

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: P557804

Luminaire Tested: **FUSL-12-4-LD4-3HI-35-UNV-93-96-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: P557804
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-35-UNV-93-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

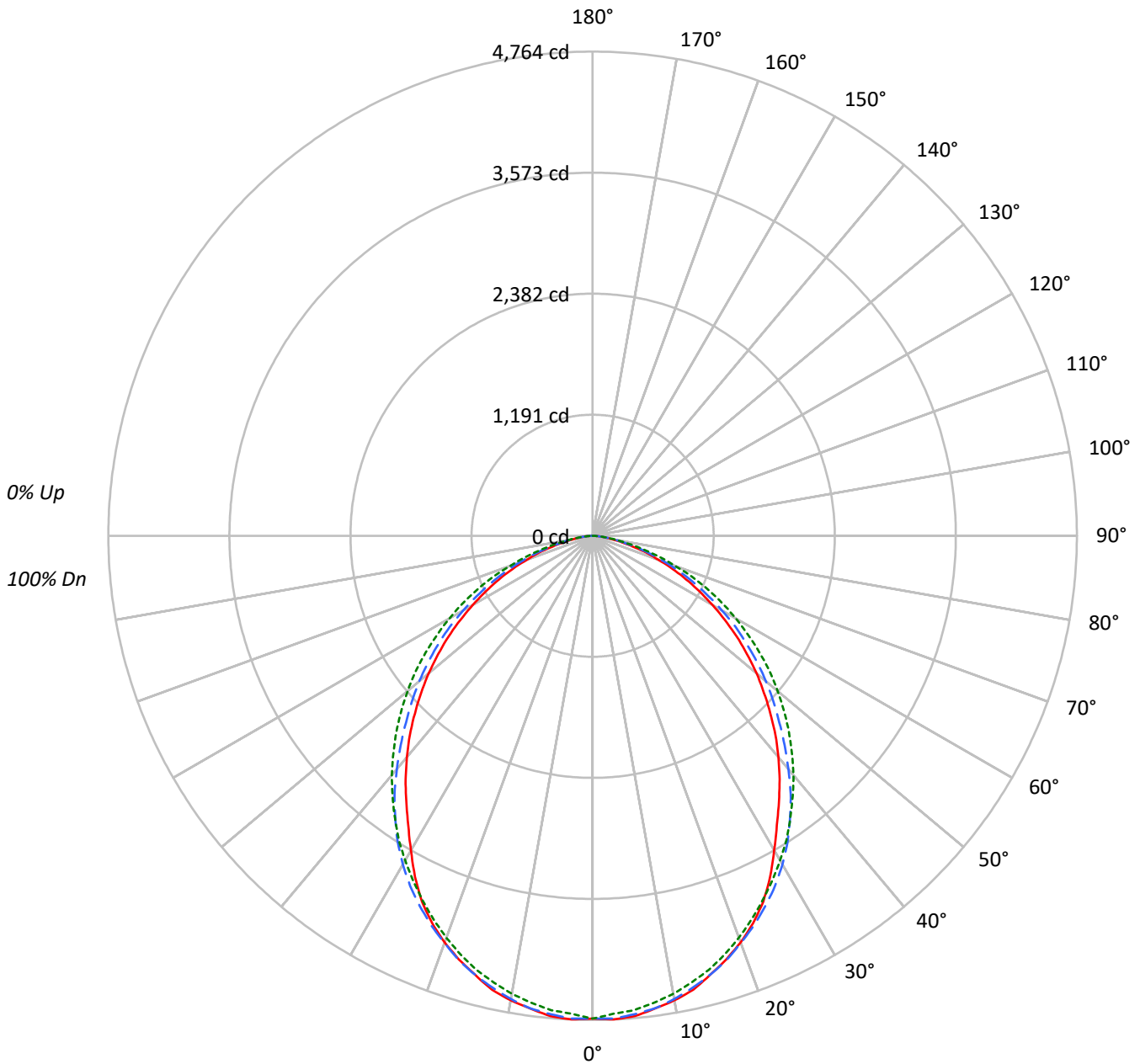
Lumens per Lamp: N/A
Luminaire Lumens: 10985.0 lumens
Efficiency: N/A
Efficacy: 84.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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				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				100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86				86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73				73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63				63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54				54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47				47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42				42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37				37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34				34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30				30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28				28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12784	12784	12784
5°	12818	12764	12655
10°	12682	12647	12503
15°	12457	12457	12315
20°	12194	12209	12052
25°	11792	11938	11748
30°	11104	11603	11461
35°	10492	11122	11140
40°	9982	10521	10797
45°	9411	9884	10390
50°	8809	9314	9948
55°	8126	8665	9410
60°	7318	7907	8752
65°	6462	7031	7961
70°	5385	5988	6763
75°	4232	4782	5294
80°	3027	3366	3733
85°	1973	1973	1859



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	447.3	4.1
10°-20°	1256.6	11.4
20°-30°	1836.3	16.7
30°-40°	2084.4	19.0
40°-50°	2012.1	18.3
50°-60°	1659.9	15.1
60°-70°	1105.3	10.1
70°-80°	494.6	4.5
80°-90°	88.5	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°	3540.1	32.2
0°-40°	5624.5	51.2
0°-60°	9296.5	84.6
0°-90°	10985.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10985.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4751	4751	4751	4751	4751	
5°	4745	4743	4725	4700	4685	449
15°	4472	4482	4472	4451	4420	1261
25°	3971	4002	4021	3992	3957	1819
35°	3194	3238	3386	3404	3391	2001
45°	2473	2515	2597	2716	2730	1908
55°	1732	1761	1847	1949	2006	1546
65°	1015	1042	1104	1183	1250	1006
75°	407	429	460	482	509	445
85°	64	64	64	60	60	86
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4750.7	4750.7	4750.7	4750.7	4750.7
2.5°	4763.5	4765.3	4754.4	4725.2	4706.9
5°	4745.3	4743.4	4725.2	4699.6	4685.0
7.5°	4692.3	4696.0	4690.5	4654.0	4633.9
10°	4641.2	4643.0	4628.4	4599.2	4575.5
12.5°	4575.5	4573.7	4553.6	4539.0	4500.7
15°	4471.5	4482.4	4471.5	4451.4	4420.4
17.5°	4371.1	4371.1	4378.4	4343.7	4320.0
20°	4258.0	4263.4	4263.4	4236.1	4208.7
22.5°	4126.5	4143.0	4148.4	4119.2	4086.4
25°	3971.4	4002.4	4020.7	3991.5	3956.8
27.5°	3783.4	3830.9	3885.6	3863.7	3825.4
30°	3573.5	3642.9	3734.1	3715.9	3688.5
32.5°	3374.6	3444.0	3569.9	3562.6	3548.0
35°	3193.9	3237.7	3385.6	3403.8	3391.0
37.5°	3022.4	3062.5	3201.2	3243.2	3232.2
40°	2841.7	2885.5	2995.0	3069.8	3073.5
42.5°	2662.8	2704.8	2794.2	2901.9	2901.9
45°	2473.0	2515.0	2597.1	2715.7	2730.3
47.5°	2286.8	2330.6	2411.0	2529.6	2553.3
50°	2104.3	2144.5	2224.8	2339.8	2376.3
52.5°	1914.5	1958.3	2036.8	2142.7	2195.6
55°	1732.0	1761.2	1847.0	1949.2	2005.8
57.5°	1542.2	1569.6	1666.3	1753.9	1812.3
60°	1359.7	1394.4	1469.2	1558.6	1626.2
62.5°	1184.5	1221.0	1284.9	1363.3	1440.0
65°	1014.8	1042.1	1104.2	1182.7	1250.2
67.5°	850.5	874.2	936.3	991.0	1062.2
70°	684.4	715.4	761.1	814.0	859.6
72.5°	551.2	564.0	602.3	640.6	688.1
75°	407.0	428.9	459.9	481.8	509.2
77.5°	292.0	304.8	323.0	341.3	366.8
80°	195.3	200.8	217.2	220.8	240.9
82.5°	118.6	122.3	125.9	127.8	135.1
85°	63.9	63.9	63.9	60.2	60.2
87.5°	36.5	36.5	31.0	25.6	18.3
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)