

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: P557038

Luminaire Tested: **FUSL-12-4-LD4-2HI-35-UNV-93-97-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: P557038
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-35-UNV-93-97-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

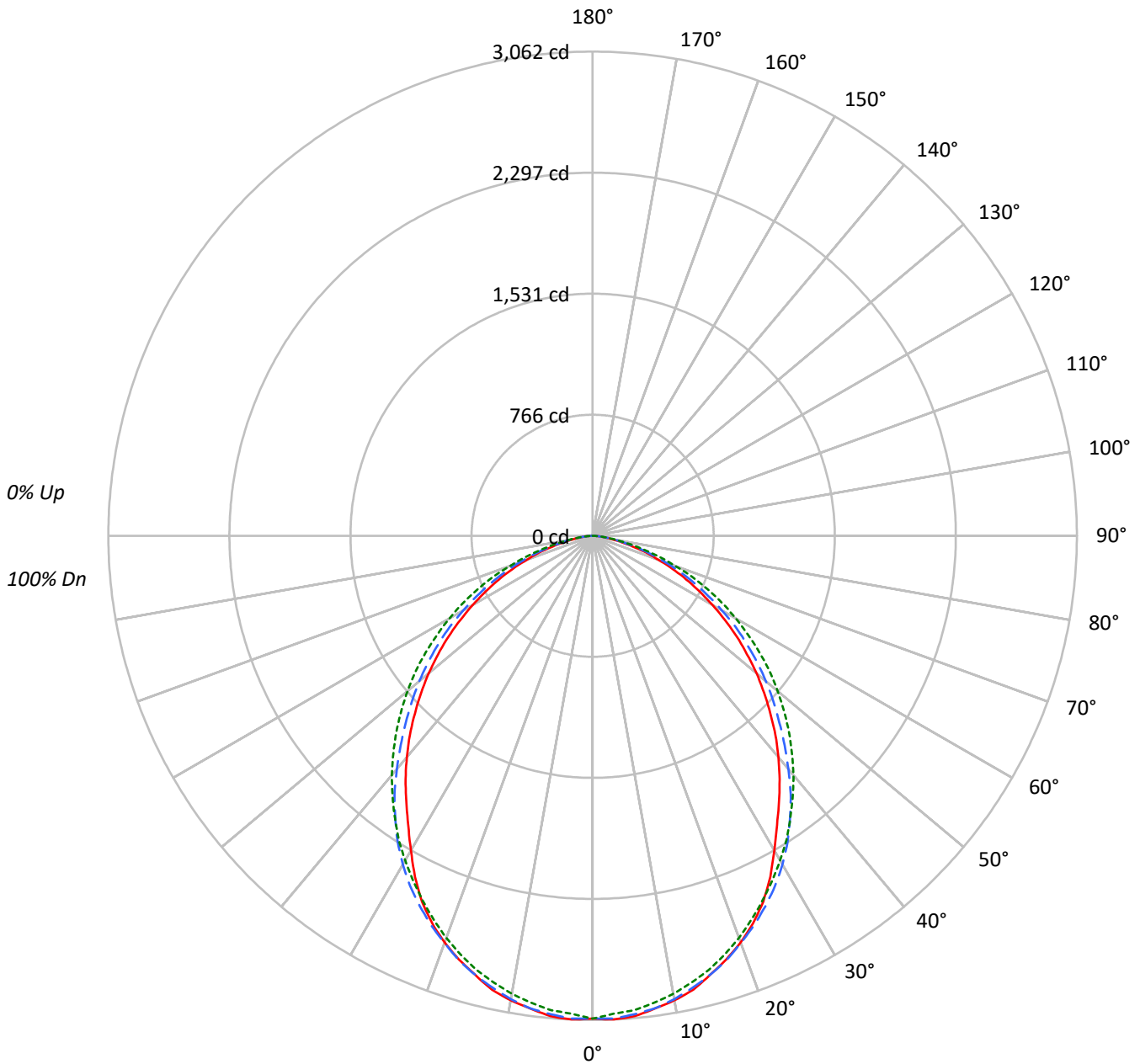
Lumens per Lamp: N/A
Luminaire Lumens: 7061.0 lumens
Efficiency: N/A
Efficacy: 81.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	8217	8217	8217
5°	8239	8205	8135
10°	8152	8129	8037
15°	8007	8007	7916
20°	7838	7848	7747
25°	7580	7674	7552
30°	7137	7458	7367
35°	6744	7149	7160
40°	6417	6763	6940
45°	6049	6353	6679
50°	5663	5987	6394
55°	5223	5570	6049
60°	4704	5083	5626
65°	4153	4520	5117
70°	3461	3849	4348
75°	2720	3073	3403
80°	1945	2163	2400
85°	1269	1269	1195



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	287.5	4.1
10°-20°	807.7	11.4
20°-30°	1180.3	16.7
30°-40°	1339.8	19.0
40°-50°	1293.4	18.3
50°-60°	1066.9	15.1
60°-70°	710.5	10.1
70°-80°	317.9	4.5
80°-90°	56.9	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°	2275.6	32.2
0°-40°	3615.4	51.2
0°-60°	5975.7	84.6
0°-90°	7061.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7061.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3054	3054	3054	3054	3054	
5°	3050	3049	3037	3021	3012	289
15°	2874	2881	2874	2861	2841	810
25°	2553	2573	2584	2566	2543	1169
35°	2053	2081	2176	2188	2180	1286
45°	1590	1617	1669	1746	1755	1226
55°	1113	1132	1187	1253	1289	994
65°	652	670	710	760	804	647
75°	262	276	296	310	327	286
85°	41	41	41	39	39	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3053.7	3053.7	3053.7	3053.7	3053.7
2.5°	3061.9	3063.1	3056.0	3037.3	3025.5
5°	3050.2	3049.0	3037.3	3020.9	3011.5
7.5°	3016.2	3018.5	3015.0	2991.5	2978.6
10°	2983.3	2984.5	2975.1	2956.3	2941.1
12.5°	2941.1	2939.9	2927.0	2917.6	2893.0
15°	2874.2	2881.2	2874.2	2861.3	2841.4
17.5°	2809.7	2809.7	2814.4	2792.1	2776.8
20°	2737.0	2740.5	2740.5	2722.9	2705.3
22.5°	2652.5	2663.0	2666.6	2647.8	2626.7
25°	2552.8	2572.7	2584.4	2565.7	2543.4
27.5°	2431.9	2462.4	2497.6	2483.6	2458.9
30°	2297.0	2341.6	2400.3	2388.5	2370.9
32.5°	2169.1	2213.7	2294.7	2290.0	2280.6
35°	2053.0	2081.2	2176.2	2187.9	2179.7
37.5°	1942.7	1968.5	2057.7	2084.7	2077.6
40°	1826.6	1854.7	1925.1	1973.2	1975.6
42.5°	1711.6	1738.6	1796.1	1865.3	1865.3
45°	1589.6	1616.6	1669.4	1745.6	1755.0
47.5°	1470.0	1498.1	1549.7	1626.0	1641.2
50°	1352.6	1378.4	1430.1	1504.0	1527.4
52.5°	1230.6	1258.8	1309.2	1377.3	1411.3
55°	1113.3	1132.1	1187.2	1252.9	1289.3
57.5°	991.3	1008.9	1071.1	1127.4	1164.9
60°	874.0	896.3	944.4	1001.9	1045.3
62.5°	761.4	784.8	825.9	876.3	925.6
65°	652.3	669.9	709.8	760.2	803.6
67.5°	546.7	561.9	601.8	637.0	682.8
70°	439.9	459.9	489.2	523.2	552.6
72.5°	354.3	362.5	387.1	411.8	442.3
75°	261.6	275.7	295.6	309.7	327.3
77.5°	187.7	195.9	207.6	219.4	235.8
80°	125.5	129.0	139.6	142.0	154.9
82.5°	76.3	78.6	80.9	82.1	86.8
85°	41.1	41.1	41.1	38.7	38.7
87.5°	23.5	23.5	19.9	16.4	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)