

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: P558221

Luminaire Tested: **FUSL-12-4-LD4-3STD-30-UNV-81-96-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: P558221
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-30-UNV-81-96-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

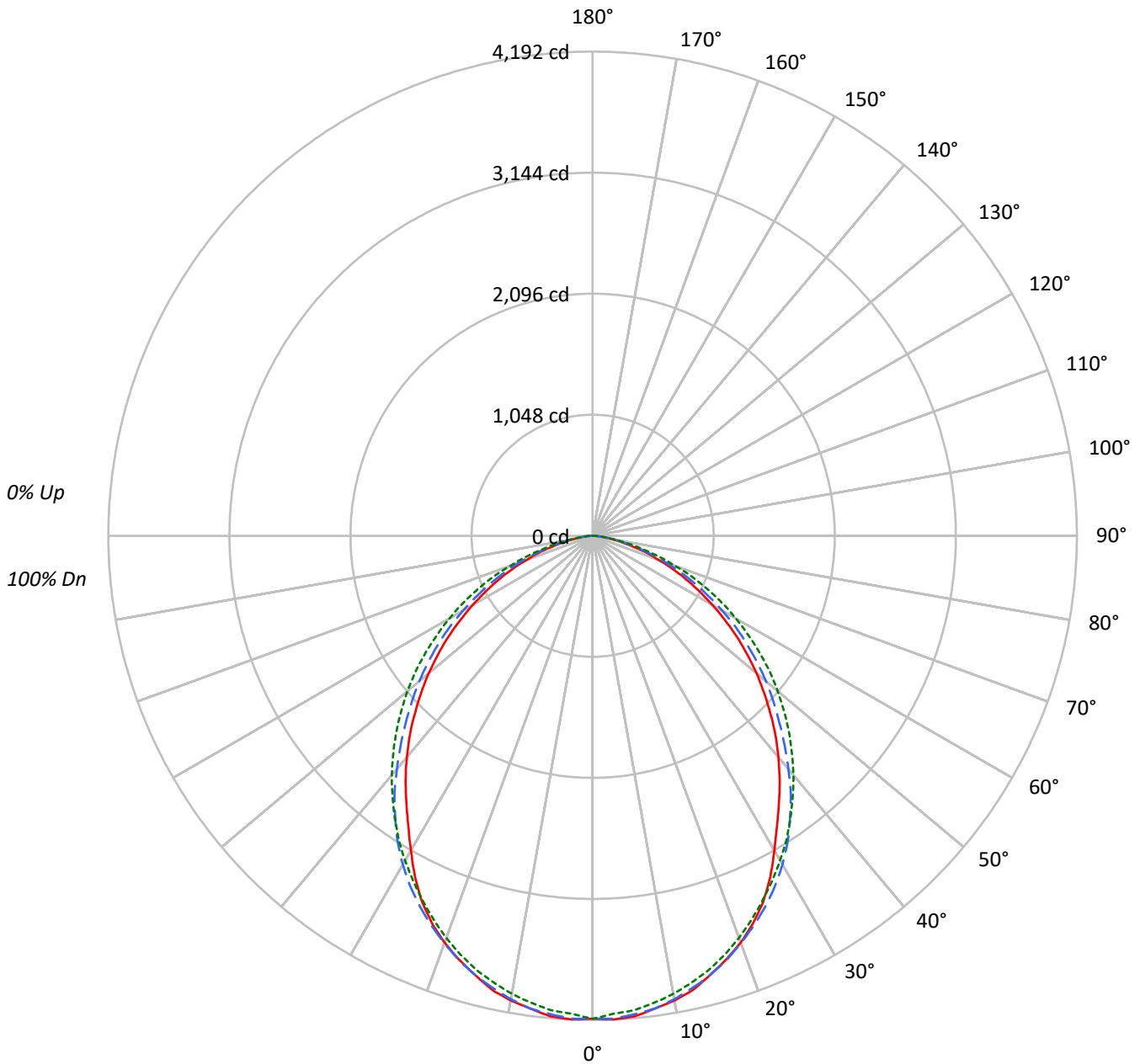
Lumens per Lamp: N/A
Luminaire Lumens: 9668.0 lumens
Efficiency: N/A
Efficacy: 96.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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									
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°	11252	11252	11252
5°	11281	11234	11138
10°	11162	11131	11004
15°	10964	10964	10838
20°	10732	10745	10607
25°	10378	10507	10340
30°	9773	10212	10087
35°	9234	9789	9804
40°	8786	9259	9502
45°	8283	8699	9145
50°	7753	8197	8755
55°	7152	7627	8282
60°	6441	6959	7703
65°	5687	6188	7006
70°	4740	5270	5953
75°	3724	4209	4660
80°	2664	2961	3285
85°	1735	1735	1636



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	393.7	4.1
10°-20°	1105.9	11.4
20°-30°	1616.1	16.7
30°-40°	1834.5	19.0
40°-50°	1770.9	18.3
50°-60°	1460.9	15.1
60°-70°	972.8	10.1
70°-80°	435.3	4.5
80°-90°	77.9	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°	3115.7	32.2
0°-40°	4950.2	51.2
0°-60°	8182.0	84.6
0°-90°	9668.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9668.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4181	4181	4181	4181	4181	
5°	4176	4175	4159	4136	4123	395
15°	3935	3945	3935	3918	3890	1109
25°	3495	3523	3539	3513	3482	1601
35°	2811	2850	2980	2996	2984	1761
45°	2176	2214	2286	2390	2403	1679
55°	1524	1550	1626	1716	1765	1361
65°	893	917	972	1041	1100	886
75°	358	378	405	424	448	392
85°	56	56	56	53	53	76
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4181.2	4181.2	4181.2	4181.2	4181.2
2.5°	4192.4	4194.0	4184.4	4158.7	4142.6
5°	4176.3	4174.7	4158.7	4136.2	4123.3
7.5°	4129.8	4133.0	4128.2	4096.0	4078.4
10°	4084.8	4086.4	4073.5	4047.8	4027.0
12.5°	4027.0	4025.4	4007.7	3994.8	3961.1
15°	3935.4	3945.0	3935.4	3917.7	3890.4
17.5°	3847.1	3847.1	3853.5	3823.0	3802.1
20°	3747.5	3752.3	3752.3	3728.2	3704.1
22.5°	3631.8	3646.3	3651.1	3625.4	3596.5
25°	3495.3	3522.6	3538.6	3512.9	3482.4
27.5°	3329.8	3371.6	3419.8	3400.5	3366.8
30°	3145.1	3206.1	3286.5	3270.4	3246.3
32.5°	2970.0	3031.1	3141.9	3135.5	3122.6
35°	2811.0	2849.5	2979.7	2995.7	2984.5
37.5°	2660.0	2695.3	2817.4	2854.4	2844.7
40°	2501.0	2539.5	2635.9	2701.8	2705.0
42.5°	2343.6	2380.5	2459.2	2554.0	2554.0
45°	2176.5	2213.5	2285.7	2390.2	2403.0
47.5°	2012.7	2051.2	2121.9	2226.3	2247.2
50°	1852.0	1887.4	1958.1	2059.3	2091.4
52.5°	1685.0	1723.5	1792.6	1885.8	1932.4
55°	1524.4	1550.1	1625.6	1715.5	1765.3
57.5°	1357.3	1381.4	1466.5	1543.6	1595.0
60°	1196.7	1227.2	1293.1	1371.8	1431.2
62.5°	1042.5	1074.6	1130.8	1199.9	1267.4
65°	893.1	917.2	971.8	1040.9	1100.3
67.5°	748.5	769.4	824.0	872.2	934.9
70°	602.4	629.7	669.8	716.4	756.6
72.5°	485.1	496.3	530.1	563.8	605.6
75°	358.2	377.5	404.8	424.1	448.2
77.5°	257.0	268.2	284.3	300.4	322.9
80°	171.9	176.7	191.1	194.4	212.0
82.5°	104.4	107.6	110.8	112.4	118.9
85°	56.2	56.2	56.2	53.0	53.0
87.5°	32.1	32.1	27.3	22.5	16.1
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)