

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: P556531

Luminaire Tested: **FUSL-12-4-LD4-1LO-40-UNV-80-85-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: P556531
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-LD4-1LO-40-UNV-80-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

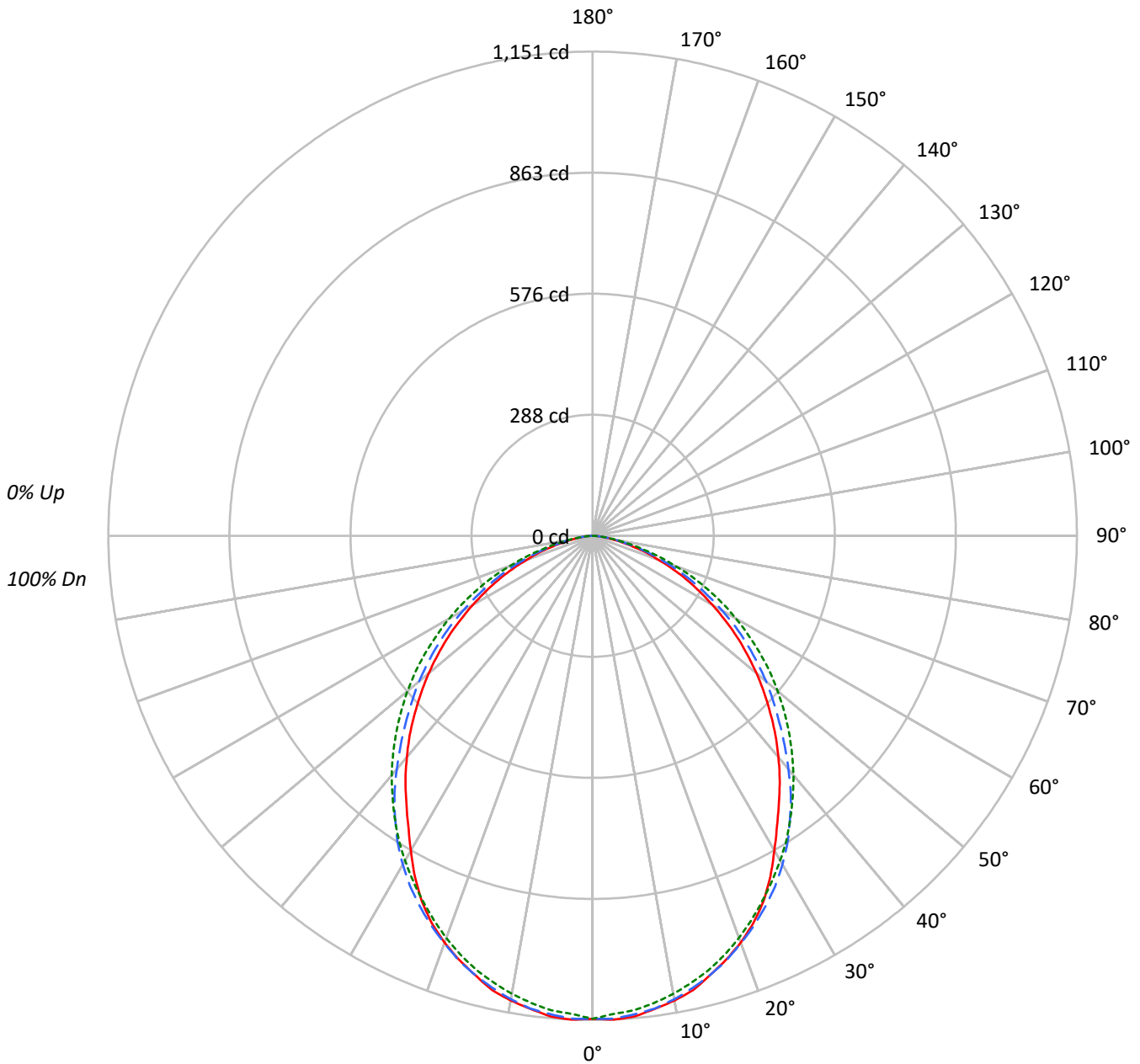
Lumens per Lamp: N/A
Luminaire Lumens: 2655.0 lumens
Efficiency: N/A
Efficacy: 113.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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°	3090	3090	3090
5°	3098	3085	3059
10°	3065	3057	3022
15°	3011	3011	2976
20°	2947	2951	2913
25°	2850	2885	2839
30°	2684	2804	2770
35°	2536	2688	2692
40°	2413	2543	2609
45°	2275	2389	2511
50°	2129	2251	2404
55°	1964	2094	2274
60°	1769	1911	2115
65°	1562	1699	1924
70°	1301	1447	1635
75°	1023	1156	1280
80°	731	814	902
85°	475	475	451



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.1	4.1
10°-20°	303.7	11.4
20°-30°	443.8	16.7
30°-40°	503.8	19.0
40°-50°	486.3	18.3
50°-60°	401.2	15.1
60°-70°	267.1	10.1
70°-80°	119.6	4.5
80°-90°	21.4	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°	855.6	32.2
0°-40°	1359.4	51.2
0°-60°	2246.9	84.6
0°-90°	2655.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2655.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1148	1148	1148	1148	1148	
5°	1147	1146	1142	1136	1132	109
15°	1081	1083	1081	1076	1068	305
25°	960	967	972	965	956	440
35°	772	782	818	823	820	484
45°	598	608	628	656	660	461
55°	419	426	446	471	485	374
65°	245	252	267	286	302	243
75°	98	104	111	116	123	108
85°	15	15	15	15	15	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1148.2	1148.2	1148.2	1148.2	1148.2
2.5°	1151.3	1151.7	1149.1	1142.0	1137.6
5°	1146.9	1146.5	1142.0	1135.9	1132.3
7.5°	1134.1	1135.0	1133.7	1124.8	1120.0
10°	1121.8	1122.2	1118.7	1111.6	1105.9
12.5°	1105.9	1105.4	1100.6	1097.0	1087.8
15°	1080.7	1083.4	1080.7	1075.9	1068.4
17.5°	1056.5	1056.5	1058.2	1049.9	1044.1
20°	1029.1	1030.4	1030.4	1023.8	1017.2
22.5°	997.4	1001.3	1002.7	995.6	987.7
25°	959.9	967.4	971.8	964.7	956.3
27.5°	914.4	925.9	939.1	933.8	924.6
30°	863.7	880.5	902.5	898.1	891.5
32.5°	815.6	832.4	862.8	861.1	857.5
35°	771.9	782.5	818.3	822.7	819.6
37.5°	730.5	740.2	773.7	783.9	781.2
40°	686.8	697.4	723.9	742.0	742.8
42.5°	643.6	653.7	675.3	701.4	701.4
45°	597.7	607.9	627.7	656.4	659.9
47.5°	552.7	563.3	582.7	611.4	617.1
50°	508.6	518.3	537.7	565.5	574.3
52.5°	462.7	473.3	492.3	517.9	530.7
55°	418.6	425.7	446.4	471.1	484.8
57.5°	372.7	379.4	402.7	423.9	438.0
60°	328.6	337.0	355.1	376.7	393.0
62.5°	286.3	295.1	310.5	329.5	348.0
65°	245.3	251.9	266.9	285.8	302.2
67.5°	205.6	211.3	226.3	239.5	256.7
70°	165.4	172.9	183.9	196.7	207.8
72.5°	133.2	136.3	145.6	154.8	166.3
75°	98.4	103.7	111.2	116.5	123.1
77.5°	70.6	73.7	78.1	82.5	88.7
80°	47.2	48.5	52.5	53.4	58.2
82.5°	28.7	29.6	30.4	30.9	32.6
85°	15.4	15.4	15.4	14.6	14.6
87.5°	8.8	8.8	7.5	6.2	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)