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Nata

Client: NT

LumCAT: 2-3058-LM

Luminaire: 92.70.121.00 LED HOLDER

Report No: 20260122-B017

Ballast type: DC

Test No: 20260122-C017

Voltage(V): 36.910

LampCAT: CITIZEN CLU038 LES14.5

Current(A): 0.711

Lamp flux(lm): 3690.4

Power (W): 26.240

Number of Lamps: 1

PF: 0.000

Length(mm): 69

Width(mm): 69

Phm Type: C

Height(mm): 35

Photometric Results

Lumens(lm): 3576.01, Efficiency(%): 96.90% , Luminous Efficacy(lm/W): 136.28

Central intensity(cd): 11026.250, Maximum intensity(cd): 11026.250

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=25.4

[C90/270]Total=25.4

Field angle(10%Imax): [C0/180]Total=67.2

[C90/270]Total=67.2

Maximum s/h(1/2): C0_180=0.43 C90_270=0.43

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

Up flux rate of lamp(%): 0.00%

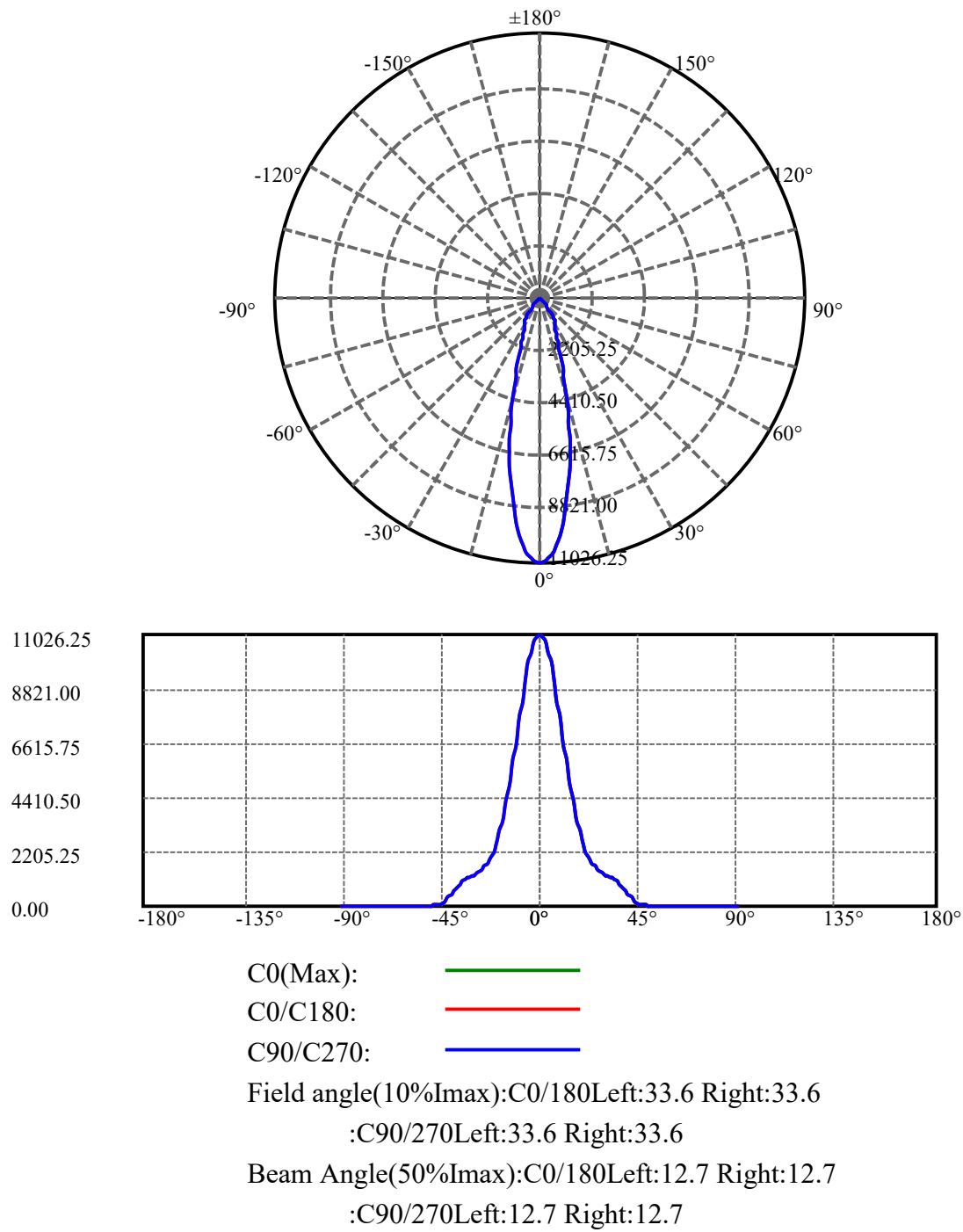
Down flux rate of lamp(%): 96.90%

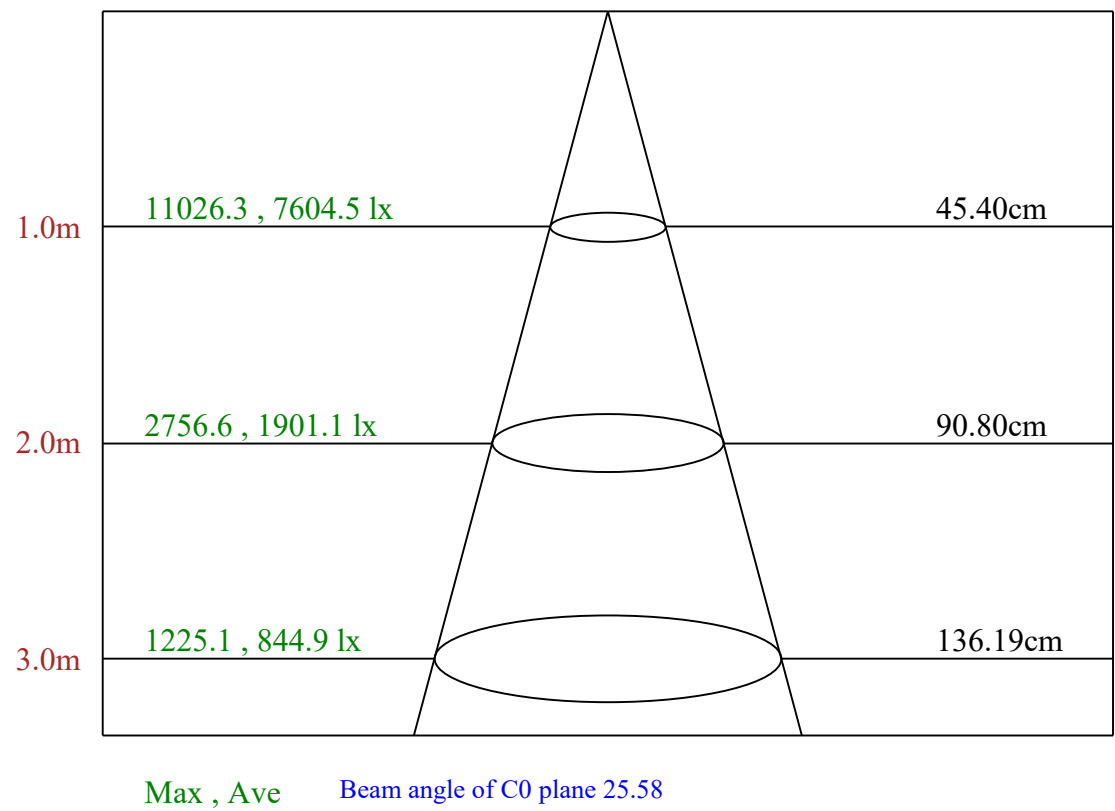
Up flux rate of LUM(%): - -

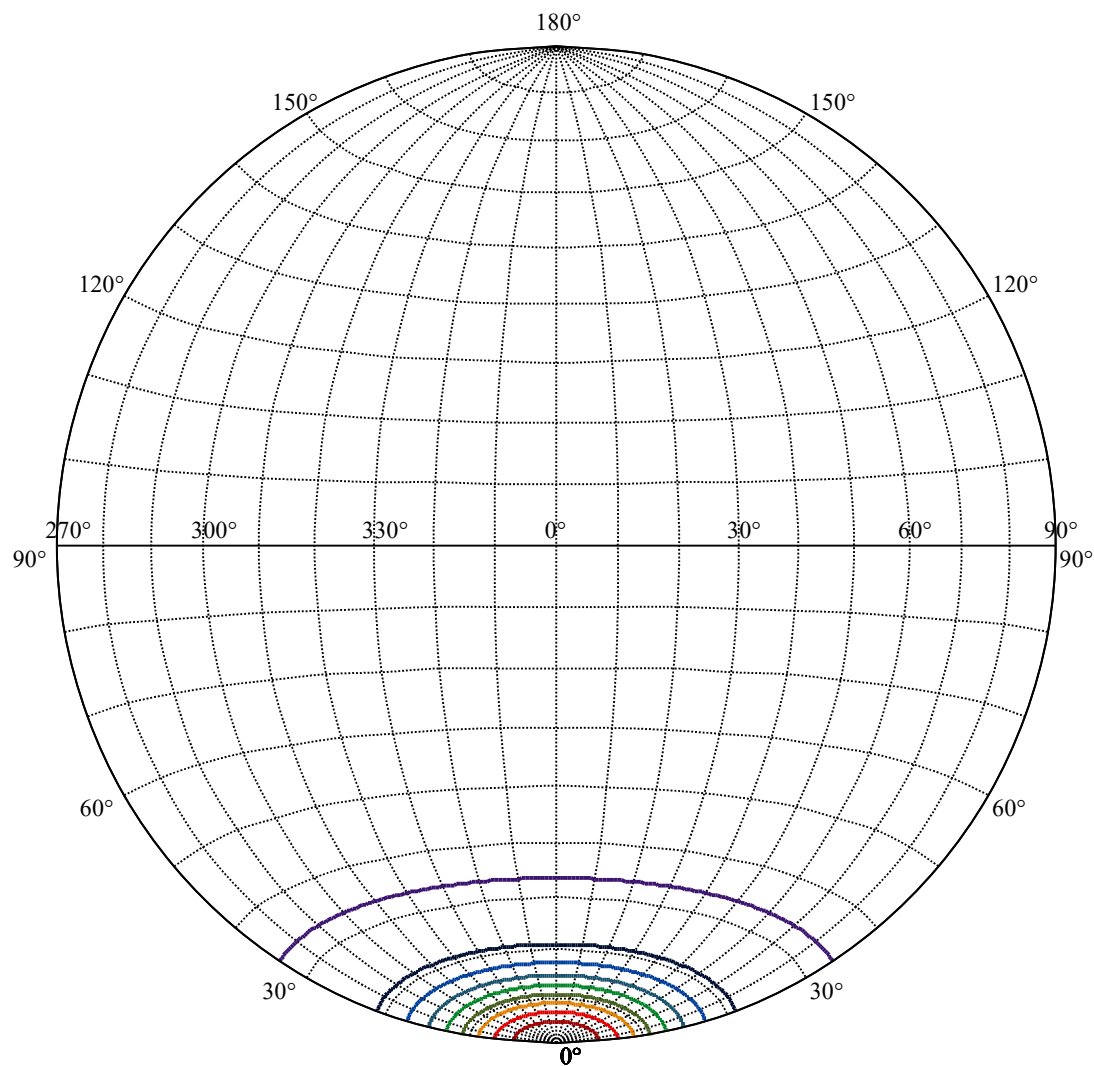
Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.049%







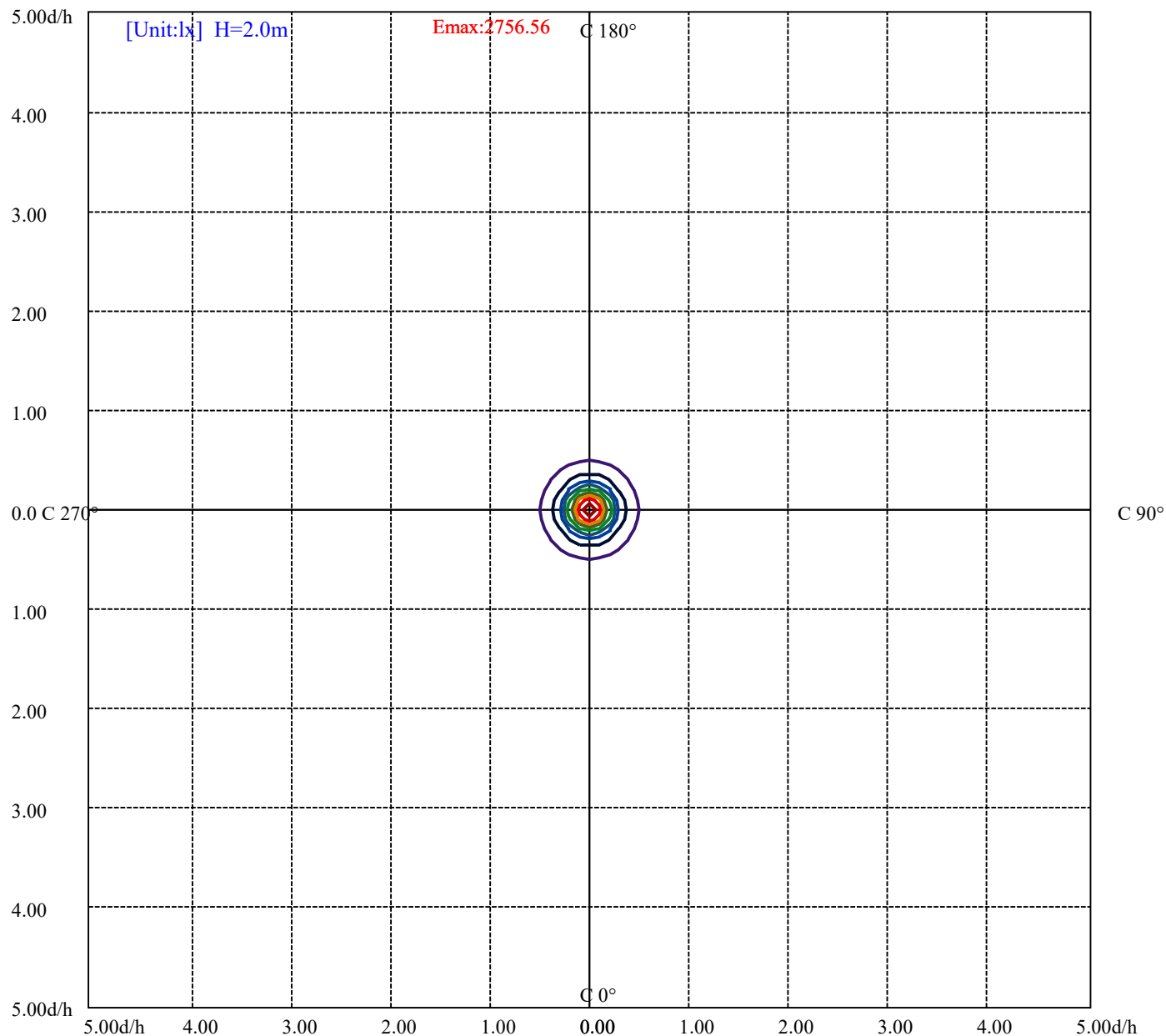
House

[Unit:cd]

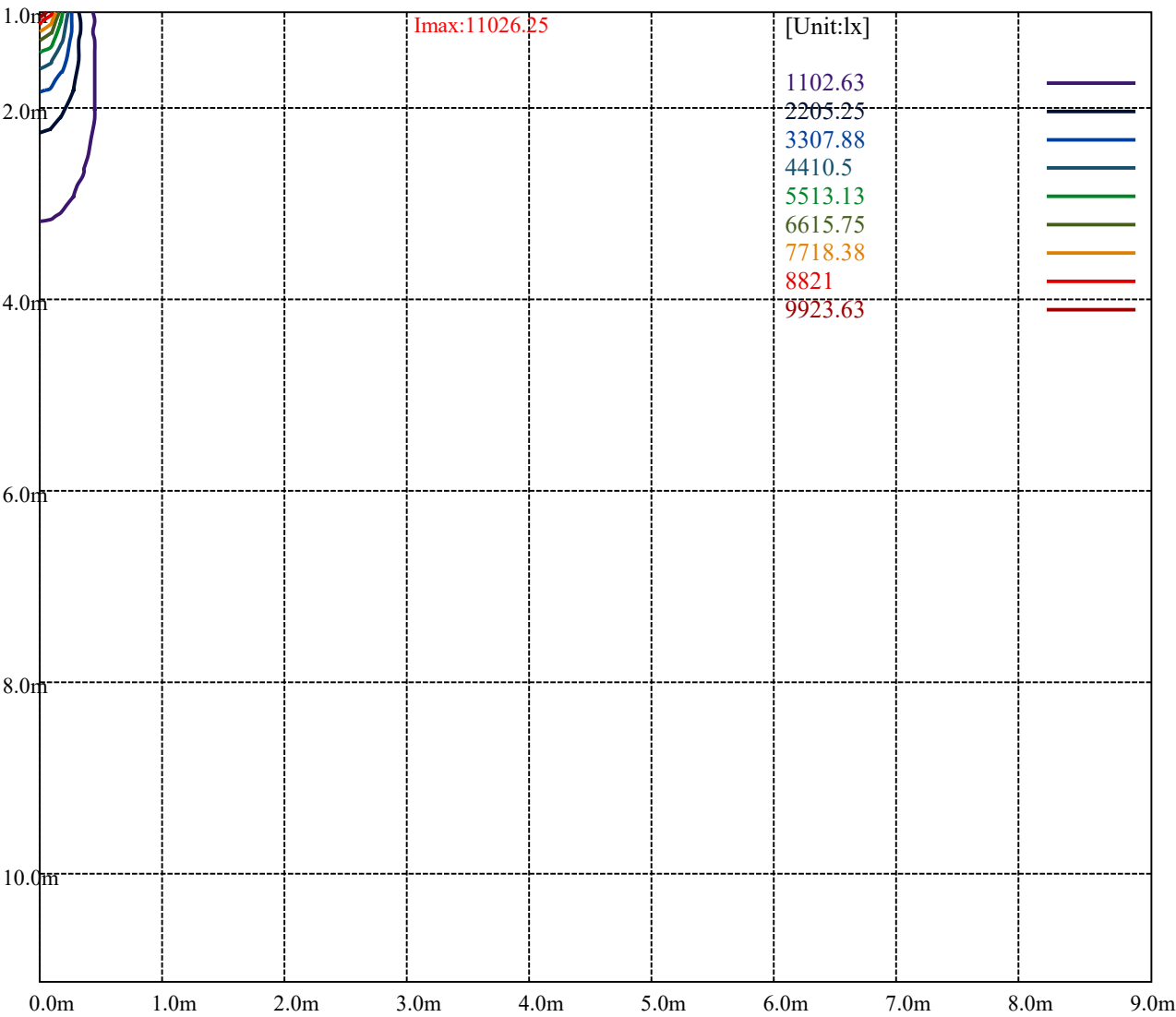
Road

Imax:11026.25

(10%Imax)	1102.63	—
(20%Imax)	2205.25	—
(30%Imax)	3307.88	—
(40%Imax)	4410.5	—
(50%Imax)	5513.13	—
(60%Imax)	6615.75	—
(70%Imax)	7718.38	—
(80%Imax)	8821	—
(90%Imax)	9923.63	—



(10%Emax)	275.655	—
(20%Emax)	551.3125	—
(30%Emax)	826.9675	—
(40%Emax)	1102.625	—
(50%Emax)	1378.28	—
(60%Emax)	1653.938	—
(70%Emax)	1929.593	—
(80%Emax)	2205.25	—
(90%Emax)	2480.905	—



Luminance Table

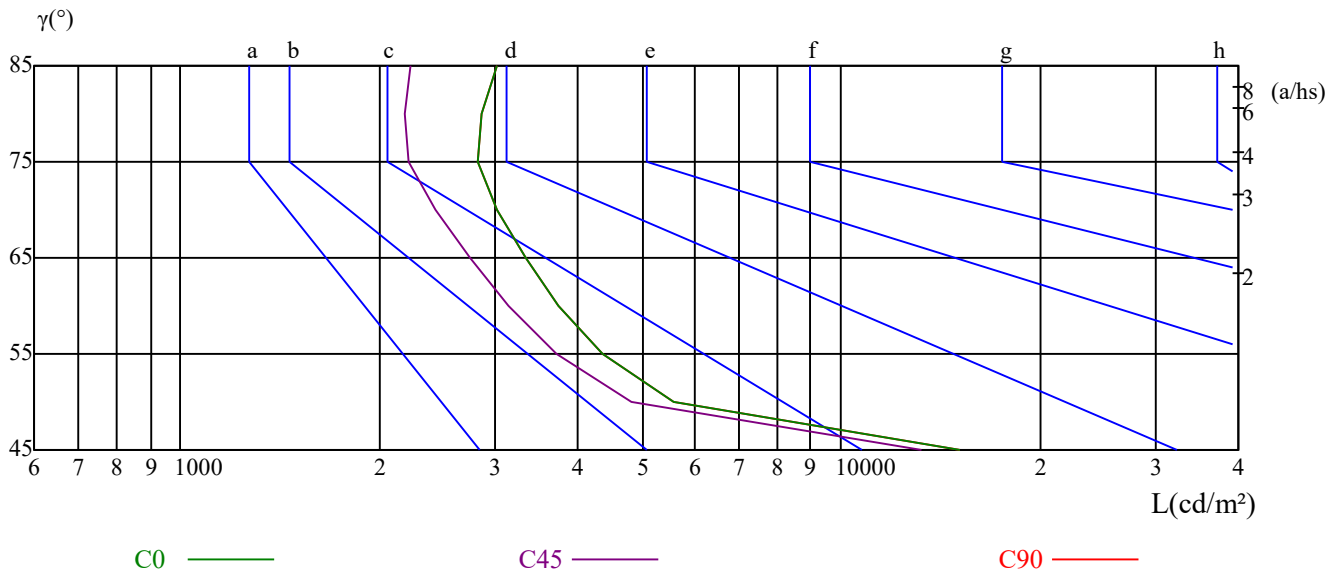
γ	45	50	55	60	65	70	75	80	85
C0	15122	5586	4362	3743	3339	3010	2814	2858	3022
C45	13272	4832	3715	3136	2746	2425	2214	2186	2233
C90	15122	5586	4362	3743	3339	3010	2814	2858	3022

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
6971	6971	6971	8142	8142	8142	20546	20546	20546

Glare Table

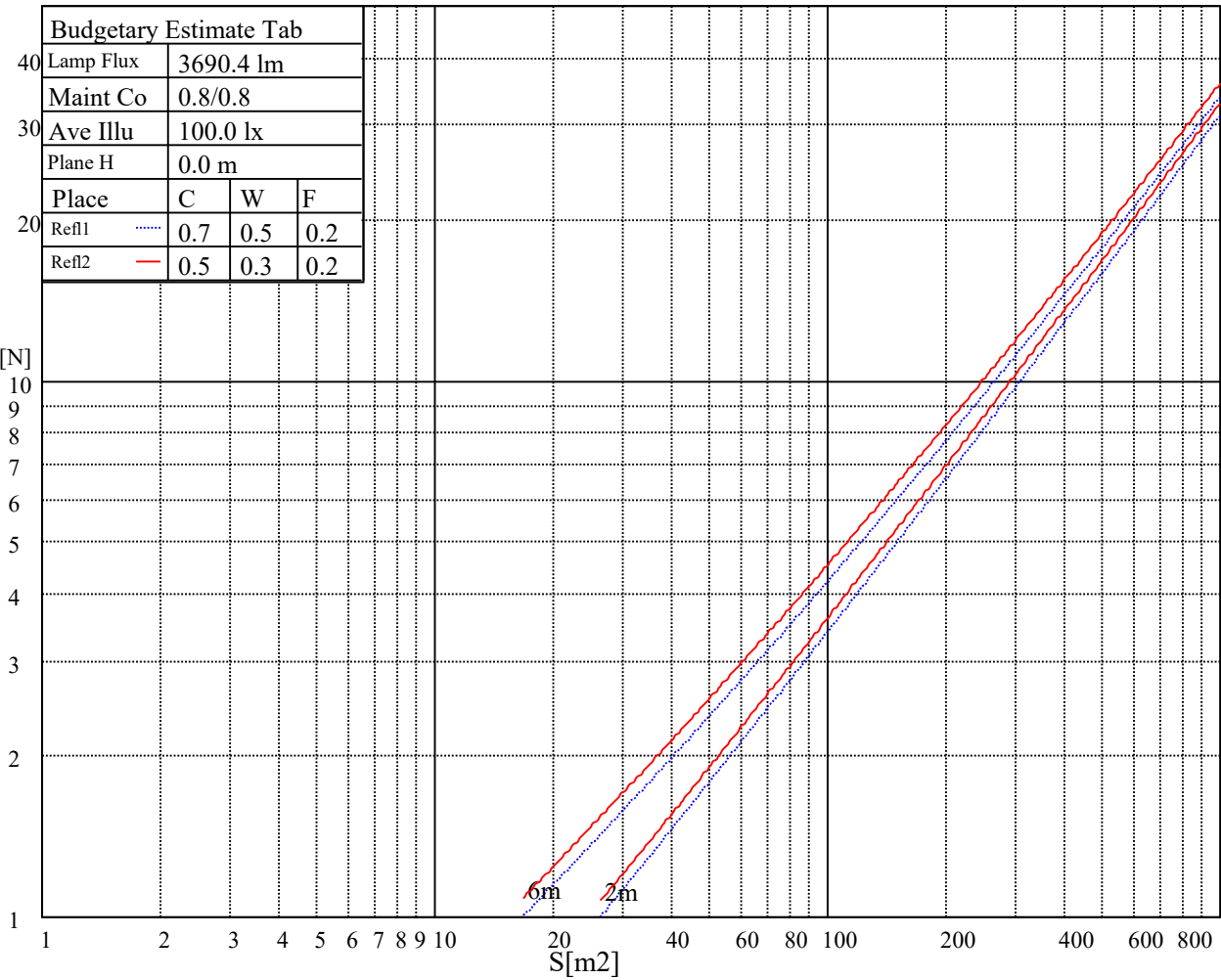
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve

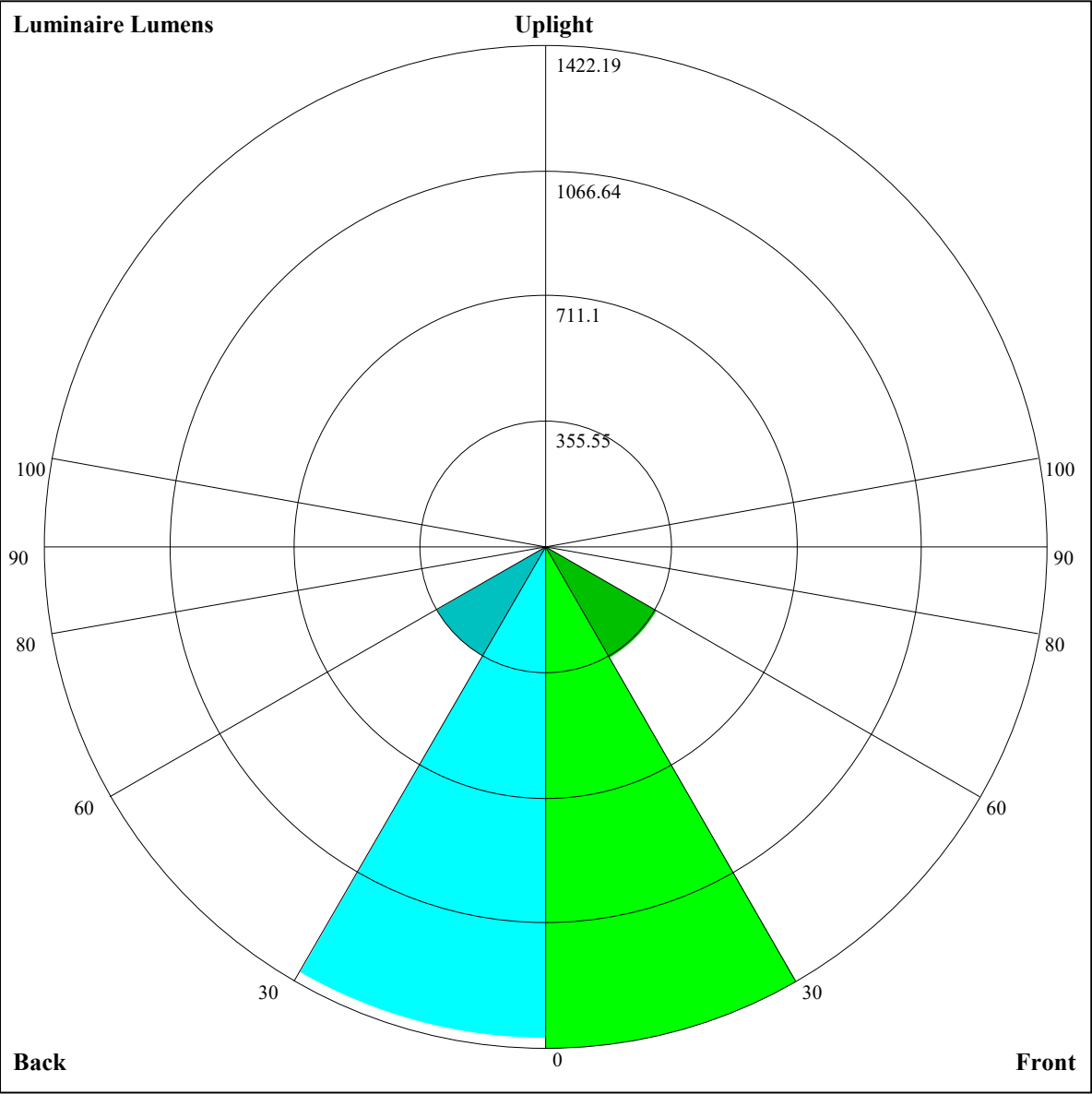


Illumination assessment according UGR											
Rf of Ceiling		70	70	50	50	30	70	70	50	50	30
Rf of Wall		50	30	50	30	30	50	30	50	30	30
Rf of Floor		20	20	20	20	20	20	20	20	20	20
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	20.36	21.31	20.73	21.62	21.93	20.10	21.05	20.47	21.36	21.67
	3H	20.18	21.02	20.57	21.36	21.70	19.93	20.77	20.31	21.10	21.45
	4H	20.10	20.87	20.50	21.23	21.59	19.84	20.62	20.24	20.97	21.34
	6H	20.03	20.74	20.45	21.12	21.52	19.78	20.49	20.20	20.87	21.27
	8H	19.98	20.65	20.40	21.04	21.45	19.73	20.41	20.15	20.79	21.20
	12H	19.93	20.57	20.36	20.97	21.38	19.68	20.32	20.11	20.72	21.14
4H	2H	20.05	20.83	20.45	21.18	21.55	19.80	20.57	20.20	20.93	21.29
	3H	19.85	20.50	20.27	20.89	21.31	19.60	20.25	20.02	20.64	21.06
	4H	19.81	20.36	20.24	20.79	21.24	19.56	20.12	20.00	20.54	20.99
	6H	19.71	20.21	20.19	20.66	21.11	19.47	19.96	19.94	20.42	20.87
	8H	19.69	20.15	20.18	20.61	21.08	19.45	19.90	19.93	20.36	20.84
	12H	19.68	20.10	20.17	20.56	21.08	19.44	19.86	19.93	20.32	20.84
8H	4H	19.62	20.08	20.11	20.54	21.01	19.37	19.83	19.86	20.29	20.76
	6H	19.54	19.91	20.05	20.39	20.90	19.30	19.67	19.80	20.15	20.66
	8H	19.58	19.89	20.11	20.41	20.91	19.34	19.65	19.88	20.18	20.68
	12H	19.60	19.84	20.15	20.36	20.88	19.37	19.61	19.91	20.12	20.65
12H	4H	19.57	19.99	20.06	20.44	20.97	19.32	19.74	19.81	20.20	20.72
	6H	19.53	19.85	20.07	20.37	20.87	19.29	19.61	19.83	20.13	20.63
	8H	19.55	19.79	20.09	20.30	20.83	19.31	19.55	19.86	20.07	20.59
Variation with the observer position at spacings:											
S = 1.0H		4.6/-10.7					4.6/-10.7				
S = 1.5H		7.3/-9.6					7.3/-9.6				
S = 2.0H		9.2/-8.7					9.2/-8.7				
Standard tables:		BK0					BK0				
Uncorrected UGR		0.8					0.8				

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	1.08	1.06	1.04	1.06	1.04	1.02	1.02	1.01	0.99	0.99	0.97	0.96	0.95	0.94	0.93	0.92
2	1.02	0.98	0.95	1.00	0.97	0.94	0.97	0.94	0.92	0.94	0.92	0.90	0.91	0.90	0.88	0.87
3	0.96	0.92	0.88	0.95	0.91	0.88	0.92	0.89	0.86	0.90	0.87	0.85	0.88	0.86	0.84	0.82
4	0.91	0.86	0.83	0.90	0.85	0.82	0.88	0.84	0.81	0.86	0.83	0.80	0.84	0.82	0.79	0.78
5	0.86	0.81	0.78	0.85	0.81	0.77	0.84	0.80	0.77	0.82	0.79	0.76	0.81	0.78	0.75	0.74
6	0.82	0.77	0.74	0.81	0.77	0.73	0.80	0.76	0.73	0.79	0.75	0.72	0.78	0.74	0.72	0.71
7	0.78	0.73	0.70	0.78	0.73	0.70	0.77	0.72	0.69	0.75	0.72	0.69	0.74	0.71	0.69	0.67
8	0.75	0.70	0.67	0.74	0.70	0.66	0.73	0.69	0.66	0.72	0.69	0.66	0.72	0.68	0.66	0.64
9	0.72	0.67	0.64	0.71	0.67	0.63	0.70	0.66	0.63	0.70	0.66	0.63	0.69	0.65	0.63	0.62
10	0.69	0.64	0.61	0.69	0.64	0.61	0.68	0.64	0.61	0.67	0.63	0.61	0.66	0.63	0.60	0.59



Luminaire Lumens:
FL=1422.19,FM=362.33,FH=12.44,FVH=4.66
BL=1393.66,BM=358.4,BH=12.5,BVH=4.59
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	11053.38	11041.33	10898.37	10695.13	10411.80	10057.85	9529.95	9047.69	8506.86
45.0	10975.88	11046.49	11037.02	10909.57	10704.60	10424.72	10084.55	9560.09	9083.85
90.0	11061.99	11028.41	10921.62	10637.43	10342.91	9974.32	9445.55	8956.40	8285.54
135.0	11013.77	11067.16	11024.96	10900.95	10616.76	10305.01	9930.40	9370.63	8865.11
180.0	11053.38	10986.21	10795.03	10553.03	10151.72	9742.66	9269.87	8754.02	8075.41
225.0	10975.88	10782.97	10542.70	10240.43	9752.99	9284.51	8779.00	8095.22	7530.28
270.0	11061.99	11024.10	10861.34	10658.96	10372.19	10012.21	9472.25	8981.37	8450.88
315.0	11013.77	10875.98	10598.68	10294.68	9911.45	9459.33	8824.64	8267.45	7692.18
360.0	11053.38	11041.33	10898.37	10695.13	10411.80	10057.85	9529.95	9047.69	8506.86
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	7942.79	7233.17	6675.12	6124.83	5595.20	4957.06	4478.24	3922.78	3531.80
45.0	8561.12	8028.90	7336.51	6775.02	6086.07	5557.31	5042.32	4437.77	3993.40
90.0	7729.21	7164.28	6465.86	5909.53	5382.49	4877.83	4281.89	3847.86	3449.13
135.0	8317.40	7768.83	7061.79	6520.97	5980.15	5446.21	4808.08	4339.59	3893.50
180.0	7507.03	6942.95	6378.88	5696.82	5182.69	4693.54	4130.32	3720.40	3347.51
225.0	6944.67	6380.60	5697.68	5169.77	4671.15	4208.69	3685.09	3296.70	2945.34
270.0	7761.94	7186.67	6616.56	5912.11	5368.71	4851.14	4255.20	3829.77	3450.85
315.0	7114.33	6398.68	5860.44	5335.98	4718.51	4265.53	3851.30	3378.51	3039.20
360.0	7942.79	7233.17	6675.12	6124.83	5595.20	4957.06	4478.24	3922.78	3531.80
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	3190.77	2815.30	2552.64	2324.42	2084.15	1690.93	1690.93	1664.75	1540.74
45.0	3591.22	3150.30	2843.72	2579.33	2350.26	2103.10	1936.03	1797.38	1678.53
90.0	3097.76	2783.43	2446.71	2218.50	1710.40	1710.40	1678.45	1536.18	1447.56
135.0	3401.76	3063.32	2761.90	2443.27	2232.28	2054.01	1865.41	1739.68	1632.03
180.0	2931.56	2657.70	2371.79	2171.13	2001.48	1855.94	1734.51	1607.06	1517.49
225.0	2574.17	2329.59	2078.12	1714.27	1714.27	1630.31	1537.21	1451.70	1380.65
270.0	3082.26	2710.23	2462.21	2244.33	2051.43	1861.10	1737.09	1622.56	1504.57
315.0	2742.10	2488.05	2224.52	2047.12	1700.24	1700.24	1618.94	1527.40	1445.24
360.0	3190.77	2815.30	2552.64	2324.42	2084.15	1690.93	1690.93	1664.75	1540.74
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	1455.75	1386.33	1331.56	1273.52	1234.68	1201.01	1164.67	1123.07	1039.36
45.0	1551.08	1468.40	1400.37	1332.34	1286.70	1240.19	1206.60	1177.32	1135.99
90.0	1368.85	1291.00	1237.52	1195.41	1159.58	1122.55	1087.07	1041.52	971.07
135.0	1539.88	1443.43	1382.29	1334.06	1293.58	1252.25	1220.38	1179.91	1129.96
180.0	1441.71	1377.12	1311.67	1267.75	1229.86	1190.24	1148.91	1074.84	999.06
225.0	1319.68	1260.86	1224.43	1191.79	1171.47	1132.54	1074.76	1003.80	893.13
270.0	1421.90	1340.95	1287.56	1239.33	1197.13	1157.52	1122.21	1063.65	991.31
315.0	1363.25	1309.00	1262.50	1213.32	1179.82	1143.57	1074.84	1001.47	916.99
360.0	1455.75	1386.33	1331.56	1273.52	1234.68	1201.01	1164.67	1123.07	1039.36
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	959.36	865.49	762.49	624.70	516.97	409.23	308.99	197.30	126.94
45.0	1045.56	960.31	874.19	763.96	635.64	533.16	453.07	453.07	210.30
90.0	871.00	782.21	685.76	563.73	470.03	381.33	269.29	189.80	126.25
135.0	1056.76	952.56	859.55	745.01	634.78	496.99	442.73	442.73	177.83
180.0	907.77	783.76	676.98	568.47	464.26	436.71	313.56	161.64	100.93
225.0	794.70	665.95	565.63	465.04	343.53	254.14	174.91	112.64	64.67
270.0	884.52	791.51	693.34	597.75	480.63	455.65	340.00	187.31	122.55
315.0	796.77	695.32	591.89	460.65	358.25	262.23	179.90	111.44	58.65
360.0	959.36	865.49	762.49	624.70	516.97	409.23	308.99	197.30	126.94

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	73.46	47.45	36.69	32.12	26.01	21.96	19.12	18.26	17.83
45.0	136.41	80.18	49.35	42.63	36.17	31.09	26.70	23.94	22.82
90.0	68.81	49.69	43.49	37.46	30.83	26.61	24.37	23.51	22.65
135.0	111.35	68.64	49.78	42.63	36.77	31.61	26.61	24.80	23.94
180.0	59.34	49.43	44.70	39.01	32.72	29.28	27.47	26.52	25.49
225.0	52.62	47.45	41.25	34.36	30.14	27.99	26.44	25.32	24.29
270.0	69.93	56.41	51.33	43.75	38.06	33.41	30.14	26.96	25.40
315.0	41.94	37.38	30.40	24.72	19.55	17.48	16.97	16.53	16.19
360.0	73.46	47.45	36.69	32.12	26.01	21.96	19.12	18.26	17.83
C/ γ (°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	17.14	16.53	15.93	15.50	15.16	14.81	14.55	14.30	14.12
45.0	22.05	21.27	20.75	19.55	18.95	18.17	17.57	16.97	16.45
90.0	21.70	20.67	19.98	19.03	18.00	17.57	17.05	16.02	15.50
135.0	22.91	21.87	21.01	19.72	18.77	17.91	17.14	16.36	15.85
180.0	24.29	23.34	22.39	21.27	20.07	19.20	18.43	17.57	16.79
225.0	22.82	21.96	21.01	19.55	18.52	17.74	17.05	16.19	15.67
270.0	24.54	23.34	22.13	21.36	20.58	19.20	18.34	17.74	16.88
315.0	15.67	15.33	14.98	14.55	14.30	14.21	13.78	13.52	13.09
360.0	17.14	16.53	15.93	15.50	15.16	14.81	14.55	14.30	14.12
C/ γ (°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	13.87	13.61	13.35	13.09	12.92	12.40	12.14	11.80	11.54
45.0	15.93	15.33	15.07	14.73	14.21	13.87	13.43	12.92	12.49
90.0	15.24	14.90	14.47	14.04	13.52	13.09	12.40	11.97	11.63
135.0	15.33	14.73	14.12	13.69	13.00	12.49	11.97	11.45	11.20
180.0	16.10	15.42	14.55	14.04	13.26	12.75	12.23	11.71	11.28
225.0	15.07	14.47	13.61	13.09	12.49	11.88	11.45	11.02	10.76
270.0	16.45	15.76	14.98	14.55	13.95	13.26	12.66	12.14	11.88
315.0	12.66	12.40	12.06	11.80	11.54	11.28	11.02	10.85	10.59
360.0	13.87	13.61	13.35	13.09	12.92	12.40	12.14	11.80	11.54
C/ γ (°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	11.20	10.85	10.51	10.25	9.82	9.56	9.47	9.30	9.13
45.0	12.23	11.71	11.37	10.94	10.59	10.16	9.99	9.90	9.73
90.0	11.11	10.68	10.42	10.08	9.73	9.56	9.47	9.30	9.13
135.0	10.94	10.59	10.16	9.82	9.56	9.39	9.21	9.04	8.96
180.0	10.85	10.51	10.08	9.82	9.56	9.47	9.30	9.21	9.04
225.0	10.33	9.99	9.65	9.39	9.30	9.13	9.04	8.96	8.87
270.0	11.54	11.02	10.59	10.25	10.08	9.99	9.82	9.65	9.47
315.0	10.42	10.16	9.90	9.73	9.56	9.39	9.21	9.13	8.96
360.0	11.20	10.85	10.51	10.25	9.82	9.56	9.47	9.30	9.13
C/ γ (°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	9.04	8.87	8.78	8.70	8.61	8.44	8.35	8.18	8.10
45.0	9.56	9.47	9.30	9.13	8.96	8.70	8.44	8.27	8.10
90.0	9.04	8.87	8.70	8.53	8.44	8.18	8.01	7.92	7.66
135.0	8.78	8.70	8.70	8.61	8.44	8.35	8.18	8.10	7.92
180.0	8.96	8.87	8.70	8.70	8.53	8.35	8.18	8.01	7.75
225.0	8.70	8.53	8.44	8.35	8.27	8.10	7.92	7.75	7.75
270.0	9.30	9.21	9.04	8.78	8.61	8.27	8.10	7.92	7.75
315.0	8.78	8.70	8.61	8.44	8.35	8.18	8.10	7.92	7.66
360.0	9.04	8.87	8.78	8.70	8.61	8.44	8.35	8.18	8.10

Intensity data(cd)

C/ $\gamma(^{\circ})$	90.0
0.0	7.75
45.0	7.84
90.0	7.66
135.0	7.75
180.0	7.66
225.0	7.66
270.0	7.66
315.0	7.66
360.0	7.75