

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: P557806

Luminaire Tested: **FUSL-12-4-LD4-3HI-35-UNV-93-97-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: P557806
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-93-97-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

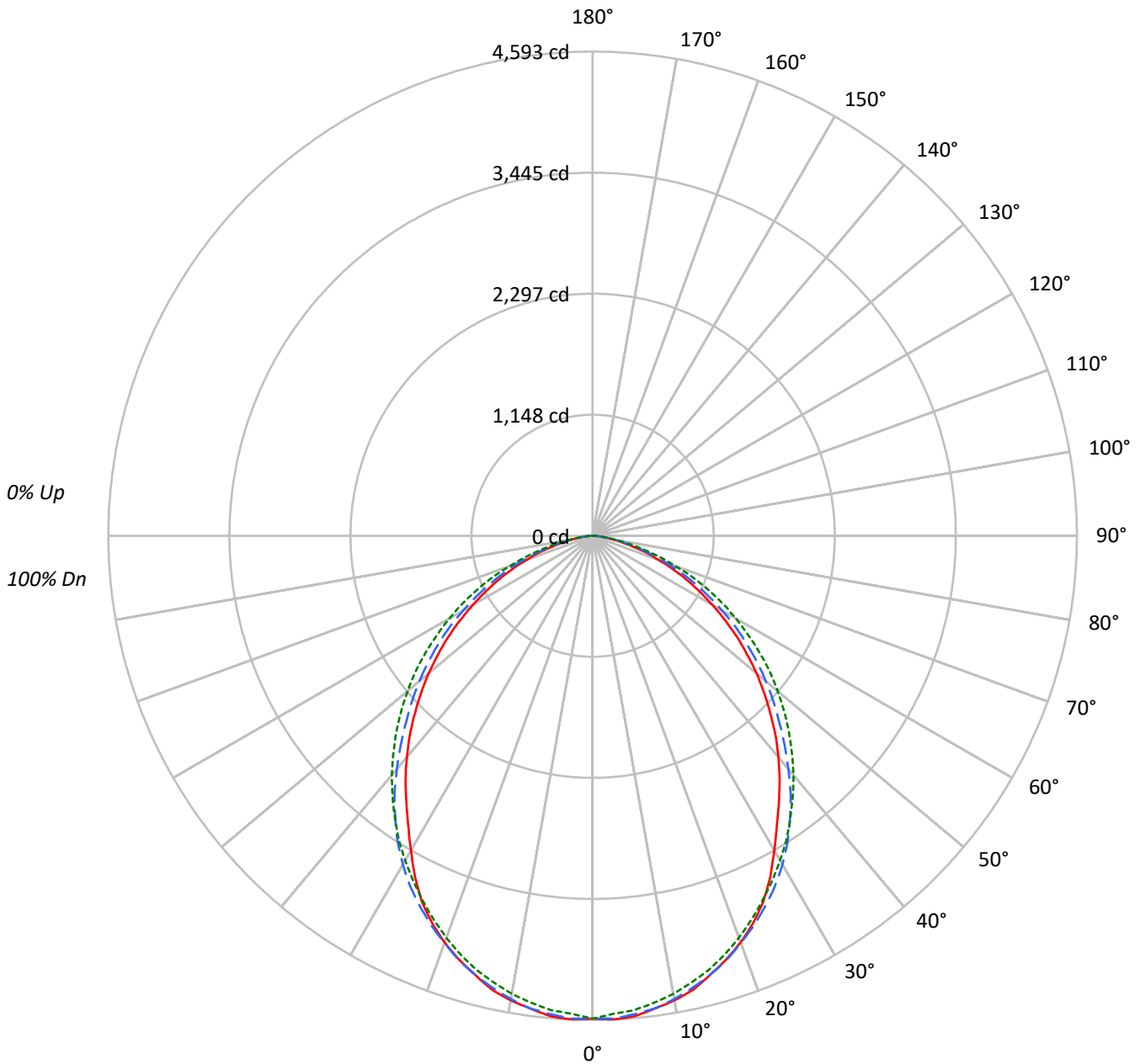
Lumens per Lamp: N/A
Luminaire Lumens: 10591.0 lumens
Efficiency: N/A
Efficacy: 81.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	12325	12325	12325
5°	12359	12306	12202
10°	12227	12193	12054
15°	12010	12010	11873
20°	11756	11771	11620
25°	11369	11510	11327
30°	10706	11187	11050
35°	10116	10723	10740
40°	9624	10144	10409
45°	9074	9529	10018
50°	8494	8980	9591
55°	7834	8355	9073
60°	7055	7624	8438
65°	6230	6779	7675
70°	5192	5773	6521
75°	4080	4610	5104
80°	2918	3245	3600
85°	1902	1902	1794



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	431.3	4.1
10°-20°	1211.5	11.4
20°-30°	1770.4	16.7
30°-40°	2009.6	19.0
40°-50°	1940.0	18.3
50°-60°	1600.3	15.1
60°-70°	1065.7	10.1
70°-80°	476.9	4.5
80°-90°	85.3	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°	3413.2	32.2
0°-40°	5422.8	51.2
0°-60°	8963.1	84.6
0°-90°	10591.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10591.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4580	4580	4580	4580	4580	
5°	4575	4573	4556	4531	4517	433
15°	4311	4322	4311	4292	4262	1215
25°	3829	3859	3876	3848	3815	1753
35°	3079	3122	3264	3282	3269	1929
45°	2384	2425	2504	2618	2632	1840
55°	1670	1698	1781	1879	1934	1490
65°	978	1005	1065	1140	1205	970
75°	392	414	443	464	491	429
85°	62	62	62	58	58	83
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4580.3	4580.3	4580.3	4580.3	4580.3
2.5°	4592.7	4594.4	4583.9	4555.7	4538.1
5°	4575.1	4573.3	4555.7	4531.1	4517.0
7.5°	4524.0	4527.5	4522.3	4487.1	4467.7
10°	4474.8	4476.5	4462.4	4434.3	4411.4
12.5°	4411.4	4409.6	4390.3	4376.2	4339.3
15°	4311.1	4321.7	4311.1	4291.8	4261.8
17.5°	4214.3	4214.3	4221.4	4187.9	4165.1
20°	4105.2	4110.5	4110.5	4084.1	4057.7
22.5°	3978.5	3994.4	3999.7	3971.5	3939.8
25°	3829.0	3858.9	3876.5	3848.3	3814.9
27.5°	3647.7	3693.5	3746.3	3725.2	3688.2
30°	3445.4	3512.2	3600.2	3582.6	3556.2
32.5°	3253.6	3320.4	3441.8	3434.8	3420.7
35°	3079.4	3121.6	3264.1	3281.7	3269.4
37.5°	2914.0	2952.7	3086.4	3126.9	3116.3
40°	2739.8	2782.0	2887.6	2959.7	2963.2
42.5°	2567.3	2607.8	2694.0	2797.8	2797.8
45°	2384.3	2424.8	2504.0	2618.3	2632.4
47.5°	2204.8	2247.1	2324.5	2438.9	2461.7
50°	2028.9	2067.6	2145.0	2255.9	2291.0
52.5°	1845.9	1888.1	1963.8	2065.8	2116.8
55°	1669.9	1698.0	1780.8	1879.3	1933.8
57.5°	1486.9	1513.3	1606.5	1691.0	1747.3
60°	1310.9	1344.4	1416.5	1502.7	1567.8
62.5°	1142.0	1177.2	1238.8	1314.4	1388.4
65°	978.4	1004.8	1064.6	1140.2	1205.4
67.5°	820.0	842.9	902.7	955.5	1024.1
70°	659.9	689.8	733.8	784.8	828.8
72.5°	531.4	543.7	580.7	617.6	663.4
75°	392.4	413.5	443.4	464.5	490.9
77.5°	281.5	293.9	311.5	329.1	353.7
80°	188.3	193.6	209.4	212.9	232.3
82.5°	114.4	117.9	121.4	123.2	130.2
85°	61.6	61.6	61.6	58.1	58.1
87.5°	35.2	35.2	29.9	24.6	17.6
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)