NATA LIGHTING CO.,LTD
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Tel:+86 0750-377 0000(10 lines) Fax:+86 0750-377 1111
Address:380JinOu Road,Gaoxin Zone,Jiang Men City,Guangdong,China

NT

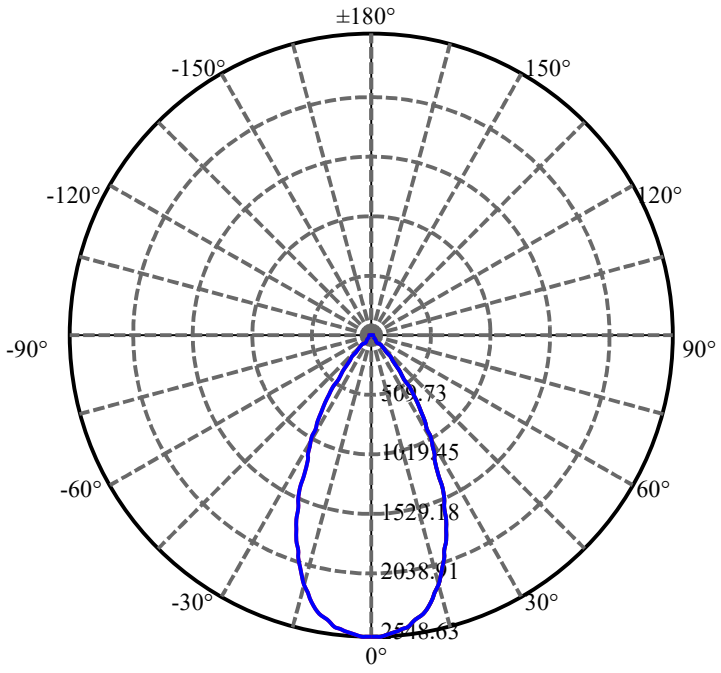
Client: NT
LumCAT: 2-3121-LM
Luminaire: 92.70.121.00 LED HOLDER
Report No: 20251118-B022
Ballast type: AC

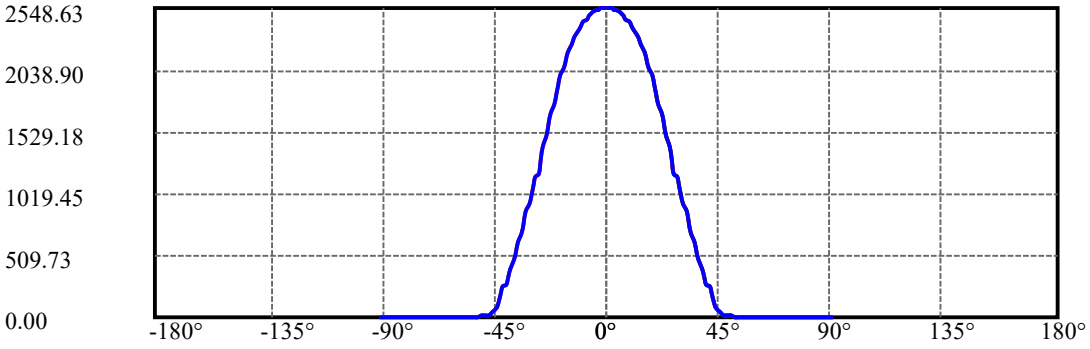
Test No: 20251118-C022	Voltage(V): 33.450
LampCAT: PHILIPS SLM 1208 L15 1919 G8	Current(A): 0.360
Lamp flux(lm): 2021.6	Power (W): 12.042
Number of Lamps: 1	PF: 0.000
Length(mm): 65	Width(mm): 65
Phm Type: C	Height(mm): 34

Photometric Results

Lumens(lm): 1941.77, Efficiency(%): 96.05% , Luminous Efficacy(lm/W): 161.25
Central intensity(cd): 2548.631, Maximum intensity(cd): 2548.631
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=52.6
[C90/270]Total=52.6
Field angle(10%Imax): [C0/180]Total=81.4
[C90/270]Total=81.4
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(%): 96.05%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 99.790%

Light Distribution Curve [Unit:cd]





C0(Max):

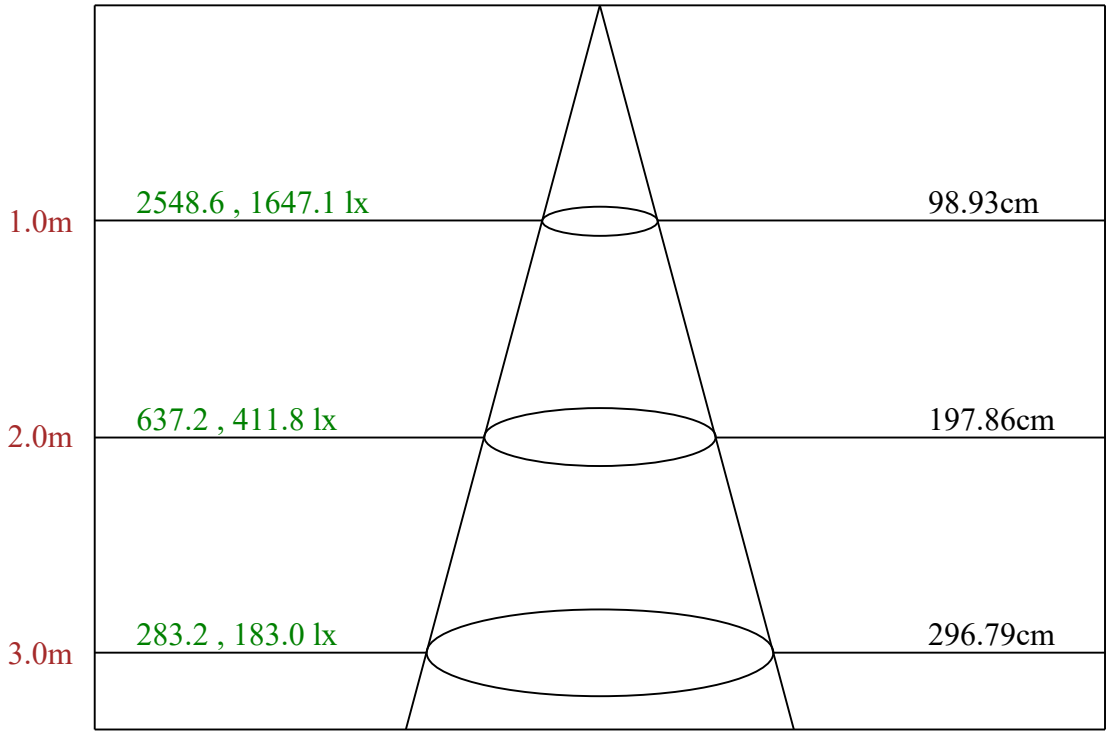
C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:40.7 Right:40.7
:C90/270Left:40.7 Right:40.7

Beam Angle(50%Imax):C0/180Left:26.3 Right:26.3
:C90/270Left:26.3 Right:26.3

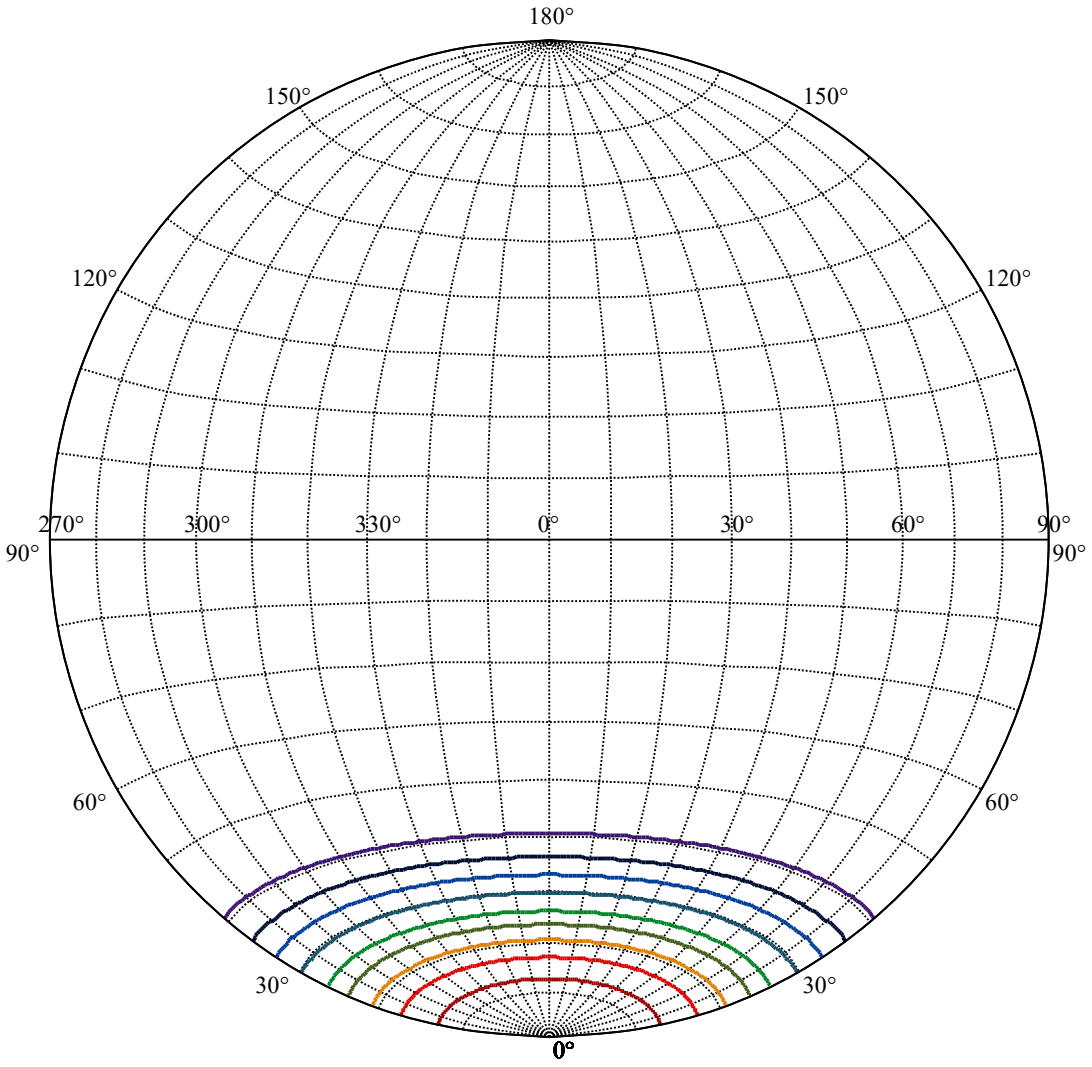
Lux distance Curve



Max , Ave

Beam angle of C0 plane 52.64

ISO candela diagram on circular web



House [Unit:cd] Road

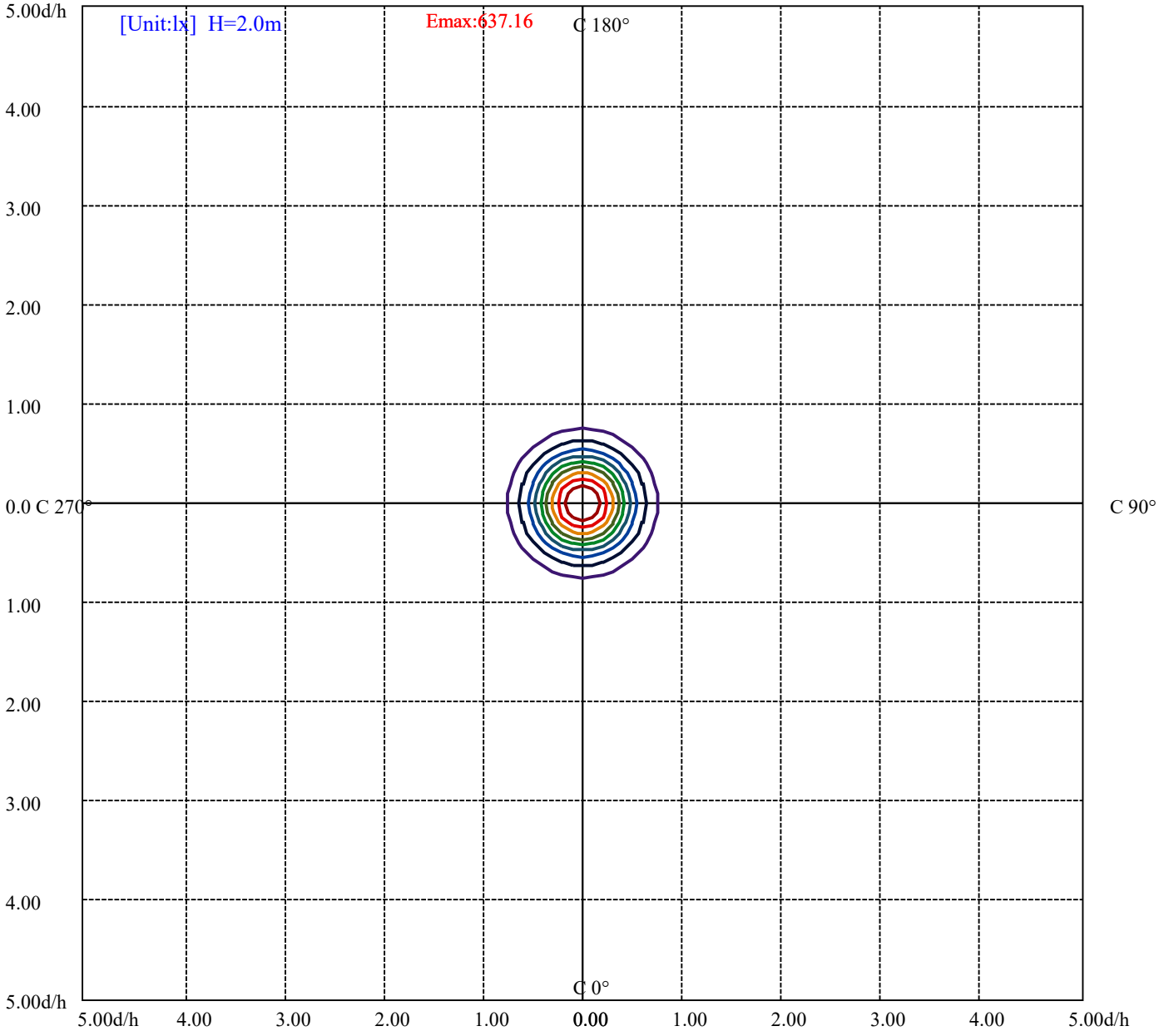
Imax:2548.63

(10%Imax) 254.863
(20%Imax) 509.726
(30%Imax) 764.589
(40%Imax) 1019.45
(50%Imax) 1274.32
(60%Imax) 1529.18
(70%Imax) 1784.04
(80%Imax) 2038.9
(90%Imax) 2293.77

Equipment: GMS 1800 Date: 2025/11/18 Operator: YZQ
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.50

NT NT 2-3121-LM

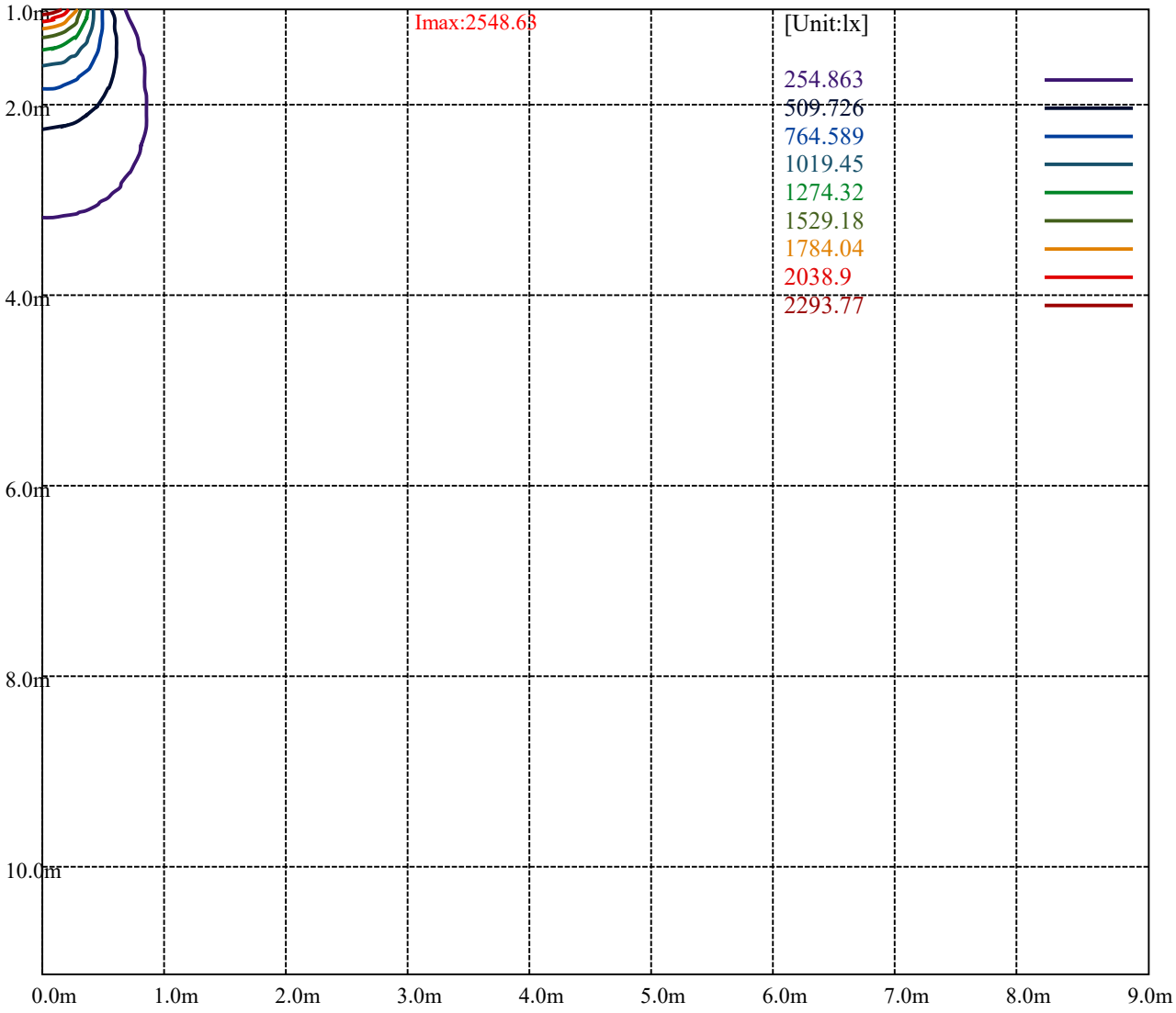
ISO illuminance diagram



(10%Emax) 63.71575
(20%Emax) 127.4315
(30%Emax) 191.1472
(40%Emax) 254.8625
(50%Emax) 318.58
(60%Emax) 382.295
(70%Emax) 446.01
(80%Emax) 509.725
(90%Emax) 573.4425

Equipment: GMS 1800
Temperature(°C): 25.0
Date: 2025/11/18
Humidity(%): 60.0%
Operator: YZQ
Distance(m): 7.50

Space ISO Lux diagram



Equipment: GMS 1800
Temperature(°C): 25.0

Date: 2025/11/18
Humidity(%): 60.0%

Operator: YZQ
Distance(m): 7.50

NT NT 2-3121-LM

Luminance Limitting Curve(no luminous side)

Luminance Table

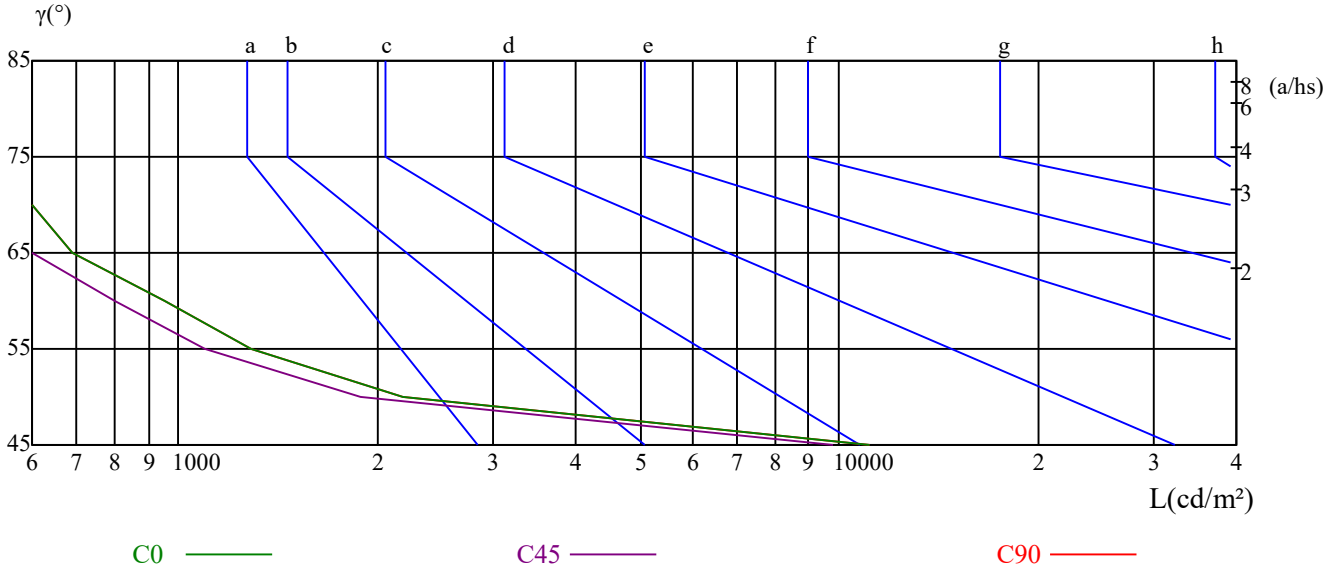
γ	45	50	55	60	65	70	75	80	85
C0	11161	2193	1287	955	690	479	322	191	109
C45	9771	1892	1093	798	566	385	253	146	81
C90	11161	2193	1287	955	690	479	322	191	109

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
1465	1465	1465	952	952	952	764	764	764

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 Limitting Curve



Illumination assessment according UGR

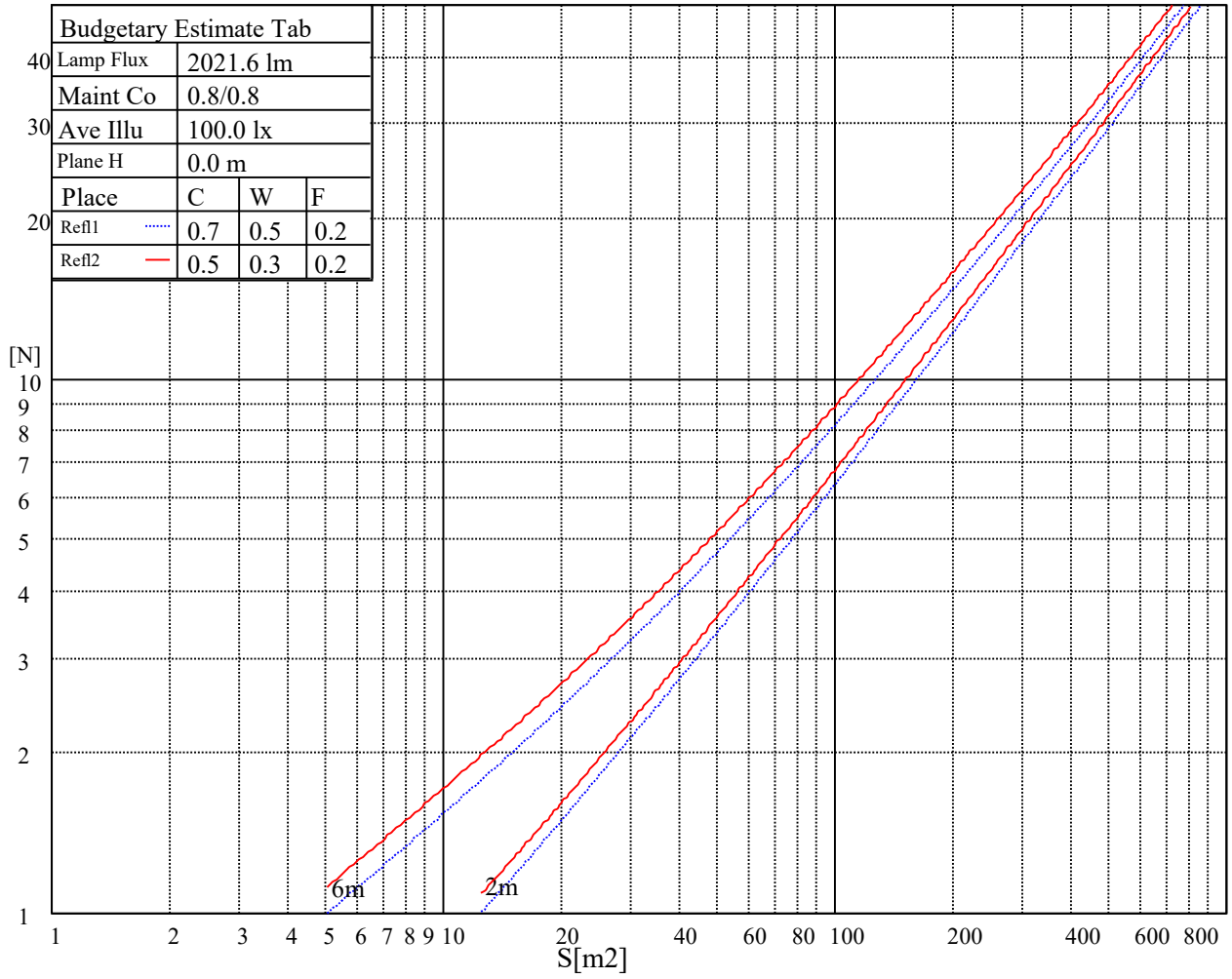
Rf of Ceiling		70	70	50	50	30	70	70	50	50	30
Rf of Wall		50	30	50	30	30	50	30	50	30	30
Rf of Floor		20	20	20	20	20	20	20	20	20	20
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	19.46	20.39	19.82	20.70	21.02	19.38	20.31	19.74	20.62	20.93
	3H	19.25	20.07	19.63	20.41	20.75	19.17	19.99	19.55	20.33	20.67
	4H	19.14	19.90	19.54	20.25	20.62	19.06	19.82	19.46	20.17	20.54
	6H	19.04	19.74	19.46	20.12	20.52	18.96	19.66	19.38	20.03	20.43
	8H	18.97	19.63	19.39	20.01	20.42	18.88	19.55	19.31	19.93	20.34
	12H	18.89	19.52	19.32	19.91	20.33	18.81	19.44	19.24	19.83	20.25
4H	2H	19.14	19.90	19.54	20.25	20.62	19.06	19.82	19.46	20.17	20.54
	3H	18.88	19.52	19.31	19.91	20.33	18.80	19.44	19.23	19.83	20.25
	4H	18.80	19.35	19.24	19.77	20.22	18.72	19.26	19.16	19.69	20.14
	6H	18.65	19.13	19.13	19.59	20.04	18.57	19.05	19.04	19.50	19.96
	8H	18.59	19.03	19.08	19.49	19.97	18.51	18.95	18.99	19.41	19.89
	12H	18.53	18.94	19.03	19.40	19.92	18.45	18.86	18.94	19.31	19.84
8H	4H	18.59	19.03	19.08	19.49	19.97	18.51	18.95	18.99	19.41	19.89
	6H	18.43	18.79	18.93	19.27	19.78	18.34	18.71	18.85	19.19	19.70
	8H	18.41	18.71	18.94	19.23	19.73	18.32	18.62	18.86	19.15	19.65
	12H	18.35	18.58	18.89	19.09	19.62	18.26	18.49	18.81	19.01	19.54
12H	4H	18.53	18.94	19.02	19.40	19.92	18.45	18.86	18.94	19.31	19.84
	6H	18.41	18.71	18.94	19.23	19.73	18.32	18.62	18.86	19.15	19.65
	8H	18.35	18.57	18.89	19.09	19.62	18.26	18.49	18.81	19.01	19.54

Variation with the observer position at spacings:

S = 1.0H	5.3/-19.2	5.3/-19.2
S = 1.5H	8.1/-20.1	8.1/-20.1
S = 2.0H	10.1/-20.7	10.1/-20.7
Standard tables:	BK0	BK0
Uncorrected UGR	0.1	0.1

UGR calculation is based on CIE Publ. 117 ,S/H = 0.25

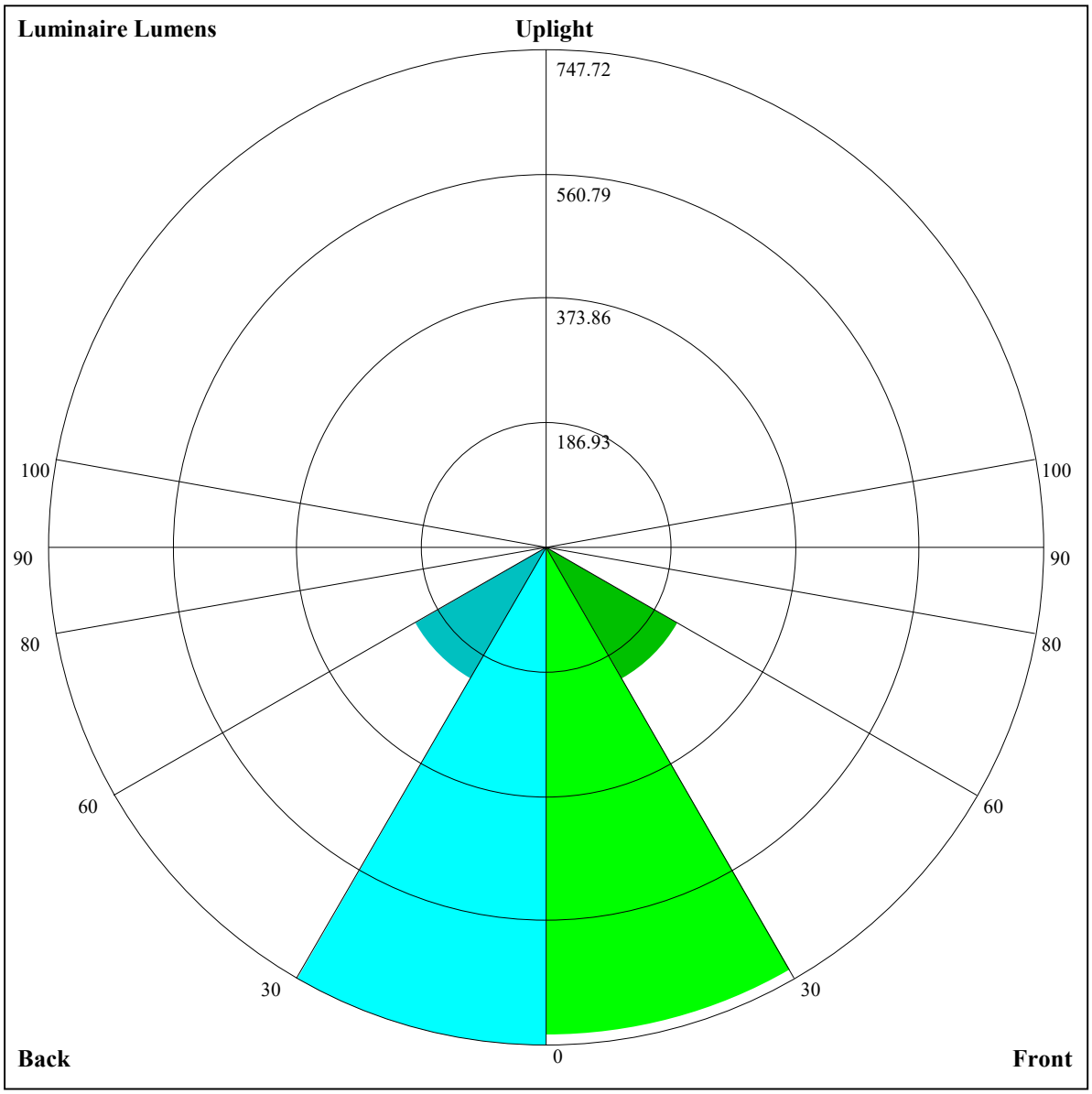
Budgetary Estimate Table



Equipment: GMS 1800 Date: 2025/11/18 Operator: YZQ
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.50

Utilization factor table for indoor luminaire

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	1.05	1.03	1.01	1.01	0.99	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.90
2	1.00	0.96	0.93	0.98	0.95	0.92	0.95	0.92	0.90	0.92	0.90	0.88	0.90	0.88	0.86	0.85
3	0.93	0.89	0.85	0.92	0.88	0.85	0.90	0.86	0.83	0.87	0.84	0.82	0.85	0.83	0.81	0.79
4	0.88	0.83	0.79	0.87	0.82	0.78	0.85	0.81	0.77	0.83	0.79	0.77	0.81	0.78	0.76	0.74
5	0.83	0.77	0.73	0.82	0.77	0.73	0.80	0.76	0.72	0.78	0.75	0.72	0.77	0.74	0.71	0.70
6	0.78	0.72	0.68	0.77	0.72	0.68	0.76	0.71	0.68	0.74	0.70	0.67	0.73	0.70	0.67	0.65
7	0.73	0.68	0.64	0.73	0.68	0.64	0.72	0.67	0.64	0.70	0.66	0.63	0.69	0.66	0.63	0.62
8	0.69	0.64	0.60	0.69	0.64	0.60	0.68	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.59	0.58
9	0.66	0.60	0.57	0.65	0.60	0.57	0.64	0.60	0.56	0.64	0.59	0.56	0.63	0.59	0.56	0.55
10	0.62	0.57	0.54	0.62	0.57	0.54	0.61	0.57	0.53	0.61	0.56	0.53	0.60	0.56	0.53	0.52



Luminaire Lumens:
FL=732.35,FM=228.42,FH=1.89,FVH=0.15
BL=747.72,BM=228.31,BH=1.82,BVH=0.18
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	2544.69	2537.94	2523.32	2513.76	2487.32	2459.76	2443.44	2414.19	2381.01
45.0	2550.88	2545.82	2543.01	2535.69	2525.57	2514.88	2501.38	2491.82	2467.63
90.0	2554.26	2554.82	2552.57	2545.82	2537.38	2527.26	2508.69	2490.13	2477.19
135.0	2544.69	2549.19	2550.32	2548.07	2540.19	2535.13	2522.19	2507.01	2488.44
180.0	2544.69	2551.44	2554.82	2555.38	2550.32	2544.13	2533.44	2519.38	2509.26
225.0	2550.88	2550.88	2550.88	2547.51	2541.88	2531.76	2515.44	2505.88	2486.76
270.0	2554.26	2554.26	2553.13	2548.63	2541.32	2531.19	2524.44	2506.44	2487.32
315.0	2544.69	2541.32	2530.07	2512.63	2505.32	2483.38	2459.19	2429.94	2393.38
360.0	2544.69	2537.94	2523.32	2513.76	2487.32	2459.76	2443.44	2414.19	2381.01

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	2343.32	2296.63	2271.88	2229.13	2181.32	2127.88	2059.82	2001.88	1933.82
45.0	2440.07	2410.82	2379.88	2357.94	2310.69	2245.44	2213.38	2144.19	2081.76
90.0	2452.44	2423.76	2387.76	2338.26	2288.76	2231.94	2155.44	2114.94	2040.69
135.0	2465.38	2450.76	2402.94	2366.94	2343.88	2287.07	2234.19	2172.88	2105.94
180.0	2486.76	2454.13	2437.82	2400.69	2364.13	2319.69	2268.51	2234.19	2158.82
225.0	2462.57	2433.32	2392.26	2368.63	2301.13	2267.38	2194.26	2126.76	2054.76
270.0	2465.94	2438.94	2420.94	2363.01	2321.38	2293.26	2229.13	2171.19	2108.76
315.0	2374.82	2339.38	2298.32	2253.88	2194.26	2162.76	2084.01	2010.88	1970.38
360.0	2343.32	2296.63	2271.88	2229.13	2181.32	2127.88	2059.82	2001.88	1933.82

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1853.38	1809.51	1739.19	1666.07	1591.82	1500.13	1452.32	1371.32	1291.44
45.0	2013.69	1941.69	1898.38	1803.88	1723.44	1641.88	1542.88	1458.51	1407.32
90.0	1965.32	1880.94	1778.57	1726.26	1637.38	1546.26	1452.32	1339.82	1286.94
135.0	2062.63	1973.19	1887.69	1802.76	1714.44	1660.44	1549.07	1416.88	1361.19
180.0	2088.51	2015.38	1931.57	1880.94	1775.19	1686.32	1594.07	1479.88	1382.57
225.0	1974.88	1875.32	1822.44	1731.88	1640.19	1544.57	1424.76	1366.26	1113.86
270.0	2040.13	1999.63	1905.69	1824.69	1740.32	1651.44	1596.88	1485.51	1391.01
315.0	1905.13	1829.76	1757.19	1663.82	1616.57	1534.44	1449.51	1364.01	1266.13
360.0	1853.38	1809.51	1739.19	1666.07	1591.82	1500.13	1452.32	1371.32	1291.44

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	1112.63	1097.72	1068.47	995.63	909.28	862.48	744.41	639.00	586.86
45.0	1286.94	1236.32	1142.94	1068.13	995.01	924.69	880.26	784.07	700.82
90.0	1092.60	1092.60	1045.97	942.98	856.52	825.13	727.88	645.92	565.99
135.0	1253.19	1165.44	1086.69	1010.19	964.63	880.26	806.01	728.38	635.57
180.0	1285.26	1195.26	1142.94	1043.94	966.88	893.76	820.63	727.82	679.44
225.0	1096.82	1096.82	1013.79	938.59	866.64	771.69	691.26	611.16	520.43
270.0	1295.94	1188.51	1104.13	1023.69	946.63	902.76	812.19	731.76	649.07
315.0	1114.71	1114.71	1038.54	994.11	924.13	848.48	749.48	665.78	615.43
360.0	1112.63	1097.72	1068.47	995.63	909.28	862.48	744.41	639.00	586.86

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	504.45	427.67	355.89	276.64	239.85	184.33	134.10	90.90	50.79
45.0	617.01	537.13	446.57	377.38	313.82	302.01	302.01	147.54	120.32
90.0	476.89	434.42	368.55	306.17	249.24	185.96	156.32	110.93	70.82
135.0	604.63	514.07	441.51	374.57	298.63	298.63	232.03	133.03	90.34
180.0	569.76	525.32	440.38	373.44	309.32	309.32	232.20	143.44	98.49
225.0	477.23	408.94	344.81	285.58	220.78	189.90	140.85	97.03	59.79
270.0	569.19	478.63	437.01	345.88	308.76	308.76	234.62	147.38	95.23
315.0	533.42	410.12	368.33	301.84	240.92	185.51	125.66	99.51	62.72
360.0	504.45	427.67	355.89	276.64	239.85	184.33	134.10	90.90	50.79

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	36.73	23.06	16.99	14.96	11.93	9.62	8.44	7.59	7.31
45.0	79.48	41.57	23.40	17.94	15.98	12.15	9.45	7.54	6.86
90.0	34.87	19.80	17.16	12.94	9.51	8.10	6.58	6.08	5.74
135.0	55.58	30.88	22.16	15.47	12.38	9.62	7.54	6.64	5.96
180.0	75.49	39.71	23.40	17.72	14.46	12.54	9.34	7.65	6.92
225.0	29.47	21.43	15.19	11.31	9.56	7.37	6.24	5.79	5.40
270.0	58.50	32.01	19.07	17.04	13.28	10.24	7.82	6.36	6.13
315.0	36.17	21.66	16.20	13.05	10.24	7.71	6.92	6.36	5.91
360.0	36.73	23.06	16.99	14.96	11.93	9.62	8.44	7.59	7.31

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	6.75	6.24	5.85	5.34	5.12	4.73	4.39	3.99	3.66
45.0	6.53	6.08	5.51	5.29	4.95	4.78	4.28	3.94	3.83
90.0	5.29	5.06	4.73	4.44	4.11	3.77	3.49	3.26	2.93
135.0	5.57	5.23	4.95	4.50	4.22	3.94	3.77	3.49	3.21
180.0	6.41	5.91	5.46	5.06	4.89	4.50	4.16	3.83	3.54
225.0	5.18	4.84	4.56	4.22	3.94	3.77	3.38	3.09	2.98
270.0	5.63	5.12	4.89	4.67	4.28	4.05	3.71	3.60	3.21
315.0	5.51	5.12	4.89	4.61	4.28	3.94	3.60	3.32	3.04
360.0	6.75	6.24	5.85	5.34	5.12	4.73	4.39	3.99	3.66

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	3.32	3.09	2.76	2.64	2.42	2.25	2.08	1.80	1.63
45.0	3.49	3.21	2.98	2.70	2.64	2.31	2.19	1.97	1.80
90.0	2.81	2.64	2.36	2.25	2.03	1.91	1.63	1.52	1.41
135.0	2.93	2.70	2.53	2.36	2.08	1.91	1.80	1.63	1.46
180.0	3.38	3.15	2.93	2.59	2.42	2.31	2.03	1.86	1.74
225.0	2.76	2.48	2.36	2.14	2.03	1.86	1.63	1.52	1.35
270.0	3.04	2.81	2.59	2.48	2.19	2.03	1.91	1.63	1.63
315.0	2.81	2.59	2.42	2.25	2.08	1.80	1.69	1.58	1.46
360.0	3.32	3.09	2.76	2.64	2.42	2.25	2.08	1.80	1.63

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	1.46	1.24	1.29	1.13	1.01	0.84	0.73	0.62	0.56
45.0	1.63	1.52	1.29	1.29	1.07	0.96	0.90	0.73	0.73
90.0	1.24	1.07	0.96	0.84	0.79	0.73	0.62	0.51	0.45
135.0	1.29	1.18	1.07	1.01	0.84	0.68	0.68	0.62	0.51
180.0	1.63	1.46	1.29	1.18	1.07	0.96	0.84	0.79	0.67
225.0	1.18	1.13	0.96	0.96	0.79	0.68	0.62	0.51	0.51
270.0	1.35	1.24	1.13	1.01	0.84	0.79	0.68	0.62	0.51
315.0	1.29	1.07	1.01	0.90	0.68	0.68	0.56	0.51	0.51
360.0	1.46	1.24	1.29	1.13	1.01	0.84	0.73	0.62	0.56

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	0.51	0.39	0.34	0.28	0.28	0.23	0.23	0.23	0.23
45.0	0.56	0.51	0.45	0.39	0.28	0.28	0.23	0.23	0.23
90.0	0.45	0.34	0.28	0.28	0.23	0.28	0.17	0.17	0.17
135.0	0.45	0.39	0.28	0.28	0.28	0.28	0.23	0.23	0.23
180.0	0.51	0.51	0.45	0.39	0.45	0.34	0.39	0.45	0.51
225.0	0.45	0.34	0.28	0.34	0.34	0.34	0.39	0.39	0.34
270.0	0.45	0.39	0.34	0.23	0.23	0.23	0.17	0.17	0.17
315.0	0.34	0.34	0.28	0.23	0.17	0.11	0.11	0.11	0.11
360.0	0.51	0.39	0.34	0.28	0.28	0.23	0.23	0.23	0.23

Intensity data(cd)

C/γ(°)	90.0
0.0	0.23
45.0	0.11
90.0	0.11
135.0	0.23
180.0	0.51
225.0	0.28
270.0	0.17
315.0	0.11
360.0	0.23