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Nata

Client: NT

LumCAT: 1-1712-LM2

Luminaire: 92.70.481.00 LED HOLDER

Report No: 20251215-B007

Ballast type: DC

Test No: 20251215-C007

Voltage(V): 35.160

LampCAT: CITIZEN CLU028

Current(A): 0.364

Lamp flux(lm): 1652.6

Power (W): 12.790

Number of Lamps: 1

PF: 0.000

Length(mm): 50

Width(mm): 50

Phm Type: C

Height(mm): 22

Photometric Results

Lumens(lm): 1595.77, Efficiency(%): 96.56% , Luminous Efficacy(lm/W): 124.77

Central intensity(cd): 5013.468, Maximum intensity(cd): 5013.468

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=23.6

[C90/270]Total=23.6

Field angle(10%Imax): [C0/180]Total=71.0

[C90/270]Total=71.0

Maximum s/h(1/2): C0_180=0.41 C90_270=0.41

Maximum s/h(1/4): C0_180=0.40 C90_270=0.40

Up flux rate of lamp(%): 0.00%

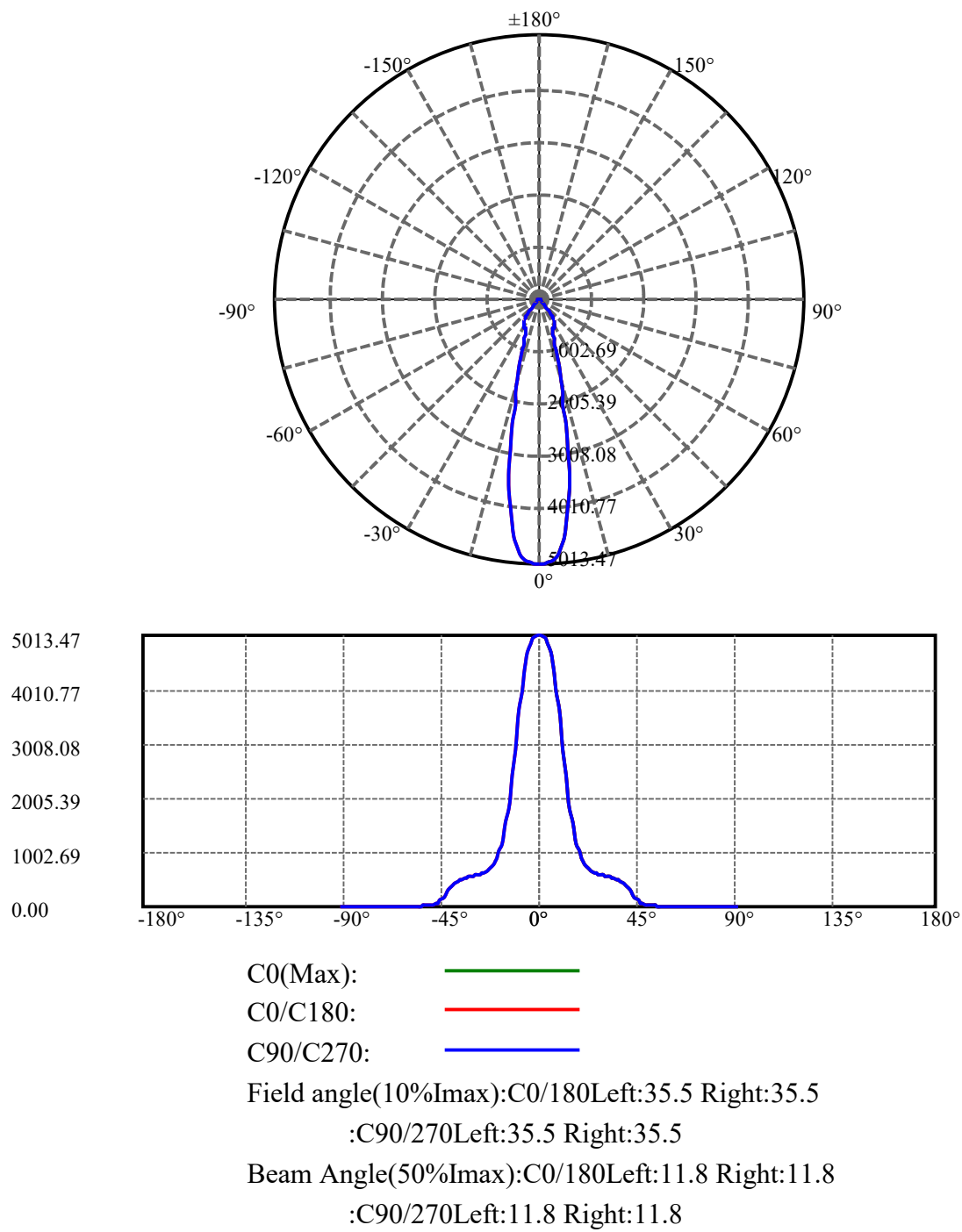
Down flux rate of lamp(%): 96.56%

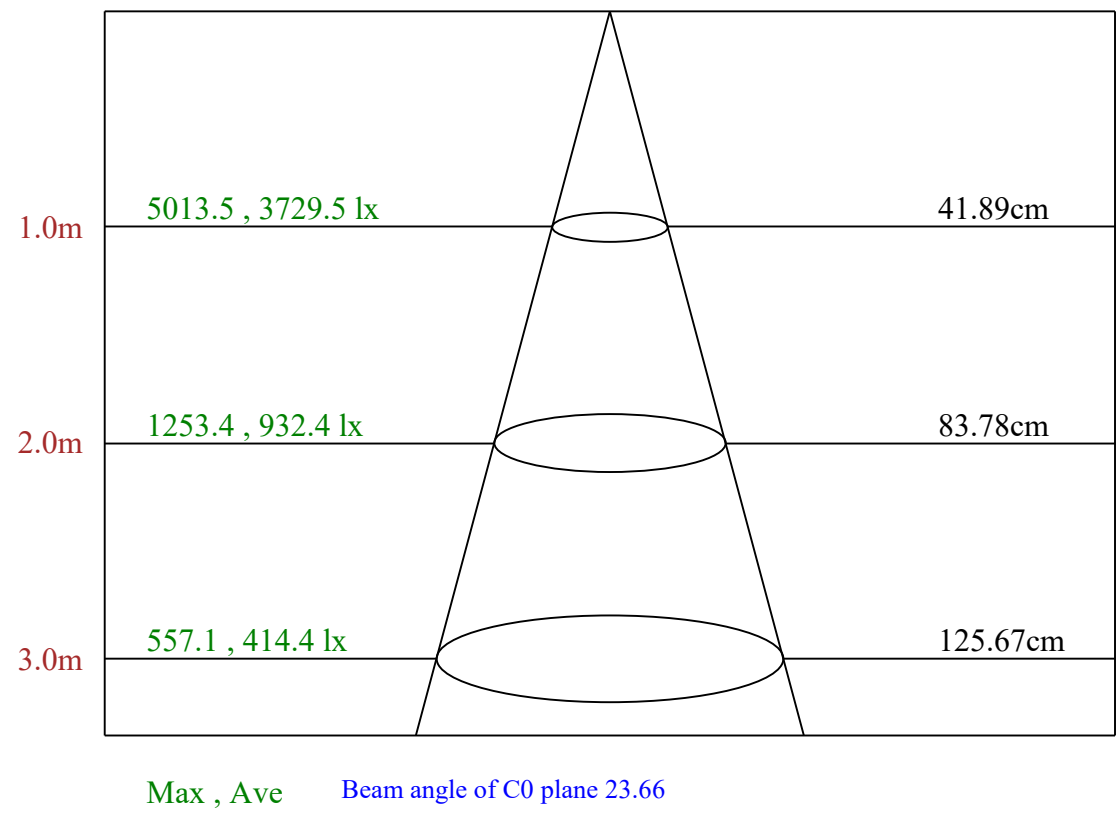
Up flux rate of LUM(%): - -

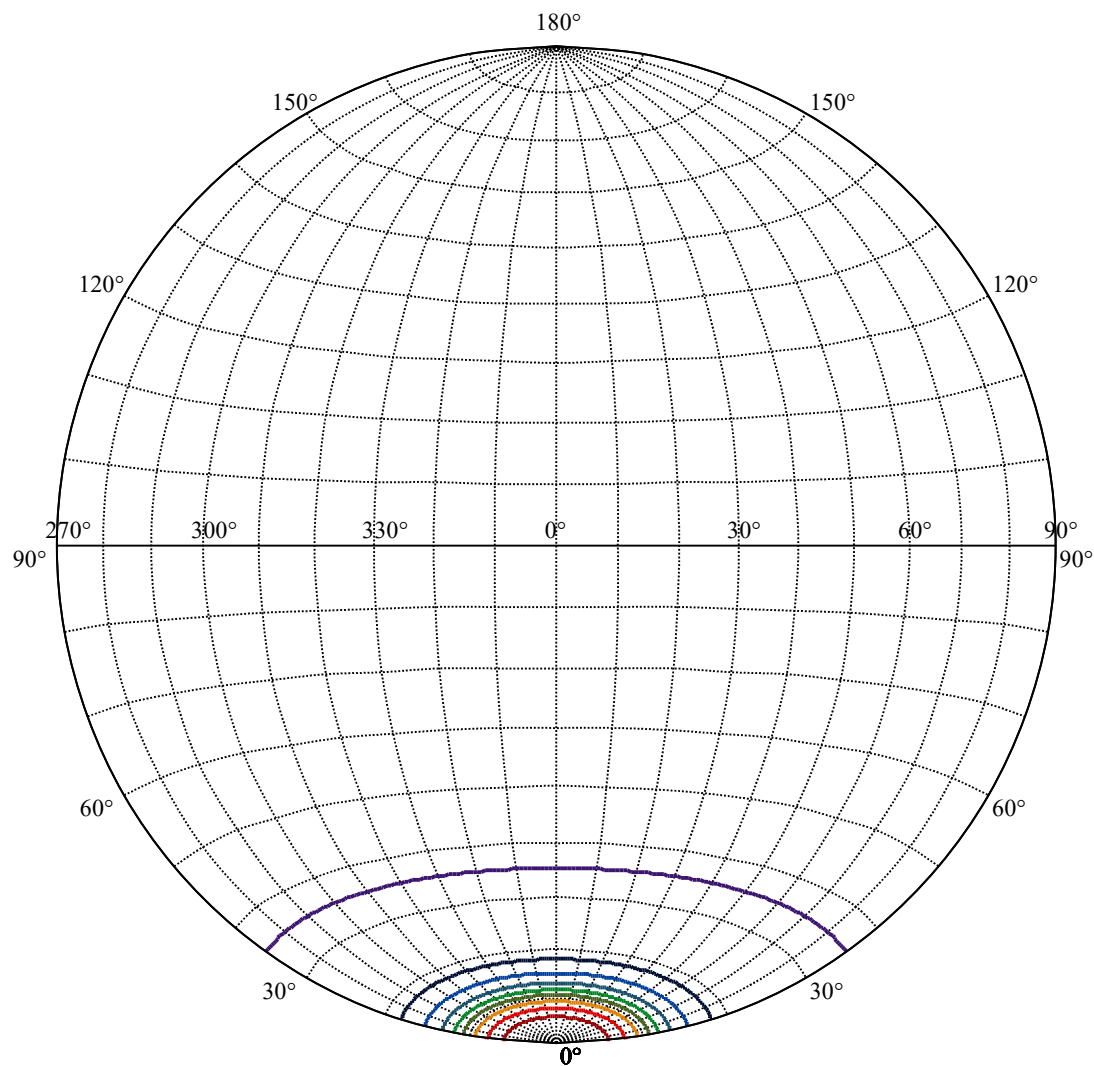
Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.062%







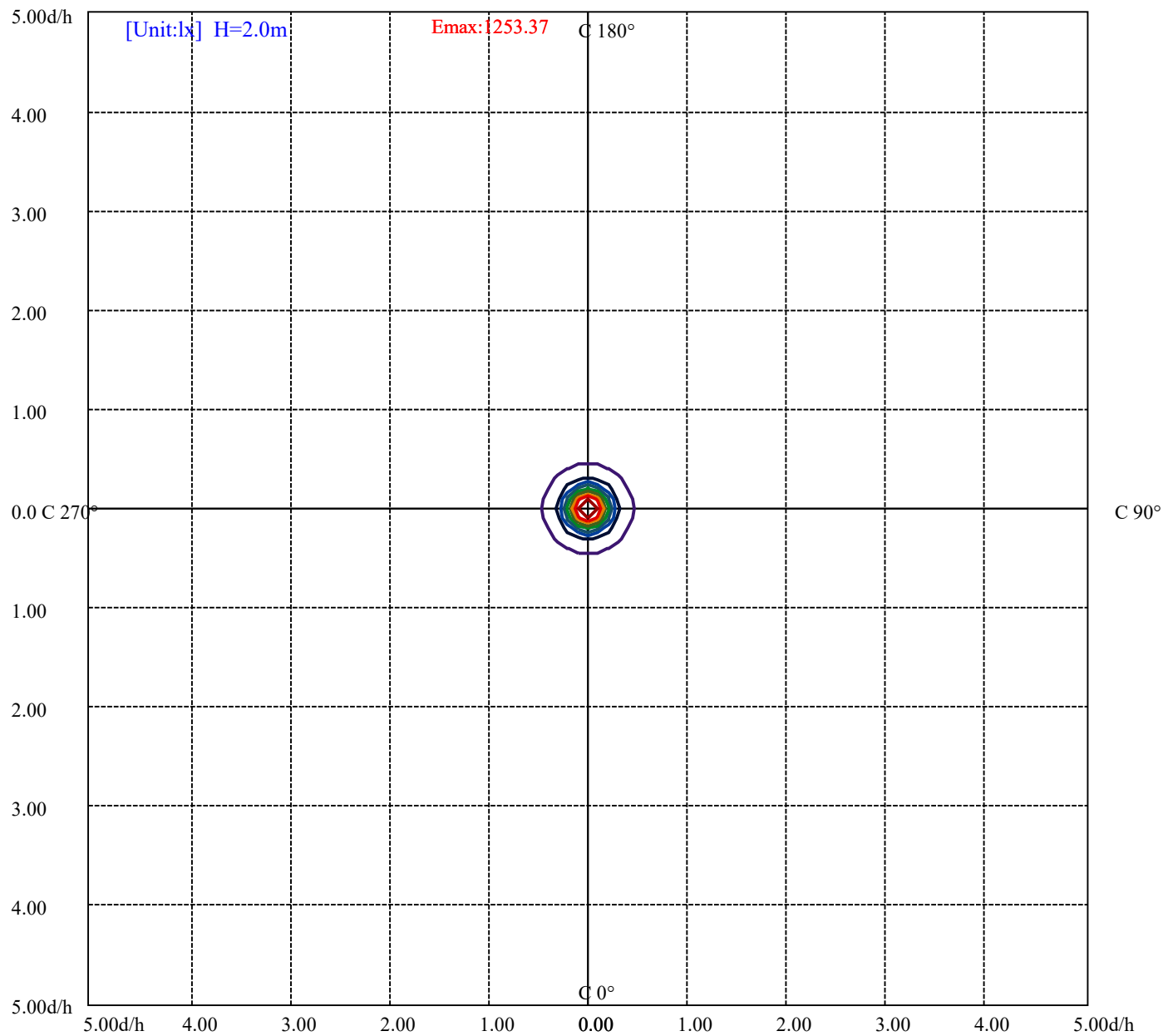
House

[Unit:cd]

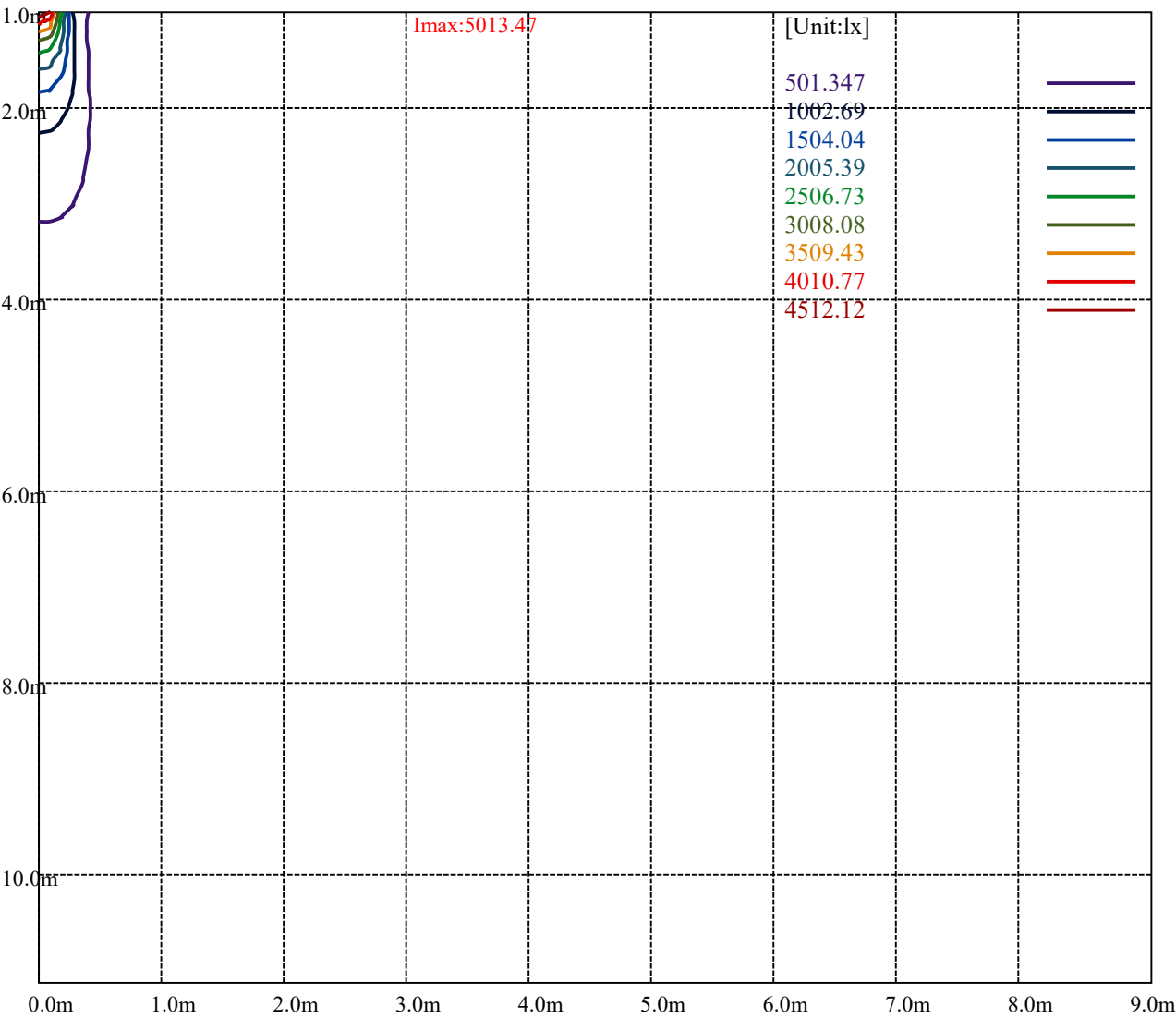
Road

Imax:5013.47

(10%Imax)	501.347	—
(20%Imax)	1002.69	—
(30%Imax)	1504.04	—
(40%Imax)	2005.39	—
(50%Imax)	2506.73	—
(60%Imax)	3008.08	—
(70%Imax)	3509.43	—
(80%Imax)	4010.77	—
(90%Imax)	4512.12	—



(10%Emax)	125.3367	
(20%Emax)	250.6725	
(30%Emax)	376.01	
(40%Emax)	501.3475	
(50%Emax)	626.6825	
(60%Emax)	752.02	
(70%Emax)	877.3575	
(80%Emax)	1002.693	
(90%Emax)	1128.03	



Luminance Table

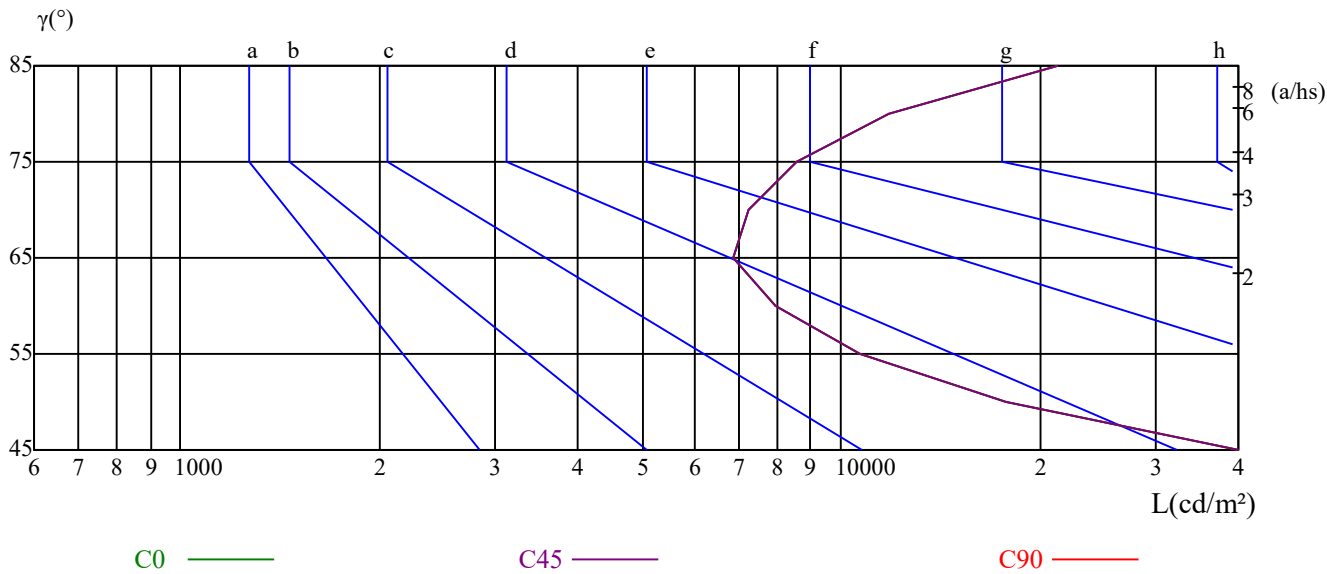
γ	45	50	55	60	65	70	75	80	85
C0	77667	17806	10705	7974	6868	7227	8585	11786	21348
C45	77667	17806	10705	7974	6868	7227	8585	11786	21348
C90	77667	17806	10705	7974	6868	7227	8585	11786	21348

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
6868	6868	6868	8585	8585	8585	21348	21348	21348

Glare Table

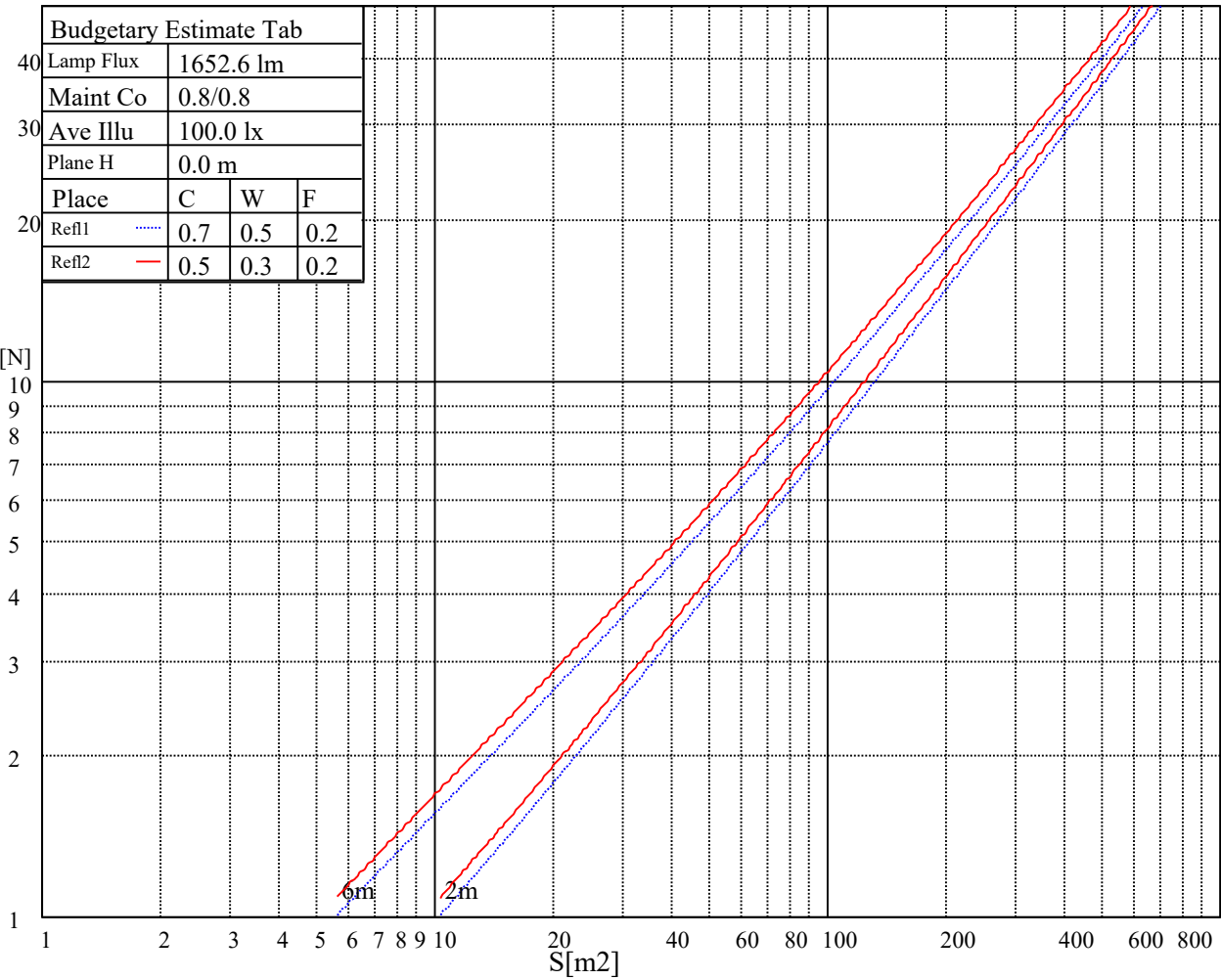
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve

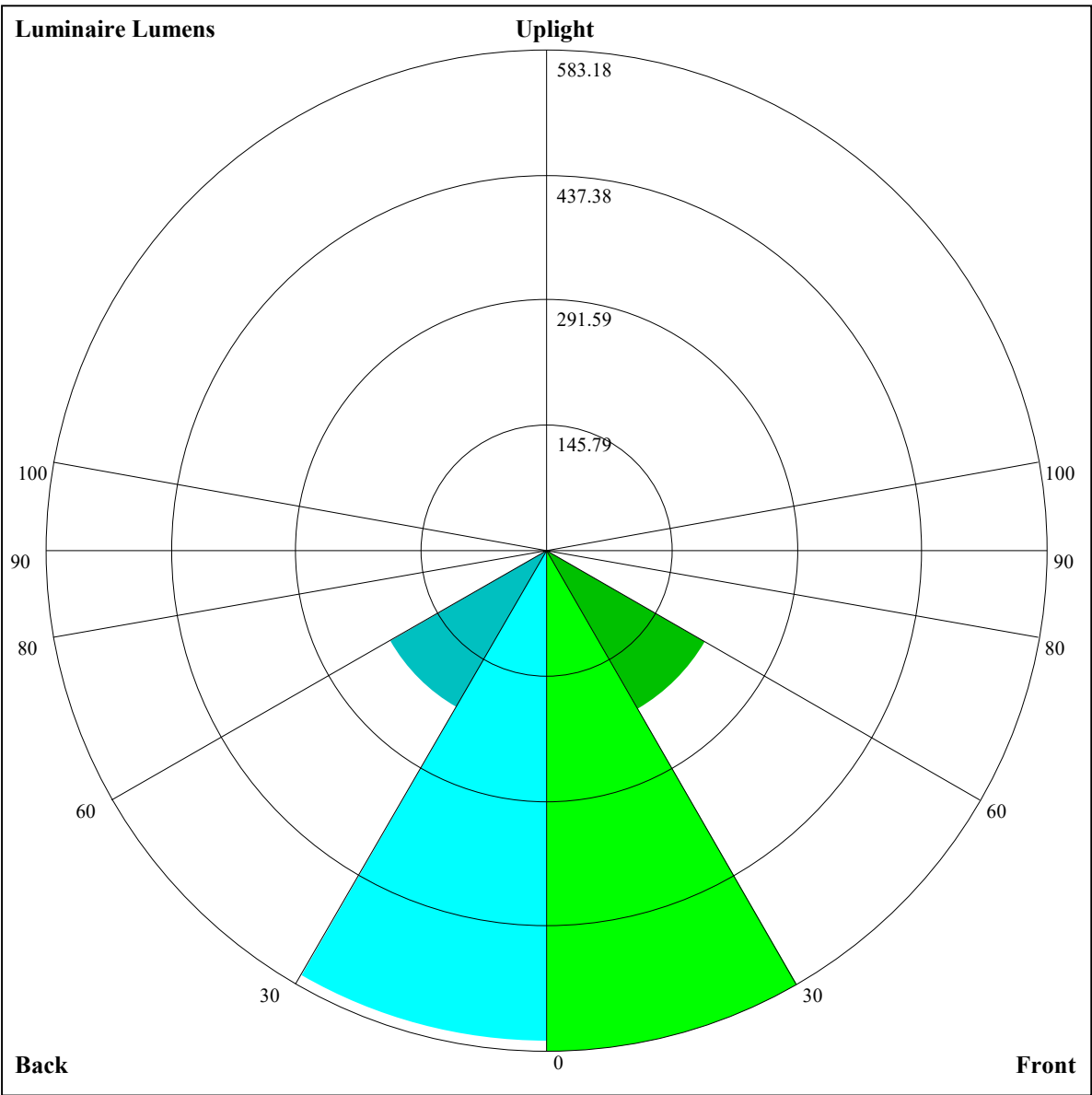


Illumination assessment according UGR											
Rf of Ceiling		70	70	50	50	30	70	70	50	50	30
Rf of Wall		50	30	50	30	30	50	30	50	30	30
Rf of Floor		20	20	20	20	20	20	20	20	20	20
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	24.25	25.25	24.62	25.56	25.87	23.89	24.89	24.26	25.20	25.51
	3H	24.07	24.95	24.46	25.29	25.63	23.71	24.59	24.10	24.93	25.28
	4H	23.99	24.80	24.39	25.16	25.52	23.64	24.45	24.04	24.80	25.17
	6H	23.94	24.68	24.36	25.06	25.46	23.59	24.33	24.01	24.71	25.11
	8H	23.90	24.61	24.32	24.99	25.40	23.55	24.26	23.98	24.65	25.06
	12H	23.88	24.55	24.31	24.94	25.36	23.54	24.21	23.96	24.60	25.02
4H	2H	23.96	24.77	24.36	25.12	25.49	23.60	24.41	24.00	24.76	25.13
	3H	23.75	24.42	24.17	24.82	25.24	23.39	24.07	23.82	24.47	24.88
	4H	23.71	24.29	24.15	24.72	25.16	23.36	23.94	23.80	24.37	24.82
	6H	23.63	24.15	24.11	24.60	25.05	23.30	23.81	23.77	24.26	24.72
	8H	23.63	24.11	24.12	24.57	25.05	23.30	23.78	23.79	24.24	24.71
	12H	23.68	24.12	24.17	24.57	25.09	23.35	23.79	23.84	24.24	24.76
8H	4H	23.53	24.00	24.01	24.46	24.94	23.18	23.66	23.67	24.12	24.59
	6H	23.47	23.86	23.98	24.34	24.85	23.14	23.53	23.65	24.01	24.52
	8H	23.55	23.88	24.09	24.40	24.90	23.23	23.56	23.76	24.08	24.58
	12H	23.66	23.92	24.20	24.43	24.96	23.34	23.60	23.88	24.11	24.64
12H	4H	23.48	23.92	23.97	24.37	24.89	23.14	23.58	23.63	24.03	24.55
	6H	23.47	23.80	24.01	24.33	24.82	23.15	23.48	23.68	24.00	24.50
	8H	23.54	23.79	24.08	24.31	24.83	23.22	23.47	23.76	23.99	24.51
Variation with the observer position at spacings:											
S = 1.0H		3.7/-11.0					3.7/-11.0				
S = 1.5H		5.8/-9.8					5.8/-9.8				
S = 2.0H		7.7/-8.7					7.7/-8.7				
Standard tables:		BK0					BK0				
Uncorrected UGR		5.0					5.0				

UGR calculation is based on CIE Publ. 117 ,S/H = 0.25



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	COEFFCIENTS OF UTILIZATION RHOFC=20 CU															
0	1.15	1.15	1.15	1.12	1.12	1.12	1.07	1.07	1.07	1.03	1.03	1.03	0.99	0.99	0.99	0.97
1	1.07	1.05	1.03	1.05	1.03	1.02	1.02	1.00	0.98	0.98	0.97	0.96	0.95	0.94	0.93	0.91
2	1.01	0.97	0.94	0.99	0.96	0.93	0.96	0.93	0.91	0.93	0.91	0.89	0.91	0.89	0.87	0.86
3	0.95	0.90	0.87	0.93	0.89	0.86	0.91	0.88	0.85	0.89	0.86	0.84	0.87	0.84	0.82	0.81
4	0.89	0.85	0.81	0.88	0.84	0.80	0.86	0.83	0.80	0.85	0.81	0.79	0.83	0.80	0.78	0.76
5	0.85	0.80	0.76	0.84	0.79	0.76	0.82	0.78	0.75	0.81	0.77	0.74	0.79	0.76	0.74	0.72
6	0.80	0.75	0.72	0.80	0.75	0.71	0.78	0.74	0.71	0.77	0.73	0.70	0.76	0.72	0.70	0.69
7	0.77	0.71	0.68	0.76	0.71	0.68	0.75	0.70	0.67	0.74	0.70	0.67	0.73	0.69	0.67	0.65
8	0.73	0.68	0.64	0.73	0.68	0.64	0.72	0.67	0.64	0.71	0.67	0.64	0.70	0.66	0.63	0.62
9	0.70	0.65	0.61	0.69	0.65	0.61	0.69	0.64	0.61	0.68	0.64	0.61	0.67	0.63	0.61	0.60
10	0.67	0.62	0.59	0.67	0.62	0.59	0.66	0.62	0.59	0.65	0.61	0.58	0.65	0.61	0.58	0.57



Luminaire Lumens:

FL=583.18,FM=212.26,FH=5.41,FVH=2.07

BL=571.97,BM=210.44,BH=5.57,BVH=2.05

UL=0,UH=0

BUG Rating:B2-U0-G0

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	4991.51	4985.48	4992.37	4978.59	4925.20	4797.74	4638.42	4429.16	4096.74
45.0	5026.82	4999.26	4978.59	4968.26	4932.95	4866.64	4752.10	4584.17	4290.50
90.0	5007.01	4982.04	4950.17	4895.06	4775.35	4628.09	4430.88	4114.82	3815.13
135.0	5028.54	5009.59	4995.81	4963.95	4904.53	4807.22	4623.78	4430.02	4132.91
180.0	4991.51	4999.26	4983.76	4926.92	4800.33	4653.92	4464.46	4163.91	3879.72
225.0	5026.82	5019.93	4969.12	4877.83	4738.32	4500.63	4260.36	3978.76	3659.26
270.0	5007.01	5038.01	5050.93	5027.68	4945.00	4830.47	4670.29	4464.46	4142.38
315.0	5028.54	5032.85	4995.81	4926.92	4814.10	4648.76	4379.21	4107.07	3794.46
360.0	4991.51	4985.48	4992.37	4978.59	4925.20	4797.74	4638.42	4429.16	4096.74
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	3787.57	3460.32	3032.31	2688.70	2014.40	1655.71	1655.71	1413.55	1221.59
45.0	4004.59	3691.98	3363.87	2950.50	2620.67	2289.11	1895.55	1612.22	1371.95
90.0	3498.22	3083.99	2746.40	2410.54	1703.77	1703.77	1449.11	1244.67	1090.43
135.0	3847.86	3542.14	3217.47	2795.49	2454.46	2119.46	1810.29	1484.77	1278.08
180.0	3478.41	3133.07	2779.99	2432.07	2013.53	1714.70	1463.24	1267.75	1088.62
225.0	3311.34	2868.69	2517.33	1706.69	1706.69	1515.60	1309.43	1111.44	994.58
270.0	3840.97	3506.83	3059.01	2701.62	2258.97	1927.42	1643.23	1360.76	1186.80
315.0	3367.32	3011.65	2569.86	1680.43	1680.43	1551.85	1336.47	1166.47	1034.80
360.0	3787.57	3460.32	3032.31	2688.70	2014.40	1655.71	1655.71	1413.55	1221.59
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1047.54	943.86	864.20	802.02	742.43	703.67	677.41	653.90	638.22
45.0	1145.46	1010.25	904.33	808.74	749.32	702.81	667.50	634.78	615.83
90.0	949.02	861.79	794.18	729.34	691.01	659.84	630.56	613.59	599.13
135.0	1125.65	1009.39	901.75	837.16	776.01	738.98	708.84	679.56	659.75
180.0	978.39	895.72	819.07	769.98	730.37	689.89	664.92	645.11	624.44
225.0	902.09	810.80	755.34	712.03	677.32	645.89	625.91	609.98	596.37
270.0	1047.29	940.50	840.60	776.87	725.20	684.73	645.11	621.00	601.19
315.0	912.17	840.86	780.66	733.38	689.89	663.11	641.58	625.39	611.18
360.0	1047.54	943.86	864.20	802.02	742.43	703.67	677.41	653.90	638.22
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	627.11	613.16	603.26	589.57	576.91	566.83	556.84	539.27	525.93
45.0	599.47	586.55	572.77	562.44	552.97	542.63	535.74	524.55	509.91
90.0	584.14	573.38	563.47	554.95	545.30	538.41	527.39	515.07	497.59
135.0	643.39	628.75	612.39	602.05	591.72	582.25	570.19	558.99	545.22
180.0	610.67	599.47	585.69	575.36	565.02	555.55	541.77	527.13	514.21
225.0	582.85	572.86	564.59	554.26	547.02	538.58	524.72	514.56	498.19
270.0	583.11	566.75	552.97	537.46	527.99	518.52	506.46	494.41	482.35
315.0	600.50	590.94	579.84	569.67	557.70	546.08	531.18	518.00	500.95
360.0	627.11	613.16	603.26	589.57	576.91	566.83	556.84	539.27	525.93
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	512.32	491.74	453.24	414.75	372.89	327.25	268.00	219.86	161.04
45.0	499.57	478.04	450.49	435.85	435.85	325.79	284.45	239.32	195.06
90.0	478.39	443.68	408.12	367.55	315.28	271.62	227.61	173.96	133.23
135.0	527.13	509.05	481.49	439.29	439.29	384.69	286.09	234.84	186.62
180.0	497.85	466.85	441.87	441.87	334.31	287.46	228.64	183.00	139.08
225.0	475.72	445.83	409.32	357.13	313.13	267.83	222.62	168.02	126.08
270.0	469.43	450.49	438.43	438.43	352.48	303.74	263.35	222.96	173.61
315.0	481.49	453.24	419.14	367.64	322.26	274.80	215.38	169.83	126.94
360.0	512.32	491.74	453.24	414.75	372.89	327.25	268.00	219.86	161.04

Intensity data(cd)

C/ γ (°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0
0.0	118.15	79.57	43.15	28.25	21.70	19.12	15.67	13.43	11.37
45.0	144.16	106.53	73.29	47.45	31.86	28.33	24.89	22.39	19.98
90.0	96.02	65.02	42.71	30.57	27.99	25.49	22.22	19.89	18.00
135.0	129.01	90.42	58.39	35.31	22.65	19.72	17.57	15.42	12.92
180.0	98.26	58.39	36.34	24.80	20.84	18.43	16.36	14.38	12.57
225.0	88.87	52.96	35.57	27.99	25.32	23.17	20.84	18.34	16.71
270.0	134.09	99.38	61.75	42.71	34.79	31.00	28.16	25.23	22.30
315.0	81.12	52.36	34.53	25.49	22.99	20.15	17.05	14.73	12.75
360.0	118.15	79.57	43.15	28.25	21.70	19.12	15.67	13.43	11.37
C/ γ (°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	9.82	8.35	7.75	7.49	7.32	7.06	6.72	6.46	6.20
45.0	17.40	15.59	14.30	13.18	11.63	10.42	9.39	8.35	7.41
90.0	15.59	13.95	12.06	11.02	9.90	8.96	8.01	7.49	6.72
135.0	11.02	9.73	8.70	8.27	8.01	7.58	7.32	7.15	6.89
180.0	10.76	9.82	9.21	8.87	8.44	8.10	7.84	7.58	7.32
225.0	15.16	13.78	12.40	11.37	10.42	9.73	8.61	8.10	7.49
270.0	20.24	18.08	16.19	14.55	12.40	11.02	9.65	8.87	8.18
315.0	11.20	10.16	9.39	8.78	8.10	7.49	7.06	6.63	6.29
360.0	9.82	8.35	7.75	7.49	7.32	7.06	6.72	6.46	6.20
C/ γ (°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	5.94	5.60	5.43	5.34	5.17	4.99	4.91	4.82	4.74
45.0	6.63	6.03	5.60	5.34	5.17	5.08	4.99	4.82	4.82
90.0	6.20	5.77	5.51	5.34	5.25	5.25	5.17	5.08	5.08
135.0	6.54	6.20	5.86	5.51	5.25	4.99	4.99	4.82	4.74
180.0	6.89	6.46	6.20	5.94	5.51	5.34	5.17	4.99	4.82
225.0	7.06	6.63	6.29	6.03	5.77	5.60	5.43	5.34	5.17
270.0	7.49	6.98	6.63	6.37	6.03	5.86	5.68	5.43	5.34
315.0	5.94	5.68	5.51	5.34	5.17	4.99	4.91	4.74	4.48
360.0	5.94	5.60	5.43	5.34	5.17	4.99	4.91	4.82	4.74
C/ γ (°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	4.65	4.65	4.56	4.56	4.48	4.39	4.39	4.31	4.31
45.0	4.74	4.65	4.48	4.48	4.39	4.31	4.22	4.22	4.13
90.0	4.99	4.91	4.82	4.82	4.74	4.65	4.48	4.39	4.31
135.0	4.56	4.48	4.39	4.31	4.22	4.22	4.22	4.13	4.05
180.0	4.65	4.48	4.48	4.39	4.31	4.22	4.22	4.13	4.05
225.0	4.99	4.91	4.82	4.65	4.56	4.48	4.39	4.31	4.22
270.0	5.08	4.91	4.82	4.65	4.56	4.56	4.48	4.31	4.22
315.0	4.31	4.31	4.22	4.13	4.13	4.05	3.96	3.88	3.88
360.0	4.65	4.65	4.56	4.56	4.48	4.39	4.39	4.31	4.31
C/ γ (°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	4.31	4.22	4.22	4.22	4.05	4.05	3.96	3.88	3.88
45.0	4.05	4.05	3.88	3.88	3.79	3.62	3.53	3.53	3.44
90.0	4.31	4.22	4.13	4.05	3.79	3.62	3.62	3.79	3.36
135.0	3.96	3.88	3.88	3.88	3.79	3.70	3.62	3.53	3.44
180.0	3.96	4.05	3.96	3.96	3.79	3.70	3.62	3.53	3.27
225.0	4.13	4.13	3.96	3.88	3.70	3.62	3.62	3.36	3.27
270.0	4.13	3.96	3.96	3.79	3.62	3.53	3.44	3.53	3.27
315.0	3.88	3.79	3.70	3.70	3.62	3.53	3.53	3.44	3.19
360.0	4.31	4.22	4.22	4.22	4.05	4.05	3.96	3.88	3.88

Intensity data(cd)

C/ γ (°)	90.0
0.0	3.79
45.0	3.27
90.0	3.27
135.0	3.27
180.0	3.19
225.0	3.27
270.0	3.27
315.0	3.27
360.0	3.79