



1719 21st Street Santa Monica, CA 90404

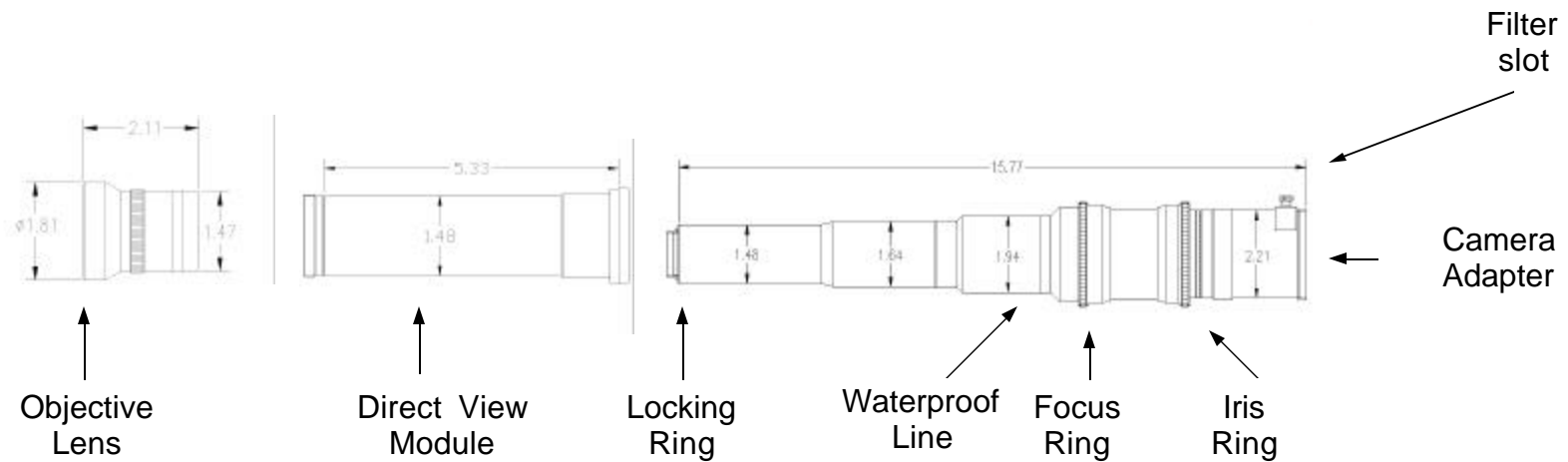
## 16mm Probe II Lens System Manual & Depth of Field Charts



For additional technical support  
Please Call InnoVision Optics at 310-453-4866



## 16 Probe II Dimensions



16mm Probe II		Field of View	@ Minimum Focus	Coverage	T-Stop
5mm	Horizontal	Inch	0.25	Inch	16mm Only @ T22
	Vertical	Inch			
7mm	Horizontal	11/16 Inch	0.5	Inch	Super 16 @ T22
	Vertical	1/2 Inch			
9.5mm	Horizontal	1 Inch	1.25	Inches	Super 16 @ T22
	Vertical	11/16 Inches			
12.5mm	Horizontal	1 1/8 Inches	2	Inches	Super 16 @ T22
	Vertical	0.875 Inches			
18mm	Horizontal	1.625 Inches	5	Inches	Super 16 @ T22
	Vertical	1 3/16 Inches			
24mm	Horizontal	Inches	11	Inches	Super 16 @ T22
	Vertical	Inches			

Magnification Ratio 1 :1





**16mm Probe II****LENS: 9.5 mm**Circle of Confusion: **0.0006**

T-Stop

Distance(in)	1	2	3	4	5	6	7	8	9	
<b>2.8</b>	Near	0.988	1.953	2.896	3.817	4.717	5.597	6.457	7.299	8.122
	Far	1.012	2.049	3.112	4.202	5.319	6.466	7.642	8.850	10.091
<b>4</b>	Near	0.983	1.934	2.853	3.743	4.605	5.440	6.249	7.034	7.796
	Far	1.017	2.071	3.163	4.295	5.469	6.689	7.955	9.273	10.643
<b>5.6</b>	Near	0.977	1.908	2.798	3.649	4.464	5.244	5.992	6.711	7.400
	Far	1.025	2.101	3.233	4.425	5.682	7.010	8.415	9.903	11.482
<b>8</b>	Near	0.967	1.872	2.720	3.517	4.268	4.976	5.644	6.277	6.876
	Far	1.036	2.147	3.344	4.636	6.035	7.556	9.213	11.027	13.021
<b>11</b>	Near	0.955	1.828	2.628	3.365	4.046	4.676	5.262	5.808	6.317
	Far	1.050	2.208	3.495	4.930	6.544	8.369	10.452	12.850	15.642

T-Stop

Distance(in)	10	11	12	15	18	21	24	30	36	
<b>2.8</b>	Near	8.928	9.716	10.488	12.710	14.801	16.770	18.630	22.054	25.134
	Far	11.365	12.674	14.021	18.296	22.964	28.082	33.719	46.896	63.419
<b>4</b>	Near	8.536	9.254	9.951	11.930	13.753	15.438	17.000	19.806	22.255
	Far	12.071	13.559	15.111	20.198	26.042	32.827	40.800	61.817	94.152
<b>5.6</b>	Near	8.063	8.701	9.315	11.027	12.567	13.959	15.224	17.436	19.306
	Far	13.161	14.950	16.859	23.448	31.709	42.373	56.666	107.364	266.062
<b>8</b>	Near	7.445	7.986	8.500	9.903	11.127	12.205	13.161	14.783	16.105
	Far	15.224	17.669	20.400	30.909	47.076	75.155	135.991	INFINITY	INFINITY
<b>11</b>	Near	6.794	7.242	7.662	8.784	9.734	10.549	11.255	12.420	13.341
	Far	18.932	22.868	27.660	51.319	119.405	2281.169	INFINITY	INFINITY	INFINITY

**16mm Probe II****LENS: 12.5 mm**

Circle of Confusion: 0.0006

T-Stop

Distance(in)	1	2	3	4	5	6	7	8	9	
2.8	Near	0.993	1.973	2.939	3.892	4.832	5.760	6.676	7.579	8.471
	Far	1.007	2.028	3.064	4.114	5.180	6.261	7.357	8.470	9.599
4	Near	0.990	1.961	2.913	3.847	4.764	5.663	6.546	7.412	8.263
	Far	1.010	2.040	3.092	4.165	5.261	6.379	7.522	8.689	9.881
5.6	Near	0.986	1.946	2.880	3.790	4.676	5.539	6.380	7.201	8.001
	Far	1.014	2.057	3.130	4.235	5.373	6.545	7.753	8.999	10.284
8	Near	0.981	1.924	2.832	3.706	4.549	5.362	6.147	6.905	7.638
	Far	1.020	2.083	3.190	4.344	5.550	6.810	8.128	9.507	10.954
11	Near	0.973	1.897	2.773	3.607	4.400	5.157	5.879	6.568	7.227
	Far	1.028	2.115	3.267	4.489	5.789	7.173	8.650	10.230	11.925

T-Stop

Distance(in)	10	11	12	15	18	21	24	30	36	
2.8	Near	9.351	10.220	11.078	13.586	16.002	18.330	20.575	24.832	28.806
	Far	10.745	11.909	13.090	16.742	20.568	24.581	28.794	37.884	47.982
4	Near	9.098	9.919	10.725	13.059	15.275	17.383	19.389	23.125	26.534
	Far	11.100	12.346	13.620	17.619	21.908	26.519	31.489	42.692	55.966
5.6	Near	8.782	9.544	10.287	12.416	14.403	16.262	18.005	21.183	24.009
	Far	11.611	12.981	14.397	18.942	23.991	29.634	35.980	51.388	71.920
8	Near	8.346	9.031	9.694	11.563	13.267	14.828	16.264	18.814	21.010
	Far	12.472	14.067	15.745	21.346	27.983	35.972	45.772	73.997	125.652
11	Near	7.858	8.463	9.043	10.648	12.076	13.356	14.510	16.506	18.172
	Far	13.746	15.709	17.831	25.371	35.331	49.098	69.372	164.426	1900.348

**16mm Probe II****LENS: 18 mm**Circle of Confusion: **0.0006**

T-Stop

Distance(in)	1	2	3	4	5	6	7	8	9	
<b>2.8</b>	Near	0.997	1.987	2.970	3.947	4.918	5.882	6.840	7.791	8.737
	Far	1.003	2.013	3.030	4.054	5.085	6.123	7.168	8.220	9.279
<b>4</b>	Near	0.995	1.981	2.958	3.925	4.883	5.833	6.773	7.705	8.629
	Far	1.005	2.019	3.044	4.078	5.122	6.177	7.242	8.318	9.404
<b>5.6</b>	Near	0.993	1.974	2.941	3.896	4.838	5.768	6.687	7.594	8.489
	Far	1.007	2.027	3.061	4.110	5.173	6.251	7.344	8.452	9.577
<b>8</b>	Near	0.991	1.962	2.916	3.853	4.772	5.675	6.561	7.432	8.287
	Far	1.010	2.039	3.089	4.159	5.251	6.365	7.502	8.662	9.847
<b>11</b>	Near	0.987	1.949	2.886	3.800	4.692	5.561	6.410	7.239	8.048
	Far	1.013	2.054	3.123	4.222	5.352	6.514	7.709	8.940	10.207

T-Stop

Distance(in)	10	11	12	15	18	21	24	30	36	
<b>2.8</b>	Near	9.676	10.610	11.537	14.283	16.978	19.622	22.216	27.264	32.131
	Far	10.346	11.420	12.502	15.792	19.153	22.587	26.095	33.347	40.929
<b>4</b>	Near	9.544	10.451	11.349	13.997	16.574	19.085	21.531	26.238	30.716
	Far	10.502	11.610	12.730	16.158	19.694	23.343	27.109	35.021	43.481
<b>5.6</b>	Near	9.373	10.246	11.108	13.632	16.065	18.413	20.679	24.985	29.012
	Far	10.717	11.874	13.048	16.673	20.465	24.433	28.591	37.534	47.422
<b>8</b>	Near	9.128	9.954	10.765	13.119	15.358	17.490	19.522	23.315	26.784
	Far	11.057	12.292	13.555	17.510	21.740	26.274	31.144	42.060	54.885
<b>11</b>	Near	8.838	9.611	10.365	12.530	14.557	16.458	18.245	21.517	24.438
	Far	11.513	12.859	14.247	18.683	23.577	29.005	35.058	49.527	68.326



**16mm Probe II****LENS: 24 mm**

Circle of Confusion: 0.0006

T-Stop

Distance(in)	1	2	3	4	5	6	7	8	9	
2.8	Near	0.998	1.993	2.983	3.970	4.953	5.933	6.909	7.881	8.850
	Far	1.002	2.008	3.017	4.030	5.047	6.069	7.093	8.122	9.155
4	Near	0.997	1.989	2.976	3.957	4.934	5.905	6.871	7.832	8.787
	Far	1.003	2.011	3.024	4.043	5.068	6.098	7.134	8.176	9.223
5.6	Near	0.996	1.985	2.967	3.941	4.908	5.868	6.820	7.766	8.705
	Far	1.004	2.015	3.034	4.061	5.096	6.139	7.189	8.248	9.316
8	Near	0.995	1.979	2.952	3.916	4.869	5.813	6.746	7.670	8.585
	Far	1.005	2.022	3.049	4.088	5.138	6.200	7.274	8.360	9.458
11	Near	0.993	1.971	2.935	3.885	4.822	5.745	6.656	7.553	8.439
	Far	1.007	2.030	3.068	4.122	5.192	6.278	7.382	8.503	9.641

T-Stop

Distance(in)	10	11	12	15	18	21	24	30	36	
2.8	Near	9.815	10.777	11.735	14.588	17.410	20.202	22.963	28.397	33.716
	Far	10.192	11.233	12.277	15.436	18.631	21.864	25.135	31.795	38.616
4	Near	9.738	10.684	11.625	14.419	17.169	19.878	22.545	27.761	32.824
	Far	10.276	11.335	12.400	15.630	18.915	22.256	25.655	32.632	39.857
5.6	Near	9.637	10.563	11.481	14.198	16.858	19.462	22.012	26.957	31.705
	Far	10.391	11.475	12.568	15.897	19.308	22.802	26.383	33.818	41.642
8	Near	9.490	10.386	11.273	13.881	16.412	18.870	21.257	25.833	30.162
	Far	10.568	11.691	12.828	16.316	19.929	23.673	27.556	35.769	44.640
11	Near	9.312	10.173	11.022	13.503	15.886	18.178	20.384	24.554	28.433
	Far	10.798	11.974	13.168	16.871	20.763	24.859	29.176	38.549	49.055

## Prism Attachment Instructions

There is no light loss when using the Prism Attachment; therefore no Stop compensation is required.

The Probe II is **Not Waterproof** when used with the Prism Attachment

**35mm Probe II** The Prism Attachment will cover the following focal lengths when used on the Probe II: 16, 20, 32 & 40

The Prism Attachment will not cover the 9mm & 12mm Lenses.

Note: Some older couplers will be engraved "Coupler A" and "Coupler B". Use the correct coupler with the Objective lenses shown below:

Coupler	35mm Probe II
A	16mm, 20mm, 40mm
B	32mm

### Installation Steps:

1. Unscrew protective housing from objective lens