.4	2083.5	2135.6	2138.1
42.5°	1852.5	1881.7	1943.9	2018.8	2018.8
45°	1720.4	1749.6	1806.7	1889.3	1899.4
47.5°	1590.9	1621.4	1677.2	1759.8	1776.3
50°	1463.9	1491.9	1547.7	1627.7	1653.1
52.5°	1331.9	1362.4	1417.0	1490.6	1527.4
55°	1204.9	1225.2	1284.9	1356.0	1395.4
57.5°	1072.9	1091.9	1159.2	1220.2	1260.8
60°	945.9	970.0	1022.1	1084.3	1131.3
62.5°	824.0	849.4	893.9	948.4	1001.8
65°	705.9	725.0	768.2	822.8	869.7
67.5°	591.7	608.2	651.3	689.4	739.0
70°	476.1	497.7	529.5	566.3	598.0
72.5°	383.4	392.3	419.0	445.7	478.7
75°	283.1	298.4	320.0	335.2	354.2
77.5°	203.1	212.0	224.7	237.4	255.2
80°	135.9	139.7	151.1	153.6	167.6
82.5°	82.5	85.1	87.6	88.9	94.0
85°	44.4	44.4	44.4	41.9	41.9
87.5°	25.4	25.4	21.6	17.8	12.7
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)