

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: P557669

Luminaire Tested: **FUSL-12-4-LD4-2STD-50-UNV-93-86-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: P557669
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-50-UNV-93-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

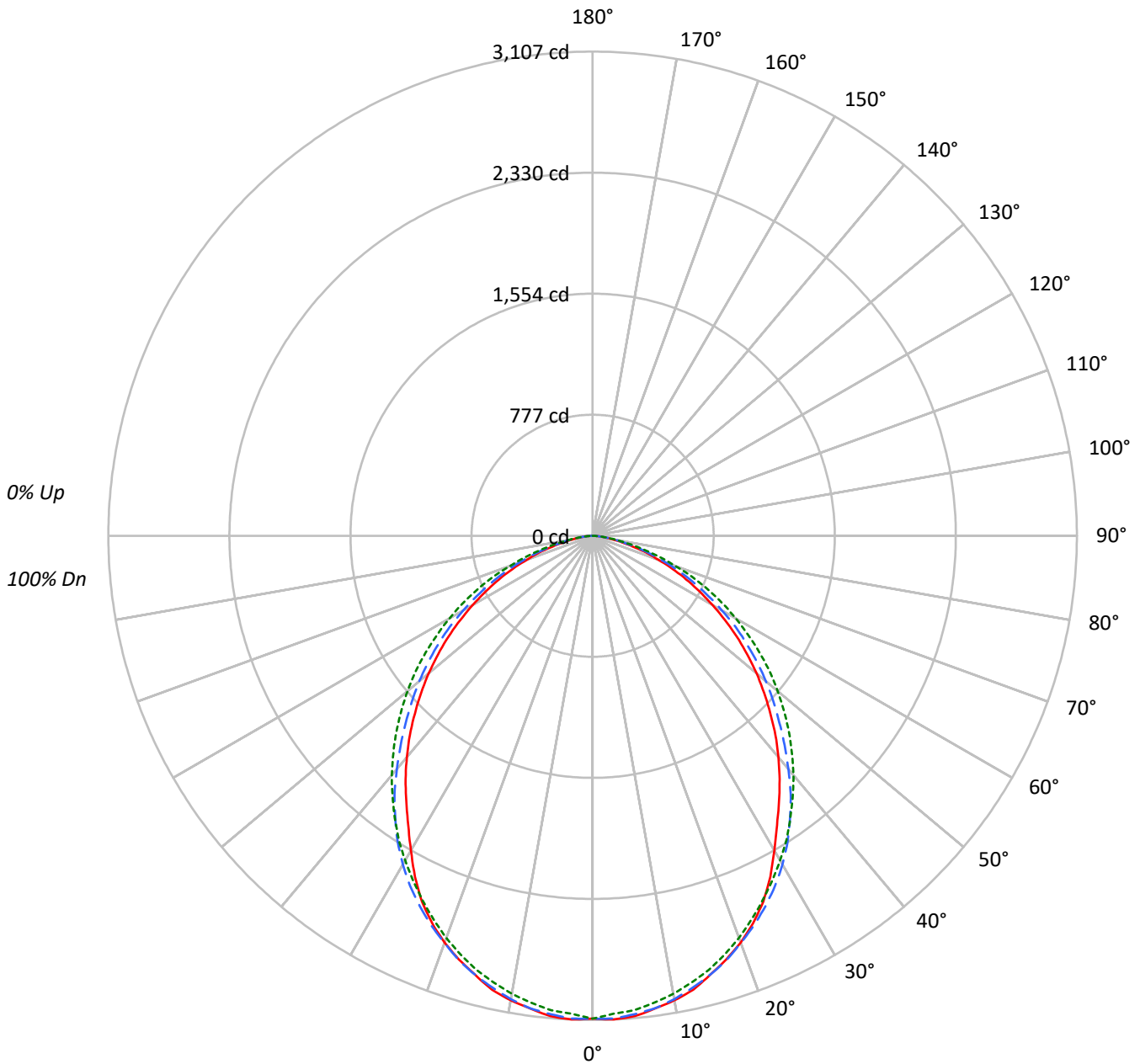
Lumens per Lamp: N/A
Luminaire Lumens: 7165.0 lumens
Efficiency: N/A
Efficacy: 107.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
Input Voltage (V): NR
Input Current (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°	8339	8339	8339
5°	8361	8325	8255
10°	8272	8249	8155
15°	8125	8125	8032
20°	7953	7963	7861
25°	7691	7787	7663
30°	7243	7568	7475
35°	6843	7254	7266
40°	6511	6862	7042
45°	6138	6447	6777
50°	5746	6075	6489
55°	5300	5652	6138
60°	4773	5158	5709
65°	4215	4586	5192
70°	3512	3906	4412
75°	2760	3119	3453
80°	1974	2196	2435
85°	1288	1288	1213



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	291.7	4.1
10°-20°	819.6	11.4
20°-30°	1197.7	16.7
30°-40°	1359.5	19.0
40°-50°	1312.4	18.3
50°-60°	1082.7	15.1
60°-70°	721.0	10.1
70°-80°	322.6	4.5
80°-90°	57.7	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°	2309.1	32.2
0°-40°	3668.6	51.2
0°-60°	6063.7	84.6
0°-90°	7165.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7165.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3099	3099	3099	3099	3099	
5°	3095	3094	3082	3065	3056	293
15°	2916	2924	2916	2903	2883	822
25°	2590	2611	2622	2604	2581	1186
35°	2083	2112	2208	2220	2212	1305
45°	1613	1640	1694	1771	1781	1245
55°	1130	1149	1205	1271	1308	1008
65°	662	680	720	771	815	656
75°	266	280	300	314	332	290
85°	42	42	42	39	39	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3098.7	3098.7	3098.7	3098.7	3098.7
2.5°	3107.0	3108.2	3101.1	3082.0	3070.1
5°	3095.1	3093.9	3082.0	3065.3	3055.8
7.5°	3060.6	3063.0	3059.4	3035.6	3022.5
10°	3027.3	3028.4	3018.9	2999.9	2984.4
12.5°	2984.4	2983.2	2970.1	2960.6	2935.6
15°	2916.5	2923.7	2916.5	2903.4	2883.2
17.5°	2851.1	2851.1	2855.8	2833.2	2817.7
20°	2777.3	2780.8	2780.8	2763.0	2745.1
22.5°	2691.6	2702.3	2705.8	2686.8	2665.4
25°	2590.4	2610.6	2622.5	2603.5	2580.8
27.5°	2467.8	2498.7	2534.4	2520.1	2495.1
30°	2330.9	2376.1	2435.6	2423.7	2405.8
32.5°	2201.1	2246.3	2328.5	2323.7	2314.2
35°	2083.2	2111.8	2208.2	2220.1	2211.8
37.5°	1971.3	1997.5	2088.0	2115.4	2108.2
40°	1853.5	1882.1	1953.5	2002.3	2004.7
42.5°	1736.8	1764.2	1822.5	1892.8	1892.8
45°	1613.0	1640.4	1694.0	1771.4	1780.9
47.5°	1491.6	1520.2	1572.6	1649.9	1665.4
50°	1372.6	1398.7	1451.1	1526.1	1549.9
52.5°	1248.8	1277.3	1328.5	1397.6	1432.1
55°	1129.7	1148.8	1204.7	1271.4	1308.3
57.5°	1005.9	1023.8	1086.9	1144.0	1182.1
60°	886.9	909.5	958.3	1016.6	1060.7
62.5°	772.6	796.4	838.1	889.2	939.2
65°	661.9	679.7	720.2	771.4	815.4
67.5°	554.7	570.2	610.7	646.4	692.8
70°	446.4	466.6	496.4	530.9	560.7
72.5°	359.5	367.8	392.8	417.8	448.8
75°	265.5	279.7	300.0	314.3	332.1
77.5°	190.5	198.8	210.7	222.6	239.3
80°	127.4	130.9	141.7	144.0	157.1
82.5°	77.4	79.8	82.1	83.3	88.1
85°	41.7	41.7	41.7	39.3	39.3
87.5°	23.8	23.8	20.2	16.7	11.9
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)