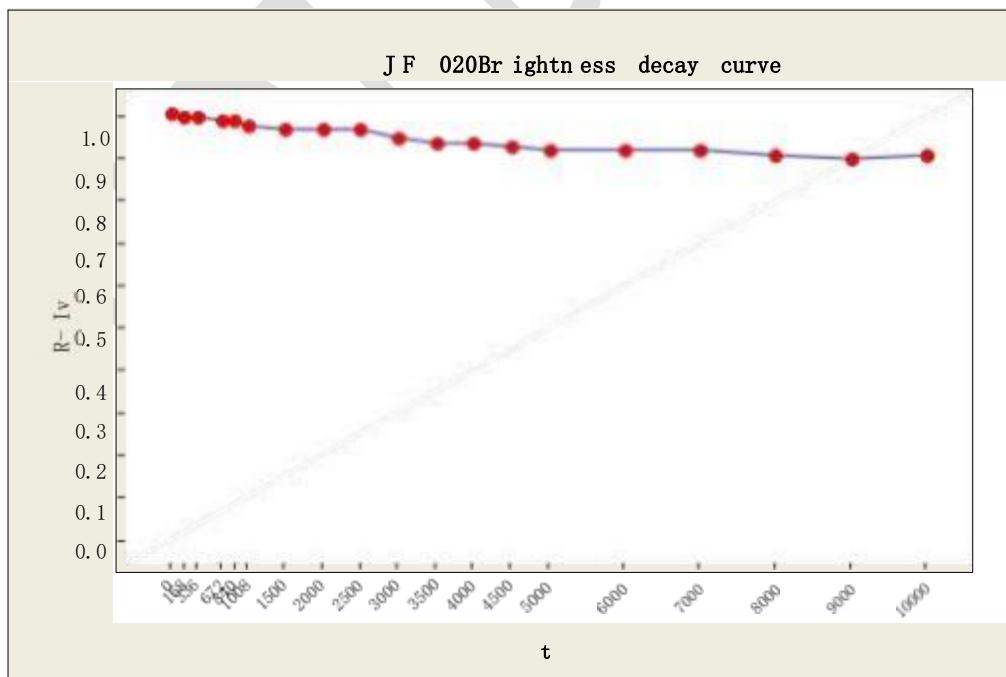


# 0.6T Room temperature 20mA aging attenuation curve and attenuation equation

一、10000 hours average brightness and aging time data table (see attached data)

t	I <sub>V</sub>	R-I <sub>V</sub>	ln <sup>R-I<sub>V</sub></sup>	V <sub>f</sub>
0	1381	1.00	0	3.11
168	1367	0.99	-0.01005	3.13
336	1370	0.99	-0.01005	3.13
672	1353	0.98	-0.0202	3.13
840	1360	0.98	-0.0202	3.14
1008	1345	0.97	-0.03046	3.14
1500	1321	0.96	-0.04082	3.14
2000	1328	0.96	-0.04082	3.14
2500	1327	0.96	-0.04082	3.15
3000	1293	0.94	-0.06188	3.15
3500	1287	0.93	-0.07257	3.15
4000	1287	0.93	-0.07257	3.14
4500	1271	0.92	-0.08338	3.16
5000	1255	0.91	-0.09431	3.15
6000	1257	0.91	-0.09431	3.16
7000	1250	0.91	-0.09431	3.16
8000	1236	0.90	-0.10536	3.16
9000	1225	0.89	-0.11653	3.17
10000	1238	0.90	-0.10536	3.17

二、The brightness attenuation curve is as follows :



### 三、Lifetime regression equation

$$\ln R-IV = -0.0172 - 0.000011 t$$

When  $R-IV=50\%$ ,  $\ln 0.5=-0.69315$ , so,  $-0.69315=-0.0172-0.000011t$

$t=61450$  hours.

In other words, based on the data of 10,000 hours of continuous lighting aging of our company's 020 product at room temperature and 20mA, it is predicted that the time for the brightness to decay to 50% is about 61,450 hours.