

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: P557727

Luminaire Tested: **FUSL-12-4-LD4-3HI-30-UNV-82-97-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: P557727
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-30-UNV-82-97-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

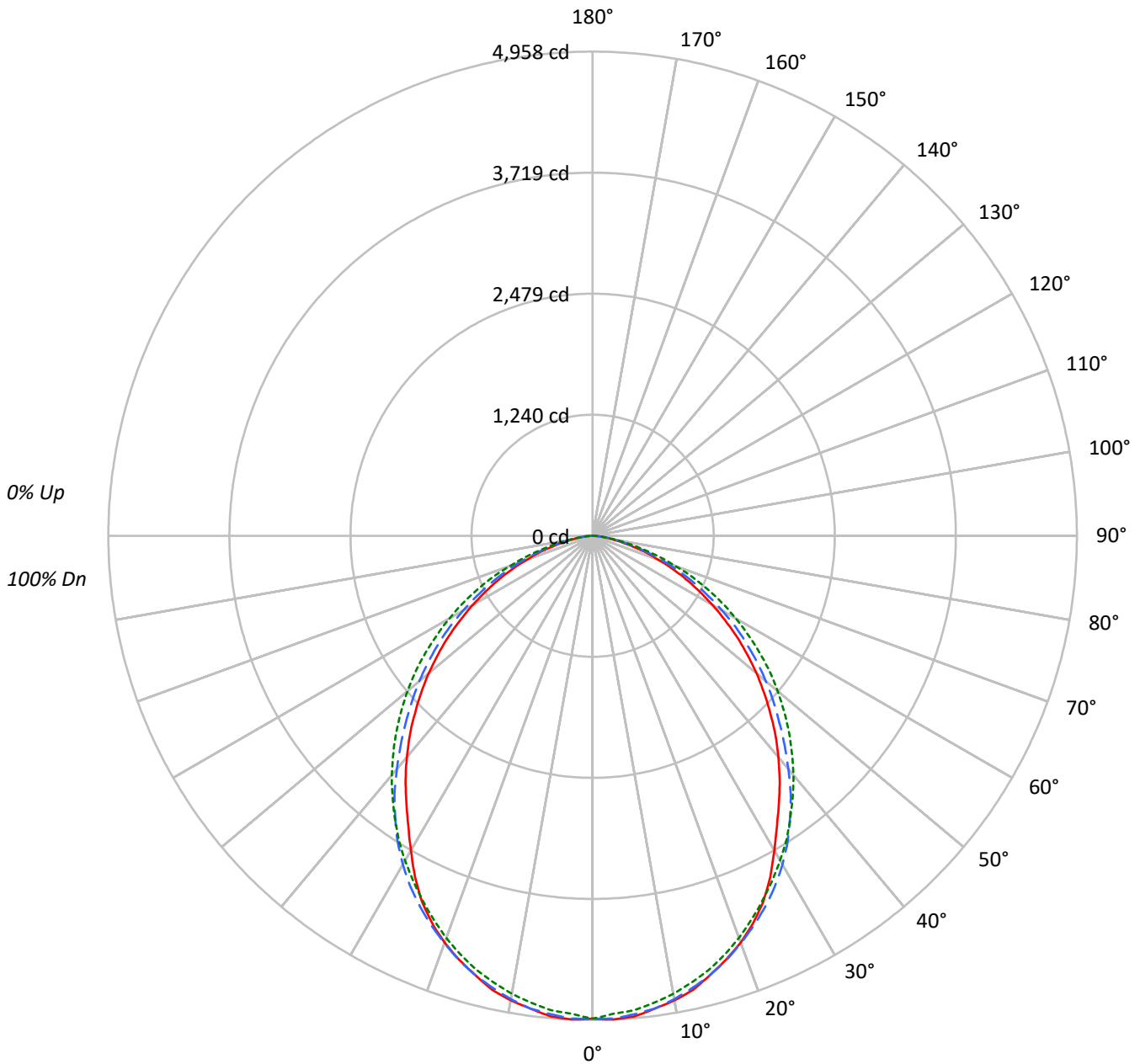
Lumens per Lamp: N/A
Luminaire Lumens: 11434.0 lumens
Efficiency: N/A
Efficacy: 88.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	13307	13307	13307
5°	13342	13286	13173
10°	13200	13164	13013
15°	12966	12966	12818
20°	12692	12708	12545
25°	12274	12426	12229
30°	11558	12077	11930
35°	10921	11576	11595
40°	10390	10951	11238
45°	9796	10288	10815
50°	9170	9694	10355
55°	8458	9020	9795
60°	7617	8231	9110
65°	6725	7318	8286
70°	5605	6233	7040
75°	4404	4977	5510
80°	3150	3504	3887
85°	2053	2053	1936



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	465.6	4.1
10°-20°	1307.9	11.4
20°-30°	1911.3	16.7
30°-40°	2169.6	19.0
40°-50°	2094.4	18.3
50°-60°	1727.7	15.1
60°-70°	1150.5	10.1
70°-80°	514.8	4.5
80°-90°	92.1	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°	3684.9	32.2
0°-40°	5854.4	51.2
0°-60°	9676.5	84.6
0°-90°	11434.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11434.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4945	4945	4945	4945	4945	
5°	4939	4937	4918	4892	4876	467
15°	4654	4666	4654	4633	4601	1312
25°	4134	4166	4185	4155	4118	1893
35°	3324	3370	3524	3543	3530	2083
45°	2574	2618	2703	2827	2842	1986
55°	1803	1833	1922	2029	2088	1609
65°	1056	1085	1149	1231	1301	1047
75°	424	446	479	502	530	463
85°	66	66	66	63	63	90
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4944.9	4944.9	4944.9	4944.9	4944.9
2.5°	4958.2	4960.1	4948.7	4918.3	4899.3
5°	4939.2	4937.3	4918.3	4891.7	4876.5
7.5°	4884.1	4887.9	4882.2	4844.2	4823.3
10°	4830.9	4832.8	4817.6	4787.2	4762.5
12.5°	4762.5	4760.6	4739.7	4724.5	4684.7
15°	4654.3	4665.7	4654.3	4633.4	4601.1
17.5°	4549.8	4549.8	4557.4	4521.3	4496.6
20°	4432.0	4437.7	4437.7	4409.2	4380.7
22.5°	4295.2	4312.3	4318.0	4287.6	4253.4
25°	4133.7	4166.0	4185.0	4154.6	4118.5
27.5°	3938.1	3987.5	4044.5	4021.7	3981.8
30°	3719.6	3791.8	3886.8	3867.8	3839.3
32.5°	3512.5	3584.7	3715.8	3708.2	3693.0
35°	3324.5	3370.1	3523.9	3542.9	3529.6
37.5°	3145.9	3187.7	3332.1	3375.8	3364.4
40°	2957.8	3003.4	3117.4	3195.3	3199.1
42.5°	2771.7	2815.4	2908.4	3020.5	3020.5
45°	2574.1	2617.8	2703.3	2826.7	2841.9
47.5°	2380.3	2425.9	2509.5	2633.0	2657.7
50°	2190.3	2232.1	2315.7	2435.4	2473.4
52.5°	1992.8	2038.4	2120.1	2230.2	2285.3
55°	1802.8	1833.2	1922.5	2028.9	2087.8
57.5°	1605.2	1633.7	1734.4	1825.6	1886.4
60°	1415.3	1451.4	1529.3	1622.3	1692.6
62.5°	1232.9	1270.9	1337.4	1419.1	1498.9
65°	1056.2	1084.7	1149.3	1231.0	1301.3
67.5°	885.3	910.0	974.5	1031.5	1105.6
70°	712.4	744.7	792.2	847.3	894.8
72.5°	573.7	587.0	626.9	666.8	716.2
75°	423.6	446.4	478.7	501.5	530.0
77.5°	304.0	317.2	336.2	355.2	381.8
80°	203.3	209.0	226.1	229.9	250.8
82.5°	123.5	127.3	131.1	133.0	140.6
85°	66.5	66.5	66.5	62.7	62.7
87.5°	38.0	38.0	32.3	26.6	19.0
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)