

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: P556637

Luminaire Tested: **FUSL-12-4-LD4-1LO-50-UNV-82-96-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: P556637
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-82-96-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

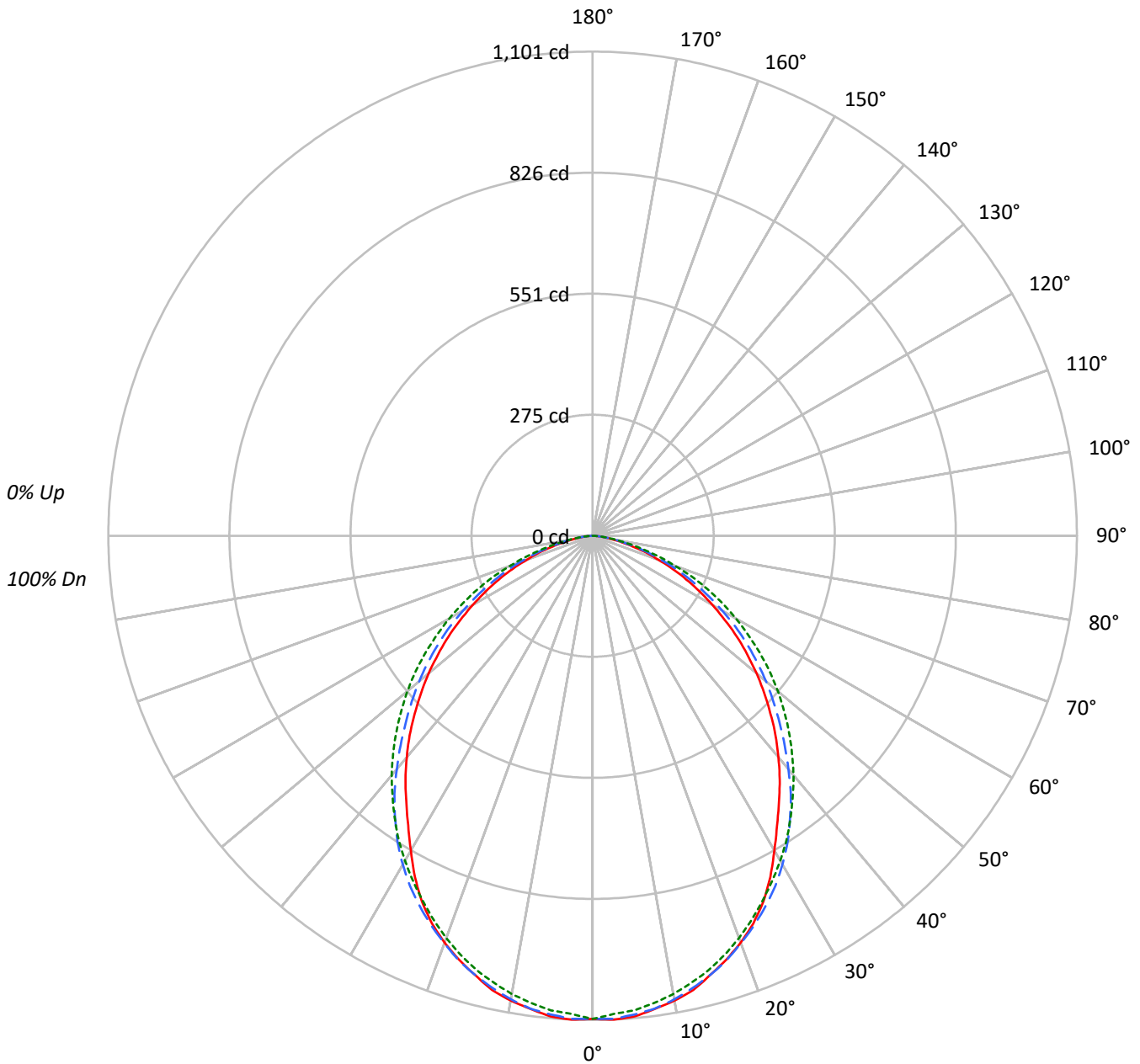
Lumens per Lamp: N/A
Luminaire Lumens: 2540.0 lumens
Efficiency: N/A
Efficacy: 108.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (A_{in}): 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°	2956	2956	2956
5°	2964	2951	2926
10°	2933	2924	2891
15°	2880	2880	2847
20°	2819	2823	2787
25°	2727	2760	2716
30°	2568	2683	2650
35°	2426	2572	2576
40°	2308	2433	2497
45°	2176	2285	2402
50°	2037	2153	2300
55°	1879	2004	2176
60°	1692	1828	2024
65°	1494	1626	1841
70°	1245	1385	1564
75°	978	1105	1224
80°	700	778	863
85°	457	457	429



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.4	4.1
10°-20°	290.6	11.4
20°-30°	424.6	16.7
30°-40°	482.0	19.0
40°-50°	465.3	18.3
50°-60°	383.8	15.1
60°-70°	255.6	10.1
70°-80°	114.4	4.5
80°-90°	20.5	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°	818.6	32.2
0°-40°	1300.5	51.2
0°-60°	2149.6	84.6
0°-90°	2540.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2540.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1098	1098	1098	1098	1098	
5°	1097	1097	1093	1087	1083	104
15°	1034	1036	1034	1029	1022	291
25°	918	926	930	923	915	421
35°	738	749	783	787	784	463
45°	572	582	600	628	631	441
55°	400	407	427	451	464	357
65°	235	241	255	274	289	233
75°	94	99	106	111	118	103
85°	15	15	15	14	14	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1098.5	1098.5	1098.5	1098.5	1098.5
2.5°	1101.4	1101.9	1099.3	1092.6	1088.4
5°	1097.2	1096.8	1092.6	1086.7	1083.3
7.5°	1085.0	1085.8	1084.6	1076.1	1071.5
10°	1073.2	1073.6	1070.2	1063.5	1058.0
12.5°	1058.0	1057.5	1052.9	1049.5	1040.7
15°	1033.9	1036.4	1033.9	1029.3	1022.1
17.5°	1010.7	1010.7	1012.4	1004.4	998.9
20°	984.5	985.8	985.8	979.5	973.1
22.5°	954.2	958.0	959.2	952.5	944.9
25°	918.3	925.5	929.7	922.9	914.9
27.5°	874.8	885.8	898.5	893.4	884.5
30°	826.3	842.3	863.4	859.2	852.9
32.5°	780.3	796.3	825.4	823.8	820.4
35°	738.5	748.6	782.8	787.0	784.1
37.5°	698.8	708.1	740.2	749.9	747.4
40°	657.1	667.2	692.5	709.8	710.7
42.5°	615.7	625.4	646.1	671.0	671.0
45°	571.8	581.5	600.5	627.9	631.3
47.5°	528.8	538.9	557.5	584.9	590.4
50°	486.6	495.9	514.4	541.0	549.5
52.5°	442.7	452.8	471.0	495.4	507.7
55°	400.5	407.2	427.1	450.7	463.8
57.5°	356.6	362.9	385.3	405.5	419.1
60°	314.4	322.4	339.7	360.4	376.0
62.5°	273.9	282.3	297.1	315.2	333.0
65°	234.6	241.0	255.3	273.5	289.1
67.5°	196.7	202.1	216.5	229.1	245.6
70°	158.3	165.4	176.0	188.2	198.8
72.5°	127.4	130.4	139.3	148.1	159.1
75°	94.1	99.2	106.3	111.4	117.7
77.5°	67.5	70.5	74.7	78.9	84.8
80°	45.2	46.4	50.2	51.1	55.7
82.5°	27.4	28.3	29.1	29.5	31.2
85°	14.8	14.8	14.8	13.9	13.9
87.5°	8.4	8.4	7.2	5.9	4.2
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)