

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: P557836

Luminaire Tested: **FUSL-12-4-LD4-3HI-40-UNV-81-96-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: P557836
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-LD4-3HI-40-UNV-81-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

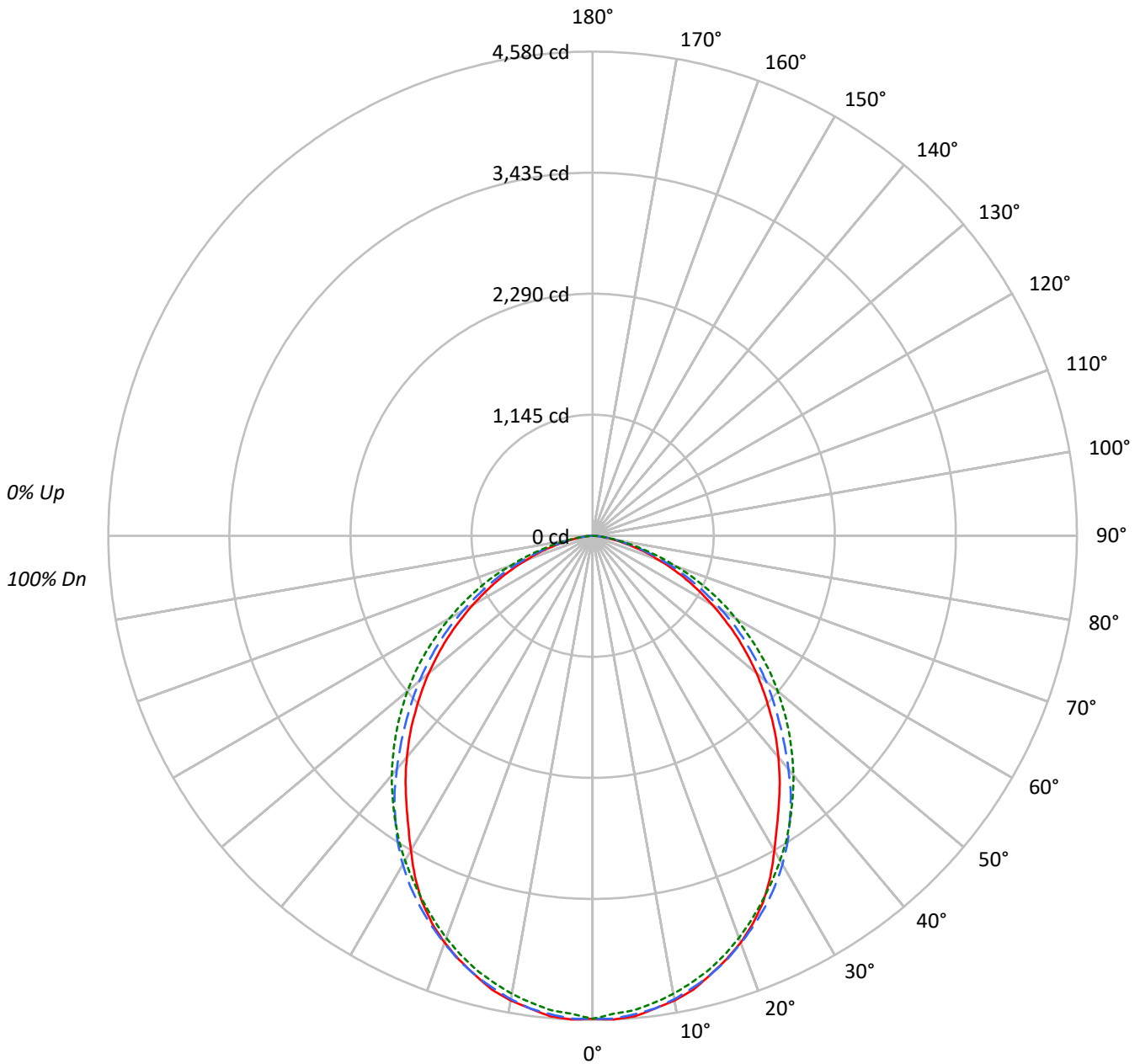
Lumens per Lamp: N/A
Luminaire Lumens: 10563.0 lumens
Efficiency: N/A
Efficacy: 81.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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

TEST NUMBER: P557836

CATALOG NUMBER: FUSL-12-4-LD4-3HI-40-UNV-81-96-EDD-90

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°	12293	12293	12293
5°	12326	12274	12169
10°	12195	12161	12022
15°	11979	11979	11842
20°	11725	11740	11589
25°	11339	11479	11297
30°	10678	11157	11021
35°	10089	10695	10712
40°	9599	10117	10382
45°	9050	9504	9992
50°	8471	8956	9566
55°	7814	8332	9049
60°	7037	7604	8416
65°	6213	6761	7655
70°	5178	5758	6504
75°	4069	4599	5090
80°	2910	3236	3591
85°	1896	1896	1788



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	430.1	4.1
10°-20°	1208.3	11.4
20°-30°	1765.7	16.7
30°-40°	2004.3	19.0
40°-50°	1934.8	18.3
50°-60°	1596.1	15.1
60°-70°	1062.9	10.1
70°-80°	475.6	4.5
80°-90°	85.1	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°	3404.1	32.2
0°-40°	5408.4	51.2
0°-60°	8939.4	84.6
0°-90°	10563.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10563.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4568	4568	4568	4568	4568	
5°	4563	4561	4544	4519	4505	432
15°	4300	4310	4300	4280	4251	1212
25°	3819	3849	3866	3838	3805	1749
35°	3071	3113	3256	3273	3261	1924
45°	2378	2418	2497	2611	2626	1835
55°	1666	1694	1776	1874	1929	1487
65°	976	1002	1062	1137	1202	968
75°	391	412	442	463	490	428
85°	61	61	61	58	58	83
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4568.2	4568.2	4568.2	4568.2	4568.2
2.5°	4580.5	4582.3	4571.7	4543.7	4526.1
5°	4563.0	4561.2	4543.7	4519.1	4505.0
7.5°	4512.1	4515.6	4510.3	4475.2	4455.9
10°	4462.9	4464.7	4450.6	4422.6	4399.7
12.5°	4399.7	4398.0	4378.7	4364.6	4327.8
15°	4299.7	4310.2	4299.7	4280.4	4250.6
17.5°	4203.2	4203.2	4210.2	4176.9	4154.0
20°	4094.4	4099.6	4099.6	4073.3	4047.0
22.5°	3968.0	3983.8	3989.1	3961.0	3929.4
25°	3818.8	3848.7	3866.2	3838.2	3804.8
27.5°	3638.1	3683.7	3736.4	3715.3	3678.4
30°	3436.3	3502.9	3590.7	3573.1	3546.8
32.5°	3245.0	3311.7	3432.7	3425.7	3411.7
35°	3071.2	3113.3	3255.5	3273.0	3260.8
37.5°	2906.3	2944.9	3078.2	3118.6	3108.1
40°	2732.5	2774.6	2879.9	2951.9	2955.4
42.5°	2560.5	2600.9	2686.9	2790.4	2790.4
45°	2378.0	2418.4	2497.3	2611.4	2625.5
47.5°	2199.0	2241.1	2318.3	2432.4	2455.2
50°	2023.5	2062.1	2139.3	2249.9	2285.0
52.5°	1841.0	1883.1	1958.6	2060.4	2111.2
55°	1665.5	1693.6	1776.0	1874.3	1928.7
57.5°	1483.0	1509.3	1602.3	1686.5	1742.7
60°	1307.5	1340.8	1412.8	1498.8	1563.7
62.5°	1139.0	1174.1	1235.5	1311.0	1384.7
65°	975.8	1002.1	1061.8	1137.2	1202.2
67.5°	817.8	840.6	900.3	953.0	1021.4
70°	658.1	688.0	731.8	782.7	826.6
72.5°	530.0	542.3	579.1	616.0	661.6
75°	391.4	412.4	442.3	463.3	489.6
77.5°	280.8	293.1	310.6	328.2	352.8
80°	187.8	193.0	208.8	212.4	231.7
82.5°	114.1	117.6	121.1	122.8	129.9
85°	61.4	61.4	61.4	57.9	57.9
87.5°	35.1	35.1	29.8	24.6	17.5
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)