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Address:380JinOu Road,GaoXin Zone,Jiang Men City,Guangdong,China

Nata

LumCAT: LM01D01538BY
Luminaire:

Report No: 200417-B014	Voltage(V): 35.8500
Test No: 200417-C014	Current(A): 0.1000
LampCAT: CREE JR 5050	Power (W): 3.5850
Lamp flux(lm): 371.5	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 0	Width(mm): 0
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 354.90
Efficiency(%): 95.54%
Lumens(lm)/Power(W): 98.99
Central intensity(cd): 642.783
Maximum intensity(cd): 642.783
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=36.2
[C90/270]Total=36.2
Field angle(10%Imax): [C0/180]Total=71.9
[C90/270]Total=71.9
Maximum s/h(1/2): C0_180=0.59 C90_270=0.59
Maximum s/h(1/4): C0_180=0.61 C90_270=0.61
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 95.54%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 93.356%

Equipment: GMS1980	Date: 2020/4/17	Operator: NT07
Temperature(°C): 25.0	Humidity(%): 65.0%	Distance(m): 7.50

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	642.783	0.000	0	.000%	.000%
1.0	641.559	0.615	0.615	.165%	.173%
2.0	637.397	1.836	2.45	.494%	.690%
3.0	629.852	3.031	5.481	.816%	1.544%
4.0	619.678	4.183	9.664	1.126%	2.723%
5.0	605.714	5.272	14.935	1.419%	4.208%
6.0	590.604	6.287	21.222	1.692%	5.980%
7.0	573.377	7.225	28.447	1.945%	8.016%
8.0	555.033	8.076	36.523	2.174%	10.291%
9.0	533.552	8.822	45.345	2.375%	12.777%
10.0	511.566	9.458	54.803	2.546%	15.442%
11.0	489.544	10.003	64.806	2.693%	18.261%
12.0	466.868	10.455	75.261	2.814%	21.207%
13.0	444.066	10.810	86.072	2.910%	24.253%
14.0	419.379	11.052	97.124	2.975%	27.367%
15.0	396.323	11.198	108.322	3.015%	30.522%
16.0	372.537	11.266	119.588	3.033%	33.697%
17.0	348.736	11.232	130.82	3.024%	36.862%
18.0	323.831	11.089	141.909	2.985%	39.986%
19.0	301.718	10.883	152.793	2.930%	43.053%
20.0	278.325	10.616	163.409	2.858%	46.044%
21.0	255.312	10.247	173.656	2.758%	48.932%
22.0	234.703	9.847	183.503	2.651%	51.706%
23.0	213.553	9.406	192.909	2.532%	54.356%
24.0	195.272	8.938	201.847	2.406%	56.875%
25.0	176.829	8.461	210.308	2.278%	59.259%
26.0	161.100	7.977	218.285	2.147%	61.507%
27.0	145.153	7.493	225.777	2.017%	63.618%
28.0	131.941	7.015	232.793	1.889%	65.595%
29.0	119.742	6.585	239.377	1.773%	67.450%
30.0	108.893	6.173	245.55	1.662%	69.189%
31.0	98.930	5.783	251.334	1.557%	70.819%
32.0	90.513	5.427	256.761	1.461%	72.348%
33.0	82.807	5.106	261.867	1.375%	73.787%
34.0	75.649	4.795	266.663	1.291%	75.138%
35.0	69.848	4.519	271.181	1.216%	76.412%
36.0	64.048	4.263	275.444	1.148%	77.613%
37.0	59.140	4.018	279.462	1.082%	78.745%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	54.626	3.797	283.26	1.022%	79.815%
39.0	50.330	3.582	286.842	.964%	80.824%
40.0	46.723	3.385	290.227	.911%	81.778%
41.0	43.453	3.211	293.438	.864%	82.683%
42.0	40.184	3.039	296.477	.818%	83.539%
43.0	37.209	2.867	299.343	.772%	84.347%
44.0	34.727	2.715	302.059	.731%	85.112%
45.0	32.344	2.578	304.636	.694%	85.838%
46.0	30.150	2.444	307.08	.658%	86.527%
47.0	28.202	2.321	309.401	.625%	87.181%
48.0	26.445	2.209	311.61	.595%	87.803%
49.0	24.623	2.097	313.707	.565%	88.394%
50.0	23.041	1.987	315.695	.535%	88.954%
51.0	21.691	1.893	317.587	.509%	89.487%
52.0	20.461	1.809	319.396	.487%	89.997%
53.0	19.259	1.728	321.124	.465%	90.484%
54.0	18.162	1.649	322.773	.444%	90.949%
55.0	17.149	1.576	324.349	.424%	91.393%
56.0	16.228	1.508	325.857	.406%	91.818%
57.0	15.420	1.447	327.304	.390%	92.226%
58.0	14.625	1.389	328.694	.374%	92.617%
59.0	13.943	1.336	330.029	.360%	92.993%
60.0	13.296	1.287	331.316	.346%	93.356%
61.0	12.649	1.238	332.554	.333%	93.705%
62.0	12.101	1.193	333.747	.321%	94.041%
63.0	11.588	1.152	334.899	.310%	94.365%
64.0	11.067	1.112	336.011	.299%	94.679%
65.0	10.631	1.074	337.085	.289%	94.981%
66.0	10.245	1.042	338.126	.280%	95.275%
67.0	9.879	1.012	339.138	.272%	95.560%
68.0	9.563	0.985	340.123	.265%	95.837%
69.0	9.225	0.958	341.081	.258%	96.107%
70.0	8.930	0.932	342.014	.251%	96.370%
71.0	8.641	0.908	342.922	.244%	96.626%
72.0	8.388	0.885	343.807	.238%	96.876%
73.0	8.149	0.865	344.672	.233%	97.119%
74.0	7.931	0.845	345.518	.228%	97.357%
75.0	7.713	0.827	346.344	.223%	97.590%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	7.460	0.805	347.15	.217%	97.817%
77.0	7.270	0.785	347.935	.211%	98.039%
78.0	7.038	0.766	348.701	.206%	98.254%
79.0	6.736	0.740	349.441	.199%	98.463%
80.0	6.504	0.714	350.155	.192%	98.664%
81.0	6.356	0.695	350.85	.187%	98.860%
82.0	6.159	0.679	351.529	.183%	99.051%
83.0	5.920	0.657	352.186	.177%	99.236%
84.0	5.576	0.626	352.812	.169%	99.413%
85.0	5.133	0.584	353.396	.157%	99.578%
86.0	4.507	0.527	353.923	.142%	99.726%
87.0	2.595	0.389	354.312	.105%	99.836%
88.0	1.814	0.241	354.553	.065%	99.904%
89.0	1.491	0.181	354.735	.049%	99.955%
90.0	1.448	0.161	354.896	.043%	100.000%

Zonal flux distribution table

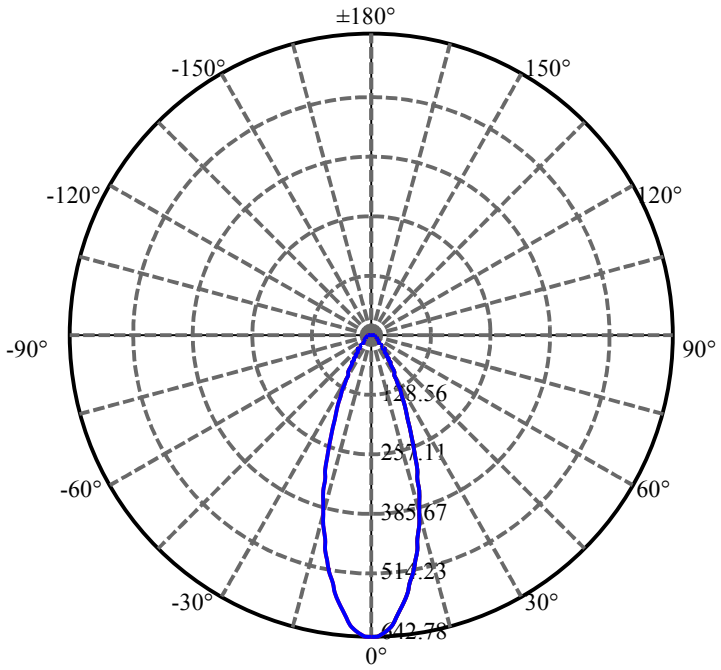
ZONAL LUMEN SUMMARY

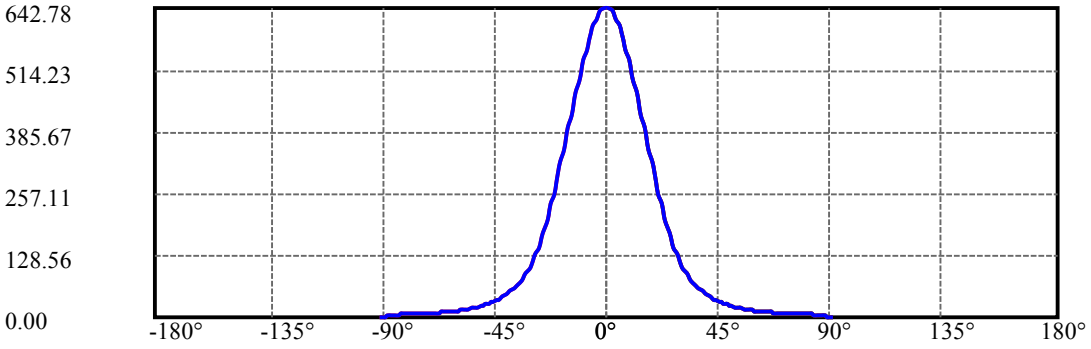
Zone	Lumens	%Lamp	%Fixt
0-30	245.55	66.10%	69.19%
0-40	290.23	78.13%	81.78%
0-60	331.32	89.19%	93.36%
0-90	354.73	95.49%	99.95%
0-120	354.73	95.49%	99.95%
0-180	354.90	95.54%	100.00%
60-90	24.71	6.65%	6.96%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-38.18	283.92	76.43%	80.00%

ZONAL LUMEN SUMMARY

0-10	54.80
10-20	108.61
20-30	82.14
30-40	44.68
40-50	25.47
50-60	15.62
60-70	10.70
70-80	8.14
80-90	4.58
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:

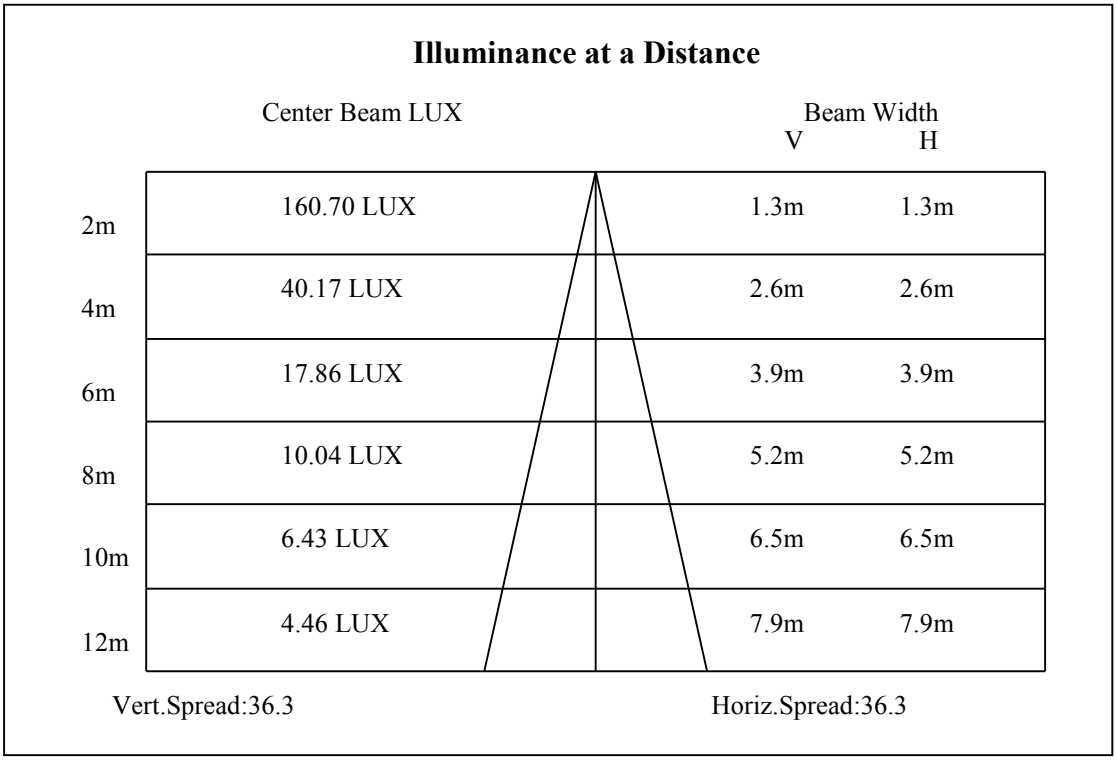
C90/C270:

Field angle(10%Imax):C0/180Left:36.0 Right:36.0
:C90/270Left:36.0 Right:36.0

Beam Angle(50%Imax):C0/180Left:18.1 Right:18.1
:C90/270Left:18.1 Right:18.1

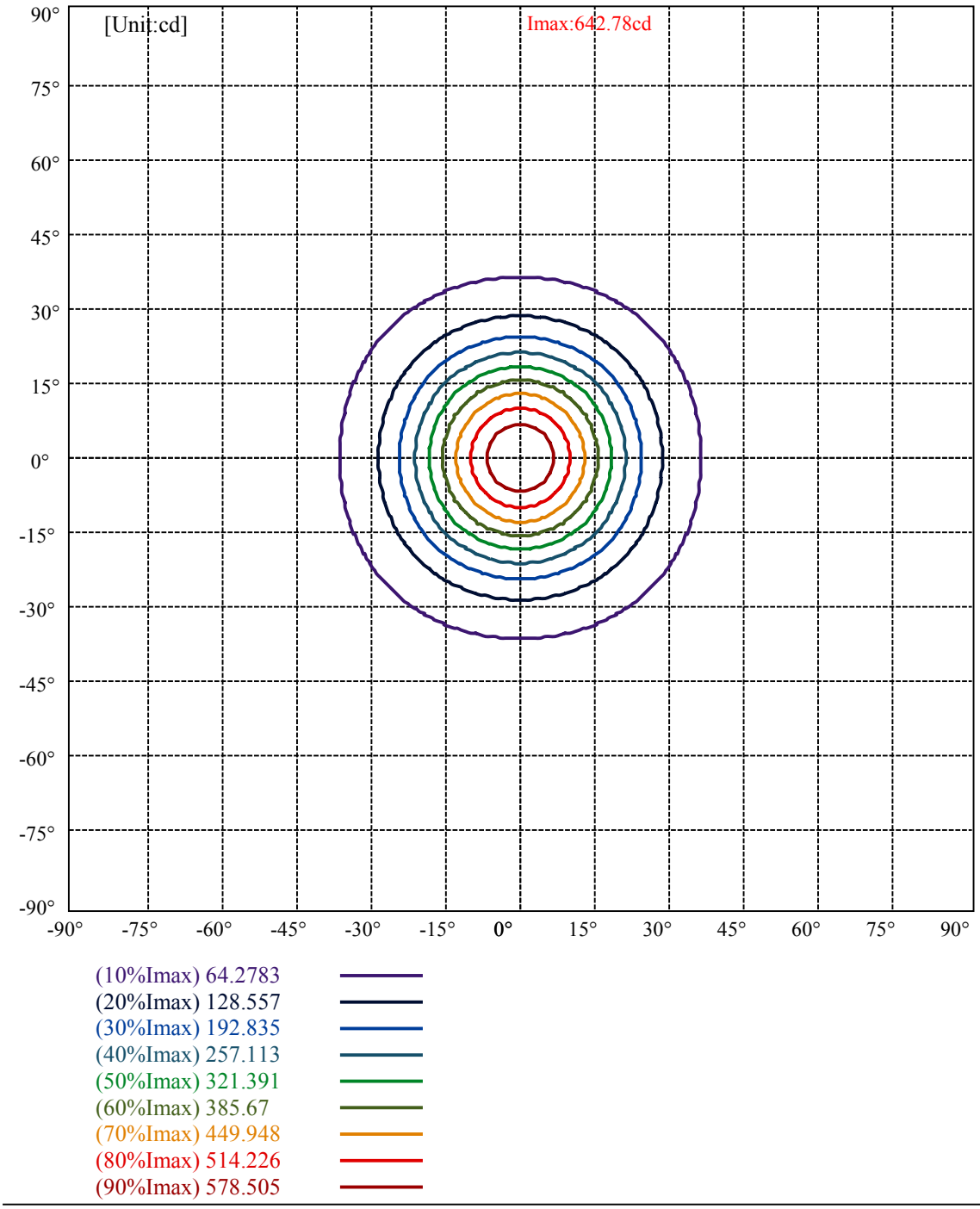
Equipment: GMS1980	Date: 2020/4/17	Operator: NT07
Temperature(°C): 25.0	Humidity(%): 65.0%	Distance(m): 7.50

Lux distance Curve



Equipment: GMS1980 Date: 2020/4/17 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 65.0% Distance(m): 7.50

ISO-Intensity(V-H)

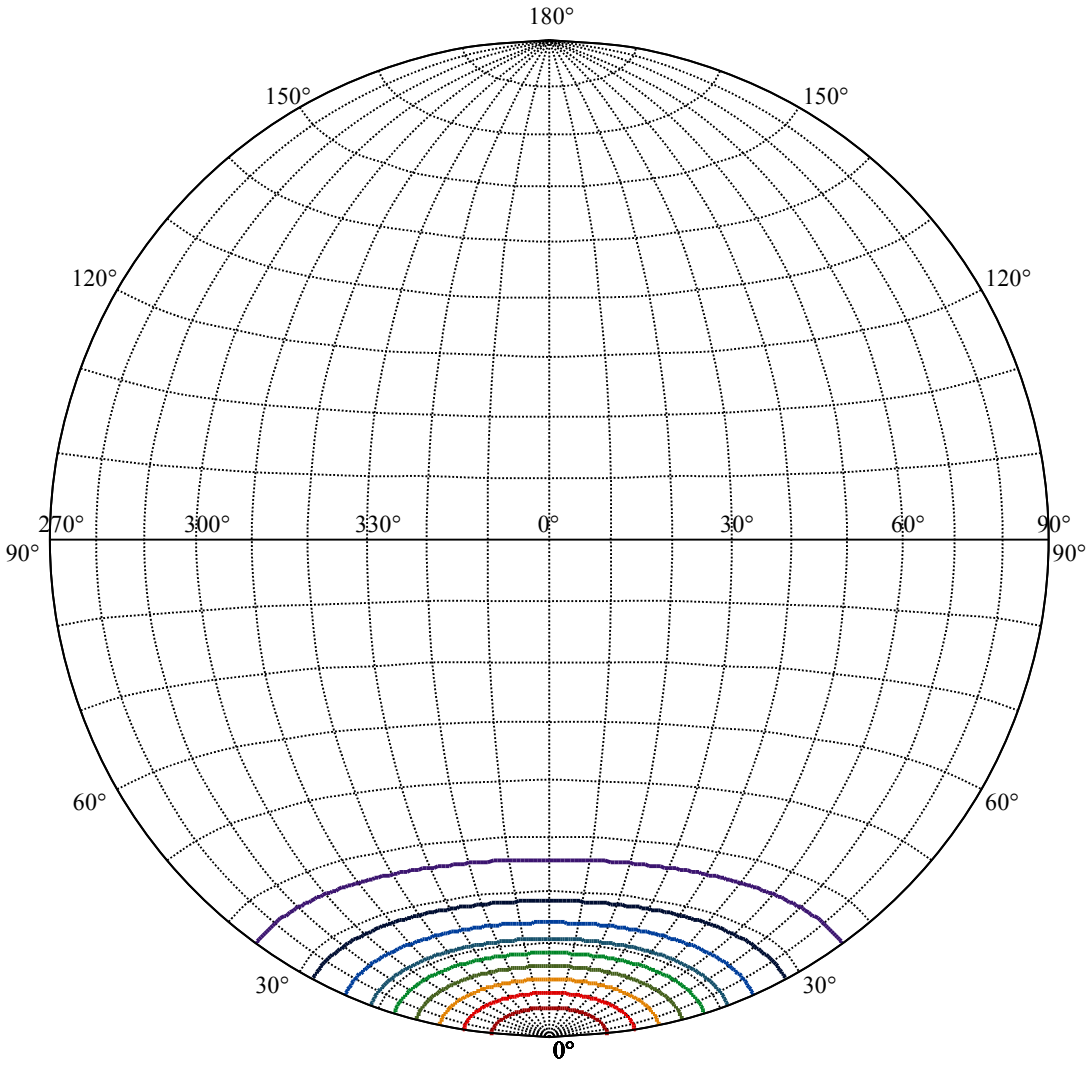


Equipment: GMS1980
Temperature(°C): 25.0

Date: 2020/4/17
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

ISO candela diagram on circular web



House [Unit:cd] Road

Imax:642.78

(10%Imax) 64.2783
(20%Imax) 128.557
(30%Imax) 192.835
(40%Imax) 257.113
(50%Imax) 321.391
(60%Imax) 385.67
(70%Imax) 449.948
(80%Imax) 514.226
(90%Imax) 578.505

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2020/4/17
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

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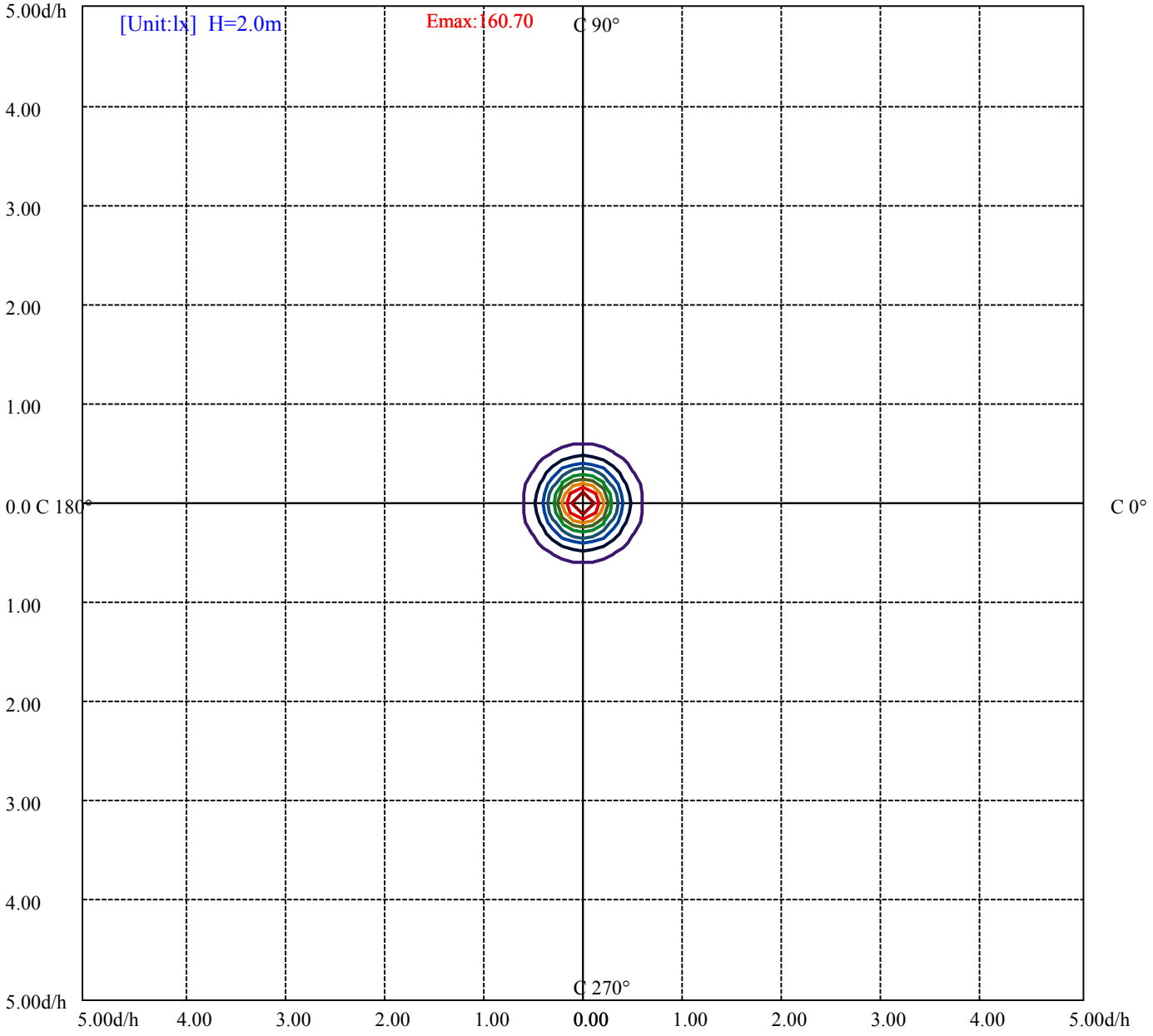
ISO illuminance diagram

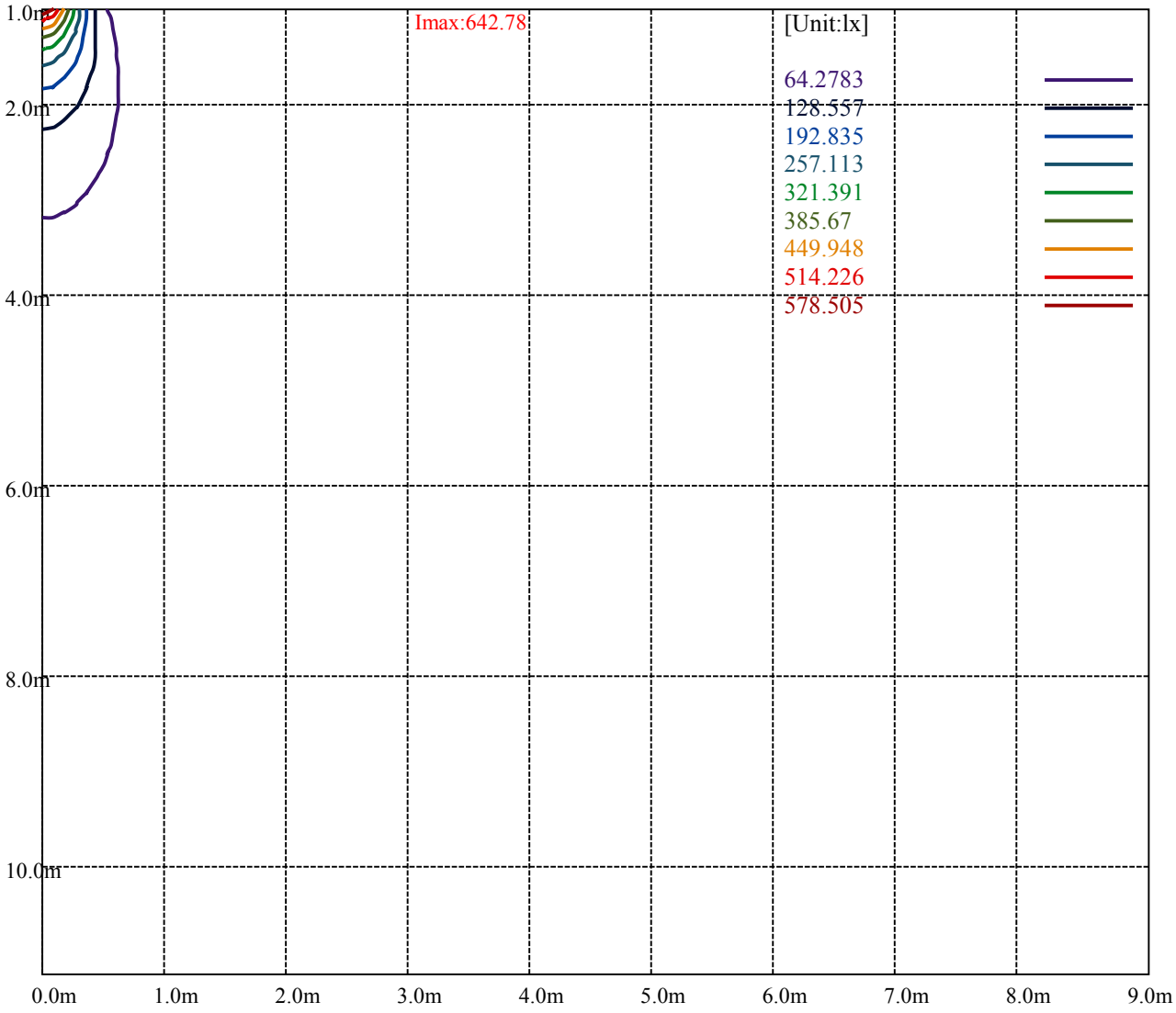


Equipment: GMS1980
Temperature(°C): 25.0

Date: 2020/4/17
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 25.0

Date: 2020/4/17
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

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Luminance Limitting Curve(no luminous side)

Luminance Table

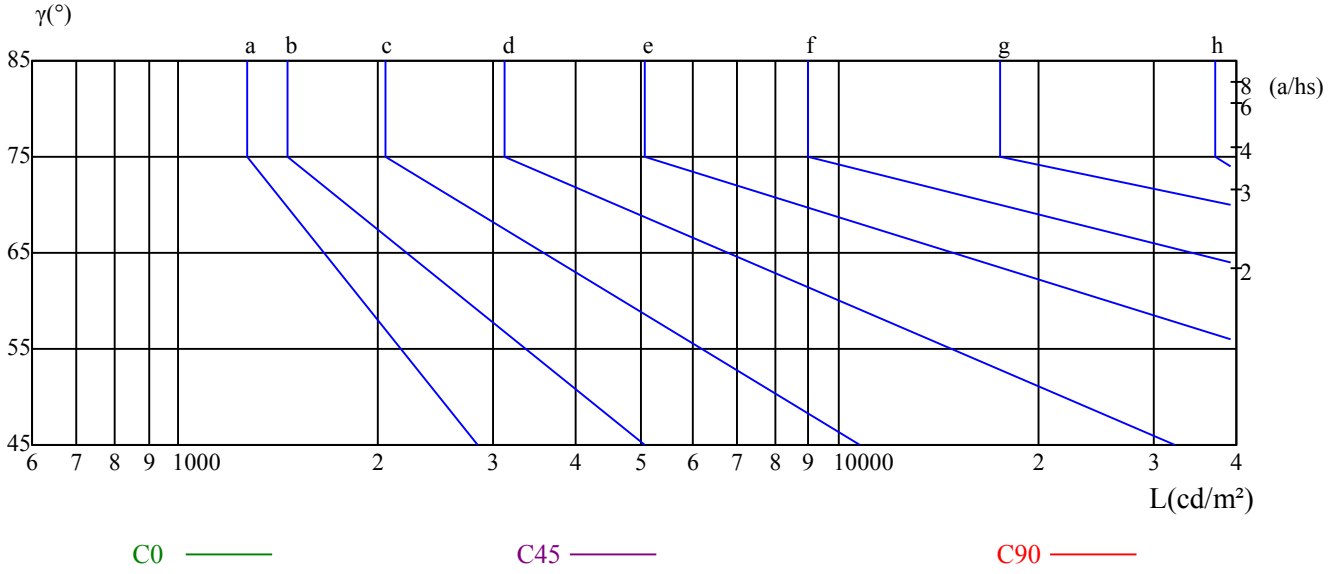
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

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

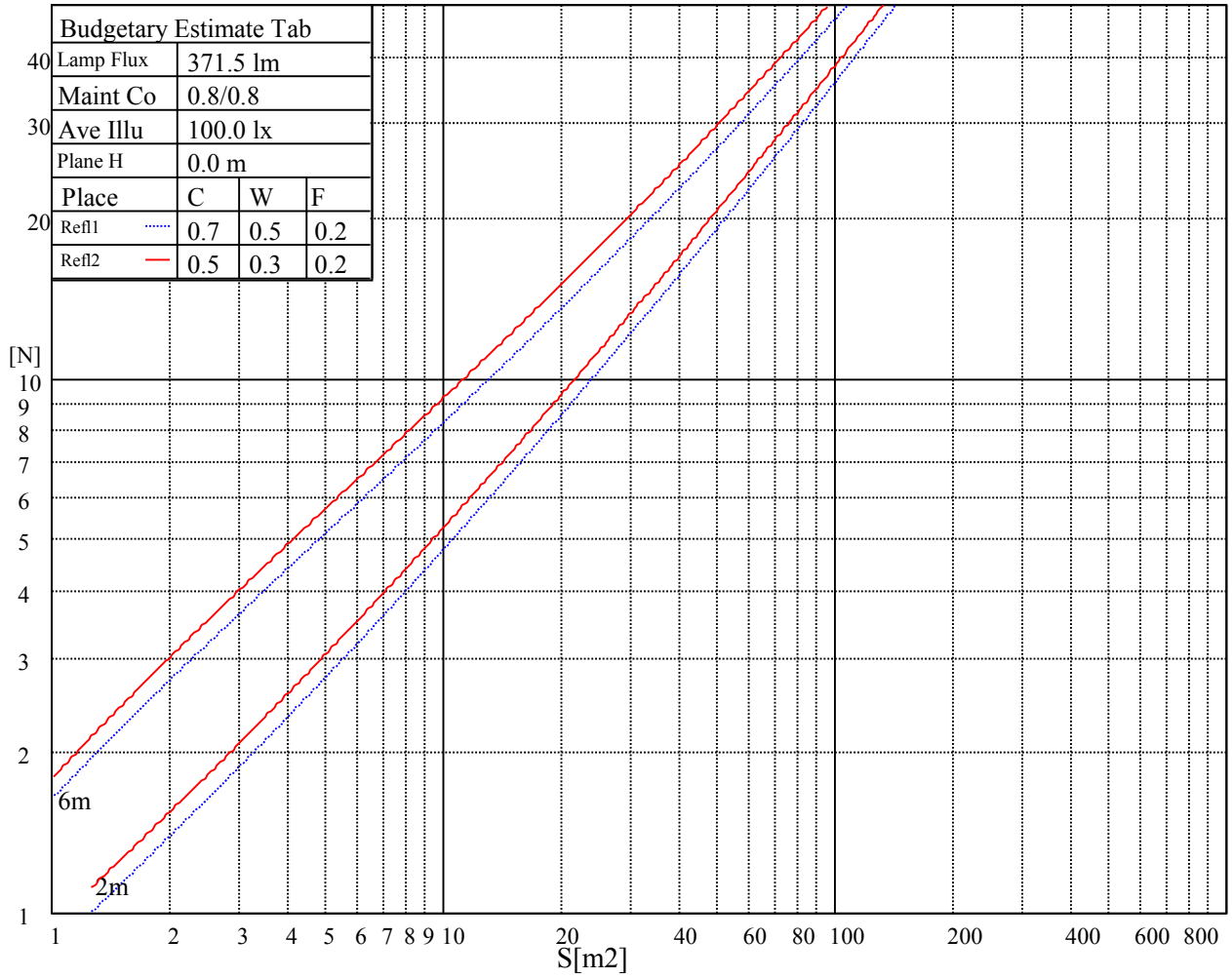


Equipment: GMS1980
Temperature(°C): 25.0

Date: 2020/4/17
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

Budgetary Estimate Table

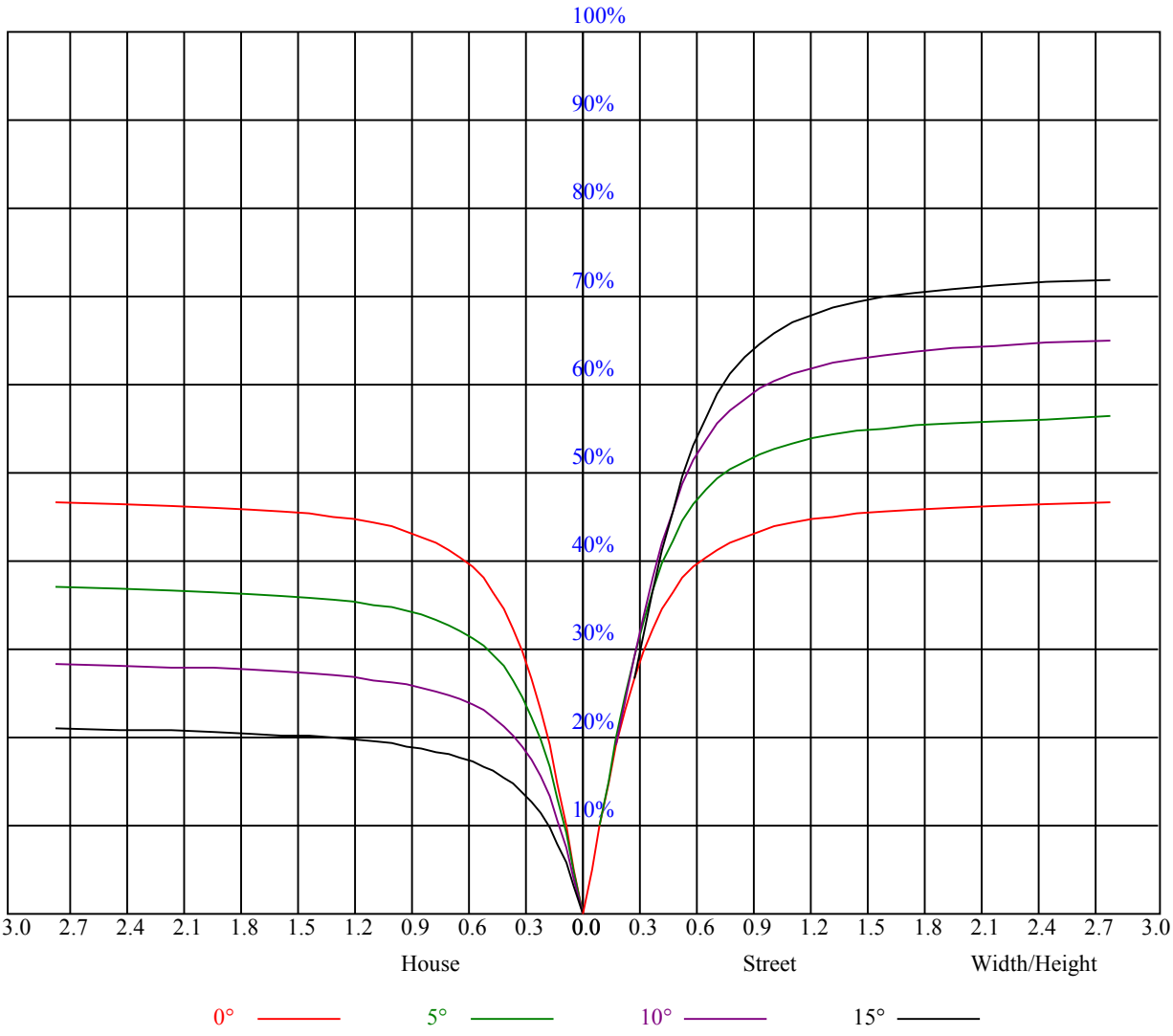


Equipment: GMS1980 Date: 2020/4/17 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 65.0% Distance(m): 7.50

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	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	0.97	0.97	0.97	0.96
1	1.04	1.02	0.99	1.02	1.00	0.97	0.98	0.96	0.94	0.95	0.93	0.92	0.91	0.90	0.89	0.87
2	0.96	0.92	0.88	0.95	0.91	0.87	0.91	0.88	0.85	0.89	0.86	0.84	0.86	0.84	0.82	0.80
3	0.89	0.84	0.80	0.88	0.83	0.79	0.86	0.81	0.78	0.83	0.80	0.77	0.81	0.78	0.76	0.74
4	0.84	0.78	0.74	0.82	0.77	0.73	0.80	0.76	0.72	0.78	0.74	0.71	0.77	0.73	0.71	0.69
5	0.78	0.72	0.68	0.77	0.72	0.68	0.76	0.71	0.67	0.74	0.70	0.67	0.73	0.69	0.66	0.65
6	0.74	0.68	0.64	0.73	0.67	0.63	0.72	0.67	0.63	0.70	0.66	0.63	0.69	0.65	0.62	0.61
7	0.70	0.64	0.60	0.69	0.64	0.60	0.68	0.63	0.59	0.67	0.62	0.59	0.66	0.62	0.59	0.57
8	0.66	0.60	0.56	0.66	0.60	0.56	0.64	0.59	0.56	0.63	0.59	0.56	0.63	0.58	0.55	0.54
9	0.63	0.57	0.53	0.62	0.57	0.53	0.61	0.56	0.53	0.61	0.56	0.53	0.60	0.56	0.53	0.51
10	0.60	0.54	0.51	0.59	0.54	0.51	0.59	0.54	0.50	0.58	0.53	0.50	0.57	0.53	0.50	0.49

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2020/4/17	Operator: NT07
Temperature(°C): 25.0	Humidity(%): 65.0%	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	644.51	641.14	635.18	628.09	616.61	602.61	588.04	570.26	554.12
45.0	643.89	640.86	634.39	625.11	613.69	597.71	579.77	562.61	545.06
90.0	641.03	638.44	632.93	623.03	608.91	594.28	577.80	555.69	536.12
135.0	641.70	643.61	641.36	635.74	628.65	613.13	598.95	584.55	562.11
180.0	644.51	645.13	642.94	636.30	627.47	615.71	597.21	579.26	559.58
225.0	643.89	644.85	643.39	638.61	630.39	620.78	609.08	591.36	574.14
270.0	641.03	640.41	637.48	630.62	621.79	606.88	593.94	580.22	564.75
315.0	641.70	638.04	631.52	621.34	609.92	594.62	580.05	563.06	544.39
360.0	644.51	641.14	635.18	628.09	616.61	602.61	588.04	570.26	554.12

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	534.77	514.24	495.62	476.33	451.97	431.72	411.47	385.76	364.89
45.0	521.38	500.57	479.19	455.34	431.33	410.40	389.48	363.15	341.38
90.0	515.08	487.91	466.20	444.09	421.99	394.03	372.09	350.66	326.31
135.0	540.11	521.27	492.75	469.69	446.34	416.81	392.85	368.78	338.46
180.0	532.58	510.08	486.68	456.98	435.83	408.38	377.72	356.74	333.06
225.0	554.74	528.36	506.70	484.65	459.00	432.90	409.50	382.67	358.82
270.0	543.15	524.08	504.34	482.01	459.90	439.31	415.80	390.88	368.83
315.0	526.61	506.03	484.88	465.86	446.18	421.48	401.68	381.66	358.14
360.0	534.77	514.24	495.62	476.33	451.97	431.72	411.47	385.76	364.89

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	344.14	321.02	298.46	278.83	256.95	236.25	218.59	199.29	183.15
45.0	316.69	295.20	271.24	251.27	229.78	207.62	190.29	172.58	157.22
90.0	301.33	279.28	255.88	232.59	212.63	191.53	174.04	156.09	139.73
135.0	314.83	291.49	264.21	241.82	220.11	195.53	177.47	160.65	142.93
180.0	300.99	281.03	259.03	230.06	212.63	193.44	173.76	155.59	140.40
225.0	333.23	307.91	286.43	261.96	238.50	218.87	200.03	178.20	162.62
270.0	344.42	322.93	299.25	276.02	255.99	234.39	214.37	196.99	182.64
315.0	335.03	314.89	292.11	269.94	251.04	230.79	213.64	195.24	180.11
360.0	344.14	321.02	298.46	278.83	256.95	236.25	218.59	199.29	183.15

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	166.28	151.03	138.94	127.97	115.82	107.21	99.11	89.89	83.31
45.0	141.24	127.86	116.78	106.43	95.63	88.76	81.06	73.18	67.73
90.0	126.73	115.14	102.04	92.70	84.60	75.71	69.64	64.13	58.44
135.0	127.01	114.92	102.77	93.09	83.36	75.15	68.68	62.27	56.70
180.0	125.27	113.34	101.36	90.79	82.69	74.70	67.78	62.55	57.71
225.0	148.33	133.14	119.70	109.46	99.17	90.00	82.63	75.15	69.30
270.0	161.94	148.61	137.87	124.20	113.18	105.30	95.29	87.13	81.45
315.0	164.42	151.48	138.49	126.51	117.00	107.27	98.27	90.90	84.15
360.0	166.28	151.03	138.94	127.97	115.82	107.21	99.11	89.89	83.31

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	77.29	70.88	65.08	60.36	55.80	51.92	47.93	44.61	41.68
45.0	62.78	57.77	53.21	49.78	45.73	42.41	39.21	36.23	33.92
90.0	53.61	49.67	45.73	42.19	39.26	36.34	33.86	31.33	29.03
135.0	52.43	48.43	44.21	41.12	38.25	35.49	32.74	30.60	28.35
180.0	52.43	48.66	45.23	41.40	38.64	36.06	33.69	31.05	29.19
225.0	63.23	57.94	53.78	49.39	45.73	42.58	39.66	36.34	33.86
270.0	74.03	68.74	63.79	58.16	54.23	50.57	46.24	43.09	40.33
315.0	76.61	71.04	65.98	60.24	56.14	52.26	48.15	44.44	41.46
360.0	77.29	70.88	65.08	60.36	55.80	51.92	47.93	44.61	41.68

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	38.70	35.83	33.58	31.39	28.80	27.00	25.43	23.79	22.28
45.0	31.73	29.19	27.45	26.04	23.96	22.56	21.26	20.03	18.73
90.0	27.23	25.65	23.91	22.56	21.26	19.86	18.79	17.89	16.88
135.0	26.49	24.98	23.40	22.11	20.76	19.52	18.51	17.66	16.65
180.0	27.45	25.71	24.08	22.73	21.38	20.08	19.07	18.06	17.16
225.0	31.61	29.31	27.39	25.71	24.02	22.39	21.15	19.80	18.73
270.0	37.07	34.59	32.46	30.15	27.90	26.10	24.36	22.95	21.49
315.0	38.48	35.94	33.36	30.88	28.91	26.83	24.98	23.51	22.16
360.0	38.70	35.83	33.58	31.39	28.80	27.00	25.43	23.79	22.28

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	20.98	19.69	18.51	17.49	16.54	15.64	14.79	13.95	13.28
45.0	17.83	16.71	15.75	15.08	14.18	13.50	12.94	12.21	11.64
90.0	16.03	15.24	14.51	13.89	13.22	12.66	12.15	11.64	11.19
135.0	15.86	15.13	14.34	13.84	13.33	12.77	12.32	11.87	11.42
180.0	16.31	15.47	14.79	14.18	13.50	13.05	12.60	12.09	11.64
225.0	17.66	16.65	15.81	15.02	14.18	13.56	12.99	12.32	11.87
270.0	20.14	19.01	17.83	16.76	15.92	15.08	14.18	13.50	12.83
315.0	20.48	19.29	18.28	17.10	16.14	15.30	14.40	13.61	12.94
360.0	20.98	19.69	18.51	17.49	16.54	15.64	14.79	13.95	13.28

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	12.71	12.04	11.53	11.03	10.52	10.13	9.73	9.34	9.00
45.0	11.14	10.58	10.13	9.79	9.39	9.06	8.78	8.49	8.27
90.0	10.74	10.41	10.01	9.68	9.45	9.17	8.83	8.66	8.38
135.0	11.08	10.69	10.29	10.07	9.79	9.56	9.34	9.11	8.83
180.0	11.19	10.80	10.52	10.18	9.84	9.56	9.28	9.00	8.78
225.0	11.36	10.86	10.46	10.07	9.73	9.45	9.17	8.83	8.61
270.0	12.21	11.53	11.08	10.58	10.13	9.79	9.39	9.06	8.66
315.0	12.26	11.64	11.03	10.58	10.18	9.79	9.28	8.94	8.61
360.0	12.71	12.04	11.53	11.03	10.52	10.13	9.73	9.34	9.00

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	8.66	8.38	8.10	7.88	7.59	7.43	7.14	6.92	6.75
45.0	8.04	7.82	7.65	7.48	7.31	7.14	6.92	6.75	6.58
90.0	8.21	7.93	7.71	7.48	7.26	7.09	6.86	6.64	6.41
135.0	8.66	8.55	8.33	8.16	7.99	7.82	7.65	7.48	7.31
180.0	8.55	8.33	8.10	7.88	7.54	7.31	7.14	6.86	6.64
225.0	8.44	8.16	7.99	7.82	7.48	7.26	6.98	6.08	5.57
270.0	8.33	8.04	7.82	7.48	7.26	7.03	6.75	6.53	6.30
315.0	8.21	7.99	7.76	7.54	7.26	7.09	6.86	6.64	6.47
360.0	8.66	8.38	8.10	7.88	7.59	7.43	7.14	6.92	6.75

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	6.53	6.30	5.96	5.63	5.34	4.95	3.49	2.19	1.58
45.0	6.36	6.13	5.96	5.63	5.12	4.50	2.59	1.86	1.46
90.0	6.19	5.96	5.68	5.51	4.89	4.44	2.36	1.69	1.46
135.0	7.09	6.92	6.69	6.36	5.74	5.12	2.64	1.86	1.52
180.0	6.36	6.02	5.68	5.29	5.01	3.49	1.97	1.52	1.41
225.0	6.13	6.13	6.08	5.46	5.18	4.73	2.48	1.80	1.46
270.0	5.96	5.74	5.51	5.29	4.73	4.39	2.70	1.86	1.58
315.0	6.24	6.08	5.79	5.46	5.06	4.44	2.53	1.74	1.46
360.0	6.53	6.30	5.96	5.63	5.34	4.95	3.49	2.19	1.58

Intensity data(cd)

C/γ(°)	90.0
0.0	1.41
45.0	1.46
90.0	1.46
135.0	1.46
180.0	1.46
225.0	1.41
270.0	1.46
315.0	1.46
360.0	1.41