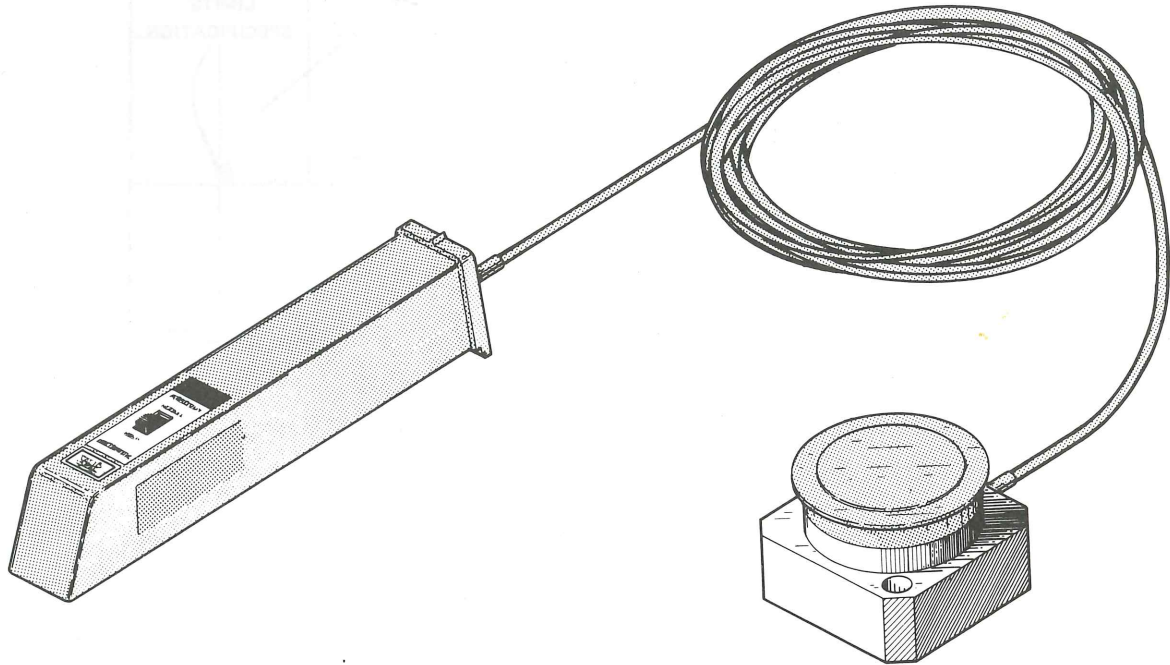


APR
84

**J6511 ILLUMINANCE PROBE
J6511 OPT 02 ILLUMINANCE PROBE**



The J6511 and J6511 option 02 are intended to be used with the J16 Digital Photometer for measuring illuminance in foot candles or LUX for option 02. The probe features a compact sensor housing to permit its use in limited-space applications, a 25-foot attached cable to permit remote operation, and cosine correction (see Fig. 1) which provides a 180 degree field of view.

A multi-element glass filter and silicon photodiode insure a close match to the CIE photopic curve (color corrected). The silicon photodiode provides a rugged, stable detector with complete freedom from fatigue and saturation effects.

The J6511 and J6511 option 02 have their own factory-set calibration, in foot candles or LUX for option 02. This permits interchangeability of probes without the need for recalibration of either probes or the J16. A HOLD switch on the probe's connector housing permits making and then retaining a measurement for extended periods of time.

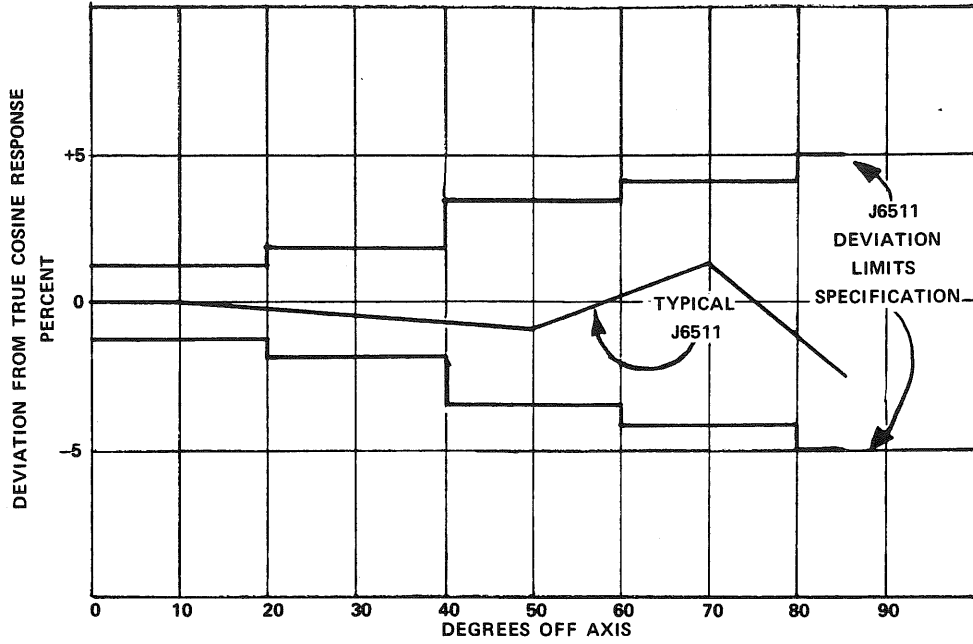


Fig. 1. J6511 Illuminance Probe, Cosine Deviation Limits & Typical J6511.

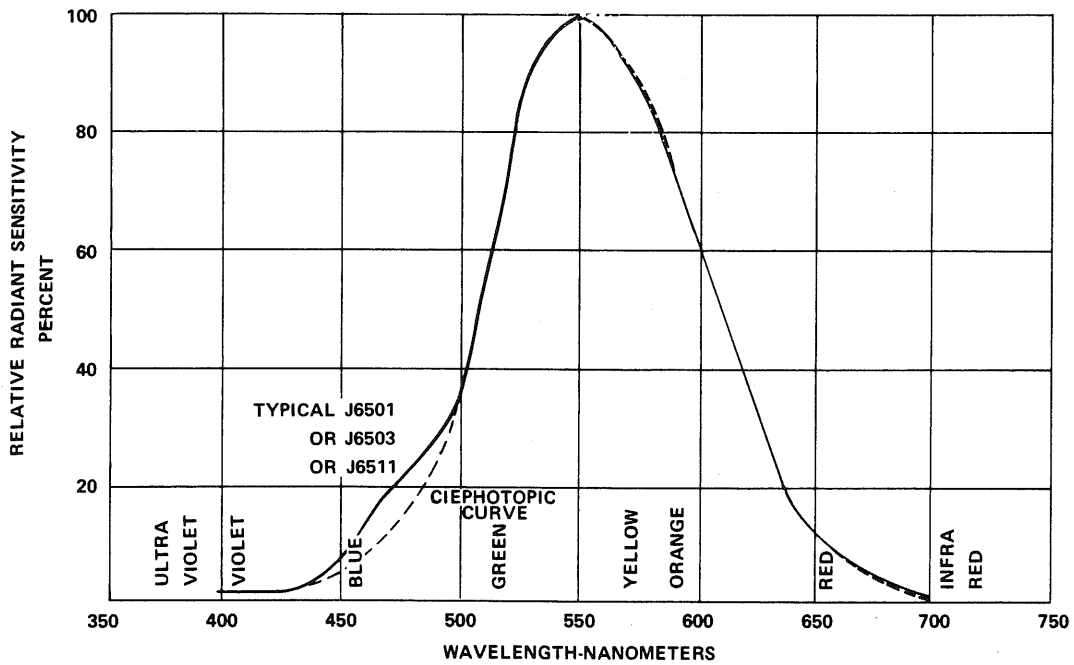


Fig. 2. CIE Photopic Curve and Typical J6511 Response (dashed line).

CLEANING INSTRUCTIONS

Occasionally, it may be necessary to clean the dome of the sensor. In most cases, wiping the dome with a soft, lint-free cloth moistened in a solution of mild detergent and water will facilitate cleaning. Extreme care should be taken not to rub the dome hard enough to alter its finish. Any change in the finish of the sensor dome will affect the cosine correction of the probe.

SPECIFICATIONS (when used with the J16)

Measurement range for J6511:
0.001 to 1,999 footcandles

Measurement range for J6511 Opt 02:
0.01 to 19,900 lux (lm/m^2)

Spectral response: CIE photopic curve

Light acceptance angle: 180 degrees

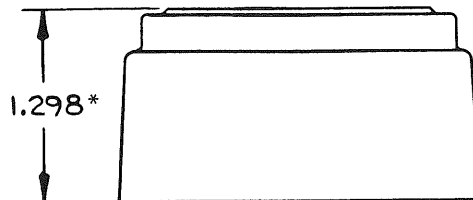
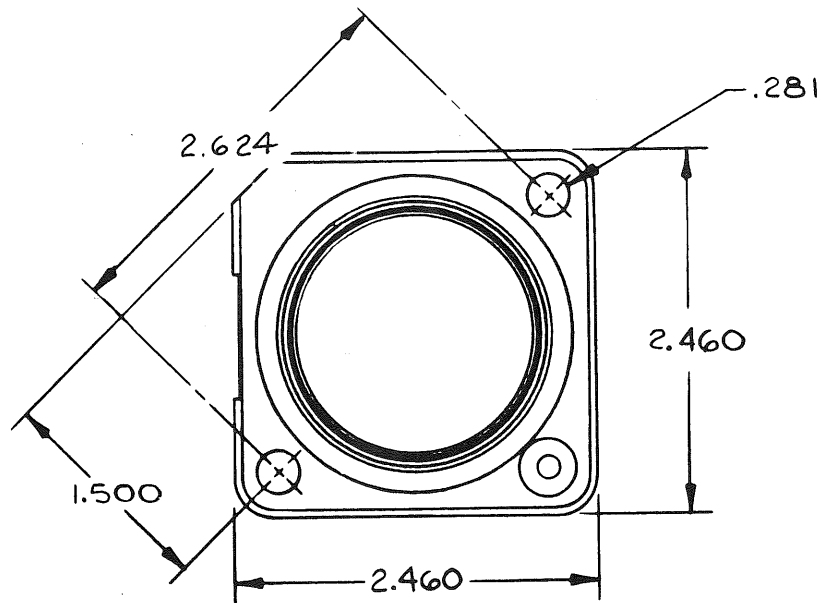
Accuracy: Within 5% of NBS standards and
1 digit in the last place. Probes
are individually calibrated to a
3100K tungsten halogen light
source traceable to NBS.

PHYSICAL CHARACTERISTICS

The probe and sensor housing are threaded for a standard tripod mount (1/4" X 20). The sensor housing also has two 0.281 inch (thru) mounting holes.

Connector housing: Length - 6.845"
Width - 1.412"
Height - 1.432"

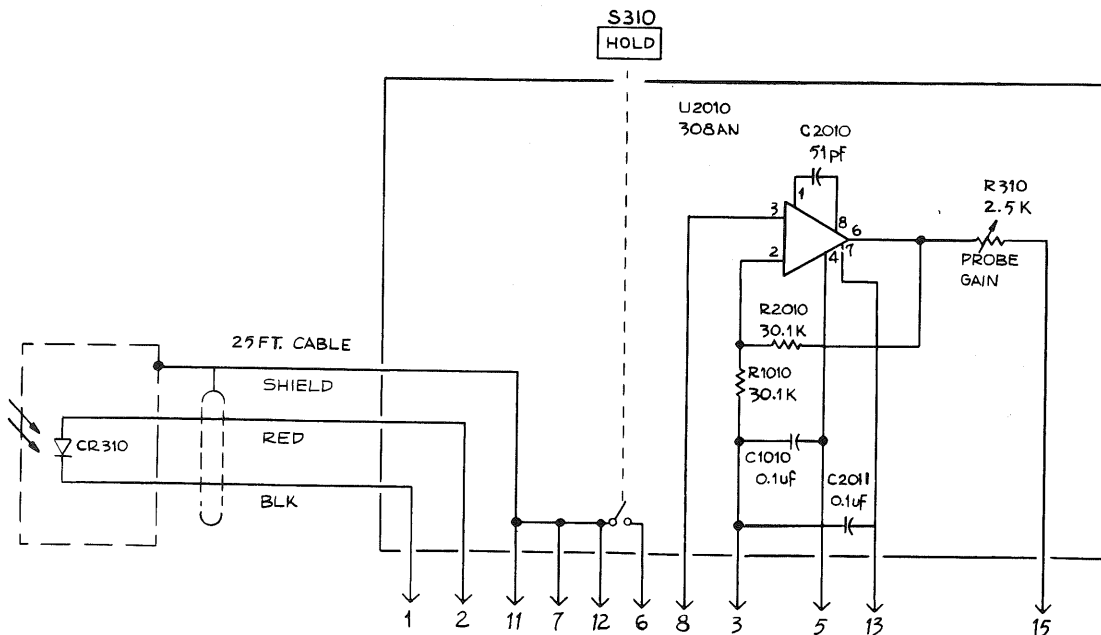
Probe housing: Length - 2.460"
Width - 2.460"
Height - 1.298"



*Without cap
With cap \approx 1.4

Dimensions in inches

Component No.	Tektronix Part No.	Serial/Model No. Eff	Discont	Name & Description	Mfr Code	Mfr Part Number
A1	670-8483-00	B020000		CKT BOARD ASSY:ILLUMINATED PROBE	80009	670-8483-00
A1C1010	283-0024-00	B020000		CAP.,FXD,CER DI:0.1UF,+80-20%,50V	72982	8121N083Z5U0104Z
A1C2010	283-0107-00	B020000		CAP.,FXD,CER DI:51PF,5%,200V	96733	R3017
A1C2011	283-0024-00	B020000		CAP.,FXD,CER DI:0.1UF,+80-20%,50V	72982	8121N083Z5U0104Z
A1R1010	321-0335-00	B020000		RES.,FXD,FILM:30.1K OHM,1%,0.125W	91637	CMF55116G30101F
A1R2010	321-0335-00	B020000		RES.,FXD,FILM:30.1K OHM,1%,0.125W	91637	CMF55116G30101F
A1U2010	156-0854-01	B020000		MICROCIRCUIT,LI:OPERATIONAL AMPL,SCRN	27014	LM308AJ-8A+
CHASSIS PARTS						
CR310	152-0549-00	B010100	B010126	SEMICON DVC,PH:SI,200V,1%,W/FILTER	80009	152-0549-00
CR310	152-0620-00	B010127	B019999	SEMICON DEVICE:	80009	152-0620-00
CR310	152-0620-01	B020000		SEMICON DEVICE:	80009	152-0620-01
R310	311-1239-00			RES.,VAR,NONWIR:2.5K OHM,10%,0.50W	73138	72-26-0
S310	260-0960-00			SWITCH,SLIDE:2A,120VAC,0.5A,120VDC	10389	23-021-006



J6511
J6511 OPT 02

Fig & Index	Tektronix Part No	Serial/Model No Eff	Discont	Qty	1 2 3 4 5	Name & Description	Mfr Code	Mfr Part Number	
1-	J6511					ILLUM PROBE:0.001 TO 1999 FOOTCANDLES			
	J6511 OPT 02					METRIC READOUT:U/W OPT 02 J16 ONLY			
-1	334-2063-00			1		.MARKER,IDENT:MKD CALIB SEAL	80009	334-2063-00	
-2	334-2111-00			1		.MARKER,IDENT:MKD J6511 READOUT	80009	334-2111-00	
	-----			-		.(J6511 ONLY)			
	334-2224-00			1		.MARKER,IDENT:MKD J6511 READOUT	80009	334-2224-00	
	-----			-		.(J6511 OPTION 02 ONLY)			
	200-1409-00	B010100	B010240	1		.COVER,PROBE:	80009	200-1409-00	
	200-1409-02	B010241	B019999	1		.COVER,PROBE:	80009	200-1409-02	
-3	200-2924-00	B020000		1		.COVER,PROBE:ALUMINUM	80009	200-2924-00	
						***** (ATTACHING PARTS) *****			
-4	211-0022-00	B010100	B010240	4		.SCREW,MACHINE:2-56 X 0.188,PNH,STL,CD PL	83385	ORD BY DESCR	
	211-0030-00	B010241		4		.SCREW,MACHINE:2-56 X 0.25,FLH,82DEG,STL	83385	ORD BY DESCR	
						***** (END ATTACHING PARTS) *****			
-5	131-0459-00			1		.CONN,RCPT,ELEC:15 CONTACT,MALE	T0082	DA-15P	
						***** (ATTACHING PARTS) *****			
-6	211-0101-00			2		.SCREW,MACHINE:4-40 X 0.25,FLH,100 DEG,STL	83385	ORD BY DESCR	
-7	210-0586-00			2		.NUT,PL,ASSEM WA:4-40 X 0.25,STL,CD PL	78189	211-041800-00	
						***** (END ATTACHING PARTS) *****			
-8	-----	B020000		1		.CIRCUIT BOARD:ILLUM PROBE(SEE A1 REPL)			
						***** (ATTACHING PARTS) *****			
-9	211-0102-00	B020000		2		.SCREW,MACHINE:4-40 X 0.50,FLH,100 DEG STL	83385	ORD BY DESCR	
-10	210-0406-00	B020000		2		.NUT,PLAIN,HEX:4-40 X 0.188,BRS,CD PL	73743	12157-50	
-11	166-0025-00	B020000		2		.SPACER,SLEEVE:0.25 L X 0.125 ID,AL	71590	P07608-51	
						***** (END ATTACHING PARTS) *****			
						.ILLUM PROBE BOARD ASSY INCLUDES:			
	175-5414-00			1		.CA ASSY,SP,ELEC:7.26 AWG,3.5 L,RIBBON	80009	175-5414-00	
-12	-----			1		.SWITCH,SLIDE:2A,120VAC(SEE S310 REPL)			
						***** (ATTACHING PARTS) *****			
-13	211-0030-00			2		.SCREW,MACHINE:2-56 X 0.25,FLH,82DEG,STL	83385	ORD BY DESCR	
-14	210-0405-00			2		.NUT,PLAIN,HEX:2-56 X 0.188,BRS,CD PL	73743	12157-50	
-15	210-0001-00			2		.WASHER,LOCK:#2 INTL,0.013 X 0.18 OD,STL	78189	1202-00-00-0541C	
						***** (END ATTACHING PARTS) *****			
-16	343-0406-00			1		.CLAMP,VAR RES:ALUMINUM	80009	343-0406-00	
	380-0298-01	B010100	B010240	1		.HSG ASSY,PROBE:BLUE ABS	80009	380-0298-01	
-17	380-0298-04	B010241		1		.HSG ASSY,PROBE:BLUE ABS	80009	380-0298-04	
-18	358-0091-00			2		.BSHG,STRAIN RLF:U/W 0.19 OD CABLE,STRAIGHT	28520	SR-2M-4	
-19	198-2199-00			1		.WIRE SET,ELEC:	80009	198-2199-00	
-20	200-1537-00			1		.COVER,SNSR HSG:	80009	200-1537-00	
						***** (ATTACHING PARTS) *****			
-21	211-0007-00			4		.SCREW,MACHINE:4-40 X 0.188,PNH STL,CD PL	83385	ORD BY DESCR	
						***** (END ATTACHING PARTS) *****			
-22	380-0328-00			1		.HOUSING,SENSOR:ALUMINUM	80009	380-0328-00	
-23	-----			1		.SEMICON DVC,DI:PHOTOMETRIC(SEE CR310 REPL			
-24	131-1529-00			2		.TERM,FEEDTHRU:0.48 L X 0.171 OD BRS,INSUL	98291	0113008000479	
-25	210-0259-00			1		.TERMINAL,LUG:0.099 ID,LOCKING,BRS,CD PL	80009	210-0259-00	
						***** (ATTACHING PARTS) *****			
-26	211-0069-00			1		.SCREW,MACHINE:2-56 X 0.125 INCH,PNH STL	77250	ORD BY DESC	
						***** (END ATTACHING PARTS) *****			
-27	200-1644-00			1		.COVER,PROBE:	80009	200-1644-00	
-28	354-0454-00			1		.RING,RETAINER:SENSOR	80009	354-0454-00	
-29	378-0816-00			1		.DIFFUSER,LIGHT:1.278 DIA	80009	378-0816-00	
-30	354-0475-00			1		.RING,RUBBER:0.437IDX1.375ODX0.195,SIL R	80009	354-0475-00	
-31	214-1895-00			1		.LEVEL:CIRCULAR,YELLOW FILL	80009	214-1895-00	
-32	213-0327-00			1		.SETSCREW:10-32 X 0.312,NYLON TIP,HEX	000AH	ORD BY DESCR	
-33	380-0377-00	B010100	B019999	1		.HOUSING,PROBE:ALUMINUM	80009	380-0377-00	
	380-0377-04	B020000		1		.HOUSING,PROBE:ALUMINUM	80009	380-0377-04	
STANDARD ACCESSORIES									
	062-1612-03			1		DATA SHEET:J6511,J6511 OPT 02	80009	062-1612-03	

