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ACQUISITIONS

FINAL EVALUATION REPORT  
OF THE

"HIGH INTENSITY STREET LIGHTING PROGRAM" -

SUBGRANT NUMBER SC-74-C-B1-6-239-S

MICROFICHE

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## SUMMARY OF FINDINGS

Over the twelve month period of July 1975 through June 1976, the following results have been reflected from evaluation studies of the impact of high intensity street lighting on attitudes of residents of the area, on F.P.U. views of operational procedures in the street lighting area, and on crime levels.

### One

Residential dwellers in the high intensity street lighting area feel more safe from crime since installation of the high pressure sodium vapor lighting.

### Two

Residential dwellers and business owners in the street lighting area prefer high pressure sodium vapor lighting to the former mode of street illumination.

### Three

The effect of high intensity lighting on the Part I crime categories of auto theft, assault, burglaries and robberies, as monitored in this project, has not indicated the crime reduction objectives anticipated.

### Four

The Harrisburg Foot Patrol Unit views high intensity street lighting as an effective aid in the performance of police operations under the high visibility mode of patrol.

### Five

The Harrisburg Foot Patrol Unit considers the effect of high intensity street lighting as contributing to the safety of the officer during field operations.

## Six

Businessmen feel that their establishment is more secure at night since implementation of high intensity lighting.

## THE PROJECT

In response to a rising crime level in the city, the Harrisburg Police Department investigated the feasibility of implementing an improved high intensity street lighting project to reduce selected Part I crimes in a section of the Allison Hill area. The choice of high intensity lighting was high pressure sodium vapor luminaries since it provides increased illumination and had been readily accepted by residents of other cities. LEAA funding for a high intensity street lighting project was provided through the Pennsylvania Governor's Justice Commission in January 1975. Installation of 229 high pressure sodium vapor luminaries was completed in May 1975 in a designated area of the Allison Hill section of the city.

## THE STREET LIGHTING CONCEPT

The prevalent assumption of high intensity street lighting on crime commission is one of direct causal impact of lighting on crime levels. The linkage between high intensity street lighting and crime commission has been explained in terms of either: (1) restricting the activities of the person contemplating the criminal event, or (2) by providing increased awareness of police presence and operations.

## THE EXPERIMENTAL AREA

The street lighting area is primarily residential with small commercial establishments. The area is in a state of transition with movement of a

large number of the original population to the suburbs and exhibiting a concurrent influx into the area of minority groups. The Allison Hill section is one of the two high crime areas in the City of Harrisburg. Calls for police services constitute a high volume of police workload in both the street lighting and displacement areas. The police reporting grids utilized in measuring crime levels in the high intensity street lighting area are 5-06, 5-07, 5-08, 5-09, 5-12, 5-13, and 5-14.

### HYPOTHESES

The hypothesis stated in the Subgrant Application is that high intensity street lighting will reduce crime levels for robberies, burglaries, auto theft and assaults in the area compared to the same period during the previous year. Based upon the experience of other cities utilizing high intensity street lighting, the Harrisburg Police Department set the following specific objectives.

1. A 20% reduction in criminal assaults on civilians.
2. A 20% reduction in robberies.
3. A 10% reduction in burglaries.
4. A 5% reduction in assaults on police officers.
5. A 5% reduction in auto thefts.

A second hypothesis was that high intensity street lighting would result in a lessening of fear of crime by the residents of the street lighting area.

### EXPERIMENTAL DESIGN

In order to determine the effect of high intensity street lighting on crime, measurements of crime levels were compared in the experimental area

(the high intensity street lighting area), the displacement area (a contiguous area to the experimental area), and a control area (remaining areas of the city).

Crime data for all assaults, auto thefts, robberies and burglaries were collected in the street lighting area during the time period July 1975 through June 1976. A comparative time period necessary to record percentage changes in the street lighting area for target crimes consisted of July 1974 through June 1975. Data was collected for the hours of 8:00 p.m. to 4:00 a.m. (2001-0400 hours) for both period one and period two. The two twelve month periods encompassed sufficient time passage and crime levels to smooth out chance variation in crime level occurrence.

In order to separate the effect of high intensity street lighting on crimes from effects that possibly occur city wide, a control area was defined by the Department. The control area consisted of other areas of the city after factoring out the street lighting and displacement areas. Crime occurrence was measured on a monthly basis for the same time periods for target crimes in the control area.

Since the possibility exists that crime prevented in the street lighting area will be transferred to adjoining areas, the Department defined a contiguous area to measure any displacement effects. The displacement area consists of police reporting grids 5-04, 5-05, 5-10, 5-11, 5-15, and 5-16. Crime data was collected for the same time periods and hours to monitor any possible displacement effect from the street lighting area.

FEAR OF CRIME

Concurrent with the expectation that high intensity street lighting would reduce crime occurrence was the hypothesis that the residents fear of crime would be reduced through high intensity lighting. A questionnaire was developed by the Department to measure the residents relative change of felt security provided by the street lighting project.

The Bureau of Police developed a questionnaire entitled "Business Questionnaire". This questionnaire was designed to reflect small business owners perception of the security provided to their business establishment by high intensity street lighting. Included in this questionnaire were items designed to reflect the businessman's acceptance of high pressure sodium vapor lighting as a street lighting source when compared to the older modes of lighting in the area.

An additional questionnaire entitled, "Residents Questionnaire" was developed to provide information on street lighting area residents perception of the change in their sense of security provided by high intensity street lighting. Also included in this questionnaire were items to determine the residents comparison of high pressure sodium vapor lighting to the older methods of providing street lighting.

QUESTIONNAIRE RESULTS

Business Questionnaire

The Business Questionnaire was distributed in January 1976. The questionnaire consisted of five yes/no questions and one open ended comment item. The two main areas of measurement pertinent to evaluation of high intensity street lighting were the change in security of their business

establishment since high intensity lighting implementation (more-less-same) and attitude towards sodium vapor illumination as the mode of street lighting (like-dislike-no preference). (See Appendix C for the Business Questionnaire items and the collection of responses).

Of the nine questionnaires that were returned eight respondents (88%) felt that the new street lighting had improved the security of their establishment during night hours. The responses to question number one reflecting changes in security of their business establishment indicates that high intensity street lighting is perceived as an effective means of providing increased security to the place of business during night hours.

Additionally, in response to question number two, the respondents expressed a preference for high pressure sodium vapor for street illumination when compared to the older mode of lighting in the area. All of the respondents answered that they preferred the new lighting to the mercury vapor lighting. The respondents indicated in question three that sodium vapor illumination would benefit the entire city.

#### Residents Questionnaire

The Residents Questionnaire was distributed in January 1976. The questionnaire consisted of twelve items. Twenty-five questionnaires were returned (see Appendix C, The Residents Questionnaires for a list of items and tabulated responses to each item).

Eighty percent of the respondents (20 of the returned 25 questionnaires) stated that they felt more secure since installation of high intensity street lighting. Three respondents indicated that they felt no change in safety with two responses blank (question number three).



Twenty respondents stated that they felt their neighbors felt more safe since the advent of improved street lighting (question number three). Twenty-four responses (96%) stated that improved lighting would benefit other areas of the city.

The above responses indicate that a majority of the residents interviewed through this questionnaire feel more safe in their homes since installation of the sodium vapor luminaries. Freedom from fear of crime is a necessary ingredient in continued community support for efforts designed to reduce crime.

Twenty-two of the twenty-five respondents (88%) preferred improved lighting to the older mode of illumination (question five).

The Residents and Business Questionnaires indicate that the community prefers high pressure sodium vapor lighting to the older modes of lighting. Sodium vapor lighting appears to be highly acceptable to community members. High intensity street lighting, as suggested by questionnaire responses, increases the feeling of security by the community from criminal activity. For this reason the high intensity street lighting project has benefitted the citizens of the street lighting area.

#### THE EFFECT OF HIGH INTENSITY STREET LIGHTING ON HIGH VISIBILITY POLICE OPERATIONS

The establishment of high intensity street lighting was expected to effect the operational procedure of the Foot Patrol Unit in the street lighting area. Since the operational concept of the F.P.U. is based upon high visibility, the improved street lighting was expected to be confluent with the functioning of the concept. In an effort to monitor any effect of

high intensity street lighting on the operational procedures of the Unit, a questionnaire consisting of twenty-one items was distributed to sixteen members of the F.P.U. in January 1976. (See F.P.U. Questionnaire, Appendix C).

The areas monitored were factors pertaining to the operational aspects of the high visibility concept (7 questions); the safety of the officer (6 questions); vehicular and pedestrian traffic (3 questions); relations between F.P.U. and the community (1 question); and open ended items reflecting drawbacks and benefits of high intensity lighting (3 questions).

The series of questions attempting to elicit the relationship of sodium vapor lighting to high visibility operations indicate that improved street lighting had aided in emphasizing the high visibility concept (reference questions #1, 2, 5, 6, 7, 11, 12 on attached questionnaire pages in Appendix C). Responses to the items show that improved street lighting may have a positive effect on reaction response, distance visibility, visibility of artifacts and persons, and driving motorcycles.

Responses indicate that improved street lighting is responsible for giving the F.P.U. officers an awareness of greater safety than the old lights. This condition of safety pertains to the safety of fellow officers, investigation of suspicious activity, assistance to fellow officers, as well as personal feelings of safety for the officer (reference questions #3, 4, 8, 9, 10, 13).

Responses from the F.P.U. questionnaire indicate the F.P.U. officers perceive little change in vehicular traffic patterns in the area since the street lights were installed (question #14). F.P.U. responses to question number 16 pertaining to any increase in pedestrian traffic with 44% of the

responses blank or no opinion or negative indicates that a large segment of the Unit is unsure of any increase in foot traffic. The question pertaining to traffic safety shows 81% of the F.P.U. members view the sodium vapor lighting as increasing traffic safety.

Responses to question number 17 stating the effect of lighting improving community relations shows that 68% of F.P.U. members believe that lighting has improved the relations between the Unit and the community.

All F.P.U. members indicate that installing improved lighting to other areas of the city would aid in promoting efficient police functioning (question #18).

Questions number 19, 20 and 21 of the questionnaire were open ended items relating to the benefits and drawbacks to police operations. Totalling these responses results in more than 16 responses to a question since the officers listed several items under the question. Responses indicating increased visibility as an aid in high visibility operations comprised 25 out of 29 responses to question number 19. Twelve responses were listed out of 21 responses to question 20 pertaining to drawbacks, that the officer was more visible due to the lighting.

Questions 19 and 20 indicate that sodium vapor street lighting strengthens attributes pertaining to the high visibility concept of police operations. Since the officers are more visible they can be more readily seen and operate in a manner consistent with the high visibility role of the F.P.U.

The above questionnaire results indicate that the installation of high intensity street lighting has been a contributing factor aiding the Foot Patrol Unit's implementation of the high visibility mode of operation.

CRIME DATA COLLECTION

Due to the relative small number of assaults on police officers in the street lighting area (compared to other Part I categories), it was advantageous to include assaults on officers into all assaults with a corresponding reliability of the comparison findings as the assault population was increased. All burglaries, all robberies, and all auto thefts were collected on a monthly basis. This data has been compiled into a yearly total for the pre and during comparison time period for the experimental area, the control area and the displacement area. Percentage changes from year one to year two were calculated for all three areas.

ANALYSIS OF CRIME DATA

The comparison of the four crime categories in the street lighting area to the control area does not show significant impact upon crime levels in the area.

Comparison results between the street lighting area and the control area as measured by yearly percentage changes are as follows.

	<u>Street Lighting Area</u>	<u>Control Area</u>
Robbery	-8.7%	-8.6%
Assault	+9.4%	0.0%
Burglary	+32.9%	+29.2%
Auto Theft	+2.4%	+0.7%
Total four crimes	+14.4%	+12.3%

NOTE: See Appendix A and B for graphs and tables of crime activity in the street lighting and control areas.

TABLE ONE

STREET LIGHTING AREA\*  
(2001-0400 HOURS)

	<u>July</u>	<u>Aug</u>	<u>Sept</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>June</u>	<u>12 mo. Total</u>	<u>% Change</u>
<u>Robbery</u>														
(July 1975 - April 1976)	1	4	0	5	1	3	1	0	0	1	4	1	21	-8.7
(July 1974 - April 1975)	1	6	1	4	3	1	2	1	1	1	1	1	23	
<u>All Assaults</u>														
(July 1975 - April 1976)	7	10	8	1	4	5	7	7	8	6	5	2	70	+9.4
(July 1974 - April 1975)	8	11	9	8	2	2	3	1	5	2	2	11	64	
<u>Burglary</u>														
(July 1975 - April 1976)	14	7	6	8	8	5	4	5	7	7	11	15	97	+32.9
(July 1974 - April 1975)	8	4	6	8	5	4	9	3	4	3	11	8	73	
<u>Auto Theft</u>														
(July 1975 - April 1976)	2	3	3	2	2	4	10	5	3	2	4	2	42	+2.4
(July 1974 - April 1975)	6	4	2	6	5	7	3	0	0	2	0	6	41	
<u>All Target Crimes</u>														
(July 1975 - April 1976)	24	24	17	16	15	17	22	17	18	16	24	20	230	+14.4
(July 1974 - April 1975)	23	25	18	26	15	14	17	5	10	8	14	26	201	

\*This area comprises Grids 5-06, 5-07, 5-08, 5-09, 5-12, 5-13, 5-14

TABLE TWO  
DISPLACEMENT AREA\*  
(2001-0400 HOURS)

	<u>July</u>	<u>Aug</u>	<u>Sept</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>June</u>	<u>12 mo. Total</u>	<u>% Change</u>
<u>Robbery</u>														
(July 1975 - April 1976)	1	1	2	4	0	3	0	1	1	0	1	1	15	+7.1
(July 1974 - April 1975)	0	2	2	1	3	1	1	1	1	2	1	0	14	
<u>All Assaults</u>														
(July 1975 - April 1976)	2	3	1	5	1	1	0	2	5	0	4	1	25	-24.2
(July 1974 - April 1975)	7	1	5	4	3	3	2	2	1	1	3	1	33	
<u>Burglary</u>														
(July 1975 - April 1976)	5	6	5	8	11	4	9	6	2	2	7	8	73	+46.0
(July 1974 - April 1975)	2	1	4	5	2	2	5	6	1	6	10	6	50	
<u>Auto Theft</u>														
(July 1975 - April 1976)	2	3	1	1	3	1	3	2	0	3	4	1	24	+20.0
(July 1974 - April 1975)	4	4	0	0	2	2	2	2	0	1	2	0	20	
<u>All Target Crimes</u>														
(July 1975 - April 1976)	10	13	9	18	15	9	12	11	8	5	16	11	137	+17.1
(July 1974 - April 1975)	13	8	11	10	9	8	10	11	4	10	16	7	117	

\*This area comprises Grids 5-04, 5-05, 5-10, 5-11, 5-15, 5-16

TABLE THREE

COMBINED STREET LIGHTING GRIDS AND  
DISPLACEMENT GRIDS  
(2001-0400 HOURS)

	<u>July</u>	<u>Aug</u>	<u>Sept</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>June</u>	<u>12 mo. Total</u>	<u>% Change</u>
<u>Robbery</u>														
(July 1975 - April 1976)	2	5	2	9	1	6	1	1	1	1	5	2	33	-2.7
(July 1974 - April 1975)	1	8	3	5	5	2	3	2	2	3	2	1	37	
<u>All Assaults</u>														
(July 1975 - April 1976)	9	13	9	6	5	6	7	9	13	6	9	3	95	-2.1
(July 1974 - April 1975)	15	12	14	12	5	5	5	3	6	3	5	12	97	
<u>Burglary</u>														
(July 1975 - April 1976)	19	13	11	16	19	9	13	11	9	9	18	23	170	+38.2
(July 1974 - April 1975)	10	5	10	13	7	6	14	9	5	9	21	14	123	
<u>Auto Theft</u>														
(July 1975 - April 1976)	4	6	4	3	5	5	13	7	3	5	8	3	66	+8.2
(July 1974 - April 1975)	10	8	2	6	7	9	5	2	1	3	2	6	61	
<u>All Target Crimes</u>														
(July 1975 - April 1976)	34	37	26	34	30	26	34	28	26	21	40	31	367	+15.4
(July 1974 - April 1975)	36	33	29	36	24	22	27	16	14	18	30	33	318	

TABLE FOUR

CONTROL AREA (REMAINDER OF CITY)\*  
(2001-0400 HOURS)

	<u>July</u>	<u>Aug</u>	<u>Sept</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>June</u>	<u>12 mo. Total</u>	<u>% Change</u>
<u>Robbery</u>														
(July 1975 - April 1976)	13	25	22	21	11	17	13	3	12	14	16	13	180	-7.7
(July 1974 - April 1975)	18	33	25	18	10	15	15	12	10	7	16	16	195	
<u>All Assaults</u>														
(July 1975 - April 1976)	29	30	34	35	37	34	32	27	16	33	37	30	374	0.0
(July 1974 - April 1975)	26	45	31	27	24	44	24	21	33	38	26	35	374	
<u>Burglary</u>														
(July 1975 - April 1976)	76	74	82	93	61	68	73	54	64	54	90	95	884	+28.1
(July 1974 - April 1975)	67	54	87	41	49	58	57	51	37	52	70	67	690	
<u>Auto Theft</u>														
(July 1975 - April 1976)	14	17	15	19	13	15	23	16	17	15	26	16	206	+1.5
(July 1974 - April 1975)	20	9	15	22	12	13	11	18	18	18	26	21	203	
<u>All Target Crimes</u>														
(July 1975 - April 1976)	132	146	153	168	122	134	141	100	109	116	169	154	1,644	+12.4
(July 1974 - April 1975)	131	141	158	108	95	130	107	102	98	115	138	139	1,462	

\*Does not include street lighting area and displacement area grids.



TABLE FIVE  
CITY WIDE (ALL GRIDS)  
TWENTY-FOUR HOURS BASIS

	<u>July</u>	<u>Aug</u>	<u>Sept</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>June</u>	<u>12 mo. Total</u>	<u>% Change</u>
<u>Robbery</u>														
(July 1975 - April 1976)	38	58	47	56	46	65	37	48	51	44	47	38	575	-3.8
(July 1974 - April 1975)	42	62	55	58	34	63	85	61	33	33	33	39	598	
<u>All Assaults</u>														
(July 1975 - April 1976)	91	80	115	94	93	81	84	81	72	92	104	75	1,062	-6.0
(July 1974 - April 1975)	97	121	130	96	61	98	73	77	93	102	79	103	1,130	
<u>Burglary</u>														
(July 1975 - April 1976)	214	219	241	248	204	233	236	190	182	173	284	214	2,638	+29.5
(July 1974 - April 1975)	202	179	184	177	123	184	180	151	137	165	188	167	2,037	
<u>Auto Theft</u>														
(July 1975 - April 1976)	31	39	34	40	29	42	73	47	52	44	66	41	538	-13.9
(July 1974 - April 1975)	60	41	61	71	56	58	45	59	32	44	51	47	625	
<u>All Target Crimes</u>														
(July 1975 - April 1976)	374	396	437	438	372	421	430	366	357	353	501	368	4,813	+9.6
(July 1974 - April 1975)	401	403	430	402	274	403	383	348	295	344	351	356	4,390	

TABLE SIX  
CITY-WIDE (ALL GRIDS)  
(2001-0400)

	<u>July</u>	<u>Aug</u>	<u>Sept</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>June</u>	<u>12 mo. Total</u>	<u>% Change</u>
<u>Robbery</u>														
(July 1975 - April 1976)	15	30	24	30	12	23	14	4	13	15	17	15	212	-8.6
(July 1974 - April 1975)	19	41	28	23	15	17	18	14	12	10	18	17	232	
<u>All Assaults</u>														
(July 1975 - April 1976)	38	43	43	41	42	40	39	36	29	39	48	33	471	0.0
(July 1974 - April 1975)	41	57	45	39	29	49	29	24	39	41	31	47	471	
<u>Burglary</u>														
(July 1975 - April 1976)	95	87	93	109	80	77	86	65	73	63	108	118	1,054	+29.2
(July 1974 - April 1975)	77	59	97	54	56	64	71	60	42	61	91	84	816	
<u>Auto Theft</u>														
(July 1975 - April 1976)	18	23	19	22	18	20	30	23	20	20	34	19	266	+0.7
(July 1974 - April 1975)	30	17	17	28	19	22	16	20	19	21	28	27	264	
<u>All Target Crimes</u>														
(July 1975 - April 1976)	166	183	179	202	152	160	169	128	135	137	207	185	2,003	+12.3
(July 1974 - April 1975)	167	174	187	144	119	152	134	118	112	133	168	175	1,783	

TABLE SEVEN

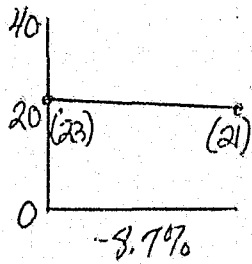
TARGET CRIMES IN THE STREET LIGHTING AREA\*  
 EXACT BOUNDARIES  
 (2001-0400 HOURS)

	<u>July</u>	<u>Aug</u>	<u>Sept</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>June</u>
Robbery	1	4	0	4	1	1	0	0	0	1	0	0
All Assaults	3	7	1	0	1	2	0	1	3	1	1	0
Burglary	12	2	2	5	4	2	1	2	3	4	3	2
Auto Theft	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total	17	13	3	9	6	5	3	3	7	6	4	2
Arrests	6	14	8	4	7	8	7	9	13	18	16	9

\*This area represents the actual lighted area. Since crime data relative to this area was not available in 1974, all comparisons used in this evaluation report utilized grids 5-06, 5-07, 5-08, 5-09, 5-12, 5-13, and 5-14 as the boundary for defining the street lighting area. The grid area is larger than the actual street lighting area.

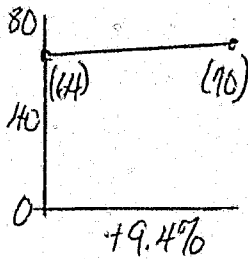
GRAPH I  
12 MONTHS TOTALS  
(2001-0400 HOURS)

ROBBERY  
\*A \*\*B



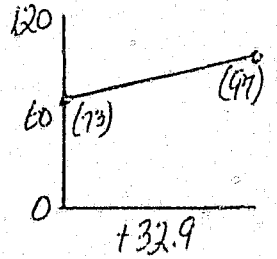
ASSAULT

A B



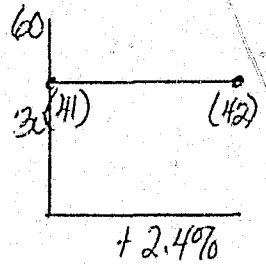
BURGLARY

A B



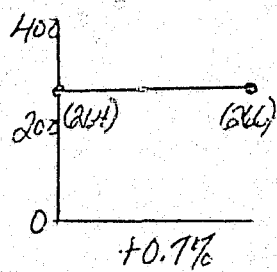
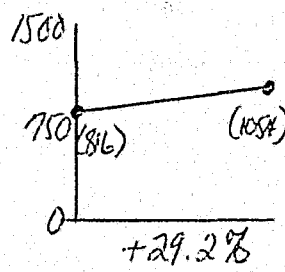
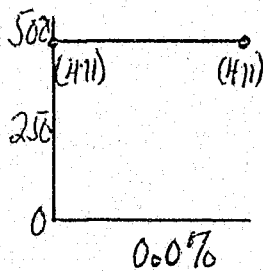
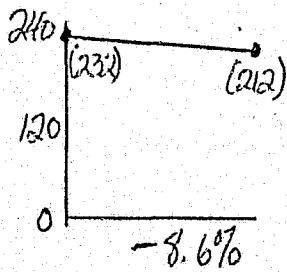
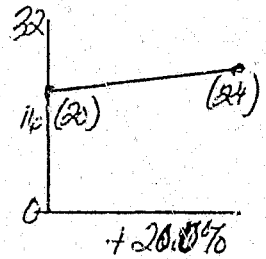
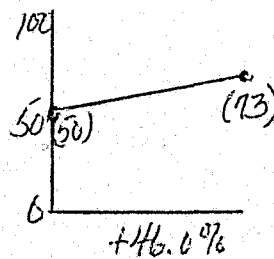
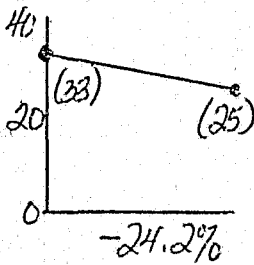
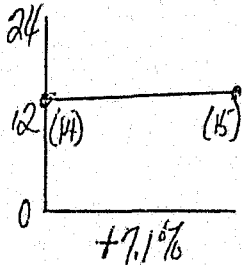
AUTO THEFT

A B



NET  
STING  
6A

PLACEMENT  
A



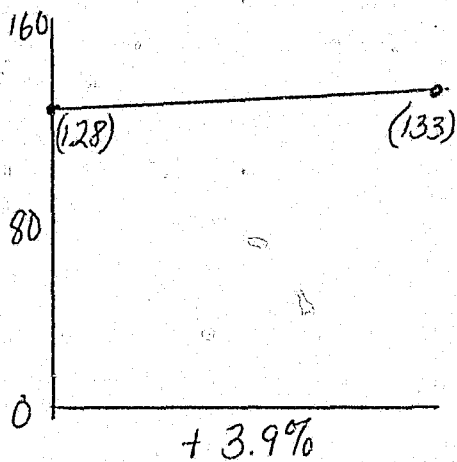
\* (JULY 1974 - JUNE 1975)  
\*\* (JULY 1975 - JUNE 1976)

GRAPH II  
12 MONTH TOTALS  
(2001-0400 HOURS)

TOTAL FOR ROBBERY, ASSAULT, AUTO THEFT

\*A

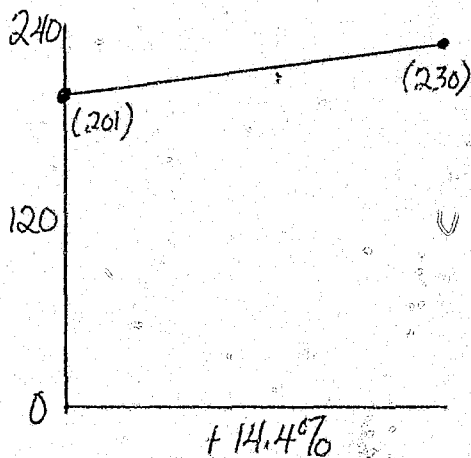
\*\*B



ALL TARGET CRIMES

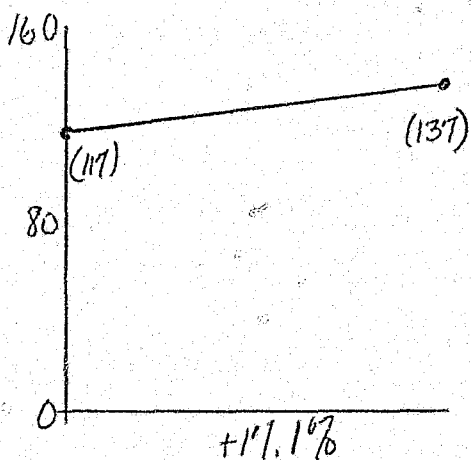
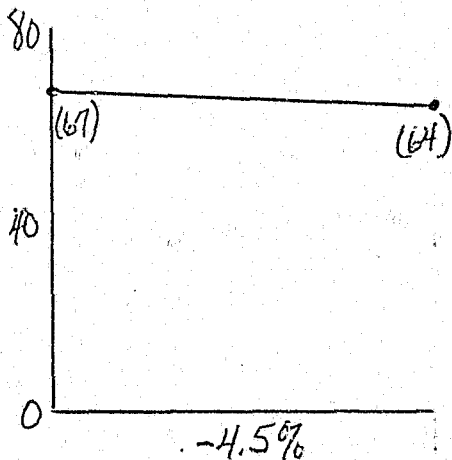
A

B

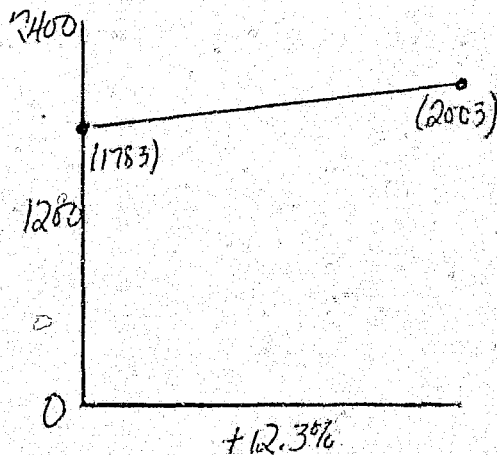
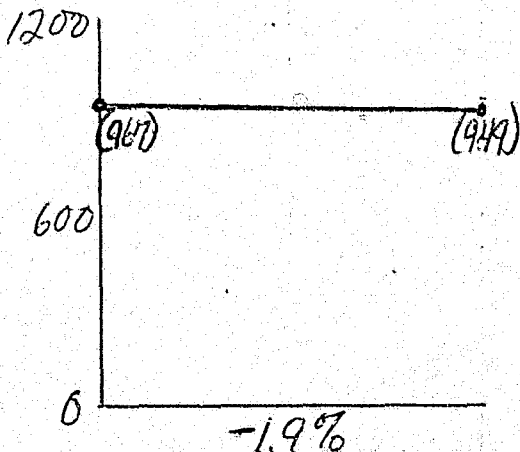


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## RESIDENT QUESTIONNAIRE

In March of 1975, installation of sodium vapor lighting began in the Allison Hill area. This lighting was completed in May of 1975. The Harrisburg Police Department wishes to know the effect of this lighting in your neighborhood. We would appreciate your evaluation and opinion of the new lighting upon your personal safety.

The questions below refer to the area where the new lighting has been installed in your neighborhood during the night hours.

1. In your opinion, do you feel that there has been a change in the level of street crime in your area since the new lights have been installed?
  - a. More crime 0
  - b. Less crime 16
  - c. No change 6
  - Blank 3
  
2. Since the improved street lighting has been installed in your area, do you feel (more safe, 20, less safe 0, the same degree of safety, 3) in your home than you did before the new lights were installed?
 

Blank (2)
  
3. Do you think that your neighbors feel (more safe, 20, less safe 0, no change in safety 2) since street lighting has been improved?
 

Blank (3)
  
4. Do you think that more people are using the streets at night to shop or visit friends at night in your neighborhood since the new lights have been installed?
  - a. Yes, more people 14
  - b. No, less people 1
  - c. No change 8
  - Blank 2
  
5. Do you prefer the new lights to the old lights?
  - a. Yes 22
  - b. No 0
  - c. No difference 1
  - Blank 2
  
6. Do you think that other areas of the City would benefit if new lighting was installed in their area?
  - a. Yes 24
  - b. No 0
  - c. No opinion 0
  - Blank 1

7. Since the new lights have been installed, have you been the victim of a street crime in the new street lighting area at night?
- a. Yes 2  
 b. No 22  
 Invalid (1)
8. If the answer to question seven is yes, what kind of street crime occurred?
- a. Robbery (includes purse snatch and muggings) 0  
 b. Assaults (includes threats) 2
9. Since the new lighting has been installed has your house been burglarized at night?
- a. Yes 1  
 b. No 24
10. Do you think that night vandalism has increased in your area since the street lights have been installed?
- a. Yes 1  
 b. No 20  
 c. No opinion 2  
 Blank (2)
11. Since the street lights have been installed do you find any change in the number of unruly juveniles in your area at night?
- a. More unruly juveniles 3  
 b. Less unruly juveniles 14  
 c. No change 7  
 Blank (1)

If you have any additional information or opinions on street lighting, we would appreciate these additional comments.

We feel secure at night and are not around on the street (1)  
 Feel other areas should get new lights (1)  
 Keep F.P.U. on the Hill (1)  
 Blank (22)

## BUSINESS QUESTIONNAIRE

In March of 1975, installation of sodium vapor lighting began in the Allison Hill area. This lighting was completed in May of 1975. The Harrisburg Police Department wishes to know the effect of this lighting in your neighborhood. We would appreciate your evaluation and opinion of the new lighting upon your personal safety.

The questions below refer to the area where the new lighting has been installed in your neighborhood during the night hours.

1. Do you feel that the new street lighting has improved the security of your business establishment at night?

- a. Yes 8  
 b. No 1  
 c. No change 0

2. Do you prefer the new lighting to the old type of lighting?

- a. Yes 9  
 b. No 0  
 c. No difference 0

3. Do you feel that other areas of the City would benefit from the new sodium lighting?

- a. Yes 9  
 b. No 0  
 c. No opinion 0

4. Has your business establishment been burglarized at night since the new lighting has been installed?

- a. Yes 3  
 b. No 6

5. Has your business establishment been vandalized during the night time hours after the new lights have been installed?

- a. Yes 3  
 b. No 6

6. In your opinion what has been the major impact of the new lights in your area? ✓

- ✓ Safety and higher visibility (1)
- ✓ Feeling of safety - less chance of being harmed - like lights (1)
- ✓ Lower street crimes - The whole city should have it (1)
- Blank (6)



FOOT PATROL UNIT QUESTIONNAIRE

1. Compared to the old type of lighting, does the new lighting improve your patrol techniques?

- a. Yes 15
- b. No 1
- c. No opinion 0
- d. Comments

2. Compared to the old type of lighting, does the new lighting aid the F.P.U. in operating the high visibility concept?

- a. Yes 16
- b. No 0
- c. No opinion 0
- d. Comments

3. Compared to the old type of lighting, does the new lighting increase your personal safety when you are on foot patrol?

- a. Yes 13
- b. No 1
- c. No opinion 2
- d. Comments

If someone is going to assault an officer then lighting does not protect the officer.

4. Compared to the old type of lighting, does the new lighting improve the safety of fellow officers when they are on foot patrol?

- a. Yes 14
- b. No 0
- c. No opinion 2
- d. Comments

Easier to find an officer who needs help.

5. Does the new street lighting improve your reaction time in evaluating a situation?

- a. Yes 15
- b. No 1
- c. No opinion 0
- d. Comments

6. Does the new street lighting improve your distance visibility?

- a. Yes 16
- b. No 0
- c. No opinion 0
- d. Comments

7. Does the new street lighting improve the visibility of structures, houses, or businesses when performing routine checks?

- a. Yes 16
- b. No 0
- c. No opinion 0
- d. Comments

8. Does the new street lighting increase your safety when investigating a suspicious person or situation?

- a. Yes 16
- b. No 0
- c. No opinion 0
- d. Comments

The advantage is with the officer

9. Does the new street lighting improve your ability to assist an officer in trouble?

- a. Yes 14
- b. No 0
- c. No opinion 2
- d. Comments

10. Does the new street lighting improve your ability to cover a fellow officer when he approaches a suspicious person?

- a. Yes 16
- b. No 0
- c. No opinion 0
- d. Comments

11. Does the new street lighting increase your maneuvering ability with the motor cycles?

- a. Yes 11
- b. No 2
- c. No opinion 3
- d. Comments

12. Does the new street lighting improve your ability to identify suspect characteristics, vehicle characteristics, or tag numbers?

- a. Yes 16
- b. No 0
- c. No opinion 0
- d. Comments

13. Do you feel that the new street lighting improves your safety on the motor cycles when on patrol?

- a. Yes 12
- b. No 1
- c. No opinion 3
- d. Comments

14. Has the traffic patterns changed in the street lighting area since the new lights have been installed?

- a. Yes 3 I am unsure of any effect.
- b. No 3
- c. No opinion 10
- d. Comments

15. Do you think that the new street lighting has improved overall vehicular traffic safety in the street lighting area?

- a. Yes 13
- b. No 1
- c. No opinion 2
- d. Comments

16. Has there been an increase in night time pedestrian traffic since the new street lighting has been installed?

- a. Yes 9
- b. No 2
- c. No opinion 4
- d. Comments

Blank (1)

If yes - only because you can see the people

17. Has the new street lighting had any positive effect in the relationship between the Community and the F.P.U.?

- a. Yes 11
- b. No 0
- c. No opinion 5
- d. Comments

18. Do you feel that the police functions would be improved by installing new lights in other areas of the City?

- a. Yes 16
- b. No 0
- c. No opinion 0
- d. Comments

19. List the main benefits of sodium vapor street lighting in your patrol techniques.

- See suspects in greater detail (2)
- View structures more clearly (1)
- Increased safety (1)
- Improved community relations (1)
- Increased visibility (11)
- Identify objects easier (1)
- See greater distance (4)
- House checks easier (2)
- Read license number easier (1)
- See house numbers easier (1)
- More maneuverability (1)
- Increased security of business & residence (1)
- See into alleys better (2)

20. List the main drawbacks of improved street lighting on your patrol techniques.

- Blank (1)
- Officer visible (8)
- False sense of security to residents (2)
- Longer hours of visibility for youths during summer vacation (1)
- More difficult to apprehend (1)
- Vegetation grows faster (1)
- More juveniles out at night walking (1)
- No defects (2)
- Cannot sneak up (3)
- Officer becomes a better target from people who hide (1)
- Distorts color of vehicles, i.e., off colors (1)

21. List any additional opinions or facts that have a bearing on this street lighting evaluation.

Safety of officer depends on what officer is using lighting for (1)  
Lights installed city wide (2)  
More people leave home at night because of lights (1)  
See better at night (1)  
Lights appreciated by community (1)  
Good points outweigh bad points (1)  
Lighting should be installed in another high crime area along with increased foot patrol (1)  
Blank (9)

**END**