

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: P557167

Luminaire Tested: **FUSL-12-4-LD4-2HI-50-UNV-93-97-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: P557167
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-50-UNV-93-97-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

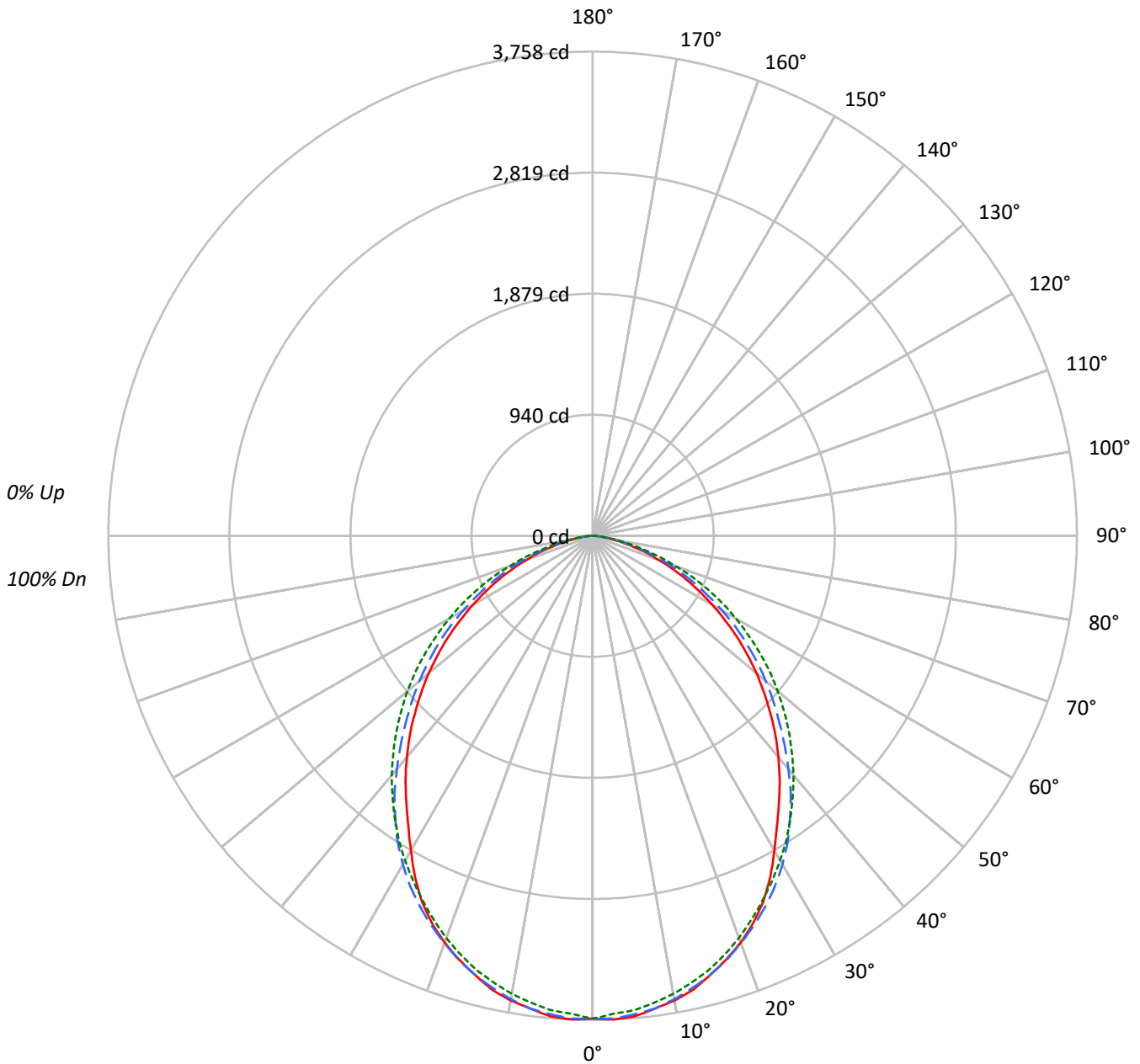
Lumens per Lamp: N/A
Luminaire Lumens: 8667.0 lumens
Efficiency: N/A
Efficacy: 100.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	10087	10087	10087
5°	10113	10071	9985
10°	10006	9979	9864
15°	9828	9828	9716
20°	9621	9633	9509
25°	9304	9419	9269
30°	8761	9155	9043
35°	8278	8775	8789
40°	7876	8301	8518
45°	7426	7798	8198
50°	6951	7348	7849
55°	6411	6837	7424
60°	5774	6239	6905
65°	5098	5547	6281
70°	4249	4725	5336
75°	3339	3773	4178
80°	2388	2656	2946
85°	1556	1556	1467



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	352.9	4.1
10°-20°	991.4	11.4
20°-30°	1448.8	16.7
30°-40°	1644.5	19.0
40°-50°	1587.5	18.3
50°-60°	1309.6	15.1
60°-70°	872.1	10.1
70°-80°	390.3	4.5
80°-90°	69.8	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°	2793.1	32.2
0°-40°	4437.7	51.2
0°-60°	7334.8	84.6
0°-90°	8667.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8667.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3748	3748	3748	3748	3748	
5°	3744	3742	3728	3708	3696	354
15°	3528	3537	3528	3512	3488	995
25°	3133	3158	3172	3149	3122	1435
35°	2520	2554	2671	2686	2676	1579
45°	1951	1984	2049	2143	2154	1505
55°	1366	1390	1457	1538	1582	1220
65°	801	822	871	933	986	794
75°	321	338	363	380	402	351
85°	50	50	50	48	48	68
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3748.3	3748.3	3748.3	3748.3	3748.3
2.5°	3758.3	3759.8	3751.1	3728.1	3713.7
5°	3743.9	3742.5	3728.1	3707.9	3696.4
7.5°	3702.2	3705.1	3700.7	3671.9	3656.1
10°	3661.9	3663.3	3651.8	3628.7	3610.0
12.5°	3610.0	3608.6	3592.7	3581.2	3551.0
15°	3527.9	3536.6	3527.9	3512.1	3487.6
17.5°	3448.7	3448.7	3454.5	3427.1	3408.4
20°	3359.5	3363.8	3363.8	3342.2	3320.6
22.5°	3255.8	3268.7	3273.1	3250.0	3224.1
25°	3133.4	3157.9	3172.3	3149.2	3121.9
27.5°	2985.1	3022.5	3065.7	3048.4	3018.2
30°	2819.5	2874.2	2946.2	2931.8	2910.2
32.5°	2662.5	2717.2	2816.6	2810.8	2799.3
35°	2520.0	2554.5	2671.2	2685.6	2675.5
37.5°	2384.6	2416.3	2525.7	2558.8	2550.2
40°	2242.0	2276.6	2363.0	2422.0	2424.9
42.5°	2100.9	2134.0	2204.6	2289.6	2289.6
45°	1951.2	1984.3	2049.1	2142.7	2154.2
47.5°	1804.3	1838.8	1902.2	1995.8	2014.5
50°	1660.3	1692.0	1755.3	1846.0	1874.8
52.5°	1510.5	1545.1	1607.0	1690.5	1732.3
55°	1366.5	1389.6	1457.3	1537.9	1582.5
57.5°	1216.8	1238.4	1314.7	1383.8	1429.9
60°	1072.8	1100.1	1159.2	1229.7	1283.0
62.5°	934.5	963.3	1013.7	1075.7	1136.1
65°	800.6	822.2	871.2	933.1	986.4
67.5°	671.0	689.7	738.7	781.9	838.1
70°	540.0	564.5	600.5	642.2	678.2
72.5°	434.9	445.0	475.2	505.4	542.9
75°	321.1	338.4	362.9	380.2	401.8
77.5°	230.4	240.5	254.9	269.3	289.4
80°	154.1	158.4	171.4	174.2	190.1
82.5°	93.6	96.5	99.4	100.8	106.6
85°	50.4	50.4	50.4	47.5	47.5
87.5°	28.8	28.8	24.5	20.2	14.4
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)