

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: P557096

Luminaire Tested: **FUSL-12-4-LD4-2HI-40-UNV-93-88-EDD-90**

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: P557096
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-LD4-2HI-40-UNV-93-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

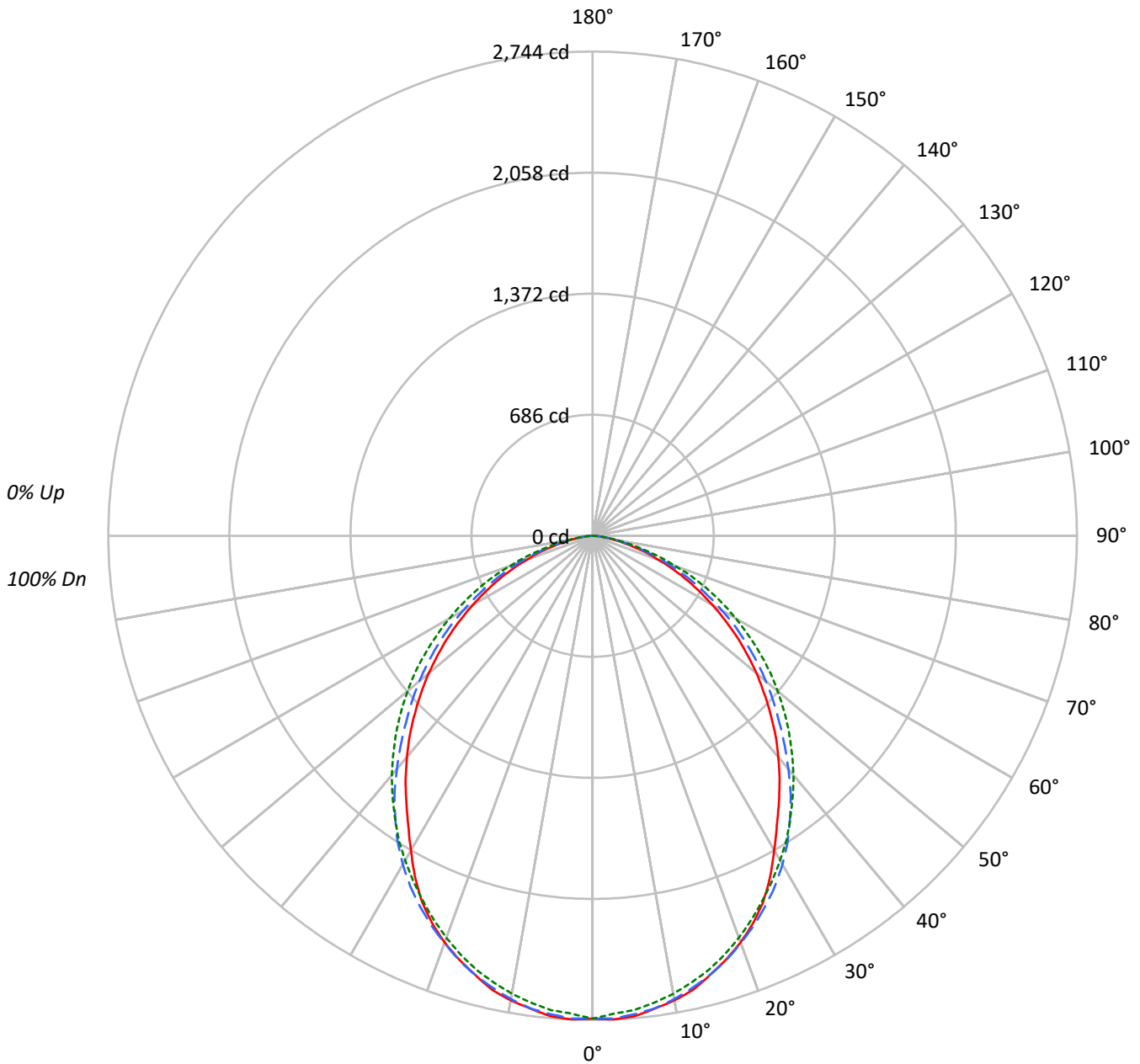
Lumens per Lamp: N/A
Luminaire Lumens: 6327.0 lumens
Efficiency: N/A
Efficacy: 73.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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				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				100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86				86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73				73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63				63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54				54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47				47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42				42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37				37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34				34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30				30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28				28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7363	7363	7363
5°	7383	7351	7289
10°	7304	7284	7201
15°	7175	7175	7093
20°	7023	7032	6942
25°	6792	6876	6767
30°	6395	6683	6601
35°	6043	6406	6416
40°	5749	6060	6218
45°	5421	5693	5985
50°	5074	5364	5730
55°	4680	4991	5420
60°	4215	4554	5041
65°	3722	4050	4585
70°	3102	3448	3895
75°	2437	2754	3049
80°	1743	1939	2151
85°	1136	1136	1071



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	257.6	4.1
10°-20°	723.7	11.4
20°-30°	1057.6	16.7
30°-40°	1200.5	19.0
40°-50°	1158.9	18.3
50°-60°	956.0	15.1
60°-70°	636.6	10.1
70°-80°	284.9	4.5
80°-90°	51.0	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°	2039.0	32.2
0°-40°	3239.5	51.2
0°-60°	5354.5	84.6
0°-90°	6327.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6327.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2736	2736	2736	2736	2736	
5°	2733	2732	2722	2707	2698	259
15°	2575	2582	2575	2564	2546	726
25°	2287	2305	2316	2299	2279	1048
35°	1840	1865	1950	1960	1953	1153
45°	1424	1448	1496	1564	1573	1099
55°	998	1014	1064	1123	1155	890
65°	584	600	636	681	720	580
75°	234	247	265	278	293	256
85°	37	37	37	35	35	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2736.3	2736.3	2736.3	2736.3	2736.3
2.5°	2743.6	2744.7	2738.4	2721.5	2711.0
5°	2733.1	2732.1	2721.5	2706.8	2698.4
7.5°	2702.6	2704.7	2701.6	2680.6	2669.0
10°	2673.2	2674.2	2665.8	2649.0	2635.3
12.5°	2635.3	2634.3	2622.7	2614.3	2592.3
15°	2575.4	2581.7	2575.4	2563.9	2546.0
17.5°	2517.6	2517.6	2521.8	2501.8	2488.2
20°	2452.4	2455.6	2455.6	2439.8	2424.1
22.5°	2376.8	2386.2	2389.4	2372.6	2353.6
25°	2287.4	2305.3	2315.8	2299.0	2279.0
27.5°	2179.1	2206.5	2238.0	2225.4	2203.3
30°	2058.2	2098.2	2150.7	2140.2	2124.5
32.5°	1943.7	1983.6	2056.1	2051.9	2043.5
35°	1839.6	1864.8	1950.0	1960.5	1953.1
37.5°	1740.8	1763.9	1843.8	1868.0	1861.7
40°	1636.7	1661.9	1725.0	1768.1	1770.2
42.5°	1533.7	1557.9	1609.4	1671.4	1671.4
45°	1424.4	1448.5	1495.9	1564.2	1572.6
47.5°	1317.1	1342.4	1388.6	1457.0	1470.6
50°	1212.0	1235.2	1281.4	1347.6	1368.7
52.5°	1102.7	1127.9	1173.1	1234.1	1264.6
55°	997.6	1014.4	1063.8	1122.7	1155.3
57.5°	888.3	904.0	959.7	1010.2	1043.8
60°	783.1	803.1	846.2	897.7	936.6
62.5°	682.2	703.3	740.0	785.2	829.4
65°	584.5	600.2	636.0	681.2	720.1
67.5°	489.9	503.5	539.3	570.8	611.8
70°	394.2	412.1	438.3	468.8	495.1
72.5°	317.5	324.8	346.9	369.0	396.3
75°	234.4	247.0	264.9	277.5	293.3
77.5°	168.2	175.5	186.1	196.6	211.3
80°	112.5	115.6	125.1	127.2	138.8
82.5°	68.3	70.4	72.5	73.6	77.8
85°	36.8	36.8	36.8	34.7	34.7
87.5°	21.0	21.0	17.9	14.7	10.5
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)