

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: P557735

Luminaire Tested: **FUSL-12-4-LD4-3HI-30-UNV-93-87-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: P557735
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-30-UNV-93-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

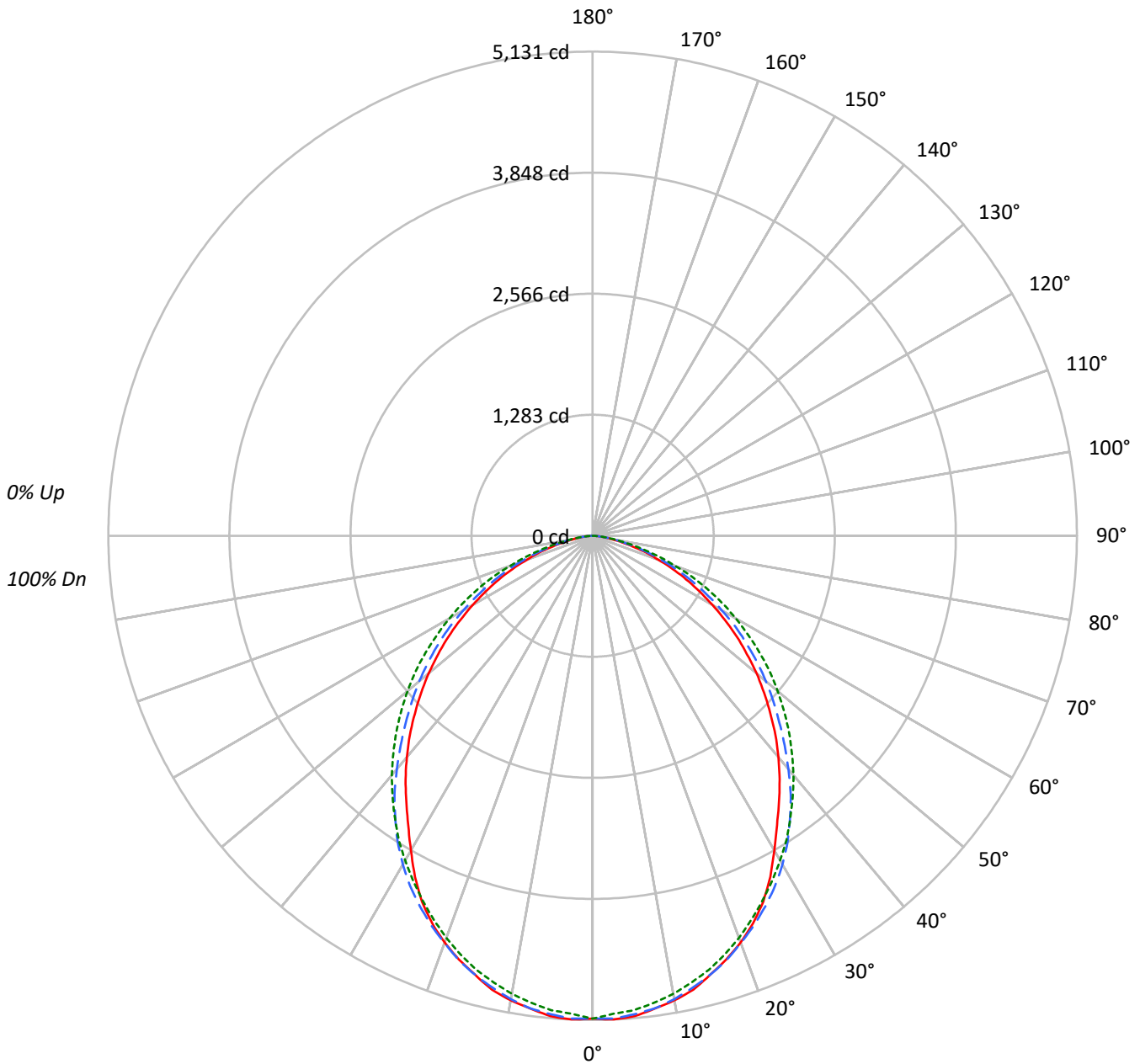
Lumens per Lamp: N/A
Luminaire Lumens: 11832.0 lumens
Efficiency: N/A
Efficacy: 91.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	13770	13770	13770
5°	13806	13748	13631
10°	13660	13622	13467
15°	13418	13418	13264
20°	13134	13151	12982
25°	12701	12859	12654
30°	11960	12498	12345
35°	11301	11979	11999
40°	10752	11332	11629
45°	10137	10646	11192
50°	9489	10032	10715
55°	8753	9333	10136
60°	7882	8517	9426
65°	6960	7573	8574
70°	5800	6449	7285
75°	4558	5151	5703
80°	3259	3625	4021
85°	2124	2124	2004



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	481.8	4.1
10°-20°	1353.5	11.4
20°-30°	1977.9	16.7
30°-40°	2245.1	19.0
40°-50°	2167.3	18.3
50°-60°	1787.9	15.1
60°-70°	1190.6	10.1
70°-80°	532.8	4.5
80°-90°	95.3	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°	3813.1	32.2
0°-40°	6058.2	51.2
0°-60°	10013.4	84.6
0°-90°	11832.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11832.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5117	5117	5117	5117	5117	
5°	5111	5109	5090	5062	5046	484
15°	4816	4828	4816	4795	4761	1358
25°	4278	4311	4331	4299	4262	1959
35°	3440	3487	3647	3666	3652	2155
45°	2664	2709	2797	2925	2941	2055
55°	1866	1897	1989	2100	2160	1665
65°	1093	1122	1189	1274	1347	1084
75°	438	462	495	519	548	479
85°	69	69	69	65	65	93
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5117.0	5117.0	5117.0	5117.0	5117.0
2.5°	5130.8	5132.8	5121.0	5089.5	5069.9
5°	5111.1	5109.2	5089.5	5062.0	5046.3
7.5°	5054.1	5058.1	5052.2	5012.8	4991.2
10°	4999.1	5001.1	4985.3	4953.9	4928.3
12.5°	4928.3	4926.3	4904.7	4889.0	4847.7
15°	4816.3	4828.1	4816.3	4794.6	4761.2
17.5°	4708.1	4708.1	4716.0	4678.7	4653.1
20°	4586.3	4592.2	4592.2	4562.7	4533.2
22.5°	4444.7	4462.4	4468.3	4436.9	4401.5
25°	4277.6	4311.0	4330.7	4299.3	4261.9
27.5°	4075.1	4126.3	4185.2	4161.6	4120.4
30°	3849.1	3923.8	4022.1	4002.4	3972.9
32.5°	3634.8	3709.5	3845.1	3837.3	3821.6
35°	3440.2	3487.4	3646.6	3666.3	3652.5
37.5°	3255.4	3298.6	3448.1	3493.3	3481.5
40°	3060.8	3108.0	3225.9	3306.5	3310.4
42.5°	2868.1	2913.3	3009.7	3125.7	3125.7
45°	2663.7	2708.9	2797.4	2925.1	2940.9
47.5°	2463.2	2510.4	2596.9	2724.6	2750.2
50°	2266.6	2309.8	2396.3	2520.2	2559.5
52.5°	2062.1	2109.3	2193.9	2307.9	2364.9
55°	1865.6	1897.0	1989.4	2099.5	2160.4
57.5°	1661.1	1690.6	1794.8	1889.2	1952.1
60°	1464.5	1501.9	1582.5	1678.8	1751.5
62.5°	1275.8	1315.1	1383.9	1468.5	1551.0
65°	1093.0	1122.5	1189.3	1273.9	1346.6
67.5°	916.1	941.6	1008.5	1067.4	1144.1
70°	737.2	770.6	819.7	876.8	925.9
72.5°	593.7	607.4	648.7	690.0	741.1
75°	438.4	462.0	495.4	519.0	548.5
77.5°	314.5	328.3	348.0	367.6	395.1
80°	210.3	216.2	233.9	237.9	259.5
82.5°	127.8	131.7	135.6	137.6	145.5
85°	68.8	68.8	68.8	64.9	64.9
87.5°	39.3	39.3	33.4	27.5	19.7
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)