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Nata

Client: NT

LumCAT: 3-3015-LM

Luminaire: BJB 47.360.2100

Report No: 20251118-B015

Ballast type: DC

Test No: 20251118-C015

LampCAT: Bridgelux V22 LES22

Lamp flux(lm): 9340.0

Number of Lamps: 1

Length(mm): 85

Phm Type: C

Voltage(V): 52.470

Current(A): 1.193

Power (W): 62.580

PF: 0.000

Width(mm): 85

Height(mm): 51

Photometric Results

Lumens(lm): 8767.55, Efficiency(%): 93.87% , Luminous Efficacy(lm/W): 140.10

Central intensity(cd): 12201.120, Maximum intensity(cd): 12201.120

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=54.4

[C90/270]Total=54.4

Field angle(10%Imax): [C0/180]Total=76.0

[C90/270]Total=76.0

Maximum s/h(1/2): C0_180=0.84 C90_270=0.84

Maximum s/h(1/4): C0_180=0.82 C90_270=0.82

Up flux rate of lamp(%): 0.00%

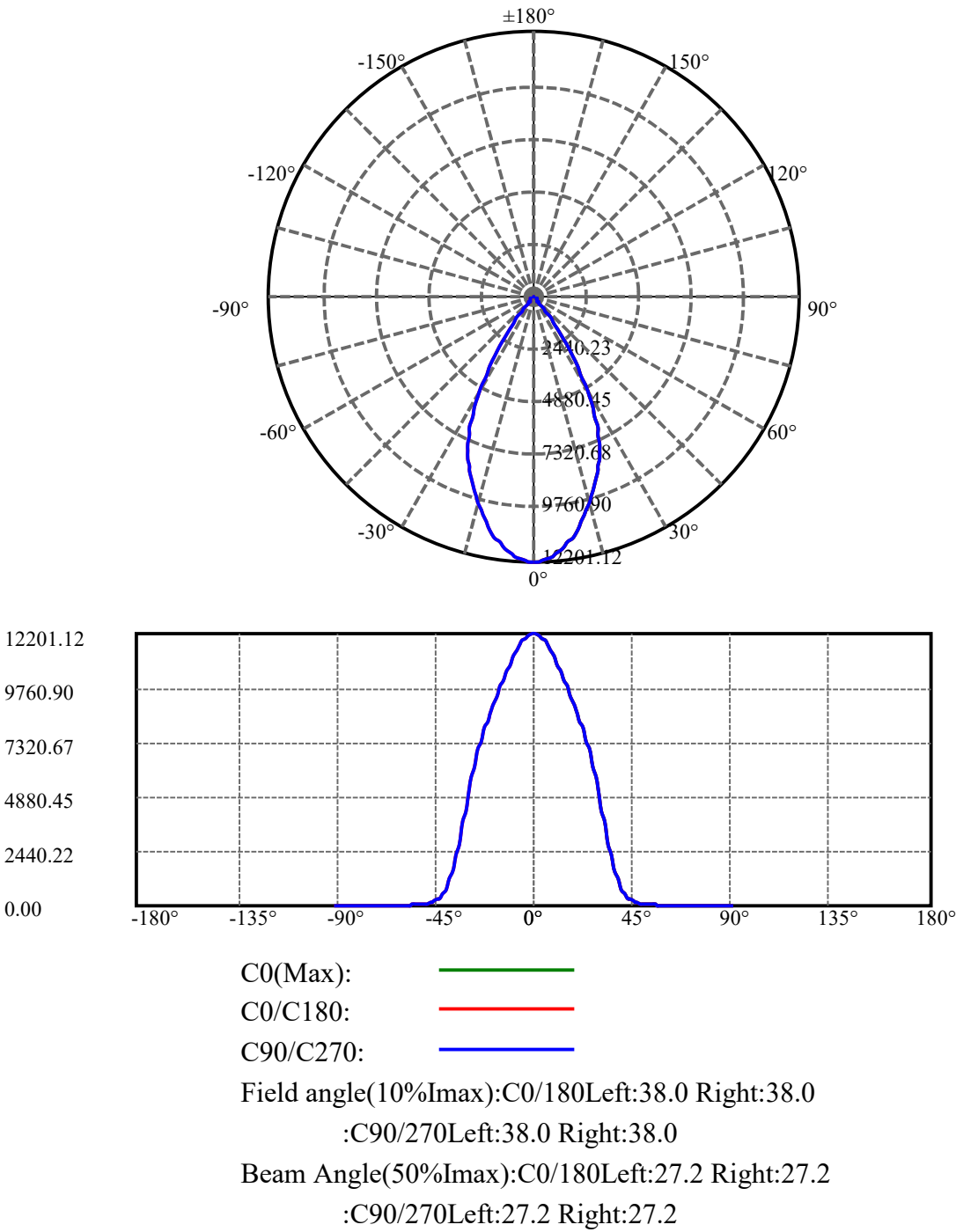
Down flux rate of lamp(%): 93.87%

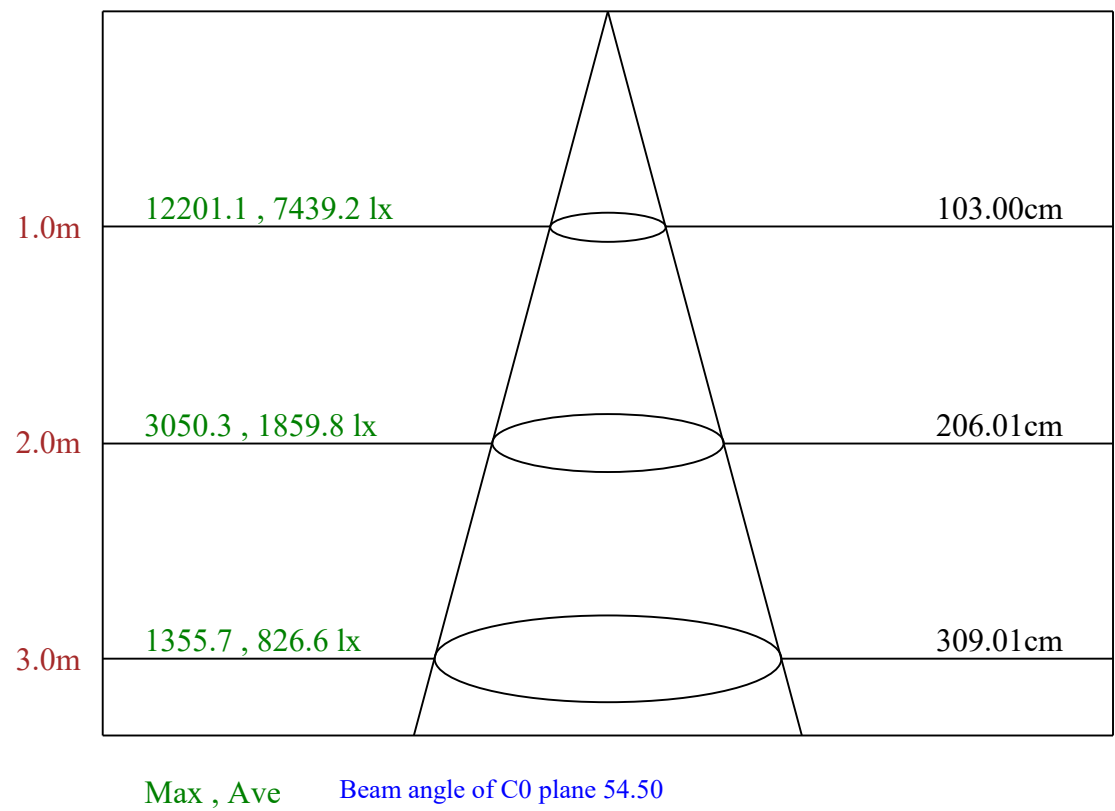
Up flux rate of LUM(%): - -

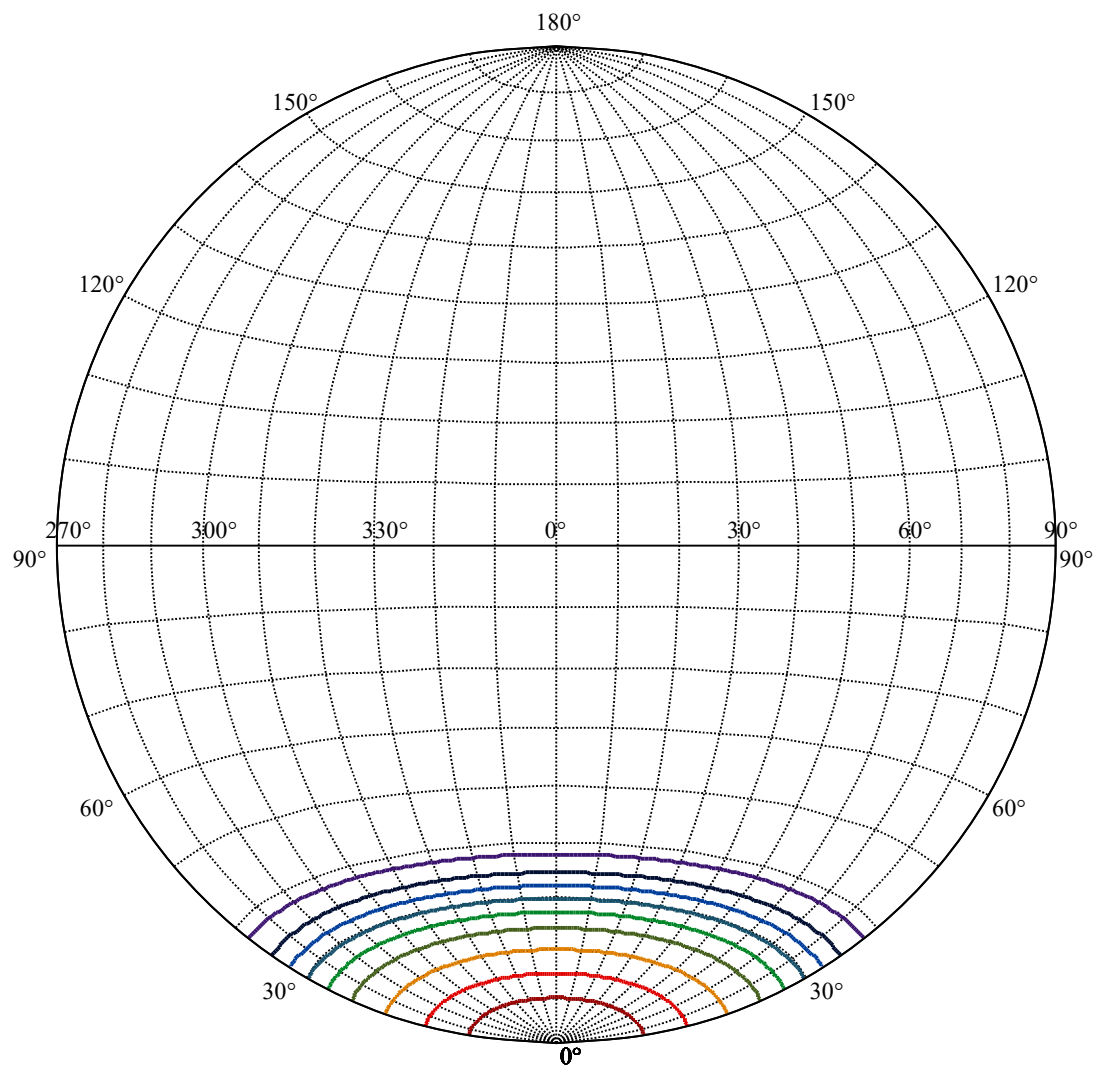
Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.342%





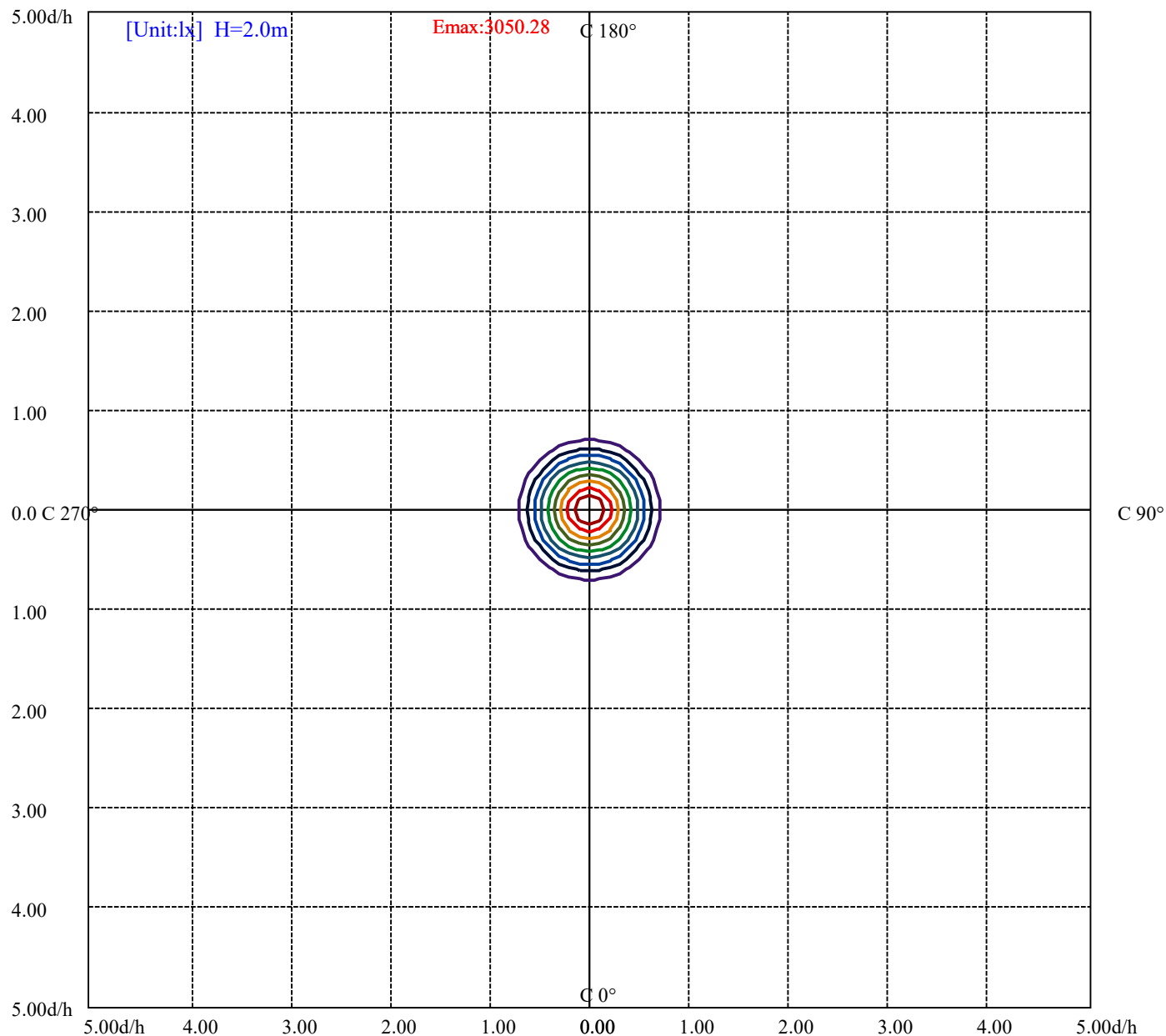


House

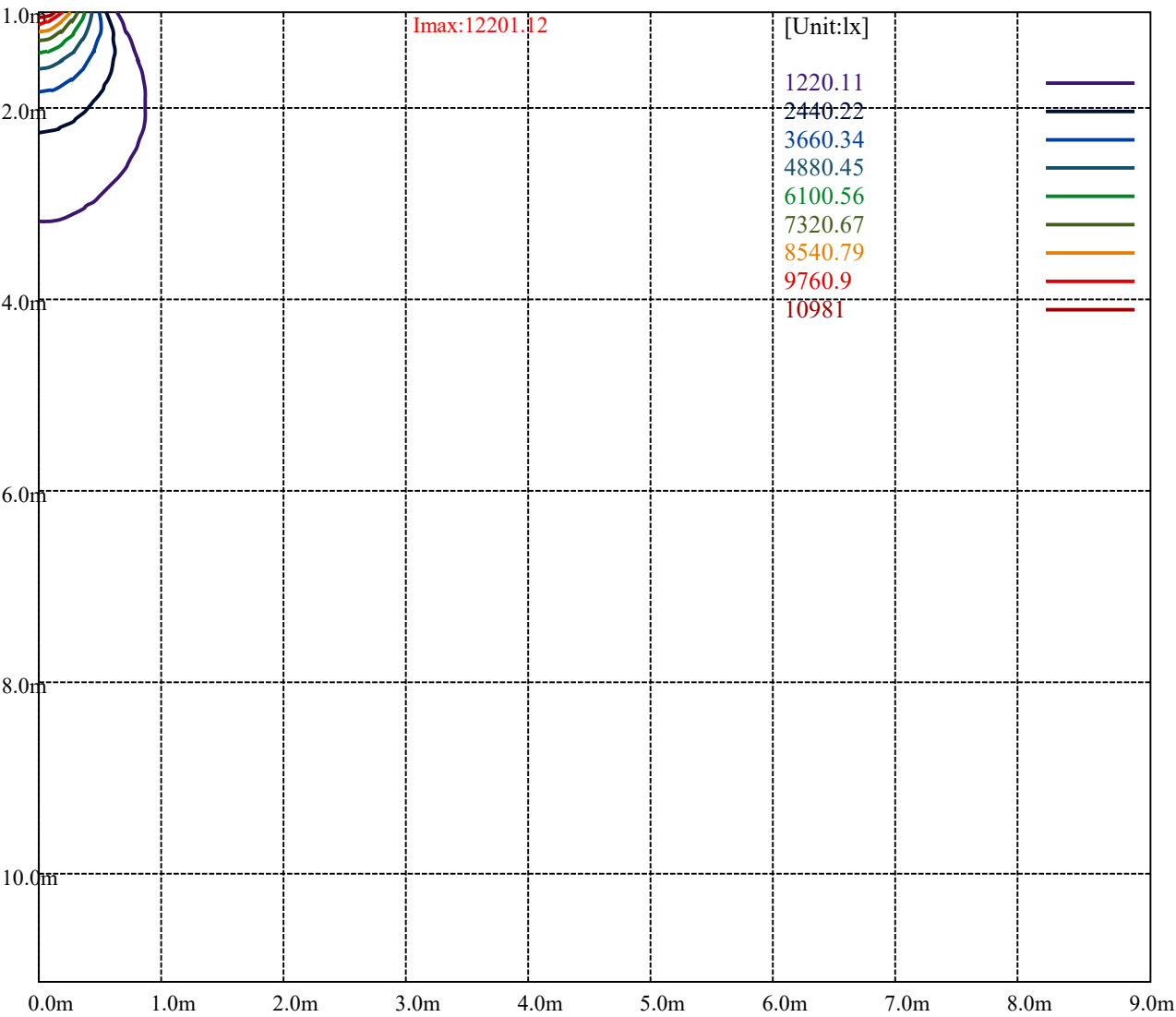
[Unit:cd]

Road

I _{max} :12201.12	
(10%I _{max}) 1220.11	
(20%I _{max}) 2440.22	
(30%I _{max}) 3660.34	
(40%I _{max}) 4880.45	
(50%I _{max}) 6100.56	
(60%I _{max}) 7320.67	
(70%I _{max}) 8540.79	
(80%I _{max}) 9760.9	
(90%I _{max}) 10981	



(10%Emax)	305.0275	
(20%Emax)	610.055	
(30%Emax)	915.085	
(40%Emax)	1220.113	
(50%Emax)	1525.14	
(60%Emax)	1830.167	
(70%Emax)	2135.198	
(80%Emax)	2440.225	
(90%Emax)	2745.25	



Luminance Table

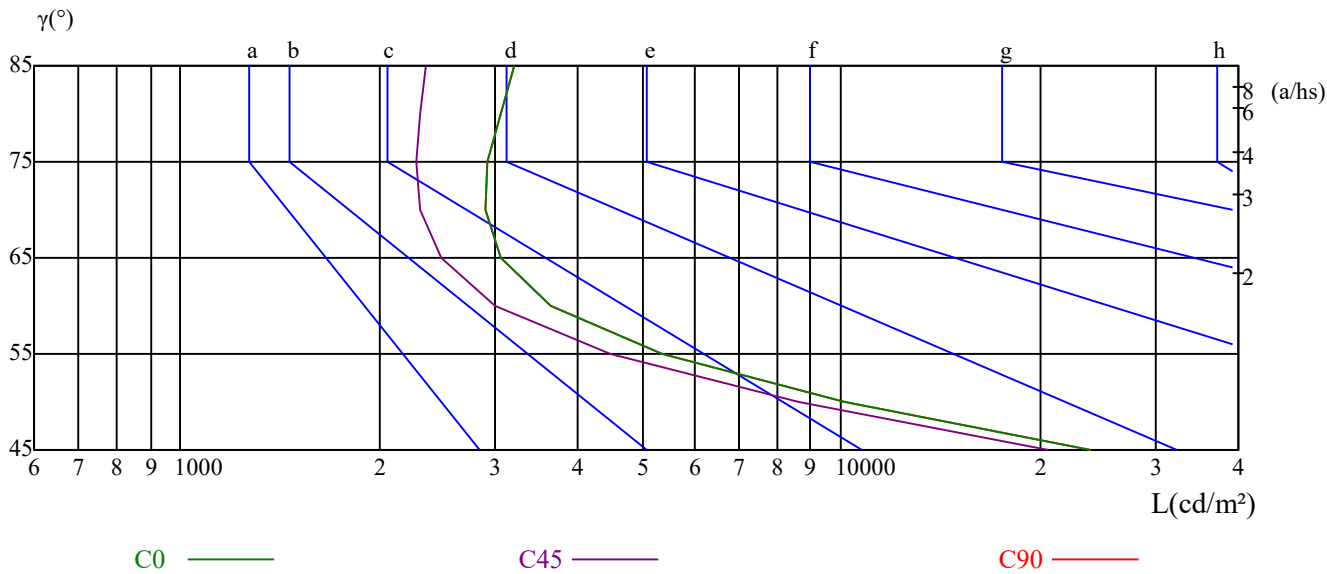
γ	45	50	55	60	65	70	75	80	85
C0	23836	10149	5345	3636	3054	2893	2918	3048	3207
C45	20632	8654	4487	3002	2477	2300	2269	2309	2355
C90	23836	10149	5345	3636	3054	2893	2918	3048	3207

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
6984	6984	6984	9452	9452	9452	25198	25198	25198

Glare Table

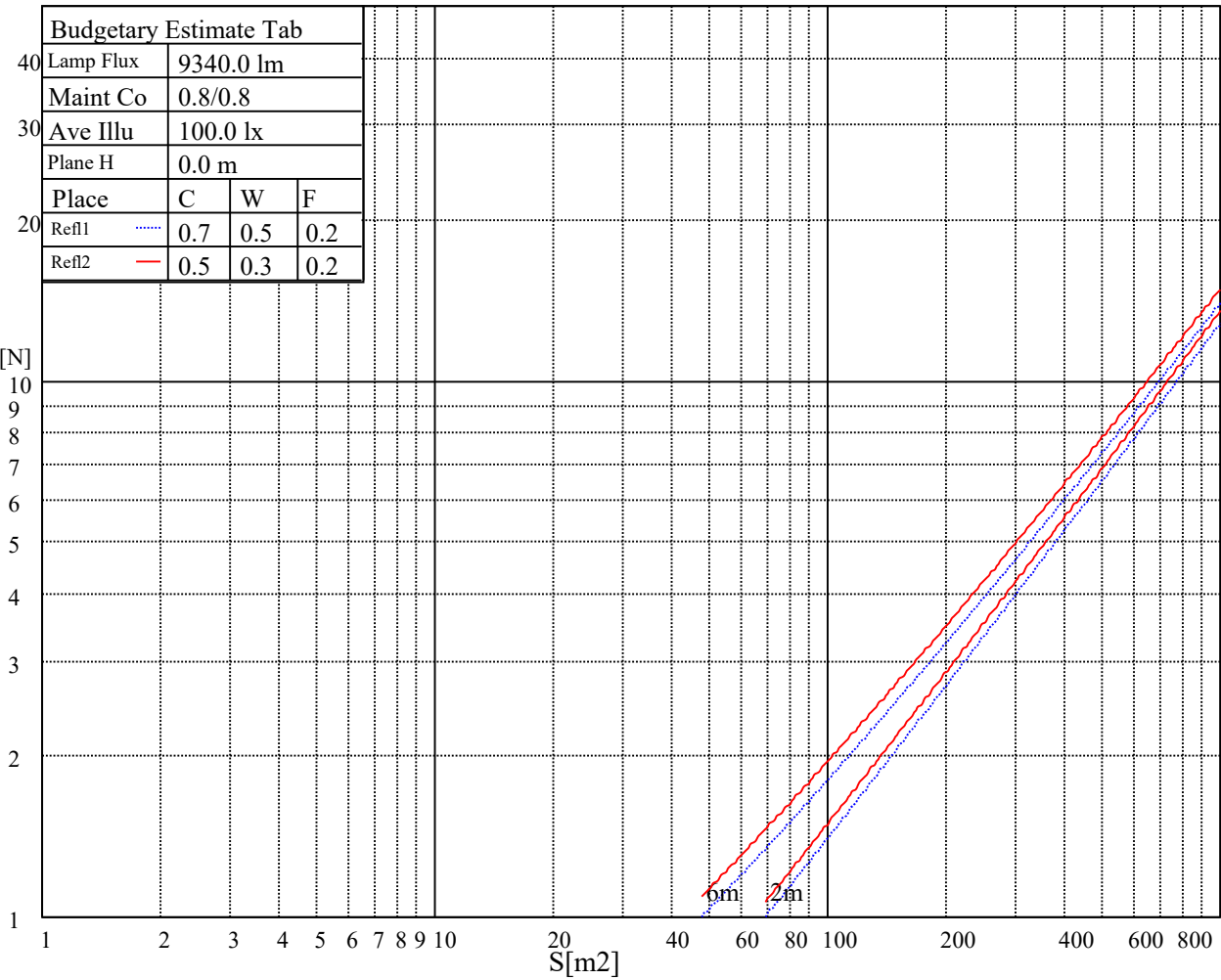
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve

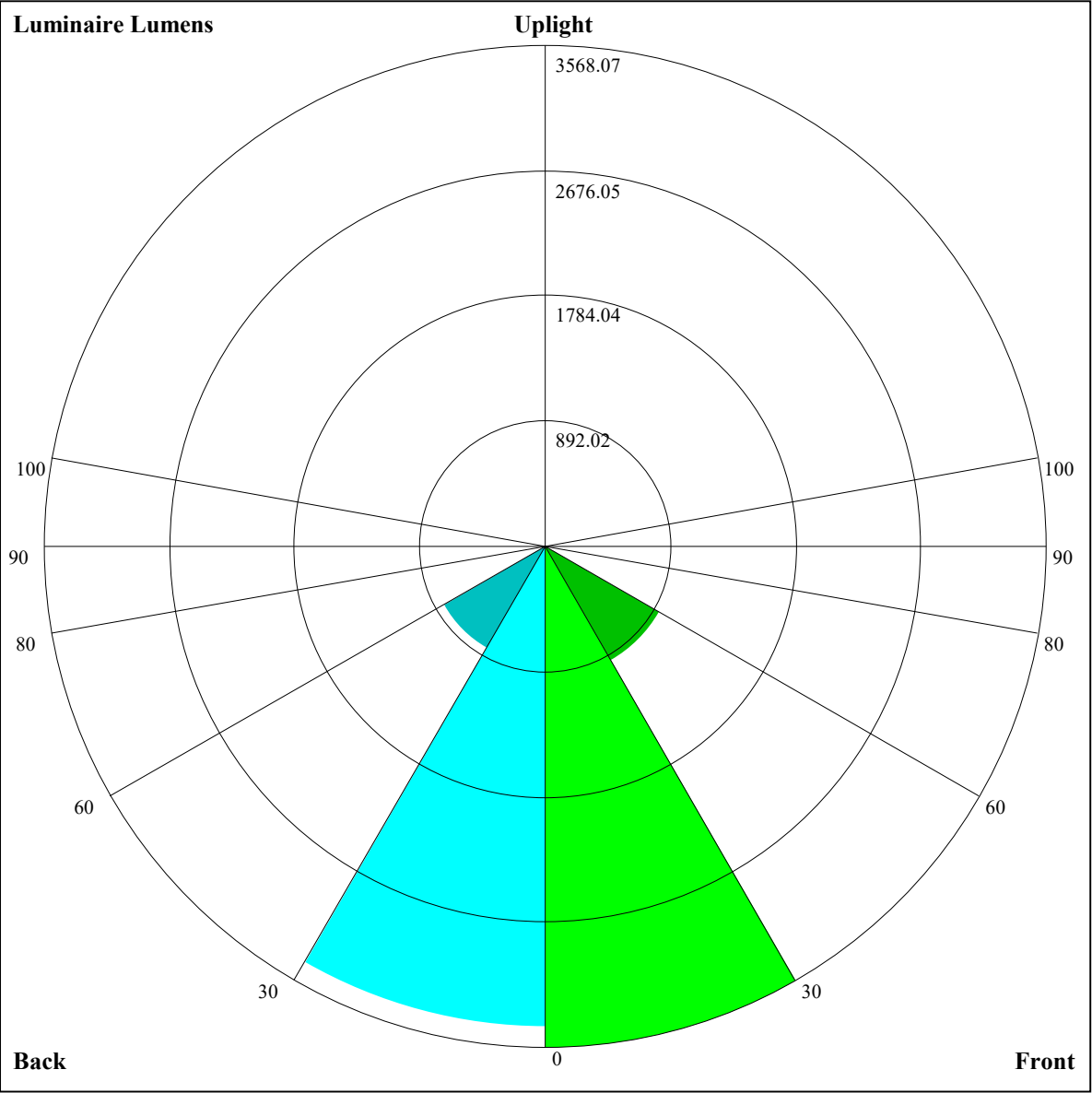


Illumination assessment according UGR											
Rf of Ceiling		70	70	50	50	30	70	70	50	50	30
Rf of Wall		50	30	50	30	30	50	30	50	30	30
Rf of Floor		20	20	20	20	20	20	20	20	20	20
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	22.30	23.23	22.67	23.54	23.85	21.99	22.92	22.36	23.23	23.54
	3H	22.10	22.92	22.48	23.25	23.60	21.79	22.61	22.18	22.95	23.29
	4H	21.99	22.75	22.40	23.11	23.48	21.69	22.45	22.09	22.80	23.17
	6H	21.91	22.61	22.33	22.98	23.38	21.61	22.30	22.03	22.68	23.08
	8H	21.85	22.51	22.27	22.89	23.30	21.54	22.20	21.97	22.59	23.00
	12H	21.79	22.41	22.21	22.80	23.22	21.48	22.11	21.91	22.50	22.92
4H	2H	21.98	22.74	22.38	23.09	23.46	21.67	22.43	22.07	22.78	23.15
	3H	21.74	22.37	22.16	22.77	23.18	21.43	22.06	21.86	22.46	22.88
	4H	21.67	22.21	22.11	22.64	23.09	21.36	21.91	21.80	22.33	22.78
	6H	21.54	22.02	22.02	22.48	22.93	21.24	21.72	21.71	22.18	22.63
	8H	21.50	21.94	21.99	22.40	22.88	21.20	21.64	21.68	22.10	22.58
	12H	21.47	21.88	21.96	22.33	22.85	21.17	21.58	21.66	22.03	22.55
8H	4H	21.46	21.91	21.95	22.37	22.84	21.16	21.60	21.65	22.06	22.54
	6H	21.34	21.70	21.84	22.18	22.69	21.04	21.40	21.54	21.88	22.39
	8H	21.35	21.65	21.88	22.17	22.67	21.05	21.35	21.58	21.87	22.37
	12H	21.33	21.56	21.87	22.07	22.60	21.03	21.26	21.58	21.78	22.30
12H	4H	21.41	21.82	21.90	22.27	22.80	21.11	21.52	21.60	21.97	22.49
	6H	21.32	21.63	21.86	22.15	22.65	21.02	21.33	21.56	21.85	22.35
	8H	21.30	21.53	21.84	22.05	22.57	21.00	21.23	21.55	21.75	22.27
Variation with the observer position at spacings:											
S = 1.0H		6.1/-13.2					6.1/-13.2				
S = 1.5H		8.8/-12.2					8.8/-12.2				
S = 2.0H		10.8/-11.2					10.8/-11.2				
Standard tables:		BK0					BK0				
Uncorrected UGR		2.1					2.1				

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	1.12	1.12	1.12	1.09	1.09	1.09	1.04	1.04	1.04	1.00	1.00	1.00	0.96	0.96	0.96	0.94
1	1.04	1.02	1.00	1.02	1.00	0.98	0.98	0.97	0.95	0.95	0.94	0.93	0.92	0.91	0.90	0.88
2	0.98	0.94	0.91	0.96	0.93	0.90	0.93	0.90	0.88	0.90	0.88	0.86	0.88	0.86	0.84	0.83
3	0.91	0.87	0.84	0.90	0.86	0.83	0.88	0.84	0.82	0.86	0.83	0.80	0.83	0.81	0.79	0.78
4	0.86	0.81	0.77	0.85	0.80	0.77	0.83	0.79	0.76	0.81	0.78	0.75	0.79	0.77	0.74	0.73
5	0.81	0.76	0.72	0.80	0.75	0.72	0.79	0.74	0.71	0.77	0.73	0.71	0.76	0.72	0.70	0.69
6	0.76	0.71	0.67	0.76	0.71	0.67	0.74	0.70	0.67	0.73	0.69	0.66	0.72	0.69	0.66	0.65
7	0.72	0.67	0.63	0.72	0.67	0.63	0.71	0.66	0.63	0.69	0.65	0.62	0.68	0.65	0.62	0.61
8	0.69	0.63	0.60	0.68	0.63	0.59	0.67	0.62	0.59	0.66	0.62	0.59	0.65	0.61	0.59	0.58
9	0.65	0.60	0.56	0.65	0.60	0.56	0.64	0.59	0.56	0.63	0.59	0.56	0.62	0.58	0.56	0.54
10	0.62	0.57	0.53	0.61	0.56	0.53	0.61	0.56	0.53	0.60	0.56	0.53	0.59	0.55	0.53	0.52



Luminaire Lumens:

FL=3568.07,FM=944.33,FH=20.49,FVH=8.68

BL=3417.49,BM=833.11,BH=20.55,BVH=8.63

UL=0,UH=0

BUG Rating:B4-U0-G0

NT Nata 3-3015-LM

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	12193.59	12227.18	12224.59	12193.59	12141.06	12041.16	11933.51	11810.36	11657.07
45.0	12171.20	12215.12	12222.87	12211.68	12163.45	12097.14	12011.88	11868.92	11735.44
90.0	12220.29	12199.62	12161.73	12104.03	12010.16	11911.98	11796.58	11629.51	11473.64
135.0	12219.43	12222.01	12199.62	12145.36	12074.75	11984.32	11871.51	11707.88	11550.29
180.0	12193.59	12141.06	12065.27	11933.51	11806.92	11657.93	11438.33	11241.12	10982.77
225.0	12171.20	12110.92	12005.85	11895.62	11767.30	11618.32	11402.16	11206.67	11001.71
270.0	12220.29	12210.81	12185.84	12128.14	12057.52	11971.40	11862.03	11704.44	11555.45
315.0	12219.43	12196.17	12138.47	12067.00	11977.43	11865.48	11699.27	11541.67	11368.58
360.0	12193.59	12227.18	12224.59	12193.59	12141.06	12041.16	11933.51	11810.36	11657.07
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	11446.08	11254.90	11055.11	10789.00	10574.56	10299.85	10077.66	9847.73	9618.65
45.0	11585.59	11415.08	11229.93	10981.90	10776.08	10564.23	10286.93	10056.99	9823.61
90.0	11310.02	11086.11	10892.34	10684.80	10469.50	10177.56	9935.57	9682.38	9432.63
135.0	11339.30	11154.14	10964.68	10700.30	10486.72	10258.51	10026.85	9703.91	9449.86
180.0	10761.44	10534.09	10303.29	10070.77	9776.25	9535.12	9294.85	9066.63	8792.77
225.0	10780.39	10506.53	10274.87	10045.80	9804.67	9494.64	9250.06	8965.01	8747.99
270.0	11390.11	11208.40	10965.54	10758.86	10484.14	10250.76	10001.88	9680.66	9416.27
315.0	11131.75	10933.68	10671.02	10448.83	10216.31	9910.59	9659.99	9406.80	9158.78
360.0	11446.08	11254.90	11055.11	10789.00	10574.56	10299.85	10077.66	9847.73	9618.65
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	9340.49	9127.78	8917.65	8708.38	8429.36	8185.64	7919.53	7611.23	7217.67
45.0	9538.56	9315.51	9045.10	8833.25	8611.93	8374.24	8035.79	7730.93	7407.99
90.0	9123.47	8884.92	8639.48	8314.82	8037.52	7648.26	7330.48	6993.76	6605.37
135.0	9198.39	8954.68	8658.43	8415.58	8168.42	7838.58	7548.36	7155.66	6831.86
180.0	8580.06	8366.49	8085.74	7837.72	7489.80	7182.36	6864.58	6424.52	6025.79
225.0	8533.56	8251.95	8008.24	7750.74	7456.22	7072.99	6753.49	6377.15	5963.79
270.0	9167.39	8927.12	8623.98	8369.93	8106.41	7824.80	7440.72	7126.38	6796.55
315.0	8859.95	8621.40	8379.41	8127.08	7792.08	7493.25	7187.53	6781.91	6409.88
360.0	9340.49	9127.78	8917.65	8708.38	8429.36	8185.64	7919.53	7611.23	7217.67
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	6862.86	6349.60	5907.81	5441.05	4822.72	4312.90	3799.63	3174.41	2693.87
45.0	7056.63	6543.36	6092.96	5634.81	5159.44	4541.11	4057.12	3464.63	3001.31
90.0	6092.96	5656.34	5216.28	4777.93	4226.78	3789.30	3361.29	2843.72	2139.27
135.0	6471.02	5965.51	5534.05	5100.88	4659.95	4094.15	3660.98	3224.36	2802.38
180.0	5595.20	5130.16	4514.41	4030.43	3553.33	3085.71	2488.05	2043.68	1678.53
225.0	5408.32	4944.14	4473.94	3890.05	3426.74	2867.83	2111.71	1653.56	1653.56
270.0	6314.29	5907.81	5447.94	4877.83	4444.66	4020.09	3481.85	3058.15	2668.90
315.0	5894.89	5448.80	4995.81	4533.36	3951.20	3499.94	3063.32	2644.78	1682.50
360.0	6862.86	6349.60	5907.81	5441.05	4822.72	4312.90	3799.63	3174.41	2693.87
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	1631.17	1631.17	1355.33	1018.61	730.63	502.50	298.14	208.49	164.31
45.0	2542.30	2008.37	1615.67	1273.78	974.95	652.00	447.90	447.90	302.02
90.0	1711.60	1629.88	1318.56	1035.23	745.27	594.30	507.93	434.55	356.27
135.0	2392.46	1910.19	1562.27	1171.30	890.55	659.75	492.68	449.62	449.62
180.0	1197.99	894.86	645.97	441.01	441.01	206.68	154.50	122.46	98.52
225.0	1225.21	927.84	673.02	467.11	317.52	254.65	203.41	162.76	125.47
270.0	2292.56	1837.85	1498.55	1184.21	907.77	652.00	531.44	446.18	446.18
315.0	1682.50	1427.93	1115.84	779.63	574.93	445.58	350.07	287.55	235.96
360.0	1631.17	1631.17	1355.33	1018.61	730.63	502.50	298.14	208.49	164.31

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	121.77	96.19	74.75	62.69	53.57	46.33	39.61	35.57	32.38
45.0	192.39	155.01	126.42	104.20	83.45	70.79	58.65	50.90	44.61
90.0	305.03	261.80	224.51	185.76	160.44	138.56	115.40	100.41	87.58
135.0	271.70	228.21	192.65	163.54	133.14	114.37	98.61	85.08	70.53
180.0	81.30	65.71	56.06	48.48	42.54	36.86	33.41	30.74	28.16
225.0	103.69	86.64	70.01	59.77	51.67	43.83	38.93	34.28	31.43
270.0	296.08	250.60	203.41	172.75	140.80	119.96	102.48	88.01	75.78
315.0	186.79	155.96	130.56	105.15	89.05	75.96	65.02	54.43	47.80
360.0	121.77	96.19	74.75	62.69	53.57	46.33	39.61	35.57	32.38
C/ γ (°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	29.88	27.56	26.09	24.89	23.94	22.91	22.22	21.62	21.19
45.0	38.49	34.96	31.86	28.94	27.13	25.58	24.37	23.17	22.30
90.0	74.41	65.45	56.24	50.03	44.87	40.48	35.91	32.98	30.40
135.0	62.35	54.86	47.19	42.54	38.58	34.28	31.43	29.28	26.96
180.0	26.52	24.97	24.03	23.17	22.30	21.79	21.36	20.93	20.41
225.0	29.11	27.30	25.49	24.29	23.34	22.48	21.70	21.10	20.67
270.0	63.81	55.89	49.35	42.80	38.58	35.05	32.12	29.11	27.13
315.0	42.46	38.06	33.84	31.09	28.33	26.61	25.15	23.68	22.74
360.0	29.88	27.56	26.09	24.89	23.94	22.91	22.22	21.62	21.19
C/ γ (°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	20.75	20.41	20.07	19.81	19.55	19.20	19.03	18.86	18.69
45.0	21.70	21.10	20.50	20.07	19.72	19.38	19.03	18.86	18.52
90.0	28.25	26.09	24.63	23.42	22.30	21.19	20.50	19.72	19.20
135.0	25.49	24.29	23.17	22.13	21.44	20.75	20.24	19.63	19.29
180.0	20.15	19.81	19.55	19.29	19.03	18.77	18.60	18.34	18.26
225.0	20.15	19.72	19.38	19.12	18.86	18.69	18.34	18.17	18.08
270.0	25.15	23.85	22.74	21.62	20.93	20.32	19.81	19.20	18.77
315.0	21.96	21.10	20.58	20.07	19.72	19.29	18.95	18.69	18.43
360.0	20.75	20.41	20.07	19.81	19.55	19.20	19.03	18.86	18.69
C/ γ (°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	18.34	18.26	18.08	17.91	17.74	17.57	17.40	17.22	17.14
45.0	18.34	18.17	17.91	17.83	17.65	17.48	17.31	17.14	17.05
90.0	18.77	18.26	18.00	17.74	17.48	17.22	16.97	16.79	16.71
135.0	18.95	18.60	18.26	18.00	17.83	17.65	17.40	17.22	17.05
180.0	18.00	17.83	17.74	17.48	17.31	17.22	17.05	16.88	16.71
225.0	17.83	17.65	17.48	17.31	17.14	17.05	16.88	16.79	16.62
270.0	18.43	18.17	17.83	17.57	17.40	17.14	16.97	16.88	16.71
315.0	18.17	18.00	17.74	17.57	17.40	17.22	16.97	16.88	16.71
360.0	18.34	18.26	18.08	17.91	17.74	17.57	17.40	17.22	17.14
C/ γ (°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	16.97	16.79	16.62	16.45	16.02	15.67	15.59	15.50	15.50
45.0	16.88	16.71	16.62	16.53	16.36	15.93	15.42	15.33	15.24
90.0	16.53	16.36	16.28	16.28	16.19	15.33	15.16	14.98	14.98
135.0	16.88	16.71	16.53	16.45	16.28	16.19	15.67	15.50	15.33
180.0	16.62	16.45	16.28	15.93	15.50	15.42	15.24	15.50	15.24
225.0	16.53	16.36	15.85	15.50	15.42	15.24	15.07	15.07	15.07
270.0	16.53	16.36	16.19	15.67	15.42	15.33	15.16	15.07	14.98
315.0	16.62	16.36	16.02	15.85	15.76	15.59	15.50	15.33	15.33
360.0	16.97	16.79	16.62	16.45	16.02	15.67	15.59	15.50	15.50

Intensity data(cd)

C/ $\gamma(^{\circ})$	90.0
0.0	15.42
45.0	15.07
90.0	14.90
135.0	15.33
180.0	15.24
225.0	15.07
270.0	14.98
315.0	15.24
360.0	15.42