

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: P557455

Luminaire Tested: **FUSL-12-4-LD4-2STD-30-UNV-81-97-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: P557455
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-81-97-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

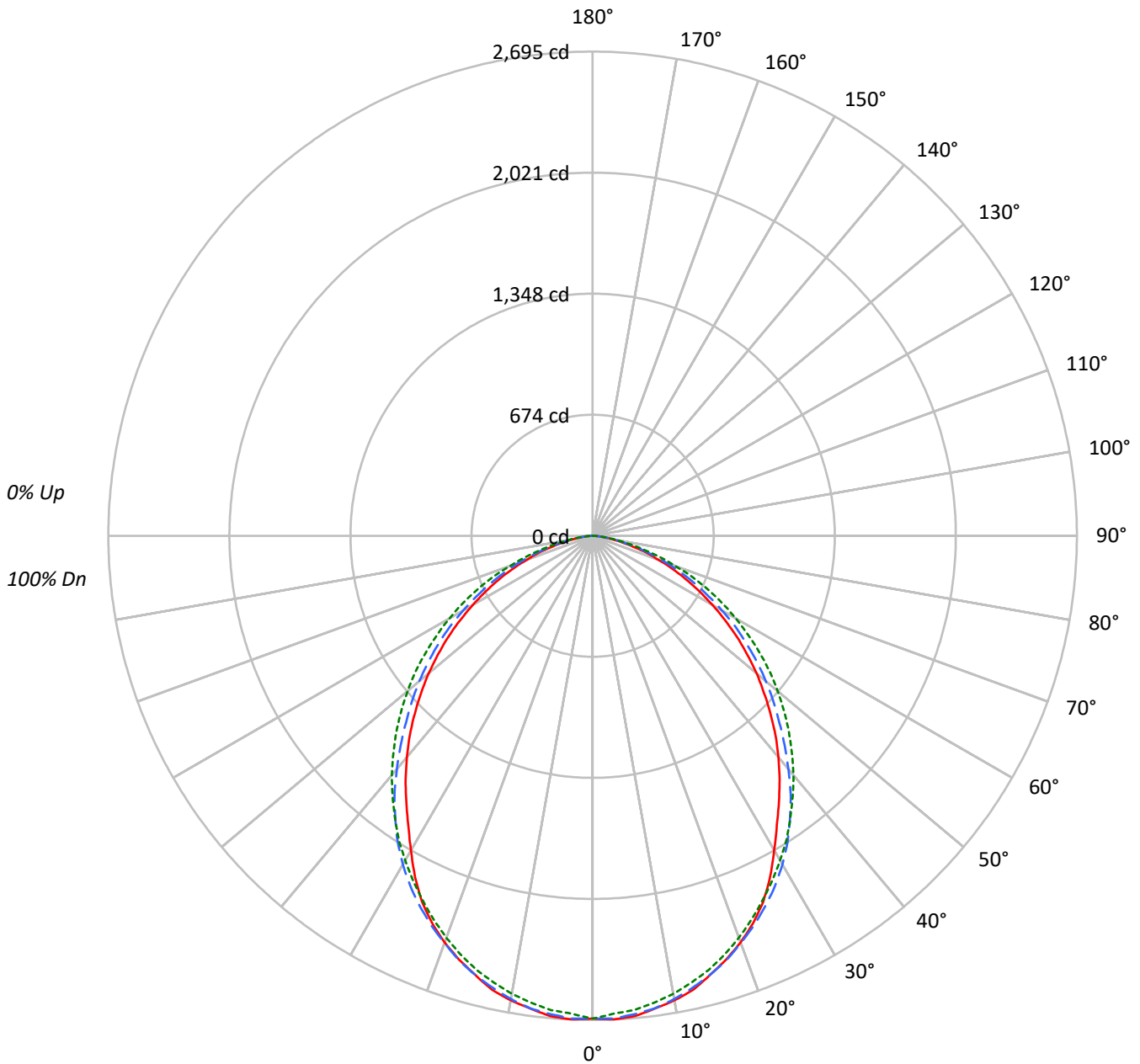
Lumens per Lamp: N/A
Luminaire Lumens: 6214.0 lumens
Efficiency: N/A
Efficacy: 93.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	7232	7232	7232
5°	7251	7220	7159
10°	7174	7154	7073
15°	7047	7047	6966
20°	6897	6906	6818
25°	6671	6753	6646
30°	6281	6563	6483
35°	5935	6291	6301
40°	5647	5951	6107
45°	5324	5591	5878
50°	4984	5269	5627
55°	4597	4902	5323
60°	4140	4473	4951
65°	3655	3977	4503
70°	3046	3387	3826
75°	2393	2705	2994
80°	1712	1905	2112
85°	1115	1115	1053



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	253.0	4.1
10°-20°	710.8	11.4
20°-30°	1038.7	16.7
30°-40°	1179.1	19.0
40°-50°	1138.2	18.3
50°-60°	939.0	15.1
60°-70°	625.3	10.1
70°-80°	279.8	4.5
80°-90°	50.1	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°	2002.6	32.2
0°-40°	3181.7	51.2
0°-60°	5258.9	84.6
0°-90°	6214.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6214.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2687	2687	2687	2687	2687	
5°	2684	2683	2673	2658	2650	254
15°	2529	2536	2529	2518	2500	713
25°	2247	2264	2274	2258	2238	1029
35°	1807	1832	1915	1926	1918	1132
45°	1399	1423	1469	1536	1544	1079
55°	980	996	1045	1103	1135	874
65°	574	590	625	669	707	569
75°	230	243	260	273	288	252
85°	36	36	36	34	34	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2687.4	2687.4	2687.4	2687.4	2687.4
2.5°	2694.6	2695.7	2689.5	2672.9	2662.6
5°	2684.3	2683.3	2672.9	2658.5	2650.2
7.5°	2654.4	2656.4	2653.3	2632.7	2621.3
10°	2625.4	2626.5	2618.2	2601.7	2588.3
12.5°	2588.3	2587.2	2575.9	2567.6	2546.0
15°	2529.4	2535.6	2529.4	2518.1	2500.5
17.5°	2472.7	2472.7	2476.8	2457.2	2443.7
20°	2408.6	2411.7	2411.7	2396.3	2380.8
22.5°	2334.3	2343.6	2346.7	2330.2	2311.6
25°	2246.6	2264.1	2274.4	2257.9	2238.3
27.5°	2140.2	2167.1	2198.0	2185.6	2164.0
30°	2021.5	2060.7	2112.3	2102.0	2086.5
32.5°	1908.9	1948.2	2019.4	2015.3	2007.0
35°	1806.7	1831.5	1915.1	1925.5	1918.2
37.5°	1709.7	1732.4	1810.9	1834.6	1828.4
40°	1607.5	1632.3	1694.2	1736.5	1738.6
42.5°	1506.3	1530.0	1580.6	1641.6	1641.6
45°	1398.9	1422.7	1469.1	1536.2	1544.5
47.5°	1293.6	1318.4	1363.8	1430.9	1444.4
50°	1190.4	1213.1	1258.5	1323.6	1344.2
52.5°	1083.0	1107.8	1152.2	1212.1	1242.0
55°	979.8	996.3	1044.8	1102.6	1134.6
57.5°	872.4	887.9	942.6	992.2	1025.2
60°	769.2	788.8	831.1	881.7	919.9
62.5°	670.0	690.7	726.8	771.2	814.6
65°	574.0	589.5	624.6	669.0	707.2
67.5°	481.1	494.5	529.6	560.6	600.9
70°	387.2	404.7	430.5	460.5	486.3
72.5°	311.8	319.0	340.7	362.4	389.2
75°	230.2	242.6	260.2	272.6	288.0
77.5°	165.2	172.4	182.7	193.1	207.5
80°	110.5	113.6	122.9	124.9	136.3
82.5°	67.1	69.2	71.2	72.3	76.4
85°	36.1	36.1	36.1	34.1	34.1
87.5°	20.6	20.6	17.6	14.5	10.3
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)