

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: P556628

Luminaire Tested: **FUSL-12-4-LD4-1LO-50-UNV-82-86-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: P556628
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-50-UNV-82-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

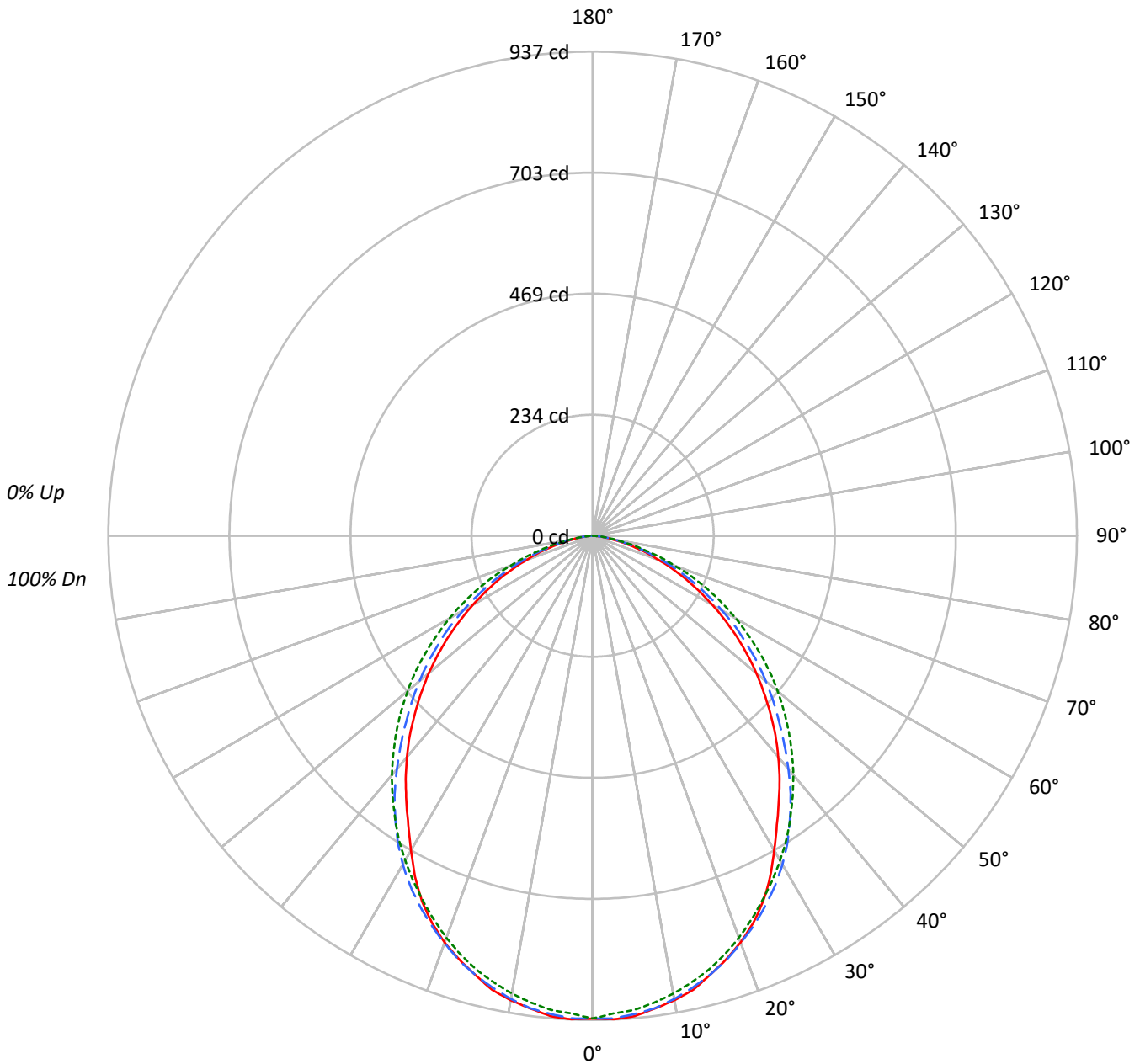
Lumens per Lamp: N/A
Luminaire Lumens: 2160.0 lumens
Efficiency: N/A
Efficacy: 92.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	2514	2514	2514
5°	2521	2510	2488
10°	2494	2487	2458
15°	2449	2449	2422
20°	2397	2401	2370
25°	2319	2347	2310
30°	2183	2282	2254
35°	2063	2187	2190
40°	1963	2069	2123
45°	1851	1944	2043
50°	1732	1832	1956
55°	1598	1704	1850
60°	1439	1555	1721
65°	1270	1382	1565
70°	1059	1177	1330
75°	832	940	1041
80°	595	662	735
85°	389	389	364



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.0	4.1
10°-20°	247.1	11.4
20°-30°	361.1	16.7
30°-40°	409.9	19.0
40°-50°	395.7	18.3
50°-60°	326.4	15.1
60°-70°	217.3	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°	696.1	32.2
0°-40°	1106.0	51.2
0°-60°	1828.0	84.6
0°-90°	2160.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2160.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	934	934	934	934	934	
5°	933	933	929	924	921	88
15°	879	881	879	875	869	248
25°	781	787	791	785	778	358
35°	628	637	666	669	667	394
45°	486	494	511	534	537	375
55°	341	346	363	383	394	304
65°	200	205	217	232	246	198
75°	80	84	90	95	100	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°	934.1	934.1	934.1	934.1	934.1
2.5°	936.7	937.0	934.9	929.1	925.5
5°	933.1	932.7	929.1	924.1	921.2
7.5°	922.7	923.4	922.3	915.1	911.2
10°	912.6	913.0	910.1	904.4	899.7
12.5°	899.7	899.3	895.4	892.5	885.0
15°	879.2	881.4	879.2	875.3	869.2
17.5°	859.5	859.5	860.9	854.1	849.5
20°	837.2	838.3	838.3	832.9	827.6
22.5°	811.4	814.6	815.7	810.0	803.5
25°	780.9	787.0	790.6	784.9	778.0
27.5°	743.9	753.3	764.0	759.7	752.2
30°	702.7	716.3	734.3	730.7	725.3
32.5°	663.6	677.2	702.0	700.5	697.6
35°	628.0	636.6	665.7	669.3	666.8
37.5°	594.3	602.2	629.5	637.7	635.6
40°	558.8	567.4	588.9	603.6	604.3
42.5°	523.6	531.8	549.4	570.6	570.6
45°	486.3	494.5	510.7	534.0	536.9
47.5°	449.7	458.3	474.1	497.4	502.1
50°	413.8	421.7	437.5	460.1	467.3
52.5°	376.5	385.1	400.5	421.3	431.7
55°	340.6	346.3	363.2	383.3	394.4
57.5°	303.2	308.6	327.7	344.9	356.4
60°	267.4	274.2	288.9	306.5	319.8
62.5°	232.9	240.1	252.6	268.1	283.2
65°	199.5	204.9	217.1	232.5	245.8
67.5°	167.2	171.9	184.1	194.9	208.9
70°	134.6	140.7	149.6	160.1	169.0
72.5°	108.4	110.9	118.4	126.0	135.3
75°	80.0	84.3	90.4	94.7	100.1
77.5°	57.4	59.9	63.5	67.1	72.1
80°	38.4	39.5	42.7	43.4	47.4
82.5°	23.3	24.0	24.8	25.1	26.6
85°	12.6	12.6	12.6	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)