



NATA LIGHTING CO.,LTD
www.nata.cn
Email:info@nata.cn
Tel:+86 0750-377 0000(10 lines) Fax:+86 0750-377 1111
Address:380JinOu Road,Gaoxin Zone,Jiang Men City,Guangdong,China

NT

Client: NT

LumCAT: 2-3039-LM

Luminaire: 92.70.121.00 LED HOLDER

Report No: 20260126-B010

Ballast type: AC

Test No: 20260126-C010

Voltage(V): 37.010

LampCAT: CITIZEN CLU038 LES14.5

Current(A): 0.712

Lamp flux(lm): 3400.6

Power (W): 26.351

Number of Lamps: 1

PF: 0.000

Length(mm): 65

Width(mm): 65

Phm Type: C

Height(mm): 34

Photometric Results

Lumens(lm): 3315.82, Efficiency(%): 97.51% , Luminous Efficacy(lm/W): 125.83

Central intensity(cd): 10186.680, Maximum intensity(cd): 10186.680

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=26.4

[C90/270]Total=26.4

Field angle(10%Imax): [C0/180]Total=65.6

[C90/270]Total=65.6

Maximum s/h(1/2): C0_180=0.44 C90_270=0.44

Maximum s/h(1/4): C0_180=0.46 C90_270=0.46

Up flux rate of lamp(%): 0.00%

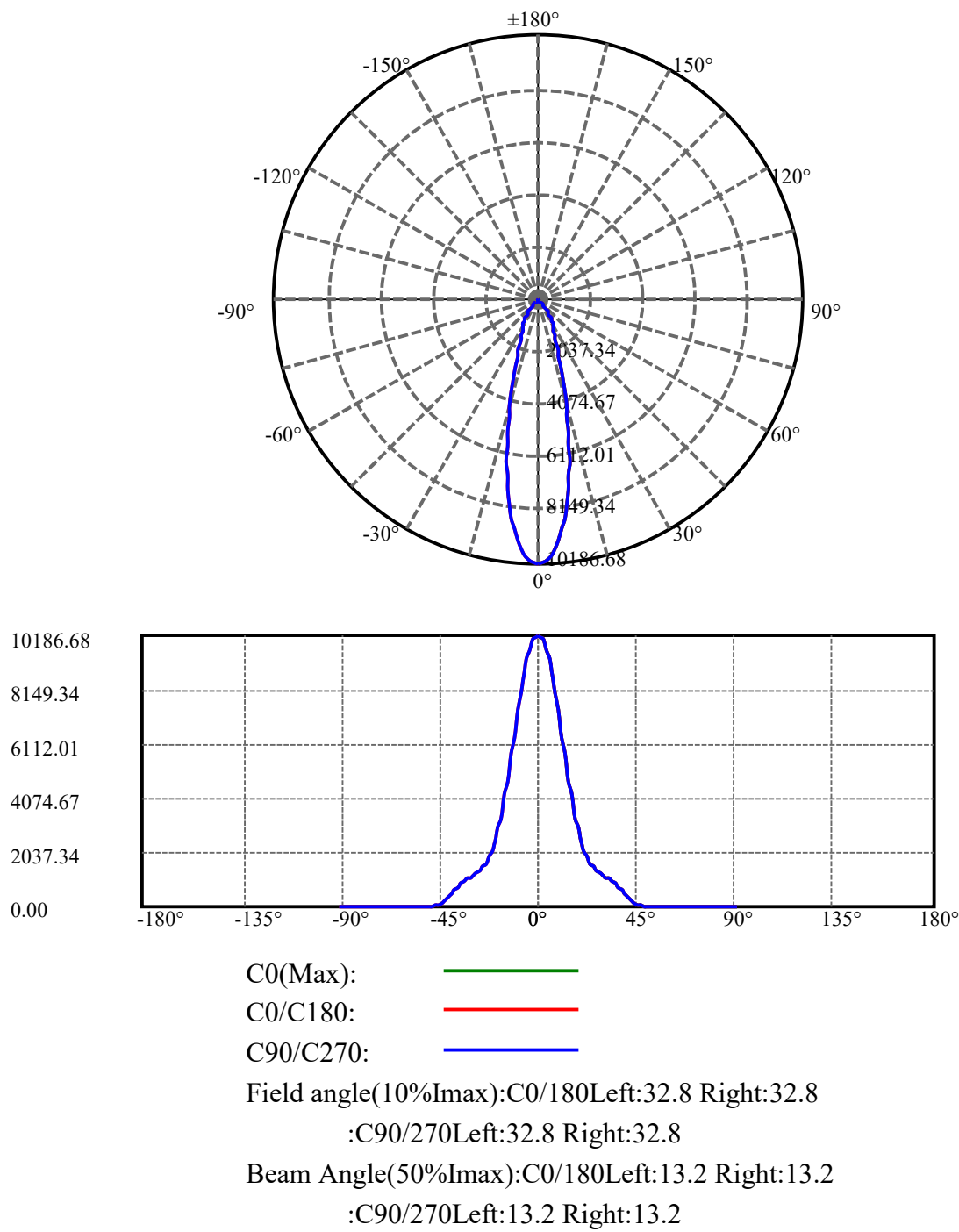
Down flux rate of lamp(%): 97.51%

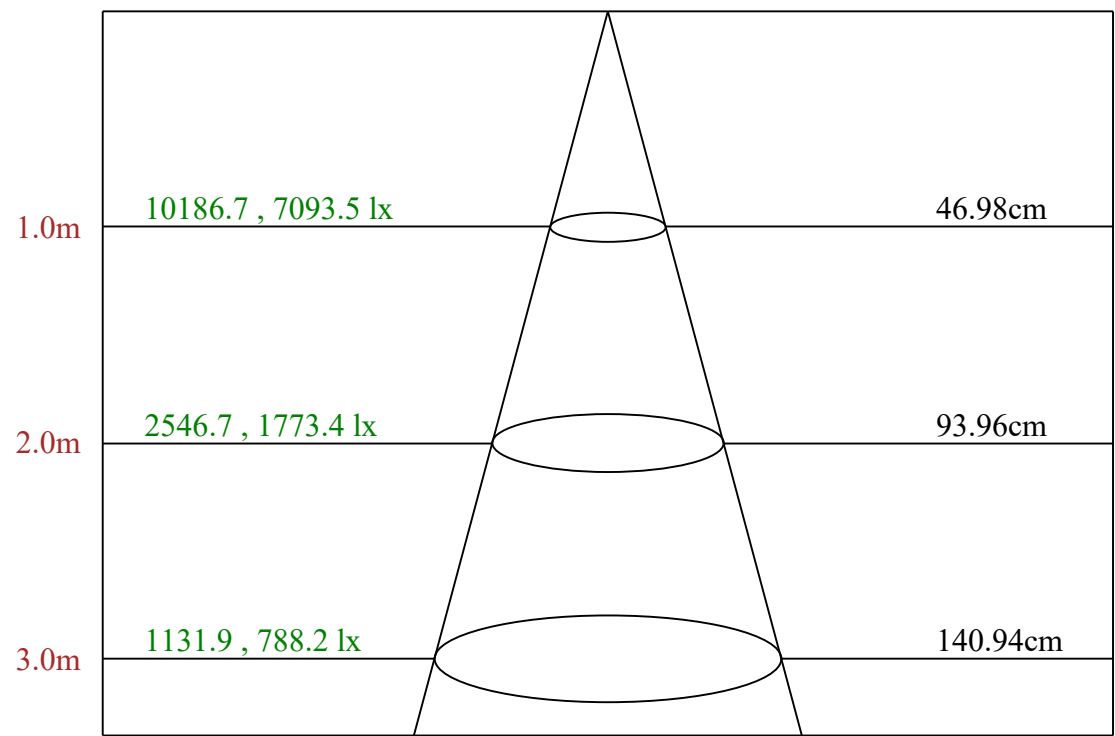
Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

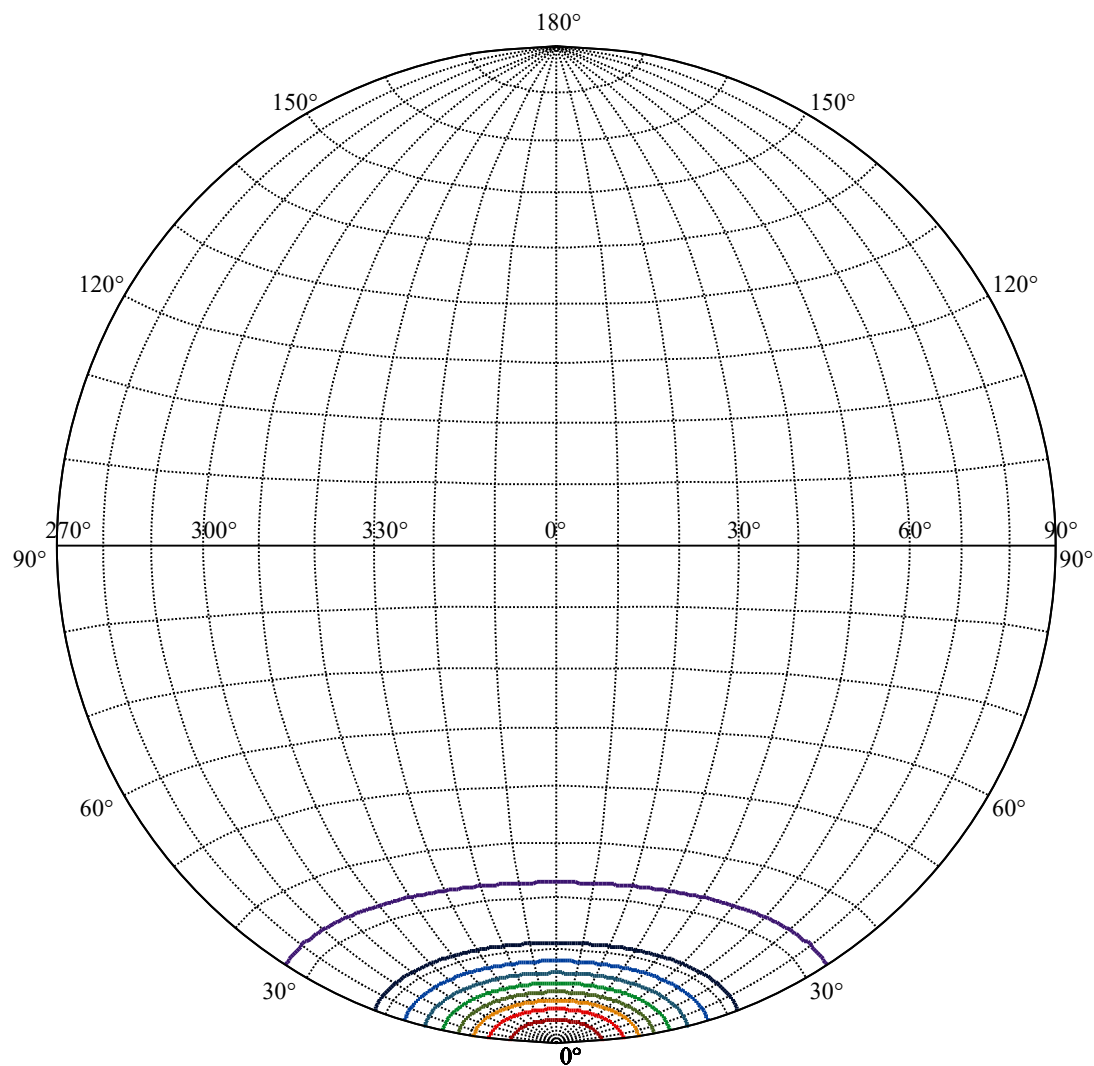
CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.759%





Max , Ave Beam angle of C0 plane 26.44

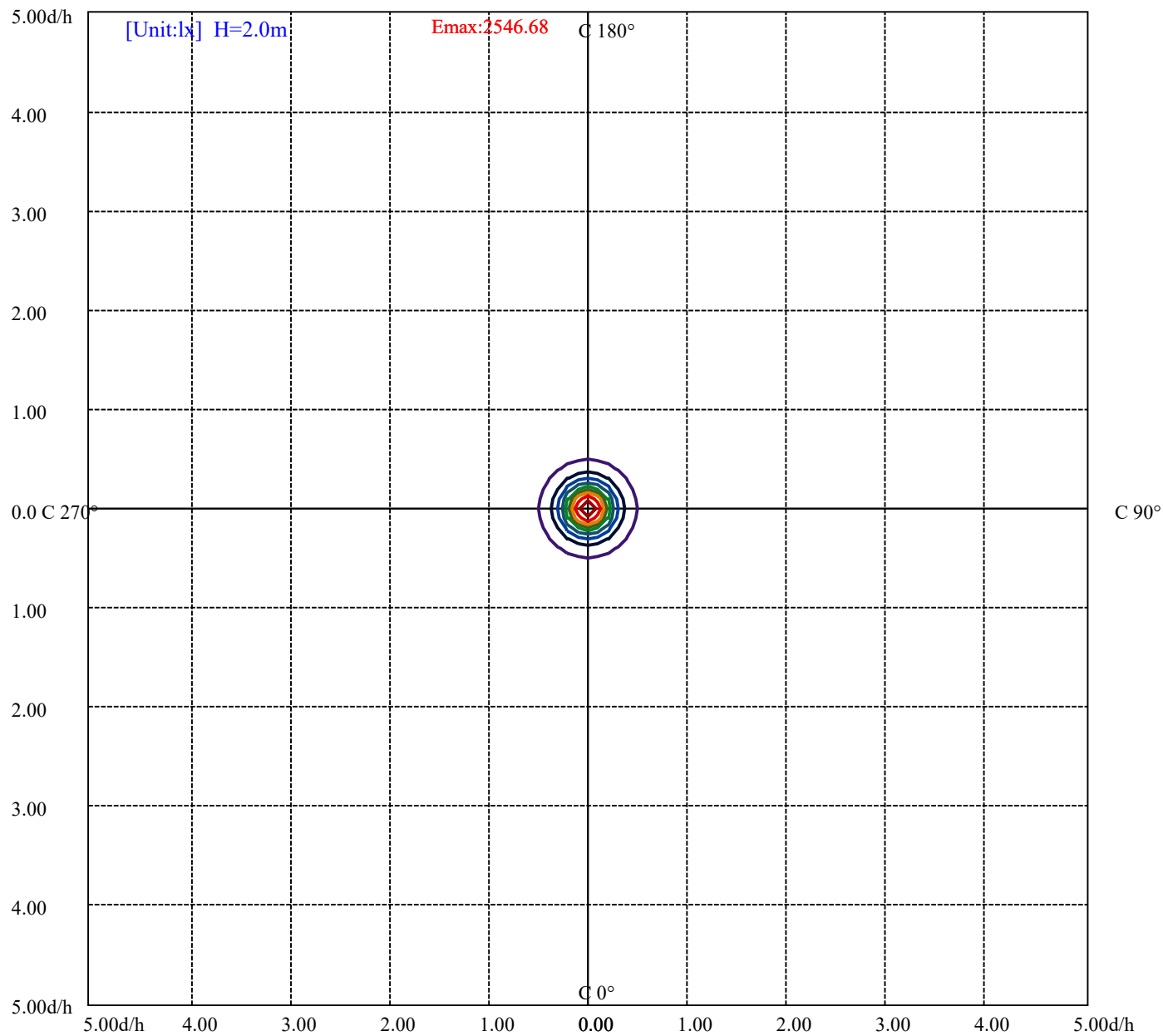


House

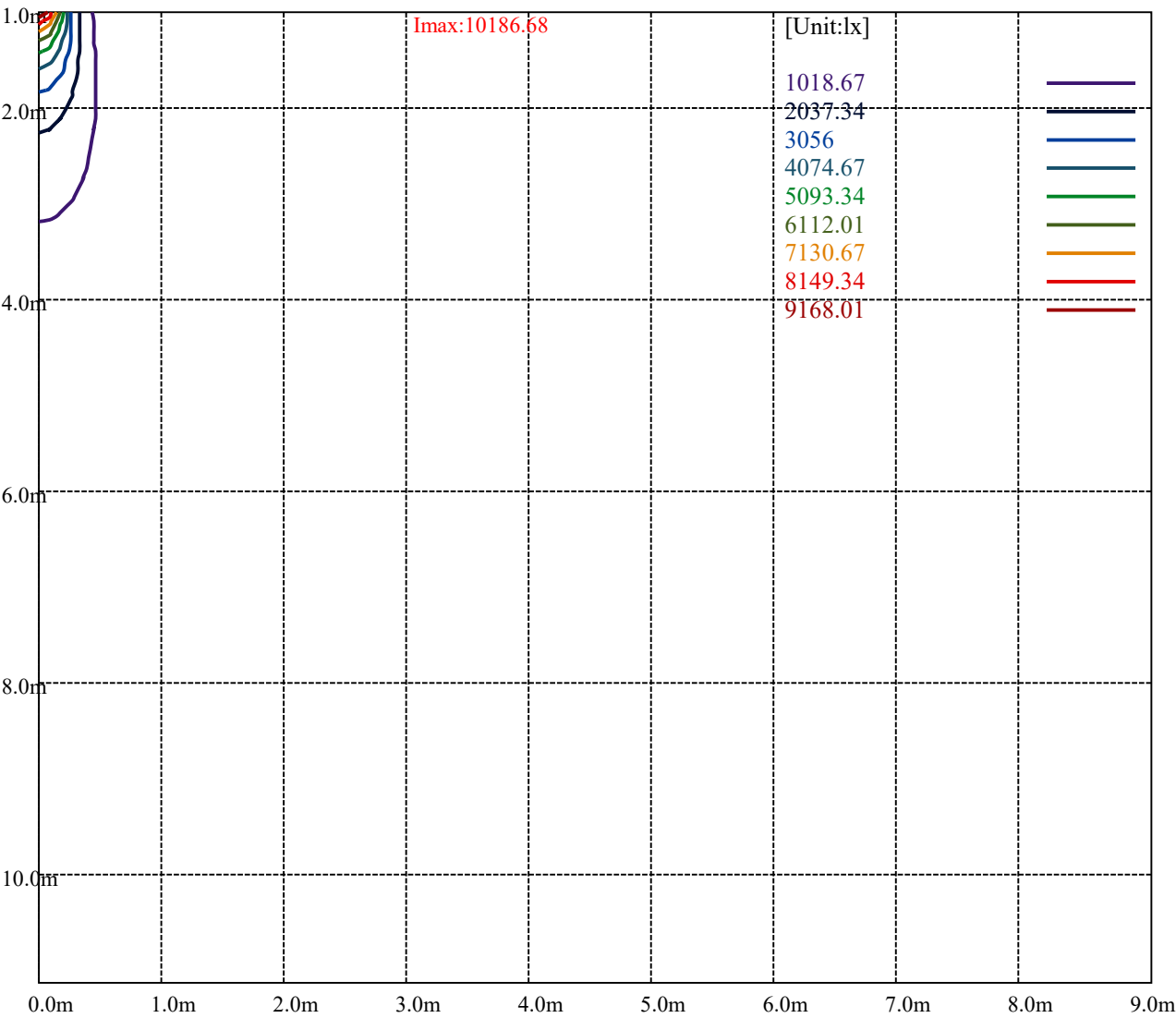
[Unit:cd]

Road

Imax:10186.68	
(10%Imax) 1018.67	
(20%Imax) 2037.34	
(30%Imax) 3056	
(40%Imax) 4074.67	
(50%Imax) 5093.34	
(60%Imax) 6112.01	
(70%Imax) 7130.67	
(80%Imax) 8149.34	
(90%Imax) 9168.01	



(10%Emax)	254.6675	
(20%Emax)	509.3325	
(30%Emax)	764	
(40%Emax)	1018.667	
(50%Emax)	1273.335	
(60%Emax)	1528	
(70%Emax)	1782.667	
(80%Emax)	2037.335	
(90%Emax)	2292	



Luminance Table

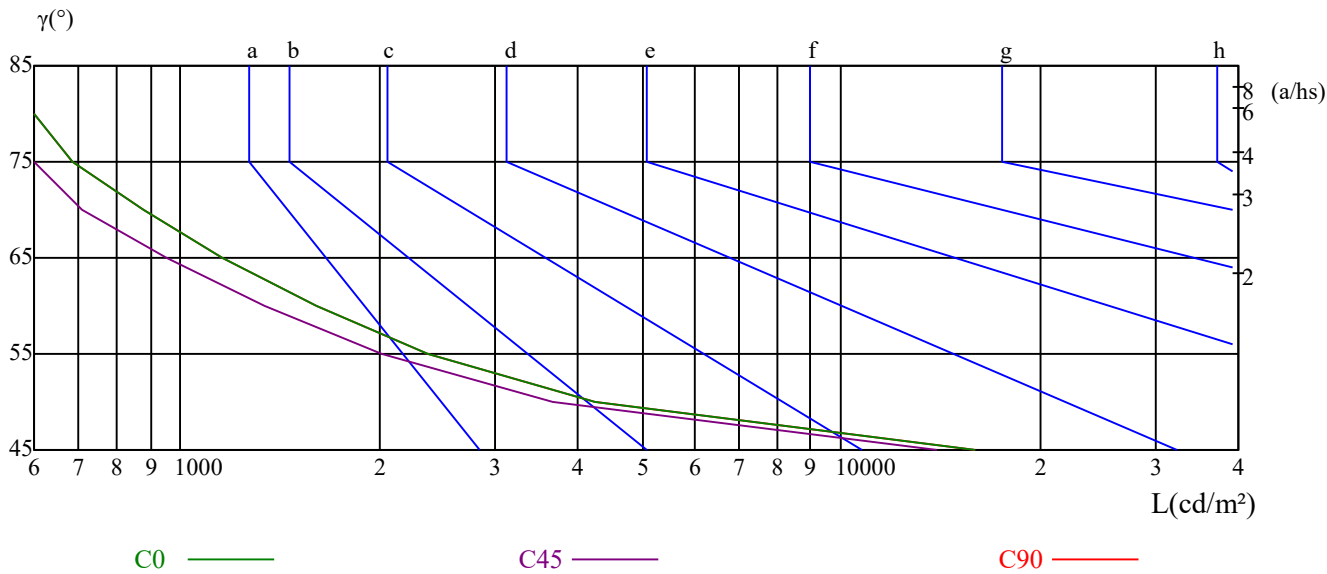
γ	45	50	55	60	65	70	75	80	85
C0	15986	4249	2375	1608	1158	880	688	524	383
C45	13995	3666	2018	1344	950	708	540	400	283
C90	15986	4249	2375	1608	1158	880	688	524	383

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
2457	2457	2457	2032	2032	2032	2673	2673	2673

Glare Table

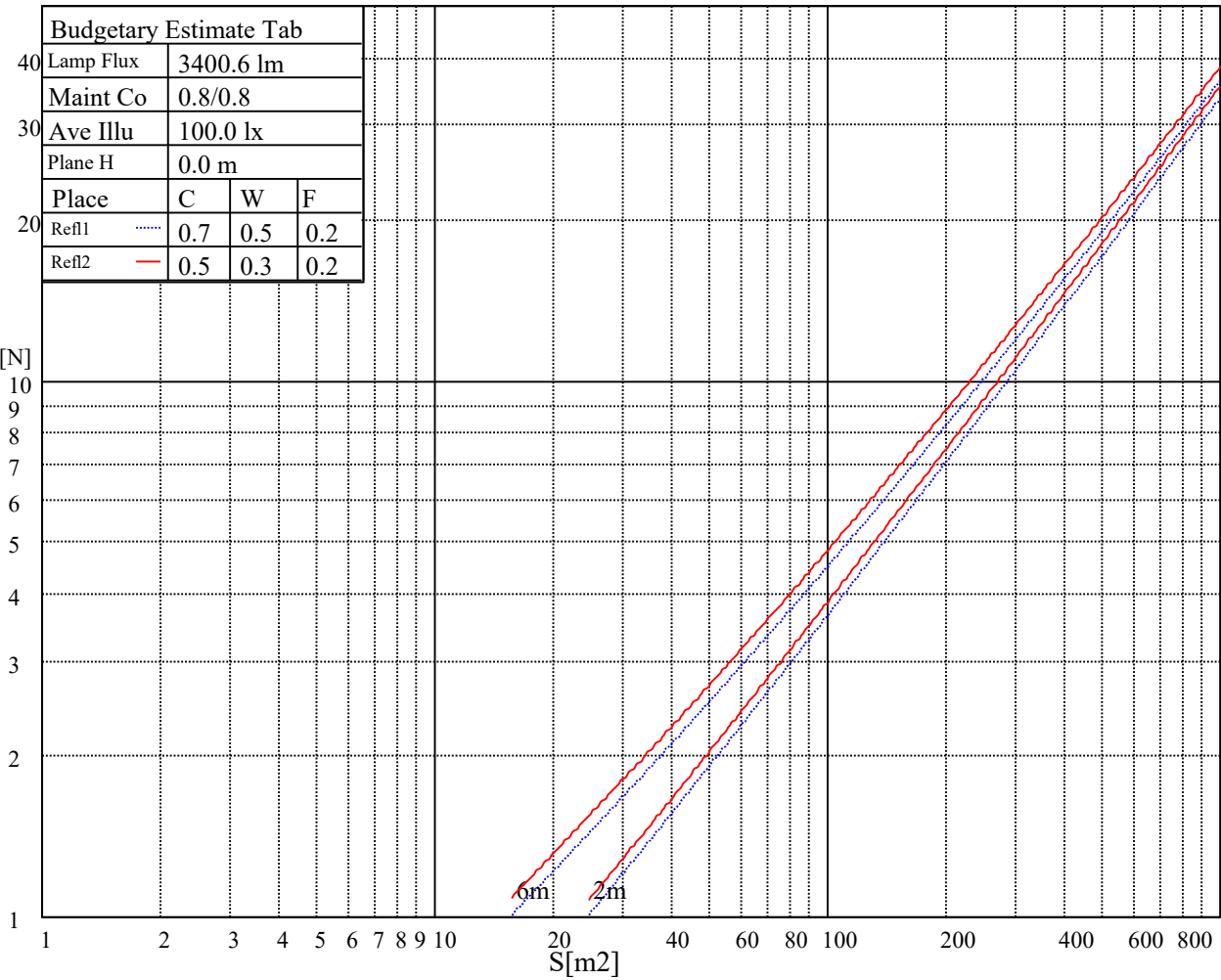
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve

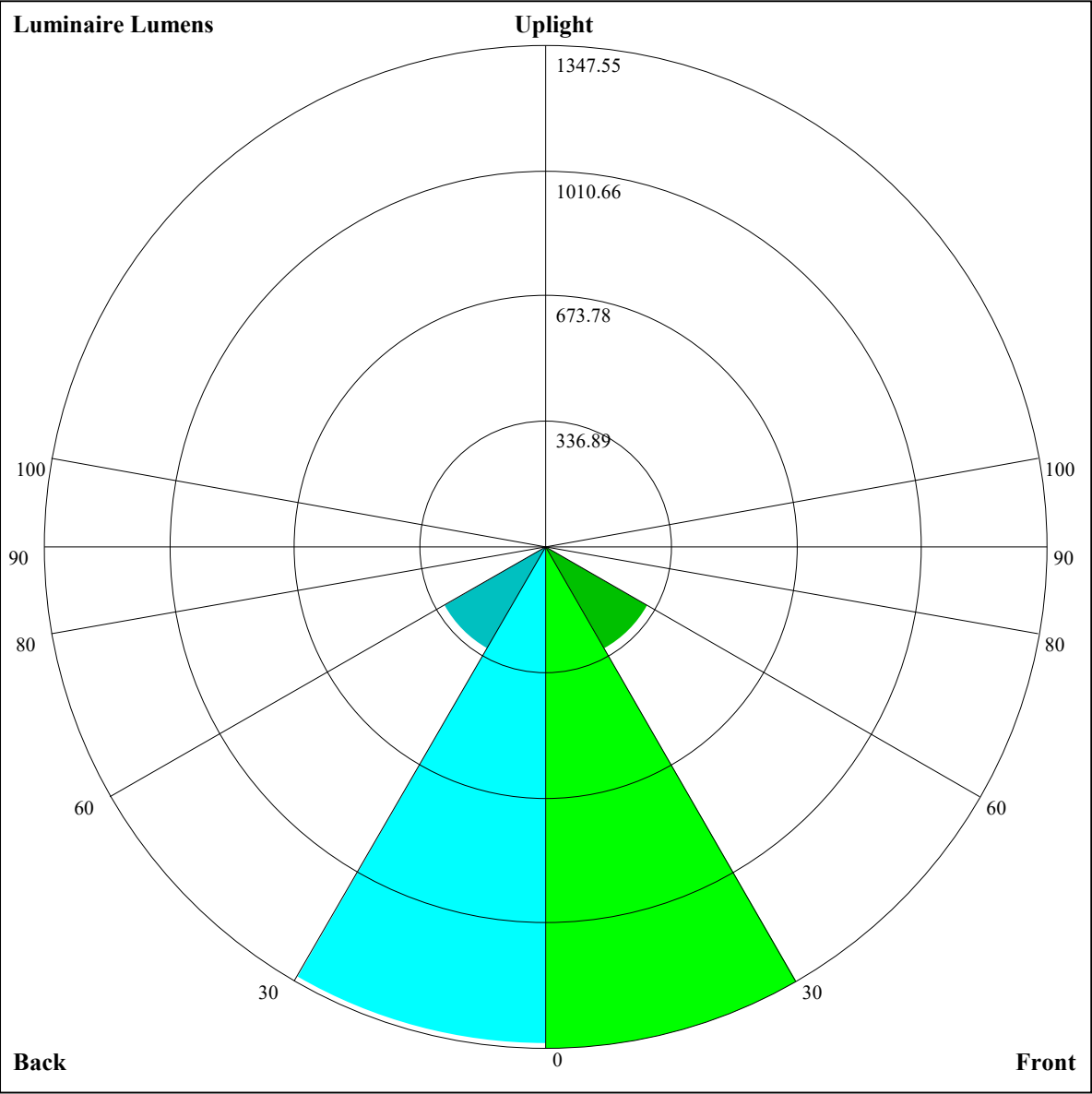


Illumination assessment according UGR											
Rf of Ceiling	70	70	50	50	30	70	70	50	50	30	
Rf of Wall	50	30	50	30	30	50	30	50	30	30	
Rf of Floor	20	20	20	20	20	20	20	20	20	20	
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	19.90	20.83	20.27	21.14	21.46	20.21	21.14	20.58	21.45	21.76
	3H	19.69	20.51	20.08	20.85	21.19	20.00	20.82	20.39	21.16	21.50
	4H	19.58	20.34	19.98	20.69	21.06	19.89	20.65	20.29	21.00	21.37
	6H	19.49	20.18	19.91	20.56	20.96	19.80	20.49	20.22	20.87	21.27
	8H	19.41	20.07	19.83	20.46	20.86	19.72	20.38	20.14	20.77	21.17
	12H	19.34	19.96	19.77	20.36	20.77	19.65	20.27	20.08	20.67	21.08
4H	2H	19.58	20.34	19.98	20.69	21.06	19.89	20.65	20.29	21.00	21.37
	3H	19.33	19.96	19.76	20.36	20.77	19.64	20.27	20.07	20.67	21.08
	4H	19.25	19.79	19.69	20.22	20.67	19.56	20.10	20.00	20.53	20.98
	6H	19.10	19.58	19.57	20.03	20.49	19.41	19.89	19.88	20.34	20.80
	8H	19.04	19.48	19.53	19.94	20.42	19.35	19.79	19.83	20.25	20.72
	12H	18.98	19.39	19.48	19.84	20.37	19.29	19.70	19.78	20.15	20.67
8H	4H	19.04	19.48	19.52	19.94	20.41	19.35	19.79	19.83	20.25	20.72
	6H	18.88	19.24	19.38	19.72	20.23	19.18	19.55	19.69	20.03	20.54
	8H	18.86	19.16	19.39	19.68	20.18	19.17	19.47	19.70	19.99	20.49
	12H	18.80	19.03	19.35	19.55	20.07	19.11	19.34	19.65	19.85	20.38
12H	4H	18.98	19.39	19.47	19.84	20.36	19.29	19.70	19.78	20.15	20.67
	6H	18.86	19.16	19.39	19.68	20.18	19.17	19.47	19.70	19.99	20.49
	8H	18.80	19.03	19.35	19.55	20.07	19.11	19.34	19.65	19.85	20.38
Variation with the observer position at spacings:											
S = 1.0H		4.8/-17.1					4.8/-17.1				
S = 1.5H		7.7/-17.8					7.7/-17.8				
S = 2.0H		9.7/-18.0					9.7/-18.0				
Standard tables:		BK0					BK0				
Uncorrected UGR		0.3					0.3				

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	1.16	1.16	1.16	1.13	1.13	1.13	1.08	1.08	1.08	1.04	1.04	1.04	0.99	0.99	0.99	0.98
1	1.09	1.07	1.05	1.07	1.05	1.03	1.03	1.02	1.00	0.99	0.98	0.97	0.96	0.95	0.94	0.93
2	1.03	0.99	0.97	1.01	0.98	0.95	0.98	0.96	0.93	0.95	0.93	0.91	0.93	0.91	0.90	0.88
3	0.97	0.93	0.90	0.96	0.92	0.89	0.93	0.90	0.88	0.91	0.88	0.86	0.89	0.87	0.85	0.84
4	0.92	0.88	0.84	0.91	0.87	0.84	0.89	0.85	0.83	0.87	0.84	0.82	0.85	0.83	0.81	0.79
5	0.88	0.83	0.79	0.87	0.82	0.79	0.85	0.81	0.78	0.84	0.80	0.78	0.82	0.79	0.77	0.76
6	0.84	0.79	0.75	0.83	0.78	0.75	0.81	0.77	0.74	0.80	0.77	0.74	0.79	0.76	0.73	0.72
7	0.80	0.75	0.71	0.79	0.75	0.71	0.78	0.74	0.71	0.77	0.73	0.70	0.76	0.73	0.70	0.69
8	0.76	0.71	0.68	0.76	0.71	0.68	0.75	0.71	0.68	0.74	0.70	0.67	0.73	0.70	0.67	0.66
9	0.73	0.68	0.65	0.73	0.68	0.65	0.72	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.64	0.63
10	0.70	0.66	0.62	0.70	0.65	0.62	0.69	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.62	0.61



Luminaire Lumens:

FL=1347.55,FM=315.67,FH=3.35,FVH=0.58

BL=1335.32,BM=314.51,BH=3.49,BVH=0.52

UL=0,UH=0

BUG Rating:B3-U0-G0

Intensity data(cd)

Appendix Page: 12 Total:14

C/γ(°)	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
0.0	10232.94	10137.32	10052.94	9842.57	9556.82	9214.26	8710.82	8429.01	7933.44
45.0	10128.32	10236.32	10244.76	10192.44	10069.26	9883.07	9599.01	9169.26	8747.38
90.0	10275.13	10270.63	10199.19	10045.07	9827.94	9457.82	9236.19	8815.44	8335.63
135.0	10110.32	10172.76	10162.63	10041.69	9867.88	9610.82	9291.32	9062.94	8546.01
180.0	10232.94	10226.19	10146.32	10001.76	9871.26	9536.57	9187.26	8771.01	8193.32
225.0	10128.32	9967.44	9725.57	9407.19	8949.88	8679.32	8200.07	7658.38	7099.26
270.0	10275.13	10194.69	9962.38	9818.38	9527.01	9076.44	8642.19	8145.51	7826.57
315.0	10110.32	9939.88	9813.88	9543.32	9203.01	8799.13	8237.19	7934.57	7400.19
360.0	10232.94	10137.32	10052.94	9842.57	9556.82	9214.26	8710.82	8429.01	7933.44
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	7390.07	6489.51	6142.44	5354.38	5024.19	4487.57	3996.51	3551.57	3087.51
45.0	8254.63	7941.32	7286.57	6704.94	6126.69	5549.01	5212.07	4564.07	3871.63
90.0	7689.32	7127.38	6539.01	5955.13	5273.94	4946.57	4420.07	3931.26	3495.32
135.0	8051.01	7517.19	6947.38	6603.13	5906.76	5105.19	4782.88	4269.88	3707.94
180.0	7661.76	7099.26	6519.32	6171.69	5473.63	4904.38	4368.32	3881.76	3609.51
225.0	6395.01	5815.63	5469.69	4690.07	4065.13	3782.19	3338.38	2944.07	2587.44
270.0	7164.51	6589.07	6013.07	5443.82	5110.26	4475.19	3975.13	3522.32	3118.44
315.0	6853.44	6279.13	5600.19	5049.51	4533.69	3958.82	3693.32	3281.01	2906.38
360.0	7390.07	6489.51	6142.44	5354.38	5024.19	4487.57	3996.51	3551.57	3087.51
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	2877.69	2567.76	2296.63	2069.38	1844.94	1750.44	1616.57	1505.19	1397.19
45.0	3587.01	3169.07	2942.38	2426.57	2261.76	1928.76	1813.44	1625.57	1499.57
90.0	3012.13	2806.82	2382.69	2092.44	2007.51	1784.76	1640.76	1519.82	1411.82
135.0	3288.88	2923.26	2728.63	2386.07	2151.51	1946.76	1778.57	1694.19	1548.51
180.0	3117.88	2761.82	2456.38	2193.69	1934.38	1760.57	1623.88	1508.01	1448.38
225.0	2284.26	1985.01	1857.32	1682.38	1531.63	1411.82	1297.07	1250.94	1102.39
270.0	2899.07	2517.13	2148.13	2017.07	1794.32	1644.13	1523.19	1423.63	1371.32
315.0	2586.32	2259.51	2118.32	1916.94	1746.51	1585.63	1477.63	1422.51	1313.94
360.0	2877.69	2567.76	2296.63	2069.38	1844.94	1750.44	1616.57	1505.19	1397.19
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	1324.63	1261.07	1206.51	1100.76	1100.76	1080.00	996.41	948.99	862.20
45.0	1394.94	1312.26	1227.32	1202.57	1134.51	1088.38	1056.88	1008.51	959.57
90.0	1362.32	1299.32	1244.76	1194.69	1098.73	1098.73	1080.00	1003.11	960.36
135.0	1448.94	1366.26	1285.26	1262.19	1178.94	1136.76	1111.44	1046.19	974.76
180.0	1357.82	1292.57	1241.38	1184.01	1169.38	1123.82	1052.38	1007.94	909.51
225.0	1102.39	1094.40	1059.92	1028.08	990.39	932.01	843.81	762.13	675.06
270.0	1284.69	1226.19	1176.13	1127.19	1090.63	1045.07	984.32	944.38	844.82
315.0	1239.69	1207.63	1112.06	1112.06	1085.51	1028.14	954.68	869.85	759.66
360.0	1324.63	1261.07	1206.51	1100.76	1100.76	1080.00	996.41	948.99	862.20
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	769.84	678.26	579.88	462.43	407.19	316.52	231.41	143.27	83.36
45.0	889.82	813.32	761.57	660.32	568.63	475.26	385.82	298.63	298.63
90.0	875.93	784.41	686.87	562.89	500.46	361.07	252.06	203.79	132.75
135.0	889.82	798.69	741.88	624.88	531.51	435.32	323.38	323.38	287.94
180.0	820.63	727.82	630.51	574.82	457.82	331.82	314.38	314.38	126.28
225.0	582.53	472.39	417.49	330.75	249.36	175.44	103.89	77.01	51.08
270.0	750.88	653.01	552.88	490.44	371.19	332.94	332.94	126.28	75.71
315.0	700.37	604.18	507.38	411.92	301.05	250.31	170.10	102.83	49.67
360.0	769.84	678.26	579.88	462.43	407.19	316.52	231.41	143.27	83.36

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	56.87	35.72	26.16	22.78	17.78	13.67	10.91	9.84	9.28
45.0	151.65	97.31	72.45	46.80	37.07	33.75	27.56	23.01	19.29
90.0	80.78	48.77	34.37	31.89	27.00	22.16	17.33	14.96	14.46
135.0	104.23	74.08	38.53	29.19	24.41	18.28	13.95	10.80	9.51
180.0	72.11	44.66	37.35	31.50	25.88	20.81	16.88	14.85	13.95
225.0	40.73	35.33	28.35	23.34	20.87	17.66	15.41	13.50	12.49
270.0	44.78	32.40	29.87	24.08	17.66	15.36	12.54	11.59	10.41
315.0	30.77	24.86	19.63	13.73	11.25	8.16	6.98	6.36	5.74
360.0	56.87	35.72	26.16	22.78	17.78	13.67	10.91	9.84	9.28
C/ γ (°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	8.44	7.65	7.09	6.41	5.91	5.46	4.84	4.61	4.33
45.0	16.59	15.58	14.06	12.99	11.70	10.74	9.39	8.78	8.27
90.0	13.73	12.26	11.64	10.58	9.68	8.66	7.82	7.48	6.75
135.0	9.06	8.38	7.76	7.20	6.64	6.19	5.91	5.74	5.46
180.0	13.05	12.43	11.19	10.24	9.34	8.44	8.10	7.20	6.53
225.0	11.53	10.41	9.11	8.38	7.88	7.20	6.30	5.68	5.23
270.0	9.51	8.94	8.04	7.26	6.53	6.02	5.68	5.06	4.56
315.0	5.40	4.78	4.44	4.33	4.11	3.94	3.77	3.66	3.54
360.0	8.44	7.65	7.09	6.41	5.91	5.46	4.84	4.61	4.33
C/ γ (°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	3.94	3.66	3.43	3.32	3.15	2.98	2.81	2.64	2.48
45.0	7.03	6.69	6.08	5.51	5.18	4.67	4.39	3.94	3.60
90.0	6.24	5.74	5.18	4.78	4.33	3.94	3.83	3.43	3.15
135.0	5.12	4.84	4.61	4.39	4.33	4.05	3.77	3.54	3.32
180.0	6.02	5.40	5.18	4.61	4.22	4.05	3.66	3.38	3.21
225.0	4.73	4.22	3.94	3.71	3.43	3.15	2.93	2.81	2.64
270.0	4.28	3.83	3.49	3.26	3.04	2.93	2.64	2.53	2.36
315.0	3.49	3.32	3.21	3.09	3.04	2.93	2.70	2.53	2.42
360.0	3.94	3.66	3.43	3.32	3.15	2.98	2.81	2.64	2.48
C/ γ (°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	2.42	2.19	2.14	1.97	1.86	1.80	1.63	1.58	1.41
45.0	3.32	3.04	2.93	2.76	2.64	2.59	2.36	2.25	2.19
90.0	2.93	2.53	2.42	2.08	1.91	1.74	1.52	1.41	1.29
135.0	3.15	2.87	2.53	2.42	2.08	1.91	1.69	1.58	1.52
180.0	2.98	2.87	2.53	2.36	2.14	1.80	1.80	1.63	1.35
225.0	2.53	2.53	2.36	2.36	2.19	2.08	1.97	1.86	1.74
270.0	2.25	2.14	1.97	1.91	1.86	1.69	1.58	1.46	1.41
315.0	2.31	2.14	2.03	1.91	1.80	1.63	1.52	1.41	1.29
360.0	2.42	2.19	2.14	1.97	1.86	1.80	1.63	1.58	1.41
C/ γ (°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	1.29	1.24	1.18	1.07	0.90	0.84	0.90	0.84	0.79
45.0	2.14	2.03	1.91	1.69	1.46	1.35	1.13	1.01	0.84
90.0	1.13	1.13	0.90	0.84	0.79	0.73	0.68	0.62	0.62
135.0	1.29	1.18	1.13	0.96	0.90	0.84	0.73	0.73	0.73
180.0	1.29	1.18	1.01	0.96	0.90	0.79	0.73	0.79	0.73
225.0	1.63	1.46	1.35	1.29	1.07	0.96	0.79	0.73	0.62
270.0	1.35	1.18	1.07	1.01	0.90	0.90	0.84	0.79	0.73
315.0	1.24	1.07	1.07	0.96	0.96	0.96	0.96	0.90	0.84
360.0	1.29	1.24	1.18	1.07	0.90	0.84	0.90	0.84	0.79

Intensity data(cd)

C/ $\gamma(^{\circ})$	90.0
0.0	0.84
45.0	0.73
90.0	0.62
135.0	0.68
180.0	0.68
225.0	0.45
270.0	0.62
315.0	0.79
360.0	0.84