

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: P556747

Luminaire Tested: **FUSL-12-4-LD4-1STD-35-UNV-81-94-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: P556747
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-35-UNV-81-94-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

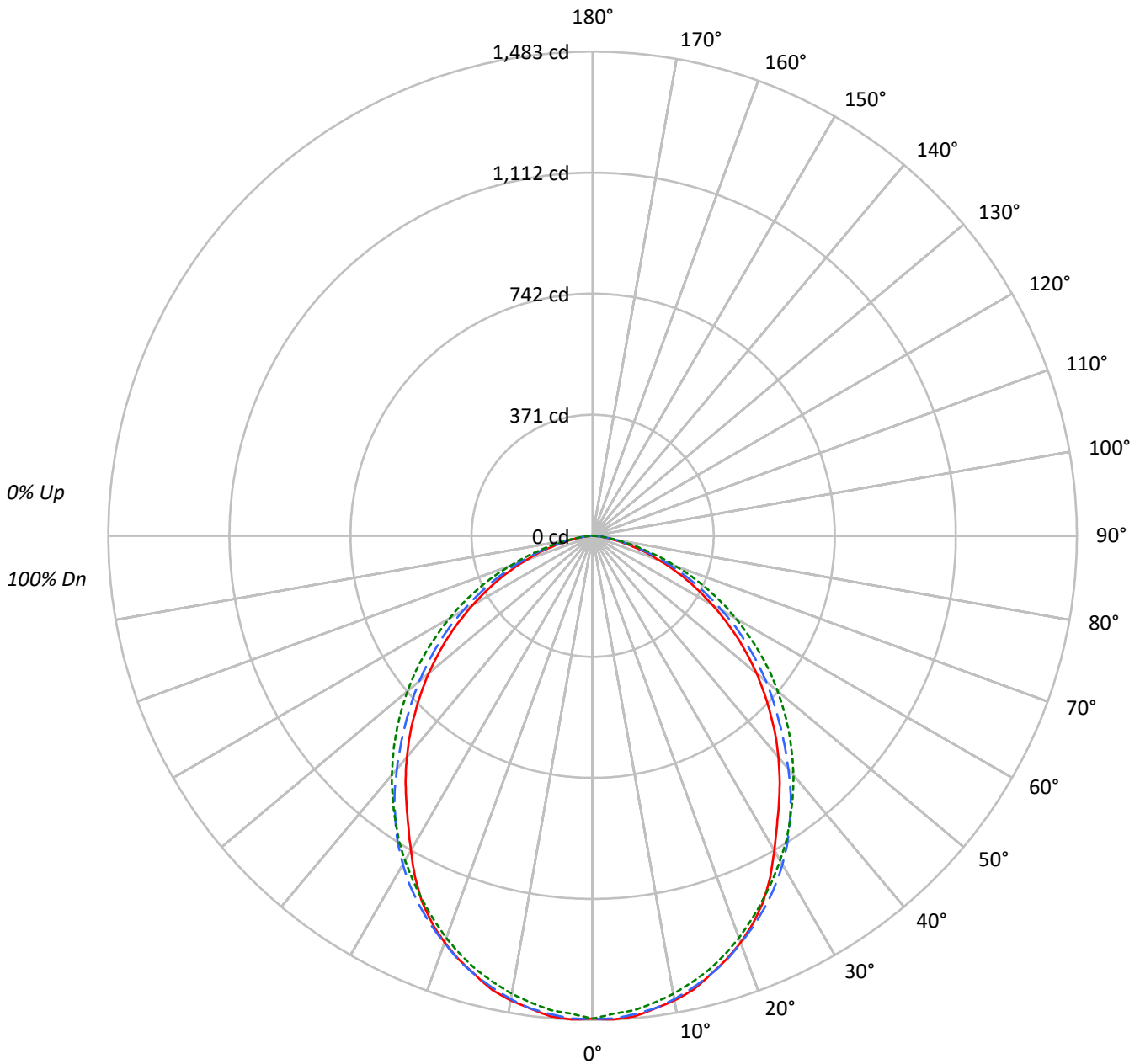
Lumens per Lamp: N/A
Luminaire Lumens: 3420.0 lumens
Efficiency: N/A
Efficacy: 102.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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

TEST NUMBER: P556747

CATALOG NUMBER: FUSL-12-4-LD4-1STD-35-UNV-81-94-EDD

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°	3980	3980	3980
5°	3991	3974	3940
10°	3948	3938	3892
15°	3878	3878	3834
20°	3796	3801	3752
25°	3671	3717	3658
30°	3457	3613	3568
35°	3267	3462	3468
40°	3108	3275	3361
45°	2930	3077	3235
50°	2743	2900	3097
55°	2530	2698	2930
60°	2278	2462	2725
65°	2011	2189	2478
70°	1677	1864	2105
75°	1317	1489	1648
80°	942	1048	1162
85°	614	614	580



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.3	4.1
10°-20°	391.2	11.4
20°-30°	571.7	16.7
30°-40°	648.9	19.0
40°-50°	626.4	18.3
50°-60°	516.8	15.1
60°-70°	344.1	10.1
70°-80°	154.0	4.5
80°-90°	27.6	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°	1102.2	32.2
0°-40°	1751.1	51.2
0°-60°	2894.3	84.6
0°-90°	3420.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3420.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1479	1479	1479	1479	1479	
5°	1477	1477	1471	1463	1459	140
15°	1392	1396	1392	1386	1376	392
25°	1236	1246	1252	1243	1232	566
35°	994	1008	1054	1060	1056	623
45°	770	783	809	846	850	594
55°	539	548	575	607	624	481
65°	316	324	344	368	389	313
75°	127	134	143	150	158	139
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°	1479.1	1479.1	1479.1	1479.1	1479.1
2.5°	1483.0	1483.6	1480.2	1471.1	1465.4
5°	1477.4	1476.8	1471.1	1463.2	1458.6
7.5°	1460.9	1462.0	1460.3	1448.9	1442.7
10°	1445.0	1445.5	1441.0	1431.9	1424.5
12.5°	1424.5	1423.9	1417.7	1413.1	1401.2
15°	1392.1	1395.5	1392.1	1385.9	1376.2
17.5°	1360.9	1360.9	1363.1	1352.3	1345.0
20°	1325.6	1327.3	1327.3	1318.8	1310.3
22.5°	1284.7	1289.8	1291.6	1282.5	1272.2
25°	1236.4	1246.1	1251.8	1242.7	1231.9
27.5°	1177.9	1192.7	1209.7	1202.9	1191.0
30°	1112.6	1134.2	1162.6	1156.9	1148.4
32.5°	1050.6	1072.2	1111.4	1109.2	1104.6
35°	994.4	1008.0	1054.0	1059.7	1055.7
37.5°	941.0	953.5	996.6	1009.7	1006.3
40°	884.7	898.3	932.4	955.7	956.9
42.5°	829.0	842.1	869.9	903.5	903.5
45°	769.9	783.0	808.6	845.5	850.0
47.5°	712.0	725.6	750.6	787.5	794.9
50°	655.2	667.7	692.7	728.5	739.8
52.5°	596.1	609.7	634.1	667.1	683.6
55°	539.2	548.3	575.0	606.9	624.5
57.5°	480.1	488.7	518.8	546.1	564.2
60°	423.3	434.1	457.4	485.3	506.3
62.5°	368.8	380.1	400.0	424.5	448.3
65°	315.9	324.5	343.8	368.2	389.2
67.5°	264.8	272.2	291.5	308.5	330.7
70°	213.1	222.7	236.9	253.4	267.6
72.5°	171.6	175.6	187.5	199.4	214.2
75°	126.7	133.5	143.2	150.0	158.5
77.5°	90.9	94.9	100.6	106.3	114.2
80°	60.8	62.5	67.6	68.8	75.0
82.5°	36.9	38.1	39.2	39.8	42.0
85°	19.9	19.9	19.9	18.8	18.8
87.5°	11.4	11.4	9.7	8.0	5.7
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)