

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: P556950

Luminaire Tested: **FUSL-12-4-LD4-2HI-30-UNV-82-87-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: P556950
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-82-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

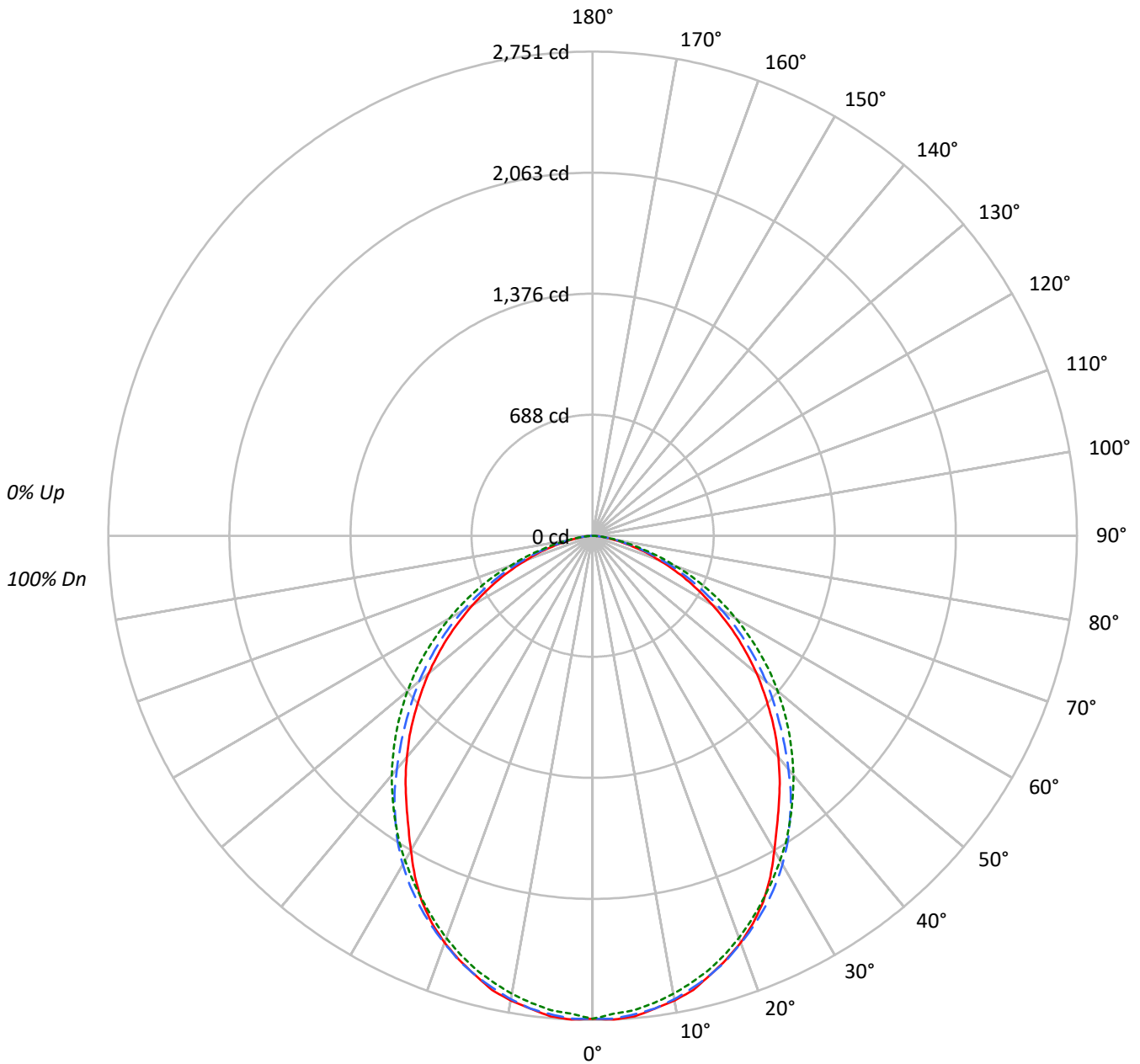
Lumens per Lamp: N/A
Luminaire Lumens: 6345.0 lumens
Efficiency: N/A
Efficacy: 73.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
Input Voltage (V): NR
Input Current (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°	7384	7384	7384
5°	7404	7373	7310
10°	7325	7305	7221
15°	7195	7195	7113
20°	7043	7052	6962
25°	6811	6896	6786
30°	6414	6702	6620
35°	6060	6424	6434
40°	5766	6077	6236
45°	5436	5709	6002
50°	5089	5380	5746
55°	4693	5005	5436
60°	4227	4567	5055
65°	3732	4061	4598
70°	3110	3459	3906
75°	2444	2763	3058
80°	1748	1943	2157
85°	1139	1139	1074



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	258.4	4.1
10°-20°	725.8	11.4
20°-30°	1060.6	16.7
30°-40°	1203.9	19.0
40°-50°	1162.2	18.3
50°-60°	958.8	15.1
60°-70°	638.5	10.1
70°-80°	285.7	4.5
80°-90°	51.1	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°	2044.8	32.2
0°-40°	3248.8	51.2
0°-60°	5369.8	84.6
0°-90°	6345.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6345.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2744	2744	2744	2744	2744	
5°	2741	2740	2729	2714	2706	259
15°	2583	2589	2583	2571	2553	728
25°	2294	2312	2322	2306	2286	1050
35°	1845	1870	1956	1966	1959	1156
45°	1428	1453	1500	1569	1577	1102
55°	1000	1017	1067	1126	1159	893
65°	586	602	638	683	722	581
75°	235	248	266	278	294	257
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°	2744.0	2744.0	2744.0	2744.0	2744.0
2.5°	2751.4	2752.5	2746.2	2729.3	2718.7
5°	2740.9	2739.8	2729.3	2714.5	2706.1
7.5°	2710.3	2712.4	2709.3	2688.2	2676.6
10°	2680.8	2681.9	2673.4	2656.6	2642.8
12.5°	2642.8	2641.8	2630.2	2621.8	2599.6
15°	2582.8	2589.1	2582.8	2571.2	2553.2
17.5°	2524.8	2524.8	2529.0	2509.0	2495.3
20°	2459.4	2462.6	2462.6	2446.8	2431.0
22.5°	2383.5	2393.0	2396.2	2379.3	2360.3
25°	2293.9	2311.8	2322.4	2305.5	2285.5
27.5°	2185.3	2212.7	2244.4	2231.7	2209.6
30°	2064.1	2104.2	2156.9	2146.3	2130.5
32.5°	1949.2	1989.3	2062.0	2057.8	2049.3
35°	1844.8	1870.1	1955.5	1966.1	1958.7
37.5°	1745.7	1768.9	1849.0	1873.3	1867.0
40°	1641.4	1666.7	1729.9	1773.1	1775.3
42.5°	1538.1	1562.3	1614.0	1676.2	1676.2
45°	1428.4	1452.7	1500.1	1568.6	1577.1
47.5°	1320.9	1346.2	1392.6	1461.1	1474.8
50°	1215.5	1238.7	1285.1	1351.5	1372.6
52.5°	1105.8	1131.1	1176.5	1237.6	1268.2
55°	1000.4	1017.3	1066.8	1125.9	1158.6
57.5°	890.8	906.6	962.5	1013.1	1046.8
60°	785.4	805.4	848.6	900.3	939.3
62.5°	684.2	705.3	742.1	787.5	831.8
65°	586.1	601.9	637.8	683.1	722.1
67.5°	491.3	505.0	540.8	572.4	613.5
70°	395.3	413.2	439.6	470.2	496.5
72.5°	318.4	325.7	347.9	370.0	397.4
75°	235.1	247.7	265.7	278.3	294.1
77.5°	168.7	176.0	186.6	197.1	211.9
80°	112.8	116.0	125.4	127.6	139.2
82.5°	68.5	70.6	72.7	73.8	78.0
85°	36.9	36.9	36.9	34.8	34.8
87.5°	21.1	21.1	17.9	14.8	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)