

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: P557721

Luminaire Tested: **FUSL-12-4-LD4-3HI-30-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: P557721
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-LD4-3HI-30-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 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

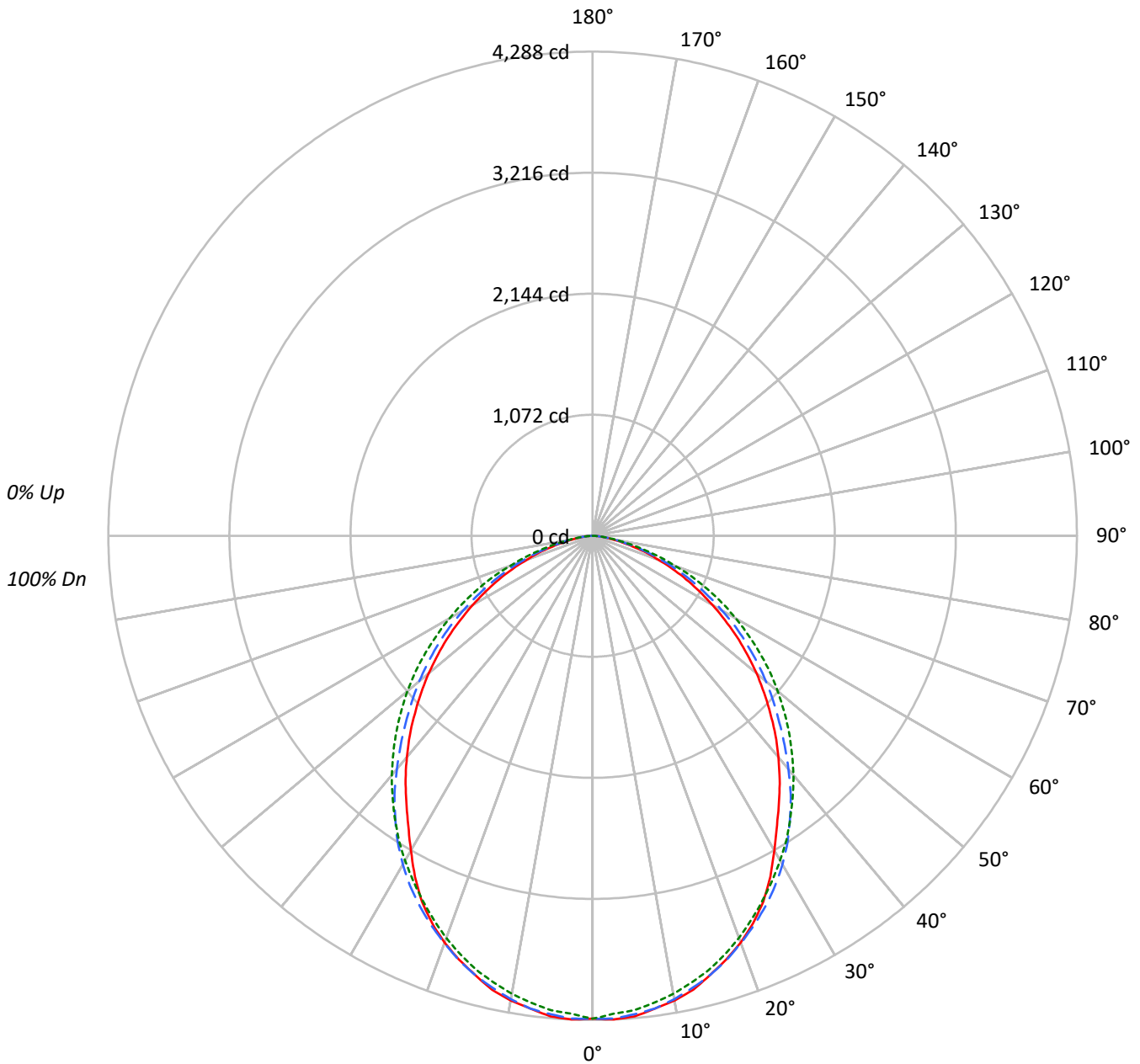
Lumens per Lamp: N/A
Luminaire Lumens: 9889.0 lumens
Efficiency: N/A
Efficacy: 76.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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					20					
RC	80					70					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°	11509	11509	11509
5°	11539	11490	11393
10°	11417	11385	11255
15°	11214	11214	11086
20°	10977	10991	10850
25°	10615	10747	10576
30°	9996	10445	10318
35°	9446	10012	10028
40°	8987	9471	9719
45°	8472	8898	9354
50°	7931	8385	8956
55°	7315	7801	8472
60°	6588	7118	7879
65°	5817	6329	7167
70°	4847	5390	6089
75°	3810	4304	4766
80°	2724	3030	3361
85°	1775	1775	1673



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	402.7	4.1
10°-20°	1131.2	11.4
20°-30°	1653.1	16.7
30°-40°	1876.4	19.0
40°-50°	1811.4	18.3
50°-60°	1494.3	15.1
60°-70°	995.1	10.1
70°-80°	445.3	4.5
80°-90°	79.7	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°	3186.9	32.2
0°-40°	5063.4	51.2
0°-60°	8369.0	84.6
0°-90°	9889.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9889.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4277	4277	4277	4277	4277	
5°	4272	4270	4254	4231	4218	404
15°	4025	4035	4025	4007	3979	1135
25°	3575	3603	3620	3593	3562	1637
35°	2875	2915	3048	3064	3053	1802
45°	2226	2264	2338	2445	2458	1718
55°	1559	1586	1663	1755	1806	1392
65°	914	938	994	1065	1126	906
75°	366	386	414	434	458	401
85°	58	58	58	54	54	78
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4276.7	4276.7	4276.7	4276.7	4276.7
2.5°	4288.2	4289.9	4280.0	4253.7	4237.3
5°	4271.8	4270.2	4253.7	4230.7	4217.6
7.5°	4224.2	4227.4	4222.5	4189.7	4171.6
10°	4178.2	4179.8	4166.7	4140.4	4119.0
12.5°	4119.0	4117.4	4099.3	4086.1	4051.6
15°	4025.4	4035.2	4025.4	4007.3	3979.4
17.5°	3935.0	3935.0	3941.6	3910.3	3889.0
20°	3833.1	3838.1	3838.1	3813.4	3788.8
22.5°	3714.8	3729.6	3734.5	3708.3	3678.7
25°	3575.2	3603.1	3619.5	3593.2	3562.0
27.5°	3405.9	3448.7	3498.0	3478.2	3443.7
30°	3217.0	3279.4	3361.6	3345.2	3320.5
32.5°	3037.9	3100.3	3213.7	3207.1	3194.0
35°	2875.3	2914.7	3047.8	3064.2	3052.7
37.5°	2720.8	2757.0	2881.8	2919.6	2909.8
40°	2558.2	2597.6	2696.2	2763.5	2766.8
42.5°	2397.1	2434.9	2515.4	2612.4	2612.4
45°	2226.3	2264.1	2338.0	2444.8	2457.9
47.5°	2058.7	2098.1	2170.4	2277.2	2298.6
50°	1894.4	1930.5	2002.8	2106.3	2139.2
52.5°	1723.5	1762.9	1833.6	1928.9	1976.5
55°	1559.2	1585.5	1662.7	1754.7	1805.7
57.5°	1388.3	1413.0	1500.1	1578.9	1631.5
60°	1224.0	1255.3	1322.6	1403.1	1463.9
62.5°	1066.3	1099.2	1156.7	1227.3	1296.3
65°	913.5	938.2	994.0	1064.7	1125.5
67.5°	765.6	787.0	842.9	892.2	956.2
70°	616.1	644.1	685.1	732.8	773.9
72.5°	496.2	507.7	542.2	576.7	619.4
75°	366.4	386.1	414.0	433.8	458.4
77.5°	262.9	274.4	290.8	307.2	330.2
80°	175.8	180.7	195.5	198.8	216.9
82.5°	106.8	110.1	113.4	115.0	121.6
85°	57.5	57.5	57.5	54.2	54.2
87.5°	32.9	32.9	27.9	23.0	16.4
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)