

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: P556443

Luminaire Tested: **FUSL-12-4-LD4-1LO-30-UNV-82-94-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: P556443
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-LD4-1LO-30-UNV-82-94-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

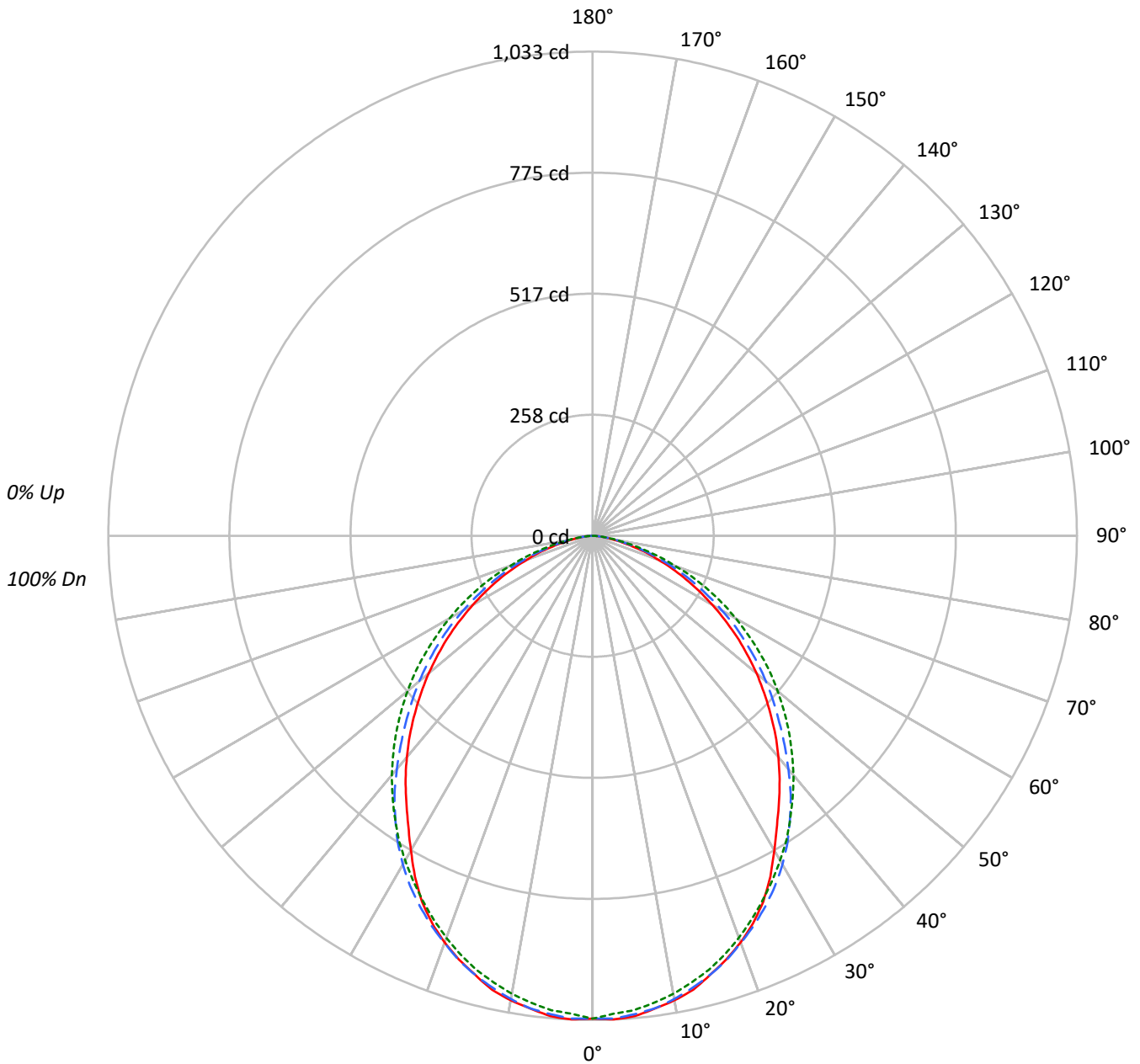
Lumens per Lamp: N/A
Luminaire Lumens: 2382.0 lumens
Efficiency: N/A
Efficacy: 101.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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°	2772	2772	2772
5°	2780	2768	2744
10°	2750	2742	2711
15°	2701	2701	2670
20°	2644	2647	2613
25°	2557	2589	2548
30°	2408	2516	2485
35°	2275	2412	2416
40°	2165	2281	2341
45°	2041	2143	2253
50°	1910	2020	2157
55°	1762	1879	2040
60°	1587	1715	1898
65°	1401	1524	1726
70°	1168	1298	1467
75°	918	1037	1148
80°	656	730	809
85°	429	429	404



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.0	4.1
10°-20°	272.5	11.4
20°-30°	398.2	16.7
30°-40°	452.0	19.0
40°-50°	436.3	18.3
50°-60°	359.9	15.1
60°-70°	239.7	10.1
70°-80°	107.2	4.5
80°-90°	19.2	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°	767.7	32.2
0°-40°	1219.6	51.2
0°-60°	2015.9	84.6
0°-90°	2382.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2382.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1030	1030	1030	1030	1030	
5°	1029	1029	1025	1019	1016	97
15°	970	972	970	965	958	273
25°	861	868	872	866	858	394
35°	693	702	734	738	735	434
45°	536	545	563	589	592	414
55°	376	382	400	423	435	335
65°	220	226	239	256	271	218
75°	88	93	100	104	110	96
85°	14	14	14	13	13	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1030.2	1030.2	1030.2	1030.2	1030.2
2.5°	1032.9	1033.3	1030.9	1024.6	1020.7
5°	1029.0	1028.6	1024.6	1019.1	1015.9
7.5°	1017.5	1018.3	1017.1	1009.2	1004.8
10°	1006.4	1006.8	1003.6	997.3	992.2
12.5°	992.2	991.8	987.4	984.2	975.9
15°	969.6	972.0	969.6	965.2	958.5
17.5°	947.8	947.8	949.4	941.9	936.8
20°	923.3	924.5	924.5	918.6	912.6
22.5°	894.8	898.4	899.6	893.2	886.1
25°	861.2	867.9	871.9	865.5	858.0
27.5°	820.4	830.7	842.6	837.8	829.5
30°	774.9	789.9	809.7	805.8	799.8
32.5°	731.8	746.8	774.1	772.5	769.4
35°	692.6	702.1	734.1	738.1	735.3
37.5°	655.4	664.1	694.2	703.3	700.9
40°	616.2	625.7	649.4	665.7	666.5
42.5°	577.4	586.5	605.9	629.3	629.3
45°	536.2	545.4	563.2	588.9	592.1
47.5°	495.9	505.4	522.8	548.5	553.7
50°	456.3	465.0	482.4	507.4	515.3
52.5°	415.1	424.6	441.7	464.6	476.1
55°	375.6	381.9	400.5	422.7	434.9
57.5°	334.4	340.4	361.3	380.3	393.0
60°	294.8	302.4	318.6	338.0	352.6
62.5°	256.8	264.8	278.6	295.6	312.3
65°	220.0	226.0	239.4	256.5	271.1
67.5°	184.4	189.6	203.0	214.9	230.3
70°	148.4	155.1	165.0	176.5	186.4
72.5°	119.5	122.3	130.6	138.9	149.2
75°	88.3	93.0	99.7	104.5	110.4
77.5°	63.3	66.1	70.0	74.0	79.5
80°	42.3	43.5	47.1	47.9	52.2
82.5°	25.7	26.5	27.3	27.7	29.3
85°	13.9	13.9	13.9	13.1	13.1
87.5°	7.9	7.9	6.7	5.5	4.0
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)