

LAMBDA CONTROLLER - LCA80, LCP80, LCA90, LCP90

Head:	Revision:
Document: 1002-0022-14	V8.2-0: Added O2 1.0 curve
Company: IMFsoft s.r.o.	V8.3-0: Added NERNST 450 curve (LSM 11)
Author: Radek Taraba	V8.4-0: New version of Lambda controller with Current output 4-20mA
Date: 10.05.2021	V8.5-0: Added O2 0.0 curve

ANALOG OUTPUT - CALCULATION FORMULAS

RANGE	LOG 2.5	NERNST 450	SENSE 1.5	LAMBDA 1.0	LINEAR 1.0	RANGE	O2 1.0	O2 4.0	O2 0.0
0-5 [V]	Use Table	LSM11 = AO	Use Table	LAMBDA = AO	0,33xAO+0,66	0-5 [V]	O2 = 7x(AO-1)	O2 = 2x(AO-4)	O2 = AO
0-10 [V]	Use Table	LSM11 = AO	Use Table	LAMBDA = AO	0,33xAO+0,66	0-10 [V]	O2 = 7x(AO-1)	O2 = 2x(AO-4)	O2 = AO
0-20 [mA]	Use Table	LSM11 = AO	Use Table	LAMBDA = AO	0,33xAO+0,66	0-20 [mA]	O2 = 7x(AO-1)	O2 = 2x(AO-4)	O2 = AO
4-20 [mA]	Use Table-4	LSM11 = AO-4	Use Table-4	LAMBDA = AO-4	0,33xAO-3,33	4-20 [mA]	O2 = 7x(AO-5)	O2 = 2x(AO-8)	O2 = AO-4

ANALOG OUTPUT - EXAMPLES TABLE

LAMBDA	LOG 2.5	NERNST 450	SENSE 1.5	LAMBDA 1.0	LINEAR 1.0	O2 [%]	O2 1.0	O2 4.0	O2 0.0
OUTPUT	0-10 [V]	0-10 [V]	0-10 [V]	0-10 [V]	0-10 [V]	OUTPUT	0-10 [V]	4-20 [mA]	0-10 [V]
RANGE	0-20 [mA]	0-20 [mA]	0-20 [mA]	0-20 [mA]	0-20 [mA]	RANGE	0-20 [mA]		0-20 [mA]
FAILURE	0.1000	0.1000	0.100	0.100	0.100	FAILURE	0.100	0.100	0.100
0,7166	1,053	1,0000	0,000	0,717	0,150	-7,650	0,000	4,175	0,000
0,7174	1,058	0,9997	0,005	0,717	0,152	-7,619	0,000	4,191	0,000
0,7182	1,062	0,9994	0,010	0,718	0,155	-7,590	0,000	4,205	0,000
0,7190	1,067	0,9991	0,015	0,719	0,157	-7,561	0,000	4,220	0,000
0,7198	1,072	0,9988	0,020	0,720	0,159	-7,532	0,000	4,234	0,000
0,7205	1,076	0,9985	0,024	0,721	0,162	-7,503	0,000	4,249	0,000
0,7213	1,081	0,9982	0,029	0,721	0,164	-7,474	0,000	4,263	0,000
0,7220	1,085	0,9979	0,034	0,722	0,166	-7,445	0,000	4,278	0,000
0,7228	1,090	0,9976	0,039	0,723	0,168	-7,416	0,000	4,292	0,000
0,7235	1,094	0,9973	0,044	0,724	0,171	-7,387	0,000	4,307	0,000
0,7243	1,099	0,9970	0,049	0,724	0,173	-7,358	0,000	4,321	0,000
0,7250	1,103	0,9967	0,054	0,725	0,175	-7,329	0,000	4,336	0,000
0,7258	1,108	0,9964	0,059	0,726	0,177	-7,300	0,000	4,350	0,000
0,7265	1,112	0,9961	0,064	0,727	0,180	-7,271	0,000	4,365	0,000
0,7273	1,117	0,9958	0,068	0,727	0,182	-7,242	0,000	4,379	0,000
0,7280	1,121	0,9955	0,073	0,728	0,184	-7,213	0,000	4,394	0,000
0,7288	1,126	0,9952	0,078	0,729	0,186	-7,184	0,000	4,408	0,000
0,7295	1,130	0,9949	0,083	0,730	0,189	-7,155	0,000	4,423	0,000
0,7303	1,135	0,9946	0,088	0,730	0,191	-7,126	0,000	4,437	0,000
0,7310	1,139	0,9943	0,093	0,731	0,193	-7,097	0,000	4,452	0,000
0,7318	1,144	0,9940	0,098	0,732	0,195	-7,068	0,000	4,466	0,000
0,7325	1,148	0,9937	0,103	0,733	0,198	-7,039	0,000	4,481	0,000
0,7333	1,153	0,9934	0,108	0,733	0,200	-7,010	0,000	4,495	0,000
0,7340	1,157	0,9931	0,112	0,734	0,202	-6,981	0,003	4,510	0,000
0,7348	1,161	0,9928	0,117	0,735	0,204	-6,952	0,007	4,524	0,000
0,7355	1,166	0,9925	0,122	0,736	0,207	-6,923	0,011	4,539	0,000
0,7363	1,170	0,9922	0,127	0,736	0,209	-6,894	0,015	4,553	0,000
0,7370	1,175	0,9919	0,132	0,737	0,211	-6,865	0,019	4,568	0,000
0,7378	1,179	0,9916	0,137	0,738	0,213	-6,836	0,023	4,582	0,000
0,7385	1,184	0,9913	0,142	0,739	0,216	-6,807	0,028	4,597	0,000
0,7393	1,188	0,9910	0,147	0,739	0,218	-6,778	0,032	4,611	0,000
0,7400	1,192	0,9907	0,152	0,740	0,220	-6,749	0,036	4,626	0,000
0,7408	1,197	0,9904	0,156	0,741	0,222	-6,720	0,040	4,640	0,000
0,7415	1,201	0,9901	0,161	0,742	0,225	-6,690	0,044	4,655	0,000
0,7423	1,206	0,9898	0,166	0,742	0,227	-6,665	0,049	4,672	0,000
0,7430	1,210	0,9895	0,171	0,743	0,229	-6,622	0,054	4,689	0,000
0,7438	1,214	0,9892	0,176	0,744	0,231	-6,588	0,059	4,706	0,000
0,7445	1,219	0,9889	0,181	0,745	0,234	-6,554	0,064	4,723	0,000
0,7453	1,223	0,9886	0,186	0,745	0,236	-6,520	0,069	4,740	0,000
0,7460	1,227	0,9883	0,191	0,746	0,238	-6,486	0,073	4,757	0,000
0,7468	1,232	0,9880	0,196	0,747	0,240	-6,452	0,078	4,774	0,000
0,7475	1,236	0,9877	0,200	0,748	0,243	-6,418	0,083	4,791	0,000
0,7483	1,240	0,9874	0,205	0,748	0,245	-6,384	0,088	4,808	0,000
0,7490	1,245	0,9871	0,210	0,749	0,247	-6,350	0,093	4,825	0,000
0,7498	1,249	0,9868	0,215	0,750	0,249	-6,329	0,096	4,836	0,000
0,7505	1,254	0,9865	0,220	0,751	0,252	-6,308	0,099	4,846	0,000
0,7513	1,258	0,9862	0,225	0,751	0,254	-6,287	0,102	4,857	0,000
0,7520	1,262	0,9859	0,230	0,752	0,256	-6,266	0,105	4,867	0,000
0,7528	1,267	0,9856	0,235	0,753	0,258	-6,245	0,108	4,878	0,000
0,7535	1,271	0,9853	0,239	0,754	0,261	-6,224	0,111	4,888	0,000
0,7543	1,275	0,9850	0,244	0,754	0,263	-6,203	0,114	4,899	0,000
0,7550	1,279	0,9847	0,249	0,755	0,265	-6,182	0,117	4,909	0,000
0,7558	1,284	0,9844	0,254	0,756	0,267	-6,161	0,120	4,920	0,000
0,7565	1,288	0,9841	0,259	0,757	0,270	-6,140	0,123	4,930	0,000
0,7573	1,292	0,9838	0,264	0,757	0,272	-6,119	0,126	4,941	0,000
0,7580	1,297	0,9835	0,269	0,758	0,274	-6,098	0,129	4,951	0,000
0,7588	1,301	0,9832	0,274	0,759	0,276	-6,077	0,132	4,962	0,000
0,7595	1,305	0,9829	0,279	0,760	0,279	-6,056	0,135	4,972	0,000
0,7603	1,310	0,9826	0,283	0,760	0,281	-6,035	0,138	4,983	0,000
0,7610	1,314	0,9823	0,288	0,761	0,283	-6,014	0,141	4,993	0,000
0,7618	1,318	0,9820	0,293	0,762	0,285	-5,993	0,144	5,004	0,000
0,7625	1,322	0,9817	0,298	0,763	0,288	-5,972	0,147	5,014	0,000

0,7633	1,327	0,9814	0,303	0,763	0,290	-5,951	0,150	5,025	0,000
0,7640	1,331	0,9811	0,308	0,764	0,292	-5,930	0,153	5,035	0,000
0,7648	1,335	0,9808	0,313	0,765	0,294	-5,909	0,156	5,046	0,000
0,7655	1,339	0,9805	0,318	0,766	0,297	-5,888	0,159	5,056	0,000
0,7663	1,344	0,9802	0,323	0,766	0,299	-5,867	0,162	5,067	0,000
0,7670	1,348	0,9799	0,327	0,767	0,301	-5,846	0,165	5,077	0,000
0,7678	1,352	0,9796	0,332	0,768	0,303	-5,825	0,168	5,088	0,000
0,7685	1,356	0,9793	0,337	0,769	0,306	-5,804	0,171	5,098	0,000
0,7693	1,361	0,9790	0,342	0,769	0,308	-5,780	0,174	5,110	0,000
0,7700	1,365	0,9787	0,347	0,770	0,310	-5,757	0,178	5,122	0,000
0,7708	1,369	0,9784	0,352	0,771	0,312	-5,734	0,181	5,133	0,000
0,7715	1,373	0,9781	0,357	0,772	0,315	-5,711	0,184	5,145	0,000
0,7723	1,378	0,9778	0,362	0,772	0,317	-5,688	0,187	5,156	0,000
0,7730	1,382	0,9775	0,367	0,773	0,319	-5,665	0,191	5,168	0,000
0,7738	1,386	0,9772	0,371	0,774	0,321	-5,641	0,194	5,179	0,000
0,7745	1,390	0,9769	0,376	0,775	0,324	-5,618	0,197	5,191	0,000
0,7753	1,394	0,9766	0,381	0,775	0,326	-5,595	0,201	5,202	0,000
0,7760	1,399	0,9763	0,386	0,776	0,328	-5,572	0,204	5,214	0,000
0,7768	1,403	0,9760	0,391	0,777	0,330	-5,549	0,207	5,226	0,000
0,7775	1,407	0,9757	0,396	0,778	0,333	-5,526	0,211	5,237	0,000
0,7783	1,411	0,9754	0,401	0,778	0,335	-5,503	0,214	5,249	0,000
0,7790	1,415	0,9751	0,406	0,779	0,337	-5,480	0,217	5,260	0,000
0,7798	1,420	0,9748	0,411	0,780	0,339	-5,457	0,220	5,272	0,000
0,7805	1,424	0,9745	0,415	0,781	0,342	-5,434	0,224	5,283	0,000
0,7813	1,428	0,9742	0,420	0,781	0,344	-5,410	0,227	5,295	0,000
0,7820	1,432	0,9739	0,425	0,782	0,346	-5,387	0,230	5,306	0,000
0,7828	1,436	0,9736	0,430	0,783	0,348	-5,364	0,234	5,318	0,000
0,7835	1,440	0,9733	0,435	0,784	0,351	-5,341	0,237	5,329	0,000
0,7843	1,445	0,9730	0,440	0,784	0,353	-5,318	0,240	5,341	0,000
0,7850	1,449	0,9727	0,445	0,785	0,355	-5,295	0,244	5,353	0,000
0,7858	1,453	0,9724	0,450	0,786	0,357	-5,272	0,247	5,364	0,000
0,7865	1,457	0,9721	0,455	0,787	0,360	-5,249	0,250	5,376	0,000
0,7873	1,461	0,9718	0,459	0,787	0,362	-5,226	0,253	5,387	0,000
0,7880	1,465	0,9715	0,464	0,788	0,364	-5,202	0,257	5,399	0,000
0,7888	1,469	0,9712	0,469	0,789	0,366	-5,179	0,260	5,410	0,000
0,7895	1,474	0,9709	0,474	0,790	0,369	-5,156	0,263	5,422	0,000
0,7903	1,478	0,9706	0,479	0,790	0,371	-5,133	0,267	5,433	0,000
0,7910	1,482	0,9703	0,484	0,791	0,373	-5,110	0,270	5,445	0,000
0,7918	1,486	0,9700	0,489	0,792	0,375	-5,087	0,273	5,457	0,000
0,7925	1,490	0,9697	0,494	0,793	0,378	-5,064	0,277	5,468	0,000
0,7933	1,494	0,9694	0,499	0,793	0,380	-5,041	0,280	5,480	0,000
0,7940	1,498	0,9691	0,503	0,794	0,382	-5,018	0,283	5,491	0,000
0,7948	1,502	0,9688	0,508	0,795	0,384	-4,995	0,286	5,503	0,000
0,7955	1,506	0,9685	0,513	0,796	0,387	-4,971	0,290	5,514	0,000
0,7963	1,510	0,9682	0,518	0,796	0,389	-4,948	0,293	5,526	0,000
0,7970	1,515	0,9679	0,523	0,797	0,391	-4,925	0,296	5,537	0,000
0,7978	1,519	0,9676	0,528	0,798	0,393	-4,902	0,300	5,549	0,000
0,7985	1,523	0,9673	0,533	0,799	0,396	-4,879	0,303	5,560	0,000
0,7993	1,527	0,9670	0,538	0,799	0,398	-4,856	0,306	5,572	0,000
0,8000	1,531	0,9667	0,543	0,800	0,400	-4,830	0,310	5,585	0,000
0,8009	1,536	0,9664	0,547	0,801	0,403	-4,806	0,313	5,597	0,000
0,8017	1,540	0,9661	0,552	0,802	0,405	-4,781	0,317	5,609	0,000
0,8026	1,545	0,9655	0,557	0,803	0,408	-4,757	0,320	5,622	0,000
0,8034	1,549	0,9649	0,562	0,803	0,410	-4,732	0,324	5,634	0,000
0,8043	1,554	0,9643	0,567	0,804	0,413	-4,708	0,327	5,646	0,000
0,8051	1,558	0,9637	0,572	0,805	0,415	-4,684	0,331	5,658	0,000
0,8060	1,563	0,9631	0,577	0,806	0,418	-4,659	0,334	5,670	0,000
0,8068	1,568	0,9625	0,582	0,807	0,420	-4,635	0,338	5,683	0,000
0,8077	1,572	0,9619	0,587	0,808	0,423	-4,610	0,341	5,695	0,000
0,8085	1,577	0,9613	0,591	0,809	0,426	-4,586	0,345	5,707	0,000
0,8094	1,581	0,9607	0,596	0,809	0,428	-4,562	0,348	5,719	0,000
0,8102	1,586	0,9601	0,601	0,810	0,431	-4,537	0,352	5,731	0,000
0,8111	1,590	0,9595	0,606	0,811	0,433	-4,513	0,355	5,744	0,000
0,8119	1,595	0,9589	0,611	0,812	0,436	-4,488	0,359	5,756	0,000
0,8128	1,600	0,9583	0,616	0,813	0,438	-4,464	0,362	5,768	0,000
0,8136	1,604	0,9577	0,621	0,814	0,441	-4,440	0,366	5,780	0,000
0,8145	1,609	0,9571	0,626	0,814	0,444	-4,415	0,369	5,792	0,000
0,8153	1,613	0,9565	0,630	0,815	0,446	-4,391	0,373	5,805	0,000
0,8162	1,618	0,9559	0,635	0,816	0,449	-4,366	0,376	5,817	0,000
0,8170	1,622	0,9553	0,640	0,817	0,451	-4,342	0,380	5,829	0,000
0,8178	1,626	0,9547	0,645	0,818	0,453	-4,318	0,383	5,841	0,000
0,8185	1,630	0,9541	0,650	0,819	0,456	-4,293	0,387	5,853	0,000
0,8193	1,634	0,9535	0,655	0,819	0,458	-4,269	0,390	5,866	0,000
0,8200	1,638	0,9529	0,660	0,820	0,460	-4,244	0,394	5,878	0,000
0,8209	1,643	0,9523	0,665	0,821	0,463	-4,220	0,397	5,890	0,000
0,8218	1,647	0,9517	0,670	0,822	0,465	-4,196	0,401	5,902	0,000
0,8226	1,652	0,9511	0,674	0,823	0,468	-4,171	0,404	5,914	0,000
0,8235	1,657	0,9505	0,679	0,824	0,471	-4,147	0,408	5,927	0,000
0,8244	1,661	0,9499	0,684	0,824	0,473	-4,122	0,411	5,939	0,000
0,8253	1,666	0,9493	0,689	0,825	0,476	-4,098	0,415	5,951	0,000
0,8261	1,670	0,9487	0,694	0,826	0,478	-4,074	0,418	5,963	0,000
0,8270	1,675	0,9481	0,699	0,827	0,481	-4,049	0,422	5,975	0,000
0,8279	1,680	0,9475	0,704	0,828	0,484	-4,025	0,425	5,988	0,000
0,8288	1,684	0,9469	0,709	0,829	0,486	-4,000	0,429	6,000	0,000
0,8296	1,689	0,9464	0,714	0,830	0,489	-3,976	0,432	6,012	0,000
0,8305	1,693	0,9452	0,718	0,831	0,492	-3,952	0,435	6,024	0,000
0,8314	1,698	0,9440	0,723	0,831	0,494	-3,927	0,439	6,036	0,000

0,8323	1,703	0,9428	0,728	0,832	0,497	-3,903	0,442	6,049	0,000
0,8331	1,707	0,9416	0,733	0,833	0,499	-3,880	0,446	6,060	0,000
0,8340	1,712	0,9404	0,738	0,834	0,502	-3,853	0,450	6,074	0,000
0,8349	1,716	0,9392	0,743	0,835	0,505	-3,825	0,454	6,087	0,000
0,8358	1,721	0,9380	0,748	0,836	0,507	-3,798	0,457	6,101	0,000
0,8366	1,725	0,9368	0,753	0,837	0,510	-3,771	0,461	6,115	0,000
0,8375	1,730	0,9356	0,758	0,838	0,513	-3,744	0,465	6,128	0,000
0,8384	1,734	0,9344	0,762	0,838	0,515	-3,716	0,469	6,142	0,000
0,8393	1,739	0,9332	0,767	0,839	0,518	-3,689	0,473	6,156	0,000
0,8401	1,743	0,9320	0,772	0,840	0,520	-3,662	0,477	6,169	0,000
0,8410	1,748	0,9308	0,777	0,841	0,523	-3,634	0,481	6,183	0,000
0,8419	1,752	0,9296	0,782	0,842	0,526	-3,607	0,485	6,197	0,000
0,8428	1,757	0,9284	0,787	0,843	0,528	-3,580	0,489	6,210	0,000
0,8436	1,761	0,9272	0,792	0,844	0,531	-3,552	0,493	6,224	0,000
0,8445	1,766	0,9260	0,797	0,845	0,534	-3,525	0,496	6,237	0,000
0,8454	1,770	0,9248	0,802	0,845	0,536	-3,498	0,500	6,251	0,000
0,8463	1,775	0,9236	0,806	0,846	0,539	-3,471	0,504	6,265	0,000
0,8471	1,779	0,9224	0,811	0,847	0,541	-3,443	0,508	6,278	0,000
0,8480	1,784	0,9212	0,816	0,848	0,544	-3,416	0,512	6,292	0,000
0,8489	1,789	0,9200	0,821	0,849	0,547	-3,389	0,516	6,306	0,000
0,8499	1,793	0,9188	0,826	0,850	0,550	-3,360	0,520	6,320	0,000
0,8508	1,798	0,9176	0,831	0,851	0,552	-3,340	0,523	6,330	0,000
0,8517	1,803	0,9164	0,836	0,852	0,555	-3,320	0,526	6,340	0,000
0,8526	1,808	0,9152	0,841	0,853	0,558	-3,300	0,529	6,350	0,000
0,8536	1,812	0,9140	0,846	0,854	0,561	-3,280	0,531	6,360	0,000
0,8545	1,817	0,9128	0,850	0,854	0,564	-3,260	0,534	6,370	0,000
0,8554	1,822	0,9116	0,855	0,855	0,566	-3,240	0,537	6,380	0,000
0,8563	1,826	0,9104	0,860	0,856	0,569	-3,220	0,540	6,390	0,000
0,8573	1,831	0,9092	0,865	0,857	0,572	-3,200	0,543	6,400	0,000
0,8582	1,836	0,9080	0,870	0,858	0,575	-3,180	0,546	6,410	0,000
0,8591	1,840	0,9068	0,875	0,859	0,577	-3,160	0,549	6,420	0,000
0,8600	1,845	0,9056	0,880	0,860	0,580	-3,140	0,551	6,430	0,000
0,8610	1,850	0,9044	0,885	0,861	0,583	-3,120	0,554	6,440	0,000
0,8619	1,854	0,9032	0,890	0,862	0,586	-3,100	0,557	6,450	0,000
0,8628	1,859	0,9020	0,894	0,863	0,588	-3,080	0,560	6,460	0,000
0,8637	1,864	0,9008	0,899	0,864	0,591	-3,060	0,563	6,470	0,000
0,8647	1,868	0,8996	0,904	0,865	0,594	-3,040	0,566	6,480	0,000
0,8656	1,873	0,8984	0,909	0,866	0,597	-3,020	0,569	6,490	0,000
0,8665	1,878	0,8972	0,914	0,867	0,600	-3,000	0,571	6,500	0,000
0,8674	1,882	0,8960	0,919	0,867	0,602	-2,980	0,574	6,510	0,000
0,8684	1,887	0,8948	0,924	0,868	0,605	-2,960	0,577	6,520	0,000
0,8693	1,892	0,8936	0,929	0,869	0,608	-2,940	0,580	6,530	0,000
0,8702	1,896	0,8924	0,934	0,870	0,611	-2,920	0,583	6,540	0,000
0,8711	1,901	0,8912	0,938	0,871	0,613	-2,890	0,587	6,555	0,000
0,8721	1,905	0,8900	0,943	0,872	0,616	-2,859	0,592	6,570	0,000
0,8730	1,910	0,8888	0,948	0,873	0,619	-2,829	0,596	6,585	0,000
0,8739	1,915	0,8876	0,953	0,874	0,622	-2,799	0,600	6,601	0,000
0,8748	1,919	0,8864	0,958	0,875	0,624	-2,769	0,605	6,616	0,000
0,8758	1,924	0,8852	0,963	0,876	0,627	-2,738	0,609	6,631	0,000
0,8767	1,928	0,8840	0,968	0,877	0,630	-2,708	0,613	6,646	0,000
0,8776	1,933	0,8828	0,973	0,878	0,633	-2,678	0,617	6,661	0,000
0,8785	1,938	0,8816	0,978	0,879	0,636	-2,647	0,622	6,676	0,000
0,8795	1,942	0,8804	0,982	0,879	0,639	-2,617	0,626	6,692	0,000
0,8804	1,947	0,8792	0,987	0,880	0,641	-2,587	0,630	6,707	0,000
0,8813	1,951	0,8780	0,992	0,881	0,644	-2,556	0,635	6,722	0,000
0,8822	1,956	0,8768	0,997	0,882	0,647	-2,526	0,639	6,737	0,000
0,8832	1,960	0,8756	1,002	0,883	0,650	-2,496	0,643	6,752	0,000
0,8841	1,965	0,8744	1,007	0,884	0,652	-2,466	0,648	6,767	0,000
0,8850	1,969	0,8732	1,012	0,885	0,655	-2,435	0,652	6,782	0,000
0,8859	1,974	0,8720	1,017	0,886	0,658	-2,405	0,656	6,798	0,000
0,8869	1,979	0,8708	1,022	0,887	0,661	-2,375	0,661	6,813	0,000
0,8878	1,983	0,8696	1,026	0,888	0,663	-2,344	0,665	6,828	0,000
0,8887	1,988	0,8684	1,031	0,889	0,666	-2,314	0,669	6,843	0,000
0,8896	1,992	0,8672	1,036	0,890	0,669	-2,284	0,674	6,858	0,000
0,8906	1,997	0,8660	1,041	0,891	0,672	-2,253	0,678	6,873	0,000
0,8915	2,001	0,8648	1,046	0,891	0,675	-2,223	0,682	6,888	0,000
0,8924	2,006	0,8636	1,051	0,892	0,677	-2,193	0,687	6,904	0,000
0,8933	2,010	0,8624	1,056	0,893	0,680	-2,163	0,691	6,919	0,000
0,8943	2,015	0,8612	1,061	0,894	0,683	-2,132	0,695	6,934	0,000
0,8952	2,019	0,8600	1,065	0,895	0,686	-2,102	0,700	6,949	0,000
0,8961	2,024	0,8588	1,070	0,896	0,688	-2,072	0,704	6,964	0,000
0,8971	2,028	0,8576	1,075	0,897	0,691	-2,041	0,708	6,979	0,000
0,8981	2,033	0,8564	1,080	0,898	0,694	-2,011	0,713	6,995	0,000
0,8990	2,038	0,8552	1,085	0,899	0,697	-1,981	0,717	7,010	0,000
0,9000	2,042	0,8540	1,090	0,900	0,700	-1,950	0,721	7,025	0,000
0,9011	2,047	0,8528	1,095	0,901	0,703	-1,930	0,724	7,035	0,000
0,9021	2,053	0,8516	1,100	0,902	0,706	-1,909	0,727	7,045	0,000
0,9032	2,058	0,8504	1,105	0,903	0,710	-1,889	0,730	7,056	0,000
0,9042	2,063	0,8492	1,109	0,904	0,713	-1,868	0,733	7,066	0,000
0,9053	2,068	0,8480	1,114	0,905	0,716	-1,848	0,736	7,076	0,000
0,9063	2,073	0,8468	1,119	0,906	0,719	-1,828	0,739	7,086	0,000
0,9074	2,078	0,8456	1,124	0,907	0,722	-1,807	0,742	7,096	0,000
0,9084	2,083	0,8444	1,129	0,908	0,725	-1,787	0,745	7,107	0,000
0,9095	2,088	0,8432	1,134	0,909	0,729	-1,766	0,748	7,117	0,000
0,9105	2,093	0,8420	1,139	0,911	0,732	-1,746	0,751	7,127	0,000
0,9116	2,098	0,8408	1,144	0,912	0,735	-1,726	0,753	7,137	0,000
0,9126	2,103	0,8396	1,149	0,913	0,738	-1,705	0,756	7,147	0,000

0,9137	2,108	0,8384	1,153	0,914	0,741	-1,685	0,759	7,158	0,000
0,9147	2,113	0,8372	1,158	0,915	0,744	-1,664	0,762	7,168	0,000
0,9158	2,118	0,8360	1,163	0,916	0,747	-1,644	0,765	7,178	0,000
0,9168	2,123	0,8348	1,168	0,917	0,750	-1,624	0,768	7,188	0,000
0,9179	2,128	0,8336	1,173	0,918	0,754	-1,603	0,771	7,198	0,000
0,9189	2,133	0,8324	1,178	0,919	0,757	-1,583	0,774	7,209	0,000
0,9200	2,138	0,8312	1,183	0,920	0,760	-1,562	0,777	7,219	0,000
0,9210	2,143	0,8300	1,188	0,921	0,763	-1,542	0,780	7,229	0,000
0,9221	2,148	0,8288	1,193	0,922	0,766	-1,522	0,783	7,239	0,000
0,9231	2,152	0,8276	1,197	0,923	0,769	-1,501	0,786	7,249	0,000
0,9242	2,157	0,8264	1,202	0,924	0,773	-1,481	0,788	7,260	0,000
0,9252	2,162	0,8252	1,207	0,925	0,776	-1,460	0,791	7,270	0,000
0,9263	2,167	0,8240	1,212	0,926	0,779	-1,440	0,794	7,280	0,000
0,9273	2,172	0,8228	1,217	0,927	0,782	-1,420	0,797	7,290	0,000
0,9284	2,177	0,8216	1,222	0,928	0,785	-1,399	0,800	7,300	0,000
0,9294	2,182	0,8204	1,227	0,929	0,788	-1,379	0,803	7,311	0,000
0,9305	2,187	0,8192	1,232	0,930	0,792	-1,358	0,806	7,321	0,000
0,9315	2,192	0,8180	1,237	0,932	0,795	-1,338	0,809	7,331	0,000
0,9326	2,197	0,8168	1,241	0,933	0,798	-1,318	0,812	7,341	0,000
0,9336	2,202	0,8156	1,246	0,934	0,801	-1,297	0,815	7,351	0,000
0,9347	2,206	0,8144	1,251	0,935	0,804	-1,277	0,818	7,362	0,000
0,9357	2,211	0,8132	1,256	0,936	0,807	-1,256	0,821	7,372	0,000
0,9368	2,216	0,8120	1,261	0,937	0,810	-1,236	0,823	7,382	0,000
0,9378	2,221	0,8108	1,266	0,938	0,813	-1,216	0,826	7,392	0,000
0,9389	2,226	0,8096	1,271	0,939	0,817	-1,195	0,829	7,402	0,000
0,9399	2,231	0,8078	1,276	0,940	0,820	-1,175	0,832	7,413	0,000
0,9410	2,236	0,8060	1,281	0,941	0,823	-1,154	0,835	7,423	0,000
0,9420	2,241	0,8040	1,285	0,942	0,826	-1,134	0,838	7,433	0,000
0,9431	2,245	0,8018	1,290	0,943	0,829	-1,114	0,841	7,443	0,000
0,9441	2,250	0,7994	1,295	0,944	0,832	-1,093	0,844	7,453	0,000
0,9452	2,255	0,7968	1,300	0,945	0,836	-1,073	0,847	7,464	0,000
0,9462	2,260	0,7940	1,305	0,946	0,839	-1,052	0,850	7,474	0,000
0,9472	2,264	0,7910	1,310	0,947	0,842	-1,032	0,853	7,484	0,000
0,9481	2,269	0,7878	1,315	0,948	0,844	-1,012	0,855	7,494	0,000
0,9491	2,273	0,7844	1,320	0,949	0,847	-0,991	0,858	7,504	0,000
0,9500	2,277	0,7808	1,325	0,950	0,850	-0,970	0,861	7,515	0,000
0,9511	2,282	0,7770	1,329	0,951	0,853	-0,943	0,865	7,528	0,000
0,9523	2,288	0,7730	1,334	0,952	0,857	-0,916	0,869	7,542	0,000
0,9534	2,293	0,7680	1,339	0,953	0,860	-0,889	0,873	7,555	0,000
0,9545	2,298	0,7650	1,344	0,955	0,864	-0,862	0,877	7,569	0,000
0,9556	2,303	0,7620	1,349	0,956	0,867	-0,836	0,881	7,582	0,000
0,9568	2,308	0,7590	1,354	0,957	0,870	-0,809	0,884	7,596	0,000
0,9579	2,313	0,7560	1,359	0,958	0,874	-0,782	0,888	7,609	0,000
0,9590	2,318	0,7530	1,364	0,959	0,877	-0,755	0,892	7,623	0,000
0,9601	2,323	0,7490	1,369	0,960	0,880	-0,728	0,896	7,636	0,000
0,9613	2,328	0,7440	1,373	0,961	0,884	-0,701	0,900	7,650	0,000
0,9624	2,333	0,7380	1,378	0,962	0,887	-0,674	0,904	7,663	0,000
0,9635	2,339	0,7310	1,383	0,964	0,891	-0,647	0,908	7,676	0,000
0,9646	2,344	0,7225	1,388	0,965	0,894	-0,620	0,911	7,690	0,000
0,9658	2,349	0,7130	1,393	0,966	0,897	-0,593	0,915	7,703	0,000
0,9669	2,354	0,7028	1,398	0,967	0,901	-0,567	0,919	7,717	0,000
0,9680	2,359	0,6920	1,403	0,968	0,904	-0,540	0,923	7,730	0,000
0,9698	2,367	0,6808	1,408	0,970	0,909	-0,513	0,927	7,744	0,000
0,9715	2,374	0,6692	1,413	0,972	0,915	-0,486	0,931	7,757	0,000
0,9733	2,382	0,6572	1,417	0,973	0,920	-0,459	0,934	7,771	0,000
0,9750	2,390	0,6448	1,422	0,975	0,925	-0,432	0,938	7,784	0,000
0,9768	2,398	0,6320	1,427	0,977	0,930	-0,405	0,942	7,797	0,000
0,9785	2,406	0,6188	1,432	0,979	0,936	-0,378	0,946	7,811	0,000
0,9803	2,413	0,6052	1,437	0,980	0,941	-0,351	0,950	7,824	0,000
0,9820	2,421	0,5916	1,442	0,982	0,946	-0,324	0,954	7,838	0,000
0,9838	2,429	0,5780	1,447	0,984	0,951	-0,298	0,958	7,851	0,000
0,9855	2,437	0,5644	1,452	0,986	0,957	-0,271	0,961	7,865	0,000
0,9873	2,444	0,5508	1,457	0,987	0,962	-0,244	0,965	7,878	0,000
0,9890	2,452	0,5372	1,461	0,989	0,967	-0,217	0,969	7,892	0,000
0,9908	2,460	0,5236	1,466	0,991	0,972	-0,190	0,973	7,905	0,000
0,9925	2,467	0,5100	1,471	0,993	0,978	-0,163	0,977	7,919	0,000
0,9943	2,475	0,4956	1,476	0,994	0,983	-0,136	0,981	7,932	0,000
0,9960	2,483	0,4820	1,481	0,996	0,988	-0,109	0,984	7,945	0,000
0,9970	2,487	0,4740	1,486	0,997	0,991	-0,082	0,988	7,959	0,000
0,9980	2,491	0,4660	1,491	0,998	0,994	-0,055	0,992	7,972	0,000
0,9990	2,496	0,4580	1,496	0,999	0,997	-0,029	0,996	7,986	0,000
1,0000	2,500	0,4500	1,500	1,000	1,000	0,000	1,000	8,000	0,000
1,0025	2,504	0,4300	1,505	1,003	1,008	0,040	1,006	8,020	0,040
1,0050	2,507	0,4100	1,510	1,005	1,015	0,080	1,011	8,040	0,080
1,0075	2,511	0,3900	1,515	1,008	1,023	0,120	1,017	8,060	0,120
1,0100	2,514	0,3700	1,520	1,010	1,030	0,160	1,023	8,080	0,160
1,0125	2,518	0,3500	1,525	1,013	1,038	0,200	1,029	8,100	0,200
1,0150	2,522	0,3300	1,530	1,015	1,045	0,240	1,034	8,120	0,240
1,0175	2,525	0,3100	1,535	1,018	1,053	0,280	1,040	8,140	0,280
1,0200	2,529	0,2900	1,540	1,020	1,060	0,320	1,046	8,160	0,320
1,0220	2,532	0,2720	1,544	1,022	1,066	0,360	1,051	8,180	0,360
1,0240	2,534	0,2550	1,549	1,024	1,072	0,400	1,057	8,200	0,400
1,0260	2,537	0,2390	1,554	1,026	1,078	0,440	1,063	8,220	0,440
1,0280	2,540	0,2240	1,559	1,028	1,084	0,480	1,069	8,240	0,480
1,0300	2,543	0,2100	1,564	1,030	1,090	0,520	1,074	8,260	0,520
1,0320	2,546	0,1970	1,569	1,032	1,096	0,560	1,080	8,280	0,560
1,0340	2,548	0,1850	1,574	1,034	1,102	0,600	1,086	8,300	0,600

1,0360	2,551	0,1740	1,579	1,036	1,108	0,640	1,091	8,320	0,640
1,0380	2,554	0,1640	1,584	1,038	1,114	0,680	1,097	8,340	0,680
1,0400	2,557	0,1550	1,588	1,040	1,120	0,720	1,103	8,360	0,720
1,0420	2,560	0,1470	1,593	1,042	1,126	0,760	1,109	8,380	0,760
1,0440	2,562	0,1400	1,598	1,044	1,132	0,800	1,114	8,400	0,800
1,0460	2,565	0,1340	1,603	1,046	1,138	0,840	1,120	8,420	0,840
1,0480	2,568	0,1290	1,608	1,048	1,144	0,880	1,126	8,440	0,880
1,0500	2,571	0,1250	1,613	1,050	1,150	0,920	1,131	8,460	0,920
1,0520	2,574	0,1220	1,618	1,052	1,156	0,960	1,137	8,480	0,960
1,0544	2,577	0,1200	1,623	1,054	1,163	1,000	1,143	8,500	1,000
1,0568	2,580	0,1185	1,628	1,057	1,170	1,040	1,149	8,520	1,040
1,0592	2,583	0,1170	1,632	1,059	1,178	1,080	1,154	8,540	1,080
1,0616	2,587	0,1155	1,637	1,062	1,185	1,120	1,160	8,560	1,120
1,0640	2,590	0,1140	1,642	1,064	1,192	1,160	1,166	8,580	1,160
1,0664	2,593	0,1124	1,647	1,066	1,199	1,200	1,171	8,600	1,200
1,0688	2,597	0,1108	1,652	1,069	1,206	1,240	1,177	8,620	1,240
1,0712	2,600	0,1092	1,657	1,071	1,214	1,280	1,183	8,640	1,280
1,0736	2,603	0,1076	1,662	1,074	1,221	1,320	1,189	8,660	1,320
1,0760	2,606	0,1060	1,667	1,076	1,228	1,360	1,194	8,680	1,360
1,0784	2,609	0,1044	1,672	1,078	1,235	1,400	1,200	8,700	1,400
1,0808	2,613	0,1028	1,676	1,081	1,242	1,440	1,206	8,720	1,440
1,0830	2,616	0,1012	1,681	1,083	1,249	1,480	1,211	8,740	1,480
1,0852	2,619	0,0996	1,686	1,085	1,256	1,520	1,217	8,760	1,520
1,0874	2,622	0,0980	1,691	1,087	1,262	1,560	1,223	8,780	1,560
1,0896	2,624	0,0964	1,696	1,090	1,269	1,600	1,229	8,800	1,600
1,0918	2,627	0,0948	1,701	1,092	1,275	1,640	1,234	8,820	1,640
1,0940	2,630	0,0932	1,706	1,094	1,282	1,680	1,240	8,840	1,680
1,0962	2,633	0,0916	1,711	1,096	1,289	1,720	1,246	8,860	1,720
1,0984	2,636	0,0900	1,716	1,098	1,295	1,760	1,251	8,880	1,760
1,1006	2,639	0,0884	1,720	1,101	1,302	1,800	1,257	8,900	1,800
1,1028	2,642	0,0868	1,725	1,103	1,308	1,840	1,263	8,920	1,840
1,1050	2,645	0,0852	1,730	1,105	1,315	1,880	1,269	8,940	1,880
1,1072	2,648	0,0836	1,735	1,107	1,322	1,920	1,274	8,960	1,920
1,1094	2,651	0,0820	1,740	1,109	1,328	1,960	1,280	8,980	1,960
1,1116	2,653	0,0804	1,745	1,112	1,335	2,000	1,286	9,000	2,000
1,1138	2,656	0,0788	1,750	1,114	1,341	2,040	1,291	9,020	2,040
1,1160	2,659	0,0772	1,755	1,116	1,348	2,080	1,297	9,040	2,080
1,1182	2,662	0,0756	1,760	1,118	1,355	2,120	1,303	9,060	2,120
1,1204	2,665	0,0740	1,764	1,120	1,361	2,160	1,309	9,080	2,160
1,1226	2,668	0,0724	1,769	1,123	1,368	2,200	1,314	9,100	2,200
1,1248	2,671	0,0708	1,774	1,125	1,374	2,240	1,320	9,120	2,240
1,1270	2,673	0,0692	1,779	1,127	1,381	2,280	1,326	9,140	2,280
1,1292	2,676	0,0676	1,784	1,129	1,388	2,320	1,331	9,160	2,320
1,1314	2,679	0,0660	1,789	1,131	1,394	2,360	1,337	9,180	2,360
1,1336	2,682	0,0644	1,794	1,134	1,401	2,400	1,343	9,200	2,400
1,1358	2,685	0,0628	1,799	1,136	1,407	2,440	1,349	9,220	2,440
1,1380	2,688	0,0612	1,804	1,138	1,414	2,480	1,354	9,240	2,480
1,1402	2,690	0,0596	1,808	1,140	1,421	2,520	1,360	9,260	2,520
1,1424	2,693	0,0580	1,813	1,142	1,427	2,560	1,366	9,280	2,560
1,1446	2,696	0,0564	1,818	1,145	1,434	2,600	1,371	9,300	2,600
1,1468	2,699	0,0548	1,823	1,147	1,440	2,640	1,377	9,320	2,640
1,1490	2,701	0,0532	1,828	1,149	1,447	2,680	1,383	9,340	2,680
1,1512	2,704	0,0516	1,833	1,151	1,454	2,720	1,389	9,360	2,720
1,1534	2,707	0,0500	1,838	1,153	1,461	2,760	1,394	9,380	2,760
1,1556	2,710	0,0484	1,843	1,155	1,468	2,800	1,400	9,400	2,800
1,1578	2,713	0,0468	1,848	1,158	1,475	2,840	1,406	9,420	2,840
1,1600	2,716	0,0452	1,853	1,160	1,482	2,880	1,411	9,440	2,880
1,1622	2,719	0,0436	1,858	1,162	1,489	2,920	1,417	9,460	2,920
1,1644	2,722	0,0420	1,863	1,164	1,496	2,960	1,423	9,480	2,960
1,1666	2,725	0,0404	1,868	1,166	1,503	3,000	1,429	9,500	3,000
1,1688	2,728	0,0388	1,873	1,168	1,510	3,040	1,435	9,520	3,040
1,1710	2,731	0,0372	1,878	1,170	1,517	3,080	1,441	9,540	3,080
1,1732	2,734	0,0356	1,883	1,172	1,524	3,120	1,447	9,560	3,120
1,1754	2,737	0,0340	1,888	1,174	1,531	3,160	1,453	9,580	3,160
1,1776	2,740	0,0324	1,893	1,176	1,538	3,200	1,459	9,600	3,200
1,1798	2,743	0,0308	1,898	1,178	1,545	3,240	1,465	9,620	3,240
1,1820	2,746	0,0292	1,903	1,180	1,552	3,280	1,471	9,640	3,280
1,1842	2,749	0,0276	1,908	1,182	1,559	3,320	1,477	9,660	3,320
1,1864	2,752	0,0260	1,913	1,184	1,566	3,360	1,483	9,680	3,360
1,1886	2,755	0,0244	1,918	1,186	1,573	3,400	1,489	9,700	3,400
1,1908	2,758	0,0228	1,923	1,188	1,580	3,440	1,495	9,720	3,440
1,1930	2,761	0,0212	1,928	1,190	1,587	3,480	1,501	9,740	3,480
1,1952	2,764	0,0196	1,933	1,192	1,594	3,520	1,507	9,760	3,520
1,1974	2,767	0,0180	1,938	1,194	1,601	3,560	1,513	9,780	3,560
1,1996	2,770	0,0164	1,943	1,196	1,608	3,600	1,519	9,800	3,600
1,2018	2,773	0,0148	1,948	1,198	1,615	3,640	1,525	9,820	3,640
1,2040	2,776	0,0132	1,953	1,200	1,622	3,680	1,531	9,840	3,680
1,2062	2,779	0,0116	1,958	1,202	1,629	3,720	1,537	9,860	3,720
1,2084	2,782	0,0100	1,963	1,204	1,636	3,760	1,543	9,880	3,760
1,2106	2,785	0,0084	1,968	1,206	1,643	3,800	1,549	9,900	3,800
1,2128	2,788	0,0068	1,973	1,208	1,650	3,840	1,555	9,920	3,840
1,2150	2,791	0,0052	1,978	1,210	1,657	3,880	1,561	9,940	3,880
1,2172	2,794	0,0036	1,983	1,212	1,664	3,920	1,567	9,960	3,920
1,2194	2,797	0,0020	1,988	1,214	1,671	3,960	1,573	9,980	3,960
1,2216	2,800	0,0004	1,993	1,216	1,678	4,000	1,579	10,000	4,000
1,2238	2,803	0,0000	1,998	1,218	1,685	4,040	1,585	10,020	4,040
1,2260	2,806	0,0000	2,003	1,220	1,692	4,080	1,591	10,040	4,080
1,2282	2,809	0,0000	2,008	1,222	1,699	4,120	1,597	10,060	4,120
1,2304	2,812	0,0000	2,013	1,224	1,706	4,160	1,603	10,080	4,160
1,2326	2,815	0,0000	2,018	1,226	1,713	4,200	1,609	10,100	4,200
1,2348	2,818	0,0000	2,023	1,228	1,720	4,240	1,615	10,120	4,240
1,2370	2,821	0,0000	2,028	1,230	1,727	4,280	1,621	10,140	4,280
1,2392	2,824	0,0000	2,033	1,232	1,734	4,320	1,627	10,160	4,320
1,2414	2,827	0,0000	2,038	1,234	1,741	4,360	1,633	10,180	4,360
1,2436	2,830	0,0000	2,043	1,236	1,748	4,400	1,639	10,200	4,400
1,2458	2,833	0,0000	2,048	1,238	1,755	4,440	1,645	10,220	4,440
1,2480	2,836	0,0000	2,053	1,240	1,762	4,480	1,651	10,240	4,480
1,2502	2,839	0,0000	2,058	1,242	1,769	4,520	1,657	10,260	4,520
1,2524	2,842	0,0000	2,063	1,244	1,776	4,560	1,663	10,280	4,560
1,2546	2,845	0,0000	2,068	1,246	1,783	4,600	1,669	10,300	4,600
1,2568	2,848	0,0000	2,073	1,248	1,790	4,640	1,675	10,320	4,640
1,2590	2,851	0,0000	2,078	1,250	1,797	4,680	1,681	10,340	4,680
1,2612	2,854	0,0000	2,083	1,252	1,804	4,720	1,687	10,360	4,720
1,2634	2,857	0,0000	2,088	1,254	1,811	4,760	1,693	10,380	4,760
1,2656	2,860	0,0000	2,093	1,256	1,818	4,800	1,699	10,400	4,800
1,2678	2,863	0,0000	2,098	1,258	1,825	4,840	1,705	10,420	4,840
1,2700	2,866	0,0000	2,103	1,260	1,832	4,880	1,711	10,440	4,880
1,2722	2,869	0,0000	2,108	1,262	1,839	4,920	1,717	10,460	4,920
1,2744	2,872	0,0000	2,113	1,264	1,846	4,960	1,723	10,480	4,960
1,2766	2,875	0,0000	2,118	1,266	1,853	5,000	1,729	10,500	5,000

1,2802	2,858	0,0225	2,004	1,280	1,841	4,351	1,622	10,176	4,351
1,2839	2,862	0,0222	2,009	1,284	1,852	4,397	1,628	10,199	4,397
1,2876	2,867	0,0219	2,014	1,288	1,863	4,444	1,635	10,222	4,444
1,2913	2,871	0,0216	2,019	1,291	1,874	4,490	1,641	10,245	4,490
1,2949	2,875	0,0213	2,023	1,295	1,885	4,536	1,648	10,268	4,536
1,2986	2,879	0,0210	2,028	1,299	1,896	4,583	1,655	10,291	4,583
1,3023	2,883	0,0207	2,033	1,302	1,907	4,629	1,661	10,314	4,629
1,3060	2,887	0,0204	2,038	1,306	1,918	4,675	1,668	10,338	4,675
1,3096	2,891	0,0201	2,043	1,310	1,929	4,721	1,675	10,361	4,722
1,3133	2,895	0,0198	2,048	1,313	1,940	4,768	1,681	10,384	4,768
1,3170	2,899	0,0195	2,053	1,317	1,951	4,814	1,688	10,407	4,814
1,3207	2,903	0,0192	2,058	1,321	1,962	4,860	1,694	10,430	4,860
1,3243	2,907	0,0189	2,063	1,324	1,973	4,907	1,701	10,453	4,907
1,3280	2,911	0,0186	2,067	1,328	1,984	4,953	1,708	10,477	4,953
1,3317	2,915	0,0183	2,072	1,332	1,995	5,000	1,714	10,500	5,000
1,3354	2,919	0,0180	2,077	1,335	2,006	5,040	1,720	10,520	5,040
1,3390	2,923	0,0177	2,082	1,339	2,017	5,078	1,725	10,539	5,078
1,3427	2,927	0,0175	2,087	1,343	2,028	5,116	1,731	10,558	5,116
1,3464	2,931	0,0173	2,092	1,346	2,039	5,154	1,736	10,577	5,154
1,3501	2,935	0,0171	2,097	1,350	2,050	5,192	1,742	10,596	5,192
1,3537	2,939	0,0169	2,102	1,354	2,061	5,230	1,747	10,615	5,230
1,3574	2,943	0,0167	2,107	1,357	2,072	5,268	1,753	10,634	5,268
1,3611	2,947	0,0165	2,111	1,361	2,083	5,306	1,758	10,653	5,306
1,3648	2,951	0,0163	2,116	1,365	2,094	5,344	1,763	10,672	5,344
1,3684	2,955	0,0161	2,121	1,368	2,105	5,382	1,769	10,691	5,382
1,3721	2,959	0,0159	2,126	1,372	2,116	5,420	1,774	10,710	5,420
1,3758	2,963	0,0157	2,131	1,376	2,127	5,458	1,780	10,729	5,458
1,3795	2,967	0,0156	2,136	1,379	2,139	5,496	1,785	10,748	5,496
1,3831	2,970	0,0155	2,141	1,383	2,149	5,534	1,791	10,767	5,534
1,3868	2,974	0,0154	2,146	1,387	2,160	5,572	1,796	10,786	5,572
1,3905	2,978	0,0153	2,151	1,390	2,172	5,610	1,801	10,805	5,610
1,3942	2,982	0,0152	2,155	1,394	2,183	5,648	1,807	10,824	5,648
1,3978	2,986	0,0151	2,160	1,398	2,193	5,686	1,812	10,843	5,686
1,4015	2,990	0,0150	2,165	1,402	2,205	5,724	1,818	10,862	5,724
1,4052	2,993	0,0149	2,170	1,405	2,216	5,762	1,823	10,881	5,762
1,4089	2,997	0,0148	2,175	1,409	2,227	5,800	1,829	10,900	5,800
1,4125	3,001	0,0147	2,180	1,413	2,238	5,838	1,834	10,919	5,838
1,4162	3,005	0,0146	2,185	1,416	2,249	5,876	1,839	10,938	5,876
1,4197	3,008	0,0145	2,190	1,420	2,259	5,914	1,845	10,957	5,914
1,4231	3,012	0,0144	2,195	1,423	2,269	5,952	1,850	10,976	5,952
1,4266	3,015	0,0143	2,199	1,427	2,280	5,990	1,856	10,995	5,990
1,4300	3,019	0,0142	2,204	1,430	2,290	6,028	1,861	11,014	6,028
1,4343	3,023	0,0141	2,209	1,434	2,303	6,066	1,867	11,033	6,066
1,4385	3,027	0,0140	2,214	1,439	2,316	6,105	1,872	11,053	6,105
1,4428	3,032	0,0139	2,219	1,443	2,328	6,144	1,878	11,072	6,144
1,4470	3,036	0,0138	2,224	1,447	2,341	6,183	1,883	11,092	6,183
1,4513	3,040	0,0137	2,229	1,451	2,354	6,222	1,889	11,111	6,222
1,4555	3,044	0,0136	2,234	1,456	2,367	6,261	1,894	11,131	6,261
1,4598	3,049	0,0135	2,239	1,460	2,379	6,300	1,900	11,150	6,300
1,4640	3,053	0,0134	2,243	1,464	2,392	6,339	1,906	11,170	6,339
1,4683	3,057	0,0133	2,248	1,468	2,405	6,378	1,911	11,189	6,378
1,4725	3,061	0,0132	2,253	1,473	2,418	6,417	1,917	11,209	6,417
1,4768	3,065	0,0131	2,258	1,477	2,430	6,456	1,922	11,228	6,456
1,4810	3,070	0,0130	2,263	1,481	2,443	6,495	1,928	11,248	6,495
1,4853	3,074	0,0129	2,268	1,485	2,456	6,534	1,933	11,267	6,534
1,4895	3,078	0,0128	2,273	1,490	2,469	6,573	1,939	11,287	6,573
1,4938	3,082	0,0127	2,278	1,494	2,481	6,612	1,945	11,306	6,612
1,4980	3,086	0,0126	2,283	1,498	2,494	6,651	1,950	11,326	6,651
1,5023	3,090	0,0125	2,287	1,502	2,507	6,690	1,956	11,345	6,690
1,5065	3,094	0,0124	2,292	1,507	2,520	6,729	1,961	11,365	6,729
1,5108	3,099	0,0123	2,297	1,511	2,532	6,768	1,967	11,384	6,768
1,5150	3,103	0,0122	2,302	1,515	2,545	6,807	1,972	11,404	6,807
1,5193	3,107	0,0121	2,307	1,519	2,558	6,846	1,978	11,423	6,846
1,5235	3,111	0,0120	2,312	1,524	2,571	6,885	1,984	11,443	6,885
1,5278	3,115	0,0119	2,317	1,528	2,583	6,924	1,989	11,462	6,924
1,5320	3,119	0,0118	2,322	1,532	2,596	6,963	1,995	11,482	6,963
1,5363	3,123	0,0117	2,326	1,536	2,609	7,000	2,000	11,500	7,000
1,5405	3,127	0,0116	2,331	1,541	2,622	7,040	2,006	11,520	7,040
1,5448	3,131	0,0115	2,336	1,545	2,634	7,080	2,011	11,540	7,080
1,5490	3,135	0,0114	2,341	1,549	2,647	7,115	2,016	11,558	7,115
1,5533	3,139	0,0113	2,346	1,553	2,660	7,150	2,021	11,575	7,150
1,5575	3,143	0,0112	2,351	1,558	2,673	7,185	2,026	11,593	7,185
1,5618	3,147	0,0111	2,356	1,562	2,685	7,220	2,031	11,610	7,220
1,5660	3,151	0,0110	2,361	1,566	2,698	7,255	2,036	11,628	7,255
1,5703	3,155	0,0109	2,366	1,570	2,711	7,290	2,041	11,645	7,290
1,5745	3,158	0,0108	2,370	1,575	2,724	7,325	2,046	11,663	7,325
1,5788	3,162	0,0107	2,375	1,579	2,736	7,360	2,051	11,680	7,360
1,5830	3,166	0,0106	2,380	1,583	2,749	7,395	2,056	11,698	7,395
1,5873	3,170	0,0105	2,385	1,587	2,762	7,430	2,061	11,715	7,430
1,5915	3,174	0,0104	2,390	1,592	2,775	7,465	2,066	11,733	7,465
1,5958	3,178	0,0103	2,395	1,596	2,787	7,500	2,071	11,750	7,500
1,6000	3,182	0,0102	2,400	1,600	2,800	7,535	2,076	11,768	7,535
1,6043	3,186	0,0101	2,405	1,604	2,813	7,570	2,081	11,785	7,570
1,6085	3,189	0,0100	2,410	1,609	2,826	7,605	2,086	11,803	7,605
1,6128	3,193	0,0099	2,414	1,613	2,838	7,640	2,091	11,820	7,640
1,6170	3,197	0,0098	2,419	1,617	2,851	7,675	2,096	11,838	7,675
1,6213	3,201	0,0097	2,424	1,621	2,864	7,710	2,101	11,855	7,710

1,6255	3,205	0,0096	2,429	1,626	2,877	7,745	2,106	11,873	7,745
1,6298	3,208	0,0095	2,434	1,630	2,889	7,780	2,111	11,890	7,780
1,6340	3,212	0,0094	2,439	1,634	2,902	7,815	2,116	11,908	7,815
1,6383	3,216	0,0093	2,444	1,638	2,915	7,850	2,121	11,925	7,850
1,6425	3,220	0,0092	2,449	1,643	2,928	7,885	2,126	11,943	7,885
1,6468	3,224	0,0091	2,454	1,647	2,940	7,920	2,131	11,960	7,920
1,6510	3,227	0,0090	2,458	1,651	2,953	7,955	2,136	11,978	7,955
1,6553	3,231	0,0089	2,463	1,655	2,966	7,990	2,141	11,995	7,990
1,6595	3,235	0,0088	2,468	1,660	2,979	8,025	2,146	12,013	8,025
1,6638	3,238	0,0087	2,473	1,664	2,991	8,060	2,151	12,030	8,060
1,6680	3,242	0,0086	2,478	1,668	3,004	8,095	2,156	12,048	8,095
1,6723	3,246	0,0085	2,483	1,672	3,017	8,150	2,164	12,075	8,150
1,6765	3,250	0,0084	2,488	1,677	3,030	8,191	2,170	12,096	8,191
1,6808	3,253	0,0083	2,493	1,681	3,042	8,233	2,176	12,116	8,233
1,6850	3,257	0,0082	2,498	1,685	3,055	8,274	2,182	12,137	8,274
1,6893	3,260	0,0081	2,502	1,689	3,068	8,315	2,188	12,158	8,315
1,6935	3,264	0,0080	2,507	1,694	3,081	8,357	2,194	12,178	8,357
1,6978	3,268	0,0079	2,512	1,698	3,093	8,398	2,200	12,199	8,398
1,7020	3,271	0,0078	2,517	1,702	3,106	8,439	2,206	12,220	8,439
1,7093	3,278	0,0077	2,522	1,709	3,128	8,480	2,211	12,240	8,480
1,7165	3,284	0,0076	2,527	1,717	3,150	8,522	2,217	12,261	8,522
1,7238	3,290	0,0075	2,532	1,724	3,171	8,563	2,223	12,282	8,563
1,7310	3,296	0,0074	2,537	1,731	3,193	8,604	2,229	12,302	8,604
1,7383	3,302	0,0073	2,542	1,738	3,215	8,646	2,235	12,323	8,646
1,7455	3,308	0,0072	2,546	1,746	3,237	8,687	2,241	12,343	8,687
1,7528	3,314	0,0071	2,551	1,753	3,258	8,728	2,247	12,364	8,728
1,7600	3,320	0,0070	2,556	1,760	3,280	8,770	2,253	12,385	8,770
1,7673	3,326	0,0069	2,561	1,767	3,302	8,811	2,259	12,405	8,811
1,7745	3,332	0,0068	2,566	1,775	3,324	8,852	2,265	12,426	8,852
1,7818	3,338	0,0067	2,571	1,782	3,345	8,893	2,270	12,447	8,893
1,7890	3,344	0,0066	2,576	1,789	3,367	8,935	2,276	12,467	8,935
1,7963	3,350	0,0065	2,581	1,796	3,389	8,976	2,282	12,488	8,976
1,8035	3,355	0,0064	2,586	1,804	3,411	9,017	2,288	12,509	9,017
1,8108	3,361	0,0063	2,590	1,811	3,432	9,059	2,294	12,529	9,059
1,8180	3,367	0,0062	2,595	1,818	3,454	9,100	2,300	12,550	9,100
1,8253	3,373	0,0061	2,600	1,825	3,476	9,148	2,307	12,574	9,148
1,8325	3,379	0,0060	2,605	1,833	3,498	9,195	2,314	12,598	9,195
1,8398	3,384	0,0059	2,610	1,840	3,519	9,243	2,320	12,621	9,243
1,8470	3,390	0,0058	2,615	1,847	3,541	9,290	2,327	12,645	9,290
1,8543	3,396	0,0057	2,620	1,854	3,563	9,338	2,334	12,669	9,338
1,8615	3,401	0,0056	2,625	1,862	3,585	9,385	2,341	12,693	9,385
1,8688	3,407	0,0055	2,630	1,869	3,606	9,433	2,348	12,716	9,433
1,8760	3,413	0,0054	2,634	1,876	3,628	9,480	2,354	12,740	9,480
1,8833	3,418	0,0053	2,639	1,883	3,650	9,528	2,361	12,764	9,528
1,8905	3,424	0,0052	2,644	1,891	3,672	9,575	2,368	12,788	9,575
1,8978	3,429	0,0051	2,649	1,898	3,693	9,623	2,375	12,811	9,623
1,9050	3,435	0,0050	2,654	1,905	3,715	9,670	2,381	12,835	9,670
1,9123	3,440	0,0049	2,659	1,912	3,737	9,710	2,387	12,855	9,710
1,9195	3,446	0,0048	2,664	1,920	3,759	9,750	2,393	12,875	9,750
1,9268	3,451	0,0047	2,669	1,927	3,780	9,790	2,399	12,895	9,790
1,9340	3,457	0,0046	2,674	1,934	3,802	9,830	2,404	12,915	9,830
1,9413	3,462	0,0045	2,678	1,941	3,824	9,870	2,410	12,935	9,870
1,9485	3,468	0,0044	2,683	1,949	3,846	9,910	2,416	12,955	9,910
1,9558	3,473	0,0043	2,688	1,956	3,867	9,950	2,421	12,975	9,950
1,9630	3,478	0,0042	2,693	1,963	3,889	9,990	2,427	12,995	9,990
1,9714	3,485	0,0041	2,698	1,971	3,914	10,030	2,433	13,015	10,030
1,9798	3,491	0,0040	2,703	1,980	3,939	10,070	2,439	13,035	10,070
1,9881	3,497	0,0039	2,708	1,988	3,964	10,110	2,444	13,055	10,110
1,9965	3,503	0,0038	2,713	1,997	3,990	10,150	2,450	13,075	10,150
2,0049	3,509	0,0037	2,717	2,005	4,015	10,190	2,456	13,095	10,190
2,0133	3,515	0,0036	2,722	2,013	4,040	10,227	2,461	13,114	10,227
2,0216	3,521	0,0035	2,727	2,022	4,065	10,264	2,466	13,132	10,264
2,0300	3,527	0,0034	2,732	2,030	4,090	10,301	2,472	13,151	10,302
2,0384	3,533	0,0033	2,737	2,038	4,115	10,339	2,477	13,169	10,339
2,0468	3,539	0,0032	2,742	2,047	4,140	10,376	2,482	13,188	10,376
2,0551	3,545	0,0031	2,747	2,055	4,165	10,413	2,488	13,206	10,413
2,0635	3,551	0,0030	2,752	2,064	4,191	10,450	2,493	13,225	10,450
2,0719	3,557	0,0029	2,757	2,072	4,216	10,487	2,498	13,244	10,487
2,0803	3,563	0,0028	2,761	2,080	4,241	10,524	2,503	13,262	10,524
2,0886	3,568	0,0027	2,766	2,089	4,266	10,562	2,509	13,281	10,562
2,0970	3,574	0,0026	2,771	2,097	4,291	10,599	2,514	13,299	10,599
2,1054	3,580	0,0025	2,776	2,105	4,316	10,636	2,519	13,318	10,636
2,1138	3,586	0,0024	2,781	2,114	4,341	10,673	2,525	13,336	10,673
2,1221	3,591	0,0023	2,786	2,122	4,366	10,710	2,530	13,355	10,710
2,1305	3,597	0,0022	2,791	2,131	4,392	10,747	2,535	13,374	10,747
2,1389	3,603	0,0021	2,796	2,139	4,417	10,784	2,541	13,392	10,784
2,1473	3,608	0,0020	2,801	2,147	4,442	10,822	2,546	13,411	10,822
2,1556	3,614	0,0019	2,805	2,156	4,467	10,859	2,551	13,429	10,859
2,1640	3,620	0,0018	2,810	2,164	4,492	10,896	2,557	13,448	10,896
2,1724	3,625	0,0017	2,815	2,172	4,517	10,933	2,562	13,467	10,933
2,1808	3,631	0,0016	2,820	2,181	4,542	10,970	2,567	13,485	10,970
2,1891	3,637	0,0015	2,825	2,189	4,567	11,007	2,572	13,504	11,007
2,1975	3,642	0,0014	2,830	2,198	4,593	11,044	2,578	13,522	11,045
2,2059	3,648	0,0013	2,835	2,206	4,618	11,082	2,583	13,541	11,082
2,2143	3,653	0,0012	2,840	2,214	4,643	11,119	2,588	13,559	11,119
2,2226	3,659	0,0011	2,845	2,223	4,668	11,156	2,594	13,578	11,156
2,2310	3,664	0,0010	2,849	2,231	4,693	11,193	2,599	13,597	11,193

2,2394	3,669	0,0009	2,854	2,239	4,718	11,230	2,604	13,615	11,230
2,2478	3,675	0,0008	2,859	2,248	4,743	11,267	2,610	13,634	11,267
2,2561	3,680	0,0007	2,864	2,256	4,768	11,305	2,615	13,652	11,305
2,2645	3,686	0,0006	2,869	2,265	4,794	11,342	2,620	13,671	11,342
2,2729	3,691	0,0005	2,874	2,273	4,819	11,379	2,626	13,689	11,379
2,2813	3,696	0,0000	2,879	2,281	4,844	11,416	2,631	13,708	11,416
2,2896	3,702	0,0000	2,884	2,290	4,869	11,453	2,636	13,727	11,453
2,2980	3,707	0,0000	2,889	2,298	4,894	11,490	2,641	13,745	11,490
2,3064	3,712	0,0000	2,893	2,306	4,919	11,527	2,647	13,764	11,527
2,3148	3,717	0,0000	2,898	2,315	4,944	11,565	2,652	13,782	11,565
2,3231	3,723	0,0000	2,903	2,323	4,969	11,602	2,657	13,801	11,602
2,3315	3,728	0,0000	2,908	2,332	4,995	11,639	2,663	13,819	11,639
2,3399	3,733	0,0000	2,913	2,340	5,020	11,676	2,668	13,838	11,676
2,3483	3,738	0,0000	2,918	2,348	5,045	11,713	2,673	13,857	11,713
2,3566	3,743	0,0000	2,923	2,357	5,070	11,750	2,679	13,875	11,750
2,3650	3,749	0,0000	2,928	2,365	5,095	11,787	2,684	13,894	11,788
2,3734	3,754	0,0000	2,933	2,373	5,120	11,825	2,689	13,912	11,825
2,3818	3,759	0,0000	2,937	2,382	5,145	11,862	2,695	13,931	11,862
2,3901	3,764	0,0000	2,942	2,390	5,170	11,899	2,700	13,949	11,899
2,3985	3,769	0,0000	2,947	2,399	5,196	11,936	2,705	13,968	11,936
2,4069	3,774	0,0000	2,952	2,407	5,221	11,973	2,710	13,987	11,973
2,4153	3,779	0,0000	2,957	2,415	5,246	12,010	2,716	14,005	12,010
2,4236	3,784	0,0000	2,962	2,424	5,271	12,048	2,721	14,024	12,048
2,4320	3,789	0,0000	2,967	2,432	5,296	12,085	2,726	14,042	12,085
2,4405	3,798	0,0000	2,972	2,447	5,340	12,122	2,732	14,061	12,122
2,4610	3,806	0,0000	2,977	2,461	5,383	12,159	2,737	14,079	12,159
2,4755	3,815	0,0000	2,981	2,476	5,427	12,196	2,742	14,098	12,196
2,4900	3,823	0,0000	2,986	2,490	5,470	12,233	2,748	14,117	12,233
2,5045	3,832	0,0000	2,991	2,505	5,514	12,270	2,753	14,135	12,270
2,5190	3,840	0,0000	2,996	2,519	5,557	12,312	2,759	14,156	12,312
2,5335	3,848	0,0000	3,001	2,534	5,601	12,354	2,765	14,177	12,354
2,5480	3,857	0,0000	3,006	2,548	5,644	12,396	2,771	14,198	12,396
2,5625	3,865	0,0000	3,011	2,563	5,688	12,438	2,777	14,219	12,438
2,5770	3,873	0,0000	3,016	2,577	5,731	12,480	2,783	14,240	12,480
2,5915	3,881	0,0000	3,021	2,592	5,775	12,522	2,789	14,261	12,522
2,6060	3,889	0,0000	3,025	2,606	5,818	12,564	2,795	14,282	12,564
2,6205	3,897	0,0000	3,030	2,621	5,862	12,606	2,801	14,303	12,606
2,6350	3,905	0,0000	3,035	2,635	5,905	12,648	2,807	14,324	12,648
2,6495	3,913	0,0000	3,040	2,650	5,949	12,690	2,813	14,345	12,690
2,6640	3,921	0,0000	3,045	2,664	5,992	12,732	2,819	14,366	12,732
2,6785	3,929	0,0000	3,050	2,679	6,036	12,774	2,825	14,387	12,774
2,6930	3,937	0,0000	3,055	2,693	6,079	12,816	2,831	14,408	12,816
2,7075	3,945	0,0000	3,060	2,708	6,123	12,858	2,837	14,429	12,858
2,7220	3,953	0,0000	3,065	2,722	6,166	12,900	2,843	14,450	12,900
2,7365	3,960	0,0000	3,069	2,737	6,210	12,942	2,849	14,471	12,942
2,7510	3,968	0,0000	3,074	2,751	6,253	12,984	2,855	14,492	12,984
2,7655	3,976	0,0000	3,079	2,766	6,297	13,026	2,861	14,513	13,026
2,7800	3,983	0,0000	3,084	2,780	6,340	13,068	2,867	14,534	13,068
2,7945	3,991	0,0000	3,089	2,795	6,384	13,110	2,873	14,555	13,110
2,8090	3,998	0,0000	3,094	2,809	6,427	13,152	2,879	14,576	13,152
2,8235	4,006	0,0000	3,099	2,824	6,471	13,194	2,885	14,597	13,194
2,8380	4,013	0,0000	3,104	2,838	6,514	13,236	2,891	14,618	13,236
2,8525	4,020	0,0000	3,109	2,853	6,558	13,278	2,897	14,639	13,278
2,8670	4,028	0,0000	3,113	2,867	6,601	13,320	2,903	14,660	13,320
2,8815	4,035	0,0000	3,118	2,882	6,645	13,362	2,909	14,681	13,362
2,8960	4,042	0,0000	3,123	2,896	6,688	13,404	2,915	14,702	13,404
2,9105	4,050	0,0000	3,128	2,911	6,732	13,446	2,921	14,723	13,446
2,9250	4,057	0,0000	3,133	2,925	6,775	13,488	2,927	14,744	13,488
2,9395	4,064	0,0000	3,138	2,940	6,819	13,530	2,933	14,765	13,530
2,9540	4,071	0,0000	3,143	2,954	6,862	13,572	2,939	14,786	13,572
2,9685	4,078	0,0000	3,148	2,969	6,906	13,614	2,945	14,807	13,614
2,9830	4,085	0,0000	3,152	2,983	6,949	13,656	2,951	14,828	13,656
2,9975	4,092	0,0000	3,157	2,998	6,993	13,698	2,957	14,849	13,698
3,0120	4,099	0,0000	3,162	3,012	7,036	13,740	2,963	14,870	13,740
3,0265	4,106	0,0000	3,167	3,027	7,080	13,778	2,968	14,889	13,778
3,0410	4,113	0,0000	3,172	3,041	7,123	13,817	2,974	14,908	13,817
3,0555	4,120	0,0000	3,177	3,056	7,167	13,855	2,979	14,927	13,855
3,0700	4,127	0,0000	3,182	3,070	7,210	13,893	2,985	14,947	13,893
3,0845	4,134	0,0000	3,187	3,085	7,254	13,932	2,990	14,966	13,932
3,0990	4,141	0,0000	3,192	3,099	7,297	13,970	2,996	14,985	13,970
3,1135	4,147	0,0000	3,196	3,114	7,341	14,008	3,001	15,004	14,008
3,1280	4,154	0,0000	3,201	3,128	7,384	14,046	3,007	15,023	14,046
3,1425	4,161	0,0000	3,206	3,143	7,428	14,085	3,012	15,042	14,085
3,1570	4,168	0,0000	3,211	3,157	7,471	14,123	3,018	15,062	14,123
3,1715	4,174	0,0000	3,216	3,172	7,515	14,161	3,023	15,081	14,161
3,1860	4,181	0,0000	3,221	3,186	7,558	14,200	3,029	15,100	14,200
3,2005	4,187	0,0000	3,226	3,201	7,602	14,238	3,034	15,119	14,238
3,2150	4,194	0,0000	3,231	3,215	7,645	14,276	3,039	15,138	14,276
3,2295	4,201	0,0000	3,236	3,230	7,689	14,315	3,045	15,157	14,315
3,2440	4,207	0,0000	3,240	3,244	7,732	14,353	3,050	15,176	14,353
3,2585	4,213	0,0000	3,245	3,259	7,776	14,391	3,056	15,196	14,391
3,2730	4,220	0,0000	3,250	3,273	7,819	14,429	3,061	15,215	14,429
3,2875	4,226	0,0000	3,255	3,288	7,863	14,468	3,067	15,234	14,468
3,3020	4,233	0,0000	3,260	3,302	7,906	14,506	3,072	15,253	14,506
3,3165	4,239	0,0000	3,265	3,317	7,950	14,544	3,078	15,272	14,544
3,3310	4,245	0,0000	3,270	3,331	7,993	14,583	3,083	15,291	14,583
3,3455	4,252	0,0000	3,275	3,346	8,037	14,621	3,089	15,310	14,621

3,3600	4,258	0,0000	3,280	3,360	8,080	14,659	3,094	15,330	14,659
3,3900	4,271	0,0000	3,284	3,390	8,170	14,698	3,100	15,349	14,698
3,4200	4,284	0,0000	3,289	3,420	8,260	14,736	3,105	15,368	14,736
3,4500	4,296	0,0000	3,294	3,450	8,350	14,774	3,111	15,387	14,774
3,4800	4,309	0,0000	3,299	3,480	8,440	14,812	3,116	15,406	14,812
3,5100	4,321	0,0000	3,304	3,510	8,530	14,850	3,121	15,425	14,850
3,5400	4,334	0,0000	3,309	3,540	8,620	14,888	3,127	15,444	14,888
3,5700	4,346	0,0000	3,314	3,570	8,710	14,925	3,132	15,463	14,925
3,6000	4,358	0,0000	3,319	3,600	8,800	14,963	3,138	15,481	14,963
3,6300	4,370	0,0000	3,324	3,630	8,890	15,000	3,143	15,500	15,000
3,6600	4,382	0,0000	3,328	3,660	8,980	15,038	3,148	15,519	15,038
3,6900	4,394	0,0000	3,333	3,690	9,070	15,075	3,154	15,538	15,075
3,7200	4,406	0,0000	3,338	3,720	9,160	15,113	3,159	15,556	15,113
3,7500	4,417	0,0000	3,343	3,750	9,250	15,150	3,164	15,575	15,150
3,7800	4,429	0,0000	3,348	3,780	9,340	15,188	3,170	15,594	15,188
3,8100	4,440	0,0000	3,353	3,810	9,430	15,225	3,175	15,613	15,225
3,8400	4,452	0,0000	3,358	3,840	9,520	15,263	3,180	15,631	15,263
3,8700	4,463	0,0000	3,363	3,870	9,610	15,300	3,186	15,650	15,300
3,9000	4,474	0,0000	3,368	3,900	9,700	15,338	3,191	15,669	15,338
3,9300	4,485	0,0000	3,372	3,930	9,790	15,375	3,196	15,688	15,375
3,9600	4,496	0,0000	3,377	3,960	9,880	15,413	3,202	15,706	15,413
3,9900	4,507	0,0000	3,382	3,990	9,970	15,450	3,207	15,725	15,450
4,0200	4,518	0,0000	3,387	4,020	10,060	15,488	3,212	15,741	15,488
4,0500	4,529	0,0000	3,392	4,050	10,150	15,513	3,216	15,757	15,513
4,0800	4,540	0,0000	3,397	4,080	10,240	15,545	3,221	15,772	15,545
4,1100	4,550	0,0000	3,402	4,110	10,330	15,576	3,225	15,788	15,576
4,1400	4,561	0,0000	3,407	4,140	10,420	15,608	3,230	15,804	15,608
4,1700	4,571	0,0000	3,412	4,170	10,510	15,639	3,234	15,820	15,639
4,2000	4,582	0,0000	3,416	4,200	10,600	15,671	3,239	15,835	15,671
4,2300	4,592	0,0000	3,421	4,230	10,690	15,702	3,243	15,851	15,702
4,2600	4,602	0,0000	3,426	4,260	10,780	15,734	3,248	15,867	15,734
4,2900	4,612	0,0000	3,431	4,290	10,870	15,765	3,252	15,883	15,765
4,3200	4,623	0,0000	3,436	4,320	10,960	15,797	3,257	15,898	15,797
4,3500	4,633	0,0000	3,441	4,350	11,050	15,828	3,261	15,914	15,828
4,3800	4,643	0,0000	3,446	4,380	11,140	15,860	3,266	15,930	15,860
4,4100	4,652	0,0000	3,451	4,410	11,230	15,891	3,270	15,946	15,891
4,4400	4,662	0,0000	3,456	4,440	11,320	15,923	3,275	15,961	15,923
4,4700	4,672	0,0000	3,460	4,470	11,410	15,954	3,279	15,977	15,954
4,5000	4,682	0,0000	3,465	4,500	11,500	15,986	3,284	15,993	15,986
4,5300	4,691	0,0000	3,470	4,530	11,590	16,017	3,288	16,009	16,017
4,5600	4,701	0,0000	3,475	4,560	11,680	16,049	3,293	16,024	16,049
4,5900	4,710	0,0000	3,480	4,590	11,770	16,080	3,297	16,040	16,080
4,6200	4,720	0,0000	3,485	4,620	11,860	16,112	3,302	16,056	16,112
4,6500	4,729	0,0000	3,490	4,650	11,950	16,143	3,306	16,072	16,143
4,6800	4,739	0,0000	3,495	4,680	12,040	16,175	3,311	16,087	16,175
4,7100	4,748	0,0000	3,500	4,710	12,130	16,206	3,315	16,103	16,206
4,7400	4,757	0,0000	3,504	4,740	12,220	16,238	3,320	16,119	16,238
4,7700	4,766	0,0000	3,509	4,770	12,310	16,269	3,324	16,135	16,269
4,8000	4,775	0,0000	3,514	4,800	12,400	16,301	3,329	16,150	16,301
4,8300	4,784	0,0000	3,519	4,830	12,490	16,332	3,333	16,166	16,332
4,8600	4,793	0,0000	3,524	4,860	12,580	16,364	3,338	16,182	16,364
4,8900	4,802	0,0000	3,529	4,890	12,670	16,395	3,342	16,198	16,395
4,9200	4,811	0,0000	3,534	4,920	12,760	16,427	3,347	16,213	16,427
4,9500	4,820	0,0000	3,539	4,950	12,850	16,458	3,351	16,229	16,458
4,9800	4,829	0,0000	3,543	4,980	12,940	16,490	3,356	16,245	16,490
5,0100	4,837	0,0000	3,548	5,010	13,030	16,522	3,360	16,261	16,522
5,0400	4,846	0,0000	3,553	5,040	13,120	16,554	3,365	16,277	16,554
5,0700	4,855	0,0000	3,558	5,070	13,210	16,586	3,369	16,293	16,586
5,1000	4,863	0,0000	3,563	5,100	13,300	16,618	3,374	16,309	16,618
5,1300	4,872	0,0000	3,568	5,130	13,390	16,651	3,379	16,325	16,651
5,1600	4,880	0,0000	3,573	5,160	13,480	16,683	3,383	16,341	16,683
5,1900	4,889	0,0000	3,578	5,190	13,570	16,715	3,388	16,357	16,715
5,2200	4,897	0,0000	3,583	5,220	13,660	16,747	3,392	16,373	16,747
5,2500	4,905	0,0000	3,587	5,250	13,750	16,779	3,397	16,389	16,779
5,2800	4,914	0,0000	3,592	5,280	13,840	16,811	3,402	16,406	16,811
5,3100	4,922	0,0000	3,597	5,310	13,930	16,843	3,406	16,422	16,843
5,3400	4,930	0,0000	3,602	5,340	14,020	16,875	3,411	16,438	16,875
5,3700	4,938	0,0000	3,607	5,370	14,110	16,907	3,415	16,454	16,907
5,4000	4,946	0,0000	3,612	5,400	14,200	16,939	3,420	16,470	16,939
5,4650	4,964	0,0000	3,617	5,465	14,350	16,972	3,425	16,486	16,972
5,5300	4,981	0,0000	3,622	5,530	14,500	17,004	3,429	16,502	17,004
5,5950	4,998	0,0000	3,627	5,595	14,650	17,036	3,434	16,518	17,036
5,6600	5,014	0,0000	3,631	5,660	14,800	17,068	3,438	16,534	17,068
5,7250	5,031	0,0000	3,636	5,725	14,950	17,100	3,443	16,550	17,100
5,7900	5,047	0,0000	3,641	5,790	15,100	17,132	3,447	16,566	17,132
5,8550	5,064	0,0000	3,646	5,855	15,250	17,164	3,452	16,582	17,164
5,9200	5,080	0,0000	3,651	5,920	15,400	17,196	3,457	16,598	17,196
5,9850	5,095	0,0000	3,656	5,985	15,550	17,228	3,461	16,614	17,228
6,0500	5,111	0,0000	3,661	6,050	15,700	17,260	3,466	16,630	17,260
6,1150	5,127	0,0000	3,666	6,115	15,850	17,293	3,470	16,646	17,293
6,1800	5,142	0,0000	3,671	6,180	16,000	17,325	3,475	16,662	17,325
6,2450	5,157	0,0000	3,675	6,245	16,150	17,357	3,480	16,678	17,357
6,3100	5,172	0,0000	3,680	6,310	16,300	17,389	3,484	16,694	17,389
6,3750	5,187	0,0000	3,685	6,375	16,450	17,421	3,489	16,710	17,421
6,4400	5,202	0,0000	3,690	6,440	16,600	17,453	3,493	16,727	17,453
6,5050	5,216	0,0000	3,695	6,505	16,750	17,485	3,498	16,743	17,485
6,5700	5,231	0,0000	3,700	6,570	16,900	17,517	3,502	16,759	17,517

6,6350	5,245	0,0000	3,705	6,635	10,000	17,550	3,507	16,775	17,550
6,7000	5,259	0,0000	3,710	6,700	10,000	17,587	3,512	16,794	17,587
6,7650	5,273	0,0000	3,715	6,765	10,000	17,625	3,518	16,812	17,625
6,8300	5,287	0,0000	3,719	6,830	10,000	17,662	3,523	16,831	17,662
6,8950	5,301	0,0000	3,724	6,895	10,000	17,699	3,528	16,850	17,699
6,9600	5,314	0,0000	3,729	6,960	10,000	17,737	3,534	16,868	17,737
7,0250	5,328	0,0000	3,734	7,025	10,000	17,774	3,539	16,887	17,774
7,0900	5,341	0,0000	3,739	7,090	10,000	17,811	3,544	16,906	17,811
7,1550	5,354	0,0000	3,744	7,155	10,000	17,848	3,550	16,924	17,848
7,2200	5,368	0,0000	3,749	7,220	10,000	17,886	3,555	16,943	17,886
7,2900	5,382	0,0000	3,754	7,290	10,000	17,923	3,560	16,962	17,923
7,3600	5,395	0,0000	3,759	7,360	10,000	17,960	3,566	16,980	17,960
7,4300	5,409	0,0000	3,763	7,430	10,000	17,998	3,571	16,999	17,998
7,5000	5,423	0,0000	3,768	7,500	10,000	18,035	3,576	17,017	18,035
7,6250	5,447	0,0000	3,773	7,625	10,000	18,072	3,582	17,036	18,072
7,7500	5,470	0,0000	3,778	7,750	10,000	18,110	3,587	17,055	18,110
7,8750	5,493	0,0000	3,783	7,875	10,000	18,147	3,592	17,073	18,147
8,0000	5,516	0,0000	3,788	8,000	10,000	18,184	3,598	17,092	18,184
8,1250	5,539	0,0000	3,793	8,125	10,000	18,221	3,603	17,111	18,221
8,2500	5,561	0,0000	3,798	8,250	10,000	18,259	3,608	17,129	18,259
8,3750	5,583	0,0000	3,803	8,375	10,000	18,296	3,614	17,148	18,296
8,5000	5,604	0,0000	3,807	8,500	10,000	18,333	3,619	17,167	18,333
8,6250	5,625	0,0000	3,812	8,625	10,000	18,371	3,624	17,185	18,371
8,7500	5,646	0,0000	3,817	8,750	10,000	18,408	3,630	17,204	18,408
8,8750	5,667	0,0000	3,822	8,875	10,000	18,445	3,635	17,223	18,445
9,0000	5,687	0,0000	3,827	9,000	10,000	18,483	3,640	17,241	18,483
9,1250	5,707	0,0000	3,832	9,125	10,000	18,520	3,646	17,260	18,520
9,2500	5,727	0,0000	3,837	9,250	10,000	18,557	3,651	17,279	18,557
9,3750	5,746	0,0000	3,842	9,375	10,000	18,594	3,656	17,297	18,594
9,5000	5,766	0,0000	3,847	9,500	10,000	18,632	3,662	17,316	18,632
9,6250	5,785	0,0000	3,851	9,625	10,000	18,669	3,667	17,335	18,669
9,7500	5,803	0,0000	3,856	9,750	10,000	18,706	3,672	17,353	18,706
9,8750	5,822	0,0000	3,861	9,875	10,000	18,744	3,678	17,372	18,744
10,0000	5,840	0,0000	3,866	10,000	10,000	18,780	3,683	17,390	18,780
10,2500	5,876	0,0000	3,871	10,000	10,000	18,816	3,688	17,408	18,816
10,5000	5,911	0,0000	3,876	10,000	10,000	18,853	3,693	17,426	18,853
10,7500	5,945	0,0000	3,881	10,000	10,000	18,889	3,698	17,445	18,889
11,0000	5,978	0,0000	3,886	10,000	10,000	18,926	3,704	17,463	18,926
11,2500	6,011	0,0000	3,891	10,000	10,000	18,962	3,709	17,481	18,962
11,5000	6,043	0,0000	3,895	10,000	10,000	18,998	3,714	17,499	18,998
11,7500	6,074	0,0000	3,900	10,000	10,000	19,035	3,719	17,517	19,035
12,0000	6,104	0,0000	3,905	10,000	10,000	19,071	3,724	17,536	19,071
12,1250	6,119	0,0000	3,910	10,000	10,000	19,108	3,730	17,554	19,108
12,2500	6,134	0,0000	3,915	10,000	10,000	19,144	3,735	17,572	19,144
12,3750	6,149	0,0000	3,920	10,000	10,000	19,180	3,740	17,590	19,180
12,5000	6,164	0,0000	3,925	10,000	10,000	20,990	3,999	18,495	20,000