

## Vacuum Scenario Results

**Table H-1:** Initial Vacuum Results where vacuum was used to clean up broken lamp.

Scenario	Lamp type	Maximum concentration of mercury (ng/m3)	Time above 300 ng/m3 in minutes	Average mercury concentration for 1 hour (ng/m3)	Average mercury concentration for 8 hours (ng/m3)	Average mercury concentration for 24 hours (ng/m3)	Average mercury concentration for 24+ hours (ng/m3)
S5 Three trials at two heights <ul style="list-style-type: none"> <li>Short pile rug. Ventilate room. Clean up glass over 3/8" by hand, vacuum with Kenmore canister vacuum with beater, and remove waste pieces and vacuum bag from room.</li> <li>Measure continuously/ take discrete measurements at vacuum locations.</li> </ul>	"Brand A"  14watt, 60 watt equivalent	<b>At 5 feet:</b> 628 328 315 <b>At 1 foot:</b> 18,578 8,815 3,953	<b>At 5 feet:</b> 5.25 1.66 5.5 <b>At 1 foot:</b> 7.83 2.08 5.83	<b>At 5 feet:</b> 97 123 61 <b>At 1 foot:</b> 202 128 77			
S6 Three trials at two heights <ul style="list-style-type: none"> <li>Long pile "shag" rug. Vacuumed with Dirt Devil Power Sweeper. Otherwise same as S5.</li> </ul>	"Brand A"  14watt, 60 watt equivalent	<b>At 5 feet:</b> 350 414 236 <b>At 1 foot:</b> 1,811 16,942 1,811	<b>At 5 feet:</b> 2.16 1.67 0 <b>At 1 foot:</b> 3.33 3.08 2.16	<b>At 5 feet:</b> 99 72 48 <b>At 1 foot:</b> 86 133 41			

## Appendix H. Vacuum Data

Scenario	Lamp type	Maximum concentration of mercury (ng/m3)	Time above 300 ng/m3 in minutes	Average mercury concentration for 1 hour (ng/m3)	Average mercury concentration for 8 hours (ng/m3)	Average mercury concentration for 24 hours (ng/m3)	Average mercury concentration for 24+ hours (ng/m3)
SK One trial at two heights <ul style="list-style-type: none"> <li>• Break on long pile “shag” rug. After traditional cleanup was vacuumed using a Hoover Quick-Broom bag less vacuum. Otherwise same as S2.</li> </ul>	“Brand B”  26w, 90watt equivalent	<b>At 5 feet:</b> 2,034 <b>At 1 foot:</b> 2,392	<b>At 5 feet:</b> 24.0 <b>At 1 foot:</b> 32.67 Spike at 193.84	<b>At 5 feet:</b> 241 <b>At 1 foot:</b> 368			
SL One trial at two heights <ul style="list-style-type: none"> <li>• Break on short pile rug.</li> <li>• No ventilation, clean up only big pieces and put in trash in room, vacuum rest of debris with Hoover 850 vacuum with beater.</li> <li>• Measure continuously.</li> </ul>	“Brand B”  26w, 100 watt equivalent	<b>At 5 feet:</b> 23,720 <b>At 1 foot:</b> 133,955	<b>At 5 feet:</b> >1,500 <b>At 1 foot:</b> >1,500	<b>At 5 feet:</b> 16,814 <b>At 1 foot:</b> 21,262	<b>At 5 feet:</b> 12,364 <b>At 1 foot:</b> 14,384	<b>At 5 feet:</b> 4,490 <b>At 1 foot:</b> 5,130	<b>At 5 feet:</b> 4,302 (25 hour average) <b>At 1 foot:</b> 4,913 (25 hour average)

**Table H-2** Vacuum Results where carpet was vacuumed where a lamp had previously been broken and cleaned up but where the vacuum in these trials was not used to clean up the initial breakage. These trials were vacuuming the residual source left in the carpets.

Scenario	Lamp type	Maximum concentration of mercury (ng/m3)	Time above 300 ng/m3 in minutes	Average mercury concentration for 1 hour (ng/m3)	Average mercury concentration for 8 hours (ng/m3)	Average mercury concentration for 24 hours (ng/m3)	Average mercury concentration for 24+ hours (ng/m3)
<p>S5T3 Revacuum: One trial at two heights</p> <ul style="list-style-type: none"> <li>No new bulbs were broken as part of this scenario. This was a revacuum of S5T3 short nap carpet. It was vacuumed by a Kenmore beater vacuum as part of S5T3.</li> <li>During this scenario, a non beater Hoover 400 wand vacuum was used and the room was not ventilated<sup>42</sup>.</li> <li>Measure continuously.</li> </ul>	<p>“Brand A”</p> <p>14watt, 60 watt equivalent</p> <p>Broken and cleaned up 28 days earlier.</p>	<p><b>At 5 feet:</b> 72</p> <p><b>At 1 foot:</b> 130</p>	<p><b>At 5 feet:</b> 0</p> <p><b>At 1 foot:</b> 0</p>	<p><b>At 5 feet:</b> 57</p> <p><b>At 1 foot:</b> 40</p>	<p><b>At 5 feet:</b> &lt;20</p> <p><b>At 1 foot:</b> 13</p>		

<sup>42</sup> For the purposes of this table, references to “no ventilation” mean that no deliberate ventilation occurred such as with an open window in the study room or open door to the study room. It does not refer to unintentional ventilation from the closure of the overhead door in the area adjacent to the study room.

Scenario	Lamp type	Maximum concentration of mercury (ng/m3)	Time above 300 ng/m3 in minutes	Average mercury concentration for 1 hour (ng/m3)	Average mercury concentration for 8 hours (ng/m3)	Average mercury concentration for 24 hours (ng/m3)	Average mercury concentration for 24+ hours (ng/m3)
SBvac1 One trial at two heights <ul style="list-style-type: none"> <li>• No new bulbs were broken as a part of this scenario. This was a vacuum of SB short nap carpet. This carpet had not been previously vacuumed but a lamp had been broken and cleaned up with traditional cleanup techniques 21 days earlier. It was vacuumed with a Hoover 850 beater vacuum.</li> <li>• This is the first vacuum of the carpet. No ventilation of room.</li> <li>• Measure continuously.</li> </ul>	"Brand C"  13w, 60watt equivalent  Broken and cleaned up 21 days earlier.	<b>At 5 feet:</b> 4,529 <b>At 1 foot:</b> 14,779	<b>At 5 feet:</b> >81 <b>At 1 foot:</b> >350spikes	<b>At 5 feet:</b> 3,406 <b>At 1 foot:</b> 2,554	<b>At 5 feet:</b> No data <b>At 1 foot:</b> 677(6 hour average)		
SBvac2 One trial at two heights <ul style="list-style-type: none"> <li>• This is the second vacuum of the carpet. The bulb was cleaned up 24 days earlier.</li> <li>• Otherwise same as SBvac1.</li> </ul>	"Brand C"  13w, 60watt equivalent  Broken and cleaned up 24 days earlier.	<b>At 5 feet:</b> 3,090 <b>At 1 foot:</b> 3,077	<b>At 5 feet:</b> 88.08 <b>At 1 foot:</b> >350spikes	<b>At 5 feet:</b> 1,207 <b>At 1 foot:</b> 714	<b>At 5 feet:</b> 266 (6 hour average) <b>At 1 foot:</b> 223 (6 hour average)		

Scenario	Lamp type	Maximum concentration of mercury (ng/m3)	Time above 300 ng/m3 in minutes	Average mercury concentration for 1 hour (ng/m3)	Average mercury concentration for 8 hours (ng/m3)	Average mercury concentration for 24 hours (ng/m3)	Average mercury concentration for 24+ hours (ng/m3)
SBvac3 One trial at two heights <ul style="list-style-type: none"> <li>This is the third vacuum of the carpet. The bulb was cleaned up 27 days earlier</li> <li>Otherwise same as SBvac1.</li> </ul>	"Brand C"  13w, 60watt equivalent  Broken and cleaned up 27 days earlier.	<b>At 5 feet:</b> 680 <b>At 1 foot:</b> 2,001	<b>At 5 feet:</b> 167.08 <b>At 1 foot:</b> 146.33	<b>At 5 feet:</b> 584 <b>At 1 foot:</b> 422	<b>At 5 feet:</b> 253 <b>At 1 foot:</b> 180		
SBvac4 One trial at two heights <ul style="list-style-type: none"> <li>This is the fourth vacuum of the carpet. The bulb was cleaned up 28 days earlier.</li> <li>Otherwise same as SBvac1.</li> </ul>	"Brand C"  13w, 60watt equivalent  Broken and cleaned up 28 days earlier.	<b>At 5 feet:</b> 228 <b>At 1 foot:</b> 427	<b>At 5 feet:</b> 0 <b>At 1 foot:</b> 0 <sup>43</sup>	<b>At 5 feet:</b> 172 <b>At 1 foot:</b> 113	<b>At 5 feet:</b> 79 (6 hour average) <b>At 1 foot:</b> 52 (6 hour average)		

<sup>43</sup> Spikes at 0.25, 77.92, & 299.17

Scenario	Lamp type	Maximum concentration of mercury (ng/m3)	Time above 300 ng/m3 in minutes	Average mercury concentration for 1 hour (ng/m3)	Average mercury concentration for 8 hours (ng/m3)	Average mercury concentration for 24 hours (ng/m3)	Average mercury concentration for 24+ hours (ng/m3)
SLvac2 One trial at two heights <ul style="list-style-type: none"> <li>No new bulbs were broken as a part of this scenario. This was a revacuum of SL short nap carpet. This carpet had been previously vacuumed as a means of cleaning up a lamp breakage 4 days earlier. It was vacuumed with a Hoover 850 beater vacuum.</li> <li>This is the second vacuum of the carpet.</li> <li>Otherwise same as SL.</li> </ul>	"Brand B"  26w, 100 watt equivalent  Broken and cleaned up 4 days earlier.	<b>At 5 feet:</b> 3,135 <b>At 1 foot:</b> 36,397	<b>At 5 feet:</b> 530.75 <b>At 1 foot:</b> >1,200 spikes <sup>44</sup>	<b>At 5 feet:</b> 2,623 <b>At 1 foot:</b> 2,444	<b>At 5 feet:</b> 1,429 <b>At 1 foot:</b> 1,471	<b>At 5 feet:</b> 691 (20 hour average) <b>At 1 foot:</b> 729 (20 hour average)	
SLvac3 One trial at two heights <ul style="list-style-type: none"> <li>This carpet had been previously vacuumed as a means of cleaning up a lamp breakage 5 days earlier.</li> <li>This is the third vacuum of the carpet.</li> <li>Otherwise same as SL.</li> </ul>	"Brand B"  26w, 100 watt equivalent  Broken and cleaned up 5 days earlier	<b>At 5 feet:</b> 3,708 <b>At 1 foot:</b> 19,270	<b>At 5 feet:</b> 539.33 <b>At 1 foot:</b> >1,200 spikes <sup>45</sup>	<b>At 5 feet:</b> 2,671 <b>At 1 foot:</b> 2,768	<b>At 5 feet:</b> 2,590 <b>At 1 foot:</b> 2,587	<b>At 5 feet:</b> 1,038 (20.5 hour average) <b>At 1 foot:</b> 1,236 (20 hour average)	

<sup>44</sup> Still spiking over 1,000 ng/m3.

<sup>45</sup> Still spiking above 1,000 ng/m3.

Scenario	Lamp type	Maximum concentration of mercury (ng/m <sup>3</sup> )	Time above 300 ng/m <sup>3</sup> in minutes	Average mercury concentration for 1 hour (ng/m <sup>3</sup> )	Average mercury concentration for 8 hours (ng/m <sup>3</sup> )	Average mercury concentration for 24 hours (ng/m <sup>3</sup> )	Average mercury concentration for 24+ hours (ng/m <sup>3</sup> )
SLvac4 One trial at two heights <ul style="list-style-type: none"> <li>This carpet had been previously vacuumed as a means of cleaning up a lamp breakage 6 days earlier.</li> <li>This is the fourth vacuum of the carpet.</li> <li>Otherwise same as SL.</li> </ul>	“Brand B”  26w, 100 watt equivalent  Broken and cleaned up 6 days earlier.	<b>At 5 feet:</b> 3,288 <b>At 1 foot:</b> 12,367	<b>At 5 feet:</b> 523.75 <b>At 1 foot:</b> >1,200 spikes <sup>46</sup>	<b>At 5 feet:</b> 1,986 <b>At 1 foot:</b> 1,871	<b>At 5 feet:</b> 1,502 <b>At 1 foot:</b> 2,244	<b>At 5 feet:</b> 574 (20 hour average) <b>At 1 foot:</b> 1,085 (20 hour average)	

**Table H-3** Results in room from off-gassing of carpet after vacuuming.

Scenario carpet	Lamp type	Maximum concentration of mercury (ng/m <sup>3</sup> )	Time above 300 ng/m <sup>3</sup> in minutes	Average mercury concentration for 1 hour (ng/m <sup>3</sup> )	Average mercury concentration for 8 hours (ng/m <sup>3</sup> )	Average mercury concentration for 24 hours (ng/m <sup>3</sup> )	Average mercury concentration for 24+ hours (ng/m <sup>3</sup> )
SLcarpet One trial at two heights <ul style="list-style-type: none"> <li>Carpet alone in room after SLvac4. Room ventilated prior to placing carpet square in room.</li> <li>Measure Continuously.</li> </ul>	“Brand B”  26w, 100 watt equivalent  Broken and cleaned up 7 days earlier.	<b>At 5 feet:</b> 1,186 <b>At 1 foot:</b> 5,679	<b>At 5 feet:</b> 652.42 <b>At 1 foot:</b> >1,600 spikes <sup>47</sup>	<b>At 5 feet:</b> 135 <b>At 1 foot:</b> 699	<b>At 5 feet:</b> 491 <b>At 1 foot:</b> 1,056	<b>At 5 feet:</b> 255 <b>At 1 foot:</b> 561	<b>At 5 feet:</b> 239 (26 hour average) <b>At 1 foot:</b> 548 (26 hour average)

<sup>46</sup> Still spiking over 400 ng/m<sup>3</sup>.<sup>47</sup> Still Spiking over 800 ng/m<sup>3</sup>.

**Table H-4. Lumex readings of carpet in ng/m<sup>3</sup> within an inch of surface**

Scenario	S5T3vac		S4T2		S4T3		SB-"Brand C" 60A		SK-"BrandB"90vac		SL- "BrandB"100vacnv	
Date of Breakage	6/4/2007		6/7/2007		6/8/2007		6/12/2007		6/26/2007		7/19/2007	
Floor Type	short carpet		long carpet (shag)		long carpet (shag)		short carpet		long carpet (shag)		short carpet	
Days after break	calm	agitated	calm	agitated	calm	agitated	calm	agitated	calm	agitated	calm	agitated
1			<20	108			532	1,418	551	3,623		
2							<20	1,820	<20	2,197		
3					<20	112	190	6,197	79	757		
4			<20	413	<20	55					vac	23-Jul
5			<20	129	<20	190					862	>50,000
6			22	273	<20	54	233	5,102	<20	462	690	37,000
7			<20	303			195	2,129	34	1,574	990	13,200
8	<20	345	<20	398							10,505	29,000
9	<20	380					<20	1,220	26	511		
10	<20	732					289	2,900	27	417		
11	<20	775									392	7,795
12			<20	511							912	21,070
13							215	947	<20	406	310	16,708
14	<20	4,240	25	512			351	6,531	26	243	2,116	12,170
15	21	1,714	28	1,083			1,004	9,197	23	278	2,691	7,382
16							207	4,697				
17	<20	1,940					544	1,983				
18	30	2,719	<20	1,096								
19			22	506							2,033	14,536
20			<20	1,025			233	570				
21	22	739	<20	618			195	5,694			433	4,183
22	<20	914	<20	1,640							551	7,456
Scenario	S5T3vac		S4T2		S4T3		SB-"Brand C" 60A		SK-"BrandB"90vac		SL- "BrandB"100vacnv	

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Days after break	calm	agitated	calm	agitated	calm	agitated	calm	agitated	calm	agitated	calm	agitated
23	62	1,888					1,803	13,010				
24	<20	1,387					1,686	12,750				
25	<20	332	<20	401								
26			<20	307								
27							253	2,317				
28	<20	2,165	61	1241			2,077	3,717				
29	<20	748	<20	392			959	2,297				
31	43	1,826										
32	89	1,061	<20	742								
33			26	543								
34			26	199								
35	<20	2,032										
36	30	967										
37	<20	790										
44							141	2,275				
45							265	4,593				
48							160	2,652				
49							102	3,301				
50							75	6,019				
51							226	1,876				
52	24	173					1,202	1,696				
56							318	540				
58							524	13,030				
59							49	456				
	Vacuumed 6/4/07 with Kenmore beater style canister											
	Vacuumed 7/2/07 with Hoover 400 non-beater canister											
	Vacuumed 7/3/07, 7/6/07, 7/9/07 and 7/10/07 with Hoover 850 beater style canister											
	Vacuumed 6/26/07 with Dirt Devil motorized sweeper											
	Vacuumed 7/19/07, 7/23/07, 7/24/07 and 7/25/07 with Hoover 850 beater style canister											

**Table H-5 Hoover Spectrum 850 (canister style), First Vacuum Scenario**

New vac bag before 3rd vacuuming									
Vacuum ran for approx 10 min. to get warm vac ("hot") numbers									
Measurements are ng/m <sup>3</sup> , within approx. an inch of vac part									
Vacuum Cleaner Part									
			Beaters			Plastic flexible hose	Inside vac	Metal wand	Bag
Date of Lamp Breakage	Date of Vacuuming	Date of Measurement	hot	cold	cold agitated	cold	cold	cold	Cold
		6/28/2007	160	<20					
		7/2/2007		95	711				
		7/3/07 before cleaning		24	347	<20	<20		
		7/3/07 after cleaning		<20	22				
6/12/2007	7/3/2007	7/3/2007 Right after vacuuming	>50000						
		7/3/07 after cleaning again		188	534	4,657		259	
		7/5/2007		75	990	17,540		142	
		7/6/2007 after cleaning again		<20	97	801		110	
	7/6/2007	7/6/07 after this vacuuming and before cleaning		137	537	14,670		943	972
		7/6/07 after cleaning		<20	296				
		7/6/07 PM		36	559	1,280	26	66	
		7/9/2007 after cleaning		64	125	550		<20	
	7/9/2007	7/9/07 after this vacuuming and before cleaning		75	81	666		1,553	417
		7/9/07 after cleaning again		81					
		7/10/2007		<20	22	528		26	<20
	7/10/2007	7/10/07 after 4th vacuum		87	74	1,319		193	188
		7/11/2007		20	43	214	29	25	

Wet wipes used frequently on vacuum

Vacuum Model #S3585, Serial # 089000014844, approx. 20 yrs. old

**Table H-6 Hoover Spectrum 850 (canister style), Second Vacuum Scenario**

This vacuum was used earlier in study								
Measurements are ng/m <sup>3</sup> , within approx. an inch of vac part								
			<b>Vacuum Cleaner Part</b>					
			<b>Beaters</b>		<b>Plastic hose</b>	<b>Inside vac</b>	<b>Metal wand</b>	<b>Bag</b>
<b>Date of Lamp Breakage</b>	<b>Date of Vacuuming</b>	<b>Date of Measurement</b>	cold	cold agitated	cold	cold	cold	cold
7/19/2007	7/19/2007							
	7/23/2007							
		7/24/2007 (ambient air = approx. 600)	1,043	1,755	>50,000			4,288
	7/24/2007							
		7/25/2007 before vac	763	1421				
	7/25/2007							
		7/26/2007	419		38,600		2,524	1,750
		7/26/07 after wiping down with wet wipes	4,941	13,400	5,968	280	84	
		7/27/2007	87	567	3807			
		7/30/2007	576	2,403	1,059			
		7/31/07(just removed from a container)	1,153	2,397	13,410			
		7/31/07 (after being out of container for 5 min.)	153	1,580	5,671			
		8/1/2007	42	563	4,739			
		8/2/2007	55	4043	5,566			
		8/3/2007	254	1,793	16,009			
		8/7/2007	597	544	3,328			
		8/9/2007	3,144	3,138	886			
		8/10/2007	848	3,198	804			

Vacuum not cleaned with wet wipes between vacuuming events on this table

Table H-7: Kenmore Canister Model 116, Serial D81401163, using vacuum bag 20 5033

Date			Beaters				Plastic hose		Inside vacuum		Metal wand		Filter			
Lamp Break	Vacuumping	Measurement	hot	hot agitate	cold	cold agitate	hot	cold	hot	col d	hot	cold	hot	hot agitate	cold	cold agitate
6/1/2007AM	6/1/07AM	6/1/2007AM (about 1hr. After 1st vacuuming and after wet wipe)	46		67		114	146	63	57	137	103	37		<20	
		6/1/2007 PM just before 2nd vacuuming			39			57		20		29			<20	
6/1/2007PM	6/1/2007PM	6/1/2007PM (about 1hr. After 2nd vacuuming and after wet wipe - same wet wipe as mentioned in 2nd note at bottom of this table)			148		70	355				83	39		33	
		6/4/2007 8:41AM before 3rd break			<20			52		40		41				
6/4/2007 9AM	6/4/2007 9AM	6/4/2007 approx. 600 sec. into run for this 3rd vac and after a wet wipe of beaters	3,277				18,260		3,152		1,824		<room air			
		6/4/2007 approx. 10AM	330		357		858	608	170	240	428	109	75		<20	
		6/4/2007 approx. 1PM	163		383		578	654	43	56	256	615	32		<20	
		6/4/2007 4:20PM			179			305		22		48			<20	
		6/5/07 7:30AM	113		149		353	164	<20	20	201	184	<20		<20	
		6/5/07 5PM	92		87		476	488	50	51	878	171	60		20	
		6/6/2007	45		32		2,094	460	58	<20	608	472	42		<20	
		6/7/2007	291	444	<20	462	1,254	596	158	<20	282	120	35	91	<20	112
		6/8/2007	72	354	<20	520	247	184	84	<20	59	38	33	445	<20	251

Date			Beaters				Plastic hose		Inside vacuum		Metal wand		Filter			
Lamp Break	Vacuuming	Measurement	hot	hot agitate	cold	cold agitate	hot	cold	hot	cold	hot	cold	hot	hot agitate	cold	cold agitate
		6/11/2007	32	136	26	263	372	511	68	<20	163	111	30	1,354	<20	454
		6/12/2007	36	725	39	105	1,709	759	60	23	122	200	26	899	<20	274
		6/13/2007	22	237	27	64	507	2,009	51	30	52	55	33	82	<20	326
		6/14/2007	26	538	21	642	603	451	38	48	127	336	29	136	<20	180
		6/15/2007	27	1,050	<20	145	2,413	856	37	<20	82	53	34	168	<20	472

lamps = Brand A 14w = 60w

Vacuum measurements with 3rd Lumex when room levels of mercury are low

Vacuum ran for approx 10 min. to get "hot" numbers

Measurements are ng/m3

Wet wipes used on vacuum

**Table H-8: Hoover Quick-Broom Supreme, bagless, "cyclonic action." Model # 52535, Serial # 1000216769**

Date			Floor attachment				Cup				Near Motor			
Lamp Breakage	Vacuuming	Measurement	hot	hot agitated	cold	cold agitated	hot	hot agitated	cold	cold agitated	hot	hot agitated	cold	cold agitated
6/25/2007	6/25/2007	6/25/2007, about 17 min. into run					5,526							
		6/26/2007, after wet wipe used on vac parts	<20	46	27	59	21	88	35	74	<20	25	39	31

**Table H-9: Hoover 400 Futura, Serial # 129300101061**

Date			Beaters (floor attachment)		Plastic flexible hose	Inside vac
Lamp Breakage	Vacuumping	Measurement	cold	cold agitated	cold	cold
6/4/2007	6/4/07 (flooring vacuumed with Kenmore canister)					
	7/2/07 (same flooring as above vacuumed this time with Hoover 400)	7/2/2007	194	347	172	184
		7/2/07 (after cleaning)	253			
		7/3/2007	<20	45	<20	<20

lamp=Brand B 26w = 90w

Vacuum measurements with 3rd Lumex when room levels of mercury are low

Vacuum ran for approx 10 min. to get "hot" numbers

Measurements are ng/m<sup>3</sup>

**Table H-10: Dirt Devil Power Sweep, purchased new June 4, 2007, wet wipes used on vac surfaces before each set of readings below except first row of results (results in ng/m<sup>3</sup>)**

Date of Lamp Breakage	Date of Vacuuming	Date of Measurement	Beater	Handle	Cup
6/5/2007AM	6/5/2007AM	6/5/2007AM (14.6 minutes into run)	370	220	249
		6/5/2007AM (about 1 hr. after vacuuming)	22	<20	21
6/5/2007PM	6/5/2007PM	6/5/2007PM (about 45 min. after 2nd vacuuming)	39	<20	20
6/6/2007	6/6/2007	6/6/2007	close to ambient air	close to ambient air	close to ambient air

Vacuum measurements with 3rd Lumex when room levels of mercury are low

lamps=Brand A 14w = 60w