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

NT

Client: NT
LumCAT: 11-0161-S-MB_69-0021
Luminaire: matt black/哑黑防眩罩
Report No: 20250318-B002
Ballast type: DC

Test No: 20250318-C002	Voltage(V): 42.240
LampCAT: LUMILEDS LUXEON 2835×2	Current(A): 0.200
Lamp flux(lm): 1186.1	Power (W): 8.448
Number of Lamps: 1	PF: 0.000
Length(mm): 280	Width(mm): 40
Phm Type: C	Height(mm): 21

Photometric Results

Lumens(lm): 1022.78, Efficiency(%): 86.23% , Luminous Efficacy(lm/W): 121.07
Central intensity(cd): 575.510, Maximum intensity(cd): 677.808
Angle of maximum intensity: C=0.0 γ=27.0
Beam Angle(50%Imax): [C0/180]Total=82.2
[C90/270]Total=81.8
Field angle(10%Imax): [C0/180]Total=95.4
[C90/270]Total=95.2
Maximum s/h(1/2): C0_180=1.43 C90_270=1.39
Maximum s/h(1/4): C0_180=1.20 C90_270=1.19
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 86.49%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.619%

Equipment: GMS1980	Date: 2025/3/18	Operator: NT07
Temperature(°C): 25.0	Humidity(%): 60.0%	Distance(m): 7.65

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	567.200	0.000	0	0.00%	0.00%
1.0	567.207	0.543	0.543	0.05%	0.05%
2.0	567.551	1.629	2.172	0.14%	0.21%
3.0	568.531	2.717	4.889	0.23%	0.48%
4.0	569.914	3.811	8.699	0.32%	0.85%
5.0	572.035	4.913	13.612	0.41%	1.33%
6.0	574.025	6.023	19.635	0.51%	1.92%
7.0	575.880	7.137	26.772	0.60%	2.62%
8.0	578.078	8.259	35.031	0.70%	3.43%
9.0	580.532	9.390	44.421	0.79%	4.34%
10.0	583.912	10.538	54.959	0.89%	5.37%
11.0	587.518	11.705	66.664	0.99%	6.52%
12.0	591.608	12.890	79.553	1.09%	7.78%
13.0	595.741	14.091	93.644	1.19%	9.16%
14.0	600.082	15.306	108.95	1.29%	10.65%
15.0	604.512	16.537	125.488	1.39%	12.27%
16.0	609.461	17.788	143.276	1.50%	14.01%
17.0	614.815	19.065	162.341	1.61%	15.87%
18.0	620.313	20.365	182.706	1.72%	17.86%
19.0	626.425	21.691	204.396	1.83%	19.98%
20.0	632.438	23.041	227.437	1.94%	22.24%
21.0	638.159	24.398	251.835	2.06%	24.62%
22.0	643.535	25.756	277.591	2.17%	27.14%
23.0	647.658	27.093	304.684	2.28%	29.79%
24.0	651.169	28.397	333.081	2.39%	32.57%
25.0	653.627	29.668	362.749	2.50%	35.47%
26.0	654.567	30.880	393.629	2.60%	38.49%
27.0	653.572	32.004	425.633	2.70%	41.62%
28.0	650.514	33.017	458.65	2.78%	44.84%
29.0	644.680	33.886	492.536	2.86%	48.16%
30.0	636.088	34.580	527.116	2.92%	51.54%
31.0	624.183	35.072	562.188	2.96%	54.97%
32.0	607.935	35.299	597.486	2.98%	58.42%
33.0	589.391	35.274	632.76	2.97%	61.87%
34.0	566.589	34.983	667.744	2.95%	65.29%
35.0	539.793	34.360	702.104	2.90%	68.65%
36.0	510.013	33.426	735.53	2.82%	71.91%
37.0	477.017	32.191	767.721	2.71%	75.06%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	442.767	30.701	798.422	2.59%	78.06%
39.0	404.160	28.908	827.33	2.44%	80.89%
40.0	367.437	26.911	854.241	2.27%	83.52%
41.0	328.048	24.766	879.007	2.09%	85.94%
42.0	289.185	22.425	901.432	1.89%	88.14%
43.0	249.993	19.973	921.405	1.68%	90.09%
44.0	214.320	17.524	938.929	1.48%	91.80%
45.0	179.587	15.138	954.067	1.28%	93.28%
46.0	147.682	12.799	966.866	1.08%	94.53%
47.0	119.016	10.607	977.473	0.89%	95.57%
48.0	92.509	8.551	986.024	0.72%	96.41%
49.0	70.187	6.681	992.706	0.56%	97.06%
50.0	52.550	5.117	997.823	0.43%	97.56%
51.0	37.476	3.809	1001.632	0.32%	97.93%
52.0	26.536	2.747	1004.379	0.23%	98.20%
53.0	19.020	1.982	1006.36	0.17%	98.39%
54.0	13.961	1.454	1007.814	0.12%	98.54%
55.0	10.413	1.088	1008.902	0.09%	98.64%
56.0	7.897	0.827	1009.729	0.07%	98.72%
57.0	6.163	0.643	1010.372	0.05%	98.79%
58.0	5.051	0.519	1010.891	0.04%	98.84%
59.0	4.437	0.444	1011.334	0.04%	98.88%
60.0	4.056	0.401	1011.736	0.03%	98.92%
61.0	3.884	0.379	1012.115	0.03%	98.96%
62.0	3.789	0.370	1012.484	0.03%	98.99%
63.0	3.720	0.365	1012.85	0.03%	99.03%
64.0	3.665	0.362	1013.212	0.03%	99.06%
65.0	3.632	0.361	1013.573	0.03%	99.10%
66.0	3.595	0.361	1013.934	0.03%	99.14%
67.0	3.581	0.361	1014.294	0.03%	99.17%
68.0	3.559	0.362	1014.656	0.03%	99.21%
69.0	3.544	0.362	1015.019	0.03%	99.24%
70.0	3.519	0.363	1015.381	0.03%	99.28%
71.0	3.515	0.364	1015.745	0.03%	99.31%
72.0	3.497	0.365	1016.109	0.03%	99.35%
73.0	3.497	0.366	1016.475	0.03%	99.38%
74.0	3.475	0.367	1016.842	0.03%	99.42%
75.0	3.467	0.367	1017.208	0.03%	99.46%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	3.449	0.367	1017.576	0.03%	99.49%
77.0	3.446	0.368	1017.943	0.03%	99.53%
78.0	3.442	0.369	1018.312	0.03%	99.56%
79.0	3.438	0.370	1018.682	0.03%	99.60%
80.0	3.435	0.371	1019.052	0.03%	99.64%
81.0	3.427	0.371	1019.423	0.03%	99.67%
82.0	3.420	0.371	1019.794	0.03%	99.71%
83.0	3.413	0.371	1020.166	0.03%	99.74%
84.0	3.416	0.372	1020.538	0.03%	99.78%
85.0	3.409	0.373	1020.91	0.03%	99.82%
86.0	3.413	0.373	1021.283	0.03%	99.85%
87.0	3.413	0.374	1021.657	0.03%	99.89%
88.0	3.416	0.374	1022.031	0.03%	99.93%
89.0	3.409	0.374	1022.405	0.03%	99.96%
90.0	3.409	0.374	1022.779	0.03%	100.00%

Zonal flux distribution table

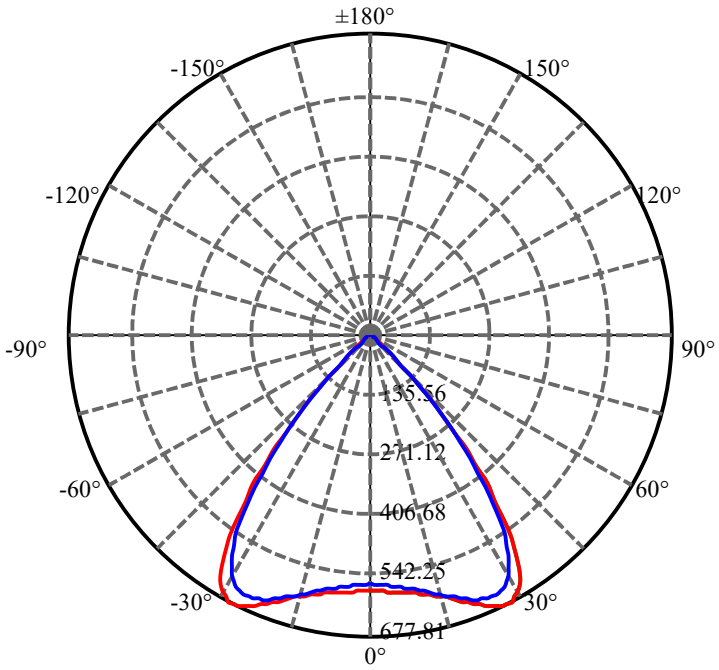
ZONAL LUMEN SUMMARY

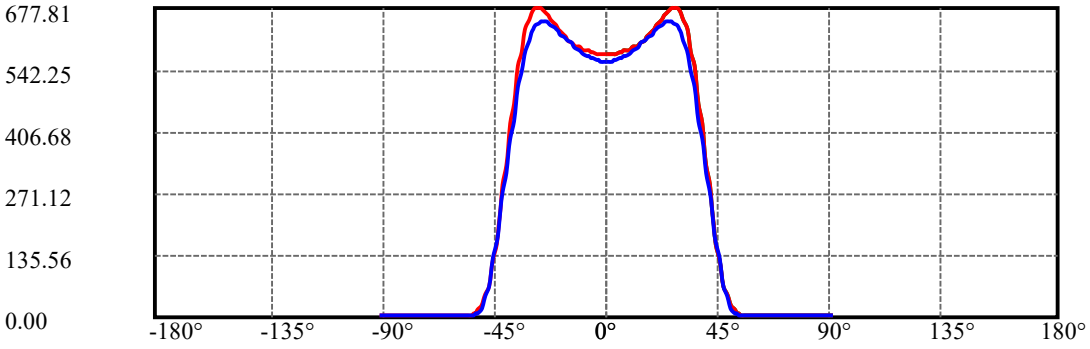
Zone	Lumens	%Lamp	%Fixt
0-30	527.12	44.44%	51.54%
0-40	854.24	72.02%	83.52%
0-60	1011.74	85.30%	98.92%
0-90	1022.40	86.20%	99.96%
0-120	1022.40	86.20%	99.96%
0-180	1022.78	86.23%	100.00%
60-90	10.67	0.90%	1.04%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-38.68	818.22	68.98%	80.00%

ZONAL LUMEN SUMMARY

0-10	54.96
10-20	172.48
20-30	299.68
30-40	327.12
40-50	143.58
50-60	13.91
60-70	3.65
70-80	3.67
80-90	3.35
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):

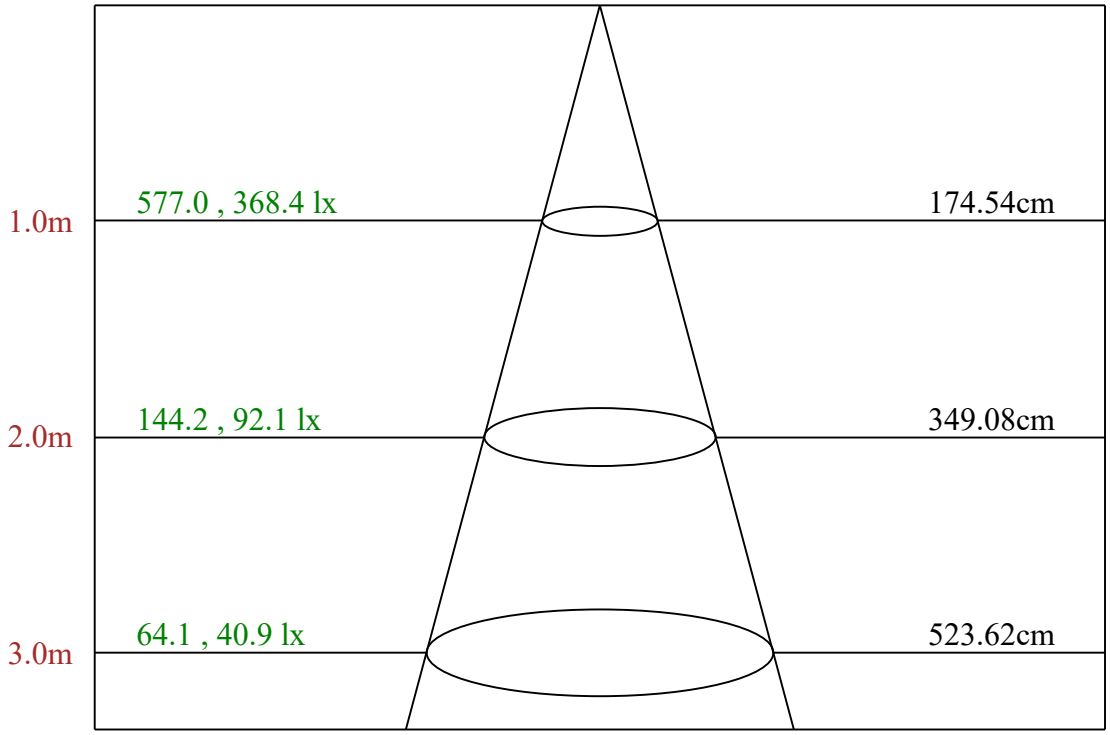
C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:47.7 Right:47.7
:C90/270Left:47.6 Right:47.6

Beam Angle(50%Imax):C0/180Left:41.1 Right:41.1
:C90/270Left:40.9 Right:40.9

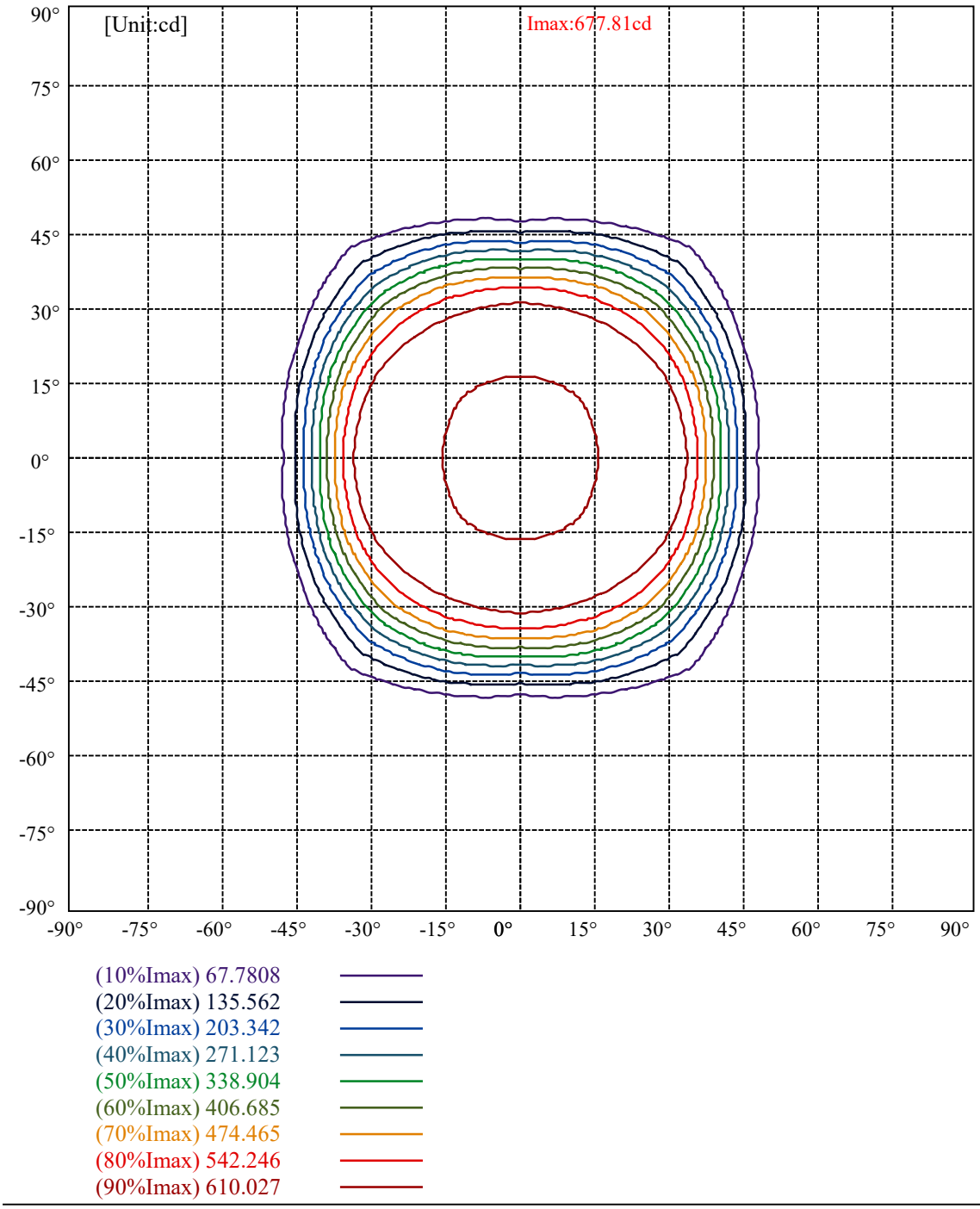
Lux distance Curve



Max , Ave

Beam angle of C0 plane 82.22

ISO-Intensity(V-H)



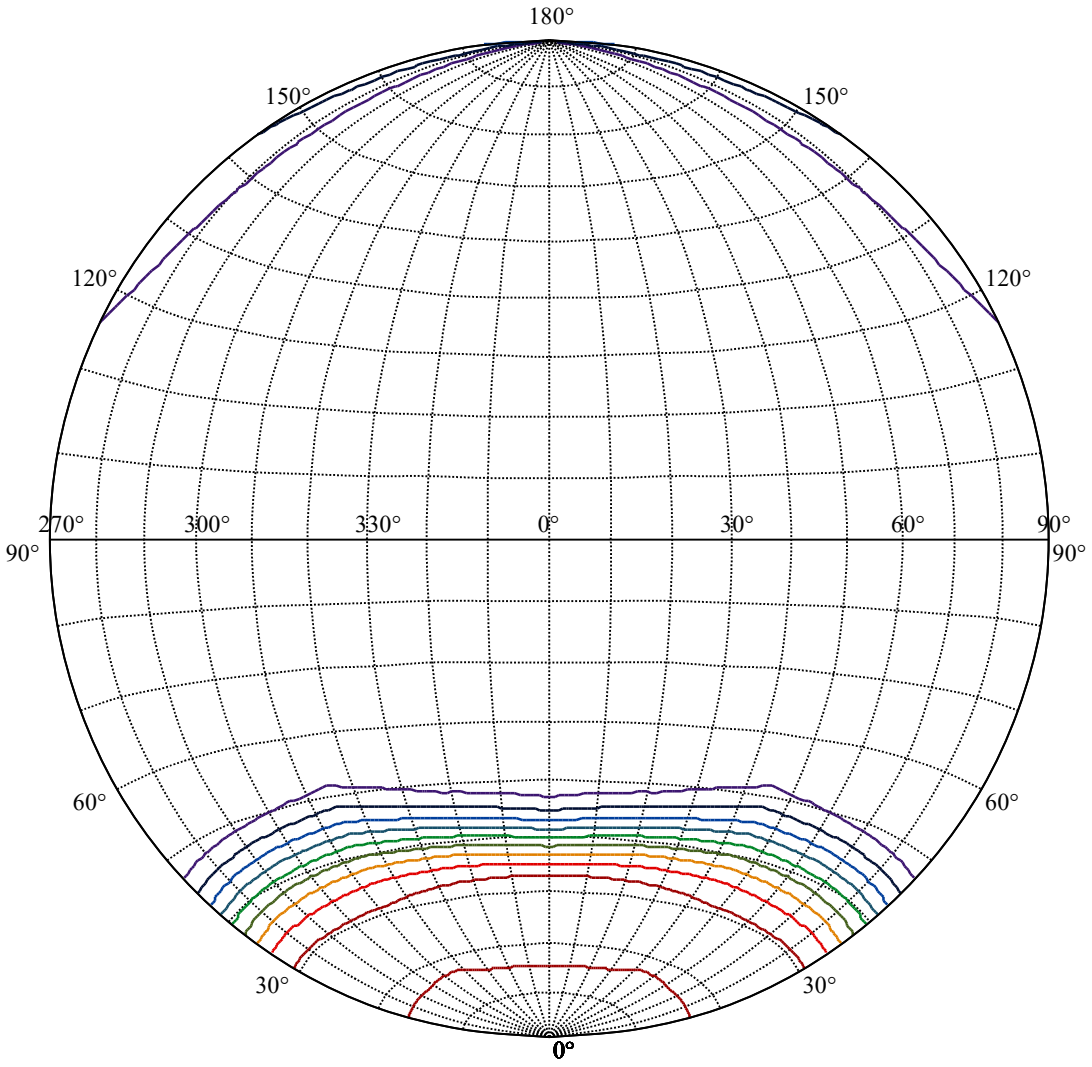
(10%Imax) 67.7808
(20%Imax) 135.562
(30%Imax) 203.342
(40%Imax) 271.123
(50%Imax) 338.904
(60%Imax) 406.685
(70%Imax) 474.465
(80%Imax) 542.246
(90%Imax) 610.027

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2025/3/18
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.65

ISO candela diagram on circular web



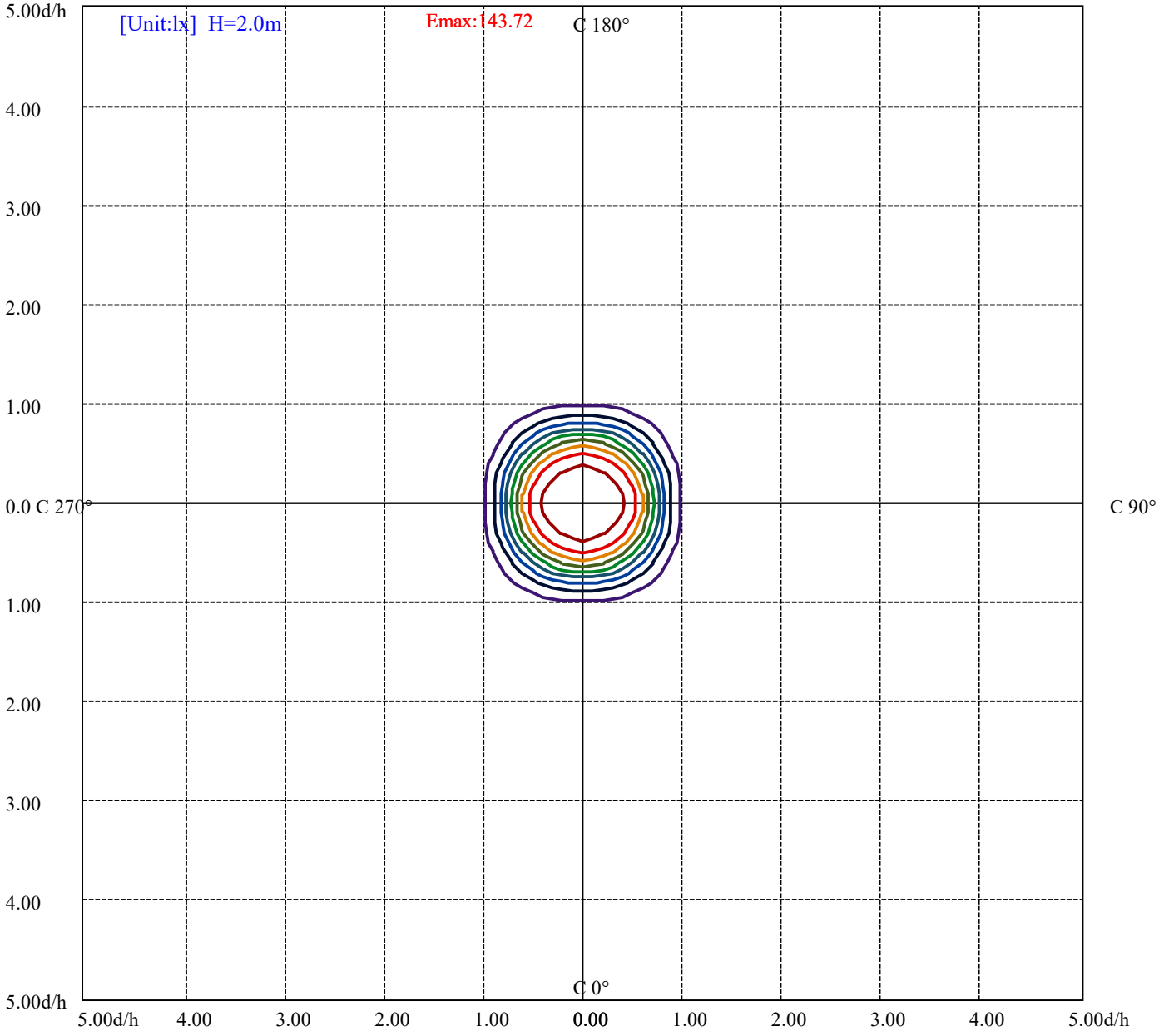
House [Unit:cd] Road

Imax:677.81

(10%Imax) 67.8861
(20%Imax) 135.772
(30%Imax) 203.658
(40%Imax) 271.544
(50%Imax) 339.431
(60%Imax) 407.317
(70%Imax) 475.203
(80%Imax) 543.089
(90%Imax) 610.975

NT NT 11-0161-S-MB_69-0021

ISO illuminance diagram



(10%Emax) 14.3722
(20%Emax) 28.7445
(30%Emax) 43.1165
(40%Emax) 57.48875
(50%Emax) 71.861
(60%Emax) 86.23325
(70%Emax) 100.6052
(80%Emax) 114.9775
(90%Emax) 129.3497

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2025/3/18
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.65

NT NT 11-0161-S-MB_69-0021

Luminance Limitting Curve(no luminous side)

Luminance Table

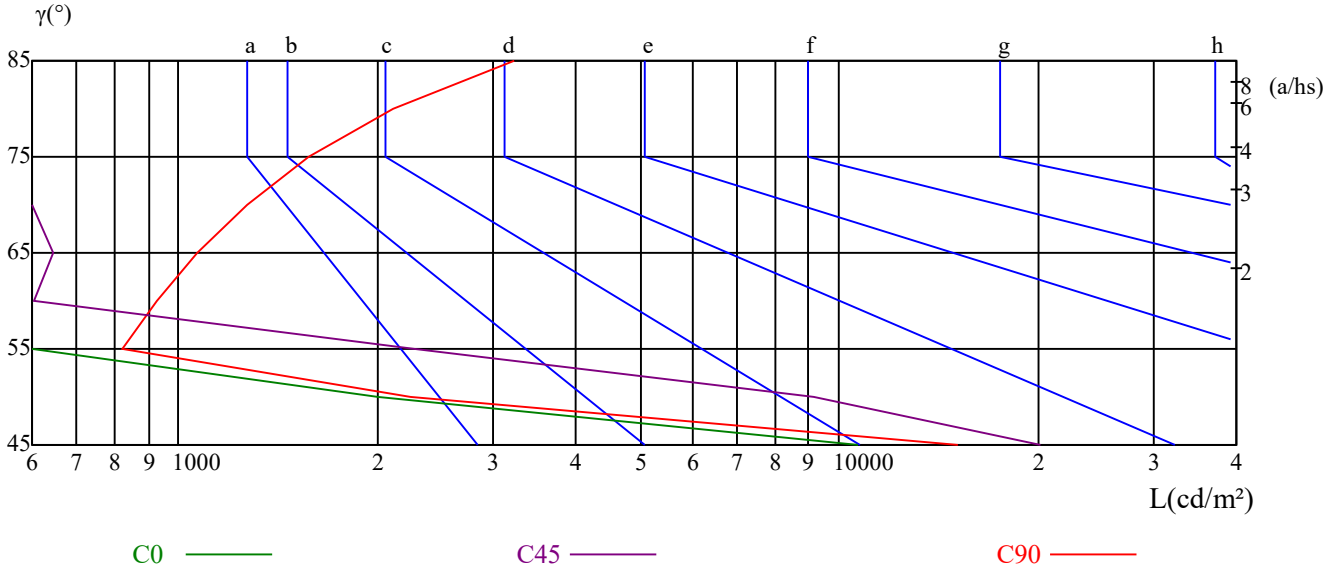
γ	45	50	55	60	65	70	75	80	85
C0	10660	2000	521	547	582	626	682	757	856
C45	20235	9178	2269	602	647	422	781	883	594
C90	15123	2239	823	925	1065	1267	1577	2111	3228

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
1236	1236	1005	2019	2019	2019	5995	5995	4736

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

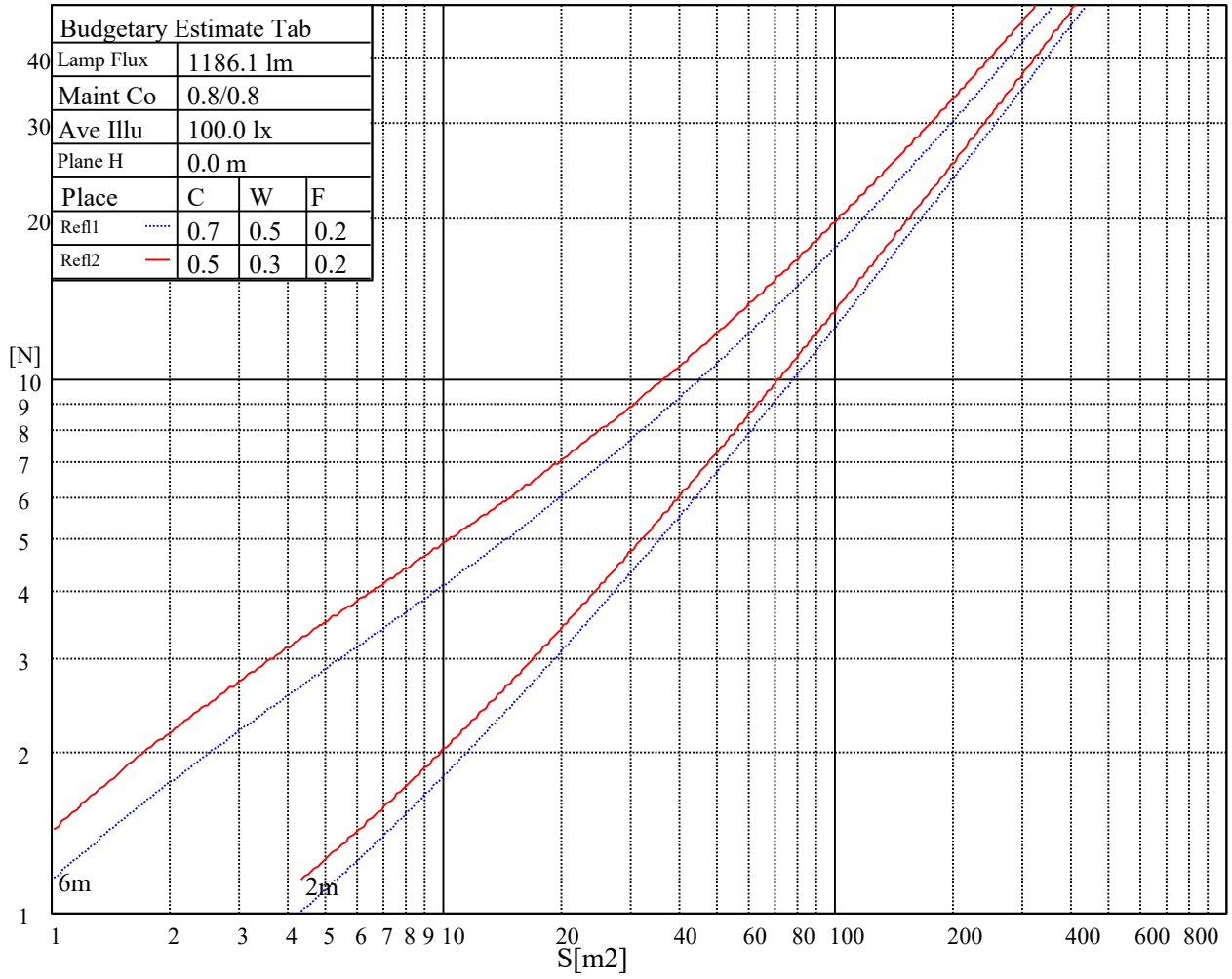
Luminance Limitting Curve



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	17.87	18.98	18.24	19.29	19.60	18.34	19.44	18.70	19.75	20.06
	3H	17.70	18.67	18.08	19.01	19.35	18.16	19.13	18.55	19.47	19.82
	4H	17.61	18.51	18.01	18.86	19.23	18.08	18.98	18.48	19.33	19.70
	6H	17.54	18.37	17.96	18.74	19.14	18.02	18.84	18.43	19.22	19.62
	8H	17.48	18.27	17.90	18.65	19.06	17.96	18.75	18.38	19.14	19.54
	12H	17.42	18.17	17.85	18.56	18.98	17.92	18.67	18.35	19.06	19.48
4H	2H	17.60	18.50	18.00	18.85	19.22	18.06	18.96	18.46	19.31	19.68
	3H	17.39	18.14	17.82	18.53	18.95	17.86	18.60	18.28	18.99	19.41
	4H	17.34	17.98	17.78	18.40	18.85	17.81	18.45	18.24	18.87	19.32
	6H	17.23	17.79	17.70	18.24	18.70	17.71	18.27	18.18	18.73	19.18
	8H	17.19	17.71	17.67	18.17	18.64	17.68	18.21	18.16	18.67	19.14
	12H	17.16	17.65	17.65	18.10	18.61	17.68	18.17	18.17	18.62	19.14
8H	4H	17.15	17.68	17.64	18.14	18.61	17.62	18.15	18.10	18.61	19.08
	6H	17.03	17.47	17.54	17.95	18.46	17.52	17.95	18.02	18.43	18.94
	8H	17.05	17.42	17.58	17.94	18.44	17.55	17.92	18.08	18.44	18.94
	12H	17.03	17.33	17.57	17.84	18.36	17.57	17.87	18.10	18.38	18.90
12H	4H	17.11	17.59	17.59	18.05	18.56	17.57	18.06	18.06	18.51	19.03
	6H	17.03	17.40	17.56	17.92	18.42	17.51	17.88	18.04	18.40	18.90
	8H	17.00	17.30	17.54	17.82	18.34	17.50	17.80	18.04	18.32	18.84
Variation with the observer position at spacings:											
S = 1.0H		3.4/-15.4					3.5/-16.4				
S = 1.5H		5.6/-13.5					5.9/-14.8				
S = 2.0H		7.5/-12.2					7.8/-13.5				
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: GMS1980 Date: 2025/3/18 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.65

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	1.03	1.03	1.03	1.01	1.01	1.01	0.96	0.96	0.96	0.92	0.92	0.92	0.88	0.88	0.88	0.86
1	0.95	0.92	0.90	0.93	0.90	0.88	0.89	0.87	0.86	0.86	0.84	0.83	0.83	0.82	0.81	0.79
2	0.87	0.83	0.79	0.85	0.82	0.79	0.82	0.79	0.77	0.80	0.77	0.75	0.77	0.75	0.74	0.72
3	0.80	0.75	0.71	0.78	0.74	0.70	0.76	0.72	0.69	0.74	0.71	0.68	0.72	0.69	0.67	0.65
4	0.73	0.68	0.64	0.72	0.67	0.63	0.70	0.66	0.62	0.69	0.65	0.62	0.67	0.64	0.61	0.60
5	0.68	0.62	0.58	0.67	0.61	0.57	0.65	0.60	0.57	0.64	0.59	0.56	0.62	0.59	0.56	0.54
6	0.62	0.56	0.52	0.62	0.56	0.52	0.60	0.55	0.52	0.59	0.55	0.51	0.58	0.54	0.51	0.49
7	0.58	0.52	0.48	0.57	0.51	0.47	0.56	0.51	0.47	0.55	0.50	0.47	0.54	0.50	0.47	0.45
8	0.54	0.48	0.44	0.53	0.47	0.43	0.52	0.47	0.43	0.51	0.46	0.43	0.50	0.46	0.43	0.41
9	0.50	0.44	0.40	0.49	0.44	0.40	0.48	0.43	0.40	0.48	0.43	0.40	0.47	0.43	0.39	0.38
10	0.46	0.41	0.37	0.46	0.40	0.37	0.45	0.40	0.37	0.44	0.40	0.36	0.44	0.39	0.36	0.35

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	575.51	576.56	578.38	581.83	585.46	589.03	593.07	596.46	599.74
22.5	569.89	570.54	572.35	576.10	579.08	582.59	585.93	589.79	595.23
45.0	568.55	568.60	569.25	570.48	573.29	575.74	578.20	580.25	582.77
67.5	563.45	564.10	565.33	567.96	570.95	575.33	578.09	580.43	582.94
90.0	558.95	559.53	561.87	565.39	569.25	573.93	576.86	580.02	582.83
112.5	565.80	565.56	563.75	561.41	560.35	562.69	566.38	569.72	574.22
135.0	564.92	563.34	562.64	563.16	565.39	570.95	575.80	579.90	583.24
157.5	570.54	569.19	568.90	569.54	571.00	572.64	574.57	576.27	578.32
180.0	575.51	573.75	572.47	571.94	571.88	572.35	572.12	571.53	570.77
202.5	569.89	570.07	570.24	569.78	569.25	569.01	568.78	567.90	566.32
225.0	568.55	569.25	569.48	569.13	567.73	566.73	565.74	565.56	566.32
247.5	563.45	562.87	563.28	563.92	564.74	565.39	566.09	567.08	568.60
270.0	558.95	558.89	558.54	558.77	559.30	559.65	560.59	561.82	563.92
292.5	565.80	565.56	565.44	565.39	565.44	566.21	568.37	570.65	573.23
315.0	564.92	565.91	566.15	566.50	567.67	569.42	571.00	571.88	573.52
337.5	570.54	571.59	572.76	575.22	577.85	580.89	582.83	584.82	587.27
360.0	575.51	576.56	578.38	581.83	585.46	589.03	593.07	596.46	599.74

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	603.31	605.77	608.52	612.20	617.94	622.85	627.83	633.45	641.82
22.5	599.50	603.43	607.29	612.15	616.24	620.46	625.31	632.39	638.30
45.0	586.22	594.06	601.38	606.64	610.92	617.24	623.21	629.29	635.09
67.5	586.22	590.73	595.23	600.44	605.77	611.21	615.83	621.74	627.01
90.0	585.93	590.84	596.52	602.72	608.99	615.77	621.39	627.71	634.09
112.5	578.96	584.23	588.85	593.59	597.16	601.79	608.69	613.78	618.99
135.0	584.99	587.33	589.67	592.60	595.88	599.33	603.95	608.22	611.85
157.5	580.25	582.24	583.53	584.29	585.87	588.44	592.36	596.29	602.90
180.0	570.95	572.23	574.57	576.97	580.13	584.99	588.62	592.42	597.87
202.5	565.91	568.66	573.52	580.95	585.40	587.80	590.55	593.77	598.04
225.0	567.32	568.37	570.83	573.58	575.98	579.08	582.42	586.63	590.32
247.5	570.54	574.05	577.68	582.12	587.92	591.02	593.48	596.34	600.44
270.0	566.09	568.84	571.59	575.57	579.72	584.11	587.62	590.90	594.59
292.5	575.63	578.61	581.19	584.11	588.15	591.43	595.47	601.67	606.53
315.0	575.51	578.49	581.25	584.93	588.39	592.60	596.93	602.49	607.58
337.5	591.19	594.71	598.69	602.84	607.41	613.20	618.52	624.26	631.63
360.0	603.31	605.77	608.52	612.20	617.94	622.85	627.83	633.45	641.82

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	648.84	657.97	665.11	671.72	679.50	685.42	690.27	694.14	696.01
22.5	644.22	652.00	658.73	665.69	673.71	679.10	684.01	686.76	686.88
45.0	642.46	648.55	656.21	660.72	663.94	667.62	668.80	667.45	664.82
67.5	632.04	638.42	644.10	651.77	656.80	659.20	660.25	660.84	660.54
90.0	639.77	646.26	651.47	658.50	663.06	666.04	666.51	665.63	663.12
112.5	626.54	632.63	639.07	643.69	647.90	652.12	657.27	660.13	661.36
135.0	615.42	620.28	624.90	630.29	636.55	640.59	643.86	644.86	644.45
157.5	609.75	616.94	625.84	632.39	638.30	644.22	651.82	657.32	661.48
180.0	602.96	608.05	613.37	620.22	626.95	633.74	640.47	649.25	655.51
202.5	603.31	610.51	616.89	623.09	631.22	638.07	644.04	649.95	653.29
225.0	594.35	598.39	603.54	607.58	612.03	616.36	621.27	624.73	627.71
247.5	604.65	609.63	614.66	621.51	626.42	626.19	626.54	629.35	630.35
270.0	599.45	604.24	610.21	615.13	619.99	623.67	626.78	628.47	629.59
292.5	610.86	614.84	617.65	620.51	623.15	626.13	627.89	628.71	627.89
315.0	613.20	618.82	625.66	630.76	634.74	638.48	641.29	642.34	642.34
337.5	637.19	645.27	651.59	656.97	662.30	665.58	667.62	668.09	667.74
360.0	648.84	657.97	665.11	671.72	679.50	685.42	690.27	694.14	696.01

Intensity data(cd)

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	694.37	688.17	674.00	657.44	635.32	606.82	572.82	524.65	481.00
22.5	685.06	679.86	672.19	660.89	647.43	626.19	604.60	579.14	548.94
45.0	660.37	654.75	645.74	630.76	616.77	599.68	579.84	549.29	521.67
67.5	658.44	651.53	643.45	632.39	618.52	599.09	583.00	563.63	533.73
90.0	657.44	650.36	640.12	627.42	604.54	580.37	552.16	520.73	478.54
112.5	660.78	656.39	649.37	639.18	626.19	607.05	589.32	562.75	538.76
135.0	641.82	637.25	630.23	621.27	607.76	594.94	579.31	560.65	536.07
157.5	663.35	663.65	661.48	657.15	651.18	640.41	624.73	609.98	592.19
180.0	661.25	666.81	669.38	670.14	668.39	663.35	654.11	636.08	617.94
202.5	655.33	656.10	654.93	651.12	642.40	631.46	619.05	604.30	580.25
225.0	630.52	631.87	631.46	629.12	625.14	616.48	607.87	596.64	582.94
247.5	628.41	625.20	619.69	612.91	603.37	587.27	570.59	550.35	522.84
270.0	630.11	629.06	625.08	618.99	610.16	592.72	575.69	554.09	528.05
292.5	623.56	617.88	610.68	598.22	585.58	566.85	549.99	531.15	503.00
315.0	640.70	638.01	632.92	626.19	617.24	606.41	589.26	572.35	552.80
337.5	665.63	661.36	654.16	644.22	626.95	607.87	577.91	549.64	517.98
360.0	694.37	688.17	674.00	657.44	635.32	606.82	572.82	524.65	481.00

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	422.42	373.96	325.33	264.81	219.93	179.14	133.72	101.54	72.74
22.5	507.33	471.28	432.07	380.69	339.49	287.81	247.90	209.39	172.93
45.0	491.18	451.03	417.21	373.14	339.02	305.55	272.42	240.29	202.25
67.5	504.82	473.21	430.96	396.37	360.85	316.78	282.31	248.31	214.72
90.0	444.01	398.30	359.50	322.05	276.81	241.00	207.81	167.26	135.60
112.5	512.01	474.32	443.42	412.12	379.93	338.14	304.96	272.54	240.88
135.0	514.12	490.59	457.65	428.38	397.72	358.63	326.79	288.28	258.61
157.5	570.77	540.05	512.07	479.77	444.60	408.37	363.37	326.38	289.16
180.0	594.06	564.63	523.37	486.85	446.18	402.93	347.62	302.09	247.08
202.5	558.19	532.32	501.13	457.88	422.18	385.08	337.15	298.46	250.48
225.0	566.21	540.51	517.10	491.24	462.85	423.88	390.64	348.79	316.49
247.5	498.26	471.81	442.90	402.93	369.86	336.68	302.56	259.02	224.20
270.0	492.76	459.81	425.34	392.39	355.41	309.29	271.43	224.02	189.79
292.5	478.19	450.80	420.89	381.33	347.45	312.74	277.34	233.68	200.15
315.0	531.50	501.89	475.90	448.11	411.30	379.46	338.14	304.84	273.65
337.5	474.38	437.75	399.42	348.50	305.43	263.29	222.80	174.98	140.40
360.0	422.42	373.96	325.33	264.81	219.93	179.14	133.72	101.54	72.74

C/γ(°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0
0.0	47.87	24.99	14.16	8.72	6.73	5.68	5.15	4.56	4.27
22.5	130.45	100.95	75.14	53.20	31.02	18.79	11.35	6.96	5.85
45.0	173.93	147.77	118.57	98.20	79.77	63.50	46.35	34.41	22.77
67.5	175.04	145.43	117.45	90.89	61.74	42.37	27.51	15.45	10.18
90.0	106.34	79.24	49.92	31.72	19.02	11.59	7.67	6.50	5.68
112.5	202.37	173.11	145.19	112.13	87.26	64.37	40.79	26.57	16.80
135.0	228.94	200.79	174.57	144.14	121.55	101.65	84.57	65.90	52.73
157.5	243.34	207.99	173.46	133.20	104.11	78.13	52.14	35.70	23.17
180.0	206.58	167.73	124.13	94.57	68.71	46.47	25.52	14.69	8.66
202.5	213.84	180.25	148.30	111.72	86.15	63.56	44.30	25.81	15.80
225.0	284.83	246.26	217.18	189.67	157.78	133.90	112.25	92.58	70.52
247.5	189.91	150.70	121.96	89.31	65.90	44.36	25.28	11.53	7.61
270.0	155.73	117.34	88.60	62.44	40.50	20.60	10.07	7.02	5.91
292.5	168.60	131.27	103.70	73.15	51.73	33.88	18.49	8.72	6.50
315.0	236.31	207.52	179.72	153.74	123.48	101.36	81.11	62.56	42.84
337.5	109.32	81.58	52.20	33.36	17.56	10.59	7.08	5.62	5.03
360.0	47.87	24.99	14.16	8.72	6.73	5.68	5.15	4.56	4.27

Intensity data(cd)

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	4.04	3.92	3.80	3.80	3.75	3.69	3.63	3.57	3.57
22.5	5.21	4.68	4.27	4.10	3.92	3.86	3.80	3.75	3.69
45.0	15.80	10.71	6.79	5.33	4.62	4.21	3.92	3.80	3.69
67.5	7.20	6.09	5.38	4.80	4.21	4.04	3.92	3.92	3.80
90.0	4.97	4.51	4.27	4.10	4.04	3.92	3.86	3.80	3.80
112.5	9.77	7.26	6.14	5.44	4.74	4.33	4.10	3.98	3.92
135.0	40.91	27.97	19.72	13.40	8.25	6.03	4.80	4.33	4.04
157.5	12.87	8.19	6.20	5.44	4.74	4.39	4.16	3.92	3.86
180.0	6.32	5.38	4.86	4.45	4.10	3.98	3.86	3.80	3.75
202.5	9.66	6.50	5.21	4.68	4.27	3.98	3.86	3.75	3.75
225.0	55.25	42.08	30.78	19.37	12.82	8.54	5.62	4.68	4.16
247.5	6.09	5.38	4.74	4.33	4.10	3.92	3.86	3.80	3.75
270.0	5.21	4.74	4.33	4.10	4.04	3.98	3.92	3.80	3.80
292.5	5.56	5.03	4.39	4.10	3.98	3.92	3.80	3.75	3.69
315.0	29.96	20.01	11.47	7.37	5.44	4.45	4.10	3.86	3.75
337.5	4.56	4.16	3.98	3.80	3.80	3.75	3.69	3.63	3.63
360.0	4.04	3.92	3.80	3.80	3.75	3.69	3.63	3.57	3.57

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	3.51	3.51	3.51	3.51	3.51	3.45	3.45	3.45	3.45
22.5	3.63	3.57	3.57	3.51	3.51	3.51	3.45	3.51	3.45
45.0	3.63	3.63	3.63	3.57	3.51	3.45	3.45	3.45	3.45
67.5	3.75	3.69	3.69	3.63	3.63	3.63	3.63	3.51	3.57
90.0	3.75	3.75	3.69	3.63	3.63	3.63	3.63	3.57	3.57
112.5	3.86	3.80	3.75	3.69	3.69	3.69	3.63	3.63	3.57
135.0	3.86	3.75	3.69	3.63	3.63	3.63	3.57	3.51	3.51
157.5	3.80	3.75	3.69	3.69	3.63	3.57	3.57	3.57	3.51
180.0	3.69	3.69	3.63	3.63	3.63	3.57	3.57	3.57	3.57
202.5	3.69	3.63	3.57	3.51	3.51	3.51	3.51	3.45	3.51
225.0	3.92	3.75	3.69	3.63	3.57	3.57	3.51	3.51	3.51
247.5	3.75	3.69	3.63	3.63	3.57	3.57	3.57	3.51	3.51
270.0	3.75	3.69	3.69	3.63	3.63	3.63	3.63	3.57	3.57
292.5	3.69	3.63	3.57	3.57	3.57	3.57	3.51	3.51	3.51
315.0	3.69	3.63	3.63	3.57	3.57	3.51	3.51	3.51	3.51
337.5	3.57	3.51	3.51	3.51	3.51	3.45	3.51	3.45	3.45
360.0	3.51	3.51	3.51	3.51	3.51	3.45	3.45	3.45	3.45

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	3.45	3.45	3.45	3.39	3.39	3.39	3.39	3.39	3.39
22.5	3.45	3.45	3.39	3.39	3.39	3.39	3.39	3.39	3.39
45.0	3.45	3.45	3.39	3.39	3.39	3.39	3.39	3.39	3.39
67.5	3.51	3.51	3.51	3.51	3.51	3.45	3.45	3.45	3.45
90.0	3.57	3.57	3.57	3.51	3.51	3.51	3.51	3.45	3.45
112.5	3.57	3.57	3.51	3.51	3.51	3.51	3.51	3.51	3.51
135.0	3.51	3.51	3.51	3.45	3.45	3.45	3.45	3.45	3.39
157.5	3.51	3.51	3.51	3.51	3.45	3.45	3.45	3.45	3.45
180.0	3.51	3.51	3.45	3.45	3.45	3.45	3.39	3.45	3.39
202.5	3.45	3.45	3.45	3.45	3.39	3.39	3.39	3.39	3.39
225.0	3.51	3.45	3.45	3.45	3.45	3.45	3.45	3.39	3.45
247.5	3.51	3.51	3.45	3.45	3.45	3.45	3.45	3.45	3.45
270.0	3.57	3.57	3.51	3.57	3.51	3.51	3.51	3.45	3.51
292.5	3.45	3.51	3.51	3.51	3.51	3.45	3.45	3.45	3.45
315.0	3.45	3.45	3.45	3.45	3.39	3.45	3.45	3.45	3.45
337.5	3.45	3.45	3.45	3.45	3.39	3.39	3.39	3.45	3.39
360.0	3.45	3.45	3.45	3.39	3.39	3.39	3.39	3.39	3.39

Intensity data(cd)

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	3.39	3.39	3.39	3.34	3.39	3.34	3.39	3.39	3.39
22.5	3.39	3.39	3.34	3.39	3.39	3.39	3.34	3.39	3.39
45.0	3.39	3.39	3.39	3.39	3.39	3.34	3.39	3.39	3.39
67.5	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45
90.0	3.51	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45
112.5	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45
135.0	3.39	3.39	3.39	3.45	3.39	3.39	3.39	3.39	3.39
157.5	3.45	3.39	3.39	3.39	3.39	3.39	3.39	3.39	3.39
180.0	3.39	3.39	3.39	3.34	3.34	3.39	3.34	3.34	3.34
202.5	3.39	3.39	3.39	3.39	3.39	3.39	3.39	3.39	3.34
225.0	3.39	3.39	3.39	3.39	3.39	3.39	3.39	3.39	3.39
247.5	3.45	3.45	3.45	3.45	3.39	3.45	3.45	3.45	3.45
270.0	3.51	3.51	3.45	3.51	3.45	3.45	3.45	3.45	3.45
292.5	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45
315.0	3.39	3.39	3.39	3.39	3.39	3.45	3.45	3.45	3.39
337.5	3.39	3.39	3.39	3.39	3.39	3.39	3.39	3.39	3.39
360.0	3.39	3.39	3.39	3.34	3.39	3.34	3.39	3.39	3.39

C/γ(°)	90.0
0.0	3.34
22.5	3.39
45.0	3.39
67.5	3.39
90.0	3.45
112.5	3.45
135.0	3.39
157.5	3.39
180.0	3.39
202.5	3.39
225.0	3.34
247.5	3.45
270.0	3.45
292.5	3.45
315.0	3.45
337.5	3.39
360.0	3.34