TEST REPORT

Of IES LM-79-08

Kunde: *Client:*	ARTIKA FOR LIVING INC
Adresse: *Address:*	1756 50th avenue, Lachine, CanadaH8T 2V5
Hersteller: *Manufacturer:*	ARTIKA FOR LIVING INC
Adresse: *Address:*	1756 50th avenue, Lachine, CanadaH8T 2V5
Name der Marke: *Brand Name:*	N/A
Beschreibungdes Produkts: *Product Description:*	Trivoli Original vanity
Modelle: *Models:*	VAN-TRO-XXXXXX
Bewertung: *Rating:*	AC120V,50/60HZ, 16W,3000K
Verfahren: *Method:*	IES LM-79-08: Approved Method for Electrical and Photometric Measurements of Solid-State Lighting Products
Prüfergebnis*: *Test result*:*	N/A

Datum der Prüfung: *Date of Test:*	**Datum der Emission:** *Date of Issue:*	**Klassifizierung:** *Classification:*	**Gegenstand der Prüfung:** *Test item:*
2022-03-22-2022-03-23	2022-03-24	Commission Test	IES LM-79-08

Prüflabor (Testlabor) / Testing Laboratory:
Shenzhen Southern LCS Compliance Testing Laboratory Ltd.

Test von/Test by:	**Check von/**Check by:	**Genehmigt von/**Approved by:
Link Chai/ Project Engineer	Ian Luo/ Director	Jesse Liu/ Manager

Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.

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1. Test Method

Test Item.....:	Integrating Sphere Test
Ambient Condition .....:	25.1℃
Stabilization time ……(h):	0.5h
Orientation(burning position) of SSL product during test ……:	down
Test Method ……:	The sample was tested according to the IES LM-79-2008. The sample measurements were made using a spectroradiometer connected by a fiber optic cable and detector through the detector port of the integrating sphere. The sample was operated at rated voltage and was stabilized before measurement. Chromaticity coordinates, correlated color temperature and color rendering index were calculated from the spectral radiant flux measurements taken at 1 nm intervals over the range of 380 to 780 nm.
Test Item.....:	Goniophotometer Test
Ambient Condition.....:	25.1℃
Total operated time of the product for measurements including stabilization..... (h):	1.0h
Orientation(burning position) of SSL product during test ……:	down
Test Method.....:	The sample was tested according to the IES LM-79-2008. Photometric paramters were measured using a type C goniophotometer and software. The sample reference plane was located at the center of the sample goniometer at a test distance of 26m from the detectors. The samples were operated at rated voltage and was stabilized before measurement. Luminous flux, Luminous efficacy, zonal flux were calculated from the software taken at 1° vertical intervals and 22.5° horizontal intervals.

2. Product Information

Product description.....:	Trivoli Original vanity
Model Number.....:	VAN-TRO-XXXXXX
Rated Inputs.....:	AC120V
Rated Power.....:	16W
Declared CCT.....:	3000K
LED Manufacturer.....:	N/A
LED Model.....:	N/A
Forward current of the LED chip.....:	N/A
Date of Receipt Samples.....:	March 21, 2022
Quantity of Receipt Samples.....:	1 unit

3. Test equipment list

Manufacturer	Description	Equipment ID	Model	Calibration Date	Calibration Due Date
EVERFINE	Full-field Speed Goniophotometer	SLCS-S-112	GO-R5000	2021/07/02	2022/07/01
EVERFINE	Digital Power Meter	SLCS-S-103	PF2010	2021/06/24	2022/06/23
EVERFINE	AC Testing Power Source	SLCS-S-115	DPS1060	2021/06/24	2022/06/23
EVERFINE	Total Spectral Radiant Flux Standard Lamp	SLCS-S-143	D908S	2021/07/02	2022/07/01
SENSING	2 Meter Integrating Sphere	SLCS-S-038	SPR-3000	2021/07/02	2022/07/01
YOKOGAWA	Digital Power Meter	SLCS-S-058	WT310	2021/06/24	2022/06/23
ALL POWER ELECTRONIC	AC Testing Power Source	SLCS-S-111	APW-105N	2021/06/24	2022/06/23
SENSING	Standard Lamp	SLCS-S-118	S11010017	2021/07/02	2022/07/01

4. Integrating Sphere Test Results

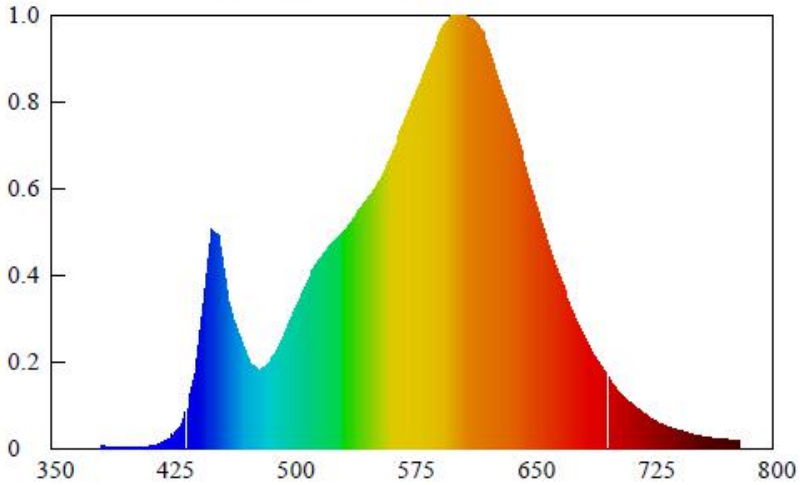
4.1 Test Data

Test type	Voltage (V AC)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
Input	120.07	60.0	0.1307	0.9820	15.42

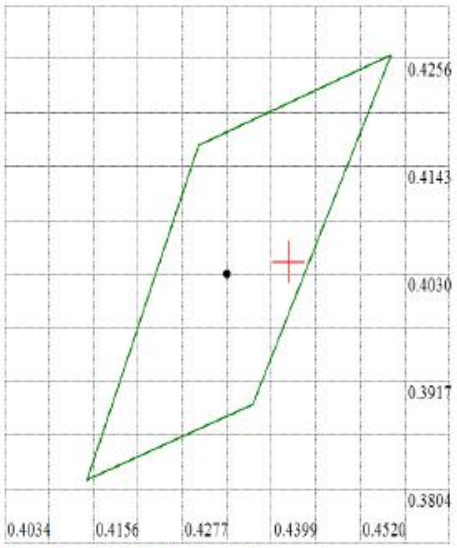
Test type	CCT (K)	CRI	Duv	Luminous flux (lm)	Luminous efficacy(lm/W)
Output	2915	83.7	-0.0006	1390.88	90.2

4.2 Spectrum

Spectroradiometric Parameters



Spectral Distribution



Nominal CCT:LED_3000K
x0=0.4338 y0=0.4030

Chromaticity Coordinates: x=0.4422 y=0.4043 u'=0.2539 v'=0.5223

Correlated Color Temperature: 2915 K

Dominant Wavelength: 582.0 nm(E)

Colour Fidelity Index: Rf=83

Gamut Index: Rg=96

Luminous Flux: 1390.88 lm

Purity: 0.5426

Chromaticity Difference: -0.0006Duv

Peak Wavelength: 605.0 nm

Color Ratio: Kr=45.7% Kg=47.1% Kb=7.2%

Bandwidth: 124.3nm

Radiant Flux: 3.753 W

Rendering Index: Ra=83.7

R1=83 R2=92 R3=96 R4=82 R5=83 R6=91 R7=83 R8=60

R9=12 R10=82 R11=82 R12=72 R13=86 R14=99 R15=75 Re=78

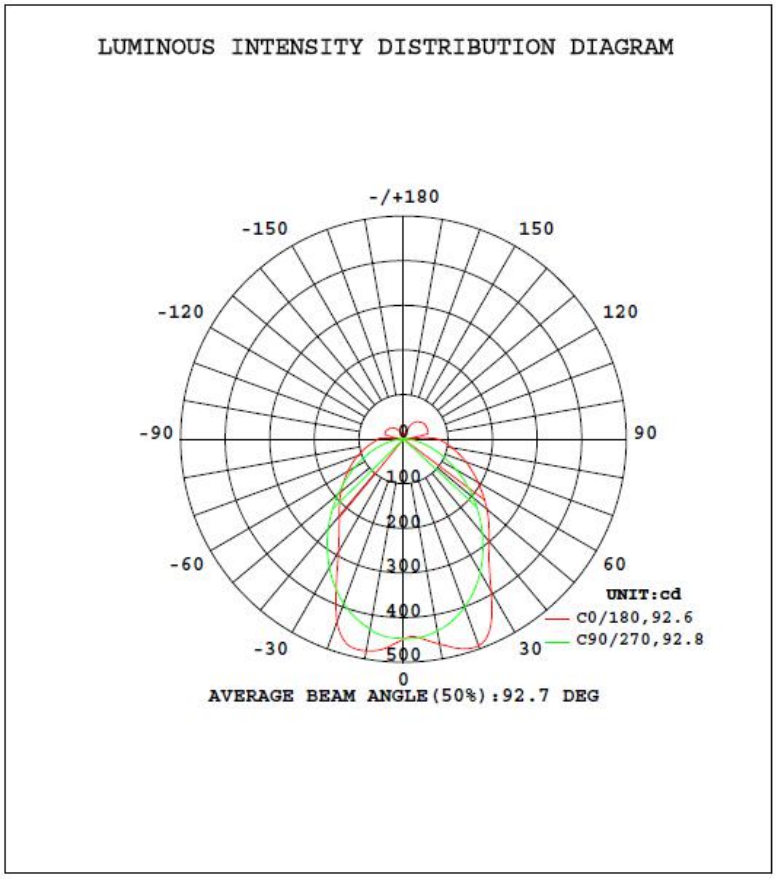
5. Goniophotometer Test results

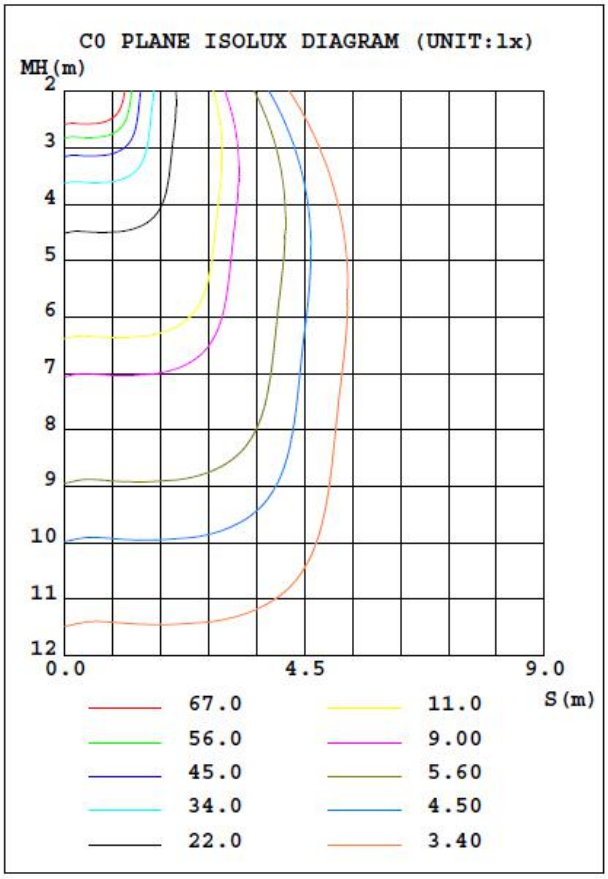
5.1 Test Data

Test type	Voltage (V AC)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
Input	120.06	60.01	0.1299	0.9823	15.319

Test type	Total Flux (lm)	Luminous efficacy(lm/W)	Imax (cd)	Spacing Criteria (0~180°)	Spacing Criteria (90~270°)
Output	1365.54	89.14	493.2	1.04	1.12

5.2 Luminous Intensity Distribution Diagram and C0 Plane Isolux Diagram (Unit : lx)

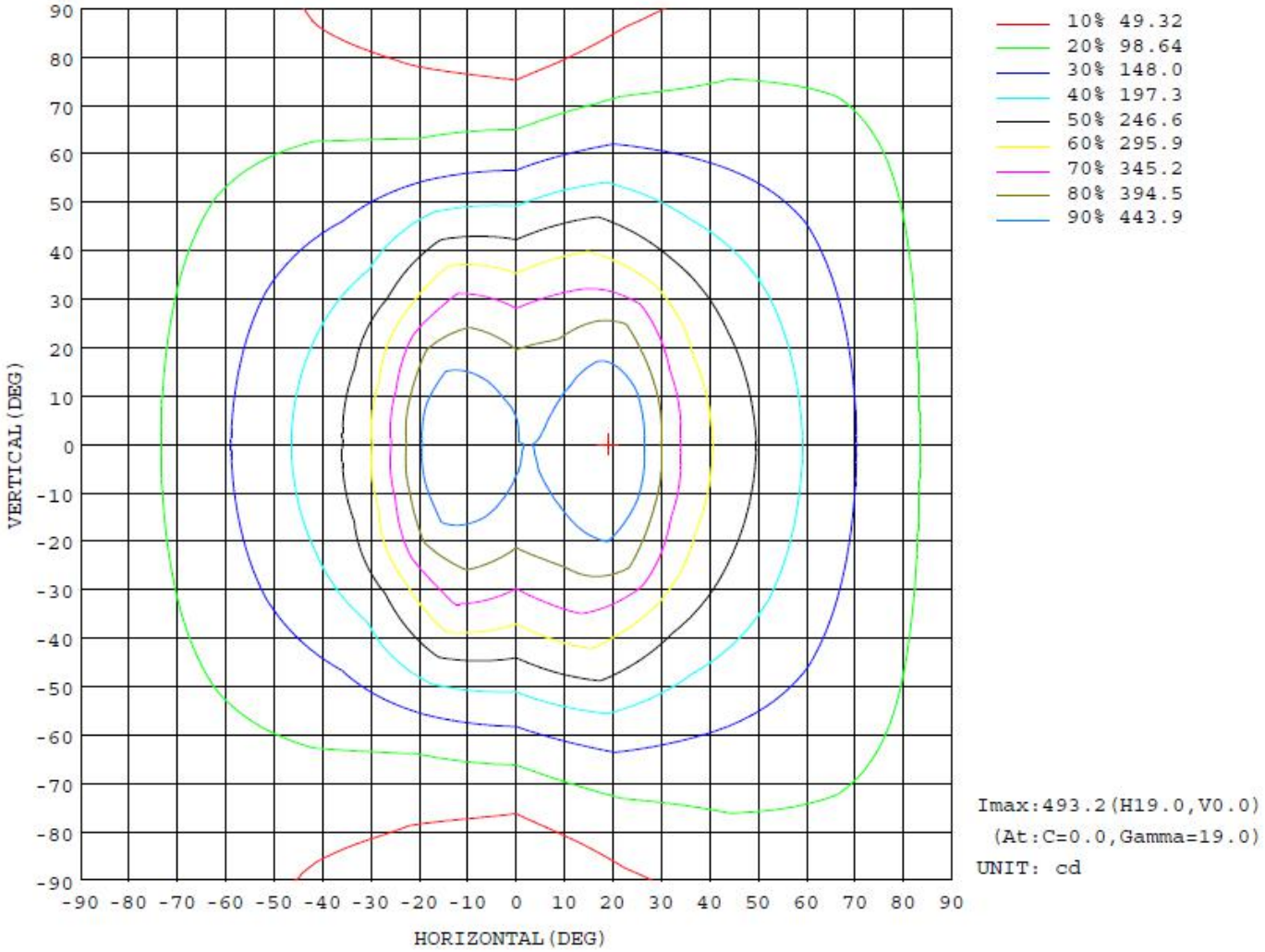




5.3 Zonal Flux Diagram

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	466.3	449.1	436.7	466.4	481.5	465.2	432.3	441.8	0- 10	43.21	43.21	3.16,3.16
20	492.6	458.1	401.1	455.4	436.0	448.3	392.2	447.3	10- 20	128.0	171.2	12.5,12.5
30	393.5	429.0	343.9	363.7	292.6	354.1	332.8	419.4	20- 30	187.8	359.0	26.3,26.3
40	299.3	326.7	275.1	247.5	224.8	240.7	263.4	321.9	30- 40	200.7	559.8	41,41
50	244.6	239.0	204.7	176.8	183.1	174.1	191.7	235.0	40- 50	188.8	748.6	54.8,54.8
60	193.2	181.2	136.5	132.9	144.1	131.4	127.0	176.6	50- 60	163.9	912.5	66.8,66.8
70	149.3	136.8	78.02	98.60	109.8	98.15	73.19	132.9	60- 70	131.3	1044	76.4,76.4
80	110.4	99.09	35.28	69.93	79.06	69.97	29.94	97.24	70- 80	97.64	1141	83.6,83.6
90	77.47	68.67	4.951	49.06	58.37	50.41	2.774	66.74	80- 90	66.38	1208	88.5,88.5
100	20.29	37.22	1.468	35.29	8.585	21.22	2.125	34.74	90-100	22.60	1230	90.1,90.1
110	57.97	45.50	2.530	33.15	44.04	27.27	2.367	40.16	100-110	30.72	1261	92.4,92.4
120	58.64	45.99	2.694	30.81	42.28	27.51	1.959	45.47	110-120	32.09	1293	94.7,94.7
130	56.64	45.34	2.775	28.65	38.53	26.11	1.961	44.54	120-130	28.54	1322	96.8,96.8
140	50.74	40.34	2.204	23.33	32.68	22.09	2.206	39.21	130-140	21.05	1343	98.3,98.3
150	41.64	3.767	1.796	16.50	24.52	18.06	2.530	3.026	140-150	14.33	1357	99.4,99.4
160	6.730	17.04	1.796	8.749	4.569	1.642	2.612	12.47	150-160	5.810	1363	99.8,99.8
170	12.45	7.733	1.714	3.598	6.574	4.993	2.204	4.994	160-170	2.217	1365	100,100
180	1.505	1.725	2.041	1.419	1.501	1.560	2.286	1.582	170-180	0.3574	1366	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

5.4 Isocandela Diagram



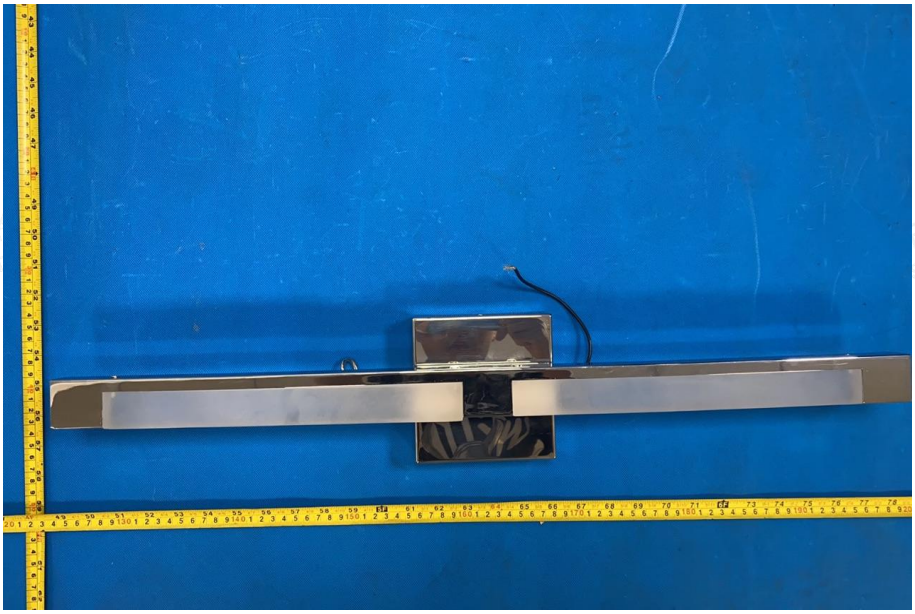
5.5 Luminous Distribution Intensity Data

Table--1 UNIT: cd

γ (DEG) \ C(DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5			
0	448	448	448	447	447	447	446	446	448	448	448	447	447	447	446	446			
5	448	446	442	441	445	453	460	467	471	469	462	454	445	437	437	442			
10	466	461	449	435	437	453	466	478	482	478	465	449	432	431	442	455			
15	486	478	455	429	422	446	466	478	478	478	463	440	415	420	446	471			
20	493	485	458	418	401	430	455	448	436	446	448	423	392	406	447	477			
25	463	467	452	403	375	409	421	378	357	376	412	399	365	388	440	462			
30	393	409	429	382	344	381	364	308	293	306	354	369	333	366	419	408			
35	335	345	384	358	311	346	301	259	252	258	292	331	298	339	376	343			
40	299	300	327	327	275	304	247	225	225	225	241	288	263	309	322	298			
45	271	268	277	292	240	258	207	202	203	202	202	242	227	276	273	266			
50	245	241	239	255	205	212	177	180	183	180	174	199	192	241	235	238			
55	218	215	208	217	170	170	154	160	163	160	151	159	158	206	204	212			
60	193	191	181	182	137	133	133	141	144	141	131	125	127	172	177	188			
65	171	168	158	150	105	102	115	124	126	124	114	98.2	98.7	141	153	166			
70	149	147	137	121	78.0	79.6	98.6	107	110	108	98.1	77.8	73.2	114	133	146			
75	129	127	117	95.3	54.5	62.7	84.0	91.5	93.9	91.9	83.6	61.1	50.2	90.3	114	126			
80	110	109	99.1	74.3	35.3	48.3	69.9	77.0	79.1	77.5	70.0	47.4	29.9	70.1	97.2	108			
85	93.1	92.0	83.3	57.6	17.7	36.2	57.5	64.5	65.9	64.8	57.8	34.9	13.0	53.6	81.1	91.4			
90	77.5	76.8	68.7	43.0	4.95	27.7	49.1	56.3	58.4	57.7	50.4	27.6	2.77	39.2	66.7	76.2			
95	24.6	21.8	4.15	3.90	1.39	3.08	2.85	14.7	24.1	18.8	2.30	5.19	1.55	11.2	3.42	17.5			
100	20.3	21.4	37.2	15.2	1.47	14.3	35.3	16.8	8.58	7.04	21.2	16.5	2.12	19.1	34.7	22.3			
105	57.2	50.7	43.3	19.7	2.03	14.6	36.6	40.0	44.0	35.2	27.2	13.6	2.37	22.3	38.2	49.0			
110	58.0	53.5	45.5	22.3	2.53	11.7	33.1	40.5	44.0	40.1	27.3	12.8	2.37	23.7	40.2	53.8			
115	58.5	55.3	45.9	23.5	2.77	10.3	31.6	40.6	43.5	40.1	27.5	13.0	2.20	24.7	43.4	55.7			
120	58.6	56.2	46.0	23.5	2.69	10.1	30.8	39.9	42.3	38.3	27.5	13.0	1.96	25.5	45.5	56.1			
125	58.4	56.2	46.0	23.5	2.78	10.2	30.3	38.5	40.5	36.7	27.4	12.7	1.96	24.2	45.5	56.1			
130	56.6	54.8	45.3	21.8	2.78	10.2	28.6	36.7	38.5	35.4	26.1	12.3	1.96	18.0	44.5	54.7			
135	54.1	52.4	43.2	3.30	2.37	1.76	26.4	34.1	36.2	33.2	24.3	11.6	2.20	4.22	42.5	52.5			
140	50.7	49.2	40.3	9.61	2.20	1.49	23.3	30.8	32.7	30.3	22.1	1.96	2.21	17.4	39.2	49.1			
145	46.9	45.1	33.8	20.0	1.88	8.43	20.1	26.9	28.7	26.9	19.9	2.05	2.61	15.8	31.5	44.5			
150	41.6	37.7	3.77	16.9	1.80	8.19	16.5	22.8	24.5	23.1	18.1	8.89	2.53	11.6	3.03	35.6			
155	30.6	10.5	18.0	13.2	1.80	6.12	1.50	18.5	20.2	19.3	12.7	8.81	2.61	7.84	18.2	3.68			
160	6.73	20.9	17.0	10.9	1.80	4.06	8.75	1.51	4.57	2.47	1.64	7.58	2.61	5.28	12.5	19.3			
165	19.6	19.5	13.6	7.43	1.71	2.65	6.01	8.53	10.3	9.53	7.22	5.45	2.45	2.56	5.41	12.5			
170	12.4	12.5	7.73	5.71	1.71	1.57	3.60	6.11	6.57	6.55	4.99	2.52	2.20	2.31	4.99	5.43			
175	6.43	5.01	5.18	3.92	1.96	1.57	1.75	2.18	2.00	2.15	1.64	1.63	2.20	2.07	3.23	3.92			
180	1.51	1.41	1.72	2.37	2.04	1.57	1.42	1.51	1.50	1.49	1.56	1.63	2.29	2.07	1.58	1.50			

6. Photo of sample

Photo document



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