

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: P557729

Luminaire Tested: **FUSL-12-4-LD4-3HI-30-UNV-93-84-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: P557729
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-93-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

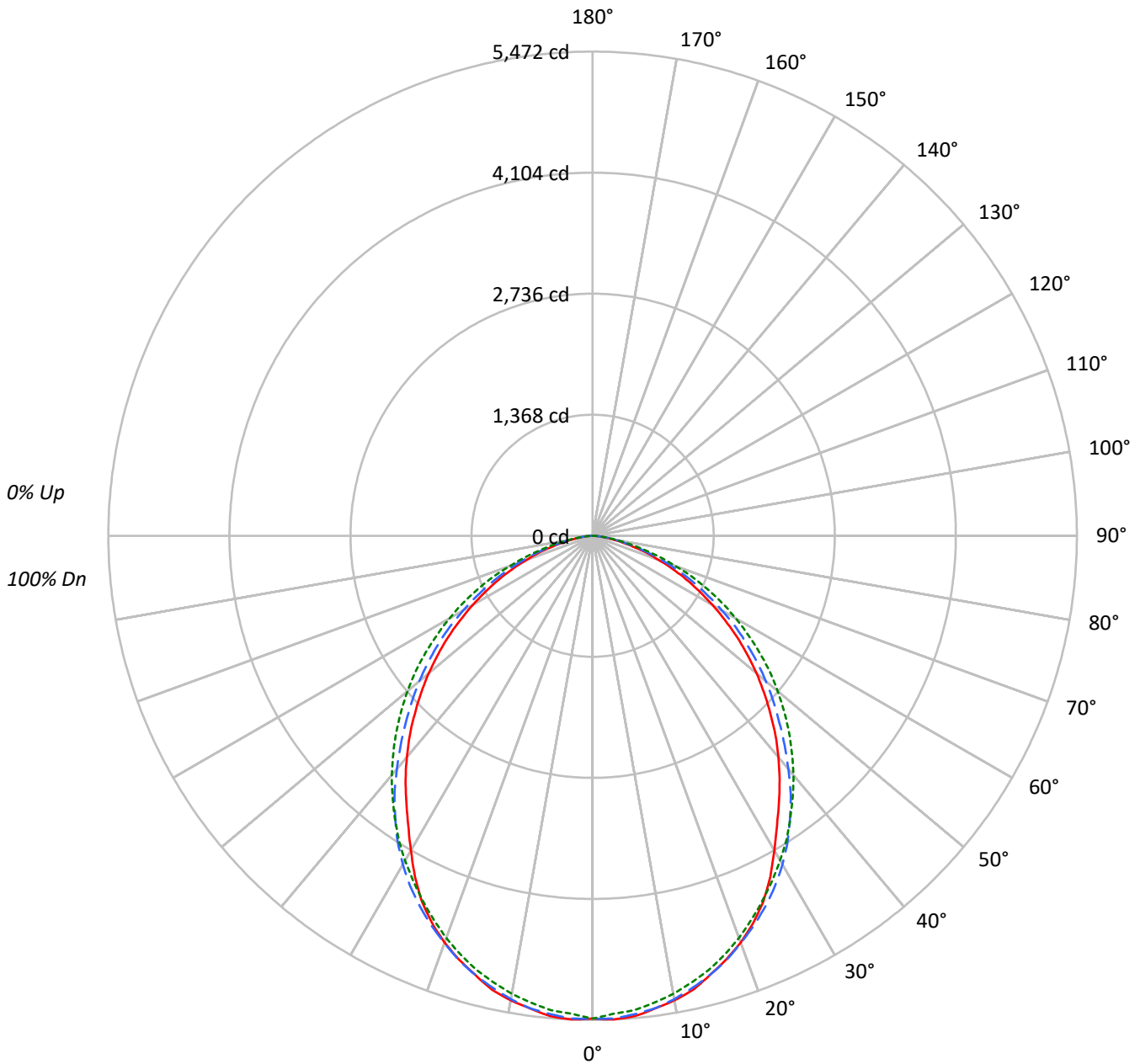
Lumens per Lamp: N/A
Luminaire Lumens: 12619.0 lumens
Efficiency: N/A
Efficacy: 97.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	14686	14686	14686
5°	14725	14662	14538
10°	14569	14528	14362
15°	14310	14310	14147
20°	14007	14025	13845
25°	13546	13714	13496
30°	12756	13329	13166
35°	12053	12776	12797
40°	11467	12086	12402
45°	10811	11354	11936
50°	10120	10699	11428
55°	9335	9954	10810
60°	8407	9083	10054
65°	7422	8076	9145
70°	6186	6879	7770
75°	4861	5493	6081
80°	3476	3866	4288
85°	2266	2266	2137



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	513.8	4.1
10°-20°	1443.5	11.4
20°-30°	2109.4	16.7
30°-40°	2394.4	19.0
40°-50°	2311.4	18.3
50°-60°	1906.8	15.1
60°-70°	1269.8	10.1
70°-80°	568.2	4.5
80°-90°	101.7	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°	4066.7	32.2
0°-40°	6461.2	51.2
0°-60°	10679.4	84.6
0°-90°	12619.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12619.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5457	5457	5457	5457	5457	
5°	5451	5449	5428	5399	5382	516
15°	5137	5149	5137	5114	5078	1448
25°	4562	4598	4619	4585	4545	2089
35°	3669	3719	3889	3910	3895	2299
45°	2841	2889	2983	3120	3136	2192
55°	1990	2023	2122	2239	2304	1776
65°	1166	1197	1268	1359	1436	1156
75°	468	493	528	554	585	511
85°	73	73	73	69	69	99
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5457.4	5457.4	5457.4	5457.4	5457.4
2.5°	5472.1	5474.2	5461.6	5428.0	5407.1
5°	5451.1	5449.0	5428.0	5398.7	5381.9
7.5°	5390.3	5394.5	5388.2	5346.3	5323.2
10°	5331.6	5333.7	5316.9	5283.4	5256.1
12.5°	5256.1	5254.0	5231.0	5214.2	5170.2
15°	5136.6	5149.2	5136.6	5113.6	5077.9
17.5°	5021.3	5021.3	5029.7	4989.9	4962.6
20°	4891.3	4897.6	4897.6	4866.2	4834.7
22.5°	4740.4	4759.2	4765.5	4732.0	4694.2
25°	4562.2	4597.8	4618.8	4585.2	4545.4
27.5°	4346.2	4400.7	4463.6	4438.5	4394.4
30°	4105.1	4184.8	4289.6	4268.6	4237.2
32.5°	3876.6	3956.2	4100.9	4092.5	4075.7
35°	3669.0	3719.3	3889.2	3910.1	3895.4
37.5°	3471.9	3518.1	3677.4	3725.6	3713.0
40°	3264.4	3314.7	3440.5	3526.4	3530.6
42.5°	3058.9	3107.1	3209.9	3333.6	3333.6
45°	2840.9	2889.1	2983.4	3119.7	3136.5
47.5°	2627.0	2677.3	2769.6	2905.9	2933.1
50°	2417.4	2463.5	2555.7	2687.8	2729.7
52.5°	2199.3	2249.6	2339.8	2461.4	2522.2
55°	1989.7	2023.2	2121.7	2239.1	2304.1
57.5°	1771.6	1803.1	1914.2	2014.8	2081.9
60°	1562.0	1601.8	1687.7	1790.5	1868.1
62.5°	1360.7	1402.6	1476.0	1566.1	1654.2
65°	1165.7	1197.1	1268.4	1358.6	1436.2
67.5°	977.0	1004.3	1075.5	1138.4	1220.2
70°	786.2	821.9	874.3	935.1	987.5
72.5°	633.2	647.8	691.9	735.9	790.4
75°	467.5	492.7	528.3	553.5	584.9
77.5°	335.5	350.1	371.1	392.1	421.4
80°	224.3	230.6	249.5	253.7	276.7
82.5°	136.3	140.5	144.7	146.8	155.1
85°	73.4	73.4	73.4	69.2	69.2
87.5°	41.9	41.9	35.6	29.4	21.0
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)