

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: P556678

Luminaire Tested: **FUSL-12-4-LD4-1STD-30-UNV-81-87-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: P556678
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-LD4-1STD-30-UNV-81-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375
CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

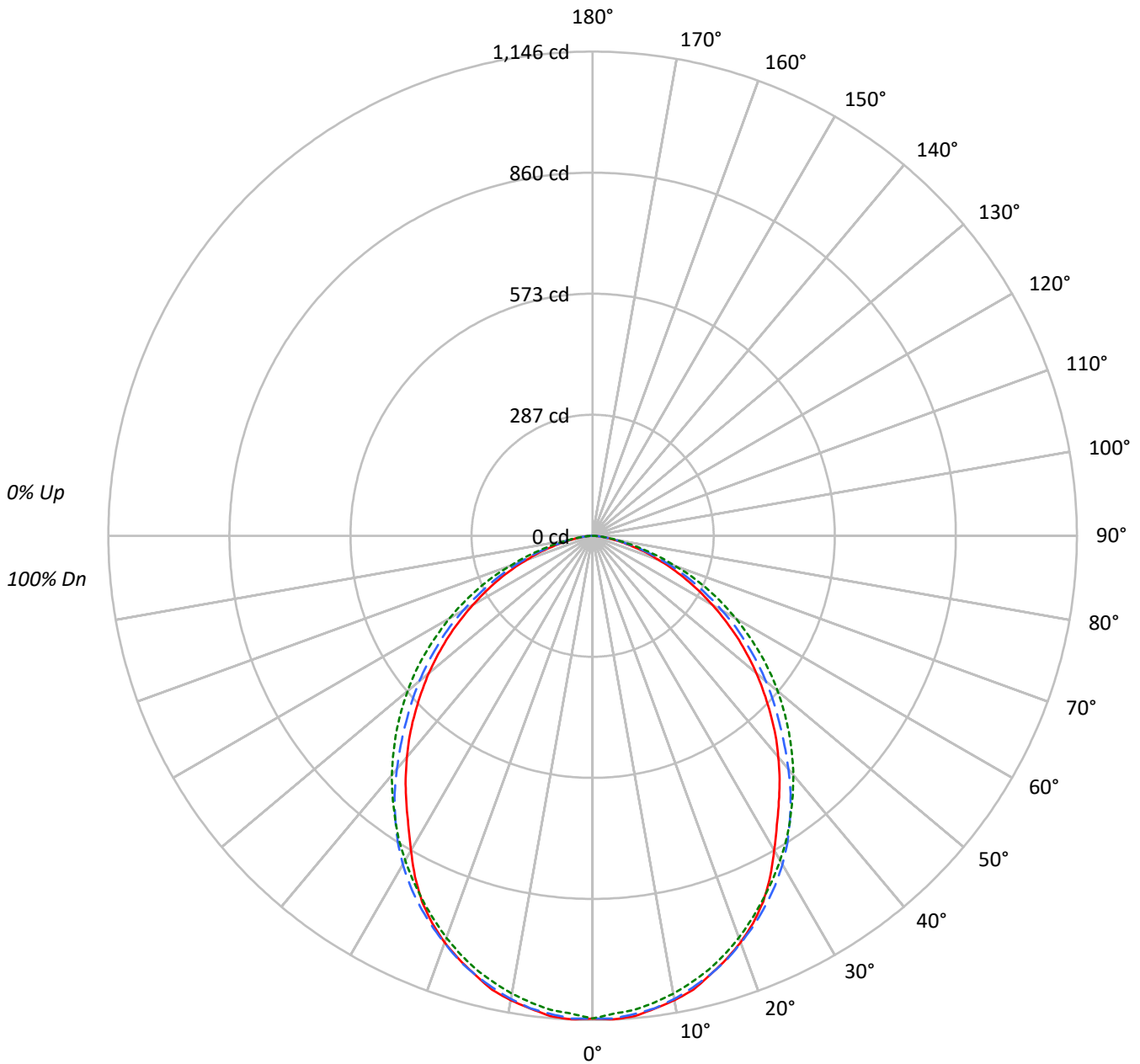
Lumens per Lamp: N/A
Luminaire Lumens: 2642.0 lumens
Efficiency: N/A
Efficacy: 79.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	3075	3075	3075
5°	3083	3070	3044
10°	3050	3042	3007
15°	2996	2996	2962
20°	2933	2936	2899
25°	2836	2871	2826
30°	2671	2791	2756
35°	2524	2675	2679
40°	2401	2530	2597
45°	2264	2377	2499
50°	2119	2240	2393
55°	1955	2084	2263
60°	1760	1902	2105
65°	1554	1691	1915
70°	1295	1440	1626
75°	1018	1150	1274
80°	728	809	897
85°	475	475	448



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.6	4.1
10°-20°	302.2	11.4
20°-30°	441.6	16.7
30°-40°	501.3	19.0
40°-50°	483.9	18.3
50°-60°	399.2	15.1
60°-70°	265.9	10.1
70°-80°	119.0	4.5
80°-90°	21.3	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°	851.4	32.2
0°-40°	1352.8	51.2
0°-60°	2235.9	84.6
0°-90°	2642.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2642.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1143	1143	1143	1143	1143	
5°	1141	1141	1136	1130	1127	108
15°	1075	1078	1075	1071	1063	303
25°	955	963	967	960	952	437
35°	768	779	814	819	816	481
45°	595	605	625	653	657	459
55°	417	424	444	469	482	372
65°	244	251	266	284	301	242
75°	98	103	111	116	122	107
85°	15	15	15	14	14	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1142.6	1142.6	1142.6	1142.6	1142.6
2.5°	1145.7	1146.1	1143.5	1136.5	1132.1
5°	1141.3	1140.8	1136.5	1130.3	1126.8
7.5°	1128.6	1129.4	1128.1	1119.3	1114.5
10°	1116.3	1116.7	1113.2	1106.2	1100.5
12.5°	1100.5	1100.0	1095.2	1091.7	1082.5
15°	1075.4	1078.1	1075.4	1070.6	1063.1
17.5°	1051.3	1051.3	1053.1	1044.7	1039.0
20°	1024.1	1025.4	1025.4	1018.8	1012.2
22.5°	992.5	996.4	997.7	990.7	982.8
25°	955.2	962.6	967.0	960.0	951.7
27.5°	910.0	921.4	934.5	929.3	920.0
30°	859.5	876.2	898.1	893.7	887.1
32.5°	811.6	828.3	858.6	856.8	853.3
35°	768.2	778.7	814.3	818.6	815.6
37.5°	726.9	736.6	769.9	780.0	777.4
40°	683.5	694.0	720.3	738.3	739.2
42.5°	640.4	650.5	672.0	697.9	697.9
45°	594.8	604.9	624.6	653.2	656.7
47.5°	550.0	560.5	579.9	608.4	614.1
50°	506.1	515.8	535.1	562.7	571.5
52.5°	460.5	471.0	489.9	515.3	528.1
55°	416.6	423.6	444.2	468.8	482.4
57.5°	370.9	377.5	400.8	421.8	435.9
60°	327.0	335.4	353.4	374.9	391.1
62.5°	284.9	293.7	309.0	327.9	346.3
65°	244.1	250.6	265.6	284.4	300.7
67.5°	204.6	210.3	225.2	238.4	255.5
70°	164.6	172.1	183.0	195.8	206.7
72.5°	132.6	135.6	144.9	154.1	165.5
75°	97.9	103.2	110.6	115.9	122.5
77.5°	70.2	73.3	77.7	82.1	88.2
80°	47.0	48.3	52.2	53.1	57.9
82.5°	28.5	29.4	30.3	30.7	32.5
85°	15.4	15.4	15.4	14.5	14.5
87.5°	8.8	8.8	7.5	6.1	4.4
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)