NATA LIGHTING CO.,LTD.
www.nata.cn
Email:info@nata.com
Tel:+86-750-3770000 Fax:+86 750 3771111
Address:Address:380JinOu Road,GaoXin Zone,Jiang Men City,Guangdong,China

NT

Client: NT
LumCAT: 61-0226-1
Luminaire: 92.70.458.00
Report No: 20250519-B012
Ballast type: AC
Test No: 20250519-C012
LampCAT: CITIZEN CLU7A2
Lamp flux(lm): 624.3
Number of Lamps: 1
Length(mm): 35
Phm Type: C

Voltage(V): 36.380
Current(A): 0.176
Power (W): 6.402
PF: 0.000
Width(mm): 35
Height(mm): 17

Photometric Results

Lumens(lm): 572.49, Efficiency(%): 91.70% , Luminous Efficacy(lm/W): 89.42
Central intensity(cd): 2277.108, Maximum intensity(cd): 2277.108
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=26.6
[C90/270]Total=26.6
Field angle(10%Imax): [C0/180]Total=46.4
[C90/270]Total=46.4
Maximum s/h(1/2): C0_180=0.45 C90_270=0.45
Maximum s/h(1/4): C0_180=0.44 C90_270=0.44
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 91.70%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.100%

Equipment: GMS 1800
Temperature(°C): 25.0
Date: 2025/5/19
Humidity(%): 60.0%
Operator: NT
Distance(m): 7.30

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2277.108	0.000	0	0.00%	0.00%
1.0	2265.251	2.173	2.173	0.35%	0.38%
2.0	2249.198	6.480	8.653	1.04%	1.51%
3.0	2204.301	10.651	19.304	1.71%	3.37%
4.0	2157.406	14.600	33.904	2.34%	5.92%
5.0	2084.931	18.250	52.155	2.92%	9.11%
6.0	2010.125	21.521	73.675	3.45%	12.87%
7.0	1915.935	24.369	98.044	3.90%	17.13%
8.0	1814.218	26.696	124.74	4.28%	21.79%
9.0	1675.651	28.283	153.024	4.53%	26.73%
10.0	1556.481	29.250	182.273	4.69%	31.84%
11.0	1417.501	29.716	211.99	4.76%	37.03%
12.0	1310.428	29.820	241.81	4.78%	42.24%
13.0	1174.905	29.495	271.304	4.72%	47.39%
14.0	1041.693	28.372	299.677	4.54%	52.35%
15.0	889.130	26.507	326.184	4.25%	56.98%
16.0	795.653	24.687	350.871	3.95%	61.29%
17.0	685.343	23.063	373.934	3.69%	65.32%
18.0	585.464	20.953	394.886	3.36%	68.98%
19.0	491.527	18.737	413.624	3.00%	72.25%
20.0	421.957	16.719	430.343	2.68%	75.17%
21.0	338.205	14.597	444.94	2.34%	77.72%
22.0	274.717	12.317	457.257	1.97%	79.87%
23.0	233.490	10.664	467.92	1.71%	81.73%
24.0	203.761	9.560	477.48	1.53%	83.40%
25.0	156.912	8.201	485.681	1.31%	84.84%
26.0	125.638	6.670	492.351	1.07%	86.00%
27.0	111.196	5.794	498.145	0.93%	87.01%
28.0	84.438	4.953	503.098	0.79%	87.88%
29.0	70.736	4.060	507.158	0.65%	88.59%
30.0	60.051	3.531	510.689	0.57%	89.20%
31.0	51.738	3.111	513.8	0.50%	89.75%
32.0	45.237	2.778	516.578	0.45%	90.23%
33.0	40.161	2.516	519.094	0.40%	90.67%
34.0	36.284	2.313	521.407	0.37%	91.08%
35.0	32.347	2.131	523.539	0.34%	91.45%
36.0	29.962	1.984	525.523	0.32%	91.80%
37.0	27.431	1.872	527.395	0.30%	92.12%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	25.259	1.759	529.153	0.28%	92.43%
39.0	23.607	1.668	530.821	0.27%	92.72%
40.0	22.029	1.592	532.413	0.25%	93.00%
41.0	20.550	1.516	533.929	0.24%	93.26%
42.0	19.384	1.451	535.38	0.23%	93.52%
43.0	18.212	1.393	536.773	0.22%	93.76%
44.0	17.166	1.335	538.108	0.21%	93.99%
45.0	16.293	1.286	539.394	0.21%	94.22%
46.0	15.494	1.243	540.637	0.20%	94.44%
47.0	14.801	1.205	541.842	0.19%	94.65%
48.0	14.228	1.174	543.015	0.19%	94.85%
49.0	13.749	1.149	544.164	0.18%	95.05%
50.0	13.362	1.130	545.295	0.18%	95.25%
51.0	12.989	1.115	546.41	0.18%	95.44%
52.0	12.710	1.103	547.512	0.18%	95.64%
53.0	12.437	1.094	548.606	0.18%	95.83%
54.0	12.170	1.085	549.691	0.17%	96.02%
55.0	11.897	1.074	550.765	0.17%	96.21%
56.0	11.591	1.061	551.826	0.17%	96.39%
57.0	11.284	1.046	552.872	0.17%	96.57%
58.0	10.931	1.027	553.9	0.16%	96.75%
59.0	10.578	1.006	554.905	0.16%	96.93%
60.0	10.205	0.982	555.887	0.16%	97.10%
61.0	9.852	0.957	556.844	0.15%	97.27%
62.0	9.466	0.931	557.775	0.15%	97.43%
63.0	9.126	0.904	558.679	0.14%	97.59%
64.0	8.760	0.878	559.557	0.14%	97.74%
65.0	8.353	0.847	560.404	0.14%	97.89%
66.0	8.007	0.816	561.22	0.13%	98.03%
67.0	7.627	0.786	562.006	0.13%	98.17%
68.0	7.281	0.755	562.761	0.12%	98.30%
69.0	6.948	0.726	563.487	0.12%	98.43%
70.0	6.575	0.694	564.182	0.11%	98.55%
71.0	6.208	0.661	564.842	0.11%	98.66%
72.0	5.815	0.625	565.468	0.10%	98.77%
73.0	5.442	0.589	566.056	0.09%	98.88%
74.0	5.109	0.555	566.611	0.09%	98.97%
75.0	4.803	0.524	567.135	0.08%	99.06%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	4.496	0.494	567.628	0.08%	99.15%
77.0	4.210	0.464	568.093	0.07%	99.23%
78.0	3.977	0.438	568.531	0.07%	99.31%
79.0	3.784	0.417	568.948	0.07%	99.38%
80.0	3.630	0.400	569.347	0.06%	99.45%
81.0	3.484	0.385	569.732	0.06%	99.52%
82.0	3.317	0.369	570.101	0.06%	99.58%
83.0	3.157	0.352	570.453	0.06%	99.64%
84.0	3.018	0.336	570.789	0.05%	99.70%
85.0	2.864	0.321	571.11	0.05%	99.76%
86.0	2.724	0.305	571.416	0.05%	99.81%
87.0	2.571	0.290	571.706	0.05%	99.86%
88.0	2.451	0.275	571.981	0.04%	99.91%
89.0	2.318	0.261	572.242	0.04%	99.96%
90.0	2.205	0.248	572.49	0.04%	100.00%

Zonal flux distribution table

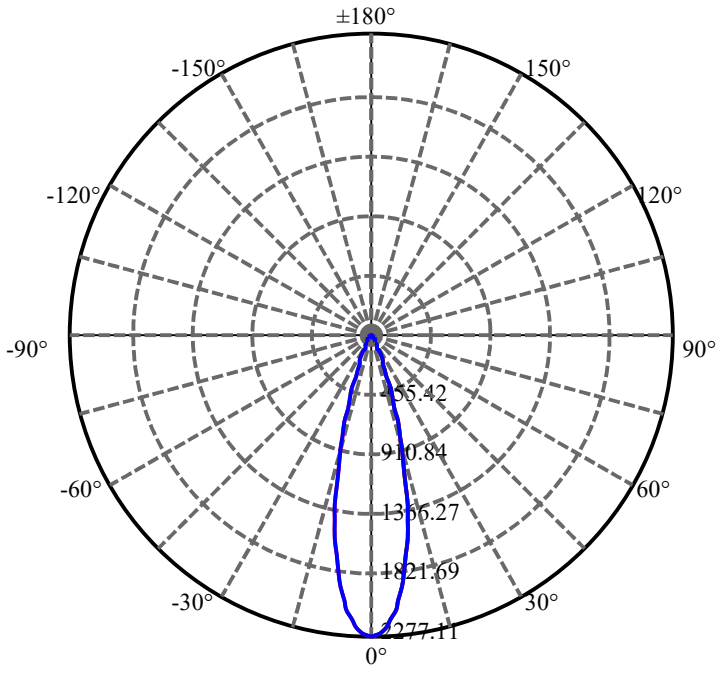
ZONAL LUMEN SUMMARY

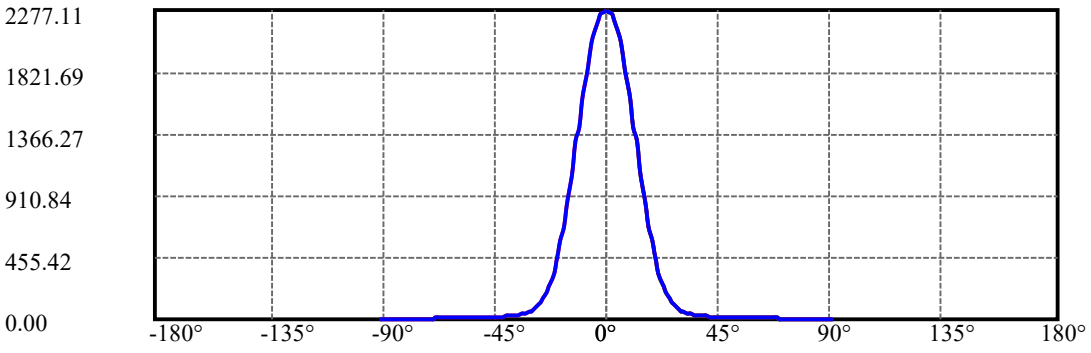
Zone	Lumens	%Lamp	%Fixt
0-30	510.69	81.80%	89.20%
0-40	532.41	85.28%	93.00%
0-60	555.89	89.04%	97.10%
0-90	572.24	91.66%	99.96%
0-120	572.24	91.66%	99.96%
0-180	572.49	91.70%	100.00%
60-90	16.36	2.62%	2.86%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-22.07	457.99	73.36%	80.00%

ZONAL LUMEN SUMMARY

0-10	182.27
10-20	248.07
20-30	80.35
30-40	21.72
40-50	12.88
50-60	10.59
60-70	8.29
70-80	5.17
80-90	2.89
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

Light Distribution Curve [Unit:cd]





C0(Max):

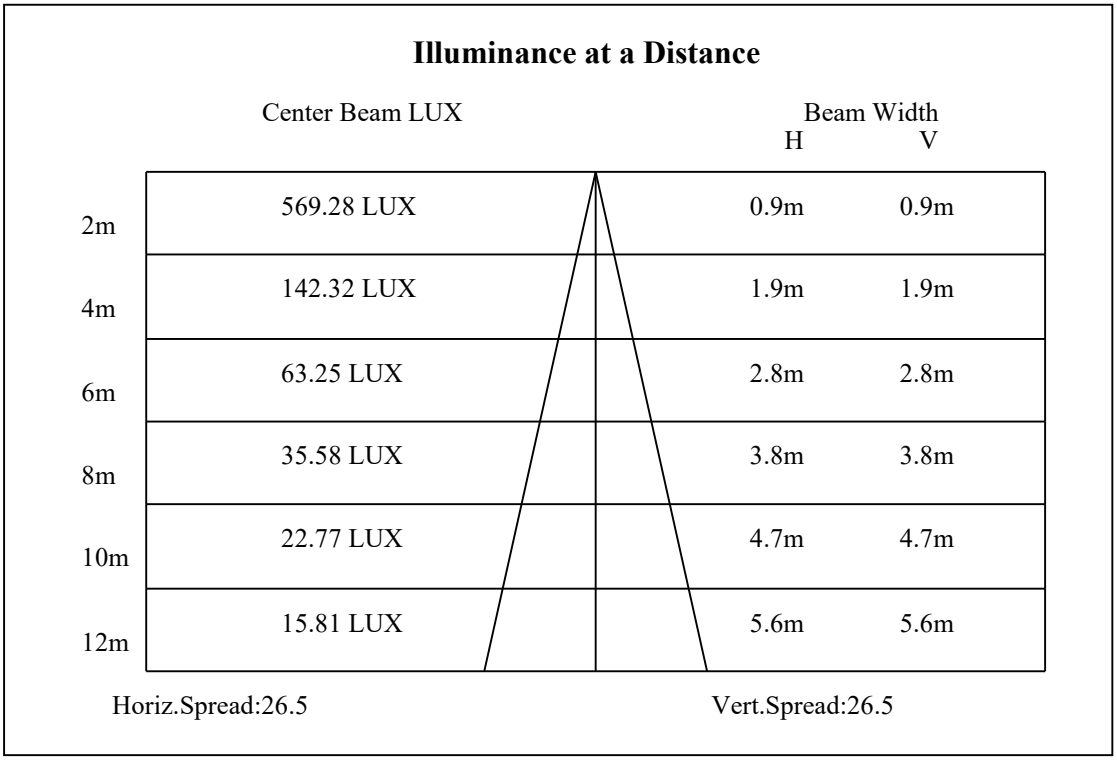
C0/C180:

C90/C270:

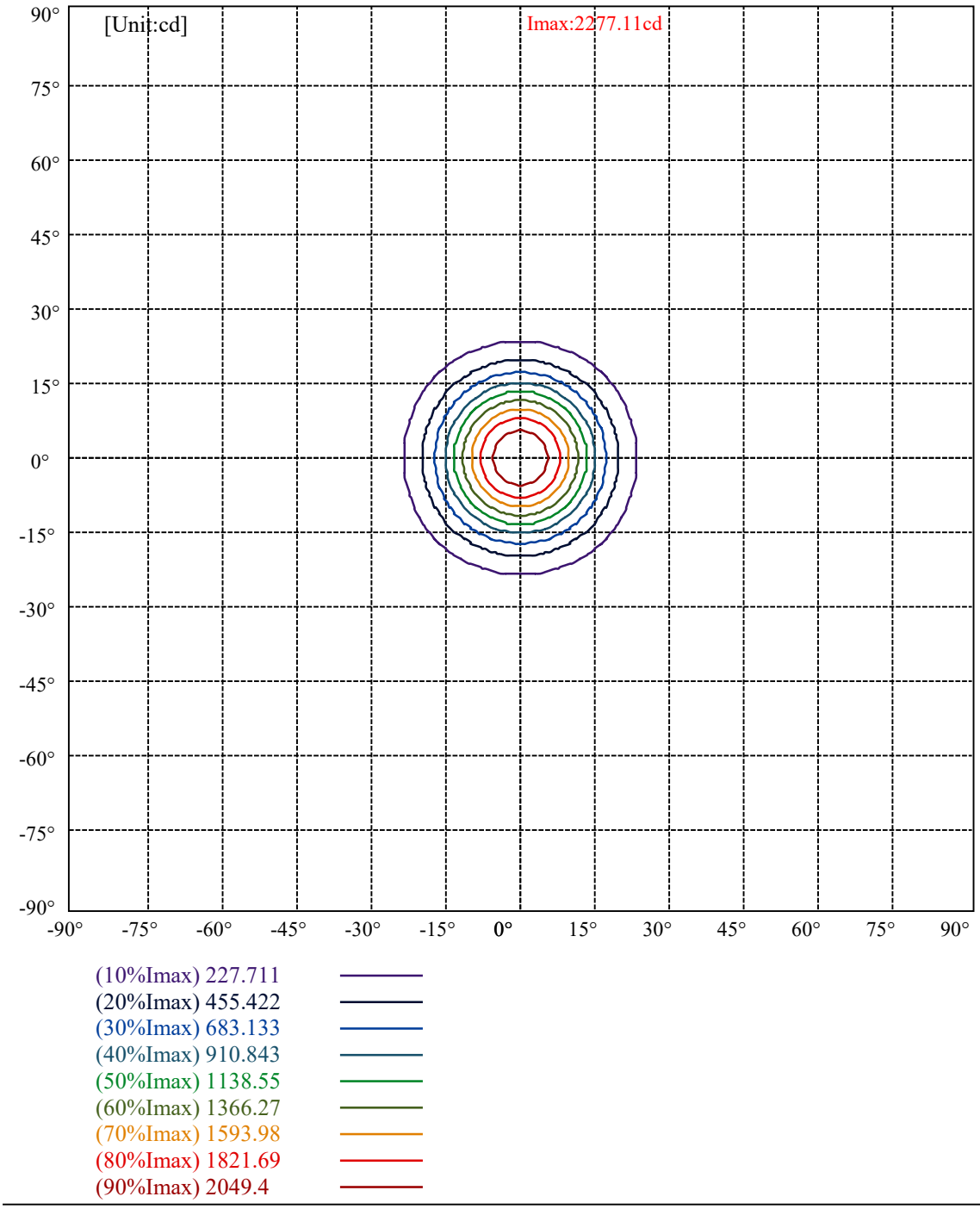
Field angle(10%Imax):C0/180Left:23.2 Right:23.2
:C90/270Left:23.2 Right:23.2

Beam Angle(50%Imax):C0/180Left:13.3 Right:13.3
:C90/270Left:13.3 Right:13.3

Lux distance Curve



ISO-Intensity(V-H)



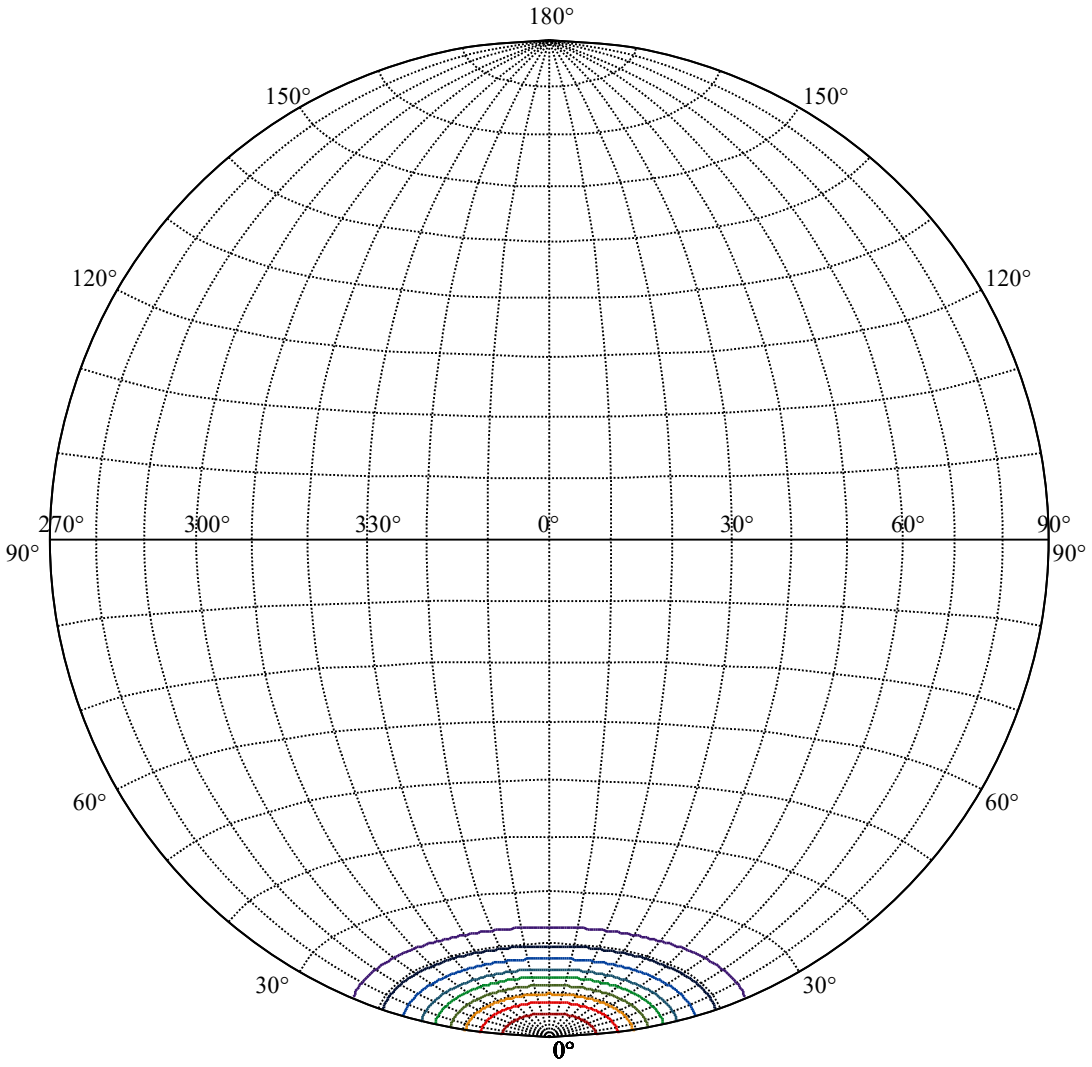
(10%Imax) 227.711
(20%Imax) 455.422
(30%Imax) 683.133
(40%Imax) 910.843
(50%Imax) 1138.55
(60%Imax) 1366.27
(70%Imax) 1593.98
(80%Imax) 1821.69
(90%Imax) 2049.4

Equipment: GMS 1800
Temperature(°C): 25.0

Date: 2025/5/19
Humidity(%): 60.0%

Operator: NT
Distance(m): 7.30

ISO candela diagram on circular web

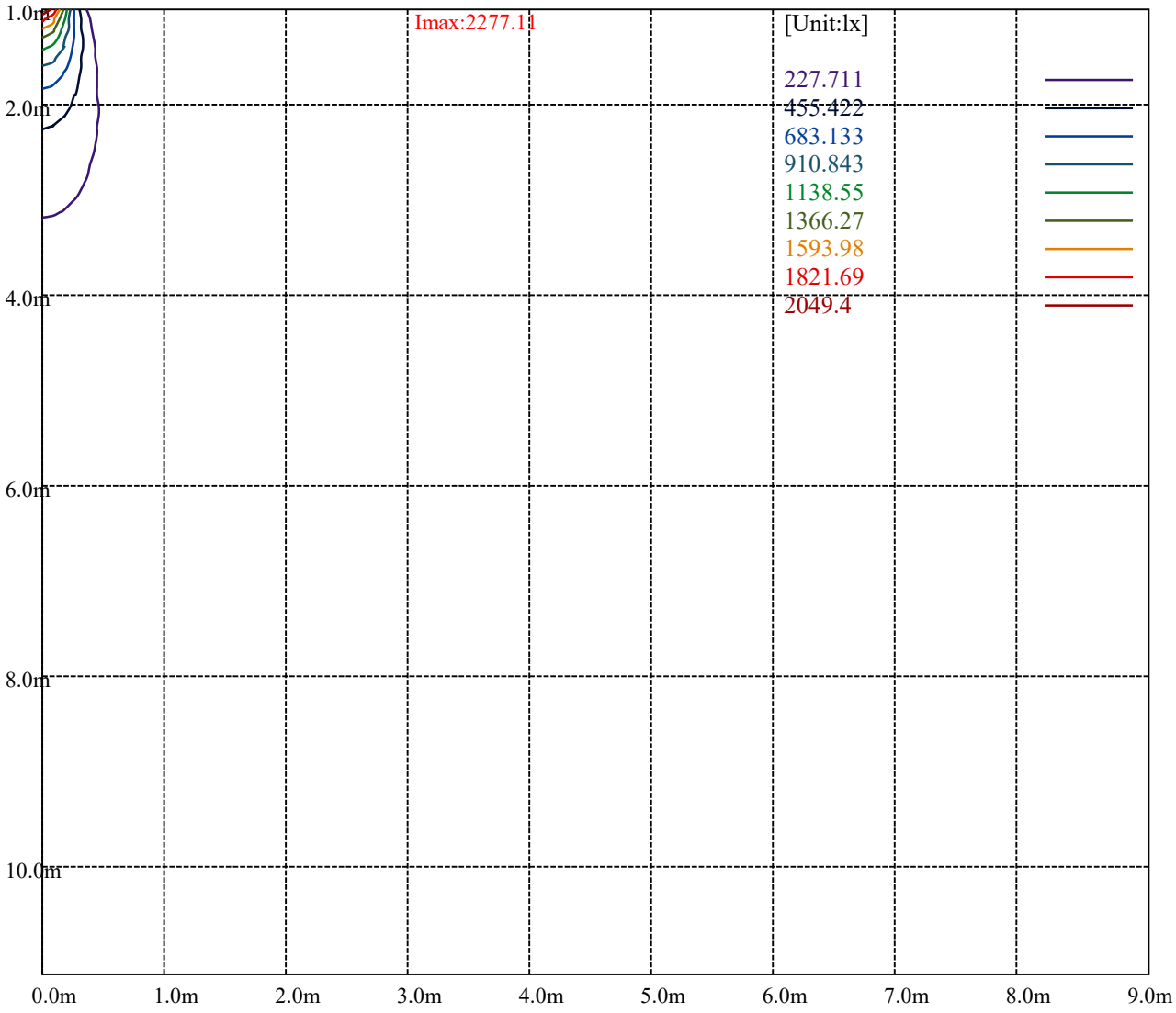


House [Unit:cd] Road

Imax:2277.11

(10%Imax) 227.711
(20%Imax) 455.422
(30%Imax) 683.133
(40%Imax) 910.843
(50%Imax) 1138.55
(60%Imax) 1366.27
(70%Imax) 1593.98
(80%Imax) 1821.69
(90%Imax) 2049.4

Space ISO Lux diagram



Equipment: GMS 1800
Temperature(°C): 25.0

Date: 2025/5/19
Humidity(%): 60.0%

Operator: NT
Distance(m): 7.30

Luminance Limitting Curve(no luminous side)

Luminance Table

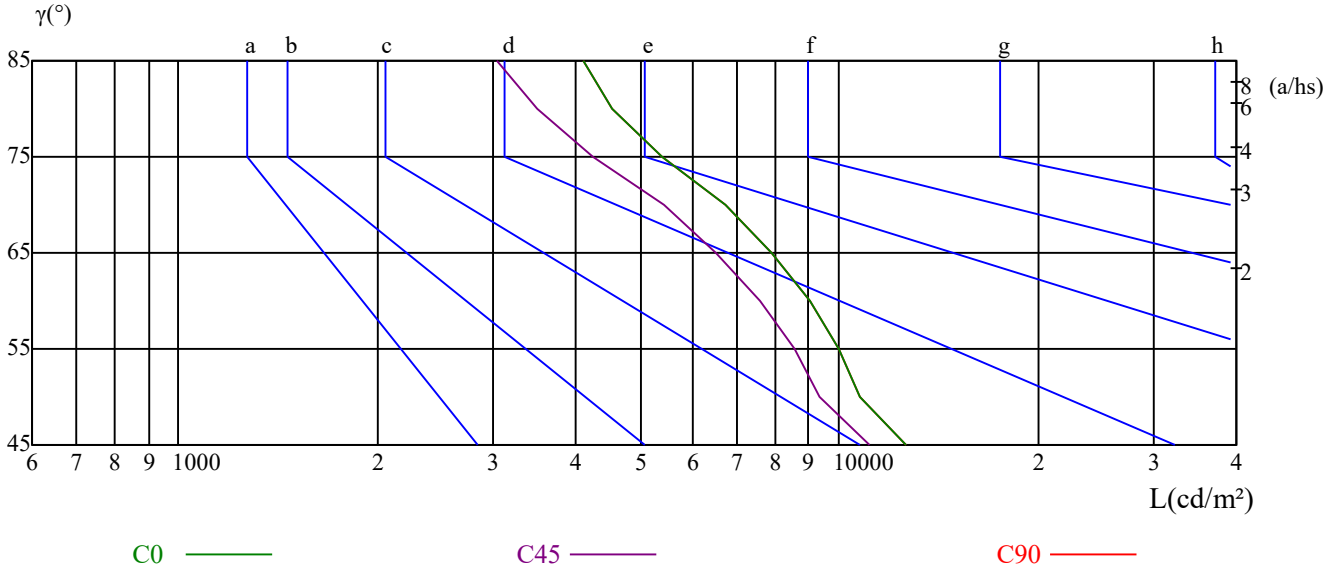
γ	45	50	55	60	65	70	75	80	85
C0	12661	10748	9997	9049	7903	6722	5386	4545	4095
C45	11151	9331	8547	7609	6524	5435	4251	3486	3031
C90	12661	10748	9997	9049	7903	6722	5386	4545	4095

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
16135	16135	16135	15148	15148	15148	26828	26828	26828

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

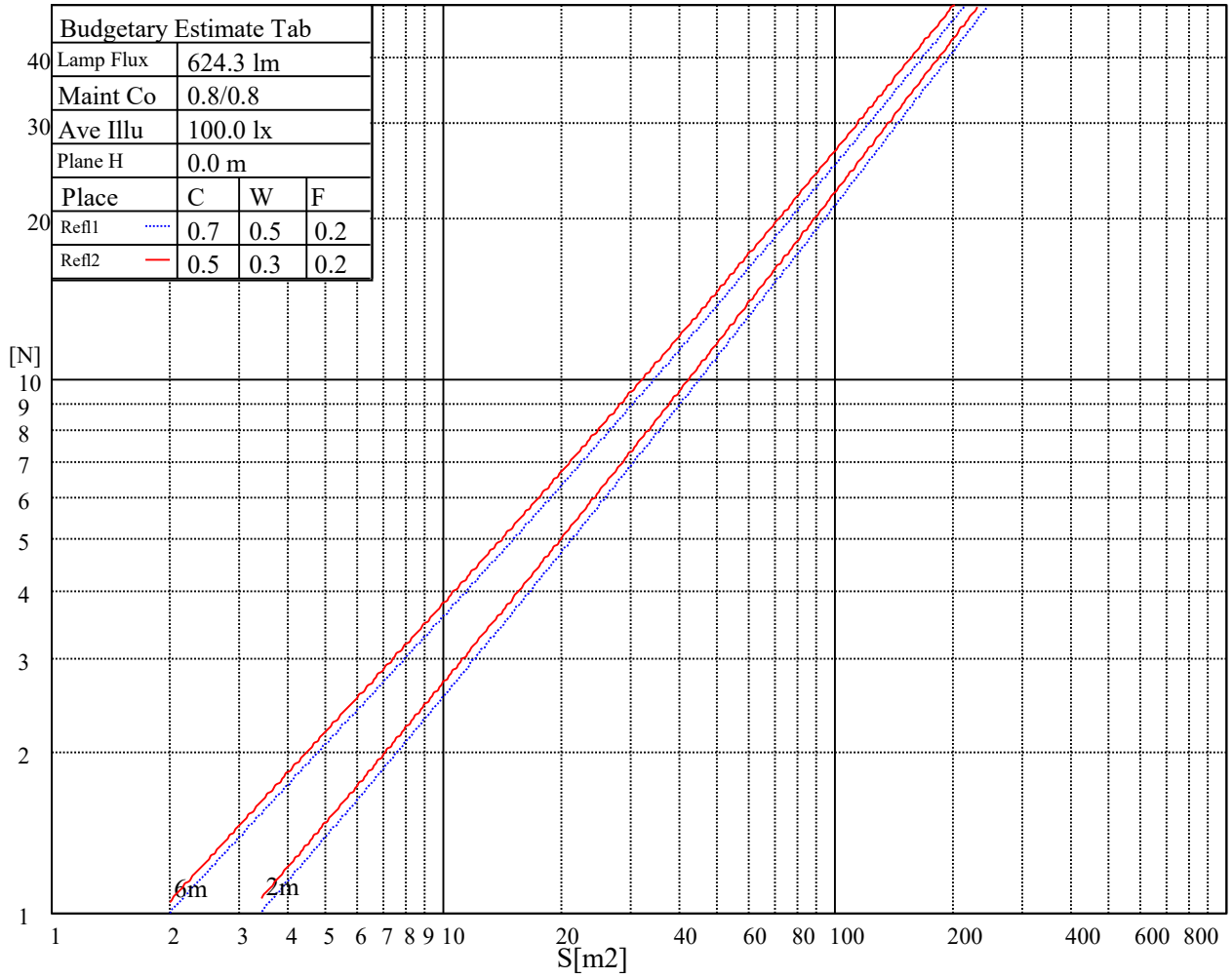


Equipment: GMS 1800
Temperature(°C): 25.0

Date: 2025/5/19
Humidity(%): 60.0%

Operator: NT
Distance(m): 7.30

Budgetary Estimate Table



Equipment: GMS 1800
Temperature(°C): 25.0

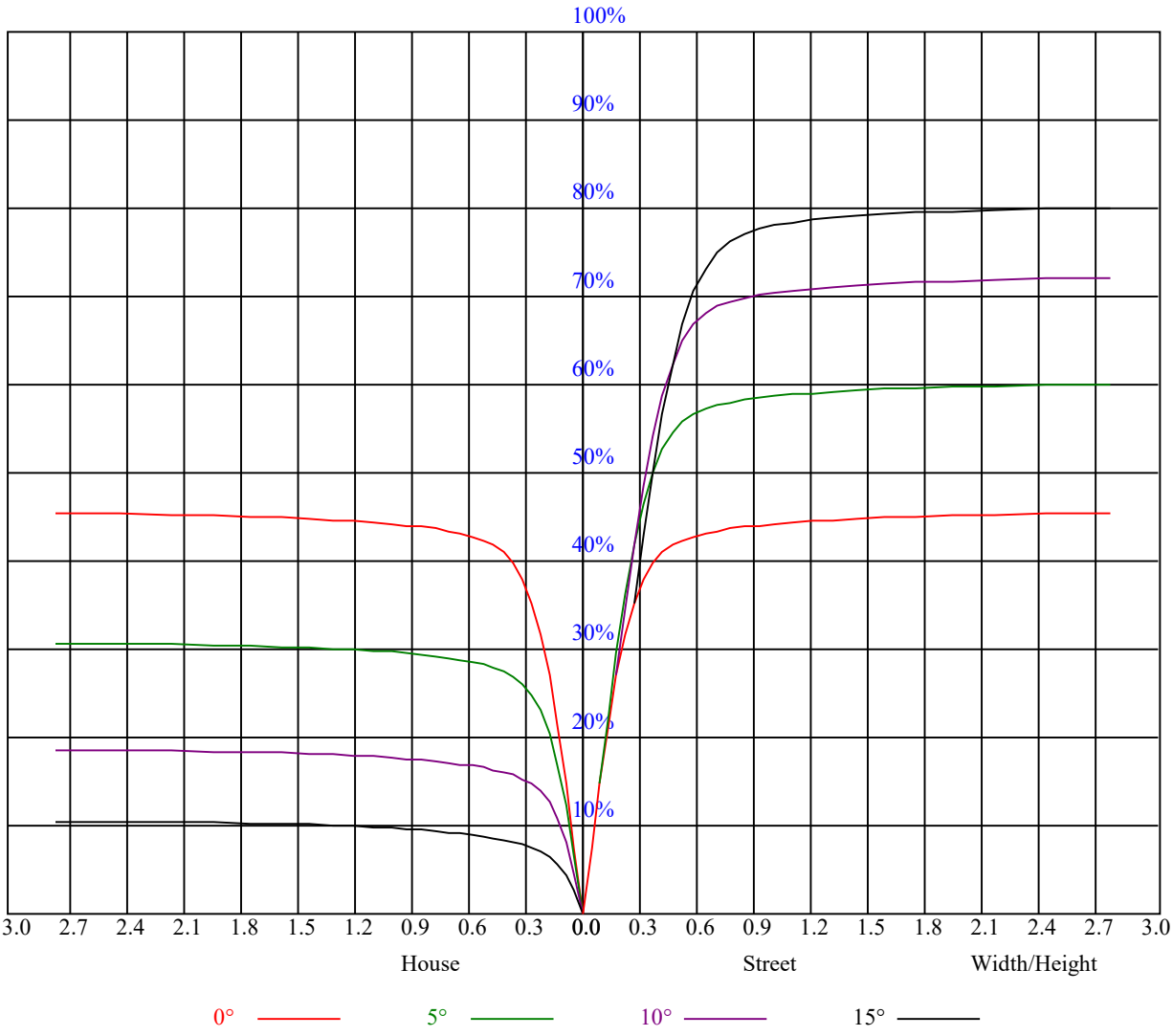
Date: 2025/5/19
Humidity(%): 60.0%

Operator: NT
Distance(m): 7.30

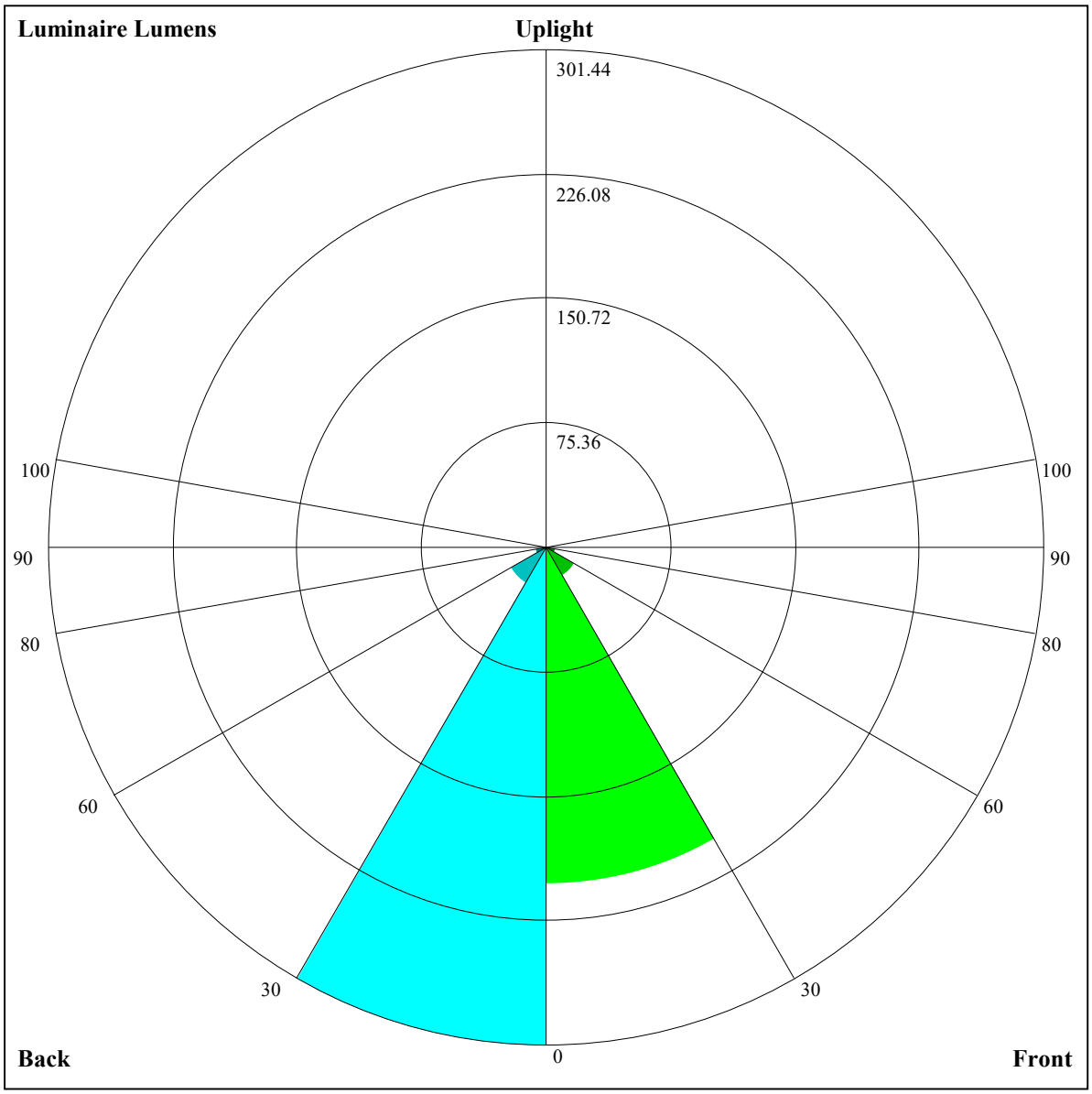
Utilization factor table for indoor luminaire

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	1.09	1.09	1.09	1.07	1.07	1.07	1.02	1.02	1.02	0.98	0.98	0.98	0.94	0.94	0.94	0.92
1	1.03	1.01	0.99	1.01	0.99	0.97	0.97	0.95	0.94	0.94	0.92	0.91	0.90	0.90	0.89	0.87
2	0.97	0.94	0.91	0.95	0.93	0.90	0.93	0.90	0.88	0.90	0.88	0.86	0.87	0.86	0.85	0.83
3	0.92	0.88	0.86	0.91	0.88	0.85	0.89	0.86	0.84	0.87	0.84	0.82	0.85	0.83	0.81	0.80
4	0.88	0.84	0.81	0.87	0.83	0.81	0.85	0.82	0.80	0.84	0.81	0.79	0.82	0.80	0.78	0.77
5	0.85	0.80	0.77	0.84	0.80	0.77	0.82	0.79	0.76	0.81	0.78	0.76	0.79	0.77	0.75	0.74
6	0.81	0.77	0.74	0.81	0.77	0.74	0.79	0.76	0.73	0.78	0.75	0.73	0.77	0.75	0.72	0.71
7	0.78	0.74	0.71	0.78	0.74	0.71	0.77	0.73	0.71	0.76	0.73	0.70	0.75	0.72	0.70	0.69
8	0.76	0.72	0.69	0.75	0.71	0.69	0.75	0.71	0.68	0.74	0.71	0.68	0.73	0.70	0.68	0.67
9	0.73	0.69	0.67	0.73	0.69	0.67	0.72	0.69	0.66	0.72	0.68	0.66	0.71	0.68	0.66	0.65
10	0.71	0.67	0.65	0.71	0.67	0.65	0.70	0.67	0.64	0.70	0.67	0.64	0.69	0.66	0.64	0.63

Coefficient Utilization Curve



Equipment: GMS 1800	Date: 2025/5/19	Operator: NT
Temperature(°C): 25.0	Humidity(%): 60.0%	Distance(m): 7.30



Luminaire Lumens:
FL=204.03,FM=19.57,FH=6.3,FVH=1.44
BL=301.44,BM=25.22,BH=7.12,BVH=1.67
UL=0,UH=0

BUG Rating:B1-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	2199.44	2097.12	2032.11	1869.04	1797.10	1618.58	1541.84	1409.15	1276.46
45.0	2322.54	2261.25	2186.12	2093.39	1987.88	1874.90	1754.47	1628.17	1495.48
90.0	2287.90	2251.66	2197.84	2128.03	2043.83	1943.11	1826.94	1699.58	1561.56
135.0	2298.56	2330.53	2356.11	2361.97	2347.58	2315.61	2265.52	2196.77	2102.98
180.0	2199.44	2285.77	2355.04	2408.87	2442.97	2455.76	2449.37	2422.19	2374.76
225.0	2322.54	2350.25	2393.41	2400.34	2396.61	2359.31	2330.53	2264.98	2181.85
270.0	2287.90	2305.49	2305.49	2287.90	2254.33	2226.62	2138.15	2054.49	1996.40
315.0	2298.56	2239.94	2167.46	2084.86	1988.94	1885.56	1774.18	1652.15	1524.25
360.0	2199.44	2097.12	2032.11	1869.04	1797.10	1618.58	1541.84	1409.15	1276.46

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	1021.09	1021.09	899.32	784.64	675.82	574.73	481.37	398.45	325.34
45.0	1357.99	1220.50	1084.61	954.05	827.75	707.85	599.67	539.99	446.73
90.0	1415.01	1200.78	1010.38	1010.38	872.25	743.61	623.92	517.61	424.29
135.0	1987.88	1853.05	1706.51	1551.43	1389.43	1229.03	1075.55	928.47	792.05
180.0	2312.41	2225.55	2117.90	1990.54	1847.19	1694.78	1533.85	1372.38	1215.17
225.0	2078.47	1959.63	1829.61	1687.32	1542.37	1393.69	1051.57	1051.57	942.22
270.0	1841.86	1768.32	1637.76	1501.87	1362.79	1224.23	1091.01	962.04	838.94
315.0	1390.50	1202.92	1053.92	1003.18	881.63	765.62	656.11	594.72	498.00
360.0	1021.09	1021.09	899.32	784.64	675.82	574.73	481.37	398.45	325.34

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	274.71	210.76	175.96	140.53	108.13	91.50	75.14	62.99	53.93
45.0	335.89	294.85	294.85	179.64	144.04	116.01	94.54	78.39	65.87
90.0	343.88	276.68	221.69	177.62	143.03	116.23	95.71	79.72	67.57
135.0	666.28	552.24	492.03	369.46	298.05	285.26	285.26	167.12	135.62
180.0	1064.36	950.85	816.03	667.35	578.89	479.77	394.51	321.50	283.13
225.0	863.40	693.78	586.51	525.76	403.46	358.54	292.46	236.77	190.51
270.0	722.77	615.13	516.01	427.55	349.74	284.20	284.20	221.74	137.06
315.0	412.41	337.91	272.58	217.74	172.39	136.42	108.29	87.08	71.41
360.0	274.71	210.76	175.96	140.53	108.13	91.50	75.14	62.99	53.93

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	47.21	42.10	38.00	34.59	31.71	29.26	27.12	25.15	23.55
45.0	56.43	49.24	43.54	38.90	35.12	31.92	30.22	26.80	24.67
90.0	59.95	52.33	46.10	40.93	36.61	33.04	29.90	27.23	24.94
135.0	111.11	92.78	78.34	67.52	58.94	51.85	45.88	40.98	36.98
180.0	283.13	169.68	138.13	112.87	93.52	78.60	66.99	61.34	50.79
225.0	152.62	122.73	99.60	81.80	68.05	57.50	49.61	43.54	38.74
270.0	119.48	95.71	77.75	64.27	54.25	47.06	41.57	37.36	33.20
315.0	59.63	50.95	44.44	39.54	35.70	32.67	30.00	27.87	25.90
360.0	47.21	42.10	38.00	34.59	31.71	29.26	27.12	25.15	23.55

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	22.17	20.84	19.61	18.49	17.53	16.57	16.09	15.03	14.60
45.0	23.61	21.37	20.20	18.97	17.75	16.79	15.93	15.19	14.44
90.0	23.07	21.37	19.82	18.54	17.43	16.47	15.56	15.13	14.23
135.0	33.79	31.07	28.72	26.54	25.21	23.29	21.74	20.30	19.02
180.0	47.21	42.05	36.24	34.11	30.85	28.14	25.74	23.61	21.80
225.0	34.80	31.55	28.83	26.49	24.46	22.59	21.69	20.25	18.97
270.0	30.54	28.30	27.18	25.47	23.87	22.49	21.21	19.93	18.76
315.0	24.51	22.91	21.48	20.25	19.13	18.07	17.11	16.25	15.51
360.0	22.17	20.84	19.61	18.49	17.53	16.57	16.09	15.03	14.60

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	14.07	13.59	13.16	12.79	12.47	12.20	11.83	11.62	11.40
45.0	14.07	13.32	13.06	12.68	12.26	12.10	11.83	11.62	11.35
90.0	13.75	13.48	12.90	12.68	12.42	12.26	11.99	11.83	11.51
135.0	17.85	16.84	16.09	15.51	15.13	14.81	14.60	14.39	14.23
180.0	20.25	18.92	17.80	16.79	15.99	15.35	14.76	14.39	14.02
225.0	17.85	16.89	15.93	15.19	14.60	14.02	13.54	13.22	13.00
270.0	17.69	16.73	15.83	15.03	14.39	13.80	13.27	12.84	12.52
315.0	14.81	14.18	13.64	13.16	12.74	12.36	12.10	11.78	11.46
360.0	14.07	13.59	13.16	12.79	12.47	12.20	11.83	11.62	11.40

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	11.08	10.82	10.50	10.18	9.75	9.43	9.06	8.69	8.26
45.0	11.14	10.82	10.55	10.28	9.97	9.59	9.22	8.90	8.53
90.0	11.24	10.98	10.60	10.28	9.91	9.54	9.17	8.74	8.37
135.0	14.02	13.75	13.38	12.74	12.15	11.78	10.92	10.60	10.13
180.0	13.80	13.54	13.16	12.84	12.63	12.20	11.88	11.46	11.03
225.0	12.68	12.42	12.15	11.94	11.62	11.30	10.98	10.66	10.23
270.0	12.20	11.88	11.67	11.46	11.24	10.87	10.76	10.44	10.18
315.0	11.19	10.98	10.71	10.55	10.18	9.91	9.65	9.33	9.01
360.0	11.08	10.82	10.50	10.18	9.75	9.43	9.06	8.69	8.26

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	8.10	7.73	7.25	7.09	6.71	6.34	6.08	5.65	5.22
45.0	8.10	7.78	7.46	7.19	6.71	6.39	6.18	5.81	5.49
90.0	8.05	7.78	7.30	6.93	6.71	6.39	6.08	5.76	5.33
135.0	9.65	9.22	8.79	8.42	8.05	7.62	7.19	6.87	6.55
180.0	10.66	10.23	9.75	9.27	8.90	8.53	8.10	7.67	7.25
225.0	9.97	9.54	9.17	8.79	8.31	7.99	7.62	7.25	6.87
270.0	9.86	9.49	9.06	8.74	8.37	7.99	7.67	7.30	6.98
315.0	8.63	8.31	8.05	7.62	7.25	6.98	6.66	6.29	5.97
360.0	8.10	7.73	7.25	7.09	6.71	6.34	6.08	5.65	5.22

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	4.74	4.53	4.26	4.05	3.89	3.78	3.68	3.52	3.46
45.0	5.06	4.64	4.32	4.10	3.94	3.73	3.57	3.36	3.20
90.0	4.85	4.42	4.26	4.05	3.78	3.68	3.46	3.36	3.09
135.0	6.18	5.76	5.33	4.96	4.64	4.32	4.05	3.94	3.94
180.0	6.93	6.55	6.18	5.81	5.38	4.90	4.53	4.32	4.05
225.0	6.50	6.18	5.81	5.44	4.96	4.58	4.26	4.00	3.89
270.0	6.61	6.23	5.97	5.60	5.12	4.64	4.32	4.10	3.89
315.0	5.65	5.22	4.74	4.42	4.26	4.05	3.94	3.68	3.52
360.0	4.74	4.53	4.26	4.05	3.89	3.78	3.68	3.52	3.46

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	3.30	3.14	2.98	2.72	2.50	2.34	2.18	2.08	2.03
45.0	2.98	2.77	2.61	2.50	2.34	2.24	2.13	2.08	1.97
90.0	2.93	2.77	2.61	2.45	2.29	2.13	2.03	1.97	1.92
135.0	3.94	3.94	3.94	3.89	3.89	3.89	3.68	3.46	3.25
180.0	3.94	3.73	3.46	3.36	3.14	2.88	2.72	2.56	2.40
225.0	3.73	3.52	3.36	3.14	2.93	2.82	2.61	2.50	2.34
270.0	3.68	3.52	3.36	3.30	3.14	2.98	2.82	2.72	2.50
315.0	3.36	3.14	2.93	2.77	2.66	2.50	2.40	2.24	2.13
360.0	3.30	3.14	2.98	2.72	2.50	2.34	2.18	2.08	2.03

Intensity data(cd)

C/γ(°)	90.0
0.0	1.92
45.0	1.97
90.0	1.92
135.0	2.98
180.0	2.18
225.0	2.24
270.0	2.40
315.0	2.03
360.0	1.92