NATA LIGHTING CO.,LTD.
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Address:Address:380JinOu Road,GaoXin Zone,Jiang Men City,Guangdong,China

NT

Client: NT
LumCAT: 61-0174
Luminaire:
Report No: 20260328-B007
Ballast type: AC

Test No: 20260328-C007	Voltage(V): 3.800
LampCAT: LUMINUS SFT-12R	Current(A): 0.706
Lamp flux(lm): 303.5	Power (W): 2.682
Number of Lamps: 1	PF: 0.000
Length(mm): 35	Width(mm): 35
Phm Type: C	Height(mm): 18

Photometric Results

Lumens(lm): 293.99, Efficiency(%): 96.87% , Luminous Efficacy(lm/W): 109.62
Central intensity(cd): 25752.380, Maximum intensity(cd): 32316.750
Angle of maximum intensity: C=270.0 γ=1.0
Beam Angle(50%Imax): [C0/180]Total=2.8
[C90/270]Total=2.1
Field angle(10%Imax): [C0/180]Total=7.0
[C90/270]Total=7.7
Maximum s/h(1/2): C0_180=0.09 C90_270=0.08
Maximum s/h(1/4): C0_180=0.07 C90_270=0.07
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 97.37%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 95.353%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	22641.455	0.000	0	0.00%	0.00%
1.0	18898.004	19.876	19.876	6.55%	6.76%
2.0	12591.113	45.196	65.072	14.89%	22.13%
3.0	3950.198	39.561	104.633	13.04%	35.59%
4.0	3407.484	24.629	129.262	8.11%	43.97%
5.0	2432.911	25.125	154.387	8.28%	52.51%
6.0	946.146	17.758	172.145	5.85%	58.55%
7.0	766.631	10.631	182.776	3.50%	62.17%
8.0	627.877	9.980	192.756	3.29%	65.57%
9.0	515.496	9.266	202.023	3.05%	68.72%
10.0	420.504	8.470	210.493	2.79%	71.60%
11.0	341.100	7.610	218.103	2.51%	74.19%
12.0	270.689	6.688	224.791	2.20%	76.46%
13.0	230.337	5.946	230.737	1.96%	78.48%
14.0	185.723	5.326	236.062	1.75%	80.30%
15.0	135.260	4.407	240.469	1.45%	81.80%
16.0	109.870	3.592	244.061	1.18%	83.02%
17.0	92.334	3.149	247.21	1.04%	84.09%
18.0	76.134	2.778	249.987	0.92%	85.03%
19.0	64.709	2.450	252.438	0.81%	85.87%
20.0	55.406	2.198	254.636	0.72%	86.61%
21.0	48.178	1.989	256.625	0.66%	87.29%
22.0	41.850	1.809	258.434	0.60%	87.91%
23.0	35.536	1.624	260.058	0.54%	88.46%
24.0	30.656	1.447	261.505	0.48%	88.95%
25.0	27.084	1.313	262.818	0.43%	89.40%
26.0	23.611	1.197	264.015	0.39%	89.80%
27.0	20.236	1.073	265.088	0.35%	90.17%
28.0	17.557	0.957	266.044	0.32%	90.49%
29.0	15.595	0.867	266.912	0.29%	90.79%
30.0	13.957	0.798	267.71	0.26%	91.06%
31.0	12.452	0.735	268.445	0.24%	91.31%
32.0	11.257	0.679	269.124	0.22%	91.54%
33.0	10.202	0.632	269.756	0.21%	91.76%
34.0	9.408	0.593	270.349	0.20%	91.96%
35.0	8.726	0.563	270.913	0.19%	92.15%
36.0	8.100	0.536	271.448	0.18%	92.33%
37.0	7.594	0.512	271.96	0.17%	92.51%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	7.158	0.492	272.453	0.16%	92.67%
39.0	6.722	0.474	272.926	0.16%	92.84%
40.0	6.420	0.458	273.385	0.15%	92.99%
41.0	6.110	0.446	273.831	0.15%	93.14%
42.0	5.864	0.435	274.266	0.14%	93.29%
43.0	5.660	0.427	274.693	0.14%	93.44%
44.0	5.470	0.420	275.113	0.14%	93.58%
45.0	5.330	0.415	275.528	0.14%	93.72%
46.0	5.175	0.411	275.939	0.14%	93.86%
47.0	5.055	0.407	276.346	0.13%	94.00%
48.0	4.971	0.405	276.751	0.13%	94.14%
49.0	4.894	0.405	277.156	0.13%	94.27%
50.0	4.887	0.408	277.564	0.13%	94.41%
51.0	4.838	0.411	277.975	0.14%	94.55%
52.0	4.781	0.413	278.388	0.14%	94.69%
53.0	4.760	0.415	278.803	0.14%	94.83%
54.0	4.746	0.419	279.222	0.14%	94.98%
55.0	4.739	0.423	279.645	0.14%	95.12%
56.0	4.718	0.427	280.073	0.14%	95.27%
57.0	4.669	0.429	280.502	0.14%	95.41%
58.0	4.627	0.430	280.932	0.14%	95.56%
59.0	4.584	0.431	281.362	0.14%	95.71%
60.0	4.556	0.432	281.794	0.14%	95.85%
61.0	4.563	0.435	282.229	0.14%	96.00%
62.0	4.542	0.439	282.668	0.14%	96.15%
63.0	4.549	0.442	283.11	0.15%	96.30%
64.0	4.542	0.446	283.557	0.15%	96.45%
65.0	4.563	0.451	284.007	0.15%	96.60%
66.0	4.584	0.456	284.464	0.15%	96.76%
67.0	4.669	0.465	284.929	0.15%	96.92%
68.0	4.760	0.478	285.406	0.16%	97.08%
69.0	4.873	0.491	285.898	0.16%	97.25%
70.0	4.859	0.500	286.398	0.16%	97.42%
71.0	4.795	0.499	286.897	0.16%	97.59%
72.0	4.781	0.498	287.395	0.16%	97.76%
73.0	4.704	0.496	287.891	0.16%	97.93%
74.0	4.634	0.491	288.381	0.16%	98.09%
75.0	4.500	0.483	288.864	0.16%	98.26%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	4.380	0.471	289.335	0.16%	98.42%
77.0	4.226	0.459	289.794	0.15%	98.57%
78.0	4.029	0.442	290.236	0.15%	98.72%
79.0	3.825	0.422	290.658	0.14%	98.87%
80.0	3.635	0.402	291.06	0.13%	99.00%
81.0	3.417	0.381	291.442	0.13%	99.13%
82.0	3.234	0.361	291.802	0.12%	99.26%
83.0	3.045	0.341	292.144	0.11%	99.37%
84.0	2.869	0.322	292.466	0.11%	99.48%
85.0	2.644	0.301	292.767	0.10%	99.58%
86.0	2.454	0.279	293.045	0.09%	99.68%
87.0	2.299	0.260	293.306	0.09%	99.77%
88.0	2.166	0.245	293.55	0.08%	99.85%
89.0	1.976	0.227	293.777	0.07%	99.93%
90.0	1.877	0.211	293.988	0.07%	100.00%

Zonal flux distribution table

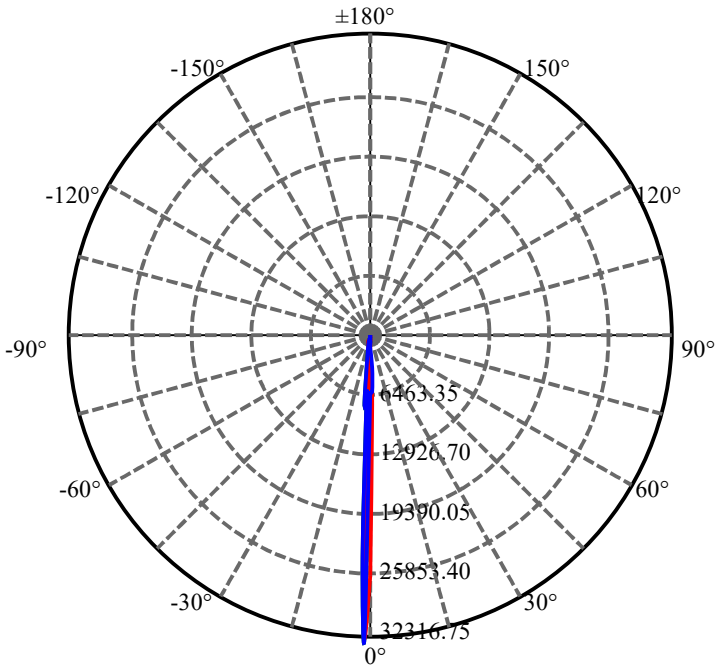
ZONAL LUMEN SUMMARY

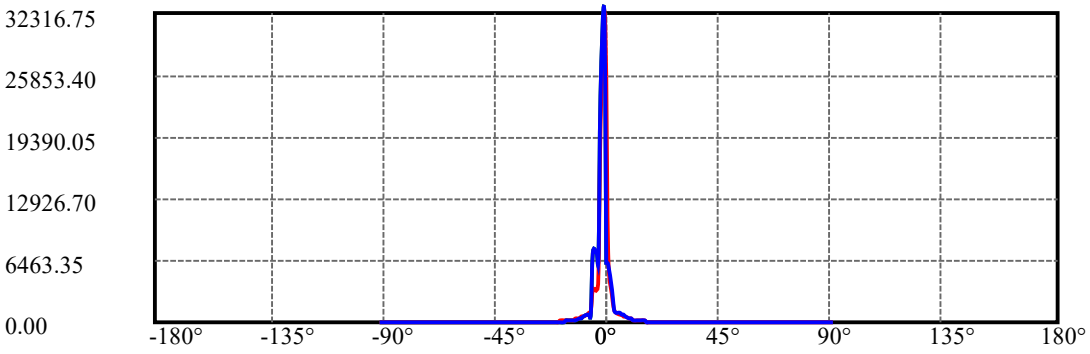
Zone	Lumens	%Lamp	%Fixt
0-30	267.71	88.21%	91.06%
0-40	273.38	90.08%	92.99%
0-60	281.79	92.85%	95.85%
0-90	293.78	96.80%	99.93%
0-120	293.78	96.80%	99.93%
0-180	293.99	96.87%	100.00%
60-90	11.98	3.95%	4.08%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-13.84	235.19	77.49%	80.00%

ZONAL LUMEN SUMMARY

0-10	210.49
10-20	44.14
20-30	13.07
30-40	5.68
40-50	4.18
50-60	4.23
60-70	4.60
70-80	4.66
80-90	2.72
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]





C270(Max):

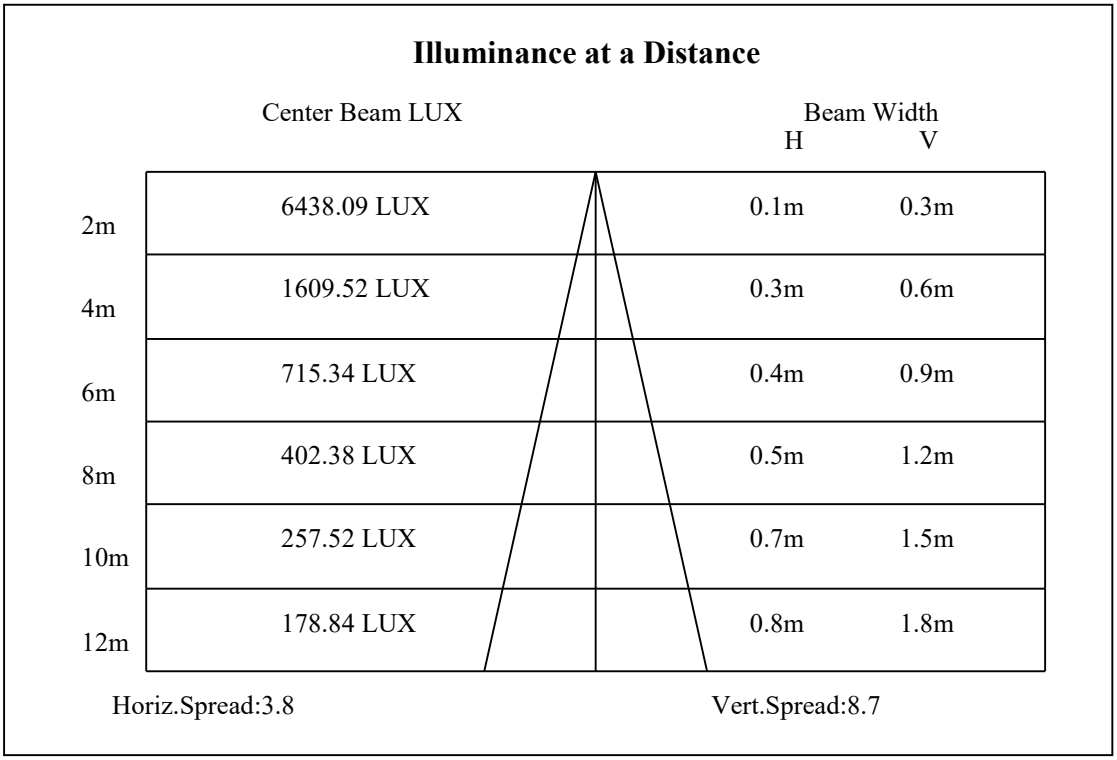
C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:4.1 Right:2.9
:C90/270Left:4.6 Right:3.1

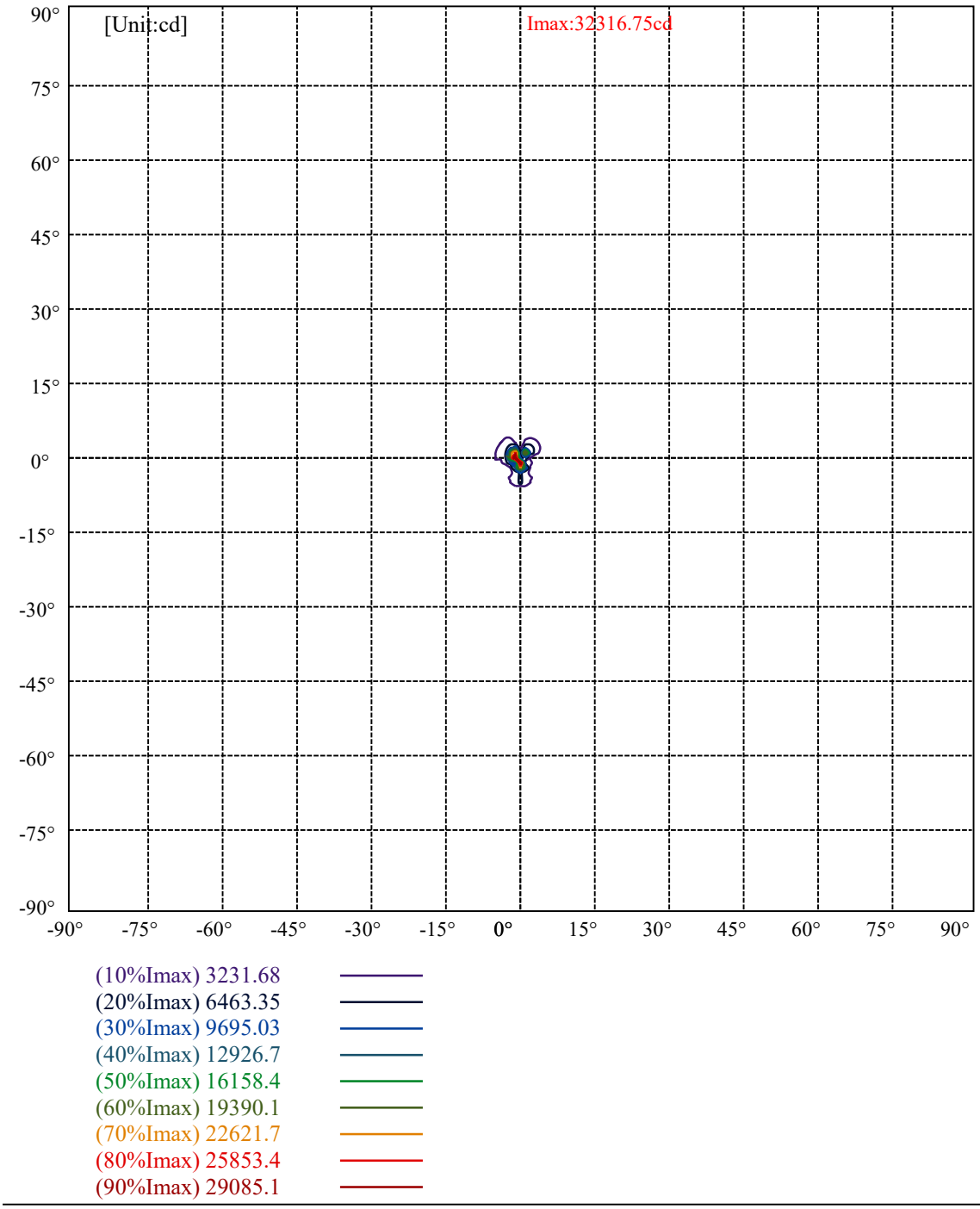
Beam Angle(50%Imax):C0/180Left:1.3 Right:1.5
:C90/270Left:1.5 Right:0.6

Lux distance Curve



Equipment: GMS 1800 Date: 2026/3/28 Operator: 杨泽全
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.50

ISO-Intensity(V-H)

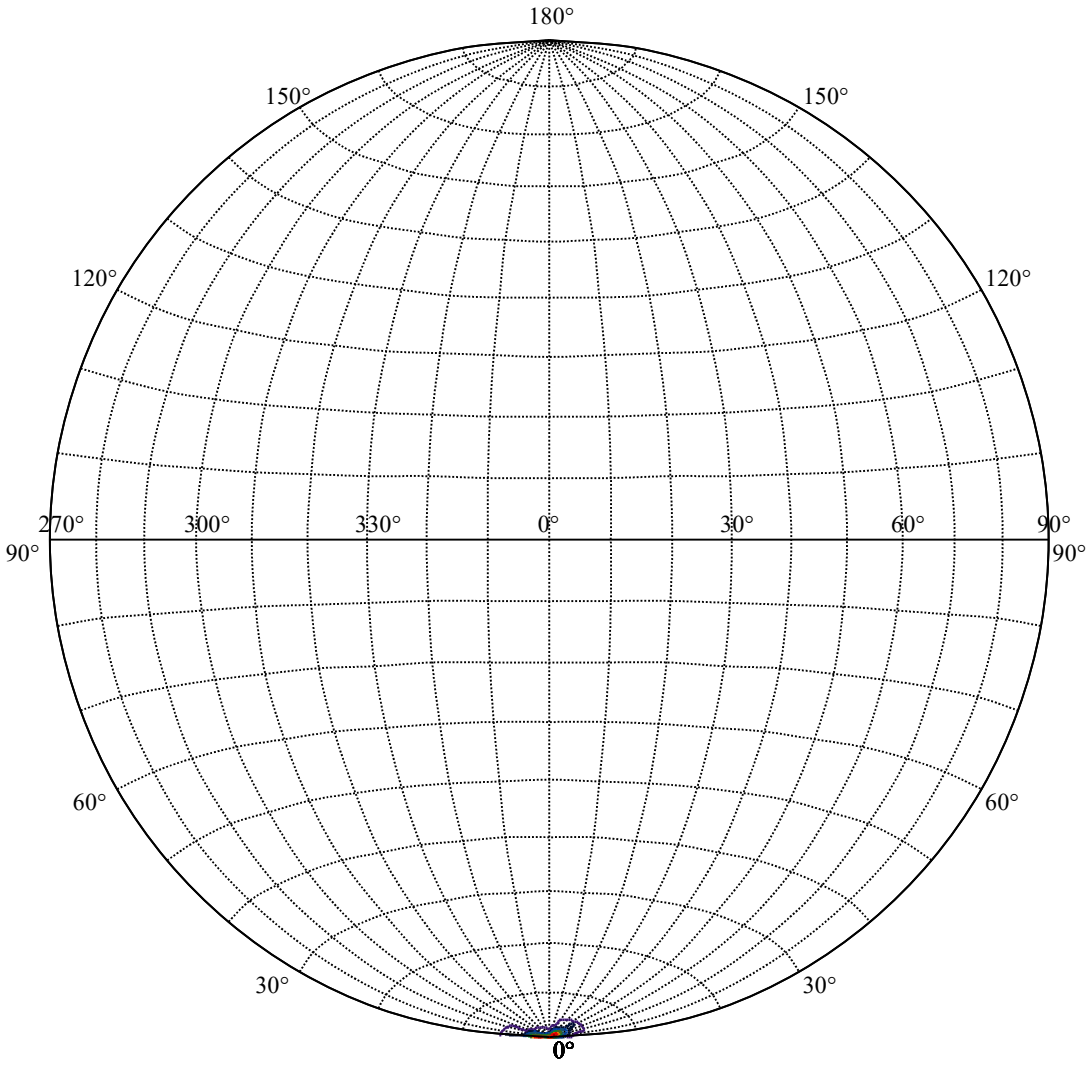


Equipment: GMS 1800
Temperature(°C): 25.0

Date: 2026/3/28
Humidity(%): 60.0%

Operator: 杨泽全
Distance(m): 7.50

ISO candela diagram on circular web



House [Unit:cd] Road

Imax:32316.75

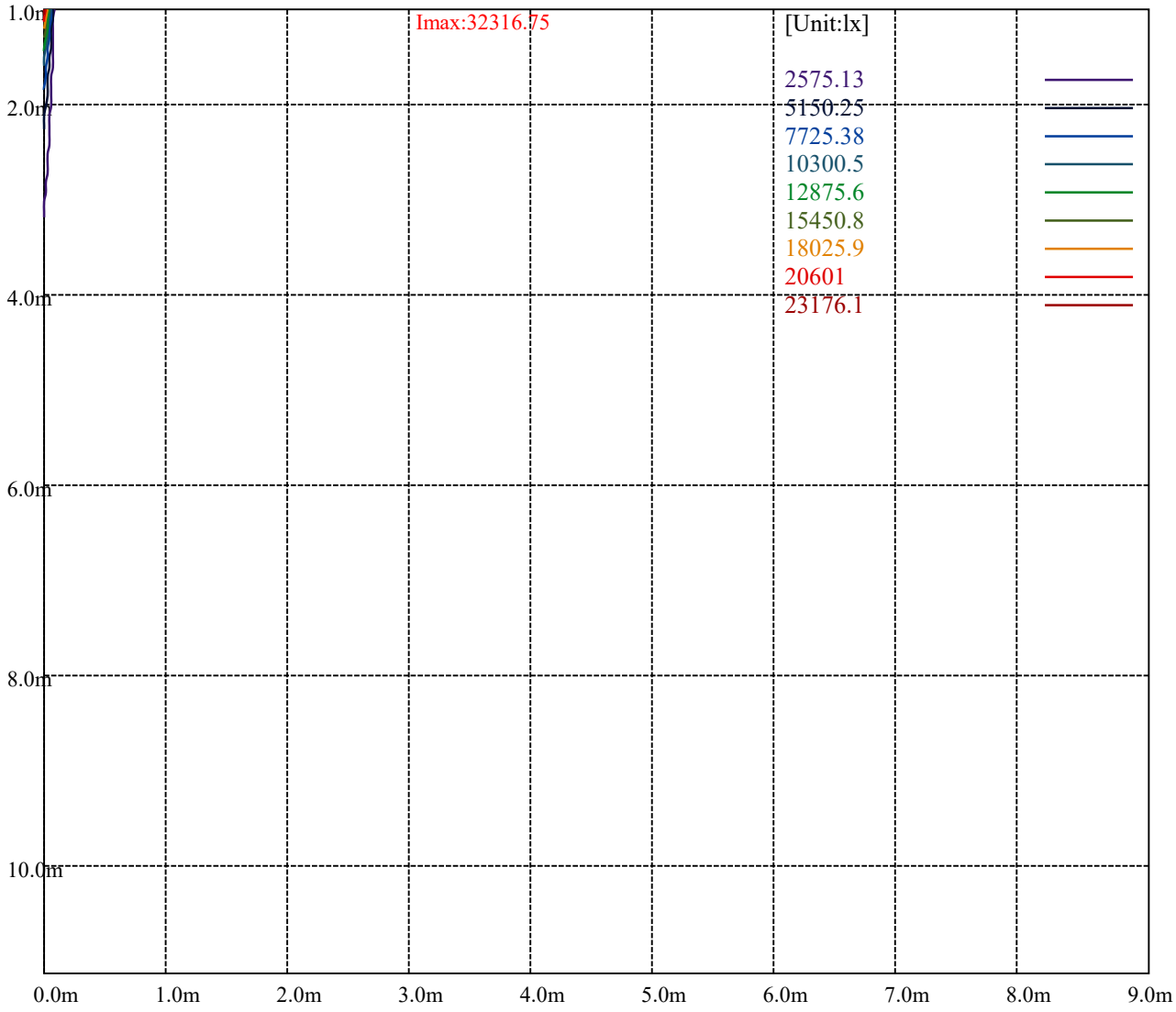
(10%Imax) 3231.56
(20%Imax) 6463.13
(30%Imax) 9694.69
(40%Imax) 12926.3
(50%Imax) 16157.8
(60%Imax) 19389.4
(70%Imax) 22620.9
(80%Imax) 25852.5
(90%Imax) 29084.1

Equipment: GMS 1800
Temperature(°C): 25.0

Date: 2026/3/28
Humidity(%): 60.0%

Operator: 杨泽全
Distance(m): 7.50

Space ISO Lux diagram



Equipment: GMS 1800
Temperature(°C): 25.0

Date: 2026/3/28
Humidity(%): 60.0%

Operator: 杨泽全
Distance(m): 7.50

NT NT 61-0174

Luminance Limitting Curve(no luminous side)

Luminance Table

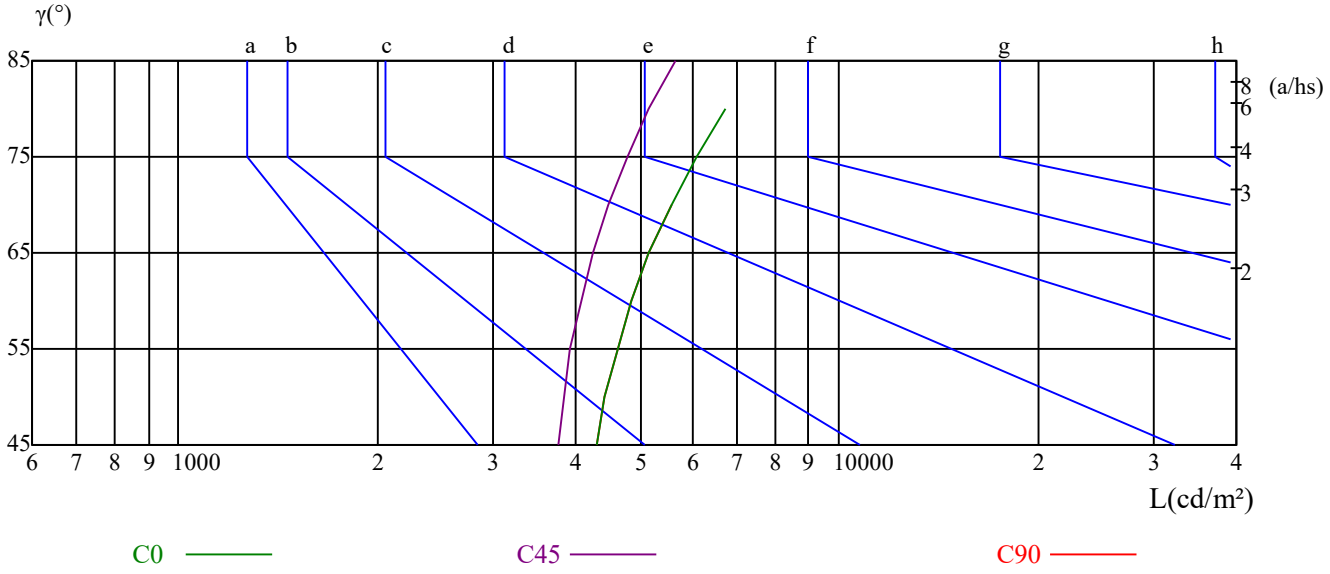
γ	45	50	55	60	65	70	75	80	85
C0	4288	4429	4616	4857	5167	5564	6077	6752	0
C45	3760	3827	3927	4064	4245	4478	4776	5160	5657
C90	4288	4429	4616	4857	5167	5564	0	0	0

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
10865	10865	10865	26612	8871	17741	26343	0	26343

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

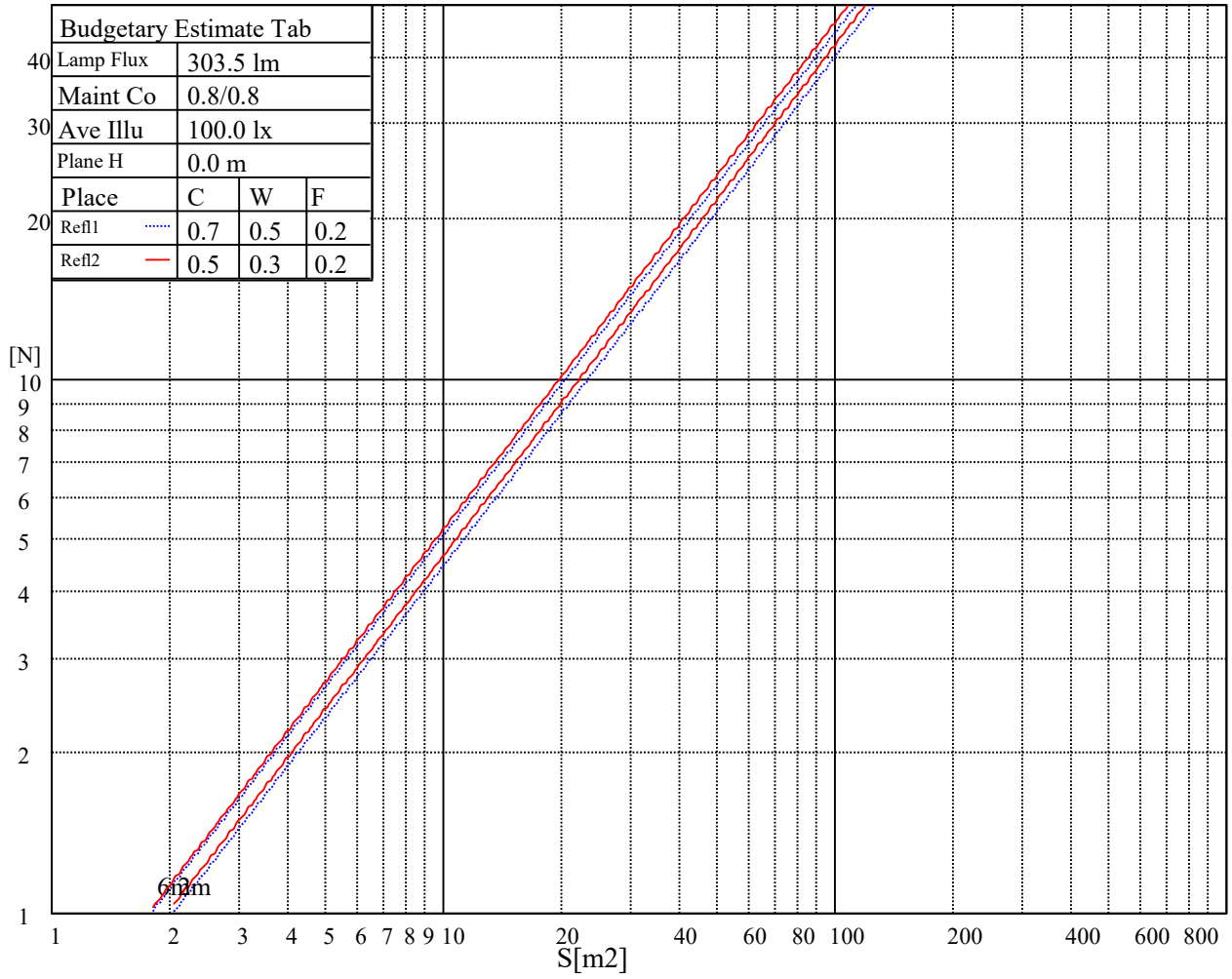


Equipment: GMS 1800
Temperature(°C): 25.0

Date: 2026/3/28
Humidity(%): 60.0%

Operator: 杨泽全
Distance(m): 7.50

Budgetary Estimate Table



Equipment: GMS 1800
Temperature(°C): 25.0

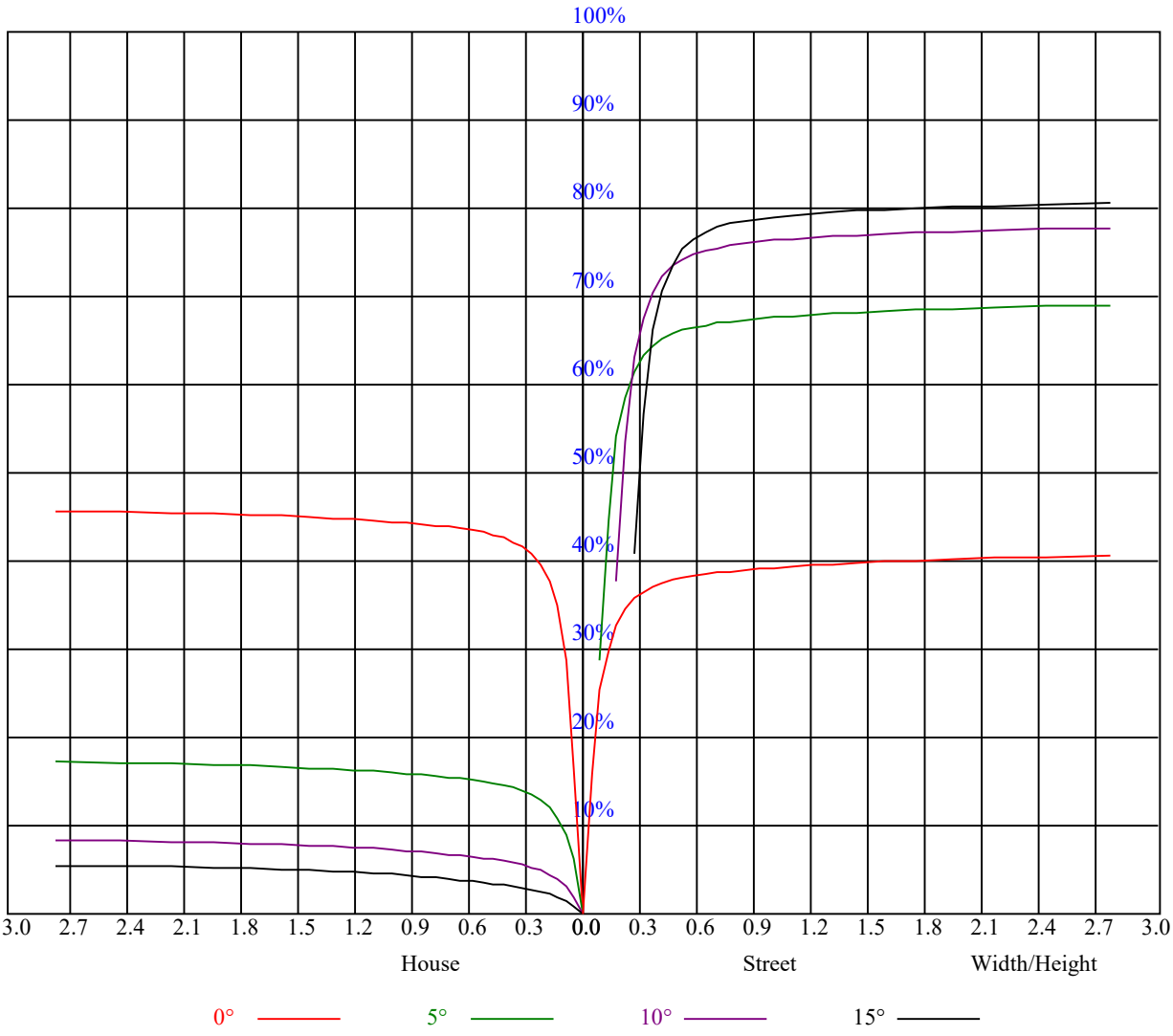
Date: 2026/3/28
Humidity(%): 60.0%

Operator: 杨泽全
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	1.16	1.16	1.16	1.13	1.13	1.13	1.08	1.08	1.08	1.04	1.04	1.04	0.99	0.99	0.99	0.97
1	1.09	1.08	1.06	1.07	1.06	1.04	1.04	1.02	1.01	1.00	0.99	0.98	0.97	0.96	0.95	0.93
2	1.05	1.02	1.00	1.03	1.01	0.98	1.00	0.98	0.96	0.97	0.96	0.94	0.95	0.94	0.92	0.91
3	1.01	0.98	0.95	1.00	0.97	0.95	0.98	0.95	0.93	0.95	0.93	0.92	0.93	0.92	0.90	0.89
4	0.98	0.95	0.92	0.97	0.94	0.92	0.95	0.93	0.91	0.94	0.91	0.90	0.92	0.90	0.89	0.88
5	0.96	0.92	0.90	0.95	0.92	0.89	0.94	0.91	0.89	0.92	0.90	0.88	0.91	0.89	0.87	0.86
6	0.94	0.90	0.88	0.93	0.90	0.88	0.92	0.89	0.87	0.91	0.89	0.87	0.90	0.88	0.86	0.85
7	0.92	0.89	0.86	0.92	0.89	0.86	0.91	0.88	0.86	0.90	0.87	0.85	0.89	0.87	0.85	0.84
8	0.91	0.87	0.85	0.90	0.87	0.85	0.89	0.87	0.85	0.89	0.86	0.84	0.88	0.86	0.84	0.83
9	0.89	0.86	0.84	0.89	0.86	0.84	0.88	0.86	0.84	0.88	0.85	0.84	0.87	0.85	0.83	0.83
10	0.88	0.85	0.83	0.88	0.85	0.83	0.87	0.85	0.83	0.87	0.84	0.83	0.86	0.84	0.83	0.82

Coefficient Utilization Curve

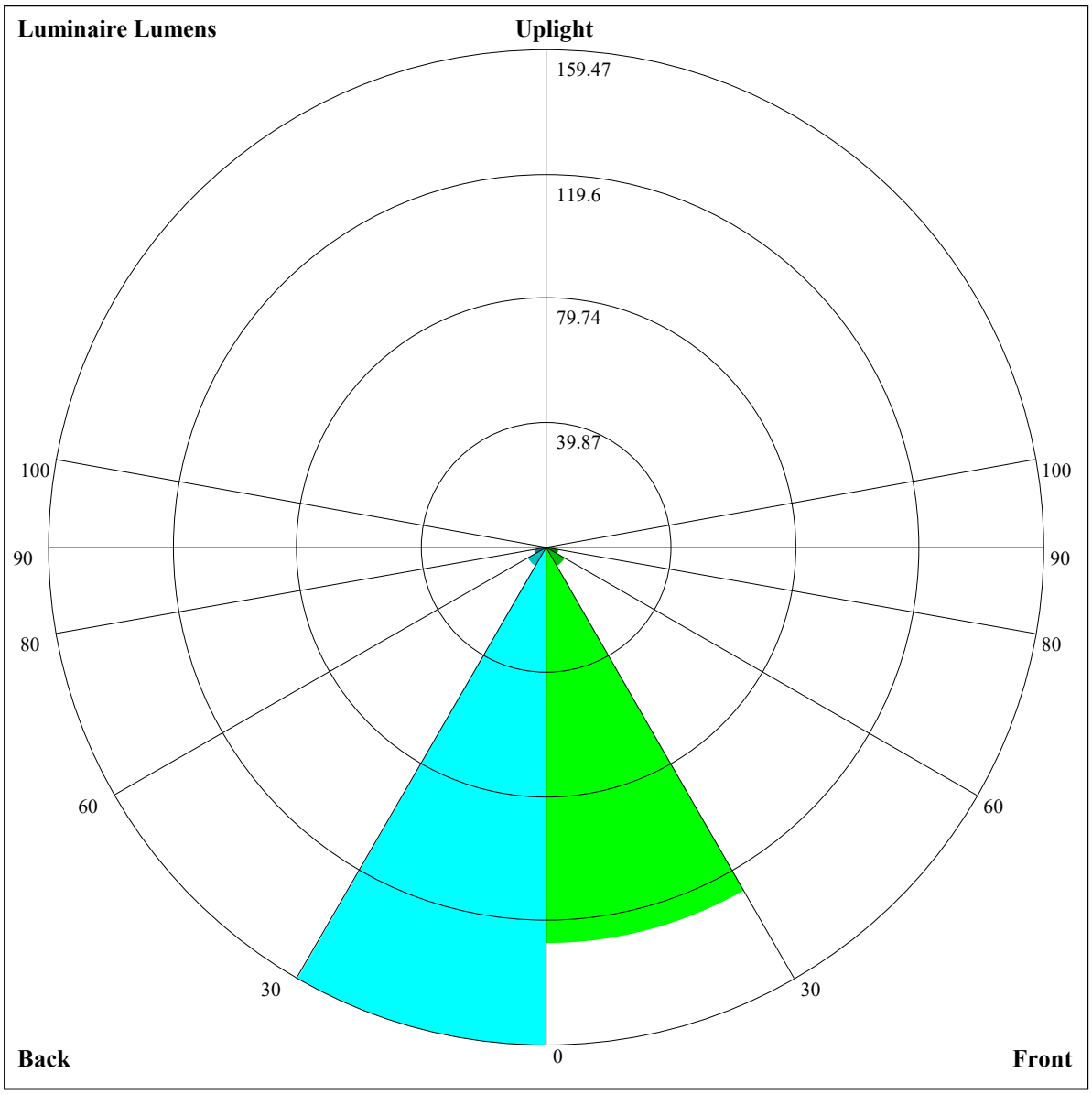


Equipment: GMS 1800
Temperature(°C): 25.0

Date: 2026/3/28
Humidity(%): 60.0%

Operator: 杨泽全
Distance(m): 7.50

LCS Graph



Luminaire Lumens:

FL=127.03,FM=6.87,FH=4.37,FVH=1.34

BL=159.47,BM=6.86,BH=4.45,BVH=1.41

UL=0,UH=0

BUG Rating:B1-U0-G0

Equipment: GMS 1800 Date: 2026/3/28 Operator: 杨泽全

Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.50

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	25752.38	7316.94	2769.69	1414.63	1034.61	894.99	782.27	630.68	509.06
45.0	26568.00	30505.50	15745.50	7088.63	7088.63	1734.69	1045.63	797.01	642.32
90.0	6046.82	6046.82	3412.07	1369.63	1034.38	1034.38	798.64	703.29	566.61
135.0	32198.63	30443.63	22653.00	5496.75	5496.75	3241.13	1149.13	939.88	771.69
180.0	25752.38	32266.13	20211.75	5716.13	3364.88	3364.88	1131.69	921.88	761.57
225.0	26568.00	5723.38	5723.38	1895.01	1049.68	1049.68	850.50	697.44	552.99
270.0	6046.82	32316.75	23648.63	7144.88	7144.88	7144.88	1022.01	815.01	716.01
315.0	32198.63	6564.88	6564.88	1475.94	1046.08	998.66	789.30	627.86	502.76
360.0	25752.38	7316.94	2769.69	1414.63	1034.61	894.99	782.27	630.68	509.06

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	411.02	313.71	274.39	203.51	158.34	140.12	116.21	98.61	85.28
45.0	516.32	413.38	359.38	283.44	283.44	175.11	131.96	106.31	86.85
90.0	451.63	356.01	266.57	230.74	161.72	121.56	105.02	85.16	68.91
135.0	631.63	560.19	441.51	348.69	301.44	301.44	166.33	130.39	101.93
180.0	677.76	532.07	433.63	349.82	280.63	280.63	176.79	142.31	125.83
225.0	493.20	403.71	324.45	247.56	197.66	157.56	127.24	101.98	91.80
270.0	555.69	448.82	362.76	289.07	289.07	177.64	140.96	122.23	94.78
315.0	386.72	336.15	266.12	212.68	170.38	131.74	117.56	91.97	83.31
360.0	411.02	313.71	274.39	203.51	158.34	140.12	116.21	98.61	85.28

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	71.33	65.64	57.49	49.78	43.65	36.73	34.03	28.35	24.13
45.0	72.45	65.19	53.10	44.89	37.97	32.01	26.55	23.12	20.42
90.0	54.84	44.21	40.50	35.94	32.18	28.86	23.85	21.09	19.35
135.0	82.63	66.99	55.69	50.12	41.79	36.23	31.11	27.34	25.54
180.0	102.32	87.36	75.32	63.84	58.22	49.50	40.50	37.86	32.57
225.0	76.56	64.24	54.90	45.51	40.95	32.57	27.90	25.76	21.71
270.0	79.20	65.93	56.70	52.82	44.55	36.06	32.96	28.24	24.53
315.0	69.75	58.11	49.56	42.53	35.49	32.34	28.35	24.92	20.64
360.0	71.33	65.64	57.49	49.78	43.65	36.73	34.03	28.35	24.13

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	22.67	20.48	18.84	17.49	15.81	14.23	12.66	11.98	10.97
45.0	18.96	16.37	14.79	13.22	11.93	11.31	10.01	9.17	8.55
90.0	14.63	13.44	11.93	10.63	9.45	8.44	7.99	7.43	6.75
135.0	20.76	17.10	14.79	12.88	11.19	10.13	9.17	8.72	7.88
180.0	28.41	24.13	21.04	19.52	16.88	15.24	13.89	12.66	12.09
225.0	18.39	15.92	13.78	12.83	11.53	10.29	9.39	8.44	7.99
270.0	20.87	17.21	15.64	13.39	11.59	10.46	9.39	8.44	7.93
315.0	17.21	15.81	13.95	11.70	11.25	9.96	9.11	8.44	7.65
360.0	22.67	20.48	18.84	17.49	15.81	14.23	12.66	11.98	10.97

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	10.13	9.45	8.89	8.33	8.04	7.59	7.26	6.98	6.69
45.0	7.93	7.71	7.20	6.75	6.69	6.30	6.08	5.85	5.68
90.0	6.41	6.02	5.79	5.29	5.12	4.95	4.84	4.67	4.44
135.0	7.31	6.81	6.41	6.19	5.79	5.51	5.29	5.12	5.06
180.0	10.91	10.29	9.68	8.89	8.38	7.99	7.59	7.37	6.98
225.0	7.54	6.64	6.36	6.08	5.85	5.46	5.18	5.12	5.01
270.0	7.14	6.86	6.47	6.08	5.57	5.34	5.23	5.01	4.78
315.0	7.43	6.98	6.47	6.19	5.91	5.74	5.46	5.18	5.12
360.0	10.13	9.45	8.89	8.33	8.04	7.59	7.26	6.98	6.69

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	6.47	6.30	5.96	5.91	5.79	5.74	5.63	5.51	5.46
45.0	5.68	5.46	5.40	5.18	5.01	5.01	4.84	4.78	4.73
90.0	4.28	4.11	4.11	4.11	4.05	4.11	4.05	4.05	4.22
135.0	4.89	4.73	4.73	4.61	4.56	4.61	4.61	4.61	4.56
180.0	6.69	6.47	6.19	5.96	5.85	5.74	5.63	5.46	5.34
225.0	4.95	4.89	4.78	4.84	4.84	4.89	4.89	4.84	4.89
270.0	4.67	4.56	4.44	4.28	4.22	4.16	4.28	4.16	4.11
315.0	5.01	4.89	4.84	4.89	4.84	4.84	4.78	4.84	4.78
360.0	6.47	6.30	5.96	5.91	5.79	5.74	5.63	5.51	5.46

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	5.46	5.34	5.18	5.06	5.01	4.95	4.84	4.78	4.56
45.0	4.67	4.67	4.61	4.61	4.61	4.56	4.56	4.67	4.78
90.0	4.22	4.28	4.28	4.22	4.11	4.05	4.05	4.11	3.99
135.0	4.50	4.61	4.61	4.56	4.56	4.56	4.50	4.44	4.33
180.0	5.29	5.29	5.29	5.23	5.23	5.18	5.23	5.29	5.46
225.0	4.95	4.84	4.89	4.84	4.84	4.78	4.67	4.67	4.56
270.0	4.16	4.11	4.22	4.22	4.05	4.05	4.05	3.99	4.11
315.0	4.73	4.78	4.67	4.61	4.61	4.56	4.56	4.56	4.56
360.0	5.46	5.34	5.18	5.06	5.01	4.95	4.84	4.78	4.56

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	4.50	4.33	4.39	4.28	4.16	4.05	3.88	3.77	3.71
45.0	4.89	5.06	5.40	5.63	6.19	6.86	7.37	7.43	7.48
90.0	3.88	3.77	3.54	3.43	3.43	3.26	3.38	3.15	2.98
135.0	4.33	4.22	4.16	4.05	3.94	3.88	3.77	3.60	3.49
180.0	5.68	5.79	6.08	6.47	6.92	7.37	7.88	8.38	8.61
225.0	4.44	4.39	4.28	4.11	4.05	3.94	3.88	3.77	3.54
270.0	4.05	4.22	4.11	4.11	4.05	4.05	4.16	4.22	4.11
315.0	4.61	4.56	4.56	4.61	4.61	4.67	4.67	4.56	4.44
360.0	4.50	4.33	4.39	4.28	4.16	4.05	3.88	3.77	3.71

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	3.66	3.54	3.43	3.38	3.26	3.09	2.98	2.87	2.81
45.0	7.48	7.37	7.20	7.14	7.03	6.58	5.91	5.63	5.06
90.0	2.81	2.70	2.64	2.59	2.36	2.36	2.25	2.08	2.08
135.0	3.38	3.32	3.15	3.09	2.98	2.93	2.87	2.70	2.53
180.0	9.06	9.17	9.28	9.00	8.78	8.61	8.27	8.04	7.59
225.0	3.43	3.32	3.21	3.09	2.93	2.81	2.70	2.59	2.42
270.0	4.11	3.94	3.94	3.60	3.71	3.49	3.38	2.98	2.93
315.0	4.33	4.28	4.22	4.11	3.99	3.94	3.88	3.71	3.66
360.0	3.66	3.54	3.43	3.38	3.26	3.09	2.98	2.87	2.81

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	2.70	2.64	2.64	2.53	2.48	2.36	2.31	2.19	2.08
45.0	4.78	4.22	3.71	3.32	2.98	2.70	2.53	2.36	2.14
90.0	1.97	1.86	1.86	1.74	1.41	1.46	1.41	1.46	1.41
135.0	2.42	2.36	2.19	2.08	2.03	1.91	1.80	1.80	1.69
180.0	6.98	6.69	6.30	5.79	5.12	4.56	3.99	3.60	3.15
225.0	2.36	2.36	2.14	2.14	2.03	1.91	1.86	1.69	1.58
270.0	2.76	2.53	2.42	2.31	2.19	1.97	1.86	1.74	1.41
315.0	3.38	3.21	3.09	3.04	2.93	2.76	2.64	2.48	2.36
360.0	2.70	2.64	2.64	2.53	2.48	2.36	2.31	2.19	2.08

Intensity data(cd)

C/γ(°)	90.0
0.0	2.03
45.0	1.97
90.0	1.35
135.0	1.69
180.0	2.87
225.0	1.52
270.0	1.29
315.0	2.31
360.0	2.03