

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: P556827

Luminaire Tested: **FUSL-12-4-LD4-1STD-40-UNV-82-94-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: P556827
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-40-UNV-82-94-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

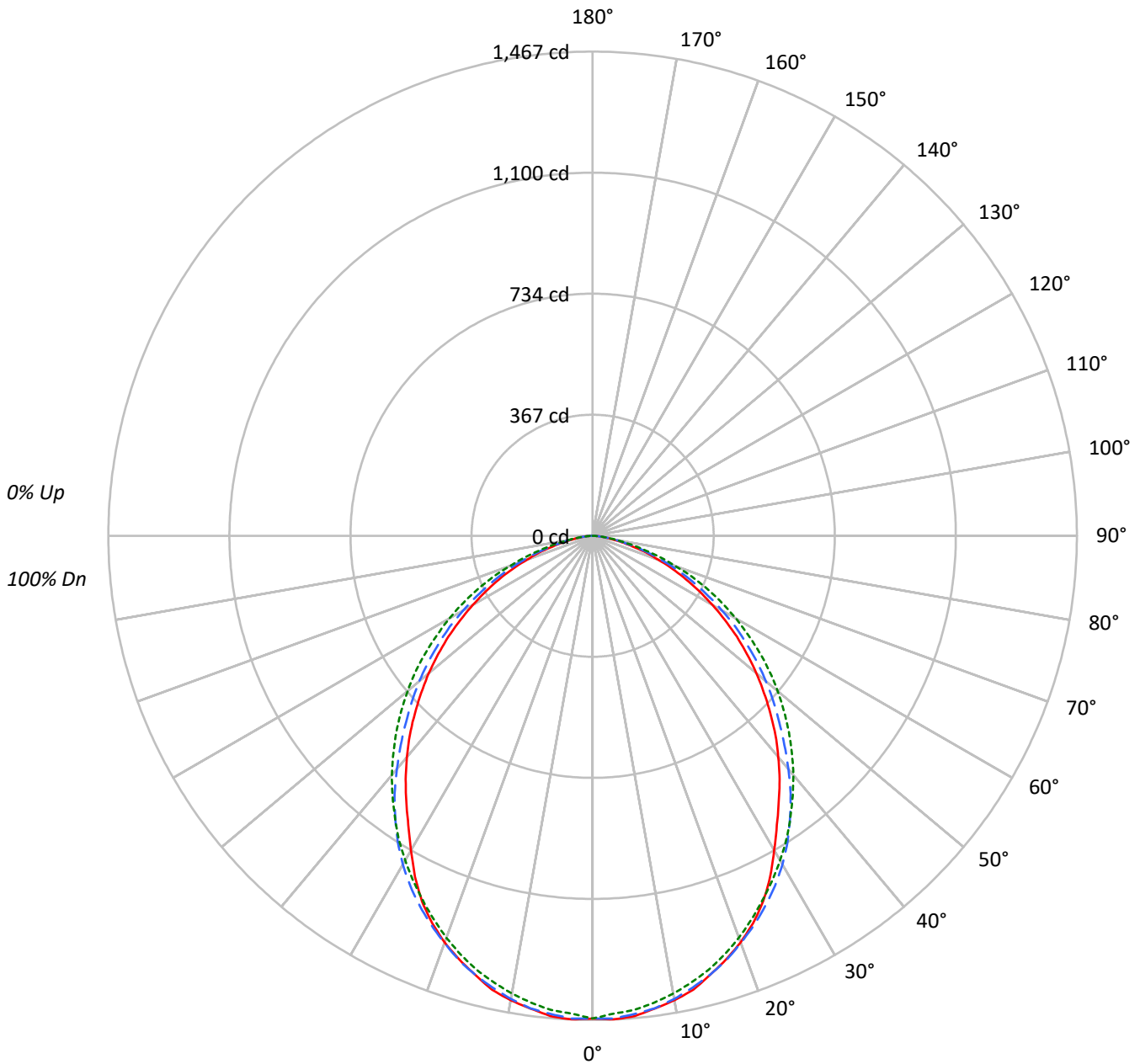
Lumens per Lamp: N/A
Luminaire Lumens: 3382.0 lumens
Efficiency: N/A
Efficacy: 101.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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: P556827

CATALOG NUMBER: FUSL-12-4-LD4-1STD-40-UNV-82-94-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°	3936	3936	3936
5°	3946	3930	3896
10°	3904	3894	3849
15°	3835	3835	3791
20°	3754	3759	3710
25°	3630	3676	3617
30°	3419	3572	3529
35°	3230	3424	3430
40°	3073	3239	3324
45°	2898	3043	3199
50°	2712	2868	3063
55°	2502	2668	2897
60°	2253	2434	2695
65°	1989	2164	2451
70°	1658	1843	2083
75°	1303	1472	1630
80°	931	1037	1150
85°	608	608	571



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.7	4.1
10°-20°	386.9	11.4
20°-30°	565.3	16.7
30°-40°	641.7	19.0
40°-50°	619.5	18.3
50°-60°	511.0	15.1
60°-70°	340.3	10.1
70°-80°	152.3	4.5
80°-90°	27.2	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°	1089.9	32.2
0°-40°	1731.6	51.2
0°-60°	2862.2	84.6
0°-90°	3382.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3382.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1463	1463	1463	1463	1463	
5°	1461	1460	1455	1447	1442	138
15°	1377	1380	1377	1370	1361	388
25°	1223	1232	1238	1229	1218	560
35°	983	997	1042	1048	1044	616
45°	761	774	800	836	841	587
55°	533	542	569	600	618	476
65°	312	321	340	364	385	310
75°	125	132	142	148	157	137
85°	20	20	20	18	18	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1462.6	1462.6	1462.6	1462.6	1462.6
2.5°	1466.6	1467.1	1463.8	1454.8	1449.1
5°	1460.9	1460.4	1454.8	1446.9	1442.4
7.5°	1444.6	1445.8	1444.1	1432.8	1426.7
10°	1428.9	1429.5	1425.0	1416.0	1408.7
12.5°	1408.7	1408.1	1401.9	1397.4	1385.6
15°	1376.7	1380.0	1376.7	1370.5	1360.9
17.5°	1345.8	1345.8	1348.0	1337.3	1330.0
20°	1310.9	1312.6	1312.6	1304.2	1295.7
22.5°	1270.5	1275.5	1277.2	1268.2	1258.1
25°	1222.7	1232.2	1237.9	1228.9	1218.2
27.5°	1164.8	1179.4	1196.3	1189.5	1177.7
30°	1100.2	1121.6	1149.6	1144.0	1135.6
32.5°	1039.0	1060.3	1099.1	1096.8	1092.3
35°	983.3	996.8	1042.3	1047.9	1044.0
37.5°	930.5	942.9	985.6	998.5	995.1
40°	874.9	888.4	922.1	945.1	946.2
42.5°	819.8	832.7	860.3	893.4	893.4
45°	761.4	774.3	799.6	836.1	840.6
47.5°	704.1	717.5	742.3	778.8	786.1
50°	647.9	660.2	685.0	720.4	731.6
52.5°	589.4	602.9	627.1	659.7	676.0
55°	533.2	542.2	568.6	600.1	617.5
57.5°	474.8	483.2	513.0	540.0	558.0
60°	418.6	429.3	452.3	479.9	500.7
62.5°	364.7	375.9	395.6	419.7	443.3
65°	312.4	320.8	339.9	364.1	384.9
67.5°	261.8	269.2	288.3	305.1	327.0
70°	210.7	220.3	234.3	250.6	264.7
72.5°	169.7	173.6	185.4	197.2	211.8
75°	125.3	132.0	141.6	148.3	156.8
77.5°	89.9	93.8	99.5	105.1	112.9
80°	60.1	61.8	66.9	68.0	74.2
82.5°	36.5	37.6	38.8	39.3	41.6
85°	19.7	19.7	19.7	18.5	18.5
87.5°	11.2	11.2	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)