

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: P557070

Luminaire Tested: **FUSL-12-4-LD4-2HI-40-UNV-81-97-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: P557070
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-81-97-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC 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

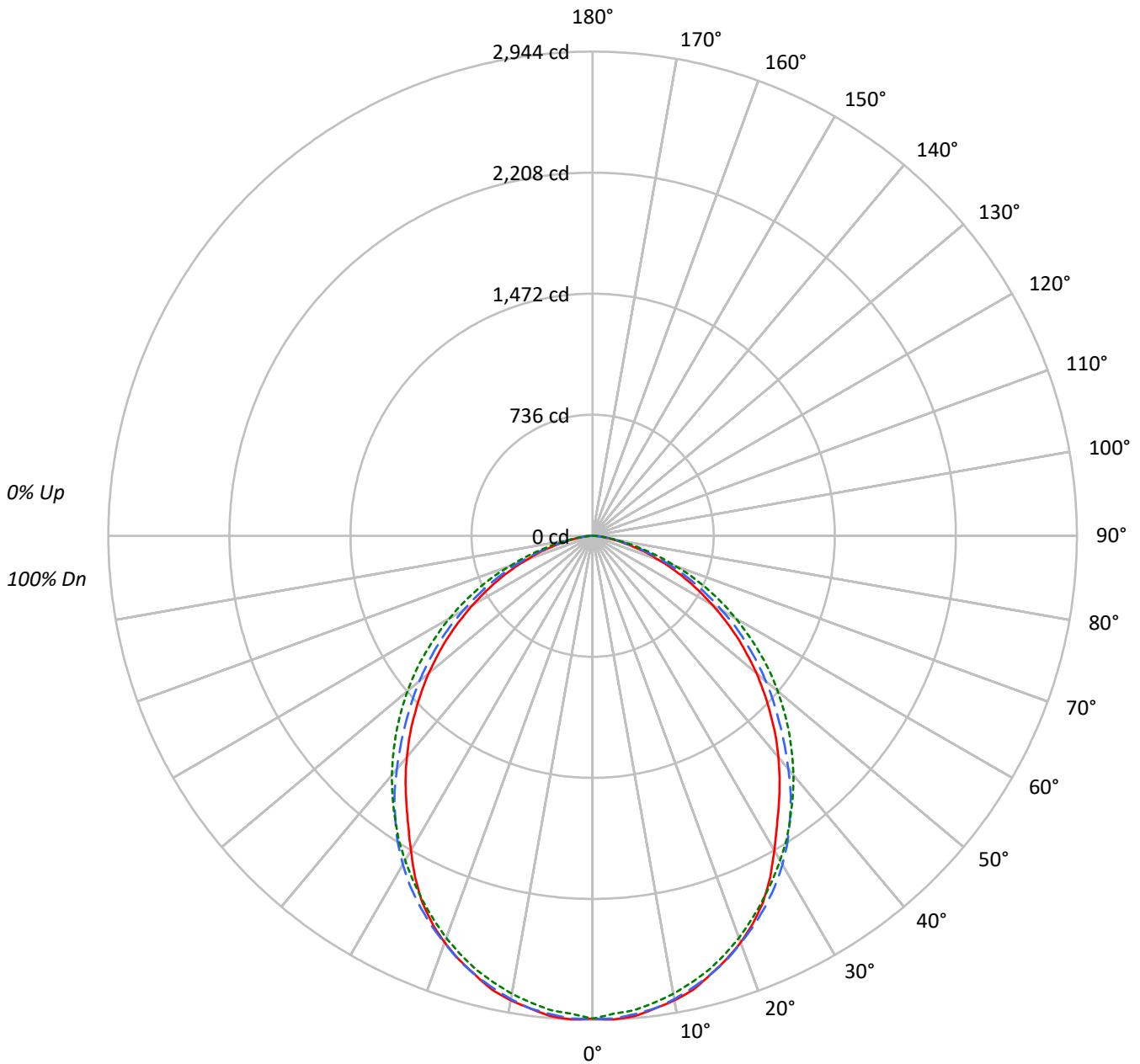
Lumens per Lamp: N/A
Luminaire Lumens: 6789.0 lumens
Efficiency: N/A
Efficacy: 78.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	7901	7901	7901
5°	7922	7888	7821
10°	7838	7816	7727
15°	7699	7699	7611
20°	7536	7546	7449
25°	7288	7378	7261
30°	6862	7171	7083
35°	6484	6874	6885
40°	6169	6502	6673
45°	5817	6108	6422
50°	5444	5756	6148
55°	5022	5355	5816
60°	4522	4887	5409
65°	3993	4345	4919
70°	3328	3701	4180
75°	2615	2955	3272
80°	1870	2080	2307
85°	1220	1220	1149



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	276.4	4.1
10°-20°	776.6	11.4
20°-30°	1134.9	16.7
30°-40°	1288.2	19.0
40°-50°	1243.5	18.3
50°-60°	1025.8	15.1
60°-70°	683.1	10.1
70°-80°	305.7	4.5
80°-90°	54.7	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°	2187.9	32.2
0°-40°	3476.1	51.2
0°-60°	5745.5	84.6
0°-90°	6789.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6789.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2936	2936	2936	2936	2936	
5°	2933	2932	2920	2904	2896	278
15°	2764	2770	2764	2751	2732	779
25°	2454	2474	2485	2467	2445	1124
35°	1974	2001	2092	2104	2096	1237
45°	1528	1554	1605	1678	1687	1179
55°	1070	1088	1142	1205	1240	955
65°	627	644	682	731	773	622
75°	252	265	284	298	315	275
85°	40	40	40	37	37	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2936.1	2936.1	2936.1	2936.1	2936.1
2.5°	2944.0	2945.1	2938.3	2920.3	2909.0
5°	2932.7	2931.6	2920.3	2904.5	2895.5
7.5°	2900.0	2902.2	2898.8	2876.3	2863.9
10°	2868.4	2869.5	2860.5	2842.4	2827.8
12.5°	2827.8	2826.7	2814.2	2805.2	2781.5
15°	2763.5	2770.3	2763.5	2751.1	2731.9
17.5°	2701.5	2701.5	2706.0	2684.5	2669.9
20°	2631.5	2634.9	2634.9	2618.0	2601.1
22.5°	2550.3	2560.5	2563.8	2545.8	2525.5
25°	2454.4	2473.6	2484.9	2466.8	2445.4
27.5°	2338.3	2367.6	2401.4	2387.9	2364.2
30°	2208.5	2251.4	2307.8	2296.5	2279.6
32.5°	2085.6	2128.5	2206.3	2201.8	2192.7
35°	1973.9	2001.0	2092.4	2103.6	2095.7
37.5°	1867.9	1892.7	1978.4	2004.4	1997.6
40°	1756.2	1783.3	1851.0	1897.2	1899.5
42.5°	1645.7	1671.6	1726.9	1793.4	1793.4
45°	1528.4	1554.3	1605.1	1678.4	1687.4
47.5°	1413.3	1440.4	1490.0	1563.3	1578.0
50°	1300.5	1325.3	1375.0	1446.0	1468.6
52.5°	1183.2	1210.3	1258.8	1324.2	1356.9
55°	1070.4	1088.5	1141.5	1204.7	1239.6
57.5°	953.1	970.0	1029.8	1084.0	1120.1
60°	840.3	861.8	908.0	963.3	1005.0
62.5°	732.0	754.6	794.1	842.6	890.0
65°	627.1	644.1	682.4	730.9	772.6
67.5°	525.6	540.3	578.6	612.5	656.5
70°	423.0	442.2	470.4	503.1	531.3
72.5°	340.6	348.5	372.2	395.9	425.2
75°	251.5	265.1	284.2	297.8	314.7
77.5°	180.5	188.4	199.6	210.9	226.7
80°	120.7	124.1	134.2	136.5	148.9
82.5°	73.3	75.6	77.8	79.0	83.5
85°	39.5	39.5	39.5	37.2	37.2
87.5°	22.6	22.6	19.2	15.8	11.3
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)