

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: P556551

Luminaire Tested: **FUSL-12-4-LD4-1LO-40-UNV-81-87-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: P556551
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-81-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

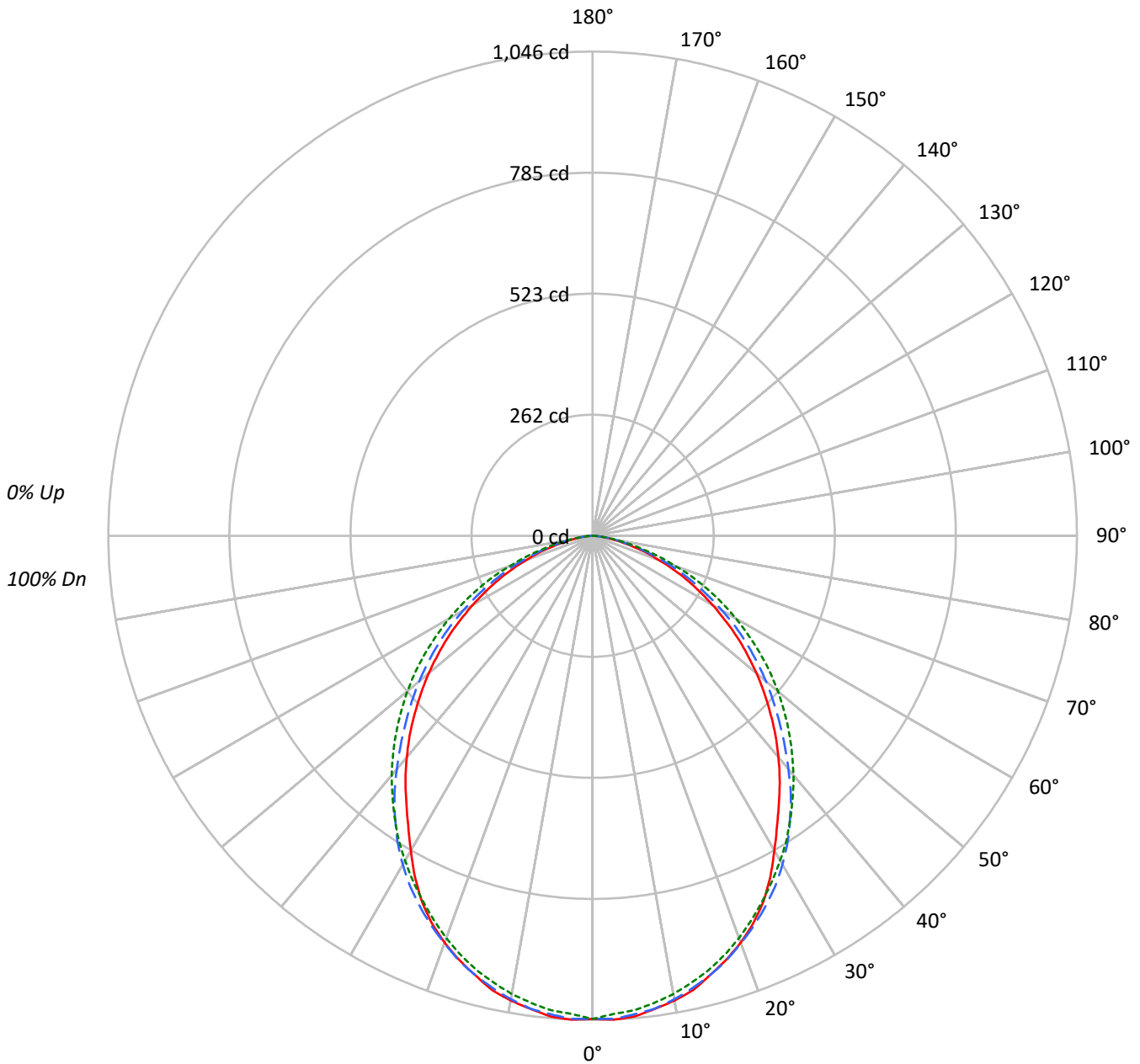
Lumens per Lamp: N/A
Luminaire Lumens: 2413.0 lumens
Efficiency: N/A
Efficacy: 103.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	2808	2808	2808
5°	2816	2804	2780
10°	2786	2778	2746
15°	2736	2736	2705
20°	2678	2682	2647
25°	2590	2622	2581
30°	2439	2549	2518
35°	2305	2443	2447
40°	2193	2311	2372
45°	2067	2171	2283
50°	1935	2046	2185
55°	1785	1903	2067
60°	1608	1737	1922
65°	1419	1544	1748
70°	1183	1316	1485
75°	930	1050	1163
80°	665	739	820
85°	432	432	408



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.3	4.1
10°-20°	276.0	11.4
20°-30°	403.4	16.7
30°-40°	457.9	19.0
40°-50°	442.0	18.3
50°-60°	364.6	15.1
60°-70°	242.8	10.1
70°-80°	108.7	4.5
80°-90°	19.4	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°	777.6	32.2
0°-40°	1235.5	51.2
0°-60°	2042.1	84.6
0°-90°	2413.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2413.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1044	1044	1044	1044	1044	
5°	1042	1042	1038	1032	1029	99
15°	982	985	982	978	971	277
25°	872	879	883	877	869	400
35°	702	711	744	748	745	440
45°	543	552	570	596	600	419
55°	380	387	406	428	441	340
65°	223	229	242	260	275	221
75°	89	94	101	106	112	98
85°	14	14	14	13	13	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1043.6	1043.6	1043.6	1043.6	1043.6
2.5°	1046.4	1046.8	1044.4	1037.9	1033.9
5°	1042.4	1042.0	1037.9	1032.3	1029.1
7.5°	1030.7	1031.5	1030.3	1022.3	1017.9
10°	1019.5	1019.9	1016.7	1010.3	1005.1
12.5°	1005.1	1004.7	1000.3	997.1	988.6
15°	982.2	984.6	982.2	977.8	971.0
17.5°	960.2	960.2	961.8	954.2	948.9
20°	935.3	936.5	936.5	930.5	924.5
22.5°	906.5	910.1	911.3	904.8	897.6
25°	872.4	879.2	883.2	876.8	869.2
27.5°	831.1	841.5	853.5	848.7	840.3
30°	785.0	800.2	820.3	816.2	810.2
32.5°	741.3	756.5	784.2	782.6	779.4
35°	701.6	711.2	743.7	747.7	744.9
37.5°	663.9	672.7	703.2	712.4	710.0
40°	624.2	633.8	657.9	674.3	675.1
42.5°	584.9	594.1	613.8	637.4	637.4
45°	543.2	552.4	570.5	596.5	599.8
47.5°	502.3	512.0	529.6	555.7	560.9
50°	462.2	471.1	488.7	514.0	522.0
52.5°	420.6	430.2	447.4	470.7	482.3
55°	380.5	386.9	405.7	428.2	440.6
57.5°	338.8	344.8	366.0	385.3	398.1
60°	298.7	306.3	322.7	342.4	357.2
62.5°	260.2	268.2	282.2	299.5	316.3
65°	222.9	228.9	242.5	259.8	274.6
67.5°	186.8	192.0	205.7	217.7	233.3
70°	150.3	157.2	167.2	178.8	188.8
72.5°	121.1	123.9	132.3	140.7	151.1
75°	89.4	94.2	101.0	105.8	111.9
77.5°	64.1	67.0	71.0	75.0	80.6
80°	42.9	44.1	47.7	48.5	52.9
82.5°	26.1	26.9	27.7	28.1	29.7
85°	14.0	14.0	14.0	13.2	13.2
87.5°	8.0	8.0	6.8	5.6	4.0
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)