

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: P556803

Luminaire Tested: **FUSL-12-4-LD4-1STD-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: P556803
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-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

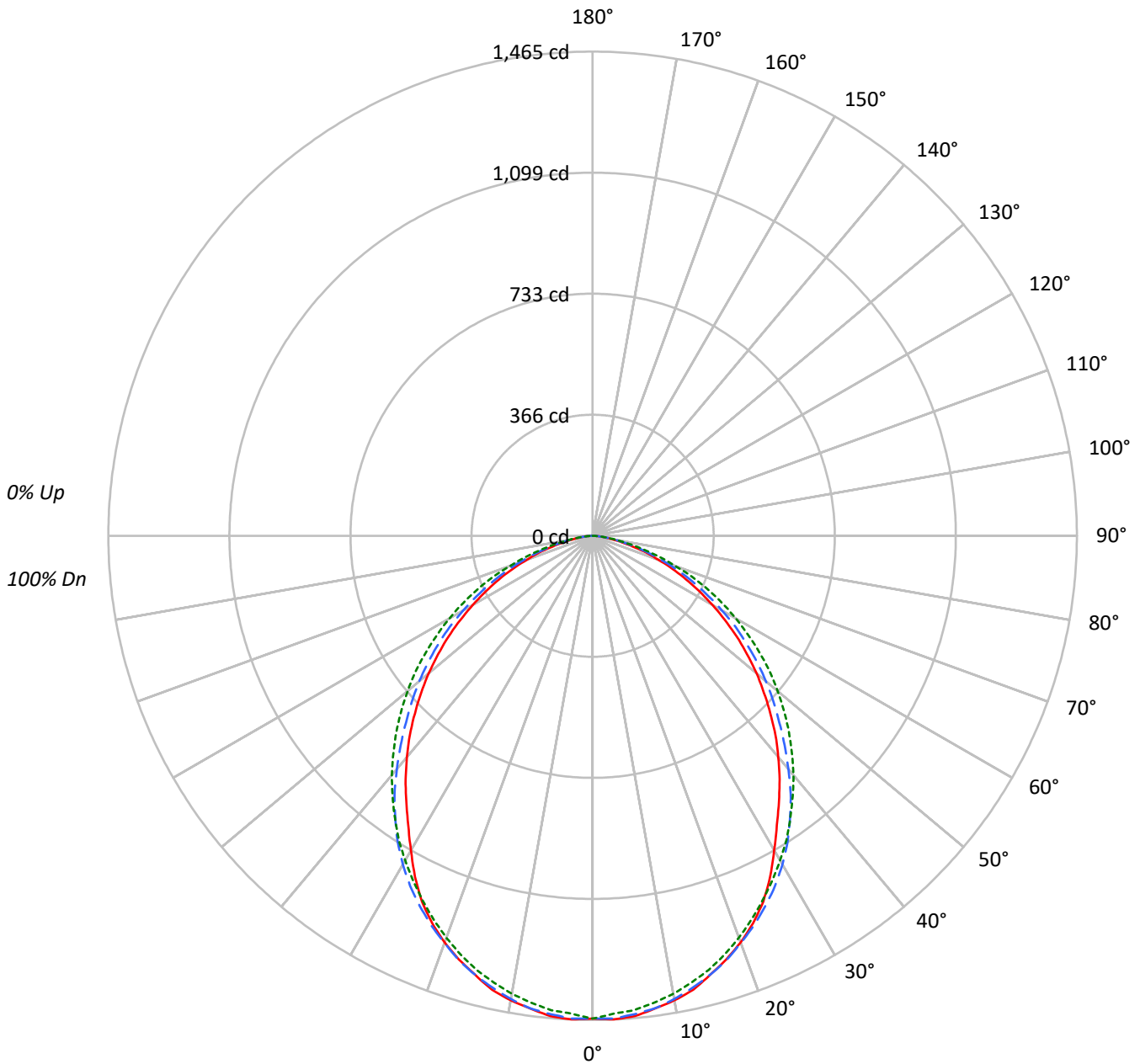
Lumens per Lamp: N/A
Luminaire Lumens: 3378.0 lumens
Efficiency: N/A
Efficacy: 101.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (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

TEST NUMBER: P556803

CATALOG NUMBER: FUSL-12-4-LD4-1STD-40-UNV-81-85-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P556803

CATALOG NUMBER: FUSL-12-4-LD4-1STD-40-UNV-81-85-EDD

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°	3931	3931	3931
5°	3942	3925	3892
10°	3900	3889	3845
15°	3831	3831	3787
20°	3750	3754	3706
25°	3626	3671	3613
30°	3415	3568	3525
35°	3227	3420	3426
40°	3070	3235	3320
45°	2894	3039	3195
50°	2709	2864	3059
55°	2499	2665	2894
60°	2250	2432	2692
65°	1987	2162	2448
70°	1656	1841	2079
75°	1302	1470	1628
80°	931	1035	1148
85°	605	605	571



TEST NUMBER: P556803

CATALOG NUMBER: FUSL-12-4-LD4-1STD-40-UNV-81-85-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.5	4.1
10°-20°	386.4	11.4
20°-30°	564.7	16.7
30°-40°	641.0	19.0
40°-50°	618.8	18.3
50°-60°	510.4	15.1
60°-70°	339.9	10.1
70°-80°	152.1	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°	1088.6	32.2
0°-40°	1729.6	51.2
0°-60°	2858.8	84.6
0°-90°	3378.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3378.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1461	1461	1461	1461	1461	
5°	1459	1459	1453	1445	1441	138
15°	1375	1378	1375	1369	1359	388
25°	1221	1231	1236	1227	1217	559
35°	982	996	1041	1047	1043	615
45°	760	773	799	835	840	587
55°	533	542	568	599	617	475
65°	312	320	340	364	384	309
75°	125	132	141	148	157	137
85°	20	20	20	18	18	26
90°	0	0	0	0	0	



TEST NUMBER: P556803

CATALOG NUMBER: FUSL-12-4-LD4-1STD-40-UNV-81-85-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1460.9	1460.9	1460.9	1460.9	1460.9
2.5°	1464.8	1465.4	1462.0	1453.0	1447.4
5°	1459.2	1458.7	1453.0	1445.2	1440.7
7.5°	1442.9	1444.1	1442.4	1431.2	1425.0
10°	1427.2	1427.8	1423.3	1414.3	1407.0
12.5°	1407.0	1406.5	1400.3	1395.8	1384.0
15°	1375.0	1378.4	1375.0	1368.9	1359.3
17.5°	1344.2	1344.2	1346.4	1335.7	1328.4
20°	1309.4	1311.0	1311.0	1302.6	1294.2
22.5°	1269.0	1274.0	1275.7	1266.7	1256.6
25°	1221.2	1230.8	1236.4	1227.4	1216.8
27.5°	1163.4	1178.0	1194.9	1188.1	1176.4
30°	1098.9	1120.2	1148.3	1142.7	1134.3
32.5°	1037.7	1059.1	1097.8	1095.5	1091.0
35°	982.2	995.6	1041.1	1046.7	1042.8
37.5°	929.4	941.8	984.4	997.3	993.9
40°	873.8	887.3	921.0	944.0	945.1
42.5°	818.8	831.8	859.3	892.4	892.4
45°	760.5	773.4	798.6	835.1	839.6
47.5°	703.2	716.7	741.4	777.9	785.2
50°	647.1	659.5	684.1	719.5	730.7
52.5°	588.7	602.2	626.3	658.9	675.2
55°	532.6	541.6	568.0	599.4	616.8
57.5°	474.2	482.7	512.4	539.3	557.3
60°	418.1	428.8	451.8	479.3	500.1
62.5°	364.2	375.5	395.1	419.2	442.8
65°	312.0	320.5	339.5	363.7	384.4
67.5°	261.5	268.8	287.9	304.8	326.6
70°	210.5	220.0	234.0	250.3	264.3
72.5°	169.5	173.4	185.2	197.0	211.6
75°	125.2	131.9	141.4	148.2	156.6
77.5°	89.8	93.7	99.3	105.0	112.8
80°	60.1	61.7	66.8	67.9	74.1
82.5°	36.5	37.6	38.7	39.3	41.5
85°	19.6	19.6	19.6	18.5	18.5
87.5°	11.2	11.2	9.5	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)