

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: P556536

Luminaire Tested: **FUSL-12-4-LD4-1LO-40-UNV-80-88-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: P556536
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-LD4-1LO-40-UNV-80-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

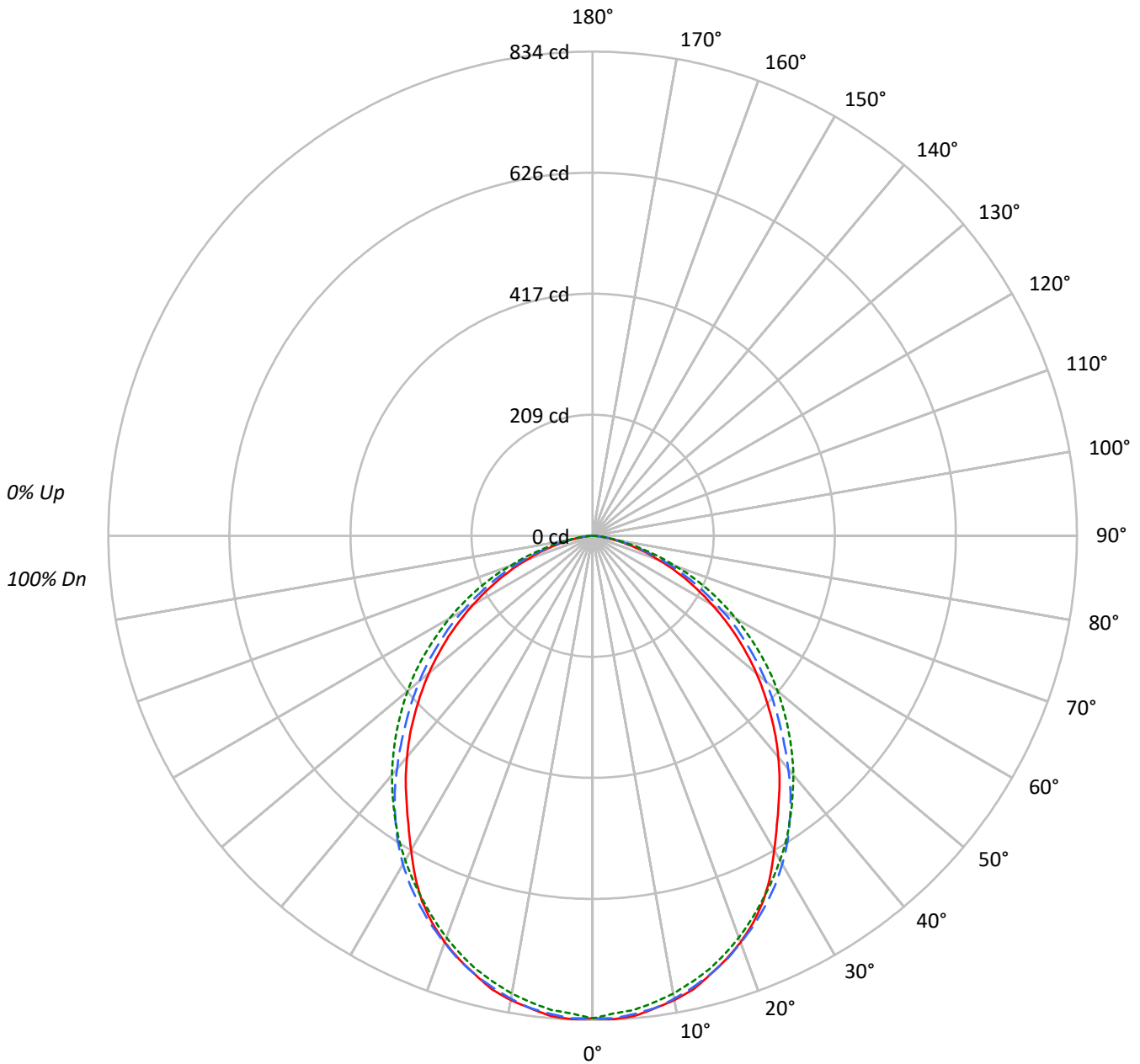
Lumens per Lamp: N/A
Luminaire Lumens: 1922.0 lumens
Efficiency: N/A
Efficacy: 82.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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									
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°	2237	2237	2237
5°	2243	2233	2214
10°	2219	2213	2188
15°	2180	2180	2155
20°	2133	2136	2109
25°	2063	2089	2056
30°	1943	2030	2005
35°	1836	1946	1949
40°	1747	1841	1889
45°	1647	1729	1818
50°	1541	1630	1741
55°	1422	1516	1646
60°	1280	1384	1531
65°	1130	1230	1393
70°	942	1048	1183
75°	740	837	926
80°	530	589	654
85°	346	346	324



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.3	4.1
10°-20°	219.9	11.4
20°-30°	321.3	16.7
30°-40°	364.7	19.0
40°-50°	352.1	18.3
50°-60°	290.4	15.1
60°-70°	193.4	10.1
70°-80°	86.5	4.5
80°-90°	15.5	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°	619.4	32.2
0°-40°	984.1	51.2
0°-60°	1626.6	84.6
0°-90°	1922.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1922.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	831	831	831	831	831	
5°	830	830	827	822	820	79
15°	782	784	782	779	773	221
25°	695	700	704	698	692	318
35°	559	566	592	596	593	350
45°	433	440	454	475	478	334
55°	303	308	323	341	351	270
65°	178	182	193	207	219	176
75°	71	75	80	84	89	78
85°	11	11	11	10	10	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	831.2	831.2	831.2	831.2	831.2
2.5°	833.5	833.8	831.9	826.7	823.6
5°	830.3	829.9	826.7	822.3	819.7
7.5°	821.0	821.6	820.7	814.3	810.8
10°	812.1	812.4	809.8	804.7	800.6
12.5°	800.6	800.2	796.7	794.2	787.5
15°	782.4	784.3	782.4	778.8	773.4
17.5°	764.8	764.8	766.1	760.0	755.9
20°	745.0	746.0	746.0	741.2	736.4
22.5°	722.0	724.9	725.8	720.7	715.0
25°	694.9	700.3	703.5	698.4	692.3
27.5°	662.0	670.3	679.9	676.0	669.3
30°	625.2	637.4	653.3	650.2	645.4
32.5°	590.4	602.6	624.6	623.3	620.8
35°	558.8	566.5	592.4	595.6	593.3
37.5°	528.8	535.8	560.1	567.4	565.5
40°	497.2	504.9	524.0	537.1	537.8
42.5°	465.9	473.2	488.9	507.7	507.7
45°	432.7	440.0	454.4	475.2	477.7
47.5°	400.1	407.8	421.8	442.6	446.7
50°	368.2	375.2	389.3	409.4	415.8
52.5°	335.0	342.6	356.4	374.9	384.2
55°	303.0	308.2	323.2	341.0	350.9
57.5°	269.8	274.6	291.5	306.9	317.1
60°	237.9	244.0	257.1	272.7	284.5
62.5°	207.2	213.6	224.8	238.5	252.0
65°	177.5	182.3	193.2	206.9	218.7
67.5°	148.8	153.0	163.8	173.4	185.8
70°	119.7	125.2	133.2	142.4	150.4
72.5°	96.4	98.7	105.4	112.1	120.4
75°	71.2	75.0	80.5	84.3	89.1
77.5°	51.1	53.3	56.5	59.7	64.2
80°	34.2	35.1	38.0	38.6	42.2
82.5°	20.8	21.4	22.0	22.4	23.6
85°	11.2	11.2	11.2	10.5	10.5
87.5°	6.4	6.4	5.4	4.5	3.2
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)