

### STREET LIGHT LOCATIONS

POLE NO.	LOCATION	OFFSET (m)	LENGTH OF POLE/ARM (m)	WALL THICKNESS (mm)	BREAKWAY BASE	LUMINAIRE		MOUNT HEIGHT (m)	CONC. BASE (mm x mm)
						WATTS	TYPE		
1	ABIO+078 RT.	30.5	9.80/4.57	5.56	NO	250	III	10.67	750 x 1820
2	ABIO+110 RT.	16.0	9.80/4.57	5.56	NO	250	III	10.67	750 x 1820
3	ABIO+151 RT.	16.0	9.80/4.57	5.56	YES	250	III	10.67	750 x 1820
4	ABIO+186 RT.	17.0	9.80/4.57	5.56	YES	250	III	10.67	750 x 1820
5	AIO+037 RT.	14.0	9.80/4.57	5.56	YES	250	III	10.67	750 x 1820
6	AIO+080 RT.	10.0	9.80/4.57	5.56	NO	250	III	10.67	750 x 1820
7	AIO+127 RT.	10.0	9.80/4.57	5.56	NO	250	III	10.67	750 x 1820
8	ABIO+072 LT.	20.0	9.80/4.57	5.56	NO	250	III	10.67	750 x 1820
9	ABIO+110 LT.	18.0	9.80/4.57	5.56	NO	250	III	10.67	750 x 1820
10	ABIO+151 LT.	15.5	9.80/4.57	5.56	NO	250	III	10.67	750 x 1820
11	BIO+323 RT.	13.0	9.80/4.57	5.56	NO	250	III	10.67	750 x 1820
12	BIO+280 RT.	13.0	9.80/4.57	5.56	NO	250	III	10.67	750 x 1820
13	BIO+239 RT.	13.0	9.80/4.57	5.56	NO	250	III	10.67	750 x 1820
14	BIO+200 RT.	13.0	9.80/4.57	5.56	NO	250	III	10.67	750 x 1820
15	YIO+132 LT.	13.0	9.80/4.57	5.56	YES	250	III	10.67	750 x 1820
16	CIO+060 RT.	10.0	9.80/4.57	5.56	NO	250	III	10.67	750 x 1820
17	CIO+098 RT.	10.0	9.80/4.57	5.56	NO	250	III	10.67	750 x 1820
18	CIO+138 RT.	10.0	9.80/4.57	5.56	NO	250	III	10.67	750 x 1820
19	CIO+175 RT.	10.0	9.80/4.57	5.56	NO	250	III	10.67	750 x 1820
20	CIO+220 RT.	10.0	9.80/4.57	5.56	NO	250	III	10.67	750 x 1820
21	CDIO+252 LT.	15.5	9.80/4.57	5.56	YES	250	III	10.67	750 x 1820
22	CDIO+214 LT.	15.5	9.80/4.57	5.56	YES	250	III	10.67	750 x 1820
23	CDIO+169 LT.	15.5	9.80/4.57	5.56	YES	250	III	10.67	750 x 1820
24	CDIO+125 LT.	17.0	9.80/4.57	5.56	YES	250	III	10.67	750 x 1820
25	CDIO+080 LT.	20.0	9.80/4.57	5.56	NO	250	III	10.67	750 x 1820
26	CDIO+043 RT.	32.5	9.80/4.57	5.56	NO	250	III	10.67	750 x 1820
27	CDIO+078 RT.	17.6	9.80/4.57	5.56	NO	250	III	10.67	750 x 1820
28	CDIO+125 RT.	12.0	9.80/4.57	5.56	NO	250	III	10.67	750 x 1820
29	CDIO+169 RT.	12.0	9.80/4.57	5.56	NO	250	III	10.67	750 x 1820
30	CDIO+214 RT.	12.0	9.80/4.57	5.56	NO	250	III	10.67	750 x 1820
31	CDIO+269 RT.	12.0	9.80/4.57	5.56	NO	250	III	10.67	750 x 1820
32	DIO+042 RT.	13.0	9.80/4.57	5.56	NO	250	III	10.67	750 x 1820
33	DIO+088 RT.	13.0	9.80/4.57	5.56	NO	250	III	10.67	750 x 1820
34	DIO+126 RT.	13.0	9.80/4.57	5.56	NO	250	III	10.67	750 x 1820
35	DIO+165 RT.	13.0	9.80/4.57	5.56	NO	250	III	10.67	750 x 1820
36	XIO+102 RT.	13.0	9.80/4.57	5.56	YES	250	III	10.67	750 x 1820
37	XIO+152 RT.	13.0	9.80/4.57	5.56	YES	250	III	10.67	750 x 1820
38	XIO+195 RT.	13.0	9.80/4.57	5.56	YES	250	III	10.67	750 x 1820
39	XIO+248 LT.	6.0	9.80/4.57	5.56	NO	250	III	10.67	750 x 1820
40	XIO+288 LT.	6.0	9.80/4.57	5.56	NO	250	III	10.67	750 x 1820
41	DIO+231 LT.	10.0	9.80/4.57	5.56	NO	250	III	10.67	750 x 1820
42	BIO+060 LT.	8.0	9.80/4.57	5.56	NO	250	III	10.67	750 x 1820
43	BIO+105 LT.	8.0	9.80/4.57	5.56	NO	250	III	10.67	750 x 1820
44	BIO+145 LT.	8.0	9.80/4.57	5.56	NO	250	III	10.67	750 x 1820

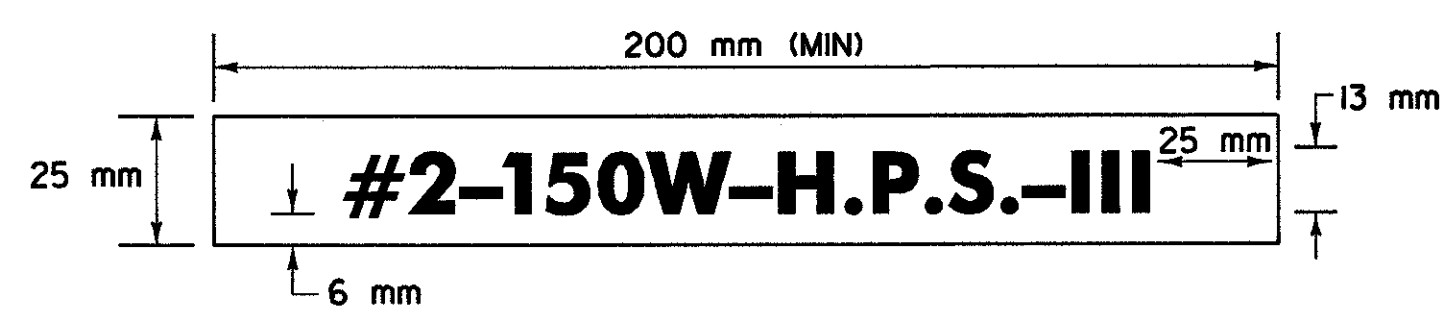
### GENERAL STREET LIGHT NOTES

- CONCRETE BASES**
- 1.) THE OFFSET FOR CONCRETE BASES (EDGE OF SHOULDER TO CENTER OF CONCRETE BASE) TO BE A MINIMUM OF 2.0 m OR AS OTHERWISE NOTED ON PLANS.
  - 2.) WHEN GUARDRAIL EXISTS, THE GUARDRAIL DEFLECTION OR THE SIDE SLOPE WILL GOVERN MINIMUM OR MAXIMUM OFFSET, WITH A 1:3 OR 1:2 SIDE SLOPE THE PREFERRED LIGHT POLE OFFSET IS 1.2 m MAXIMUM.
  - 3.) WHEN CONCRETE BASES ARE INSTALLED IN SLOPING GROUND, THE GREATEST EXPOSED HEIGHT TO KEEP ALL OF THE TOP ABOVE GROUND MUST BE DOUBLED AND THEN ADDED TO THE MINIMUM DEPTH FOR THE TOTAL BASE DEPTH.
  - 4.) CARE SHOULD BE TAKEN WHEN CONCRETE BASES, DRAINAGE STRUCTURES OR UTILITIES ARE CLOSE TOGETHER.
- POLES, ANCHOR BASES AND ARMS**
- 1.) ALUMINUM STREET LIGHT POLES SHALL BE DESIGNED IN ACCORDANCE WITH THE 1995 STANDARD SPECIFICATIONS, STANDARD SHEETS E-180AM, E-180BM, AND VARIOUS MANUFACTURER'S APPLICATION GUIDES. POLE SIZE AND SHAFT WALL THICKNESS SHALL BE GOVERNED BY MOUNTING HEIGHTS, ARM LENGTH, NUMBER OF ARMS, AND LUMINAIRE WEIGHT AND EFFECTIVE PROJECTED AREA (EPA).
  - 2.) IT IS PREFERRED THAT ALL NEW STREET LIGHT POLES AND LUMINAIRE ARMS SHOULD BE ALUMINUM IN ACCORDANCE WITH SUBSECTION 753.01(B), POLE MATERIAL TO BE SPECIFIED ON THE PLANS.
  - 3.) THE CONTRACTOR SHALL INSTALL METAL TAGS ON EACH LIGHT POLE WITH THE INFORMATION AS NOTED ON THE DETAIL SHOWN ON THIS SHEET.
  - 4.) ALL LUMINAIRE SUPPORT ARMS INSTALLED SHALL BE "TRUSS-TYPE".
- LUMINAIRES**
- 1.) LIGHT DISTRIBUTION IS BASED ON GENERAL ELECTRIC PHOTOMETRIC DATA DRAWINGS #35-177304, MEDIUM CUT-OFF TYPE III DISTRIBUTION, DATED 4-24-85.
  - 2.) THE ABOVE PHOTOMETRIC DATA DRAWING WAS USED FOR DESIGN PURPOSES ON THIS PROJECT. OTHER MANUFACTURER'S PRODUCTS MAY BE SUBSTITUTED IF THE INSTALLED LUMINAIRE LIGHT UTILIZATION AND MINIMUM FOOTCANDLES ON THE ROADWAY, SHOULDER AND SIDEWALK ARE AT LEAST AS GREAT AS THAT INDICATED BY THE PHOTOMETRIC SHOWN ON THIS SHEET.
- CONDUIT**
- 1.) A 50 mm (DN 53) MINIMUM CONDUIT SHALL BE USED AT ALL LOCATIONS UNLESS OTHERWISE NOTED ON THE PLANS. ALL CONDUIT SHALL BE AT LEAST (SCHEDULE 40 P.V.C.) OR RIGID GALVANIZED STEEL ELECTRICAL CONDUIT (AND CONFORM TO THE REQUIREMENTS OF UL-6). TYPE OF CONDUIT (P.V.C. OR STEEL) SHALL BE NOTED ON THE PLANS.
- CONDUIT SLEEVE**
- 1.) MINIMUM WALL THICKNESS FOR RIGID PLASTIC PIPE SLEEVES SHALL BE 1/35TH THE DIAMETER. ALL CONDUIT RUNS UNDER ROADWAY SHALL BE INSTALLED IN RIGID PLASTIC OR STEEL PIPE SLEEVES. THE SLEEVE SHALL EXTEND TO WITHIN 600 mm OF THE SIDE OF A CONCRETE BASE OR PULLBOX. WHERE NO CONCRETE BASE OR PULLBOX IS PRESENT, THE SLEEVE SHALL EXTEND 1.2 m BEYOND THE OUTSIDE EDGE OF SHOULDER OR FACE OF CURB. BACKFILLING AROUND A SLEEVE SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
  - 2.) WHEN JACKING A SLEEVE UNDER ROADWAY IT SHALL BE STEEL WITH A MINIMUM DIAMETER OF 200 mm AND MINIMUM WALL THICKNESS OF 10 mm. ACTUAL LENGTH TO BE DETERMINED IN THE FIELD BY THE RESIDENT ENGINEER.
- WIRE**
- 1.) ALL WIRING BETWEEN THE METER AND/OR POWER SOURCE AND THE FIRST POLE AND/OR PULLBOX AND BETWEEN POLES AND/OR PULLBOXES SHALL BE COPPER AND SIZED AS SPECIFIED ON THE PLANS. ALL WIRE SHALL HAVE TYPE XHHW INSULATION OR EQUIVALENT.
- GROUNDING**
- 1.) ALL CONDUIT MUST INCLUDE A GROUNDING CONDUCTOR. RIGID STEEL CONDUIT SHALL BE PROPERLY CONNECTED AT THE JOINTS SO AS TO BE WATERTIGHT AND MAINTAIN ELECTRICAL CONTINUITY AND HAVE GROUNDING BUSHINGS SO AS TO ACT AS A GROUND CONDUCTOR.
  - 2.) ALUMINUM WIRE SHALL NOT BE USED FOR GROUND WIRE.
- PULLBOXES**
- 1.) FOR DETAILS SEE STANDARD SHEET E-173M.
- GENERAL**
- 1.) THE LOAD ON EACH BRANCH OF THE THREE WIRE CIRCUIT SHALL BE BALANCED AS POSSIBLE. LOAD TO NEUTRAL.
  - 2.) THE LAST CONCRETE POLE BASE AT THE END OF EACH CIRCUIT AND SOME PULLBOXES SHALL HAVE A CONDUIT SWEEP WITH CAP INSTALLED FOR FUTURE USE.
  - 3.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING NECESSARY ELECTRICAL PERMITS.

### STREET LIGHTING DESIGN PARAMETERS

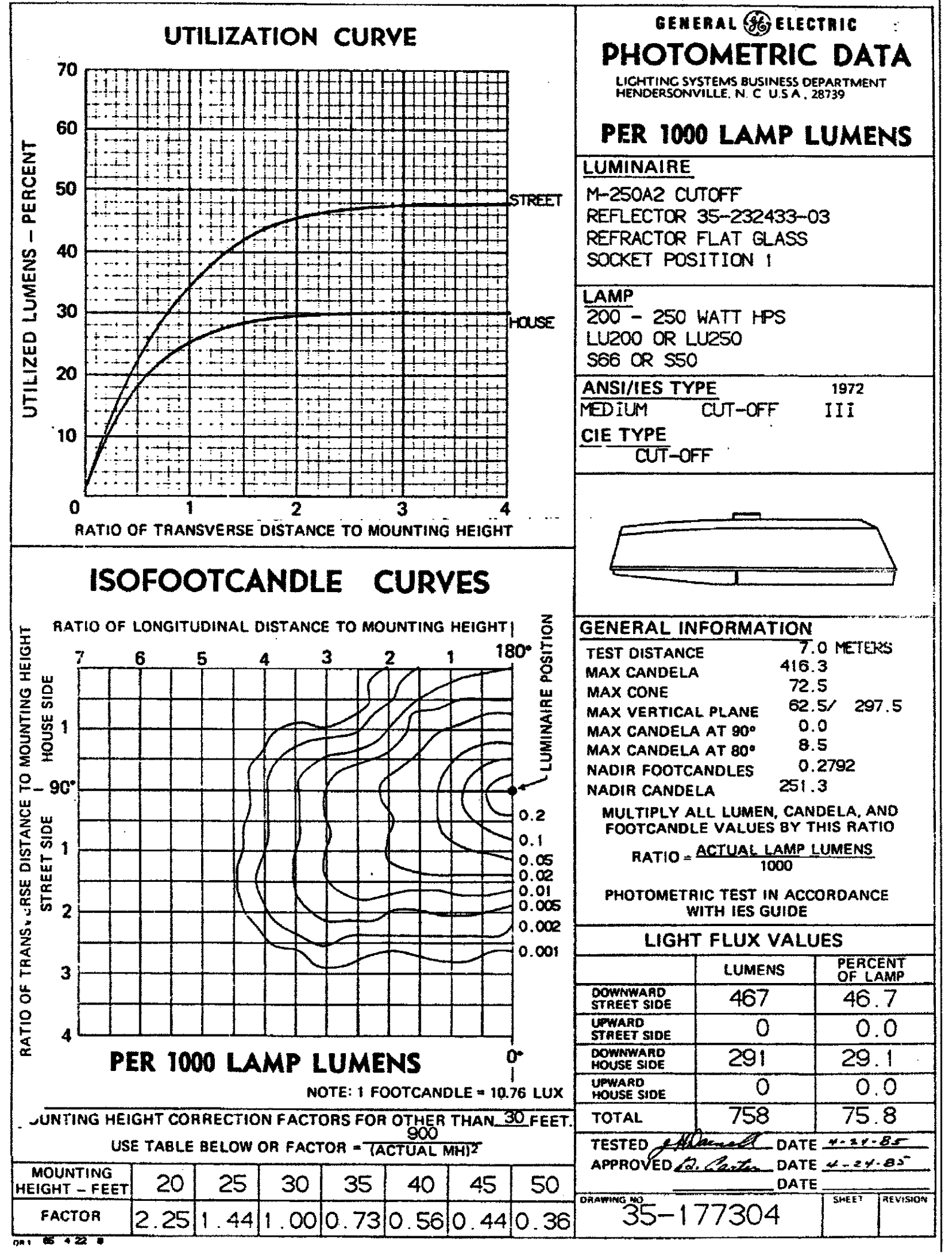
	REQ'D MIN.	ACTUAL
INTERCHANGE (EXPRESSWAY-INTERMEDIATE)	1.10	1.44
MINIMUM FC	0.20	0.50
UNIFORMITY RATIO	3:1	2.9:1
LUMINAIRE DIRT DEPRECIATION		0.95
LAMP LUMEN DEPRECIATION		0.73
COMBINED LAMP (MAINT.) FACTOR		0.69

### DETAILS FOR TAGS ATTACHED TO STREET LIGHT POLES



LEGEND: BLACK OR WHITE (NON-REFL.) - STAMPED PRIOR TO PRINTING/PAINTING.  
BACKGROUND: NATURAL ALUMINUM OR FLAT BLACK SURFACE, SAME AS POLE FINISH.

- NOTES:
1. THE TAG SHALL BE MOUNTED ON ALL STREET LIGHT POLES IN SUCH A MANNER AS NOT TO BE EASILY REMOVED, SUCH AS WELDED, RIVETED, OR BOLTED WITH VANDAL PROOF BOLTS.
  2. THE LETTERS SHALL BE PUNCHED, STAMPED, ENGRAVED, OR PHOTO-ETCHED. PUNCHING, STAMPING OR ENGRAVING SHALL PENETRATE ONE HALF THE BASE MATERIAL THICKNESS.
  3. THE BASE MATERIAL FOR THE TAG SHALL BE ALUMINUM WITH A MINIMUM THICKNESS OF 2.54 mm.
  4. THE TAG SHALL BE ATTACHED TO THE POLE ABOVE THE HANDHOLE, 150 mm MAXIMUM. IF THE POLE HAS A TRANSFORMER BASE, ATTACH TAG TO COVER.



STREET LIGHTING TABLE		
SURVEYED BY	C.H.A. & V.S.E.	DATE 12/93
DESIGNED BY	D.E.G.	DATE 9/00
DRAWN BY	K.H.D.	DATE 9/00
CHECKED BY	T.P.K.	DATE 9/00
DESIGN FILE NO.	SLP-3.DGN	
PROJ. NAME	BENNINGTON - HOOSICK D.P.I. 014610 C/4	
PROJ. NO.	P.J.N. 1306.60	
DWG NO.	SLP-3	SHEET 178 OF 385

FILE NAME = u:\5116\voat\contract4\slp-3.dgn  
DATE / TIME = 07 SEP 2000  
USER = 11459

DATUM

VERTICAL	NAVD 88
HORIZONTAL	NAD 83 (1992)