

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: P556593

Luminaire Tested: **FUSL-12-4-LD4-1LO-50-UNV-80-84-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: P556593  
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-50-UNV-80-84-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

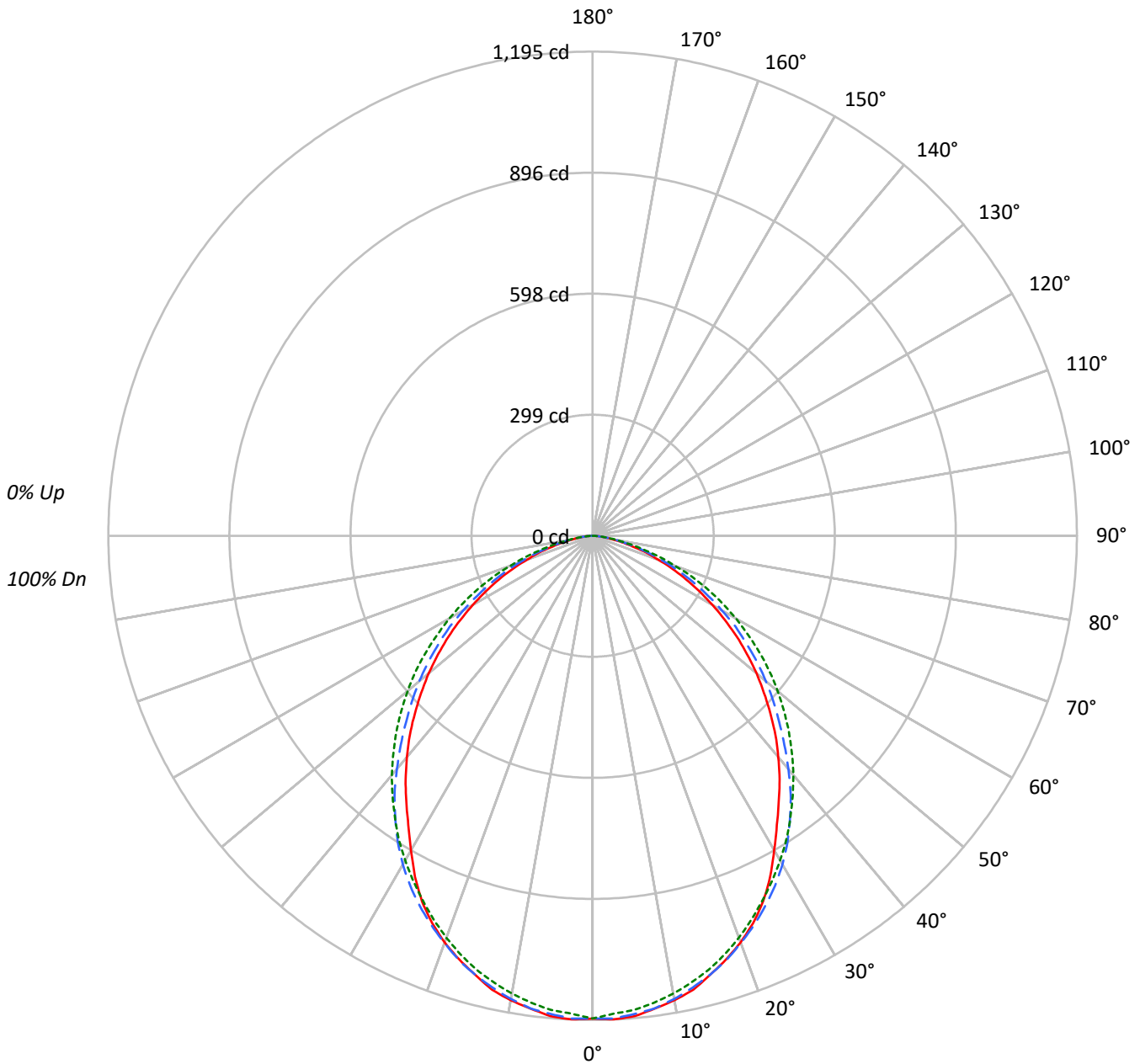
Lumens per Lamp: N/A  
Luminaire Lumens: 2755.0 lumens  
Efficiency: N/A  
Efficacy: 117.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	3206	3206	3206
5°	3215	3201	3174
10°	3181	3172	3136
15°	3124	3124	3088
20°	3058	3062	3023
25°	2957	2994	2947
30°	2785	2910	2875
35°	2631	2789	2794
40°	2504	2638	2708
45°	2360	2479	2606
50°	2210	2336	2495
55°	2038	2173	2360
60°	1835	1983	2195
65°	1621	1763	1996
70°	1350	1502	1696
75°	1062	1199	1328
80°	759	845	936
85°	494	494	466



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	112.2	4.1
10°-20°	315.1	11.4
20°-30°	460.5	16.7
30°-40°	522.8	19.0
40°-50°	504.6	18.3
50°-60°	416.3	15.1
60°-70°	277.2	10.1
70°-80°	124.0	4.5
80°-90°	22.2	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°	887.9	32.2
0°-40°	1410.6	51.2
0°-60°	2331.5	84.6
0°-90°	2755.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2755.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1192	1192	1192	1192	1192	
5°	1190	1190	1185	1179	1175	113
15°	1121	1124	1121	1116	1109	316
25°	996	1004	1008	1001	992	456
35°	801	812	849	854	850	502
45°	620	631	651	681	685	479
55°	434	442	463	489	503	388
65°	254	261	277	297	314	252
75°	102	108	115	121	128	112
85°	16	16	16	15	15	22
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1191.5	1191.5	1191.5	1191.5	1191.5
2.5°	1194.7	1195.1	1192.4	1185.1	1180.5
5°	1190.1	1189.6	1185.1	1178.6	1175.0
7.5°	1176.8	1177.7	1176.4	1167.2	1162.2
10°	1164.0	1164.5	1160.8	1153.5	1147.5
12.5°	1147.5	1147.1	1142.0	1138.4	1128.8
15°	1121.4	1124.2	1121.4	1116.4	1108.6
17.5°	1096.3	1096.3	1098.1	1089.4	1083.4
20°	1067.9	1069.3	1069.3	1062.4	1055.5
22.5°	1034.9	1039.0	1040.4	1033.1	1024.9
25°	996.0	1003.8	1008.4	1001.1	992.4
27.5°	948.9	960.8	974.5	969.0	959.4
30°	896.2	913.6	936.5	931.9	925.1
32.5°	846.3	863.7	895.3	893.5	889.8
35°	801.0	812.0	849.1	853.7	850.5
37.5°	758.0	768.1	802.9	813.4	810.6
40°	712.7	723.7	751.1	769.9	770.8
42.5°	667.8	678.4	700.8	727.8	727.8
45°	620.2	630.7	651.3	681.1	684.8
47.5°	573.5	584.5	604.7	634.4	640.4
50°	527.8	537.8	558.0	586.8	596.0
52.5°	480.2	491.1	510.8	537.4	550.6
55°	434.4	441.7	463.2	488.9	503.0
57.5°	386.8	393.6	417.9	439.9	454.5
60°	341.0	349.7	368.5	390.9	407.8
62.5°	297.1	306.2	322.2	341.9	361.1
65°	254.5	261.4	276.9	296.6	313.5
67.5°	213.3	219.3	234.8	248.5	266.4
70°	171.6	179.4	190.9	204.1	215.6
72.5°	138.2	141.4	151.1	160.7	172.6
75°	102.1	107.6	115.3	120.8	127.7
77.5°	73.2	76.4	81.0	85.6	92.0
80°	49.0	50.4	54.5	55.4	60.4
82.5°	29.8	30.7	31.6	32.0	33.9
85°	16.0	16.0	16.0	15.1	15.1
87.5°	9.2	9.2	7.8	6.4	4.6
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)