

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: P558369

Luminaire Tested: **FUSL-12-4-LD4-3STD-40-UNV-93-84-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: P558369
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-LD4-3STD-40-UNV-93-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

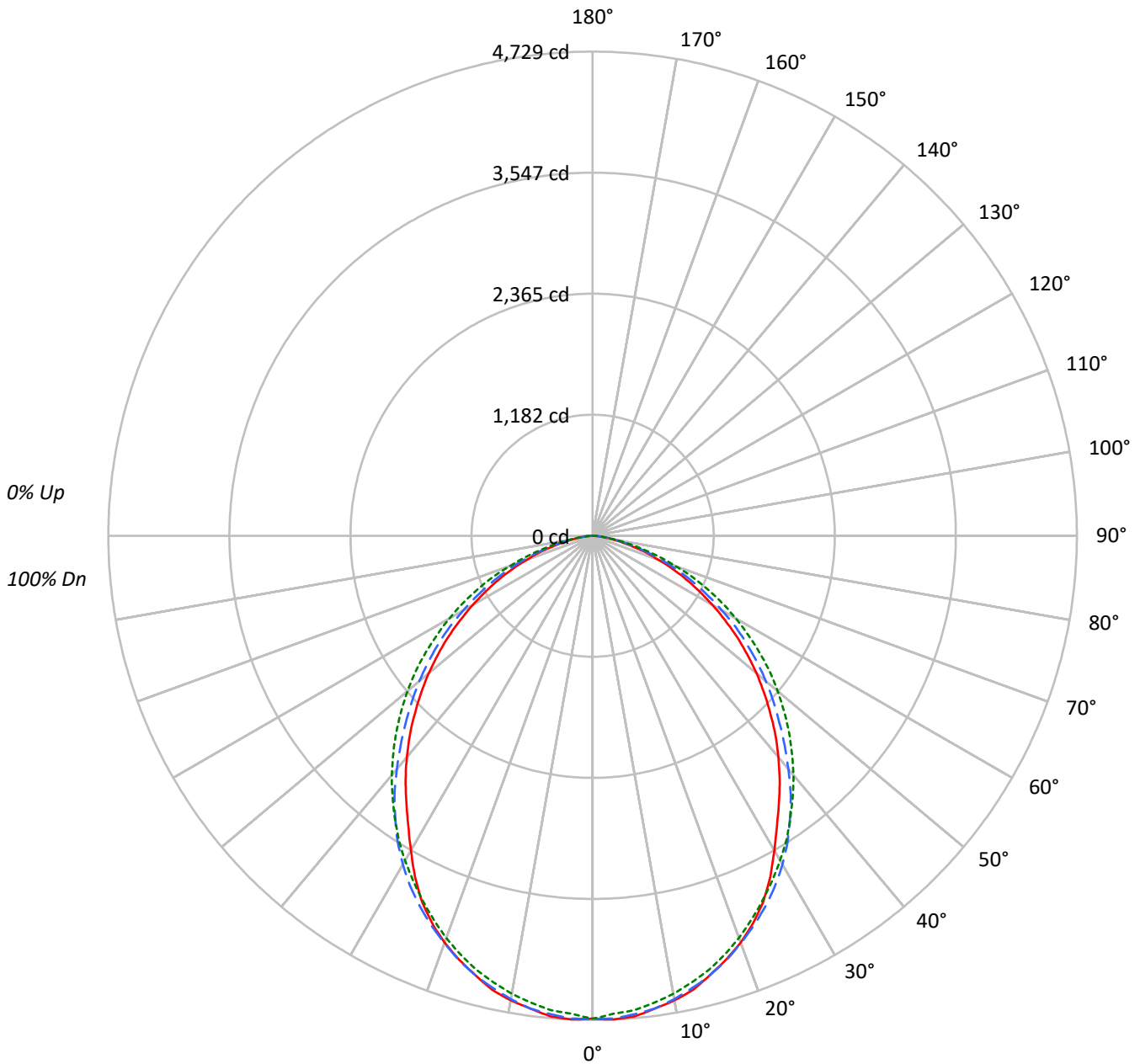
Lumens per Lamp: N/A
Luminaire Lumens: 10906.0 lumens
Efficiency: N/A
Efficacy: 109.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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°	12692	12692	12692
5°	12726	12672	12564
10°	12591	12556	12413
15°	12367	12367	12226
20°	12106	12121	11966
25°	11707	11852	11664
30°	11024	11520	11379
35°	10417	11042	11060
40°	9910	10445	10719
45°	9344	9812	10316
50°	8746	9247	9877
55°	8068	8603	9343
60°	7265	7850	8689
65°	6415	6980	7903
70°	5346	5945	6714
75°	4201	4747	5256
80°	3005	3341	3707
85°	1958	1958	1846



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	444.1	4.1
10°-20°	1247.5	11.4
20°-30°	1823.1	16.7
30°-40°	2069.4	19.0
40°-50°	1997.7	18.3
50°-60°	1647.9	15.1
60°-70°	1097.4	10.1
70°-80°	491.1	4.5
80°-90°	87.8	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°	3514.7	32.2
0°-40°	5584.1	51.2
0°-60°	9229.7	84.6
0°-90°	10906.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10906.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4717	4717	4717	4717	4717	
5°	4711	4709	4691	4666	4651	446
15°	4439	4450	4439	4419	4389	1251
25°	3943	3974	3992	3963	3928	1806
35°	3171	3214	3361	3379	3367	1987
45°	2455	2497	2578	2696	2711	1894
55°	1720	1749	1834	1935	1991	1535
65°	1008	1035	1096	1174	1241	999
75°	404	426	457	478	506	442
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°	4716.6	4716.6	4716.6	4716.6	4716.6
2.5°	4729.2	4731.1	4720.2	4691.2	4673.1
5°	4711.1	4709.3	4691.2	4665.8	4651.3
7.5°	4658.6	4662.2	4656.8	4620.5	4600.6
10°	4607.8	4609.7	4595.2	4566.2	4542.6
12.5°	4542.6	4540.8	4520.9	4506.4	4468.3
15°	4439.3	4450.2	4439.3	4419.4	4388.6
17.5°	4339.7	4339.7	4346.9	4312.5	4288.9
20°	4227.3	4232.8	4232.8	4205.6	4178.4
22.5°	4096.9	4113.2	4118.6	4089.6	4057.0
25°	3942.9	3973.7	3991.8	3962.8	3928.4
27.5°	3756.2	3803.3	3857.7	3835.9	3797.9
30°	3547.8	3616.7	3707.3	3689.2	3662.0
32.5°	3350.3	3419.2	3544.2	3537.0	3522.5
35°	3171.0	3214.4	3361.2	3379.3	3366.6
37.5°	3000.6	3040.5	3178.2	3219.9	3209.0
40°	2821.2	2864.7	2973.4	3047.7	3051.4
42.5°	2643.7	2685.3	2774.1	2881.0	2881.0
45°	2455.2	2496.9	2578.4	2696.2	2710.7
47.5°	2270.4	2313.9	2393.6	2511.4	2534.9
50°	2089.2	2129.1	2208.8	2322.9	2359.2
52.5°	1900.8	1944.2	2022.2	2127.3	2179.8
55°	1719.6	1748.6	1833.7	1935.2	1991.4
57.5°	1531.1	1558.3	1654.3	1741.3	1799.3
60°	1349.9	1384.3	1458.6	1547.4	1614.5
62.5°	1176.0	1212.2	1275.6	1353.5	1429.6
65°	1007.5	1034.6	1096.2	1174.2	1241.2
67.5°	844.4	867.9	929.5	983.9	1054.6
70°	679.5	710.3	755.6	808.1	853.4
72.5°	547.2	559.9	598.0	636.0	683.1
75°	404.1	425.8	456.6	478.4	505.5
77.5°	289.9	302.6	320.7	338.8	364.2
80°	193.9	199.3	215.6	219.2	239.2
82.5°	117.8	121.4	125.0	126.8	134.1
85°	63.4	63.4	63.4	59.8	59.8
87.5°	36.2	36.2	30.8	25.4	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)