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NT

Client: NT

LumCAT: 2-3122-LM

Luminaire: 92.70.412.00 LED HOLDER

Report No: 20260123-C004

Ballast type: AC

Test No: 20260123-C004

Voltage(V): 36.830

LampCAT: CITIZEN CLU038 LES14.5

Current(A): 0.712

Lamp flux(lm): 3447.0

Power (W): 26.222

Number of Lamps: 1

PF: 0.000

Length(mm): 69

Width(mm): 69

Phm Type: C

Height(mm): 35

Photometric Results

Lumens(lm): 3346.26, Efficiency(%): 97.08% , Luminous Efficacy(lm/W): 127.61

Central intensity(cd): 18276.750, Maximum intensity(cd): 18276.750

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=17.8

[C90/270]Total=17.8

Field angle(10%Imax): [C0/180]Total=38.2

[C90/270]Total=38.2

Maximum s/h(1/2): C0_180=0.31 C90_270=0.31

Maximum s/h(1/4): C0_180=0.31 C90_270=0.31

Up flux rate of lamp(%): 0.00%

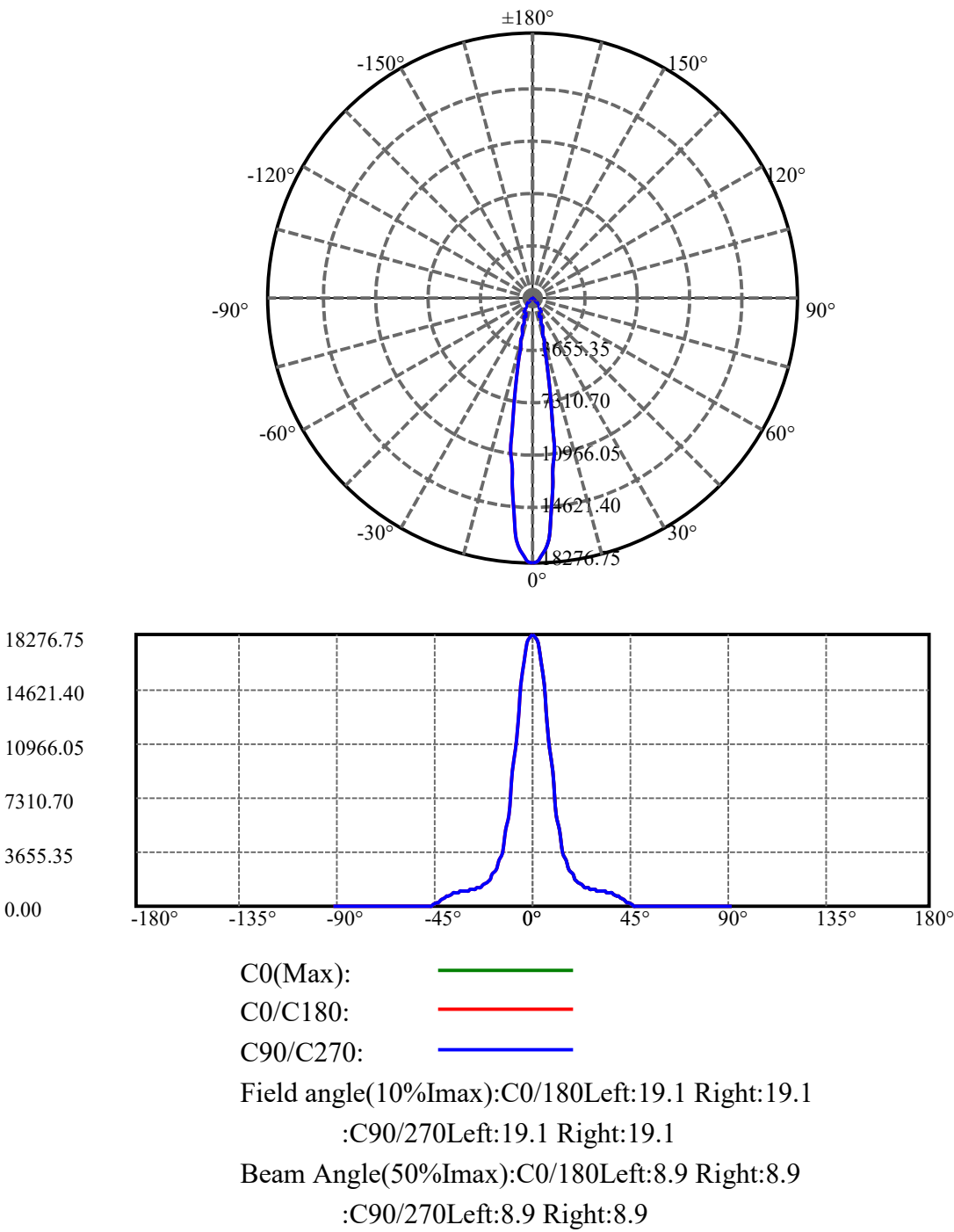
Down flux rate of lamp(%): 97.08%

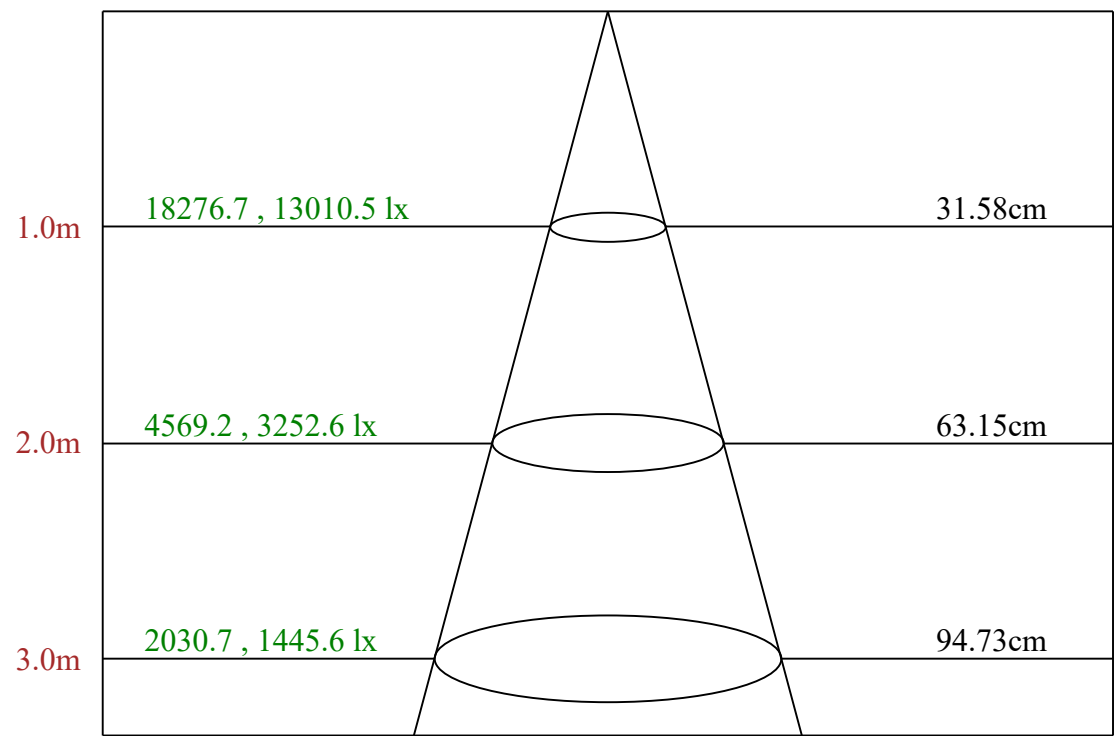
Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

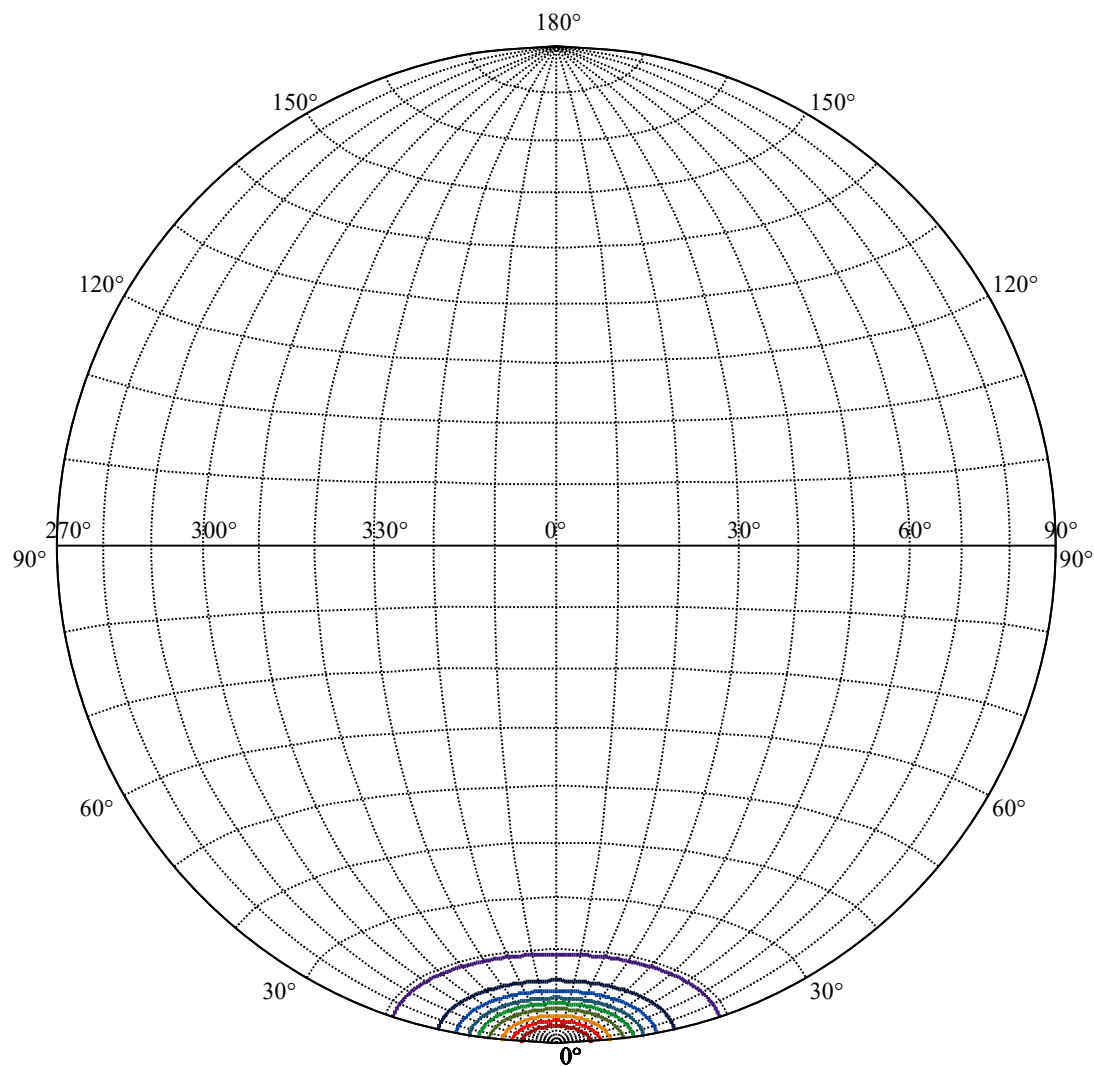
CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.993%





Max , Ave Beam angle of C0 plane 17.94

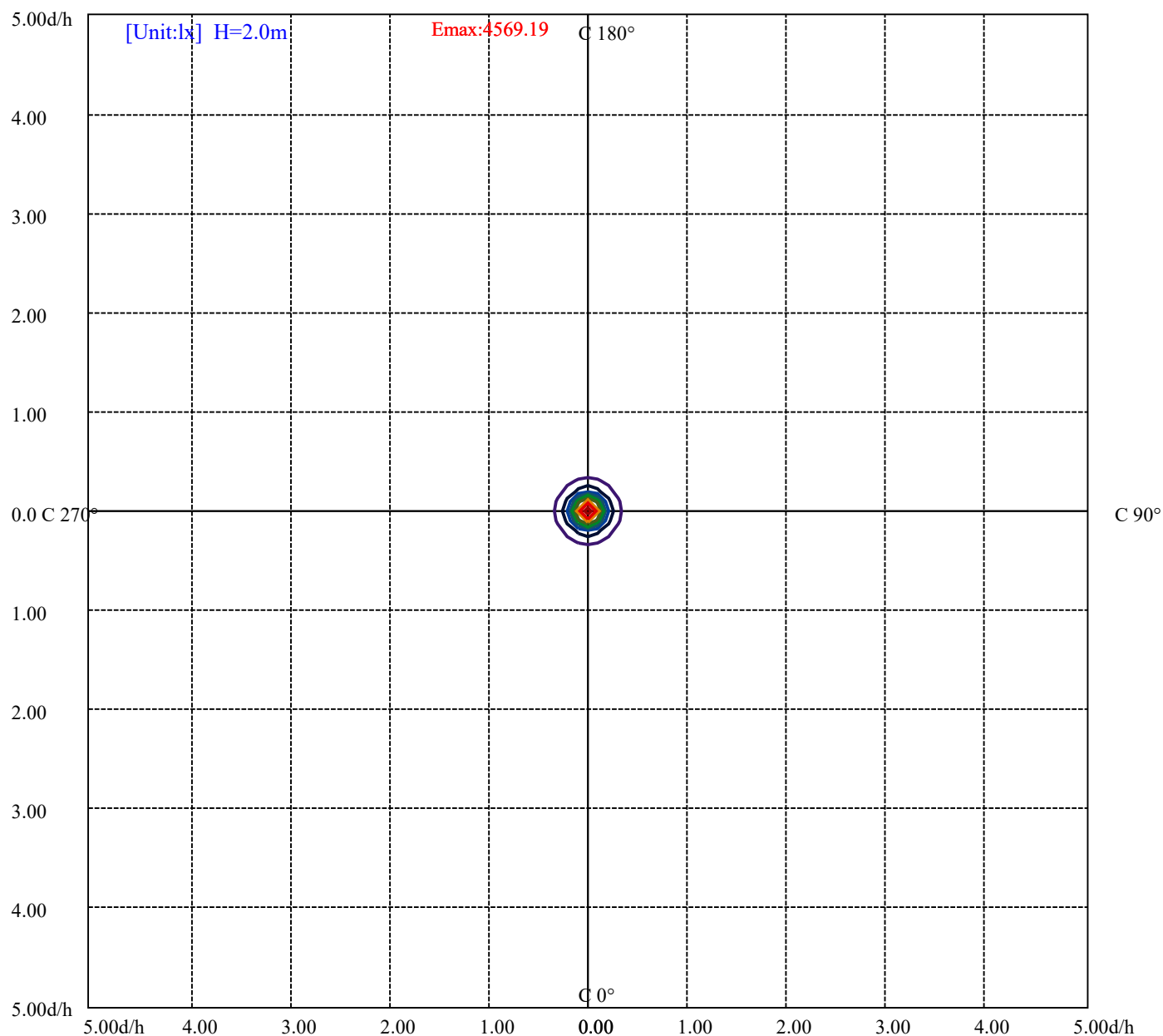


House

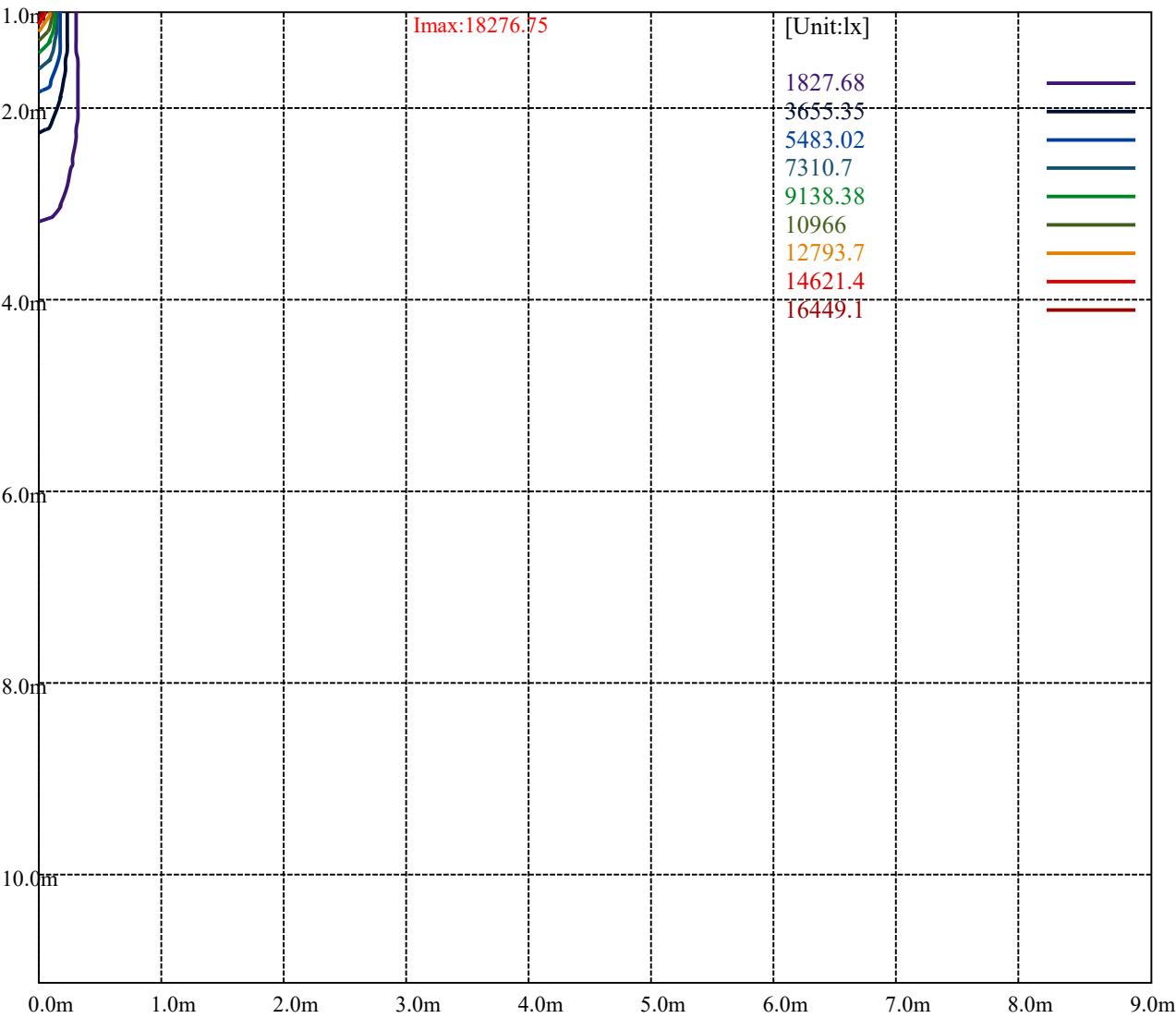
[Unit:cd]

Road

Imax:18276.75	
(10%Imax) 1827.68	
(20%Imax) 3655.35	
(30%Imax) 5483.02	
(40%Imax) 7310.7	
(50%Imax) 9138.38	
(60%Imax) 10966	
(70%Imax) 12793.7	
(80%Imax) 14621.4	
(90%Imax) 16449.1	



(10%Emax)	456.9175	—
(20%Emax)	913.8375	—
(30%Emax)	1370.755	—
(40%Emax)	1827.672	—
(50%Emax)	2284.593	—
(60%Emax)	2741.5	—
(70%Emax)	3198.425	—
(80%Emax)	3655.35	—
(90%Emax)	4112.275	—



Luminance Table

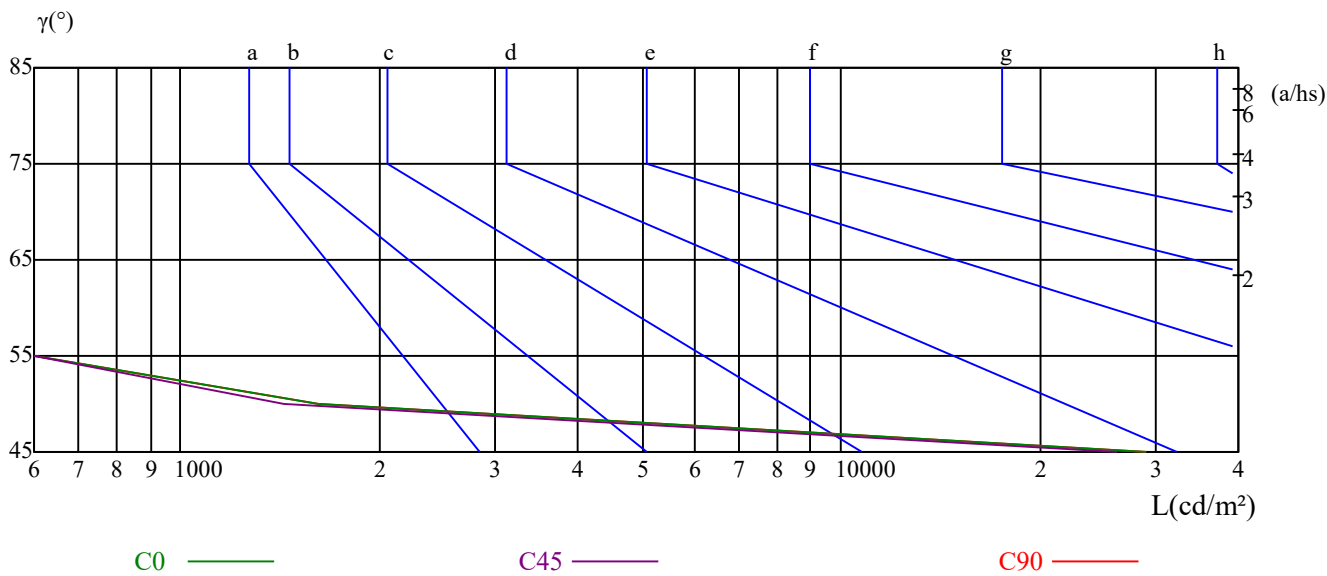
γ	45	50	55	60	65	70	75	80	85
C0	29074	1616	367	158	61	6	0	0	0
C45	26189	1436	321	136	52	5	0	0	0
C90	29074	1616	367	158	61	6	0	0	0

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
108	108	108	0	0	0	0	0	0

Glare Table

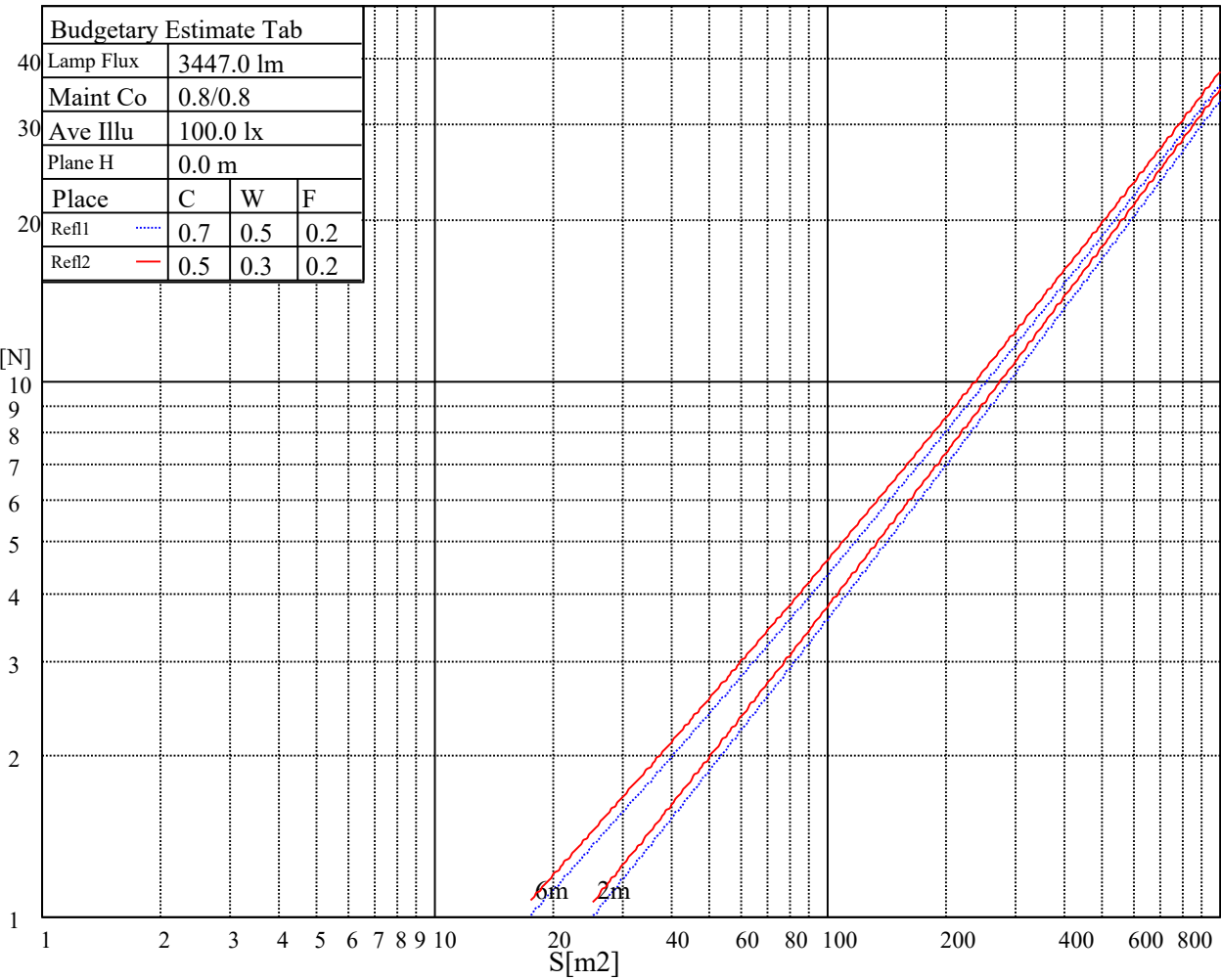
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve

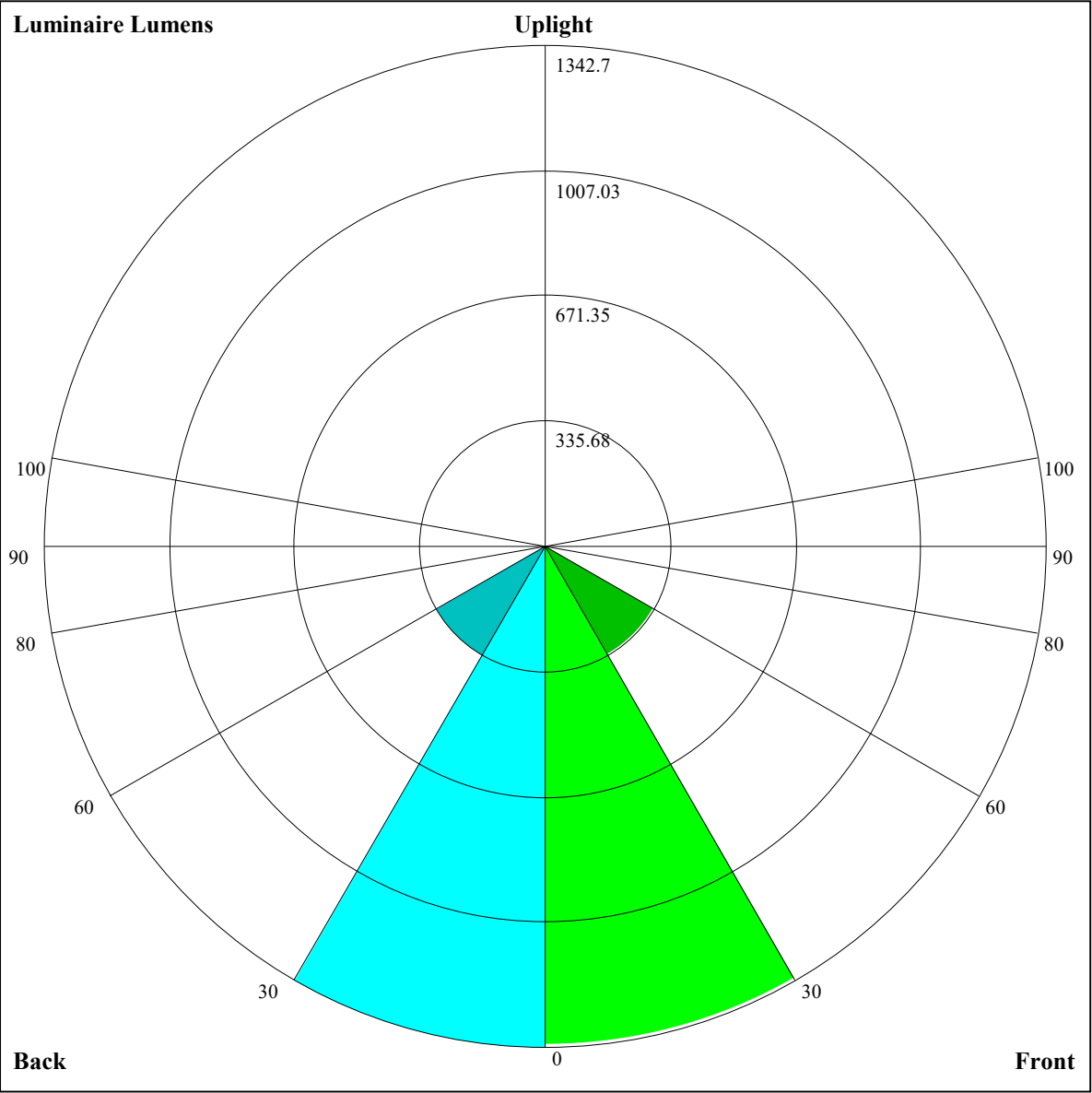


Illumination assessment according UGR											
Rf of Ceiling	70	70	50	50	30	70	70	50	50	30	
Rf of Wall	50	30	50	30	30	50	30	50	30	30	
Rf of Floor	20	20	20	20	20	20	20	20	20	20	
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	20.42	21.35	20.78	21.66	21.97	20.70	21.62	21.06	21.94	22.25
	3H	20.20	21.02	20.59	21.36	21.71	20.48	21.30	20.87	21.64	21.99
	4H	20.09	20.85	20.50	21.21	21.58	20.37	21.13	20.77	21.48	21.85
	6H	20.00	20.69	20.42	21.07	21.47	20.28	20.97	20.70	21.35	21.75
	8H	19.92	20.58	20.34	20.97	21.38	20.20	20.86	20.62	21.24	21.65
	12H	19.85	20.47	20.28	20.87	21.29	20.13	20.75	20.55	21.14	21.56
4H	2H	20.09	20.85	20.50	21.21	21.58	20.37	21.13	20.77	21.49	21.85
	3H	19.84	20.47	20.26	20.86	21.28	20.11	20.75	20.54	21.14	21.56
	4H	19.75	20.30	20.19	20.72	21.17	20.03	20.57	20.47	21.00	21.45
	6H	19.60	20.08	20.08	20.54	20.99	19.88	20.36	20.36	20.81	21.27
	8H	19.54	19.98	20.03	20.44	20.92	19.82	20.26	20.31	20.72	21.20
	12H	19.48	19.89	19.98	20.34	20.87	19.76	20.17	20.25	20.62	21.14
8H	4H	19.54	19.98	20.03	20.44	20.92	19.82	20.26	20.31	20.72	21.20
	6H	19.38	19.74	19.88	20.22	20.73	19.65	20.01	20.16	20.49	21.01
	8H	19.35	19.65	19.89	20.18	20.68	19.63	19.93	20.17	20.46	20.95
	12H	19.30	19.52	19.84	20.04	20.57	19.57	19.80	20.12	20.32	20.84
12H	4H	19.48	19.89	19.98	20.34	20.87	19.76	20.17	20.25	20.62	21.14
	6H	19.35	19.65	19.89	20.18	20.68	19.63	19.93	20.17	20.46	20.95
	8H	19.30	19.52	19.84	20.04	20.57	19.57	19.80	20.12	20.32	20.84
Variation with the observer position at spacings:											
S = 1.0H		4.0/-32.5					4.0/-32.5				
S = 1.5H		6.8/-39.1					6.8/-39.1				
S = 2.0H		8.8/-49.8					8.8/-49.8				
Standard tables:		BK0					BK0				
Uncorrected UGR		0.9					0.9				

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



Luminaire Lumens:

FL=1334.32,FM=336.14,FH=0.13,FVH=0

BL=1342.7,BM=338.85,BH=0.12,BVH=0

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	18417.38	18203.63	17596.13	17151.75	16212.38	14119.88	10661.01	10661.01	9932.01
45.0	18068.63	18411.75	18428.63	18231.75	17742.38	17337.38	16212.38	14412.38	13467.38
90.0	18473.63	18462.38	18209.25	17562.38	17112.38	16128.00	13326.75	10794.88	10794.88
135.0	18147.38	18293.63	18231.75	17916.75	17196.75	16296.75	15171.75	14344.88	12443.63
180.0	18417.38	18355.50	18102.38	17815.50	16977.38	15981.75	14710.50	12854.25	12184.88
225.0	18068.63	17770.50	17073.00	16077.38	14839.88	10589.57	10589.57	9880.82	7855.26
270.0	18473.63	18237.38	18006.75	17208.00	16313.63	15115.50	13321.13	11599.88	9828.00
315.0	18147.38	17607.38	17219.25	16308.00	15171.75	13174.88	11047.44	10333.07	8598.32
360.0	18417.38	18203.63	17596.13	17151.75	16212.38	14119.88	10661.01	10661.01	9932.01
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	8240.57	6473.76	5745.32	4363.26	3525.13	3204.51	2757.32	2406.88	2123.94
45.0	11706.75	9529.88	7853.63	6408.00	5654.25	4450.50	3708.00	3145.50	2864.25
90.0	9700.82	7986.32	6231.88	5510.76	4185.51	3401.38	3103.26	2691.51	2357.38
135.0	10666.13	8905.50	7285.50	6430.50	5029.88	4129.88	3471.75	2886.75	2886.75
180.0	10075.50	7729.88	6841.13	5350.50	4394.25	3679.88	3134.25	2858.63	2858.63
225.0	6965.38	5680.07	4660.26	3745.63	3194.38	2756.19	2414.76	2090.19	1951.82
270.0	8157.38	7240.50	5654.25	4613.63	3831.75	3241.13	2954.25	2954.25	2183.01
315.0	6796.07	6024.32	4927.44	4067.94	3429.51	2846.19	2618.94	2186.38	1897.82
360.0	8240.57	6473.76	5745.32	4363.26	3525.13	3204.51	2757.32	2406.88	2123.94
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1854.51	1743.13	1589.01	1470.32	1375.82	1284.69	1247.57	1175.57	1108.97
45.0	2864.25	2118.32	1884.88	1767.32	1582.26	1461.32	1363.44	1286.94	1248.69
90.0	2089.63	1827.51	1721.19	1571.57	1452.88	1356.13	1268.38	1232.38	1181.76
135.0	2529.51	2031.13	1900.07	1680.69	1487.19	1423.07	1319.01	1251.51	1198.07
180.0	2123.38	1978.26	1741.44	1591.26	1473.69	1379.19	1331.94	1254.88	1200.88
225.0	1757.76	1608.13	1486.63	1371.32	1323.51	1238.01	1179.51	1118.25	1112.06
270.0	2036.19	1797.13	1639.63	1513.63	1410.69	1313.38	1272.88	1198.07	1170.51
315.0	1781.38	1622.76	1500.13	1399.44	1303.26	1264.44	1208.76	1116.51	1097.38
360.0	1854.51	1743.13	1589.01	1470.32	1375.82	1284.69	1247.57	1175.57	1108.97
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	1108.97	1090.52	1065.32	1037.87	1017.90	1001.03	984.77	945.96	911.31
45.0	1186.26	1128.32	1108.07	1074.32	1049.57	1027.63	1008.51	997.82	977.01
90.0	1114.82	1114.82	1085.85	1046.76	1034.61	1016.38	1005.81	979.59	936.34
135.0	1153.07	1130.57	1090.63	1064.76	1041.13	1019.19	1006.82	986.57	969.13
180.0	1156.44	1112.57	1082.76	1057.44	1035.51	1023.13	1000.07	983.19	957.32
225.0	1100.31	1072.07	1042.71	1022.68	1003.05	979.93	964.13	922.39	859.89
270.0	1123.82	1091.19	1064.19	1039.44	1026.51	1002.88	983.76	962.38	924.69
315.0	1097.38	1069.37	1045.52	1020.71	1008.28	984.09	972.73	939.38	868.78
360.0	1108.97	1090.52	1065.32	1037.87	1017.90	1001.03	984.77	945.96	911.31
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	840.21	759.94	672.58	560.42	502.59	406.63	312.30	207.96	130.05
45.0	950.57	901.63	832.44	734.57	682.26	547.82	489.32	368.38	330.13
90.0	903.94	838.58	758.93	665.10	544.67	481.50	378.79	280.29	174.15
135.0	938.19	870.13	794.19	709.82	618.69	565.26	448.26	352.63	314.94
180.0	907.82	869.01	745.82	656.94	601.82	485.94	388.07	297.51	297.51
225.0	781.20	676.35	619.14	519.41	419.74	321.47	213.24	162.62	67.39
270.0	893.19	781.26	691.82	636.69	515.19	409.44	307.07	307.07	134.16
315.0	790.93	703.69	592.71	535.50	436.89	341.83	248.85	149.51	106.71
360.0	840.21	759.94	672.58	560.42	502.59	406.63	312.30	207.96	130.05

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	65.47	25.59	11.36	10.35	8.10	6.92	5.96	3.49	1.86
45.0	330.13	111.66	52.59	21.38	10.58	9.56	7.03	5.74	4.61
90.0	100.80	49.78	19.74	9.96	8.89	6.86	5.51	4.50	2.64
135.0	295.82	97.31	42.98	16.54	10.58	8.33	6.30	5.34	4.16
180.0	131.40	65.25	24.36	13.50	9.51	7.37	6.02	4.89	3.88
225.0	21.99	12.38	9.06	7.09	5.68	4.50	3.49	1.74	1.52
270.0	71.38	30.32	17.38	9.73	7.88	6.47	5.40	4.50	1.97
315.0	49.72	20.08	10.97	8.78	7.76	6.64	4.67	2.14	1.69
360.0	65.47	25.59	11.36	10.35	8.10	6.92	5.96	3.49	1.86
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	1.58	1.29	1.18	0.96	0.84	0.62	0.45	0.45	0.34
45.0	3.09	2.08	1.80	1.46	1.35	1.13	0.84	0.68	0.62
90.0	1.97	1.74	1.58	1.35	1.07	0.90	0.73	0.51	0.51
135.0	1.91	1.69	1.52	1.41	1.13	0.90	0.73	0.62	0.51
180.0	1.69	1.41	1.29	1.07	1.01	0.68	0.56	0.45	0.39
225.0	1.29	1.13	0.96	0.79	0.56	0.51	0.39	0.34	0.23
270.0	1.69	1.52	1.24	1.18	0.84	0.73	0.68	0.51	0.45
315.0	1.46	1.29	1.01	0.90	0.68	0.62	0.51	0.39	0.28
360.0	1.58	1.29	1.18	0.96	0.84	0.62	0.45	0.45	0.34
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	0.28	0.23	0.17	0.11	0.11	0.00	0.00	0.00	0.00
45.0	0.45	0.45	0.34	0.28	0.23	0.17	0.11	0.06	0.00
90.0	0.39	0.34	0.28	0.17	0.11	0.06	0.00	0.06	0.00
135.0	0.45	0.34	0.23	0.23	0.11	0.11	0.06	0.00	0.00
180.0	0.34	0.28	0.17	0.17	0.11	0.11	0.06	0.06	0.00
225.0	0.23	0.17	0.11	0.06	0.00	0.00	0.00	0.00	0.00
270.0	0.34	0.28	0.28	0.17	0.11	0.11	0.06	0.00	0.00
315.0	0.28	0.23	0.17	0.11	0.06	0.00	0.00	0.00	0.00
360.0	0.28	0.23	0.17	0.11	0.11	0.00	0.00	0.00	0.00
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45.0	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
225.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
270.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
315.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
360.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
225.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
270.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
315.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
360.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Intensity data(cd)

C/ γ (°)	90.0
0.0	0.00
45.0	0.00
90.0	0.00
135.0	0.00
180.0	0.00
225.0	0.00
270.0	0.00
315.0	0.00
360.0	0.00