

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: P556717

Luminaire Tested: **FUSL-12-4-LD4-1STD-30-UNV-93-96-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: P556717
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-93-96-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

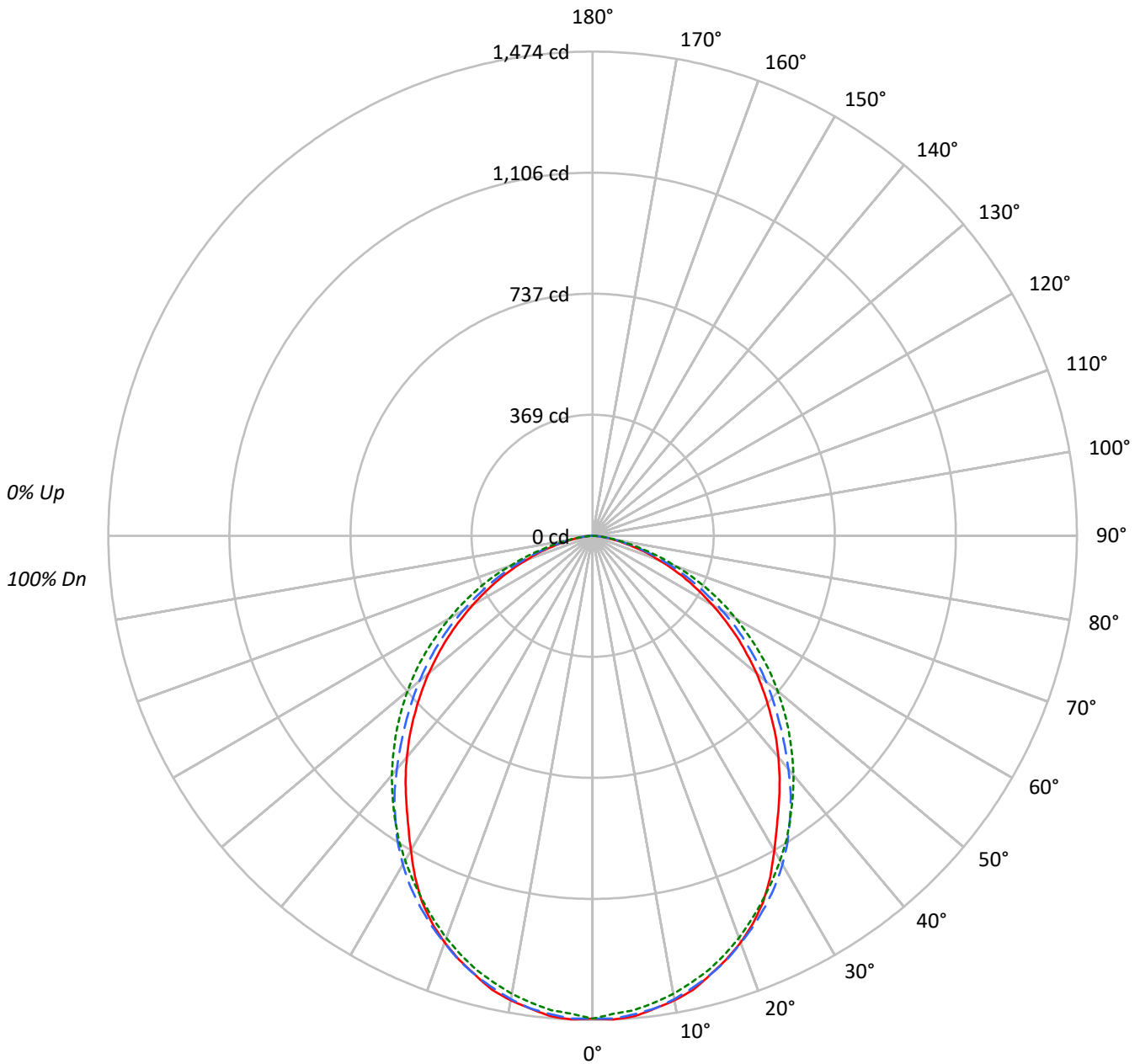
Lumens per Lamp: N/A
Luminaire Lumens: 3399.0 lumens
Efficiency: N/A
Efficacy: 102.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (A_{in}): 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°	3956	3956	3956
5°	3966	3950	3916
10°	3924	3913	3869
15°	3855	3855	3811
20°	3773	3778	3729
25°	3649	3694	3635
30°	3436	3590	3546
35°	3247	3441	3447
40°	3089	3255	3341
45°	2912	3058	3215
50°	2726	2882	3078
55°	2514	2681	2912
60°	2264	2447	2708
65°	1999	2176	2463
70°	1666	1853	2093
75°	1309	1480	1639
80°	936	1041	1155
85°	611	611	574



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.4	4.1
10°-20°	388.8	11.4
20°-30°	568.2	16.7
30°-40°	644.9	19.0
40°-50°	622.6	18.3
50°-60°	513.6	15.1
60°-70°	342.0	10.1
70°-80°	153.1	4.5
80°-90°	27.4	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°	1095.4	32.2
0°-40°	1740.3	51.2
0°-60°	2876.6	84.6
0°-90°	3399.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3399.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1470	1470	1470	1470	1470	
5°	1468	1468	1462	1454	1450	139
15°	1384	1387	1384	1377	1368	390
25°	1229	1238	1244	1235	1224	563
35°	988	1002	1048	1053	1049	619
45°	765	778	804	840	845	590
55°	536	545	572	603	621	478
65°	314	322	342	366	387	311
75°	126	133	142	149	158	138
85°	20	20	20	19	19	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1470.0	1470.0	1470.0	1470.0	1470.0
2.5°	1473.9	1474.5	1471.1	1462.1	1456.4
5°	1468.3	1467.7	1462.1	1454.2	1449.6
7.5°	1451.9	1453.0	1451.3	1440.0	1433.8
10°	1436.1	1436.7	1432.1	1423.1	1415.8
12.5°	1415.8	1415.2	1409.0	1404.5	1392.6
15°	1383.6	1387.0	1383.6	1377.4	1367.8
17.5°	1352.5	1352.5	1354.8	1344.0	1336.7
20°	1317.5	1319.2	1319.2	1310.7	1302.3
22.5°	1276.8	1281.9	1283.6	1274.6	1264.4
25°	1228.8	1238.4	1244.1	1235.1	1224.3
27.5°	1170.7	1185.4	1202.3	1195.5	1183.7
30°	1105.7	1127.2	1155.4	1149.8	1141.3
32.5°	1044.2	1065.6	1104.6	1102.3	1097.8
35°	988.3	1001.8	1047.6	1053.2	1049.3
37.5°	935.2	947.6	990.5	1003.5	1000.1
40°	879.3	892.8	926.7	949.9	951.0
42.5°	823.9	836.9	864.6	897.9	897.9
45°	765.2	778.2	803.6	840.3	844.8
47.5°	707.6	721.2	746.0	782.7	790.1
50°	651.1	663.6	688.4	724.0	735.3
52.5°	592.4	606.0	630.2	663.0	679.4
55°	535.9	545.0	571.5	603.1	620.6
57.5°	477.2	485.7	515.6	542.7	560.8
60°	420.7	431.5	454.6	482.3	503.2
62.5°	366.5	377.8	397.6	421.8	445.6
65°	314.0	322.5	341.7	365.9	386.8
67.5°	263.2	270.5	289.7	306.6	328.7
70°	211.8	221.4	235.5	251.9	266.0
72.5°	170.5	174.5	186.4	198.2	212.9
75°	125.9	132.7	142.3	149.1	157.6
77.5°	90.4	94.3	100.0	105.6	113.5
80°	60.4	62.1	67.2	68.3	74.5
82.5°	36.7	37.8	39.0	39.5	41.8
85°	19.8	19.8	19.8	18.6	18.6
87.5°	11.3	11.3	9.6	7.9	5.6
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)