

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: P556168

Luminaire Tested: **FUSL-12-4-LD4-1HI-30-UNV-81-88-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: P556168
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-LD4-1HI-30-UNV-81-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

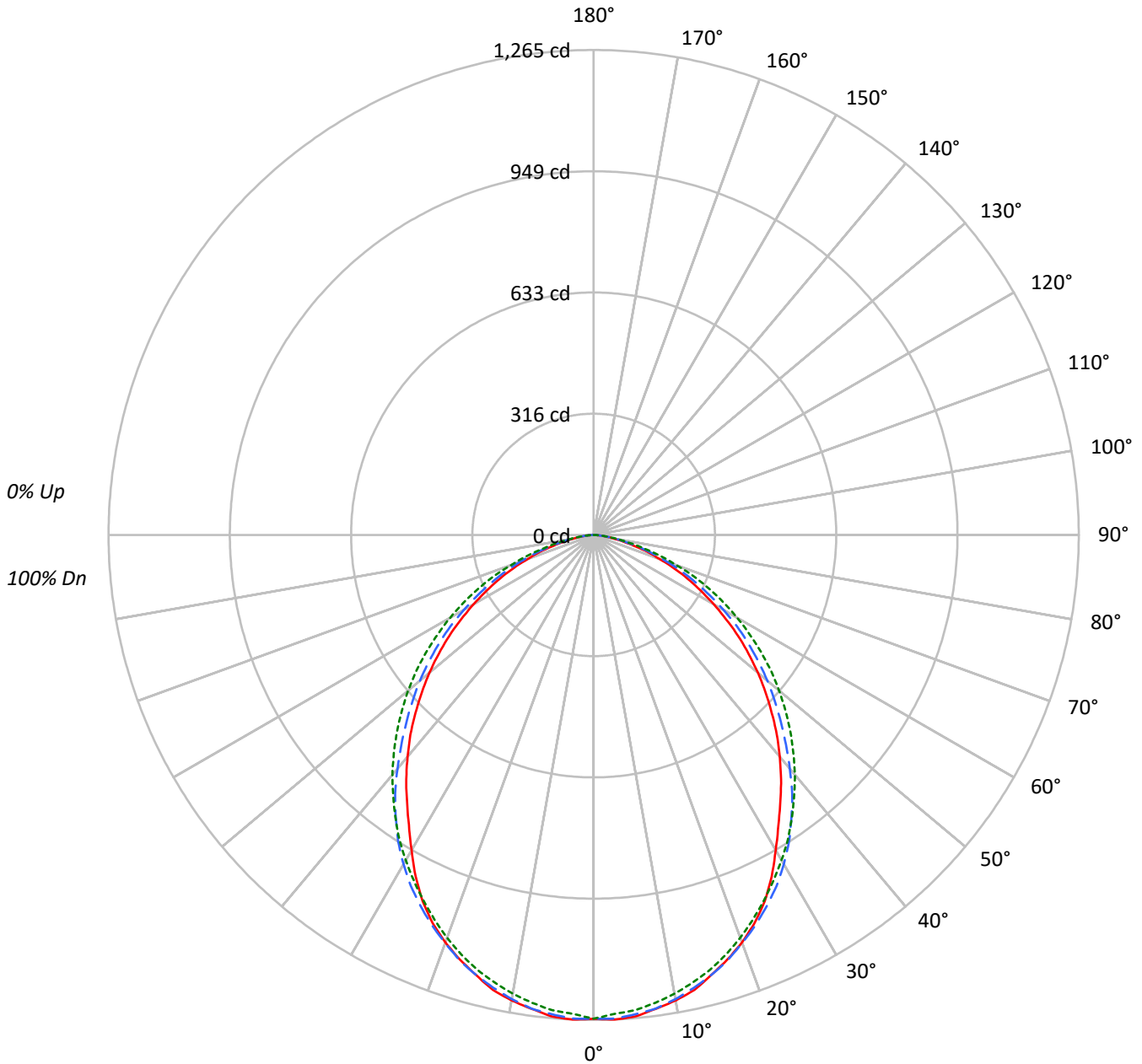
Lumens per Lamp: N/A
Luminaire Lumens: 2918.0 lumens
Efficiency: N/A
Efficacy: 67.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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°	3396	3396	3396
5°	3405	3391	3362
10°	3369	3360	3321
15°	3309	3309	3271
20°	3239	3243	3202
25°	3132	3171	3121
30°	2950	3082	3045
35°	2787	2954	2959
40°	2651	2795	2868
45°	2500	2625	2760
50°	2340	2474	2642
55°	2159	2302	2500
60°	1944	2101	2325
65°	1717	1868	2115
70°	1430	1591	1796
75°	1124	1271	1407
80°	804	894	992
85°	525	525	494



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.8	4.1
10°-20°	333.8	11.4
20°-30°	487.8	16.7
30°-40°	553.7	19.0
40°-50°	534.5	18.3
50°-60°	440.9	15.1
60°-70°	293.6	10.1
70°-80°	131.4	4.5
80°-90°	23.5	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°	940.4	32.2
0°-40°	1494.1	51.2
0°-60°	2469.5	84.6
0°-90°	2918.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2918.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1262	1262	1262	1262	1262	
5°	1260	1260	1255	1248	1244	119
15°	1188	1191	1188	1182	1174	335
25°	1055	1063	1068	1060	1051	483
35°	848	860	899	904	901	532
45°	657	668	690	721	725	507
55°	460	468	491	518	533	411
65°	270	277	293	314	332	267
75°	108	114	122	128	135	118
85°	17	17	17	16	16	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1262.0	1262.0	1262.0	1262.0	1262.0
2.5°	1265.4	1265.8	1262.9	1255.2	1250.3
5°	1260.5	1260.0	1255.2	1248.4	1244.5
7.5°	1246.4	1247.4	1246.0	1236.3	1230.9
10°	1232.9	1233.4	1229.5	1221.7	1215.4
12.5°	1215.4	1214.9	1209.6	1205.7	1195.5
15°	1187.8	1190.7	1187.8	1182.5	1174.2
17.5°	1161.1	1161.1	1163.1	1153.8	1147.5
20°	1131.1	1132.5	1132.5	1125.2	1118.0
22.5°	1096.2	1100.5	1102.0	1094.2	1085.5
25°	1054.9	1063.2	1068.0	1060.3	1051.1
27.5°	1005.0	1017.6	1032.2	1026.3	1016.2
30°	949.3	967.7	991.9	987.1	979.8
32.5°	896.4	914.8	948.3	946.3	942.5
35°	848.4	860.1	899.3	904.2	900.8
37.5°	802.8	813.5	850.4	861.5	858.6
40°	754.8	766.5	795.6	815.4	816.4
42.5°	707.3	718.5	742.2	770.8	770.8
45°	656.9	668.1	689.9	721.4	725.3
47.5°	607.5	619.1	640.4	671.9	678.2
50°	559.0	569.7	591.0	621.5	631.2
52.5°	508.6	520.2	541.0	569.2	583.2
55°	460.1	467.8	490.6	517.8	532.8
57.5°	409.7	416.9	442.6	465.9	481.4
60°	361.2	370.4	390.3	414.0	432.0
62.5°	314.6	324.3	341.3	362.2	382.5
65°	269.6	276.8	293.3	314.2	332.1
67.5°	225.9	232.2	248.7	263.3	282.2
70°	181.8	190.0	202.2	216.2	228.3
72.5°	146.4	149.8	160.0	170.2	182.8
75°	108.1	113.9	122.2	128.0	135.3
77.5°	77.6	81.0	85.8	90.7	97.4
80°	51.9	53.3	57.7	58.7	64.0
82.5°	31.5	32.5	33.5	33.9	35.9
85°	17.0	17.0	17.0	16.0	16.0
87.5°	9.7	9.7	8.2	6.8	4.8
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)