

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: P556977

Luminaire Tested: **FUSL-12-4-LD4-2HI-35-UNV-80-84-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: P556977
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-LD4-2HI-35-UNV-80-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

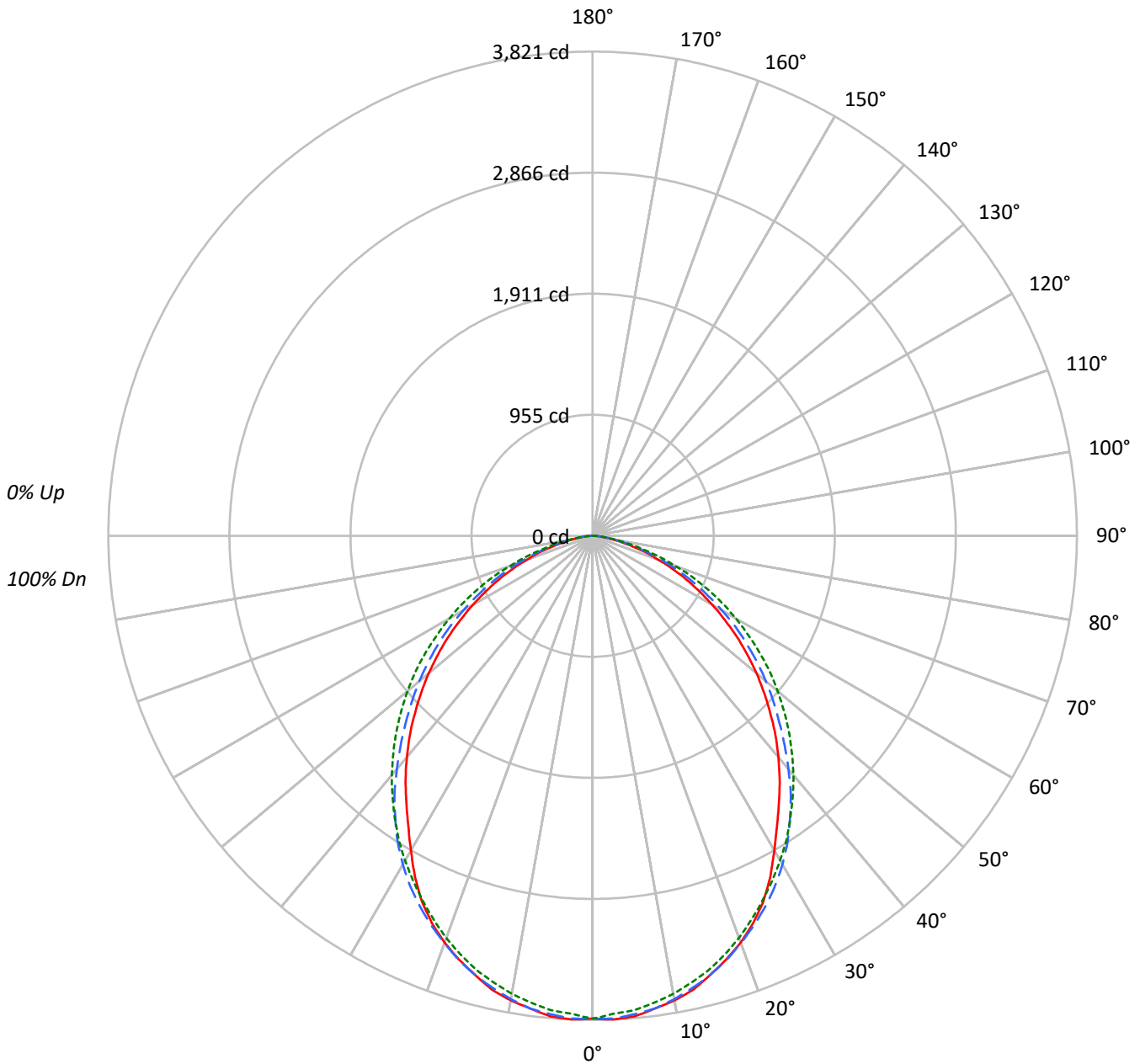
Lumens per Lamp: N/A
Luminaire Lumens: 8812.0 lumens
Efficiency: N/A
Efficacy: 102.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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°	10255	10255	10255
5°	10283	10239	10152
10°	10173	10145	10029
15°	9993	9993	9879
20°	9781	9794	9668
25°	9459	9576	9424
30°	8907	9308	9194
35°	8417	8922	8936
40°	8007	8440	8661
45°	7550	7929	8335
50°	7067	7472	7980
55°	6518	6951	7549
60°	5870	6343	7021
65°	5183	5640	6386
70°	4319	4803	5426
75°	3395	3836	4247
80°	2428	2700	2996
85°	1581	1581	1491



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	358.8	4.1
10°-20°	1008.0	11.4
20°-30°	1473.0	16.7
30°-40°	1672.1	19.0
40°-50°	1614.1	18.3
50°-60°	1331.5	15.1
60°-70°	886.7	10.1
70°-80°	396.8	4.5
80°-90°	71.0	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°	2839.9	32.2
0°-40°	4511.9	51.2
0°-60°	7457.5	84.6
0°-90°	8812.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8812.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3811	3811	3811	3811	3811	
5°	3807	3805	3790	3770	3758	360
15°	3587	3596	3587	3571	3546	1011
25°	3186	3211	3225	3202	3174	1459
35°	2562	2597	2716	2730	2720	1605
45°	1984	2018	2083	2178	2190	1531
55°	1389	1413	1482	1564	1609	1240
65°	814	836	886	949	1003	807
75°	326	344	369	386	408	357
85°	51	51	51	48	48	69
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3811.0	<i>3811.0</i>	3811.0	3811.0	3811.0
2.5°	<i>3821.2</i>	<i>3822.7</i>	<i>3813.9</i>	<i>3790.5</i>	<i>3775.8</i>
5°	3806.6	<i>3805.1</i>	3790.5	3770.0	3758.3
7.5°	3764.1	<i>3767.0</i>	3762.6	3733.4	3717.3
10°	3723.1	<i>3724.6</i>	3712.9	3689.4	3670.4
12.5°	3670.4	<i>3668.9</i>	3652.8	3641.1	3610.4
15°	3587.0	<i>3595.7</i>	3587.0	3570.9	3546.0
17.5°	3506.4	<i>3506.4</i>	3512.3	3484.5	3465.4
20°	3415.7	<i>3420.1</i>	3420.1	3398.1	3376.1
22.5°	3310.3	<i>3323.4</i>	3327.8	3304.4	3278.0
25°	3185.8	<i>3210.7</i>	3225.3	3201.9	3174.1
27.5°	3035.0	<i>3073.1</i>	3117.0	3099.4	3068.7
30°	2866.6	<i>2922.3</i>	2995.5	2980.8	2958.9
32.5°	2707.1	<i>2762.7</i>	2863.7	2857.9	2846.1
35°	2562.1	<i>2597.3</i>	2715.8	2730.5	2720.2
37.5°	2424.5	<i>2456.7</i>	2568.0	2601.6	2592.9
40°	2279.5	<i>2314.7</i>	2402.5	2462.6	2465.5
42.5°	2136.1	<i>2169.7</i>	2241.5	2327.9	2327.9
45°	1983.8	<i>2017.5</i>	2083.4	2178.5	2190.2
47.5°	1834.5	<i>1869.6</i>	1934.0	2029.2	2048.2
50°	1688.1	<i>1720.3</i>	1784.7	1876.9	1906.2
52.5°	1535.8	<i>1570.9</i>	1633.9	1718.8	1761.3
55°	1389.4	<i>1412.8</i>	1481.6	1563.6	1609.0
57.5°	1237.1	<i>1259.1</i>	1336.7	1407.0	1453.8
60°	1090.7	<i>1118.5</i>	1178.6	1250.3	1304.5
62.5°	950.2	<i>979.5</i>	1030.7	1093.7	1155.1
65°	814.0	<i>836.0</i>	885.8	948.7	1002.9
67.5°	682.3	<i>701.3</i>	751.1	795.0	852.1
70°	549.0	<i>573.9</i>	610.5	653.0	689.6
72.5°	442.1	<i>452.4</i>	483.1	513.9	552.0
75°	326.5	<i>344.1</i>	368.9	386.5	408.5
77.5°	234.3	<i>244.5</i>	259.1	273.8	294.3
80°	156.7	<i>161.0</i>	174.2	177.2	193.3
82.5°	95.2	<i>98.1</i>	101.0	102.5	108.3
85°	51.2	<i>51.2</i>	51.2	48.3	48.3
87.5°	29.3	<i>29.3</i>	24.9	20.5	14.6
90°	0.0	<i>0.0</i>	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)