

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: P556942

Luminaire Tested: **FUSL-12-4-LD4-2HI-30-UNV-81-97-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: P556942
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-30-UNV-81-97-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

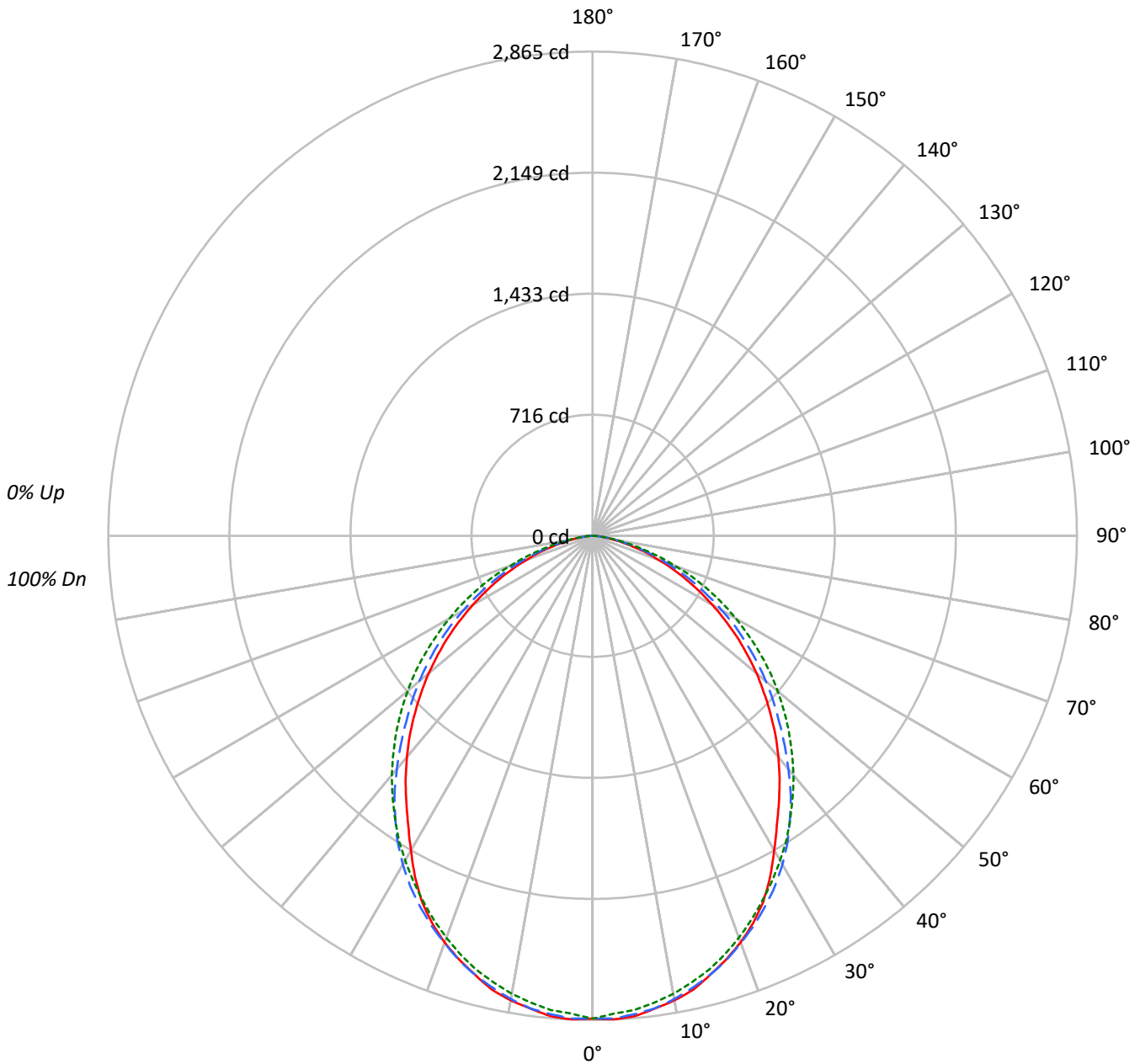
Lumens per Lamp: N/A
Luminaire Lumens: 6606.0 lumens
Efficiency: N/A
Efficacy: 76.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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									
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°	7688	7688	7688
5°	7708	7676	7611
10°	7627	7606	7519
15°	7491	7491	7406
20°	7333	7342	7248
25°	7091	7179	7065
30°	6678	6978	6892
35°	6310	6688	6699
40°	6003	6327	6493
45°	5660	5944	6248
50°	5298	5601	5982
55°	4887	5211	5659
60°	4401	4755	5263
65°	3885	4228	4787
70°	3238	3601	4067
75°	2545	2876	3184
80°	1819	2024	2245
85°	1186	1186	1118



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	269.0	4.1
10°-20°	755.7	11.4
20°-30°	1104.3	16.7
30°-40°	1253.5	19.0
40°-50°	1210.0	18.3
50°-60°	998.2	15.1
60°-70°	664.7	10.1
70°-80°	297.4	4.5
80°-90°	53.2	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°	2128.9	32.2
0°-40°	3382.4	51.2
0°-60°	5590.6	84.6
0°-90°	6606.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6606.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2857	2857	2857	2857	2857	
5°	2854	2852	2842	2826	2817	270
15°	2689	2696	2689	2677	2658	758
25°	2388	2407	2418	2400	2380	1094
35°	1921	1947	2036	2047	2039	1203
45°	1487	1512	1562	1633	1642	1147
55°	1042	1059	1111	1172	1206	930
65°	610	627	664	711	752	605
75°	245	258	277	290	306	268
85°	38	38	38	36	36	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2856.9	2856.9	2856.9	2856.9	2856.9
2.5°	2864.6	2865.7	2859.1	2841.6	2830.6
5°	2853.6	2852.5	2841.6	2826.2	2817.4
7.5°	2821.8	2824.0	2820.7	2798.8	2786.7
10°	2791.1	2792.2	2783.4	2765.8	2751.6
12.5°	2751.6	2750.5	2738.4	2729.6	2706.6
15°	2689.0	2695.6	2689.0	2676.9	2658.3
17.5°	2628.6	2628.6	2633.0	2612.2	2597.9
20°	2560.6	2563.9	2563.9	2547.4	2531.0
22.5°	2481.6	2491.4	2494.7	2477.2	2457.4
25°	2388.3	2406.9	2417.9	2400.3	2379.5
27.5°	2275.2	2303.8	2336.7	2323.5	2300.5
30°	2149.0	2190.7	2245.6	2234.6	2218.1
32.5°	2029.4	2071.1	2146.8	2142.4	2133.6
35°	1920.7	1947.1	2036.0	2046.9	2039.2
37.5°	1817.5	1841.7	1925.1	1950.3	1943.8
40°	1708.9	1735.2	1801.1	1846.1	1848.3
42.5°	1601.3	1626.6	1680.4	1745.1	1745.1
45°	1487.2	1512.4	1561.8	1633.2	1641.9
47.5°	1375.2	1401.6	1449.9	1521.2	1535.5
50°	1265.5	1289.6	1337.9	1407.1	1429.0
52.5°	1151.3	1177.7	1224.9	1288.5	1320.4
55°	1041.6	1059.1	1110.7	1172.2	1206.2
57.5°	927.4	943.9	1002.1	1054.7	1089.9
60°	817.7	838.5	883.5	937.3	977.9
62.5°	712.3	734.3	772.7	819.9	866.0
65°	610.2	626.7	664.0	711.2	751.8
67.5°	511.5	525.7	563.0	596.0	638.8
70°	411.6	430.2	457.7	489.5	516.9
72.5°	331.5	339.1	362.2	385.2	413.8
75°	244.8	257.9	276.6	289.8	306.2
77.5°	175.6	183.3	194.3	205.2	220.6
80°	117.4	120.7	130.6	132.8	144.9
82.5°	71.3	73.5	75.7	76.8	81.2
85°	38.4	38.4	38.4	36.2	36.2
87.5°	22.0	22.0	18.7	15.4	11.0
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)