

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: P556516

Luminaire Tested: **FUSL-12-4-LD4-1LO-35-UNV-93-86-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: P556516
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-35-UNV-93-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

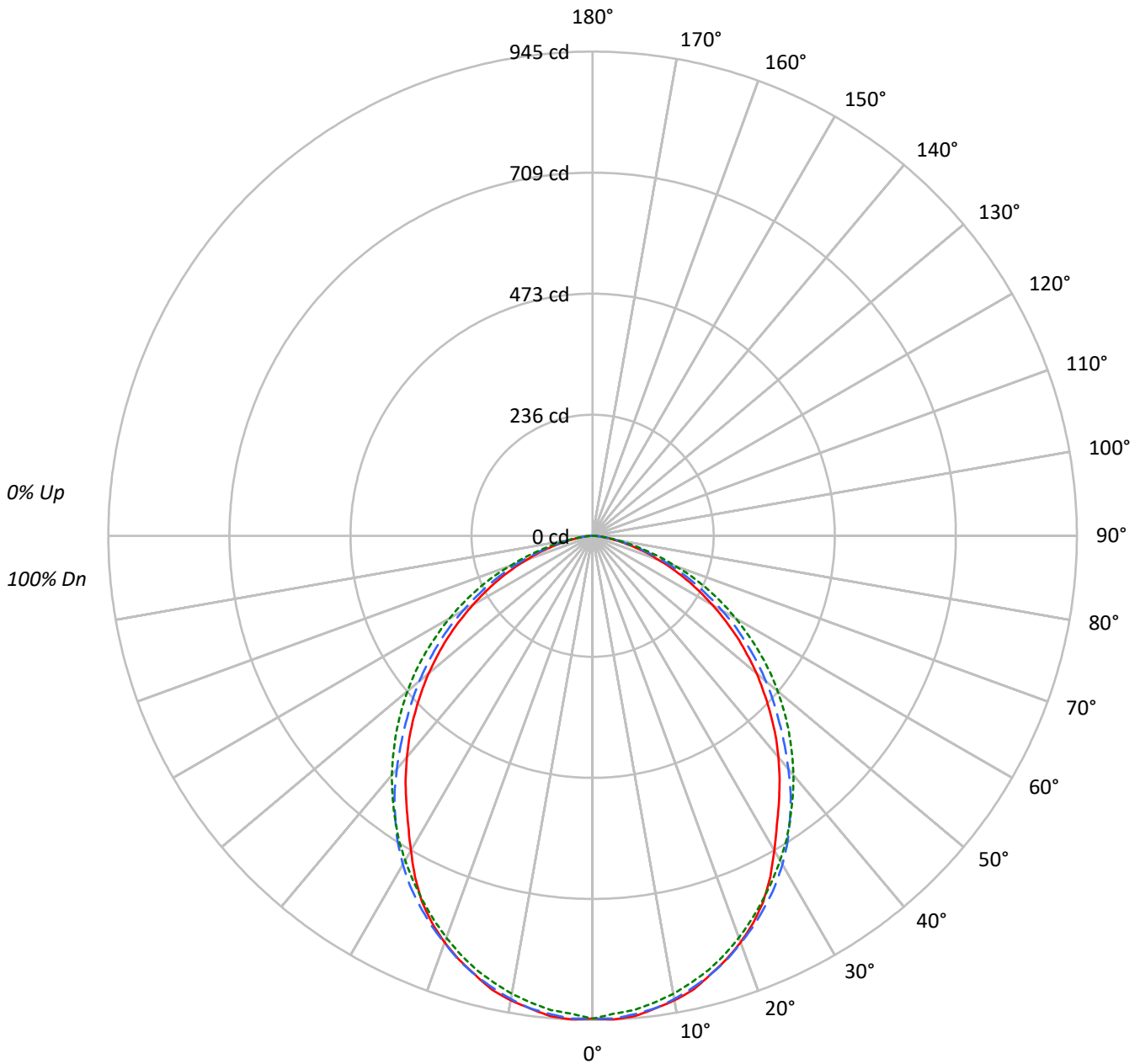
Lumens per Lamp: N/A
Luminaire Lumens: 2179.0 lumens
Efficiency: N/A
Efficacy: 93.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	2536	2536	2536
5°	2543	2532	2510
10°	2516	2509	2480
15°	2471	2471	2443
20°	2419	2422	2391
25°	2339	2368	2330
30°	2203	2302	2274
35°	2081	2206	2210
40°	1980	2087	2142
45°	1867	1961	2061
50°	1747	1847	1973
55°	1612	1719	1867
60°	1452	1568	1736
65°	1282	1394	1579
70°	1068	1188	1341
75°	839	948	1050
80°	600	668	741
85°	392	392	367



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.7	4.1
10°-20°	249.3	11.4
20°-30°	364.2	16.7
30°-40°	413.5	19.0
40°-50°	399.1	18.3
50°-60°	329.3	15.1
60°-70°	219.3	10.1
70°-80°	98.1	4.5
80°-90°	17.6	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°	702.2	32.2
0°-40°	1115.7	51.2
0°-60°	1844.1	84.6
0°-90°	2179.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2179.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	942	942	942	942	942	
5°	941	941	937	932	929	89
15°	887	889	887	883	877	250
25°	788	794	798	792	785	361
35°	634	642	672	675	673	397
45°	490	499	515	539	542	378
55°	344	349	366	387	398	307
65°	201	207	219	235	248	200
75°	81	85	91	96	101	88
85°	13	13	13	12	12	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	942.4	942.4	942.4	942.4	942.4
2.5°	944.9	945.3	943.1	937.3	933.7
5°	941.3	940.9	937.3	932.2	929.3
7.5°	930.8	931.5	930.4	923.2	919.2
10°	920.6	921.0	918.1	912.3	907.6
12.5°	907.6	907.2	903.3	900.4	892.8
15°	887.0	889.1	887.0	883.0	876.8
17.5°	867.1	867.1	868.5	861.6	856.9
20°	844.6	845.7	845.7	840.3	834.8
22.5°	818.5	821.8	822.9	817.1	810.6
25°	787.8	793.9	797.5	791.8	784.9
27.5°	750.5	759.9	770.8	766.4	758.8
30°	708.9	722.6	740.7	737.1	731.7
32.5°	669.4	683.1	708.1	706.7	703.8
35°	633.6	642.2	671.6	675.2	672.6
37.5°	599.5	607.5	635.0	643.3	641.2
40°	563.7	572.4	594.1	608.9	609.7
42.5°	528.2	536.5	554.3	575.6	575.6
45°	490.5	498.9	515.2	538.7	541.6
47.5°	453.6	462.3	478.2	501.8	506.5
50°	417.4	425.4	441.3	464.1	471.4
52.5°	379.8	388.5	404.0	425.0	435.5
55°	343.6	349.4	366.4	386.6	397.9
57.5°	305.9	311.3	330.5	347.9	359.5
60°	269.7	276.6	291.4	309.2	322.6
62.5°	235.0	242.2	254.9	270.4	285.6
65°	201.3	206.7	219.0	234.6	248.0
67.5°	168.7	173.4	185.7	196.6	210.7
70°	135.8	141.9	151.0	161.5	170.5
72.5°	109.3	111.9	119.5	127.1	136.5
75°	80.7	85.1	91.2	95.6	101.0
77.5°	57.9	60.5	64.1	67.7	72.8
80°	38.7	39.8	43.1	43.8	47.8
82.5°	23.5	24.3	25.0	25.3	26.8
85°	12.7	12.7	12.7	11.9	11.9
87.5°	7.2	7.2	6.2	5.1	3.6
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)