

TRANSFORMER 1

WIRING INFO					Vd FORMULA									TRANSFORMER LOAD						
RUN	WIRING METHOD	WIRE SIZE	TOTAL LAMP WATTAGE ON THE WIRE RUN	LAMP VOLTAGE	AMP LOAD	X	LENGTH OF WIRE	X	2	X	RESISTANCE PER FOOT	=	VOLTAGE DROP	TAP TO USE	VOLTAGE AT HUB	AMP LOAD	X	TAP NEEDED	=	ACTUAL WATTAGE
1	INTELL-HUB	12	100.6	12	8.38		26				0.00162		0.71	12	11.29	8.38		12		101
1a	S-HUB	12	35.6	12	2.97		47				0.00162		0.45		11.55					
1b	S-HUB	12	11.4	12	0.95		43				0.00162		0.13		11.87					
2	INTELL-HUB	12	89.55	12	7.46		112				0.00162		2.71	14	11.29	7.46		14		104
2a	S-HUB	12	39.6	12	3.30		42				0.00162		0.44		11.56					
2b	S-HUB	12	11.4	12	0.95		33				0.00162		0.10		11.90					
3	INTELL-HUB	12	70.95	12	5.91		139				0.00162		2.66	14	11.34	5.91		14		83
3a	S-HUB	12	39.6	12	3.30		22				0.00162		0.24		11.10					
3b	S-HUB	12	8.55	12	0.71		23				0.00162		0.05		11.28					
4	INTELL-HUB	12	19.95	12	1.66		138				0.00162		0.74	12	11.26	1.66		12		20
5	INTELL-HUB	12	79.4	12	6.62		66				0.00162		1.41	13	11.59	6.62		13		86
5a	S-HUB	12	31.4	12	2.62		26				0.00162		0.22		11.36					
6	INTELL-HUB	12	99.27	12	8.27		34				0.00162		0.91	13	12.09	8.27		13		108
6a	S-HUB	12	43.6	12	3.63		21				0.00162		0.24		11.76					
6b	S-HUB	12	13.67	12	1.14		23				0.00162		0.08		11.50					

TOTAL ACTUAL WATTAGE **502**

TRANSFORMER SIZE **840**