

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: P556547

Luminaire Tested: **FUSL-12-4-LD4-1LO-40-UNV-81-85-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: P556547
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-81-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC 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

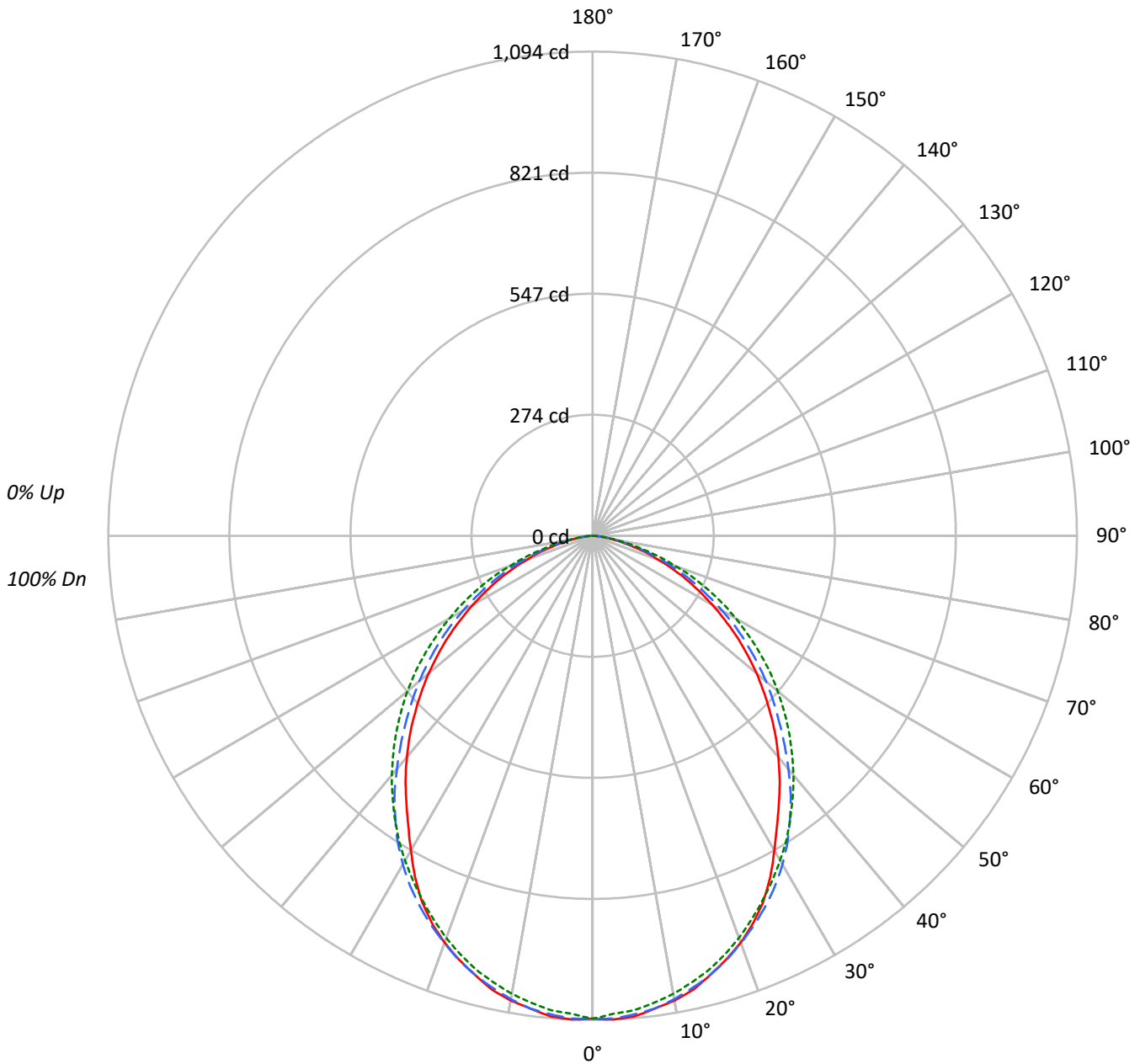
Lumens per Lamp: N/A
Luminaire Lumens: 2523.0 lumens
Efficiency: N/A
Efficacy: 107.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	2936	2936	2936
5°	2944	2932	2907
10°	2913	2905	2872
15°	2861	2861	2829
20°	2801	2804	2768
25°	2708	2742	2698
30°	2550	2665	2632
35°	2410	2554	2558
40°	2293	2416	2480
45°	2162	2270	2387
50°	2023	2139	2285
55°	1866	1990	2161
60°	1681	1816	2010
65°	1484	1615	1828
70°	1237	1375	1553
75°	972	1098	1216
80°	696	773	857
85°	454	454	426



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.7	4.1
10°-20°	288.6	11.4
20°-30°	421.8	16.7
30°-40°	478.7	19.0
40°-50°	462.1	18.3
50°-60°	381.2	15.1
60°-70°	253.9	10.1
70°-80°	113.6	4.5
80°-90°	20.3	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°	813.1	32.2
0°-40°	1291.8	51.2
0°-60°	2135.2	84.6
0°-90°	2523.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2523.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1091	1091	1091	1091	1091	
5°	1090	1090	1085	1079	1076	103
15°	1027	1030	1027	1022	1015	290
25°	912	919	924	917	909	418
35°	734	744	778	782	779	460
45°	568	578	596	624	627	438
55°	398	404	424	448	461	355
65°	233	239	254	272	287	231
75°	94	98	106	111	117	102
85°	15	15	15	14	14	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1091.1	1091.1	1091.1	1091.1	1091.1
2.5°	1094.1	1094.5	1092.0	1085.3	1081.1
5°	1089.9	1089.5	1085.3	1079.4	1076.0
7.5°	1077.7	1078.6	1077.3	1068.9	1064.3
10°	1066.0	1066.4	1063.0	1056.3	1050.9
12.5°	1050.9	1050.5	1045.9	1042.5	1033.7
15°	1027.0	1029.5	1027.0	1022.4	1015.3
17.5°	1003.9	1003.9	1005.6	997.7	992.2
20°	978.0	979.2	979.2	972.9	966.6
22.5°	947.8	951.5	952.8	946.1	938.5
25°	912.1	919.3	923.5	916.8	908.8
27.5°	869.0	879.9	892.4	887.4	878.6
30°	820.8	836.7	857.6	853.5	847.2
32.5°	775.1	791.0	819.9	818.2	814.9
35°	733.6	743.6	777.6	781.8	778.8
37.5°	694.2	703.4	735.2	744.9	742.4
40°	652.7	662.7	687.9	705.1	705.9
42.5°	611.6	621.2	641.8	666.5	666.5
45°	568.0	577.6	596.5	623.7	627.1
47.5°	525.2	535.3	553.7	581.0	586.4
50°	483.3	492.5	511.0	537.4	545.8
52.5°	439.7	449.8	467.8	492.1	504.3
55°	397.8	404.5	424.2	447.7	460.7
57.5°	354.2	360.5	382.7	402.8	416.2
60°	312.3	320.3	337.4	358.0	373.5
62.5°	272.0	280.4	295.1	313.1	330.7
65°	233.1	239.4	253.6	271.6	287.1
67.5°	195.3	200.8	215.0	227.6	244.0
70°	157.2	164.3	174.8	187.0	197.4
72.5°	126.6	129.5	138.3	147.1	158.0
75°	93.5	98.5	105.6	110.7	117.0
77.5°	67.1	70.0	74.2	78.4	84.3
80°	44.9	46.1	49.9	50.7	55.3
82.5°	27.2	28.1	28.9	29.3	31.0
85°	14.7	14.7	14.7	13.8	13.8
87.5°	8.4	8.4	7.1	5.9	4.2
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)