

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: P557094

Luminaire Tested: **FUSL-12-4-LD4-2HI-40-UNV-93-87-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: P557094
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-93-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

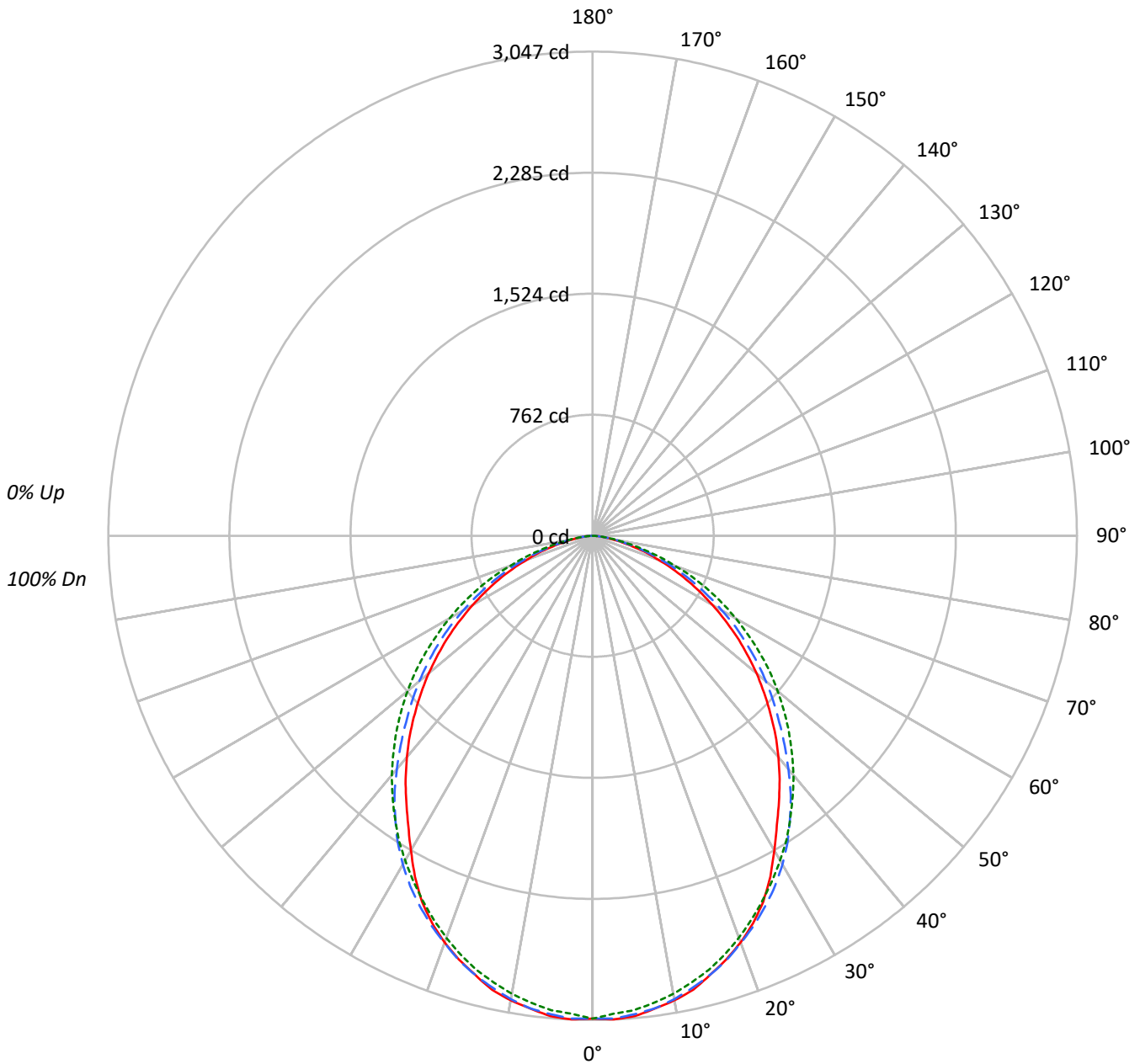
Lumens per Lamp: N/A
Luminaire Lumens: 7026.0 lumens
Efficiency: N/A
Efficacy: 81.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	8177	8177	8177
5°	8199	8164	8094
10°	8111	8089	7997
15°	7968	7968	7877
20°	7799	7809	7709
25°	7542	7636	7514
30°	7102	7421	7331
35°	6711	7114	7125
40°	6385	6729	6906
45°	6019	6322	6646
50°	5635	5957	6363
55°	5197	5542	6019
60°	4681	5057	5598
65°	4132	4497	5091
70°	3444	3830	4326
75°	2706	3059	3386
80°	1936	2152	2388
85°	1263	1263	1189



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	286.1	4.1
10°-20°	803.7	11.4
20°-30°	1174.5	16.7
30°-40°	1333.2	19.0
40°-50°	1287.0	18.3
50°-60°	1061.6	15.1
60°-70°	707.0	10.1
70°-80°	316.4	4.5
80°-90°	56.6	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°	2264.3	32.2
0°-40°	3597.4	51.2
0°-60°	5946.1	84.6
0°-90°	7026.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7026.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3039	3039	3039	3039	3039	
5°	3035	3034	3022	3006	2996	287
15°	2860	2867	2860	2847	2827	806
25°	2540	2560	2572	2553	2531	1163
35°	2043	2071	2165	2177	2169	1280
45°	1582	1609	1661	1737	1746	1220
55°	1108	1126	1181	1247	1283	989
65°	649	666	706	756	800	644
75°	260	274	294	308	326	285
85°	41	41	41	38	38	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3038.6	3038.6	3038.6	3038.6	3038.6
2.5°	3046.7	3047.9	3040.9	3022.2	3010.5
5°	3035.1	3033.9	3022.2	3005.9	2996.5
7.5°	3001.2	3003.5	3000.0	2976.7	2963.9
10°	2968.5	2969.7	2960.4	2941.7	2926.5
12.5°	2926.5	2925.3	2912.5	2903.2	2878.6
15°	2860.0	2867.0	2860.0	2847.1	2827.3
17.5°	2795.8	2795.8	2800.4	2778.2	2763.1
20°	2723.4	2726.9	2726.9	2709.4	2691.9
22.5°	2639.3	2649.8	2653.3	2634.7	2613.7
25°	2540.1	2560.0	2571.6	2553.0	2530.8
27.5°	2419.9	2450.2	2485.2	2471.2	2446.7
30°	2285.6	2330.0	2388.4	2376.7	2359.2
32.5°	2158.4	2202.8	2283.3	2278.6	2269.3
35°	2042.8	2070.8	2165.4	2177.1	2168.9
37.5°	1933.1	1958.8	2047.5	2074.3	2067.3
40°	1817.5	1845.6	1915.6	1963.5	1965.8
42.5°	1703.1	1730.0	1787.2	1856.1	1856.1
45°	1581.7	1608.6	1661.1	1737.0	1746.3
47.5°	1462.7	1490.7	1542.0	1617.9	1633.1
50°	1345.9	1371.6	1423.0	1496.5	1519.9
52.5°	1224.5	1252.5	1302.7	1370.4	1404.3
55°	1107.8	1126.5	1181.3	1246.7	1282.9
57.5°	986.4	1003.9	1065.8	1121.8	1159.2
60°	869.7	891.8	939.7	996.9	1040.1
62.5°	757.6	780.9	821.8	872.0	921.0
65°	649.0	666.5	706.2	756.4	799.6
67.5°	544.0	559.2	598.8	633.9	679.4
70°	437.7	457.6	486.8	520.6	549.8
72.5°	352.5	360.7	385.2	409.7	440.1
75°	260.3	274.3	294.2	308.2	325.7
77.5°	186.8	194.9	206.6	218.3	234.6
80°	124.9	128.4	138.9	141.2	154.1
82.5°	75.9	78.2	80.5	81.7	86.4
85°	40.9	40.9	40.9	38.5	38.5
87.5°	23.3	23.3	19.8	16.3	11.7
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)