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Nata

Client: NT

LumCAT: 3-2995-LM

Luminaire: 92.70.412.00 LED HOLDER

Report No: 20260202-B004

Ballast type: DC

Test No: 20260202-C004

Voltage(V): 36.910

LampCAT: CITIZEN CLU038 LES14.5

Current(A): 0.723

Lamp flux(lm): 3615.0

Power (W): 26.680

Number of Lamps: 1

PF: 0.000

Length(mm): 92

Width(mm): 92

Phm Type: C

Height(mm): 49

Photometric Results

Lumens(lm): 3563.00, Efficiency(%): 98.56% , Luminous Efficacy(lm/W): 133.55

Central intensity(cd): 28298.000, Maximum intensity(cd): 28298.000

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=14.6

[C90/270]Total=14.6

Field angle(10%Imax): [C0/180]Total=29.2

[C90/270]Total=29.2

Maximum s/h(1/2): C0_180=0.25 C90_270=0.25

Maximum s/h(1/4): C0_180=0.25 C90_270=0.25

Up flux rate of lamp(%): 0.00%

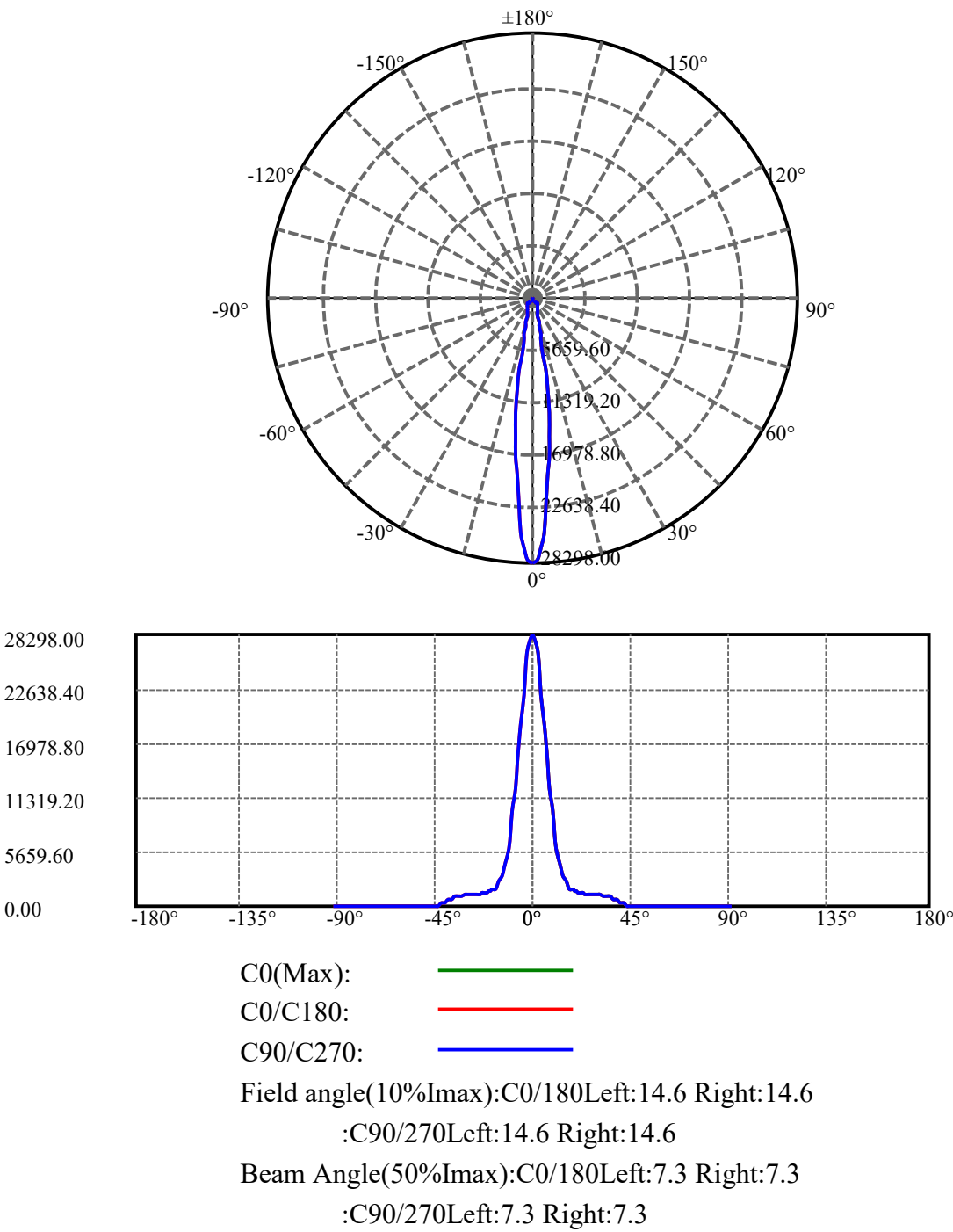
Down flux rate of lamp(%): 98.56%

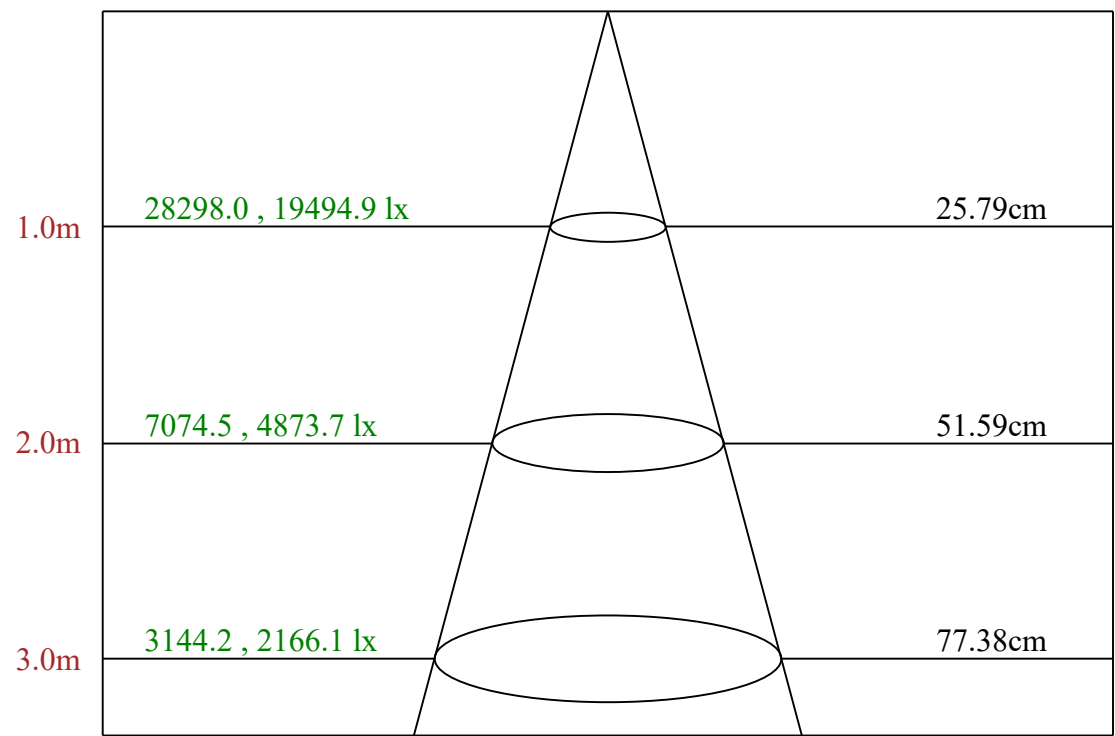
Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

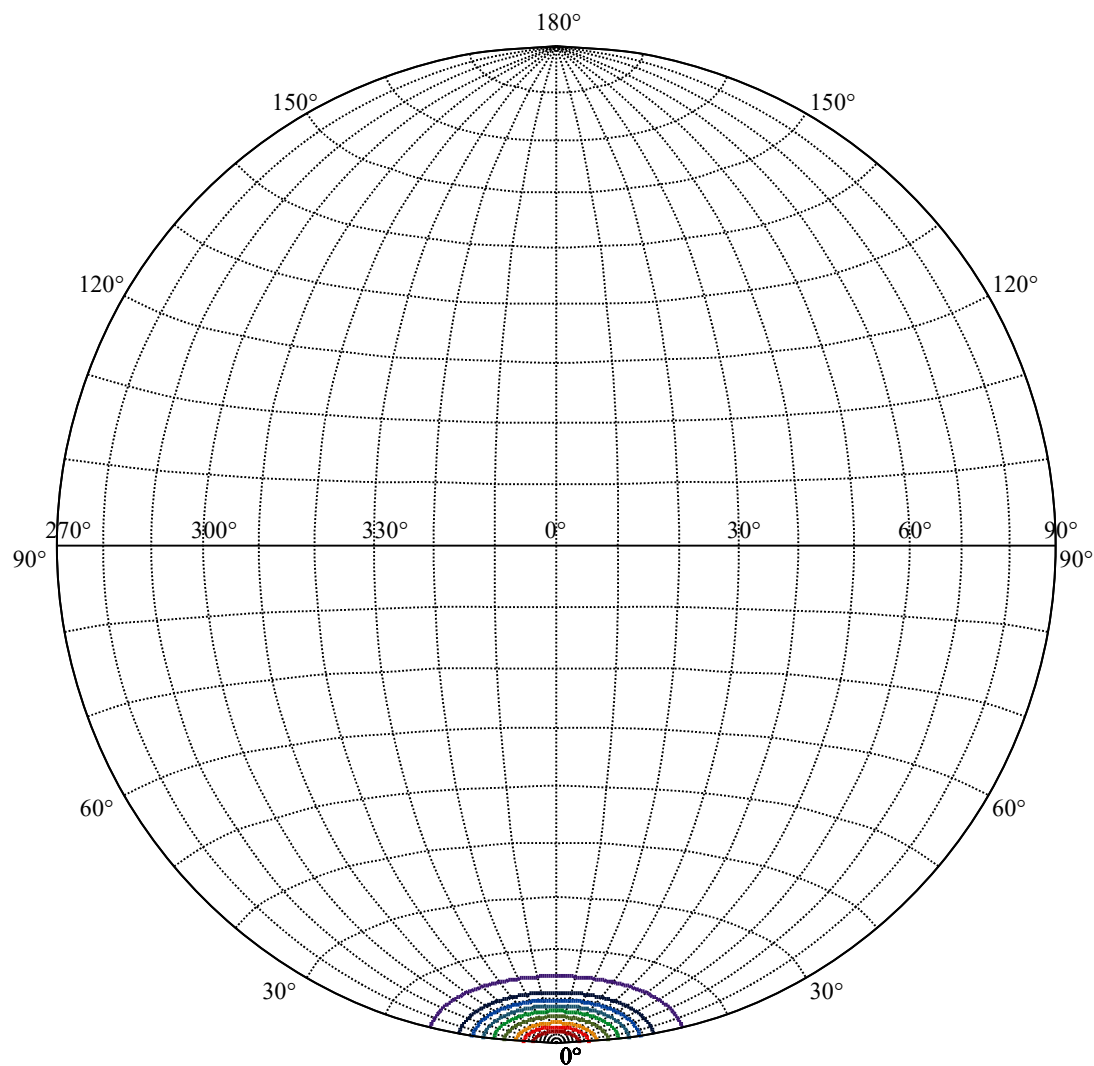
CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.368%





Max , Ave Beam angle of C0 plane 14.70



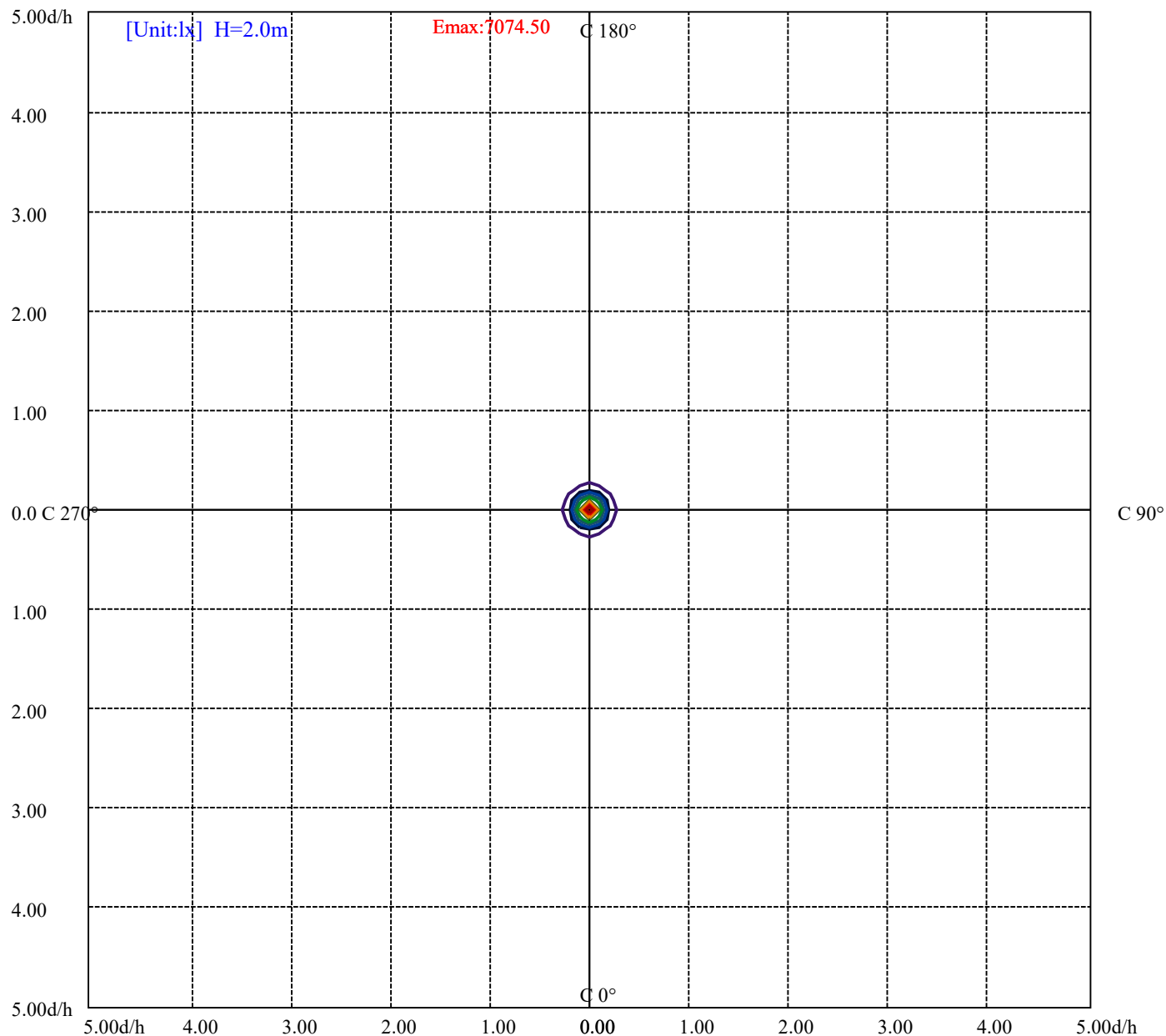
House

[Unit:cd]

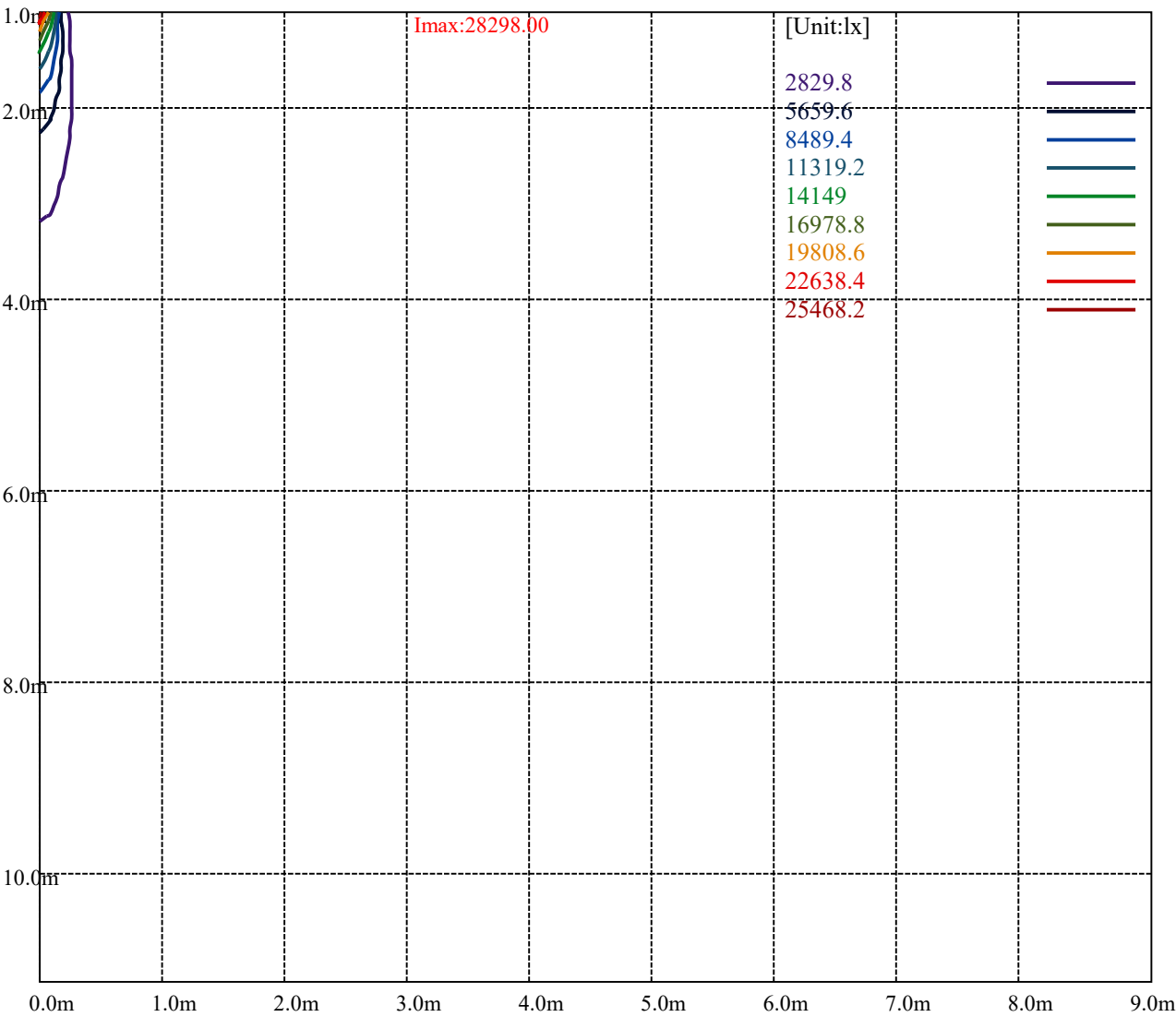
Road

Imax:28298.00

(10%Imax)	2829.8	—
(20%Imax)	5659.6	—
(30%Imax)	8489.4	—
(40%Imax)	11319.2	—
(50%Imax)	14149	—
(60%Imax)	16978.8	—
(70%Imax)	19808.6	—
(80%Imax)	22638.4	—
(90%Imax)	25468.2	—



(10%Emax)	707.4475	—
(20%Emax)	1414.897	—
(30%Emax)	2122.345	—
(40%Emax)	2829.8	—
(50%Emax)	3537.25	—
(60%Emax)	4244.7	—
(70%Emax)	4952.15	—
(80%Emax)	5659.6	—
(90%Emax)	6367.05	—



Luminance Table

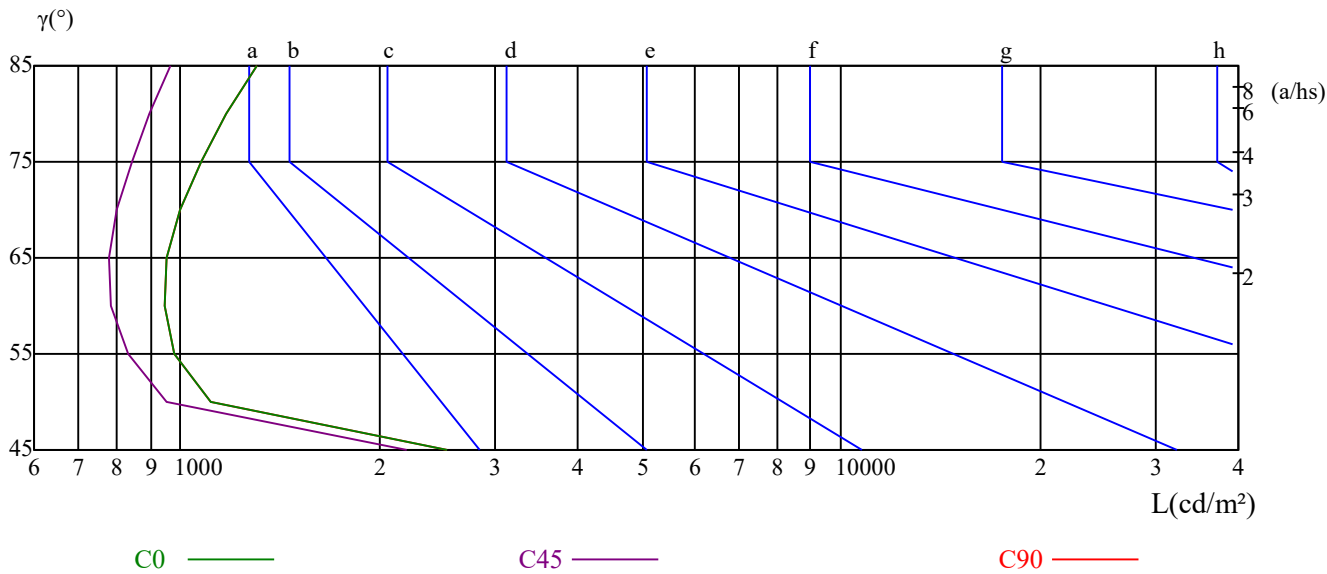
γ	45	50	55	60	65	70	75	80	85
C0	2527	1109	982	943	953	1000	1077	1175	1307
C45	2206	954	831	786	779	801	843	895	963
C90	2527	1109	982	943	953	1000	1077	1175	1307

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
2064	2064	2064	3260	3260	3260	9426	9426	9426

Glare Table

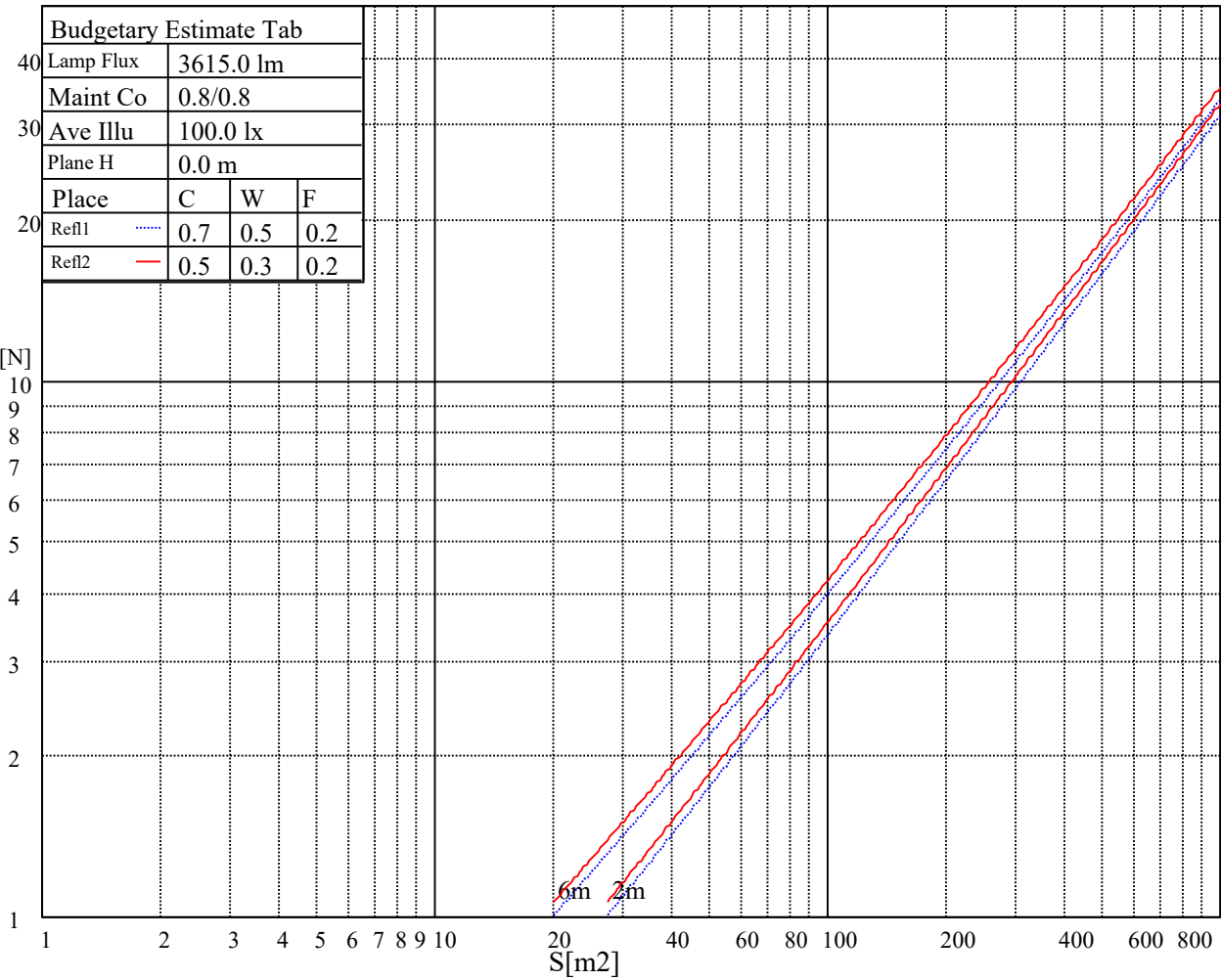
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve

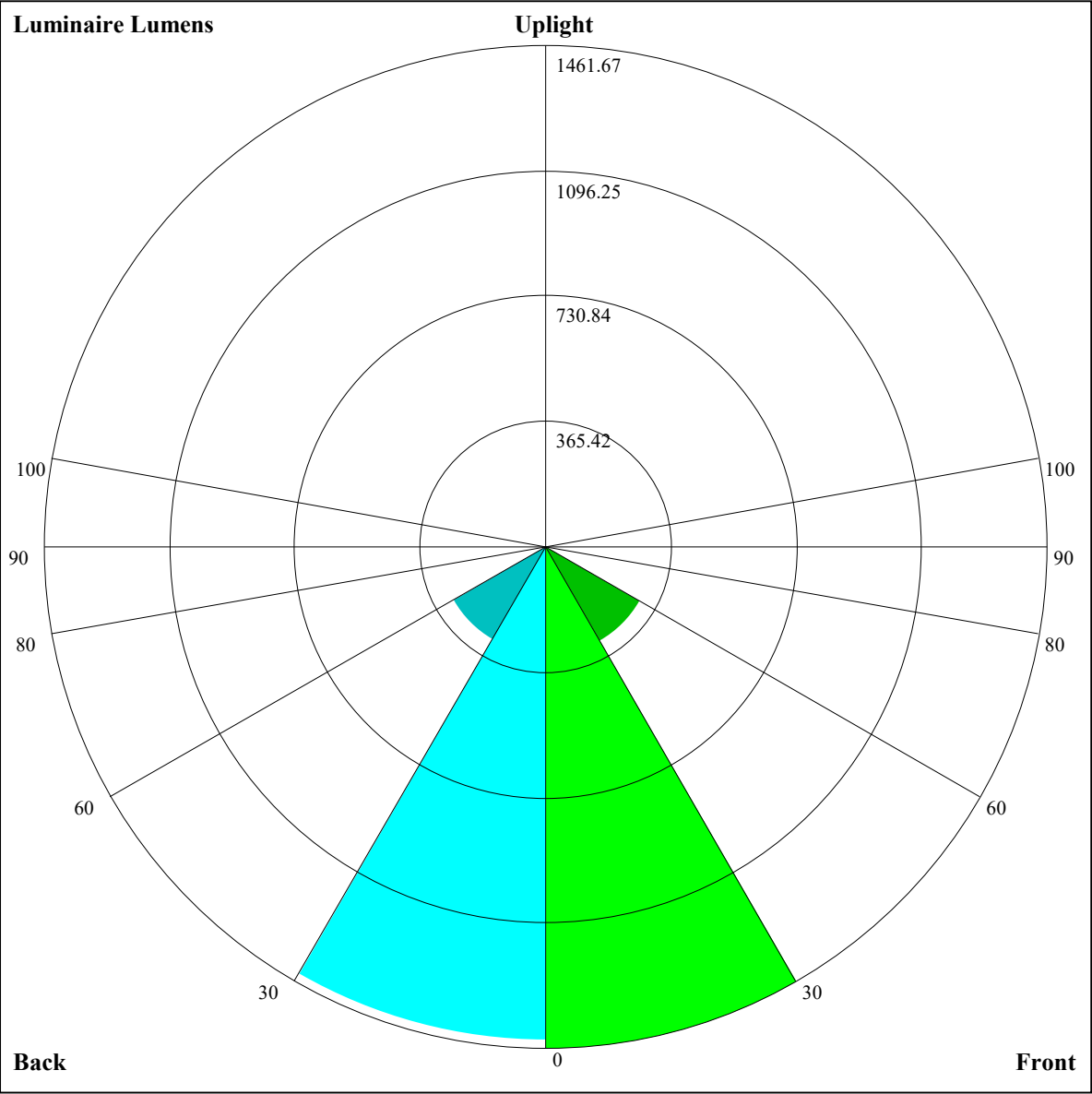


Illumination assessment according UGR											
Rf of Ceiling		70	70	50	50	30	70	70	50	50	30
Rf of Wall		50	30	50	30	30	50	30	50	30	30
Rf of Floor		20	20	20	20	20	20	20	20	20	20
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	17.58	18.49	17.94	18.80	19.11	17.60	18.51	17.97	18.83	19.14
	3H	17.37	18.18	17.76	18.52	18.86	17.39	18.20	17.78	18.54	18.89
	4H	17.27	18.02	17.67	18.37	18.74	17.30	18.05	17.70	18.40	18.77
	6H	17.20	17.88	17.62	18.26	18.66	17.22	17.90	17.64	18.28	18.68
	8H	17.13	17.79	17.56	18.17	18.58	17.16	17.81	17.58	18.20	18.61
	12H	17.08	17.70	17.51	18.09	18.51	17.11	17.72	17.53	18.12	18.54
4H	2H	17.25	18.00	17.65	18.35	18.72	17.27	18.02	17.68	18.38	18.75
	3H	17.01	17.63	17.43	18.03	18.45	17.03	17.66	17.46	18.06	18.47
	4H	16.94	17.48	17.38	17.91	18.36	16.97	17.51	17.41	17.93	18.38
	6H	16.83	17.31	17.31	17.76	18.21	16.86	17.33	17.33	17.79	18.24
	8H	16.80	17.24	17.28	17.70	18.17	16.82	17.26	17.31	17.72	18.20
	12H	16.78	17.18	17.27	17.64	18.16	16.80	17.21	17.29	17.66	18.18
8H	4H	16.74	17.18	17.23	17.64	18.12	16.77	17.21	17.25	17.67	18.14
	6H	16.63	16.99	17.14	17.47	17.99	16.66	17.02	17.17	17.50	18.01
	8H	16.66	16.96	17.19	17.48	17.98	16.68	16.98	17.22	17.51	18.00
	12H	16.66	16.89	17.21	17.41	17.93	16.69	16.91	17.23	17.43	17.95
12H	4H	16.69	17.10	17.18	17.55	18.07	16.72	17.12	17.21	17.57	18.10
	6H	16.62	16.92	17.16	17.45	17.94	16.65	16.95	17.18	17.47	17.97
	8H	16.62	16.84	17.16	17.36	17.89	16.64	16.87	17.19	17.39	17.91
Variation with the observer position at spacings:											
S = 1.0H		5.0/-14.3					5.0/-14.3				
S = 1.5H		7.8/-12.2					7.8/-12.2				
S = 2.0H		9.7/-10.8					9.7/-10.8				
Standard tables:		BK0					BK0				
Uncorrected UGR		-2.0					-2.0				

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	1.17	1.17	1.17	1.15	1.15	1.15	1.10	1.10	1.10	1.05	1.05	1.05	1.01	1.01	1.01	0.99
1	1.11	1.09	1.07	1.09	1.07	1.05	1.05	1.03	1.02	1.01	1.00	0.99	0.98	0.97	0.96	0.94
2	1.05	1.02	0.99	1.03	1.01	0.98	1.00	0.98	0.96	0.97	0.96	0.94	0.95	0.93	0.92	0.91
3	1.00	0.96	0.93	0.99	0.95	0.92	0.96	0.93	0.91	0.94	0.92	0.90	0.92	0.90	0.88	0.87
4	0.96	0.91	0.88	0.95	0.91	0.88	0.93	0.89	0.87	0.91	0.88	0.86	0.89	0.87	0.85	0.83
5	0.92	0.87	0.84	0.91	0.87	0.84	0.89	0.86	0.83	0.88	0.85	0.82	0.86	0.84	0.82	0.80
6	0.88	0.84	0.80	0.87	0.83	0.80	0.86	0.82	0.80	0.85	0.82	0.79	0.84	0.81	0.79	0.78
7	0.85	0.80	0.77	0.84	0.80	0.77	0.83	0.80	0.77	0.82	0.79	0.76	0.81	0.78	0.76	0.75
8	0.82	0.78	0.75	0.82	0.77	0.74	0.81	0.77	0.74	0.80	0.76	0.74	0.79	0.76	0.74	0.73
9	0.79	0.75	0.72	0.79	0.75	0.72	0.78	0.75	0.72	0.77	0.74	0.72	0.77	0.74	0.71	0.70
10	0.77	0.73	0.70	0.77	0.73	0.70	0.76	0.72	0.70	0.75	0.72	0.70	0.75	0.72	0.69	0.68



Luminaire Lumens:

FL=1461.67,FM=317.29,FH=7.44,FVH=3.8

BL=1440.15,BM=314.04,BH=7.45,BVH=3.8

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	28532.94	28180.53	27131.71	25554.29	23557.34	16161.98	16161.98	15541.08	12489.43
45.0	27920.43	28524.55	28432.25	27316.31	25730.49	23708.37	20746.50	18271.28	15787.68
90.0	28591.67	28247.66	26880.00	25168.32	23053.90	16244.21	16244.21	15014.15	12596.83
135.0	28146.97	28633.63	28205.71	27140.11	25000.51	22785.40	20343.75	17214.07	14747.25
180.0	28532.94	28021.11	26846.44	25151.54	22483.34	20083.64	17608.43	14453.58	12037.10
225.0	27920.43	26687.02	24438.35	22214.85	16536.20	16536.20	13995.54	11548.01	9300.18
270.0	28591.67	28205.71	26770.92	25042.47	22894.48	19899.05	17365.10	14797.59	11760.21
315.0	28146.97	27031.03	24908.22	22743.45	16447.26	16447.26	14534.21	12048.93	9758.31
360.0	28532.94	28180.53	27131.71	25554.29	23557.34	16161.98	16161.98	15541.08	12489.43
C/ γ (°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	10192.10	8117.95	5986.75	4689.57	3713.75	2880.56	2440.06	2120.38	1671.90
45.0	12767.08	10476.45	8378.81	6197.27	4854.78	4301.00	4301.00	2471.94	2138.84
90.0	10291.11	7742.05	6064.78	4739.07	3545.10	2894.83	2439.22	2054.93	1662.17
135.0	12355.94	10098.88	7623.66	5995.89	4703.75	4435.25	3454.48	2445.93	2131.29
180.0	9788.43	7313.21	5702.22	4468.81	4468.81	2770.65	2352.80	2063.32	1814.12
225.0	6874.47	5337.32	4177.74	3161.65	2621.29	2174.08	1651.51	1651.51	1622.31
270.0	9519.93	7522.98	5844.86	4275.83	4275.83	3313.52	2362.87	2011.30	1813.28
315.0	7715.20	5675.46	4445.40	3544.26	2904.90	2372.93	2082.62	1661.25	1661.25
360.0	10192.10	8117.95	5986.75	4689.57	3713.75	2880.56	2440.06	2120.38	1671.90
C/ γ (°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1671.90	1592.61	1511.81	1449.13	1387.30	1348.70	1316.48	1282.25	1257.41
45.0	1907.26	1744.48	1596.81	1511.22	1446.62	1388.72	1351.80	1321.60	1288.03
90.0	1662.17	1559.81	1482.61	1424.72	1379.74	1336.11	1307.58	1283.42	1261.94
135.0	1866.98	1721.83	1617.78	1520.45	1461.72	1416.41	1371.94	1341.73	1316.56
180.0	1673.16	1569.12	1491.93	1418.09	1372.78	1336.70	1301.46	1276.29	1248.60
225.0	1523.22	1435.88	1385.45	1346.85	1315.14	1282.25	1259.67	1238.03	1213.53
270.0	1666.45	1538.91	1468.43	1413.89	1360.19	1327.47	1292.23	1269.58	1247.76
315.0	1587.75	1510.38	1439.48	1395.35	1358.85	1321.43	1295.08	1271.42	1249.27
360.0	1671.90	1592.61	1511.81	1449.13	1387.30	1348.70	1316.48	1282.25	1257.41
C/ γ (°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	1234.08	1207.82	1188.36	1165.28	1145.40	1125.85	1107.39	1088.26	1018.87
45.0	1264.54	1237.69	1218.39	1199.93	1182.31	1159.66	1140.36	1122.74	1104.28
90.0	1237.52	1219.48	1202.70	1182.15	1163.60	1144.64	1121.57	1099.25	1026.25
135.0	1293.91	1267.06	1246.92	1228.46	1210.00	1185.67	1166.37	1142.04	1117.71
180.0	1227.62	1208.32	1187.35	1169.73	1147.91	1129.45	1106.80	1076.59	1003.59
225.0	1195.57	1178.37	1157.65	1137.09	1114.77	1096.81	1062.41	987.07	855.08
270.0	1227.62	1204.97	1188.19	1170.57	1149.59	1131.97	1110.99	1087.50	1030.44
315.0	1223.60	1203.54	1185.08	1165.78	1141.37	1123.16	1101.18	1030.36	933.87
360.0	1234.08	1207.82	1188.36	1165.28	1145.40	1125.85	1107.39	1088.26	1018.87
C/ γ (°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	918.10	801.21	672.17	501.50	371.11	249.95	122.84	57.56	32.22
45.0	1067.36	952.41	830.75	663.78	521.98	423.81	423.81	123.76	56.89
90.0	931.10	809.02	668.81	483.30	345.36	220.92	119.99	56.38	29.03
135.0	1058.97	925.56	799.70	665.46	521.98	449.82	449.82	115.87	53.45
180.0	898.71	748.52	624.34	495.13	430.52	430.52	105.13	39.86	28.78
225.0	734.43	606.64	472.98	310.28	190.13	94.48	43.80	28.02	21.40
270.0	913.82	791.31	627.70	482.54	444.78	275.29	90.70	44.05	29.28
315.0	787.54	651.11	509.22	370.44	215.81	115.96	56.22	35.24	26.68
360.0	918.10	801.21	672.17	501.50	371.11	249.95	122.84	57.56	32.22

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	25.42	18.29	12.08	10.66	10.15	9.82	9.40	9.06	8.89
45.0	30.63	24.08	17.37	12.42	10.40	9.98	9.57	9.31	8.98
90.0	22.82	15.19	11.33	10.49	9.90	9.57	9.23	8.98	8.73
135.0	31.63	24.67	18.21	14.01	12.59	11.83	11.08	10.66	10.15
180.0	21.56	13.84	10.82	10.32	9.90	9.48	9.31	9.06	8.81
225.0	14.01	10.74	10.07	9.57	9.31	9.06	8.89	8.64	8.39
270.0	20.98	15.10	11.16	10.07	9.65	9.31	9.15	8.81	8.56
315.0	19.72	14.52	12.50	11.66	11.08	10.49	10.07	9.73	9.23
360.0	25.42	18.29	12.08	10.66	10.15	9.82	9.40	9.06	8.89
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	8.64	8.39	8.22	8.14	7.89	7.80	7.72	7.64	7.55
45.0	8.73	8.47	8.22	8.14	7.97	7.89	7.80	7.72	7.55
90.0	8.47	8.31	8.05	7.97	7.89	7.72	7.64	7.55	7.47
135.0	9.65	9.31	8.98	8.64	8.47	8.31	8.14	7.97	7.80
180.0	8.56	8.31	8.22	8.05	7.89	7.89	7.72	7.64	7.55
225.0	8.22	8.05	7.89	7.80	7.64	7.64	7.55	7.47	7.47
270.0	8.39	8.14	8.05	7.97	7.72	7.72	7.64	7.55	7.47
315.0	8.98	8.73	8.47	8.22	8.14	7.97	7.80	7.72	7.64
360.0	8.64	8.39	8.22	8.14	7.89	7.80	7.72	7.64	7.55
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	7.55	7.47	7.38	7.38	7.30	7.30	7.30	7.22	7.30
45.0	7.55	7.47	7.38	7.30	7.30	7.22	7.22	7.22	7.13
90.0	7.38	7.38	7.30	7.30	7.22	7.30	7.13	7.22	7.13
135.0	7.72	7.72	7.55	7.47	7.47	7.38	7.30	7.30	7.30
180.0	7.47	7.47	7.38	7.30	7.30	7.30	7.30	7.22	7.22
225.0	7.38	7.30	7.30	7.30	7.13	7.22	7.13	7.13	7.13
270.0	7.47	7.38	7.30	7.30	7.30	7.22	7.22	7.22	7.13
315.0	7.55	7.47	7.47	7.38	7.38	7.30	7.30	7.22	7.22
360.0	7.55	7.47	7.38	7.38	7.30	7.30	7.30	7.22	7.30
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	7.22	7.22	7.22	7.13	7.13	7.13	7.13	7.13	7.05
45.0	7.13	7.13	7.13	7.13	7.13	7.05	7.05	7.05	7.05
90.0	7.05	7.13	7.13	7.13	7.05	7.05	7.05	7.05	6.96
135.0	7.30	7.22	7.22	7.22	7.22	7.13	7.13	7.13	7.13
180.0	7.22	7.22	7.13	7.13	7.13	7.13	7.05	7.05	7.05
225.0	7.13	7.13	7.05	7.13	7.05	7.05	7.05	7.05	7.05
270.0	7.13	7.13	7.13	7.13	7.05	7.05	7.13	7.05	7.05
315.0	7.22	7.13	7.22	7.13	7.13	7.13	7.05	7.05	7.05
360.0	7.22	7.22	7.22	7.13	7.13	7.13	7.13	7.13	7.05
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	7.05	7.05	7.05	7.05	6.96	7.05	7.05	7.05	6.96
45.0	6.96	7.05	7.05	7.05	6.96	6.96	6.88	6.88	6.88
90.0	7.05	7.05	7.05	6.96	6.88	6.88	6.88	6.88	6.88
135.0	7.05	7.13	7.05	7.13	7.05	6.88	6.88	6.96	6.88
180.0	7.05	7.05	6.96	7.05	6.96	6.96	6.96	6.96	6.96
225.0	7.05	7.05	7.05	6.96	6.96	6.96	6.96	6.88	6.96
270.0	6.88	7.05	6.96	6.88	6.96	6.96	6.88	6.88	6.88
315.0	7.05	6.96	6.96	6.88	6.88	6.96	6.88	6.88	6.88
360.0	7.05	7.05	7.05	7.05	6.96	7.05	7.05	7.05	6.96

Intensity data(cd)

C/ $\gamma(^{\circ})$	90.0
0.0	6.96
45.0	6.88
90.0	6.88
135.0	6.88
180.0	6.88
225.0	6.96
270.0	6.88
315.0	6.88
360.0	6.96