In order to verify for my self that replacing the PiezoTone black ink in the Selenium PiezoTone ink set with MIS-Full Spectrum Neutral black was the proper response to the rapid warm/fade shift of PiezoTone black ink shown by Paul Roark in his comparative fade testing of both PiezoTone inks sets to MIS-Full inks and as reported on prints by several other people, I did the following.

I printed a 21-step wedge with Selenium PiezoTone ink, including the PiezoTone black ink on Photo Rag 188 using the Piezo plug-in with the Photo Rag 188 profile and quality set to "Better". On the same sheet of paper I printed a second wedge in the same manner only for this wedge MIS-Full Spectrum Neutral black ink was substituted for the PiezoTone black ink.

I allowed the wedges to "settle" for 4 days and then measured C,M, Y and Visual densities of each step in the wedge and the 95-100 steps as well.

The Sel-PT with PT-K measured 1.83, 1.88, 1.78 and 1.84 with a "Warmth" (C-Y) of 0.04.
The Sel-PT with MIS-FSN-K measured 1.69, 1.70, 1.67 and 1.66 with a "Warmth" of 0.02.

The sheet with the two wedges was then hung in a west facing window where it received indirect or direct sunlight all day. After 14 days I removed the sheet and measured the wedges again and got the following readings:

The Sel-PT with PT-K measured 1.51, 1.63, 1.69 and 1.58 with a "Warmth" (C-Y) of -0.18.
The Sel-PT with MIS-FSN-K measured 1.60, 1.63, 1.65 and 1.61 with a "Warmth" of -0.04.

Basically the wedge printed with the PT black faded 0.26 density units and warmed 0.22 units while the wedge printed with the MIS-FSN black faded 0.07 density units and warmed 0.07 units. The shift in the PT black was 3 to 4 time the shift in the FSN black. The effects can be seen on the wedge as a slight reddish discoloration in the 90 to 100% steps.

All of the spectrophotometer readings can be found in the files section of the group homepage in folder:

Files **>** Ink Sets **>** PiezoTones **>** Recent tests on PT black fade

Based on this additional information, I continue to recommend that to avoid premature fading and warming in the dark tones, 85 to 100%, with either of the PiezoTone ink sets and the Piezo plug in or other driver, that you replace the PT black with the FSN black until a more fade resistant black is available from InkJetMall.

Martin Wesley

Sel-PT w/PT-K on Photo Rag Printed with the Piezo Plugin

	Before Fade	After Fade			Before Fade	After Fade	
Dot %	Visual	Visual	Fade	%Fade	Warmth (C-Y)	Warmth (C-Y)	Warming
100	1.84	1.58	0.26	14%	0.04	-0.18	0.22
99	1.77	1.52	0.25	14%	0.02	-0.19	0.20
98	1.73	1.51	0.22	13%	0.07	-0.20	0.27
97	1.69	1.48	0.21	12%	0.05	-0.19	0.24
96	1.66	1.46	0.20	12%	0.03	-0.14	0.17
95	1.64	1.44	0.20	12%	0.00	-0.14	0.14
90	1.48	1.36	0.12	8%	0.01	-0.05	0.06
85	1.32	1.31	0.01	1%	0.02	-0.01	0.03
80	1.22	1.22	0.00	0%	-0.01	-0.01	0.00
75	1.15	1.14	0.01	1%	0.00	0.00	0.00
70	1.06	1.05	0.01	1%	-0.01	-0.01	0.00
65	0.97	0.96	0.01	1%	0.00	-0.01	0.01
60	0.87	0.87	0.00	0%	-0.01	-0.02	0.01
55	0.80	0.79	0.01	1%	-0.03	-0.03	0.01
50	0.73	0.72	0.01	1%	-0.03	-0.04	0.01
45	0.65	0.65	0.00	0%	-0.03	-0.04	0.01
40	0.60	0.59	0.01	2%	-0.03	-0.04	0.01
35	0.52	0.51	0.01	2%	-0.03	-0.05	0.02
30	0.45	0.44	0.01	2%	-0.03	-0.05	0.02
25	0.39	0.39	0.00	0%	-0.03	-0.05	0.02
20	0.32	0.32	0.00	0%	-0.03	-0.04	0.02
15	0.25	0.25	0.00	0%	-0.02	-0.04	0.02
10	0.19	0.19	0.00	0%	-0.01	-0.03	0.02
5	0.12	0.12	0.00	0%	0.00	-0.02	0.02
0	0.06	0.06	0.00	0%	0.02	-0.01	0.02

Sel-PT wMIS-FSN-K on Photo Rag printed with the Piezo Plugin

	Before Fade	After Fade			Before Fade	After Fade	
Dot %	Visual	Visual	Fade	%Fade	Warmth (C-Y)	Warmth (C-Y)	Warming
100	1.68	1.61	0.07	4%	0.02	-0.04	0.07
99	1.64	1.57	0.07	4%	0.07	0.00	0.07
98	1.62	1.55	0.07	4%	0.05	-0.01	0.07
97	1.57	1.51	0.06	4%	0.07	-0.04	0.11
96	1.56	1.50	0.06	4%	0.04	-0.05	0.09
95	1.52	1.47	0.05	3%	0.04	0.02	0.02
90	1.40	1.38	0.02	1%	0.04	-0.01	0.05
85	1.28	1.28	0.00	0%	0.03	0.02	0.01
80	1.20	1.19	0.01	1%	0.02	0.02	0.00
75	1.11	1.11	0.00	0%	0.03	0.01	0.02
70	1.03	1.02	0.01	1%	0.00	-0.01	0.01
65	0.94	0.94	0.00	0%	-0.01	-0.02	0.00
60	0.85	0.85	0.00	0%	-0.01	-0.03	0.02
55	0.77	0.77	0.00	0%	-0.02	-0.03	0.01
50	0.70	0.70	0.00	0%	-0.03	-0.04	0.01
45	0.63	0.63	0.00	0%	-0.02	-0.04	0.02
40	0.58	0.57	0.01	2%	-0.03	-0.05	0.02
35	0.51	0.50	0.01	2%	-0.03	-0.05	0.01
30	0.43	0.43	0.00	0%	-0.03	-0.05	0.02
25	0.38	0.38	0.00	0%	-0.03	-0.05	0.02
20	0.32	0.31	0.01	3%	-0.02	-0.04	0.02
15	0.25	0.24	0.01	4%	-0.02	-0.04	0.02
10	0.19	0.20	-0.01	-5%	-0.01	-0.03	0.02
5	0.12	0.12	0.00	0%	0.00	-0.02	0.02
0	0.06	0.06	0.00	0%	0.02	-0.01	0.02

Sel-PT w/PT-K on Photo Rag before fade test

Dot %	C	M	Y	Visual	Warmth (C-Y)	X	Y	Z	L	a	b	C	h	x	y	u	v	Illum	Dens. Status
100	1.83	1.88	1.78	1.84	0.04	1.43	1.46	1.29	12.35	0.75	-1.11	1.34	303.79	0.34	0.35	0.21	0.48	2°D50	I
99	1.78	1.81	1.76	1.77	0.02	1.64	1.68	1.49	13.72	0.35	-1.18	1.23	286.64	0.34	0.35	0.21	0.48	2°D50	I
98	1.75	1.74	1.68	1.73	0.07	1.79	1.84	1.68	14.64	0.28	-1.76	1.79	278.95	0.34	0.35	0.21	0.48	2°D50	I
97	1.71	1.69	1.65	1.69	0.05	1.97	2.05	1.80	15.74	-0.05	-1.16	1.16	267.59	0.34	0.35	0.21	0.48	2°D50	I
96	1.68	1.66	1.65	1.66	0.03	2.09	2.17	1.93	16.35	-0.08	-1.46	1.46	266.89	0.34	0.35	0.21	0.48	2°D50	I
95	1.63	1.63	1.63	1.64	0.00	2.23	2.31	2.00	17.06	-0.11	-0.93	0.93	263.28	0.34	0.35	0.21	0.48	2°D50	I
90	1.48	1.46	1.47	1.48	0.01	3.22	3.35	2.95	21.38	-0.10	-1.40	1.41	265.80	0.34	0.35	0.21	0.48	2°D50	I
85	1.33	1.33	1.30	1.32	0.02	4.62	4.76	4.10	26.05	0.30	-1.04	1.08	286.29	0.34	0.35	0.21	0.49	2°D50	I
80	1.22	1.21	1.23	1.22	-0.01	5.85	6.02	5.21	29.46	0.47	-1.26	1.35	290.64	0.34	0.35	0.21	0.48	2°D50	I
75	1.14	1.15	1.14	1.15	0.00	6.95	7.15	6.11	32.15	0.50	-0.98	1.10	297.31	0.34	0.35	0.21	0.49	2°D50	I
70	1.05	1.06	1.06	1.06	-0.01	8.54	8.78	7.38	35.56	0.59	-0.53	0.80	317.80	0.35	0.36	0.21	0.49	2°D50	I
65	0.97	0.97	0.97	0.97	0.00	10.37	10.66	8.93	39.00	0.66	-0.47	0.81	324.54	0.35	0.36	0.21	0.49	2°D50	I
60	0.86	0.88	0.87	0.87	-0.01	13.08	13.41	11.18	43.38	0.97	-0.33	1.02	341.20	0.35	0.36	0.21	0.49	2°D50	I
55	0.79	0.80	0.81	0.80	-0.03	15.48	15.83	13.06	46.75	1.25	0.01	1.25	0.57	0.35	0.36	0.21	0.49	2°D50	I
50	0.71	0.73	0.75	0.73	-0.03	18.19	18.59	15.24	50.20	1.40	0.25	1.42	10.04	0.35	0.36	0.21	0.49	2°D50	I
45	0.64	0.66	0.67	0.65	-0.03	21.69	22.15	18.04	54.18	1.59	0.53	1.67	18.38	0.35	0.36	0.21	0.49	2°D50	I
40	0.58	0.60	0.61	0.60	-0.03	24.76	25.31	20.55	57.38	1.52	0.68	1.67	23.90	0.35	0.36	0.21	0.49	2°D50	I
35	0.50	0.53	0.53	0.52	-0.03	29.52	30.16	24.40	61.80	1.67	0.89	1.90	28.08	0.35	0.36	0.21	0.49	2°D50	I
30	0.43	0.45	0.46	0.45	-0.03	34.87	35.67	28.83	66.27	1.62	0.97	1.89	30.96	0.35	0.36	0.21	0.49	2°D50	I
25	0.38	0.40	0.41	0.39	-0.03	39.44	40.34	32.66	69.71	1.72	0.93	1.96	28.22	0.35	0.36	0.21	0.49	2°D50	I
20	0.31	0.33	0.33	0.32	-0.03	46.30	47.44	38.45	74.47	1.57	0.93	1.82	30.61	0.35	0.36	0.21	0.49	2°D50	I
15	0.24	0.26	0.26	0.25	-0.02	54.60	55.99	45.79	79.61	1.55	0.50	1.63	17.73	0.35	0.36	0.21	0.49	2°D50	I
10	0.18	0.20	0.19	0.19	-0.01	62.27	63.97	52.70	83.95	1.36	0.10	1.36	4.18	0.35	0.36	0.21	0.49	2°D50	I
5	0.12	0.13	0.12	0.12	0.00	73.02	75.22	62.60	89.50	1.01	-0.51	1.13	333.23	0.35	0.36	0.21	0.49	2°D50	I
0	0.06	0.06	0.04	0.06	0.02	84.27	87.00	73.45	94.74	0.73	-1.46	1.63	296.55	0.34	0.36	0.21	0.49	2°D50	I

Sel-PT wMIS-FSN-K on Photo Rag before fade test

Dot %	C	M	Y	Visual	Warmth (C-Y)	X	Y	Z	L	a	b	C	h	x	y	u	v	Illum	Dens. Status
100	1.69	1.70	1.67	1.68	0.02	2.00	2.09	1.74	15.94	-0.18	-0.22	0.28	230.78	0.34	0.36	0.21	0.49	2°D50	I
99	1.67	1.64	1.61	1.64	0.07	2.18	2.28	1.96	16.92	-0.49	-0.69	0.85	234.95	0.34	0.36	0.21	0.49	2°D50	I
98	1.63	1.62	1.57	1.62	0.05	2.33	2.42	2.08	17.57	-0.11	-0.75	0.76	261.33	0.34	0.35	0.21	0.49	2°D50	I
97	1.59	1.57	1.53	1.57	0.07	2.58	2.69	2.31	18.75	-0.23	-0.78	0.81	253.35	0.34	0.35	0.21	0.49	2°D50	I
96	1.57	1.55	1.53	1.56	0.04	2.66	2.78	2.41	19.12	-0.22	-1.04	1.07	258.12	0.34	0.35	0.21	0.48	2°D50	I
95	1.54	1.52	1.50	1.52	0.04	2.87	3.00	2.58	20.03	-0.32	-0.93	0.98	250.66	0.34	0.35	0.21	0.49	2°D50	I
90	1.41	1.40	1.37	1.40	0.04	3.85	3.99	3.47	23.62	0.10	-1.25	1.25	274.74	0.34	0.35	0.21	0.48	2°D50	I
85	1.28	1.29	1.25	1.28	0.03	5.06	5.21	4.51	27.33	0.38	-1.22	1.28	287.48	0.34	0.35	0.21	0.48	2°D50	I
80	1.19	1.19	1.17	1.20	0.02	6.16	6.34	5.49	30.25	0.52	-1.32	1.42	291.66	0.34	0.35	0.21	0.48	2°D50	I
75	1.12	1.12	1.09	1.11	0.03	7.45	7.68	6.54	33.30	0.47	-0.92	1.04	296.71	0.34	0.35	0.21	0.49	2°D50	I
70	1.02	1.03	1.02	1.03	0.00	9.07	9.34	7.88	36.62	0.55	-0.68	0.87	308.95	0.35	0.36	0.21	0.49	2°D50	I
65	0.93	0.94	0.95	0.94	-0.01	11.16	11.46	9.54	40.35	0.77	-0.28	0.82	340.04	0.35	0.36	0.21	0.49	2°D50	I
60	0.84	0.85	0.84	0.85	-0.01	13.93	14.29	11.90	44.64	0.97	-0.32	1.02	341.77	0.35	0.36	0.21	0.49	2°D50	I
55	0.76	0.77	0.78	0.77	-0.02	16.54	16.96	13.99	48.21	1.04	0.04	1.04	1.95	0.35	0.36	0.21	0.49	2°D50	I
50	0.69	0.71	0.72	0.70	-0.03	19.34	19.78	16.21	51.59	1.34	0.26	1.36	11.12	0.35	0.36	0.21	0.49	2°D50	I
45	0.61	0.63	0.64	0.63	-0.02	22.89	23.42	19.08	55.50	1.38	0.52	1.47	20.58	0.35	0.36	0.21	0.49	2°D50	I
40	0.56	0.58	0.59	0.58	-0.03	25.88	26.47	21.53	58.48	1.51	0.60	1.63	21.74	0.35	0.36	0.21	0.49	2°D50	I
35	0.49	0.51	0.52	0.51	-0.03	30.57	31.25	25.35	62.72	1.63	0.78	1.81	25.48	0.35	0.36	0.21	0.49	2°D50	I
30	0.42	0.44	0.45	0.43	-0.03	35.93	36.74	29.68	67.08	1.69	1.02	1.97	31.20	0.35	0.36	0.21	0.49	2°D50	I
25	0.37	0.39	0.40	0.38	-0.03	40.53	41.48	33.52	70.51	1.63	1.04	1.93	32.54	0.35	0.36	0.21	0.49	2°D50	I
20	0.30	0.32	0.32	0.32	-0.02	47.06	48.20	39.21	74.95	1.62	0.75	1.78	24.72	0.35	0.36	0.21	0.49	2°D50	I
15	0.23	0.25	0.25	0.25	-0.02	55.20	56.61	46.29	79.96	1.55	0.50	1.63	17.72	0.35	0.36	0.21	0.49	2°D50	I
10	0.18	0.20	0.19	0.19	-0.01	62.19	63.88	52.58	83.91	1.36	0.16	1.37	6.51	0.35	0.36	0.21	0.49	2°D50	I
5	0.12	0.13	0.11	0.12	0.00	73.04	75.21	62.67	89.49	1.08	-0.58	1.23	331.66	0.35	0.36	0.21	0.49	2°D50	I
0	0.05	0.06	0.04	0.06	0.02	84.94	87.63	73.96	95.01	0.83	-1.44	1.66	300.11	0.34	0.36	0.21	0.49	2°D50	I

Selenium-PiezoTone with PT-K after 14 days in a West window

Dot %	C	M	Y	Visual	Warmth (C-Y)	X	Y	Z	L	a	b	C	h	x	y	u	v	Illum	Dens. Status
1	1.51	1.63	1.69	1.58	-0.18	2.65	2.61	1.75	18.42	2.57	4.00	4.75	57.23	0.38	0.37	0.23	0.50	2°D50	I
0.99	1.45	1.54	1.64	1.52	-0.19	3.06	3.03	2.01	20.16	2.50	4.40	5.06	60.38	0.38	0.37	0.22	0.50	2°D50	I
0.98	1.43	1.52	1.63	1.51	-0.20	3.16	3.12	2.07	20.54	2.53	4.41	5.08	60.18	0.38	0.37	0.22	0.50	2°D50	I
0.97	1.41	1.50	1.60	1.48	-0.19	3.36	3.34	2.30	21.35	2.42	3.79	4.50	57.47	0.37	0.37	0.22	0.50	2°D50	I
0.96	1.41	1.48	1.55	1.46	-0.14	3.44	3.43	2.36	21.71	2.00	3.85	4.34	62.50	0.37	0.37	0.22	0.50	2°D50	I
0.95	1.39	1.48	1.52	1.44	-0.14	3.64	3.64	2.57	22.45	2.05	3.34	3.92	58.46	0.37	0.37	0.22	0.50	2°D50	I
0.9	1.34	1.38	1.39	1.36	-0.05	4.27	4.34	3.34	24.77	1.19	1.61	2.00	53.69	0.36	0.36	0.22	0.49	2°D50	I
0.85	1.30	1.31	1.32	1.31	-0.01	4.78	4.92	4.18	26.52	0.40	-0.70	0.81	299.77	0.34	0.35	0.21	0.49	2°D50	I
0.8	1.21	1.21	1.22	1.22	-0.01	5.90	6.09	5.21	29.64	0.35	-0.95	1.01	290.33	0.34	0.35	0.21	0.49	2°D50	I
0.75	1.14	1.14	1.14	1.14	0.00	7.01	7.23	6.12	32.32	0.40	-0.73	0.84	298.79	0.34	0.36	0.21	0.49	2°D50	I
0.7	1.04	1.05	1.05	1.05	-0.01	8.68	8.94	7.48	35.86	0.52	-0.44	0.68	320.07	0.35	0.36	0.21	0.49	2°D50	I
0.65	0.96	0.97	0.97	0.96	-0.01	10.57	10.88	8.99	39.38	0.63	-0.03	0.63	356.84	0.35	0.36	0.21	0.49	2°D50	I
0.6	0.86	0.88	0.88	0.87	-0.02	13.12	13.49	11.03	43.49	0.78	0.31	0.84	21.94	0.35	0.36	0.21	0.49	2°D50	I
0.55	0.78	0.80	0.81	0.79	-0.03	15.73	16.15	13.05	47.17	0.91	0.76	1.18	39.88	0.35	0.36	0.21	0.49	2°D50	I
0.5	0.71	0.72	0.74	0.72	-0.04	18.54	19.02	15.32	50.71	1.04	0.92	1.39	41.69	0.35	0.36	0.21	0.49	2°D50	I
0.45	0.63	0.65	0.67	0.65	-0.04	21.92	22.48	18.03	54.53	1.15	1.15	1.63	44.84	0.35	0.36	0.21	0.49	2°D50	I
0.4	0.57	0.59	0.62	0.59	-0.04	25.08	25.73	20.52	57.78	1.16	1.44	1.85	51.04	0.35	0.36	0.21	0.49	2°D50	I
0.35	0.49	0.51	0.54	0.51	-0.05	30.13	30.91	24.55	62.43	1.23	1.71	2.11	54.35	0.35	0.36	0.21	0.49	2°D50	I
0.3	0.42	0.44	0.47	0.44	-0.05	35.51	36.43	28.84	66.85	1.29	1.96	2.35	56.78	0.35	0.36	0.21	0.49	2°D50	I
0.25	0.37	0.39	0.42	0.39	-0.05	39.93	41.00	32.40	70.18	1.24	2.13	2.46	59.87	0.35	0.36	0.21	0.49	2°D50	I
0.2	0.30	0.32	0.34	0.32	-0.04	46.92	48.23	38.25	74.97	1.15	2.07	2.37	60.88	0.35	0.36	0.21	0.49	2°D50	I
0.15	0.24	0.25	0.27	0.25	-0.04	54.61	56.21	44.78	79.74	1.02	1.93	2.18	62.06	0.35	0.36	0.21	0.49	2°D50	I
0.1	0.18	0.19	0.21	0.19	-0.03	62.39	64.31	51.56	84.13	0.88	1.66	1.88	62.08	0.35	0.36	0.21	0.49	2°D50	I
0.05	0.12	0.12	0.14	0.12	-0.02	73.12	75.59	61.22	89.67	0.49	1.13	1.23	66.62	0.35	0.36	0.21	0.49	2°D50	I
0	0.06	0.06	0.06	0.06	-0.01	84.35	87.37	71.47	94.89	0.20	0.55	0.59	70.28	0.35	0.36	0.21	0.49	2°D50	I

Selenium-PiezoTone withMIS-FSN-K after 14 days in a West window

Dot %	C	M	Y	Visual	Warmth (C-Y)	X	Y	Z	L	a	b	C	h	x	y	u	v	Illum	Dens. Status
1	1.60	1.63	1.65	1.61	-0.04	2.38	2.43	1.95	17.59	0.82	0.52	0.97	32.69	0.35	0.36	0.21	0.49	2°D50	I
0.99	1.55	1.57	1.55	1.57	0.00	2.64	2.70	2.18	18.79	0.76	0.46	0.89	31.34	0.35	0.36	0.21	0.49	2°D50	I
0.98	1.53	1.56	1.55	1.55	-0.01	2.77	2.83	2.24	19.36	0.66	0.83	1.06	51.38	0.35	0.36	0.21	0.49	2°D50	I
0.97	1.50	1.51	1.54	1.51	-0.04	3.04	3.11	2.51	20.48	0.76	0.51	0.92	33.59	0.35	0.36	0.21	0.49	2°D50	I
0.96	1.49	1.50	1.53	1.50	-0.05	3.08	3.14	2.54	20.62	0.81	0.47	0.94	29.85	0.35	0.36	0.21	0.49	2°D50	I
0.95	1.46	1.48	1.44	1.47	0.02	3.33	3.39	2.74	21.55	0.90	0.49	1.03	28.31	0.35	0.36	0.21	0.49	2°D50	I
0.9	1.37	1.39	1.39	1.38	-0.01	4.08	4.19	3.52	24.29	0.51	-0.38	0.64	323.25	0.35	0.36	0.21	0.49	2°D50	I
0.85	1.29	1.28	1.27	1.28	0.02	5.07	5.23	4.47	27.38	0.32	-0.85	0.91	290.49	0.34	0.35	0.21	0.49	2°D50	I
0.8	1.19	1.19	1.18	1.19	0.02	6.22	6.43	5.53	30.47	0.26	-1.13	1.16	282.89	0.34	0.35	0.21	0.49	2°D50	I
0.75	1.11	1.12	1.11	1.11	0.01	7.45	7.69	6.43	33.33	0.31	-0.39	0.50	308.38	0.35	0.36	0.21	0.49	2°D50	I
0.7	1.01	1.02	1.03	1.02	-0.01	9.21	9.49	7.85	36.91	0.50	-0.07	0.50	352.06	0.35	0.36	0.21	0.49	2°D50	I
0.65	0.93	0.93	0.95	0.94	-0.02	11.28	11.61	9.55	40.59	0.62	0.11	0.63	10.09	0.35	0.36	0.21	0.49	2°D50	I
0.6	0.84	0.85	0.86	0.85	-0.03	13.90	14.28	11.64	44.63	0.81	0.42	0.92	27.54	0.35	0.36	0.21	0.49	2°D50	I
0.55	0.75	0.77	0.78	0.77	-0.03	16.71	17.17	13.86	48.47	0.89	0.81	1.20	42.26	0.35	0.36	0.21	0.49	2°D50	I
0.5	0.68	0.70	0.72	0.70	-0.04	19.50	20.01	16.06	51.84	1.07	1.08	1.52	45.16	0.35	0.36	0.21	0.49	2°D50	I
0.45	0.61	0.63	0.65	0.63	-0.04	23.03	23.63	18.87	55.71	1.10	1.35	1.75	50.80	0.35	0.36	0.21	0.49	2°D50	I
0.4	0.56	0.58	0.60	0.57	-0.05	26.04	26.70	21.26	58.70	1.22	1.52	1.94	51.32	0.35	0.36	0.21	0.49	2°D50	I
0.35	0.48	0.50	0.53	0.50	-0.05	30.96	31.76	25.20	63.14	1.25	1.77	2.16	54.80	0.35	0.36	0.21	0.49	2°D50	I
0.3	0.41	0.44	0.46	0.43	-0.05	36.11	37.03	29.27	67.30	1.33	2.06	2.45	57.16	0.35	0.36	0.21	0.49	2°D50	I
0.25	0.36	0.38	0.41	0.38	-0.05	40.82	41.88	33.04	70.79	1.33	2.23	2.60	59.10	0.35	0.36	0.21	0.49	2°D50	I
0.2	0.30	0.32	0.34	0.31	-0.04	47.22	48.54	38.47	75.17	1.16	2.11	2.41	61.16	0.35	0.36	0.21	0.49	2°D50	I
0.15	0.23	0.24	0.26	0.24	-0.04	55.74	57.36	45.71	80.38	1.08	1.93	2.21	60.78	0.35	0.36	0.21	0.49	2°D50	I
0.1	0.18	0.20	0.22	0.20	-0.03	61.84	63.73	51.00	83.83	0.90	1.76	1.97	62.97	0.35	0.36	0.21	0.49	2°D50	I
0.05	0.11	0.12	0.13	0.12	-0.02	73.59	76.03	61.48	89.87	0.58	1.23	1.36	64.85	0.35	0.36	0.21	0.49	2°D50	I
0	0.06	0.06	0.06	0.06	-0.01	84.38	87.39	71.34	94.90	0.22	0.69	0.72	72.62	0.35	0.36	0.21	0.49	2°D50	I