

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: P558362

Luminaire Tested: **FUSL-12-4-LD4-3STD-40-UNV-82-94-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: P558362
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-LD4-3STD-40-UNV-82-94-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

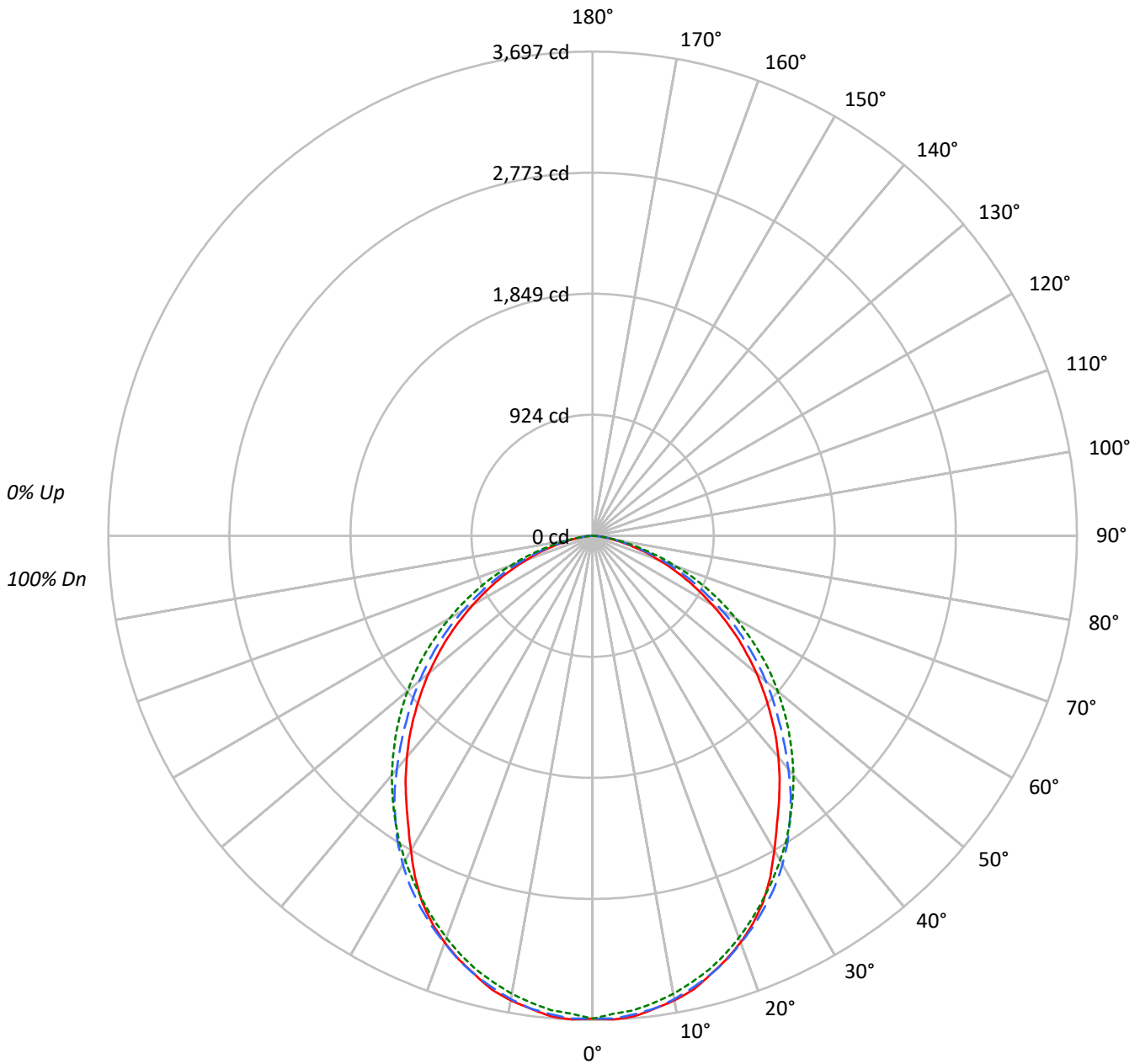
Lumens per Lamp: N/A
Luminaire Lumens: 8525.0 lumens
Efficiency: N/A
Efficacy: 85.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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					20					
RC	80					70					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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86					86			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73					73			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63					63			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54					54			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42					42			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34					34			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30					30			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28					28			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9921	9921	9921
5°	9948	9906	9822
10°	9842	9815	9703
15°	9667	9667	9557
20°	9463	9475	9353
25°	9151	9265	9117
30°	8617	9005	8895
35°	8143	8631	8645
40°	7747	8165	8379
45°	7304	7670	8064
50°	6837	7228	7720
55°	6306	6725	7303
60°	5679	6137	6792
65°	5014	5456	6178
70°	4179	4647	5249
75°	3284	3711	4109
80°	2349	2611	2898
85°	1531	1531	1442



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	347.1	4.1
10°-20°	975.2	11.4
20°-30°	1425.1	16.7
30°-40°	1617.6	19.0
40°-50°	1561.5	18.3
50°-60°	1288.2	15.1
60°-70°	857.8	10.1
70°-80°	383.9	4.5
80°-90°	68.7	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°	2747.4	32.2
0°-40°	4365.0	51.2
0°-60°	7214.7	84.6
0°-90°	8525.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8525.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3687	3687	3687	3687	3687	
5°	3683	3681	3667	3647	3636	349
15°	3470	3479	3470	3455	3430	978
25°	3082	3106	3120	3098	3071	1411
35°	2479	2513	2627	2642	2632	1553
45°	1919	1952	2016	2108	2119	1481
55°	1344	1367	1433	1513	1557	1200
65°	788	809	857	918	970	781
75°	316	333	357	374	395	345
85°	50	50	50	47	47	67
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3686.8	3686.8	3686.8	3686.8	3686.8
2.5°	3696.8	3698.2	3689.7	3667.0	3652.8
5°	3682.6	3681.2	3667.0	3647.2	3635.9
7.5°	3641.5	3644.4	3640.1	3611.8	3596.2
10°	3601.9	3603.3	3591.9	3569.3	3550.9
12.5°	3550.9	3549.5	3533.9	3522.5	3492.8
15°	3470.1	3478.6	3470.1	3454.6	3430.5
17.5°	3392.2	3392.2	3397.9	3371.0	3352.6
20°	3304.4	3308.7	3308.7	3287.4	3266.2
22.5°	3202.4	3215.2	3219.4	3196.8	3171.3
25°	3082.0	3106.1	3120.3	3097.6	3070.7
27.5°	2936.2	2973.0	3015.5	2998.5	2968.7
30°	2773.3	2827.1	2897.9	2883.8	2862.5
32.5°	2618.9	2672.7	2770.4	2764.8	2753.4
35°	2478.7	2512.7	2627.4	2641.6	2631.6
37.5°	2345.5	2376.7	2484.3	2516.9	2508.4
40°	2205.3	2239.3	2324.3	2382.4	2385.2
42.5°	2066.5	2099.1	2168.5	2252.0	2252.0
45°	1919.2	1951.8	2015.5	2107.6	2118.9
47.5°	1774.7	1808.7	1871.0	1963.1	1981.5
50°	1633.1	1664.2	1726.6	1815.8	1844.1
52.5°	1485.8	1519.8	1580.7	1662.8	1703.9
55°	1344.1	1366.8	1433.4	1512.7	1556.6
57.5°	1196.8	1218.1	1293.2	1361.1	1406.5
60°	1055.2	1082.1	1140.2	1209.6	1262.0
62.5°	919.2	947.6	997.1	1058.0	1117.5
65°	787.5	808.8	856.9	917.8	970.2
67.5°	660.0	678.4	726.6	769.1	824.3
70°	531.1	555.2	590.6	631.7	667.1
72.5°	427.7	437.7	467.4	497.2	534.0
75°	315.9	332.8	356.9	373.9	395.2
77.5°	226.6	236.5	250.7	264.9	284.7
80°	151.6	155.8	168.5	171.4	187.0
82.5°	92.1	94.9	97.7	99.1	104.8
85°	49.6	49.6	49.6	46.7	46.7
87.5°	28.3	28.3	24.1	19.8	14.2
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)