

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: P557929

Luminaire Tested: **FUSL-12-4-LD4-3HI-50-UNV-93-88-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: P557929
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-LD4-3HI-50-UNV-93-88-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS 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

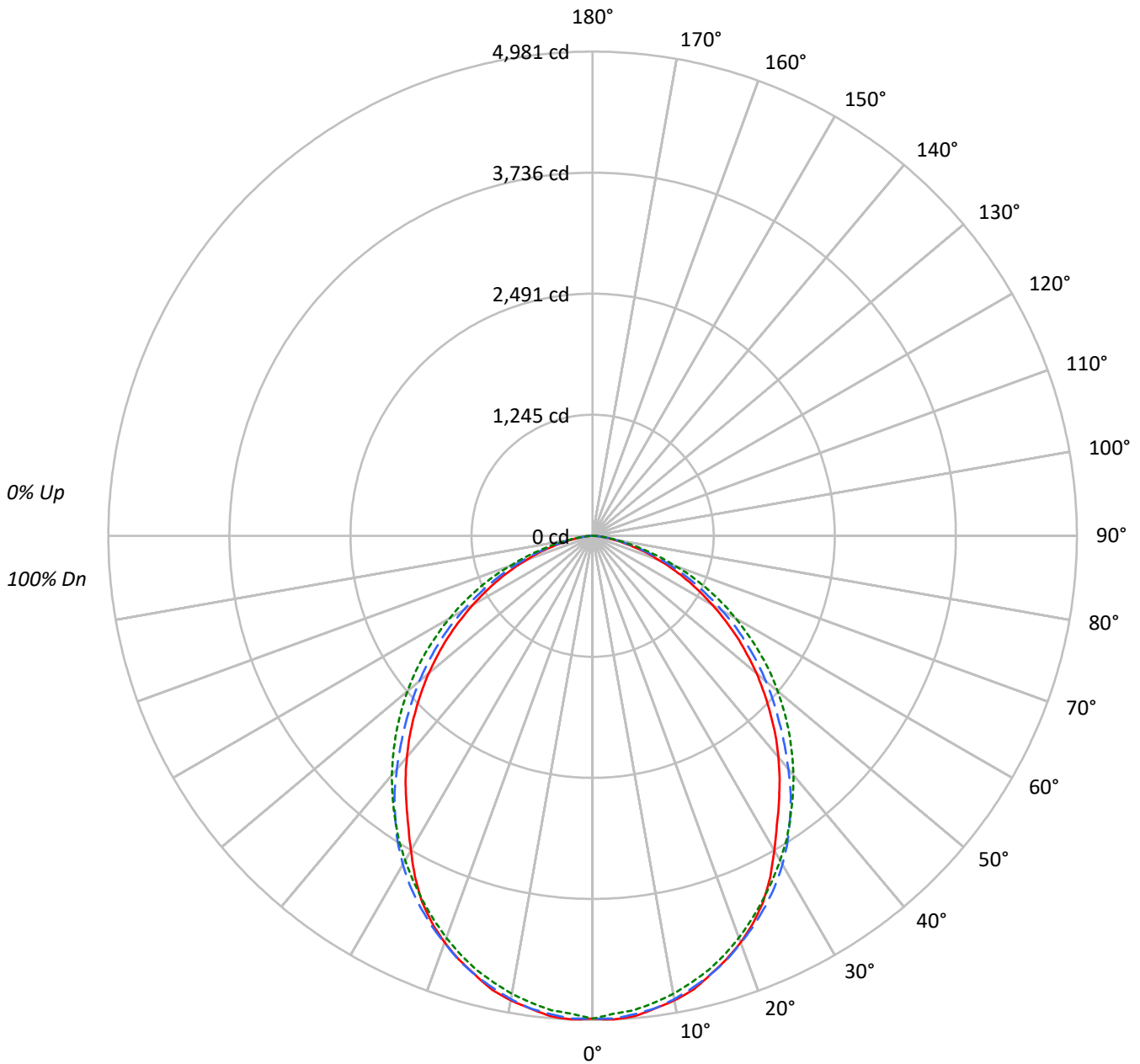
Lumens per Lamp: N/A
Luminaire Lumens: 11486.0 lumens
Efficiency: N/A
Efficacy: 88.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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°	13367	13367	13367
5°	13403	13346	13233
10°	13261	13224	13073
15°	13025	13025	12876
20°	12749	12766	12602
25°	12329	12483	12284
30°	11610	12132	11984
35°	10971	11629	11648
40°	10438	11001	11289
45°	9841	10335	10865
50°	9211	9739	10402
55°	8496	9060	9840
60°	7652	8268	9151
65°	6756	7351	8323
70°	5630	6261	7072
75°	4425	5000	5535
80°	3164	3519	3904
85°	2062	2062	1945



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	467.7	4.1
10°-20°	1313.9	11.4
20°-30°	1920.0	16.7
30°-40°	2179.4	19.0
40°-50°	2103.9	18.3
50°-60°	1735.6	15.1
60°-70°	1155.8	10.1
70°-80°	517.2	4.5
80°-90°	92.5	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°	3701.6	32.2
0°-40°	5881.0	51.2
0°-60°	9720.5	84.6
0°-90°	11486.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11486.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4967	4967	4967	4967	4967	
5°	4962	4960	4941	4914	4899	470
15°	4675	4687	4675	4654	4622	1318
25°	4152	4185	4204	4174	4137	1902
35°	3340	3385	3540	3559	3546	2092
45°	2586	2630	2716	2840	2855	1995
55°	1811	1842	1931	2038	2097	1616
65°	1061	1090	1154	1237	1307	1052
75°	426	448	481	504	532	465
85°	67	67	67	63	63	90
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4967.4	4967.4	4967.4	4967.4	4967.4
2.5°	4980.8	4982.7	4971.2	4940.7	4921.6
5°	4961.7	4959.8	4940.7	4914.0	4898.7
7.5°	4906.3	4910.1	4904.4	4866.3	4845.3
10°	4852.9	4854.8	4839.5	4809.0	4784.2
12.5°	4784.2	4782.3	4761.3	4746.0	4706.0
15°	4675.4	4686.9	4675.4	4654.4	4622.0
17.5°	4570.5	4570.5	4578.1	4541.8	4517.0
20°	4452.1	4457.9	4457.9	4429.2	4400.6
22.5°	4314.7	4331.9	4337.6	4307.1	4272.8
25°	4152.5	4185.0	4204.1	4173.5	4137.3
27.5°	3956.0	4005.6	4062.8	4039.9	3999.9
30°	3736.5	3809.0	3904.5	3885.4	3856.7
32.5°	3528.5	3601.0	3732.7	3725.1	3709.8
35°	3339.6	3385.4	3540.0	3559.0	3545.7
37.5°	3160.2	3202.2	3347.2	3391.1	3379.7
40°	2971.3	3017.1	3131.6	3209.8	3213.6
42.5°	2784.3	2828.2	2921.7	3034.3	3034.3
45°	2585.8	2629.7	2715.6	2839.6	2854.9
47.5°	2391.1	2436.9	2520.9	2645.0	2669.8
50°	2200.3	2242.3	2326.3	2446.5	2484.7
52.5°	2001.8	2047.6	2129.7	2240.4	2295.7
55°	1811.0	1841.5	1931.2	2038.1	2097.3
57.5°	1612.5	1641.2	1742.3	1833.9	1895.0
60°	1421.7	1458.0	1536.2	1629.7	1700.3
62.5°	1238.5	1276.7	1343.5	1425.5	1505.7
65°	1061.0	1089.7	1154.5	1236.6	1307.2
67.5°	889.3	914.1	979.0	1036.2	1110.7
70°	715.6	748.1	795.8	851.1	898.8
72.5°	576.3	589.7	629.8	669.8	719.4
75°	425.6	448.5	480.9	503.8	532.4
77.5°	305.3	318.7	337.8	356.9	383.6
80°	204.2	209.9	227.1	230.9	251.9
82.5°	124.0	127.9	131.7	133.6	141.2
85°	66.8	66.8	66.8	63.0	63.0
87.5°	38.2	38.2	32.4	26.7	19.1
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)