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### HX-DA613.5R

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LumCAT: HX-DA613.5R	Luminaire:
Report No:	Voltage(V): 220.500
Test No:	Current(A): 0.039
LampCAT: ZX-S6130/D58-2835-12CX3B	Power (W): 7.800
Lamp flux(lm): 1057.0	PF: 0.910
Number of Lamps: 1	Ballast type: LS-8-200L1
Length(mm): -800	Width(mm): -800
Phm Type: C	Height(mm): 0

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### Photometric Results

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Lumens(lm): 535.87  
Efficiency(%): 50.70%  
Lumens(lm)/Power(W): 68.70  
Central intensity(cd): 231.654  
Maximum intensity(cd): 234.403  
Angle of maximum intensity: C=30.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [H]Left=50.6 Right=47.2  
[V]Left=52.1 Right=46.2  
Field angle(10%Imax): [H]Left=72.7 Right=69.2  
[V]Left=73.5 Right=68.1  
Maximum s/h: C0\_180=1.22 C90\_270=1.22  
Up flux rate of lamp(%): 0.00%  
Down flux rate of lamp(%): 50.70%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 87.634%

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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	232.614	.000	.000	.000%	.000%
1.0	232.575	.223	.223	.021%	.021%
2.0	232.421	.667	.890	.063%	.084%
3.0	232.200	1.111	2.001	.105%	.189%
4.0	231.866	1.553	3.555	.147%	.336%
5.0	231.483	1.993	5.548	.189%	.525%
6.0	230.945	2.430	7.978	.230%	.755%
7.0	230.381	2.863	10.842	.271%	1.026%
8.0	229.686	3.293	14.134	.312%	1.337%
9.0	228.959	3.717	17.851	.352%	1.689%
10.0	228.096	4.136	21.987	.391%	2.080%
11.0	227.179	4.549	26.536	.430%	2.511%
12.0	226.175	4.956	31.492	.469%	2.979%
13.0	225.087	5.355	36.848	.507%	3.486%
14.0	223.876	5.747	42.594	.544%	4.030%
15.0	222.616	6.130	48.724	.580%	4.610%
16.0	221.242	6.504	55.228	.615%	5.225%
17.0	219.674	6.866	62.094	.650%	5.875%
18.0	218.031	7.217	69.311	.683%	6.557%
19.0	216.190	7.555	76.865	.715%	7.272%
20.0	214.244	7.878	84.744	.745%	8.017%
21.0	212.209	8.189	92.932	.775%	8.792%
22.0	210.011	8.485	101.417	.803%	9.595%
23.0	207.703	8.765	110.182	.829%	10.424%
24.0	205.254	9.029	119.211	.854%	11.278%
25.0	202.779	9.278	128.488	.878%	12.156%
26.0	200.114	9.510	137.999	.900%	13.056%
27.0	197.467	9.727	147.726	.920%	13.976%
28.0	194.609	9.927	157.652	.939%	14.915%
29.0	191.733	10.108	167.760	.956%	15.871%
30.0	188.782	10.274	178.034	.972%	16.843%
31.0	185.641	10.420	188.453	.986%	17.829%
32.0	182.444	10.545	198.999	.998%	18.827%
33.0	179.224	10.655	209.653	1.008%	19.835%
34.0	175.912	10.747	220.401	1.017%	20.852%
35.0	172.490	10.820	231.221	1.024%	21.875%
36.0	169.068	10.875	242.096	1.029%	22.904%
37.0	165.575	10.914	253.010	1.033%	23.937%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	162.007	10.934	263.945	1.034%	24.971%
39.0	158.264	10.932	274.876	1.034%	26.005%
40.0	154.476	10.907	285.784	1.032%	27.037%
41.0	150.609	10.864	296.648	1.028%	28.065%
42.0	146.636	10.799	307.447	1.022%	29.087%
43.0	142.646	10.716	318.163	1.014%	30.101%
44.0	138.528	10.612	328.775	1.004%	31.105%
45.0	134.326	10.486	339.261	.992%	32.097%
46.0	130.168	10.344	349.605	.979%	33.075%
47.0	125.949	10.186	359.791	.964%	34.039%
48.0	121.478	10.002	369.794	.946%	34.985%
49.0	117.232	9.803	379.596	.927%	35.913%
50.0	112.757	9.589	389.185	.907%	36.820%
51.0	108.357	9.355	398.540	.885%	37.705%
52.0	103.746	9.102	407.642	.861%	38.566%
53.0	99.333	8.834	416.476	.836%	39.402%
54.0	94.712	8.553	425.028	.809%	40.211%
55.0	90.189	8.254	433.282	.781%	40.992%
56.0	85.498	7.939	441.221	.751%	41.743%
57.0	81.001	7.613	448.834	.720%	42.463%
58.0	76.390	7.278	456.112	.689%	43.152%
59.0	71.801	6.928	463.040	.655%	43.807%
60.0	67.198	6.567	469.607	.621%	44.428%
61.0	62.648	6.197	475.803	.586%	45.015%
62.0	58.213	5.824	481.627	.551%	45.565%
63.0	53.734	5.445	487.072	.515%	46.081%
64.0	49.422	5.062	492.134	.479%	46.559%
65.0	45.097	4.678	496.811	.443%	47.002%
66.0	41.045	4.298	501.109	.407%	47.409%
67.0	36.944	3.921	505.031	.371%	47.780%
68.0	33.090	3.548	508.578	.336%	48.115%
69.0	29.417	3.189	511.767	.302%	48.417%
70.0	26.021	2.847	514.614	.269%	48.686%
71.0	22.938	2.530	517.145	.239%	48.926%
72.0	20.150	2.240	519.385	.212%	49.138%
73.0	17.816	1.985	521.371	.188%	49.326%
74.0	15.772	1.766	523.137	.167%	49.493%
75.0	14.389	1.594	524.730	.151%	49.643%

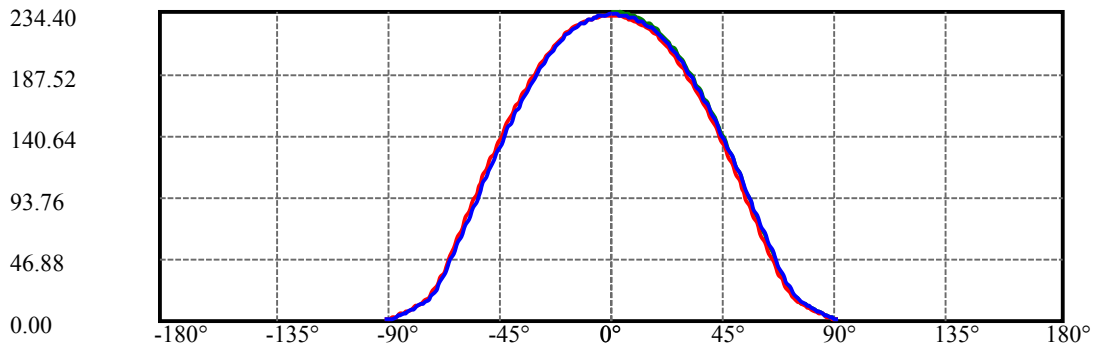
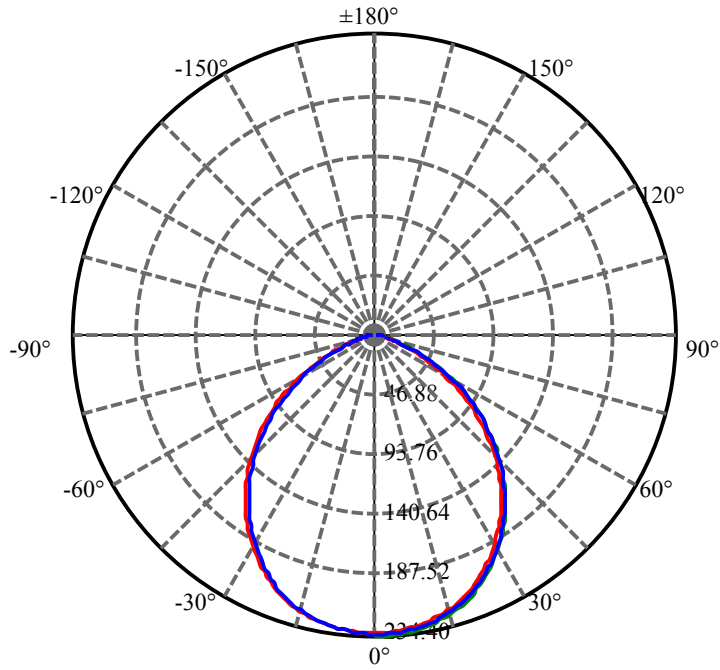
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	13.200	1.465	526.195	.139%	49.782%
77.0	12.165	1.352	527.547	.128%	49.910%
78.0	11.055	1.243	528.790	.118%	50.027%
79.0	10.033	1.133	529.923	.107%	50.135%
80.0	8.981	1.025	530.948	.097%	50.232%
81.0	8.025	.920	531.868	.087%	50.319%
82.0	7.073	.819	532.687	.077%	50.396%
83.0	6.153	.719	533.406	.068%	50.464%
84.0	5.232	.620	534.026	.059%	50.523%
85.0	4.378	.525	534.550	.050%	50.572%
86.0	3.554	.434	534.984	.041%	50.613%
87.0	2.731	.344	535.328	.033%	50.646%
88.0	1.938	.256	535.584	.024%	50.670%
89.0	1.220	.173	535.757	.016%	50.687%
90.0	.903	.116	535.873	.011%	50.698%

## ZONAL LUMEN SUMMARY

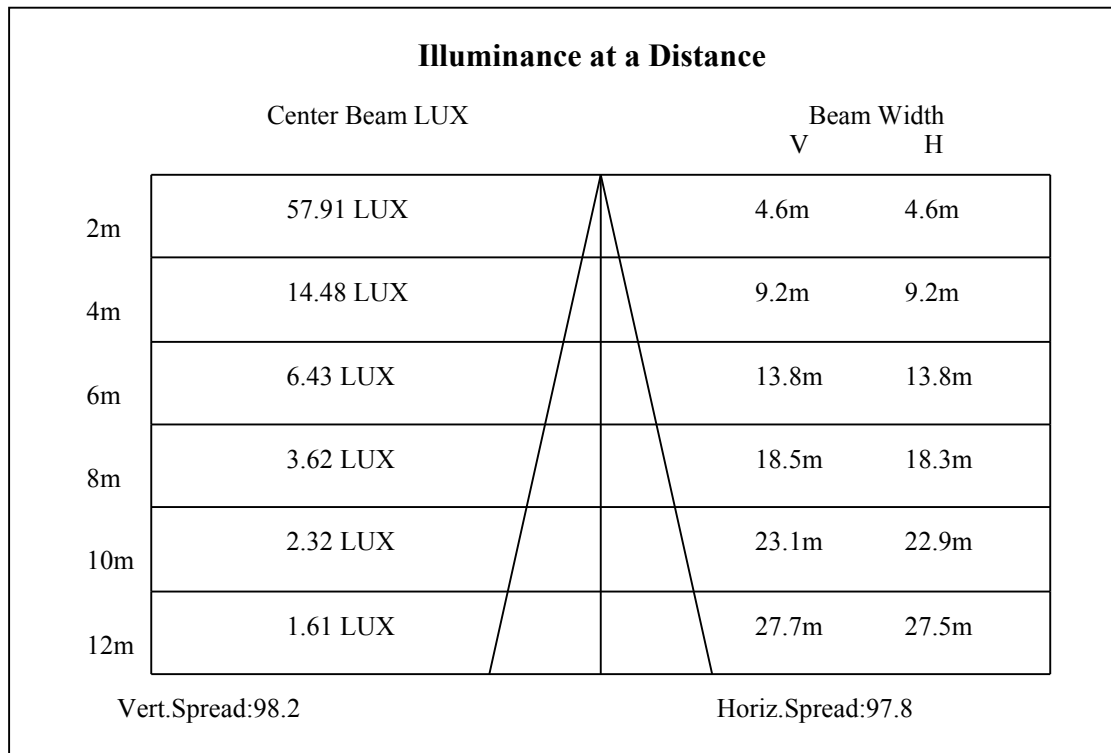
Zone	Lumens	%Lamp	%Fixt
0-30	178.03	16.84%	33.22%
0-40	285.78	27.04%	53.33%
0-60	469.61	44.43%	87.63%
0-90	535.76	50.69%	99.98%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-180	535.87	50.70%	100.00%

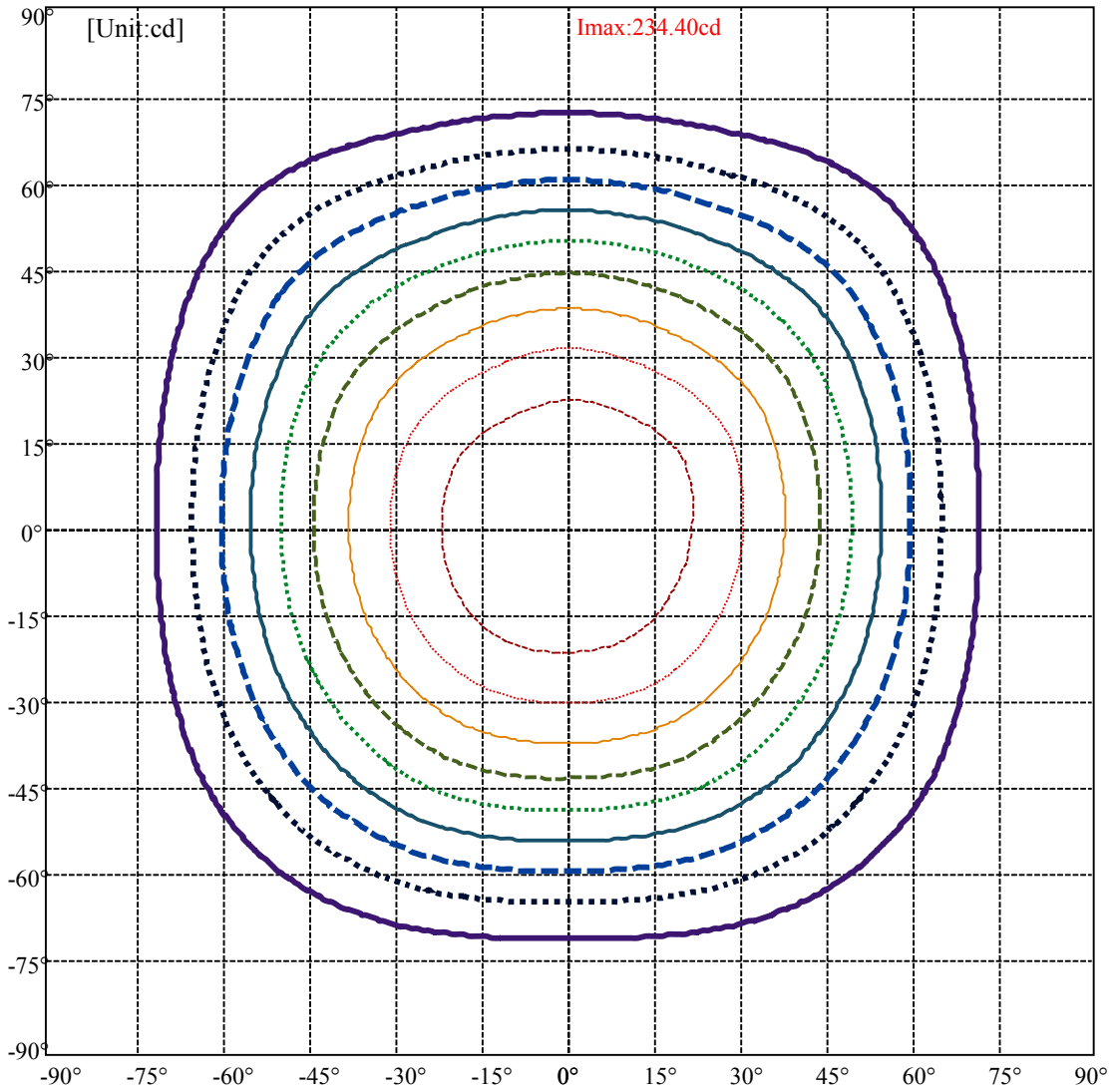
## ZONAL LUMEN SUMMARY

0-10	21.99
10-20	62.76
20-30	93.29
30-40	107.75
40-50	103.40
50-60	80.42
60-70	45.01
70-80	16.33
80-90	4.81
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



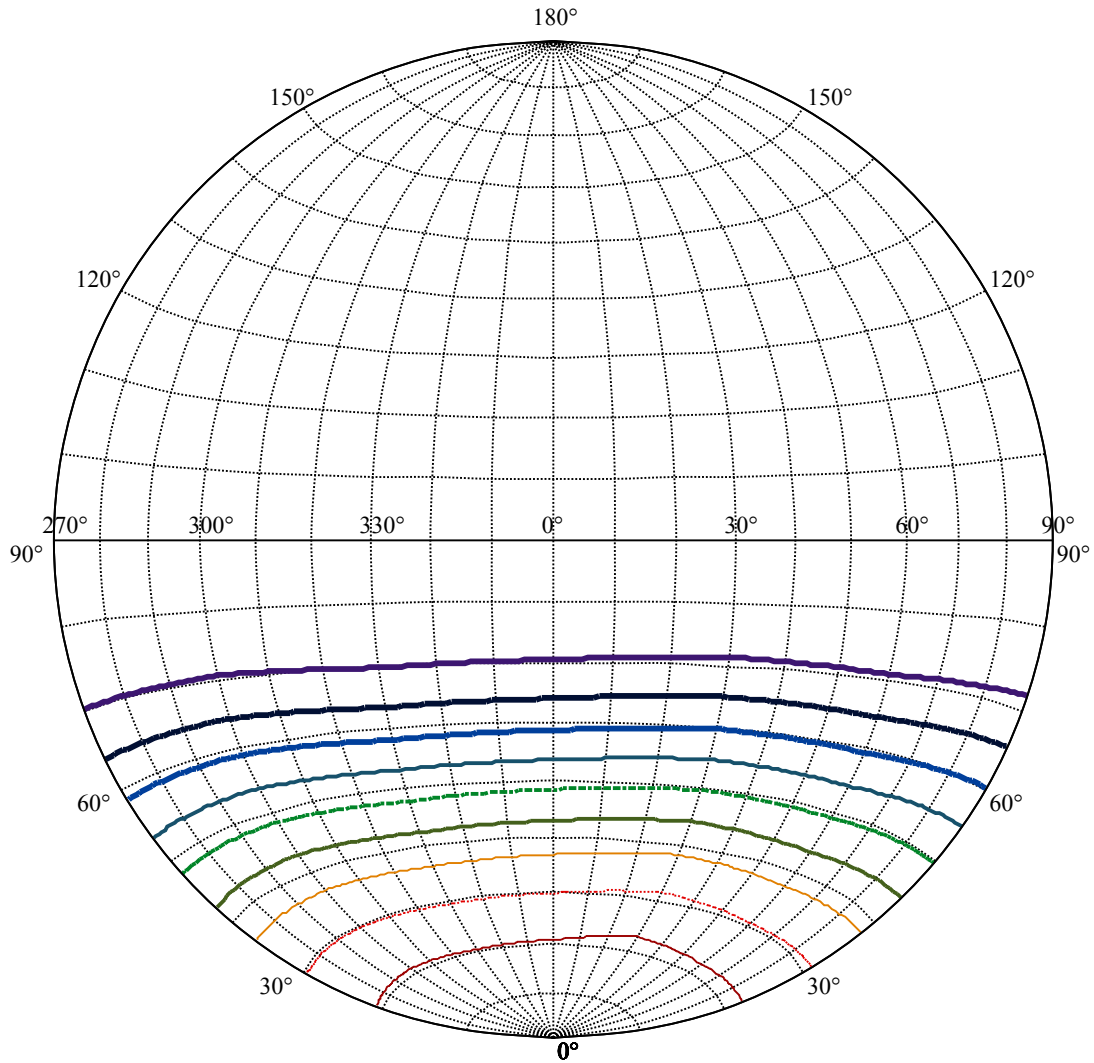
C30(Max): —  
C0/C180: —  
C90/C270: —





(10%Imax)	23.3966	———
(20%Imax)	46.7932	·····
(30%Imax)	70.1898	- - - -
(40%Imax)	93.5864	———
(50%Imax)	116.983	·····
(60%Imax)	140.38	- - - -
(70%Imax)	163.776	———
(80%Imax)	187.173	·····
(90%Imax)	210.569	- - - -



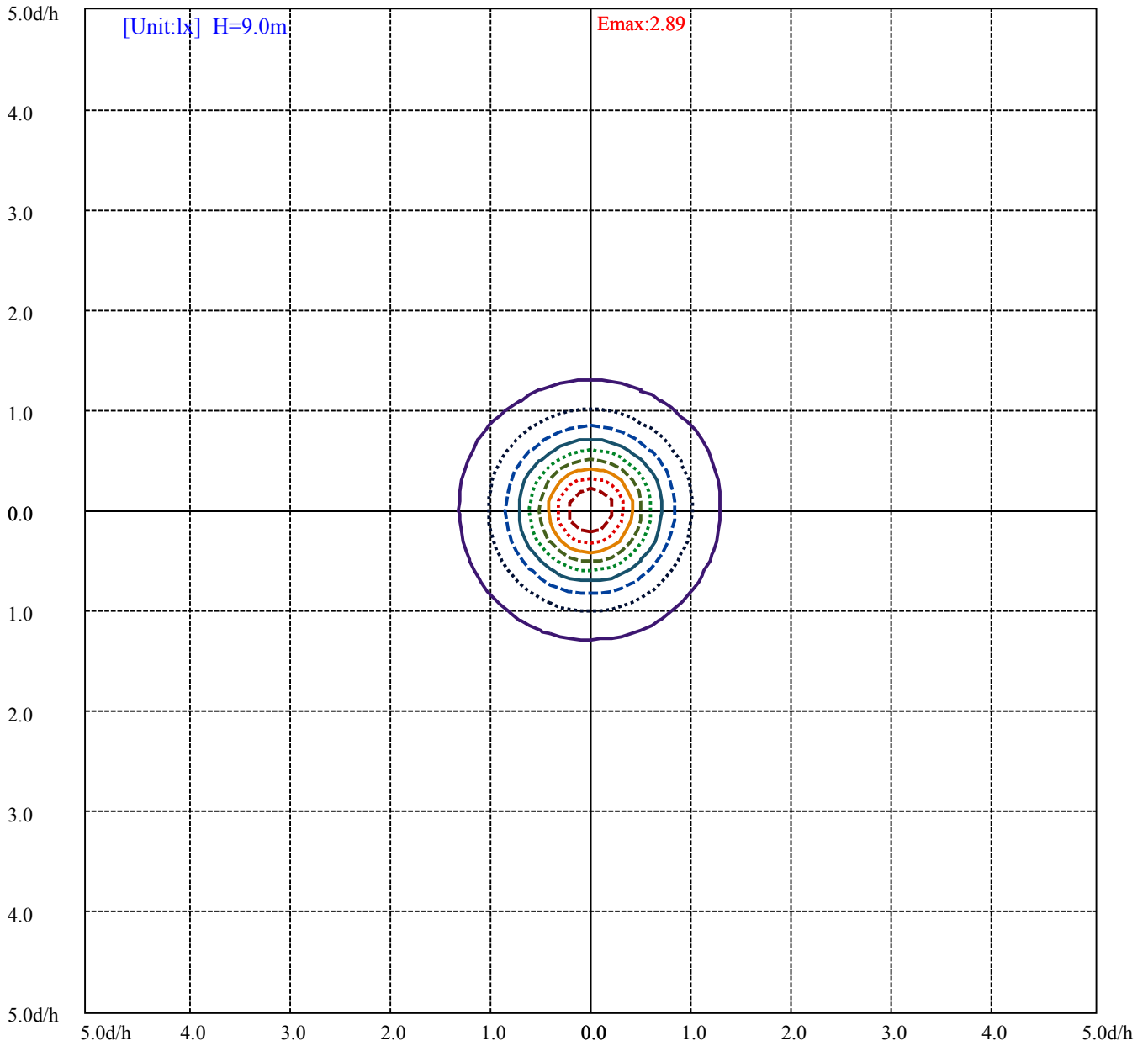


House

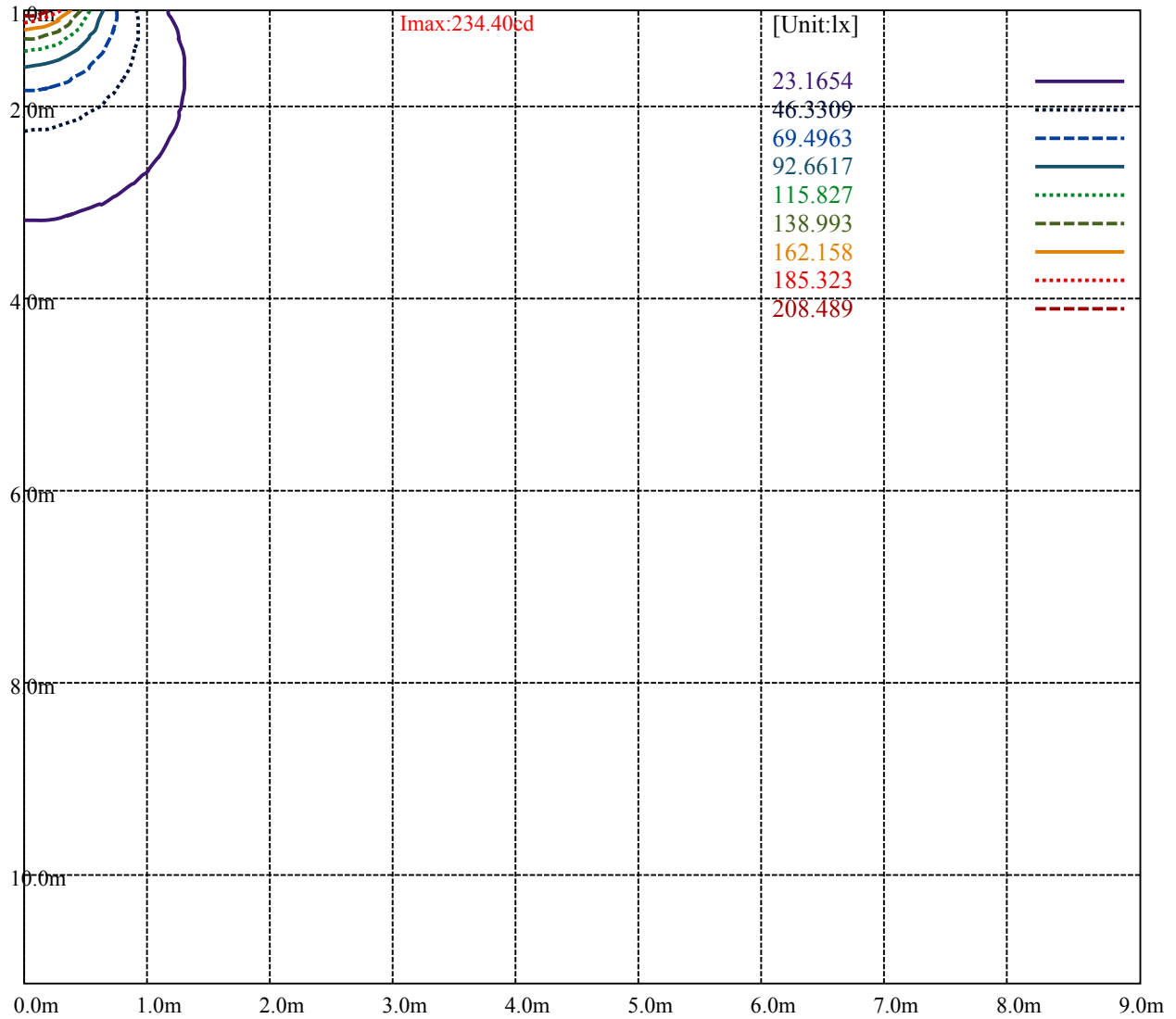
Road

**I<sub>max</sub>:234.40cd**

(10%I <sub>max</sub> ) 23.4403	—
(20%I <sub>max</sub> ) 46.8805	⋯
(30%I <sub>max</sub> ) 70.3208	- - -
(40%I <sub>max</sub> ) 93.761	—
(50%I <sub>max</sub> ) 117.201	⋯
(60%I <sub>max</sub> ) 140.642	- - -
(70%I <sub>max</sub> ) 164.082	—
(80%I <sub>max</sub> ) 187.522	⋯
(90%I <sub>max</sub> ) 210.962	- - -



- (10%Emax) 0.2887333 ————
- (20%Emax) 0.5774667 ······
- (30%Emax) 0.8662 - - - - -
- (40%Emax) 1.154933 ————
- (50%Emax) 1.443667 ······
- (60%Emax) 1.732395 - - - - -
- (70%Emax) 2.021136 ————
- (80%Emax) 2.309864 ······
- (90%Emax) 2.598605 - - - - -

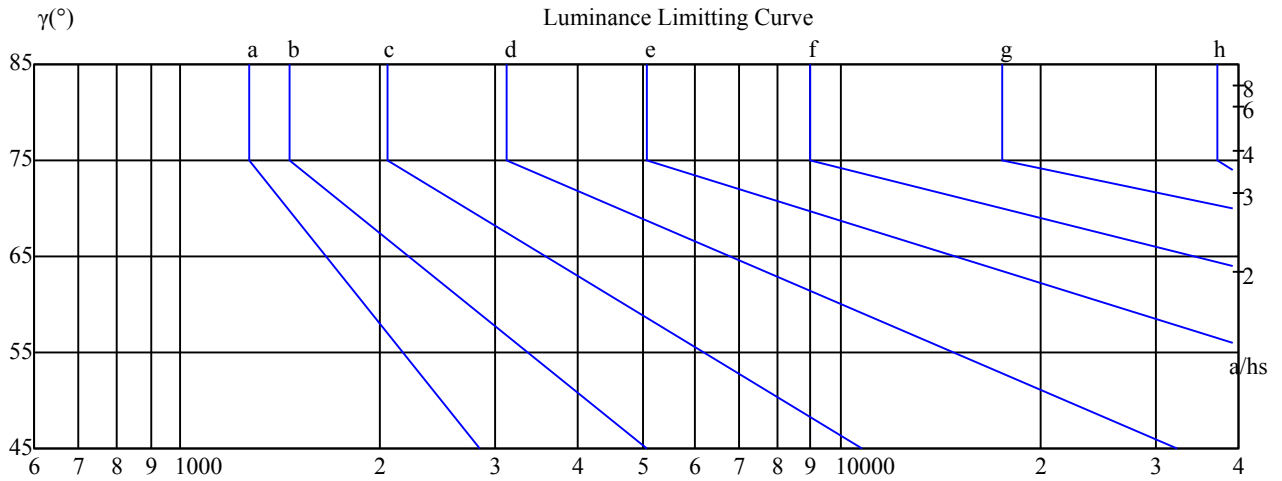


Luminance Table

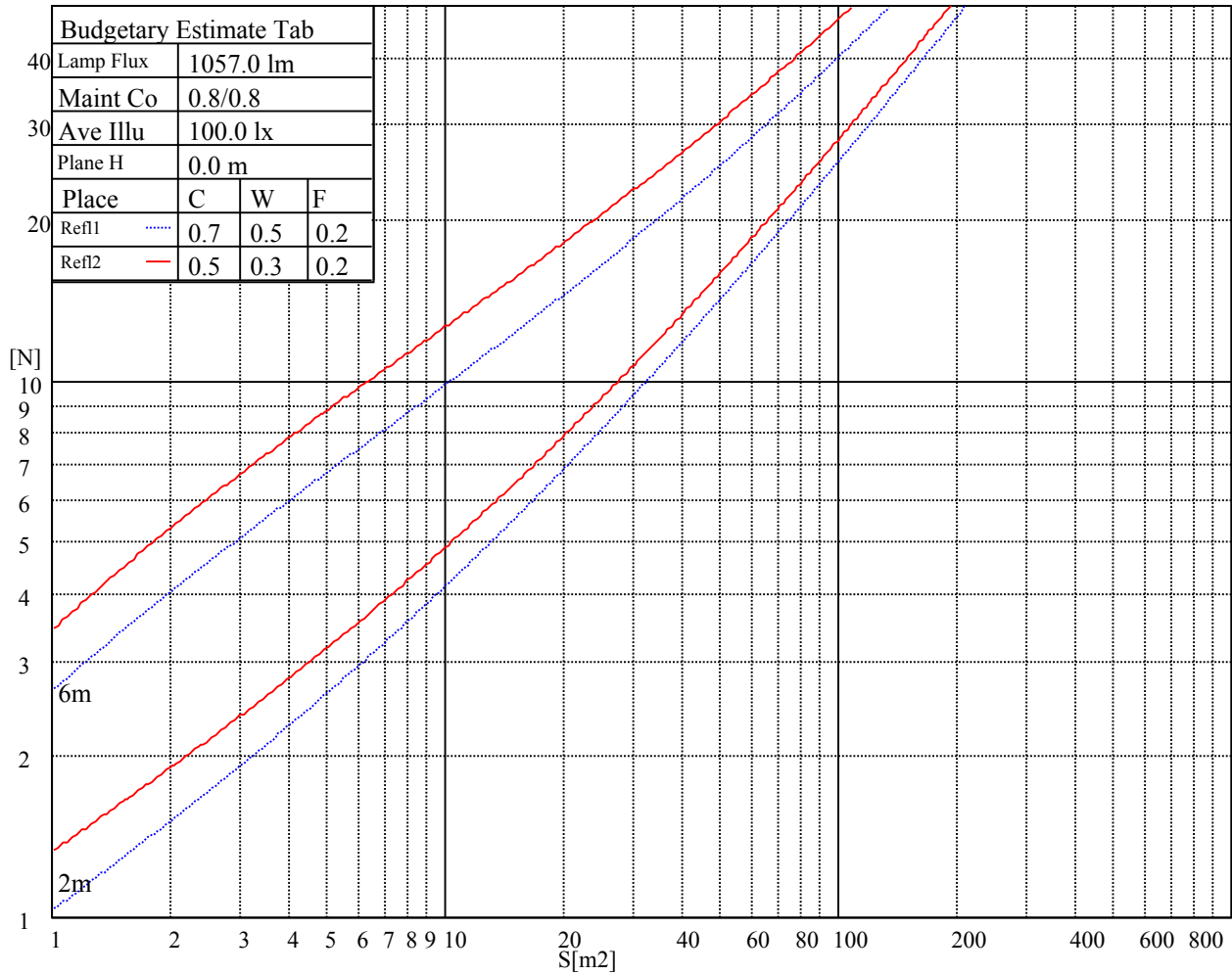
$\gamma$	45	50	55	60	65	70	75	80	85
C0	373	342	304	257	203	145	106	101	99
C45	0	0	0	0	0	0	0	0	0
C90	386	359	326	284	232	170	119	113	115

Glare Table

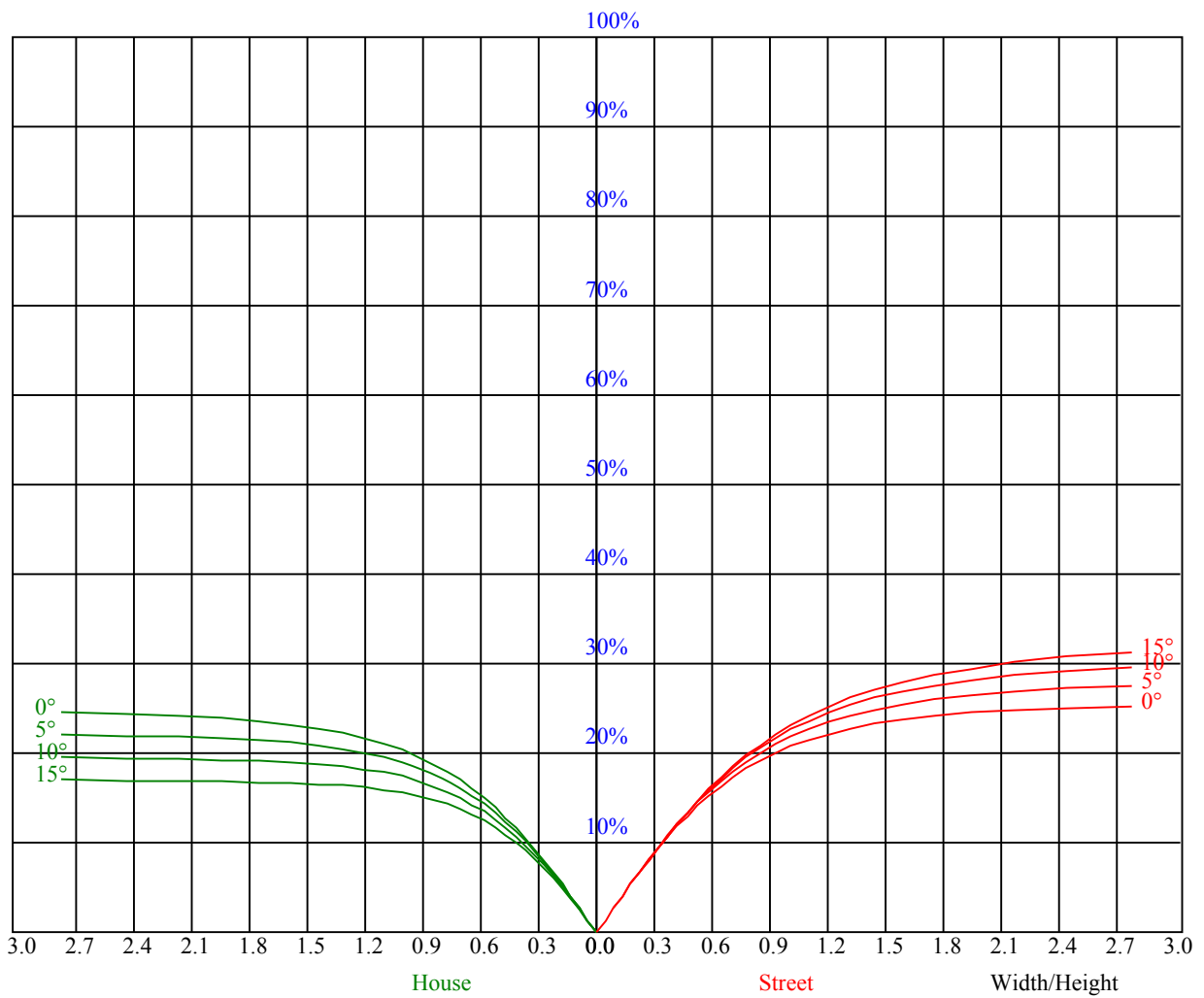
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h



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	8.1	9.4	8.4	9.6	9.9	8.2	9.5	8.5	9.7	10.0
	3H	8.8	9.9	9.1	10.2	10.4	9.0	10.1	9.3	10.4	10.6
	4H	8.8	9.7	9.1	10.0	10.4	9.0	9.9	9.3	10.2	10.6
	6H	8.9	9.9	9.3	10.2	10.5	9.2	10.1	9.5	10.4	10.8
	8H	9.0	10.0	9.4	10.3	10.6	9.2	10.2	9.6	10.5	10.8
	12H	8.9	9.6	9.3	10.0	10.4	9.1	9.8	9.6	10.2	10.6
4H	2H	8.4	9.3	8.8	9.7	10.0	8.5	9.4	8.8	9.7	10.1
	3H	9.2	9.9	9.6	10.2	10.7	9.3	10.0	9.7	10.4	10.8
	4H	9.4	10.1	9.8	10.5	10.9	9.6	10.3	10.0	10.6	11.1
	6H	9.7	10.4	10.1	10.8	11.2	9.8	10.5	10.2	10.9	11.3
	8H	9.6	10.0	10.1	10.5	11.0	9.8	10.2	10.3	10.6	11.1
	12H	9.7	10.1	10.2	10.6	11.1	9.9	10.3	10.4	10.7	11.2
8H	4H	9.4	9.8	9.9	10.3	10.8	9.6	9.9	10.1	10.4	10.9
	6H	9.8	10.1	10.2	10.6	11.1	9.9	10.3	10.4	10.7	11.3
	8H	9.9	10.3	10.4	10.8	11.3	10.0	10.4	10.5	10.9	11.4
	12H	10.1	10.4	10.6	10.9	11.4	10.2	10.6	10.7	11.1	11.6
12H	4H	9.4	9.8	9.9	10.3	10.8	9.6	10.0	10.1	10.4	10.9
	6H	9.8	10.2	10.3	10.7	11.2	9.9	10.3	10.4	10.8	11.3
	8H	10.0	10.4	10.5	10.9	11.4	10.1	10.5	10.6	11.0	11.5
Variation with the observer position at spacings:											
S = 1.0H	0.5/-0.6					0.4/-0.5					
S = 1.5H	0.6/-1.5					0.7/-1.2					
S = 2.0H	2.1/-2.2					2.0/-2.0					
Standard tables:	BK3					BK2					
Uncorrected UGR	-10.0					-10.4					
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	0.60	0.60	0.60	0.59	0.59	0.59	0.56	0.56	0.56	0.54	0.54	0.54	0.52	0.52	0.52	0.51
1	0.54	0.52	0.50	0.53	0.51	0.49	0.51	0.49	0.48	0.49	0.47	0.46	0.47	0.46	0.45	0.44
2	0.48	0.45	0.42	0.47	0.44	0.42	0.45	0.43	0.41	0.43	0.41	0.40	0.42	0.40	0.39	0.38
3	0.42	0.39	0.36	0.42	0.38	0.35	0.40	0.37	0.35	0.39	0.36	0.34	0.38	0.35	0.34	0.33
4	0.38	0.34	0.31	0.37	0.34	0.31	0.36	0.33	0.30	0.35	0.32	0.30	0.34	0.31	0.29	0.28
5	0.34	0.30	0.27	0.34	0.30	0.27	0.33	0.29	0.26	0.32	0.29	0.26	0.31	0.28	0.26	0.25
6	0.31	0.27	0.24	0.30	0.26	0.24	0.30	0.26	0.23	0.29	0.26	0.23	0.28	0.25	0.23	0.22
7	0.28	0.24	0.21	0.28	0.24	0.21	0.27	0.23	0.21	0.26	0.23	0.21	0.26	0.23	0.21	0.20
8	0.26	0.22	0.19	0.25	0.22	0.19	0.25	0.21	0.19	0.24	0.21	0.19	0.24	0.21	0.19	0.18
9	0.24	0.20	0.17	0.23	0.20	0.17	0.23	0.19	0.17	0.22	0.19	0.17	0.22	0.19	0.17	0.16
10	0.22	0.18	0.16	0.22	0.18	0.16	0.21	0.18	0.15	0.21	0.18	0.15	0.20	0.17	0.15	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	231.65	231.65	231.44	231.23	230.81	230.39	229.80	229.28	228.54
30.0	234.40	234.40	234.35	234.14	233.93	233.56	233.13	232.50	231.87
60.0	233.35	233.29	233.19	232.92	232.66	232.24	231.71	231.13	230.44
90.0	232.34	232.45	232.39	232.18	231.92	231.65	231.18	230.65	230.07
120.0	232.18	232.08	231.97	231.76	231.50	231.13	230.60	230.07	229.38
150.0	231.76	231.81	231.76	231.60	231.39	231.07	230.65	230.17	229.54
180.0	231.65	231.65	231.55	231.39	231.07	230.65	230.17	229.70	229.06
210.0	234.40	234.24	234.09	233.82	233.40	233.03	232.39	231.87	231.13
240.0	233.35	233.24	233.08	232.87	232.50	232.08	231.39	230.97	230.12
270.0	232.34	232.39	232.08	231.87	231.34	230.91	230.39	229.75	229.06
300.0	232.18	232.08	231.81	231.55	231.18	230.81	230.23	229.54	228.80
330.0	231.76	231.60	231.34	231.07	230.70	230.28	229.70	228.96	228.22
360.0	231.65	231.65	231.44	231.23	230.81	230.39	229.80	229.28	228.54
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	227.74	226.90	225.89	224.89	223.73	222.56	221.24	219.87	218.23
30.0	231.07	230.33	229.38	228.54	227.43	226.16	224.99	223.62	222.25
60.0	229.75	228.80	227.95	226.84	225.73	224.57	223.30	221.98	220.40
90.0	229.38	228.64	227.80	226.74	225.63	224.57	223.30	222.14	220.66
120.0	228.69	227.85	227.00	225.95	224.89	223.67	222.35	221.08	219.55
150.0	228.96	228.06	227.37	226.47	225.42	224.25	223.04	221.82	220.40
180.0	228.32	227.58	226.58	225.58	224.62	223.51	222.30	221.03	219.60
210.0	230.39	229.54	228.48	227.48	226.26	225.15	223.78	222.25	220.71
240.0	229.43	228.54	227.58	226.63	225.52	224.20	223.04	221.51	219.92
270.0	228.22	227.21	226.26	225.21	224.20	222.83	221.61	220.03	218.34
300.0	228.01	227.16	226.26	225.26	224.15	222.88	221.72	220.24	218.44
330.0	227.53	226.53	225.58	224.52	223.46	222.14	220.71	219.34	217.60
360.0	227.74	226.90	225.89	224.89	223.73	222.56	221.24	219.87	218.23
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	216.49	214.64	212.84	210.62	208.56	206.07	203.59	201.16	198.30
30.0	220.66	219.08	217.17	215.11	212.89	210.88	208.35	206.07	203.48
60.0	218.71	216.80	214.95	212.79	210.83	208.29	206.02	203.38	200.74
90.0	219.02	217.38	215.43	213.63	211.46	209.51	206.97	204.33	201.69
120.0	218.02	216.17	214.16	212.26	209.83	207.50	205.23	202.74	200.42
150.0	219.02	217.23	215.38	213.68	211.46	209.46	207.08	204.86	202.22
180.0	217.91	216.01	214.27	212.20	210.09	207.82	205.23	203.01	200.31
210.0	218.86	217.01	215.01	212.79	210.62	208.19	205.86	203.27	200.47
240.0	218.28	216.38	214.48	212.31	210.14	207.66	205.12	202.74	199.84
270.0	216.70	214.69	212.57	210.46	208.08	205.86	203.27	200.52	197.99
300.0	216.80	215.01	212.94	210.94	208.82	206.39	203.80	201.37	198.57
330.0	215.90	213.90	211.73	209.72	207.34	204.81	202.53	199.89	197.35
360.0	216.49	214.64	212.84	210.62	208.56	206.07	203.59	201.16	198.30
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	195.82	192.86	190.16	186.99	183.77	180.44	177.37	174.20	170.61
30.0	200.95	198.09	195.08	192.38	189.21	186.31	182.98	179.59	176.48
60.0	198.30	195.34	192.60	189.42	186.20	183.24	179.81	176.32	173.04
90.0	199.26	196.72	193.76	191.06	188.00	184.72	181.34	178.33	174.84
120.0	197.56	194.66	191.91	188.74	185.88	182.66	179.59	176.16	172.62
150.0	199.52	196.77	194.18	191.17	188.42	185.30	182.50	179.12	175.68
180.0	197.93	195.03	192.38	189.27	186.10	182.87	179.86	176.42	173.36
210.0	197.88	194.92	191.80	188.95	185.78	182.77	179.28	175.84	172.62
240.0	197.35	194.34	191.27	188.47	185.09	181.87	178.80	175.68	172.19
270.0	195.03	192.33	189.21	186.41	183.03	179.65	176.16	172.93	169.29
300.0	195.61	192.86	189.74	186.99	183.72	180.28	176.85	173.73	170.24
330.0	194.39	191.38	188.68	185.51	182.50	179.22	176.16	172.62	168.92
360.0	195.82	192.86	190.16	186.99	183.77	180.44	177.37	174.20	170.61

## 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	167.39	164.11	160.25	156.39	152.85	148.78	145.08	140.96	136.68
30.0	172.83	169.08	165.69	161.78	158.29	154.28	150.16	146.35	142.02
60.0	169.39	166.12	162.36	158.93	154.96	150.68	146.98	142.70	138.42
90.0	171.67	168.02	164.21	160.94	157.08	153.43	149.36	145.72	141.54
120.0	169.02	165.85	162.52	158.77	154.75	151.16	147.04	142.91	139.16
150.0	172.56	169.02	165.75	161.94	158.24	154.75	150.74	146.61	142.97
180.0	169.76	166.54	162.95	159.19	155.70	151.69	148.04	143.92	139.69
210.0	168.97	165.54	161.68	158.24	154.17	150.10	145.98	142.12	138.26
240.0	168.81	165.43	161.84	158.03	154.59	150.68	147.09	142.97	138.69
270.0	165.91	162.05	158.66	154.70	150.58	146.88	142.65	138.84	134.46
300.0	167.33	163.42	159.83	155.92	152.27	148.36	144.29	140.80	136.52
330.0	165.17	161.73	158.35	154.33	150.21	146.51	142.23	137.84	133.93
360.0	167.39	164.11	160.25	156.39	152.85	148.78	145.08	140.96	136.68
C/γ(°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0
0.0	132.71	128.27	124.15	119.50	115.33	110.57	105.81	101.05	96.83
30.0	138.10	133.72	129.70	125.05	120.45	115.80	111.52	107.29	102.48
60.0	134.40	129.97	126.05	121.56	117.49	112.79	108.14	103.43	99.10
90.0	137.26	132.98	129.07	124.68	120.61	115.96	111.94	107.29	102.75
120.0	134.77	130.92	126.58	122.09	118.18	113.58	109.46	104.86	100.63
150.0	138.74	134.93	130.55	126.21	122.14	117.65	113.58	108.88	104.70
180.0	135.83	131.50	127.22	123.31	118.87	114.85	110.20	105.49	101.27
210.0	133.88	129.38	125.37	120.87	116.22	112.00	107.24	103.06	98.25
240.0	134.30	130.44	126.42	121.93	117.39	113.21	108.51	103.91	99.79
270.0	130.18	126.16	121.67	117.12	113.05	108.93	104.33	99.68	94.98
300.0	132.24	128.27	123.73	119.13	115.01	110.41	106.34	101.64	97.09
330.0	129.49	125.47	120.87	116.28	112.05	107.34	103.22	98.36	94.13
360.0	132.71	128.27	124.15	119.50	115.33	110.57	105.81	101.05	96.83
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	92.12	87.79	82.87	78.54	73.62	68.71	64.48	59.78	55.65
30.0	97.57	93.29	88.42	83.56	79.23	74.31	70.03	65.43	60.41
60.0	94.34	90.11	85.25	80.97	76.16	71.46	67.23	62.58	58.35
90.0	98.52	93.87	89.69	84.93	80.23	76.06	71.30	66.65	62.47
120.0	95.88	91.07	86.20	81.92	77.22	73.04	68.39	64.27	59.51
150.0	100.05	95.29	90.48	86.20	81.87	77.06	72.20	67.86	63.05
180.0	96.51	92.18	87.37	83.03	78.22	73.47	68.55	64.22	59.88
210.0	93.39	89.00	84.14	79.76	74.89	70.56	65.59	60.68	55.81
240.0	95.03	90.85	85.94	81.18	76.85	71.93	67.65	62.89	58.72
270.0	90.80	85.99	81.82	77.11	72.94	68.23	63.58	58.98	54.91
300.0	93.02	88.37	84.09	79.39	74.89	70.45	65.80	61.05	56.92
330.0	89.32	84.46	79.70	75.42	70.56	66.33	61.57	57.40	52.85
360.0	92.12	87.79	82.87	78.54	73.62	68.71	64.48	59.78	55.65
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	51.27	46.88	43.13	39.01	34.94	31.50	28.28	24.89	21.83
30.0	56.29	51.74	47.73	43.39	39.59	35.52	31.61	28.01	25.00
60.0	53.65	49.63	45.14	40.80	36.57	33.03	29.33	26.22	23.04
90.0	58.35	53.65	49.21	44.77	40.96	36.68	33.03	29.17	25.95
120.0	54.86	50.84	46.30	42.28	38.00	33.88	29.91	26.69	23.31
150.0	58.19	53.96	49.36	45.35	40.80	36.52	32.82	28.91	25.69
180.0	54.91	50.10	45.40	41.33	37.00	33.24	29.33	26.11	22.94
210.0	51.74	46.99	42.92	38.53	34.78	30.71	27.01	24.00	20.98
240.0	54.12	49.68	45.35	41.54	37.31	33.61	29.76	26.06	23.10
270.0	50.53	46.51	42.07	38.37	34.25	30.81	27.17	23.78	20.72
300.0	52.54	48.68	44.34	40.59	36.47	32.50	29.12	25.58	22.73
330.0	48.36	44.40	40.22	36.57	32.66	29.07	25.63	22.83	19.98
360.0	51.27	46.88	43.13	39.01	34.94	31.50	28.28	24.89	21.83

## 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	19.13	17.07	15.12	13.85	12.79	11.89	10.83	9.78	8.83
30.0	21.93	19.45	17.07	15.27	13.79	12.74	11.79	10.68	9.78
60.0	20.40	17.76	15.64	14.27	13.16	12.16	11.05	9.99	8.93
90.0	22.62	19.66	17.23	15.54	14.22	13.05	11.94	10.99	9.88
120.0	20.61	18.29	16.01	14.53	13.37	12.26	11.15	10.15	9.04
150.0	22.30	19.77	17.34	15.59	14.27	13.21	12.00	10.99	9.78
180.0	20.08	17.92	15.91	14.53	13.32	12.26	11.05	9.99	8.93
210.0	18.60	16.44	14.90	13.85	12.63	11.57	10.41	9.35	8.30
240.0	20.14	17.86	15.80	14.59	13.37	12.31	11.10	10.15	9.04
270.0	18.39	16.44	14.69	13.48	12.42	11.42	10.25	9.30	8.30
300.0	19.82	17.28	15.27	14.06	13.05	12.05	11.05	9.99	8.88
330.0	17.76	15.86	14.27	13.11	12.00	11.05	10.04	9.04	8.09
360.0	19.13	17.07	15.12	13.85	12.79	11.89	10.83	9.78	8.83
C/ $\gamma$ (°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	7.93	6.92	6.08	5.18	4.33	3.54	2.70	2.06	1.27
30.0	8.77	7.72	6.87	5.92	4.97	4.23	3.38	2.54	1.80
60.0	8.09	7.19	6.29	5.29	4.49	3.70	2.85	2.17	1.32
90.0	8.83	7.82	6.92	5.87	5.02	4.12	3.33	2.54	1.74
120.0	8.03	7.14	6.18	5.29	4.33	3.54	2.70	1.96	1.11
150.0	8.83	7.88	6.82	5.92	4.97	4.12	3.33	2.38	1.64
180.0	7.93	7.03	6.13	5.18	4.33	3.54	2.70	1.90	1.00
210.0	7.40	6.45	5.44	4.60	3.81	2.96	2.11	1.16	0.85
240.0	8.14	7.08	6.13	5.23	4.39	3.54	2.70	1.85	1.00
270.0	7.29	6.40	5.50	4.65	3.81	2.96	2.17	1.43	0.85
300.0	7.88	6.98	6.08	5.07	4.33	3.49	2.70	1.85	1.16
330.0	7.19	6.29	5.39	4.60	3.75	2.91	2.11	1.43	0.90
360.0	7.93	6.92	6.08	5.18	4.33	3.54	2.70	2.06	1.27
C/ $\gamma$ (°)	90.0								
0.0	0.85								
30.0	1.11								
60.0	0.95								
90.0	0.95								
120.0	0.90								
150.0	0.95								
180.0	0.90								
210.0	0.85								
240.0	0.79								
270.0	0.85								
300.0	0.90								
330.0	0.85								
360.0	0.85								