



ZhongShan HaoXiang Lighting CO.,LTD  
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HX-DA615R.01

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LumCAT: HX-DA615R.01	Luminaire:
Report No:	Voltage(V): 220.300
Test No:	Current(A): 0.094
LampCAT: ZX-S6132/D94-2835-12CX5B	Power (W): 19.300
Lamp flux(lm): 2610.0	PF: 0.933
Number of Lamps: 1	Ballast type: EIP021C0500LSR
Length(mm): -1250	Width(mm): -1250
Phm Type: C	Height(mm): 0

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Photometric Results

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Lumens(lm): 1265.75  
Efficiency(%): 48.50%  
Lumens(lm)/Power(W): 65.58  
Central intensity(cd): 526.151  
Maximum intensity(cd): 532.652  
Angle of maximum intensity: C=30.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [H]Left=52.9 Right=49.1  
[V]Left=53.2 Right=48.6  
Field angle(10%Imax): [H]Left=73.9 Right=69.9  
[V]Left=74.1 Right=69.5  
Maximum s/h: C0\_180=1.25 C90\_270=1.25  
Up flux rate of lamp(%): 0.00%  
Down flux rate of lamp(%): 48.50%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 87.908%

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

Date: 2022-11-8  
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	528.194	.000	.000	.000%	.000%
1.0	527.996	.505	.505	.019%	.019%
2.0	527.710	1.515	2.021	.058%	.077%
3.0	527.287	2.523	4.544	.097%	.174%
4.0	526.648	3.528	8.072	.135%	.309%
5.0	525.768	4.527	12.599	.173%	.483%
6.0	524.746	5.521	18.120	.212%	.694%
7.0	523.636	6.507	24.627	.249%	.944%
8.0	522.121	7.484	32.111	.287%	1.230%
9.0	520.632	8.451	40.562	.324%	1.554%
10.0	518.998	9.408	49.971	.360%	1.915%
11.0	517.016	10.352	60.323	.397%	2.311%
12.0	514.955	11.281	71.603	.432%	2.743%
13.0	512.757	12.196	83.800	.467%	3.211%
14.0	510.396	13.096	96.896	.502%	3.712%
15.0	507.665	13.976	110.873	.535%	4.248%
16.0	504.987	14.838	125.711	.569%	4.817%
17.0	501.865	15.679	141.390	.601%	5.417%
18.0	498.680	16.497	157.887	.632%	6.049%
19.0	495.117	17.290	175.177	.662%	6.712%
20.0	491.536	18.059	193.235	.692%	7.404%
21.0	487.476	18.799	212.034	.720%	8.124%
22.0	483.357	19.509	231.544	.747%	8.871%
23.0	478.922	20.191	251.735	.774%	9.645%
24.0	474.276	20.840	272.575	.798%	10.444%
25.0	469.426	21.458	294.033	.822%	11.266%
26.0	464.084	22.036	316.069	.844%	12.110%
27.0	458.609	22.574	338.643	.865%	12.975%
28.0	452.527	23.068	361.711	.884%	13.859%
29.0	446.766	23.528	385.239	.901%	14.760%
30.0	440.203	23.948	409.187	.918%	15.678%
31.0	433.900	24.325	433.512	.932%	16.610%
32.0	427.144	24.668	458.179	.945%	17.555%
33.0	420.339	24.967	483.147	.957%	18.511%
34.0	413.393	25.231	508.378	.967%	19.478%
35.0	405.941	25.446	533.823	.975%	20.453%
36.0	398.432	25.611	559.435	.981%	21.434%
37.0	390.953	25.745	585.180	.986%	22.421%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	383.166	25.839	611.019	.990%	23.411%
39.0	374.930	25.876	636.895	.991%	24.402%
40.0	366.834	25.870	662.765	.991%	25.393%
41.0	358.528	25.830	688.595	.990%	26.383%
42.0	349.974	25.741	714.336	.986%	27.369%
43.0	341.077	25.599	739.935	.981%	28.350%
44.0	332.194	25.411	765.346	.974%	29.324%
45.0	323.138	25.185	790.531	.965%	30.289%
46.0	313.968	24.916	815.447	.955%	31.243%
47.0	304.697	24.606	840.053	.943%	32.186%
48.0	294.976	24.242	864.295	.929%	33.115%
49.0	285.560	23.840	888.135	.913%	34.028%
50.0	275.641	23.398	911.533	.896%	34.925%
51.0	266.101	22.920	934.453	.878%	35.803%
52.0	255.786	22.395	956.848	.858%	36.661%
53.0	246.088	21.831	978.679	.836%	37.497%
54.0	235.658	21.233	999.913	.814%	38.311%
55.0	225.598	20.590	1020.502	.789%	39.100%
56.0	214.887	19.904	1040.407	.763%	39.862%
57.0	204.972	19.197	1059.604	.736%	40.598%
58.0	194.648	18.480	1078.083	.708%	41.306%
59.0	184.131	17.708	1095.792	.678%	41.984%
60.0	173.635	16.902	1112.694	.648%	42.632%
61.0	163.320	16.080	1128.774	.616%	43.248%
62.0	153.009	15.243	1144.016	.584%	43.832%
63.0	142.249	14.360	1158.376	.550%	44.382%
64.0	131.780	13.447	1171.823	.515%	44.897%
65.0	121.249	12.522	1184.345	.480%	45.377%
66.0	111.225	11.599	1195.944	.444%	45.822%
67.0	100.804	10.661	1206.605	.408%	46.230%
68.0	90.616	9.697	1216.302	.372%	46.602%
69.0	80.565	8.733	1225.035	.335%	46.936%
70.0	70.779	7.773	1232.808	.298%	47.234%
71.0	60.922	6.807	1239.615	.261%	47.495%
72.0	51.355	5.838	1245.453	.224%	47.719%
73.0	42.635	4.915	1250.368	.188%	47.907%
74.0	33.676	4.012	1254.380	.154%	48.061%
75.0	25.660	3.135	1257.515	.120%	48.181%

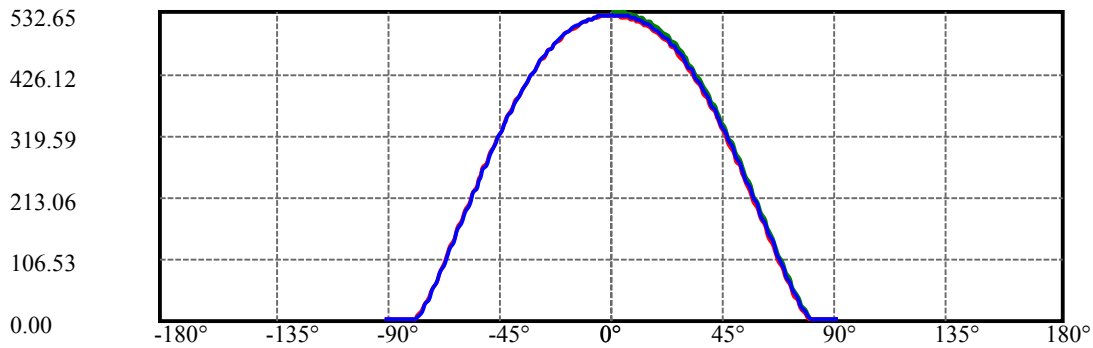
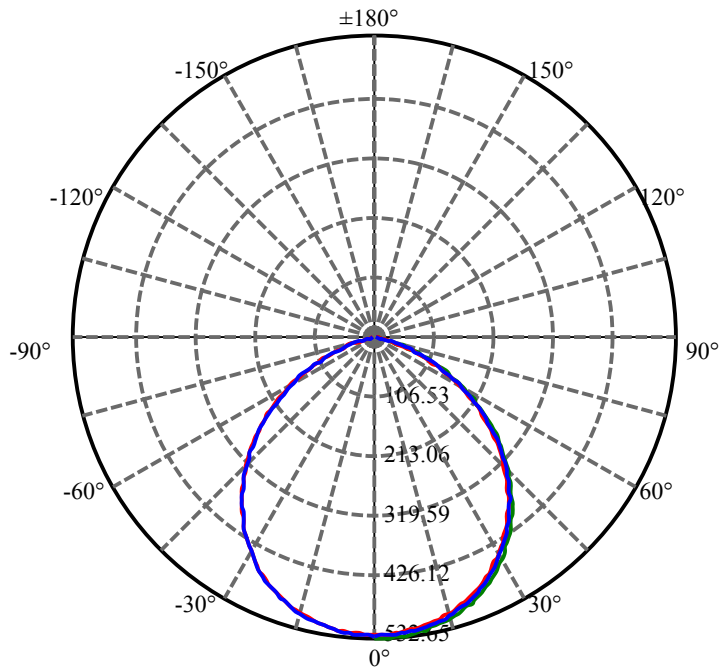
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	17.922	2.313	1259.828	.089%	48.269%
77.0	11.751	1.582	1261.410	.061%	48.330%
78.0	6.849	.996	1262.406	.038%	48.368%
79.0	3.849	.575	1262.981	.022%	48.390%
80.0	2.823	.360	1263.340	.014%	48.404%
81.0	2.585	.292	1263.633	.011%	48.415%
82.0	2.449	.273	1263.906	.010%	48.426%
83.0	2.326	.260	1264.165	.010%	48.435%
84.0	2.229	.248	1264.413	.010%	48.445%
85.0	2.158	.239	1264.653	.009%	48.454%
86.0	2.083	.232	1264.885	.009%	48.463%
87.0	2.004	.224	1265.108	.009%	48.472%
88.0	1.951	.217	1265.325	.008%	48.480%
89.0	1.920	.212	1265.537	.008%	48.488%
90.0	1.903	.210	1265.747	.008%	48.496%

## ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	409.19	15.68%	32.33%
0-40	662.77	25.39%	52.36%
0-60	1112.69	42.63%	87.91%
0-90	1265.54	48.49%	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	1265.75	48.50%	100.00%

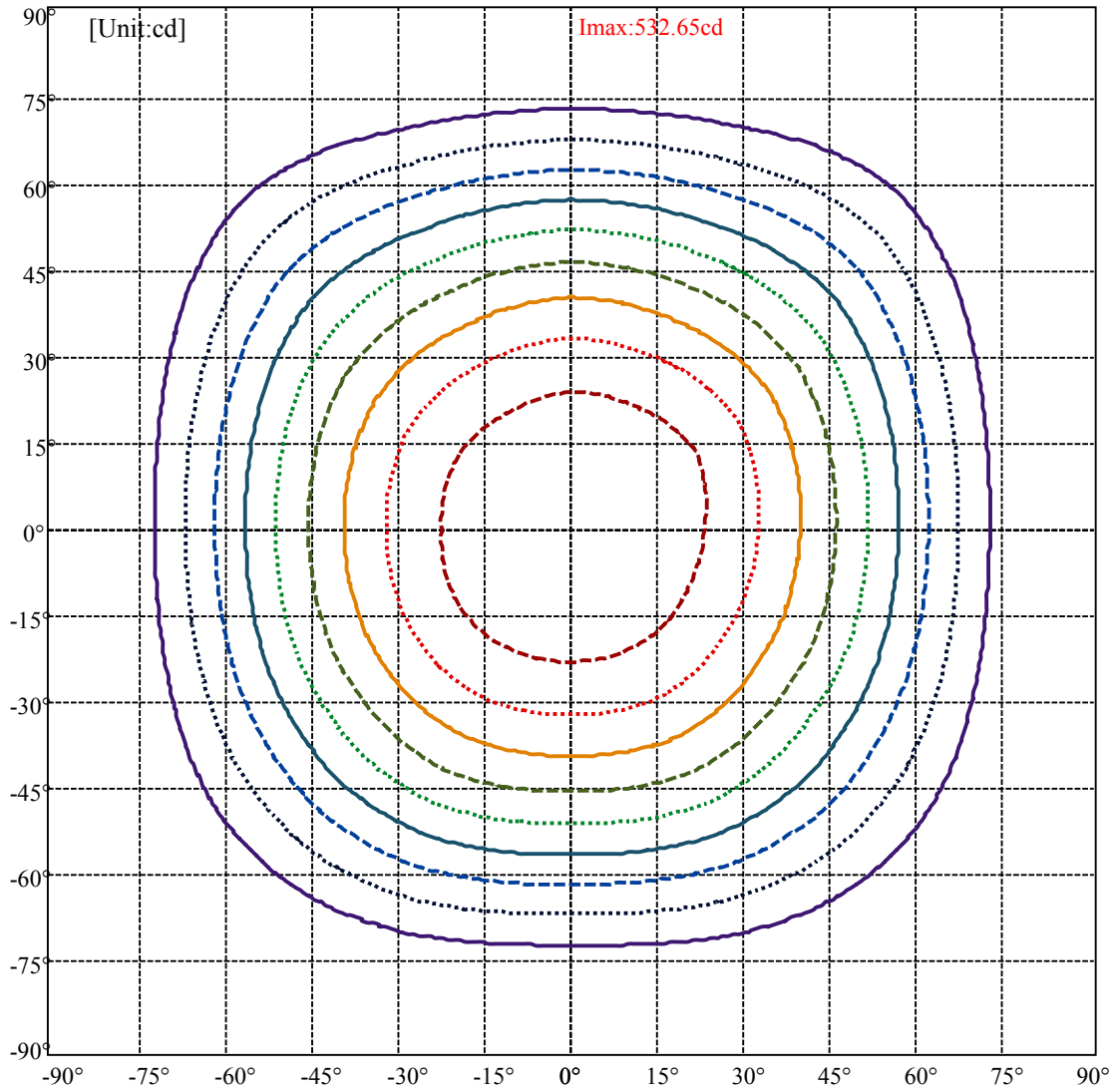
## ZONAL LUMEN SUMMARY

0-10	49.97
10-20	143.26
20-30	215.95
30-40	253.58
40-50	248.77
50-60	201.16
60-70	120.11
70-80	30.53
80-90	2.20
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



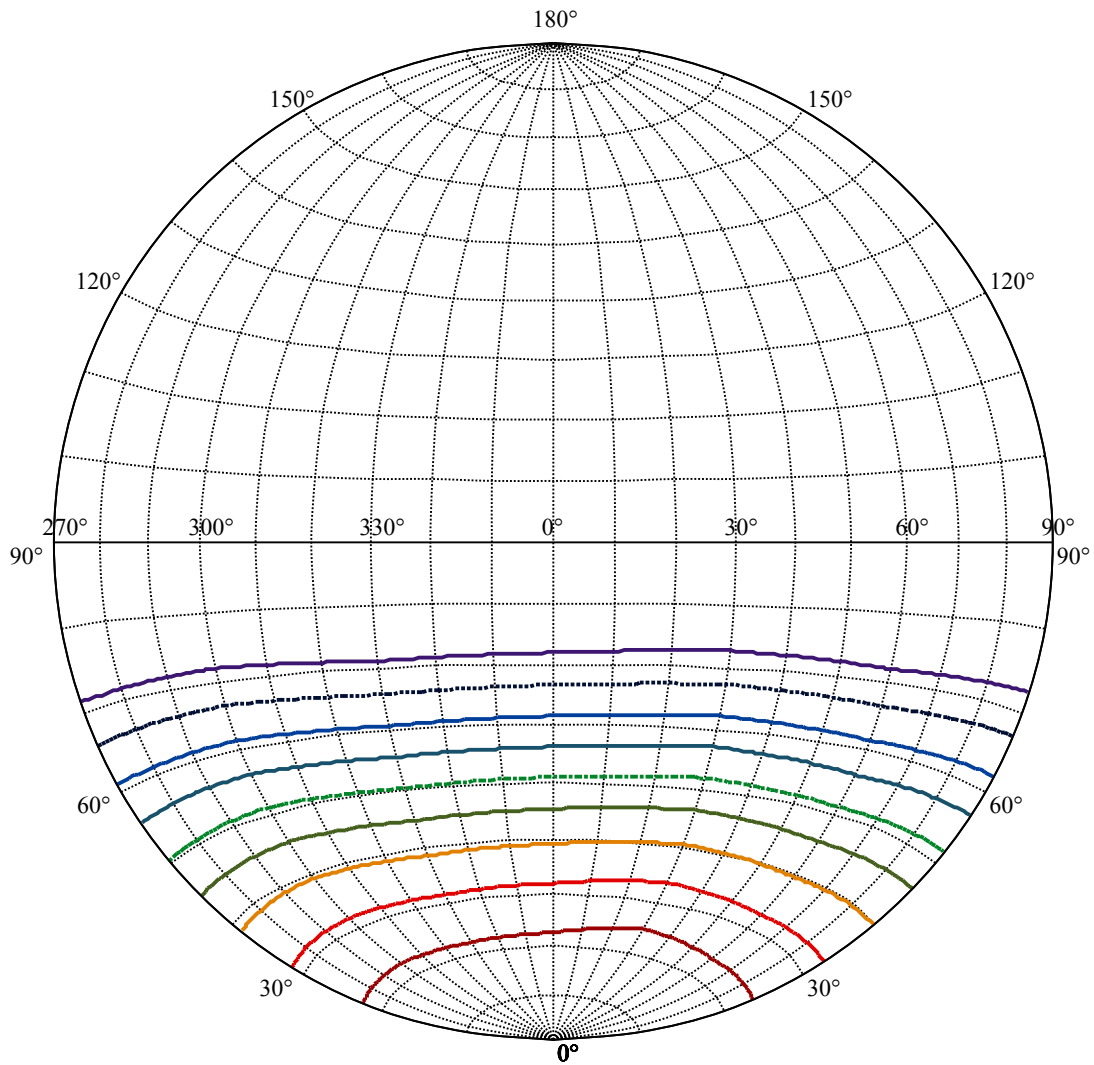
C30(Max): —  
C0/C180: —  
C90/C270: —





- (10%Imax) 53.1635      —————
- (20%Imax) 106.327      ······
- (30%Imax) 159.491      - - - - -
- (40%Imax) 212.654      ————
- (50%Imax) 265.818      ······
- (60%Imax) 318.981      - - - - -
- (70%Imax) 372.145      ————
- (80%Imax) 425.308      ······
- (90%Imax) 478.472      - - - - -



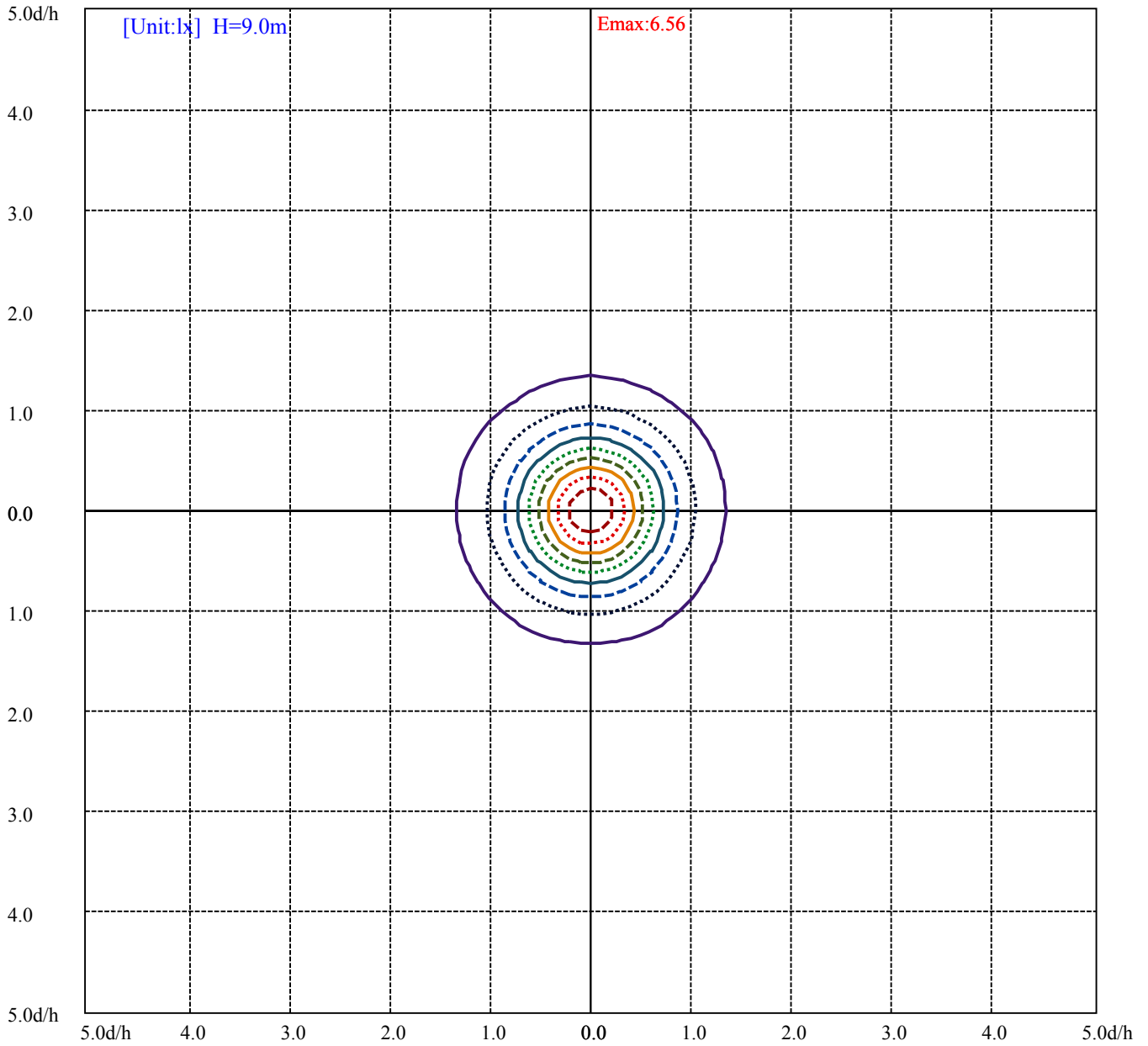


House

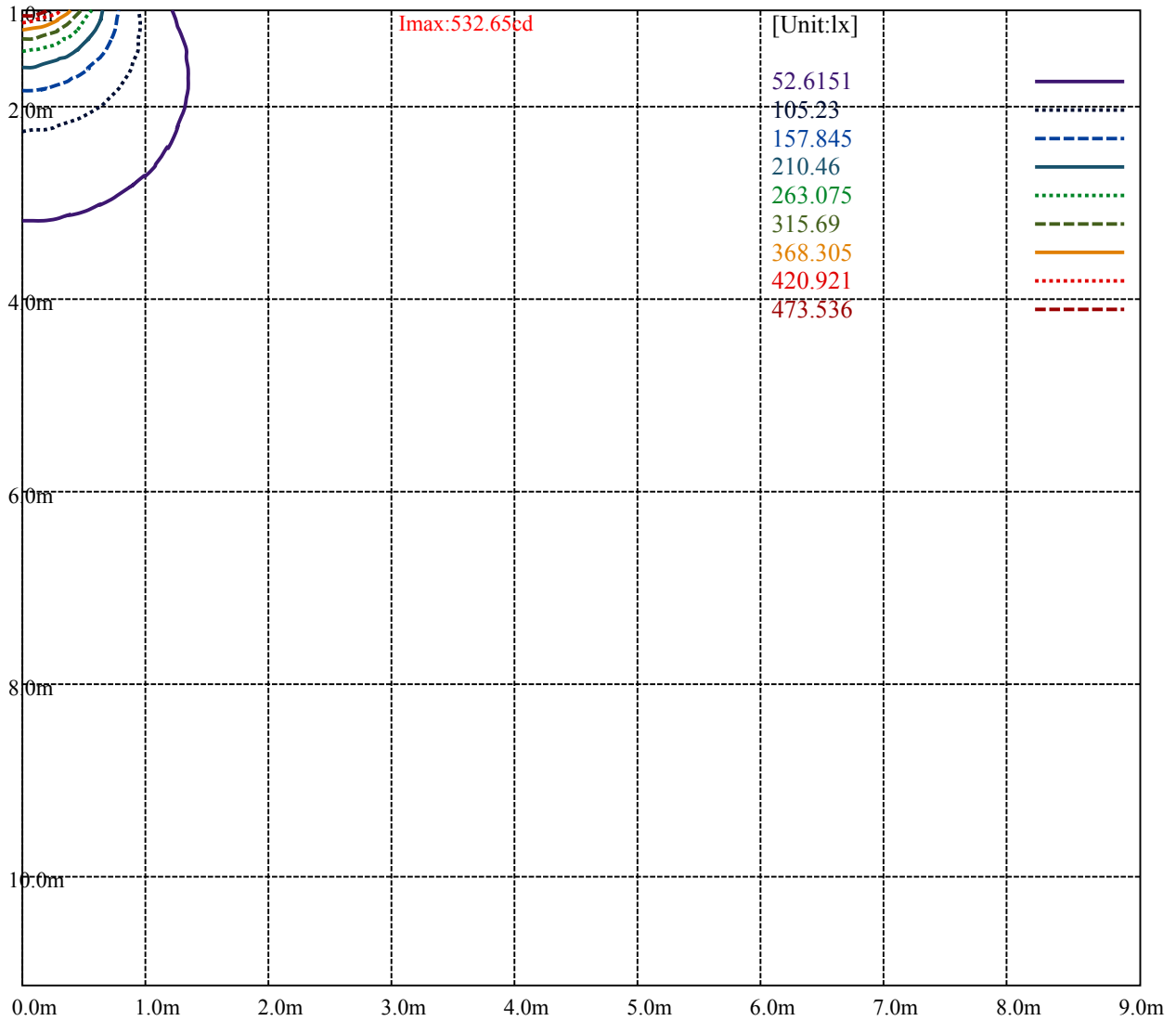
Road

I<sub>max</sub>:532.65cd

(10%I <sub>max</sub> ) 53.2652	—
(20%I <sub>max</sub> ) 106.53	·····
(30%I <sub>max</sub> ) 159.795	- - - - -
(40%I <sub>max</sub> ) 213.061	—
(50%I <sub>max</sub> ) 266.326	·····
(60%I <sub>max</sub> ) 319.591	- - - - -
(70%I <sub>max</sub> ) 372.856	—
(80%I <sub>max</sub> ) 426.121	·····
(90%I <sub>max</sub> ) 479.386	- - - - -



- (10%Emax) 0.6557345 ————
- (20%Emax) 1.311469    .....
- (30%Emax) 1.967198    - - - - -
- (40%Emax) 2.622938    —————
- (50%Emax) 3.278666    .....
- (60%Emax) 3.934407    - - - - -
- (70%Emax) 4.590136    —————
- (80%Emax) 5.245876    .....
- (90%Emax) 5.901605    - - - - -

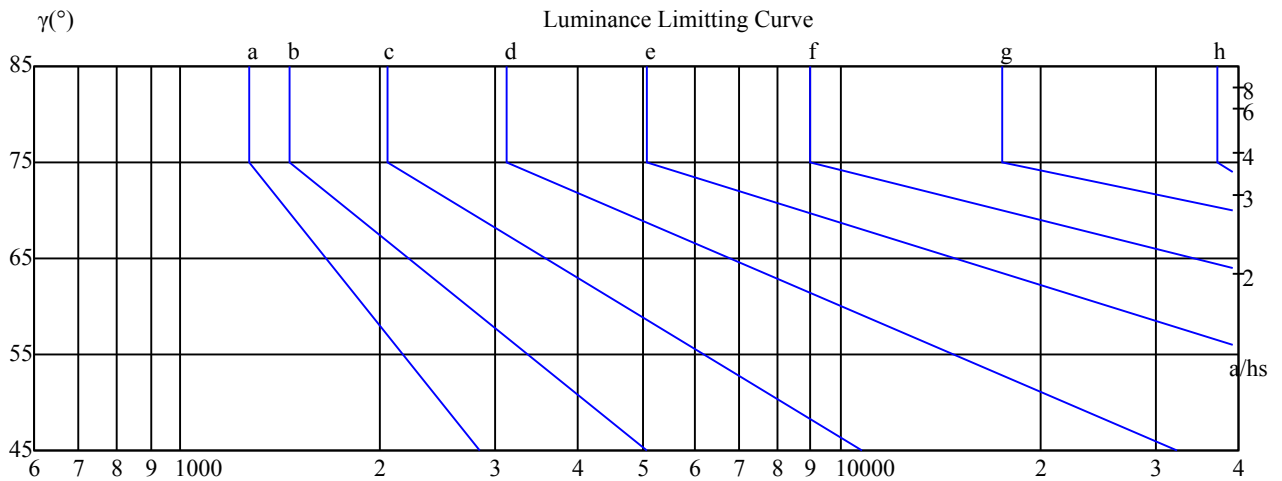


Luminance Table

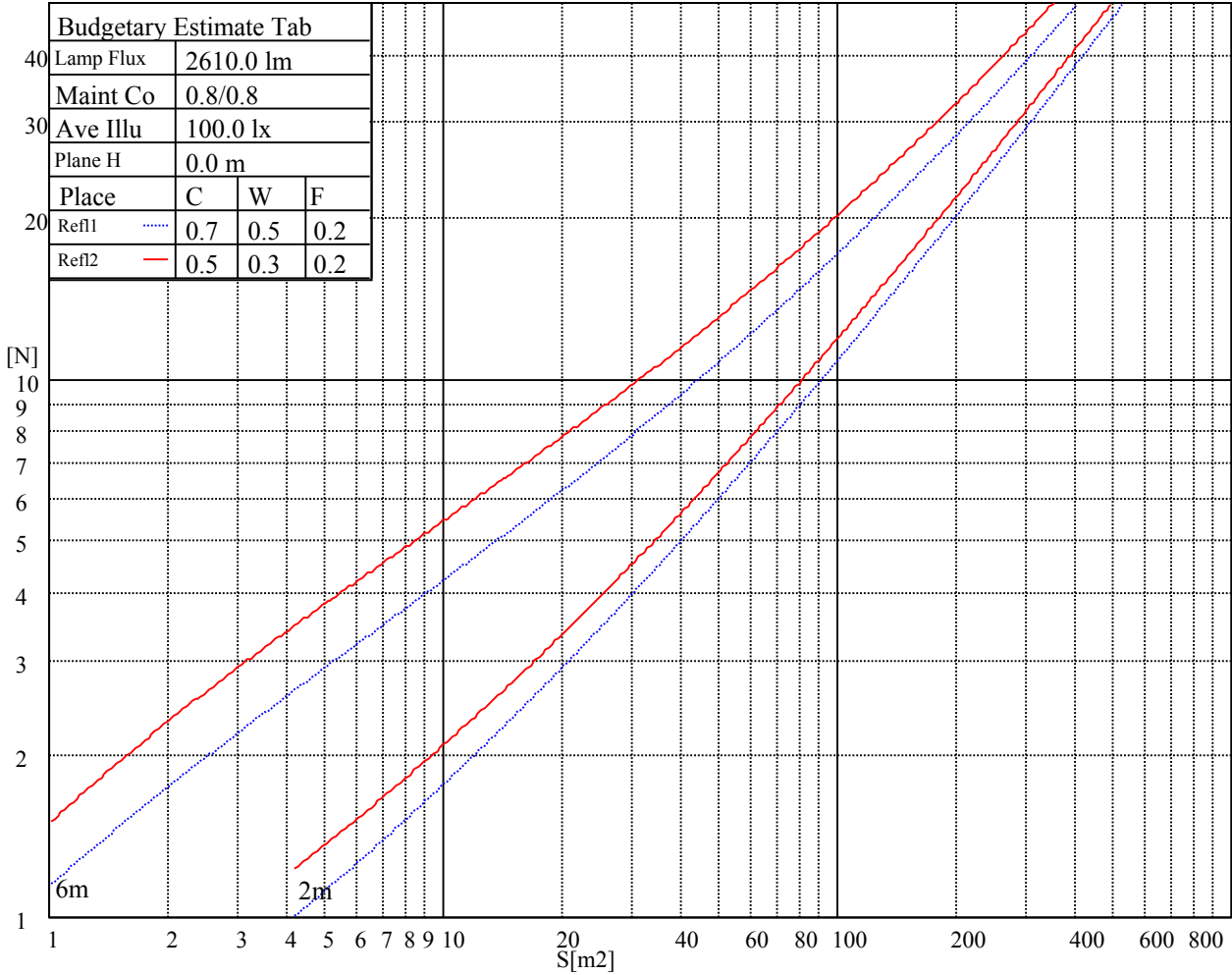
$\gamma$	45	50	55	60	65	70	75	80	85
C0	373	350	321	285	236	171	84	13	21
C45	0	0	0	0	0	0	0	0	0
C90	379	357	329	293	247	184	99	14	21

Glare Table

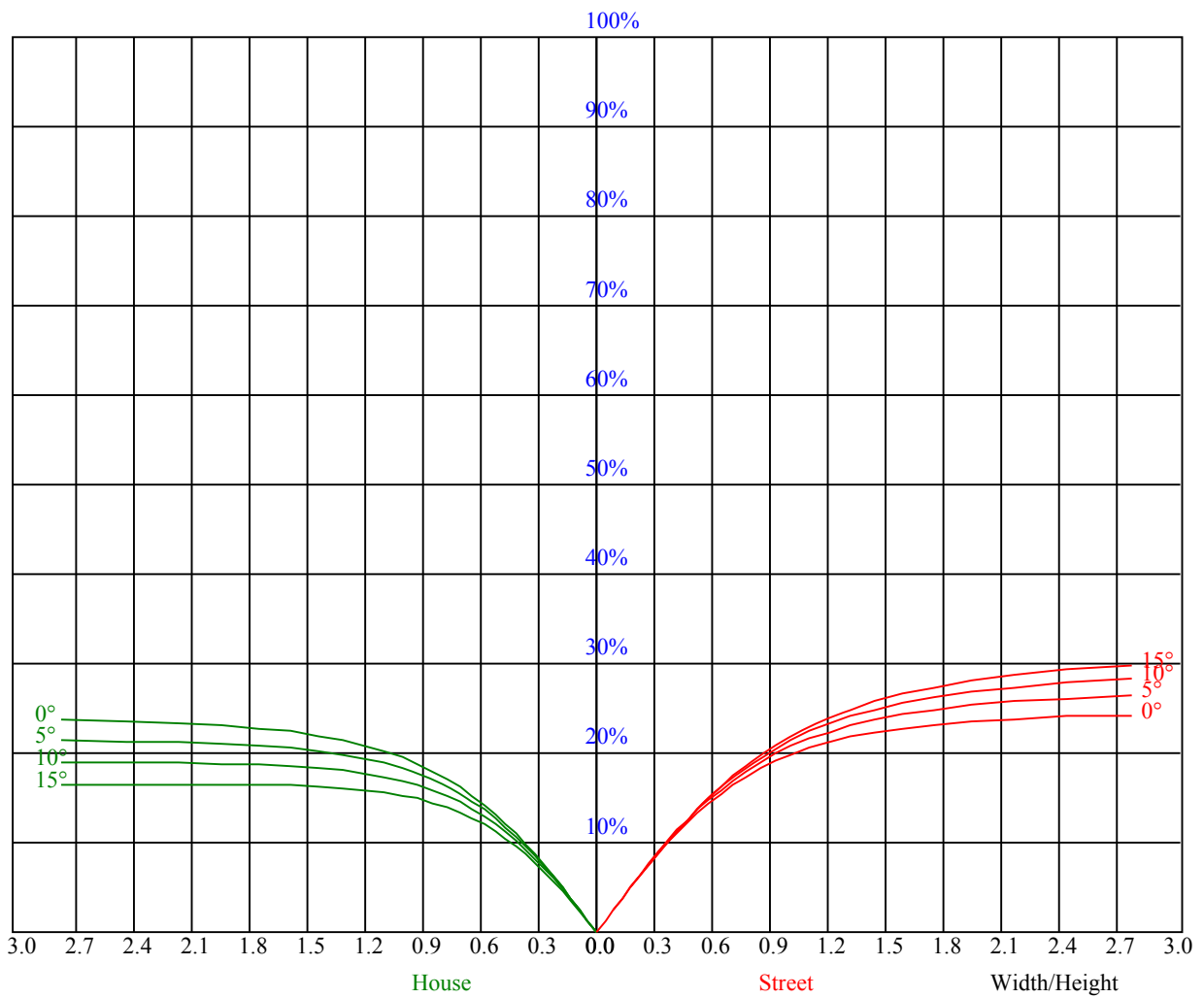
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h



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	5.4	6.7	5.7	6.9	7.2	5.3	6.6	5.6	6.8	7.1
	3H	6.3	7.4	6.6	7.7	7.9	6.2	7.3	6.5	7.6	7.9
	4H	6.2	7.2	6.6	7.5	7.8	6.2	7.1	6.5	7.4	7.8
	6H	6.2	7.2	6.6	7.5	7.8	6.2	7.1	6.6	7.4	7.8
	8H	6.2	7.2	6.6	7.5	7.8	6.2	7.1	6.6	7.4	7.8
	12H	6.1	6.8	6.5	7.2	7.6	6.0	6.7	6.4	7.1	7.5
4H	2H	5.7	6.7	6.1	7.0	7.3	5.7	6.6	6.0	6.9	7.3
	3H	6.7	7.4	7.1	7.8	8.2	6.6	7.3	7.0	7.7	8.1
	4H	6.9	7.6	7.3	8.0	8.4	6.8	7.5	7.2	7.9	8.3
	6H	6.9	7.6	7.3	8.0	8.4	6.8	7.5	7.2	7.9	8.3
	8H	6.8	7.1	7.3	7.6	8.1	6.6	7.0	7.1	7.5	8.0
	12H	6.8	7.1	7.3	7.6	8.1	6.6	7.0	7.1	7.5	8.0
8H	4H	6.8	7.2	7.3	7.7	8.2	6.7	7.1	7.2	7.6	8.1
	6H	6.9	7.3	7.4	7.7	8.2	6.8	7.1	7.3	7.6	8.1
	8H	6.9	7.3	7.4	7.7	8.2	6.8	7.1	7.3	7.6	8.1
	12H	6.9	7.3	7.4	7.7	8.2	6.8	7.1	7.3	7.6	8.1
12H	4H	6.8	7.2	7.3	7.7	8.2	6.7	7.1	7.2	7.6	8.1
	6H	6.9	7.3	7.4	7.7	8.2	6.8	7.1	7.3	7.6	8.1
	8H	6.9	7.3	7.4	7.7	8.2	6.8	7.1	7.3	7.6	8.1
Variation with the observer position at spacings:											
S = 1.0H	0.5/-0.5					0.5/-0.4					
S = 1.5H	0.8/-1.3					0.8/-1.2					
S = 2.0H	2.1/-2.2					2.1/-2.1					
Standard tables:	BK2					BK2					
Uncorrected UGR	-13.5					-13.6					
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	0.58	0.58	0.58	0.56	0.56	0.56	0.54	0.54	0.54	0.52	0.52	0.52	0.49	0.49	0.49	0.48
1	0.52	0.50	0.48	0.51	0.49	0.48	0.49	0.47	0.46	0.47	0.46	0.45	0.45	0.44	0.43	0.42
2	0.46	0.43	0.40	0.45	0.42	0.40	0.43	0.41	0.39	0.42	0.40	0.38	0.40	0.39	0.37	0.36
3	0.41	0.37	0.34	0.40	0.37	0.34	0.38	0.36	0.33	0.37	0.35	0.33	0.36	0.34	0.32	0.31
4	0.36	0.32	0.29	0.36	0.32	0.29	0.34	0.31	0.29	0.33	0.31	0.28	0.32	0.30	0.28	0.27
5	0.33	0.29	0.26	0.32	0.28	0.25	0.31	0.28	0.25	0.30	0.27	0.25	0.29	0.27	0.25	0.24
6	0.29	0.25	0.22	0.29	0.25	0.22	0.28	0.25	0.22	0.27	0.24	0.22	0.27	0.24	0.22	0.21
7	0.27	0.23	0.20	0.26	0.23	0.20	0.26	0.22	0.20	0.25	0.22	0.20	0.24	0.22	0.19	0.19
8	0.24	0.21	0.18	0.24	0.20	0.18	0.24	0.20	0.18	0.23	0.20	0.18	0.22	0.20	0.17	0.17
9	0.23	0.19	0.16	0.22	0.19	0.16	0.22	0.18	0.16	0.21	0.18	0.16	0.21	0.18	0.16	0.15
10	0.21	0.17	0.15	0.21	0.17	0.15	0.20	0.17	0.15	0.20	0.17	0.14	0.19	0.16	0.14	0.14





## Intensity data(cd)

C/γ(°)	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
0.0	526.15	525.73	525.78	525.36	524.20	523.46	522.82	521.24	520.07
30.0	532.65	532.44	532.39	532.44	531.75	531.17	530.54	529.69	528.11
60.0	529.64	529.74	529.53	529.06	528.69	527.95	526.89	525.89	524.30
90.0	527.84	527.58	527.37	527.37	526.89	525.99	525.09	524.41	522.72
120.0	526.94	526.78	526.68	525.94	525.52	524.62	523.51	522.40	520.97
150.0	525.94	525.89	525.89	525.25	524.67	524.04	523.14	521.87	520.60
180.0	526.15	526.04	525.25	524.88	524.57	523.67	522.24	521.39	519.49
210.0	532.65	532.44	531.54	531.17	530.43	529.11	527.95	526.73	525.36
240.0	529.64	529.48	529.22	528.63	527.84	527.05	525.89	524.57	522.87
270.0	527.84	527.26	526.94	526.63	525.99	524.57	523.77	522.61	520.71
300.0	526.94	526.89	526.63	525.99	525.25	524.46	523.30	522.19	520.92
330.0	525.94	525.68	525.31	524.72	523.98	523.14	521.82	520.65	519.33
360.0	526.15	525.73	525.78	525.36	524.20	523.46	522.82	521.24	520.07
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	518.49	517.01	514.73	512.94	510.93	508.13	505.86	503.32	500.09
30.0	526.84	525.57	523.46	521.87	520.02	517.32	515.21	512.94	510.40
60.0	522.93	521.50	519.81	517.54	515.42	513.31	510.56	507.97	505.17
90.0	521.61	520.07	518.49	516.32	514.31	512.36	509.66	506.97	504.27
120.0	519.23	517.59	515.58	513.57	511.25	508.92	506.17	503.21	499.83
150.0	519.33	517.59	515.63	513.73	511.46	509.29	506.33	503.58	500.78
180.0	517.96	516.48	514.58	511.83	509.82	507.39	504.27	501.47	498.51
210.0	523.35	521.55	519.28	517.17	514.58	512.04	509.03	506.17	502.74
240.0	521.34	519.70	517.85	515.84	513.20	510.77	507.65	504.90	501.84
270.0	519.39	517.69	515.16	513.10	511.03	508.81	505.54	502.95	499.35
300.0	519.33	517.43	515.63	513.94	511.40	509.08	506.75	504.11	500.62
330.0	517.80	515.79	513.99	511.62	509.66	507.34	504.96	502.26	498.77
360.0	518.49	517.01	514.73	512.94	510.93	508.13	505.86	503.32	500.09
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	497.29	493.91	490.47	486.30	482.18	478.11	473.35	468.75	463.20
30.0	506.86	504.01	500.94	496.66	492.91	488.89	483.82	479.27	474.78
60.0	502.21	498.51	494.97	491.21	486.46	482.28	478.05	472.61	467.80
90.0	500.89	497.87	494.07	490.10	486.35	481.75	477.58	472.66	467.96
120.0	496.76	493.33	489.84	485.56	481.49	477.42	472.19	467.54	462.25
150.0	497.19	493.75	490.47	486.14	482.49	478.32	473.40	468.91	463.94
180.0	495.50	491.53	487.67	483.76	479.38	474.78	470.34	465.48	460.51
210.0	499.20	495.18	491.48	487.57	483.13	478.16	473.40	468.12	462.04
240.0	498.61	494.44	490.69	486.93	482.12	478.00	473.51	468.81	462.94
270.0	496.34	492.96	489.47	484.87	481.07	476.63	471.40	466.53	461.19
300.0	497.61	494.28	490.05	486.19	482.23	477.21	473.09	468.22	462.30
330.0	495.71	491.64	488.31	484.40	480.49	475.52	471.18	466.22	460.08
360.0	497.29	493.91	490.47	486.30	482.18	478.11	473.35	468.75	463.20
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	457.34	451.21	445.60	439.15	433.24	426.47	420.18	412.94	406.07
30.0	468.81	463.57	458.08	451.89	444.92	438.04	431.70	424.20	417.38
60.0	462.41	455.91	450.25	443.86	437.67	430.28	423.72	416.38	408.29
90.0	462.04	456.33	450.04	444.28	437.94	431.86	424.67	418.23	410.67
120.0	457.18	450.62	444.49	437.46	431.39	425.04	417.75	410.98	403.11
150.0	458.97	452.79	447.35	441.22	434.29	427.84	421.50	415.00	407.18
180.0	454.69	448.77	443.07	436.35	430.38	423.40	416.90	409.56	401.84
210.0	456.54	450.52	444.76	437.67	431.02	424.62	416.90	410.14	402.53
240.0	457.44	450.99	445.50	439.42	433.50	426.31	420.07	413.20	405.65
270.0	455.80	449.30	443.12	436.20	430.01	423.62	416.53	409.93	401.89
300.0	457.23	451.36	445.66	438.73	432.76	426.05	418.38	411.51	404.96
330.0	454.85	448.93	443.28	436.20	429.69	422.19	415.74	408.66	401.73
360.0	457.34	451.21	445.60	439.15	433.24	426.47	420.18	412.94	406.07

## Intensity data(cd)

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	399.09	390.53	383.61	375.41	366.96	359.14	350.41	342.49	333.18
30.0	409.87	402.74	394.23	386.20	378.74	369.71	361.73	352.85	343.39
60.0	400.63	393.54	386.20	377.58	368.97	360.99	351.74	342.54	334.14
90.0	402.90	396.03	387.78	379.64	372.19	364.42	355.49	346.50	337.31
120.0	395.29	387.25	379.91	371.50	363.73	354.80	345.71	337.41	327.95
150.0	399.78	392.80	384.35	376.47	368.97	360.14	352.26	343.44	334.08
180.0	394.12	387.09	379.91	371.56	362.99	355.12	346.13	336.99	328.69
210.0	395.34	386.83	378.69	371.08	362.04	353.22	345.13	335.51	327.11
240.0	399.30	391.85	383.71	374.41	366.59	360.03	350.26	342.06	333.66
270.0	394.23	385.72	378.27	370.02	362.15	353.06	345.02	335.88	326.37
300.0	397.19	390.79	383.24	375.89	367.06	358.66	350.89	341.80	333.50
330.0	393.44	386.25	378.11	369.39	361.62	353.06	344.92	335.46	326.95
360.0	399.09	390.53	383.61	375.41	366.96	359.14	350.41	342.49	333.18
C/γ(°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0
0.0	323.72	315.16	305.23	295.24	286.20	275.95	266.75	256.34	247.09
30.0	334.24	325.73	315.90	307.02	297.14	288.05	277.53	267.22	257.76
60.0	324.36	315.74	306.07	296.03	287.20	277.16	267.91	257.13	247.62
90.0	328.96	319.50	310.93	301.05	292.12	281.92	271.66	262.47	251.74
120.0	319.50	310.04	301.31	291.43	281.71	271.35	262.20	251.84	242.49
150.0	325.84	316.69	308.13	298.14	289.32	279.43	269.18	259.14	249.84
180.0	319.07	310.51	300.94	291.33	282.45	272.46	263.37	252.80	243.44
210.0	317.75	307.87	298.09	289.11	280.01	269.39	260.25	249.89	239.00
240.0	324.15	315.64	306.07	295.71	286.62	276.58	267.44	256.87	247.67
270.0	317.91	308.45	299.73	289.48	279.54	269.23	260.04	249.68	240.27
300.0	324.36	314.42	305.70	295.92	285.56	276.47	267.28	257.13	246.61
330.0	317.80	307.87	298.25	289.26	278.85	269.71	259.61	248.94	239.53
360.0	323.72	315.16	305.23	295.24	286.20	275.95	266.75	256.34	247.09
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	236.73	226.00	215.32	205.70	196.03	184.83	175.15	164.32	153.27
30.0	247.03	237.52	226.84	215.90	206.34	195.40	184.30	174.47	163.58
60.0	237.10	226.00	215.32	205.70	194.71	185.14	174.63	164.90	153.91
90.0	242.28	231.76	220.93	210.25	200.63	189.64	179.86	168.97	159.40
120.0	231.71	222.09	211.57	200.68	191.17	180.65	171.24	160.41	149.68
150.0	239.21	229.75	219.39	210.04	199.20	188.47	178.85	167.81	158.24
180.0	232.87	222.09	211.41	201.74	190.96	181.50	170.77	161.15	150.26
210.0	228.48	218.81	207.82	198.04	187.21	177.27	165.91	154.96	145.03
240.0	237.52	226.63	216.01	206.44	196.67	185.51	174.57	164.74	153.70
270.0	229.65	220.19	209.51	199.94	189.16	178.22	167.33	157.71	147.99
300.0	236.36	226.95	216.01	206.39	195.56	185.83	174.78	163.84	154.22
330.0	228.96	219.39	208.50	198.83	188.16	177.11	166.22	156.55	146.83
360.0	236.73	226.00	215.32	205.70	196.03	184.83	175.15	164.32	153.27
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	142.49	132.87	122.25	112.84	102.22	91.49	82.08	71.77	62.74
30.0	153.85	142.81	131.76	122.14	111.26	101.85	91.12	81.76	71.46
60.0	142.86	133.03	122.09	112.37	101.74	91.07	81.76	71.56	61.47
90.0	148.46	137.63	127.96	117.07	107.66	97.20	87.89	77.43	67.33
120.0	139.90	128.86	118.13	108.45	98.99	88.26	77.91	67.70	58.93
150.0	147.41	136.36	125.58	115.91	105.12	95.72	86.31	75.90	65.64
180.0	139.16	129.33	118.50	108.67	97.94	87.21	76.64	67.60	57.61
210.0	133.82	123.83	112.89	101.85	90.96	81.29	70.66	61.31	51.11
240.0	142.81	133.08	122.20	112.58	101.69	90.70	81.08	70.45	61.20
270.0	137.10	126.05	115.17	105.60	94.82	85.30	74.89	65.70	55.55
300.0	143.28	132.56	123.15	112.58	103.17	92.60	82.08	72.88	62.79
330.0	135.83	124.94	115.33	104.65	94.08	84.72	74.36	65.27	55.23
360.0	142.49	132.87	122.25	112.84	102.22	91.49	82.08	71.77	62.74

## Intensity data(cd)

C/ $\gamma$ (°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0	
0.0	52.80	44.29	35.15	26.64	19.08	13.16	7.61	4.23	2.80	
30.0	61.20	51.58	43.18	35.04	26.43	18.71	12.74	7.35	3.81	
60.0	52.80	44.34	35.09	26.53	18.87	12.84	7.24	3.86	2.70	
90.0	57.13	48.68	39.38	31.39	22.94	15.43	9.78	5.02	2.91	
120.0	49.31	40.86	31.66	24.05	16.33	9.83	5.55	2.91	2.70	
150.0	55.65	47.14	37.90	29.97	21.67	15.06	8.83	4.39	2.75	
180.0	48.94	40.43	31.24	22.67	15.12	9.78	4.70	2.75	2.59	
210.0	42.23	32.82	24.05	16.91	10.09	5.60	3.12	2.85	2.70	
240.0	51.00	42.28	32.98	24.37	16.60	10.73	6.03	3.22	2.80	
270.0	45.77	37.58	28.75	21.41	14.06	8.14	4.39	2.91	2.70	
300.0	53.86	44.24	36.05	27.38	19.50	12.74	7.66	3.86	2.80	
330.0	45.56	37.37	28.70	21.56	14.38	8.98	4.55	2.85	2.64	
360.0	52.80	44.29	35.15	26.64	19.08	13.16	7.61	4.23	2.80	
C/ $\gamma$ (°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0	
0.0	2.64	2.48	2.33	2.27	2.22	2.11	2.01	1.96	1.90	
30.0	2.70	2.48	2.38	2.27	2.22	2.11	2.01	1.96	1.96	
60.0	2.48	2.38	2.33	2.22	2.11	2.11	2.06	1.96	1.90	
90.0	2.64	2.43	2.38	2.27	2.22	2.11	2.01	1.96	1.96	
120.0	2.54	2.43	2.27	2.17	2.17	2.06	1.96	1.90	1.90	
150.0	2.59	2.48	2.33	2.22	2.17	2.06	2.01	1.96	1.90	
180.0	2.43	2.38	2.17	2.17	2.01	1.96	1.90	1.85	1.85	
210.0	2.59	2.43	2.33	2.22	2.17	2.06	2.01	1.96	1.90	
240.0	2.70	2.59	2.38	2.27	2.22	2.11	2.06	2.01	1.96	
270.0	2.54	2.43	2.33	2.22	2.11	2.11	2.01	1.96	1.96	
300.0	2.70	2.48	2.43	2.27	2.17	2.11	2.01	2.01	1.96	
330.0	2.48	2.38	2.27	2.17	2.11	2.06	2.01	1.96	1.90	
360.0	2.64	2.48	2.33	2.27	2.22	2.11	2.01	1.96	1.90	
C/ $\gamma$ (°)	90.0									
0.0	1.85									
30.0	1.96									
60.0	1.96									
90.0	1.85									
120.0	1.90									
150.0	1.85									
180.0	1.85									
210.0	1.90									
240.0	1.90									
270.0	1.96									
300.0	1.96									
330.0	1.90									
360.0	1.85									