

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: P557851

Luminaire Tested: **FUSL-12-4-LD4-3HI-40-UNV-82-94-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: P557851
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-82-94-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

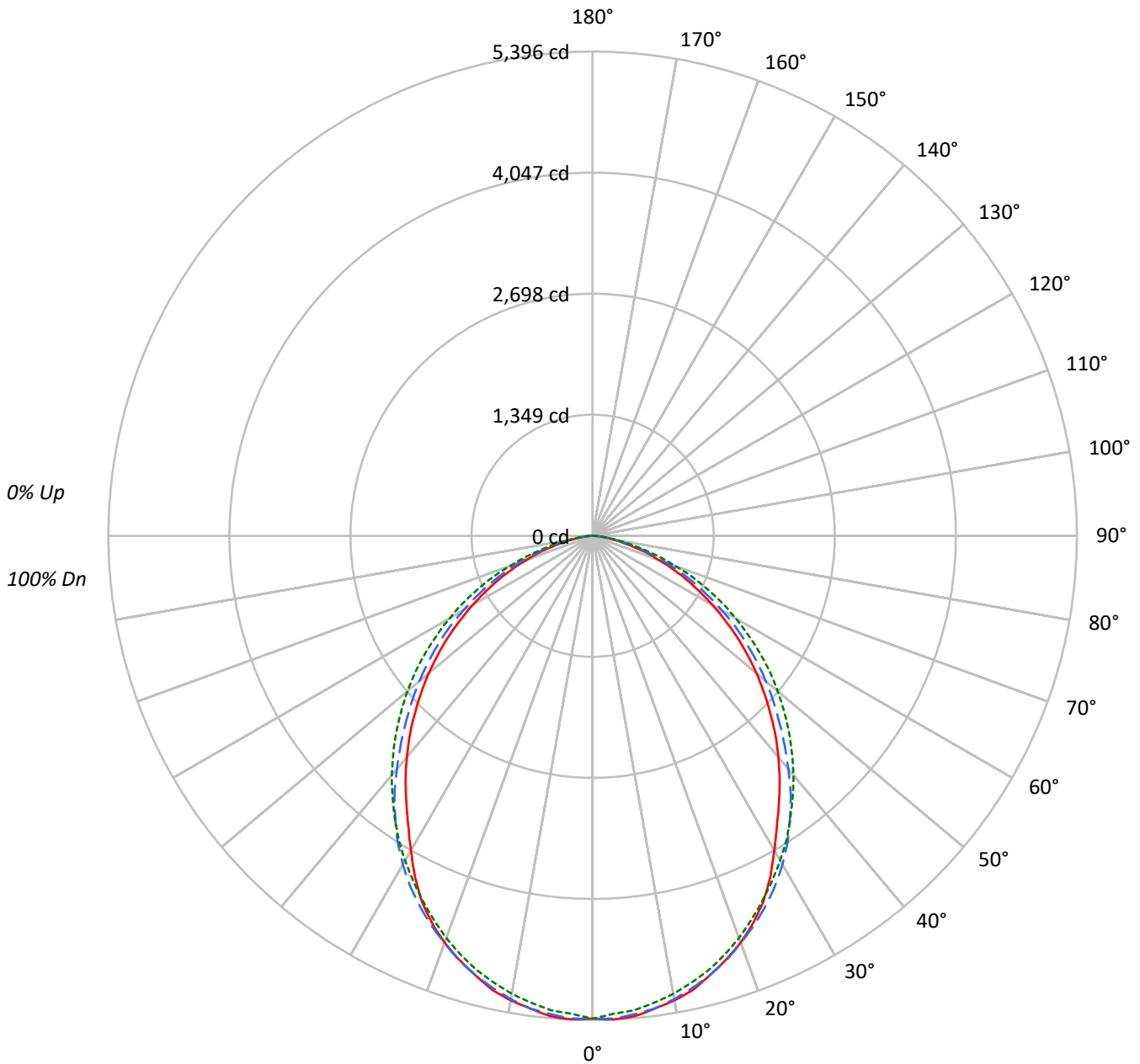
Lumens per Lamp: N/A
Luminaire Lumens: 12444.0 lumens
Efficiency: N/A
Efficacy: 96.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	14482	14482	14482
5°	14521	14459	14336
10°	14367	14327	14163
15°	14112	14112	13950
20°	13813	13831	13653
25°	13358	13524	13309
30°	12579	13144	12983
35°	11886	12599	12619
40°	11308	11918	12231
45°	10661	11197	11771
50°	9980	10551	11269
55°	9205	9816	10660
60°	8290	8957	9914
65°	7319	7964	9018
70°	6100	6783	7662
75°	4794	5417	5997
80°	3428	3812	4229
85°	2235	2235	2106



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	506.7	4.1
10°-20°	1423.5	11.4
20°-30°	2080.2	16.7
30°-40°	2361.2	19.0
40°-50°	2279.4	18.3
50°-60°	1880.3	15.1
60°-70°	1252.1	10.1
70°-80°	560.3	4.5
80°-90°	100.2	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°	4010.3	32.2
0°-40°	6371.6	51.2
0°-60°	10531.3	84.6
0°-90°	12444.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12444.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5382	5382	5382	5382	5382	
5°	5376	5373	5353	5324	5307	509
15°	5065	5078	5065	5043	5008	1428
25°	4499	4534	4555	4522	4482	2060
35°	3618	3668	3835	3856	3841	2267
45°	2802	2849	2942	3076	3093	2161
55°	1962	1995	2092	2208	2272	1751
65°	1150	1180	1251	1340	1416	1140
75°	461	486	521	546	577	504
85°	72	72	72	68	68	98
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5381.7	5381.7	5381.7	5381.7	5381.7
2.5°	5396.2	5398.2	5385.8	5352.8	5332.1
5°	5375.5	5373.4	5352.8	5323.8	5307.3
7.5°	5315.5	5319.7	5313.5	5272.1	5249.4
10°	5257.7	5259.7	5243.2	5210.1	5183.2
12.5°	5183.2	5181.2	5158.4	5141.9	5098.5
15°	5065.4	5077.8	5065.4	5042.6	5007.5
17.5°	4951.7	4951.7	4959.9	4920.7	4893.8
20°	4823.5	4829.7	4829.7	4798.7	4767.7
22.5°	4674.6	4693.2	4699.4	4666.4	4629.1
25°	4498.9	4534.0	4554.7	4521.6	4482.3
27.5°	4285.9	4339.7	4401.7	4376.9	4333.5
30°	4048.2	4126.7	4230.1	4209.4	4178.4
32.5°	3822.8	3901.4	4044.0	4035.8	4019.2
35°	3618.1	3667.7	3835.2	3855.9	3841.4
37.5°	3423.8	3469.3	3626.4	3674.0	3661.5
40°	3219.1	3268.7	3392.8	3477.5	3481.7
42.5°	3016.5	3064.0	3165.3	3287.3	3287.3
45°	2801.5	2849.0	2942.1	3076.4	3093.0
47.5°	2590.6	2640.2	2731.2	2865.6	2892.4
50°	2383.8	2429.3	2520.3	2650.5	2691.9
52.5°	2168.8	2218.4	2307.3	2427.2	2487.2
55°	1962.1	1995.1	2092.3	2208.1	2272.2
57.5°	1747.0	1778.1	1887.6	1986.9	2053.0
60°	1540.3	1579.6	1664.3	1765.6	1842.1
62.5°	1341.8	1383.2	1455.5	1544.4	1631.3
65°	1149.5	1180.5	1250.8	1339.7	1416.2
67.5°	963.5	990.3	1060.6	1122.7	1203.3
70°	775.3	810.5	862.1	922.1	973.8
72.5°	624.4	638.9	682.3	725.7	779.4
75°	461.1	485.9	521.0	545.8	576.8
77.5°	330.8	345.3	365.9	386.6	415.6
80°	221.2	227.4	246.0	250.2	272.9
82.5°	134.4	138.5	142.7	144.7	153.0
85°	72.4	72.4	72.4	68.2	68.2
87.5°	41.4	41.4	35.1	28.9	20.7
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)