

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: P557870

Luminaire Tested: **FUSL-12-4-LD4-3HI-40-UNV-93-97-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: P557870
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-40-UNV-93-97-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

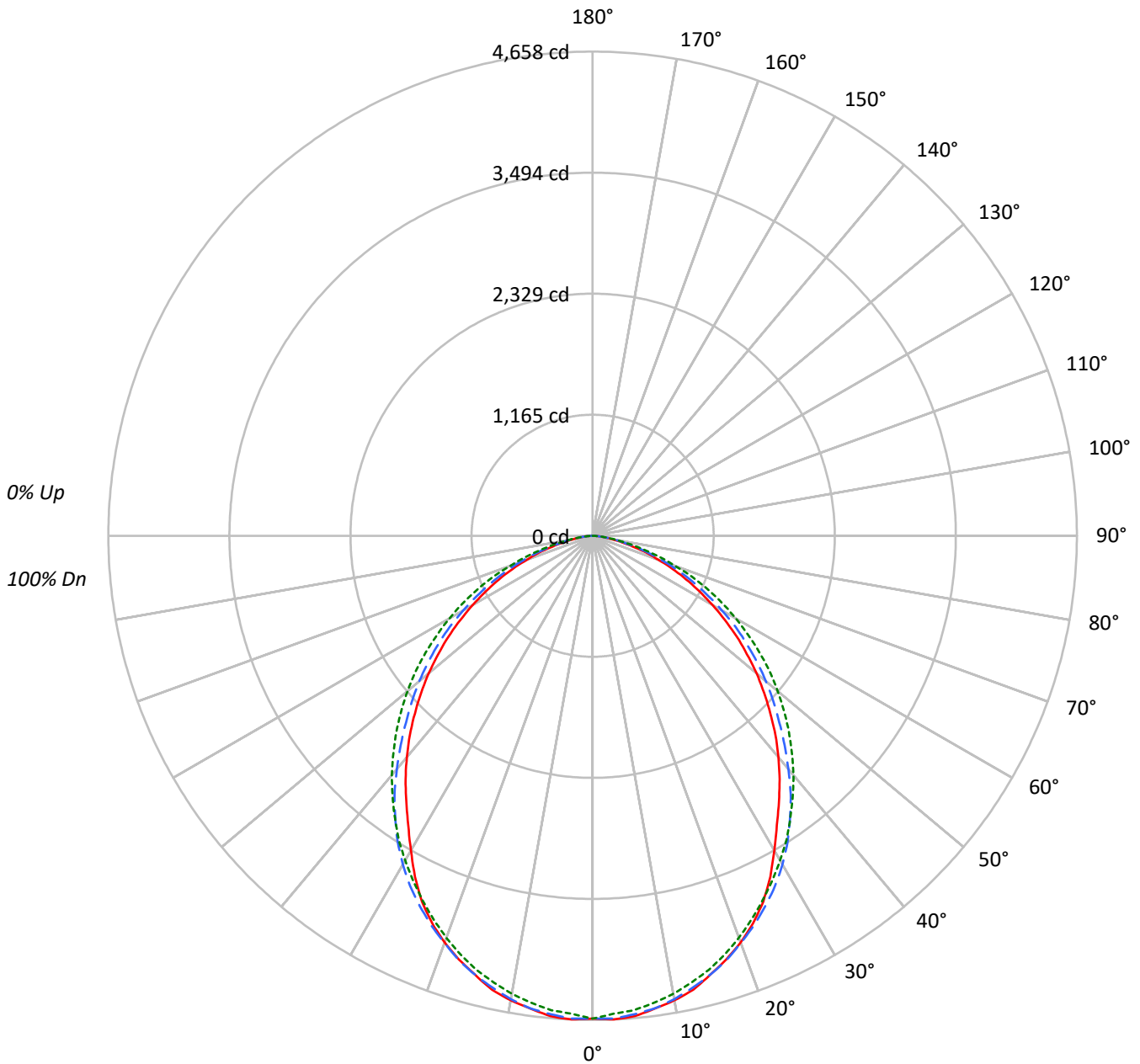
Lumens per Lamp: N/A
Luminaire Lumens: 10741.0 lumens
Efficiency: N/A
Efficacy: 82.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	12500	12500	12500
5°	12534	12480	12374
10°	12400	12366	12225
15°	12181	12181	12041
20°	11923	11938	11785
25°	11530	11673	11487
30°	10857	11345	11207
35°	10259	10875	10892
40°	9761	10287	10557
45°	9202	9664	10160
50°	8614	9107	9727
55°	7945	8473	9201
60°	7155	7732	8557
65°	6318	6875	7784
70°	5265	5855	6613
75°	4138	4676	5177
80°	2958	3292	3651
85°	1930	1930	1819



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	437.4	4.1
10°-20°	1228.7	11.4
20°-30°	1795.5	16.7
30°-40°	2038.1	19.0
40°-50°	1967.4	18.3
50°-60°	1623.0	15.1
60°-70°	1080.8	10.1
70°-80°	483.6	4.5
80°-90°	86.5	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°	3461.5	32.2
0°-40°	5499.6	51.2
0°-60°	9090.1	84.6
0°-90°	10741.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10741.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4645	4645	4645	4645	4645	
5°	4640	4638	4620	4595	4581	439
15°	4372	4383	4372	4352	4322	1233
25°	3883	3914	3931	3903	3869	1778
35°	3123	3166	3310	3328	3316	1957
45°	2418	2459	2539	2655	2670	1866
55°	1694	1722	1806	1906	1961	1512
65°	992	1019	1080	1156	1222	984
75°	398	419	450	471	498	435
85°	62	62	62	59	59	84
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4645.2	4645.2	4645.2	4645.2	4645.2
2.5°	4657.7	4659.5	4648.8	4620.2	4602.4
5°	4639.9	4638.1	4620.2	4595.2	4581.0
7.5°	4588.1	4591.7	4586.3	4550.6	4531.0
10°	4538.1	4539.9	4525.6	4497.1	4473.9
12.5°	4473.9	4472.1	4452.5	4438.2	4400.7
15°	4372.2	4382.9	4372.2	4352.5	4322.2
17.5°	4274.0	4274.0	4281.2	4247.2	4224.0
20°	4163.4	4168.7	4168.7	4142.0	4115.2
22.5°	4034.9	4050.9	4056.3	4027.7	3995.6
25°	3883.2	3913.5	3931.4	3902.8	3868.9
27.5°	3699.4	3745.8	3799.3	3777.9	3740.4
30°	3494.2	3562.0	3651.2	3633.4	3606.6
32.5°	3299.6	3367.5	3490.6	3483.5	3469.2
35°	3123.0	3165.8	3310.4	3328.2	3315.7
37.5°	2955.2	2994.5	3130.1	3171.2	3160.5
40°	2778.6	2821.4	2928.5	3001.6	3005.2
42.5°	2603.7	2644.7	2732.2	2837.4	2837.4
45°	2418.1	2459.1	2539.4	2655.4	2669.7
47.5°	2236.1	2278.9	2357.4	2473.4	2496.6
50°	2057.6	2096.9	2175.4	2287.8	2323.5
52.5°	1872.0	1914.8	1991.6	2095.1	2146.8
55°	1693.5	1722.1	1806.0	1905.9	1961.2
57.5°	1508.0	1534.7	1629.3	1715.0	1772.1
60°	1329.5	1363.4	1436.6	1524.0	1590.0
62.5°	1158.2	1193.9	1256.3	1333.1	1408.0
65°	992.2	1019.0	1079.7	1156.4	1222.4
67.5°	831.6	854.8	915.5	969.0	1038.6
70°	669.2	699.5	744.2	795.9	840.5
72.5°	538.9	551.4	588.9	626.4	672.8
75°	398.0	419.4	449.7	471.1	497.9
77.5°	285.5	298.0	315.9	333.7	358.7
80°	190.9	196.3	212.4	215.9	235.6
82.5°	116.0	119.6	123.1	124.9	132.1
85°	62.5	62.5	62.5	58.9	58.9
87.5°	35.7	35.7	30.3	25.0	17.8
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)