

Appendix 8.1

Tag Number Issues

Ameren Designated Light Number	Original tag number	Current tag number	Location	Additional Comments
U4010	U997	U997	1600 QUENDO	
U985	U3733	U985	OPP 1118 MIDLAND	
U671	U91	U91	ES PUB WLK 1 PN DELMAR AT 6277 DELMAR	
U97	NO TAG	U4012	NEC PENNSYLVANIA & ETZEL	U4012 AND U97 HAVE SAME LOCATION DESCRIPTION: NEC PENNSYLVANIA AND ETZEL. WHICH IS IT?
U907	NO TAG	U3713	ES KINGSLAND 2 STD S NEW ENRIGHT	U3713 IS LOCATED REAR 6685 DELMAR
U3068	NO TAG	U3068	ES HANLEY OPP BLACKBERRY	ELEC POLE WITHOUT A LIGHT NEXT TO THIS POLE IS ALSO TAGGED U3068
U2559	U2553	U2559	7316 PERSHING	POLE IS TAGGED BOTH U2553 AND U2559
U447	U214	U214	ES HANLEY BETWEEN BLACKBERRY & AMHERST	U447 is listed twice in the Ameren Database. This listing between Blackberry and Amherst seems to be incorrectly tagged U214.
U4003	U2	U2	REAR 8115 MILAN DR	
U1600	NO TAG	U1599	524 CENTRAL	This pole and the pole next to it are both labeled U1599. This pole should be U1600 based on the Location description and old UE maps.
U2719	U1046	U1046	SWC FERGUSON & MELROSE	U1046 and U2719 location descriptions are SWC FERGUSON AND MELROSE. U1046 is in the database at this location. U1046 is also in the Ameren database as WS FERGUSON BETWEEN 1205 AND 1209. U1046 is located there also.
U2768	UNKNOWN	U*34	ES JACKSON PK-BETWEEN COLGATE & STANFORD	I believe this pole was once U734; it is between U733 and U735
U570	PD570	PD570	SWC FERGUSON & RAYMOND	Pagedale?
U214	PD214	PD214		Pagedale?
U1223	NO TAG	NO TAG	SS MAPLE AT 6200 MAPLE	Elec. Pole next to this light without a light fixture has the U1223 tag on it
U2664	NO TAG	NO TAG	ES MIDLAND 1PS LYNN	The pole originally labeled U2664 has been changed to U1168. The pole next to it should be U2664 and is NO TAG.
U981	NO TAG	NO TAG	WS WOODSON 1 STD N ORCHARD CT	
U884	NO TAG	NO TAG	ES MIDLAND OPP SHAFTSBURY	
U826	NO TAG	NO TAG	WS MIDLAND 2 STD N OF WELLINGTON	
U699	NO TAG	NO TAG	SS BONHOMME - 3 STD W OF MCKNIGHT	
U692	NO TAG	NO TAG	CENTER DR & TEASDALE AVE	
U55	NO TAG	NO TAG	SEC LAMB & LYNN	
U530	NO TAG	NO TAG	SS FOREST PARK PKWY 3PW BIG BEND	
U528	NO TAG	NO TAG	SS FOREST PARK PKWY 2 STD W WILLIAMS	
U518	NO TAG	NO TAG	ES OLD BONHOMME 1 PS OF GROBY	
U500	NO TAG	NO TAG	NWC DARTMOUTH & PURDUE	
U437	NO TAG	NO TAG	NS DELMAR 2 STD E OF OLD BONHOMME	
U41	NO TAG	NO TAG	ES HANLEY 1 PS CARLYLE	

U4017	NO TAG	NO TAG	1 POLE SOUTH OF NORTH & SOUTH AND OLIVE
U4016	NO TAG	NO TAG	8303 RICHARD AVE
U3704	NO TAG	NO TAG	SWC OF 7047 ETZEL ON NS OF ALLEY
U366	NO TAG	NO TAG	SEC OLIVE ST RD & 81ST ST
U3605	NO TAG	NO TAG	S END MILLAR PK AT WLKWY 2 STD E N & S
U3484	NO TAG	NO TAG	1157 PARTRIDGE
U3472	NO TAG	NO TAG	WS MCKNIGHT 1 PN N GANNON
U340	NO TAG	NO TAG	NWC OLIVE ST RD & MT OLIVE
U3370	NO TAG	NO TAG	NWC LAUGHLIN & CANTON
U3288	NO TAG	NO TAG	NWC BARTMER INDUSTRIAL & BEAL
U3244	NO TAG	NO TAG	ALLEY N OF OLIVE 5 PE FERGUSON
U3180	NO TAG	NO TAG	7056 DARTMOUTH
U311	NO TAG	NO TAG	SS OLIVE ST RD 2 PE REMLEY CT
U3066	NO TAG	NO TAG	ES HANLEY 1 PN ANROSE
U3014	NO TAG	NO TAG	WS CENTER 1 PN CORNELL
U3012	NO TAG	NO TAG	ES CENTER 1 PS GANNON
U2991	NO TAG	NO TAG	NS ALLEY N OF OLIVE 1 PE OF SHERIDAN
U2982	NO TAG	NO TAG	808 KINGSLAND ALLEY REAR
U2981	NO TAG	NO TAG	6633 CLEMENS ALLEY REAR
U2958	NO TAG	NO TAG	NS ALLEY S OF CLEMENS 1 PE OF HEMAN
U2927	NO TAG	NO TAG	ES ALLEY E OF INTERDRIVE 8 PN OF ENRIGHT
U2889	NO TAG	NO TAG	NS OLIVE ST RD 1 STD E OF EASTOVER
U2882	NO TAG	NO TAG	SS OLIVE ST RD 9 PE OF 81ST ST
U2873	NO TAG	NO TAG	NS OLIVE ST RD 4 STD E OF HAFNER PL
U2868	NO TAG	NO TAG	SS OLIVE ST RD 1 PW OF 81ST ST
U2850	NO TAG	NO TAG	NS OLIVE ST RD 3 STD E OF COOLIDGE
U2836	NO TAG	NO TAG	SEC OLIVE ST RD & WOODSON RD
U2802	NO TAG	NO TAG	SS OLIVE 5 STD W PENNSYLVANIA
U2764	NO TAG	NO TAG	SS BLACKBERRY 1 PW WILNER
U2763	NO TAG	NO TAG	WS WILNER 1 STD S OF BLACKBERRY
U2540	NO TAG	NO TAG	WS LELAND 1 PN CLEMENS
U25	NO TAG	NO TAG	SWC HANLEY & TRENTON
U2486	NO TAG	NO TAG	ES OF LELAND 1 PS OF VERNON
U2471	NO TAG	NO TAG	7524 BLACKBERRY
U2465	NO TAG	NO TAG	7582 BLACKBERRY
U235	NO TAG	NO TAG	NS CLEMENS 1 PE KINGSLAND
U2346	NO TAG	NO TAG	WS 82ND ST 2 PN OLIVE ST RD
U2293	NO TAG	NO TAG	WS FORSYTHE 3 STD S OF TEASDALE
U2248	NO TAG	NO TAG	ES SWARTHMORE 1 PN OF STANFORD
U2242	NO TAG	NO TAG	1426 FARIS
U217	NO TAG	NO TAG	NS OLIVE 2 STD E OF BARTMER
U1943	NO TAG	NO TAG	NEC OLD BONHOMME & GANNON
U1922	NO TAG	NO TAG	SWC BALSON & FORSYTH
U1896	NO TAG	NO TAG	SS AL N OF APPLETON 1 PE TAMERTON AVE
U1879	NO TAG	NO TAG	WS RAISHER 1 S MONA
U1397	NO TAG	NO TAG	WS DELCREST W 4 STD S DELMAR

U1346	NO TAG	NO TAG	WS GROBY 3 PS OF OLIVE ST RD
U1319	NO TAG	NO TAG	7464 DELMAR BLVD
U1168	NO TAG	NO TAG	NEC MIDLAND & LYNN
U1163	NO TAG	NO TAG	ES GRANT 1 PN OF ARCHER
U1141	NO TAG	NO TAG	SWC HOW AVE & WILSHIRE AVE
U1099	NO TAG	NO TAG	WS KINGSLAND 4 STD N DELMAR
U1070	NO TAG	NO TAG	SEC PENNSYLVANIA & ROBERTS
U1569	UNKNOWN	0*33	DEAD END OF ANNA AVE N OF HANLEY RD

DUP TAG NUMBERS: U447 AND U1046 IN AMEREN DATA FILE

"U" lights unable to locate

Ameren Designated Light Number	Current tag number	Ameren Location	Additional Comments
U2317	COULD NOT LOCATE	SS FORSYTH 1 PW FOREST PARK PKWY	The only light I could locate in this area is labeled C392
U1369	COULD NOT LOCATE	WLKWAY E OF PRATT BET MARYLAND&WESTMORLND	May be located behind a residential privacy fence
U2345	COULD NOT LOCATE	NS ALLEY N OF OLIVE 4 PW OF KINGSLAND	There is an open bottom Nema located in this area, but this should be semi-cutoff based on Ameren data
U3193	COULD NOT LOCATE	6807 ETZEL ALLEY REAR	?
U4005	COULD NOT LOCATE	SS DELMAR 4 STD E KINGDEL	?
U1252	COULD NOT LOCATE	NEC BIG BEND & WATERMAN AVE	There is a light atop a stone pillar in this location, could this be it?
U1253	COULD NOT LOCATE	SEC WATERMAN & BIG BEND AVE	There is a light atop a stone pillar in this location, could this be it?
U1254	COULD NOT LOCATE	NEC BIG BEND & PERSHING AVE	There is a light atop a stone pillar in this location, could this be it?
U2863	COULD NOT LOCATE	NS OLIVE ST RD 2 STD E OF 82ND BLVD	A POLE LABELED Z06305 IS IN THIS LOCATION
U97	COULD NOT LOCATE	NEC PENNSYLVANIA & ETZEL	U4012 AND U97 HAVE SAME LOCATION DESCRIPTION: NEC PENNSYLVANIA AND ETZEL.
U1046	COULD NOT LOCATE	SWC FERGUSON AND MELROSE	THIS TAG NUMBER AT THIS LOCATION = U2719
U1120	COULD NOT LOCATE	7347 OLIVE BLVD	U2908 HAS SIMILAR LOCATION DESCRIPTION (7343 OLIVE) AND ONLY 1 POLE LOCATED HERE. THE POLE ORIGINALLY WAS TAGGED U1120 BUT IS NOW TAGGED U2908.

Incorrect Post Top

Light Number	Ameren Designated Post Top	Actual Post Top	Location	Comments
U988	CUT-OFF	SEMI CUT-OFF	SEC LYNN & RABE	
U982	SEMI CUT-OFF	CUT-OFF	HEMAN PARK	HEMAN PARK PARKING LOT OFF MIDLAND
U937	SEMI CUT-OFF	CUT-OFF	NS BALSON 1 STD W OF JACKSON	
U899	SEMI CUT-OFF	CUT-OFF	7546 MILAN	
U872	SEMI CUT-OFF	Other	ES CANTERBURY 2 STD S OF LEPERE	EITHER SEMI OR CUT GLASS MISSING
U867	SEMI CUT-OFF	CUT-OFF	WS CANTERBURY 2 STD N OF DELMAR	
U770	SEMI CUT-OFF	CUT-OFF	WS ABBEVILLE 1 STD W OF JEANERETTE	
U767	SEMI CUT-OFF	CUT-OFF	ES ABBEVILLE 1 STD S OF SHAFTSBURY	
U757	COLONIAL	SEMI CUT-OFF	ES ERITH PL 1 STD S TRENTON	
U706	CUT-OFF	SEMI CUT-OFF	SS BONHOMME - 5 STD W OF MCKNIGHT	
U665	EARLY AMERICAN	Colonial	WS WARDER 1 PT STD N DELMAR	
U6	SEMI CUT-OFF		SS CLEMENS 1W HEMAN OR 1 STD E SYRACUSE	NO HEIGHT TOO MANY TREES GLASS MISSING EITHER SEMI OR CUT
U571	EARLY AMERICAN	Colonial	SS GANNON 3 PT STD W WARDER	
U5	SEMI CUT-OFF	Other	ES HEMAN 1 STD N CLEMENS	HORIZONTAL BUT LIGHT GLASS MISSING EITHER SEMI OR CUT
U49	SEMI CUT-OFF	Other	SS APPLETON 1 PE OF COOLIDGE	OFF RESIDENTS BACKYARD BY BRIDGE EITHER SEMI OR CUT GLASS MISSING
U3738	EARLY AMERICAN	Colonial	8677 W. KINGSBURY	
U3722	OPEN BOTTOM	SEMI CUT-OFF	871 WILNER	
U3711	SEMI CUT-OFF	Other	8308 AMHERST	GLASS MISSING EITHER SEMI OR CUT
U3655	EARLY AMERICAN	Colonial	SS WESTMORELAND 4 PT STD W WILLIAMS	
U3598	EARLY AMERICAN	Colonial	SEC AMHERST & RADCLIFFE	
U3516	COLONIAL	Early American	INTER JACKSON & CHAMBERLAIN NE SIDE PT	
U3466	SEMI CUT-OFF	CUT-OFF	WS JACKSON 1 STD N TULANE	GLASS MISSING EITHER SEMI OR CUTOFF
U330	EARLY AMERICAN	Contemporary	SS BARTMER 5 ALUM STD W SUTTER	
U3291	SEMI CUT-OFF	OPEN BOTTOM	SS ALY BET DELMAR& ENRIGHT 3 PE WESTGATE	
U3260	SEMI CUT-OFF	Contemporary	ES FAIRVIEW 3 ALUM STD N OLIVE	
U3124	COLONIAL	SEMI CUT-OFF	AL N OF CREST 2 PW OF 66	SOUTH OF ETZEL

U3113	SEMI CUT-OFF	CUT-OFF	AL S OF WASHINGTON 2 PE OF TRINITY	SOUTH OF WASHINGTON
U3031	OPEN BOTTOM	SEMI CUT-OFF	SS GROBY 1 STD E MULLBERRY	
U2954	SEMI CUT-OFF	CUT-OFF	WS ALLEY E OF KINGSLAND 6 PN LOOP NORTH	
U2872	CUT-OFF	SEMI CUT-OFF	NS OLIVE ST RD 3 STD E OF HAFNER PL	
U2870	SEMI CUT-OFF	CUT-OFF	NS OLIVE ST RD 2 STD E OF HAFNER PL	
U2779	COLONIAL	SEMI CUT-OFF	SS 975 PENNSYLVANIA	HEMAN PARK COMMUNITY CENTER PARKING LOT
U2761	SEMI CUT-OFF	Other	WS WILNER OPP BALSON	GLASS MISSING EITHER SEMI OR CUT
U2759	SEMI CUT-OFF	CUT-OFF	NS AMHERST OPP CENTER	LIGHT ON!
U2741	SEMI CUT-OFF	CUT-OFF	SWC PURCELL & ROBERTS	
U272	SEMI CUT-OFF	CUT-OFF	NEC OLIVE & BACKER	
U2588	SEMI CUT-OFF	CUT-OFF	7512 DREXEL	
U2571	EARLY AMERICAN	Colonial	SS TEASDALE 1 PT W OF GAY	
U2475	SEMI CUT-OFF	CUT-OFF	SS BLACKBERRY 2 STD E SWARTHMORE	
U2397	COLONIAL	Contemporary	NS AVALON 6 STD W SUTTER	
U2368	SEMI CUT-OFF	CUT-OFF	SWC BLANCHA DR & 81ST ST	
U2265	SEMI CUT-OFF	Other	SS VERNON 4 PE OF FERGUSON	BOTTOM OF LIGHT MISSING EITHER SEMI OR CUT EXPOSED WIRES
U2146	CONTEMPORARY	Colonial	SS ELMORE 1 PTW OF GRANT	
U2125	SEMI CUT-OFF	CUT-OFF	WS SPOON 2 STD NW OF PUTTER	
U2085	SEMI CUT-OFF	CUT-OFF	WS CHARTRES DR 1 STD N OF OLD BONHOMME	
U2068	SEMI CUT-OFF	CUT-OFF	ES GAY 1 STD N OF BLACKBERRY	
U2061	OPEN BOTTOM	SEMI CUT-OFF	SS BLACKBERRY OPP GAY WEST	
U1987	SEMI CUT-OFF	CUT-OFF	NEC MIDLAND & WAYNE	
U1956	SEMI CUT-OFF	CUT-OFF	ES GROBY RD 1 LIGHT S OF AHERN	
U1904	SEMI CUT-OFF	CUT-OFF	SS DELMAR BLVD 2 W OF DELPRICE	
U1889	COLONIAL	SEMI CUT-OFF	ES ANNANDALE 1 S MILAN	
U1880	OPEN BOTTOM	SEMI CUT-OFF	SWC OF RAISHER & AHERN	
U1804	SEMI CUT-OFF	Other	NS MONA DR 1 W OF SHAFTSBURY	EITHER SEMI OR CUT GLASS MISSING
U1696	CONTEMPORARY	Other	ES KINGSLAND AVE BET UNIVERSITY&PERSHING	NO UE TAG, POST TOP, OR BULB!
U1675	CUT-OFF	Contemporary	NS WATERMAN 1 E OF KINGSLAND	
U1653	COLONIAL	Early American	NS TEASDALE 1 PE OLD BONHOMME	
U1650	COLONIAL	Early American	SS TEASDALE 1 PT E OF OLD BONHOMME	
U1564	COLONIAL	Early American	NS TEASDALE CT 1 PT N TEASDALE	

U1540	EARLY AMERICAN	Contemporary	PP 1E OF MULBERRY LN 1N OF BLACKBERRY AV	KAUFMAN PARK PATH
U1509	COLONIAL	SEMI CUT-OFF	SS MILAN 1 STD W OF BIRCHMONT	
U1505	COLONIAL	SEMI CUT-OFF	NWC 79TH & MILAN	
U1504	COLONIAL	SEMI CUT-OFF	NS TRENTON 2 STD W OF ERITH	
U1503	COLONIAL	SEMI CUT-OFF	NS TRENTON 1 STD W OF ERITH	
U1490	COLONIAL	SEMI CUT-OFF	NS MILAN OPP BIRCHMONT	
U1466	SEMI CUT-OFF	Other	7536 DREXEL	GLASS MISSING EITHER SEMI OR CUT
U1379	EARLY AMERICAN	SEMI CUT-OFF	NS SWATHMORE OPP STANFORD AVE	
U1365	SEMI CUT-OFF	CUT-OFF	630 N & S RD	
U1323	SEMI CUT-OFF	Other	7410 DELMAR BLVD	EITHER SEMI OR CUT GLASS MISSING
U1304	SEMI CUT-OFF	Other	NS DELMAR 3 E CENTER	EITHER SEMI OR CUT NO GLASS
U1227	SEMI CUT-OFF	CUT-OFF	NEC JACKSON & KINGSBURY	
U1215	SEMI CUT-OFF	CUT-OFF	ES LELAND OPP CLEMENS	
U1176	SEMI CUT-OFF	Other	WS MIDLAND AVE 4 PS OF CARLETON	GLASS MISSING WIRES EXPOSED EITHER SEMI OR CUT
U1111	SEMI CUT-OFF	CUT-OFF	SS BLACKBERRY 1 PE WARDER	
U1109	SEMI CUT-OFF	CUT-OFF	SWC KINGSLAND & ETZEL	
U1102	SEMI CUT-OFF	CUT-OFF	ES LELAND 3 STD S VERNON	

Lights with different NEMA information than given by Ameren

Ameren light number	Ameren given Nema tag info	Nema tag Color on light fixture	Nema tag Number on light fixture	Location
U956	HPS - 25500 - 250	GOLD	10	NS CORBITT AVE 3 PW OF FERGUSON AVE
U1289	HPS - 25500 - 250	GOLD	10	NS DELMAR OPP S VASSAR
U2592	HPS - 25500 - 250	GOLD	10	7553 SHAFTSBURY
U3028	HPS - 25500 - 250	GOLD	10	NEC GROBY & WESTOVER PL
U2473	HPS - 25500 - 250	GOLD	40	NS NEW ENRIGHT 5 STD E KINGSLAND
U3346	HPS - 50000 - 400	GOLD	25	SS LOOP SOUTH 4 STD E KINGSLAND
U4002	HPS - 9500 - 100	BLUE	17	1123 BURCH
U1969	HPS - 9500 - 100	BLUE	17	1123 BURCH
U2039	HPS - 9500 - 100	GOLD	25	ES 81ST ST 5 PS OF OLIVE ST RD
U2641	HPS - 9500 - 100	GOLD	25	1148 MIDLAND
U3124	HPS - 9500 - 100	GOLD	25	AL N OF CREST 2 PW OF 66
U706	HPS - 9500 - 100	GOLD	25	SS BONHOMME - 5 STD W OF MCKNIGHT
U1234	HPS - 9500 - 100	GOLD	15	SS CORNELL 1 PT STD E CENTER
U1648	HPS - 9500 - 100	GOLD	15	1128 E PARKEDGE
U967	MV - 20000 - 400	GOLD	25	WS WOODSON 1 STD N OLIVE
U1410	MV - 6800 - 175	GOLD	10	7624 CORNELL
U1411	MV - 6800 - 175	GOLD	10	ES DELPRICE CT 1 PT S DELMAR
U2218	MV - 6800 - 175	GOLD	10	NEC TRENTON & 78TH ST
U2571	MV - 6800 - 175	GOLD	10	SS TEASDALE 1 PT W OF GAY
U3097	MV - 6800 - 175	GOLD	10	7110 CAMBRIDGE
U3160	MV - 6800 - 175	GOLD	10	7000 AMHERST
U3430	MV - 6800 - 175	GOLD	10	7578 STANFORD
U3512	MV - 6800 - 175	GOLD	10	ES LEWIS PK AT WALKWAY 3 PT N DELMAR
U571	MV - 6800 - 175	GOLD	10	SS GANNON 3 PT STD W WARDER
U1111	MV - 6800 - 175	GOLD	10	SS BLACKBERRY 1 PE WARDER
U108	MV - 6800 - 175	GOLD	10	NS BRADDOCK 1 STD W LAUGHLIN
U1443	MV - 6800 - 175	GOLD	10	SEC BEMISTON & TEASDALE
U1802	MV - 6800 - 175	GOLD	10	OPP 1110 WILSON
U2217	MV - 6800 - 175	GOLD	10	7315 DORSET
U3251	MV - 6800 - 175	GOLD	10	WS MT OLIVE 2 ALUM STD N OLIVE
U1585	MV - 6800 - 175	GOLD	10	ES HARRISON AVE AT NS TERMINAL RR ROW
U3291	MV - 6800 - 175	GOLD	10	SS ALY BET DELMAR& ENRIGHT 3 PE WESTGATE
U1165	MV - 6800 - 175	GOLD	10	WS 82ND 4 PN OLIVE ST RD
U2872	MV - 6800 - 175	GOLD	10	NS OLIVE ST RD 3 STD E OF HAFNER PL
U756	MV - 6800 - 175	GOLD	10	SS MILAN 1 STD E 79TH ST
U757	MV - 6800 - 175	GOLD	10	ES ERITH PL 1 STD S TRENTON
U1024*	HPS - 3300 - 100	GOLD	10	SEC DONNE & ALLEY S OF DELMAR
U2582*	HPS - 3300 - 100	GOLD	10	ES OF WESTVIEW 1 PT S OF MAPLEVIEW
U2464*	HPS - 25500 - 250	GOLD	25	SS BLACKBERRY 2 STD E NORTH & SOUTH
U2077*	HPS - 25500 - 250	GOLD	25	1520 NORTH & SOUTH
U1591*	HPS - 25500 - 250	GOLD	25	1468 NORTH & SOUTH

*Listed as MV in Ameren Data Table

*The above list **does not** include 912 streetlights without NEMA tags*

Appendix 8.2

**STREET SEGMENTS THAT HAVE SPACING GREATER THAN POLICY REQUIREMENTS (>300'
SPACING FOR NON-RESIDENTIAL, >200' SPACING FOR RESIDENTIAL)**

Map #	BETWEEN LIGHTS:		LOCATION:	SPACING	COMMENTS:
2A	H4	H5	WASHINGTON BETWEEN VASSAR AND WILLIAMS	340	HISTORICAL LIGHTS
2A	H2	H3	WASHINGTON BETWEEN VASSAR AND BIG BEND	340	HISTORICAL LIGHTS
2A	H14	H15	KINGSBURY BETWEEN WILLIAMS AND BIG BEND	340	HISTORICAL LIGHTS
2A	H11	H12	KINGSBURY BETWEEN WILLIAMS AND WELLESLEY	320	HISTORICAL LIGHTS
2A	H9	H23	WELLESLEY BETWEEN KINGSBURY AND WATERMAN	400	HISTORICAL LIGHTS
2A	H20	H27	WILLIAMS BETWEEN WATERMAN AND PERSHING	340	HISTORICAL LIGHTS
2A	H27	H28	PERSHING BETWEEN WILLIAMS AND BIG BEND	320	HISTORICAL LIGHTS
2B	U2016	U2015	BIG BEND BETWEEN DELMAR AND WASHINGTON	230	NON RESIDENTIAL < 200
2B	U1562	U1750	BIG BEND BETWEEN WASHINGTON AND KINGSBURY	270	NON RESIDENTIAL < 200
2B	U1560	U1557	BIG BEND BETWEEN KINGSBURY AND WATERMAN	390	NON RESIDENTIAL < 200
2B	U1557	U1086	BIG BEND THRU FOREST PARK PARKWAY	760	NON RESIDENTIAL < 200
5	U3693	CITY LIMITS	CABANNE BETWEEN EASTGATE AND CITY LIMITS	340	SPACING IS FROM U3693 TO CITY LIMITS, NOT TO ANOTHER LIGHT
6A	U587	U597	WEST POINT BETWEEN TEASDALE AND WASHINGTON	380	CONCRETE POLE DECORATIVE POST TOP
6A	U587	U1279	TEASDALE BETWEEN WEST POINT AND JACKSON	330	CONCRETE POLE DECORATIVE POST TOP
6A	U1240	U1364	WEST POINT BETWEEN STRATFORD AND PERSHING	380	CONCRETE POLE DECORATIVE POST TOP
6A	H37	H#	LINDEN BETWEEN KINGSBURY AND PERSHING	450	HISTORICAL LIGHTS
6A	U2580	U661	UNIVERSITY BETWEEN HANLEY AND MISSION	340	CONCRETE POLE DECORATIVE POST TOP
6A	U663	U664	UNIVERSITY BETWEEN ALTA DENA AND WEST POINT	310	CONCRETE POLE DECORATIVE POST TOP
6B	U627	U638	GREENWAY BETWEEN WARREN AND MIDVALE	440	CONCRETE POLE DECORATIVE POST TOP
6B	U638	U639	GREENWAY BETWEEN MIDVALE AND OVERHILL	320	CONCRETE POLE DECORATIVE POST TOP
6B	U634	U647	KINGSBURY BETWEEN WARREN AND MIDVALE	310	CONCRETE POLE DECORATIVE POST TOP

6B	U621	U632	KINGSBURY BETWEEN PURDUE AND WARREN	350	CONCRETE POLE DECORATIVE POST TOP
6B	U2977	U621	PURDUE BETWEEN KINGSBURY AND PERSHING	390	CONCRETE POLE DECORATIVE POST TOP
8	U1763	U1762	PARAMOUNT BETWEEN TAMERTON AND 82ND	430	
8	U1762	U1784	PARAMOUNT BETWEEN TAMERTON AND 82ND	420	
8	U1763	U2656	TAMERTON BETWEEN PARAMOUNT AND MONTREAL	350	
8	U1766	U1765	MONTREAL BETWEEN TAMERTON AND 82ND	350	
8	U1765	U1783	MONTREAL BETWEEN TAMERTON AND 82ND	420	
8	U1271	U2233	FULLERTON BETWEEN BRADDOCK AND POLK	350	
8	U1174	U1188	FULLERTON BETWEEN POLK AND TAMERTON	350	
8	U3681	U3680	TAMERTON BETWEEN FULLERTON THROUGH SEVILLE	330	
8	U970	U49	APPLETON BETWEEN COOLIDGE THROUGH BRADDOCK	370	
8	U2231	U1266	COOLIDGE BETWEEN KEMPLAND AND APPLETON	360	
8	U3266	U2230	COOLIDGE BETWEEN KEMPLAND AND APPLETON	350	
8	U3692	U1655	SHERIDAN BETWEEN KEMPLAND AND VARNEY	320	
9	U1149	U1150	ARCHER BETWEEN COOLIDGE AND GRANT	490	
9	U1266	U1148	COOLIDGE BETWEEN APPLETON AND ARCHER	440	
9	U2427	U1152	ORCHARD BETWEEN COOLIDGE (WALK) AND GRANT	330	
9	U1162	U2426	ORCHARD BETWEEN COOLIDGE (WALK) AND GRANT	380	
9	U1758	U1162	ORCHARD BETWEEN SHERIDAN AND COOLIDGE	320	A "Z" PRIVATE LIGHT IS LOCATED IN THIS AREA, BUT NO U CITY AMEREN "U" LIGHTS
9	U1403	U1412	APPLETON BETWEEN SHERIDAN AND WOODSON	350	
9	U1412	U981	APPLETON BETWEEN SHERIDAN AND WOODSON	370	
9	U981	U980	WOODSON BETWEEN APPLETON AND VARNEY	250	NON RESIDENTIAL < 200
9	U979	U2073	WOODSON BETWEEN ORCHARD AND RICHARD	210	NON RESIDENTIAL < 200
9	U2214	U1758	ORCHARD BETWEEN WOODSON AND SHERIDAN	340	

9	U979	U2214	ORCHARD BETWEEN WOODSON AND SHERIDAN	400	
9	U1159	U2424	RICHARD BETWEEN SHERIDAN AND GRANT	310	
10	U838	U2364	MENDELL BETWEEN WAYNE AND MILAN	370	
10	U2102	U2103	APPLETON BETWEEN LAUGHLIN AND CULDESAC	310	
10	U1244	U1243	LAUGHLIN BETWEEN PARKWAY (N) AND PARKWAY (S)	320	
11	U2337	U2336	MENDELL BETWEEN CANTON AND CULDESAC	400	
11	U2098	U2333	RUSHMORE BETWEEN CANTON AND MALIBOU	360	
11	U2333	U2334	RUSHMORE BETWEEN MALIBOU AND BRIAR	320	
11	U3679	U1821	VAUGHN BETWEEN CANTON AND VARDMAN	320	
11	U1821	U1822	VAUGHN BETWEEN CANTON AND VARDMAN	320	
11	U1157	U1819	VARDMAN BETWEEN LAUGHREN AND 82ND	340	
11	U1154	U4016	GRANT BETWEEN ELMORE AND RICHARD	320	
12	U2122	U2121	PUTTER BETWEEN SPOON AND MIDIRON WAY	320	
12	U2119	U2090	SPOON BETWEEN MIDIRON WAY AND MCKNIGHT	320	
13	81ST	Z79049	PRESIDO		HAS NO U LIGHTS BUT 1 Z LIGHT
15	U2089	U2088	MCKNIGHT BETWEEN OLD BONHOMME AND ROWLAND	220	NON RESIDENTIAL < 200
15	U2085	U2325	CHARTRES BETWEEN OLD BONHOMME AND LAVAL	450	
15	U1850	U1849	OAKBROOK BETWEEN BERICK AND GOLF COURSE	320	
15	U1935	U1936	ALBEY BETWEEN ALANSON AND GOLF COURSE	380	
15	U1377	U1741	OLD BONHOMME BETWEEN DALKEITH AND SHANDEL	310	
15	U1741	U1941	OLD BONHOMME BETWEEN SHANDEL AND BALSON	370	
17	U870	U869	GEOFFREY BETWEEN CANTERBURY AND MCKNIGHT	350	STREET MAY BE LIT BY STREET LIGHT ON CANTERBURY
17	U3456	U3472	MCKNIGHT BETWEEN I-170 AND STANFORD	250	NON RESIDENTIAL < 200
18	U1905	U1904	DELMAR BETWEEN PRICE AND DELPRICE CT.	205	NON RESIDENTIAL < 200

18	U1903	U1902	DELMAR BETWEEN PRICE AND DELPRICE CT.	210	NON RESIDENTIAL < 200
18	U1902	U1901	DELMAR BETWEEN DUMBARTON AND DELPRICE CT.	220	NON RESIDENTIAL < 200
18	PRICE	CULDESAC	WESTRIDGE CT.		NO LIGHTS ON THIS STREET
19	U1944	U2110	OLD BONHOMME BETWEEN GANNON AND DELMAR	400	THERE ARE "Z" LIGHTS IN PARKING LOT ALONG OLD BONHOMME
20	U1791	U1788	GAY BETWEEN BALSON AND AMHERST	310	
20	U1786	U1787	AMHERST BETWEEN GAY AND SWARTHMORE	310	
21	U3727	U3726	MOREHOUSE BETWEEN BALSON AND NORTH END OF STREET	420	Z LIGHT MID STREET WHICH SPLITS SPACING INTO 180' AND 250'
21	U3726	U2471	MOREHOUSE BETWEEN BALSON AND BLACKBERRY	390	Z LIGHT MID STREET WHICH SPLITS SPACING INTO 150' AND 240'
21	U3724	U3725	BARNARD COLLEGE BETWEEN BALSON AND NORTH END OF STREET	420	Z LIGHT MID STREET WHICH SPLITS SPACING INTO 170' AND 250'
21	U3725	U2469	BARNARD COLLEGE BETWEEN BALSON AND BLACKBERRY	350	Z LIGHT MID STREET WHICH SPLITS SPACING INTO 130' AND 220'
21	U3072	U375	HANLEY BETWEEN SHAFTSBURY AND BALSON	280	NON RESIDENTIAL < 200
21	U375	U3070	HANLEY BETWEEN SHAFTSBURY AND BALSON	270	NON RESIDENTIAL < 200
21	U3077	U3078	NORTH AND SOUTH BETWEEN SHAFTSBURY AND PEACH TREE	250	NON RESIDENTIAL < 200
21	U89	U1948	WILD CHERRY BETWEEN BURR OAK AND BLACKBERRY	360	Z LIGHT MID STREET BUT SITS BACK 60'
21	U1948	Z83386	LIONSGATE BETWEEN BLACKBERRY AND AMHERST	480	2 Z LIGHTS SPLIT DISTANCE INTO 160', 200' AND 160'
21	U1565	U2131	AMHERST BETWEEN WILD CHERRY AND NORTH AND SOUTH	360	Z LIGHT MID STREET WHICH SPLITS SPACING INTO 180' AND 190'
22	U2565	U2566	HANLEY BETWEEN GANNON AND CORNELL	250	NON RESIDENTIAL < 200
22	U3398	U3396	GANNON BETWEEN BEMISTON AND HANLEY	410	
22	U1310	U1602	DELMAR BETWEEN NORTH AND SOUTH AND BEMISTON	230	NON RESIDENTIAL < 200
23	U3064	U3065	HANLEY BETWEEN OLIVE AND SALEEN	210	NON RESIDENTIAL < 200
23	U3065	U3066	HANLEY BETWEEN SALEEN AND ANROSE	260	NON RESIDENTIAL < 200
23	U3066	U3067	HANLEY BETWEEN SALEEN PAST ANROSE	220	NON RESIDENTIAL < 200
23	U592	U3073	HANLEY BETWEEN AHERN AND SHAFTSBURY	240	NON RESIDENTIAL < 200
24	U450	U830	HANLEY BETWEEN CARLETON AND CARLETON	260	NON RESIDENTIAL < 200

24	U449	U450	HANLEY BETWEEN CARLETON AND DAJOBY	220	NON RESIDENTIAL < 200
24	U448	U449	HANLEY BETWEEN WELLINGTON AND MELROSE	210	NON RESIDENTIAL < 200
24	U2351	U2353	DAJOBY BETWEEN HANLEY AND END OF STREET	330	
24	U1470	U642	NORTH AND SOUTH BETWEEN WELLINGTON AND OLIVE	220	NON RESIDENTIAL < 200
24	U642	U428	NORTH AND SOUTH BETWEEN WELLINGTON AND OLIVE	220	NON RESIDENTIAL < 200
25	U35	U34	HANLEY BETWEEN CANTON AND WAYNE	230	NON RESIDENTIAL < 200
25	U37	U35	HANLEY BETWEEN CANTON AND LYNN	220	NON RESIDENTIAL < 200
25	U39	U41	HANLEY BETWEEN CANTON AND CARLYLE	580	NON RESIDENTIAL < 200
25	U41	U1569	ANNA BETWEEN CARLYLE	410	
25	U898	U897	HARRISON BETWEEN WAYNE AND LYNN	370	
25	U1886	U1592	NORTH AND SOUTH BETWEEN LYNN AND HAWTHORNE	250	NON RESIDENTIAL < 200
26	U24	U25	HANLEY BETWEEN LIBERTY AND TRENTON	220	THIS DOES NOT SEEM LIKE NON RESIDENTIAL, SO DISTANCE SHOULD BE OK?
26	U25	U29	HANLEY BETWEEN TRENTON AND MILAN	210	THIS DOES NOT SEEM LIKE NON RESIDENTIAL, SO DISTANCE SHOULD BE OK?
26	U29	U30	HANLEY BETWEEN TRENTON AND MIDLAND	210	THIS DOES NOT SEEM LIKE NON RESIDENTIAL, SO DISTANCE SHOULD BE OK?
26	U1204	U32	MIDLAND BETWEEN LIBERTY AND WAYNE	---	WHEN MEASURING DISTANCES ON EACH SIDE OF STREET (BECAUSE THERE IS A MEDIAN) THE SPACING IS TOO GREAT. WHEN MEASURING BOTH SIDES OF STREET TOGETHER, DISTANCE IS WITHIN LIMITS.
26	U2714	U2627	NORTH AND SOUTH BETWEEN TRENTON AND TERMINAL ROW	250	NON RESIDENTIAL < 200
26	U2627	U1892	NORTH AND SOUTH BETWEEN TRENTON AND MILAN	230	NON RESIDENTIAL < 200
26	U2077	U1591	NORTH AND SOUTH BETWEEN WAYNE AND MILAN	320	NON RESIDENTIAL < 200
27	U1543	END OF STREET	GREENSFELDER BETWEEN WARDER AND END OF STREET	480	NO LIGHTS ON THIS STREET
27	U1653	U962	TEASDALE BETWEEN CENTER AND OLD BONHOMME	540	
29	U1483	U1484	TRENTON BETWEEN MOORE AND QUENDO	320	
30	U941	U974	MIDLAND VIEW BETWEEN MIDLAND AND END OF STREET	320	
30	U2236	U2240	WHITE OAK BETWEEN PURDUE AND FARIS	305	

30	U2326	U894	MIDLAND BETWEEN CANTON AND MIDLAND VIEW	---	WHEN MEASURING DISTANCES ON EACH SIDE OF STREET (BECAUSE THERE IS A MEDIAN) THE SPACING IS TOO GREAT. WHEN MEASURING BOTH SIDES OF STREET TOGETHER, DISTANCE IS WITHIN LIMITS.
31	LLINGT	U2654	MIDLAND BETWEEN WELLINGTON AND MELROSE	260	WHEN MEASURING DISTANCES ON EACH SIDE OF STREET (BECAUSE THERE IS A MEDIAN) THE SPACING IS TOO GREAT. WHEN MEASURING BOTH SIDES OF STREET TOGETHER, DISTANCE IS WITHIN LIMITS.
31	U1386	U1408	MIDLAND AT WILSON	250	WHEN MEASURING DISTANCES ON EACH SIDE OF STREET (BECAUSE THERE IS A MEDIAN) THE SPACING IS TOO GREAT. WHEN MEASURING BOTH SIDES OF STREET TOGETHER, DISTANCE IS WITHIN LIMITS.
31	U984	U3732	MIDLAND BETWEEN WILSON AND PURDUE	210	WHEN MEASURING DISTANCES ON EACH SIDE OF STREET (BECAUSE THERE IS A MEDIAN) THE SPACING IS TOO GREAT. WHEN MEASURING BOTH SIDES OF STREET TOGETHER, DISTANCE IS WITHIN LIMITS.
32	U1448	U1449	MIDLAND BETWEEN AHERN AND CHAMBERLAIN	210	WHEN MEASURING DISTANCES ON EACH SIDE OF STREET (BECAUSE THERE IS A MEDIAN) THE SPACING IS TOO GREAT. WHEN MEASURING BOTH SIDES OF STREET TOGETHER, DISTANCE IS WITHIN LIMITS.
32	U1449	U1438	MIDLAND BETWEEN AHERN AND CHAMBERLAIN	210	WHEN MEASURING DISTANCES ON EACH SIDE OF STREET (BECAUSE THERE IS A MEDIAN) THE SPACING IS TOO GREAT. WHEN MEASURING BOTH SIDES OF STREET TOGETHER, DISTANCE IS WITHIN LIMITS.
32	U1427	U2655	MIDLAND BETWEEN SHAFTESBURY AND DORSET	210	WHEN MEASURING DISTANCES ON EACH SIDE OF STREET (BECAUSE THERE IS A MEDIAN) THE SPACING IS TOO GREAT. WHEN MEASURING BOTH SIDES OF STREET TOGETHER, DISTANCE IS WITHIN LIMITS.
32	U3204	U2549	SHAFTESBURY BETWEEN JACKSON AND WILSON	340	
33	U1325	U3386	JACKSON BETWEEN DELMAR AND PRINCETON	320	Z96079 SPLITS THE DISTANCE INTO 200' AND 120'
35	U810	U811	COLBY AT ROTH BEFORE ETZEL	340	
36	U1297	U1124	DELMAR BETWEEN BIG BEND AND TRINITY	290	NON RESIDENTIAL < 200
37	U1067	U1066	RAYMOND BETWEEN PENNSYLVANIA AND PURCELL	360	
37	U3213	U3212	ALLEY EAST OF PENNSYLVANIA BETWEEN PLYMOUTH AND MELROSE	370	
37	U2622	U3203	ALLEY NORTH OF CORBITT BETWEEN PENNSYLVANIA AND PURCELL	330	
37	U3203	U3202	ALLEY NORTH OF CORBITT BETWEEN PENNSYLVANIA AND PURCELL	310	
38	U1046	U794	MELROSE BETWEEN FERGUSON AND PURCELL	320	MEDIAN STREET SO SHOULD BE OKAY?
38	U3194	U315	ALLEY NORTH OF ETZEL BETWEEN FERGUSON AND PURCELL	350	
39	U3139	U3138	ALLEY NORTH OF CHAMBERLAIN BETWEEN 66TH AND KINGSLAND	320	
39	U3132	U3131	ALLEY NORTH OF OLIVE BETWEEN 66TH AND KINGSLAND	330	

40	U866	U3233	ALLEY NORTH OF CHAMBERLAIN BETWEEN KINGSLAND AND FERGUSON	320	
40	U3245	U3439	ALLEY NORTH OF OLIVE BETWEEN KINGSLAND AND FERGUSON	380	
42	U3693	U2741	ROBERTS BETWEEN PENNSYLVANIA AND PURCELL	440	
42	U1196	U2623	PENNSYLVANIA BETWEEN DUNLEER AND ARDEE	220	NON RESIDENTIAL < 200
42	U2239	U2234	WILLOW TREE BETWEEN PARTRIDGE AND HAZELWOOD	520	

POSSIBLE MISSING INTERSECTION LIGHTS

MAP #	LOCATION	COMMENTS
6A	WASHINGTON AND HANLEY	
6B	JACKSON AND NORWOOD	PILLAR LIGHT AT THIS CORNER - NOT A U LIGHT
8	SEVILLE AND TAMERTON	U61 ON SEVILLE MAY LIGHT THIS CORNER
8	BRADDOCK AND APLETON	
13	81ST AND PRESIDIO	ALSO NO "U" LIGHTS ON PRESIDIO. 1 "Z" LIGHT ON PRESIDIO
14	BLACKBERRY AND BLACKBERRY PL	U1115 AT BLACKBERRY AND GREENSHIRE MAY LIGHT THIS INTERSECTION ALSO
14	GAY AND TULANE CT	
14	DREXEL AND AHERN	
20	CENTER AND CORNELL	
21	LIONSGATE AND AMHERST	Z LIGHT AT INTERSECTION
31	END OF BURCH	NO LIGHT AT END OF STREET
32	PURDUE AND DREXEL	U120 ON PURDUE MAY LIGHT THIS CORNER
32	SHAFTESBURY AND PURDUE	U3497 ON SHAFTESBURY MAY LIGHT THIS CORNER
37	MELROSE AND WATTS	U1130 MAY LIGHT INTERSECTION

Appendix 8.3



C6-E - Light at City Hall



C33-S - Light at City Hall



C34-SPOT - Light at City Hall



L1 - E, NW, NE - Lights at City Hall



City Hall Parking Lot Light



City Hall Parking Lot Light



City Hall Lawn Light (Entrance Lions)



City Hall Lawn Light (Flag)



H-4 Historic Light - 7101 Washington Ave



H-4 Historic Light - 7101 Washington
Ave



Ackert Walkway between Delmar and Bus Stop



Ackert Walkway Bus Stop through Vernon



Light at All Saints Plaza



Olive Pedestrian Light



PD - Delmar Pedestrian Light



Lights by Market in the Loop



PB – Purdue Walkway Lights
(Currently Turned off)



XU-12 - Forest Park Blvd & Pershing
Area



XU-12 - Forest Park Blvd & Pershing
Area



P-(1-8) - Parking Lot #4



Parking Lot #4



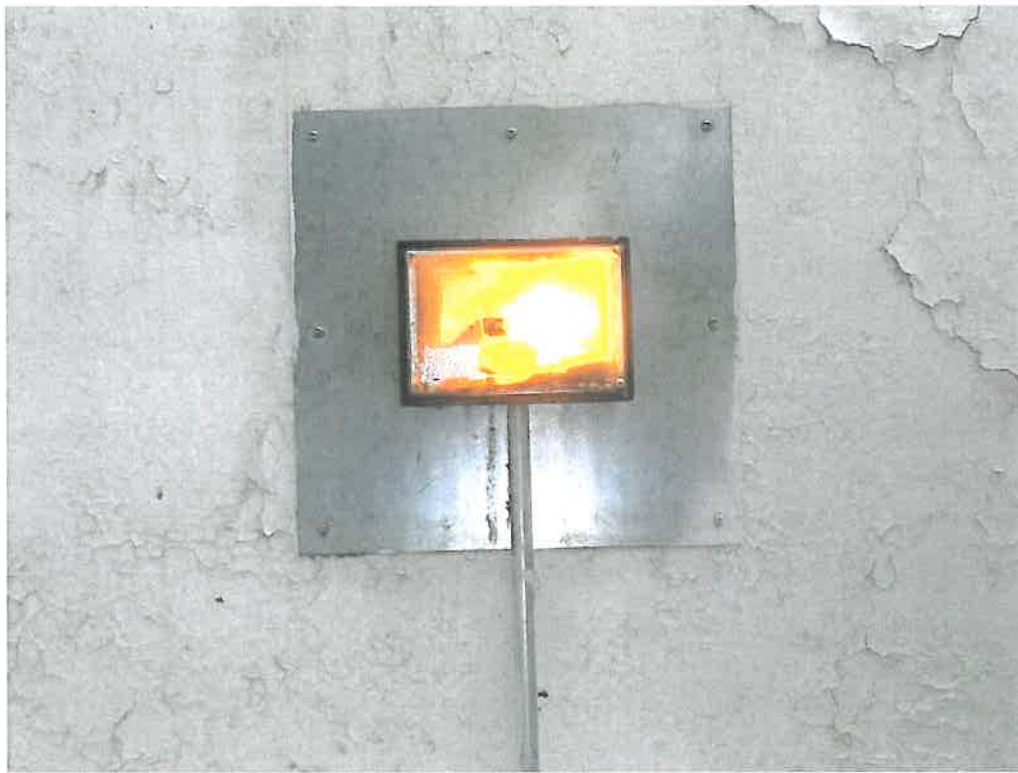
Parking Lot #3



P10 – Parking Lot Light
(Currently non-functional)



PM – Melville Pedestrian Lights



Wellesley Underpass Light
for stairway into underpass



Wellesley Underpass Lights
through underpass



LED Wall lights – North Side of Delmar
at Melville/Ackert Walkway

Appendix 8.4

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C.SCHEDULE NO. 5 27th Revised SHEET NO. 39CANCELLING MO.P.S.C. SCHEDULE NO. 5 26th Revised SHEET NO. 39APPLYING TO MISSOURI SERVICE AREASERVICE CLASSIFICATION NO. 5 (M)STREET AND OUTDOOR AREA LIGHTING - COMPANY-OWNEDRate per Unit per MonthLamp and Fixture

- A. Standard horizontal burning, enclosed luminaire on existing wood pole:

<u>High Pressure Sodium</u>		<u>Mercury Vapor (1)</u>	
<u>Lumens</u>	<u>Rate</u>	<u>Lumens</u>	<u>Rate</u>
9,500	\$ 8.59	6,800	\$ 8.59
25,500	\$12.41	20,000	\$12.41
50,000	\$22.12	54,000	\$22.12
		108,000	\$44.26

- *B. Standard side mounted, hood with open bottom glassware on existing wood pole:

<u>High Pressure Sodium</u>		<u>Mercury Vapor (1)</u>	
<u>Lumens</u>	<u>Rate</u>	<u>Lumens</u>	<u>Rate</u>
5,800	\$6.95	3,300	\$6.95
9,500	\$7.60	6,800	\$7.60

- C. Standard post-top luminaire including standard 17-foot post:

<u>High Pressure Sodium</u>		<u>Mercury Vapor (1)</u>	
<u>Lumens</u>	<u>Rate</u>	<u>Lumens</u>	<u>Rate</u>
9,500	\$15.91	3,300	\$15.04
		6,800	\$15.91

- D. Pole-mounted, direction flood luminaire; limited to installations accessible to Company basket truck:

<u>High Pressure Sodium</u>		<u>Metal Halide</u>		<u>Mercury Vapor (1)</u>	
<u>Lumens</u>	<u>Rate</u>	<u>Lumens</u>	<u>Rate</u>	<u>Lumens</u>	<u>Rate</u>
25,500	\$15.75	34,000	\$15.75	20,000	\$15.75
50,000	\$24.91	100,000	\$49.80	54,000	\$24.91

- (1) Mercury Vapor lamps and fixtures are limited to customers served under contracts initiated prior to September 27, 1988. Company will continue to maintain these lamps and fixtures so long as parts are economically available.

*Indicates Change.

DATE OF ISSUE June 7, 2010 DATE EFFECTIVE July 7, 2010ISSUED BY Warner L. Baxter President & CEO St. Louis, Missouri
NAME OF OFFICER TITLE ADDRESS

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C.SCHEDULE NO. 531st RevisedSHEET NO. 41CANCELLING MO.P.S.C. SCHEDULE NO. 530th RevisedSHEET NO. 41

APPLYING TO

MISSOURI SERVICE AREASERVICE CLASSIFICATION NO. 5(M)STREET AND OUTDOOR AREA LIGHTING - COMPANY-OWNED (Cont'd.)

- *G. Former Subsidiary Company lighting units provided under contracts initiated prior to April 9, 1986, which facilities will only be maintained by Company so long as parts are available in Company's present stock:

<u>Lamp and Fixture</u>	<u>*Per Unit Monthly Rate</u>
11,000 Lumens, Mercury Vapor, Post-Top	\$15.91
11,000 Lumens, Mercury Vapor, Open Bottom	7.60
11,000 Lumens, Mercury Vapor, Horizontal Enclosed	8.59
42,000 Lumens, Mercury Vapor, Horizontal Enclosed	22.12
16,000 Lumens, H.P. Sodium, Horizontal Enclosed	8.59
34,200 Lumens, H.P. Sodium, Directional(2)	15.75
140,000 Lumens, H.P. Sodium, Directional	49.80
20,000 Lumens, Metal Halide, Directional	15.75

- (2) This lamp represents a mercury vapor fixture with H.P. Sodium lamp.

Term of Contract. Minimum term of three (3) years where only standard facilities are installed; ten (10) years where post-top luminaires are installed.

Discount for Franchised Municipal Customers. A 10% discount will be applied to bills rendered for lighting facilities served under the above rates and currently contracted for by municipalities with whom the Company has an ordinance granted electric franchise as of September 27, 1988. The above discount shall only apply for the duration of said franchise. Thereafter, the above discount shall apply only when the following two conditions are met: 1) any initial or subsequent ordinance granted electric franchise must be for a minimum term of twenty (20) years and 2) Company must have a contract for all lighting facilities for municipal lighting service provided by Company in effect.

Tax Adjustment. Any license, franchise, gross receipts, occupation or similar charge or tax levied by any taxing authority on the amounts billed hereunder will be so designated and added as a separate item to bills rendered to customers under the jurisdiction of the taxing authority.

*Indicates Change.

DATE OF ISSUE June 7, 2010 DATE EFFECTIVE July 7, 2010
 ISSUED BY Warner L. Baxter President & CEO St. Louis, Missouri
 NAME OF OFFICER TITLE ADDRESS

UNION ELECTRIC COMPANY ELECTRIC SERVICE

MO.P.S.C.SCHEDULE NO. 5 Original SHEET NO. 41.1

CANCELLING MO.P.S.C. SCHEDULE NO. _____ SHEET NO. _____

APPLYING TO MISSOURI SERVICE AREA

SERVICE CLASSIFICATION NO. 5(M)
STREET AND OUTDOOR AREA LIGHTING - COMPANY-OWNED (Cont'd.)

*Fuel and Purchased Power Adjustment (Rider FAC). The kilowatt hours for lighting service provided under the terms of this Service Classification shall be subject to the provisions of Company's Fuel and Purchased Power Adjustment Clause (Rider FAC). The kilowatt hour consumption of each lamp, whose operating hours are determined by a photoelectric control, shall be determined from the manufacturer's rated wattage multiplied by the number of hours of operation for the month, in accordance with the following schedules:

<u>Lamp Size</u> <u>(Lumens)</u>	<u>Rating</u> <u>(Watts)</u>	<u>Billing</u> <u>Month</u>	<u>Burning</u> <u>Hours</u>
<u>H. P. Sodium</u>			
5,800	70	January	408
9,500	120	February	347
16,000	202	March	346
25,500	307	April	301
34,200	360	May	279
50,000	482	June	255
140,000	1000	July	272
		August	298
		September	322
<u>Mercury Vapor</u>			
3,300	127	October	368
6,800	207	November	387
11,000	294	December	417
20,000	455		
42,000	700		
54,000	1080		
108,000	2160		
<u>Metal Halide</u>			
20,000	294		
34,000	450		
100,000	1100		
<u>Incandescent</u>			
1,000	103		
2,500	202		
4,000	327		
6,000	448		
10,000	690		

*Indicates Addition.

Issued pursuant to the Order of the MoPSC in Case No. ER-2008-0318.

DATE OF ISSUE January 30, 2009 DATE EFFECTIVE March 1, 2009ISSUED BY T. R. Voss President & CEO St. Louis, Missouri
NAME OF OFFICER TITLE ADDRESS

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

P. S. C. MO., ILL. C. C., IA. ST. C. C. SCHEDULE NO. 5 7th Revised SHEET NO. 42CANCELLING SCHEDULE NO. 5 6th Revised SHEET NO. 42APPLYING TO MISSOURI SERVICE AREASERVICE CLASSIFICATION NO. 5(M)STREET AND OUTDOOR AREA LIGHTING - COMPANY-OWNED (Cont'd.)

1. Rate Application. Available for lighting streets, alleys, walkways and other thoroughfares, or for outdoor lighting of public or private areas for security or similar purposes when such lighting facilities are operated and maintained as an extension of Company's distribution system.
- *2. Character of Service Supplied. Company shall inventory, furnish, install, maintain and deliver electric service to automatically-controlled lighting fixtures currently offered as standard facilities by Company. Customer shall select the type and size of lamps and fixtures from the standard equipment inventoried and offered by the Company and shall specify the location of said fixtures. Other than service to Company's post-top fixtures, the service provided hereunder shall be supplied by lines or cables through fixtures supported by standard upsweep brackets attached to existing poles; however, certain non-standard facilities may be installed hereunder in accordance with the terms and conditions stated in the following paragraph 3.
- *3. Non-Standard Facilities. Whenever customer requires Company to install non-standard facilities hereunder (such as longer upsweep brackets, switches, protective barriers, etc.) and there is no engineering, construction, safety, legal or practical reason which would, in Company's judgment, make such non-standard installation inadvisable, Company will make such installation provided customer pays in advance to Company all costs in connection therewith. Subsequent replacements of said facilities will be provided by the Company.
- *4. Conversion or Modification of Lamps. Where customer requests a conversion or modification of the size or type of lamp currently installed, and Company would not otherwise be converting such lights, Company will make the requested changes provided, however, that customer pays in advance to the Company \$100.00 per lamp for both the removal cost and loss of the remaining life of such lamps and, additionally, signs a new contract at the time when 20 percent or more of the customer's total lamps then installed are so converted or modified. Billing for the revised lamps will begin as of the next regular billing date after such modifications have been completed.

*Indicates Change

P.S.C. Mo. DATE OF ISSUE August 1, 1988 DATE EFFECTIVE September 27, 1988

Ill. C.C. DATE OF ISSUE _____ DATE EFFECTIVE _____

IA.St.C.C. DATE OF ISSUE _____ DATE EFFECTIVE _____

ISSUED BY William E. Cornelius Chairman St. Louis, Missouri
NAME OF OFFICER TITLE ADDRESS

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

P. S. C. MO., ILL. C. C., IA. ST. C. C. SCHEDULE NO. 5 11th Revised SHEET NO. 43CANCELLING SCHEDULE NO. 5 10th Revised SHEET NO. 43APPLYING TO MISSOURI SERVICE AREA

SERVICE CLASSIFICATION NO. 5 (M)
STREET AND OUTDOOR AREA LIGHTING - COMPANY-OWNED (Cont'd.)

5. Change or Relocation. Upon receipt of written request and authorization from customer, Company will, insofar as it may be practical and permissible, make any other change in or relocation of its facilities used in rendering service hereunder, provided customer pays in advance Company's estimated costs in connection therewith.
6. Additional Installations. Customer may obtain the installation of additional lamps and the supply of service thereto under the existing contract for the remainder of the term thereof upon written application to the Company, provided, however, that if at any time during the term of the contract customer requires such additional lamps so as to cause the total number of lamps in service to exceed by 20% the lamps originally contracted for and then installed, the parties shall execute a new contract.
7. Termination. If customer requests in writing the termination of all or a portion of any lighting service, not paid for in advance, within three years of the installation of the lamps being terminated, or within ten years of the installation of post top luminaires, wood poles or cable being terminated, customer shall pay in advance to Company \$100.00 per lamp for both the removal costs associated therewith and the loss of the remaining life value of such facilities. If said request for termination of lighting service is made after the above three and ten year in-service periods, as applicable, and customer requests a new lighting installation within twelve months after the removal of the prior terminated lighting facilities, customer shall pay the amount specified earlier in this paragraph for all facilities previously removed prior to Company making any new lighting installation.
- *8. General Provisions. Customer shall furnish to Company without cost to Company and on forms suitable to it, or customer shall reimburse Company for all costs incurred in obtaining all rights, permits and easements necessary to permit the installation and maintenance of Company's facilities on, over, under and across both public and private property where and as needed by Company in providing service hereunder. In addition, customer shall pay all costs incurred by Company in extending its distribution system, including transformers, to provide energy to said lighting facilities supplied hereunder, in accordance with the provisions of Section III.Q - Special Facilities.

*Indicates Change

P.S.C. Mo. DATE OF ISSUE March 30, 1990 DATE EFFECTIVE May 5, 1990

Ill. C.C. DATE OF ISSUE _____ DATE EFFECTIVE _____

IA.St.C.C. DATE OF ISSUE _____ DATE EFFECTIVE _____

ISSUED BY William E. Cornelius Chairman St. Louis, Missouri
NAME OF OFFICER TITLE ADDRESS

Appendix 8.5

Jenny Wendt

From: Denis Caron [DCaron@lewistonmaine.gov]
Sent: Friday, April 08, 2011 8:47 AM
To: Jenny Wendt
Subject: RE: Street Lights

Hello Jenny,

Lighting levels in Service Areas 1 & 2, adopted by Council were based on IES recommendations, although, because of the cost of energy, as well as the disparity in pole spacing by the utility, we do not try to achieve these levels in residential areas, the rule of thumb is a light every other pole (70 watt HPS).

On Arterials and Major Collectors we attempt to achieve light levels recommended by IES, however, again, due to the disparity in pole spacing we have a (250 watt HPS) on every other pole.

In Service area 3, regardless of roadway classification, we only light intersections, hills, curves and cul-de-sacs. On Arterials in service Area 3 we use 150 watt HPS luminaires, in all other locations we would use either a 70 watt HPS, or an LED with a maximum of 75 input watts.

Keep in mind that when drafting a policy it's always helpful to recommend standards established by some National or International group, in this case the, Illuminating Engineering Society of North America (IES) as it keeps the process objective.

Ultimately, the limiting factor, regardless of what is in your policy, is the regulation adopted by your local Electric Utility. But, you still have to set some kind of reasonable standard in your policy, regardless of whether you can or can't meet it.

And finally, the best suggestion I can make is, always stay one step ahead of the Posse!

Good Luck, and if you have any other questions, you know how to reach me.

Best Regards,

From: Jenny Wendt [mailto:jwendt@ucitymo.org]
Sent: Wednesday, April 06, 2011 1:39 PM
To: Denis Caron
Subject: [BULK] RE: Street Lights
Importance: Low

This has been really helpful. Do I understand correctly from reading the policy that you stick to the IES recommended light levels for major roadways but not for residential and minor roadways? Our current policy recommends at least 9500 lumen every 300' for residential roadways and at least 25,500 lumens every 200' for non-residential roadways. If I try to move towards IES recommendations we would actually need to add lighting. I'd like to justify our current policy or allow for less lighting, particularly due to high energy use and cost. Because we are currently restricted by our electric company, the most energy efficient lights we can use are 100 Watt HPS. We have around 4000 street lights total.

Any suggestions?

Thank you,

Jennifer Wendt

From: Denis Caron [mailto:Dcaron@ci.lewiston.me.us]
Sent: Monday, March 28, 2011 1:48 PM
To: Jenny Wendt
Subject: Re: Street Lights

Hello Jennifer,

After adoption of a Street Light policy by our City Council in October 2009, we issued Public Notices, in the local news paper, as well as a notice on each pole where a street light would be removed, of our intentions of removing approximately 345 Street Lights city wide from our network. The notice provided a 30 day comment period for any interested party, and after that 30 day period we would begin removal without further notice.

We expected to be bombarded with requests to leave existing street lights in place. On the contrary, we receive only 9 requests to leave existing lights in place, all 9 had legitimate reasons for leaving the lights.

We began removal of the 335 or so lights in December 2009 and completed the removals in March 2010, without additional complaints.

In February 2010, Lewiston was notified that they were awarded an ARRA Grant in the amount of \$157,700.00 for energy conservation measures on the Street Light network.

With input from Admin. Planning and other departments we decided to use the entire grant to purchase more efficient street lighting equipment, with installation being done our own personnel. 400, 70 watt semi cutoff HPS fixtures with twin arc tube lamps were purchased, along with 145, LED's. We are now in the process of upgrading a mix of 175 and 250 watt Mercury light fixtures.

Adoption of a Street Light policy was the Key element in accomplishing all of this work with as little public complaint as we received.

In case you have any interest, I have attached a copy of our policy, and if you should have any further questions, feel free to call or email, at your convenience.

Best Regards,

Denis R. Caron
Electrical Supt.
Lewiston, "All America City" 2007
City of Lewiston
PO Box 479, 103 Adams Ave
Lewiston ME 04243-0479
TTY/TDD 207-513-3007
Voice Tel: 207-513-3003 ext. 3425
Fax: 207-784-0376
DCARON@CI.LEWISTON.ME.US

The City of Lewiston is an EOE. For more information, please visit our website @ www.ci.lewiston.me.us and click on the Non-Discrimination Policy.

>>> On 3/28/2011 at 1:31 PM, in message <468F7E1B689D0B41B82DB782AF1C7AFD24F2F1335C@frodo.ucitymo.org>, Jenny Wendt <jwendt@ucitymo.org> wrote:

My name is Jennifer Wendt and I am doing a street light study in University City, MO (part of St. Louis county). We have been researching options to reduce our energy use of the street lights. One of our options includes decommissioning lights. I saw on your website that you had performed street light reduction in 2009. I am very interested to find out how that worked out or is working out, as well as other information regarding your street light policy.

Thank you very much!!
Jennifer Wendt

STREET LIGHTING POLICY

1.0 BACKGROUND

The City of Lewiston's street lighting standards as promulgated in this policy account for factors such as traffic volume, nighttime pedestrian activity, pedestrian security, crime prevention, light pollution, and energy conservation. Street lighting is particularly useful in areas of potential vehicle and pedestrian conflict, such as intersections and other pedestrian crossing locations and as a means of aiding pedestrian access to public roadway at night.

By providing an adequate level of illumination appropriate to the level-of-use desired throughout the City of Lewiston, vehicle and pedestrian nighttime use can be enhanced and potential conflict with the two can be minimized. Additionally, the proper selection of lighting equipment and the location of street lighting will provide sufficient visibility, increased safety, and improved security for pedestrians and vehicles while maximizing energy efficiency and minimizing expenditure.

The use of streetscape lighting has demonstrated an improved visual appeal for the City of Lewiston's urban environment along many of its downtown streets. Properly installed streetscape lighting creates an environment that is aesthetically pleasing and inviting to nighttime use by pedestrians. Although streetscape lighting is not feasible in all locations of the City, the use of streetscape lighting has demonstrated an improved visual appeal for the City of Lewiston's urban environment along many of its downtown streets including Lisbon Street, Canal Street, and Lincoln Street.

Lighting levels for roadway street lighting aimed at promoting efficient traffic movement is generally based on Illuminating Engineering Society of North America (IES) recommendations contained in IES publication RP-8-00 Roadway Lighting. IES guidelines are based on geometric, operational, and environmental factors and suggest average roadway luminance and uniformity ratios to reduce traffic accidents. Although the IES standards are desirable to attain for roadways with high traffic volumes, the IES standard do not easily translate to rural and residential roadway lighting applications where promoting traffic flow and traffic speed are not the primary concern. The standards recommended by the IES would be best applied to Lewiston on roadways where traffic flow, speed, and the potential pedestrian conflicts are of primary concern such as sections of Main Street, Sabattus Street, and Lisbon Street.

The policies used to develop the Streetlight Standard recommend a residential streetlight spacing of 220 feet in urban areas and minimal lighting in less urbanized areas. These policies also recommend semi-cutoff fixtures to reduce glare and light pollution. The standards and ordinances referenced include:

- "American National Standard Practice for Roadway Lighting," Illuminating Engineering Society of North America.
- "Promoting Quality Outdoor Lighting in Your Community," Maine State Planning Office, Lighting Technical Assistance Bulletin.
- "Roadway Lighting: Design Guide," American Association of State Highway and Transportation Officials. October 2005.
- "Salt Lake City Street Lighting Master Plan and Policy," Salt Lake City Community Development Department.
- "Town of Aberdeen Street Lighting Policy and Guidelines," Town of Aberdeen, North Carolina.

STREET LIGHTING POLICY

- “Design Standards for Outdoor Lighting,” City of Lincoln and Lancaster County, Nebraska. Building and Safety Department Design Standards, Chapter 3.100.
- “Street Lighting Standards,” City of Bremerton, Washington, Department of Public Works and Utilities: Engineering Division, Design Standards: Division 7.
- “Street Lighting Policy,” City of San Angelo, Texas. Public Works Department.
- “Town of Chapel Hill Design Manual,” Town of Chapel Hill, North Carolina, Engineering Department.

2.0 PURPOSE

The purpose of this Policy is to establish the standards for the placement, operation, and maintenance of street lighting within the public right-of-way. This Policy intends to promote the public health, safety, and welfare of the City by providing lighting that appropriately and adequately illuminates developed and future public right-of-ways by:

- 2.1. Providing street lighting levels that protect the safety, security, and nighttime-use and enjoyment in public right-of-ways by the public;
- 2.2. Providing adequate street lighting level that will promote pedestrian nighttime use in areas with high crime rates;
- 2.3. Reducing light pollution and glare caused by street lighting;
- 2.4. Promoting energy conservation; and
- 2.5. Enhancing the aesthetics of the built environment.

3.0 AUTHORITY

Pursuant to the City of Lewiston’s Code of Ordinances, Chapter 2, Article V, Section 2-401 and Section 2-402 (3), the Director of Public Services shall be responsible for all matters relating to all electrical utilities of the City and the division of electricity directed by the Director of Public Services shall coordinate and control the activities related to the operations and maintenance of all street lights.

4.0 DEFINITIONS

- 4.1. Arterial Roadway – A public roadway shown on the most recent functional classification map generated by the Maine Department of Transportation, further classified as a major or minor arterial, providing longer through travel between major trip generators (large cities, recreational areas, etc.)
- 4.2. Alley – A public roadway providing access to the service entrances of buildings primarily used by service vehicles, where through traffic is usually discouraged, and carrying a low volume of traffic.

STREET LIGHTING POLICY

- 4.3. Collector Roadway – A public roadway shown on the most recent functional classification map generated by the Maine Department of Transportation as a collector street which collects traffic from local roads and also connects smaller cities and town with each other and to the arterials.
- 4.4. Local Roadway – A public roadway shown on the most recent functional classification map generated by the Maine Department of Transportation as a local street providing direct access within identifiable neighborhoods and lands, where through traffic is usually discouraged, and carrying a low volume of traffic.
- 4.5. Light pole – A pole owned by the City, located in the public right-of-way used to mount ornamental lighting or an overhead streetlight.
- 4.6. Luminaire – A complete lighting unit consisting of a lamp or lamps together with the parts designed to distribute the light, position, and protect the lamp and connect the lamp to the power supply.
- 4.7. Streetscape Lighting – Lighting mounted on stand-alone light poles, within the public right-of-way, typically no more than ten to 15 feet in height, used to illuminate sidewalks, building facades, and in some instances the roadway.
- 4.8. Public Right-of-Way – A strip of land acquired by deed, reservation, dedication, forced dedication, prescription, or condemnation and intended to be occupied or occupied by a roadway, crosswalk, railroad, electric transmission line, oil or gas pipeline, water line, sanitary or storm sewer other similar use.
- 4.9. Roadway – For the purposes of this policy, any portion of a public right-of-way that is paved or graveled and used for vehicle and pedestrian travel.
- 4.10. Semi-cutoff – A luminaire where less than 5 percent of the lamp lumens occur at or above the horizontal plane and no more than 20 percent of the lamp lumens occur above 80 degrees above the vertical plane (nadir).
- 4.11. Streetlight – Any light operated and maintained by the City that is used for the purpose of lighting a roadway within a public right-of-way mounted on a utility pole or light pole that directs light to the roadway.
- 4.12. Spacing – The distance between successive luminaires measured along the centerline of the roadway.
- 4.13. Street Segment – a section of roadway typically broken by a roadway intersection or sharp corner.
- 4.13. Utility pole – A pole owned and maintained by a utility company used to support power lines, telephone lines, cable lines, etc.

STREET LIGHTING POLICY

5.0 APPLICABILITY

The street lighting standard applies to all streetlights located within public right-of-ways. Street lighting improvements shall be made:

- 5.1. During routine maintenance and capital improvements by the City or its contractors.
- 5.2. When new public streets are constructed, improved, or closed.
- 5.3. When new development is proposed that impacts the downtown streetscape.

6.0 GENERAL

- 6.1. The installation and maintenance of street lights within the limits of the City of Lewiston shall conform to the standards set forth in this Policy.
- 6.2. The Department of Public Service or future department responsible for the maintenance and operation of City streetlights (the Department) shall be responsible for the installation, replacement, removal, and maintenance of all City street lights in conformance with the standards set forth in this Policy.

7.0 SPACING STANDARDS

Streetlight placement within public right-of-ways shall conform to the following standards as feasible given utility pole spacing and light pole spacing:

- 7.1. Service Area One – For any roadway within the service area indicated on the Street Light Service Map in Appendix A:
 - 7.1.1. One streetlight shall be located at all roadway intersections and mid-block locations at a spacing interval of approximately 150-220 feet as feasible given existing utility pole and light pole spacing.
 - 7.1.2. Street segments less than 300 feet in length shall be lit at roadway intersections, dead ends, and at least once at midblock locations.
 - 7.1.3. Streetscape lighting within the Streetlight Lighting District described in Section 12.0 may be used to light roadways where sidewalks are present and highlight building facades and public areas as determined by the City Council.
- 7.2. Service Area Two – For any roadway within the service area indicated on the Street Light Service Map in Appendix A:
 - 7.2.1. For **principal and minor arterials** as defined on the most recent functional classification map generated by the Maine Department of Transportation, street lighting will be provided at a spacing interval of approximately 220 feet and at intersections and at mid-block locations as feasible given existing utility pole and light poles spacing or as required by the lighting technology that is used.

STREET LIGHTING POLICY

7.2.2. For all **other roadways** within this zone, street lighting will be provided at intersections, cul-de-sacs, dead ends, and at mid-block locations as listed below:

- 7.2.2.1. Street segments less than 1,000 feet in length shall be located at all roadway intersections and mid-block locations at a spacing interval of approximately 220 feet as feasible given existing utility pole and light pole spacing.
- 7.2.2.2. Street segments less than 300 feet in length shall only be lit at roadway intersections and dead ends.
- 7.2.2.3. Street segments greater than 1,000 feet in length shall be lit at a spacing interval of approximately 440 feet as feasible given existing utility pole and light pole spacing.
- 7.2.2.4. Street segments greater than 2,000 feet in length shall be lit at a spacing interval of approximately 660 feet as feasible given existing utility pole and light pole spacing.

7.3. Service Area Three – For any roadway within this service area as indicated on the Street Light Service Map in Appendix A:

7.3.1. For **principal and minor arterials** as defined on the most recent functional classification map generated by the Maine Department of Transportation, street lighting will be provided at a spacing interval of approximately 440 feet and at intersections and at mid-block locations as feasible given existing utility pole and light poles spacing.

7.3.2. For all **other roadways** within this zone, street lighting will only be provided at public roadway intersections, cul-de-sac, and dead ends.

7.3.3. Predominantly residential areas (one dwelling unit per 2.5 acres or less) located in this service area illuminated with City streetlights as of the effective date of this standard shall continue to be illuminated at the pre-existing spacing interval or existing spot location. Removal of additional streetlights shall be at the discretion of the City Council through a process that is determined by the Council.

7.4. Situational Applications – Additional street lighting shall be provided in any service area up to the Roadway Standard suggested by the IES in RP-8-00 Roadway Lighting at the discretion of the Department in the following situations:

- 7.4.1. At the bottom of steep hills, corners with an angle less than 120 degrees, highway entrances and exits, at-grade railroad crossings, bridges, schools, mid-block and T-intersection crosswalk locations, and transit stops as determined by the Department. Streetscape lighting shall be the preferred method of illumination at transit stops as feasible.
- 7.4.2. At locations and areas of high vehicle-to-vehicle and vehicle-to-pedestrian accidents. Such lighting shall be identified and installed by the Department in partnership with the Police Department.

STREET LIGHTING POLICY

- 7.4.3. At targeted locations where high crime is a documented problem as determined by the Police Department. Streetscape lighting shall be the preferred method of illumination as feasible.

8.0 LIGHTING STANDARDS

Streetlight installation within public right-of-ways shall conform to the following standards as feasible given the existing spacing of utility poles and light poles:

- 8.1. City streetlights shall be mounted on existing or future utility poles or light poles.
- 8.2. Street lights shall be installed at a height based on guidelines provided by the IES Roadway Standard as necessary based on the roadway type: highway to alley.
- 8.3. To reduce glare and sky illumination, streetlights purchased and/or installed by the City or its contractor shall be of the semi-cutoff type. Existing streetlights and equipment in stock as of the effective date of this policy shall not be required to conform to this requirement.
- 8.4. The City shall seek to minimize energy usage by streetlights by choosing optimal lighting configurations (i.e. maximizing efficiency for intersections lighting) and using the most cost-effective and innovative technology available including induction lighting, Light Emitting Diode (LED) lighting, networked lighting systems, timed and light sensing lighting, or other future technologies as financially prudent.
 - 8.4.1. In Service Zone 1: For all roadway, streetscape lighting, LED, and induction lights shall be the preferred method of illumination.
 - 8.4.2. In Service Zone 2: For major arterials, LED, induction or HPS shall be the preferred method of illumination; for all other roadway, 70 watt HPS shall be the preferred method of illumination.
 - 8.4.3. In Service Zone 3: For all roadways, 70 watt HPS shall be the preferred method of illumination for midblock locations. LED may be used for intersection locations.
- 8.5. Streetlights installed at any intersections or crosswalk shall not exceed the electricity usage of a 250 watt High-Pressure Sodium (HPS) fixture equivalent.
- 8.6. Streetlights installed at midblock locations shall not exceed the electricity usage of a 150 watt HPS fixture equivalent. Fixture wattage may be reduced to an equivalent electrical usage of less than a 70 watt HPS fixture equivalent by the Department on notification to the City Council.
- 8.7. The City shall seek to match uniformity, lumen output, and color of other streetlights along roadway segments and long major arterials.

STREET LIGHTING POLICY

9.0 INSTALLATION STANDARDS

9.1. The City shall install street lights in conformance with this standard.

9.2. All installation of City streetlights shall be carried out by a licensed electrician employed or contracted by the City. New street lighting proposed for new subdivisions and roadways shall be installed and designed in conformance with this policy by private contractors to the specifications determined by the City and in accordance to the standards found in this policy.

9.3. Street lighting installed or removed in error may be requested by City residents and property owners for installation or removal in conformance with this policy.

10.0 MAINTENANCE STANDARDS

10.1. All maintenance of City streetlights shall be carried out by a licensed electrician employed or contracted by the City.

10.2. The City shall maintain an official map of the location of the City's streetlights and a corresponding list of the fixtures and wattage of those streetlights. This official map shall be updated and published on an annual basis.

10.3. The City shall develop a streetlight service plan including a schedule for the periodic maintenance and replacement of fixtures, a schedule for bulk re-lamping by area, and a schedule for bulk replacement of photo-sensors. The City shall update and maintain that plan on an annual basis.

10.4. The City shall log citizen reports of streetlight outages, register those outages on the official streetlight map, taking note of critical locations where traffic and pedestrian safety is at risk, evaluate if those streetlights need to be replaced ahead of normally scheduled replacement, and then replace the "burnt-out" streetlight if justified according to the evaluation process.

11.0 ADDITIONAL STREET LIGHTING

11.1. Residents, property owners, the City Council, or the Department may seek to modify the service boundaries set forth in this Policy for the purpose of installing or removing streetlights as the City changes. It shall be the responsibility of the City Council to hear and make modifications to the service boundaries as necessary.

11.2. Property owners may request the installation or removal of street lighting from the Department.

11.3. The Department shall evaluate the request and act upon that request for the installation or removal of street according to the standards found in this Policy. The Department shall use the following criteria in evaluating requests from property owners for the installation or removal of street lighting:

11.3.1. Conformance with the provisions of the Streetlight Standard.

STREET LIGHTING POLICY

11.3.2. Conformance with uniformity, lumen output, and color of other streetlights along the roadway in question.

11.3.3. Limited adverse impacts to the public including vehicle and pedestrian traffic and associated impacts from glare and disruption of streetlight uniformity.

11.4. Any property owner denied a request to install or remove a streetlight by the Department may request an administrative hearing before the board of appeals by filing a written petition for such hearing at the office of the Director of Code Enforcement within ten days of the date of notice of the denial by the Department. Such appeal shall be heard within 30 days after the date of filing. The board of appeals may sustain, modify or withdraw such request. The decision of the board of appeals may be further appealed pursuant to the provisions of rule 80B of the Maine Rules of Civil Procedure. To take advantage of this right, a petition for review must be filed with the superior court within 30 days of receipt of the decision of the board of appeals.

12.0 STREETScape LIGHTING

12.1. Streetscape lighting shall be installed by the City to illuminate pedestrian walkways, public building facades, and roadways at the discretion of the City Council in areas designated by the City Council as the "Streetscape Lighting District" as indicated on the Street Light Service Map in Appendix A.

12.2. From time to time, the City under the direction of the City Council may seek to modify the boundaries of the Streetscape Lighting District.

12.3. Within the Streetscape Lighting District, streetscape lighting shall be the preferred method of illumination. Within this district, the City shall seek to expand the use of streetscape lighting in place of overhead lighting as fiscally prudent and in conjunction with other infrastructure projects.

13.0 EFFECTIVE DATE






October 20, 2009






APPENDIX A: STREETLIGHT SERVICE MAP



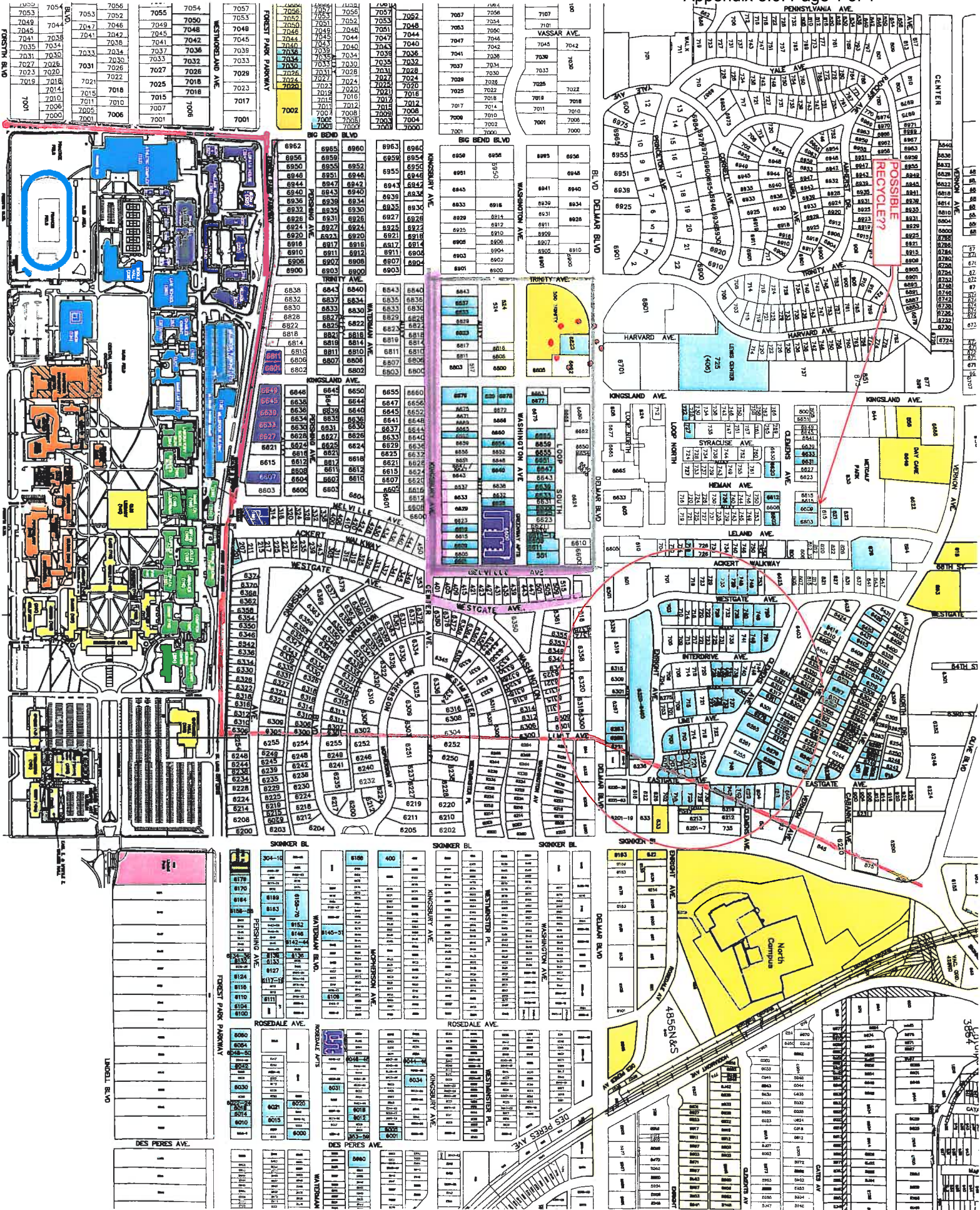
LEGEND

-  Local Roadway
-  Collector
-  Major or Minor Arterial
-  Interstate Highway
-  Streetscape Lighting District

SERVICE ZONES

-  ZONE ONE
-  ZONE TWO
-  ZONE THREE

Appendix 8.6



7053	7054	7055	7056
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6038	6039	6040	6041
6034	6035	6036	6037

6000	6001	6002	6003
5996	5997	5998	5999
5992	5993	5994	5995
5990	5991	5992	5993
5986	5987	5988	5989
5982	5983	5984	5985
5978	5979	5980	5981
5974	5975	5976	5977
5970	5971	5972	5973
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5950	5951	5952	5953
5946	5947	5948	5949

6000	6001	6002	6003
5996	5997	5998	5999
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5986	5987	5988	5989
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5978	5979	5980	5981
5974	5975	5976	5977
5970	5971	5972	5973
5966	5967	5968	5969
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5958	5959	5960	5961
5954	5955	5956	5957
5950	5951	5952	5953
5946	5947	5948	5949

7007	7008	7009	7010
7003	7004	7005	7006
7000	7001	7002	7003
6996	6997	6998	6999
6992	6993	6994	6995
6988	6989	6990	6991
6984	6985	6986	6987
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6938	6939	6940	6941
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6902	6903	6904	6905

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6826	6827	6828	6829
6822			

Appendix 8.7

UNION ELECTRIC COMPANY ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 5 16th Revised SHEET NO. 45CANCELLING MO.P.S.C. SCHEDULE NO. 5 15th Revised SHEET NO. 45APPLYING TO MISSOURI SERVICE AREA

SERVICE CLASSIFICATION NO. 6 (M)
STREET AND OUTDOOR AREA LIGHTING - CUSTOMER-OWNED

*Monthly Rate For Metered Service

Customer Charge Per Meter	\$5.17 per month
Energy Charge	3.49¢ per kWh

*Rate Per Unit Per Month For Unmetered Service

Customer Charge per account		\$5.17 per month
<u>H.P. Sodium</u>	<u>Energy & Maintenance(1)</u>	<u>Energy Only(2)</u>
9,500 Lumens, Standard	\$ 2.78	\$ 1.35
16,000 Lumens, Standard	N/A	2.29
25,500 Lumens, Standard	4.84	3.45
50,000 Lumens, Standard	6.98	5.41
<u>Metal Halide</u>		
5,500 Lumens, Standard	\$ 4.02	N/A
12,900 Lumens, Standard	4.81	N/A
<u>Mercury Vapor</u>	(3)	
3,300 Lumens, Standard	\$ 2.78	\$ 1.43
6,800 Lumens, Standard	3.62	2.32
11,000 Lumens, Standard	4.89	3.30
20,000 Lumens, Standard	6.49	5.10
42,000 Lumens, Standard	N/A	8.49
54,000 Lumens, Standard	13.86	12.13

- (1) Company will furnish electric energy, furnish and replace lamps, wash lamps and luminaires, and adjust and replace control mechanisms, as required.
- (2) Limited to lamps served under contracts initiated prior to September 27, 1988.
- (3) Maintenance of lamps and fixtures limited to customers served under contracts prior to November 15, 1991.
N/A--Not Available.

Term of Contract. One (1) year, terminable thereafter on three (3) days' notice.

Discount For Franchised Municipal Customers. A 10% discount will be applied to bills rendered for lighting facilities served under the above rates and currently contracted for by municipalities with whom the Company has an ordinance granted electric franchise as of September 27, 1988. The above discount shall only apply for the duration of said franchise. Thereafter, the above discount shall apply only when the following two conditions are met: 1) any initial or subsequent ordinance granted electric franchise must be for a minimum term of twenty (20) years and 2) Company must have a contract for all lighting facilities for municipal lighting service provided by Company in effect.

*Indicates Change.

Issued pursuant to the Order of the MOPSC in Case No. ER-2008-318.

DATE OF ISSUE January 30, 2009 DATE EFFECTIVE March 1, 2009

ISSUED BY T. R. Voss President & CEO St. Louis, Missouri
NAME OF OFFICER TITLE ADDRESS

UNION ELECTRIC COMPANY ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 5

Original

SHEET NO. 45.1

CANCELLING MO.P.S.C. SCHEDULE NO.

SHEET NO.

APPLYING TO

MISSOURI SERVICE AREA

SERVICE CLASSIFICATION NO. 6(M)STREET AND OUTDOOR AREA LIGHTING - CUSTOMER-OWNED (Cont'd.)

*Fuel and Purchased Power Adjustment (Rider FAC). The kilowatt hours for lighting service provided under the terms of this Service Classification shall be subject to the provisions of Company's Fuel and Purchased Power Adjustment Clause (Rider FAC). The kilowatt hour consumption of each lamp, whose operating hours are determined by a photoelectric control, shall be determined from the manufacturer's rated wattage multiplied by the number of hours of operation for the month, in accordance with the following schedules:

<u>Lamp Size (Lumens)</u>	<u>Rating (Watts)</u>	<u>Billing Month</u>	<u>Burning Hours</u>
<u>H. P. Sodium</u>			
9,500	120	January	408
16,000	202	February	347
25,500	307	March	346
50,000	482	April	301
		May	279
		June	255
<u>Mercury Vapor</u>			
3,300	127	July	272
6,800	207	August	298
11,000	294	September	322
20,000	455	October	368
42,000	700	November	387
54,000	1080	December	417
<u>Metal Halide</u>			
5,500	122		
12,900	206		

*Tax Adjustment. Any license, franchise, gross receipts, occupation or similar charge or tax levied by any taxing authority on the amounts billed hereunder will be so designated and added as a separate item to bills rendered to customers under the jurisdiction of the taxing authority.

*Indicates Addition.

Issued pursuant to the Order of the MoPSC in Case No. ER-2008-318.

DATE OF ISSUE January 30, 2009

DATE EFFECTIVE March 1, 2009

ISSUED BY T. R. Voss
NAME OF OFFICERPresident & CEO
TITLESt. Louis, Missouri
ADDRESS

UNION ELECTRIC COMPANY ELECTRIC SERVICE

P. S. C. MO., ILL. C. C., IA. ST. C. C. SCHEDULE NO. 5 19th Revised SHEET NO. 46
 CANCELLING SCHEDULE NO. 5 18th Revised SHEET NO. 46

APPLYING TO MISSOURI SERVICE AREA

SERVICE CLASSIFICATION NO. 6 (M)
STREET AND OUTDOOR AREA LIGHTING - CUSTOMER-OWNED (Cont'd.)

1. Rate Application. Available for automatically controlled dusk-to-dawn lighting where customer furnishes, installs and owns all street and outdoor area lighting facilities. Lighting service provided under this Service Classification shall consist of metered service with all maintenance of such facilities provided by the Customer, or unmetered service as provided for or limited by the rate section of this Classification. The metered service portion of this Classification is not available on an individual premises where all other electric service thereon is provided to an individual customer or entity. Any account billed under the provisions of the metered portion of this Classification on September 1, 1992 may continue to be billed under such provisions until alternative or replacement rates or tariff options are approved by the Commission.
2. Character of Service Supplied. Company will specify and provide a standard single- and/or three-phase alternating current secondary service voltage. Where customer requires and Company supplies service at a primary service voltage, customer shall furnish all transformers necessary to transform such service to a secondary service voltage.
- *3. General Provisions
 - a. Customer shall pay all costs incurred by Company in constructing any line extensions required in providing said lighting service to the point or points of delivery designated by Company, in accordance with the provisions of Section III.Q-Special Facilities.
 - b. Where required, customer shall install suitable switching, protective equipment, meter loop, space and mounting facilities as determined by the Company.
 - c. All equipment owned and installed by customer shall be of a type acceptable to Company and shall be maintained by customer in a condition satisfactory to and approved by the appropriate electrical inspection authority.
 - d. Where required for connection to customer's lighting system, customer shall provide, without cost to Company, wire of

*Indicates Change

P.S.C. Mo.	DATE OF ISSUE	<u>February 9, 1996</u>	DATE EFFECTIVE	<u>April 1, 1996</u>
ILL. C. C.	DATE OF ISSUE	_____	DATE EFFECTIVE	_____
IA. ST. C. C.	DATE OF ISSUE	_____	DATE EFFECTIVE	_____
ISSUED BY	<u>C.W. Mueller</u>	<u>President & CEO</u>	<u>St. Louis, Missouri</u>	
	NAME OF OFFICER	TITLE	ADDRESS	

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

P. S. C. MO., ILL. C. C., IA. ST. C. C. SCHEDULE NO. 5 17th Revised SHEET NO. 47
 CANCELLING SCHEDULE NO. 5 16th Revised SHEET NO. 47

APPLYING TO MISSOURI SERVICE AREA

SERVICE CLASSIFICATION NO. 6 (M)
STREET AND OUTDOOR AREA LIGHTING - CUSTOMER-OWNED (Cont'd..)

3. General Provisions (Cont'd.)

*sufficient length to reach a point specified by Company on Company's secondary distribution system and Company will make the required connection. Such wire may be removed by Company at any time after termination of service hereunder.

- e. Customer shall furnish to Company, without cost to Company and on forms suitable to it, or customer shall reimburse Company for all costs incurred in obtaining all rights, permits and easements necessary to permit the installation and maintenance of Company's facilities on, over, under and across both public and private property where and as needed by Company in providing service hereunder.
- f. Customer shall notify Company immediately if any changes are made in customer's installation.
- g. Company may refuse to make the initial connection or may discontinue service to any installation if there is any engineering, construction, safety, legal or practical reason for doing so.
- h. In case of destruction or damage of customer's property hereunder due to highway accidents, storm damage or other similar causes or where replacement of equipment other than as provided above is required, Company, upon receipt of either written or verbal instructions from customer, may at its option, effect the necessary repairs or replacement of the damaged equipment to place it in normal operating condition. Such repairs will be made with parts supplied by customer or, where applicable, with suitable standard items carried in Company stores. Customer shall reimburse Company for such work at the Company's current Productive manhour rate including applicable overhead for all labor expended and 1.2 times all direct costs or charges incurred by Company for all materials and any related items. All charges and payments hereunder shall be in addition to the monthly charge for normal maintenance.

4. General Rules and Regulations. In addition to the above specific rules and regulations, all of Company's General Rules and Regulations shall apply to service supplied under this Service Classification.

* Indicates Reissue. Issued Pursuant to Order of MO.P.S.C. in Case No. ER-92-132.
 P.S.C. Mo. DATE OF ISSUE August 13, 1992 DATE EFFECTIVE September 1, 1992
 ILL. C. C. DATE OF ISSUE _____ DATE EFFECTIVE _____
 IA. ST. C. C. DATE OF ISSUE _____ DATE EFFECTIVE _____
 ISSUED BY William E. Cornelius Chairman St. Louis, Missouri
 NAME OF OFFICER TITLE ADDRESS

Appendix 8.8

DIV 09	Account Number	Account Name	Adopted Bud	Amend Budget	P-T-D Exp	Y-T-D Exp	Encumb	Bud Avail	% Remain
	Personal Services								
	10X14091010000	SALARIES OF REGULAR EMPLOYEES	93,234	93,234	33,048	33,048	0	60,186	65%
	10X14091020000	OVERTIME	2,500	2,500	892	892	0	1,608	64%
	10X14091040000	MISCELLANEOUS	264	264	91	91	0	173	66%
	10X14091140000	FICA - EMPLOYER PORTION	7,382	7,382	2,489	2,489	0	4,893	66%
	10X14091160000	PENSION	5,430	5,430	1,810	1,810	0	3,620	67%
	10X14091180000	GROUP LIFE INSURANCE PREMIUM	323	323	104	104	0	219	68%
	10X14091190000	DENTAL HEALTH INSURANCE	2,050	2,050	666	666	0	1,384	68%
	10X14091200000	EMPLOYEE HEALTHCARE	17,450	17,450	5,729	5,729	0	11,721	67%
	Total Personal Services		128,633	128,633	44,829	44,829	0	83,804	65%
	Contractual Services								
	10X14092320000	ELECTRICITY - STREET LIGHTING	94,622	94,622	4,043	4,043	0	90,579	96%
	10X14092320001	ELECTRICITY - TRAFFIC SIGNALS	13,310	13,310	6,979	6,979	0	6,331	48%
	10X14092370000	MAINT. & REPAIR-MACHINERY & CONTRACTUAL SERVICES	3,000	3,000	0	0	25	2,975	99%
	10X14092700000		3,100	3,100	976	976	0	2,124	69%
	Total Contractual Services		114,032	114,032	11,998	11,998	25	102,009	89%
	Commodities								
	10X14093190000	HARDWARE & HAND TOOLS	4,750	4,750	457	457	0	4,293	90%
	10X14093260000	ROCK, CEMENT & CONCRETE	1,500	1,500	0	0	0	1,500	100%
	10X14093380000	LIGHTING SYSTEMS PARTS	37,500	37,500	4,353	4,353	537	32,610	87%
	10X14093430000	CBD-HOLIDAY LIGHTING	4,000	4,000	2,085	2,085	1,681	234	6%
	Total Commodities		47,750	47,750	6,895	6,895	2,218	38,637	81%
	Programs								
	Capital Outlay								
	Transfers								
	Total Expenses		290,415	290,415	63,722	63,722	2,243	224,450	77%
	Total for DEPT 14		5,405,696	5,405,696	1,516,399	1,516,399	1,473,638	2,415,659	45%
	Total for FUND 10: GENERAL FUND		5,405,696	5,405,696	1,516,399	1,516,399	1,473,638	2,415,659	45%

Appendix 8.9

STREET LIGHT MAINTENANCE

Revised 1-21-11

Street Light Out Notification by Residents:

- Residents should report the light(s) out, pole number(s) (if possible) and location(s) (address) to AmerenUE (342-1000, 24 hours a day) and the City of U. City Public Works (505-8560).
- All street light pole damage should be reported to the Street Division (505-8573).
- Requests and reported problems will be logged and inspected by staff for reporting to AmerenUE.

Street Light Out Notification by City Staff

- All City staff and other City Hall Departments should report lights out directly to the Street division (505-8573).
- When a street light report is made, the following action will be taken by the Street Division:
 - Record the location and pole number, if possible, or obtain it through data review or field inspection.
 - Record who made the call and obtain a phone number, if possible.
 - Report the light out request to AmerenUE.
 - Follow-up on the light out request until it is resolved.
 - Submit a monthly tracking report to the DPW.

AmerenUE Lights – City Wide

- AmerenUE owns and maintains approximately 3,340 streetlights within the City.
- The City pays a monthly fee for each light, which covers maintenance and electricity.
- Street Division responsible for checking and reporting lights out to AmerenUE.
- Repairs should be completed within 10 (ten) days, under most circumstances.
- The Street Division checks lights monthly on major streets and bi-annually citywide.
- The City must request new lights/upgrades, and additional costs paid by the City.

Historical Light(s) Replacement – City Owned (NEW SECTION ADDED 1-21-11)

- AmerenUE gave the City all existing similar lights to use for spare parts/hardware repairs and replacements. The City stocked parts, but when the parts are depleted, the light(s) are not replaced with a close or identical light(s).
- The requestor can pay for fabrication of new historical light(s) or the City can pay for the light(s) to be replaced by Ameren post-top or cobra, if it meets City's lighting standards.

Parkview Garden Association

- AmerenUE owns and maintains approximately 130 streetlights and alley lights.
- Association responsible for checking lights and reporting light outs to Street Division and AmerenUE.
- City and the association agreed to have the City pay the electric bill; the association pays the City a portion on the bill for maintenance and upgrades.
- The City bills the association \$1,204.83 quarterly (approximately \$400 per month).

Village of University Place

- AmerenUE owns and maintains the streetlights in this area.
- Subdivision responsible for checking and reporting lights out to AmerenUE and Street Division.
- The City pays for five (5) lights as of February 9, 2000; the subdivision pays for the remaining lights.

Ames Place

- AmerenUE owns and maintains, with the provision that the City furnish parts for repair.
- Ames Place responsible for checking lights and notifying AmerenUE or Street Division of light outages/repairs as needed.
- The Street Division is responsible for checking and maintaining four (4) lights.
- The Street Division furnishes spare parts (hardware only) for all lights.
- AmerenUE gave the City all existing similar lights to use for spare parts/hardware repairs and replacements.
- The City is responsible for maintenance on the Southside of Kingsbury (not responsible for the North side of Kingsbury).

Parks Department

- AmerenUE owns and maintains lights through a City contract.
- The Parks and Recreation Department is responsible for checking and notifying the Street Division of light outages.
- There are approximately 125 streetlights in the City parks.
- The Parks and Recreation Department pays \$1,582.12 per month as of February 2001.

Historic Lights

- The Street Division is responsible for checking and repairing lights (36 lights).
- The City owns and maintains historic lights in the following areas:
 - Washington (Big Bend to Trinity)
 - Linden (Pershing to Kingsbury)
 - Pershing (dead end near Wellesley to Big Bend)
 - Waterman (dead end near Wellesley to Big Bend)
 - Kingsbury (dead end near Wellesley to Big Bend)
 - Washington (dead end to Big Bend)
 - Vassar (Washington to Delmar)
 - William (Millbrook to Washington)

Civic Plaza Lights

- The City owns and maintains these lights (39 lights and 12 lion lights).
- The Street Division is responsible for checking and repairing lights.
- These lights are located near City Hall on Trinity.

Parking Lots #1, 3 and 4 Lights

- The City owns and maintains these lights (10 lights).
- The Street Division is responsible for checking and repairing lights.

- Parking Lot #1 is located near Tivoli Theater.
- Parking Lot #3 is located near Fitz's (specific lights only).
- Parking Lot #4 is located in rear of Blockbuster's.

Ackert Parkway

- The City owns and maintains these lights (48 lights).
- The Street Division is responsible for checking and repairing the lights.

Forest Park Parkway

- AmerenUE owns and the City repairs seven (7) streetlights.
- The Street Division is responsible for checking and repairing the lights.
- These lights are located on the curve into Clayton on the south side before curve.

Two Lights – All Saints Church

- The City owns and maintains these lights.
- The Street Division is responsible for checking and repairing the lights.
- These lights are located on Westgate at Clemens Avenue (corner).

Alley Lights

- AmerenUE maintains the streetlights in the alleys.
- Light outages should be reported to the Street Division for submission to AmerenUE.
- Individual residents own dusk to dawn lights; but AmerenUE maintains the lights as long as electric bills are paid.
- AmerenUE will disconnect the light for nonpayment.

Streetscape Lights (NEW SECTION ADDED 1-21-11)

- The City owns and maintains these lights.
- The Street Division is responsible for checking and repairing lights.
- Olive (ECL to WCL) (121 lights)
- Delmar (ECL to Kingsland) (91 lights)
- Melville (Kingsbury to Loop South) (14 lights)

Purdue Bridge Walk Lights (NEW SECTION ADDED 1-21-11)

- The City owns and maintains these lights (4 lights).
- The Street Division is responsible for checking and repairing lights.

STREET LIGHT (UPGRADES/NEW INSTALLATION)

RESIDENTIAL LIGHTING STANDARDS:

- Street light standards for *residential* districts include:
 - Each fixture should have a *maximum* *9,500 lumen output.
 - Each street should have lights installed at a *maximum* spacing of 300 feet (with the intent that each light is at least 300 feet apart).
 - Each street should have one light at each intersection.
 - Each street may have other lights in the middle or other sections of the block, in a

staggered fashion, if appropriate, if determined needed by inspection.

*Except when a higher or lower lumen output may be acceptable where determined necessary by the Director of Public Works.

- Street light standards for *non-residential* districts include:
 - Each fixture should have a *minimum* of *25,500 lumens output.
 - Each fixture should have a *maximum* of 200 feet where there are active businesses (with the intent that each light is at least 200 feet apart).

UPGRADES AND NEW INSTALLATIONS:

- Requests for upgrades and new installations should be made in writing to the Director of Public Works (DPW).
- The DPW will make an assessment and forward the recommendation to the City Manager (CM) for review and approval, based on the following:
 - *In House Review*- Public Works will conduct a complete review of number of existing lights, types of lumen and their location relative to information available from the 1998 AmerenUE list, city street documentations and street light maps.
 - *Field Verification*- Street lights are inspected at night to assess the necessity of the upgrade and/or new installation request.
- Department recommendation is developed by staff and sent to the DPW for review.
- If the recommendation is determined appropriate, the DPW will forward the recommendation to the CM for review and approval.
- If approved by the CM, the Street Light Upgrade/Installation Request Form will be completed and faxed to AmerenUE from the Director's office.
- The Street Light Upgrade/Installation Request Form will be completed by a Project Manager and faxed to AmerenUE after CM approval.
- All requests should remain on file in the Public Works Department; records are maintained by the Project Managers for annual reports, budgeting and billing purposes.
- A copy of each request should be forwarded to the Street division for tracking and reporting.
- The Street division will review the AmerenUE bill to verify that the upgrades/installations are reflected in monthly charges.

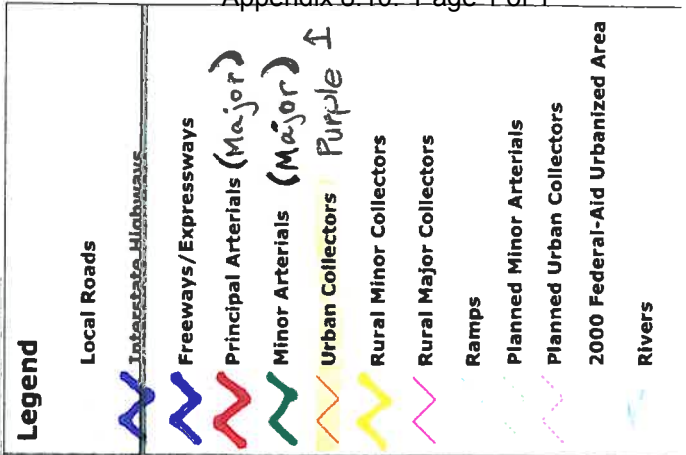
PRIVATE SUBDIVISION STREET LIGHTING:

- The City may pay the monthly electricity bill for certain standard streetlights located in private subdivisions up *written request*.
- The City will only be financially responsible for the streetlights meeting the minimum standards for residential streetlights cited above and/or approved by the CM.

- In order to be considered for financial assistance, the subdivision will be required to provide the Public Works Department with the following items:
 - A map of their existing lights.
 - The pole number of each light.
 - A copy of their last bill.
- The City will notify the subdivision in writing regarding which streetlight will be paid for by the City.
- A copy shall be provided to Becky G. and Gary W. or verifying bills, budgeting, tracking, etc.
- The City will ***only pay the monthly electric lighting bill for the next billing cycle forward.***
- No refunds for previous payments will be awarded.
- The subdivision is responsible for new installations, maintenance and upgrades.
- The Public Works Department will forward the information to AmerenUE.
- A copy should also be sent to the Finance Department regarding the subdivision bill number, number of lights and monthly charge, and the City account number to be charged.

Appendix 8.10

Page



Appendix 8.11

OUTDOOR LIGHTING

General Information

15 00 01 01

Sheet 1 of 5

1. General

General information concerning outdoor lighting installations is covered in this section.

2. Standard Luminaires

All new lighting installations will be made using high pressure sodium and metal halide luminaires. Mercury vapor luminaires are no longer stocked.

On the horizontal luminaires there are two types: cutoff and non-cutoff. The cutoff type has a plain flat glass refractor while the non-cutoff has a dropped glass refractor.

Cutoff luminaires should be used whenever possible to reduce glare. Non-cutoff should be used if you are not able to obtain the pole spacing required by IES calculations.

The following luminaires are available:

AVAILABLE LUMINAIRES									
	STYLE	LAMP	WATTS	IES LIGHT PATTERN	VOLTS	LU-MENS (NEW)	START/OP AMPS	VOLTAGE INPUT RANGE	MO / IL
HORIZON-TAL									
38 01 528	cutoff	HPS	100w	type III	120v	9500	3.2/2.1	± 5%	All
38 01 531	non-cutoff	HPS	100w	type III	120v	9500	3.2/2.1	± 5%	All
38 01 495	cutoff	HPS	250w	type III	120v	27500	1.4/2.57	± 10%	All
38 01 532	non-cutoff	HPS	250w	type III	120v	27500	1.4/2.57	± 10%	All
38 01 574	non-cutoff	HPS	250w	type III	120/208/240/277v	27500	1.4/2.57	± 10%	All
38 01 828	cutoff	HPS	250w	type III	480v	27500	1.4/2.57	± 10%	All
38 01 578	non-cutoff	HPS	250w	type III	480v	27500	1.4/2.57	± 10%	All
38 01 496	cutoff	HPS	400w	type III	120v	50000	3.35/4.30	± 10%	All
38 01 530	non-cutoff	HPS	400w	type III	120v	50000	3.35/4.30	± 10%	All
38 01 573	non-cutoff	HPS	400w	type III	120/208/240/277v	50000	3.35/4.30	± 10%	All
38 01 830	cutoff	HPS	400w	type III	480v	50000	3.35/4.30	± 10%	All
38 01 577	non-cutoff	HPS	400w	type III	480v	50000	3.35/4.30	± 10%	All
38 01 628	cutoff	Metal Halide	250w	type III	120v	19500	2.4/2.6	± 10%	IL
38 01 627	non-cutoff	Metal Halide	250w	type III	120v	19500	2.42/2.6	± 10%	IL
38 01 630	cutoff	Metal Halide	400w	type III	120v	32000	3.80/4.00	± 10%	IL
38 01 629	non-cutoff	Metal Halide	400w	type III	120v	32000	3.80/4.00	± 10%	IL
NEMA HEAD									
38 01 534	Hood	HPS	100w	type V	120v	9500	3.2/2.1	± 5%	All
38 01 883	Reflector			type III					All
38 01 368	Reflector			type V					All

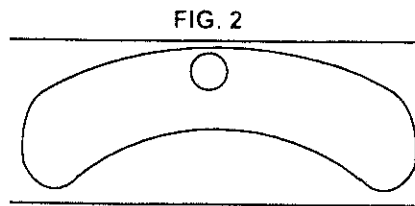
OUTDOOR LIGHTING
General Information

15 00 01 01

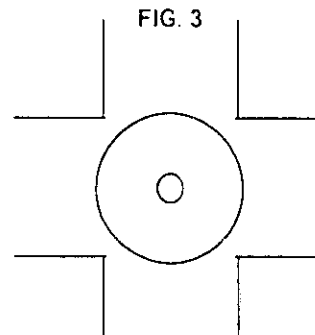
Sheet 2 of 5

DIR FLOOD									
38 01 755		HPS	250w	6x6	480V	27500	0.4/0.7	± 10%	All
38 01 522		HPS	400w	6x6	120v	50000	3.35/4.30	± 10%	All
38 01 521		HPS	250w	6x6	120v	27500	1.4/2.57	± 10%	All
38 01 759		HPS	400w	6x6	480V	50000	0.5/1.0	± 10%	All
38 01 626		Metal Halide	250w	6x6	120v	19500	2.42/2.6	± 10%	All
38 01 542		Metal Halide	400w	6x6	120v	32000	3.80/4.00	± 10%	All
38 01 768		Metal Halide	400W	6x6	480V	100000	1.0/1.1	± 10%	All
38 01 541		Metal Halide	1000w	7x6	120v	100000	5.60/9.40	± 10%	MO
POST TOP									
38 01 524	Colonial	HPS	100w	type III	120v	9500	3.2/2.1	± 5%	MO
38 01 525	Colonial	HPS	100w	type V	120v	9500	3.2/2.1	± 5%	MO
38 01 517	Early American	HPS	100w	type III	120v	9500	3.2/2.1	± 5%	All
38 01 518	Early American	HPS	100w	type V	120v	9500	3.2/2.1	± 5%	MO
38 01 942	Early American	Metal Halide	175w	type III	120v	14000	1.0/1.75		IL
38 01 513	Contemporary	HPS	100w	type III	120v	9500	3.2/2.1	± 5%	MO
38 01 514	Contemporary	HPS	100w	type V	120v	9500	3.2/2.1	± 5%	MO
38 01 584	Aspen	HPS	100w	type III	120v	9500	3.2/2.1	± 5%	MO
38 01 585	Aspen	HPS	100w	type V	120v	9500	3.2/2.1	± 5%	MO

3. Lighting Patterns



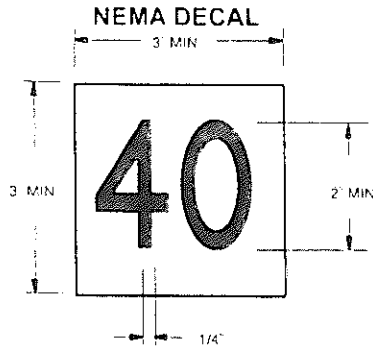
TYPE III LUMINAIRE



TYPE V LUMINAIRE

OUTDOOR LIGHTING General Information

4. Identification



IDENTIFYING CODE
FOR LAMP WATTAGE

IDENTIFYING NUMERAL	LAMP WATTAGE
10	100WATT ←
17	175WATT
25	250WATT
40	400WATT
X1	1000WATT

IDENTIFYING CODE
FOR LAMP TYPE

BACKGROUND COLOR	LAMP TYPE
Blue	Mercury
Gold	High Pressure Sodium
Red	Metal Halide

MARKET DIMENSIONS

All luminaires are shipped with the appropriate NEMA identification decal. If the decal is not installed it should be applied on the fixture so that it can be seen from the ground.

5. Obsolete Luminaire Materials

While all new lighting installations are made with multiple connected high pressure sodium luminaires, many incandescent series and multiple and mercury vapor installations will be changed out to standard H.P.S. units. Some of the materials for these obsolete units can no longer be purchased and our stock is maintained primarily from removals. These obsolete materials are kept in stock when possible and are listed in the Catalog of T&D Materials and Tools in the streetlighting section for maintenance purposes only. Construction Standards of obsolete installations are available from Drafting if required.

6. Luminaire Mounting Heights

Post top luminaires shall be mounted only on standard post top installation poles purchased specifically for that purpose.

All other types of luminaires shall be mounted in accordance with the following table. The preferred height should be maintained whenever possible but the minimum heights may be used if this avoids a pole replacement. Mounting height is defined as the height from ground to the bottom of the refractor (glassware) on glass enclosed reflectors and to the bottom of the lamp on open type reflectors.

MOUNTING HEIGHTS			
Lamp Wattage	Lamp Lumens	Min Mounting	Preferred Mounting
HPS			
NEMA Head			
100w	9500	20	25
Horizontal			
100w cutoff	9500	20	25
100w non cutoff	9500	20	25
250w cutoff	27500	30	30
250w non cutoff	27500	30	30
400w cutoff	50000	35	40
400w non cutoff	50000	35	40
Directional Flood			
250w	27500	20	30

OUTDOOR LIGHTING
General Information

15 00 01 01

Sheet 4 of 5

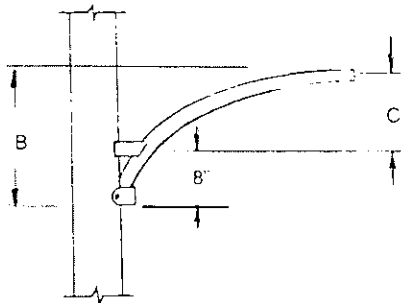
400w	50000	20	30
Post Top			
100w	9500	14	14
Metal Halide			
Horizontal			
250w cutoff	19500	25	30
250w non cutoff	19500	25	30
400w cutoff	32000	30	35
400w non cutoff	32000	30	35
Directional Flood			
250w	19500	20	30
400w	32000	20	30
1000w	100000	30	35
Post Top			
175w	14000	14	14

7. Brackets

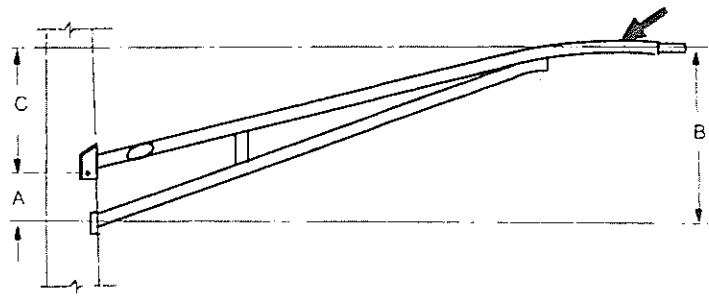
Standard installations for area lights shall use the 30" bracket. Standard installations for street lights shall use the 6' bracket. Brackets must be ordered as a separate item along with the luminaire and all other components and hardware.

For special applications, other brackets are available but their usage should be limited as much as possible.

The following data is for use in determining bracket locations to provide luminaire mounting heights as specified in the preceding section. All upsweep brackets and mast arms are equipped for 1-1/4" slipfitter mounting of luminaires.



30" and 6' Brackets



15' Mast Arms

Mast Arm Length	A	B	C
	30"	8"	15"
6'	8"	24"	16"
15'	21"	21"	39"

OUTDOOR LIGHTING General Information

15 00 01 01

Sheet 5 of 5

*Ornamental concrete standards have a set bracket mounting point. For these concrete poles the height above ground level at the luminaire end of the bracket is as follows:

23' Standard – 25'-3" for 6' bracket

28' Standard – 30'-3" for 6' bracket

NOTE: * Ornamental concrete standards are no longer Ameren's standards and replaced with fiberglass poles for maintenance.

For both horizontal and vertical burning luminaires, the distance from the mounting point to the bottom of the luminaire is approximately 12".

For Fiberglass Mast Arm poles, the height above ground level, at the luminaire end of the bracket is as follows:

30' pole – 26'3" for 6' bracket**

35' pole – 31'3" for 6' bracket**

NOTE: ** Standard items for MO and maintenance for Ameren CIPS

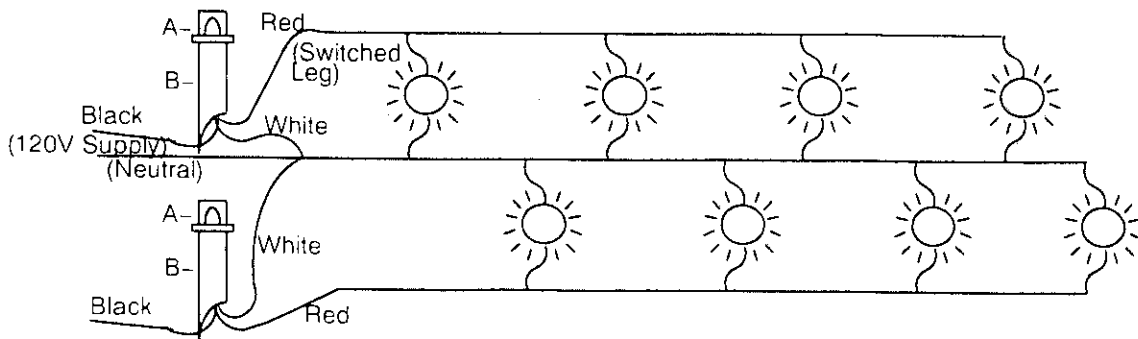
8. Remote Operated and Multiple Light Control

Periodically light from one luminaire will be sufficient to activate the photocell and shut off another light. For these circumstances, when simply re-aiming the photocell does not resolve the problem, a remote photocell mounting bracket is used.

In some circumstances, it is beneficial to operate multiple luminaires from one control. For these circumstances a remote photocell mounting bracket or relay is used.

In both of the above situations, the photocell on the luminaire is replaced with a shoring plug. The photocell is rated at 15A while the relay is rated at 30A. See the table in paragraph 2 of this section for current draw information in order to determine how many luminaires can be controlled by either the photocell or the relay. If multiple luminaires are used on 3-wire, single phase circuits, care should be taken to balance the load out between the two phases in order to have the lights operated at the same time.

	<u>Stock No.</u>	<u>Description</u>
A	38 51 366	Photocell, 120V, 15A
	38 01 376	Bracket, photocell, pole or crossarm mounting
B	38 01 275	Relay, multiple streelight, 30A
	38 01 394	Plug, shorting, photoelectric cell



HID LAMPS

1. High Pressure Sodium Lamps – CLEAR

High Pressure Sodium (HPS) lamps must be used only in luminaires with ballasts designed for High Pressure Sodium lamps. HPS lamps require at least 1 minute to restrike after a power interruption.

Standard lamp sizes and types are as follows:

Stock No.	Lamp Watts	Lamp Type	Avg. Rated Life (HRS)	Approx Initial Lumens	Approx. Avg. Lumens	Lamp Base	ANSI
26-55-260	100	HPS	24,000+	9,500	8,000	Mogul	S54
26-06-740	150	HPS	24,000+	16,000	13,800	Mogul	S55
26-55-067	250	HPS	24,000+	29,000	26,100	Mogul	S50
26-55-061	400	HPS	24,000+	50,000	45,000	Mogul	S51

2. Metal Halide Lamps (Probe-Start) Replacement for the existing probe-start metal halide luminaires

Metal halide lamps (probe-start) must be used only in luminaires ballasts designed for probe-start metal halide lamps. Probe-start metal halide lamps require approximately 7 to 12 minutes to restrike after a power interruption.

Standard lamp sizes and types are as follows:

Stock No.	Lamp Watts	Lamp Type	Avg. Rated Life (HRS)	Approx Initial Lumens	Approx. Avg. Lumens	Lamp Base	ANSI
26-56-260	175	MH	10,000	14,400	9,300	Mogul	M57/E
26-56-251	250	MH	7,500	20,000	13,500	Mogul	M58/E
26-56-261	400	MH	15,000	32,000	20,500	Mogul	M59/E
26-56-244	1000	MH	12,000	107,800	86,000	Mogul	M47/S

3. Metal Halide Lamps (Pulse-Start) Use in pulse-start metal halide luminaires

Metal halide lamps (pulse-start) must be used only in luminaires ballasts designed for pulse-start metal halide lamps. Pulse-start metal halide lamps require approximately 5 to 7 minutes to restrike after a power interruption.

Standard lamp size and type are as follows:

Stock No.	Lamp Watts	Lamp Type	Avg. Rated Life (HRS)	Approx Initial Lumens	Approx. Avg. Lumens	Lamp Base	ANSI
26-06-418	100	PMH	16,000	9,000	6,660	Medium	M90/0
26-05-087	150	PMH	12,000	12,900	11,000	Medium	M102/0
26-55-277	250	PMH	12,000	19,000	14,000	Mogul	M138/E
26-55-278	400	PMH	20,000	40,000	32,500	Mogul	M155/E

HID LAMPS

4. Mercury Vapor Lamps (Replacement for existing mercury vapor luminaires only)
Mercury vapor lamps must be used only in luminaires with ballasts designed for mercury vapor lamps. Mercury vapor lamps require at least 6 minutes to restrike after a power interruption.

Standard lamp sizes and types are as follows:

Stock No.	Lamp Watts	Lamp Type	Avg. Rated Life (HRS)	Approx Initial Lumens	Approx. Avg. Lumens	Lamp Base	ANSI
26-55-045	175	MV	24,000+	8,500	7200	Mogul	H39
26-55-066	250	MV	24,000+	13,000	11000	Mogul	H37
26-55-060	400	MV	24,000+	22,000	17000	Mogul	H33
26-55-048	1000	MV	24,000+	61,000	46000	Mogul	H36

IMPORTANT

1. Pulse-start metal halide lamps are not interchangeable with probe-start metal halide lamps.
2. If a pulse-start metal halide lamp is placed inside of a probe-start metal halide luminaire, the lamp will not ignite or will not start.
3. If a probe-start metal halide lamp is placed inside of a pulse-start metal halide luminaire, the lamp will ignite or start very quickly. The probe-start lamp is not designed to run on the pulse-start ballast and will experience a very short lamp life. Because of the high start up voltage that is delivered across the ballast by the ignitor to the lamp, the lamp is subject to a non passive end of life and could rupture the lamp arc tube. It is very important to always close the fixture optical before testing the lamp or starting the metal halide luminaire.
4. Mercury vapor and metal halide lamps may continue to operate for some time even though the out glass envelope is missing. These lamps should be removed from service as soon as possible since they are a source of ultraviolet radiation when operating in this condition.

Appendix 8.12

Visual Roadway Lighting Tool - FORSYTH - BIG BEND TO ASBURY

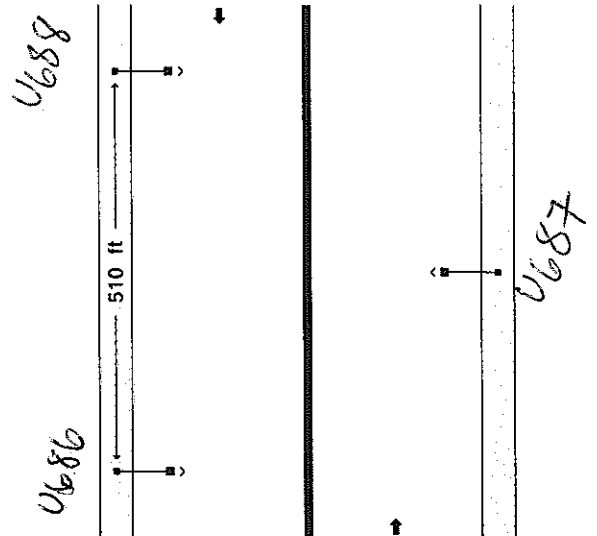
3/28/2011

Design Information

Project Number	Project Title
Name	Project Number
Company	Your Name
	Your Company

Roadway Information

Number Left Lanes	1
Left Lane Width	21 ft
Median Width	0 ft
Number Right Lanes	1
Right Lane Width	21 ft
Calculation Method	IES RP8-2000
Pavement Reflectance	Asphalt - R3
Roadway Classification	Major
Pedestrian Conflict	Medium



Luminaire Information

Left Side

Label	A
Catalog Number	115 25S R3 DG
Photometric File	115_25S_R3_DG.ies
Lamp Lumens	29000
Light Loss Factor	0.80
Input Power	300 W
Tilt	0°
Arm Length	6 ft
Mounting Height	29 ft
Setback	2 ft
Quantity	4

Right Side

Label	A
Catalog Number	115 25S R3 DG
Photometric File	115_25S_R3_DG.ies
Lamp Lumens	29000
Light Loss Factor	0.80
Input Power	300 W
Tilt	0°
Arm Length	6 ft
Mounting Height	29 ft
Setback	2 ft
Quantity	4

Calculation Results - Left Side

Luminance

Average	1.1	cd/m ²
Max	2.7	cd/m ²
Min	0.5	cd/m ²
Max/Min	5.4	
Avg/Min	2.2	

Illuminance

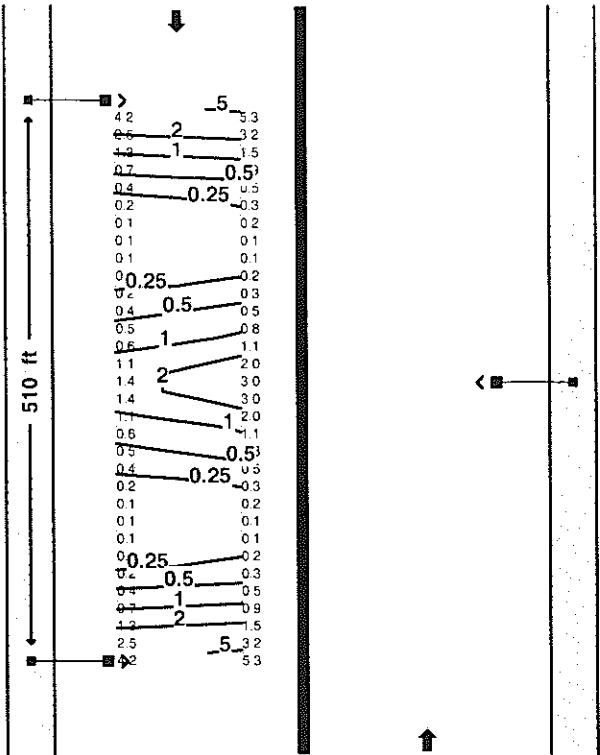
Average	1.1	fc
Max	5.3	fc
Min	0.1	fc
Max/Min	53.0	
Avg/Min	11.0	

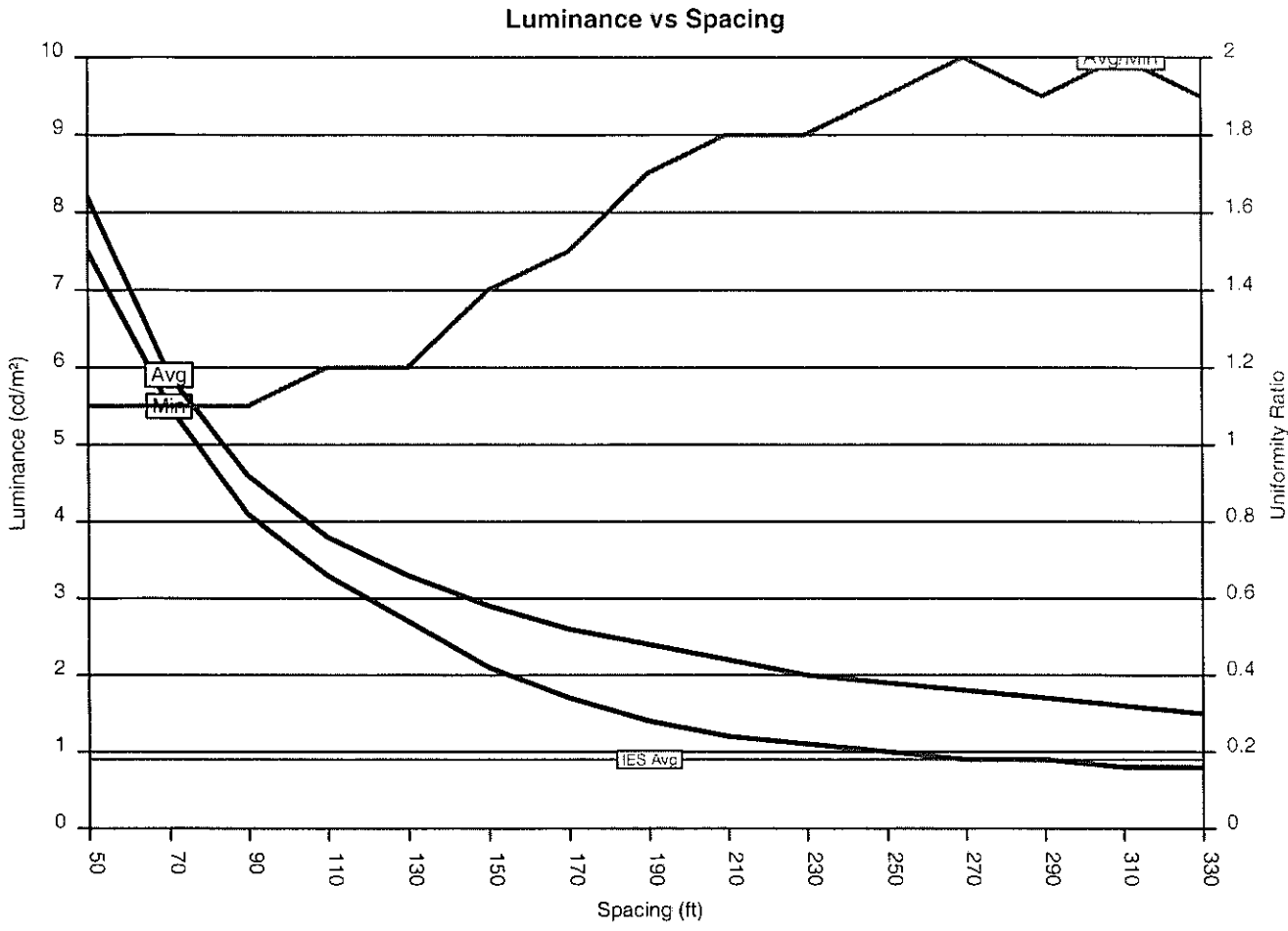
Lv Ratio	0.3
STV	5.2
Spacing	510 ft
Length	2000 ft
Quantity	8

*Note: This is a preliminary calculation.

Calculations are based on procedures established by the governing standards body or standard industry practice. Visual computes output performance based on input data as provided by, and which is the sole responsibility of, the user. Acuity Brands Lighting, Inc. cannot be held responsible for the variations in actual situations which can effect calculated output.

Illuminance





Calculations are based on procedures established by the governing standards body or standard industry practice. Visual computes output performance based on input data as provided by, and which is the sole responsibility of, the user. Acuity Brands Lighting, Inc. cannot be held responsible for the variations in actual situations which can effect calculated output.

Visual Roadway Lighting Tool - FORSYTH - BIG BEND TO ASBURY

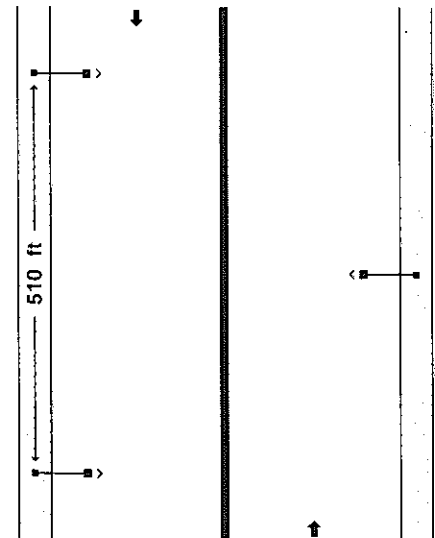
3/28/2011

Design Information

Project	Project Title
Number	Project Number
Name	Your Name
Company	Your Company

Roadway Information

Number Left Lanes	1
Left Lane Width	21 ft
Median Width	0 ft
Number Right Lanes	1
Right Lane Width	21 ft
Calculation Method	IES RP8-2000
Pavement Reflectance	Asphalt - R3
Roadway Classification	Major
Pedestrian Conflict	Medium



Luminaire Information

Left Side

Label	A
Catalog Number	115 25S R3 DG
Photometric File	115_25S_R3_DG.ies
Lamp Lumens	29000
Light Loss Factor	0.80
Input Power	300 W
Tilt	0°
Arm Length	6 ft
Mounting Height	29 ft
Setback	2 ft
Quantity	4

Right Side

Label	A
Catalog Number	115 25S R3 DG
Photometric File	115_25S_R3_DG.ies
Lamp Lumens	29000
Light Loss Factor	0.80
Input Power	300 W
Tilt	0°
Arm Length	6 ft
Mounting Height	29 ft
Setback	2 ft
Quantity	4

Calculation Results - Right Side

Luminance

Average	1.1	cd/m ²
Max	2.7	cd/m ²
Min	0.4	cd/m ²
Max/Min	6.8	
Avg/Min	2.8	

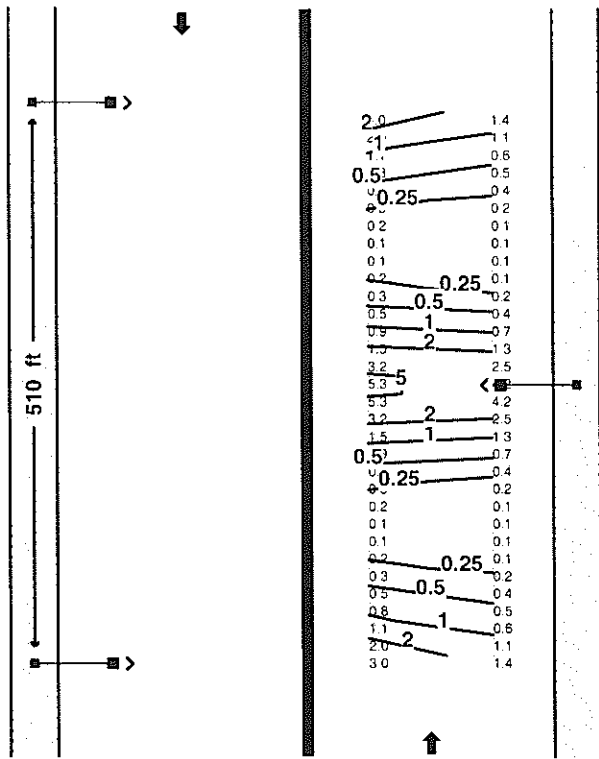
Illuminance

Average	1.1	fc
Max	5.3	fc
Min	0.1	fc
Max/Min	53.0	
Avg/Min	11.0	

Lv Ratio	0.3
STV	5.2
Spacing	510 ft
Length	2000 ft
Quantity	8

Calculations are based on procedures established by the governing standards body or standard industry practice. Visual computes output performance based on input data as provided by, and which is the sole responsibility of, the user. Acuity Brands Lighting, Inc. cannot be held responsible for the variations in actual situations which can effect calculated output.

Illuminance



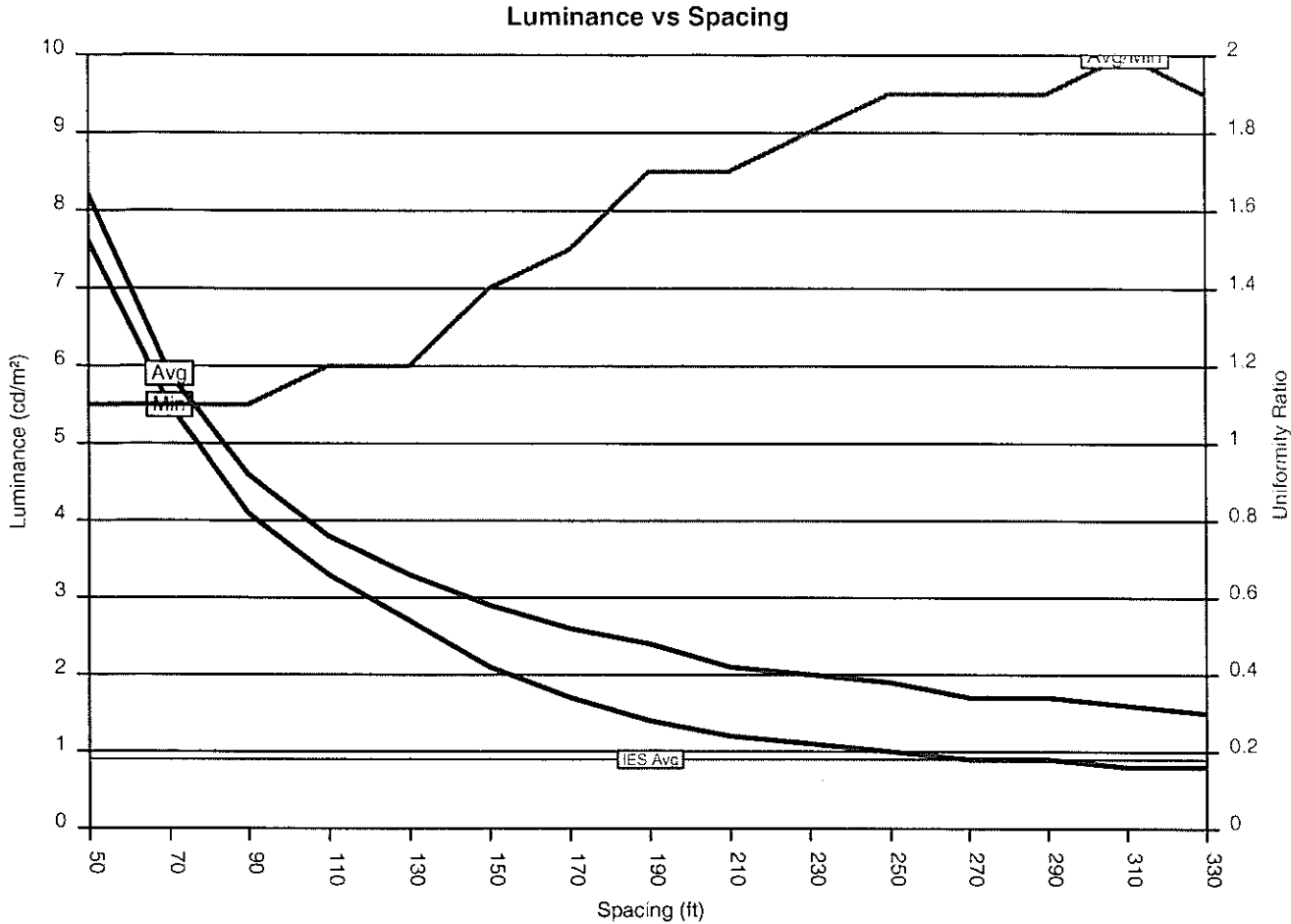
Grid Statistics

Average	1.1	fc
Max	5.3	fc
Min	0.1	fc
Max/Min	53.0	
Avg/Min	11.0	

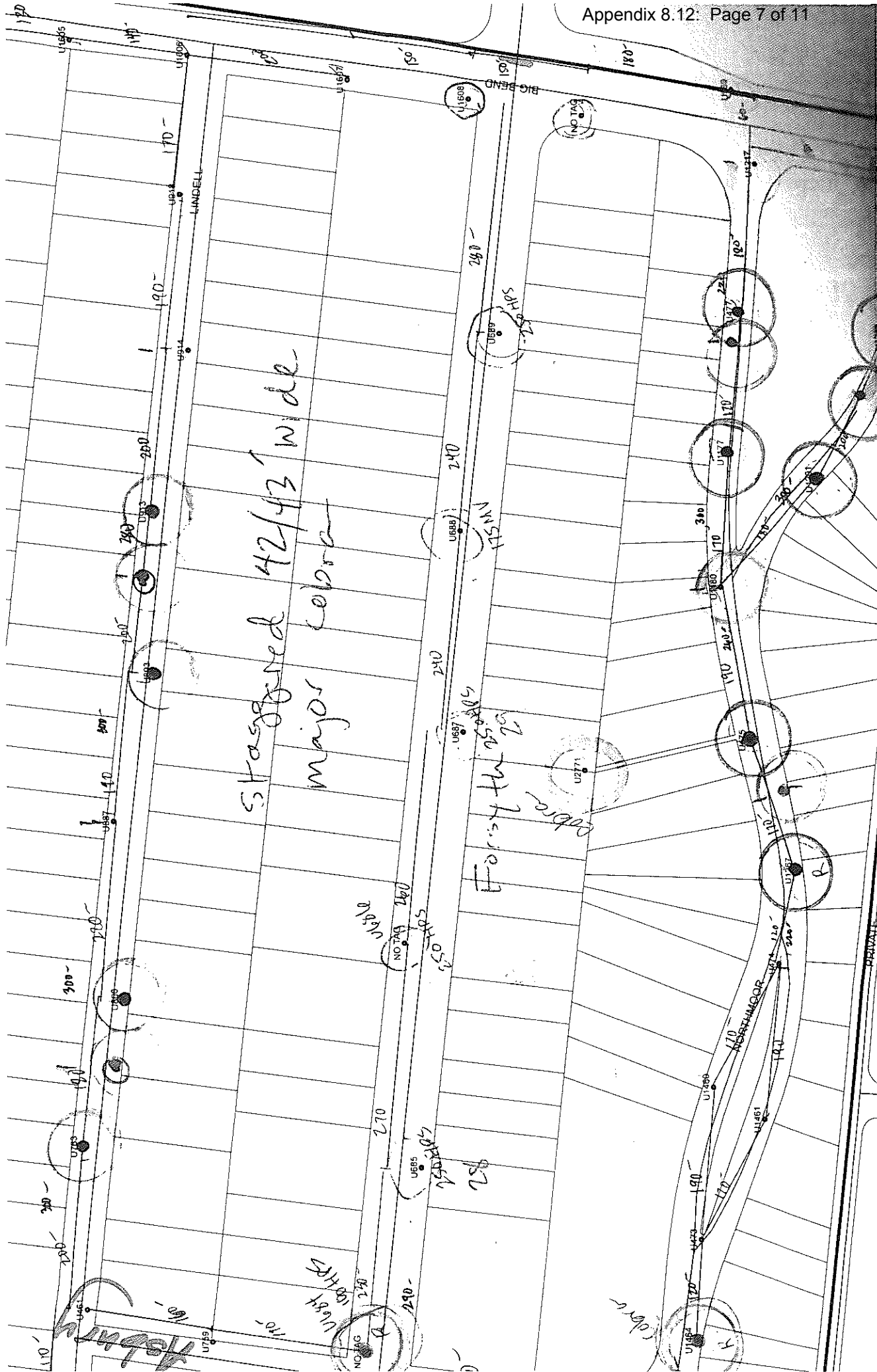
Grid Properties

Number of Rows	32
Row Spacing	15.94 ft
Number of Columns	2
Column Spacing	10.5 ft

Calculations are based on procedures established by the governing standards body or standard industry practice. Visual computes output performance based on input data as provided by, and which is the sole responsibility of, the user. Acuity Brands Lighting, Inc. cannot be held responsible for the variations in actual situations which can effect calculated output.



Calculations are based on procedures established by the governing standards body or standard industry practice. Visual computes output performance based on input data as provided by, and which is the sole responsibility of, the user. Acuity Brands Lighting, Inc. cannot be held responsible for the variations in actual situations which can effect calculated output.



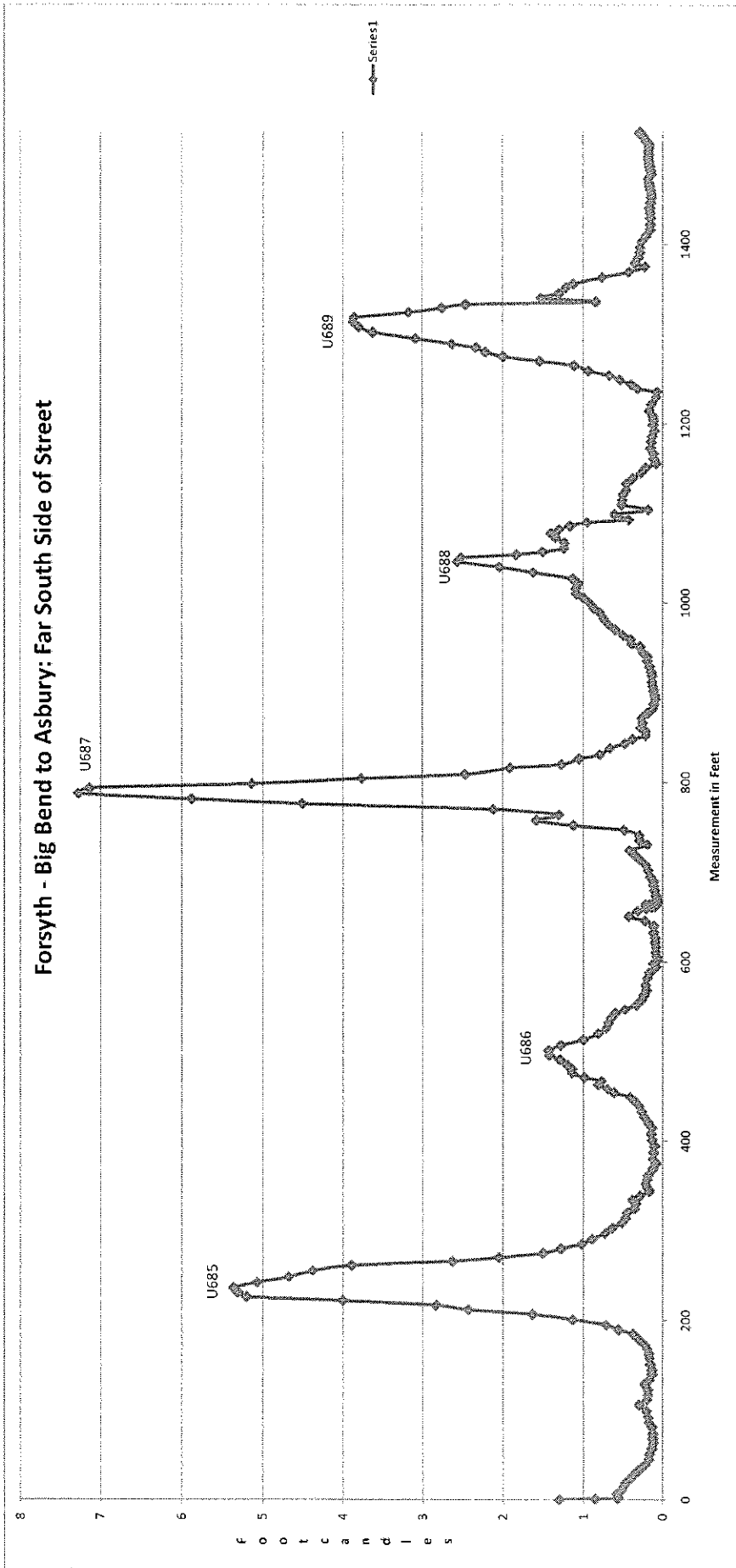
Staggered 42/43 wide
major cobra

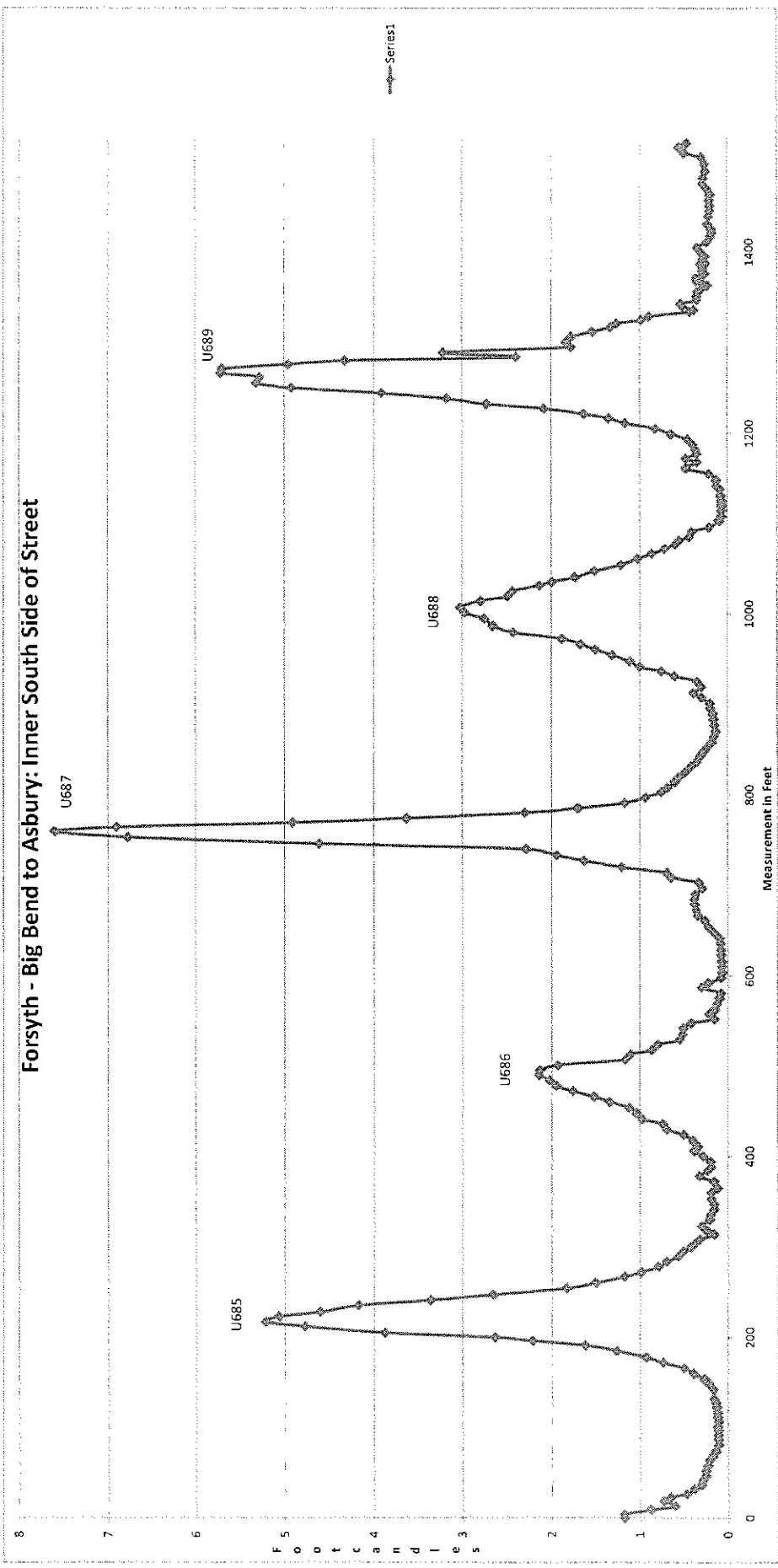
Forsyth 2x
Cobra

Hammock

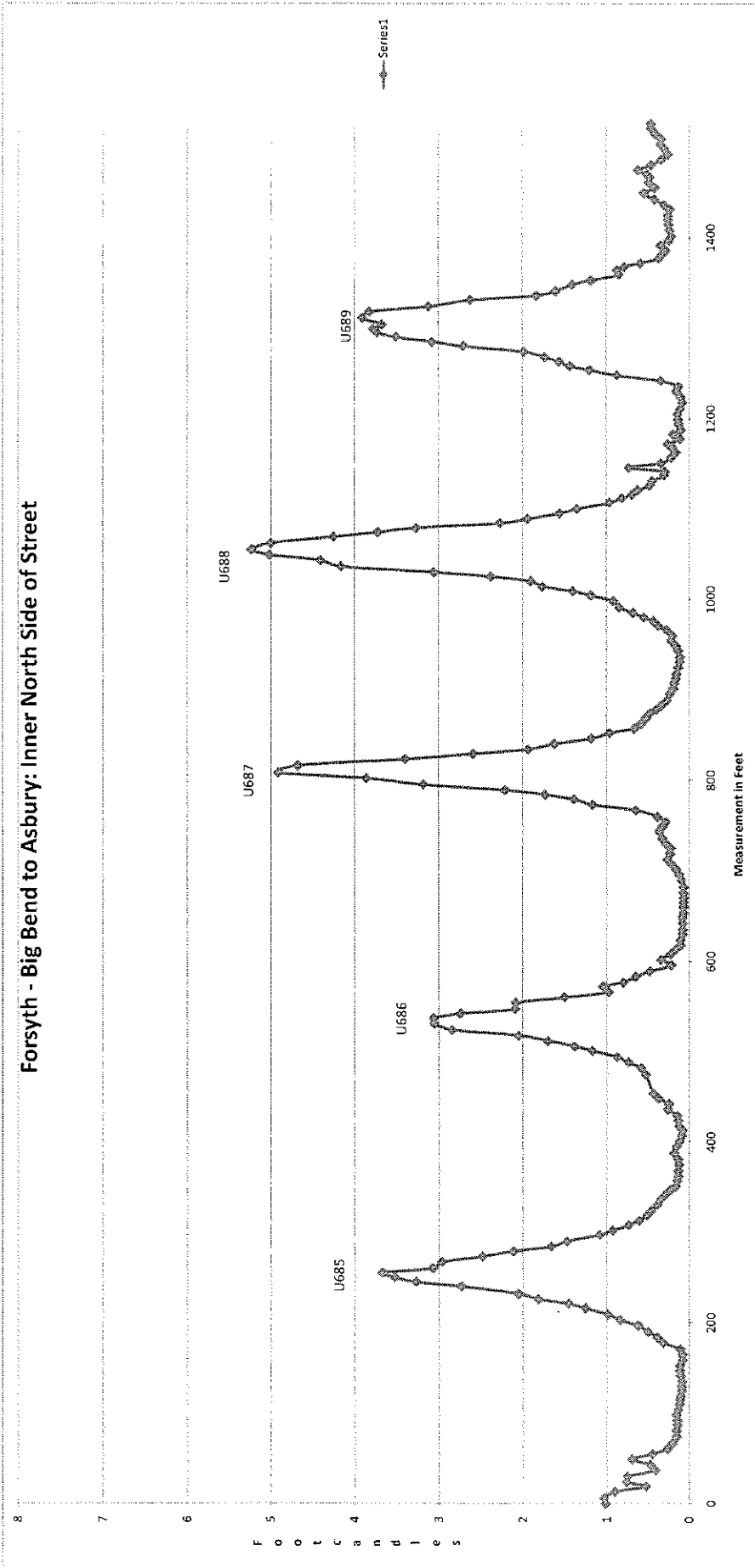
Cobra

PRIVATE



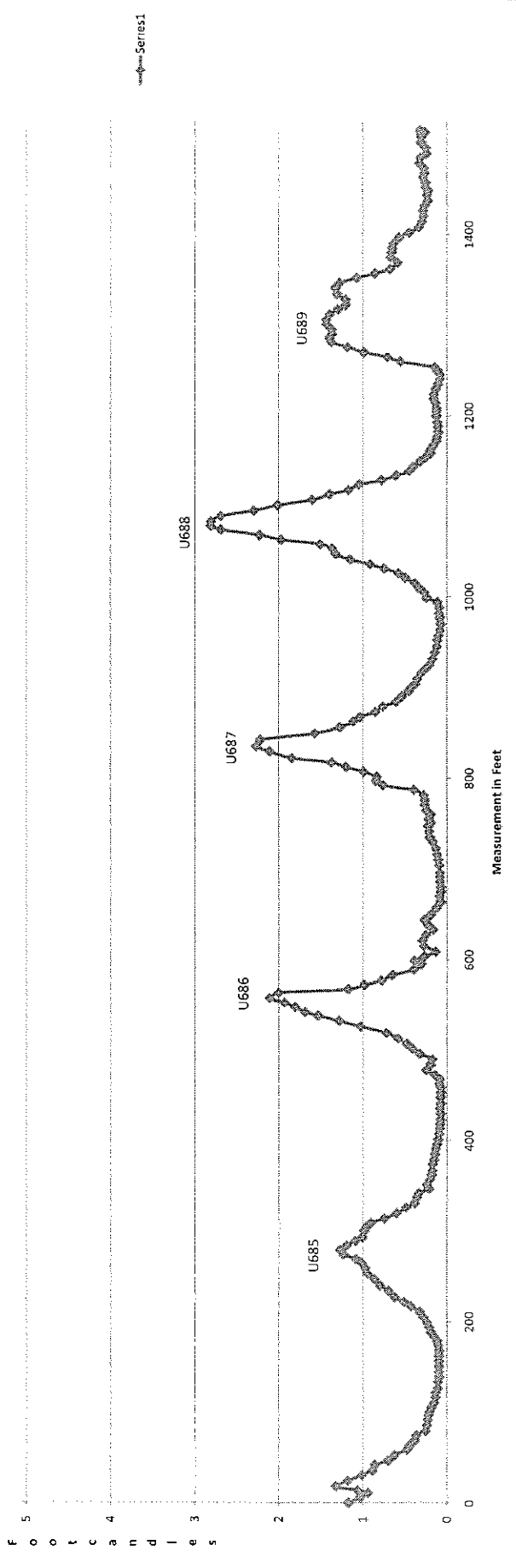


Forsyth - Big Bend to Asbury: Inner North Side of Street

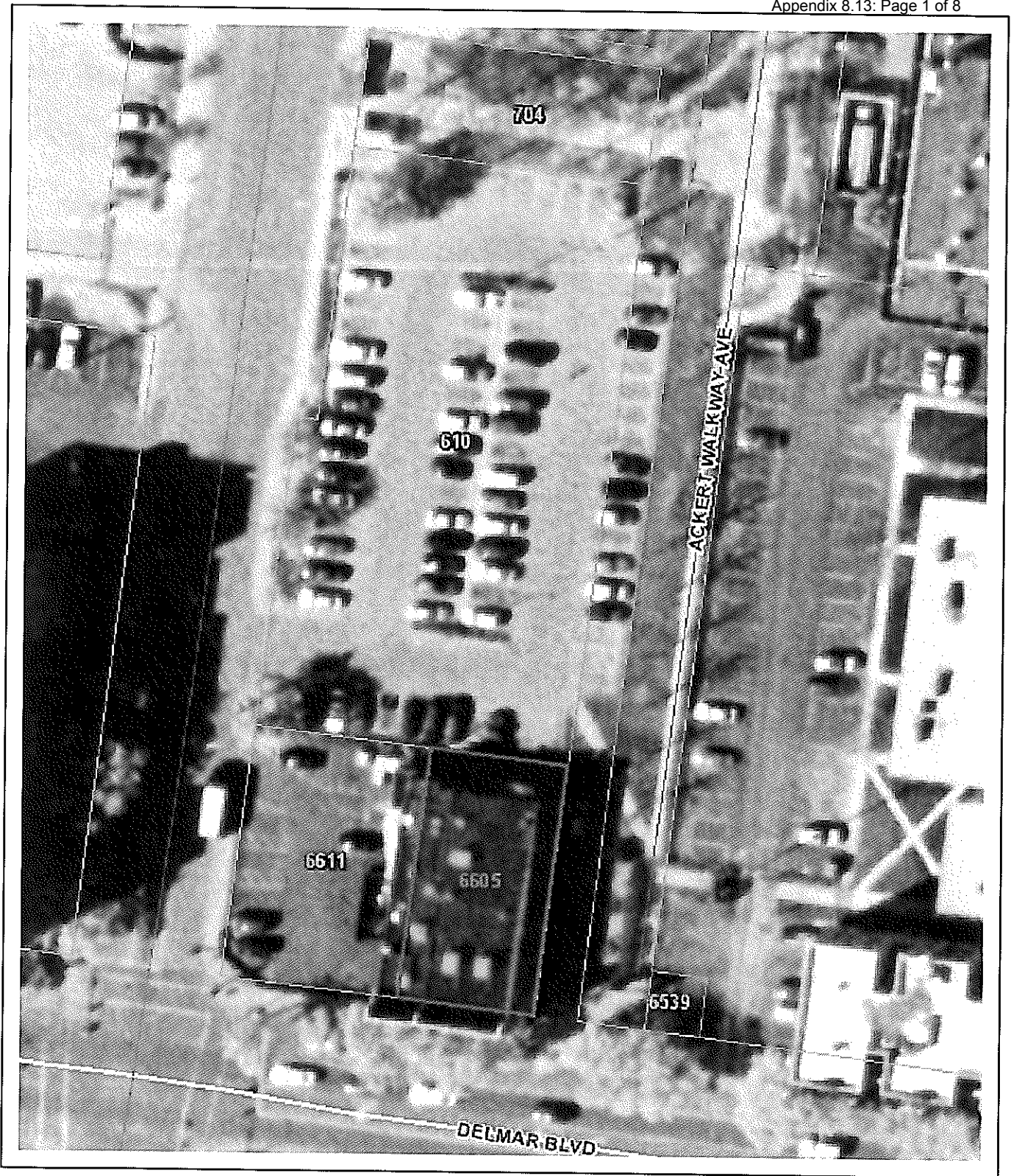


Forsyth - Big Bend to Asbury: Far North Side of Street

due to tree overhang and parking along street, lights on the same side of street (U685 and U688) have light levels lower than expected.



Appendix 8.13



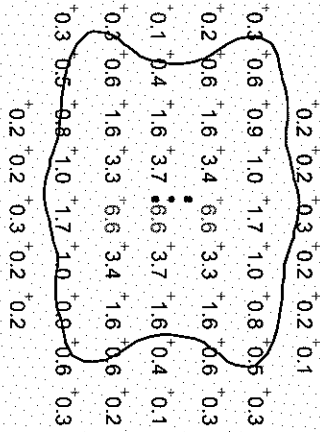
St. Louis County Property Viewer



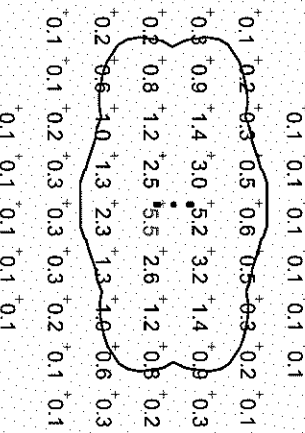
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STATISTICS					
Description	Symbol	Avg	Max	Min	Avg/Min
ESTILO	+	0.8 fc	5.5 fc	0.1 fc	55.0:1
HPS	+	1.3 fc	6.6 fc	0.1 fc	66.0:1
LEDgend	+	0.6 fc	2.0 fc	0.1 fc	20.0:1
					6.0:1

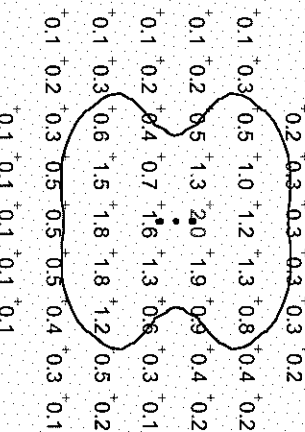
HPS existing



Estilo



LEDgend



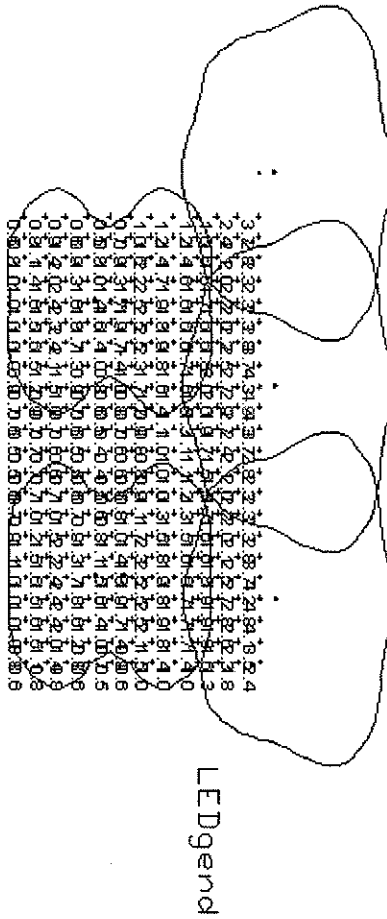
Plan View
Scale 1" = 80'

LUMINAIRE SCHEDULE

Symbol	Label	Qty	Catalog Number	Description	Lamp	File	Lumens	LLF	Watts
HPS	HPS	1	125 25S R3 DG	125 SERIES, 250W HPS TYPE 3 MED SEMI CUTOFF	ONE 250-WATT CLEAR E18 HIGH PRESSURE SODIUM, HORIZONTAL POS.	125_25S_R3_DG.lis	27500	0.72	600
ESTO	ESTO	1	ESTO140CW00ND XXL1SG	ESTILO	140W COSMO WHITE	ESTO140CW00NDXXL1SG.lis	16500	0.75	308
LED	LED	1	LEDG 120 35 6K AS 0 X L3	LEDGEND ROADWAY	120 LED ARRAY	LEDG_120_35_6K_AS_0_X_L3.lis	Absolute	0.77	260

LUMINAIRE SCHEDULE

Symbol	Label	Qty	Catalog Number	Description	Lamp	File	Lumens	LLF	Watts
.	LED	2	LEDG_120_35_6K_AS.0_X.L3	LEDGEND ROADWAY LED	120 LED ARRAY	LEDG_120_35_6K_AS.0_X_L3.rds	Absolute	0.77	260
*	A	3	125_40S_R3_DG	125 SERIES 400W/HPS TYPE 3 MED SEMI CUTOFF	ONE 400-WATT HIGH PRESSURE SODIUM	125_40S_R3_DG.rds	50000	0.72	465



Plan View

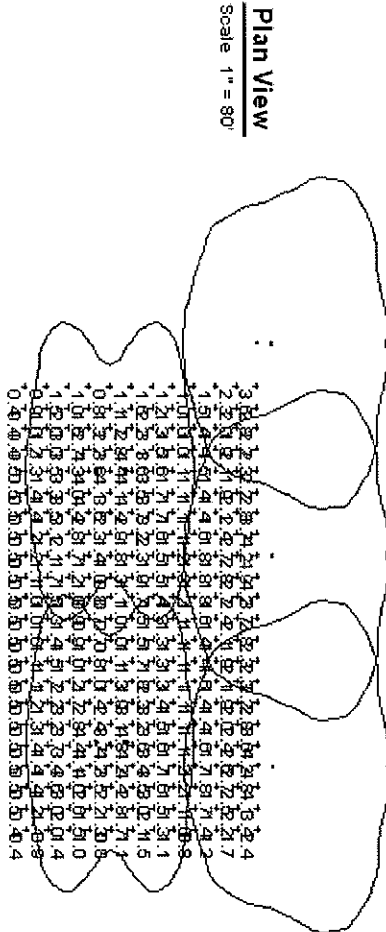
Scale: 1" = 80'

STATISTICS

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
LED lot	+	1.6 fc	4.9 fc	0.4 fc	12.3:1	4.0:1

STATISTICS						
Description	Symbol	Avg	Max	Min	Avg/Min	
Estilo lot	+	1.9 fc	4.9 fc	0.4 fc	12.3:1	4.8:1

Estilo 140 watt type 2

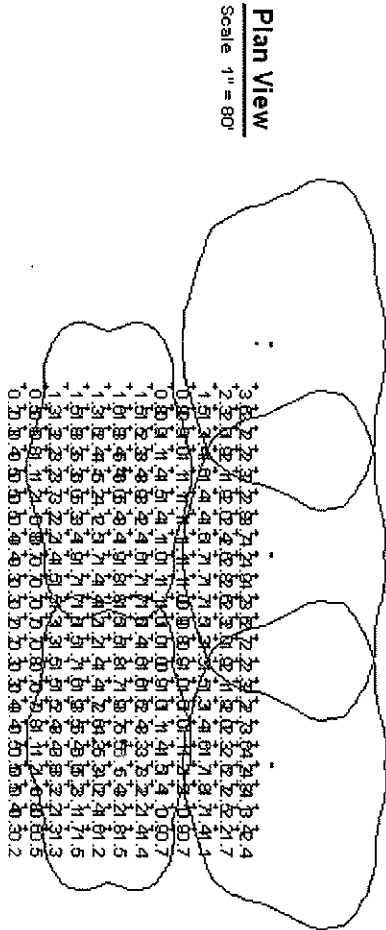


LUMINAIRE SCHEDULE

Symbol	Label	Qty	Catalog Number	Description	Lamp	File	Lumens	LLF	Watts
.	ESTO	2	ESTO140CW00ND XXL25G	ESTILO	140W COSIMO WHITE	ESTO140CW0 0NDXXL25G.le	16500	0.75	308
■	A	3	125 40S R3 DG	125 SERIES 400W HPS TYPE 3 MED SEMI CUTOFF	ONE 400-WATT HIGH PRESSURE SODIUM	125_40S_R3_ DG.la5	50000	0.72	465

STATISTICS						
Description	Symbol	Avg	Max	Min	Avg/Min	
Estilo lot	+	1.9 fc	6.1 fc	0.2 fc	30.5:1	9.5:1

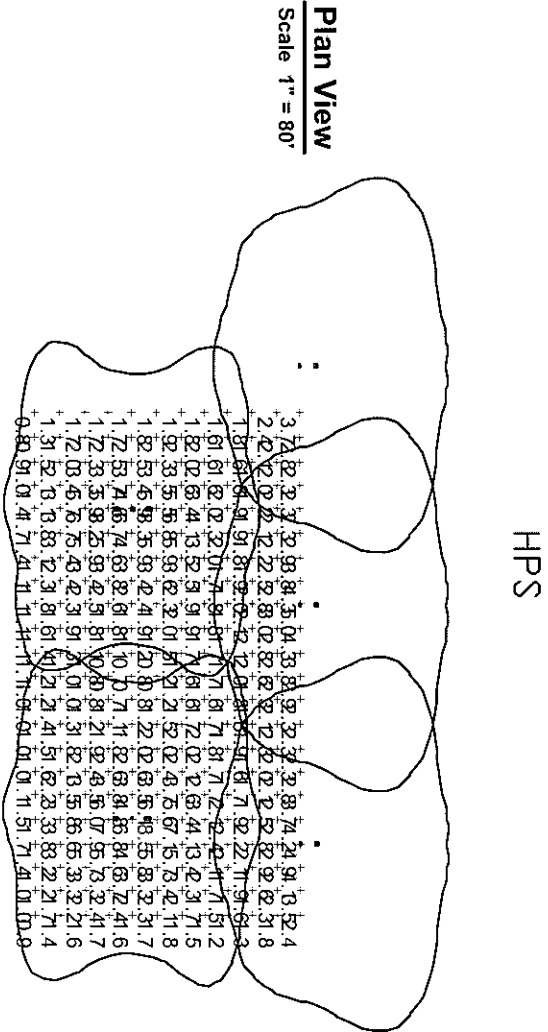
Estilo 140 watt type 1



LUMINAIRE SCHEDULE

Symbol	Label	Qty	Catalog Number	Description	Lamp	File	Lumens	LLF	Watts
.	ESTO	2	ESTO140CW00ND XXL19G	ESTILO	140W COSMO WHITE	ESTO140CW0 0NDXXL19G:1e	16500	0.75	308
▪	A	3	125 40S R3 DG	125 SERIES 400W HPS TYPE 3 MED SEMI CUTOFF	ONE 400-WATT HIGH PRESSURE SODIUM	125_40S_R3_ DG:1es	50000	0.72	465

STATISTICS					
Description	Symbol	Avg	Max	Min	Max/Min
HPS lot	+	2.6 fc	8.5 fc	0.7 fc	12.1:1
					3.7:1

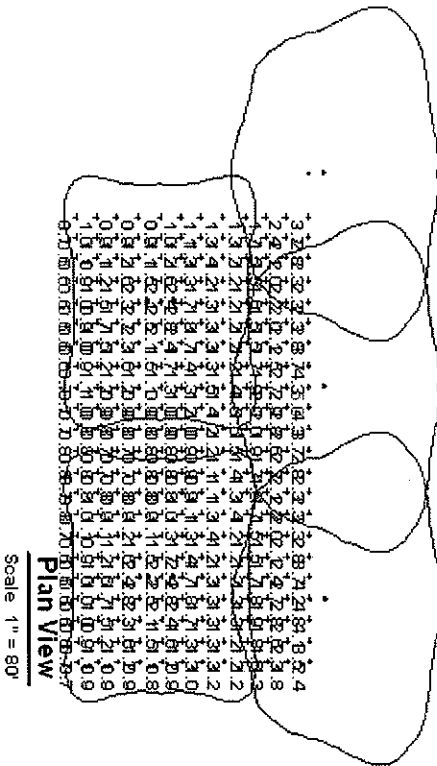


LUMINAIRE SCHEDULE

Symbol	Label	Qty	Catalog Number	Description	Lamp	File	Lumens	LLF	Watts
.	HPS	2	125 26S R3 DG	125 SERIES, 250W HPS TYPE 3 MED SEMI CUTOFF	ONE 250-WATT CLEAR E18 HIGH PRESSURE SODIUM, HORIZONTAL POS.	125_26S_R3_ DG.ies	27500	0.72	600
■	A	3	125 40S R3 DG	125 SERIES 400W HPS TYPE 3 MED SEMI CUTOFF	ONE 400-WATT HIGH PRESSURE SODIUM.	125_40S_R3_ DG.ies	50000	0.72	465

LUMINAIRE SCHEDULE

Symbol	Label	Qty	Catalog Number	Description	Lamp	File	Lumens	LLF	Watts
-	LED	2	GPLM-130W98LED4K-LE3	Road Star	(2 LED Light Engines) White 130W SSL c/w Advance Driver (2) TITANIUM 72W24V @ 120.00V	GPLM-130W98LED4K-LE3 (S1010191).ies	Absolute 285.88	0.77	285.88
■	A	3	125 405 R3 DG	125 SERIES 400W HPS TYPE 3 MED SEMI CUTOFF	ONE 400-WATT HIGH PRESSURE SODIUM	125_405_R3_ DG.ies	50000	0.72	465

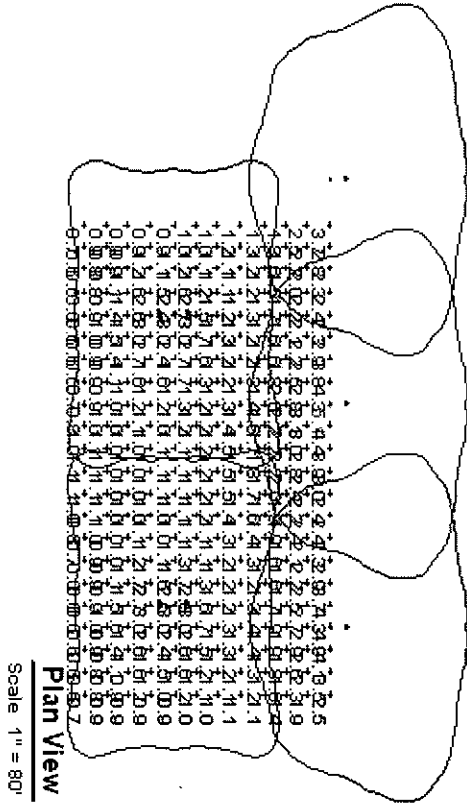


STATISTICS

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
LED lot	+	1.5 fc	5.0 fc	0.6 fc	8.3:1	2.5:1

LUMINAIRE SCHEDULE

Symbol	Label	Qty	Catalog Number	Description	Lamp	File	Lumens	LLF	Watts
-	LED	2	GPLM-130W98LED4K-LEH3-SCALED	Road Star	(GPLM LEH3) White 130W SSL	GPLM-130W98LED4K-LEH3-SCALED (S1104041m)1	Absolute 0.77	0.77	294
■	A	3	125 40S R3 DG	125 SERIES 400W HPS TYPE 3 MED SEMI CUTOFF	ONE 400-WATT HIGH PRESSURE SODIUM	125_40S_R3_DG.ies	50000	0.72	465



STATISTICS

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
LED lot	+	1.6 fc	5.1 fc	0.6 fc	8.5:1	2.7:1

Appendix 8.14

**Ameren Missouri
Comparison of New vs Previous Rates**

	Previous Rates (effective 6/21/10)	New Rates (effective 7/31/2011)
1M - Residential Service Rate		
Customer Charge	\$ 8.03	\$ 8.03
Energy Charge Summer	\$ 0.0967	\$ 0.1059
Winter - 1st 750 kWh	\$ 0.0687	\$ 0.0753
Winter - Over 750 kWh	\$ 0.0461	\$ 0.0502
Energy Efficiency Program Charge - Summer		\$ 0.0007
Energy Efficiency Program Charge - Winter		\$ 0.0004
2M - Small General Service Rate (SGS)		
Customer Charge Single Phase	\$ 9.33	\$ 9.79
Three Phase	\$ 18.61	\$ 19.54
Energy Charge Summer	\$ 0.0920	\$ 0.0966
Winter - Base Use	\$ 0.0686	\$ 0.0720
Winter - Seasonal Use	\$ 0.0396	\$ 0.0417
Energy Efficiency Program Charge - Summer		\$ 0.0002
Energy Efficiency Program Charge - Winter		\$ 0.0001
3M - Large General Service Rate (LGS)		
Customer Charge	\$ 79.89	\$ 83.54
Summer Rates		
Demand Charge	\$ 4.15	\$ 4.34
Energy Charge		
1st 150 kWh per kW	\$ 0.0889	\$ 0.0930
Next 200 kWh per kW	\$ 0.0669	\$ 0.0700
Over 350 kWh per kW	\$ 0.0450	\$ 0.0470
Energy Efficiency Program Charge - Summer		\$ 0.0005
Winter Rates		
Demand Charge	\$ 1.54	\$ 1.61
Energy Charge		
1st 150 kWh per kW	\$ 0.0560	\$ 0.0586
Next 200 kWh per kW	\$ 0.0415	\$ 0.0434
Over 350 kWh per kW	\$ 0.0326	\$ 0.0341
Seasonal kWh	\$ 0.0326	\$ 0.0341
Energy Efficiency Program Charge - Winter		\$ 0.0003
4M - Small Primary Service Rate (SPS)		
Customer Charge	\$ 259.27	\$ 272.73
Reactive Charge per kVar	\$ 0.30	\$ 0.32
Summer Rates		
Demand Charge	\$ 3.44	\$ 3.59
Energy Charge		
1st 150 kWh per kW	\$ 0.0859	\$ 0.0897
Next 200 kWh per kW	\$ 0.0647	\$ 0.0676
Over 350 kWh per kW	\$ 0.0435	\$ 0.0454
Energy Efficiency Program Charge - Summer		\$ 0.0006
Winter Rates		
Demand Charge	\$ 1.25	\$ 1.31
Energy Charge		
1st 150 kWh per kW	\$ 0.0541	\$ 0.0565
Next 200 kWh per kW	\$ 0.0402	\$ 0.0420
Over 350 kWh per kW	\$ 0.0315	\$ 0.0329
Seasonal kWh	\$ 0.0315	\$ 0.0329
Energy Efficiency Program Charge - Winter		\$ 0.0003
11M - Large Primary Service Rate (LPS)		
Customer Charge	\$ 308.77	\$ 322.23
Reactive Charge per kVar	\$ 0.30	\$ 0.32
Summer Rates		
Demand Charge	\$ 17.29	\$ 18.16
Energy Charge	\$ 0.0290	\$ 0.0304
Energy Efficiency Program Charge - Summer		\$ 0.0001
Winter Rates		
Demand Charge	\$ 7.8500	\$ 8.2500
Energy Charge	\$ 0.0256	\$ 0.0269
Energy Efficiency Program Charge - Winter		\$ 0.0001
12M - Large Transmission Service Rate (LTS)		
Customer Charge	\$ 1,758.77	\$ 1,772.23
Reactive Charge per kVar	\$ 0.30	\$ 0.32
Summer Rates		
Demand Charge	\$ 12.760	\$ 13.420
Energy Charge	\$ 0.02421	\$ 0.02547
Winter Rates		
Demand Charge	\$ 4.870	\$ 5.120
Energy Charge	\$ 0.02132	\$ 0.02243

Ameren Missouri Comparison of Current vs Proposed Lighting Rates

	Previous Rates (effective 6/21/10)	New Rates (effective 7/31/2011)		Previous Rates (effective 6/21/10)	New Rates (effective 7/31/2011)
5M - Street and Outdoor Area Lighting Rate (Company Owned)					
A. Standard Horizontal Burning			C. Standard post-top luminare		
High Pressure Sodium			High Pressure Sodium		
9,500 Lumens	\$ 8.59	\$ 10.15	9,500 Lumens	\$ 15.91	\$ 18.81
25,500 Lumens	\$ 12.41	\$ 14.67			
50,000 Lumens	\$ 22.12	\$ 26.15	Mercury Vapor		
			3,300 Lumens	\$ 15.04	\$ 17.78
Mercury Vapor			6,800 Lumens	\$ 15.91	\$ 18.81
6,800 Lumens	\$ 8.59	\$ 10.15			
20,000 Lumens	\$ 12.41	\$ 14.67	D. Pole-mounted, direction flood		
54,000 Lumens	\$ 22.12	\$ 26.15	High Pressure Sodium		
108,000 Lumens	\$ 44.26	\$ 52.32	25,500 Lumens	\$ 15.75	\$ 18.62
			50,000 Lumens	\$ 24.91	\$ 29.45
B. Standard Side Mounted					
High Pressure Sodium			Metal Halide		
5,800 Lumens	\$ 6.95	\$ 8.22	34,000 Lumens	\$ 15.75	\$ 18.62
9,500 Lumens	\$ 7.60	\$ 8.98	100,000 Lumens	\$ 49.80	\$ 58.87
Mercury Vapor			Mercury Vapor		
3,300 Lumens	\$ 6.95	\$ 8.22	20,000 Lumens	\$ 15.75	\$ 18.62
6,800 Lumens	\$ 7.60	\$ 8.98	54,000 Lumens	\$ 24.91	\$ 29.45
6M - Street and Outdoor Area Lighting Rate (Customer Owned)					
High Pressure Sodium	Energy & Maint		Mercury Vapor	Energy & Maint	
9,500 Lumens	\$ 2.78	\$ 3.10	3,300 Lumens	\$ 2.78	\$ 3.10
16,000 Lumens	N/A	N/A	6,800 Lumens	\$ 3.62	\$ 4.03
25,500 Lumens	\$ 4.84	\$ 5.39	11,000 Lumens	\$ 4.89	\$ 5.45
50,000 Lumens	\$ 6.98	\$ 7.78	20,000 Lumens	\$ 6.49	\$ 7.23
			42,000 Lumens	N/A	N/A
Metal Halide			54,000 Lumens	\$ 13.86	\$ 15.44
9,500 Lumens	\$ 4.02	\$ 4.48	Customer-owned Street Lighting-Metered		
12,900 Lumens	\$ 4.81	\$ 5.36	Customer Charge per Meter	\$ 5.17	\$ 5.76
			Energy Charge - Secondary	\$ 0.0349	\$ 0.0389
7M - Municipal Street Lighting - Incandescent Rate					
Incandescent			Customer-owned Street Lighting-Metered		
1,000 Lumens	\$ 3.51	\$ 3.91	Customer Charge per Meter	\$ 12.04	\$ 13.41
2,500 Lumens	\$ 5.34	\$ 5.95	Energy Charge - Secondary	\$ 0.0351	\$ 0.0391
4,000 Lumens	\$ 7.28	\$ 8.11			
6,000 Lumens	\$ 9.68	\$ 10.78			
10,000 Lumens	\$ 13.25	\$ 14.76			
8M - Private Ornamental Street Lighting Rate (Rate being Eliminated)					
Lumen Rating of Series Lamps			Customer-owned Street Lighting		
1,000 Lumens	\$ 9.25	Removed	Customer Charge per Meter	\$ 12.04	Removed
2,500 Lumens	\$ 11.11	Removed	Energy Charge - Secondary	\$ 0.0351	Removed
4,000 Lumens	\$ 13.05	Removed			