

EXPANSION VALVE COIL – UNCASD

EAA4X

- 1–1/2 thru 5 Tons
- Vertical installation – upflow or downflow
- Bolt–on R–410A TXV metering device factory installed on all models (equalizer tube brazed in)
- TXV and manifold positioned to the side for easier cleaning
- Innovative drain pan design for complete water removal
- 2–piece delta plate for easier removal and cleaning
- Aluminum main tubing and aluminum fins (copper stubs for field connection).



LIMITED WARRANTY*

- 5 year parts limited warranty
–With timely registration, an additional 5 year parts limited warranty

* For residential applications only. See warranty certificate for complete details and restrictions, including warranty coverage for other applications.



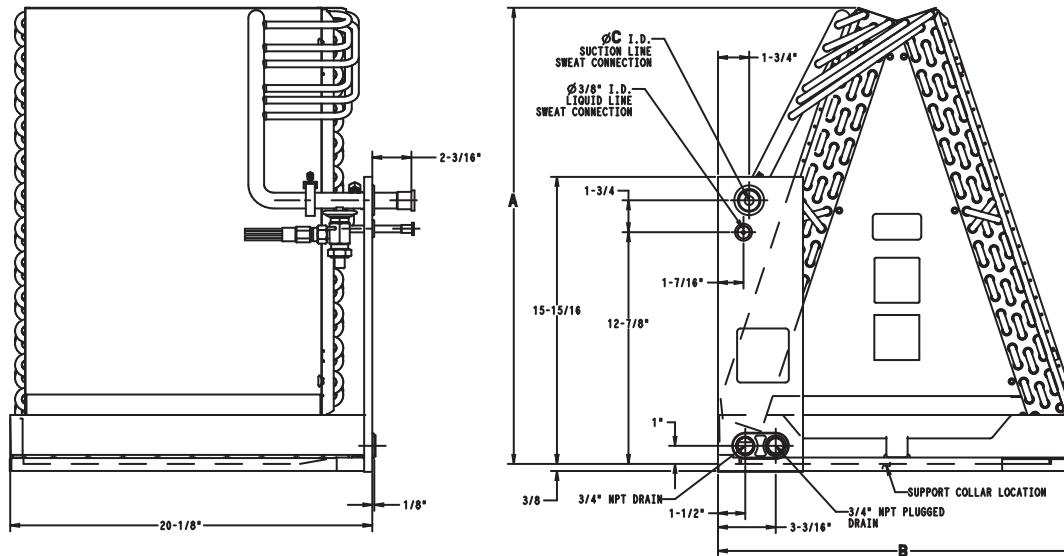
Use of the AHRI Certified TM Mark indicates a manufacturer's participation in the program. For verification of certification for individual products, go to www.ahridirectory.org.



PRODUCT SPECIFICATONS			
MODEL NUMBER	TONS	COIL CONNECTION TUBE SIZE inches (mm)	
		Liquid	Suction
EAA4X18L14A	1 – 1/2	3/8 (10)	5/8 (16)
EAA4X24L14A	2	3/8 (10)	5/8 (16)
EAA4X24L17A	2	3/8 (10)	5/8 (16)
EAA4X30L14A	2 – 1/2	3/8 (10)	5/8 (16)
EAA4X30L17A	2–1/2	3/8 (10)	3/4 (19)
EAA4X36L17A	3	3/8 (10)	3/4 (19)
EAA4X36L21A	3	3/8 (10)	3/4 (19)
EAA4X37L17A	3	3/8 (10)	3/4 (19)
EAA4X42L21A	3–1/2	3/8 (10)	7/8 (22)
EAA4X48L21A	4	3/8 (10)	7/8 (22)
EAA4X48L24A	4	3/8 (10)	7/8 (22)
EAA4X60L24A	5	3/8 (10)	7/8 (22)
EAA4X61L21A	5	3/8 (10)	7/8 (22)

COIL MODEL NUMBER IDENTIFICATION GUIDE

DIGIT POSITION	1	2	3	4	5	6, 7	8	9, 10	11	12
	E	A	A	4	X	18	L	14	A	1
E = Evaporator		A = A Coil	TYPE							
A = Uncased, Vertical (Upflow/Downflow)										
4 = Environmentally Sound R-410A			REFRIGERANT							
X = TXV			METERING DEVICE							
18 = 18,000 BTUH = 1-1/2 tons						NOMINAL CAPACITY				
24 = 24,000 BTUH = 2 tons										
30 = 30,000 BTUH = 2-1/2 tons										
36 = 36,000 BTUH = 3 tons										
37 = 36,000 BTUH = 3 tons										
42 = 42,000 BTUH = 3-1/2 tons										
43 = 42,000 BTUH = 3-1/2 tons										
48 = 48,000 BTUH = 4 tons										
60 = 60,000 BTUH = 5 tons										
61 = 60,000 BTUH = 5 tons										
L = Aluminum						HAIRPIN MATERIAL				
14 = 14-3/16"						WIDTH (matches furnace)				
17 = 17-1/2"										
21 = 21"										
24 = 24-1/2"										
Sales Digit (Major Revision)										
Engineering Digit (Minor Revision)										



A05393

DIMENSIONAL DATA

UNIT	A – in. (mm)	B – in. (mm)	C – in. (mm)	SHIPPING WT. – lb. (kg)
EAA4X18L14A	13–5/8 (346)	13 (330)	5/8 (16)	22.0 (10)
EAA4X24L14A	17–3/4 (451)	13 (330)	5/8 (16)	26.5 (12)
EAA4X24L17A	17–1/4 (438)	16–5/16 (414)	5/8 (16)	29.0 (13)
EAA4X30L14A	21–7/8 (556)	13 (330)	3/4 (19)	33.0 (15)
EAA4X30L17A	21–7/16 (545)	16–5/16 (414)	3/4 (19)	33.0 (15)
EAA4X36L17A	23–9/16 (598)	16–5/16 (414)	3/4 (19)	36.5 (17)
EAA4X36L21A	23 (584)	19–13/16 (503)	3/4 (19)	37.5 (17)
EAA4X37L17A	23 (584)	16–5/16 (414)	3/4 (19)	37.5 (17)
EAA4X42L21A	25–1/16 (637)	19–13/16 (503)	7/8 (22)	40.0 (18)
EAA4X48L21A	25–5/16 (643)	19–13/16 (503)	7/8 (22)	49.0 (22)
EAA4X48L24A	24–13/16 (630)	23–5/16 (592)	7/8 (22)	51.0 (23)
EAA4X60L24A	31–1/16 (789)	23–5/16 (592)	7/8 (22)	57.0 (26)
EAA4X61L21A	31–1/16 (789)	19–13/16 (503)	7/8 (22)	57.0 (26)

PERFORMANCE DATA

COOLING CAPACITIES (MBH) – R-410A REFRIGERANT

EAA4X UNIT SIZE	INDOOR COIL AIR		SATURATED TEMPERATURE LEAVING EVAPORATOR °F (°C)														
			30 (–1)			35 (2)			40 (4)			45 (7)			50 (10)		
	CFM	EWB	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF
18L14	450	72 (22)	32.00	15.70	0.00	29.30	14.30	0.00	26.40	12.80	0.00	23.10	11.30	0.00	19.50	9.70	0.01
		67 (19)	26.80	16.10	0.01	24.10	14.60	0.01	21.10	13.10	0.01	17.80	11.50	0.02	14.20	9.90	0.02
		62 (17)	22.10	16.50	0.02	19.30	14.90	0.02	16.40	13.40	0.02	13.20	11.80	0.02	10.30	10.30	0.05
	600	72 (22)	39.20	19.10	0.00	36.00	17.40	0.00	32.30	15.70	0.00	28.30	13.90	0.02	23.80	12.00	0.02
		67 (19)	32.90	19.90	0.03	29.60	18.20	0.03	25.90	16.30	0.03	21.90	14.40	0.03	17.40	12.50	0.03
		62 (17)	27.20	20.60	0.04	23.80	18.80	0.04	20.20	16.90	0.04	16.30	15.00	0.04	13.20	13.20	0.09
	750	72 (22)	45.10	21.90	0.00	41.40	20.10	0.00	37.20	18.20	0.02	32.60	16.10	0.04	27.40	14.00	0.04
		67 (19)	38.00	23.20	0.05	34.20	21.20	0.05	29.90	19.10	0.05	25.20	17.00	0.05	20.00	14.70	0.06
		62 (17)	31.50	24.20	0.06	27.60	22.10	0.06	23.40	20.00	0.06	19.10	17.90	0.06	15.70	15.70	0.13
24L14 24L17	600	72 (22)	39.40	19.20	0.00	36.30	17.60	0.00	32.80	15.90	0.00	28.90	14.10	0.00	24.50	12.20	0.01
		67 (19)	33.10	20.00	0.01	29.90	18.20	0.01	26.30	16.40	0.01	22.40	14.50	0.02	17.90	12.60	0.02
		62 (17)	27.40	20.50	0.02	24.10	18.70	0.02	20.50	16.90	0.02	16.60	15.00	0.02	13.10	13.10	0.05
	800	72 (22)	47.70	23.20	0.00	44.00	21.40	0.00	39.80	19.40	0.00	35.10	17.30	0.02	29.80	15.10	0.02
		67 (19)	40.30	24.50	0.03	36.40	22.50	0.03	32.10	20.40	0.03	27.30	18.10	0.03	21.80	15.80	0.03
		62 (17)	33.40	25.50	0.04	29.50	23.40	0.04	25.10	21.20	0.04	20.50	19.00	0.04	16.70	16.70	0.09
	1000	72 (22)	54.30	26.40	0.00	50.20	24.40	0.00	45.40	22.30	0.02	40.10	20.00	0.04	34.00	17.50	0.04
		67 (19)	46.00	28.20	0.05	41.70	26.10	0.05	36.80	23.70	0.05	31.20	21.20	0.05	25.00	18.60	0.05
		62 (17)	38.30	29.80	0.05	33.80	27.50	0.06	28.90	25.10	0.06	23.80	22.60	0.06	19.90	19.90	0.14
30L14 30L17	750	72 (22)	49.10	24.00	0.00	45.00	21.90	0.00	40.50	19.70	0.00	35.50	17.40	0.00	30.00	15.00	0.01
		67 (19)	41.20	24.80	0.01	37.00	22.50	0.02	32.40	20.20	0.02	27.40	17.80	0.02	21.90	15.30	0.02
		62 (17)	34.00	25.40	0.02	29.70	23.00	0.02	25.10	20.60	0.02	20.30	18.30	0.02	16.00	16.00	0.06
	1000	72 (22)	59.90	29.10	0.00	55.00	26.70	0.00	49.50	24.10	0.00	43.30	21.30	0.02	36.50	18.40	0.03
		67 (19)	50.40	30.50	0.03	45.30	27.90	0.04	39.70	25.10	0.04	33.50	22.20	0.04	26.70	19.20	0.04
		62 (17)	41.70	31.60	0.04	36.50	28.80	0.04	30.90	26.00	0.04	25.00	23.10	0.05	20.30	20.30	0.10
	1250	72 (22)	68.80	33.40	0.00	63.20	30.70	0.00	56.80	27.80	0.03	49.70	24.70	0.04	41.90	21.40	0.05
		67 (19)	58.00	35.40	0.06	52.20	32.40	0.06	45.70	29.30	0.06	38.50	26.00	0.06	30.60	22.60	0.07
		62 (17)	48.00	37.00	0.07	42.10	33.90	0.07	35.70	30.70	0.07	29.20	27.50	0.07	24.20	24.20	0.14
36L17 36L21 37L17	900	72 (22)	60.30	29.40	0.00	55.40	26.90	0.00	49.90	24.30	0.00	43.80	21.50	0.01	37.00	18.60	0.02
		67 (19)	50.70	30.60	0.02	45.70	27.90	0.03	40.10	25.10	0.03	33.90	22.20	0.03	27.00	19.20	0.03
		62 (17)	41.90	31.50	0.03	36.70	28.70	0.03	31.10	25.80	0.03	25.10	22.90	0.04	20.00	20.00	0.08
	1200	72 (22)	72.40	35.10	0.00	66.50	32.30	0.00	59.90	29.30	0.02	52.50	26.00	0.04	44.30	22.60	0.05
		67 (19)	61.00	37.10	0.05	55.00	34.00	0.06	48.20	30.70	0.06	40.70	27.30	0.06	32.40	23.70	0.06
		62 (17)	50.50	38.80	0.06	44.30	35.50	0.06	37.60	32.10	0.06	30.60	28.70	0.07	25.20	25.20	0.13
	1500	72 (22)	82.20	39.90	0.00	75.60	36.90	0.02	68.10	33.50	0.05	59.70	29.90	0.07	50.40	26.10	0.08
		67 (19)	69.40	42.70	0.08	62.60	39.30	0.08	55.00	35.70	0.08	46.40	31.80	0.09	37.00	27.80	0.09
		62 (17)	57.70	45.10	0.09	50.70	41.40	0.09	43.10	37.70	0.09	35.50	34.00	0.10	29.80	29.80	0.18
42L21	1050	72 (22)	75.00	36.40	0.00	69.30	33.70	0.00	62.60	30.60	0.01	55.10	27.40	0.02	46.90	24.00	0.03
		67 (19)	63.30	38.80	0.03	57.20	35.70	0.03	50.50	32.50	0.03	42.90	29.00	0.04	33.50	25.00	0.04
		62 (17)	52.60	40.80	0.04	46.40	37.60	0.04	39.50	34.10	0.04	32.00	30.40	0.05	26.40	26.40	0.14
	1400	72 (22)	87.10	42.50	0.00	80.60	39.50	0.03	73.00	36.20	0.04	64.20	32.50	0.05	54.40	28.60	0.06
		67 (19)	73.80	46.10	0.06	66.90	42.70	0.06	58.90	39.00	0.07	50.10	35.20	0.07	40.00	30.90	0.07
		62 (17)	61.40	49.30	0.07	54.40	45.70	0.07	46.90	42.10	0.07	39.00	38.10	0.09	33.00	33.00	0.19
	1750	72 (22)	96.50	47.40	0.05	89.50	44.30	0.07	81.30	40.80	0.07	71.70	36.90	0.08	60.50	32.60	0.09
		67 (19)	82.10	52.30	0.09	74.60	48.80	0.09	65.90	44.90	0.09	55.90	40.60	0.09	45.10	36.20	0.10
		62 (17)	68.60	56.80	0.10	61.00	53.10	0.10	52.90	49.10	0.10	44.90	44.90	0.12	38.70	38.70	0.24
48L21 48L24	1200	72 (22)	83.40	40.60	0.00	76.70	37.20	0.00	69.30	33.60	0.00	60.90	29.80	0.01	51.70	25.80	0.02
		67 (19)	70.10	42.30	0.02	63.20	38.60	0.03	55.60	34.80	0.03	47.20	30.80	0.04	37.80	26.60	0.04
		62 (17)	57.90	43.50	0.04	50.90	39.70	0.04	43.20	35.70	0.04	34.90	31.70	0.04	27.70	27.70	0.08
	1600	72 (22)	100.80	48.90	0.00	92.80	45.10	0.00	83.80	40.90	0.01	73.80	36.40	0.04	62.50	31.70	0.05
		67 (19)	84.90	51.70	0.05	76.70	47.40	0.06	67.50	42.90	0.06	57.30	38.10	0.06	45.90	33.20	0.06
		62 (17)	70.40	53.90	0.06	62.00	49.30	0.06	52.60	44.60	0.07	42.80	39.90	0.07	35.00	35.00	0.13
	2000	72 (22)	114.70	55.70	0.00	105.70	51.60	0.00	95.60	47.00	0.05	84.20	42.00	0.07	71.40	36.70	0.08
		67 (19)	97.00	59.50	0.08	87.70	54.90	0.08	77.30	49.90	0.09	65.60	44.60	0.09	52.50	39.00	0.09
		62 (17)	80.60	62.80	0.09	71.00	57.70	0.09	60.50	52.50	0.09	49.60	47.20	0.10	41.30	41.30	0.18
60L24	1600	72 (22)	109.20	53.40	0.00	100.00	48.60	0.00	89.90	43.60	0.00	78.60	38.50	0.00	66.40	33.10	0.02
		67 (19)	91.50	55.10	0.02	82.10	50.00	0.03	71.90	44.80	0.03	60.70	39.40	0.03	48.40	34.00	0.03
		62 (17)	75.40	56.30	0.03	65.90	51.00	0.03	55.60	45.70	0.04	44.80	40.40	0.04	35.30	35.30	0.07
	2000	72 (22)	128.00	62.20	0.00	117.20	56.90	0.00	105.20	51.20	0.00	92.00	45.20	0.02	77.50	39.10	0.04
		67 (19)	107.40	64.90	0.04	96.40	59.10	0.04	84.30	53.00	0.05	71.10	46.80	0.05	56.60	40.50	0.05
		62 (17)	88.60	66.90	0.05	77.50	60.80	0.05	65.30	54.60	0.05	52.70	48.50	0.06	42.40	42.40	0.11
	2400	72 (22)	144.20	70.00	0.00	132.10	64.20	0.00	118.50	57.90	0.01	103.60	51.20	0.04	87.20	44.30	0.06
		67 (19)	121.20	73.60	0.06	108.80	67.20	0.06	95.10	60.40	0.07	80.10	53.50	0.07	63.70	46.40	0.07
		62 (17)	100.10	76.40	0.07	87.50	69.60	0.07	73.80	62.70	0.07	59.80	56.00	0.08	48.90	48.90	0.14

61L21	1600	72 (22)	133.10	65.29	0.00	124.38	61.09	0.00	114.12	56.35	0.00	102.04	51.04	0.00	87.92	45.18	0.00
		67 (19)	112.92	69.55	0.00	103.56	64.81	0.00	92.62	59.52	0.00	79.80	53.65	0.00	64.92	47.24	0.00
		62 (17)	94.29	73.16	0.00	84.32	67.90	0.00	72.85	62.14	0.00	59.93	55.91	0.00	48.98	48.98	0.00
	2000	72 (22)	150.19	73.70	0.00	140.73	69.39	0.00	129.45	64.43	0.00	116.13	58.76	0.00	100.38	52.39	0.00
		67 (19)	127.98	79.99	0.00	117.77	75.03	0.00	105.67	69.38	0.00	91.36	63.01	0.00	74.55	55.91	0.00
		62 (17)	107.36	85.50	0.00	96.47	79.93	0.00	83.81	73.69	0.00	69.74	66.88	0.00	58.70	58.70	0.00
	2400	72 (22)	163.45	80.69	0.00	153.55	76.31	0.00	141.65	71.22	0.00	127.40	65.35	0.00	110.42	58.64	0.00
		67 (19)	139.86	88.99	0.00	129.06	83.92	0.00	116.15	78.06	0.00	100.72	71.35	0.00	82.51	63.78	0.00
		62 (17)	117.85	96.47	0.00	106.33	90.72	0.00	92.96	84.20	0.00	78.33	76.91	0.00	67.38	67.38	0.00

Legend:

CFM – Cubic Ft. per Minute

SHC – Gross Sensible Capacity 1000 Btuh

See Legend and Notes on Page 5.

EWB – Entering Wet Bulb

BF – Bypass Factor

LWB – Leaving Wet Bulb

MBH – 1000 Btuh

TC – Gross Cooling Capacity 1000 Btuh

NOTES:

1. Contact manufacturer for cooling capacities at conditions other than shown in table.

2. Formulas:

$$\text{Leaving db} = \text{entering db} - \frac{\text{sensible heat cap.}}{1.09 \times \text{CFM}}$$

Leaving wb = wb corresponding to enthalpy of air leaving coil (h_{LWB})

$$h_{LWB} = h_{EWB} - \frac{\text{total capacity (Btuh)}}{4.5 \times \text{CFM}}$$

Where h_{EWB} = enthalpy of air entering coil

3. SHC is based on 80°F db temperature of air entering the evaporator coil.

Below 80°F db, subtract (Correction Factor x CFM) from SHC.

Above 80°F db, add (Correction Factor x CFM) to SHC.

4. Direct interpolation is permissible. Do not extrapolate.

5. Fan motor heat has not been deducted.

6. All data points are based on 10°F superheat leaving coil and use of thermostatic expansion valve (TXV) device.

7. All units have sweat suction-tube connection and a liquid-tube connection. For 1-1/8 in. system suction tube, 3/4 x 1-1/8 in. suction tube connection adapter is available as accessory.

8. The EAM4X coils can be used in any properly designed system using Refrigerant R-410A.

9. Before using maximum cfm shown in table, check coil static pressure drop to ensure system blower can provide necessary static pressure needed for coil and duct systems.

10. Bypass Factor = 0 indicates no psychometric solution. Use bypass factor of next lower EWB for approximation.

BYPASS FACTOR	ENTERING AIR DRY BULB TEMPERATURE (°F)					
	79	78	77	76	75	Under 75
	81	82	83	84	84	Above 85
	Correction Factor					
0.10	0.98	1.96	2.94	3.92	4.91	Use formula shown below
0.20	0.87	1.74	2.62	3.49	4.36	
0.30	0.76	1.53	2.29	3.05	3.82	

Interpolation is permissible.

$$\text{Correction Factor} = 1.09 \times (1 - \text{BF}) \times (\text{db} - 80)$$

PERFORMANCE DATA (CONT.)

COIL STATIC PRESSURE DROP (in. w.c.) R-410A

UNIT SIZE	STANDARD CFM																			
	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	
18L14	Dry																			
	0.079	0.111	0.145	0.186	0.232															
	Wet																			
24L14	0.083	0.116	0.151	0.196	0.243															
	Dry																			
	0.065	0.091	0.120	0.154	0.194	0.237	0.284													
24L17	Wet																			
	0.066	0.094	0.124	0.161	0.203	0.250	0.301													
	Dry																			
30L14	0.056	0.076	0.097	0.123	0.151	0.182	0.215													
	Wet																			
	0.060	0.082	0.105	0.132	0.163	0.195	0.231													
30L17	Dry																			
	0.054	0.077	0.102	0.133	0.167	0.206	0.248	0.296	0.347											
	Wet																			
36L17	0.059	0.084	0.111	0.142	0.181	0.223	0.269	0.319	0.375											
	Dry																			
	0.043	0.059	0.077	0.096	0.119	0.144	0.171	0.201	0.232											
36L21	Wet																			
	0.046	0.063	0.083	0.105	0.130	0.157	0.186	0.219	0.252											
	Dry																			
42L21	0.023	0.036	0.052	0.069	0.089	0.110	0.135	0.160	0.189	0.219	0.251									
	Wet																			
	0.042	0.058	0.076	0.095	0.117	0.142	0.169	0.198	0.231	0.265	0.299									
48L21	Dry																			
	0.026	0.037	0.050	0.062	0.077	0.092	0.109	0.128	0.148	0.170	0.193									
	Wet																			
48L24	0.029	0.040	0.053	0.065	0.082	0.099	0.119	0.138	0.160	0.185	0.209									
	Dry																			
	0.023	0.036	0.052	0.069	0.089	0.110	0.135	0.160	0.189	0.219	0.251									
60L24	Wet																			
	0.042	0.058	0.076	0.095	0.117	0.142	0.169	0.198	0.231	0.265	0.299									
	Dry																			
61L21			0.044	0.056	0.068	0.082	0.099	0.119	0.138	0.161	0.183	0.205	0.233							
	Wet																			
			0.058	0.073	0.089	0.106	0.125	0.143	0.165	0.189	0.213	0.239	0.268							
61L21	Dry																			
			0.055	0.072	0.089	0.107	0.128	0.150	0.175	0.199	0.228	0.257	0.288	0.321	0.356					
	Wet																			
61L21			0.058	0.075	0.094	0.115	0.136	0.161	0.188	0.217	0.247	0.279	0.313	0.347	0.386					
	Dry																			
			0.044	0.056	0.069	0.084	0.100	0.118	0.137	0.159	0.180	0.198	0.222	0.247	0.275					
61L21	Wet																			
			0.052	0.065	0.080	0.095	0.112	0.131	0.150	0.171	0.193	0.214	0.241	0.270	0.296					
	Dry																			
61L21					0.073	0.083	0.095	0.107	0.120	0.136	0.152	0.169	0.184	0.203	0.217	0.238	0.260	0.283	0.307	
	Wet																			
					0.076	0.086	0.098	0.110	0.124	0.140	0.157	0.175	0.193	0.215	0.238	0.261	0.286	0.314	0.342	
61L21	Dry																			
						0.111	0.133	0.153	0.163	0.204	0.234	0.262	0.293	0.326	0.366	0.392	0.437	0.480	0.520	
	Wet																			
61L21						0.130	0.150	0.183	0.210	0.245	0.280	0.320	0.355	0.400	0.435	0.480	0.525	0.570	0.630	