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Nata

LumCAT: 1-0922-M
Luminaire: 92.70.123.00

Report No: 200406-B026	Voltage(V): 220.4000
Test No: 200406-C026	Current(A): 0.0420
LampCAT: LUMINUS CXM-6-AC40	Power (W): 8.5000
Lamp flux(lm): 808.0	PF: 0.8990
Number of Lamps: 1	Ballast type: AC
Length(mm): 0	Width(mm): 0
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 603.32
Efficiency(%): 74.67%
Lumens(lm)/Power(W): 70.98
Central intensity(cd): 3952.683
Maximum intensity(cd): 3952.683
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=18.1
[C90/270]Total=18.1
Field angle(10%Imax): [C0/180]Total=41.9
[C90/270]Total=41.9
Maximum s/h(1/2): C0_180=0.31 C90_270=0.31
Maximum s/h(1/4): C0_180=0.33 C90_270=0.33
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 74.67%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 99.441%

Equipment: GMS 1800	Date: 2020/4/6	Operator: NT07
Temperature(°C): 25.0	Humidity(%): 60.0%	Distance(m): 6.81

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3952.683	0.000	0	.000%	.000%
1.0	3921.767	3.768	3.768	.466%	.625%
2.0	3833.775	11.131	14.899	1.378%	2.470%
3.0	3692.825	18.001	32.9	2.228%	5.453%
4.0	3480.471	24.011	56.912	2.972%	9.433%
5.0	3235.056	28.890	85.802	3.575%	14.222%
6.0	2934.130	32.421	118.222	4.012%	19.595%
7.0	2614.643	34.441	152.663	4.263%	25.304%
8.0	2294.982	35.137	187.801	4.349%	31.128%
9.0	1995.622	34.773	222.574	4.304%	36.892%
10.0	1704.841	33.488	256.062	4.145%	42.442%
11.0	1489.414	31.917	287.979	3.950%	47.733%
12.0	1298.493	30.476	318.455	3.772%	52.784%
13.0	1111.464	28.600	347.055	3.540%	57.524%
14.0	975.799	26.717	373.771	3.307%	61.953%
15.0	861.548	25.224	398.995	3.122%	66.134%
16.0	769.402	23.898	422.893	2.958%	70.095%
17.0	681.775	22.599	445.492	2.797%	73.841%
18.0	605.111	21.218	466.71	2.626%	77.357%
19.0	530.866	19.764	486.474	2.446%	80.633%
20.0	462.270	18.177	504.651	2.250%	83.646%
21.0	392.398	16.411	521.062	2.031%	86.366%
22.0	339.475	14.707	535.77	1.820%	88.804%
23.0	286.251	13.129	548.899	1.625%	90.980%
24.0	238.420	11.471	560.37	1.420%	92.882%
25.0	190.654	9.756	570.126	1.207%	94.499%
26.0	139.686	7.798	577.924	.965%	95.791%
27.0	105.887	6.008	583.932	.744%	96.787%
28.0	81.415	4.742	588.674	.587%	97.573%
29.0	47.552	3.374	592.048	.418%	98.132%
30.0	29.002	2.067	594.115	.256%	98.475%
31.0	16.763	1.274	595.389	.158%	98.686%
32.0	9.629	0.756	596.145	.094%	98.811%
33.0	4.896	0.428	596.573	.053%	98.882%
34.0	3.150	0.243	596.816	.030%	98.923%
35.0	2.407	0.173	596.989	.021%	98.951%
36.0	2.268	0.149	597.138	.018%	98.976%
37.0	2.140	0.144	597.281	.018%	99.000%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	2.036	0.139	597.421	.017%	99.023%
39.0	1.926	0.135	597.556	.017%	99.045%
40.0	1.821	0.131	597.687	.016%	99.067%
41.0	1.746	0.127	597.814	.016%	99.088%
42.0	1.688	0.125	597.939	.015%	99.109%
43.0	1.630	0.123	598.061	.015%	99.129%
44.0	1.572	0.121	598.182	.015%	99.149%
45.0	1.491	0.118	598.3	.015%	99.169%
46.0	1.450	0.115	598.415	.014%	99.188%
47.0	1.427	0.114	598.529	.014%	99.207%
48.0	1.375	0.113	598.643	.014%	99.225%
49.0	1.340	0.111	598.754	.014%	99.244%
50.0	1.317	0.111	598.865	.014%	99.262%
51.0	1.299	0.111	598.976	.014%	99.280%
52.0	1.259	0.110	599.085	.014%	99.299%
53.0	1.218	0.108	599.193	.013%	99.317%
54.0	1.212	0.107	599.3	.013%	99.334%
55.0	1.201	0.108	599.408	.013%	99.352%
56.0	1.177	0.107	599.515	.013%	99.370%
57.0	1.148	0.106	599.622	.013%	99.388%
58.0	1.154	0.106	599.728	.013%	99.405%
59.0	1.160	0.108	599.836	.013%	99.423%
60.0	1.125	0.108	599.944	.013%	99.441%
61.0	1.119	0.107	600.051	.013%	99.459%
62.0	1.108	0.107	600.159	.013%	99.477%
63.0	1.108	0.108	600.267	.013%	99.494%
64.0	1.090	0.108	600.374	.013%	99.512%
65.0	1.090	0.108	600.482	.013%	99.530%
66.0	1.085	0.109	600.591	.013%	99.548%
67.0	1.090	0.109	600.7	.014%	99.566%
68.0	1.096	0.111	600.811	.014%	99.585%
69.0	1.067	0.110	600.921	.014%	99.603%
70.0	1.067	0.110	601.031	.014%	99.621%
71.0	1.085	0.111	601.142	.014%	99.640%
72.0	1.073	0.112	601.254	.014%	99.658%
73.0	1.061	0.112	601.366	.014%	99.677%
74.0	1.067	0.112	601.478	.014%	99.695%
75.0	1.079	0.113	601.591	.014%	99.714%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	1.044	0.113	601.704	.014%	99.733%
77.0	1.038	0.111	601.815	.014%	99.751%
78.0	1.056	0.112	601.927	.014%	99.770%
79.0	1.073	0.114	602.042	.014%	99.789%
80.0	1.044	0.114	602.156	.014%	99.808%
81.0	1.061	0.114	602.27	.014%	99.826%
82.0	1.056	0.115	602.384	.014%	99.846%
83.0	1.038	0.114	602.498	.014%	99.864%
84.0	1.067	0.115	602.613	.014%	99.883%
85.0	1.061	0.116	602.729	.014%	99.903%
86.0	1.056	0.116	602.845	.014%	99.922%
87.0	1.061	0.116	602.961	.014%	99.941%
88.0	1.085	0.118	603.078	.015%	99.961%
89.0	1.090	0.119	603.198	.015%	99.980%
90.0	1.079	0.119	603.316	.015%	100.000%

Zonal flux distribution table

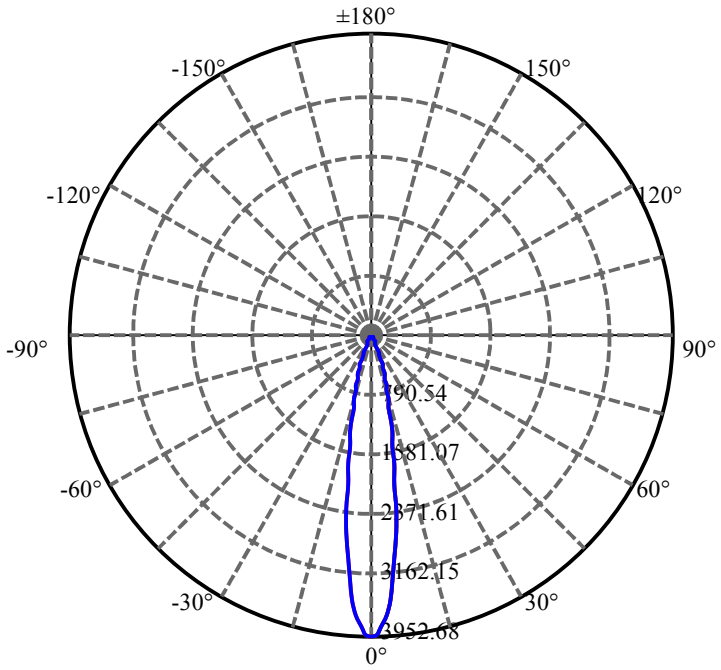
ZONAL LUMEN SUMMARY

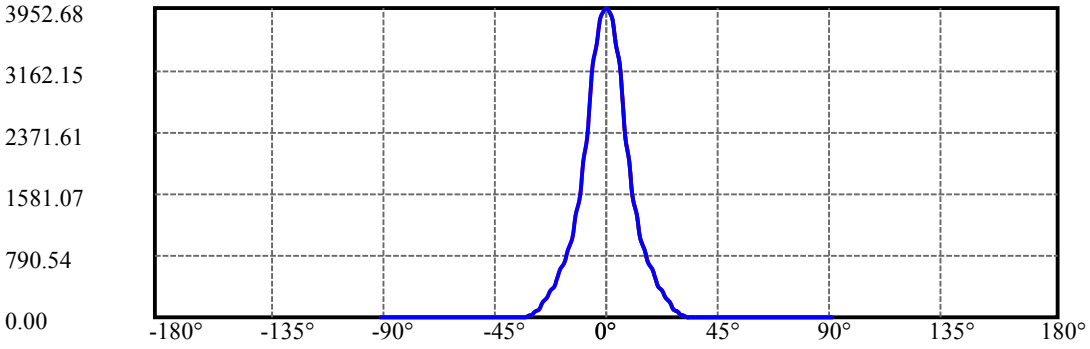
Zone	Lumens	%Lamp	%Fixt
0-30	594.12	73.53%	98.47%
0-40	597.69	73.97%	99.07%
0-60	599.94	74.25%	99.44%
0-90	603.20	74.65%	99.98%
0-120	603.20	74.65%	99.98%
0-180	603.32	74.67%	100.00%
60-90	3.36	0.42%	0.56%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-18.81	482.65	59.73%	80.00%

ZONAL LUMEN SUMMARY

0-10	256.06
10-20	248.59
20-30	89.46
30-40	3.57
40-50	1.18
50-60	1.08
60-70	1.09
70-80	1.12
80-90	1.04
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):

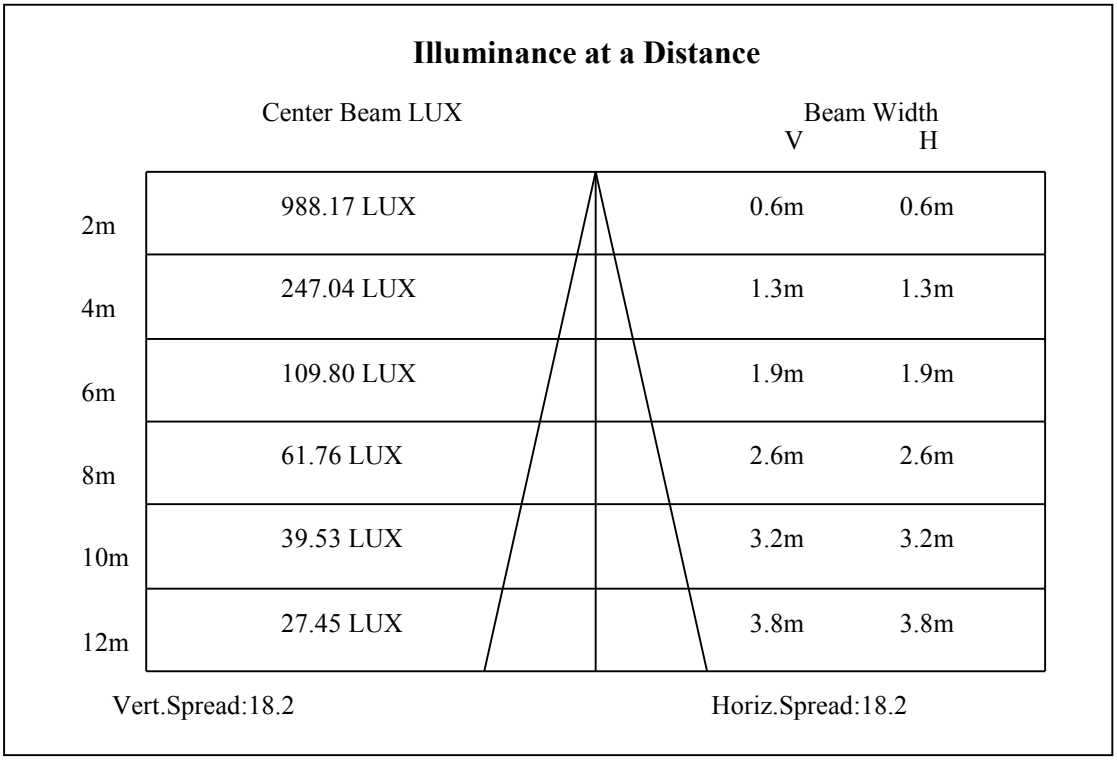
C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:21.0 Right:21.0
:C90/270Left:21.0 Right:21.0

Beam Angle(50%Imax):C0/180Left:9.1 Right:9.1
:C90/270Left:9.1 Right:9.1

Lux distance Curve

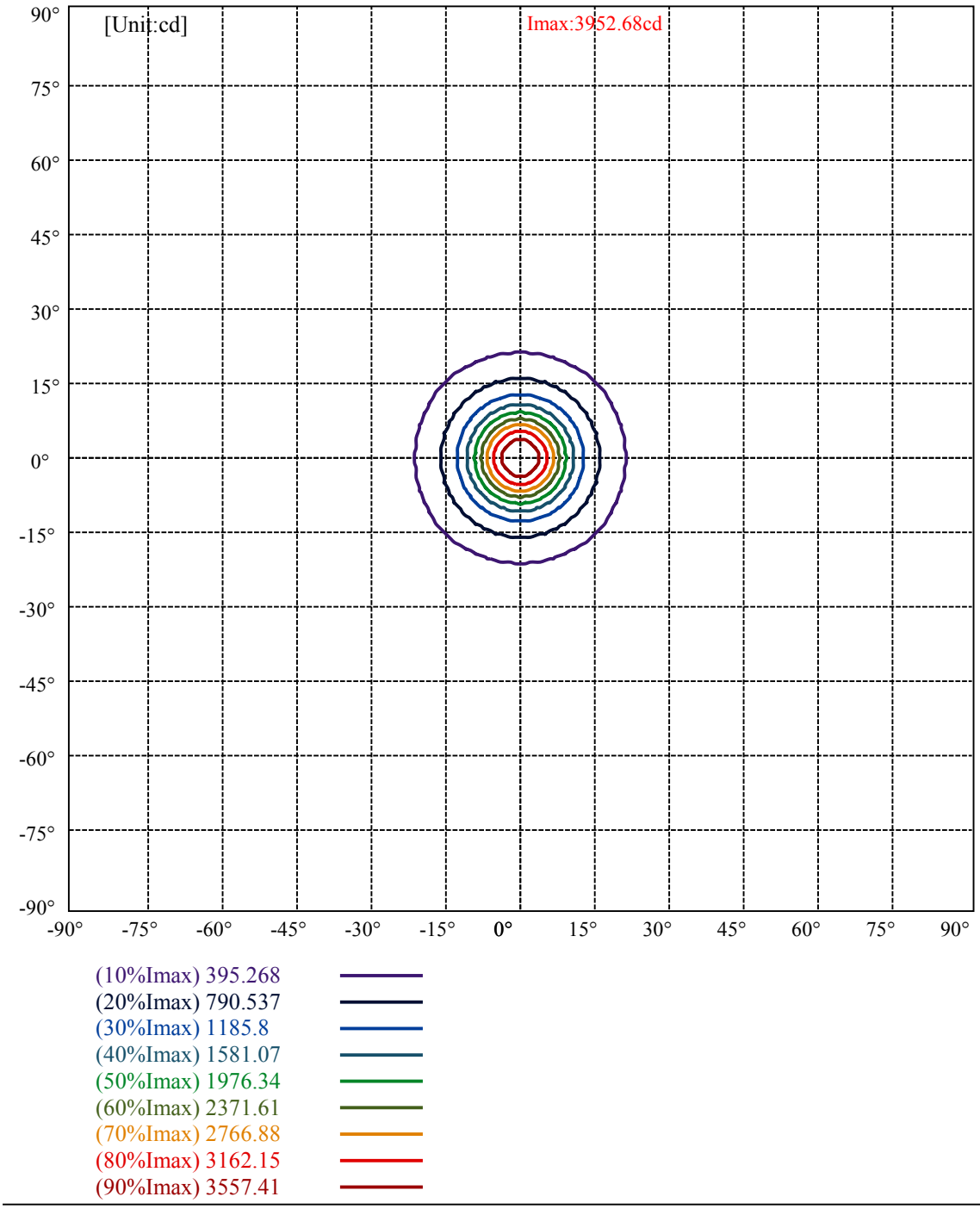


Equipment: GMS 1800
Temperature(°C): 25.0

Date: 2020/4/6
Humidity(%): 60.0%

Operator: NT07
Distance(m): 6.81

ISO-Intensity(V-H)

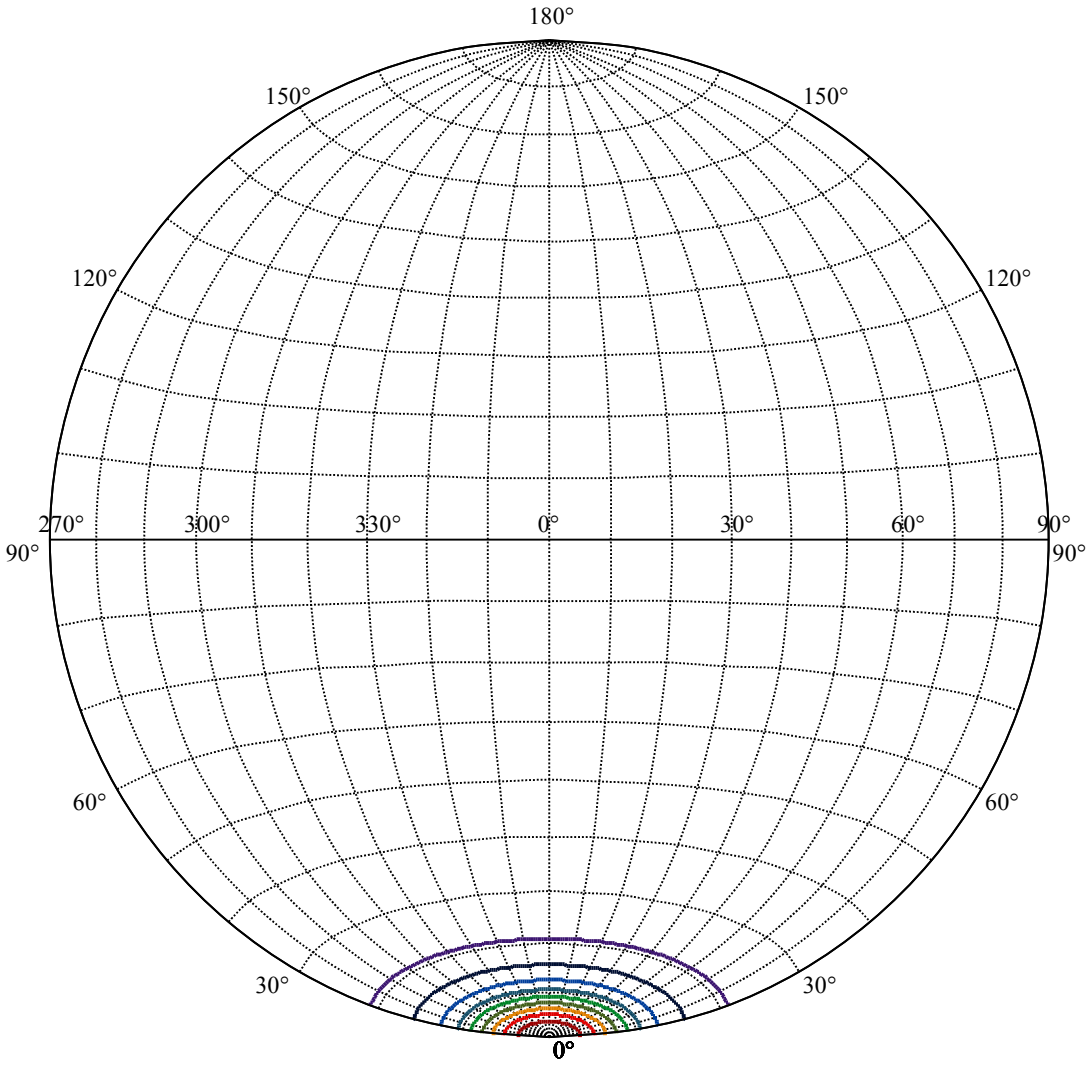


Equipment: GMS 1800
Temperature(°C): 25.0

Date: 2020/4/6
Humidity(%): 60.0%

Operator: NT07
Distance(m): 6.81

ISO candela diagram on circular web



House [Unit:cd] Road

Imax:3952.68

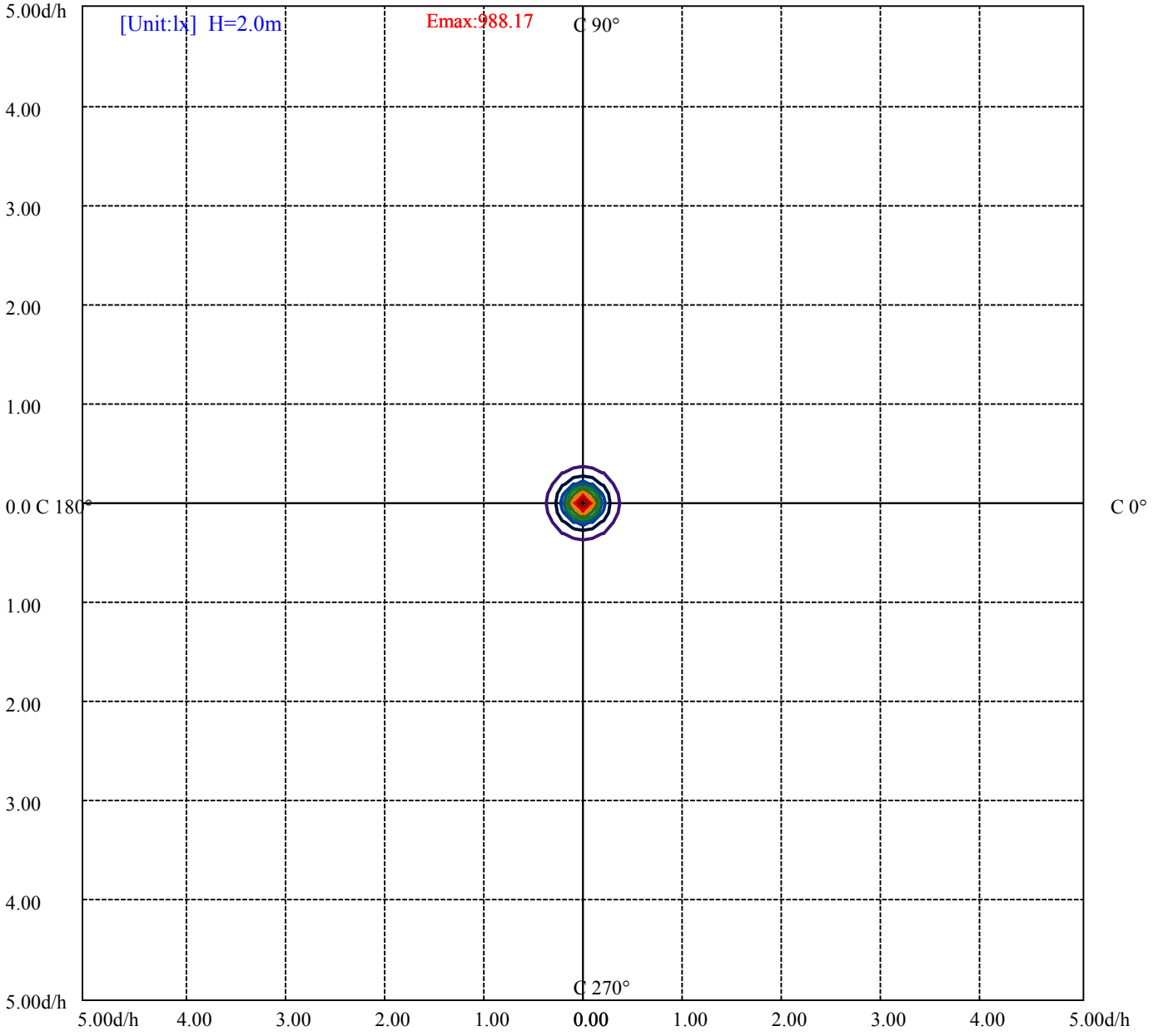
(10%Imax) 395.268
(20%Imax) 790.537
(30%Imax) 1185.8
(40%Imax) 1581.07
(50%Imax) 1976.34
(60%Imax) 2371.61
(70%Imax) 2766.88
(80%Imax) 3162.15
(90%Imax) 3557.41

Equipment: GMS 1800
Temperature(°C): 25.0

Date: 2020/4/6
Humidity(%): 60.0%

Operator: NT07
Distance(m): 6.81

ISO illuminance diagram

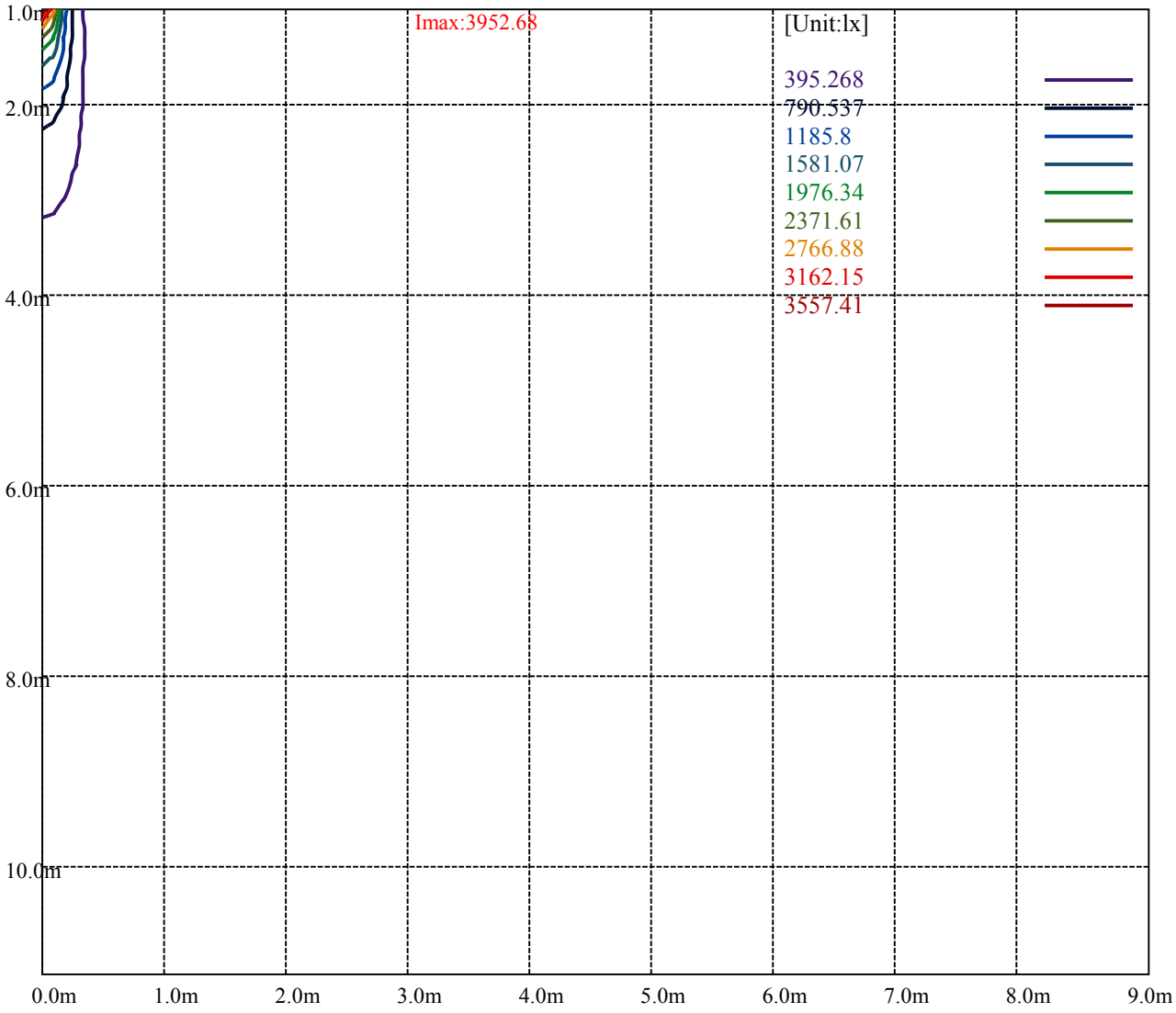


Equipment: GMS 1800
Temperature(°C): 25.0

Date: 2020/4/6
Humidity(%): 60.0%

Operator: NT07
Distance(m): 6.81

Space ISO Lux diagram



Equipment: GMS 1800
Temperature(°C): 25.0

Date: 2020/4/6
Humidity(%): 60.0%

Operator: NT07
Distance(m): 6.81

Luminance Limitting Curve(no luminous side)

Luminance Table

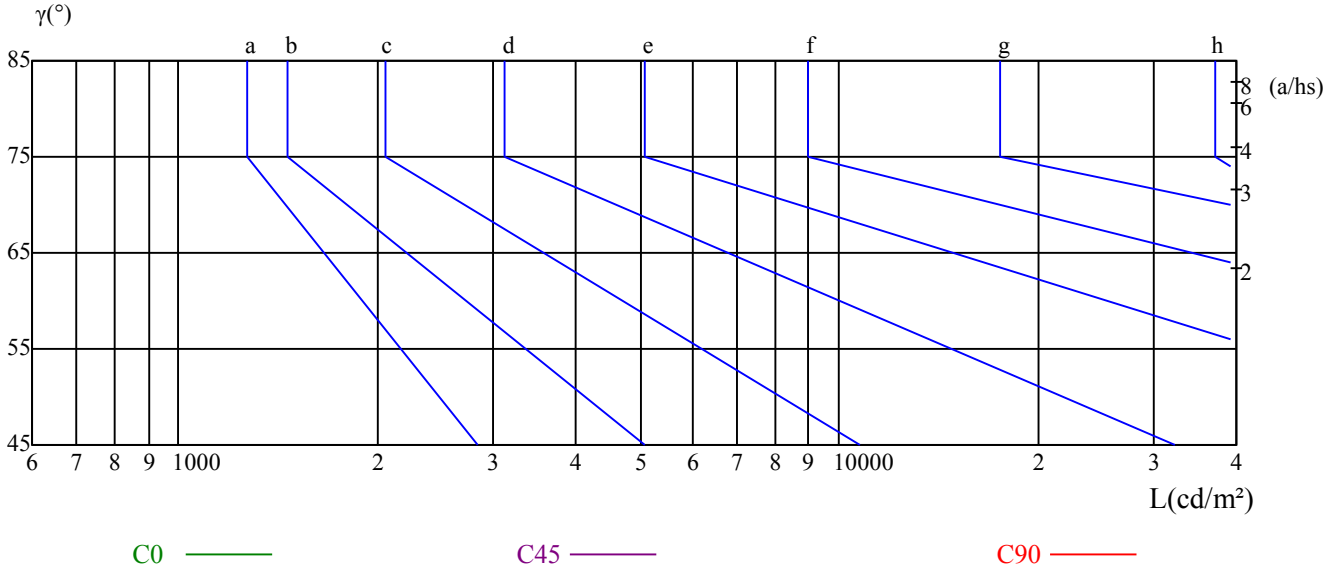
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

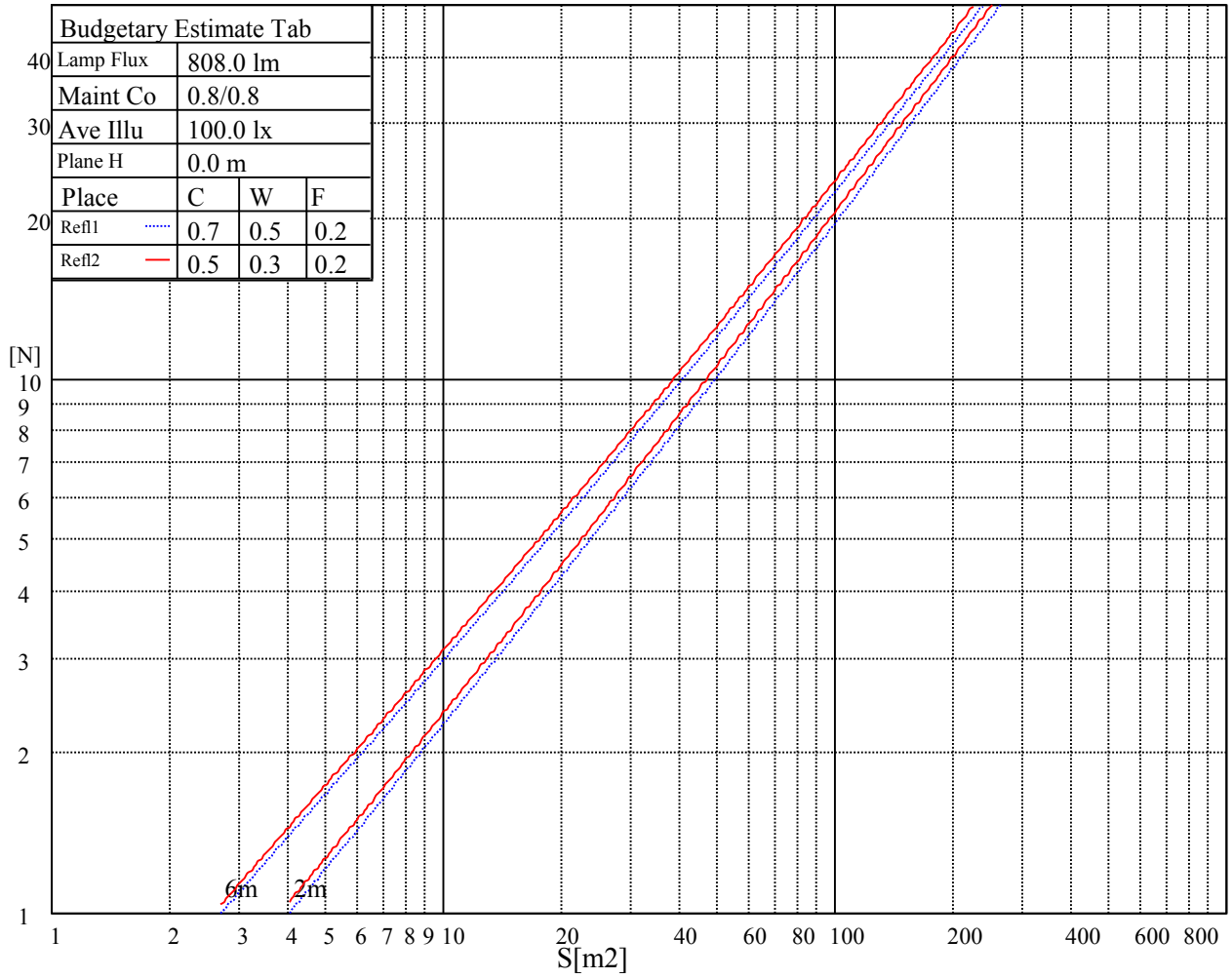
Glare Table

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



Budgetary Estimate Table

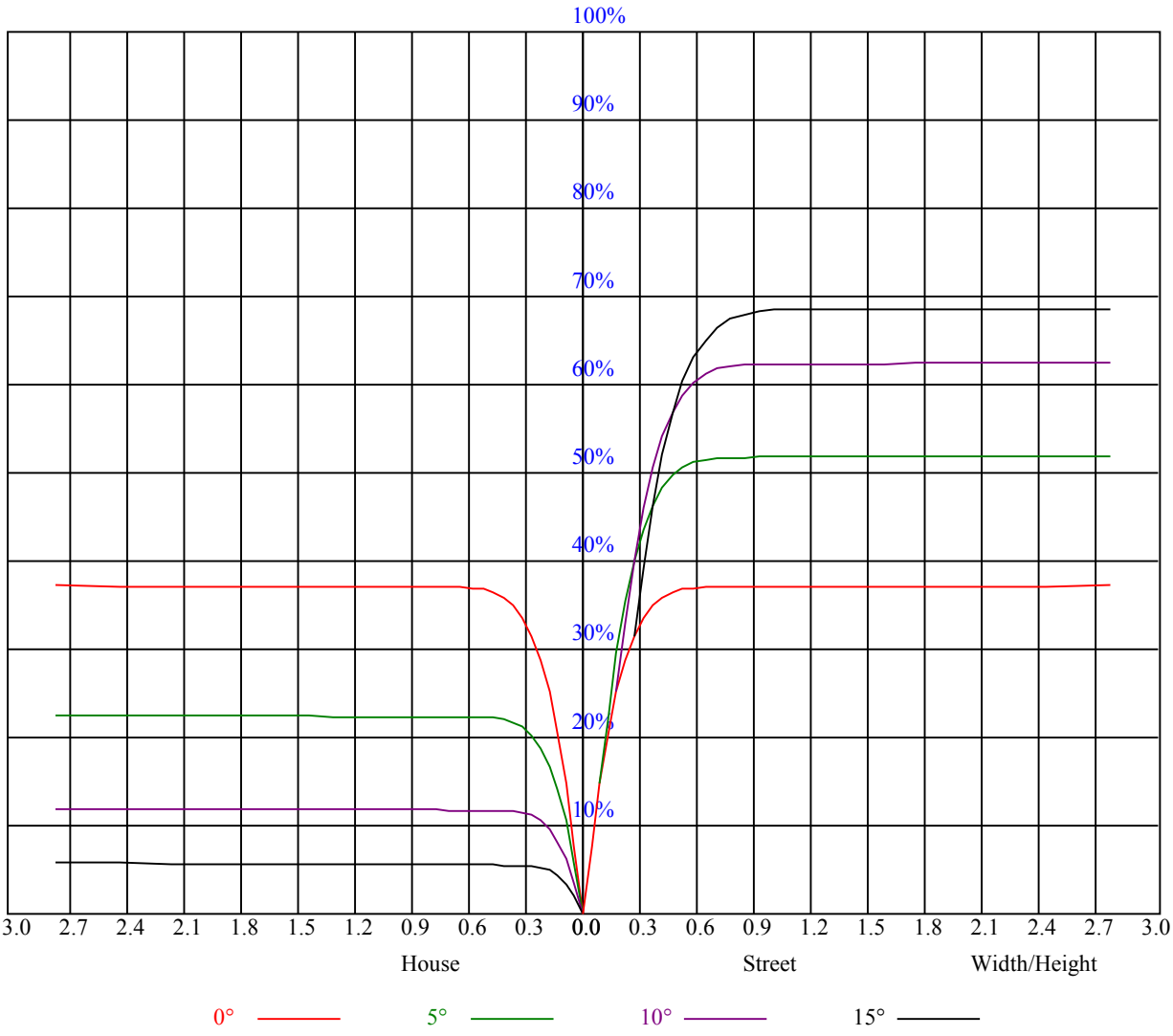


Equipment: GMS 1800 Date: 2020/4/6 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 6.81

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	0.89	0.89	0.89	0.87	0.87	0.87	0.83	0.83	0.83	0.79	0.79	0.79	0.76	0.76	0.76	0.75
1	0.84	0.83	0.82	0.83	0.82	0.81	0.80	0.79	0.78	0.77	0.76	0.76	0.75	0.74	0.74	0.72
2	0.81	0.79	0.77	0.80	0.78	0.76	0.77	0.76	0.74	0.75	0.74	0.73	0.73	0.72	0.71	0.70
3	0.78	0.75	0.73	0.77	0.74	0.73	0.75	0.73	0.71	0.73	0.72	0.70	0.72	0.70	0.69	0.68
4	0.75	0.72	0.70	0.74	0.72	0.70	0.73	0.71	0.69	0.71	0.70	0.68	0.70	0.69	0.67	0.67
5	0.73	0.70	0.68	0.72	0.69	0.67	0.71	0.68	0.67	0.70	0.68	0.66	0.69	0.67	0.66	0.65
6	0.70	0.67	0.65	0.70	0.67	0.65	0.69	0.67	0.65	0.68	0.66	0.64	0.67	0.65	0.64	0.63
7	0.68	0.65	0.63	0.68	0.65	0.63	0.67	0.65	0.63	0.66	0.64	0.63	0.66	0.64	0.62	0.62
8	0.67	0.64	0.62	0.66	0.64	0.62	0.66	0.63	0.61	0.65	0.63	0.61	0.64	0.62	0.61	0.60
9	0.65	0.62	0.60	0.65	0.62	0.60	0.64	0.62	0.60	0.63	0.61	0.60	0.63	0.61	0.60	0.59
10	0.63	0.61	0.59	0.63	0.60	0.59	0.63	0.60	0.59	0.62	0.60	0.58	0.62	0.60	0.58	0.58

Coefficient Utilization Curve



Equipment: GMS 1800	Date: 2020/4/6	Operator: NT07
Temperature(°C): 25.0	Humidity(%): 60.0%	Distance(m): 6.81

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	3961.04	3917.42	3817.65	3722.99	3504.43	3222.29	2896.08	2552.23	2213.95
45.0	3970.32	3938.76	3838.07	3671.48	3426.93	3121.60	2774.97	2419.05	2077.99
90.0	3882.61	3696.07	3365.22	3097.01	2732.74	2363.83	2016.74	1711.40	1456.65
135.0	3996.77	3900.25	3808.37	3474.73	3156.40	2947.12	2580.54	2224.16	1898.87
180.0	3961.04	3950.36	3888.65	3755.47	3543.41	3271.02	2952.69	2612.09	2275.20
225.0	3970.32	3957.79	3879.83	3802.80	3626.93	3386.56	3090.97	2767.08	2435.76
270.0	3882.61	3976.81	4047.81	4051.06	4006.05	3907.21	3751.29	3530.88	3242.71
315.0	3996.77	4036.67	4024.61	3967.07	3846.88	3660.81	3409.76	3100.25	2758.73
360.0	3961.04	3917.42	3817.65	3722.99	3504.43	3222.29	2896.08	2552.23	2213.95

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	1909.08	1642.26	1415.81	1226.49	897.30	897.30	853.13	733.78	663.20
45.0	1775.44	1516.97	1300.27	1124.86	981.01	862.22	760.13	670.11	588.90
90.0	1249.22	899.76	899.76	832.71	733.40	645.98	598.32	494.75	427.19
135.0	1621.84	1387.04	1193.08	1036.23	908.16	800.50	707.70	624.17	548.07
180.0	1964.30	1693.77	1464.07	1271.96	1110.01	975.44	861.29	761.53	673.36
225.0	2118.82	1834.37	1591.22	1387.97	1216.74	906.07	906.07	821.99	728.30
270.0	2913.71	2575.43	2248.75	1950.38	1692.38	1474.28	1290.99	1134.14	997.25
315.0	2412.56	2089.12	1802.35	1557.34	1352.70	1244.58	914.75	914.75	827.93
360.0	1909.08	1642.26	1415.81	1226.49	897.30	897.30	853.13	733.78	663.20

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	582.69	494.94	441.48	379.07	319.39	261.95	209.14	162.18	124.59
45.0	513.27	472.90	408.40	324.41	290.07	245.06	245.06	133.73	99.40
90.0	390.44	331.60	274.06	220.23	172.16	130.39	96.01	63.94	37.17
135.0	475.68	410.25	349.46	294.24	240.42	240.42	135.36	111.51	76.98
180.0	591.69	515.59	459.90	384.27	335.54	276.61	243.20	243.20	131.18
225.0	676.33	562.92	517.21	445.98	383.15	323.38	264.04	211.37	160.14
270.0	878.93	813.96	682.64	600.51	553.64	451.55	411.18	351.78	291.46
315.0	731.87	644.77	565.01	490.48	421.44	360.65	303.39	247.52	196.56
360.0	582.69	494.94	441.48	379.07	319.39	261.95	209.14	162.18	124.59

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	90.02	59.49	33.60	15.17	5.71	2.97	2.69	2.51	2.32
45.0	68.77	41.62	20.05	8.26	4.36	2.88	2.64	2.60	2.41
90.0	17.03	6.91	3.62	2.92	2.64	2.51	2.37	2.18	2.09
135.0	46.68	26.36	11.04	4.45	2.97	2.60	2.41	2.32	2.18
180.0	96.84	64.32	37.91	17.45	6.96	3.02	2.64	2.51	2.27
225.0	122.69	86.50	59.77	33.87	14.76	5.06	2.83	2.64	2.41
270.0	257.12	257.12	139.26	103.62	71.37	43.25	20.32	7.80	3.02
315.0	147.93	109.00	75.17	46.26	25.34	14.76	3.25	2.64	2.55
360.0	90.02	59.49	33.60	15.17	5.71	2.97	2.69	2.51	2.32

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	2.27	2.13	2.00	1.90	1.81	1.72	1.72	1.62	1.53
45.0	2.18	2.18	2.04	1.90	1.86	1.81	1.72	1.62	1.58
90.0	2.00	1.95	1.81	1.72	1.67	1.62	1.58	1.53	1.48
135.0	2.04	1.95	1.86	1.76	1.67	1.67	1.58	1.53	1.53
180.0	2.18	2.09	2.00	1.90	1.81	1.72	1.62	1.62	1.53
225.0	2.37	2.18	2.09	2.00	1.81	1.72	1.67	1.62	1.58
270.0	2.74	2.46	2.41	2.27	2.09	2.00	1.90	1.86	1.76
315.0	2.37	2.18	2.09	1.95	1.86	1.72	1.72	1.62	1.58
360.0	2.27	2.13	2.00	1.90	1.81	1.72	1.72	1.62	1.53

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	1.48	1.48	1.44	1.35	1.35	1.35	1.30	1.25	1.25
45.0	1.53	1.44	1.44	1.39	1.35	1.30	1.30	1.25	1.25
90.0	1.44	1.39	1.35	1.35	1.35	1.25	1.21	1.21	1.21
135.0	1.44	1.39	1.39	1.35	1.30	1.30	1.25	1.25	1.16
180.0	1.44	1.39	1.39	1.35	1.30	1.30	1.30	1.25	1.21
225.0	1.48	1.44	1.44	1.39	1.30	1.25	1.35	1.25	1.21
270.0	1.62	1.58	1.53	1.48	1.44	1.39	1.39	1.35	1.25
315.0	1.48	1.48	1.44	1.35	1.35	1.39	1.30	1.25	1.21
360.0	1.48	1.48	1.44	1.35	1.35	1.35	1.30	1.25	1.25

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	1.25	1.16	1.16	1.16	1.16	1.16	1.16	1.11	1.11
45.0	1.16	1.21	1.21	1.16	1.16	1.16	1.11	1.11	1.11
90.0	1.16	1.16	1.16	1.11	1.11	1.11	1.07	1.11	1.07
135.0	1.21	1.21	1.16	1.11	1.16	1.16	1.11	1.11	1.11
180.0	1.21	1.21	1.11	1.16	1.16	1.16	1.11	1.11	1.11
225.0	1.21	1.21	1.16	1.16	1.11	1.16	1.11	1.11	1.07
270.0	1.30	1.30	1.25	1.16	1.21	1.21	1.16	1.16	1.16
315.0	1.21	1.16	1.21	1.16	1.16	1.16	1.16	1.11	1.11
360.0	1.25	1.16	1.16	1.16	1.16	1.16	1.16	1.11	1.11

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	1.11	1.07	1.07	1.07	1.07	1.11	1.07	1.07	1.11
45.0	1.11	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
90.0	1.07	1.07	1.11	1.11	1.07	1.07	1.11	1.07	1.02
135.0	1.11	1.07	1.11	1.11	1.11	1.11	1.07	1.11	1.16
180.0	1.11	1.11	1.07	1.07	1.11	1.11	1.07	1.07	1.11
225.0	1.07	1.07	1.07	1.07	1.02	1.07	1.07	1.02	1.02
270.0	1.11	1.16	1.16	1.07	1.11	1.11	1.07	1.07	1.07
315.0	1.16	1.11	1.07	1.11	1.16	1.11	1.02	1.07	1.11
360.0	1.11	1.07	1.07	1.07	1.07	1.11	1.07	1.07	1.11

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	1.11	1.07	1.02	1.07	1.07	1.07	1.02	1.07	1.07
45.0	1.07	1.07	1.07	1.07	1.02	0.97	1.02	1.07	1.07
90.0	1.07	1.11	1.07	1.07	1.07	1.07	1.07	1.07	1.07
135.0	1.07	1.07	1.16	1.11	1.07	1.07	1.11	1.07	1.02
180.0	1.07	1.02	1.11	1.11	1.02	1.02	1.07	1.07	1.02
225.0	1.07	1.07	1.02	1.02	1.02	1.07	1.02	1.07	1.02
270.0	1.07	1.02	1.02	1.07	1.07	1.02	1.07	1.07	1.02
315.0	1.07	1.07	1.07	1.11	1.02	1.02	1.07	1.11	1.07
360.0	1.11	1.07	1.02	1.07	1.07	1.07	1.02	1.07	1.07

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	1.07	1.02	1.02	1.02	1.02	1.07	1.07	1.07	1.07
45.0	1.02	1.07	1.07	1.02	1.07	1.02	1.02	1.02	1.02
90.0	1.07	1.02	1.07	1.11	1.11	1.11	1.16	1.16	1.11
135.0	1.07	1.11	1.07	1.16	1.11	1.11	1.16	1.30	1.30
180.0	1.07	1.07	0.97	1.02	1.07	1.02	1.02	1.02	1.02
225.0	1.07	1.02	1.02	1.02	0.97	1.02	0.97	0.97	1.02
270.0	1.07	1.02	1.02	1.07	1.07	1.02	1.02	1.02	1.07
315.0	1.07	1.11	1.07	1.11	1.07	1.07	1.07	1.11	1.11
360.0	1.07	1.02	1.02	1.02	1.02	1.07	1.07	1.07	1.07

Intensity data(cd)

C/γ(°)	90.0
0.0	1.02
45.0	1.07
90.0	1.02
135.0	1.25
180.0	1.07
225.0	1.02
270.0	1.02
315.0	1.16
360.0	1.02