

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: P557916

Luminaire Tested: **FUSL-12-4-LD4-3HI-50-UNV-82-96-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: P557916
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-82-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

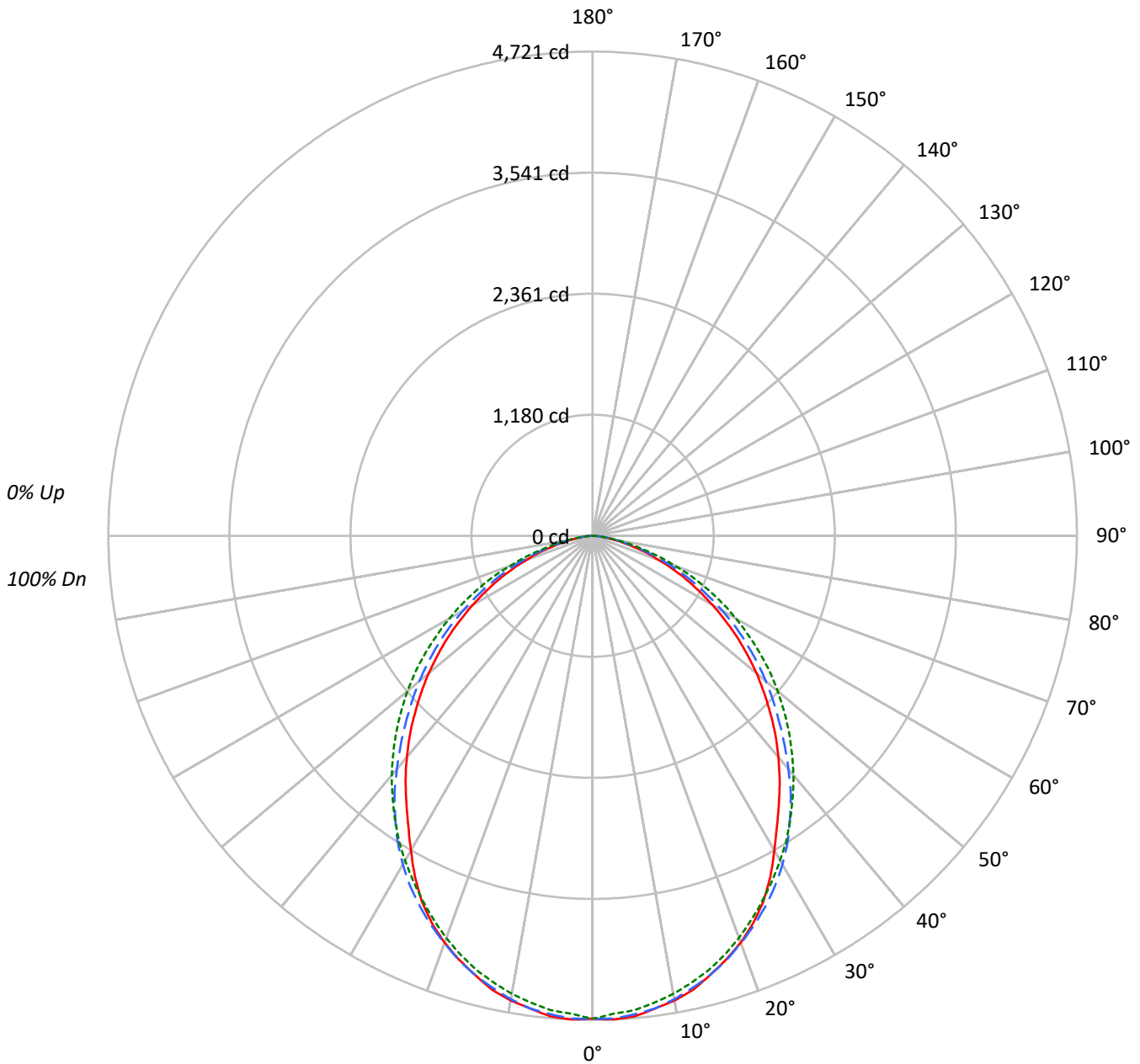
Lumens per Lamp: N/A
Luminaire Lumens: 10888.0 lumens
Efficiency: N/A
Efficacy: 84.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	12671	12671	12671
5°	12705	12651	12544
10°	12570	12536	12392
15°	12347	12347	12206
20°	12086	12101	11946
25°	11688	11833	11645
30°	11006	11501	11360
35°	10400	11024	11041
40°	9894	10428	10701
45°	9328	9796	10299
50°	8732	9231	9860
55°	8054	8589	9327
60°	7253	7837	8675
65°	6404	6968	7890
70°	5338	5935	6703
75°	4194	4740	5247
80°	3000	3336	3701
85°	1954	1954	1843



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	443.3	4.1
10°-20°	1245.5	11.4
20°-30°	1820.1	16.7
30°-40°	2066.0	19.0
40°-50°	1994.4	18.3
50°-60°	1645.2	15.1
60°-70°	1095.6	10.1
70°-80°	490.3	4.5
80°-90°	87.7	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°	3508.9	32.2
0°-40°	5574.9	51.2
0°-60°	9214.5	84.6
0°-90°	10888.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10888.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4709	4709	4709	4709	4709	
5°	4703	4702	4684	4658	4644	445
15°	4432	4443	4432	4412	4381	1249
25°	3936	3967	3985	3956	3922	1803
35°	3166	3209	3356	3374	3361	1984
45°	2451	2493	2574	2692	2706	1891
55°	1717	1746	1831	1932	1988	1532
65°	1006	1033	1094	1172	1239	997
75°	403	425	456	478	505	441
85°	63	63	63	60	60	85
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4708.8	4708.8	4708.8	4708.8	4708.8
2.5°	4721.4	4723.3	4712.4	4683.5	4665.4
5°	4703.4	4701.5	4683.5	4658.1	4643.7
7.5°	4650.9	4654.5	4649.1	4612.9	4593.0
10°	4600.2	4602.0	4587.6	4558.6	4535.1
12.5°	4535.1	4533.3	4513.4	4498.9	4460.9
15°	4432.0	4442.9	4432.0	4412.1	4381.4
17.5°	4332.5	4332.5	4339.7	4305.4	4281.9
20°	4220.4	4225.8	4225.8	4198.6	4171.5
22.5°	4090.1	4106.4	4111.8	4082.9	4050.3
25°	3936.3	3967.1	3985.2	3956.2	3921.9
27.5°	3750.0	3797.1	3851.3	3829.6	3791.6
30°	3542.0	3610.7	3701.2	3683.1	3656.0
32.5°	3344.8	3413.5	3538.4	3531.1	3516.7
35°	3165.7	3209.1	3355.7	3373.8	3361.1
37.5°	2995.7	3035.5	3173.0	3214.6	3203.7
40°	2816.6	2860.0	2968.5	3042.7	3046.3
42.5°	2639.3	2680.9	2769.6	2876.3	2876.3
45°	2451.2	2492.8	2574.2	2691.8	2706.2
47.5°	2266.7	2310.1	2389.7	2507.2	2530.8
50°	2085.8	2125.6	2205.1	2319.1	2355.3
52.5°	1897.6	1941.0	2018.8	2123.7	2176.2
55°	1716.7	1745.7	1830.7	1932.0	1988.1
57.5°	1528.6	1555.7	1651.6	1738.4	1796.3
60°	1347.7	1382.1	1456.2	1544.9	1611.8
62.5°	1174.0	1210.2	1273.5	1351.3	1427.3
65°	1005.8	1032.9	1094.4	1172.2	1239.2
67.5°	843.0	866.5	928.0	982.3	1052.8
70°	678.4	709.1	754.3	806.8	852.0
72.5°	546.3	559.0	597.0	635.0	682.0
75°	403.4	425.1	455.9	477.6	504.7
77.5°	289.4	302.1	320.2	338.3	363.6
80°	193.6	199.0	215.3	218.9	238.8
82.5°	117.6	121.2	124.8	126.6	133.9
85°	63.3	63.3	63.3	59.7	59.7
87.5°	36.2	36.2	30.8	25.3	18.1
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)