

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: P557708

Luminaire Tested: **FUSL-12-4-LD4-3HI-30-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: P557708
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-30-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 3000K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

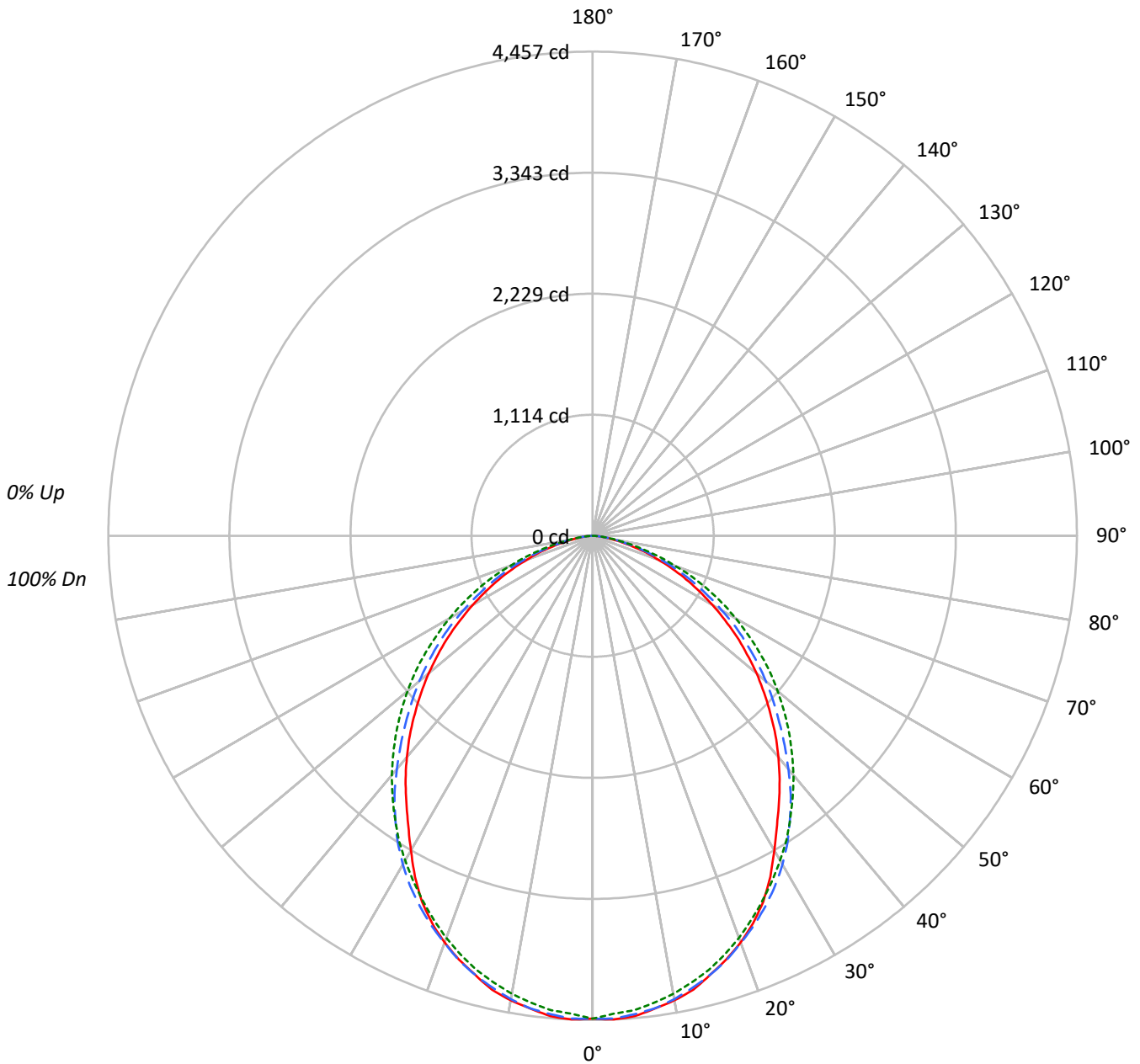
Lumens per Lamp: N/A
Luminaire Lumens: 10278.0 lumens
Efficiency: N/A
Efficacy: 79.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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

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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°	11961	11961	11961
5°	11993	11943	11841
10°	11866	11833	11698
15°	11655	11655	11522
20°	11409	11423	11277
25°	11033	11170	10992
30°	10389	10856	10724
35°	9817	10406	10423
40°	9340	9844	10102
45°	8805	9248	9722
50°	8243	8714	9308
55°	7603	8108	8805
60°	6847	7398	8189
65°	6045	6578	7448
70°	5039	5603	6328
75°	3959	4474	4953
80°	2831	3149	3493
85°	1846	1846	1741



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	418.5	4.1
10°-20°	1175.7	11.4
20°-30°	1718.1	16.7
30°-40°	1950.2	19.0
40°-50°	1882.6	18.3
50°-60°	1553.1	15.1
60°-70°	1034.2	10.1
70°-80°	462.8	4.5
80°-90°	82.8	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°	3312.3	32.2
0°-40°	5262.5	51.2
0°-60°	8698.2	84.6
0°-90°	10278.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10278.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4445	4445	4445	4445	4445	
5°	4440	4438	4421	4397	4384	420
15°	4184	4194	4184	4165	4136	1179
25°	3716	3745	3762	3735	3702	1702
35°	2988	3029	3168	3185	3173	1872
45°	2314	2353	2430	2541	2555	1785
55°	1620	1648	1728	1824	1877	1446
65°	949	975	1033	1106	1170	941
75°	381	401	430	451	476	416
85°	60	60	60	56	56	81
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4445.0	4445.0	4445.0	4445.0	4445.0
2.5°	4456.9	4458.6	4448.4	4421.1	4404.0
5°	4439.8	4438.1	4421.1	4397.2	4383.5
7.5°	4390.3	4393.7	4388.6	4354.5	4335.7
10°	4342.5	4344.2	4330.6	4303.2	4281.0
12.5°	4281.0	4279.3	4260.5	4246.9	4211.0
15°	4183.7	4193.9	4183.7	4164.9	4135.9
17.5°	4089.8	4089.8	4096.6	4064.2	4042.0
20°	3983.9	3989.0	3989.0	3963.4	3937.8
22.5°	3861.0	3876.3	3881.5	3854.1	3823.4
25°	3715.8	3744.8	3761.9	3734.6	3702.1
27.5°	3539.9	3584.3	3635.6	3615.1	3579.2
30°	3343.5	3408.4	3493.8	3476.7	3451.1
32.5°	3157.4	3222.3	3340.1	3333.3	3319.6
35°	2988.4	3029.3	3167.7	3184.7	3172.8
37.5°	2827.8	2865.4	2995.2	3034.5	3024.2
40°	2658.8	2699.8	2802.2	2872.2	2875.7
42.5°	2491.4	2530.7	2614.4	2715.1	2715.1
45°	2313.8	2353.1	2430.0	2541.0	2554.6
47.5°	2139.7	2180.6	2255.8	2366.8	2389.0
50°	1968.9	2006.5	2081.6	2189.2	2223.3
52.5°	1791.3	1832.3	1905.7	2004.8	2054.3
55°	1620.5	1647.9	1728.1	1823.8	1876.7
57.5°	1443.0	1468.6	1559.1	1641.0	1695.7
60°	1272.2	1304.6	1374.6	1458.3	1521.5
62.5°	1108.3	1142.4	1202.2	1275.6	1347.3
65°	949.4	975.1	1033.1	1106.5	1169.7
67.5°	795.8	818.0	876.0	927.2	993.8
70°	640.4	669.4	712.1	761.6	804.3
72.5°	515.7	527.7	563.5	599.4	643.8
75°	380.8	401.3	430.3	450.8	476.4
77.5°	273.2	285.2	302.3	319.3	343.2
80°	182.7	187.8	203.2	206.6	225.4
82.5°	111.0	114.4	117.8	119.5	126.4
85°	59.8	59.8	59.8	56.4	56.4
87.5°	34.2	34.2	29.0	23.9	17.1
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)