

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: P556438

Luminaire Tested: **FUSL-12-4-LD4-1LO-30-UNV-82-87-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: P556438
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-82-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

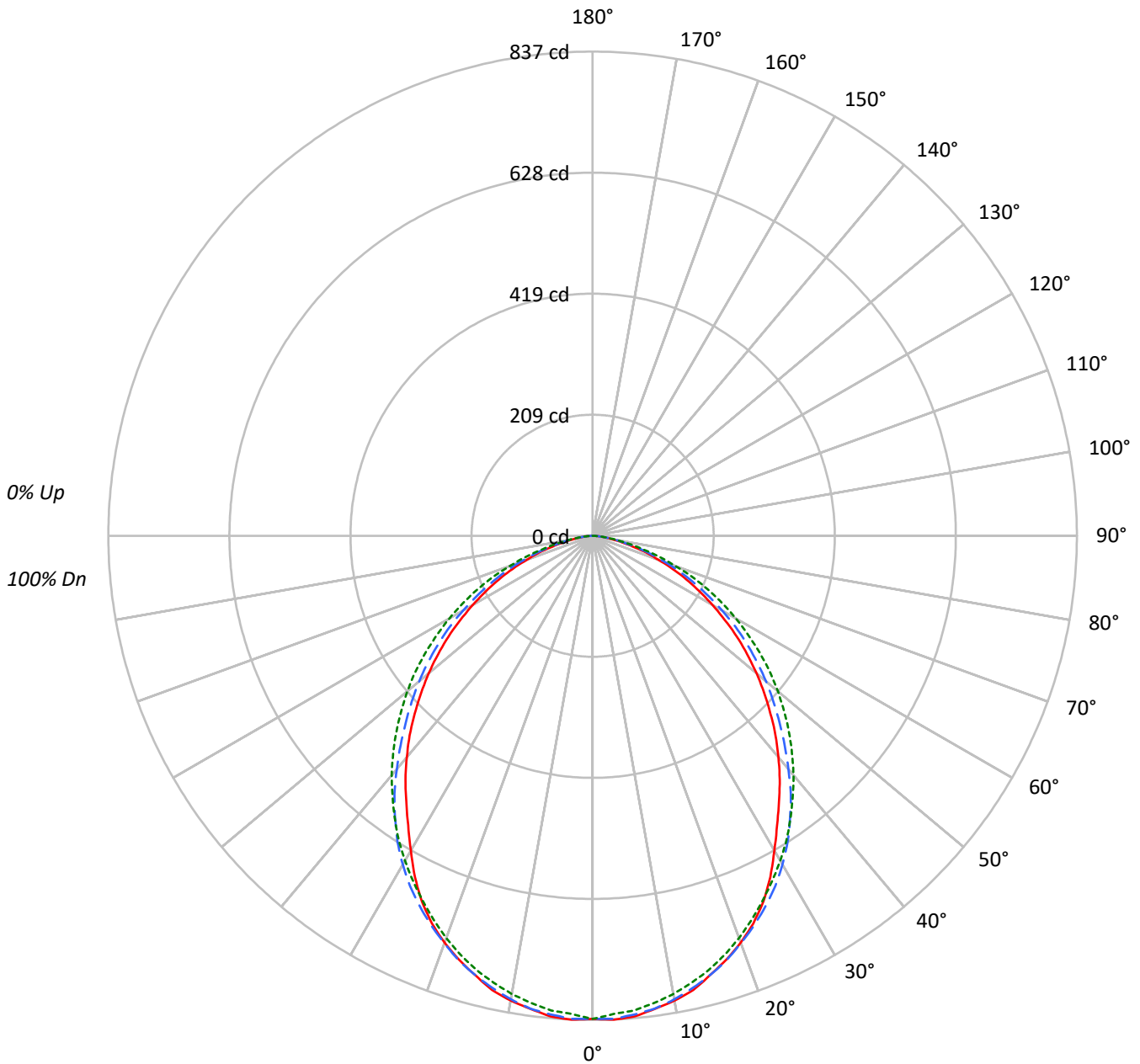
Lumens per Lamp: N/A
Luminaire Lumens: 1931.0 lumens
Efficiency: N/A
Efficacy: 82.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	2247	2247	2247
5°	2253	2244	2225
10°	2229	2223	2198
15°	2190	2190	2165
20°	2143	2146	2119
25°	2073	2099	2065
30°	1952	2040	2015
35°	1844	1955	1958
40°	1755	1850	1898
45°	1654	1737	1827
50°	1549	1637	1749
55°	1429	1523	1654
60°	1286	1390	1539
65°	1136	1236	1400
70°	947	1053	1189
75°	743	840	931
80°	532	592	656
85°	346	346	327



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.6	4.1
10°-20°	220.9	11.4
20°-30°	322.8	16.7
30°-40°	366.4	19.0
40°-50°	353.7	18.3
50°-60°	291.8	15.1
60°-70°	194.3	10.1
70°-80°	86.9	4.5
80°-90°	15.6	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°	622.3	32.2
0°-40°	988.7	51.2
0°-60°	1634.2	84.6
0°-90°	1931.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1931.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	835	835	835	835	835	
5°	834	834	831	826	824	79
15°	786	788	786	782	777	222
25°	698	704	707	702	696	320
35°	561	569	595	598	596	352
45°	435	442	456	477	480	335
55°	304	310	325	343	353	272
65°	178	183	194	208	220	177
75°	72	75	81	85	90	78
85°	11	11	11	11	11	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	835.1	835.1	835.1	835.1	835.1
2.5°	837.4	837.7	835.7	830.6	827.4
5°	834.1	833.8	830.6	826.1	823.6
7.5°	824.8	825.5	824.5	818.1	814.6
10°	815.9	816.2	813.6	808.5	804.3
12.5°	804.3	804.0	800.5	797.9	791.2
15°	786.0	787.9	786.0	782.5	777.0
17.5°	768.4	768.4	769.7	763.6	759.4
20°	748.5	749.4	749.4	744.6	739.8
22.5°	725.4	728.3	729.2	724.1	718.3
25°	698.1	703.6	706.8	701.6	695.5
27.5°	665.1	673.4	683.0	679.2	672.4
30°	628.2	640.4	656.4	653.2	648.4
32.5°	593.2	605.4	627.5	626.3	623.7
35°	561.4	569.1	595.1	598.3	596.1
37.5°	531.3	538.3	562.7	570.1	568.2
40°	499.5	507.2	526.5	539.6	540.3
42.5°	468.1	475.5	491.2	510.1	510.1
45°	434.7	442.1	456.5	477.4	480.0
47.5°	402.0	409.7	423.8	444.7	448.8
50°	369.9	377.0	391.1	411.3	417.7
52.5°	336.5	344.2	358.0	376.6	386.0
55°	304.5	309.6	324.7	342.6	352.6
57.5°	271.1	275.9	292.9	308.3	318.6
60°	239.0	245.1	258.3	274.0	285.9
62.5°	208.2	214.6	225.9	239.7	253.1
65°	178.4	183.2	194.1	207.9	219.8
67.5°	149.5	153.7	164.6	174.2	186.7
70°	120.3	125.8	133.8	143.1	151.1
72.5°	96.9	99.1	105.9	112.6	121.0
75°	71.5	75.4	80.8	84.7	89.5
77.5°	51.3	53.6	56.8	60.0	64.5
80°	34.3	35.3	38.2	38.8	42.3
82.5°	20.9	21.5	22.1	22.5	23.7
85°	11.2	11.2	11.2	10.6	10.6
87.5°	6.4	6.4	5.5	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)