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### HX-DA113S

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LumCAT: HX-DA113S	Luminaire: HK-50@14-12-D6-20-1g-1恒坤透镜
Report No:	Voltage(V): 220.900
Test No:	Current(A): 0.042
LampCAT: T120130H5	Power (W): 8.700
Lamp flux(lm): 751.0	PF: 0.925
Number of Lamps: 1	Ballast type: LS-8-200L1
Length(mm): -450	Width(mm): -450
Phm Type: C	Height(mm): 0

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### Photometric Results

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Lumens(lm): 591.31  
Efficiency(%): 78.74%  
Lumens(lm)/Power(W): 67.97  
Central intensity(cd): 3597.697  
Maximum intensity(cd): 3630.994  
Angle of maximum intensity: C=30.0  $\gamma$ =1.0  
Beam Angle(50%Imax): [H]Left=9.2 Right=9.2  
[V]Left=8.5 Right=9.2  
Field angle(10%Imax): [H]Left=19.6 Right=19.4  
[V]Left=18.6 Right=19.5  
Maximum s/h: C0\_180=0.34 C90\_270=0.31  
Up flux rate of lamp(%): 0.00%  
Down flux rate of lamp(%): 78.74%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 99.119%

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Equipment: GMS-1980  
Temperature(°C): 25.0

Date: 2022-11-4  
Humidity(%): 65.3%

Operator: Lxl  
Distance(m): 7.27

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3616.283	.000	.000	.000%	.000%
1.0	3592.412	3.449	3.449	.459%	.459%
2.0	3505.645	10.188	13.637	1.357%	1.816%
3.0	3359.463	16.419	30.056	2.186%	4.002%
4.0	3149.636	21.788	51.844	2.901%	6.903%
5.0	2923.690	26.127	77.971	3.479%	10.382%
6.0	2659.602	29.342	107.313	3.907%	14.289%
7.0	2394.193	31.369	138.682	4.177%	18.466%
8.0	2105.968	32.207	170.889	4.289%	22.755%
9.0	1827.345	31.877	202.766	4.245%	26.999%
10.0	1554.932	30.608	233.374	4.076%	31.075%
11.0	1295.486	28.482	261.856	3.792%	34.868%
12.0	1090.342	26.081	287.936	3.473%	38.340%
13.0	941.781	24.116	312.053	3.211%	41.552%
14.0	799.585	22.289	334.342	2.968%	44.520%
15.0	671.192	20.191	354.533	2.689%	47.208%
16.0	574.128	18.247	372.781	2.430%	49.638%
17.0	488.572	16.549	389.330	2.204%	51.842%
18.0	425.435	15.070	404.400	2.007%	53.848%
19.0	368.460	13.812	418.212	1.839%	55.687%
20.0	324.913	12.691	430.903	1.690%	57.377%
21.0	286.635	11.743	442.646	1.564%	58.941%
22.0	257.570	10.936	453.582	1.456%	60.397%
23.0	233.385	10.302	463.883	1.372%	61.769%
24.0	204.417	9.572	473.455	1.275%	63.043%
25.0	181.541	8.776	482.231	1.169%	64.212%
26.0	163.113	8.136	490.367	1.083%	65.295%
27.0	146.830	7.583	497.949	1.010%	66.305%
28.0	131.754	7.053	505.003	.939%	67.244%
29.0	119.038	6.561	511.564	.874%	68.118%
30.0	107.023	6.104	517.668	.813%	68.930%
31.0	97.016	5.678	523.346	.756%	69.687%
32.0	87.295	5.280	528.626	.703%	70.390%
33.0	78.997	4.899	533.525	.652%	71.042%
34.0	71.325	4.549	538.074	.606%	71.648%
35.0	64.243	4.210	542.284	.561%	72.208%
36.0	58.015	3.893	546.177	.518%	72.727%
37.0	52.245	3.596	549.773	.479%	73.205%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	47.255	3.321	553.094	.442%	73.648%
39.0	42.555	3.065	556.160	.408%	74.056%
40.0	38.512	2.827	558.987	.376%	74.432%
41.0	34.632	2.605	561.592	.347%	74.779%
42.0	31.311	2.396	563.988	.319%	75.098%
43.0	28.303	2.208	566.196	.294%	75.392%
44.0	25.810	2.042	568.238	.272%	75.664%
45.0	23.453	1.893	570.131	.252%	75.916%
46.0	21.379	1.753	571.885	.233%	76.150%
47.0	19.362	1.620	573.505	.216%	76.366%
48.0	17.613	1.495	575.000	.199%	76.565%
49.0	15.922	1.377	576.377	.183%	76.748%
50.0	14.358	1.262	577.640	.168%	76.916%
51.0	13.174	1.165	578.804	.155%	77.071%
52.0	12.112	1.085	579.889	.144%	77.216%
53.0	11.209	1.014	580.904	.135%	77.351%
54.0	10.240	.945	581.849	.126%	77.477%
55.0	9.333	.874	582.723	.116%	77.593%
56.0	8.430	.803	583.526	.107%	77.700%
57.0	7.637	.735	584.260	.098%	77.798%
58.0	6.893	.672	584.932	.089%	77.887%
59.0	6.237	.614	585.546	.082%	77.969%
60.0	5.607	.560	586.106	.075%	78.043%
61.0	4.902	.502	586.607	.067%	78.110%
62.0	4.087	.433	587.040	.058%	78.168%
63.0	3.449	.367	587.407	.049%	78.217%
64.0	3.017	.317	587.724	.042%	78.259%
65.0	2.651	.281	588.005	.037%	78.296%
66.0	2.304	.247	588.252	.033%	78.329%
67.0	1.973	.215	588.467	.029%	78.358%
68.0	1.682	.185	588.652	.025%	78.382%
69.0	1.418	.158	588.810	.021%	78.403%
70.0	1.246	.137	588.947	.018%	78.422%
71.0	1.176	.125	589.072	.017%	78.438%
72.0	1.141	.120	589.193	.016%	78.454%
73.0	1.132	.119	589.311	.016%	78.470%
74.0	1.114	.118	589.430	.016%	78.486%
75.0	1.097	.117	589.546	.016%	78.502%

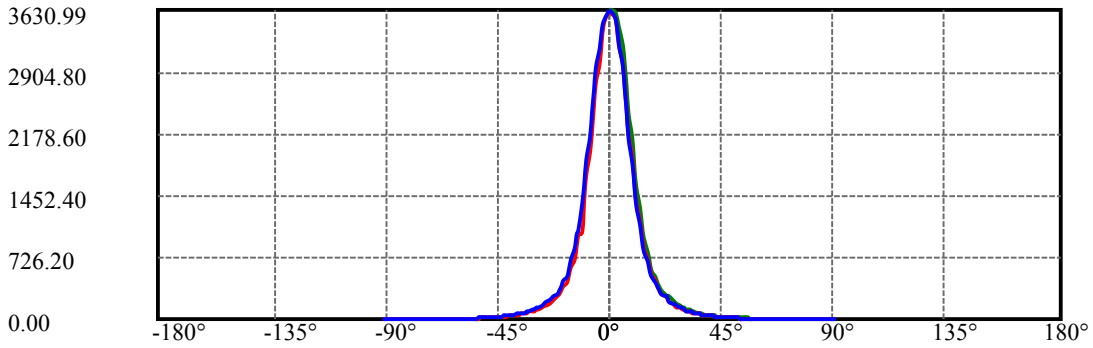
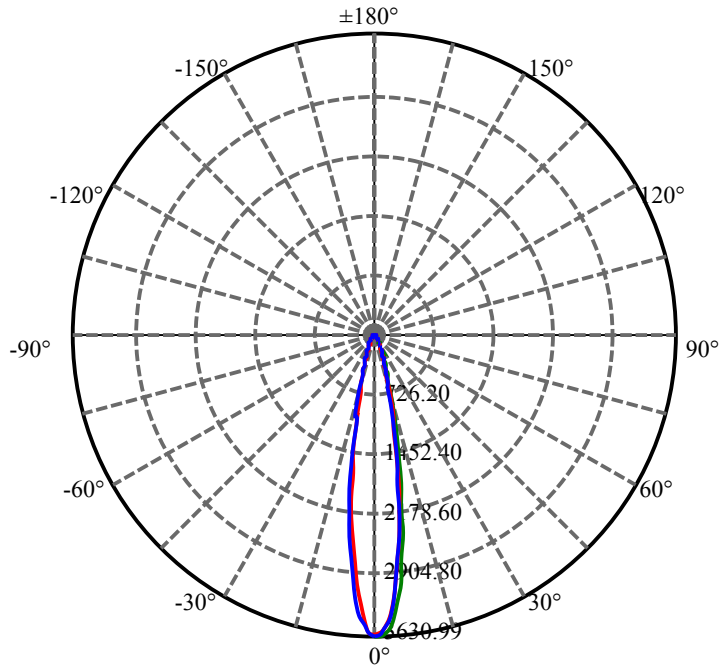
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	1.097	.116	589.663	.016%	78.517%
77.0	1.092	.117	589.780	.016%	78.533%
78.0	1.088	.117	589.896	.016%	78.548%
79.0	1.088	.117	590.013	.016%	78.564%
80.0	1.088	.117	590.130	.016%	78.579%
81.0	1.083	.117	590.248	.016%	78.595%
82.0	1.083	.118	590.365	.016%	78.611%
83.0	1.075	.117	590.483	.016%	78.626%
84.0	1.083	.118	590.600	.016%	78.642%
85.0	1.092	.119	590.719	.016%	78.658%
86.0	1.079	.119	590.838	.016%	78.673%
87.0	1.088	.119	590.956	.016%	78.689%
88.0	1.075	.118	591.075	.016%	78.705%
89.0	1.092	.119	591.194	.016%	78.721%
90.0	1.079	.119	591.313	.016%	78.737%

## ZONAL LUMEN SUMMARY

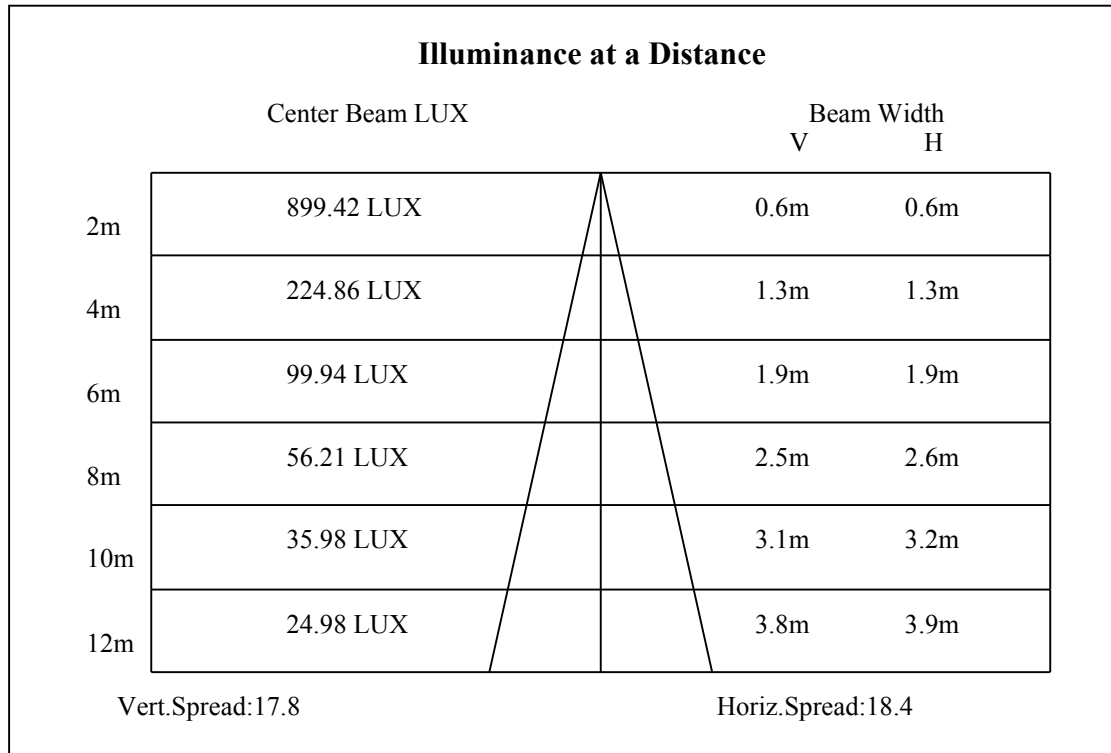
Zone	Lumens	%Lamp	%Fixt
0-30	517.67	68.93%	87.55%
0-40	558.99	74.43%	94.53%
0-60	586.11	78.04%	99.12%
0-90	591.19	78.72%	99.98%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-180	591.31	78.74%	100.00%

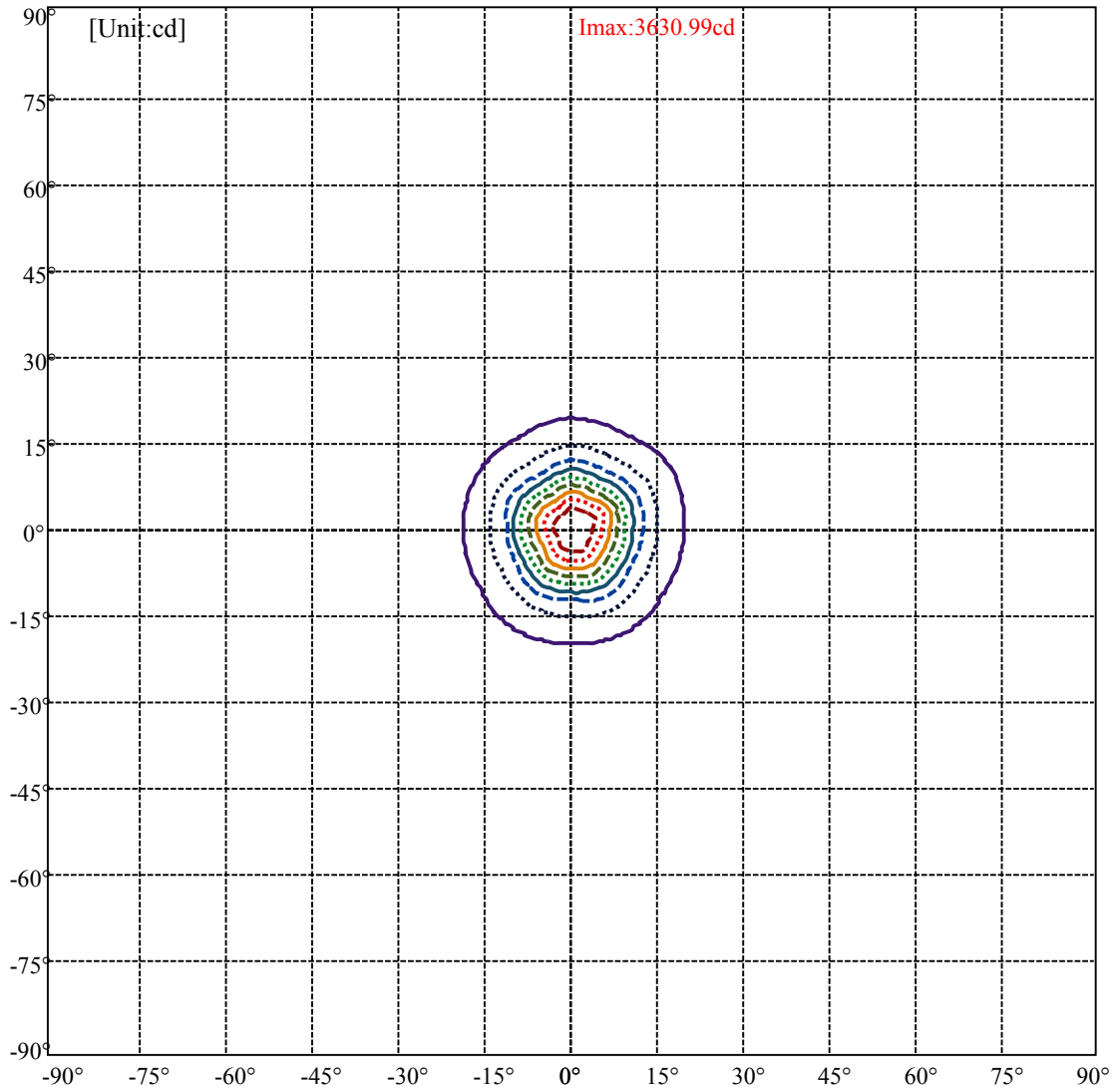
## ZONAL LUMEN SUMMARY

0-10	233.37
10-20	197.53
20-30	86.76
30-40	41.32
40-50	18.65
50-60	8.47
60-70	2.84
70-80	1.18
80-90	1.06
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



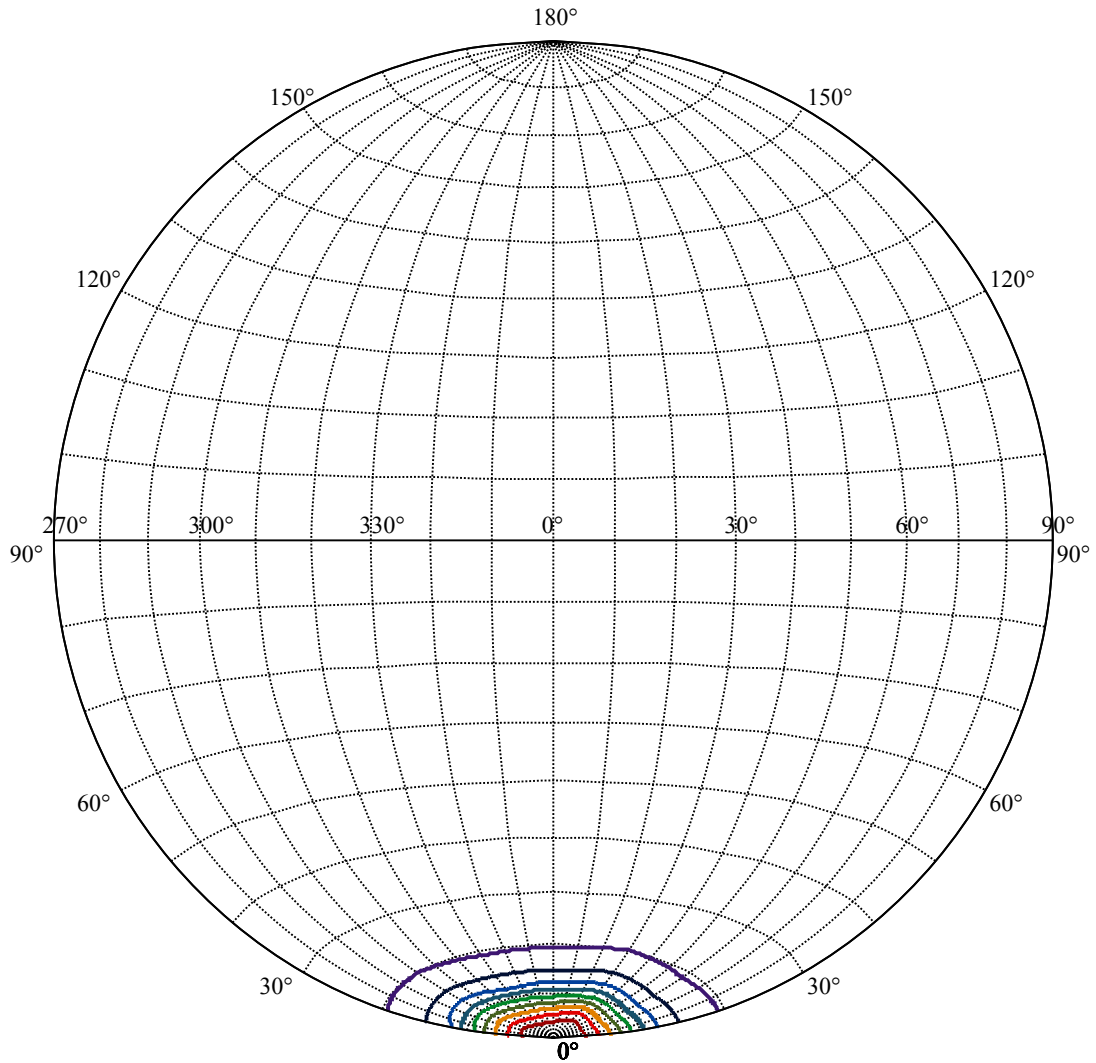
C30(Max): —  
C0/C180: —  
C90/C270: —





(10%Imax) 362.465	———
(20%Imax) 724.93	.....
(30%Imax) 1087.4	- - - - -
(40%Imax) 1449.86	———
(50%Imax) 1812.33	.....
(60%Imax) 2174.79	- - - - -
(70%Imax) 2537.26	———
(80%Imax) 2899.72	.....
(90%Imax) 3262.19	- - - - -



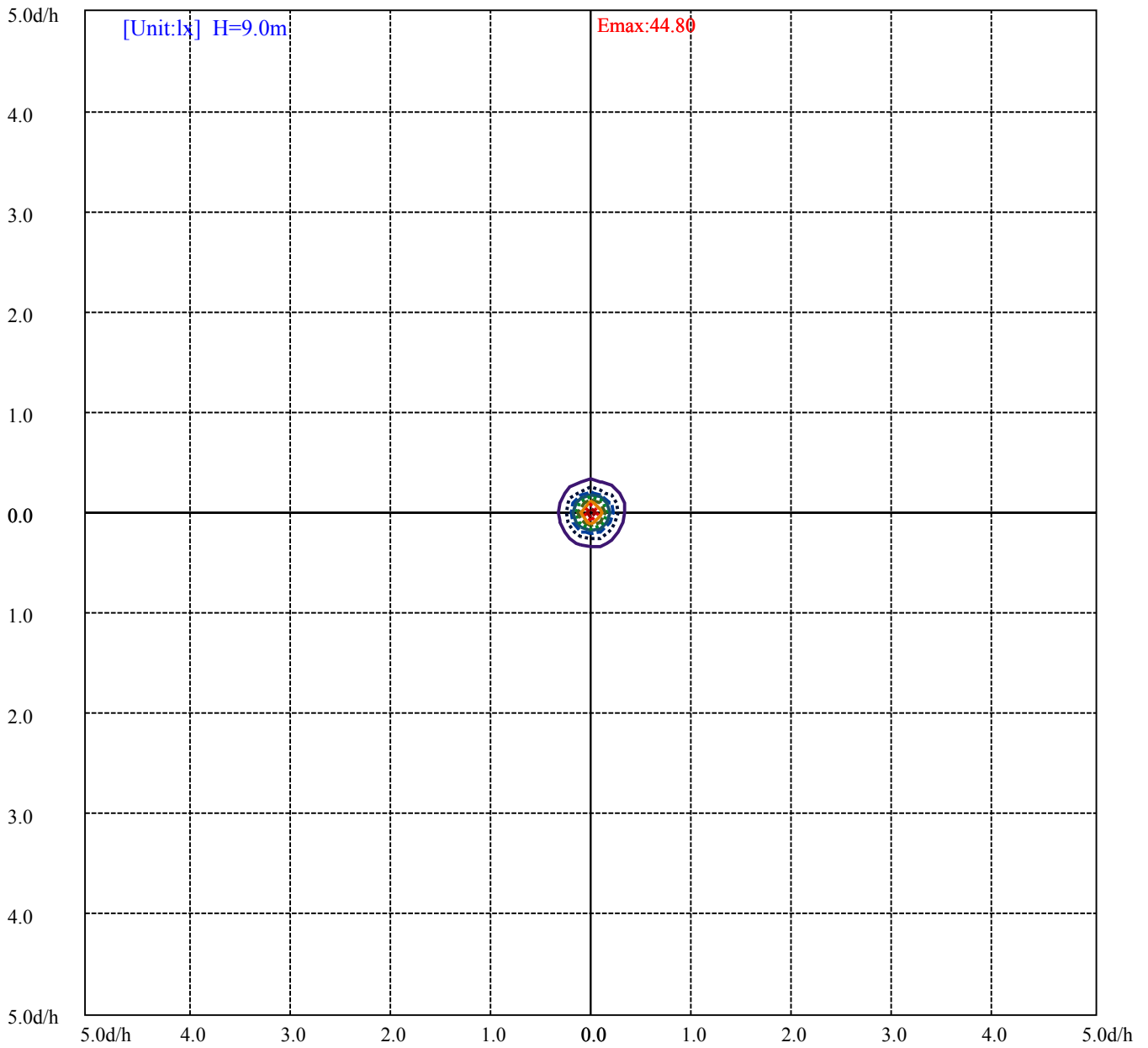


House

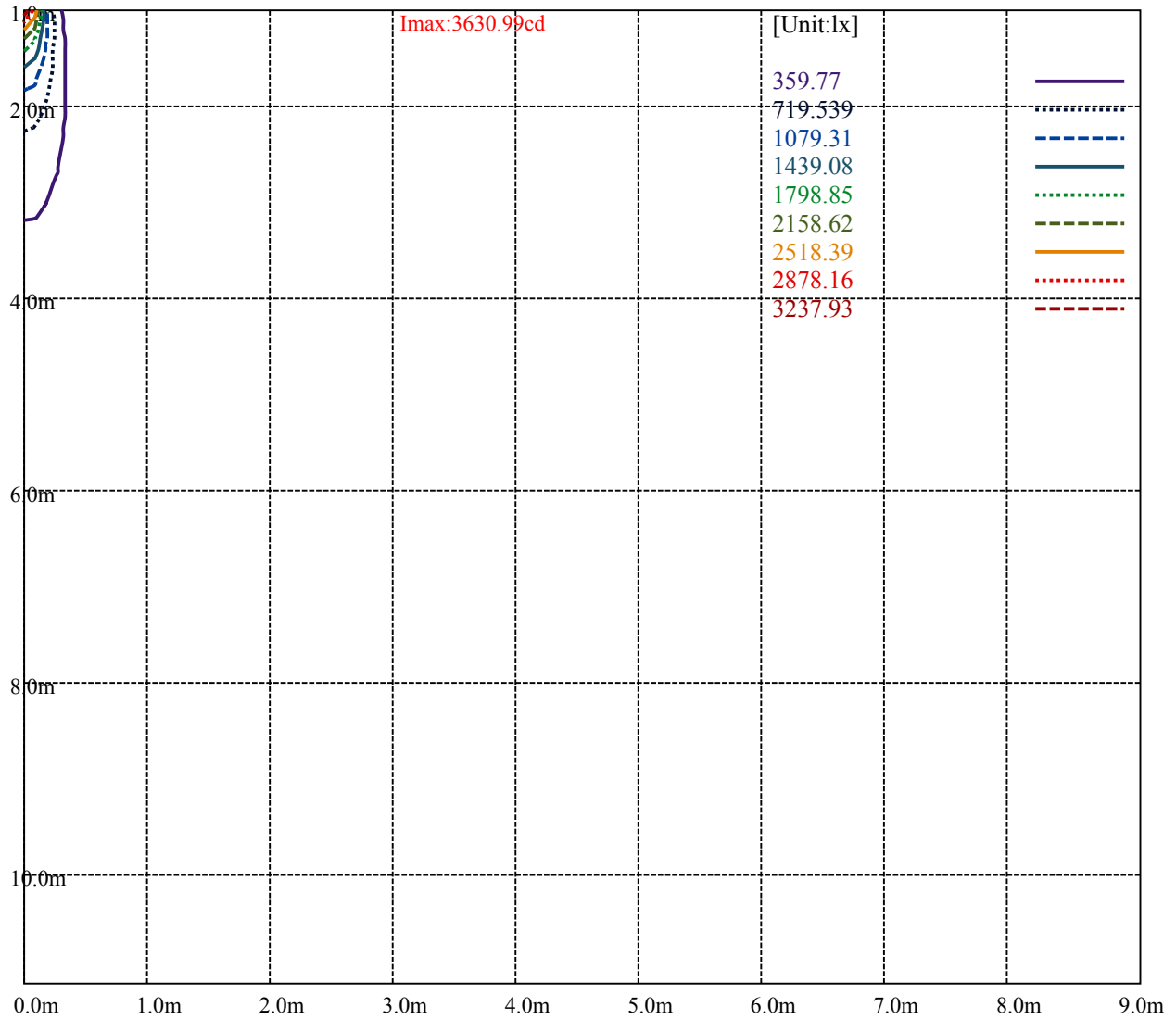
Road

**Imax:3630.99cd**

(10%Imax) 363.099	—
(20%Imax) 726.199	⋯
(30%Imax) 1089.3	- - -
(40%Imax) 1452.4	—
(50%Imax) 1815.5	⋯
(60%Imax) 2178.6	- - -
(70%Imax) 2541.7	—
(80%Imax) 2904.8	⋯
(90%Imax) 3267.89	- - -



- (10%Emax) 4.480099
- (20%Emax) 8.960197
- (30%Emax) 13.44025
- (40%Emax) 17.92037
- (50%Emax) 22.40049
- (60%Emax) 26.88062
- (70%Emax) 31.36062
- (80%Emax) 35.84074
- (90%Emax) 40.32087

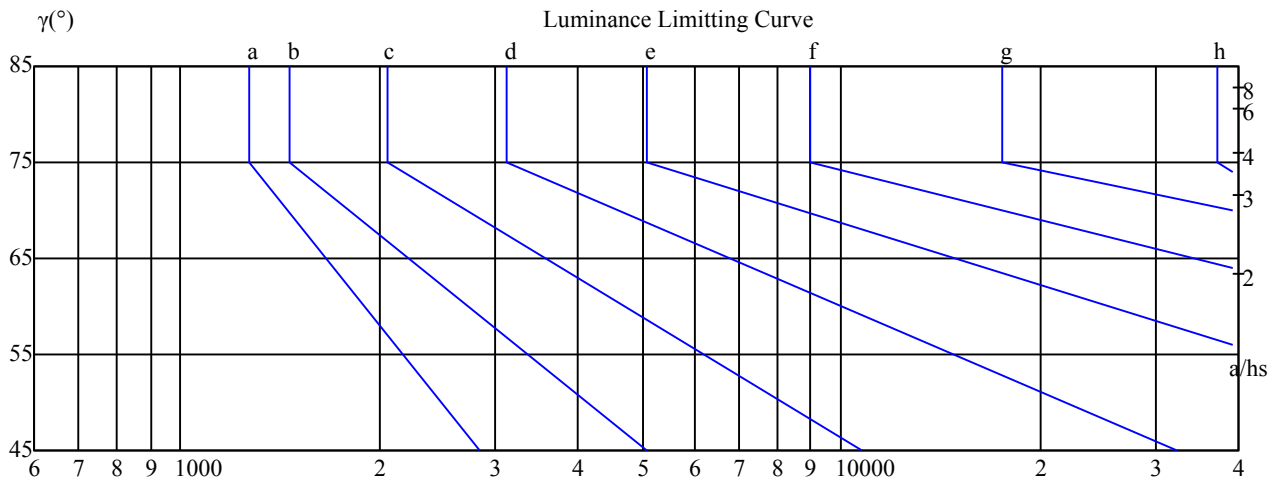


Luminance Table

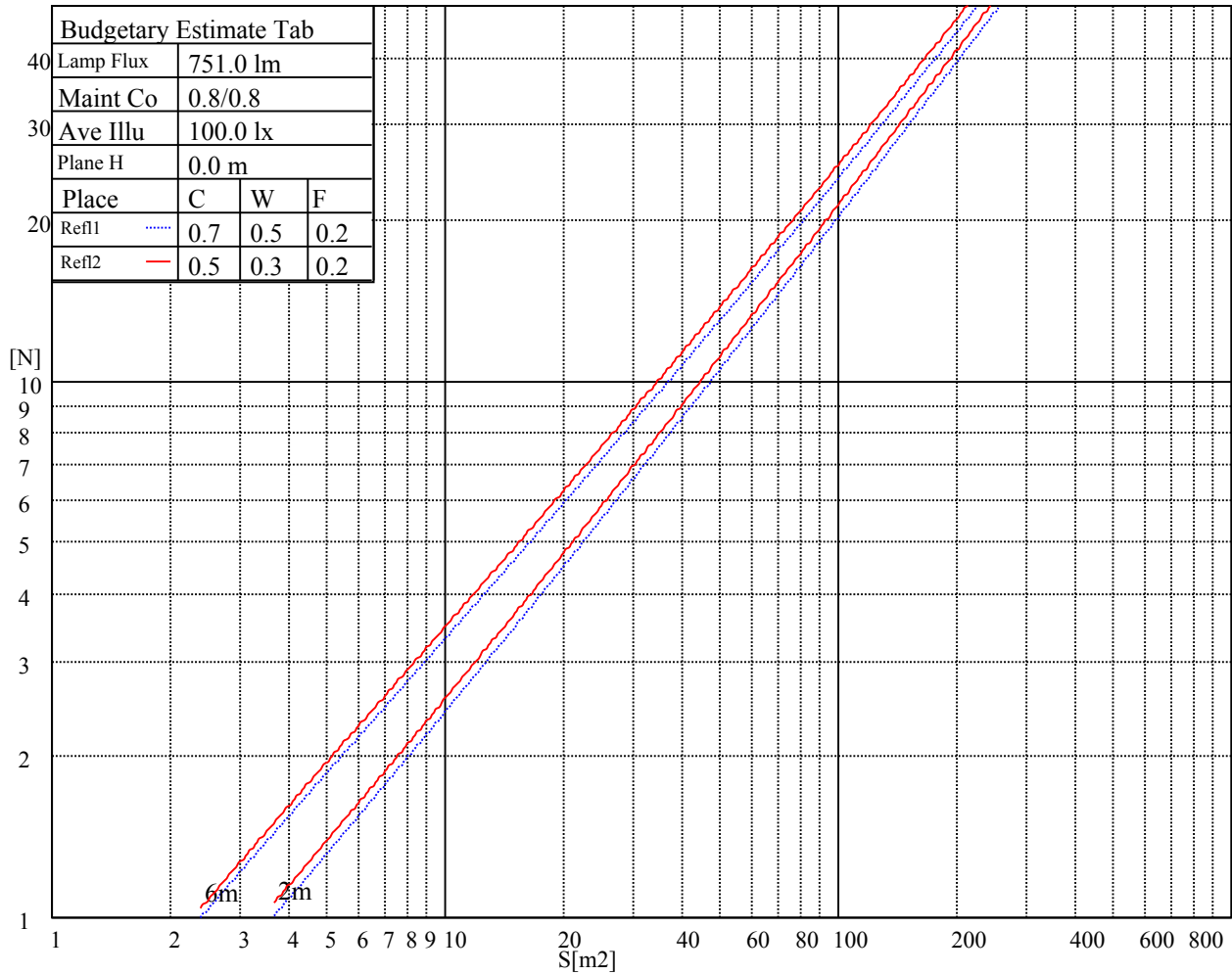
$\gamma$	45	50	55	60	65	70	75	80	85
C0	204	131	91	60	26	20	24	36	72
C45	0	0	0	0	0	0	0	0	0
C90	208	129	89	57	28	21	27	40	80

Glare Table

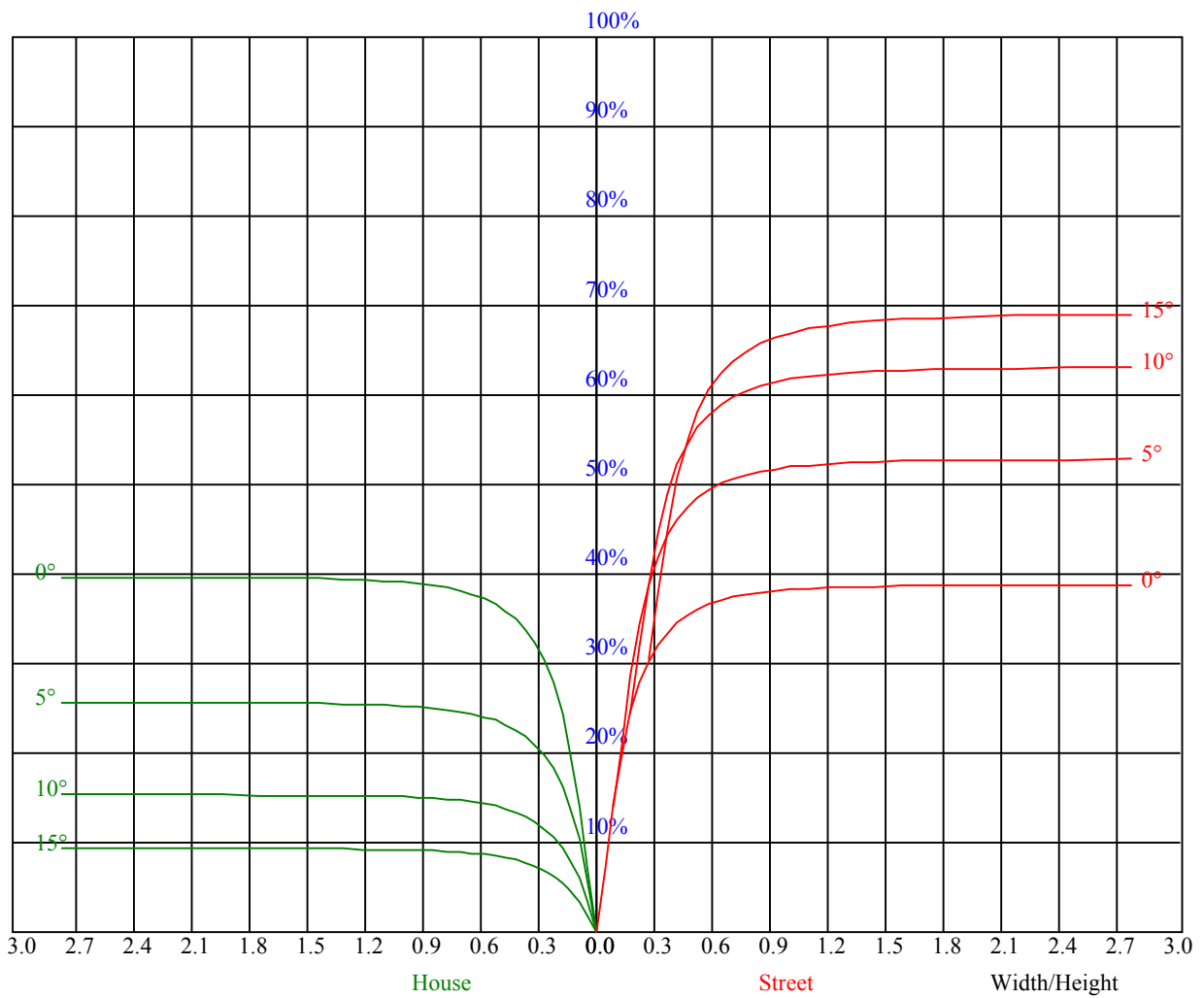
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h



Illuminatin assessment according UGR											
Rf of Ceiling	70	70	50	50	30	70	70	50	50	30	
Rf of Wall	50	30	50	30	30	50	30	50	30	30	
Rf of Floor	20	20	20	20	20	20	20	20	20	20	
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	0.8	1.5	1.1	1.7	1.8	-0.1	0.5	0.1	0.7	0.9
	3H	0.8	1.4	1.1	1.6	1.8	-0.2	0.3	0.1	0.6	0.8
	4H	0.6	1.1	1.0	1.4	1.7	-0.4	0.1	0.0	0.4	0.7
	6H	0.7	1.2	1.0	1.5	1.8	-0.2	0.3	0.1	0.6	0.9
	8H	0.8	1.3	1.1	1.6	1.9	-0.1	0.4	0.2	0.7	1.0
	12H	0.7	1.0	1.1	1.4	1.8	-0.2	0.2	0.2	0.6	1.0
4H	2H	0.6	1.1	1.0	1.4	1.7	-0.3	0.2	0.1	0.5	0.8
	3H	0.6	1.0	1.0	1.3	1.7	-0.4	0.0	0.0	0.4	0.8
	4H	0.7	1.0	1.1	1.4	1.8	-0.3	0.1	0.1	0.5	0.9
	6H	0.8	1.2	1.2	1.5	1.9	-0.1	0.3	0.3	0.7	1.1
	8H	0.7	0.9	1.2	1.4	1.9	-0.1	0.1	0.4	0.5	1.0
	12H	0.9	1.1	1.4	1.6	2.1	0.1	0.4	0.6	0.8	1.3
8H	4H	0.5	0.7	1.0	1.2	1.7	-0.4	-0.2	0.1	0.3	0.8
	6H	0.7	0.9	1.2	1.4	1.9	-0.1	0.1	0.4	0.5	1.0
	8H	0.9	1.1	1.4	1.6	2.1	0.1	0.4	0.6	0.8	1.3
	12H	1.2	1.4	1.7	1.9	2.4	0.6	0.8	1.1	1.3	1.8
12H	4H	0.5	0.7	1.0	1.2	1.7	-0.4	-0.2	0.1	0.3	0.8
	6H	0.8	1.0	1.2	1.4	1.9	-0.1	0.1	0.4	0.6	1.1
	8H	1.0	1.2	1.5	1.7	2.2	0.3	0.5	0.8	0.9	1.4
Variation with the observer position at spacings:											
S = 1.0H		2.6/-3.3					3.1/-3.6				
S = 1.5H		4.7/-5.7					5.2/-6.0				
S = 2.0H		6.7/-6.2					7.1/-5.5				
Standard tables:		BK1					BK2				
Uncorrected UGR		-17.8					-18.3				
According 1000lm											



RHOCC	80			70			50			30			10			0
RHOW	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR	COEFFICIENTS OF UTILIZATION RHOF=20 CU															
0	0.94	0.94	0.94	0.92	0.92	0.92	0.87	0.87	0.87	0.84	0.84	0.84	0.80	0.80	0.80	0.79
1	0.89	0.87	0.86	0.87	0.85	0.84	0.84	0.83	0.82	0.81	0.80	0.79	0.78	0.78	0.77	0.76
2	0.84	0.82	0.79	0.83	0.80	0.79	0.80	0.78	0.77	0.78	0.77	0.75	0.76	0.75	0.74	0.73
3	0.80	0.77	0.75	0.79	0.76	0.74	0.77	0.75	0.73	0.75	0.73	0.72	0.74	0.72	0.71	0.70
4	0.77	0.73	0.71	0.76	0.73	0.71	0.74	0.72	0.70	0.73	0.71	0.69	0.72	0.70	0.68	0.67
5	0.74	0.70	0.68	0.73	0.70	0.67	0.72	0.69	0.67	0.71	0.68	0.66	0.69	0.67	0.66	0.65
6	0.71	0.68	0.65	0.70	0.67	0.65	0.69	0.67	0.64	0.68	0.66	0.64	0.68	0.65	0.64	0.63
7	0.69	0.65	0.63	0.68	0.65	0.63	0.67	0.64	0.62	0.66	0.64	0.62	0.66	0.63	0.62	0.61
8	0.66	0.63	0.61	0.66	0.63	0.61	0.65	0.62	0.60	0.65	0.62	0.60	0.64	0.62	0.60	0.59
9	0.64	0.61	0.59	0.64	0.61	0.59	0.64	0.61	0.59	0.63	0.60	0.58	0.62	0.60	0.58	0.57
10	0.63	0.59	0.57	0.62	0.59	0.57	0.62	0.59	0.57	0.61	0.59	0.57	0.61	0.58	0.57	0.56





## Intensity data(cd)

Page: 17 Total:19

C/γ(°)	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
0.0	3597.70	3582.37	3533.75	3410.60	3201.30	2992.00	2729.85	2451.85	2155.34
30.0	3628.35	3630.99	3601.40	3550.66	3427.51	3216.10	2999.93	2724.04	2410.09
60.0	3629.41	3596.64	3521.06	3402.14	3191.26	2970.86	2683.87	2369.92	2076.59
90.0	3624.65	3610.38	3535.33	3420.64	3222.44	2985.66	2708.18	2436.52	2115.17
120.0	3617.25	3572.86	3452.35	3224.56	2973.50	2737.25	2434.41	2161.68	1847.74
150.0	3600.34	3604.04	3525.29	3339.25	3100.35	2878.37	2595.61	2337.16	2054.92
180.0	3597.70	3590.30	3451.82	3243.05	3002.57	2764.74	2504.17	2220.88	1963.49
210.0	3628.35	3528.99	3342.42	3142.63	2879.43	2655.86	2402.16	2162.21	1883.68
240.0	3629.41	3614.61	3514.72	3348.76	3159.55	2945.49	2700.78	2427.01	2175.95
270.0	3624.65	3590.83	3503.62	3379.42	3174.87	2952.89	2693.38	2445.50	2153.76
300.0	3617.25	3602.98	3565.99	3471.38	3296.44	3066.00	2812.83	2577.11	2296.46
330.0	3600.34	3583.96	3520.00	3380.47	3166.42	2919.07	2650.04	2416.44	2138.43
360.0	3597.70	3582.37	3533.75	3410.60	3201.30	2992.00	2729.85	2451.85	2155.34
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	1886.85	1601.44	1372.59	1151.14	986.24	827.15	695.54	598.29	510.03
30.0	2127.86	1814.97	1559.16	1308.11	1098.28	941.31	791.74	678.63	572.93
60.0	1753.13	1497.85	1256.31	1035.71	901.09	757.96	639.78	552.05	470.18
90.0	1834.52	1577.13	1322.38	1106.21	927.57	793.32	667.00	574.51	491.00
120.0	1582.42	1317.62	1033.59	917.42	785.02	676.78	575.83	499.41	428.27
150.0	1756.83	1502.61	1254.73	1068.16	891.10	758.97	635.82	535.93	456.12
180.0	1685.48	1419.10	1042.84	1000.77	848.87	708.92	597.77	515.42	439.21
210.0	1605.67	1342.99	1048.97	948.87	808.91	689.15	579.58	493.17	426.79
240.0	1896.89	1611.49	1378.40	1152.19	986.24	825.56	690.79	593.54	507.39
270.0	1866.24	1593.52	1374.18	1050.72	990.78	845.28	706.22	593.70	504.75
300.0	2040.65	1762.12	1505.78	1297.54	1090.36	931.27	776.94	662.25	557.60
330.0	1891.61	1618.36	1396.90	1047.28	986.92	839.36	697.29	592.64	498.61
360.0	1886.85	1601.44	1372.59	1151.14	986.24	827.15	695.54	598.29	510.03
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	444.49	383.71	334.03	297.03	261.09	242.44	204.01	182.61	161.99
30.0	497.35	428.64	373.14	328.75	296.50	268.49	261.62	216.17	193.97
60.0	409.45	353.06	307.60	272.93	239.79	214.00	188.90	169.92	151.90
90.0	430.75	375.26	330.33	293.33	264.79	261.62	212.05	189.53	171.77
120.0	369.92	321.87	285.99	251.26	224.47	198.20	175.84	158.82	142.07
150.0	397.45	343.54	303.38	264.79	261.09	205.49	181.13	162.47	144.66
180.0	384.66	334.88	298.35	262.41	231.65	205.02	184.14	166.22	148.62
210.0	379.48	335.88	303.96	273.04	245.82	224.25	202.64	183.19	167.02
240.0	444.49	386.35	344.07	303.90	269.02	262.68	214.53	191.38	173.41
270.0	441.22	383.03	341.06	301.90	271.98	242.96	217.49	194.92	177.06
300.0	475.15	407.50	359.40	313.95	279.59	260.56	218.97	193.92	172.41
330.0	430.80	367.80	317.65	276.32	245.03	214.90	191.70	169.34	152.48
360.0	444.49	383.71	334.03	297.03	261.09	242.44	204.01	182.61	161.99
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	144.13	128.43	116.22	104.17	94.40	84.72	76.95	69.08	62.37
30.0	174.26	156.76	142.39	127.43	115.48	103.33	92.39	83.61	74.84
60.0	135.94	121.83	110.62	99.31	90.33	82.13	73.89	66.33	59.46
90.0	153.85	137.89	124.94	111.57	101.00	90.27	80.76	73.15	65.48
120.0	128.75	115.33	104.70	93.87	84.41	75.95	69.03	61.94	56.18
150.0	130.55	117.02	105.23	95.82	86.36	77.96	71.14	64.90	58.35
180.0	134.46	120.45	107.93	96.88	88.16	79.39	72.20	64.96	58.35
210.0	152.06	136.73	122.78	109.99	99.94	89.69	81.39	72.88	66.01
240.0	155.33	140.96	126.74	114.06	103.91	93.76	85.57	77.06	69.24
270.0	160.88	144.66	129.91	118.13	106.18	95.51	86.94	78.17	70.98
300.0	155.76	139.32	126.53	113.79	103.54	93.23	84.09	76.69	69.18
330.0	135.99	121.67	110.46	99.26	90.48	81.60	73.62	67.12	60.46
360.0	144.13	128.43	116.22	104.17	94.40	84.72	76.95	69.08	62.37

## Intensity data(cd)

C/ $\gamma$ (°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	57.03	51.58	46.67	41.91	37.58	34.14	30.71	27.75	25.37
30.0	67.70	60.41	54.65	48.94	43.87	39.38	35.78	32.19	29.39
60.0	54.02	48.62	44.13	39.53	35.46	32.24	28.96	26.48	23.94
90.0	58.40	52.91	47.30	42.81	38.42	34.88	31.29	28.22	25.79
120.0	50.42	45.77	41.12	36.89	33.51	30.18	27.54	24.89	22.57
150.0	52.48	47.20	42.76	38.42	34.94	31.39	28.65	25.95	23.57
180.0	53.01	47.62	43.18	38.79	35.15	31.55	28.43	25.63	23.47
210.0	59.04	52.85	47.99	43.02	39.11	35.20	31.71	28.91	26.11
240.0	62.84	56.50	50.90	46.56	42.65	37.79	33.77	30.65	28.38
270.0	63.69	57.03	51.85	46.56	42.34	38.11	34.72	31.29	28.28
300.0	63.11	56.82	51.43	46.77	42.81	38.11	34.51	30.97	28.49
330.0	54.44	49.63	45.08	40.43	36.31	32.61	29.65	26.69	24.37
360.0	57.03	51.58	46.67	41.91	37.58	34.14	30.71	27.75	25.37
C/ $\gamma$ (°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0
0.0	22.94	20.93	18.60	16.81	15.27	13.42	12.16	10.99	10.15
30.0	26.64	24.47	22.36	20.40	18.92	17.44	16.38	15.17	14.06
60.0	22.04	19.93	17.71	16.01	14.38	12.63	11.42	10.36	9.67
90.0	23.36	21.09	18.76	16.91	14.69	13.21	12.05	10.99	10.20
120.0	20.77	19.08	17.60	16.54	15.49	14.48	13.42	12.42	11.52
150.0	21.67	19.77	18.02	16.33	14.75	13.32	11.94	10.94	10.09
180.0	20.98	19.08	17.28	15.59	14.01	12.68	11.68	10.73	9.88
210.0	23.63	21.78	19.87	18.45	16.97	15.70	14.75	13.85	12.84
240.0	25.48	23.52	21.14	19.29	17.39	14.96	13.58	12.31	11.42
270.0	25.58	23.20	20.93	18.87	16.07	14.27	13.11	11.94	10.94
300.0	26.27	23.63	21.88	19.93	18.45	16.97	15.64	14.64	13.64
330.0	22.09	20.08	18.18	16.23	14.69	13.21	11.94	10.99	10.09
360.0	22.94	20.93	18.60	16.81	15.27	13.42	12.16	10.99	10.15
C/ $\gamma$ (°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	9.30	8.30	7.35	6.66	5.97	5.29	4.76	4.18	3.07
30.0	13.05	12.05	10.99	10.20	9.41	8.51	7.72	7.03	6.55
60.0	8.83	7.82	7.08	6.29	5.66	5.07	4.55	3.86	2.85
90.0	9.20	8.14	7.24	6.50	5.76	5.18	4.55	3.81	2.80
120.0	10.41	9.72	8.88	8.14	7.40	6.82	6.29	5.81	5.29
150.0	9.30	8.51	7.61	6.77	6.13	5.50	4.97	4.18	3.22
180.0	8.72	7.77	7.03	6.29	5.60	5.07	4.33	3.28	2.64
210.0	11.79	10.94	10.04	9.14	8.40	7.77	7.03	6.45	5.71
240.0	10.52	9.41	8.51	7.61	6.77	6.13	5.60	4.97	3.91
270.0	9.67	8.72	7.82	7.03	6.29	5.71	4.97	3.96	3.12
300.0	12.74	12.16	11.05	10.15	9.20	8.25	7.56	7.03	6.50
330.0	9.35	8.46	7.56	6.87	6.13	5.55	4.97	4.28	3.38
360.0	9.30	8.30	7.35	6.66	5.97	5.29	4.76	4.18	3.07
C/ $\gamma$ (°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	2.33	1.90	1.74	1.59	1.53	1.43	1.27	1.11	1.00
30.0	5.97	5.44	4.76	4.07	3.54	2.75	2.01	1.59	1.48
60.0	2.33	2.01	1.85	1.74	1.64	1.43	1.32	1.16	1.16
90.0	2.33	2.01	1.85	1.69	1.53	1.37	1.22	1.16	1.16
120.0	4.55	3.91	3.22	2.54	1.80	1.48	1.32	1.22	1.16
150.0	2.54	2.17	1.96	1.74	1.59	1.43	1.22	1.11	1.06
180.0	2.22	2.01	1.80	1.59	1.37	1.22	1.06	1.06	1.00
210.0	5.02	4.39	3.70	2.91	2.06	1.69	1.53	1.43	1.27
240.0	3.07	2.59	2.27	2.06	1.90	1.74	1.53	1.27	1.16
270.0	2.64	2.33	2.06	1.90	1.69	1.53	1.27	1.16	1.16
300.0	5.87	5.34	4.70	4.12	3.44	2.70	2.01	1.53	1.37
330.0	2.54	2.11	1.90	1.69	1.59	1.43	1.27	1.16	1.11
360.0	2.33	1.90	1.74	1.59	1.53	1.43	1.27	1.11	1.00

## Intensity data(cd)

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	1.00	1.00	1.06	1.00	1.00	1.00	1.00	1.00	1.00
30.0	1.37	1.27	1.22	1.16	1.16	1.16	1.22	1.22	1.16
60.0	1.11	1.16	1.16	1.16	1.16	1.16	1.11	1.11	1.11
90.0	1.11	1.16	1.16	1.11	1.11	1.06	1.11	1.11	1.11
120.0	1.11	1.11	1.11	1.11	1.11	1.06	1.06	1.11	1.06
150.0	1.06	1.06	1.00	1.00	1.00	1.00	1.06	1.06	1.06
180.0	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00
210.0	1.22	1.22	1.22	1.16	1.22	1.22	1.16	1.11	1.16
240.0	1.16	1.22	1.16	1.16	1.16	1.16	1.11	1.11	1.16
270.0	1.16	1.11	1.16	1.16	1.16	1.11	1.11	1.06	1.11
300.0	1.27	1.22	1.16	1.11	1.11	1.06	1.06	1.11	1.11
330.0	1.11	1.06	1.00	1.00	1.06	1.06	1.06	1.06	1.00
360.0	1.00	1.00	1.06	1.00	1.00	1.00	1.00	1.00	1.00

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	1.00	1.06	0.95	1.00	1.00	0.95	1.00	1.00	1.00
30.0	1.16	1.16	1.16	1.16	1.22	1.16	1.22	1.11	1.16
60.0	1.16	1.16	1.11	1.16	1.16	1.16	1.16	1.16	1.16
90.0	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
120.0	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
150.0	1.00	1.06	1.00	1.06	1.06	1.00	1.00	1.00	1.00
180.0	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00
210.0	1.16	1.11	1.16	1.11	1.16	1.16	1.16	1.16	1.16
240.0	1.16	1.11	1.16	1.11	1.11	1.11	1.16	1.11	1.16
270.0	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
300.0	1.06	1.06	1.06	1.11	1.06	1.06	1.06	1.06	1.11
330.0	1.00	1.00	1.06	1.00	1.06	1.06	1.00	1.00	1.06
360.0	1.00	1.06	0.95	1.00	1.00	0.95	1.00	1.00	1.00

C/γ(°)	90.0
0.0	1.00
30.0	1.16
60.0	1.16
90.0	1.11
120.0	1.06
150.0	1.00
180.0	1.00
210.0	1.16
240.0	1.11
270.0	1.11
300.0	1.06
330.0	1.00
360.0	1.00