

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: P557062

Luminaire Tested: **FUSL-12-4-LD4-2HI-40-UNV-81-87-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: P557062
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-81-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

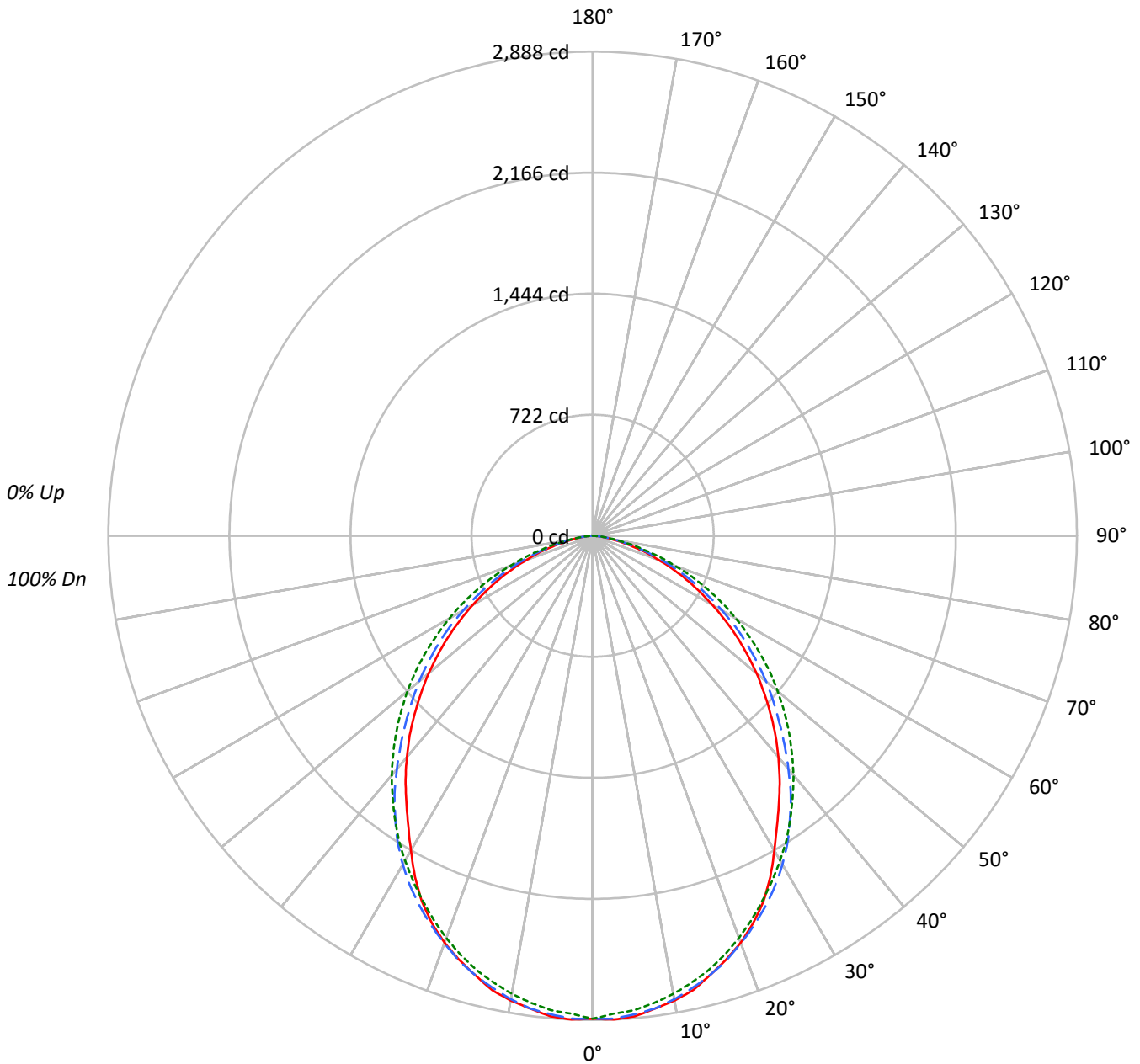
Lumens per Lamp: N/A
Luminaire Lumens: 6661.0 lumens
Efficiency: N/A
Efficacy: 77.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
Input Voltage (V): NR
Input Current (Ain): 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	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86	86	86	86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73	73	73	73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63	63	63	63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54	54	54	54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47	47	47	47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42	42	42	42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37	37	37	37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34	34	34	34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30	30	30	30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28	28	28	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7752	7752	7752
5°	7773	7740	7674
10°	7690	7669	7581
15°	7554	7554	7467
20°	7394	7403	7308
25°	7150	7239	7124
30°	6733	7036	6950
35°	6362	6744	6755
40°	6053	6380	6547
45°	5707	5993	6301
50°	5342	5648	6032
55°	4927	5255	5706
60°	4437	4795	5307
65°	3918	4263	4827
70°	3265	3631	4102
75°	2566	2900	3211
80°	1835	2041	2264
85°	1195	1195	1127



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	271.2	4.1
10°-20°	762.0	11.4
20°-30°	1113.5	16.7
30°-40°	1263.9	19.0
40°-50°	1220.1	18.3
50°-60°	1006.5	15.1
60°-70°	670.2	10.1
70°-80°	299.9	4.5
80°-90°	53.6	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°	2146.6	32.2
0°-40°	3410.6	51.2
0°-60°	5637.2	84.6
0°-90°	6661.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6661.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2881	2881	2881	2881	2881	
5°	2877	2876	2865	2850	2841	272
15°	2711	2718	2711	2699	2680	764
25°	2408	2427	2438	2420	2399	1103
35°	1937	1963	2053	2064	2056	1213
45°	1500	1525	1575	1647	1656	1157
55°	1050	1068	1120	1182	1216	937
65°	615	632	670	717	758	610
75°	247	260	279	292	309	270
85°	39	39	39	36	36	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2880.7	2880.7	2880.7	2880.7	2880.7
2.5°	2888.5	2889.6	2882.9	2865.2	2854.1
5°	2877.4	2876.3	2865.2	2849.7	2840.9
7.5°	2845.3	2847.5	2844.2	2822.1	2809.9
10°	2814.3	2815.4	2806.6	2788.9	2774.5
12.5°	2774.5	2773.4	2761.2	2752.3	2729.1
15°	2711.4	2718.0	2711.4	2699.2	2680.4
17.5°	2650.5	2650.5	2654.9	2633.9	2619.5
20°	2581.9	2585.2	2585.2	2568.6	2552.0
22.5°	2502.2	2512.2	2515.5	2497.8	2477.9
25°	2408.2	2427.0	2438.0	2420.3	2399.3
27.5°	2294.2	2322.9	2356.1	2342.9	2319.6
30°	2166.9	2209.0	2264.3	2253.2	2236.6
32.5°	2046.3	2088.3	2164.7	2160.3	2151.4
35°	1936.7	1963.3	2052.9	2064.0	2056.2
37.5°	1832.7	1857.0	1941.1	1966.6	1959.9
40°	1723.1	1749.7	1816.1	1861.5	1863.7
42.5°	1614.7	1640.1	1694.3	1759.6	1759.6
45°	1499.6	1525.0	1574.8	1646.8	1655.6
47.5°	1386.7	1413.2	1461.9	1533.9	1548.3
50°	1276.0	1300.4	1349.1	1418.8	1440.9
52.5°	1160.9	1187.5	1235.1	1299.3	1331.3
55°	1050.2	1068.0	1120.0	1181.9	1216.3
57.5°	935.2	951.8	1010.4	1063.5	1098.9
60°	824.5	845.5	890.9	945.1	986.1
62.5°	718.2	740.4	779.1	826.7	873.2
65°	615.3	631.9	669.5	717.1	758.1
67.5°	515.7	530.1	567.7	600.9	644.1
70°	415.0	433.8	461.5	493.6	521.3
72.5°	334.2	342.0	365.2	388.4	417.2
75°	246.8	260.1	278.9	292.2	308.8
77.5°	177.1	184.8	195.9	207.0	222.4
80°	118.4	121.7	131.7	133.9	146.1
82.5°	71.9	74.1	76.4	77.5	81.9
85°	38.7	38.7	38.7	36.5	36.5
87.5°	22.1	22.1	18.8	15.5	11.1
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)