

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: P558277

Luminaire Tested: **FUSL-12-4-LD4-3STD-35-UNV-81-86-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: P558277
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-81-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 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

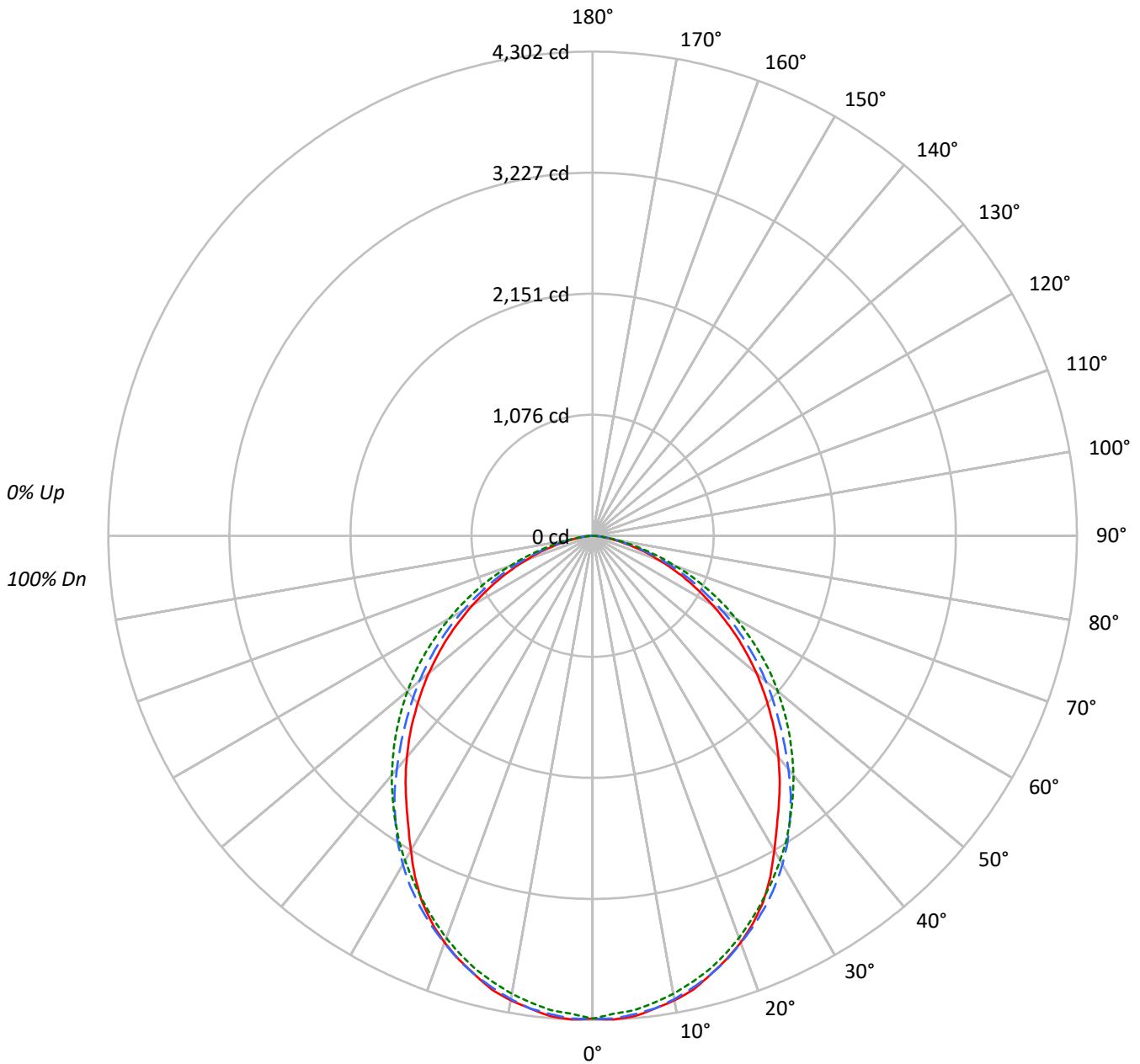
Lumens per Lamp: N/A
Luminaire Lumens: 9921.0 lumens
Efficiency: N/A
Efficacy: 99.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	11546	11546	11546
5°	11577	11528	11430
10°	11454	11422	11291
15°	11251	11251	11122
20°	11012	11027	10885
25°	10650	10782	10611
30°	10028	10479	10351
35°	9476	10044	10061
40°	9015	9502	9751
45°	8500	8926	9384
50°	7956	8412	8984
55°	7339	7826	8499
60°	6609	7141	7904
65°	5836	6350	7189
70°	4863	5408	6109
75°	3822	4319	4782
80°	2734	3040	3372
85°	1782	1782	1680



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	404.0	4.1
10°-20°	1134.9	11.4
20°-30°	1658.4	16.7
30°-40°	1882.5	19.0
40°-50°	1817.2	18.3
50°-60°	1499.1	15.1
60°-70°	998.3	10.1
70°-80°	446.7	4.5
80°-90°	79.9	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°	3197.3	32.2
0°-40°	5079.7	51.2
0°-60°	8396.1	84.6
0°-90°	9921.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9921.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4291	4291	4291	4291	4291	
5°	4286	4284	4268	4244	4231	406
15°	4038	4048	4038	4020	3992	1138
25°	3587	3615	3631	3605	3574	1643
35°	2885	2924	3058	3074	3063	1807
45°	2234	2271	2346	2453	2466	1723
55°	1564	1591	1668	1760	1812	1396
65°	916	941	997	1068	1129	909
75°	368	387	415	435	460	402
85°	58	58	58	54	54	78
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4290.6	4290.6	4290.6	4290.6	4290.6
2.5°	4302.1	4303.8	4293.9	4267.5	4251.0
5°	4285.6	4284.0	4267.5	4244.4	4231.2
7.5°	4237.8	4241.1	4236.2	4203.2	4185.1
10°	4191.7	4193.3	4180.1	4153.8	4132.3
12.5°	4132.3	4130.7	4112.6	4099.4	4064.8
15°	4038.4	4048.3	4038.4	4020.3	3992.2
17.5°	3947.7	3947.7	3954.3	3923.0	3901.6
20°	3845.5	3850.5	3850.5	3825.8	3801.0
22.5°	3726.9	3741.7	3746.6	3720.3	3690.6
25°	3586.7	3614.8	3631.2	3604.9	3573.6
27.5°	3417.0	3459.8	3509.3	3489.5	3454.9
30°	3227.4	3290.0	3372.5	3356.0	3331.3
32.5°	3047.7	3110.4	3224.1	3217.5	3204.3
35°	2884.6	2924.1	3057.6	3074.1	3062.6
37.5°	2729.6	2765.9	2891.2	2929.1	2919.2
40°	2566.4	2606.0	2704.9	2772.5	2775.8
42.5°	2404.9	2442.8	2523.6	2620.8	2620.8
45°	2233.5	2271.4	2345.6	2452.7	2465.9
47.5°	2065.3	2104.9	2177.4	2284.6	2306.0
50°	1900.5	1936.8	2009.3	2113.1	2146.1
52.5°	1729.1	1768.6	1839.5	1935.1	1982.9
55°	1564.3	1590.6	1668.1	1760.4	1811.5
57.5°	1392.8	1417.6	1504.9	1584.0	1636.8
60°	1228.0	1259.3	1326.9	1407.7	1468.7
62.5°	1069.8	1102.7	1160.4	1231.3	1300.5
65°	916.5	941.2	997.2	1068.1	1129.1
67.5°	768.1	789.5	845.6	895.0	959.3
70°	618.1	646.1	687.3	735.2	776.4
72.5°	497.8	509.3	543.9	578.6	621.4
75°	367.6	387.4	415.4	435.2	459.9
77.5°	263.7	275.3	291.8	308.2	331.3
80°	176.4	181.3	196.2	199.4	217.6
82.5°	107.1	110.4	113.7	115.4	122.0
85°	57.7	57.7	57.7	54.4	54.4
87.5°	33.0	33.0	28.0	23.1	16.5
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)