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Nata

Client: NT

LumCAT: 2-3062-LM

Luminaire: 92.70.121.00 LED HOLDER

Report No: 20260122-B019

Ballast type: DC

Test No: 20260122-C019

Voltage(V): 36.950

LampCAT: CITIZEN CLU038 LES14.5

Current(A): 0.711

Lamp flux(lm): 3690.4

Power (W): 26.570

Number of Lamps: 1

PF: 0.000

Length(mm): 69

Width(mm): 69

Phm Type: C

Height(mm): 35

Photometric Results

Lumens(lm): 3574.03, Efficiency(%): 96.85% , Luminous Efficacy(lm/W): 134.51

Central intensity(cd): 4315.479, Maximum intensity(cd): 4317.524

Angle of maximum intensity: C=0.0 γ =1.0

Beam Angle(50%Imax): [C0/180]Total=55.4

[C90/270]Total=55.4

Field angle(10%Imax): [C0/180]Total=82.2

[C90/270]Total=82.2

Maximum s/h(1/2): C0_180=0.88 C90_270=0.88

Maximum s/h(1/4): C0_180=0.84 C90_270=0.84

Up flux rate of lamp(%): 0.00%

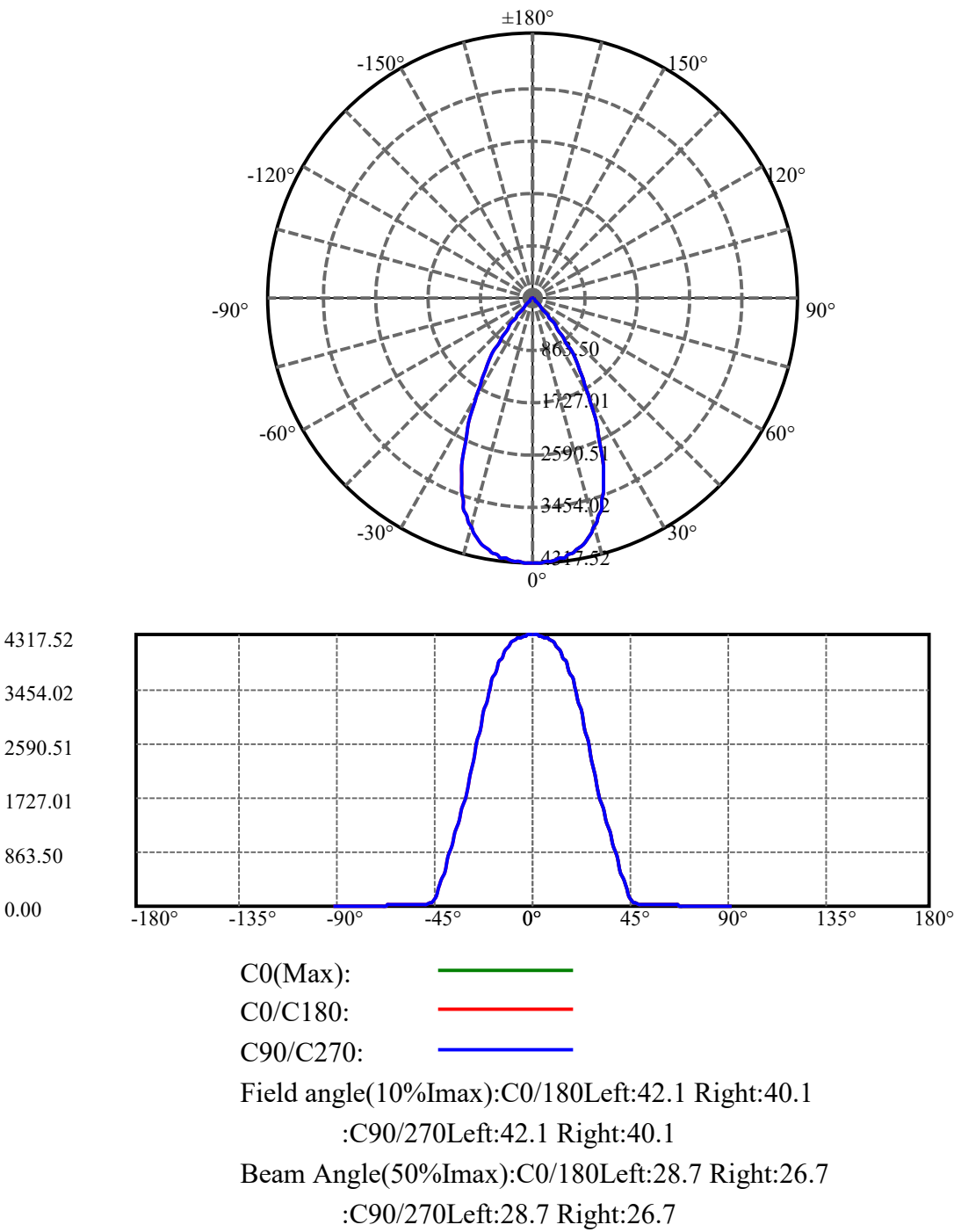
Down flux rate of lamp(%): 96.85%

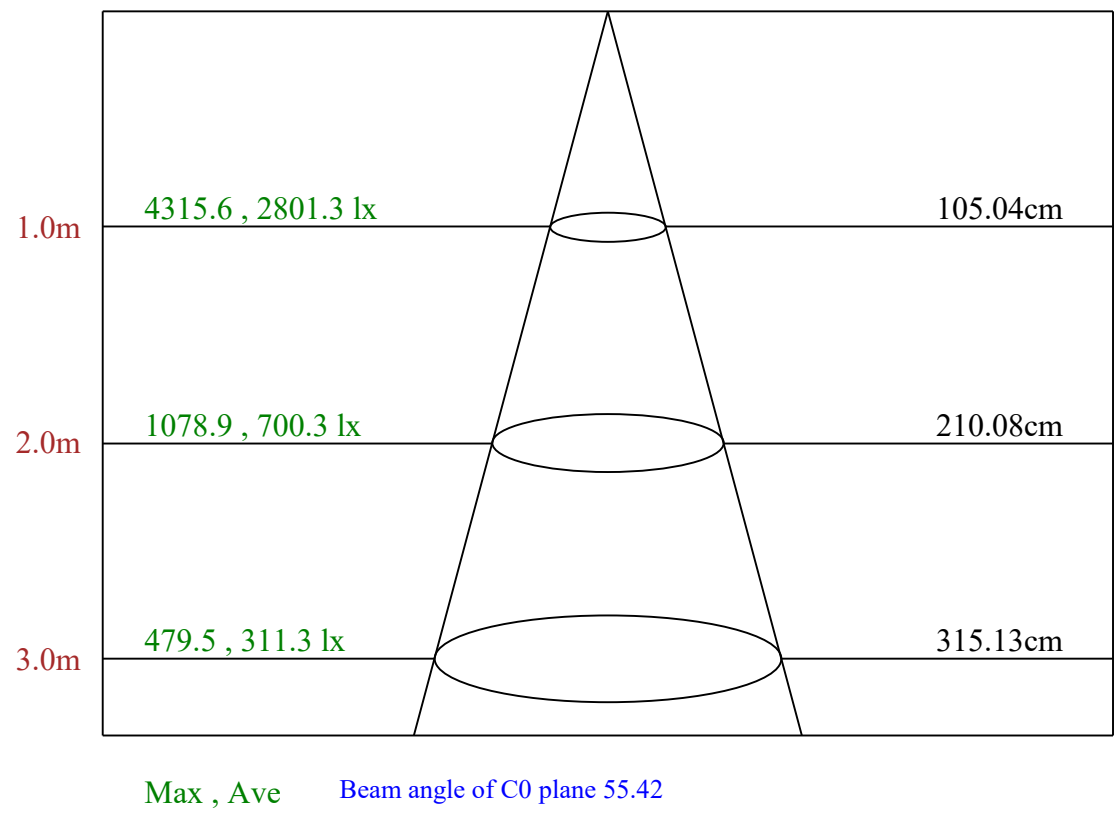
Up flux rate of LUM(%): - -

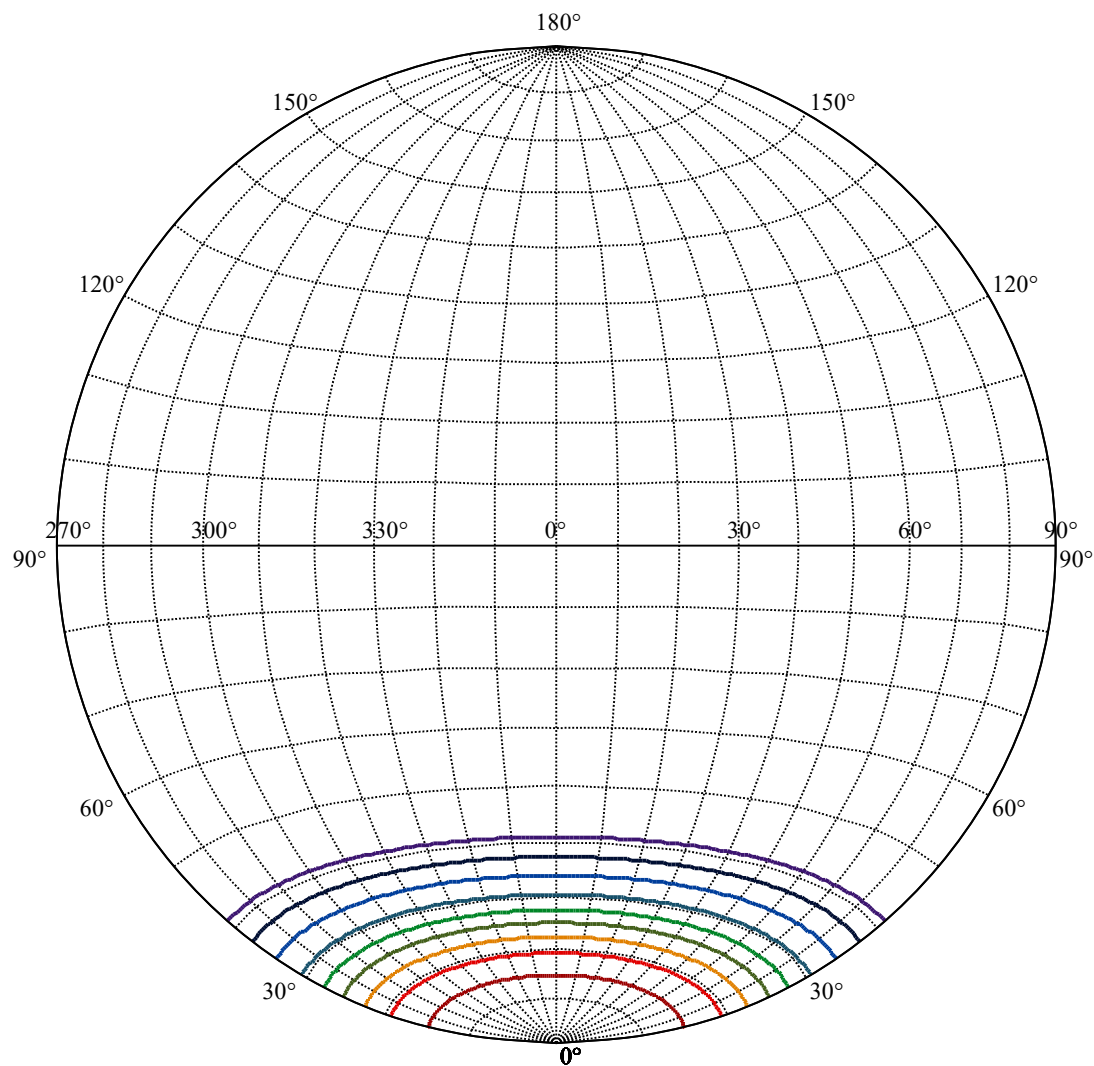
Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.048%





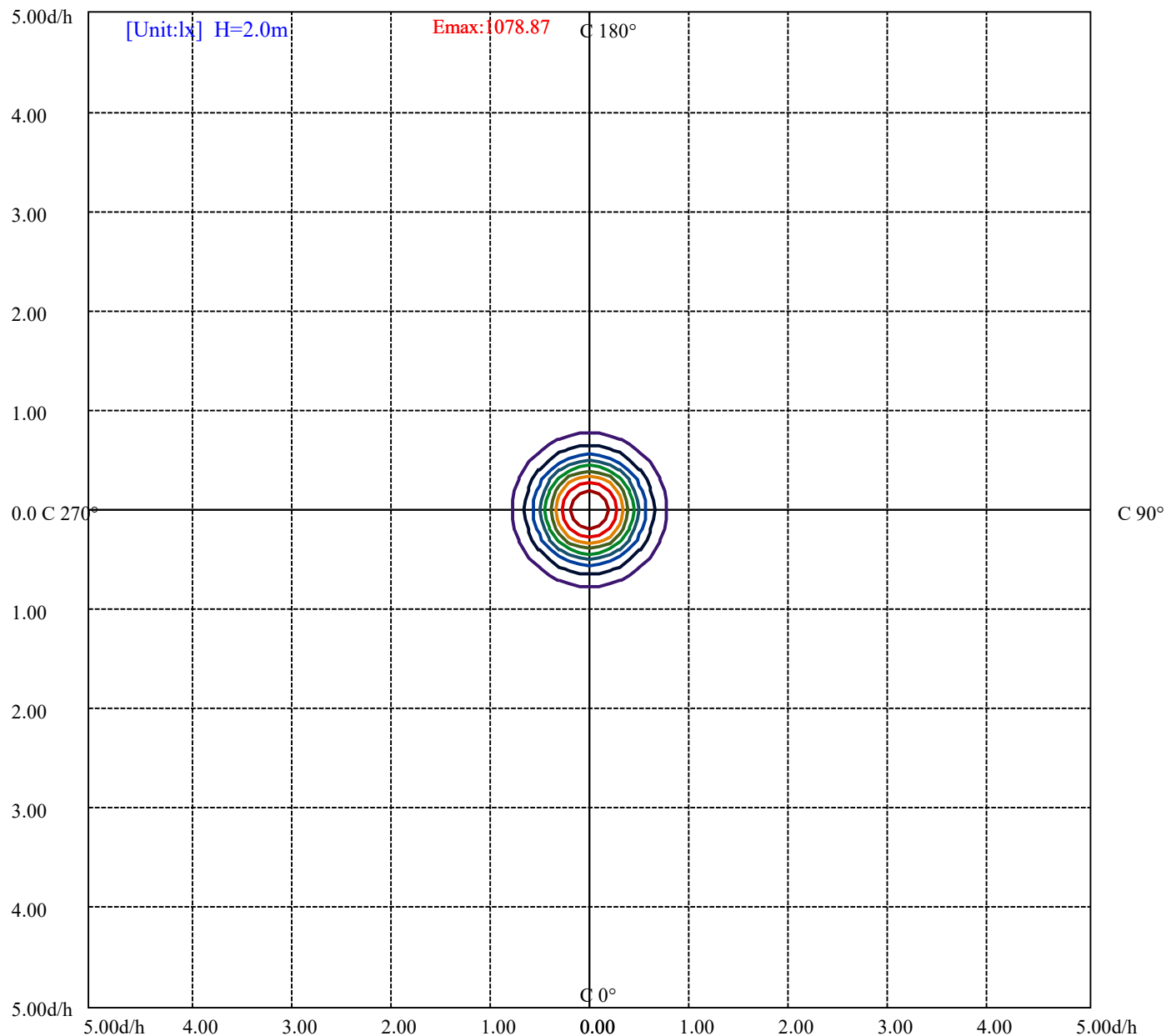


House

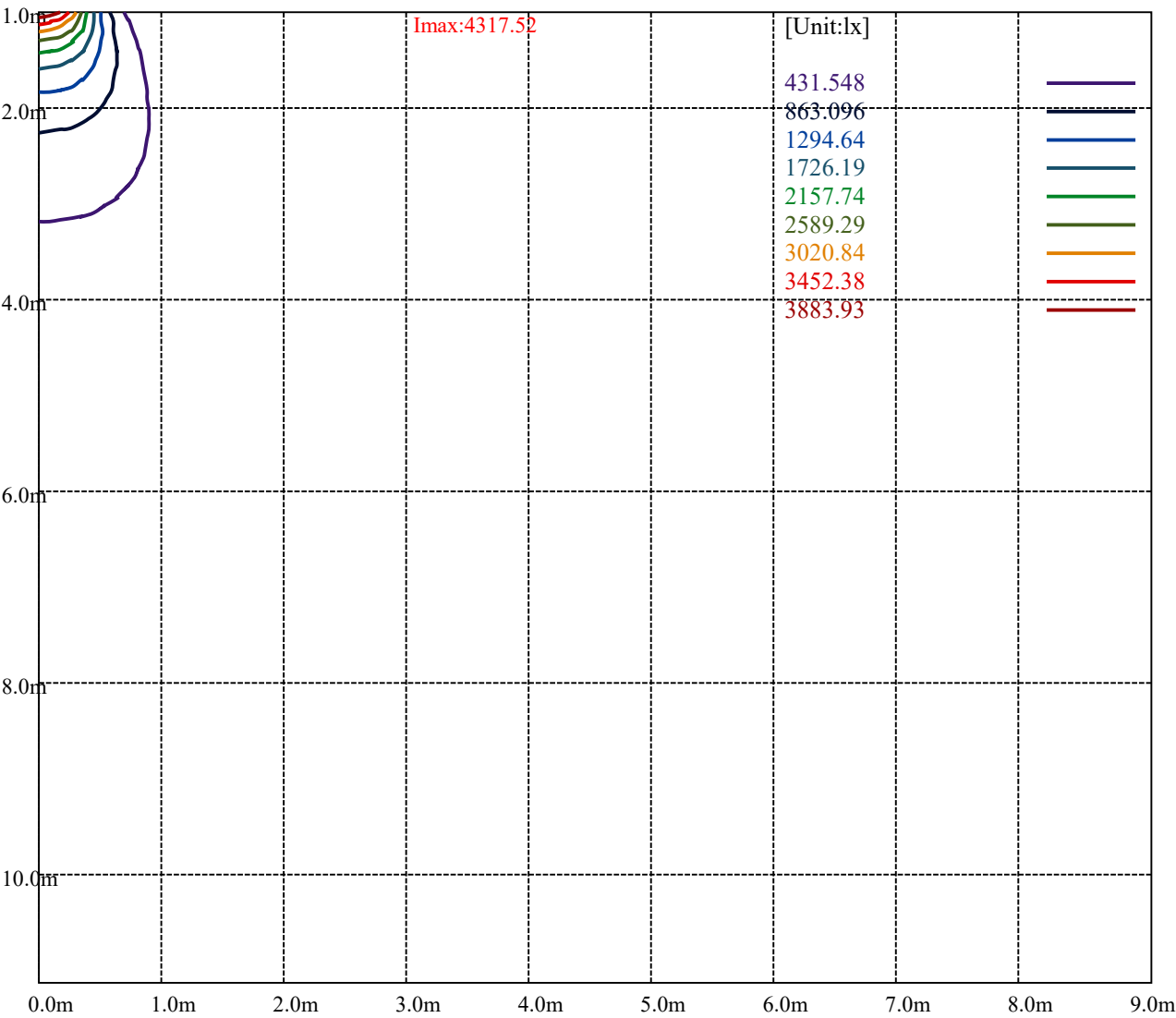
[Unit:cd]

Road

I _{max} :4317.52	
(10%I _{max}) 431.752	
(20%I _{max}) 863.505	
(30%I _{max}) 1295.26	
(40%I _{max}) 1727.01	
(50%I _{max}) 2158.76	
(60%I _{max}) 2590.51	
(70%I _{max}) 3022.27	
(80%I _{max}) 3454.02	
(90%I _{max}) 3885.77	



(10%Emax) 107.887	
(20%Emax) 215.774	
(30%Emax) 323.66	
(40%Emax) 431.5475	
(50%Emax) 539.435	
(60%Emax) 647.3225	
(70%Emax) 755.21	
(80%Emax) 863.095	
(90%Emax) 970.9825	



Luminance Table

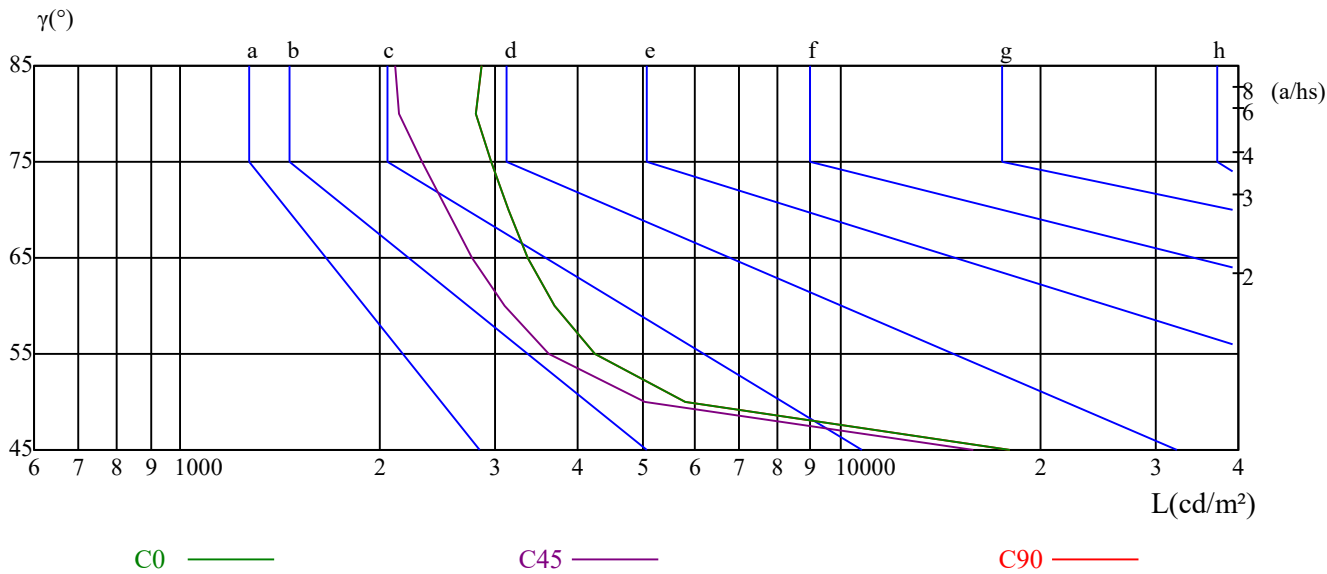
γ	45	50	55	60	65	70	75	80	85
C0	18026	5818	4238	3688	3357	3140	2950	2808	2866
C45	15821	5033	3610	3089	2761	2530	2321	2148	2118
C90	18026	5818	4238	3688	3357	3140	2950	2808	2866

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
7009	7009	7009	8535	8535	8535	19483	19483	19483

Glare Table

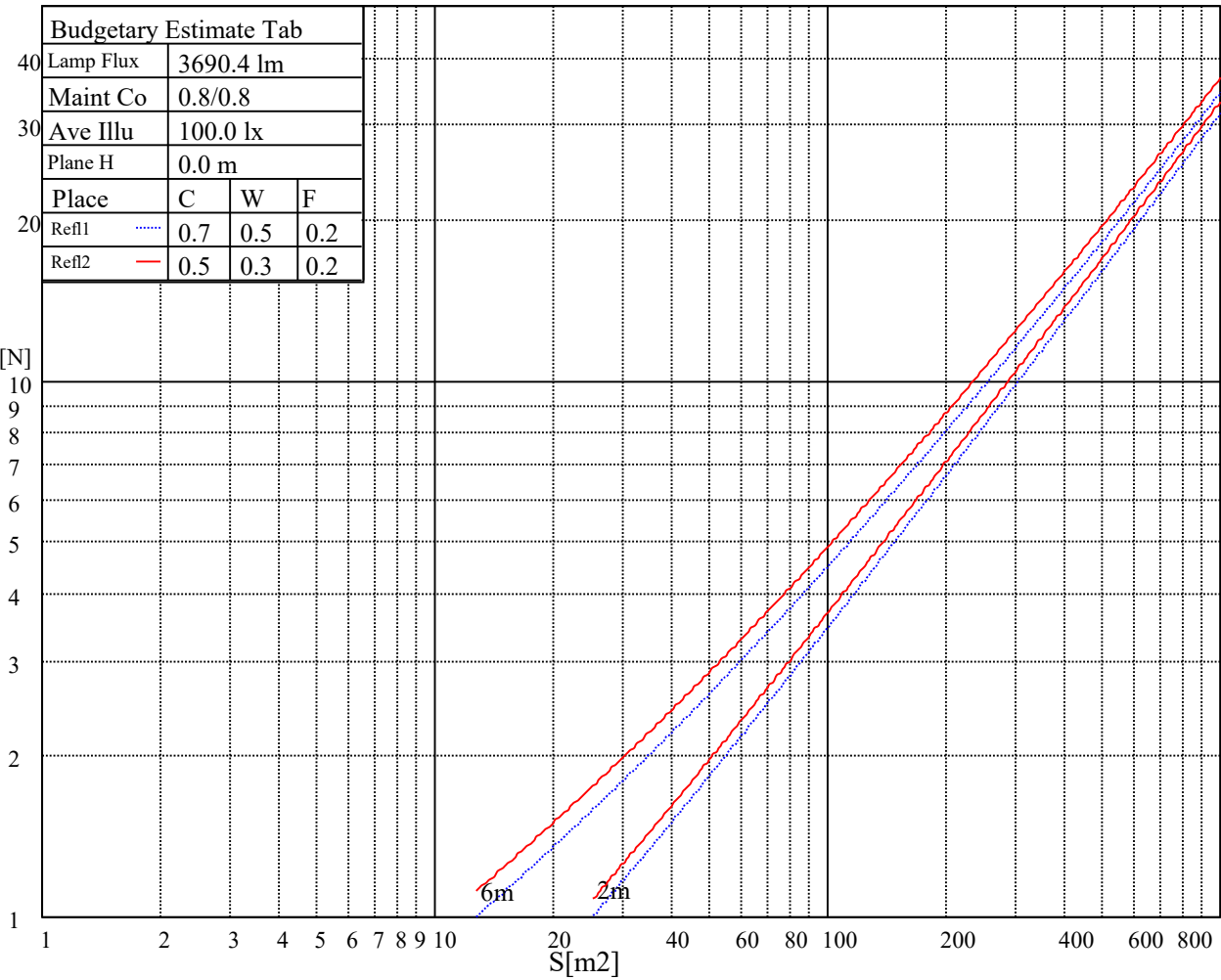
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve

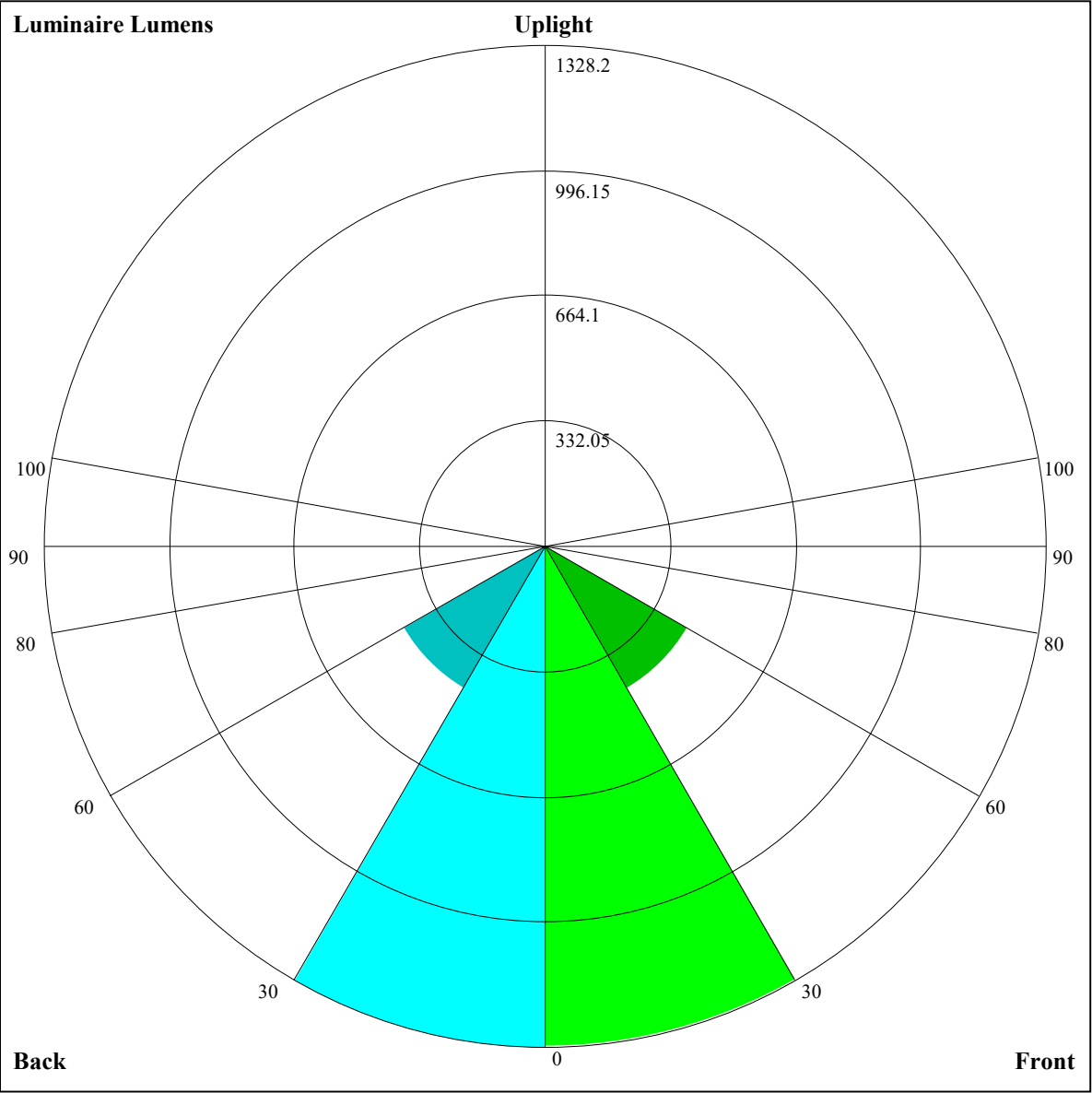


Illumination assessment according UGR											
Rf of Ceiling		70	70	50	50	30	70	70	50	50	30
Rf of Wall		50	30	50	30	30	50	30	50	30	30
Rf of Floor		20	20	20	20	20	20	20	20	20	20
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	21.68	22.63	22.04	22.94	23.26	21.35	22.30	21.71	22.61	22.92
	3H	21.49	22.34	21.88	22.67	23.02	21.16	22.01	21.55	22.34	22.69
	4H	21.40	22.18	21.80	22.54	22.91	21.07	21.85	21.47	22.21	22.58
	6H	21.33	22.04	21.75	22.42	22.82	21.01	21.72	21.42	22.10	22.49
	8H	21.27	21.95	21.69	22.33	22.74	20.94	21.62	21.37	22.01	22.42
	12H	21.21	21.85	21.64	22.25	22.67	20.89	21.53	21.32	21.93	22.35
4H	2H	21.37	22.15	21.77	22.50	22.87	21.04	21.82	21.44	22.17	22.54
	3H	21.16	21.81	21.58	22.20	22.62	20.83	21.48	21.25	21.87	22.29
	4H	21.10	21.67	21.54	22.09	22.54	20.78	21.34	21.22	21.76	22.21
	6H	21.00	21.49	21.47	21.94	22.40	20.67	21.17	21.15	21.62	22.08
	8H	20.96	21.42	21.44	21.88	22.35	20.64	21.10	21.13	21.56	22.03
	12H	20.93	21.36	21.42	21.81	22.33	20.62	21.04	21.11	21.50	22.02
8H	4H	20.91	21.37	21.40	21.83	22.31	20.59	21.05	21.07	21.51	21.98
	6H	20.81	21.18	21.31	21.66	22.17	20.49	20.86	20.99	21.34	21.85
	8H	20.82	21.14	21.36	21.66	22.16	20.51	20.83	21.05	21.35	21.85
	12H	20.81	21.05	21.36	21.57	22.10	20.51	20.75	21.06	21.27	21.79
12H	4H	20.86	21.28	21.35	21.74	22.26	20.54	20.96	21.03	21.41	21.93
	6H	20.80	21.11	21.33	21.63	22.13	20.48	20.79	21.01	21.31	21.81
	8H	20.78	21.02	21.33	21.54	22.06	20.47	20.71	21.02	21.23	21.75
Variation with the observer position at spacings:											
S = 1.0H		5.0/-11.9					5.0/-11.9				
S = 1.5H		7.7/-10.7					7.7/-10.7				
S = 2.0H		9.7/-9.9					9.7/-9.9				
Standard tables:		BK0					BK0				
Uncorrected UGR		2.1					2.1				

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	1.13	1.13	1.13	1.08	1.08	1.08	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	1.01	1.01	1.00	0.98	0.98	0.96	0.95	0.94	0.93	0.92	0.91
2	1.00	0.96	0.93	0.98	0.95	0.92	0.95	0.92	0.90	0.92	0.90	0.88	0.90	0.88	0.86	0.85
3	0.94	0.89	0.85	0.92	0.88	0.84	0.90	0.86	0.83	0.87	0.84	0.82	0.85	0.83	0.81	0.79
4	0.88	0.82	0.79	0.87	0.82	0.78	0.85	0.80	0.77	0.83	0.79	0.76	0.81	0.78	0.75	0.74
5	0.82	0.77	0.73	0.81	0.76	0.72	0.80	0.75	0.72	0.78	0.74	0.71	0.77	0.73	0.71	0.69
6	0.78	0.72	0.68	0.77	0.71	0.68	0.75	0.71	0.67	0.74	0.70	0.67	0.73	0.69	0.66	0.65
7	0.73	0.67	0.63	0.72	0.67	0.63	0.71	0.66	0.63	0.70	0.66	0.63	0.69	0.65	0.62	0.61
8	0.69	0.63	0.60	0.68	0.63	0.59	0.67	0.63	0.59	0.66	0.62	0.59	0.66	0.62	0.59	0.57
9	0.65	0.60	0.56	0.65	0.60	0.56	0.64	0.59	0.56	0.63	0.59	0.56	0.62	0.58	0.55	0.54
10	0.62	0.56	0.53	0.62	0.56	0.53	0.61	0.56	0.53	0.60	0.56	0.52	0.59	0.55	0.52	0.51



Luminaire Lumens:
FL=1326.27,FM=434.79,FH=12.62,FVH=4.42
BL=1328.2,BM=434.98,BH=12.5,BVH=4.42
UL=0,UH=0

BUG Rating:B3-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	4311.17	4305.14	4292.23	4271.56	4259.50	4244.86	4235.39	4219.03	4201.80
45.0	4320.65	4312.03	4312.90	4295.67	4272.42	4248.31	4239.69	4230.22	4212.14
90.0	4312.03	4313.76	4292.23	4270.70	4263.81	4245.72	4231.08	4212.14	4196.64
135.0	4318.06	4312.90	4317.20	4307.73	4288.78	4261.22	4247.45	4239.69	4226.78
180.0	4311.17	4315.48	4306.87	4297.39	4289.64	4286.20	4266.39	4261.22	4244.86
225.0	4320.65	4330.12	4335.29	4329.26	4316.34	4306.87	4303.42	4294.81	4271.56
270.0	4312.03	4326.67	4343.90	4330.98	4324.09	4331.84	4337.01	4318.06	4290.50
315.0	4318.06	4324.09	4314.62	4296.53	4288.78	4286.20	4278.45	4257.78	4222.47
360.0	4311.17	4305.14	4292.23	4271.56	4259.50	4244.86	4235.39	4219.03	4201.80
C/ γ (°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	4179.41	4150.13	4105.35	4045.93	3998.56	3927.95	3862.50	3793.60	3712.65
45.0	4202.66	4185.44	4150.13	4115.68	4070.04	4014.93	3953.78	3892.64	3803.07
90.0	4174.24	4131.19	4082.96	4031.29	3971.87	3890.92	3815.13	3735.04	3642.03
135.0	4214.72	4192.33	4165.63	4131.19	4087.27	4036.46	3969.28	3882.30	3807.38
180.0	4222.47	4189.75	4152.72	4107.93	4042.48	3971.01	3909.86	3847.86	3754.85
225.0	4223.33	4182.00	4126.88	4060.57	4002.87	3920.20	3846.13	3734.18	3642.03
270.0	4269.84	4229.36	4183.72	4100.18	4025.26	3948.61	3883.16	3785.85	3696.29
315.0	4178.55	4121.71	4074.35	4002.87	3937.42	3868.52	3769.49	3683.37	3592.95
360.0	4179.41	4150.13	4105.35	4045.93	3998.56	3927.95	3862.50	3793.60	3712.65
C/ γ (°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	3603.28	3506.83	3402.62	3260.53	3138.24	3001.31	2861.80	2717.12	2531.97
45.0	3723.85	3634.28	3511.13	3400.90	3276.89	3151.16	2980.64	2835.97	2686.12
90.0	3524.05	3407.79	3294.11	3137.38	2993.56	2849.74	2650.81	2504.41	2353.70
135.0	3731.60	3623.95	3524.05	3417.26	3262.25	3131.35	2963.42	2816.16	2668.90
180.0	3662.70	3535.25	3425.01	3305.31	3128.77	2978.06	2821.32	2657.70	2459.63
225.0	3538.69	3390.57	3263.11	3121.88	2972.89	2776.54	2617.22	2458.77	2307.20
270.0	3586.92	3462.91	3303.59	3175.27	3041.79	2896.25	2713.68	2546.61	2389.01
315.0	3491.33	3353.54	3227.80	3101.21	2965.14	2796.35	2655.12	2512.16	2322.70
360.0	3603.28	3506.83	3402.62	3260.53	3138.24	3001.31	2861.80	2717.12	2531.97
C/ γ (°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	2370.93	2175.44	2029.90	1716.00	1716.00	1592.50	1481.41	1370.57	1219.61
45.0	2535.41	2342.51	2190.08	2038.51	1853.35	1718.15	1591.55	1454.63	1346.12
90.0	2155.63	2010.95	1684.65	1684.65	1565.20	1451.27	1347.49	1250.78	1109.55
135.0	2520.77	2330.45	2175.44	2029.04	1888.66	1720.73	1596.72	1486.49	1380.56
180.0	2302.89	2144.43	1993.73	1807.71	1673.37	1551.08	1414.15	1307.36	1194.55
225.0	2126.35	1882.63	1705.32	1705.32	1550.39	1441.88	1305.55	1187.23	1063.30
270.0	2192.66	2046.26	1871.44	1743.98	1615.67	1490.80	1352.14	1241.91	1129.96
315.0	2166.83	1885.22	1705.32	1705.32	1552.03	1435.42	1320.45	1198.77	1042.46
360.0	2370.93	2175.44	2029.90	1716.00	1716.00	1592.50	1481.41	1370.57	1219.61
C/ γ (°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	1100.33	977.62	821.48	694.63	575.01	458.06	325.96	232.86	154.58
45.0	1226.41	1069.68	955.14	830.27	678.70	568.47	459.10	459.10	225.63
90.0	996.65	885.04	752.24	639.77	531.52	407.60	314.50	229.85	142.61
135.0	1235.89	1113.60	969.78	836.30	711.42	561.58	443.60	443.60	314.42
180.0	1047.29	925.86	802.71	648.56	527.99	442.73	442.73	194.02	125.56
225.0	909.32	787.47	668.88	556.41	421.29	321.57	231.74	153.81	83.36
270.0	1012.84	868.16	756.21	646.84	516.80	442.73	442.73	217.28	147.61
315.0	919.83	797.54	677.58	531.35	419.05	316.23	224.17	127.37	74.66
360.0	1100.33	977.62	821.48	694.63	575.01	458.06	325.96	232.86	154.58

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	85.77	55.89	43.32	38.75	33.76	29.45	25.66	24.46	23.77
45.0	148.47	90.34	59.51	46.85	41.42	35.74	29.37	25.92	24.46
90.0	89.74	64.33	55.63	47.19	40.65	35.31	31.09	28.51	26.35
135.0	137.53	80.78	53.91	43.40	35.91	29.97	25.32	22.05	21.44
180.0	75.44	45.90	39.96	34.71	29.28	23.94	21.70	21.01	19.98
225.0	56.75	48.48	43.23	34.79	29.62	25.40	24.54	23.17	22.39
270.0	91.89	59.59	51.84	44.87	36.26	30.83	26.61	24.11	21.44
315.0	46.16	40.13	34.02	26.35	21.19	17.91	16.28	15.50	15.16
360.0	85.77	55.89	43.32	38.75	33.76	29.45	25.66	24.46	23.77
C/ γ (°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	23.08	22.13	21.19	20.50	19.63	18.95	18.34	17.57	17.14
45.0	23.94	23.51	22.99	22.05	21.19	20.24	19.20	18.26	17.74
90.0	24.03	22.56	21.62	20.41	19.46	18.69	17.83	17.22	16.62
135.0	20.93	19.81	18.95	18.17	17.48	16.97	16.36	15.76	14.98
180.0	19.29	18.43	17.83	17.22	16.62	16.10	15.76	15.42	15.16
225.0	21.79	20.84	20.07	19.38	18.52	17.83	17.14	16.62	16.19
270.0	19.81	18.17	16.71	16.02	15.42	14.73	14.47	14.21	13.69
315.0	14.64	14.21	13.78	13.52	13.18	13.00	12.83	12.66	12.40
360.0	23.08	22.13	21.19	20.50	19.63	18.95	18.34	17.57	17.14
C/ γ (°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	16.62	16.02	15.50	14.98	14.47	14.04	13.69	13.35	12.83
45.0	17.31	16.97	16.36	15.76	15.07	14.47	14.04	13.61	13.26
90.0	16.10	15.33	14.81	14.30	13.78	13.26	13.09	12.75	12.14
135.0	14.30	13.61	13.18	12.75	12.31	11.97	11.45	11.11	10.76
180.0	14.73	14.38	14.12	13.95	13.78	13.43	13.09	12.75	12.31
225.0	15.85	15.07	14.81	14.21	13.87	13.61	13.18	12.75	12.23
270.0	13.18	12.92	12.57	12.23	11.88	11.71	11.20	11.11	10.85
315.0	12.06	11.80	11.45	11.20	10.94	10.85	10.68	10.51	10.42
360.0	16.62	16.02	15.50	14.98	14.47	14.04	13.69	13.35	12.83
C/ γ (°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	12.23	11.71	11.28	10.85	10.51	10.16	9.65	9.13	8.87
45.0	12.83	12.40	11.71	11.20	10.76	10.51	10.25	9.73	9.21
90.0	11.71	11.20	10.94	10.68	10.51	10.33	9.73	9.30	9.21
135.0	10.51	10.42	10.16	10.08	10.16	10.16	10.25	9.73	9.13
180.0	11.88	11.54	11.37	11.02	10.76	10.51	9.73	9.04	8.87
225.0	11.63	11.28	10.94	10.76	10.59	9.90	9.21	8.96	8.87
270.0	10.59	10.16	9.99	9.82	9.82	9.82	9.47	9.21	9.13
315.0	10.25	9.99	9.73	9.73	9.73	9.47	8.87	8.78	8.70
360.0	12.23	11.71	11.28	10.85	10.51	10.16	9.65	9.13	8.87
C/ γ (°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	8.70	8.44	8.35	8.18	8.01	7.75	7.58	7.49	7.41
45.0	8.87	8.78	8.61	8.35	8.18	7.92	7.75	7.58	7.49
90.0	9.13	8.96	8.87	8.61	8.44	8.01	7.84	7.66	7.23
135.0	8.87	8.78	8.61	8.44	8.27	8.18	7.84	7.58	7.58
180.0	8.70	8.53	8.35	8.27	7.92	7.75	7.66	7.49	7.15
225.0	8.70	8.44	8.18	8.01	7.84	7.66	7.49	7.32	7.06
270.0	9.04	8.87	8.70	8.61	8.18	7.92	7.58	7.32	7.15
315.0	8.53	8.35	8.18	7.92	7.84	7.66	7.49	7.32	7.23
360.0	8.70	8.44	8.35	8.18	8.01	7.75	7.58	7.49	7.41

Intensity data(cd)

C/γ(°)	90.0
0.0	7.32
45.0	7.32
90.0	7.15
135.0	7.23
180.0	7.06
225.0	7.06
270.0	7.06
315.0	7.15
360.0	7.32