

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: P558186

Luminaire Tested: **FUSL-12-4-LD4-3LO-50-UNV-93-94-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: P558186
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-93-94-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE
AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND
5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

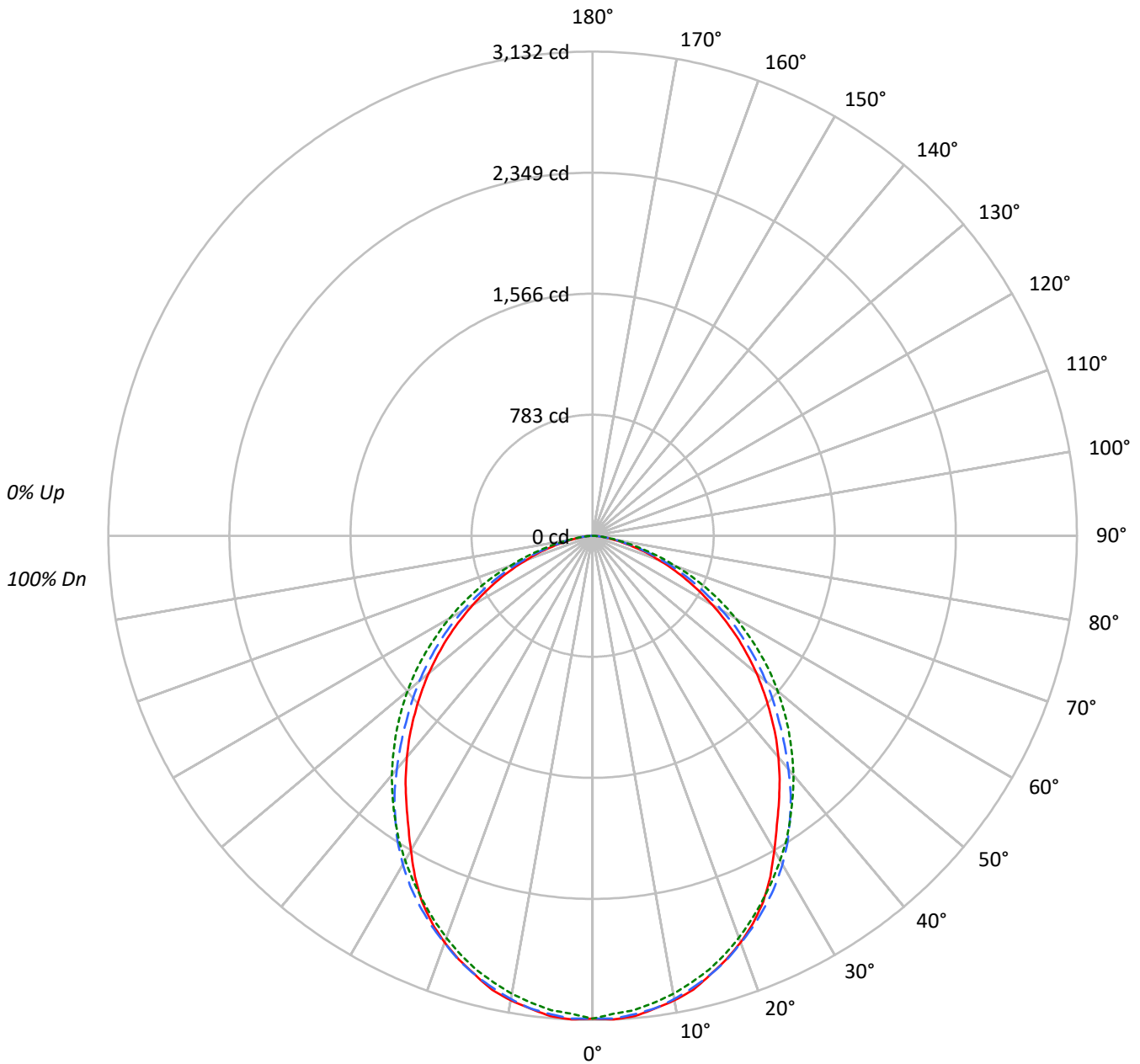
Lumens per Lamp: N/A
Luminaire Lumens: 7222.0 lumens
Efficiency: N/A
Efficacy: 102.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
Input Voltage (V): NR
Input Current (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°	8405	8405	8405
5°	8427	8391	8320
10°	8338	8315	8220
15°	8190	8190	8096
20°	8017	8027	7924
25°	7752	7849	7724
30°	7300	7628	7535
35°	6898	7312	7324
40°	6563	6917	7098
45°	6188	6498	6831
50°	5792	6123	6540
55°	5342	5697	6187
60°	4811	5198	5754
65°	4248	4622	5233
70°	3541	3937	4447
75°	2782	3144	3481
80°	1990	2213	2455
85°	1297	1297	1223



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	294.1	4.1
10°-20°	826.1	11.4
20°-30°	1207.3	16.7
30°-40°	1370.3	19.0
40°-50°	1322.9	18.3
50°-60°	1091.3	15.1
60°-70°	726.7	10.1
70°-80°	325.2	4.5
80°-90°	58.2	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°	2327.4	32.2
0°-40°	3697.8	51.2
0°-60°	6111.9	84.6
0°-90°	7222.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7222.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3123	3123	3123	3123	3123	
5°	3120	3118	3106	3090	3080	295
15°	2940	2947	2940	2926	2906	829
25°	2611	2631	2643	2624	2601	1196
35°	2100	2129	2226	2238	2229	1316
45°	1626	1654	1708	1785	1795	1254
55°	1139	1158	1214	1282	1319	1016
65°	667	685	726	778	822	662
75°	268	282	302	317	335	293
85°	42	42	42	40	40	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3123.3	3123.3	3123.3	3123.3	3123.3
2.5°	3131.7	3132.9	3125.7	3106.5	3094.5
5°	3119.7	3118.5	3106.5	3089.7	3080.1
7.5°	3084.9	3087.3	3083.7	3059.7	3046.5
10°	3051.3	3052.5	3042.9	3023.7	3008.1
12.5°	3008.1	3006.9	2993.7	2984.1	2958.9
15°	2939.7	2946.9	2939.7	2926.5	2906.1
17.5°	2873.8	2873.8	2878.5	2855.8	2840.2
20°	2799.4	2803.0	2803.0	2785.0	2767.0
22.5°	2713.0	2723.8	2727.4	2708.2	2686.6
25°	2611.0	2631.4	2643.4	2624.2	2601.4
27.5°	2487.4	2518.6	2554.6	2540.2	2515.0
30°	2349.4	2395.0	2455.0	2443.0	2425.0
32.5°	2218.6	2264.2	2347.0	2342.2	2332.6
35°	2099.8	2128.6	2225.8	2237.8	2229.4
37.5°	1987.0	2013.4	2104.6	2132.2	2125.0
40°	1868.2	1897.0	1969.0	2018.2	2020.6
42.5°	1750.6	1778.2	1837.0	1907.8	1907.8
45°	1625.9	1653.5	1707.5	1785.4	1795.0
47.5°	1503.5	1532.3	1585.1	1663.1	1678.7
50°	1383.5	1409.9	1462.7	1538.3	1562.3
52.5°	1258.7	1287.5	1339.1	1408.7	1443.5
55°	1138.7	1157.9	1214.3	1281.5	1318.7
57.5°	1013.9	1031.9	1095.5	1153.1	1191.5
60°	893.9	916.7	965.9	1024.7	1069.1
62.5°	778.7	802.7	844.7	896.3	946.7
65°	667.1	685.1	725.9	777.5	821.9
67.5°	559.2	574.8	615.5	651.5	698.3
70°	450.0	470.4	500.4	535.2	565.2
72.5°	362.4	370.8	396.0	421.2	452.4
75°	267.6	282.0	302.4	316.8	334.8
77.5°	192.0	200.4	212.4	224.4	241.2
80°	128.4	132.0	142.8	145.2	158.4
82.5°	78.0	80.4	82.8	84.0	88.8
85°	42.0	42.0	42.0	39.6	39.6
87.5°	24.0	24.0	20.4	16.8	12.0
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)