

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: P557481

Luminaire Tested: **FUSL-12-4-LD4-2STD-30-UNV-93-88-EDD**

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: P557481
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-LD4-2STD-30-UNV-93-88-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

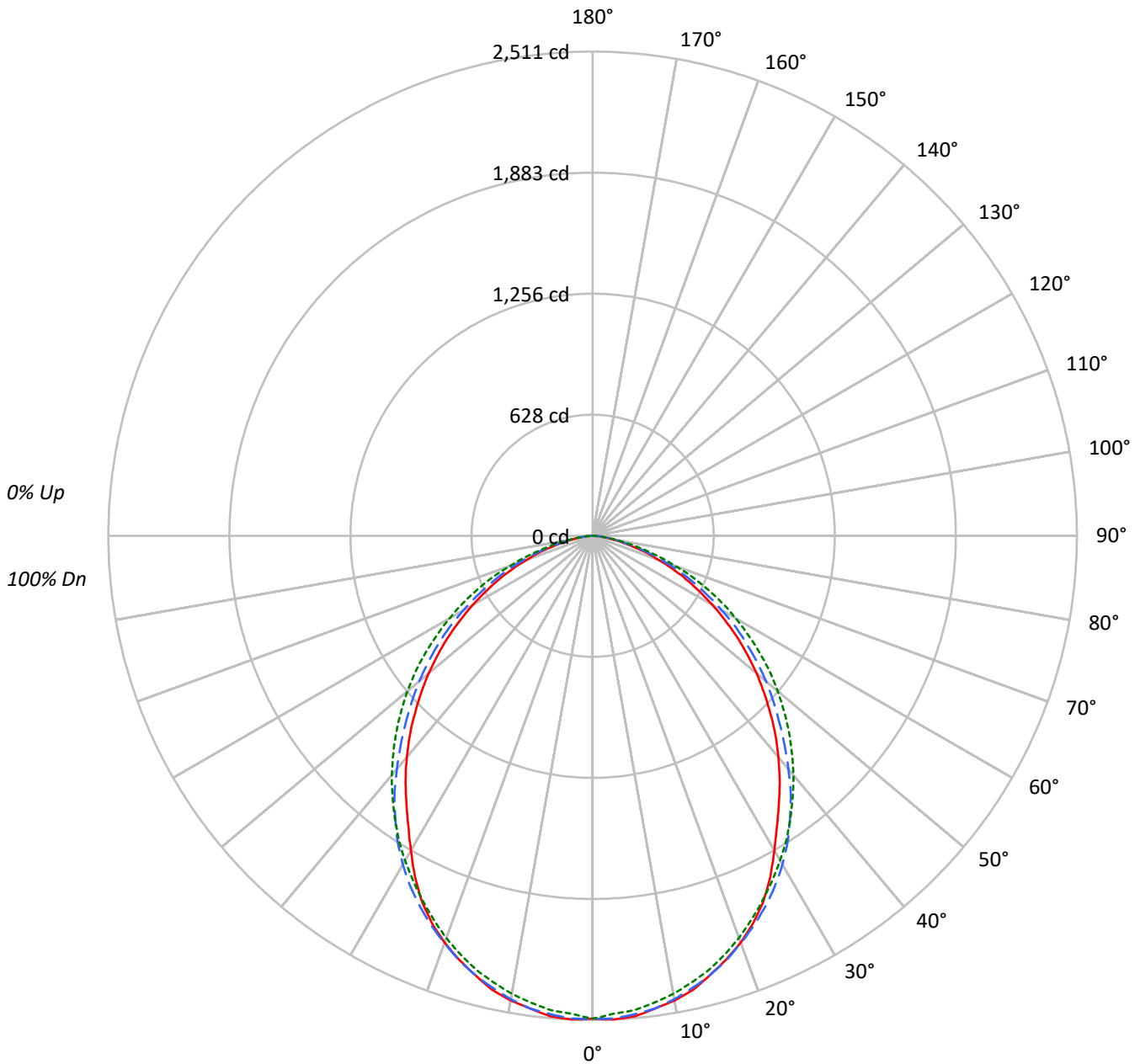
Lumens per Lamp: N/A
Luminaire Lumens: 5791.0 lumens
Efficiency: N/A
Efficacy: 87.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	6740	6740	6740
5°	6757	6729	6672
10°	6686	6667	6591
15°	6567	6567	6492
20°	6428	6436	6354
25°	6216	6293	6193
30°	5854	6117	6042
35°	5531	5863	5873
40°	5263	5546	5691
45°	4961	5210	5478
50°	4644	4910	5244
55°	4284	4568	4961
60°	3858	4168	4614
65°	3407	3706	4197
70°	2839	3157	3566
75°	2231	2521	2791
80°	1595	1774	1968
85°	1041	1041	982



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	235.8	4.1
10°-20°	662.4	11.4
20°-30°	968.0	16.7
30°-40°	1098.8	19.0
40°-50°	1060.7	18.3
50°-60°	875.1	15.1
60°-70°	582.7	10.1
70°-80°	260.8	4.5
80°-90°	46.7	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°	1866.3	32.2
0°-40°	2965.1	51.2
0°-60°	4900.9	84.6
0°-90°	5791.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5791.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2504	2504	2504	2504	2504	
5°	2502	2501	2491	2478	2470	237
15°	2357	2363	2357	2347	2330	665
25°	2094	2110	2120	2104	2086	959
35°	1684	1707	1785	1794	1788	1055
45°	1304	1326	1369	1432	1439	1006
55°	913	928	974	1028	1057	815
65°	535	549	582	624	659	530
75°	215	226	242	254	268	235
85°	34	34	34	32	32	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2504.5	2504.5	2504.5	2504.5	2504.5
2.5°	2511.2	2512.2	2506.4	2491.0	2481.4
5°	2501.6	2500.6	2491.0	2477.5	2469.8
7.5°	2473.7	2475.6	2472.7	2453.5	2442.9
10°	2446.7	2447.7	2440.0	2424.6	2412.1
12.5°	2412.1	2411.1	2400.5	2392.8	2372.6
15°	2357.3	2363.0	2357.3	2346.7	2330.3
17.5°	2304.3	2304.3	2308.2	2289.9	2277.4
20°	2244.7	2247.6	2247.6	2233.1	2218.7
22.5°	2175.4	2184.1	2187.0	2171.6	2154.2
25°	2093.6	2110.0	2119.6	2104.2	2085.9
27.5°	1994.5	2019.5	2048.4	2036.9	2016.7
30°	1883.9	1920.4	1968.5	1958.9	1944.5
32.5°	1779.0	1815.6	1882.0	1878.1	1870.4
35°	1683.8	1706.8	1784.8	1794.4	1787.7
37.5°	1593.3	1614.5	1687.6	1709.7	1704.0
40°	1498.1	1521.1	1578.9	1618.3	1620.2
42.5°	1403.8	1425.9	1473.0	1529.8	1529.8
45°	1303.7	1325.8	1369.1	1431.7	1439.4
47.5°	1205.6	1228.7	1271.0	1333.5	1346.0
50°	1109.4	1130.5	1172.9	1233.5	1252.7
52.5°	1009.3	1032.4	1073.8	1129.6	1157.5
55°	913.1	928.5	973.7	1027.6	1057.4
57.5°	813.0	827.4	878.4	924.6	955.4
60°	716.8	735.1	774.5	821.7	857.3
62.5°	624.4	643.7	677.3	718.7	759.1
65°	535.0	549.4	582.1	623.5	659.1
67.5°	448.4	460.9	493.6	522.4	560.0
70°	360.8	377.2	401.2	429.1	453.2
72.5°	290.6	297.3	317.5	337.7	362.7
75°	214.6	226.1	242.5	254.0	268.4
77.5°	153.9	160.7	170.3	179.9	193.4
80°	102.9	105.8	114.5	116.4	127.0
82.5°	62.5	64.5	66.4	67.4	71.2
85°	33.7	33.7	33.7	31.8	31.8
87.5°	19.2	19.2	16.4	13.5	9.6
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)