

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: P556409

Luminaire Tested: **FUSL-12-4-LD4-1LO-30-UNV-80-88-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: P556409
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-30-UNV-80-88-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

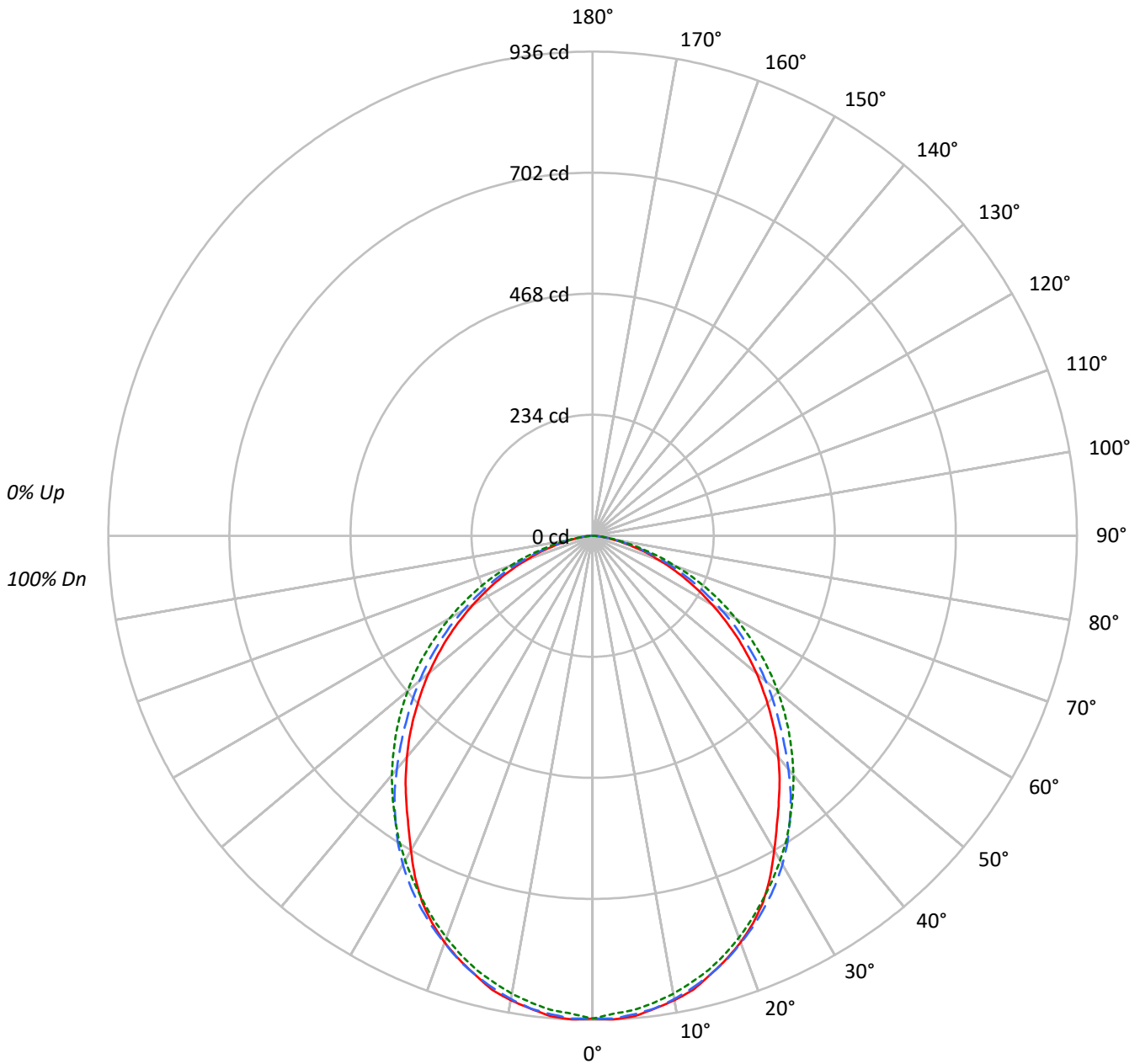
Lumens per Lamp: N/A
Luminaire Lumens: 2158.0 lumens
Efficiency: N/A
Efficacy: 92.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	2511	2511	2511
5°	2518	2508	2486
10°	2491	2485	2456
15°	2447	2447	2419
20°	2395	2398	2368
25°	2317	2345	2308
30°	2181	2279	2252
35°	2061	2185	2189
40°	1961	2067	2121
45°	1849	1942	2041
50°	1731	1830	1954
55°	1597	1702	1848
60°	1438	1553	1720
65°	1269	1381	1564
70°	1058	1176	1329
75°	832	940	1040
80°	595	662	733
85°	386	386	364



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.9	4.1
10°-20°	246.9	11.4
20°-30°	360.7	16.7
30°-40°	409.5	19.0
40°-50°	395.3	18.3
50°-60°	326.1	15.1
60°-70°	217.1	10.1
70°-80°	97.2	4.5
80°-90°	17.4	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°	695.5	32.2
0°-40°	1104.9	51.2
0°-60°	1826.3	84.6
0°-90°	2158.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2158.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	933	933	933	933	933	
5°	932	932	928	923	920	88
15°	878	881	878	874	868	248
25°	780	786	790	784	777	357
35°	627	636	665	669	666	393
45°	486	494	510	534	536	375
55°	340	346	363	383	394	304
65°	199	205	217	232	246	198
75°	80	84	90	95	100	87
85°	12	12	12	12	12	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	933.3	933.3	933.3	933.3	933.3
2.5°	935.8	936.1	934.0	928.3	924.7
5°	932.2	931.8	928.3	923.2	920.4
7.5°	921.8	922.5	921.4	914.3	910.3
10°	911.8	912.1	909.3	903.5	898.9
12.5°	898.9	898.5	894.6	891.7	884.2
15°	878.4	880.6	878.4	874.5	868.4
17.5°	858.7	858.7	860.1	853.3	848.7
20°	836.5	837.5	837.5	832.2	826.8
22.5°	810.7	813.9	815.0	809.2	802.8
25°	780.2	786.3	789.9	784.1	777.3
27.5°	743.3	752.6	763.3	759.0	751.5
30°	702.0	715.6	733.6	730.0	724.6
32.5°	662.9	676.6	701.3	699.9	697.0
35°	627.4	636.0	665.1	668.7	666.2
37.5°	593.7	601.6	628.9	637.1	635.0
40°	558.2	566.9	588.4	603.1	603.8
42.5°	523.1	531.4	548.9	570.1	570.1
45°	485.8	494.1	510.2	533.5	536.4
47.5°	449.3	457.9	473.6	496.9	501.6
50°	413.4	421.3	437.1	459.6	466.8
52.5°	376.1	384.7	400.1	420.9	431.3
55°	340.3	346.0	362.8	382.9	394.0
57.5°	303.0	308.3	327.3	344.6	356.0
60°	267.1	273.9	288.6	306.2	319.5
62.5°	232.7	239.9	252.4	267.8	282.9
65°	199.3	204.7	216.9	232.3	245.6
67.5°	167.1	171.7	183.9	194.7	208.7
70°	134.5	140.5	149.5	159.9	168.9
72.5°	108.3	110.8	118.3	125.8	135.2
75°	80.0	84.3	90.4	94.7	100.0
77.5°	57.4	59.9	63.5	67.0	72.1
80°	38.4	39.4	42.7	43.4	47.3
82.5°	23.3	24.0	24.7	25.1	26.5
85°	12.5	12.5	12.5	11.8	11.8
87.5°	7.2	7.2	6.1	5.0	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)