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NT

Client: NT

LumCAT: 1-1705-LM2

Luminaire: 92.70.481.00

Report No: 20251217-B017

Ballast type: AC

Test No: 20251217-C017

Voltage(V): 35.060

LampCAT: CITIZEN CLU028 LES9.8

Current(A): 0.361

Lamp flux(lm): 1498.0

Power (W): 12.656

Number of Lamps: 1

PF: 0.000

Length(mm): 50

Width(mm): 50

Phm Type: C

Height(mm): 22

Photometric Results

Lumens(lm): 1440.11, Efficiency(%): 96.14% , Luminous Efficacy(lm/W): 113.79

Central intensity(cd): 2273.709, Maximum intensity(cd): 2273.709

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=39.0

[C90/270]Total=39.0

Field angle(10%Imax): [C0/180]Total=87.4

[C90/270]Total=87.4

Maximum s/h(1/2): C0_180=0.63 C90_270=0.63

Maximum s/h(1/4): C0_180=0.66 C90_270=0.66

Up flux rate of lamp(%): 0.00%

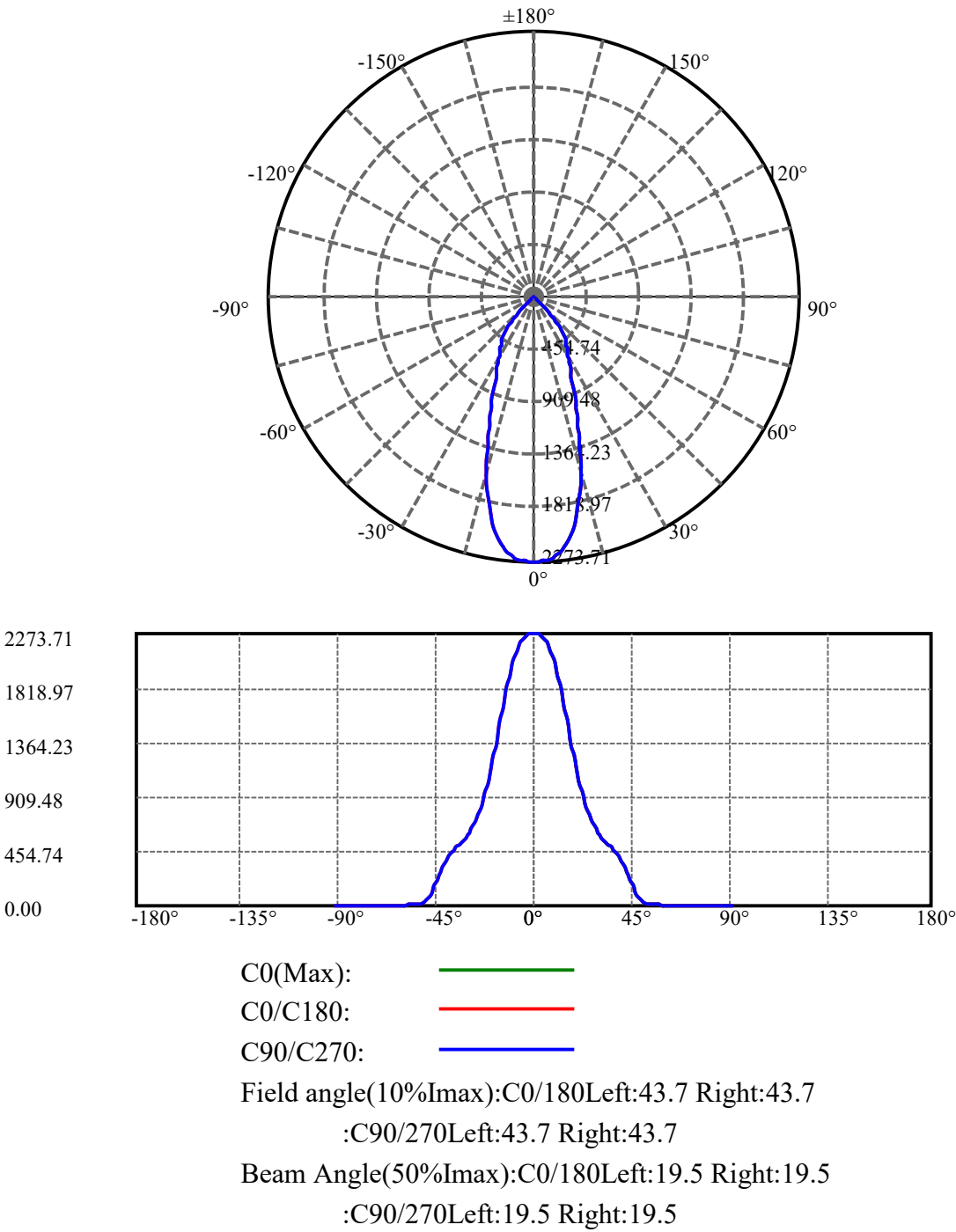
Down flux rate of lamp(%): 96.14%

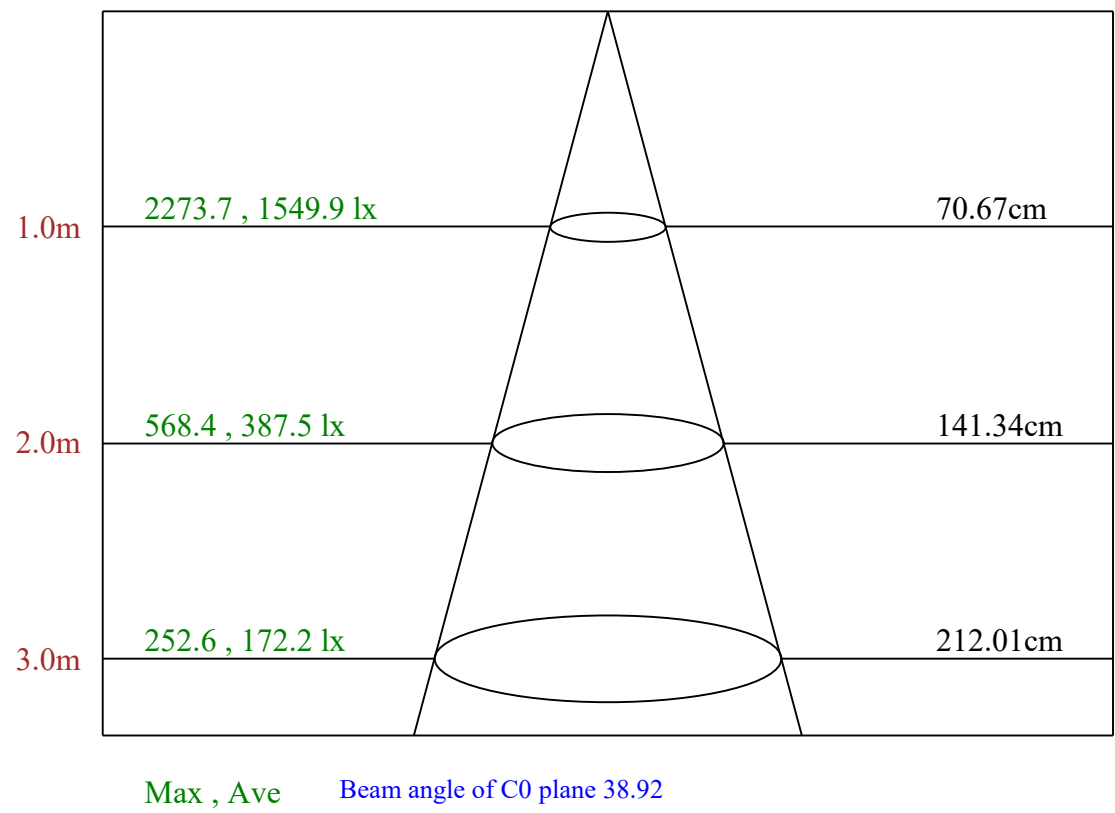
Up flux rate of LUM(%): - -

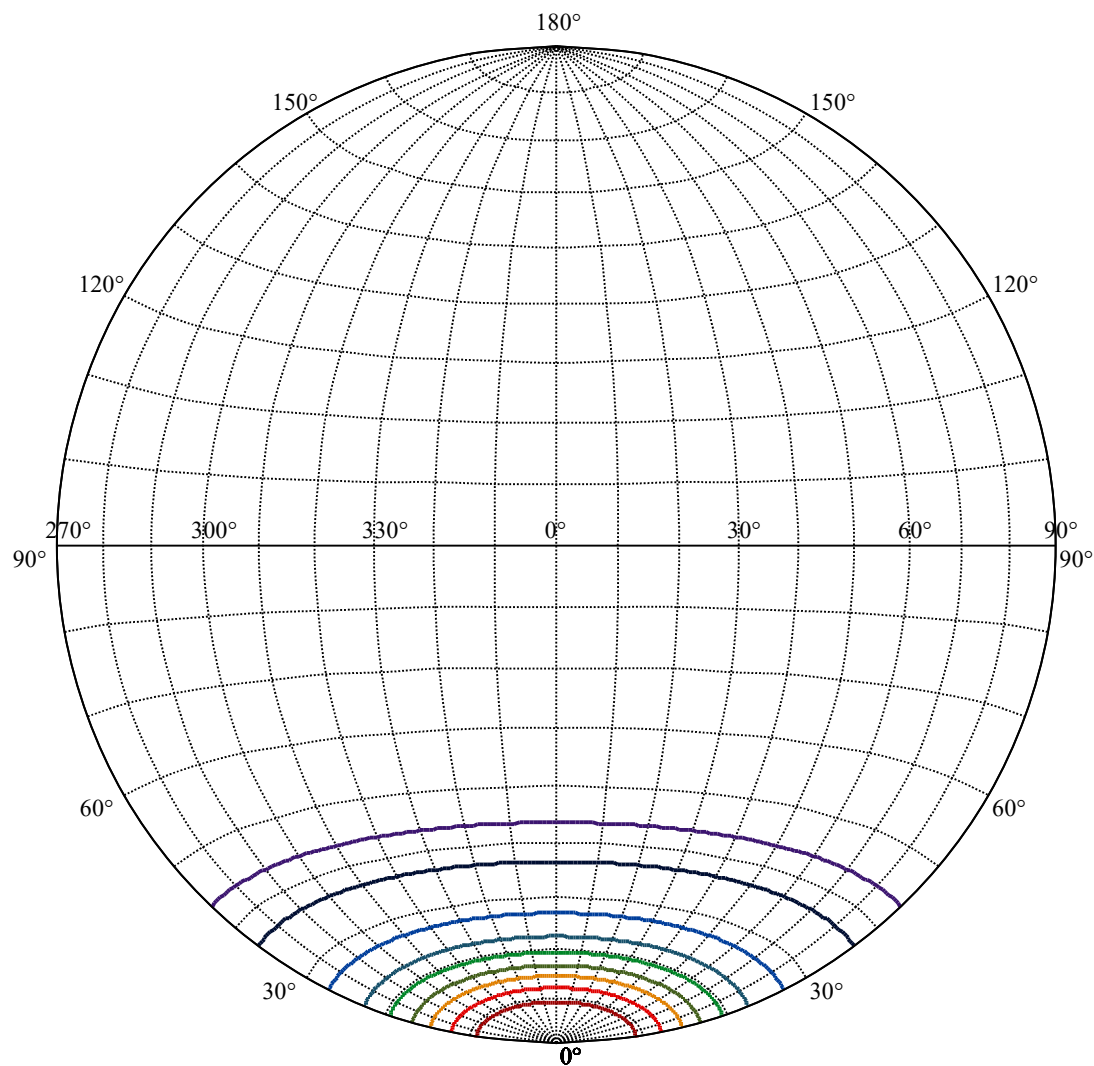
Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.496%





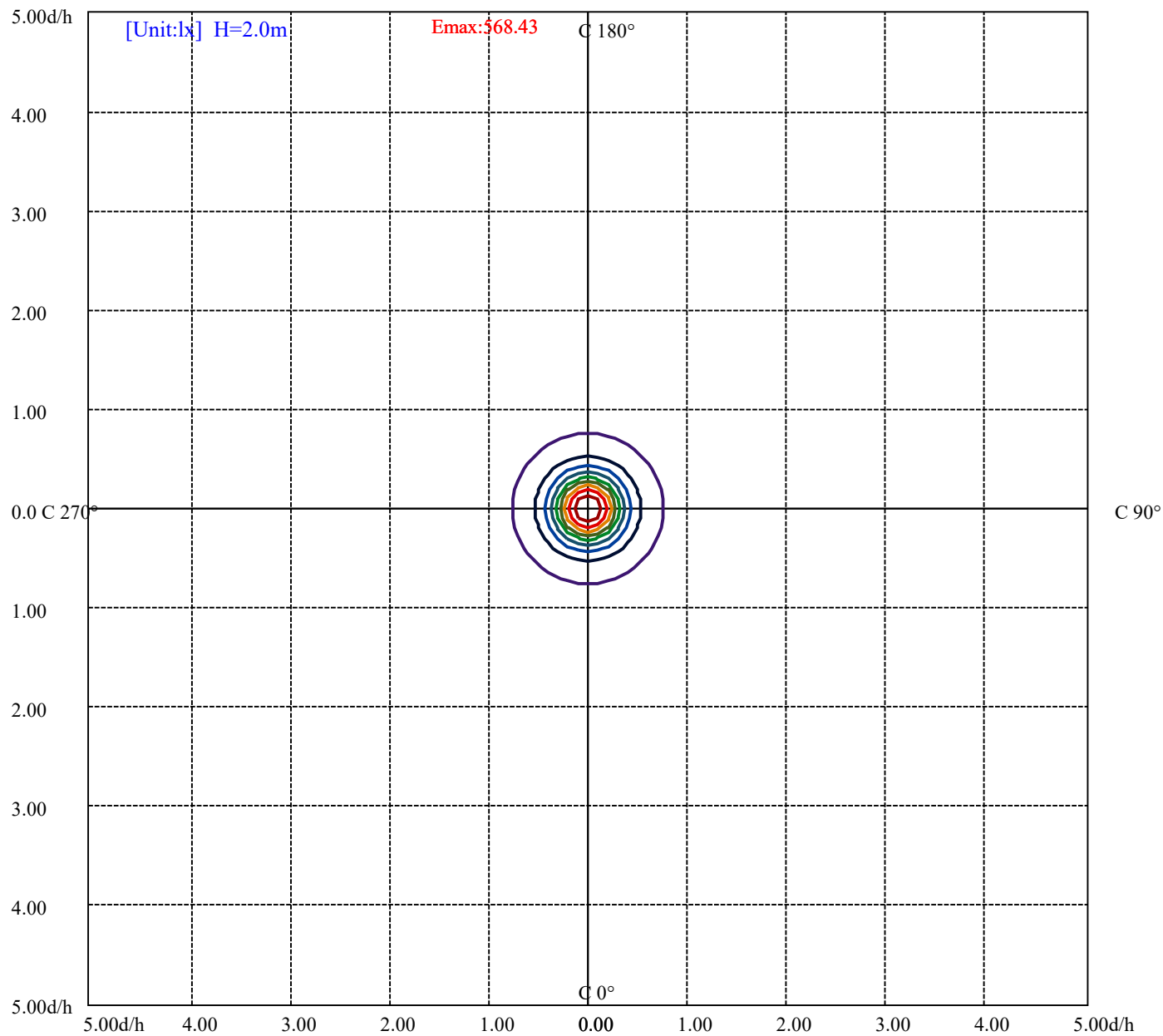


House

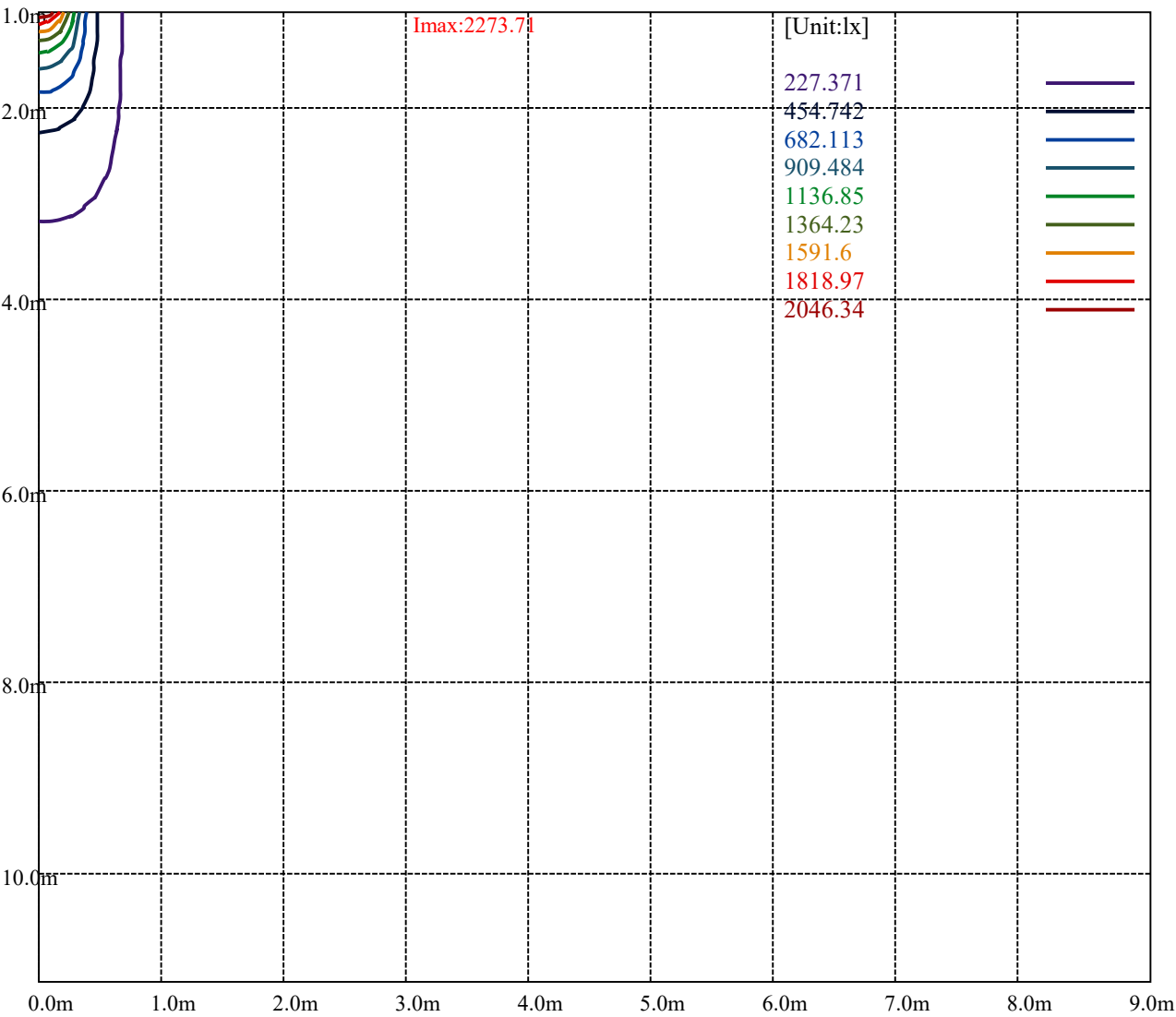
[Unit:cd]

Road

	Imax:2273.71	
(10%Imax)	227.371	
(20%Imax)	454.742	
(30%Imax)	682.113	
(40%Imax)	909.484	
(50%Imax)	1136.85	
(60%Imax)	1364.23	
(70%Imax)	1591.6	
(80%Imax)	1818.97	
(90%Imax)	2046.34	



(10%Emax)	56.84275	
(20%Emax)	113.6855	
(30%Emax)	170.5282	
(40%Emax)	227.371	
(50%Emax)	284.2125	
(60%Emax)	341.0575	
(70%Emax)	397.9	
(80%Emax)	454.7425	
(90%Emax)	511.585	



Luminance Table

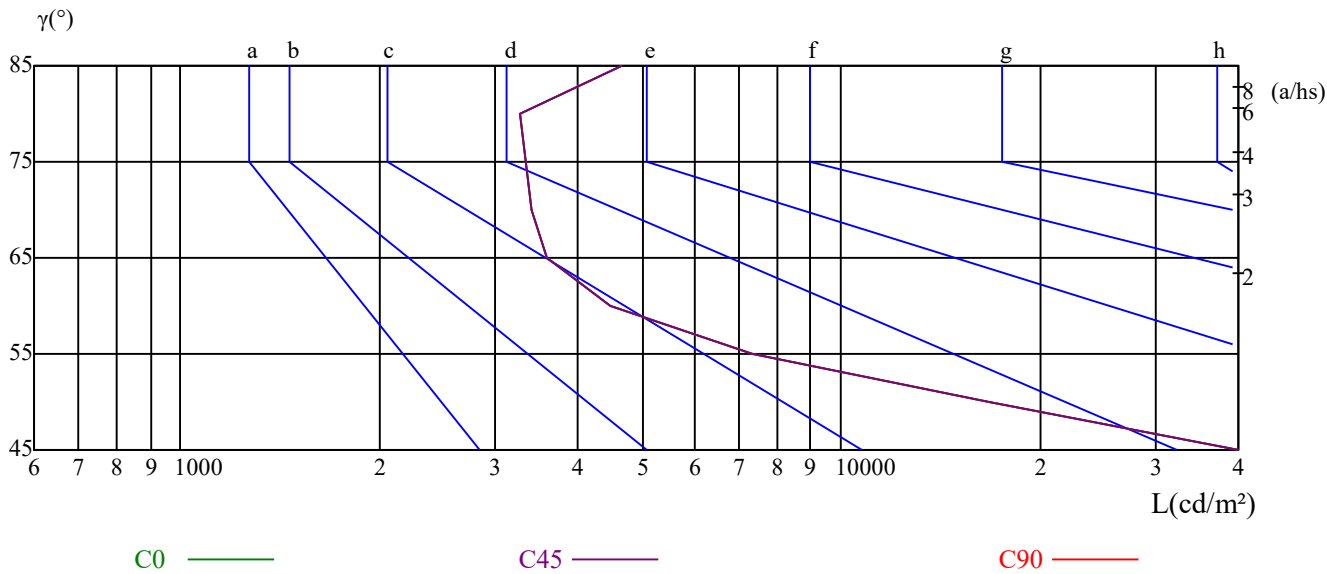
γ	45	50	55	60	65	70	75	80	85
C0	94903	16780	7350	4466	3587	3396	3325	3272	4647
C45	94903	16780	7350	4466	3587	3396	3325	3272	4647
C90	94903	16780	7350	4466	3587	3396	3325	3272	4647

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3587	3587	3587	3325	3325	3325	4647	4647	4647

Glare Table

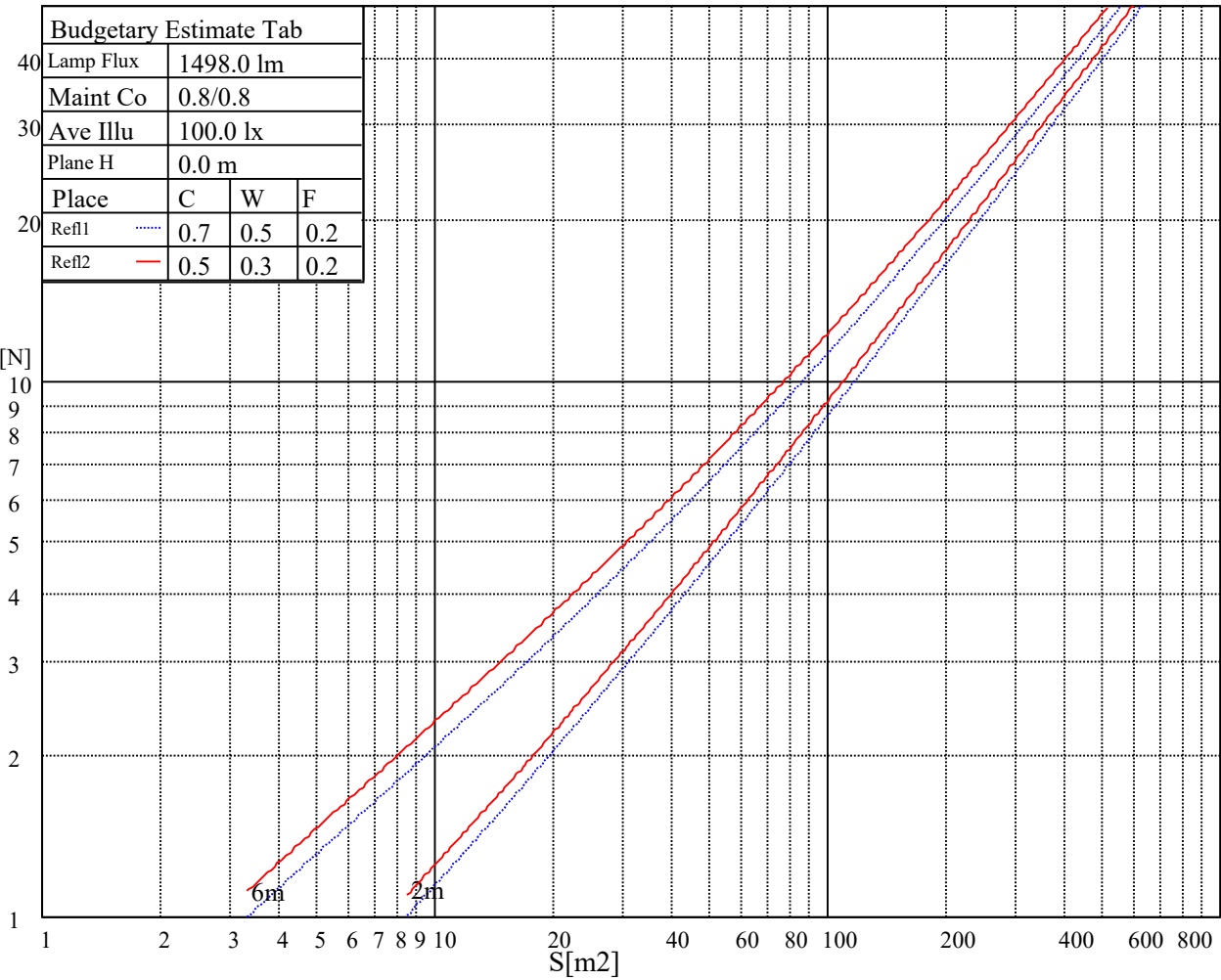
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve

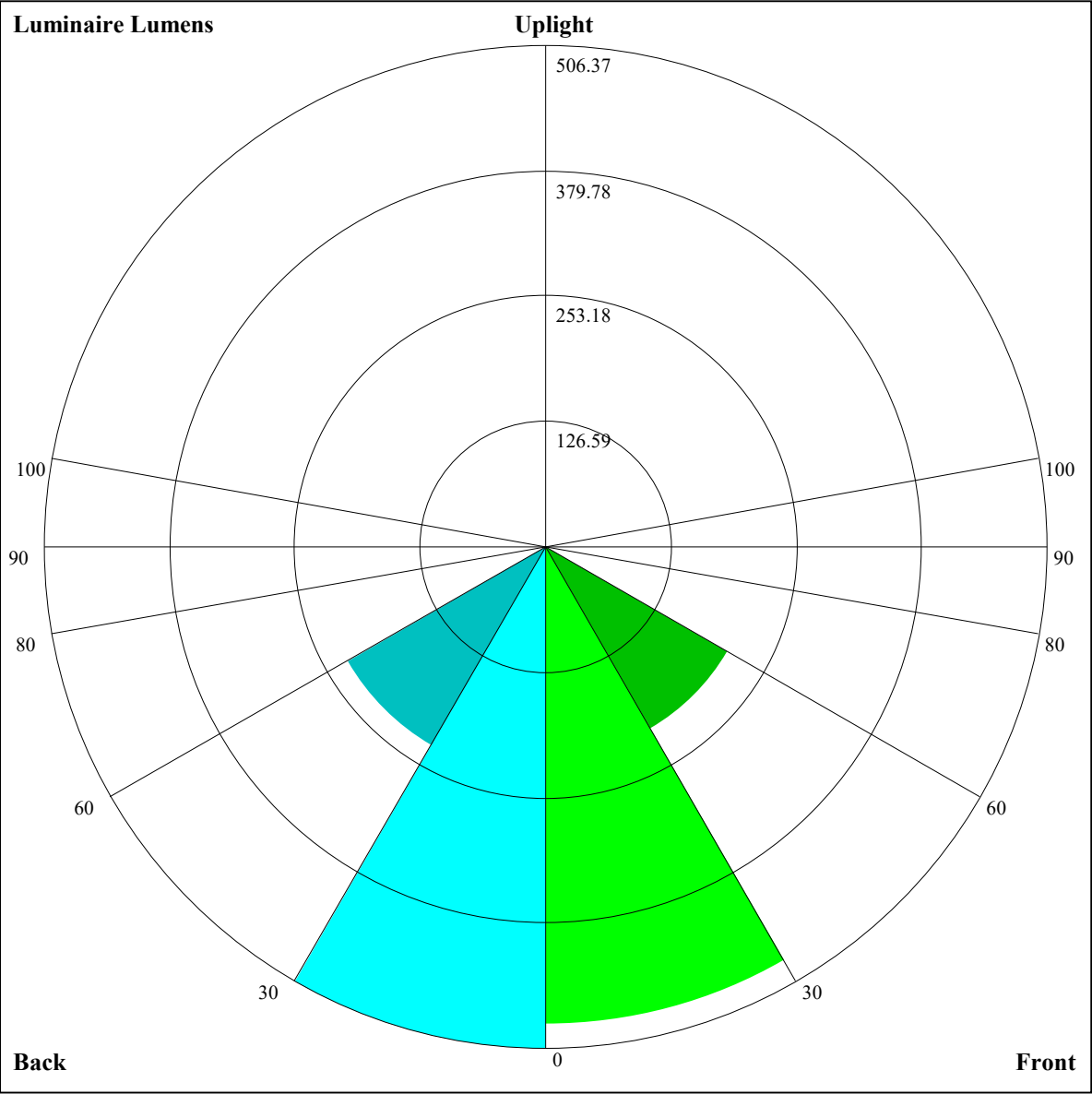


Illumination assessment according UGR											
Rf of Ceiling	70	70	50	50	30	70	70	50	50	30	
Rf of Wall	50	30	50	30	30	50	30	50	30	30	
Rf of Floor	20	20	20	20	20	20	20	20	20	20	
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	22.99	24.01	23.36	24.32	24.64	23.11	24.13	23.48	24.44	24.76
	3H	22.81	23.71	23.20	24.05	24.39	22.92	23.82	23.31	24.16	24.50
	4H	22.72	23.55	23.12	23.90	24.27	22.82	23.65	23.22	24.01	24.37
	6H	22.63	23.39	23.05	23.77	24.17	22.74	23.50	23.16	23.87	24.27
	8H	22.56	23.29	22.98	23.67	24.08	22.66	23.39	23.09	23.77	24.18
	12H	22.50	23.18	22.92	23.58	23.99	22.60	23.28	23.02	23.68	24.09
4H	2H	22.70	23.53	23.10	23.89	24.25	22.82	23.65	23.22	24.01	24.37
	3H	22.48	23.17	22.91	23.57	23.98	22.59	23.28	23.02	23.68	24.09
	4H	22.42	23.01	22.86	23.44	23.89	22.52	23.12	22.96	23.54	23.99
	6H	22.29	22.81	22.76	23.26	23.72	22.39	22.91	22.86	23.36	23.81
	8H	22.23	22.72	22.72	23.18	23.65	22.33	22.82	22.82	23.27	23.75
	12H	22.19	22.64	22.68	23.09	23.61	22.28	22.73	22.77	23.18	23.70
8H	4H	22.22	22.71	22.71	23.16	23.64	22.32	22.81	22.81	23.27	23.74
	6H	22.08	22.48	22.58	22.96	23.47	22.18	22.58	22.68	23.05	23.57
	8H	22.07	22.41	22.60	22.93	23.43	22.17	22.50	22.70	23.02	23.52
	12H	22.03	22.29	22.57	22.81	23.33	22.12	22.38	22.66	22.90	23.42
12H	4H	22.17	22.62	22.66	23.07	23.59	22.27	22.72	22.76	23.17	23.69
	6H	22.06	22.40	22.60	22.92	23.42	22.16	22.50	22.69	23.02	23.52
	8H	22.02	22.28	22.56	22.80	23.32	22.11	22.38	22.66	22.89	23.42
Variation with the observer position at spacings:											
S = 1.0H		3.3/-13.9					3.3/-13.9				
S = 1.5H		5.4/-14.8					5.4/-14.8				
S = 2.0H		7.4/-14.5					7.4/-14.5				
Standard tables:		BK0					BK0				
Uncorrected UGR		4.8					4.8				

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	1.14	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	1.07	1.04	1.02	1.04	1.02	1.00	1.01	0.99	0.97	0.97	0.96	0.94	0.94	0.93	0.92	0.90
2	0.99	0.95	0.92	0.98	0.94	0.91	0.95	0.92	0.89	0.92	0.89	0.87	0.89	0.87	0.85	0.84
3	0.93	0.88	0.84	0.91	0.87	0.84	0.89	0.85	0.82	0.87	0.83	0.81	0.84	0.82	0.80	0.78
4	0.87	0.82	0.78	0.86	0.81	0.77	0.84	0.79	0.76	0.82	0.78	0.75	0.80	0.77	0.74	0.73
5	0.81	0.76	0.72	0.80	0.75	0.71	0.79	0.74	0.71	0.77	0.73	0.70	0.76	0.72	0.70	0.68
6	0.77	0.71	0.67	0.76	0.70	0.67	0.74	0.70	0.66	0.73	0.69	0.66	0.72	0.68	0.65	0.64
7	0.72	0.66	0.62	0.71	0.66	0.62	0.70	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.61	0.60
8	0.68	0.63	0.59	0.68	0.62	0.59	0.67	0.62	0.58	0.66	0.61	0.58	0.65	0.61	0.58	0.57
9	0.65	0.59	0.55	0.64	0.59	0.55	0.63	0.58	0.55	0.62	0.58	0.55	0.62	0.58	0.55	0.53
10	0.61	0.56	0.52	0.61	0.56	0.52	0.60	0.55	0.52	0.59	0.55	0.52	0.59	0.55	0.52	0.50



Luminaire Lumens:

FL=482.16,FM=212.56,FH=3.03,FVH=0.48

BL=506.37,BM=231.77,BH=2.94,BVH=0.56

UL=0,UH=0

BUG Rating:B2-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	2274.13	2271.88	2260.63	2240.38	2231.38	2195.38	2156.01	2105.94	2031.69
45.0	2272.44	2271.32	2266.26	2257.26	2249.38	2225.19	2197.07	2157.69	2105.38
90.0	2274.13	2269.07	2258.94	2243.76	2222.94	2189.19	2167.82	2123.38	2069.94
135.0	2274.13	2273.01	2267.94	2255.01	2247.69	2229.69	2207.76	2179.63	2144.19
180.0	2274.13	2274.13	2270.76	2264.57	2253.88	2244.88	2221.82	2197.07	2164.44
225.0	2272.44	2269.63	2264.01	2253.88	2235.32	2222.38	2193.69	2156.01	2108.76
270.0	2274.13	2276.38	2277.51	2276.38	2268.51	2258.38	2239.26	2211.69	2192.01
315.0	2274.13	2273.01	2267.38	2256.13	2234.76	2218.44	2186.94	2144.76	2094.69
360.0	2274.13	2271.88	2260.63	2240.38	2231.38	2195.38	2156.01	2105.94	2031.69
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	1988.94	1909.63	1824.69	1731.88	1616.01	1556.38	1415.19	1298.19	1220.01
45.0	2069.38	1987.26	1869.69	1813.44	1713.88	1584.51	1474.82	1364.57	1298.76
90.0	2005.82	1915.26	1865.19	1776.88	1622.19	1561.44	1458.51	1356.13	1230.13
135.0	2118.32	2058.69	2001.32	1936.07	1863.51	1768.44	1686.88	1599.13	1559.69
180.0	2123.38	2063.19	2004.13	1934.38	1888.82	1792.07	1704.32	1609.82	1515.32
225.0	2037.32	1995.69	1917.51	1771.26	1731.32	1607.01	1541.76	1388.19	1117.63
270.0	2141.94	2087.38	2021.57	1946.19	1842.69	1749.88	1652.01	1588.44	1462.44
315.0	2023.26	1983.88	1911.32	1780.82	1729.63	1640.19	1550.19	1459.07	1349.94
360.0	1988.94	1909.63	1824.69	1731.88	1616.01	1556.38	1415.19	1298.19	1220.01
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1087.48	1087.48	1004.40	916.48	851.06	792.00	731.14	704.19	664.54
45.0	1171.07	1072.07	980.94	897.13	851.01	768.32	710.94	663.13	614.76
90.0	1113.19	1113.19	993.83	906.36	867.26	806.96	754.82	709.82	663.64
135.0	1439.94	1352.76	1267.82	1185.13	1137.32	1045.07	973.07	908.94	851.01
180.0	1457.38	1340.94	1245.88	1156.44	1072.07	1023.69	910.07	847.07	812.76
225.0	1078.93	1078.93	968.40	934.09	840.38	773.61	716.12	658.91	634.39
270.0	1360.07	1262.19	1167.13	1112.57	1011.32	907.26	867.32	806.01	773.38
315.0	1297.63	1108.74	1078.09	1063.41	993.60	929.70	873.00	812.36	785.08
360.0	1087.48	1087.48	1004.40	916.48	851.06	792.00	731.14	704.19	664.54
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	631.01	600.86	570.83	558.06	538.37	521.21	501.92	483.53	474.58
45.0	599.57	543.32	514.07	499.44	475.26	457.26	444.32	430.26	421.26
90.0	643.44	613.80	586.58	558.23	538.37	527.63	510.30	480.26	470.76
135.0	818.38	742.44	700.82	678.88	638.94	610.82	584.94	562.44	547.82
180.0	753.69	710.38	673.26	640.07	622.07	588.88	565.82	545.57	523.63
225.0	599.79	569.03	543.09	518.85	508.56	492.24	462.83	451.01	431.33
270.0	699.13	662.01	641.19	604.07	579.32	557.94	539.38	530.38	511.82
315.0	743.68	705.49	672.08	634.95	618.08	583.03	555.36	540.56	516.71
360.0	631.01	600.86	570.83	558.06	538.37	521.21	501.92	483.53	474.58
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	450.90	419.01	399.66	361.80	318.99	274.39	219.32	191.81	146.87
45.0	405.51	393.13	376.26	347.57	318.32	287.38	287.38	287.38	189.62
90.0	455.12	432.23	400.89	355.56	331.14	288.34	244.97	200.42	149.34
135.0	518.57	497.76	475.82	447.69	426.88	379.07	318.88	291.32	291.32
180.0	516.32	492.13	467.94	457.26	426.32	392.57	353.19	311.01	302.01
225.0	419.40	394.82	370.01	353.53	322.14	286.48	248.46	203.57	181.91
270.0	496.63	479.76	463.44	452.76	419.57	370.07	345.32	294.69	294.69
315.0	495.84	469.35	428.68	405.39	363.71	319.78	274.84	218.64	173.93
360.0	450.90	419.01	399.66	361.80	318.99	274.39	219.32	191.81	146.87

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	105.64	70.71	39.54	26.16	21.26	17.83	16.20	13.73	11.53
45.0	147.60	110.19	71.21	46.18	31.05	23.85	21.99	18.34	15.64
90.0	108.79	72.96	40.33	29.48	20.08	17.16	14.29	11.36	9.90
135.0	180.73	155.25	106.48	71.04	43.76	26.89	21.60	17.61	14.51
180.0	284.01	171.56	145.18	97.48	64.01	39.09	25.20	20.64	17.61
225.0	137.48	120.04	86.96	59.85	38.36	27.73	22.50	20.81	17.94
270.0	246.66	161.66	120.49	83.81	53.33	39.04	23.29	19.52	16.93
315.0	131.23	85.50	66.04	41.18	28.41	24.13	20.31	18.34	15.64
360.0	105.64	70.71	39.54	26.16	21.26	17.83	16.20	13.73	11.53
C/ γ (°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	9.79	8.10	7.59	6.98	6.69	6.19	5.68	5.23	4.89
45.0	13.44	11.59	9.68	8.16	6.98	6.41	5.57	5.06	4.67
90.0	7.82	6.13	5.01	4.44	3.94	3.54	3.15	2.98	2.64
135.0	11.64	9.17	7.99	6.13	5.18	4.73	4.22	3.83	3.49
180.0	15.19	12.94	10.63	9.00	7.88	7.14	6.86	6.24	5.74
225.0	15.41	12.94	10.63	9.73	8.04	6.69	6.13	5.57	5.12
270.0	14.46	12.15	10.91	8.83	7.54	6.75	6.13	5.68	5.18
315.0	13.22	11.31	9.90	8.89	8.21	7.65	6.92	6.58	6.02
360.0	9.79	8.10	7.59	6.98	6.69	6.19	5.68	5.23	4.89
C/ γ (°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	4.44	4.28	4.05	3.83	3.66	3.49	3.49	3.49	3.38
45.0	4.39	4.22	3.88	3.66	3.49	3.32	3.26	2.98	2.81
90.0	2.42	2.19	2.03	1.97	1.80	1.69	1.69	1.58	1.63
135.0	3.15	2.98	2.76	2.59	2.42	2.42	2.36	2.36	2.42
180.0	5.29	4.84	4.61	3.94	3.60	3.43	3.09	2.93	2.87
225.0	4.78	4.33	4.16	3.88	3.66	3.43	3.15	3.09	2.98
270.0	4.78	4.50	4.11	3.83	3.60	3.43	3.26	3.15	3.04
315.0	5.57	5.12	4.73	4.50	4.22	3.88	3.83	3.66	3.66
360.0	4.44	4.28	4.05	3.83	3.66	3.49	3.49	3.49	3.38
C/ γ (°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	3.04	2.70	2.36	1.86	1.74	1.63	1.58	1.41	1.35
45.0	2.70	2.48	2.42	2.08	1.80	1.69	1.58	1.52	1.52
90.0	1.52	1.41	1.41	1.29	1.29	1.29	1.13	1.13	1.01
135.0	2.42	2.42	2.25	2.08	1.86	1.69	1.58	1.46	1.41
180.0	2.81	2.87	2.87	2.76	2.53	2.19	2.08	1.86	1.74
225.0	2.98	2.87	2.70	2.59	2.19	1.86	1.80	1.80	1.74
270.0	3.04	3.04	2.87	2.59	2.19	1.97	1.52	1.35	1.24
315.0	3.32	2.76	2.48	1.97	1.63	1.63	1.46	1.46	1.35
360.0	3.04	2.70	2.36	1.86	1.74	1.63	1.58	1.41	1.35
C/ γ (°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	1.24	1.13	1.13	1.01	0.96	0.84	0.73	0.62	0.62
45.0	1.41	1.35	1.24	1.13	1.01	0.84	0.68	0.56	0.45
90.0	1.01	0.96	0.90	0.79	0.73	0.68	0.62	0.56	0.51
135.0	1.35	1.24	1.24	1.13	1.07	1.01	0.90	0.84	0.79
180.0	1.74	1.63	1.52	1.52	1.46	1.41	1.29	1.13	0.96
225.0	1.63	1.52	1.41	1.41	1.18	1.07	0.90	0.73	0.56
270.0	1.13	1.01	0.96	0.90	0.73	0.73	0.68	0.62	0.56
315.0	1.24	1.18	1.13	1.01	0.96	0.90	0.79	0.73	0.68
360.0	1.24	1.13	1.13	1.01	0.96	0.84	0.73	0.62	0.62

Intensity data(cd)

C/ $\gamma(^{\circ})$	90.0
0.0	0.62
45.0	0.39
90.0	0.45
135.0	0.79
180.0	0.73
225.0	0.51
270.0	0.56
315.0	0.68
360.0	0.62