

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: P556588

Luminaire Tested: **FUSL-12-4-LD4-1LO-40-UNV-93-96-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: P556588
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-40-UNV-93-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

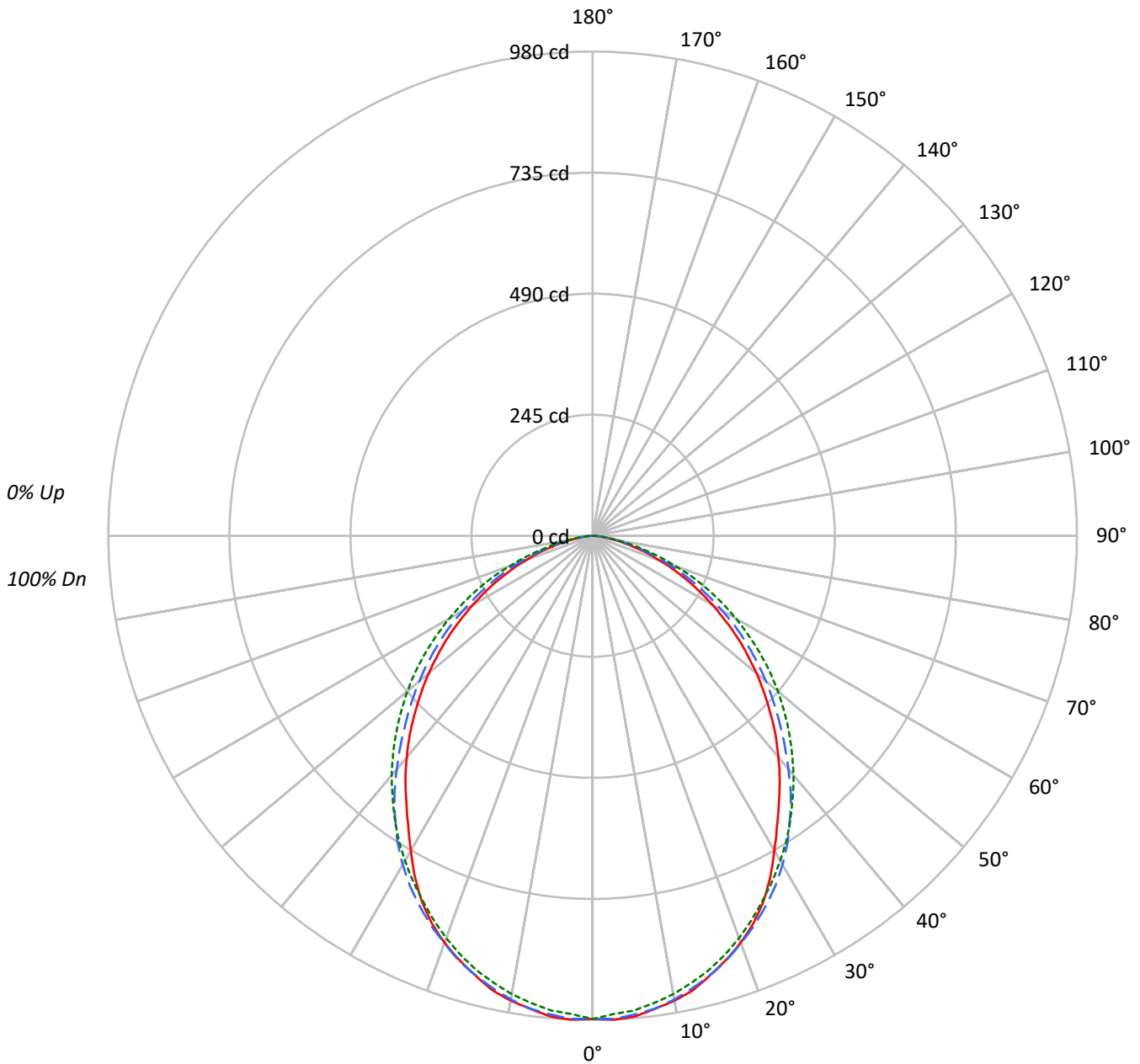
Lumens per Lamp: N/A
Luminaire Lumens: 2261.0 lumens
Efficiency: N/A
Efficacy: 96.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (Ain): 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°	2631	2631	2631
5°	2638	2627	2605
10°	2610	2603	2573
15°	2564	2564	2535
20°	2510	2513	2481
25°	2427	2457	2418
30°	2285	2388	2359
35°	2160	2289	2293
40°	2055	2165	2222
45°	1937	2034	2139
50°	1813	1917	2048
55°	1673	1784	1937
60°	1506	1628	1801
65°	1330	1447	1638
70°	1109	1232	1392
75°	871	985	1090
80°	623	693	769
85°	404	404	383



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.1	4.1
10°-20°	258.6	11.4
20°-30°	378.0	16.7
30°-40°	429.0	19.0
40°-50°	414.1	18.3
50°-60°	341.6	15.1
60°-70°	227.5	10.1
70°-80°	101.8	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°	728.7	32.2
0°-40°	1157.7	51.2
0°-60°	1913.5	84.6
0°-90°	2261.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2261.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	978	978	978	978	978	
5°	977	976	973	967	964	92
15°	920	923	920	916	910	259
25°	817	824	828	822	814	374
35°	657	666	697	701	698	412
45°	509	518	535	559	562	393
55°	356	362	380	401	413	318
65°	209	214	227	243	257	207
75°	84	88	95	99	105	92
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°	977.8	977.8	977.8	977.8	977.8
2.5°	980.5	980.8	978.6	972.6	968.8
5°	976.7	976.3	972.6	967.3	964.3
7.5°	965.8	966.6	965.4	957.9	953.8
10°	955.3	955.7	952.7	946.6	941.8
12.5°	941.8	941.4	937.3	934.2	926.4
15°	920.3	922.6	920.3	916.2	909.8
17.5°	899.7	899.7	901.2	894.1	889.2
20°	876.4	877.5	877.5	871.9	866.3
22.5°	849.4	852.7	853.9	847.8	841.1
25°	817.4	823.8	827.6	821.6	814.4
27.5°	778.7	788.5	799.8	795.3	787.4
30°	735.5	749.8	768.6	764.8	759.2
32.5°	694.6	708.9	734.8	733.3	730.3
35°	657.4	666.4	696.8	700.6	698.0
37.5°	622.1	630.3	658.9	667.5	665.3
40°	584.9	593.9	616.4	631.8	632.6
42.5°	548.1	556.7	575.1	597.3	597.3
45°	509.0	517.6	534.6	559.0	562.0
47.5°	470.7	479.7	496.2	520.7	525.5
50°	433.1	441.4	457.9	481.6	489.1
52.5°	394.1	403.1	419.2	441.0	451.9
55°	356.5	362.5	380.2	401.2	412.8
57.5°	317.4	323.1	343.0	361.0	373.0
60°	279.9	287.0	302.4	320.8	334.7
62.5°	243.8	251.3	264.5	280.6	296.4
65°	208.9	214.5	227.3	243.4	257.3
67.5°	175.1	179.9	192.7	204.0	218.6
70°	140.9	147.3	156.6	167.5	176.9
72.5°	113.4	116.1	124.0	131.9	141.6
75°	83.8	88.3	94.7	99.2	104.8
77.5°	60.1	62.7	66.5	70.2	75.5
80°	40.2	41.3	44.7	45.5	49.6
82.5°	24.4	25.2	25.9	26.3	27.8
85°	13.1	13.1	13.1	12.4	12.4
87.5°	7.5	7.5	6.4	5.3	3.8
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)