

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: P558190

Luminaire Tested: **FUSL-12-4-LD4-3LO-50-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: P558190
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-LD4-3LO-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

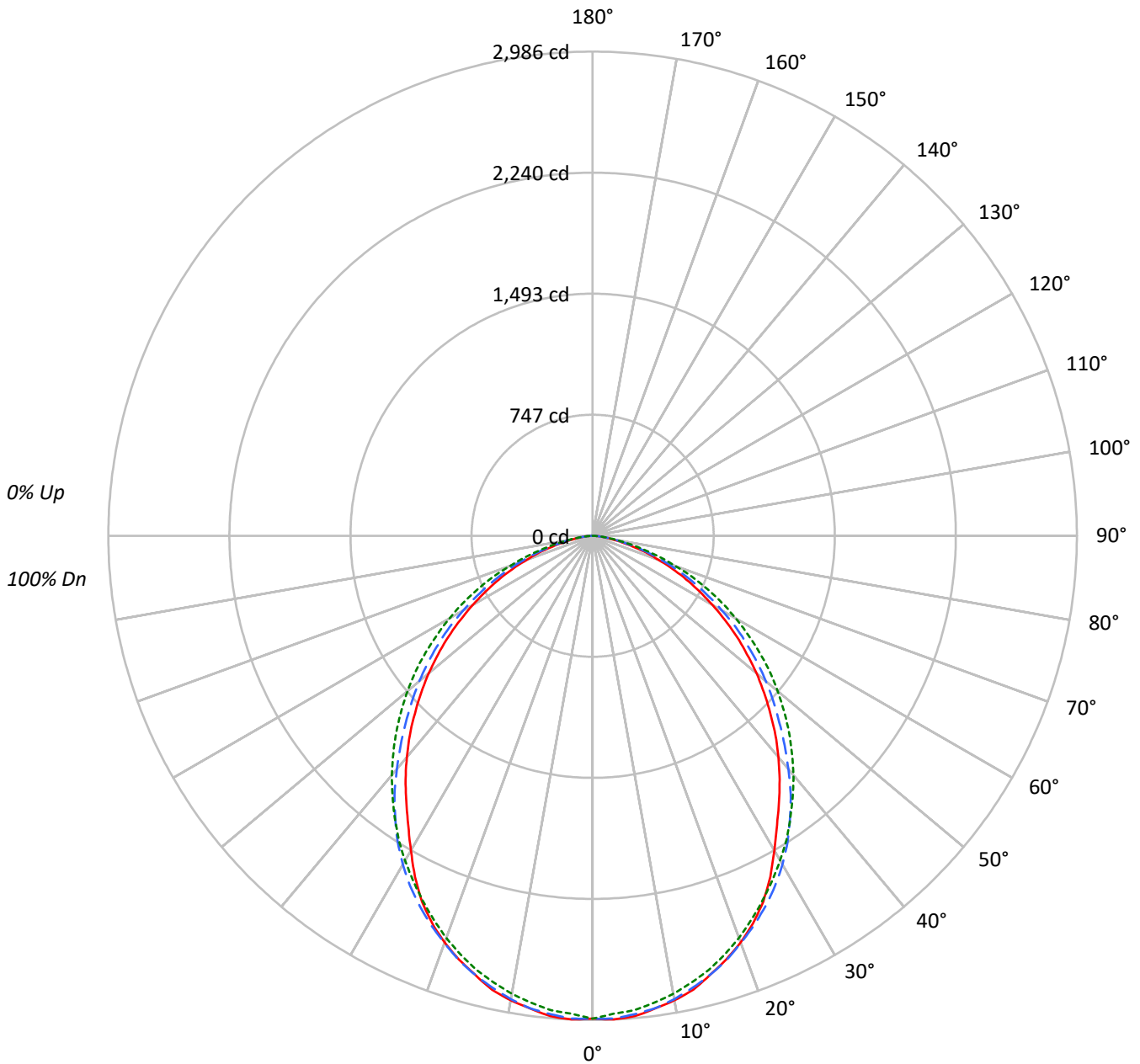
Lumens per Lamp: N/A
Luminaire Lumens: 6886.0 lumens
Efficiency: N/A
Efficacy: 98.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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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CATALOG NUMBER: FUSL-12-4-LD4-3LO-50-UNV-93-97-EDD-90

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°	8014	8014	8014
5°	8035	8001	7933
10°	7950	7928	7837
15°	7809	7809	7719
20°	7643	7653	7555
25°	7392	7483	7364
30°	6961	7274	7185
35°	6577	6972	6983
40°	6257	6595	6768
45°	5899	6196	6513
50°	5522	5838	6236
55°	5094	5432	5899
60°	4587	4957	5486
65°	4050	4408	4990
70°	3375	3754	4240
75°	2652	2997	3319
80°	1897	2109	2340
85°	1235	1235	1167



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	280.4	4.1
10°-20°	787.7	11.4
20°-30°	1151.1	16.7
30°-40°	1306.6	19.0
40°-50°	1261.3	18.3
50°-60°	1040.5	15.1
60°-70°	692.9	10.1
70°-80°	310.1	4.5
80°-90°	55.5	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°	2219.2	32.2
0°-40°	3525.8	51.2
0°-60°	5827.6	84.6
0°-90°	6886.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6886.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2978	2978	2978	2978	2978	
5°	2975	2973	2962	2946	2937	282
15°	2803	2810	2803	2790	2771	790
25°	2490	2509	2520	2502	2480	1140
35°	2002	2030	2122	2134	2126	1254
45°	1550	1576	1628	1702	1712	1196
55°	1086	1104	1158	1222	1257	969
65°	636	653	692	741	784	631
75°	255	269	288	302	319	279
85°	40	40	40	38	38	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2978.0	2978.0	2978.0	2978.0	2978.0
2.5°	2986.0	2987.2	2980.3	2962.0	2950.6
5°	2974.6	2973.4	2962.0	2946.0	2936.8
7.5°	2941.4	2943.7	2940.3	2917.4	2904.8
10°	2909.4	2910.5	2901.4	2883.1	2868.2
12.5°	2868.2	2867.0	2854.5	2845.3	2821.3
15°	2803.0	2809.8	2803.0	2790.4	2770.9
17.5°	2740.1	2740.1	2744.6	2722.9	2708.0
20°	2669.1	2672.6	2672.6	2655.4	2638.2
22.5°	2586.7	2597.0	2600.5	2582.2	2561.6
25°	2489.5	2508.9	2520.4	2502.1	2480.3
27.5°	2371.7	2401.4	2435.7	2422.0	2398.0
30°	2240.1	2283.6	2340.8	2329.3	2312.2
32.5°	2115.4	2158.9	2237.8	2233.2	2224.1
35°	2002.1	2029.6	2122.3	2133.7	2125.7
37.5°	1894.6	1919.8	2006.7	2033.0	2026.1
40°	1781.3	1808.8	1877.4	1924.3	1926.6
42.5°	1669.2	1695.5	1751.6	1819.1	1819.1
45°	1550.2	1576.5	1628.0	1702.4	1711.5
47.5°	1433.5	1461.0	1511.3	1585.7	1600.6
50°	1319.1	1344.3	1394.6	1466.7	1489.6
52.5°	1200.1	1227.6	1276.8	1343.1	1376.3
55°	1085.7	1104.0	1157.8	1221.9	1257.3
57.5°	966.7	983.9	1044.5	1099.5	1136.1
60°	852.3	874.1	921.0	977.0	1019.4
62.5°	742.5	765.4	805.4	854.6	902.7
65°	636.1	653.3	692.2	741.4	783.7
67.5°	533.1	548.0	586.9	621.2	665.8
70°	429.0	448.5	477.1	510.3	538.9
72.5°	345.5	353.5	377.5	401.6	431.3
75°	255.1	268.9	288.3	302.0	319.2
77.5°	183.1	191.1	202.5	213.9	230.0
80°	122.4	125.8	136.1	138.4	151.0
82.5°	74.4	76.7	78.9	80.1	84.7
85°	40.0	40.0	40.0	37.8	37.8
87.5°	22.9	22.9	19.4	16.0	11.4
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)