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NT

Client: NT

LumCAT: 2-3119-LM

Luminaire: 92.70.412.00 LED HOLDER

Report No: 20260123-B011

Ballast type: AC

Test No: 20260123-C011

Voltage(V): 36.890

LampCAT: CITIZEN CLU038 LES14.5

Current(A): 0.712

Lamp flux(lm): 3448.0

Power (W): 26.265

Number of Lamps: 1

PF: 0.000

Length(mm): 65

Width(mm): 65

Phm Type: C

Height(mm): 34

Photometric Results

Lumens(lm): 3312.55, Efficiency(%): 96.07% , Luminous Efficacy(lm/W): 126.12

Central intensity(cd): 10809.510, Maximum intensity(cd): 10809.510

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=25.8

[C90/270]Total=25.8

Field angle(10%Imax): [C0/180]Total=60.8

[C90/270]Total=60.8

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

Maximum s/h(1/4): C0_180=0.45 C90_270=0.45

Up flux rate of lamp(%): 0.00%

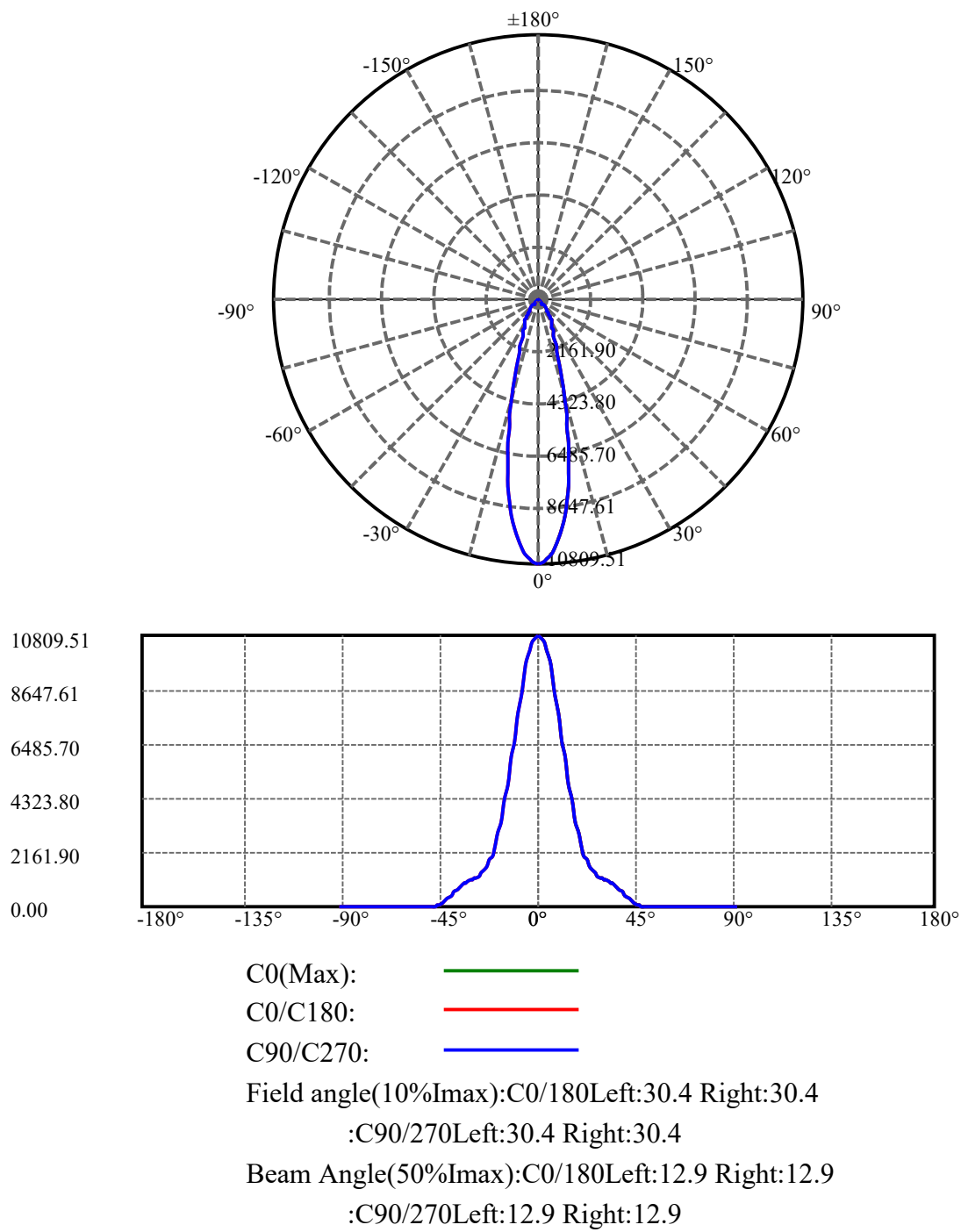
Down flux rate of lamp(%): 96.07%

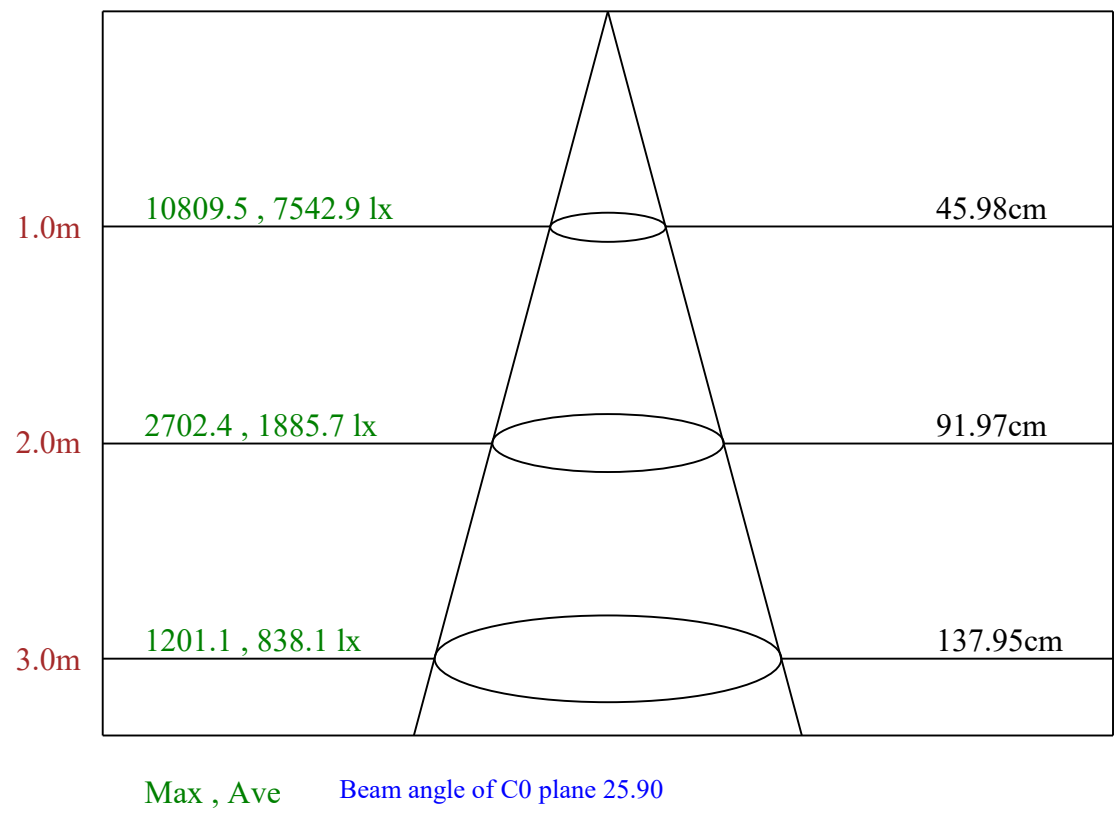
Up flux rate of LUM(%): - -

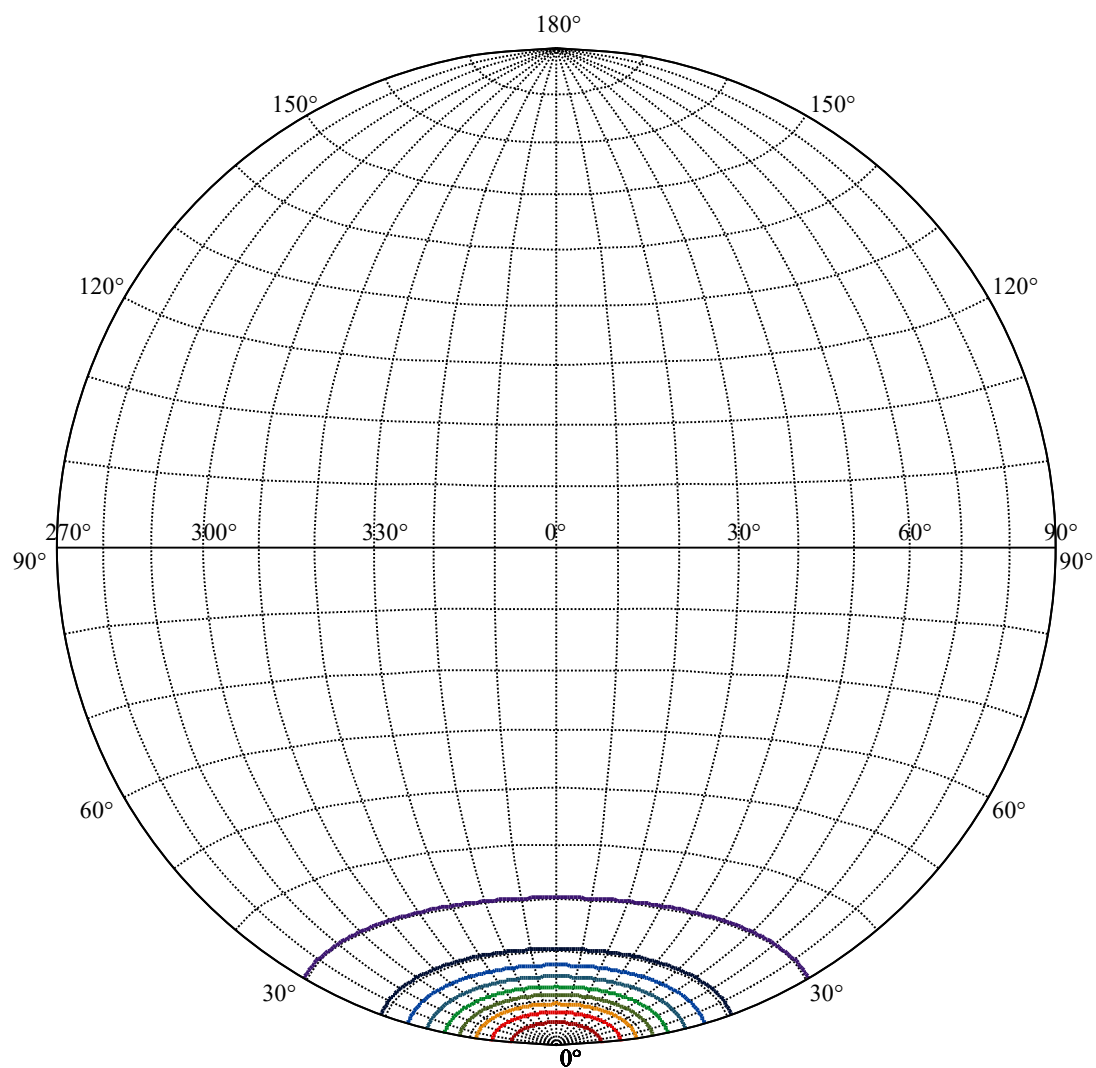
Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.897%







House

[Unit:cd]

Road

Imax:10809.51

(10%Imax) 1080.95

(20%Imax) 2161.9

(30%Imax) 3242.85

(40%Imax) 4323.8

(50%Imax) 5404.75

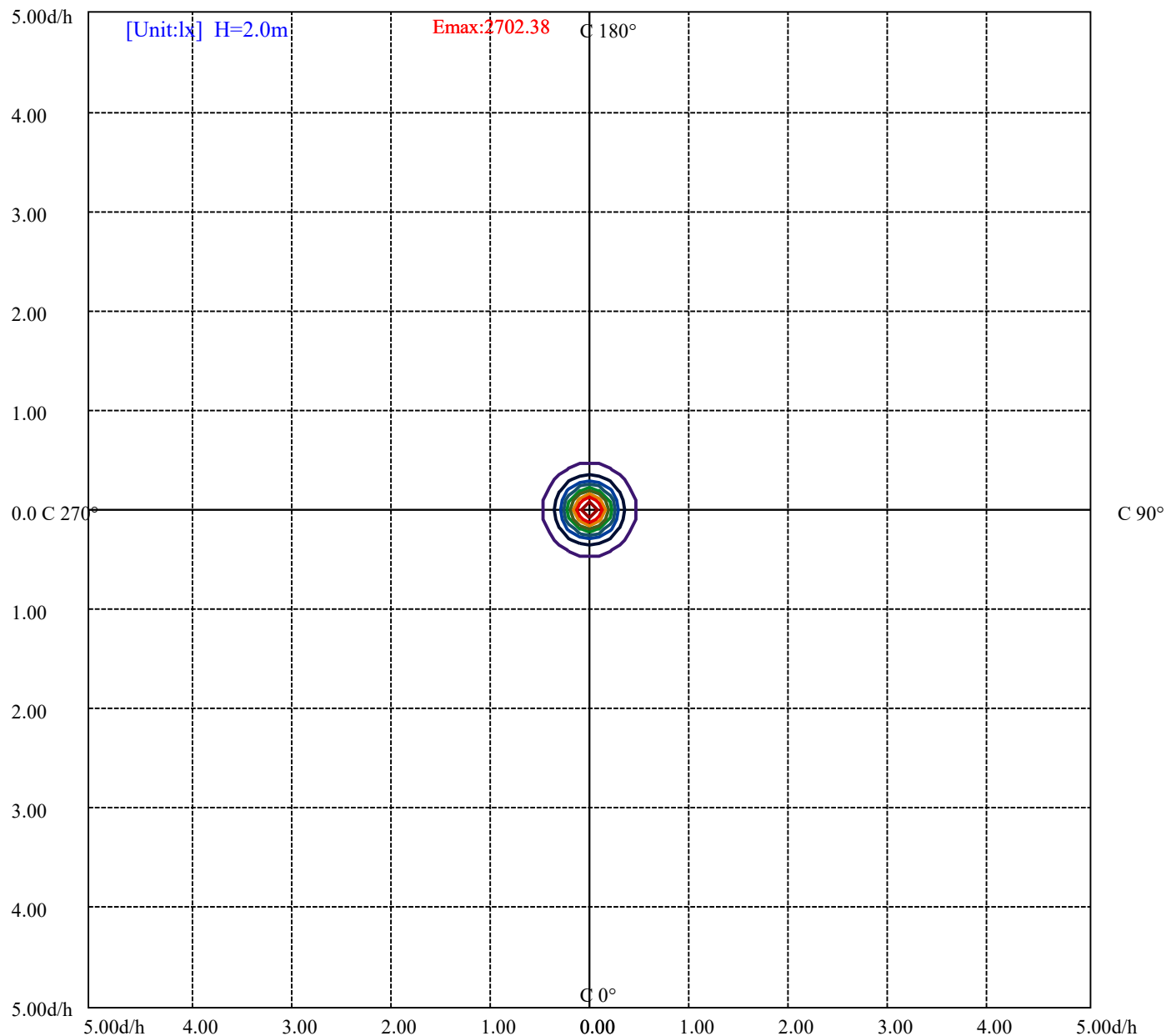
(60%Imax) 6485.7

(70%Imax) 7566.65

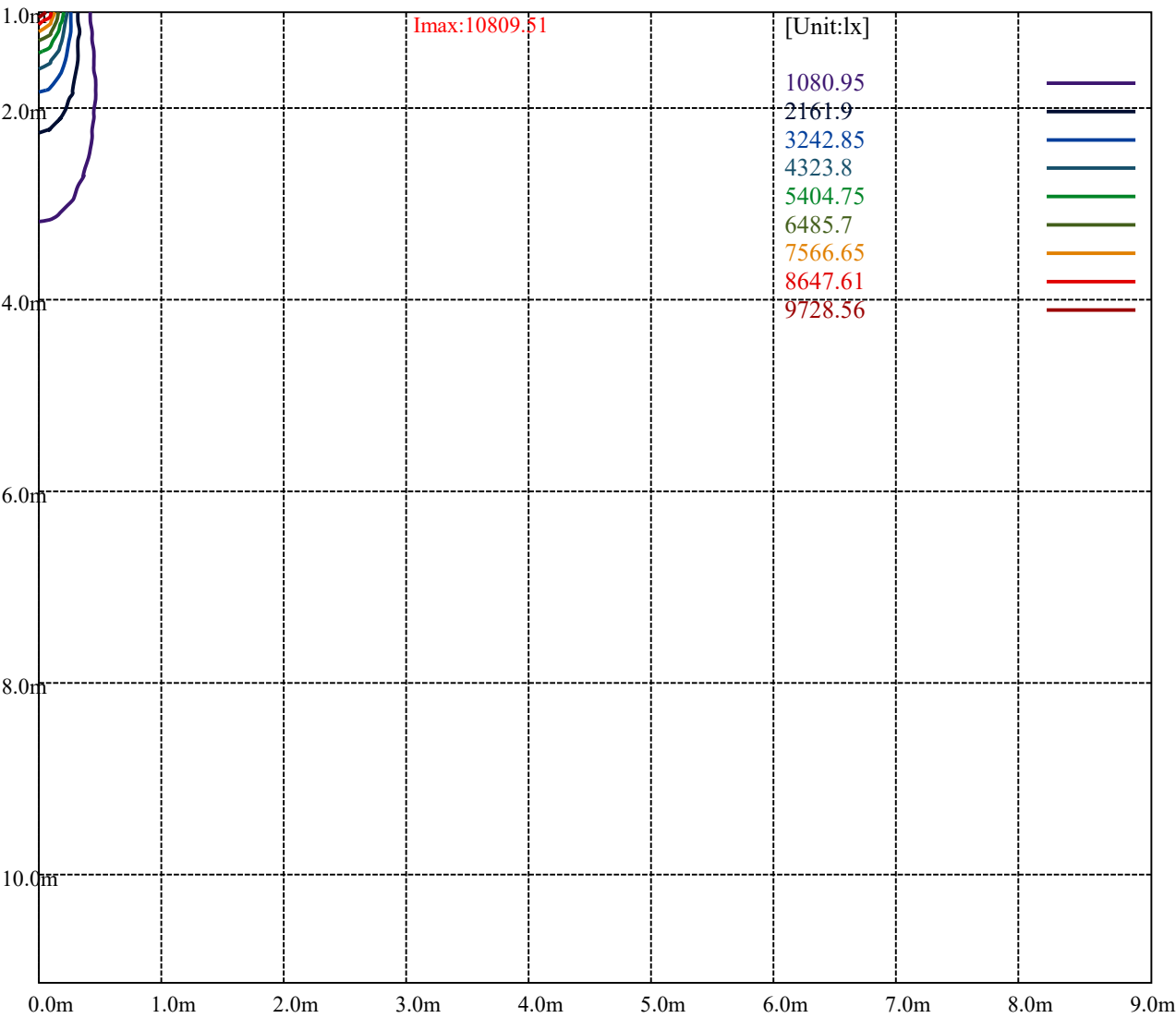
(80%Imax) 8647.61

(90%Imax) 9728.56

(2) $(\mathcal{C}, \text{formal}) \models \varphi \Leftrightarrow \mathcal{C} \models \varphi$



(10%Emax) 270.2375	—
(20%Emax) 540.475	—
(30%Emax) 810.7125	—
(40%Emax) 1080.95	—
(50%Emax) 1351.188	—
(60%Emax) 1621.425	—
(70%Emax) 1891.662	—
(80%Emax) 2161.9	—
(90%Emax) 2432.137	—



Luminance Table

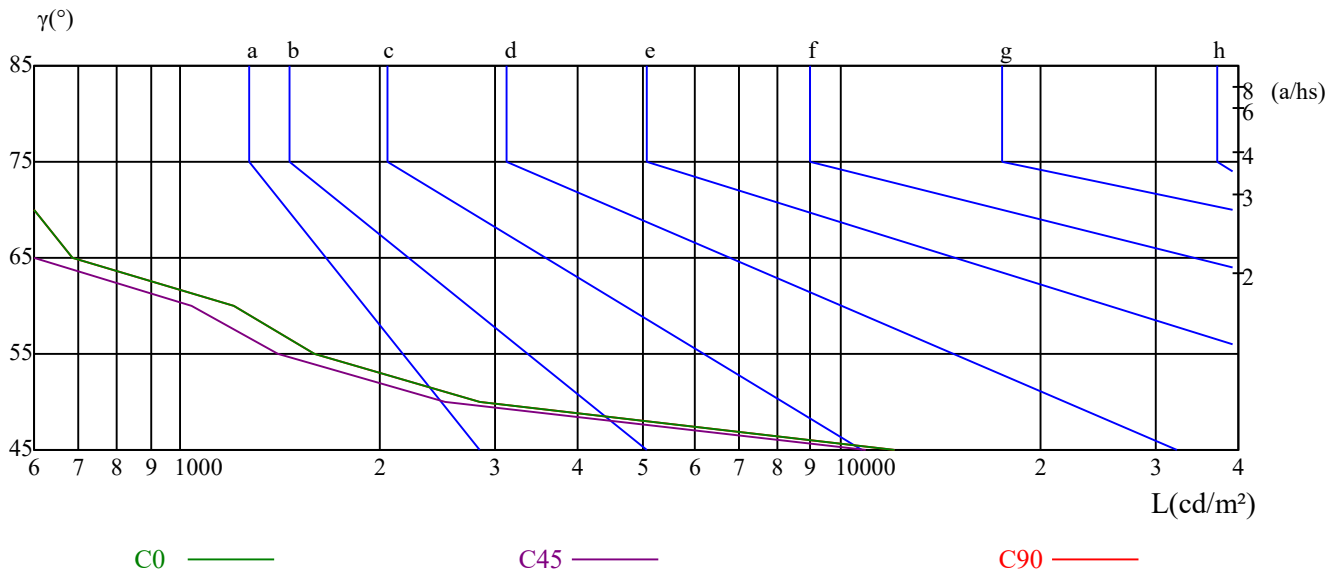
γ	45	50	55	60	65	70	75	80	85
C0	12098	2831	1600	1201	684	368	216	92	10
C45	10897	2516	1402	1036	579	305	174	72	7
C90	12098	2831	1600	1201	684	368	216	92	10

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
1216	1216	1216	508	508	508	51	51	51

Glare Table

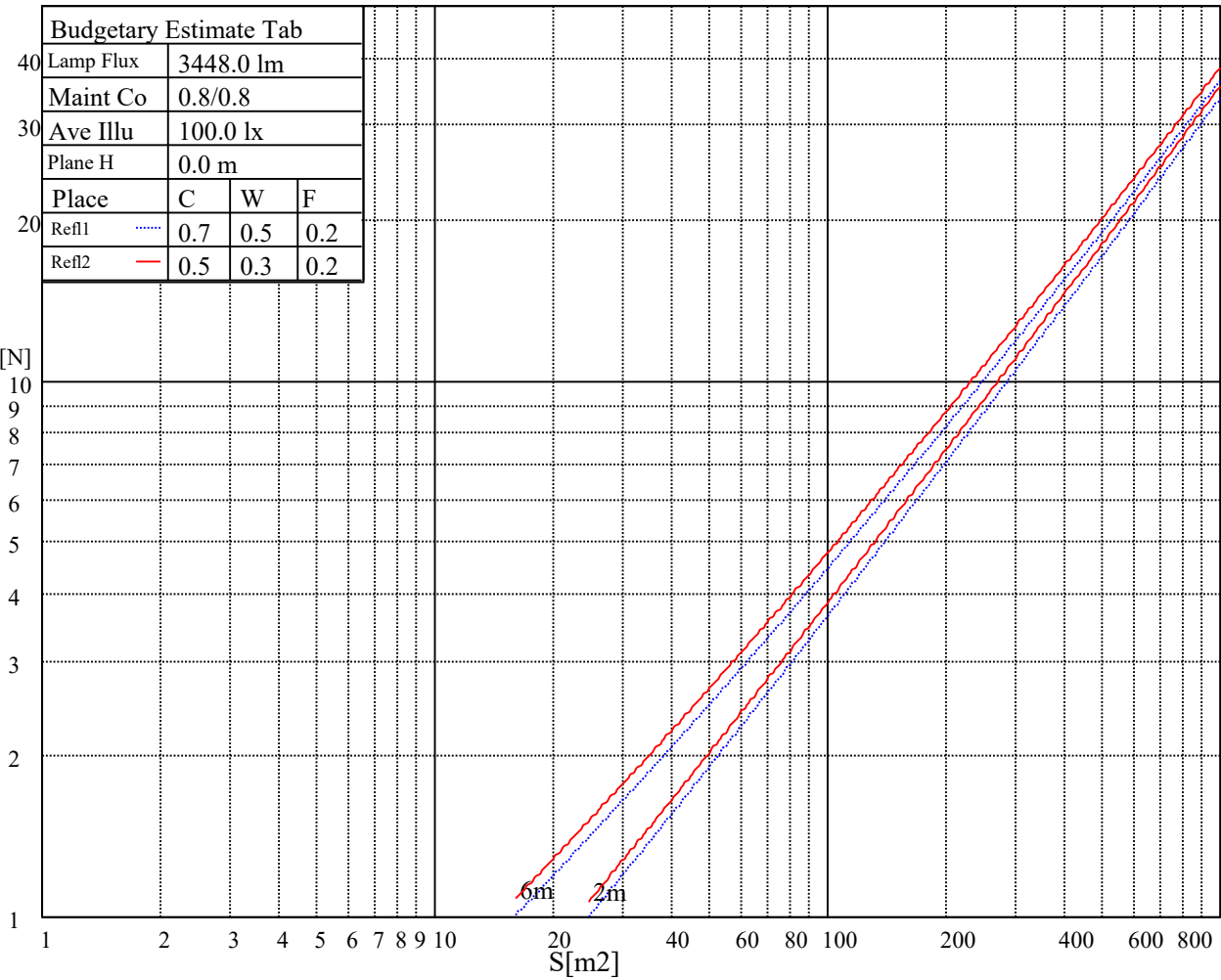
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve

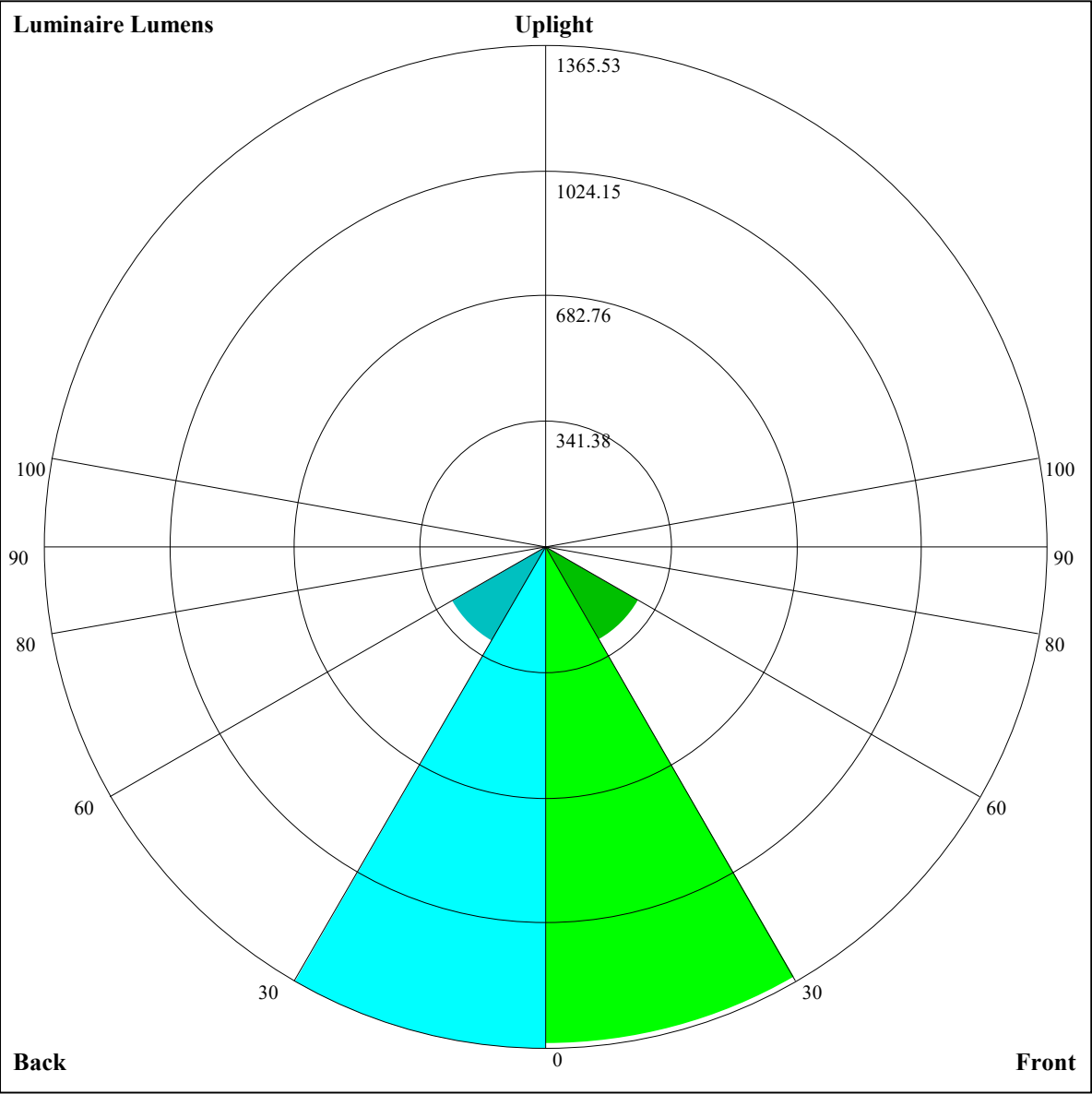


Illumination assessment according UGR											
Rf of Ceiling		70	70	50	50	30	70	70	50	50	30
Rf of Wall		50	30	50	30	30	50	30	50	30	30
Rf of Floor		20	20	20	20	20	20	20	20	20	20
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	19.66	20.58	20.02	20.89	21.20	20.10	21.02	20.46	21.33	21.64
	3H	19.44	20.26	19.83	20.59	20.94	19.88	20.69	20.27	21.03	21.38
	4H	19.33	20.08	19.74	20.44	20.81	19.77	20.52	20.17	20.88	21.25
	6H	19.24	19.92	19.66	20.30	20.70	19.68	20.36	20.10	20.74	21.14
	8H	19.16	19.81	19.58	20.20	20.61	19.60	20.25	20.02	20.64	21.04
	12H	19.09	19.70	19.51	20.10	20.52	19.53	20.14	19.95	20.54	20.95
4H	2H	19.33	20.08	19.74	20.44	20.81	19.77	20.52	20.17	20.88	21.25
	3H	19.08	19.70	19.50	20.10	20.52	19.51	20.14	19.94	20.54	20.95
	4H	18.99	19.53	19.43	19.95	20.40	19.43	19.97	19.87	20.39	20.84
	6H	18.84	19.31	19.32	19.77	20.22	19.28	19.75	19.75	20.21	20.66
	8H	18.78	19.21	19.26	19.67	20.15	19.22	19.65	19.70	20.11	20.59
	12H	18.72	19.12	19.21	19.58	20.10	19.16	19.56	19.65	20.02	20.54
8H	4H	18.78	19.21	19.26	19.67	20.15	19.22	19.65	19.70	20.11	20.59
	6H	18.61	18.97	19.12	19.45	19.96	19.05	19.41	19.56	19.89	20.40
	8H	18.59	18.89	19.13	19.41	19.91	19.03	19.33	19.57	19.85	20.35
	12H	18.53	18.76	19.08	19.27	19.80	18.97	19.19	19.52	19.71	20.24
12H	4H	18.72	19.12	19.21	19.58	20.10	19.16	19.56	19.65	20.02	20.54
	6H	18.59	18.89	19.13	19.41	19.91	19.03	19.33	19.57	19.85	20.35
	8H	18.53	18.76	19.08	19.27	19.80	18.97	19.19	19.52	19.71	20.24
Variation with the observer position at spacings:											
S = 1.0H		4.9/-20.4					4.9/-20.4				
S = 1.5H		7.7/-21.9					7.7/-21.9				
S = 2.0H		9.7/-24.7					9.7/-24.7				
Standard tables:		BK0					BK0				
Uncorrected UGR		0.0					0.0				

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	1.14	1.14	1.14	1.12	1.12	1.12	1.07	1.07	1.07	1.02	1.02	1.02	0.98	0.98	0.98	0.96
1	1.08	1.06	1.04	1.06	1.04	1.02	1.02	1.00	0.99	0.98	0.97	0.96	0.95	0.94	0.93	0.92
2	1.02	0.98	0.96	1.00	0.97	0.94	0.97	0.94	0.92	0.94	0.92	0.90	0.92	0.90	0.89	0.87
3	0.96	0.92	0.89	0.95	0.91	0.88	0.92	0.89	0.87	0.90	0.88	0.86	0.88	0.86	0.84	0.83
4	0.91	0.87	0.84	0.90	0.86	0.83	0.88	0.85	0.82	0.86	0.84	0.81	0.85	0.82	0.80	0.79
5	0.87	0.82	0.79	0.86	0.82	0.79	0.84	0.81	0.78	0.83	0.80	0.77	0.82	0.79	0.77	0.75
6	0.83	0.78	0.75	0.82	0.78	0.75	0.81	0.77	0.74	0.80	0.76	0.74	0.79	0.76	0.73	0.72
7	0.79	0.75	0.71	0.79	0.74	0.71	0.78	0.74	0.71	0.77	0.73	0.70	0.76	0.72	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	0.65	0.64
10	0.70	0.66	0.63	0.70	0.66	0.63	0.69	0.65	0.62	0.69	0.65	0.62	0.68	0.65	0.62	0.61



Luminaire Lumens:

FL=1355.12,FM=292.97,FH=1.7,FVH=0.05

BL=1365.53,BM=297.75,BH=1.65,BVH=0.05

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	10858.44	10786.44	10627.82	10389.32	9996.13	9759.88	9314.94	8461.63	8231.57
45.0	10732.44	10844.94	10873.63	10787.01	10698.69	10386.51	10209.32	9765.51	9303.13
90.0	10899.51	10900.07	10854.51	10702.63	10473.69	10167.69	9697.44	9225.51	8689.44
135.0	10747.63	10797.69	10804.44	10659.88	10550.19	10239.13	9893.19	9468.51	8978.57
180.0	10858.44	10857.32	10767.88	10610.94	10372.44	9977.57	9822.32	9384.13	8560.63
225.0	10732.44	10539.51	10198.07	9984.32	9565.82	9098.38	8564.57	7856.38	7486.26
270.0	10899.51	10808.38	10622.19	10361.19	10175.01	9705.32	9014.57	8687.19	8102.19
315.0	10747.63	10600.26	10369.07	10054.07	9579.32	9302.01	8792.38	8220.88	7616.19
360.0	10858.44	10786.44	10627.82	10389.32	9996.13	9759.88	9314.94	8461.63	8231.57
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	7500.88	6866.38	6240.32	5495.57	5135.57	4560.69	4023.51	3538.63	3027.32
45.0	8781.69	8208.51	7849.07	7102.07	6214.44	5839.82	5235.13	4884.69	4020.13
90.0	7981.82	7608.32	6976.63	6344.94	5721.13	4997.76	4651.82	3914.38	3630.32
135.0	8655.69	7967.76	7362.51	6735.88	6110.38	5740.26	5023.07	4460.01	3939.13
180.0	7982.94	7620.13	6873.69	6252.69	5641.82	4937.57	4709.76	4065.13	3578.57
225.0	6616.63	5881.44	5524.26	4938.13	4386.88	3884.57	3343.44	3098.19	2730.88
270.0	7368.69	6734.76	6101.94	5734.07	5019.13	4463.94	3950.94	3478.44	3223.63
315.0	6869.19	6494.01	5873.01	5262.69	4575.32	4048.26	3571.26	3143.19	2696.57
360.0	7500.88	6866.38	6240.32	5495.57	5135.57	4560.69	4023.51	3538.63	3027.32
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	2798.38	2457.51	2013.69	1880.38	1690.82	1595.76	1416.88	1307.19	1260.51
45.0	3534.13	3265.26	2788.82	2449.63	2156.57	1910.76	1787.57	1584.51	1450.07
90.0	3194.38	2737.07	2408.57	2134.63	1861.82	1746.51	1584.51	1453.44	1353.32
135.0	3380.01	2972.76	2618.94	2311.82	2150.38	1871.38	1687.44	1537.82	1417.44
180.0	3148.82	2768.57	2564.38	2102.57	1960.26	1759.44	1597.44	1443.88	1343.19
225.0	2410.82	2133.51	1862.94	1748.76	1585.07	1455.69	1336.44	1256.57	1215.51
270.0	2774.76	2336.01	2172.88	1936.63	1814.01	1554.69	1434.32	1375.26	1276.26
315.0	2503.07	2216.19	1973.76	1769.01	1574.38	1494.51	1348.82	1256.57	1230.13
360.0	2798.38	2457.51	2013.69	1880.38	1690.82	1595.76	1416.88	1307.19	1260.51
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	1197.51	1111.84	1111.84	1077.58	1048.11	1007.94	932.79	889.09	808.09
45.0	1348.26	1265.57	1224.51	1155.32	1094.01	1072.63	1036.63	1000.07	948.32
90.0	1257.69	1216.63	1106.04	1106.04	1084.05	1053.28	1017.34	965.31	888.92
135.0	1307.76	1234.07	1173.32	1142.94	1091.76	1058.01	1025.94	983.19	948.88
180.0	1262.76	1196.38	1163.19	1108.63	1072.63	1041.69	1004.57	973.07	862.26
225.0	1103.68	1103.68	1082.19	1037.53	985.50	949.56	877.84	798.30	713.31
270.0	1208.76	1154.19	1110.88	1088.94	1050.13	1011.32	957.32	878.01	798.69
315.0	1107.28	1107.28	1092.38	1054.63	1017.28	962.44	876.43	827.78	741.60
360.0	1197.51	1111.84	1111.84	1077.58	1048.11	1007.94	932.79	889.09	808.09
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	724.73	635.06	524.08	468.73	339.41	239.57	193.11	121.44	64.46
45.0	880.82	801.51	750.88	644.57	551.19	455.57	361.07	307.63	307.63
90.0	841.39	719.72	604.52	547.14	443.93	345.26	255.32	159.36	118.80
135.0	865.07	784.07	696.88	606.88	550.63	438.13	311.01	311.01	293.57
180.0	783.51	730.07	626.57	534.32	438.13	349.82	298.63	298.63	114.69
225.0	600.81	543.09	446.63	352.29	248.51	168.19	101.31	51.47	23.74
270.0	707.57	610.26	554.57	452.19	334.07	299.76	299.76	100.24	54.84
315.0	650.25	557.44	442.52	387.73	298.97	214.99	139.22	67.73	33.24
360.0	724.73	635.06	524.08	468.73	339.41	239.57	193.11	121.44	64.46

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	30.38	17.72	16.48	14.06	12.38	10.91	8.89	7.14	6.08
45.0	119.14	83.81	36.56	20.98	17.83	15.41	14.68	13.39	11.08
90.0	66.66	33.24	19.52	16.76	15.47	13.73	11.98	9.68	8.61
135.0	82.52	54.79	26.72	19.07	14.96	12.94	12.09	10.52	8.16
180.0	79.14	31.89	18.79	16.54	14.40	13.39	11.87	8.72	7.59
225.0	19.52	17.38	15.36	14.18	12.60	11.25	9.00	8.55	8.21
270.0	27.45	18.56	17.44	14.96	13.67	12.38	10.18	8.04	7.31
315.0	19.07	15.58	14.06	12.32	11.03	9.23	6.58	6.24	5.57
360.0	30.38	17.72	16.48	14.06	12.38	10.91	8.89	7.14	6.08
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	5.57	5.29	4.89	4.39	4.05	3.71	3.60	3.32	2.98
45.0	9.34	8.44	8.10	7.65	7.20	6.86	6.41	6.02	5.63
90.0	8.21	7.82	7.31	6.75	6.47	6.08	5.68	5.23	4.78
135.0	6.81	6.41	6.13	5.51	5.06	4.61	4.22	4.05	3.66
180.0	7.09	6.64	6.19	5.74	5.51	5.01	4.67	4.33	3.94
225.0	7.59	7.14	6.75	6.19	5.91	5.46	5.12	4.44	3.32
270.0	6.75	6.47	5.85	5.46	5.12	4.78	4.56	4.16	3.71
315.0	5.34	4.84	4.33	3.99	3.60	3.32	2.98	2.70	2.59
360.0	5.57	5.29	4.89	4.39	4.05	3.71	3.60	3.32	2.98
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	2.70	2.36	2.03	1.80	1.58	1.41	1.35	1.18	1.01
45.0	5.12	4.61	3.83	3.09	2.64	1.97	1.69	1.41	1.24
90.0	4.44	3.43	2.70	2.36	1.97	1.63	1.41	1.24	1.13
135.0	3.21	2.98	2.64	2.36	2.03	1.80	1.69	1.46	1.35
180.0	3.71	3.15	2.59	2.03	1.86	1.58	1.46	1.24	1.07
225.0	2.87	2.25	1.63	1.52	1.29	1.24	1.01	0.84	0.79
270.0	3.09	2.59	2.31	1.80	1.46	1.35	1.24	1.07	0.96
315.0	2.36	2.08	1.86	1.63	1.52	1.41	1.29	1.13	1.01
360.0	2.70	2.36	2.03	1.80	1.58	1.41	1.35	1.18	1.01
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	0.90	0.84	0.73	0.62	0.51	0.45	0.34	0.28	0.23
45.0	1.18	1.01	0.90	0.79	0.62	0.62	0.45	0.39	0.34
90.0	1.07	0.90	0.79	0.68	0.62	0.45	0.45	0.34	0.23
135.0	1.18	1.01	0.90	0.73	0.68	0.62	0.51	0.45	0.34
180.0	1.01	0.84	0.79	0.62	0.51	0.45	0.39	0.28	0.23
225.0	0.68	0.62	0.45	0.39	0.34	0.28	0.23	0.11	0.06
270.0	0.84	0.79	0.68	0.56	0.51	0.39	0.34	0.23	0.23
315.0	0.79	0.73	0.68	0.62	0.56	0.39	0.34	0.28	0.23
360.0	0.90	0.84	0.73	0.62	0.51	0.45	0.34	0.28	0.23
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	0.17	0.11	0.06	0.00	0.00	0.00	0.00	0.00	0.00
45.0	0.23	0.23	0.17	0.06	0.06	0.00	0.00	0.00	0.00
90.0	0.17	0.11	0.11	0.06	0.00	0.00	0.00	0.00	0.00
135.0	0.28	0.23	0.17	0.11	0.11	0.06	0.00	0.00	0.00
180.0	0.17	0.11	0.11	0.00	0.00	0.00	0.00	0.00	0.00
225.0	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23
270.0	0.11	0.11	0.06	0.06	0.00	0.00	0.00	0.28	0.23
315.0	0.23	0.17	0.11	0.06	0.00	0.00	0.00	0.17	0.11
360.0	0.17	0.11	0.06	0.00	0.00	0.00	0.00	0.00	0.00

Intensity data(cd)

C/ $\gamma(^{\circ})$	90.0
0.0	0.00
45.0	0.00
90.0	0.00
135.0	0.00
180.0	0.00
225.0	0.39
270.0	0.45
315.0	0.39
360.0	0.00