H-LaF10A 788475

$n_d = 1.78800$	$\upsilon_d = 47.49$	$n_F - n_C = 0.016592$
$n_e = 1.79195$	$\upsilon_e = 47.26$	$n_{F'} - n_{C'} = 0.016758$

Refractive Indices		
	λ (nm)	n_λ
n_{2325}	2325.42	1.74466
n_{1970}	1970.09	1.75204
n_{1530}	1529.58	1.76016
n_{1129}	1128.64	1.76750
n_{1064}	1064.00	1.76885
n_t	1013.98	1.76996
n_s	852.11	1.77435
$n_{A'}$	768.19	1.77738
n_r	706.52	1.78018
n_C	656.27	1.78300
$n_{C'}$	643.85	1.78379
n_{He-Ne}	632.80	1.78453
n_D	589.29	1.78785
n_d	587.56	1.78800
n_e	546.07	1.79195
n_F	486.13	1.79959
$n_{F'}$	479.99	1.80055
n_g	435.84	1.80878
n_h	404.66	1.81649
n_i	365.01	1.82981

Constants of Dispersion Formula	
A_0	3.12424071E+00
A_1	-1.57101635E-02
A_2	2.44837290E-02
A_3	1.02164022E-03
A_4	-7.05302601E-05
A_5	4.58907154E-06

Density	
ρ (g/cm^3)	4.28

Solarization	
△λ (%)	-3.1

Relative Partial Dispersion	
$P_{d,C}$	0.3014
$P_{e,d}$	0.2381
$P_{g,F}$	0.5539
$P'_{d,c'}$	0.2512
$P'_{e,d}$	0.2357
$P'_{g,F'}$	0.4911

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	-0.0035
$\Delta P_{g,F}$	-0.0108
$\Delta P_{C,t}$	0.0157
$\Delta P_{C,s}$	0.0070

Thermal Properties	
Tg (℃)	688
Ts (℃)	709
$T_{10}^{14.5}$ (℃)	617
T_{10}^{13} (℃)	645
$\alpha_{-50/80℃}$ (10^{-7}/K)	59
$\alpha_{100/300℃}$ (10^{-7}/K)	73
λ (W/(m·K))	1.00

Mechanical Properties	
HK (10^7Pa)	718
F_A	97
E (GPa)	123.4
G (GPa)	46.9
μ	0.315
σ_b (MPa)	90.4
B (10^{-12}/Pa)	1.35

Chemical Properties (grade)	
RC (S)	1
RA (S)	3
D_W	1
D_A	3
R_{OH} (S)	1
RP (S)	1

Expansion Coefficient α ($\times 10^{-7}$/K)	
℃	α
-50/-40	55
-40/-30	57
-30/-20	59
-20/-10	60
-10/0	61
0/10	61
10/20	62
20/30	63
30/40	63
40/50	64
50/60	64
60/70	65
70/80	65
80/90	66
90/100	67
100/110	68
110/120	69
120/130	69
130/140	70
140/150	71
150/160	72

Internal Transmittance		
λ (nm)	τ5mm	τ10mm
2400	0.787	0.620
2200	0.927	0.859
2000	0.976	0.953
1800	0.991	0.982
1600	0.999	0.998
1400	0.999	0.998
1200	0.999	0.998
1060	0.999	0.998
1000	0.999	0.998
950	0.999	0.998
900	0.999	0.998
850	0.999	0.998
800	0.999	0.998
750	0.999	0.998
700	0.999	0.998
650	0.999	0.998
600	0.999	0.998
550	0.999	0.998
500	0.999	0.998
480	0.999	0.998
460	0.999	0.998
440	0.997	0.994
420	0.995	0.990
400	0.990	0.982
390	0.982	0.972
380	0.973	0.955
370	0.958	0.927
360	0.936	0.882
350	0.892	0.803
340	0.818	0.677
330	0.678	0.468
320	0.413	0.178
310	0.091	0.012
300		
290		
280		

Range of Temperature (℃)	Temperature Coefficients of Refractive Index dn/dt relative ($\times 10^{-6}$ / ℃)									
	t	s	C	C'	He-Ne	d	e	F	F'	g
-60 ~ -40	3.8	4.1	4.5	4.5	4.5	4.8	5.1	5.5	5.6	6.0
-40 ~ -20	3.9	4.2	4.5	4.5	4.6	4.8	5.1	5.6	5.7	6.1
-20 ~ 0	3.9	4.3	4.5	4.5	4.6	4.8	5.1	5.7	5.7	6.2
0 ~ 20	3.9	4.3	4.5	4.5	4.6	4.8	5.2	5.7	5.8	6.2
20 ~ 40	4.0	4.3	4.5	4.6	4.7	5.0	5.2	5.8	5.8	6.3
40 ~ 60	4.0	4.5	4.7	4.7	4.8	5.0	5.3	5.9	6.0	6.5
60 ~ 80	4.2	4.6	4.8	4.8	5.0	5.2	5.5	6.1	6.2	6.7
80 ~ 100	4.3	4.7	5.0	5.0	5.2	5.4	5.6	6.4	6.4	6.9
100 ~ 120	4.4	4.8	5.1	5.1	5.3	5.5	5.7	6.5	6.5	7.1
120 ~ 140	4.5	4.9	5.2	5.2	5.4	5.6	5.8	6.6	6.6	7.3
140 ~ 160	4.6	5.0	5.3	5.3	5.5	5.7	5.9	6.7	6.8	7.4

Coloration Code	
$\lambda_{80}(\lambda_{70})/\lambda_5$	380/315
Coloration of Internal Transmittance	
$\lambda\tau_{80}/\lambda\tau_5$	347/314

Constants of dn/dt		
D_0	D_1	D_2
3.30E-06	1.21E-08	-1.61E-11
E_0	E_1	λ_{TK}
5.85E-07	4.50E-10	2.21E-01