

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: P557821

Luminaire Tested: **FUSL-12-4-LD4-3HI-40-UNV-80-96-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: P557821  
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-80-96-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

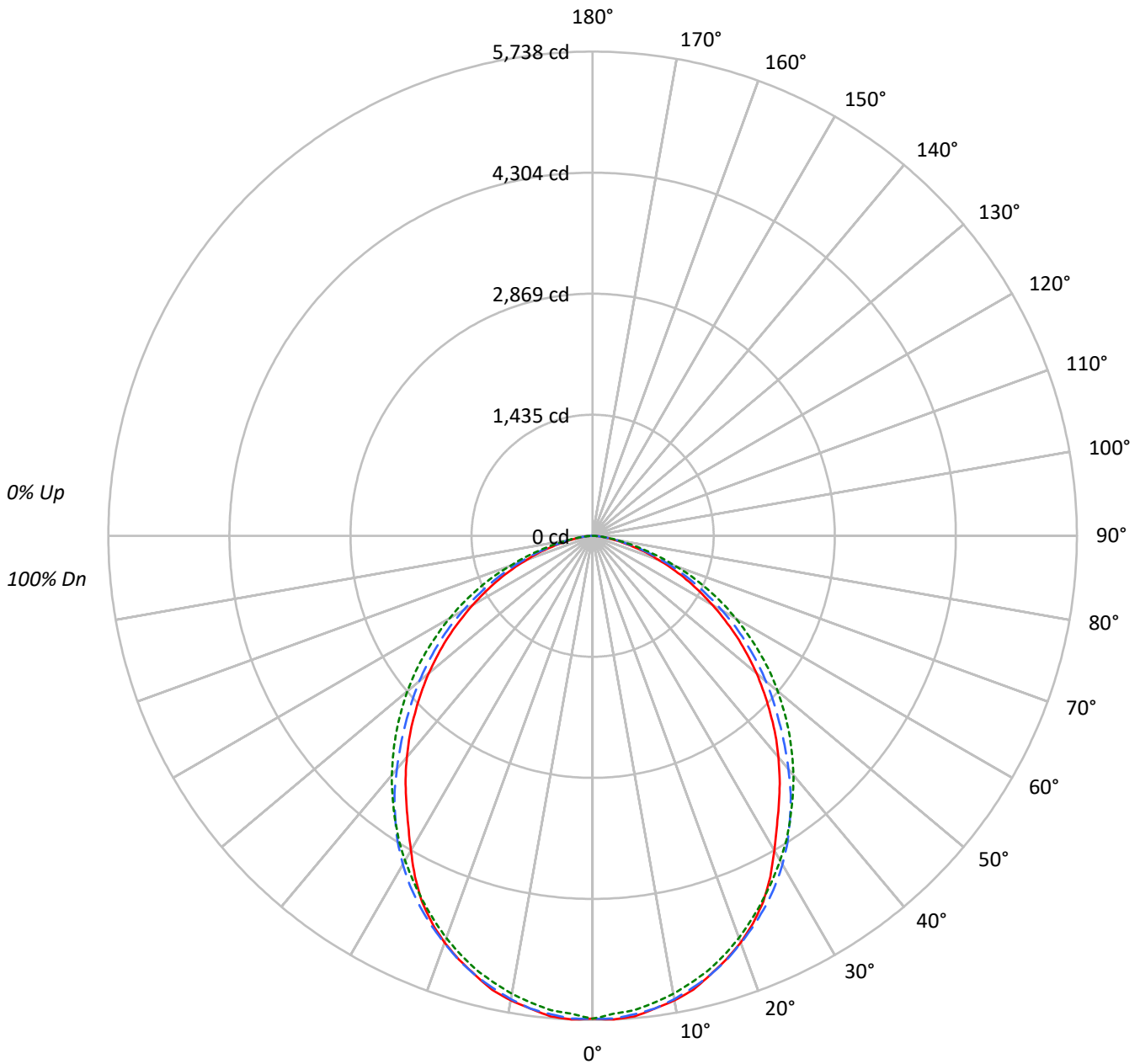
Lumens per Lamp: N/A  
Luminaire Lumens: 13233.0 lumens  
Efficiency: N/A  
Efficacy: 102.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 129.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	15400	15400	15400
5°	15441	15376	15245
10°	15277	15235	15061
15°	15006	15006	14835
20°	14689	14708	14519
25°	14205	14381	14153
30°	13376	13977	13807
35°	12639	13398	13420
40°	12025	12674	13006
45°	11337	11906	12517
50°	10613	11220	11984
55°	9789	10439	11336
60°	8815	9526	10543
65°	7784	8469	9589
70°	6487	7213	8147
75°	5098	5760	6378
80°	3645	4054	4497
85°	2377	2377	2242



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	538.8	4.1
10°-20°	1513.7	11.4
20°-30°	2212.0	16.7
30°-40°	2510.9	19.0
40°-50°	2423.9	18.3
50°-60°	1999.6	15.1
60°-70°	1331.5	10.1
70°-80°	595.8	4.5
80°-90°	106.6	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°	4264.6	32.2
0°-40°	6775.5	51.2
0°-60°	11199.0	84.6
0°-90°	13233.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13233.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5723	5723	5723	5723	5723	
5°	5716	5714	5692	5661	5644	541
15°	5386	5400	5386	5362	5325	1519
25°	4784	4822	4844	4808	4766	2191
35°	3848	3900	4078	4100	4085	2411
45°	2979	3030	3129	3272	3289	2299
55°	2086	2122	2225	2348	2416	1862
65°	1222	1255	1330	1425	1506	1212
75°	490	517	554	580	613	536
85°	77	77	77	73	73	104
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5722.9	5722.9	5722.9	5722.9	5722.9
2.5°	5738.3	5740.5	5727.3	5692.2	5670.2
5°	5716.3	5714.1	5692.2	5661.4	5643.8
7.5°	5652.6	5657.0	5650.4	5606.4	5582.2
10°	5591.0	5593.2	5575.6	5540.4	5511.9
12.5°	5511.9	5509.7	5485.5	5467.9	5421.7
15°	5386.5	5399.7	5386.5	5362.4	5325.0
17.5°	5265.6	5265.6	5274.4	5232.6	5204.1
20°	5129.3	5135.9	5135.9	5102.9	5069.9
22.5°	4971.0	4990.8	4997.4	4962.2	4922.6
25°	4784.1	4821.5	4843.5	4808.3	4766.5
27.5°	4557.7	4614.8	4680.8	4654.4	4608.2
30°	4304.8	4388.4	4498.3	4476.3	4443.4
32.5°	4065.2	4148.7	4300.4	4291.6	4274.1
35°	3847.5	3900.3	4078.4	4100.4	4085.0
37.5°	3640.9	3689.2	3856.3	3906.9	3893.7
40°	3423.2	3476.0	3607.9	3698.0	3702.4
42.5°	3207.7	3258.3	3366.0	3495.8	3495.8
45°	2979.1	3029.7	3128.6	3271.5	3289.1
47.5°	2754.8	2807.6	2904.3	3047.2	3075.8
50°	2535.0	2583.3	2680.1	2818.6	2862.6
52.5°	2306.3	2359.1	2453.6	2581.1	2644.9
55°	2086.5	2121.6	2225.0	2348.1	2416.3
57.5°	1857.8	1890.8	2007.3	2112.8	2183.2
60°	1637.9	1679.7	1769.9	1877.6	1958.9
62.5°	1426.9	1470.9	1547.8	1642.3	1734.7
65°	1222.4	1255.4	1330.1	1424.7	1506.0
67.5°	1024.5	1053.1	1127.9	1193.8	1279.6
70°	824.5	861.8	916.8	980.6	1035.5
72.5°	664.0	679.4	725.5	771.7	828.9
75°	490.3	516.7	554.0	580.4	613.4
77.5°	351.8	367.2	389.2	411.1	441.9
80°	235.2	241.8	261.6	266.0	290.2
82.5°	142.9	147.3	151.7	153.9	162.7
85°	77.0	77.0	77.0	72.6	72.6
87.5°	44.0	44.0	37.4	30.8	22.0
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)