

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: P557102

Luminaire Tested: **FUSL-12-4-LD4-2HI-40-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: P557102
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-LD4-2HI-40-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 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

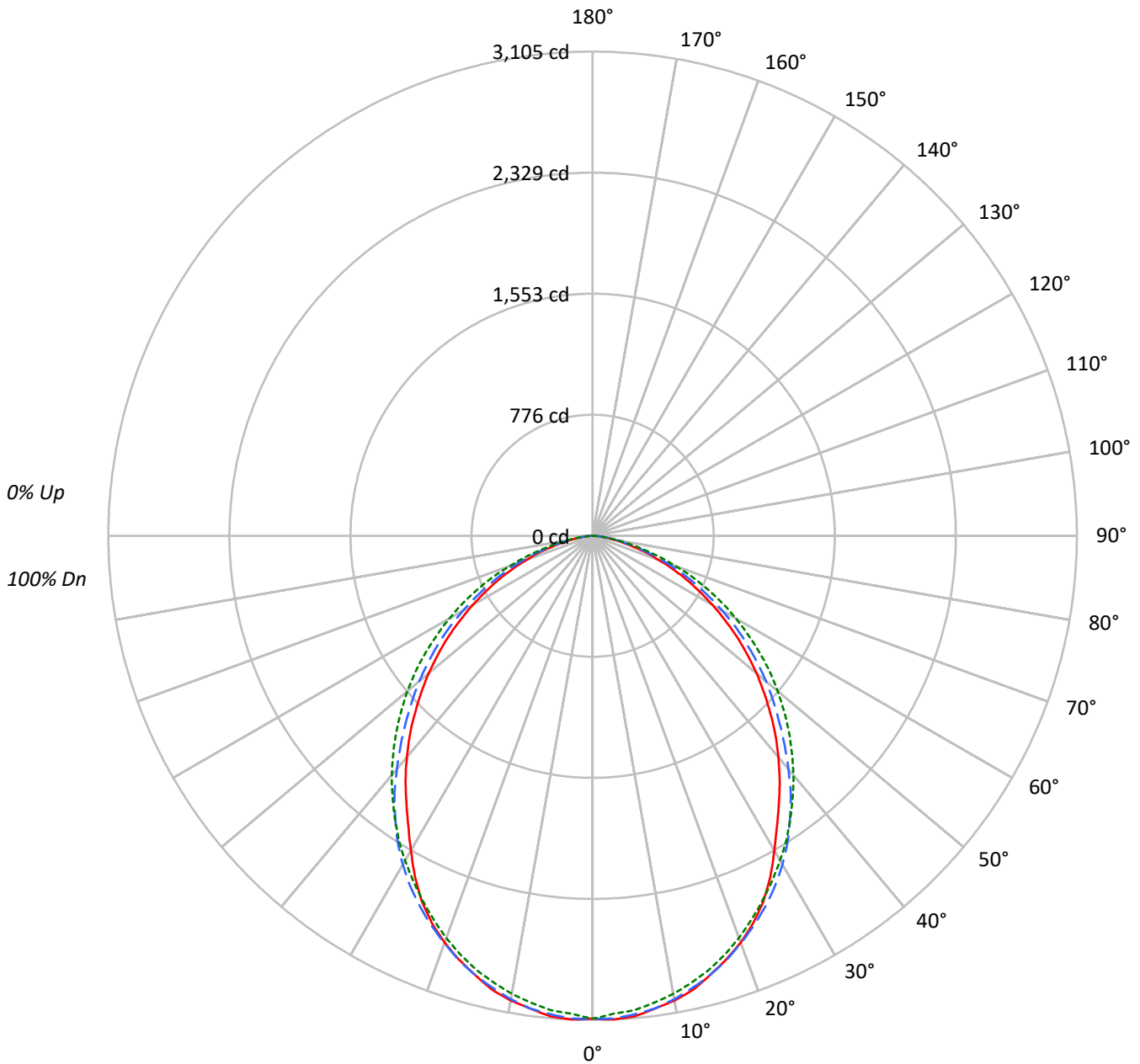
Lumens per Lamp: N/A
Luminaire Lumens: 7161.0 lumens
Efficiency: N/A
Efficacy: 82.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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°	8334	8334	8334
5°	8356	8321	8250
10°	8267	8244	8150
15°	8121	8121	8028
20°	7949	7959	7857
25°	7687	7782	7659
30°	7239	7564	7471
35°	6840	7250	7262
40°	6508	6858	7038
45°	6135	6443	6774
50°	5743	6072	6485
55°	5297	5649	6134
60°	4771	5155	5705
65°	4212	4583	5189
70°	3511	3903	4409
75°	2758	3117	3451
80°	1973	2194	2433
85°	1284	1284	1213



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	291.6	4.1
10°-20°	819.1	11.4
20°-30°	1197.0	16.7
30°-40°	1358.8	19.0
40°-50°	1311.7	18.3
50°-60°	1082.1	15.1
60°-70°	720.6	10.1
70°-80°	322.4	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°	2307.8	32.2
0°-40°	3666.6	51.2
0°-60°	6060.3	84.6
0°-90°	7161.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7161.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3097	3097	3097	3097	3097	
5°	3093	3092	3080	3064	3054	293
15°	2915	2922	2915	2902	2882	822
25°	2589	2609	2621	2602	2579	1186
35°	2082	2111	2207	2219	2211	1305
45°	1612	1640	1693	1770	1780	1244
55°	1129	1148	1204	1271	1308	1008
65°	662	679	720	771	815	656
75°	265	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°	3096.9	3096.9	3096.9	3096.9	3096.9
2.5°	3105.3	3106.5	3099.3	3080.3	3068.4
5°	3093.4	3092.2	3080.3	3063.6	3054.1
7.5°	3058.9	3061.3	3057.7	3033.9	3020.8
10°	3025.6	3026.8	3017.2	2998.2	2982.7
12.5°	2982.7	2981.5	2968.5	2958.9	2934.0
15°	2914.9	2922.1	2914.9	2901.8	2881.6
17.5°	2849.5	2849.5	2854.2	2831.6	2816.2
20°	2775.7	2779.3	2779.3	2761.4	2743.6
22.5°	2690.0	2700.8	2704.3	2685.3	2663.9
25°	2588.9	2609.1	2621.0	2602.0	2579.4
27.5°	2466.4	2497.3	2533.0	2518.7	2493.7
30°	2329.6	2374.8	2434.3	2422.4	2404.5
32.5°	2199.9	2245.1	2327.2	2322.4	2312.9
35°	2082.1	2110.6	2207.0	2218.9	2210.6
37.5°	1970.2	1996.4	2086.8	2114.2	2107.1
40°	1852.5	1881.0	1952.4	2001.2	2003.6
42.5°	1735.9	1763.2	1821.5	1891.7	1891.7
45°	1612.1	1639.5	1693.0	1770.4	1779.9
47.5°	1490.8	1519.3	1571.7	1649.0	1664.5
50°	1371.8	1398.0	1450.3	1525.3	1549.1
52.5°	1248.1	1276.6	1327.8	1396.8	1431.3
55°	1129.1	1148.1	1204.0	1270.7	1307.5
57.5°	1005.3	1023.2	1086.3	1143.4	1181.4
60°	886.4	909.0	957.8	1016.1	1060.1
62.5°	772.2	796.0	837.6	888.8	938.7
65°	661.5	679.4	719.8	771.0	815.0
67.5°	554.4	569.9	610.3	646.0	692.4
70°	446.2	466.4	496.1	530.6	560.4
72.5°	359.3	367.6	392.6	417.6	448.5
75°	265.3	279.6	299.8	314.1	331.9
77.5°	190.4	198.7	210.6	222.5	239.1
80°	127.3	130.9	141.6	144.0	157.0
82.5°	77.3	79.7	82.1	83.3	88.0
85°	41.6	41.6	41.6	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)