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Nata

Client: NT

LumCAT: 3-3013-LM

Luminaire: BJB 47.360.2100

Report No: 20251118-B013

Ballast type: DC

Test No: 20251118-C013

Voltage(V): 52.440

LampCAT: Bridgelux V22 LES22

Current(A): 1.192

Lamp flux(lm): 9340.0

Power (W): 62.500

Number of Lamps: 1

PF: 0.000

Length(mm): 85

Width(mm): 85

Phm Type: C

Height(mm): 51

Photometric Results

Lumens(lm): 8698.83, Efficiency(%): 93.14% , Luminous Efficacy(lm/W): 139.18

Central intensity(cd): 24126.930, Maximum intensity(cd): 24126.930

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=32.0

[C90/270]Total=32.0

Field angle(10%Imax): [C0/180]Total=61.4

[C90/270]Total=61.4

Maximum s/h(1/2): C0_180=0.53 C90_270=0.53

Maximum s/h(1/4): C0_180=0.52 C90_270=0.52

Up flux rate of lamp(%): 0.00%

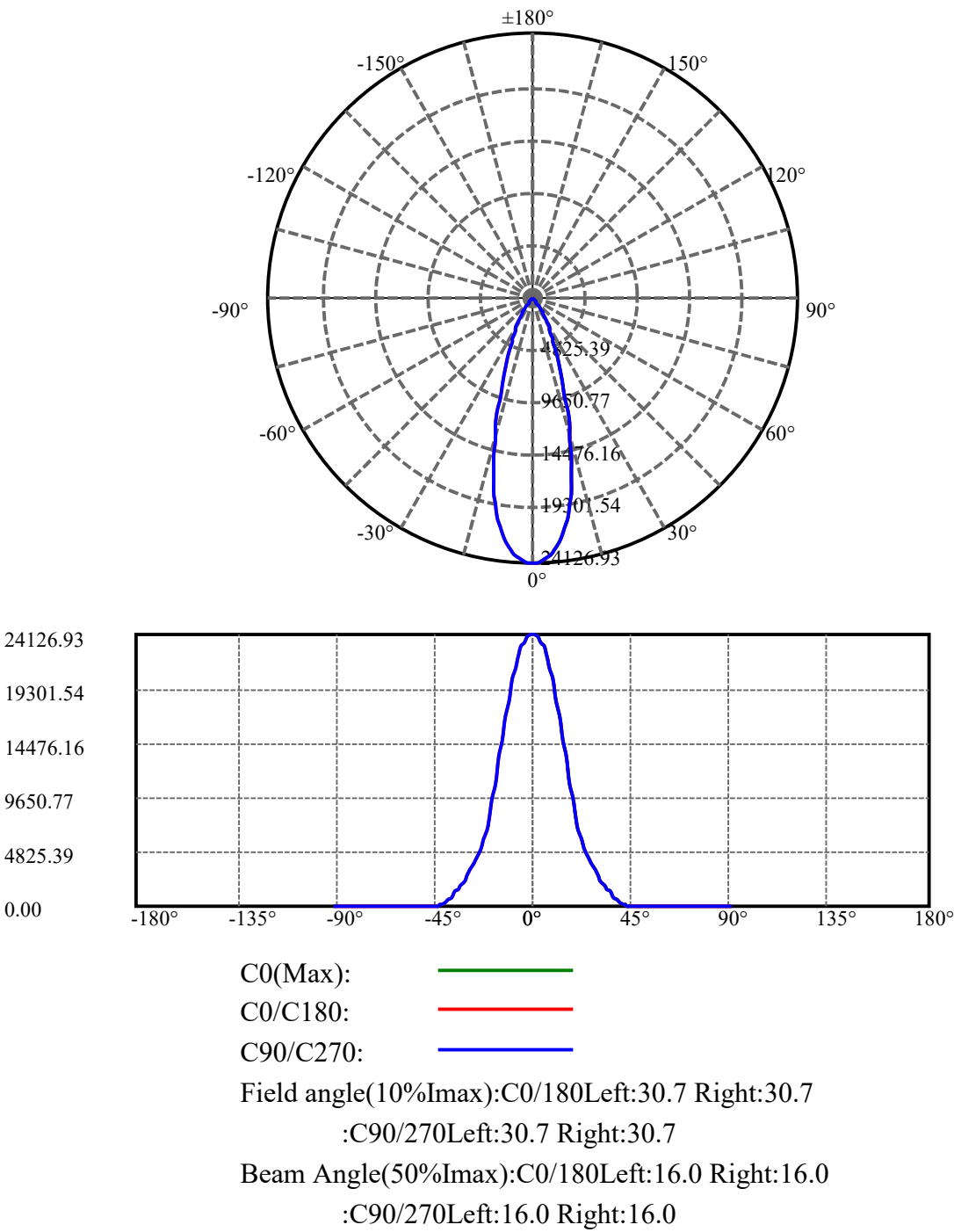
Down flux rate of lamp(%): 93.14%

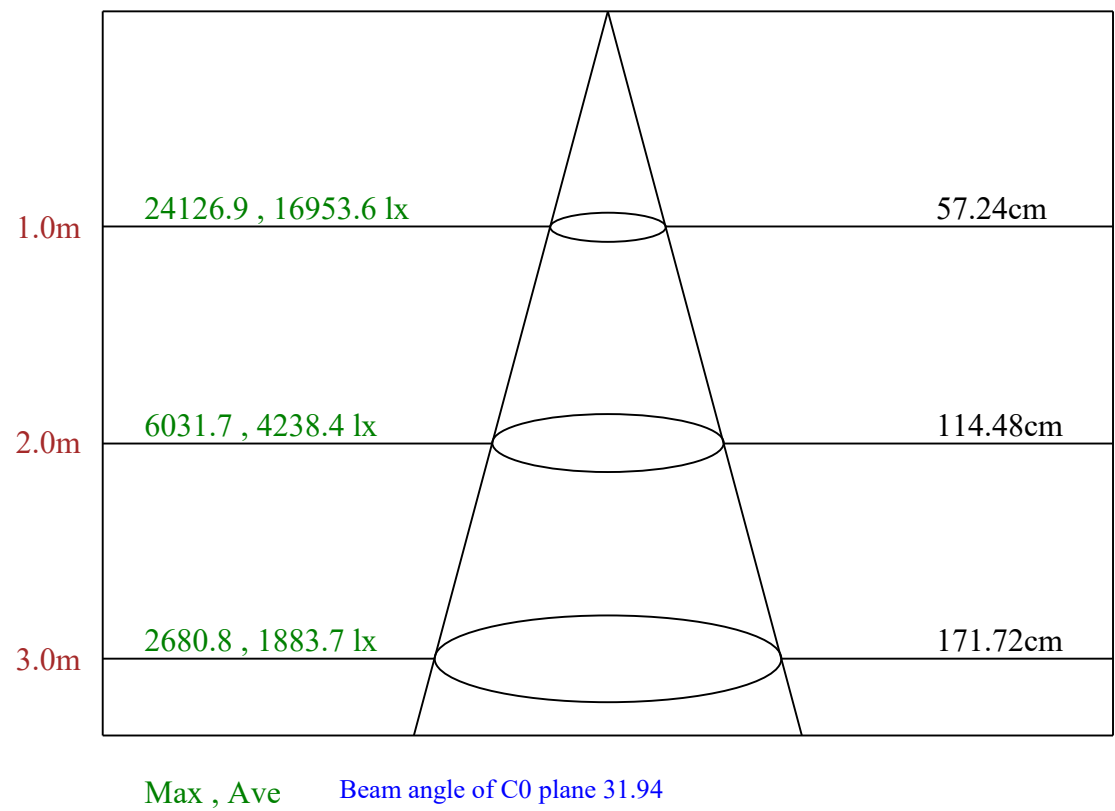
Up flux rate of LUM(%): - -

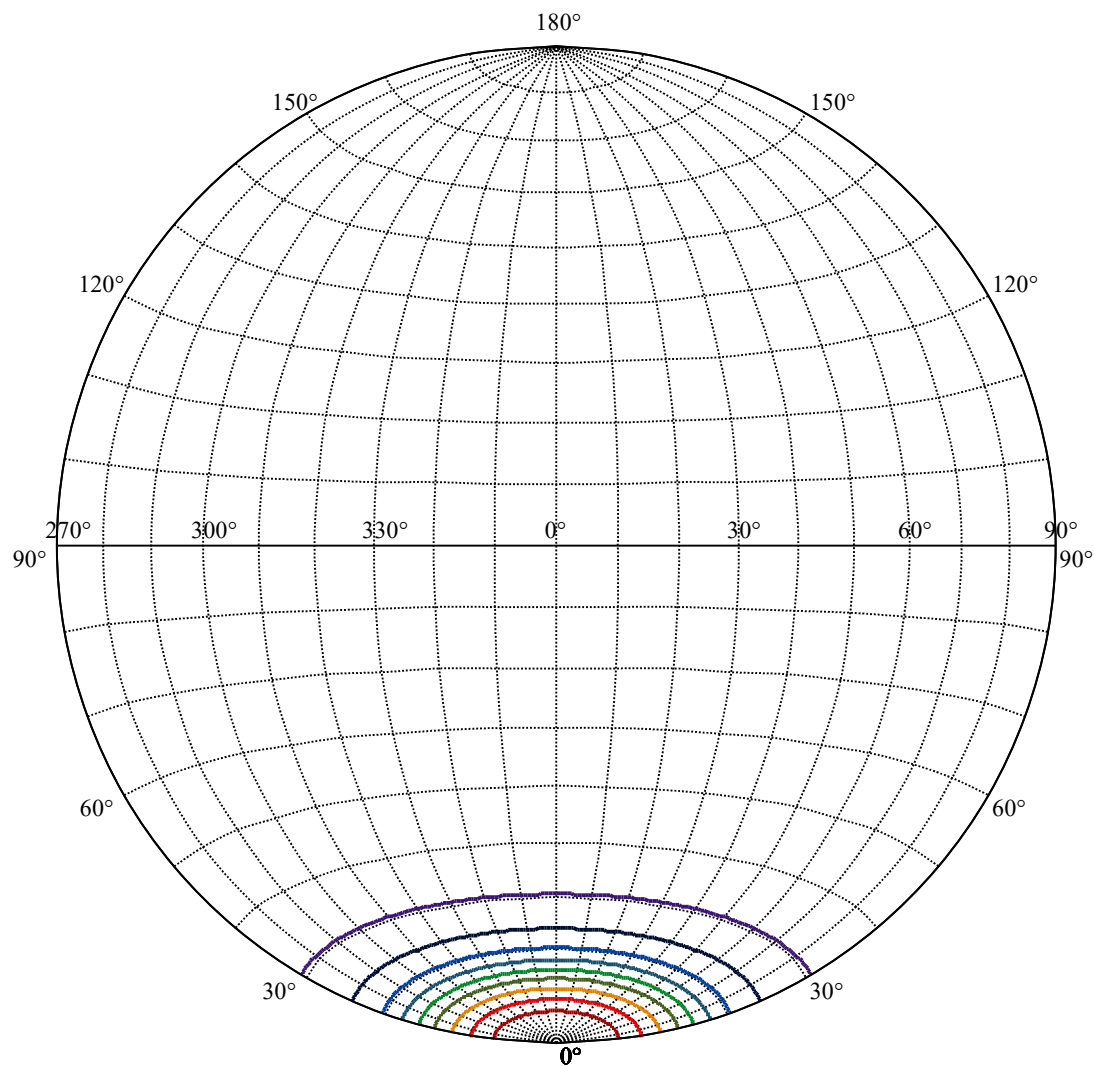
Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.325%







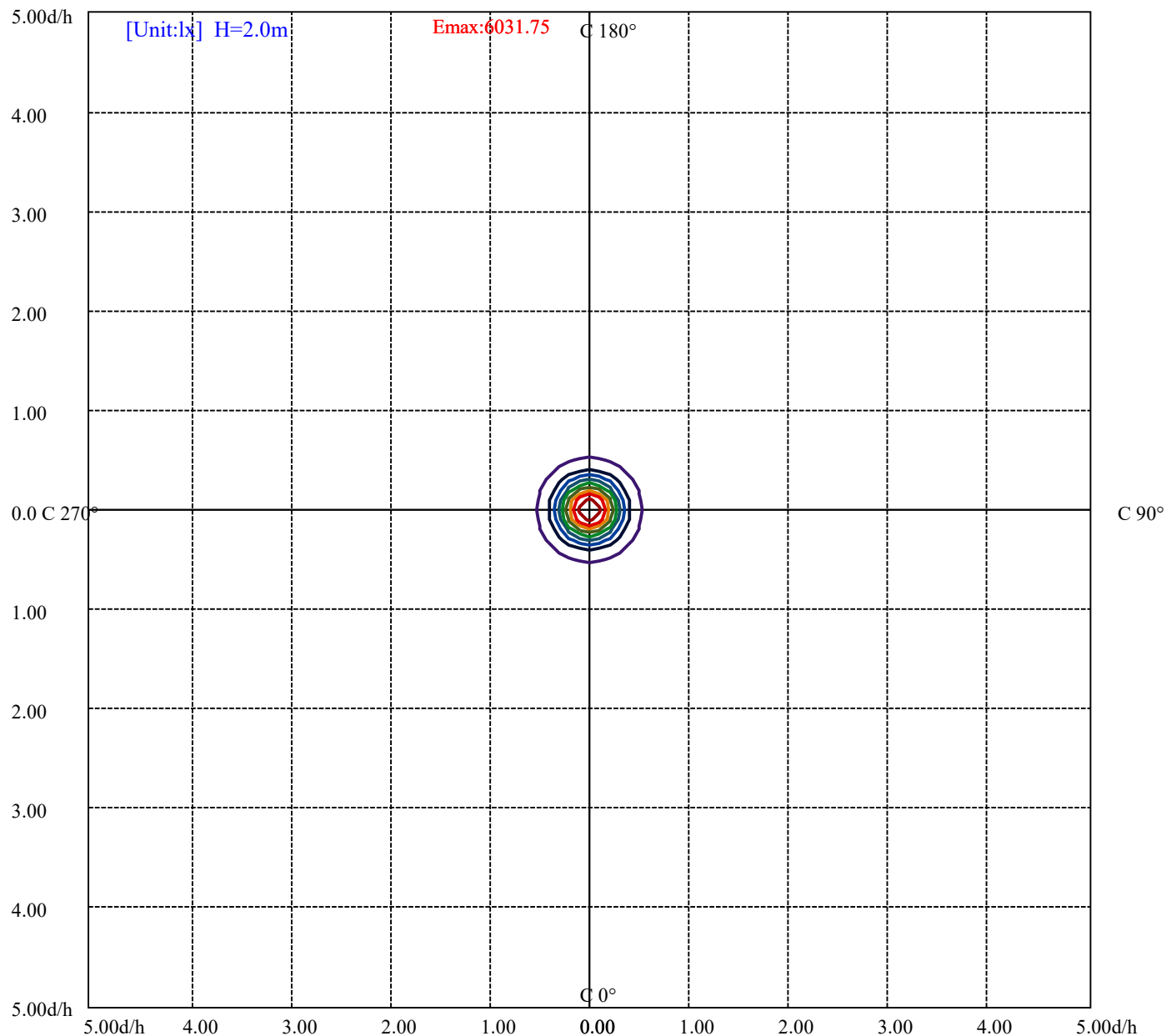
House

[Unit:cd]

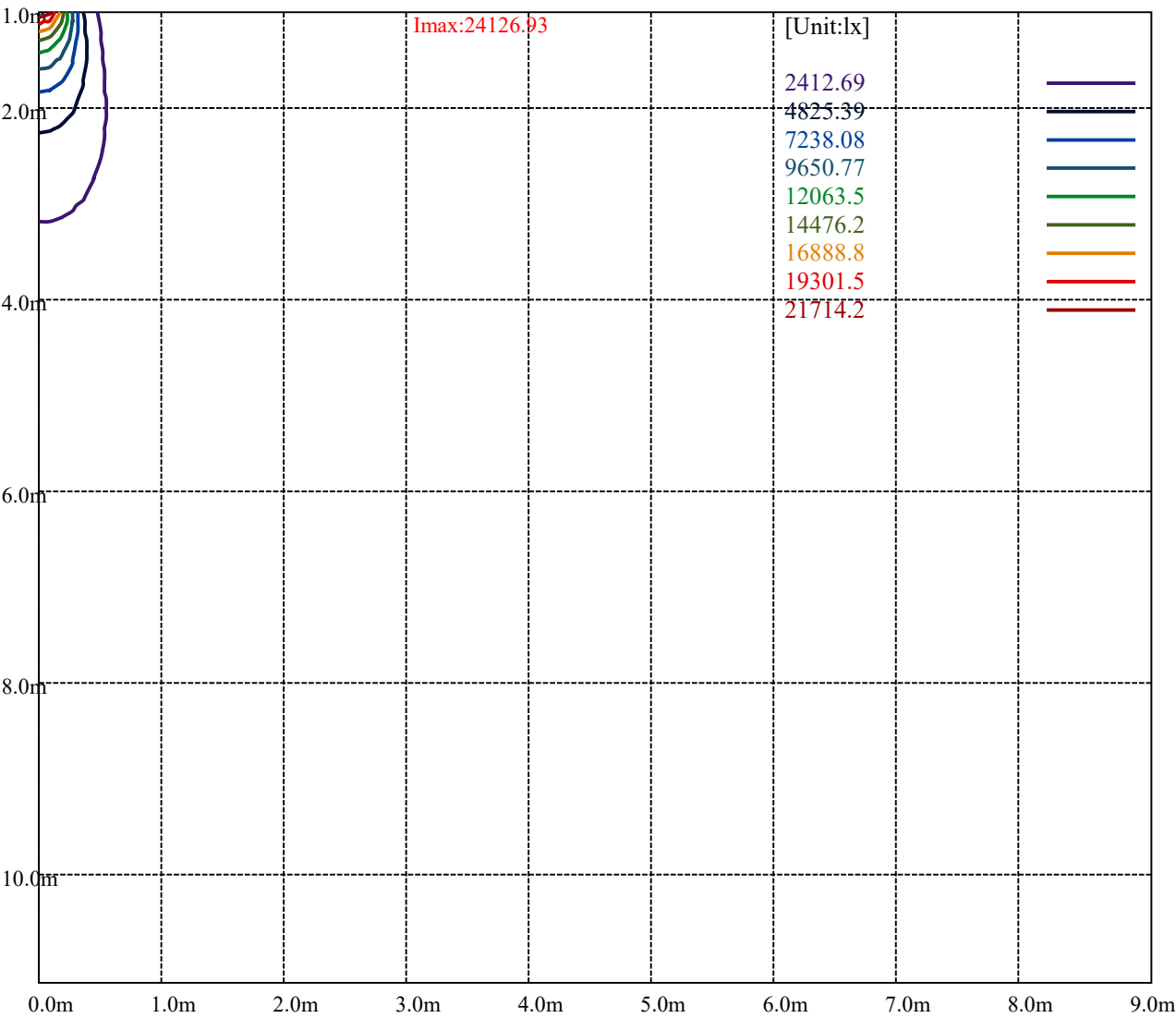
Road

Imax:24126.93

(10%Imax)	2412.69	—
(20%Imax)	4825.39	—
(30%Imax)	7238.08	—
(40%Imax)	9650.77	—
(50%Imax)	12063.5	—
(60%Imax)	14476.2	—
(70%Imax)	16888.8	—
(80%Imax)	19301.5	—
(90%Imax)	21714.2	—



(10%Emax) 603.1725	—
(20%Emax) 1206.345	—
(30%Emax) 1809.52	—
(40%Emax) 2412.692	—
(50%Emax) 3015.875	—
(60%Emax) 3619.05	—
(70%Emax) 4222.2	—
(80%Emax) 4825.375	—
(90%Emax) 5428.55	—



Luminance Table

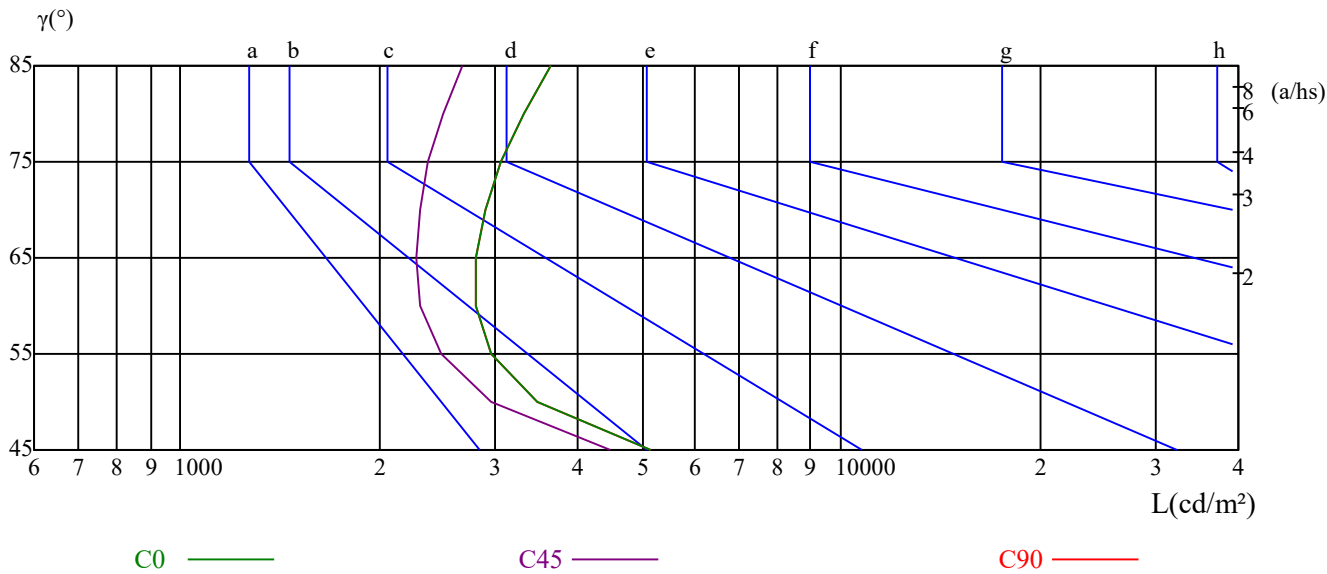
γ	45	50	55	60	65	70	75	80	85
C0	5162	3468	2953	2801	2806	2893	3053	3307	3646
C45	4468	2957	2479	2313	2276	2300	2374	2505	2678
C90	5162	3468	2953	2801	2806	2893	3053	3307	3646

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
6416	6416	6416	9890	9890	9890	28651	28651	28651

Glare Table

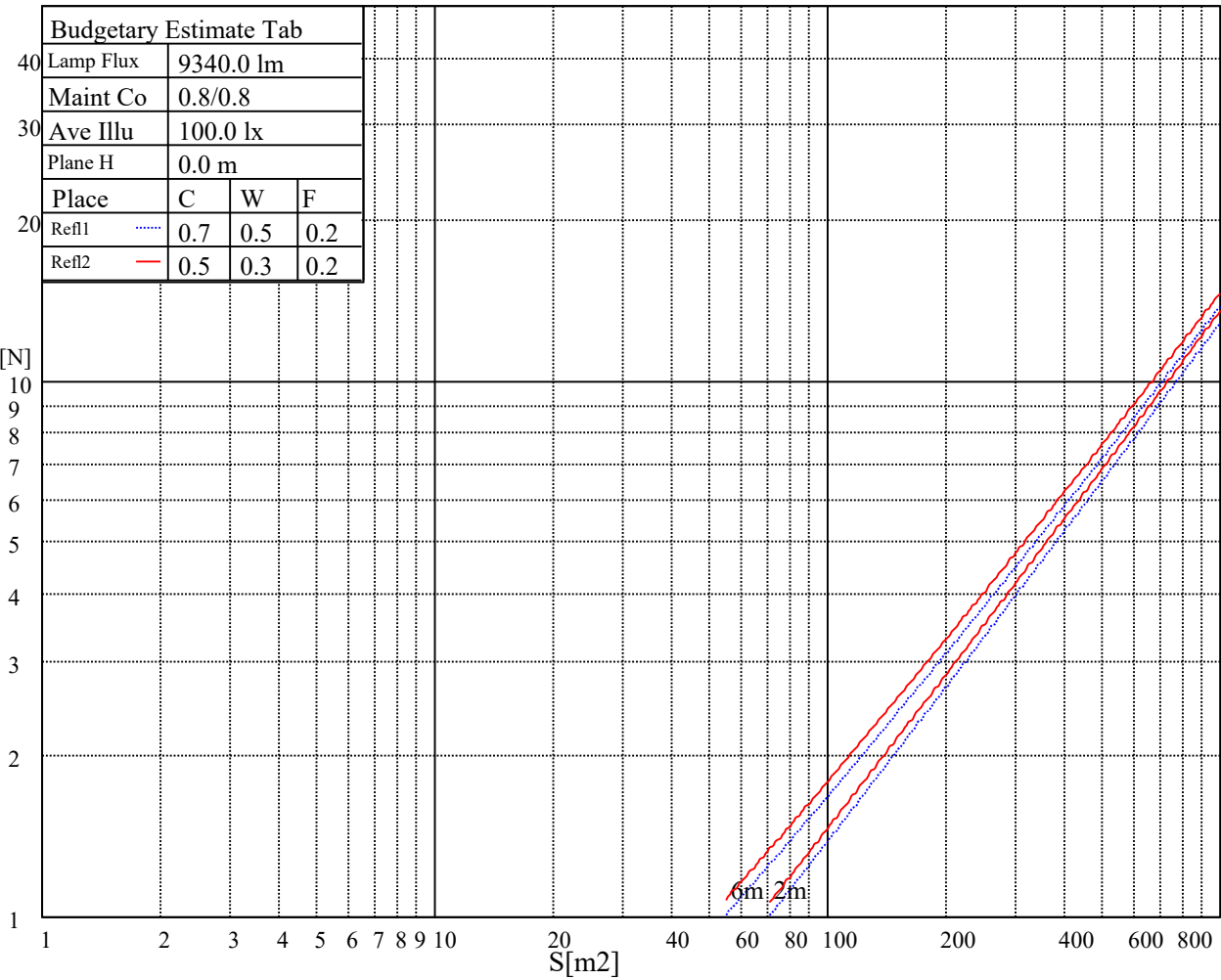
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve

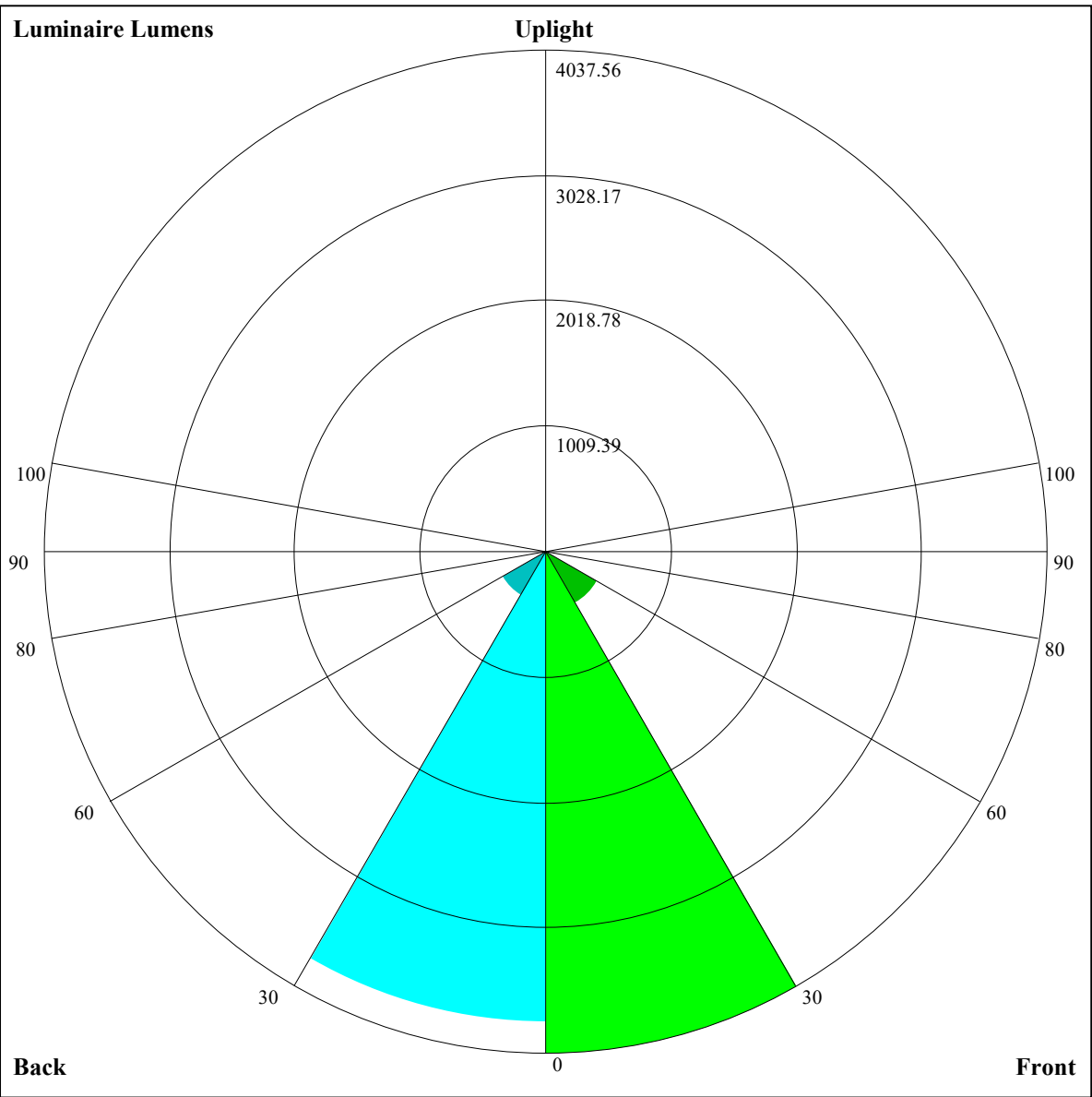


Illumination assessment according UGR											
Rf of Ceiling		70	70	50	50	30	70	70	50	50	30
Rf of Wall		50	30	50	30	30	50	30	50	30	30
Rf of Floor		20	20	20	20	20	20	20	20	20	20
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	18.23	19.13	18.59	19.44	19.75	17.57	18.47	17.94	18.78	19.10
	3H	18.04	18.84	18.43	19.18	19.52	17.39	18.19	17.78	18.53	18.87
	4H	17.96	18.70	18.36	19.06	19.42	17.32	18.06	17.72	18.41	18.78
	6H	17.92	18.60	18.34	18.97	19.37	17.29	17.96	17.71	18.34	18.74
	8H	17.88	18.53	18.31	18.91	19.32	17.25	17.90	17.68	18.28	18.69
	12H	17.86	18.47	18.29	18.86	19.28	17.24	17.85	17.67	18.24	18.66
4H	2H	17.90	18.64	18.31	19.00	19.37	17.25	17.99	17.65	18.34	18.71
	3H	17.69	18.31	18.12	18.71	19.13	17.05	17.67	17.48	18.07	18.48
	4H	17.66	18.20	18.10	18.62	19.07	17.03	17.56	17.47	17.99	18.44
	6H	17.61	18.08	18.08	18.53	18.99	16.99	17.46	17.46	17.91	18.37
	8H	17.62	18.05	18.11	18.51	18.99	17.01	17.44	17.50	17.90	18.38
	12H	17.65	18.05	18.14	18.51	19.03	17.06	17.46	17.55	17.91	18.44
8H	4H	17.48	17.92	17.97	18.38	18.85	16.85	17.29	17.34	17.75	18.23
	6H	17.46	17.81	17.96	18.29	18.80	16.85	17.20	17.36	17.68	18.20
	8H	17.55	17.84	18.08	18.36	18.86	16.96	17.25	17.49	17.77	18.27
	12H	17.63	17.85	18.18	18.37	18.90	17.07	17.29	17.62	17.81	18.33
12H	4H	17.44	17.84	17.93	18.29	18.81	16.81	17.21	17.30	17.66	18.19
	6H	17.46	17.75	18.00	18.28	18.78	16.86	17.15	17.39	17.68	18.17
	8H	17.53	17.75	18.08	18.27	18.79	16.95	17.17	17.49	17.69	18.21
Variation with the observer position at spacings:											
S = 1.0H		6.0/-10.1					6.0/-10.1				
S = 1.5H		8.6/-8.3					8.6/-8.3				
S = 2.0H		10.4/-7.0					10.4/-7.0				
Standard tables:		BK1					BK1				
Uncorrected UGR		-1.8					-1.8				

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	1.11	1.11	1.11	1.08	1.08	1.08	1.03	1.03	1.03	0.99	0.99	0.99	0.95	0.95	0.95	0.93
1	1.04	1.02	1.01	1.02	1.01	0.99	0.99	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.89
2	0.99	0.96	0.93	0.97	0.94	0.92	0.94	0.92	0.90	0.91	0.90	0.88	0.89	0.87	0.86	0.85
3	0.94	0.90	0.87	0.92	0.89	0.86	0.90	0.87	0.85	0.88	0.86	0.83	0.86	0.84	0.82	0.81
4	0.89	0.85	0.82	0.88	0.84	0.81	0.86	0.83	0.80	0.85	0.82	0.80	0.83	0.81	0.79	0.77
5	0.85	0.81	0.78	0.84	0.80	0.77	0.83	0.79	0.77	0.81	0.78	0.76	0.80	0.77	0.75	0.74
6	0.81	0.77	0.74	0.81	0.77	0.74	0.80	0.76	0.73	0.78	0.75	0.73	0.77	0.74	0.72	0.71
7	0.78	0.74	0.71	0.78	0.73	0.70	0.76	0.73	0.70	0.75	0.72	0.70	0.75	0.72	0.69	0.68
8	0.75	0.71	0.68	0.75	0.70	0.67	0.74	0.70	0.67	0.73	0.69	0.67	0.72	0.69	0.67	0.66
9	0.72	0.68	0.65	0.72	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.64	0.70	0.66	0.64	0.63
10	0.70	0.65	0.62	0.69	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.62	0.61



Luminaire Lumens:

FL=4037.56,FM=482.97,FH=19.6,FVH=9.82

BL=3784.93,BM=411.22,BH=19.46,BVH=9.79

UL=0,UH=0

BUG Rating:B4-U0-G0

NT Nata 3-3013-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	24109.71	24169.99	24126.93	24032.20	23791.07	23524.10	23162.40	22602.64	22051.48
45.0	24066.65	24144.15	24144.15	24023.59	23834.13	23584.39	23257.14	22740.42	22232.33
90.0	24187.21	24126.93	23946.08	23696.34	23394.92	23007.39	22404.56	21836.18	21173.07
135.0	24144.15	24169.99	24118.32	23989.14	23687.73	23386.31	22990.17	22352.89	21758.67
180.0	24109.71	23980.53	23765.23	23481.04	22998.78	22507.91	21905.08	21190.29	20148.26
225.0	24066.65	23920.25	23636.06	23317.42	22912.66	22284.00	21681.17	20966.39	19950.19
270.0	24187.21	24169.99	24075.26	23842.74	23593.00	23265.75	22714.59	22206.49	21448.65
315.0	24144.15	24032.20	23834.13	23575.77	23222.69	22766.26	22103.15	21431.43	20673.58
360.0	24109.71	24169.99	24126.93	24032.20	23791.07	23524.10	23162.40	22602.64	22051.48
C/ γ (°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	21216.13	20423.84	19528.21	17072.20	17072.20	15845.87	14570.46	13266.63	11949.01
45.0	21646.72	20785.54	19984.64	18847.87	17831.68	16763.81	15627.04	14163.03	12965.99
90.0	20199.93	19321.52	16996.41	16996.41	15851.04	14682.41	13219.26	12071.30	10951.76
135.0	21052.50	20251.60	19063.17	17969.47	16841.31	15592.60	13964.96	12664.57	11355.57
180.0	19183.73	18107.25	16617.41	15342.85	13680.77	12354.55	11054.16	9822.66	8410.32
225.0	18425.89	16932.69	16646.77	15490.20	14309.52	13122.81	11649.32	10511.70	9428.33
270.0	20725.25	19907.13	19002.89	17745.56	16686.30	15566.76	14438.61	12991.82	11837.84
315.0	19777.95	17167.79	17167.79	16265.27	15044.97	13456.95	12151.39	10559.06	9386.99
360.0	21216.13	20423.84	19528.21	17072.20	17072.20	15845.87	14570.46	13266.63	11949.01
C/ γ (°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	10403.19	9241.45	8183.06	7030.79	6235.92	5561.61	4889.03	4461.02	4023.54
45.0	11803.39	10701.07	9426.52	8496.44	7626.65	6679.34	6042.07	5490.91	4896.69
90.0	9916.62	8717.85	7844.61	7054.91	6371.99	5650.31	5151.69	4722.82	4268.98
135.0	9822.66	8728.96	7755.82	6679.34	5938.72	5335.90	4741.68	4414.43	4414.43
180.0	7411.35	6567.39	5826.77	5086.15	4621.11	4423.04	4423.04	3591.22	3330.28
225.0	8435.38	7325.32	6548.53	5900.06	5228.33	4755.54	4369.73	3937.42	3588.64
270.0	10726.91	9693.49	8487.83	7592.20	6619.06	5964.56	5413.40	4810.57	4414.43
315.0	8303.62	7118.63	6303.95	5626.20	5074.18	4523.89	4146.69	3839.24	3568.83
360.0	10403.19	9241.45	8183.06	7030.79	6235.92	5561.61	4889.03	4461.02	4023.54
C/ γ (°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	3743.65	3476.69	3208.00	2880.75	2621.53	2356.29	1710.14	1710.14	1526.97
45.0	4500.55	4414.43	4011.48	3362.15	3039.20	2644.78	2355.42	2068.65	1797.38
90.0	3903.83	3541.27	3117.57	2797.21	2413.12	1714.53	1714.53	1584.84	1272.40
135.0	3733.32	3375.07	3096.04	2815.30	2544.02	2223.66	1956.70	1713.84	1414.15
180.0	3067.62	2736.93	2461.35	2130.66	1880.05	1643.23	1346.12	1123.93	911.22
225.0	3165.80	2836.83	2527.66	2029.04	1705.83	1642.79	1398.05	1161.48	880.22
270.0	4414.43	3590.36	3220.05	2870.41	2548.33	2177.16	1897.27	1644.95	1405.54
315.0	3204.55	2917.78	2637.89	2302.89	1665.70	1665.70	1488.13	1259.83	1042.98
360.0	3743.65	3476.69	3208.00	2880.75	2621.53	2356.29	1710.14	1710.14	1526.97
C/ γ (°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	1289.54	1061.32	791.94	584.14	401.05	220.46	119.36	55.80	47.97
45.0	1467.54	1218.66	982.70	763.10	515.07	468.57	468.57	95.68	73.72
90.0	1031.10	812.53	610.49	382.28	234.24	129.09	85.17	70.62	60.71
135.0	1175.60	947.39	688.17	501.30	457.37	261.89	74.58	52.53	45.99
180.0	706.26	454.79	454.79	259.56	78.97	49.26	42.80	37.46	32.55
225.0	672.33	484.67	320.62	157.34	80.43	61.66	51.07	44.09	37.98
270.0	1119.63	893.13	681.28	438.43	438.43	246.13	72.17	61.49	52.62
315.0	782.64	586.72	410.53	255.08	111.44	57.87	47.37	41.42	35.22
360.0	1289.54	1061.32	791.94	584.14	401.05	220.46	119.36	55.80	47.97

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	42.11	36.86	32.47	30.66	29.02	27.64	26.09	25.06	24.29
45.0	63.30	51.93	44.87	40.73	36.34	33.67	31.09	28.85	27.04
90.0	51.84	44.78	40.65	36.26	33.33	30.74	28.76	26.96	25.75
135.0	38.49	33.93	31.52	29.80	27.90	26.52	25.32	24.29	23.60
180.0	30.66	29.11	27.56	26.35	25.23	24.29	23.68	23.08	22.56
225.0	35.05	32.55	30.49	27.99	26.44	25.40	24.46	23.51	22.82
270.0	44.26	39.61	36.34	33.59	30.57	28.42	26.78	25.66	24.37
315.0	31.86	29.97	28.16	26.87	25.32	24.29	23.68	22.91	22.39
360.0	42.11	36.86	32.47	30.66	29.02	27.64	26.09	25.06	24.29
C/ γ (°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	23.51	22.99	22.56	22.05	21.70	21.36	21.01	20.84	20.58
45.0	25.84	24.80	23.94	23.08	22.48	21.96	21.44	21.10	20.67
90.0	24.63	23.77	22.91	22.30	21.79	21.19	20.84	20.50	20.15
135.0	22.82	22.30	21.87	21.44	21.19	20.84	20.58	20.32	20.15
180.0	22.05	21.70	21.44	21.19	20.84	20.58	20.41	20.24	20.07
225.0	22.30	21.87	21.36	21.01	20.67	20.41	20.15	19.89	19.72
270.0	23.51	22.82	22.13	21.70	21.27	20.84	20.50	20.24	19.98
315.0	21.96	21.53	21.19	20.93	20.67	20.32	20.15	19.98	19.81
360.0	23.51	22.99	22.56	22.05	21.70	21.36	21.01	20.84	20.58
C/ γ (°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	20.41	20.15	19.98	19.89	19.81	19.63	19.46	19.38	19.29
45.0	20.41	20.15	19.98	19.72	19.55	19.46	19.29	19.12	19.03
90.0	19.98	19.72	19.46	19.38	19.20	19.03	18.86	18.77	18.69
135.0	19.89	19.81	19.63	19.46	19.29	19.20	19.12	18.95	18.86
180.0	19.89	19.72	19.55	19.46	19.29	19.20	19.12	19.03	18.95
225.0	19.55	19.38	19.29	19.12	19.03	18.86	18.77	18.69	18.60
270.0	19.72	19.63	19.46	19.20	19.03	19.03	18.86	18.77	18.60
315.0	19.55	19.46	19.38	19.20	19.03	18.95	18.86	18.77	18.69
360.0	20.41	20.15	19.98	19.89	19.81	19.63	19.46	19.38	19.29
C/ γ (°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	19.12	19.03	18.95	18.95	18.86	18.77	18.69	18.69	18.60
45.0	18.95	18.86	18.77	18.69	18.60	18.52	18.52	18.43	18.34
90.0	18.60	18.43	18.43	18.34	18.26	18.26	18.26	18.17	18.26
135.0	18.77	18.69	18.52	18.43	18.43	18.34	18.26	18.26	18.17
180.0	18.77	18.77	18.69	18.60	18.60	18.52	18.43	18.43	18.43
225.0	18.52	18.43	18.43	18.34	18.34	18.26	18.26	18.17	18.17
270.0	18.52	18.52	18.43	18.26	18.26	18.17	18.17	18.17	18.08
315.0	18.52	18.52	18.34	18.34	18.26	18.17	18.17	18.08	18.08
360.0	19.12	19.03	18.95	18.95	18.86	18.77	18.69	18.69	18.60
C/ γ (°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	18.60	18.52	18.52	18.43	18.26	18.08	18.08	18.08	18.17
45.0	18.34	18.34	18.43	18.34	18.34	18.17	17.74	17.74	17.74
90.0	18.26	18.17	18.17	18.26	18.43	17.74	17.65	17.48	17.48
135.0	18.17	18.08	18.08	18.08	18.08	18.08	17.83	17.74	17.74
180.0	18.34	18.26	18.26	18.17	18.00	18.00	17.91	18.08	17.91
225.0	18.17	18.08	18.00	17.74	17.74	17.65	17.65	17.65	17.57
270.0	18.08	18.08	18.08	17.74	17.74	17.65	17.65	17.57	17.48
315.0	18.08	18.00	17.83	17.83	17.74	17.74	17.74	17.65	17.65
360.0	18.60	18.52	18.52	18.43	18.26	18.08	18.08	18.08	18.17

Intensity data(cd)

C/ γ (°)	90.0
0.0	18.17
45.0	17.65
90.0	17.48
135.0	17.74
180.0	17.83
225.0	17.65
270.0	17.48
315.0	17.65
360.0	18.17