

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: P558181

Luminaire Tested: **FUSL-12-4-LD4-3LO-50-UNV-93-86-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: P558181
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-LD4-3LO-50-UNV-93-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

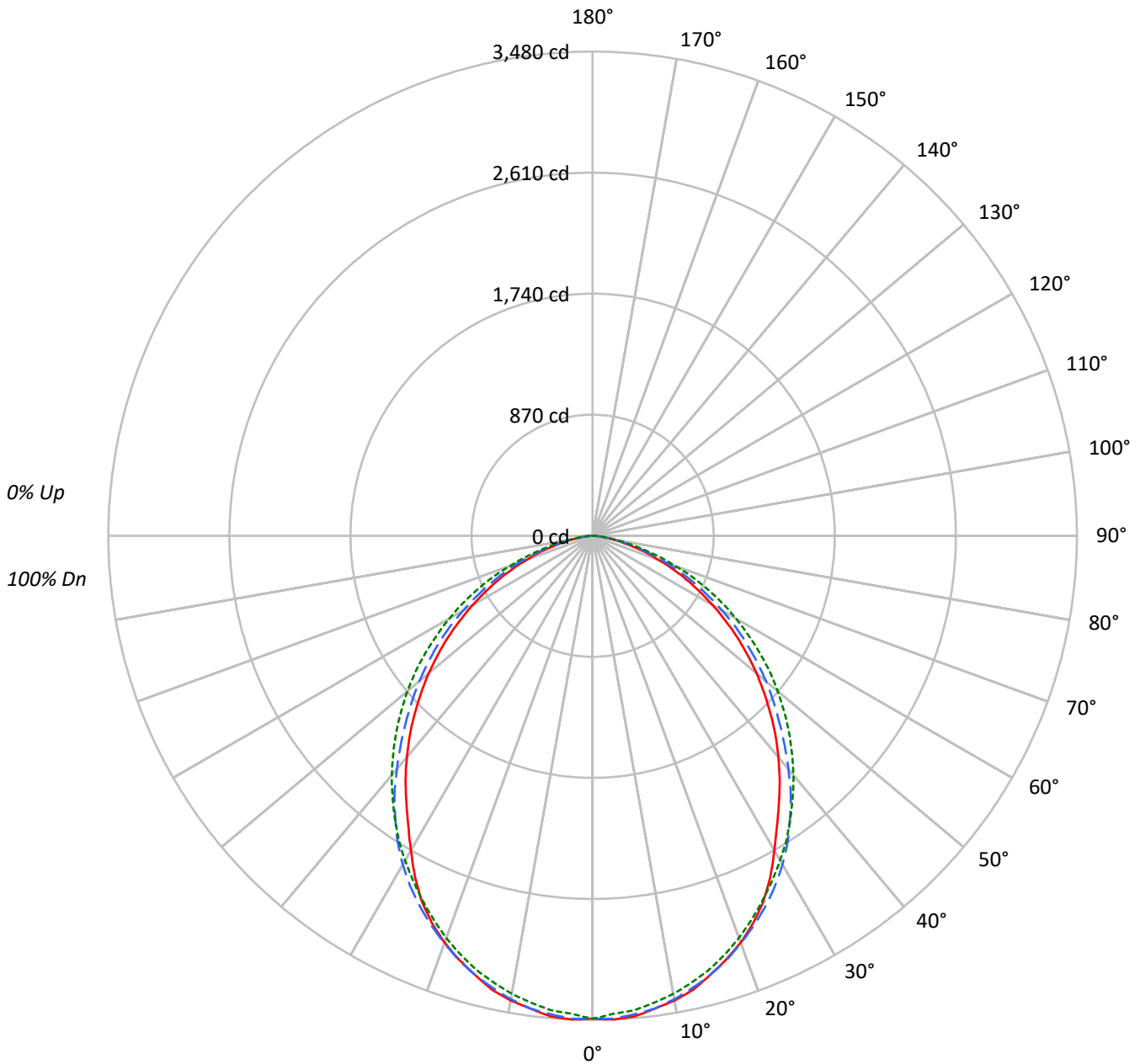
Lumens per Lamp: N/A
Luminaire Lumens: 8026.0 lumens
Efficiency: N/A
Efficacy: 114.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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°	9340	9340	9340
5°	9365	9326	9246
10°	9266	9240	9135
15°	9102	9102	8998
20°	8909	8920	8806
25°	8615	8722	8584
30°	8113	8478	8374
35°	7666	8126	8139
40°	7293	7687	7888
45°	6876	7221	7592
50°	6437	6805	7268
55°	5937	6331	6876
60°	5346	5777	6394
65°	4721	5137	5816
70°	3935	4375	4942
75°	3092	3493	3868
80°	2211	2459	2727
85°	1442	1442	1359



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	326.8	4.1
10°-20°	918.1	11.4
20°-30°	1341.6	16.7
30°-40°	1522.9	19.0
40°-50°	1470.1	18.3
50°-60°	1212.8	15.1
60°-70°	807.6	10.1
70°-80°	361.4	4.5
80°-90°	64.7	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°	2586.6	32.2
0°-40°	4109.5	51.2
0°-60°	6792.4	84.6
0°-90°	8026.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8026.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3471	3471	3471	3471	3471	
5°	3467	3466	3452	3434	3423	328
15°	3267	3275	3267	3252	3230	921
25°	2902	2924	2938	2916	2891	1329
35°	2334	2366	2474	2487	2478	1462
45°	1807	1838	1898	1984	1995	1394
55°	1266	1287	1350	1424	1466	1129
65°	741	761	807	864	913	735
75°	297	313	336	352	372	325
85°	47	47	47	44	44	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3471.0	3471.0	3471.0	3471.0	3471.0
2.5°	3480.4	3481.7	3473.7	3452.4	3439.0
5°	3467.0	3465.7	3452.4	3433.7	3423.0
7.5°	3428.4	3431.0	3427.0	3400.4	3385.7
10°	3391.0	3392.4	3381.7	3360.4	3343.0
12.5°	3343.0	3341.7	3327.0	3316.4	3288.4
15°	3267.0	3275.0	3267.0	3252.3	3229.7
17.5°	3193.7	3193.7	3199.0	3173.7	3156.3
20°	3111.0	3115.0	3115.0	3095.0	3075.0
22.5°	3015.0	3027.0	3031.0	3009.7	2985.7
25°	2901.6	2924.3	2937.6	2916.3	2891.0
27.5°	2764.3	2799.0	2839.0	2823.0	2795.0
30°	2610.9	2661.6	2728.3	2715.0	2695.0
32.5°	2465.6	2516.3	2608.3	2602.9	2592.3
35°	2333.6	2365.6	2473.6	2486.9	2477.6
37.5°	2208.2	2237.6	2338.9	2369.6	2361.6
40°	2076.2	2108.2	2188.2	2242.9	2245.6
42.5°	1945.5	1976.2	2041.6	2120.2	2120.2
45°	1806.9	1837.5	1897.5	1984.2	1994.9
47.5°	1670.8	1702.8	1761.5	1848.2	1865.5
50°	1537.5	1566.8	1625.5	1709.5	1736.2
52.5°	1398.8	1430.8	1488.2	1565.5	1604.2
55°	1265.5	1286.8	1349.5	1424.2	1465.5
57.5°	1126.8	1146.8	1217.5	1281.5	1324.1
60°	993.4	1018.8	1073.4	1138.8	1188.1
62.5°	865.4	892.1	938.8	996.1	1052.1
65°	741.4	761.4	806.8	864.1	913.4
67.5°	621.4	638.7	684.1	724.1	776.1
70°	500.1	522.7	556.1	594.7	628.1
72.5°	402.7	412.0	440.0	468.1	502.7
75°	297.4	313.4	336.0	352.0	372.0
77.5°	213.4	222.7	236.0	249.4	268.0
80°	142.7	146.7	158.7	161.4	176.0
82.5°	86.7	89.3	92.0	93.3	98.7
85°	46.7	46.7	46.7	44.0	44.0
87.5°	26.7	26.7	22.7	18.7	13.3
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)