

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: P556313

Luminaire Tested: **FUSL-12-4-LD4-1HI-40-UNV-82-88-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: P556313
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-LD4-1HI-40-UNV-82-88-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

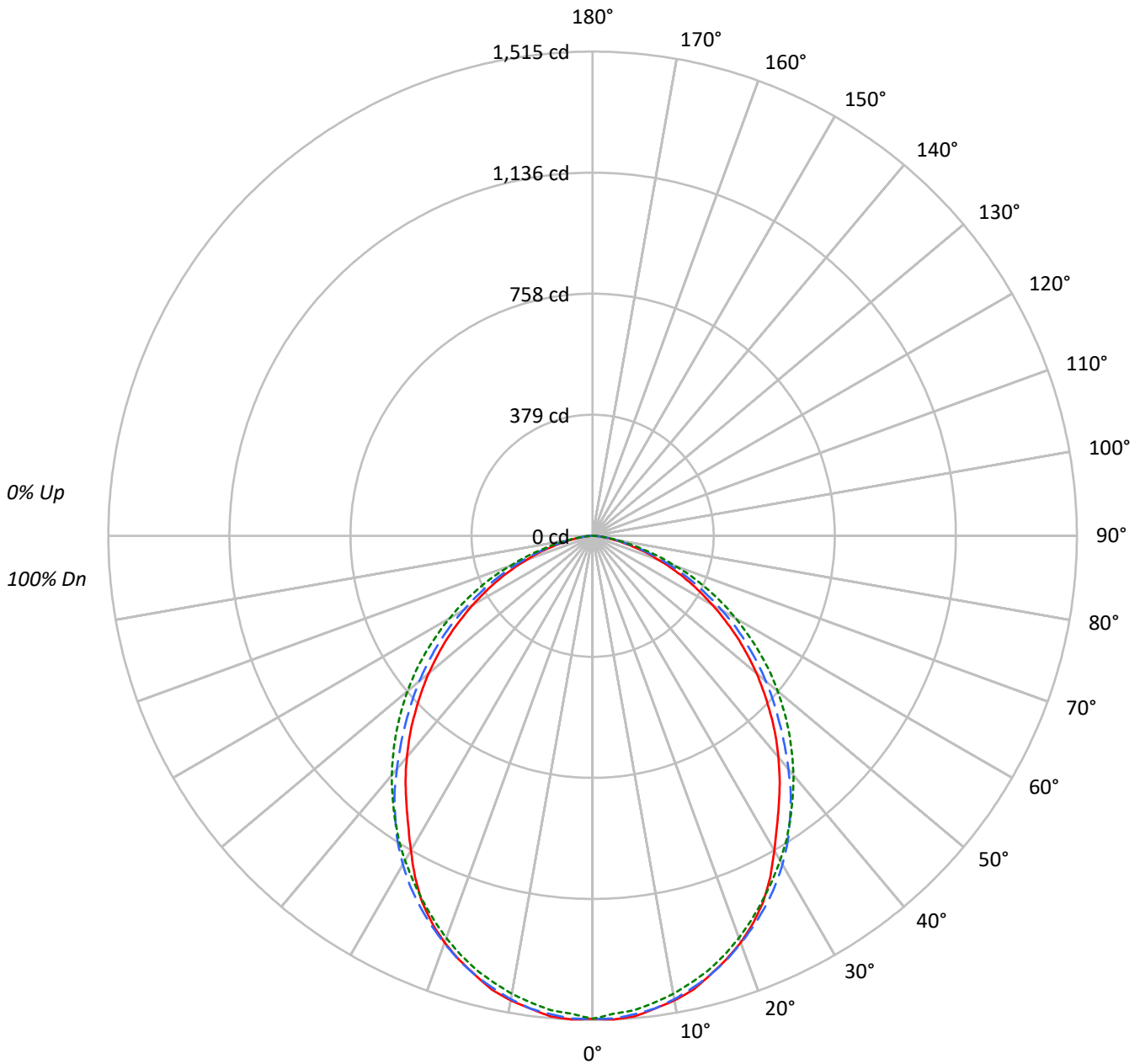
Lumens per Lamp: N/A
Luminaire Lumens: 3494.0 lumens
Efficiency: N/A
Efficacy: 80.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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°	4066	4066	4066
5°	4077	4060	4025
10°	4034	4023	3977
15°	3962	3962	3917
20°	3878	3883	3834
25°	3751	3797	3737
30°	3532	3691	3645
35°	3337	3537	3543
40°	3175	3346	3434
45°	2993	3144	3305
50°	2802	2962	3164
55°	2585	2756	2993
60°	2328	2515	2784
65°	2055	2236	2532
70°	1713	1905	2151
75°	1346	1521	1684
80°	962	1071	1187
85°	627	627	593



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.3	4.1
10°-20°	399.7	11.4
20°-30°	584.1	16.7
30°-40°	663.0	19.0
40°-50°	640.0	18.3
50°-60°	528.0	15.1
60°-70°	351.6	10.1
70°-80°	157.3	4.5
80°-90°	28.1	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°	1126.0	32.2
0°-40°	1789.0	51.2
0°-60°	2957.0	84.6
0°-90°	3494.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3494.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1511	1511	1511	1511	1511	
5°	1509	1509	1503	1495	1490	143
15°	1422	1426	1422	1416	1406	401
25°	1263	1273	1279	1270	1258	578
35°	1016	1030	1077	1083	1079	637
45°	787	800	826	864	868	607
55°	551	560	588	620	638	492
65°	323	332	351	376	398	320
75°	130	136	146	153	162	142
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°	1511.1	1511.1	1511.1	1511.1	1511.1
2.5°	1515.1	1515.7	1512.2	1502.9	1497.1
5°	1509.3	1508.7	1502.9	1494.8	1490.2
7.5°	1492.5	1493.6	1491.9	1480.3	1473.9
10°	1476.2	1476.8	1472.2	1462.9	1455.3
12.5°	1455.3	1454.8	1448.4	1443.7	1431.5
15°	1422.2	1425.7	1422.2	1415.9	1406.0
17.5°	1390.3	1390.3	1392.6	1381.6	1374.1
20°	1354.3	1356.1	1356.1	1347.4	1338.7
22.5°	1312.5	1317.8	1319.5	1310.2	1299.8
25°	1263.2	1273.1	1278.9	1269.6	1258.5
27.5°	1203.4	1218.5	1235.9	1228.9	1216.7
30°	1136.6	1158.7	1187.7	1181.9	1173.2
32.5°	1073.4	1095.4	1135.5	1133.2	1128.5
35°	1015.9	1029.8	1076.8	1082.6	1078.6
37.5°	961.3	974.1	1018.2	1031.6	1028.1
40°	903.9	917.8	952.6	976.4	977.6
42.5°	847.0	860.3	888.8	923.0	923.0
45°	786.6	799.9	826.1	863.8	868.4
47.5°	727.4	741.3	766.9	804.6	812.1
50°	669.3	682.1	707.6	744.2	755.8
52.5°	609.0	622.9	647.8	681.5	698.4
55°	550.9	560.2	587.5	620.0	638.0
57.5°	490.5	499.2	530.0	557.9	576.4
60°	432.5	443.5	467.3	495.8	517.2
62.5°	376.8	388.4	408.7	433.6	458.0
65°	322.8	331.5	351.2	376.2	397.6
67.5°	270.5	278.1	297.8	315.2	337.9
70°	217.7	227.6	242.1	258.9	273.4
72.5°	175.3	179.4	191.6	203.8	218.9
75°	129.5	136.4	146.3	153.3	162.0
77.5°	92.9	96.9	102.8	108.6	116.7
80°	62.1	63.9	69.1	70.2	76.6
82.5°	37.7	38.9	40.1	40.6	43.0
85°	20.3	20.3	20.3	19.2	19.2
87.5°	11.6	11.6	9.9	8.1	5.8
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)