

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: P558360

Luminaire Tested: **FUSL-12-4-LD4-3STD-40-UNV-82-88-EDD-90**

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: P558360
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-LD4-3STD-40-UNV-82-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

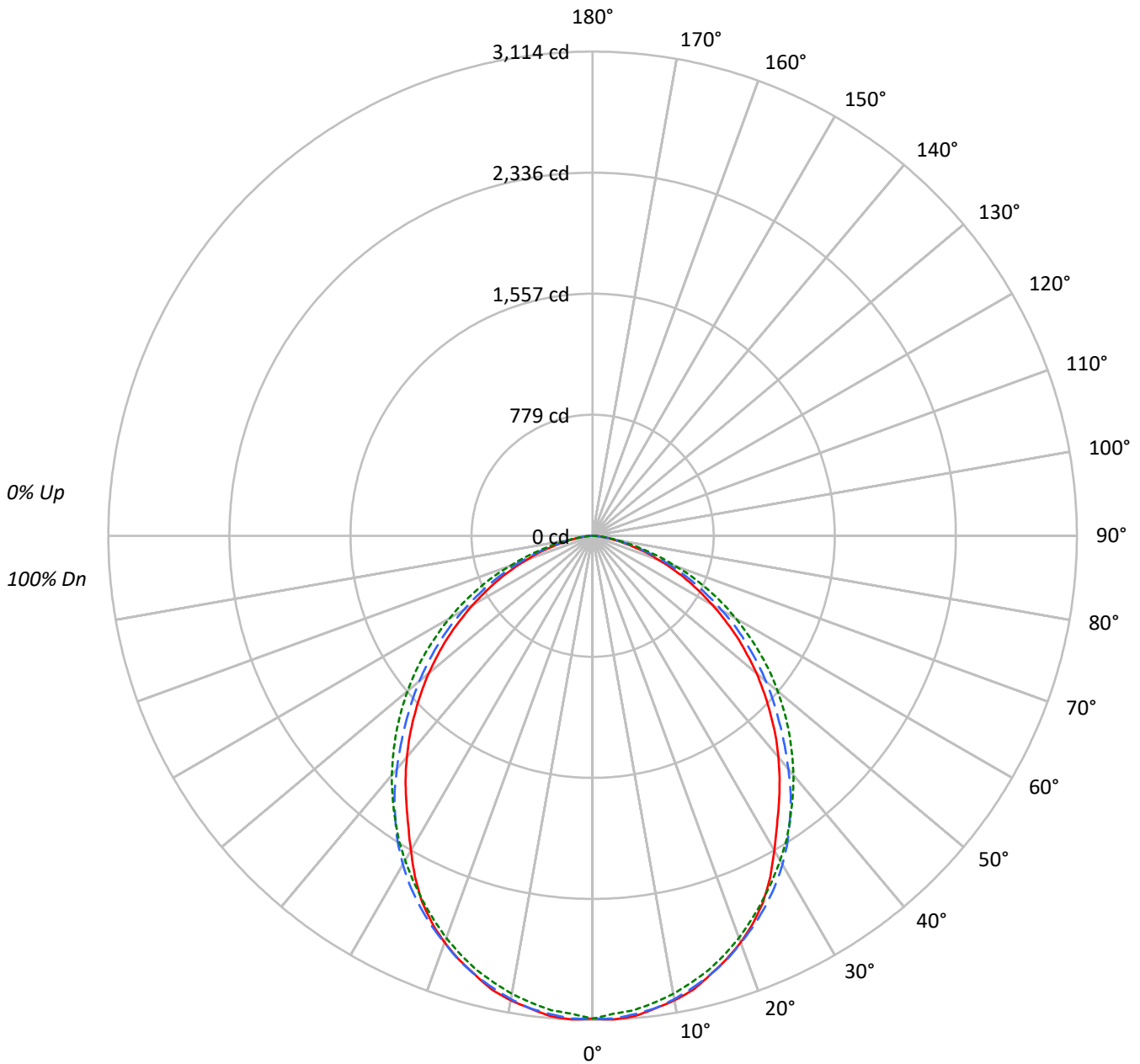
Lumens per Lamp: N/A
Luminaire Lumens: 7181.0 lumens
Efficiency: N/A
Efficacy: 71.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
Input Voltage (V): NR
Input Current (Ain): 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°	8357	8357	8357
5°	8379	8344	8273
10°	8290	8268	8173
15°	8143	8143	8050
20°	7971	7981	7879
25°	7709	7804	7680
30°	7259	7585	7492
35°	6859	7271	7282
40°	6525	6878	7058
45°	6152	6461	6793
50°	5759	6089	6503
55°	5312	5665	6152
60°	4783	5169	5721
65°	4224	4596	5204
70°	3520	3914	4421
75°	2767	3126	3461
80°	1979	2201	2441
85°	1291	1291	1216



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	292.4	4.1
10°-20°	821.4	11.4
20°-30°	1200.4	16.7
30°-40°	1362.6	19.0
40°-50°	1315.4	18.3
50°-60°	1085.1	15.1
60°-70°	722.6	10.1
70°-80°	323.4	4.5
80°-90°	57.9	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°	2314.2	32.2
0°-40°	3676.8	51.2
0°-60°	6077.3	84.6
0°-90°	7181.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7181.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3106	3106	3106	3106	3106	
5°	3102	3101	3089	3072	3063	294
15°	2923	2930	2923	2910	2890	824
25°	2596	2616	2628	2609	2587	1189
35°	2088	2116	2213	2225	2217	1308
45°	1617	1644	1698	1775	1785	1247
55°	1132	1151	1207	1274	1311	1011
65°	663	681	722	773	817	658
75°	266	280	301	315	333	291
85°	42	42	42	39	39	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3105.6	3105.6	3105.6	3105.6	3105.6
2.5°	3113.9	3115.1	3108.0	3088.9	3077.0
5°	3102.0	3100.8	3088.9	3072.2	3062.6
7.5°	3067.4	3069.8	3066.2	3042.4	3029.2
10°	3034.0	3035.2	3025.7	3006.6	2991.1
12.5°	2991.1	2989.9	2976.7	2967.2	2942.1
15°	2923.1	2930.2	2923.1	2909.9	2889.6
17.5°	2857.4	2857.4	2862.2	2839.5	2824.0
20°	2783.5	2787.0	2787.0	2769.1	2751.3
22.5°	2697.6	2708.3	2711.9	2692.8	2671.3
25°	2596.2	2616.4	2628.4	2609.3	2586.6
27.5°	2473.3	2504.3	2540.1	2525.8	2500.7
30°	2336.1	2381.4	2441.0	2429.1	2411.2
32.5°	2206.0	2251.3	2333.7	2328.9	2319.4
35°	2087.9	2116.5	2213.2	2225.1	2216.7
37.5°	1975.7	2002.0	2092.7	2120.1	2113.0
40°	1857.6	1886.3	1957.9	2006.8	2009.2
42.5°	1740.7	1768.2	1826.6	1897.0	1897.0
45°	1616.6	1644.1	1697.8	1775.3	1784.9
47.5°	1494.9	1523.6	1576.1	1653.6	1669.1
50°	1375.6	1401.9	1454.4	1529.5	1553.4
52.5°	1251.5	1280.2	1331.5	1400.7	1435.3
55°	1132.2	1151.3	1207.4	1274.2	1311.2
57.5°	1008.2	1026.1	1089.3	1146.6	1184.7
60°	888.8	911.5	960.4	1018.9	1063.0
62.5°	774.3	798.2	839.9	891.2	941.3
65°	663.4	681.3	721.8	773.1	817.3
67.5°	556.0	571.5	612.1	647.8	694.4
70°	447.4	467.7	497.5	532.1	561.9
72.5°	360.3	368.7	393.7	418.8	449.8
75°	266.1	280.4	300.7	315.0	332.9
77.5°	190.9	199.2	211.2	223.1	239.8
80°	127.7	131.2	142.0	144.4	157.5
82.5°	77.6	79.9	82.3	83.5	88.3
85°	41.8	41.8	41.8	39.4	39.4
87.5°	23.9	23.9	20.3	16.7	11.9
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)