

RADIATION SURVEY WORKSHEET

eXaminer Radiation Survey Information

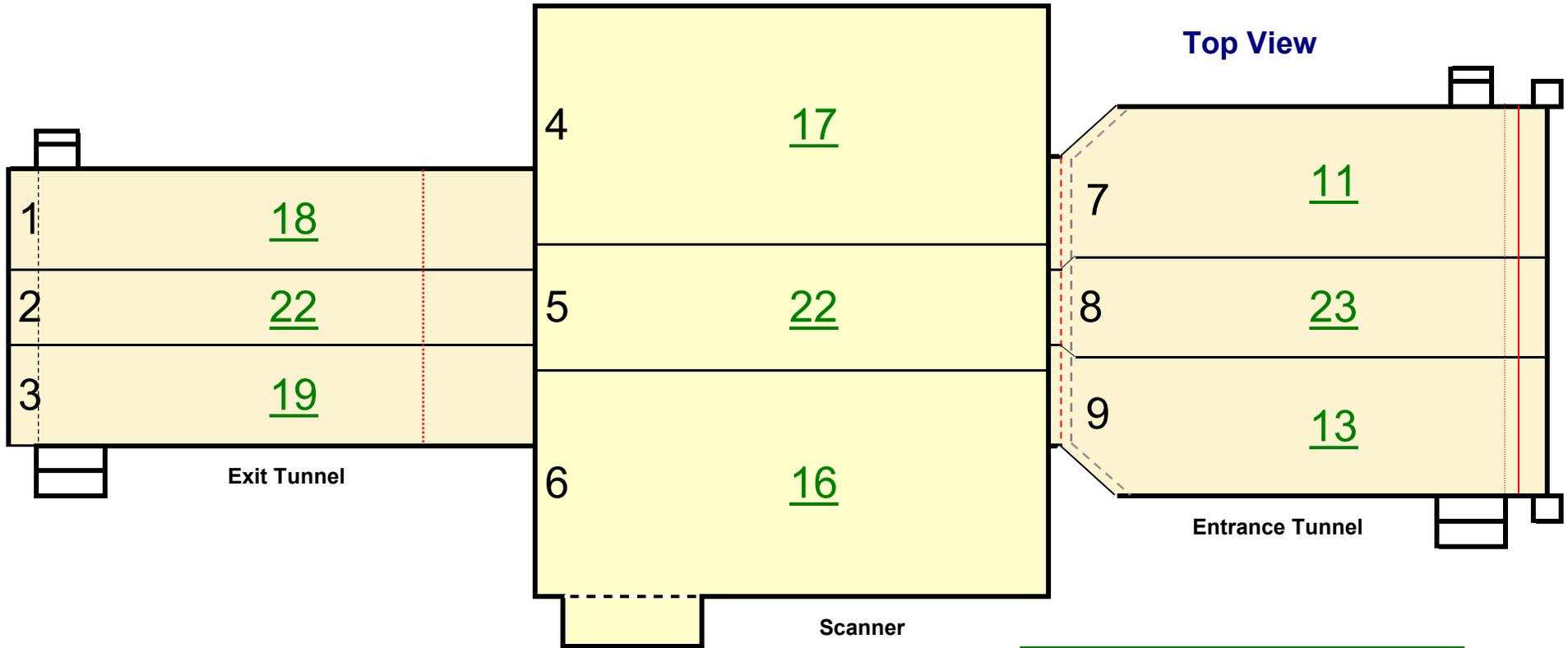
Airport: Houston International Airport	Scanner Location: Terminal E	Case#: IAH-C356975
Personnel Performing Radiation Survey: XXXXXXXXXX		Date Survey Performed: 3/7/2011
Scanner Serial Number: 6789	Entrance Tunnel Serial Number: 1160	Exit Tunnel Serial Number: 1118b
High Reading: 34	Average Reading: 16.89	Min. Reading: 6
High Reading: 124	Average Reading: 27.68	Min. Reading: 3
High Reading: 38	Average Reading: 19.96	Min. Reading: 6
Good	Good	Good
Radiation Meter: 451P	Type Meter: 451P	Meter Serial Number: 6334
		Calibration Due Date: September 15, 2011

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Complete Radiation Survey (CRS)	Record Voltage and Bean Current here:
Rename this Document before starting the Survey to: IAH-CRS-7MAR2011-6789	Voltage: <u>165</u> KV Beam Current: <u>10.0</u> mA
	Maximum Safe Readings Scanner 350 Tunnels 350 Curtains 350

Step:	Procedure	Expected results
1.	Set Up: Obtain Inovision Ion Chamber Survey Meter and in an area away from the scanners, turn on the meter by pressing the On-Off key. Wait approx. 4 minutes for the meter to run through the initialization procedure.	The GUI will be visible and will indicate Standby. After the radiation meter initialization procedure is complete the meter will be reading less than 20 μ R/hr and the meter will be ready for use.
2.	The scanner will be in Standby. Change the conveyor switch on the scanner to Stop. Change the exit tunnel conveyor switch to Off to stop the conveyor.	Both conveyors should be stopped.
3.	On the GUI dropdown screen, select diagnostic, followed by Radiation Survey. A radiation survey window will appear. Click "Turn On" button to turn x-rays on. Turn on x-rays prompt will say "Place survey bag on belt". Place IQTK bag on Entry Conveyor Belt.	A window indicating "Radiation Survey" will appear.
4.	When "Bag in survey position" appears, go to the FCC monitor and select "2" then <Enter>, verify and record the voltage and current in the displayed on the FCC screen in the planks provided above.	The high voltage is between 144KV and 176KV . The current is between 8.8mA and 10.6mA and the scanner X-ray indicator lights are on.
5.	Survey one of the areas indicated by the boxes in Appendix A2. Record the highest reading within the area. Repeat the process until all areas are surveyed and readings are recorded.	As the survey is conducted, the radiation meter indicates the degree of radiation emission.
6.	Review all radiation data sheets for high readings.	Readings shall not exceed 350 uR/hr in any box.
7.	After radiation survey is complete, click on "Start Conveyor" button on the GUI. Click the "Turn Off" button to turn off x-rays. Next click "Done". The IQTK bag will eject from exit tunnel. EDAC will reboot.	IQTK bag is ejected and scanner reboots.
7.	Visually inspect the entrance and exit of the system for X-ray caution hazard signs.	X-ray hazard signs reading "Do not insert any part of the body when system is energized" are posted at entrance and exit of system.
9.	Fill out the eXaminer radiation sticker and adhere to to the frame of the eXaminer under door #5 on the left side of the scanner.	Readings shall not exceed 350 uR/hr in any box.

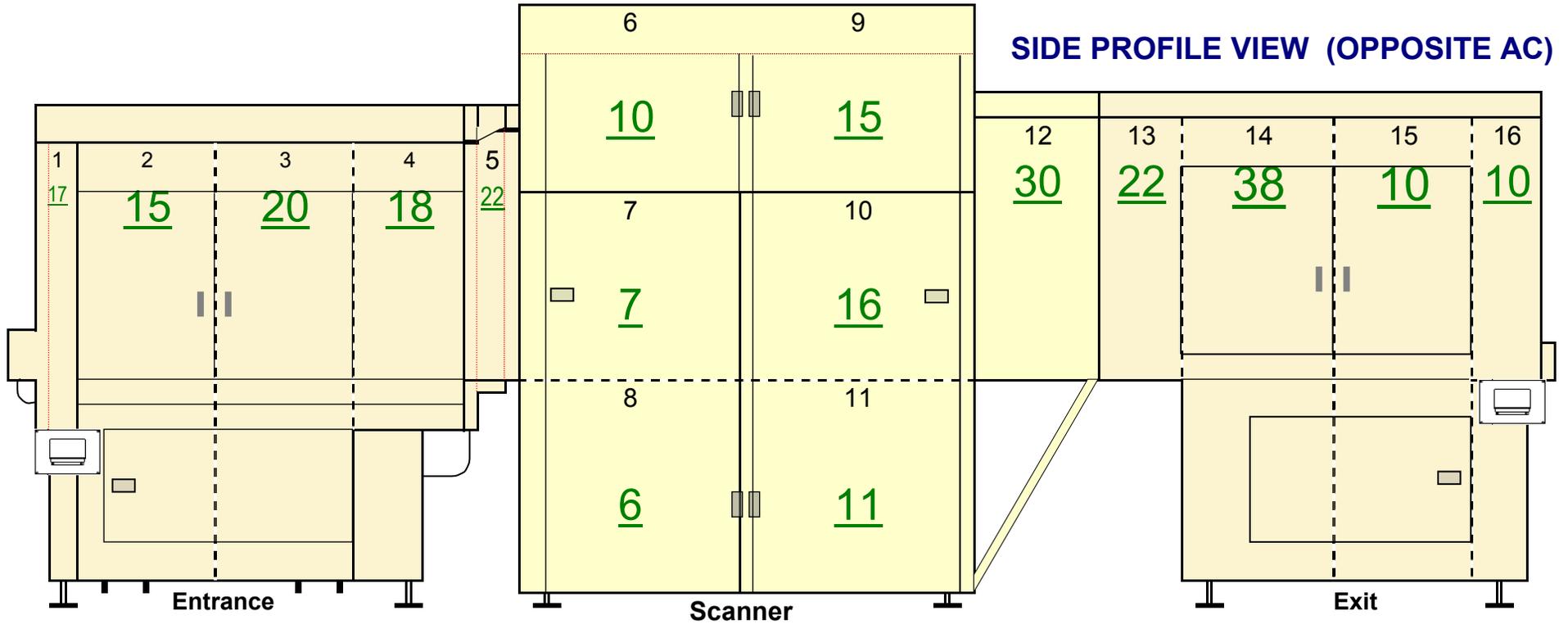
RADIATION SURVEY WORKSHEET



Top View			
Scattered Radiation Measurement Points Worksheet			No PROBLEM
Record highest reading per panel		μR/Hr	
1	Exit Conveyor Top Panel	18	
2	Exit Conveyor Top Panel	22	
3	Exit Conveyor Top Panel	19	
4	Scanner Conveyor Top Panel	17	
5	Scanner Conveyor Top Panel	22	
6	Scanner Conveyor Top Panel	16	
7	Entrance Conveyor Top Panel	11	
8	Entrance Conveyor Top Panel	23	
9	Entrance Conveyor Top Panel	13	

Highest Reading	23
Average Reading	18
Lowest Reading	11

RADIATION SURVEY WORKSHEET

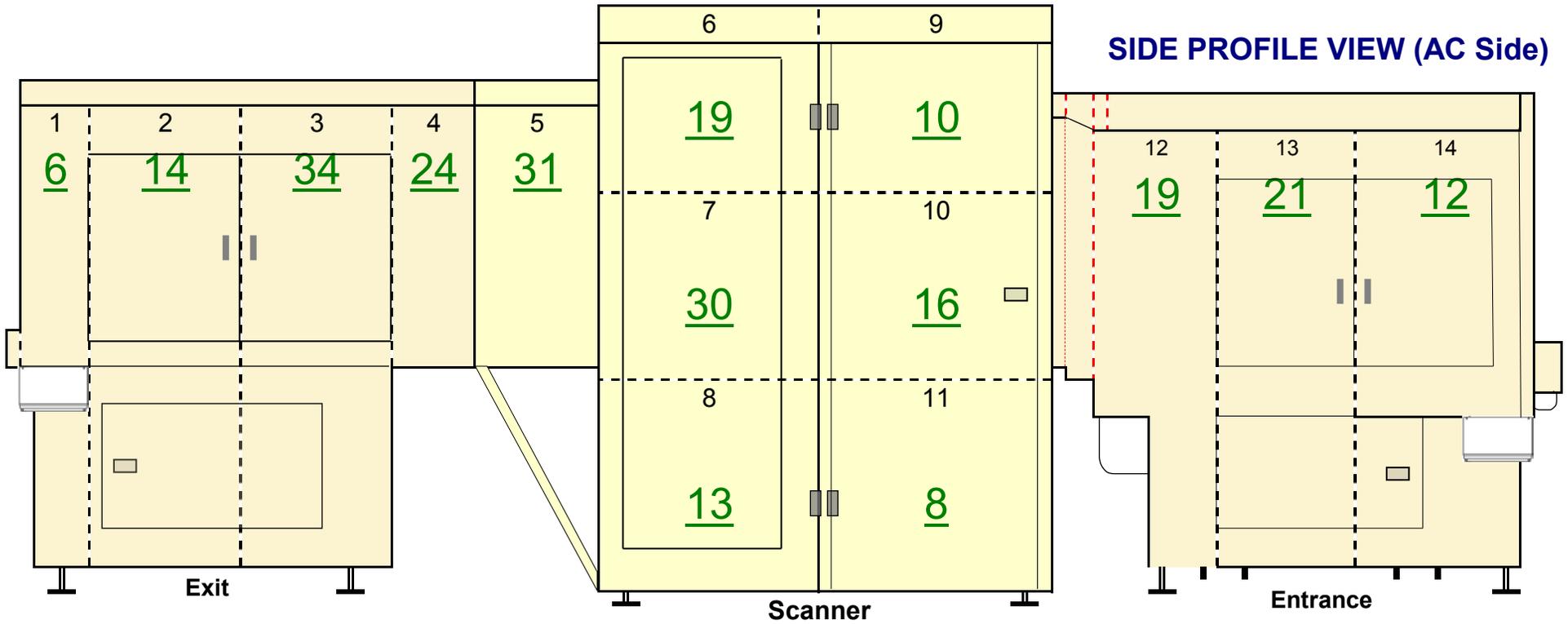


SYSTEM - SIDE PROFILE VIEW (Opposite AC Side)		
Scattered Radiation Measurement Points Worksheet		
	Record highest reading per panel	μR/Hr
1	Entrance Conveyor Panel	17
2	Entrance Conveyor Panel	15
3	Entrance Conveyor Panel	20
4	Entrance Conveyor Panel	18
5	Entrance Conveyor / Scanner Panel	22
6	Upper Scanner Panel	10
7	Middle Scanner Panel	7
8	Lower Scanner Panel	6
9	Upper Scanner Panel	15
10	Middle Scanner Panel	16
11	Lower Scanner Panel	11
12	Exit Conveyor / Scanner Panel	30
13	Exit Conveyor Panel	22
14	Exit Conveyor Panel	38
15	Exit Conveyor Panel	10
16	Exit Conveyor Panel	10

GOOD

Highest Reading	38
Average Reading	17
Low Reading	6

RADIATION SURVEY WORKSHEET



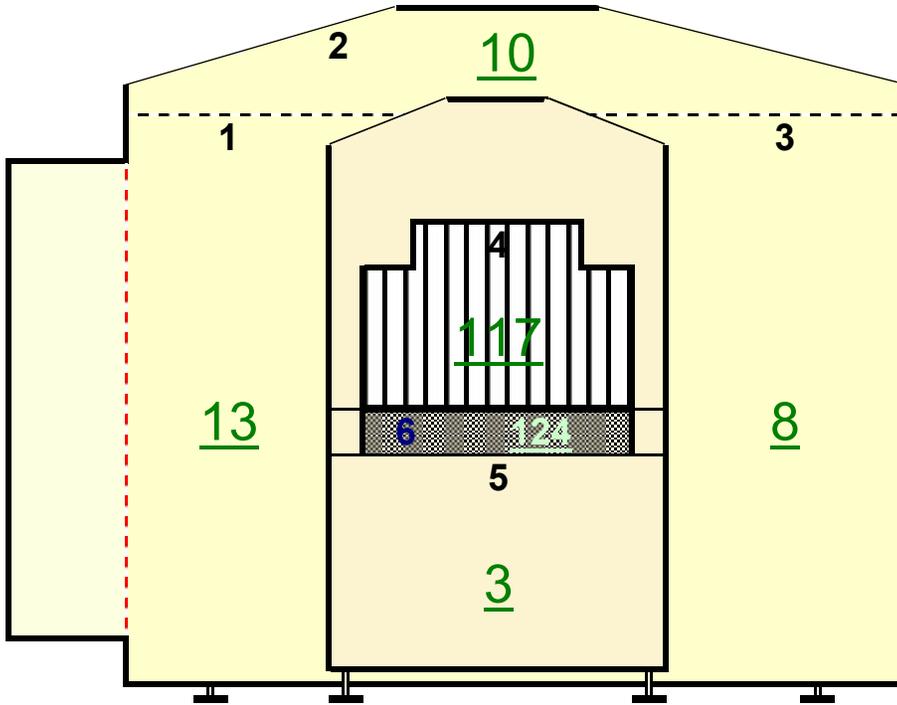
SYSTEM - SIDE PROFILE VIEW (AC Side)		
Scattered Radiation Measurement Points Worksheet		No PROBLEM
Record highest reading per panel	μR/Hr	
1	Exit Conveyor Panel	6
2	Exit Conveyor Panel	14
3	Exit Conveyor Panel	34
4	Exit Conveyor Panel	24
5	Exit Conveyor / Scanner Panel	31
6	Upper Scanner Pane	19
7	Middle Scanner Panel	30
8	Lower Scanner Panel	13
9	Upper Scanner Panel	10
10	Middle Scanner Panel	16
11	Lower Scanner Panel	8
12	Entrance Conveyor / Scanner Panel	19
13	Entrance Conveyor Panel	21
14	Entrance Conveyor Panel	12

GOOD

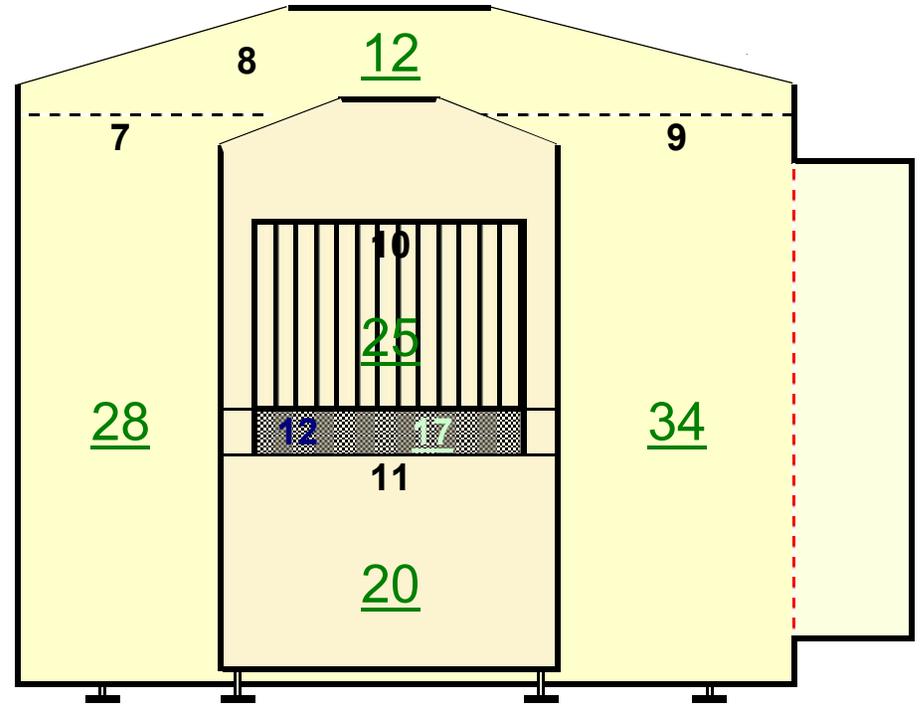
Highest Reading	34
Average Reading	18
Low Reading	6

RADIATION SURVEY WORKSHEET

SYSTEM - FACES (End Views)



eXaminer entrance



eXaminer exit

SYSTEM - FACES (End Views)		
Scattered Radiation Measurement Points Worksheet		
Record highest reading per panel		$\mu\text{R}/\text{Hr}$
1	Scanner Panel	13
2	Scanner Top Panel	10
3	Scanner Panel	8
4	Belt Entrance	117
5	Entrance Lower Panel	3
6	Belt Lower Fascia Cover Entrance	124
7	Scanner Panel	28
8	Scanner Top Panel	12
9	Scanner Panel	34
10	Belt Exit	25
11	Exit Lower Panel	20
12	Belt Lower Fascia Cover Exit	17

GOOD

Highest Reading	124
Average Reading	34
Low Reading	3