

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: P556522

Luminaire Tested: **FUSL-12-4-LD4-1LO-35-UNV-93-94-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: P556522
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-35-UNV-93-94-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

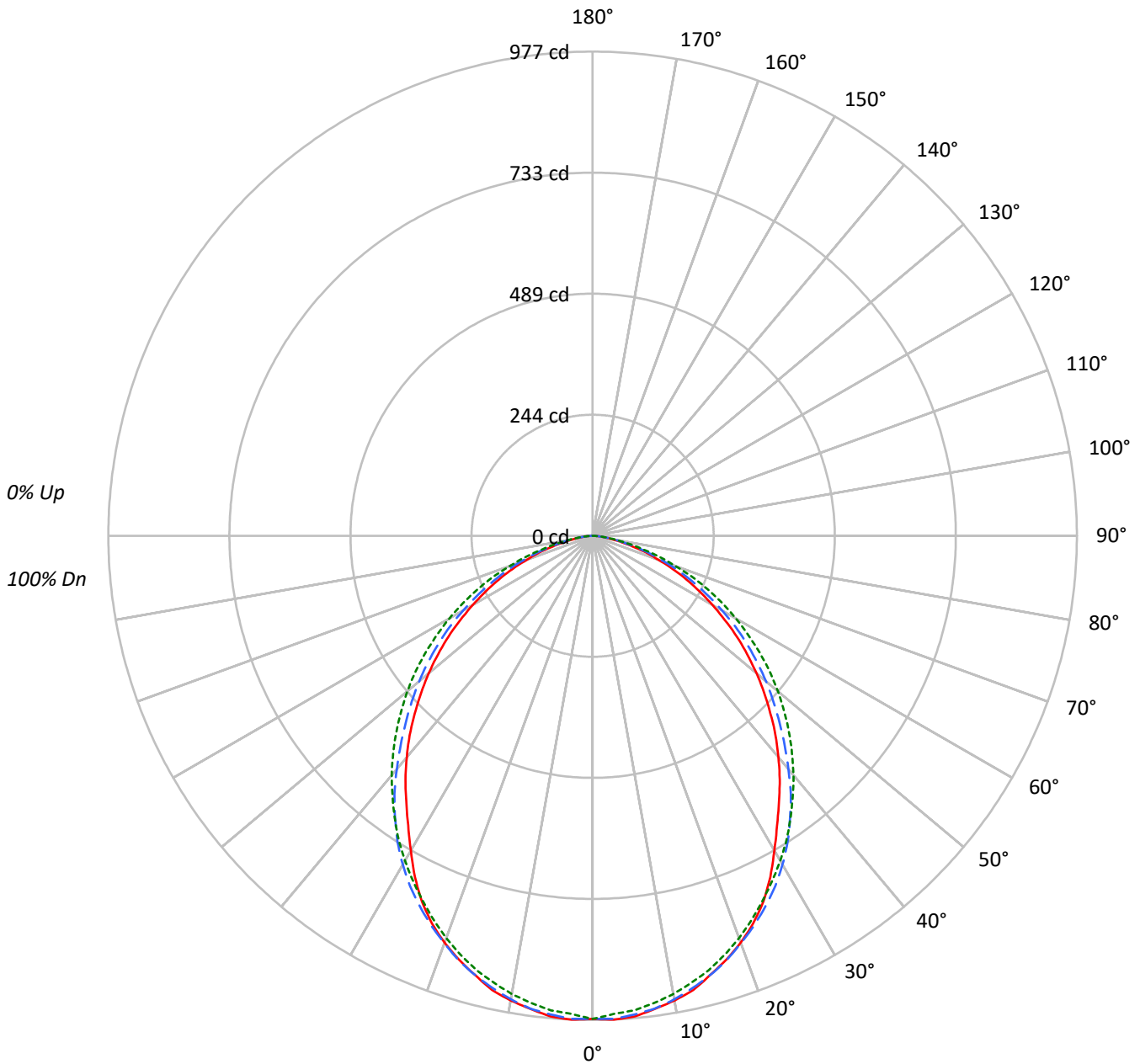
Lumens per Lamp: N/A
Luminaire Lumens: 2254.0 lumens
Efficiency: N/A
Efficacy: 96.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	2623	2623	2623
5°	2630	2619	2597
10°	2602	2595	2565
15°	2556	2556	2527
20°	2502	2505	2473
25°	2420	2450	2411
30°	2279	2381	2352
35°	2153	2282	2286
40°	2048	2159	2215
45°	1931	2028	2132
50°	1808	1911	2041
55°	1667	1778	1931
60°	1502	1623	1796
65°	1326	1443	1633
70°	1105	1229	1388
75°	868	981	1087
80°	621	691	766
85°	404	404	383



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.8	4.1
10°-20°	257.8	11.4
20°-30°	376.8	16.7
30°-40°	427.7	19.0
40°-50°	412.9	18.3
50°-60°	340.6	15.1
60°-70°	226.8	10.1
70°-80°	101.5	4.5
80°-90°	18.2	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°	726.4	32.2
0°-40°	1154.1	51.2
0°-60°	1907.5	84.6
0°-90°	2254.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2254.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	975	975	975	975	975	
5°	974	973	970	964	961	92
15°	918	920	918	913	907	259
25°	815	821	825	819	812	373
35°	655	664	695	698	696	411
45°	507	516	533	557	560	392
55°	355	361	379	400	412	317
65°	208	214	227	243	256	206
75°	84	88	94	99	104	91
85°	13	13	13	12	12	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	974.8	974.8	974.8	974.8	974.8
2.5°	977.4	977.8	975.5	969.6	965.8
5°	973.7	973.3	969.6	964.3	961.3
7.5°	962.8	963.6	962.4	954.9	950.8
10°	952.3	952.7	949.7	943.7	938.8
12.5°	938.8	938.5	934.4	931.4	923.5
15°	917.5	919.7	917.5	913.4	907.0
17.5°	896.9	896.9	898.4	891.3	886.4
20°	873.7	874.8	874.8	869.2	863.6
22.5°	846.7	850.1	851.2	845.2	838.5
25°	814.9	821.3	825.0	819.0	811.9
27.5°	776.3	786.1	797.3	792.8	784.9
30°	733.3	747.5	766.2	762.5	756.8
32.5°	692.4	706.7	732.5	731.0	728.0
35°	655.4	664.3	694.7	698.4	695.8
37.5°	620.2	628.4	656.9	665.5	663.2
40°	583.1	592.1	614.5	629.9	630.6
42.5°	546.4	555.0	573.3	595.4	595.4
45°	507.4	516.0	532.9	557.2	560.2
47.5°	469.2	478.2	494.7	519.0	523.9
50°	431.8	440.0	456.5	480.1	487.6
52.5°	392.8	401.8	417.9	439.7	450.5
55°	355.4	361.4	379.0	400.0	411.6
57.5°	316.4	322.1	341.9	359.9	371.9
60°	279.0	286.1	301.5	319.8	333.7
62.5°	243.0	250.5	263.6	279.7	295.5
65°	208.2	213.8	226.6	242.7	256.5
67.5°	174.5	179.4	192.1	203.3	218.0
70°	140.4	146.8	156.2	167.0	176.4
72.5°	113.1	115.7	123.6	131.4	141.2
75°	83.5	88.0	94.4	98.9	104.5
77.5°	59.9	62.5	66.3	70.0	75.3
80°	40.1	41.2	44.6	45.3	49.4
82.5°	24.3	25.1	25.8	26.2	27.7
85°	13.1	13.1	13.1	12.4	12.4
87.5°	7.5	7.5	6.4	5.2	3.7
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)