

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: P558293

Luminaire Tested: **FUSL-12-4-LD4-3STD-35-UNV-82-86-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: P558293
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-LD4-3STD-35-UNV-82-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

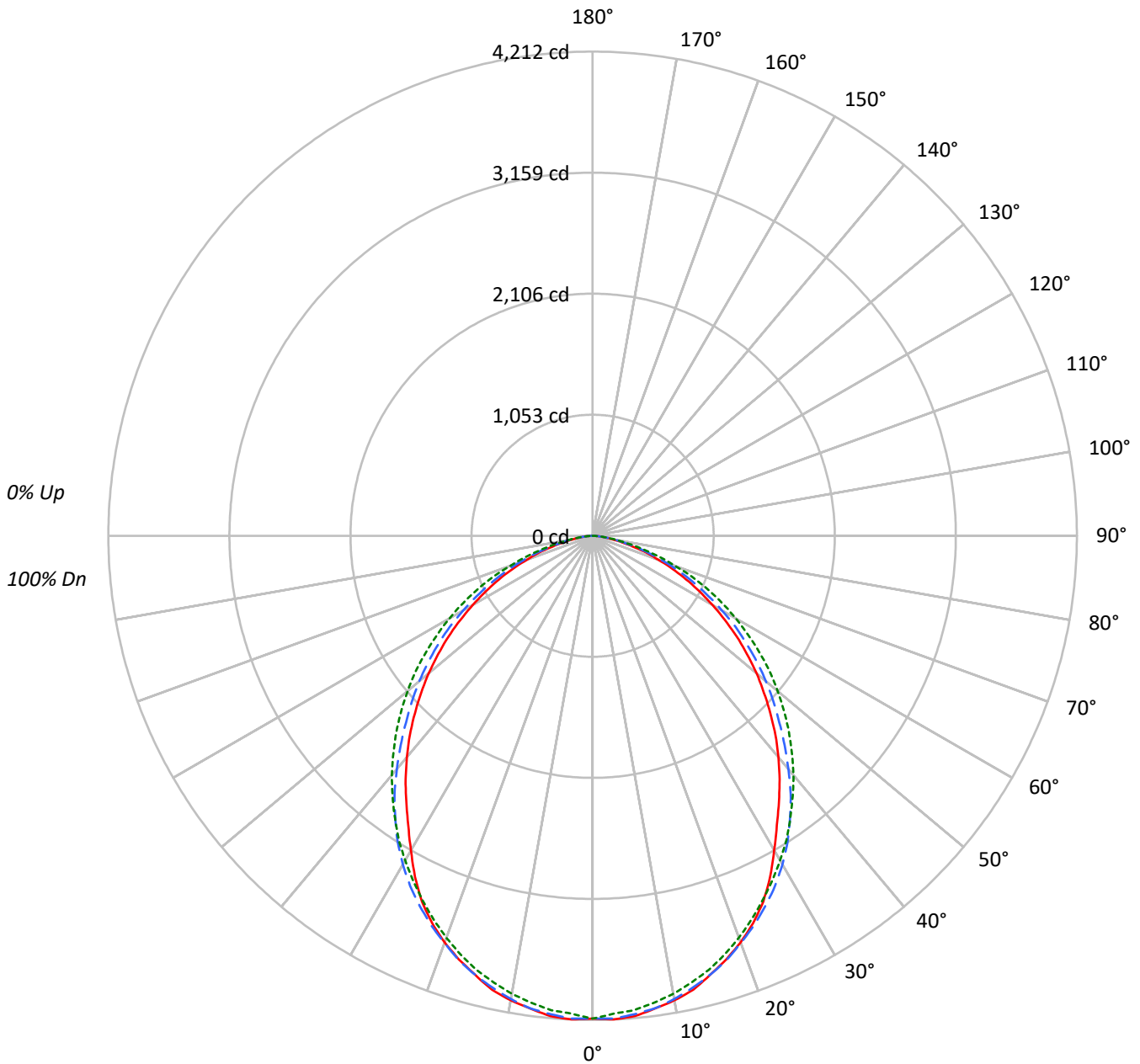
Lumens per Lamp: N/A
Luminaire Lumens: 9712.0 lumens
Efficiency: N/A
Efficacy: 97.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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°	11303	11303	11303
5°	11333	11285	11189
10°	11213	11182	11054
15°	11014	11014	10888
20°	10780	10794	10656
25°	10425	10555	10387
30°	9817	10258	10133
35°	9276	9833	9849
40°	8826	9302	9545
45°	8321	8738	9186
50°	7789	8235	8795
55°	7184	7661	8320
60°	6470	6991	7738
65°	5713	6216	7038
70°	4761	5294	5980
75°	3741	4227	4681
80°	2676	2975	3301
85°	1744	1744	1643



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	395.5	4.1
10°-20°	1111.0	11.4
20°-30°	1623.5	16.7
30°-40°	1842.8	19.0
40°-50°	1779.0	18.3
50°-60°	1467.5	15.1
60°-70°	977.3	10.1
70°-80°	437.3	4.5
80°-90°	78.2	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°	3129.9	32.2
0°-40°	4972.7	51.2
0°-60°	8219.2	84.6
0°-90°	9712.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9712.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4200	4200	4200	4200	4200	
5°	4195	4194	4178	4155	4142	397
15°	3953	3963	3953	3936	3908	1114
25°	3511	3539	3555	3529	3498	1608
35°	2824	2862	2993	3009	2998	1769
45°	2186	2224	2296	2401	2414	1687
55°	1531	1557	1633	1723	1773	1367
65°	897	921	976	1046	1105	890
75°	360	379	407	426	450	393
85°	56	56	56	53	53	76
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4200.2	4200.2	4200.2	4200.2	4200.2
2.5°	4211.5	4213.1	4203.4	4177.6	4161.5
5°	4195.3	4193.7	4177.6	4155.0	4142.1
7.5°	4148.6	4151.8	4146.9	4114.7	4096.9
10°	4103.4	4105.0	4092.1	4066.3	4045.3
12.5°	4045.3	4043.7	4025.9	4013.0	3979.1
15°	3953.3	3963.0	3953.3	3935.6	3908.1
17.5°	3864.6	3864.6	3871.0	3840.4	3819.4
20°	3764.5	3769.4	3769.4	3745.2	3721.0
22.5°	3648.3	3662.9	3667.7	3641.9	3612.8
25°	3511.2	3538.6	3554.8	3528.9	3498.3
27.5°	3345.0	3386.9	3435.3	3416.0	3382.1
30°	3159.4	3220.7	3301.4	3285.3	3261.1
32.5°	2983.5	3044.9	3156.2	3149.7	3136.8
35°	2823.8	2862.5	2993.2	3009.4	2998.1
37.5°	2672.1	2707.6	2830.2	2867.4	2857.7
40°	2512.4	2551.1	2647.9	2714.1	2717.3
42.5°	2354.2	2391.3	2470.4	2565.6	2565.6
45°	2186.4	2223.5	2296.1	2401.0	2413.9
47.5°	2021.8	2060.6	2131.6	2236.4	2257.4
50°	1860.5	1896.0	1967.0	2068.6	2100.9
52.5°	1692.7	1731.4	1800.8	1894.4	1941.2
55°	1531.3	1557.1	1633.0	1723.3	1773.3
57.5°	1363.5	1387.7	1473.2	1550.7	1602.3
60°	1202.1	1232.8	1298.9	1378.0	1437.7
62.5°	1047.2	1079.5	1136.0	1205.4	1273.1
65°	897.2	921.4	976.2	1045.6	1105.3
67.5°	751.9	772.9	827.8	876.2	939.1
70°	605.1	632.5	672.9	719.7	760.0
72.5°	487.3	498.6	532.5	566.4	608.3
75°	359.8	379.2	406.6	426.0	450.2
77.5°	258.2	269.5	285.6	301.7	324.3
80°	172.7	177.5	192.0	195.2	213.0
82.5°	104.9	108.1	111.3	113.0	119.4
85°	56.5	56.5	56.5	53.2	53.2
87.5°	32.3	32.3	27.4	22.6	16.1
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)