

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: P557923

Luminaire Tested: **FUSL-12-4-LD4-3HI-50-UNV-93-85-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: P557923
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-93-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

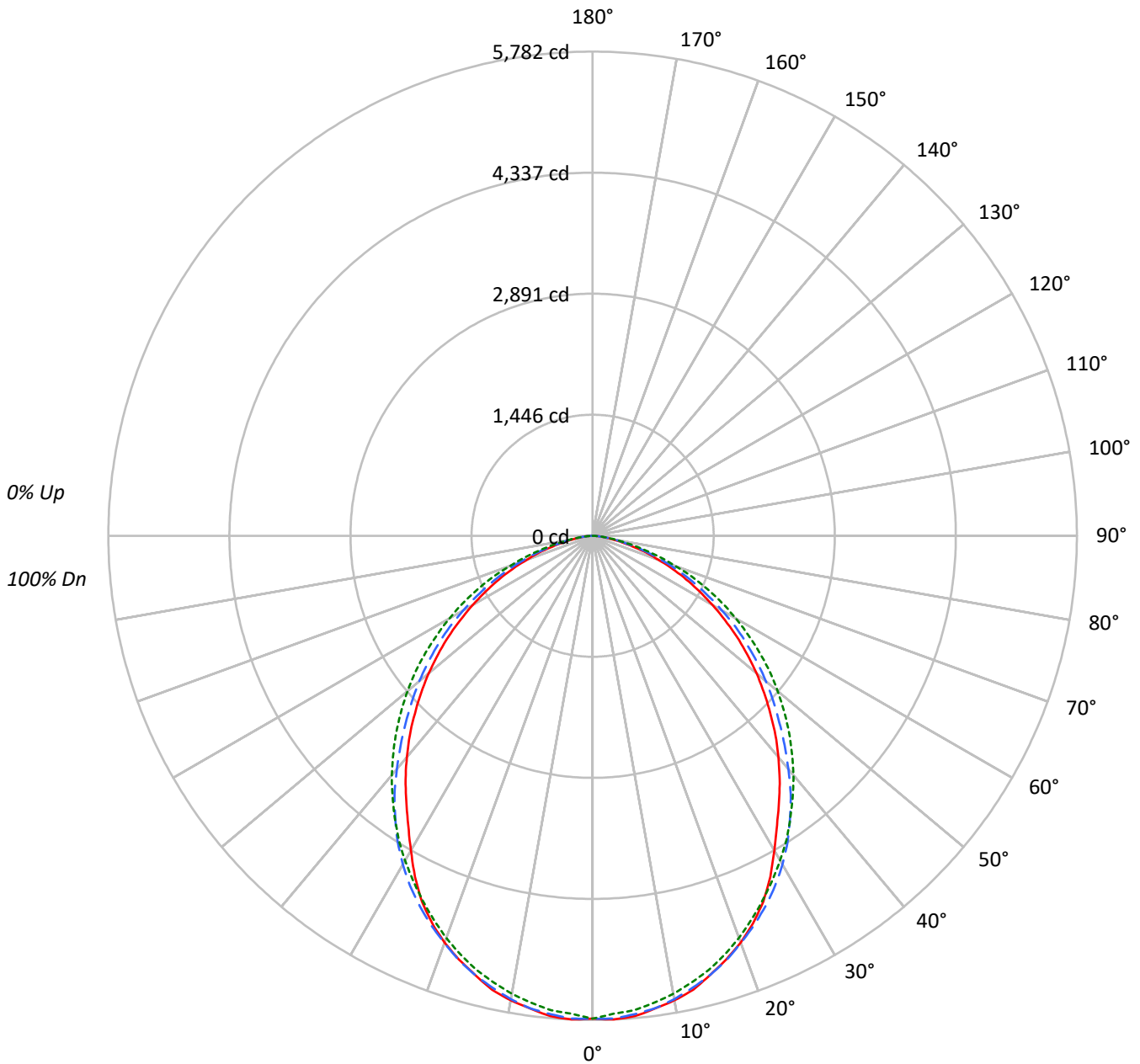
Lumens per Lamp: N/A
Luminaire Lumens: 13334.0 lumens
Efficiency: N/A
Efficacy: 102.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	15518	15518	15518
5°	15559	15493	15362
10°	15394	15352	15176
15°	15121	15121	14948
20°	14801	14820	14629
25°	14313	14491	14261
30°	13478	14084	13912
35°	12736	13500	13522
40°	12117	12771	13105
45°	11424	11997	12613
50°	10693	11305	12075
55°	9864	10519	11423
60°	8883	9598	10623
65°	7843	8534	9663
70°	6537	7268	8209
75°	5136	5805	6426
80°	3673	4085	4531
85°	2393	2393	2257



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	542.9	4.1
10°-20°	1525.3	11.4
20°-30°	2228.9	16.7
30°-40°	2530.1	19.0
40°-50°	2442.4	18.3
50°-60°	2014.8	15.1
60°-70°	1341.7	10.1
70°-80°	600.4	4.5
80°-90°	107.4	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°	4297.2	32.2
0°-40°	6827.3	51.2
0°-60°	11284.5	84.6
0°-90°	13334.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13334.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5767	5767	5767	5767	5767	
5°	5760	5758	5736	5705	5687	545
15°	5428	5441	5428	5403	5366	1530
25°	4821	4858	4880	4845	4803	2208
35°	3877	3930	4110	4132	4116	2429
45°	3002	3053	3152	3296	3314	2316
55°	2102	2138	2242	2366	2435	1876
65°	1232	1265	1340	1436	1518	1221
75°	494	521	558	585	618	540
85°	78	78	78	73	73	105
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5766.6	5766.6	5766.6	5766.6	5766.6
2.5°	5782.1	5784.3	5771.0	5735.6	5713.4
5°	5760.0	5757.7	5735.6	5704.6	5686.9
7.5°	5695.7	5700.1	5693.5	5649.2	5624.8
10°	5633.7	5635.9	5618.2	5582.7	5553.9
12.5°	5553.9	5551.7	5527.4	5509.6	5463.1
15°	5427.7	5441.0	5427.7	5403.3	5365.6
17.5°	5305.8	5305.8	5314.7	5272.6	5243.8
20°	5168.5	5175.1	5175.1	5141.9	5108.6
22.5°	5009.0	5028.9	5035.5	5000.1	4960.2
25°	4820.6	4858.3	4880.5	4845.0	4802.9
27.5°	4592.5	4650.1	4716.5	4689.9	4643.4
30°	4337.7	4421.9	4532.6	4510.5	4477.3
32.5°	4096.2	4180.4	4333.3	4324.4	4306.7
35°	3876.9	3930.1	4109.5	4131.7	4116.2
37.5°	3668.7	3717.4	3885.8	3936.7	3923.4
40°	3449.3	3502.5	3635.4	3726.3	3730.7
42.5°	3232.2	3283.2	3391.7	3522.4	3522.4
45°	3001.8	3052.8	3152.5	3296.5	3314.2
47.5°	2775.9	2829.0	2926.5	3070.5	3099.3
50°	2554.3	2603.1	2700.5	2840.1	2884.4
52.5°	2323.9	2377.1	2472.4	2600.8	2665.1
55°	2102.4	2137.8	2242.0	2366.0	2434.7
57.5°	1872.0	1905.2	2022.6	2129.0	2199.9
60°	1650.5	1692.5	1783.4	1891.9	1973.9
62.5°	1437.8	1482.1	1559.6	1654.9	1747.9
65°	1231.7	1265.0	1340.3	1435.6	1517.5
67.5°	1032.4	1061.2	1136.5	1202.9	1289.3
70°	830.8	868.4	923.8	988.1	1043.4
72.5°	669.0	684.5	731.1	777.6	835.2
75°	494.0	520.6	558.3	584.9	618.1
77.5°	354.5	370.0	392.1	414.3	445.3
80°	237.0	243.7	263.6	268.1	292.4
82.5°	144.0	148.4	152.9	155.1	163.9
85°	77.5	77.5	77.5	73.1	73.1
87.5°	44.3	44.3	37.7	31.0	22.2
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)