

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: P556183

Luminaire Tested: **FUSL-12-4-LD4-1HI-30-UNV-82-87-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: P556183
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-30-UNV-82-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

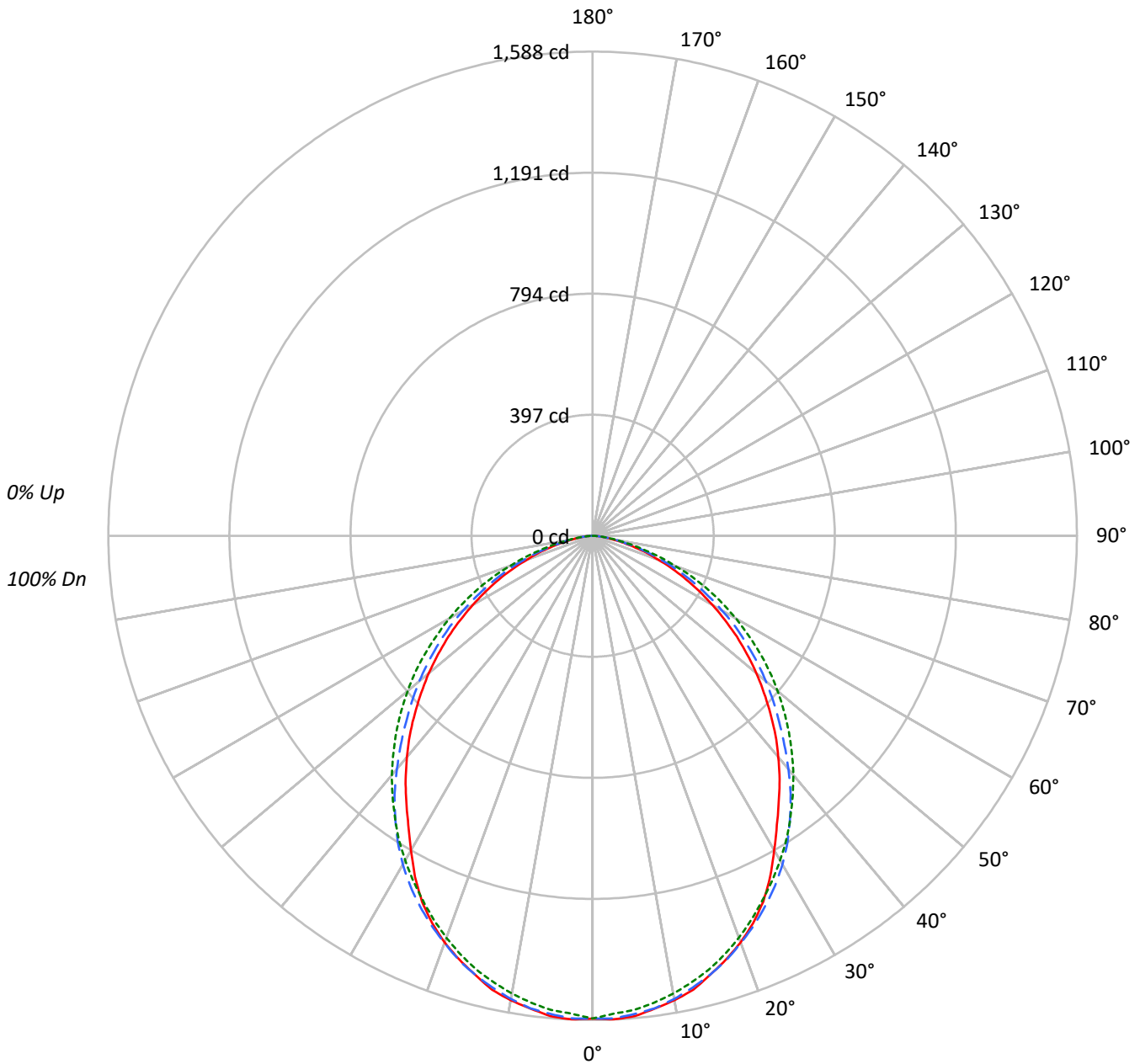
Lumens per Lamp: N/A
Luminaire Lumens: 3661.0 lumens
Efficiency: N/A
Efficacy: 84.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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

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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°	4261	4261	4261
5°	4272	4254	4218
10°	4227	4215	4167
15°	4152	4152	4104
20°	4064	4069	4017
25°	3930	3979	3915
30°	3701	3867	3820
35°	3497	3707	3712
40°	3327	3506	3598
45°	3137	3294	3463
50°	2936	3104	3315
55°	2708	2888	3136
60°	2439	2635	2917
65°	2153	2343	2653
70°	1795	1995	2254
75°	1410	1594	1764
80°	1009	1122	1244
85°	658	658	621



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.1	4.1
10°-20°	418.8	11.4
20°-30°	612.0	16.7
30°-40°	694.7	19.0
40°-50°	670.6	18.3
50°-60°	553.2	15.1
60°-70°	368.4	10.1
70°-80°	164.8	4.5
80°-90°	29.5	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°	1179.8	32.2
0°-40°	1874.5	51.2
0°-60°	3098.3	84.6
0°-90°	3661.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3661.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1583	1583	1583	1583	1583	
5°	1582	1581	1575	1566	1561	150
15°	1490	1494	1490	1484	1473	420
25°	1324	1334	1340	1330	1319	606
35°	1064	1079	1128	1134	1130	667
45°	824	838	866	905	910	636
55°	577	587	616	650	668	515
65°	338	347	368	394	417	335
75°	136	143	153	161	170	148
85°	21	21	21	20	20	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1583.3	1583.3	1583.3	1583.3	1583.3
2.5°	1587.5	1588.2	1584.5	1574.8	1568.7
5°	1581.5	1580.9	1574.8	1566.3	1561.4
7.5°	1563.8	1565.0	1563.2	1551.1	1544.4
10°	1546.8	1547.4	1542.5	1532.8	1524.9
12.5°	1524.9	1524.3	1517.6	1512.7	1500.0
15°	1490.2	1493.9	1490.2	1483.5	1473.2
17.5°	1456.8	1456.8	1459.2	1447.6	1439.7
20°	1419.1	1420.9	1420.9	1411.8	1402.6
22.5°	1375.3	1380.7	1382.6	1372.8	1361.9
25°	1323.6	1333.9	1340.0	1330.3	1318.7
27.5°	1260.9	1276.7	1295.0	1287.7	1274.9
30°	1191.0	1214.1	1244.5	1238.4	1229.3
32.5°	1124.7	1147.8	1189.7	1187.3	1182.4
35°	1064.4	1079.0	1128.3	1134.4	1130.1
37.5°	1007.3	1020.7	1066.9	1080.9	1077.2
40°	947.1	961.7	998.1	1023.1	1024.3
42.5°	887.4	901.4	931.2	967.1	967.1
45°	824.2	838.2	865.5	905.1	909.9
47.5°	762.1	776.7	803.5	843.0	850.9
50°	701.3	714.7	741.5	779.8	791.9
52.5°	638.1	652.7	678.8	714.1	731.7
55°	577.2	587.0	615.6	649.6	668.5
57.5°	514.0	523.1	555.3	584.5	604.0
60°	453.2	464.7	489.6	519.4	542.0
62.5°	394.8	406.9	428.2	454.4	479.9
65°	338.2	347.3	368.0	394.1	416.7
67.5°	283.4	291.4	312.0	330.3	354.0
70°	228.1	238.4	253.6	271.3	286.5
72.5°	183.7	188.0	200.7	213.5	229.3
75°	135.6	142.9	153.3	160.6	169.7
77.5°	97.3	101.6	107.7	113.7	122.3
80°	65.1	66.9	72.4	73.6	80.3
82.5°	39.5	40.8	42.0	42.6	45.0
85°	21.3	21.3	21.3	20.1	20.1
87.5°	12.2	12.2	10.3	8.5	6.1
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)