
LumCAT: 4-2108-A
Luminaire: 92.76.323.00
Report No: NATA0100
Test No: GC2019061801
LampCAT: PHILIPS SLM 1205 G7
Lamp flux(lm): 1233.0
Number of Lamps: 1
Length(mm): 100
Phm Type: C

Voltage(V): 33.4100
Current(A): 0.2470
Power (W): 8.2500
PF: 0.0000
Ballast type: DC
Width(mm): 100
Height(mm): 0

Photometric Results

Lumens(lm): 1091.58
Efficiency(%): 88.53%
Lumens(lm)/Power(W): 132.31
Central intensity(cd): 13374.840
Maximum intensity(cd): 13374.840
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=11.1
 [C90/270]Total=11.1
Field angle(10%Imax): [C0/180]Total=20.8
 [C90/270]Total=20.8
Maximum s/h(1/2): C0_180=0.19 C90_270=0.19
Maximum s/h(1/4): C0_180=0.19 C90_270=0.19
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 88.53%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.737%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	13374.844	0.000	0	.000%	.000%
1.0	13076.719	12.657	12.657	1.026%	1.159%
2.0	12020.063	36.021	48.678	2.921%	4.459%
3.0	10791.281	54.557	103.235	4.425%	9.457%
4.0	9229.078	67.015	170.25	5.435%	15.597%
5.0	7638.047	72.561	242.811	5.885%	22.244%
6.0	5832.141	70.789	313.601	5.741%	28.729%
7.0	4298.133	62.878	376.479	5.100%	34.489%
8.0	3166.313	53.422	429.901	4.333%	39.383%
9.0	2244.164	43.849	473.75	3.556%	43.400%
10.0	1475.740	33.664	507.413	2.730%	46.484%
11.0	1113.877	25.876	533.289	2.099%	48.855%
12.0	944.037	22.496	555.785	1.824%	50.915%
13.0	786.023	20.531	576.316	1.665%	52.796%
14.0	707.182	19.113	595.429	1.550%	54.547%
15.0	651.227	18.649	614.078	1.512%	56.256%
16.0	603.612	18.387	632.465	1.491%	57.940%
17.0	564.286	18.187	650.652	1.475%	59.606%
18.0	538.432	18.181	668.834	1.475%	61.272%
19.0	520.643	18.426	687.259	1.494%	62.960%
20.0	508.444	18.835	706.095	1.528%	64.685%
21.0	498.727	19.340	725.434	1.569%	66.457%
22.0	489.783	19.865	745.299	1.611%	68.277%
23.0	482.041	20.391	765.69	1.654%	70.145%
24.0	472.613	20.872	786.562	1.693%	72.057%
25.0	462.677	21.266	807.829	1.725%	74.005%
26.0	453.073	21.616	829.445	1.753%	75.985%
27.0	442.955	21.922	851.367	1.778%	77.994%
28.0	431.627	22.143	873.509	1.796%	80.022%
29.0	422.297	22.341	895.85	1.812%	82.069%
30.0	412.481	22.539	918.389	1.828%	84.134%
31.0	399.502	22.596	940.986	1.833%	86.204%
32.0	387.844	22.557	963.542	1.829%	88.270%
33.0	367.706	22.259	985.801	1.805%	90.309%
34.0	327.438	21.037	1006.838	1.706%	92.236%
35.0	274.472	18.693	1025.531	1.516%	93.949%
36.0	214.847	15.580	1041.111	1.264%	95.376%
37.0	146.700	11.792	1052.903	.956%	96.456%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	90.977	7.933	1060.836	.643%	97.183%
39.0	43.791	4.600	1065.436	.373%	97.605%
40.0	21.347	2.272	1067.708	.184%	97.813%
41.0	13.774	1.251	1068.959	.101%	97.927%
42.0	11.145	0.905	1069.864	.073%	98.010%
43.0	9.345	0.759	1070.623	.062%	98.080%
44.0	7.305	0.628	1071.251	.051%	98.137%
45.0	5.885	0.507	1071.758	.041%	98.184%
46.0	5.091	0.429	1072.187	.035%	98.223%
47.0	4.957	0.400	1072.587	.032%	98.260%
48.0	4.873	0.397	1072.984	.032%	98.296%
49.0	4.788	0.397	1073.381	.032%	98.332%
50.0	4.725	0.397	1073.778	.032%	98.369%
51.0	4.669	0.397	1074.175	.032%	98.405%
52.0	4.613	0.398	1074.573	.032%	98.442%
53.0	4.542	0.398	1074.972	.032%	98.478%
54.0	4.514	0.399	1075.371	.032%	98.515%
55.0	4.465	0.401	1075.772	.033%	98.551%
56.0	4.409	0.401	1076.173	.033%	98.588%
57.0	4.388	0.402	1076.575	.033%	98.625%
58.0	4.359	0.404	1076.979	.033%	98.662%
59.0	4.345	0.407	1077.386	.033%	98.699%
60.0	4.324	0.410	1077.796	.033%	98.737%
61.0	4.296	0.411	1078.207	.033%	98.775%
62.0	4.289	0.414	1078.621	.034%	98.812%
63.0	4.289	0.417	1079.038	.034%	98.851%
64.0	4.254	0.419	1079.457	.034%	98.889%
65.0	4.268	0.422	1079.879	.034%	98.928%
66.0	4.247	0.425	1080.304	.034%	98.967%
67.0	4.240	0.427	1080.731	.035%	99.006%
68.0	4.240	0.430	1081.16	.035%	99.045%
69.0	4.247	0.433	1081.593	.035%	99.085%
70.0	4.324	0.440	1082.033	.036%	99.125%
71.0	4.338	0.448	1082.481	.036%	99.166%
72.0	4.507	0.460	1082.941	.037%	99.208%
73.0	4.697	0.481	1083.422	.039%	99.252%
74.0	4.662	0.492	1083.914	.040%	99.297%
75.0	4.556	0.487	1084.401	.040%	99.342%

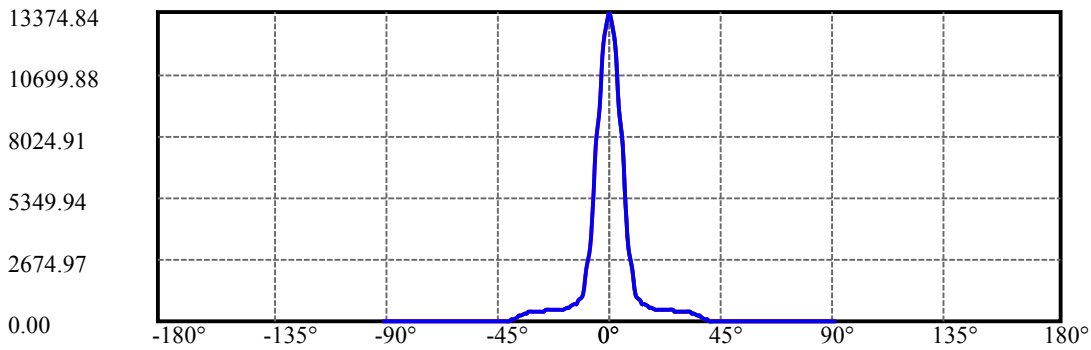
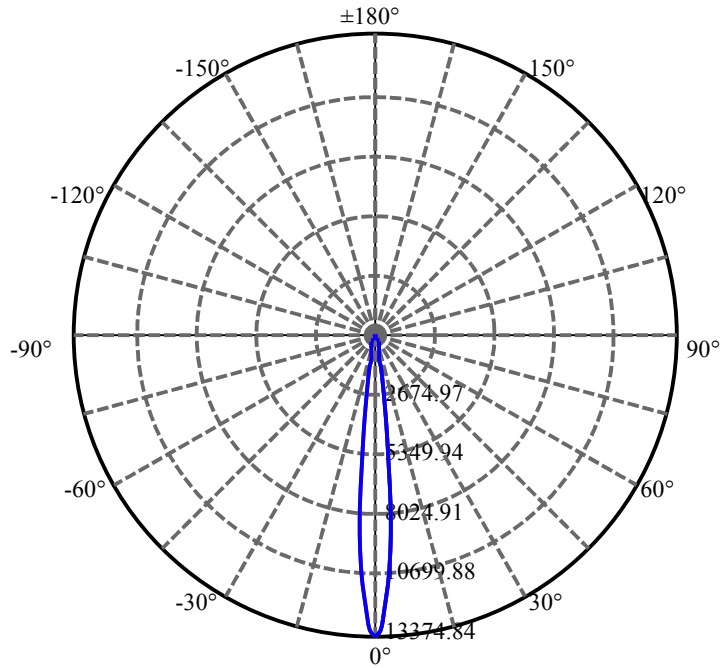
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	4.528	0.482	1084.884	.039%	99.386%
77.0	4.549	0.484	1085.368	.039%	99.430%
78.0	4.542	0.487	1085.854	.039%	99.475%
79.0	4.598	0.491	1086.345	.040%	99.520%
80.0	4.577	0.495	1086.84	.040%	99.565%
81.0	4.472	0.489	1087.329	.040%	99.610%
82.0	4.359	0.479	1087.808	.039%	99.654%
83.0	4.352	0.474	1088.282	.038%	99.697%
84.0	4.380	0.476	1088.758	.039%	99.741%
85.0	4.409	0.480	1089.237	.039%	99.785%
86.0	4.437	0.483	1089.721	.039%	99.829%
87.0	4.451	0.486	1090.207	.039%	99.874%
88.0	4.261	0.477	1090.684	.039%	99.918%
89.0	4.064	0.456	1091.141	.037%	99.959%
90.0	4.029	0.444	1091.584	.036%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	918.39	74.48%	84.13%
0-40	1067.71	86.59%	97.81%
0-60	1077.80	87.41%	98.74%
0-90	1091.14	88.49%	99.96%
0-120	1091.14	88.49%	99.96%
0-180	1091.58	88.53%	100.00%
60-90	13.75	1.12%	1.26%
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%
0-27.99	873.27	70.82%	80.00%

ZONAL LUMEN SUMMARY

0-10	507.41
10-20	198.68
20-30	212.29
30-40	149.32
40-50	6.07
50-60	4.02
60-70	4.24
70-80	4.81
80-90	4.30
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



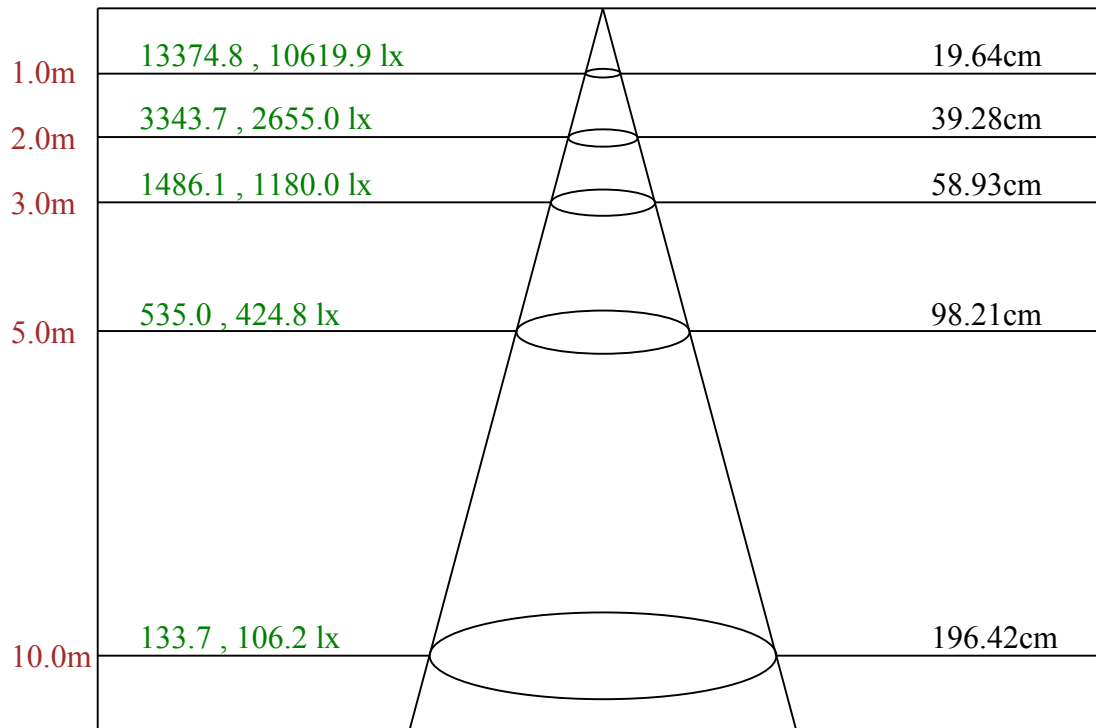
C0(Max): —————

C0/C180: —————

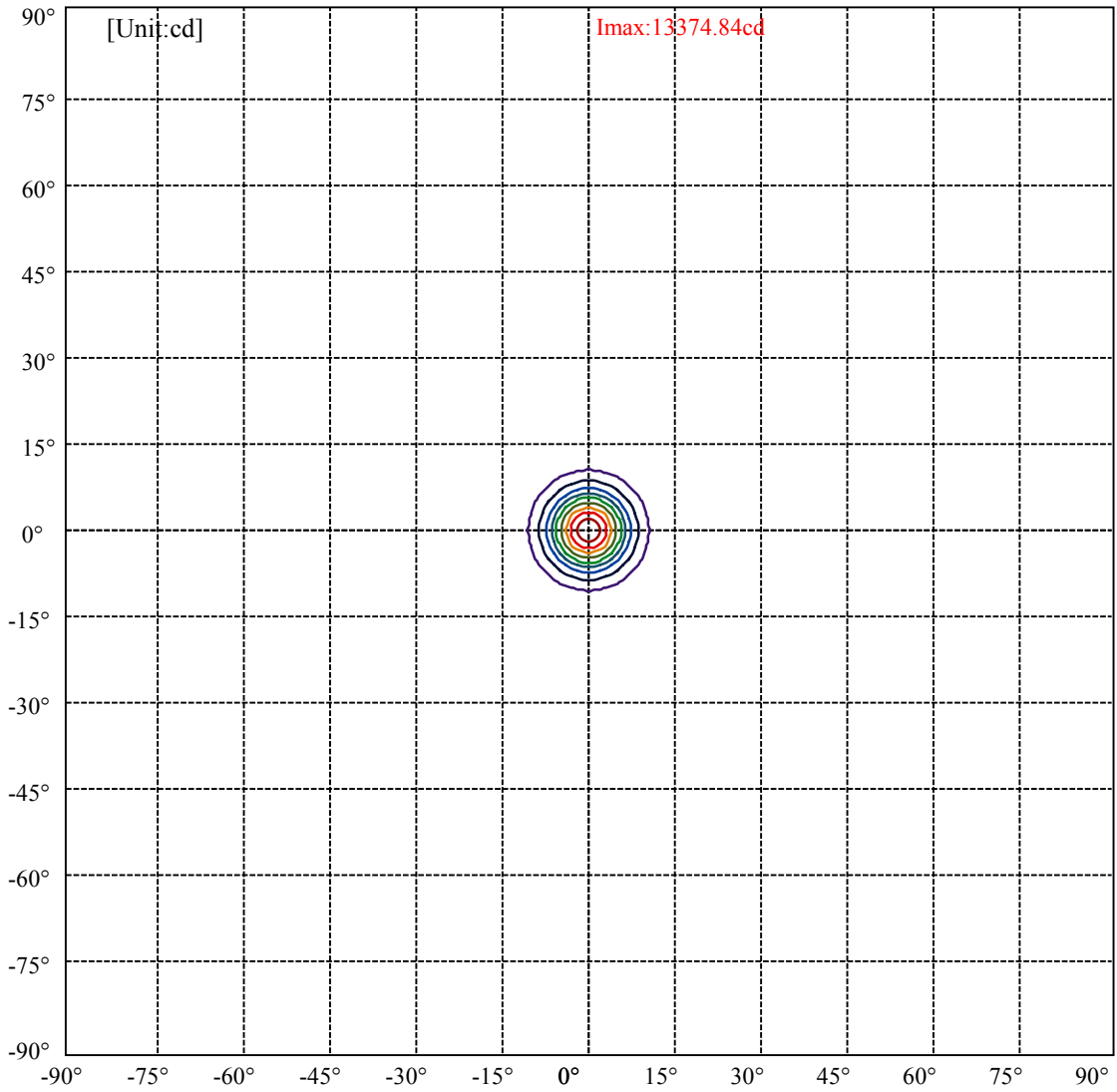
C90/C270: —————

Field angle(10%Imax):C0/180Left:10.4 Right:10.4
:C90/270Left:10.4 Right:10.4

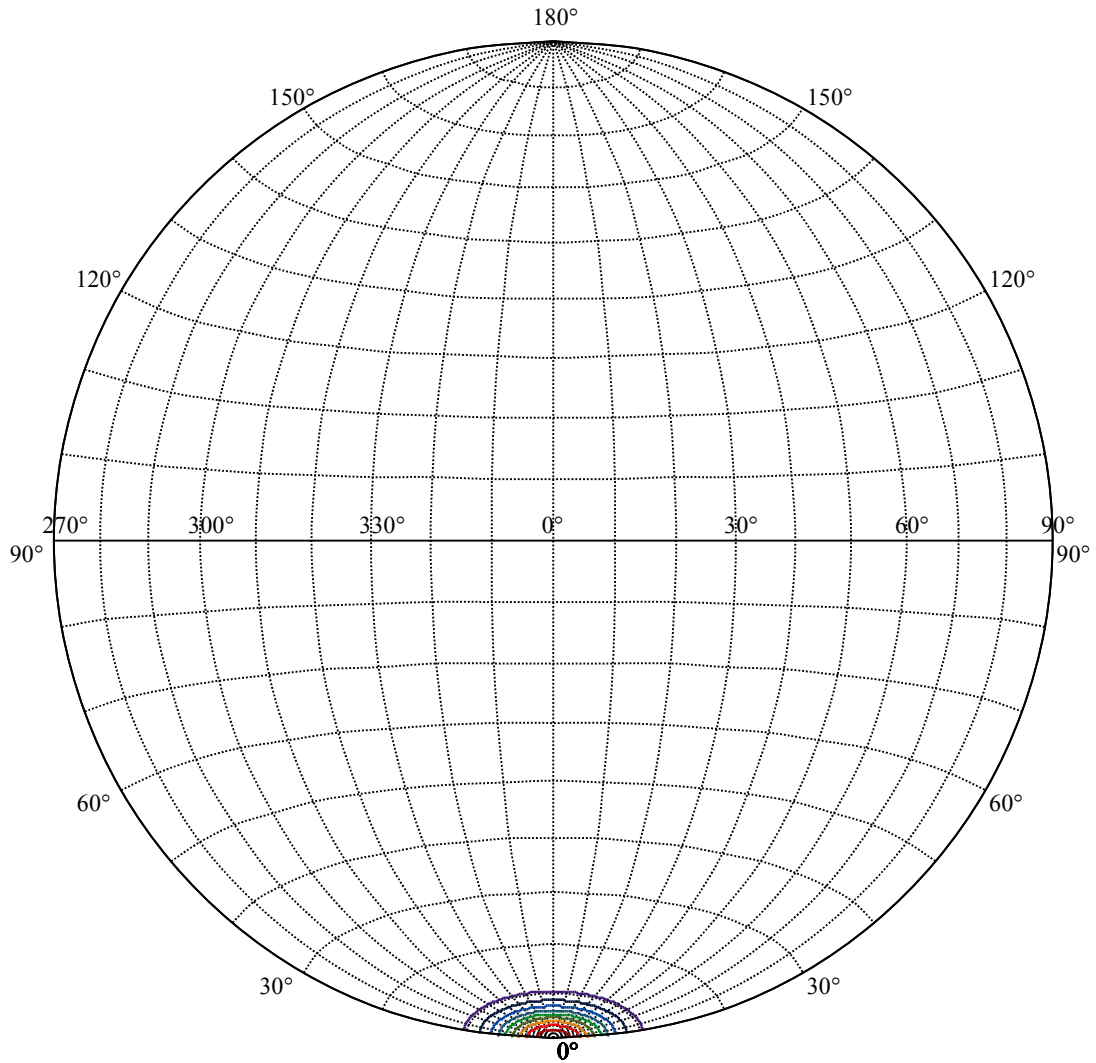
Beam Angle(50%Imax):C0/180Left:5.5 Right:5.5
:C90/270Left:5.5 Right:5.5



Max , Ave Beam angle of C0 plane 11.22



(10%Imax) 1337.48	—
(20%Imax) 2674.97	—
(30%Imax) 4012.45	—
(40%Imax) 5349.94	—
(50%Imax) 6687.42	—
(60%Imax) 8024.91	—
(70%Imax) 9362.39	—
(80%Imax) 10699.9	—
(90%Imax) 12037.4	—



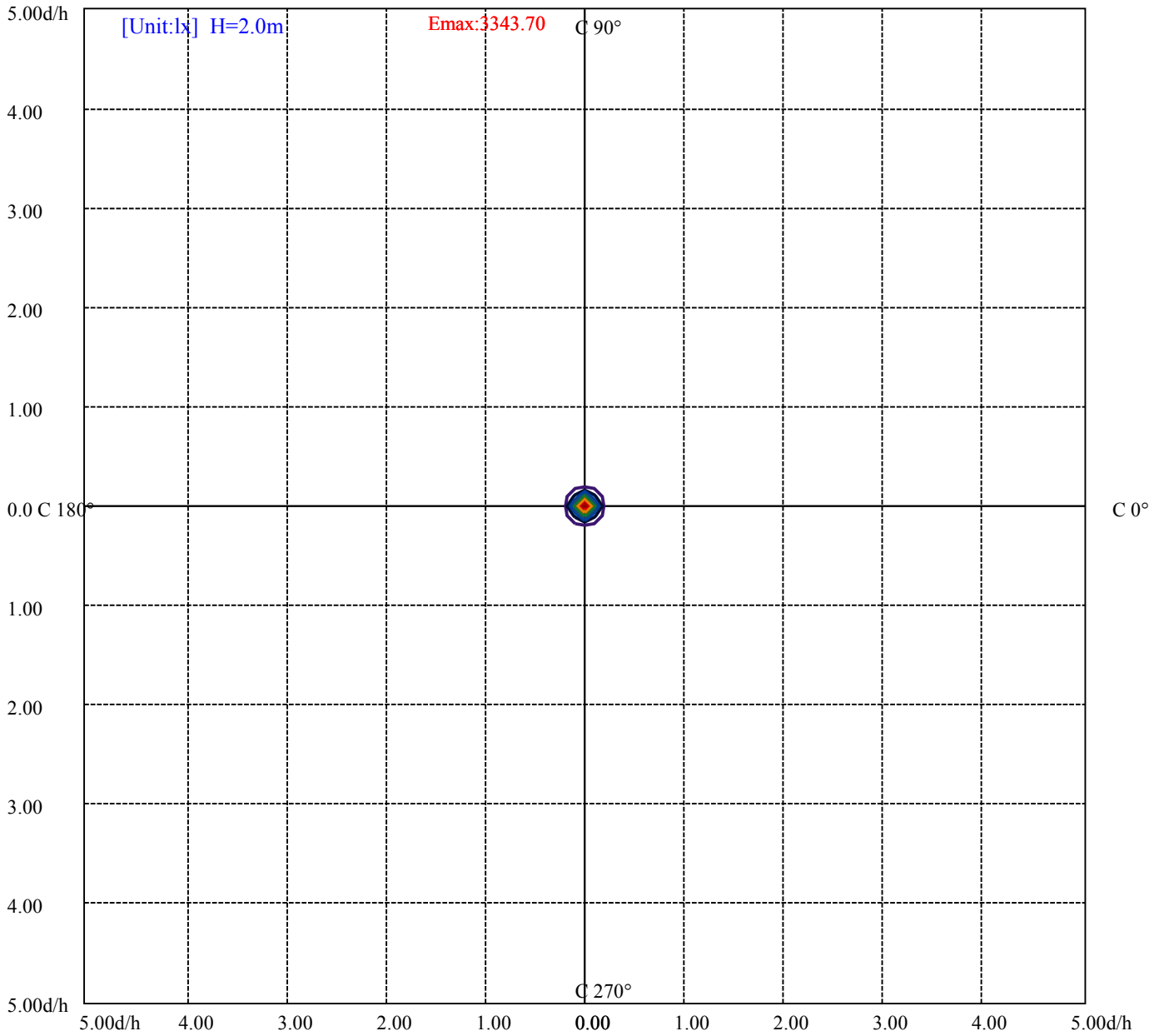
House

[Unit:cd]

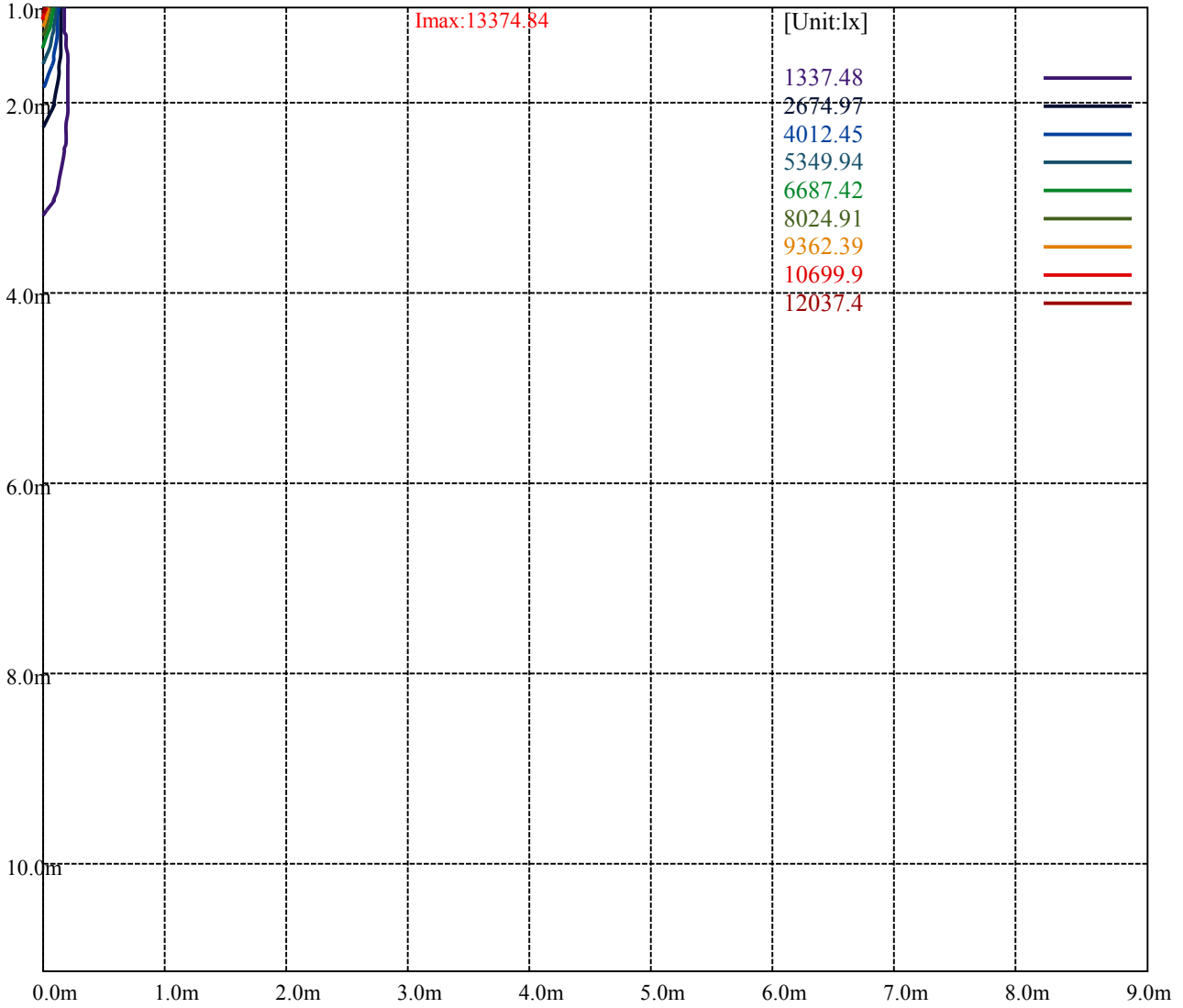
Road

Imax:13374.84

(10%Imax) 1337.48	—
(20%Imax) 2674.97	—
(30%Imax) 4012.45	—
(40%Imax) 5349.94	—
(50%Imax) 6687.42	—
(60%Imax) 8024.91	—
(70%Imax) 9362.39	—
(80%Imax) 10699.9	—
(90%Imax) 12037.4	—



- (10%Emax) 334.37
- (20%Emax) 668.74
- (30%Emax) 1003.11
- (40%Emax) 1337.48
- (50%Emax) 1671.85
- (60%Emax) 2006.22
- (70%Emax) 2340.59
- (80%Emax) 2674.95
- (90%Emax) 3009.325



Luminance Table

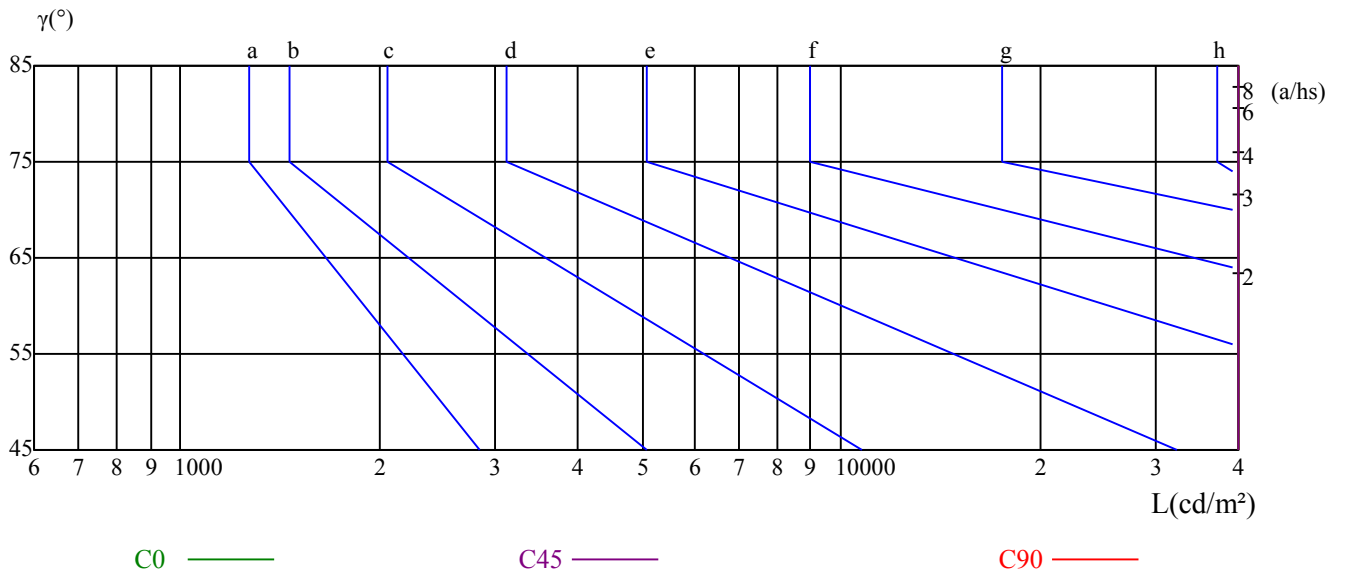
γ	45	50	55	60	65	70	75	80	85
C0	83229	73508	77842	86484	100989	126432	176040	263599	505829
C45	83229	73508	77842	86484	100989	126432	176040	263599	505829
C90	83229	73508	77842	86484	100989	126432	176040	263599	505829

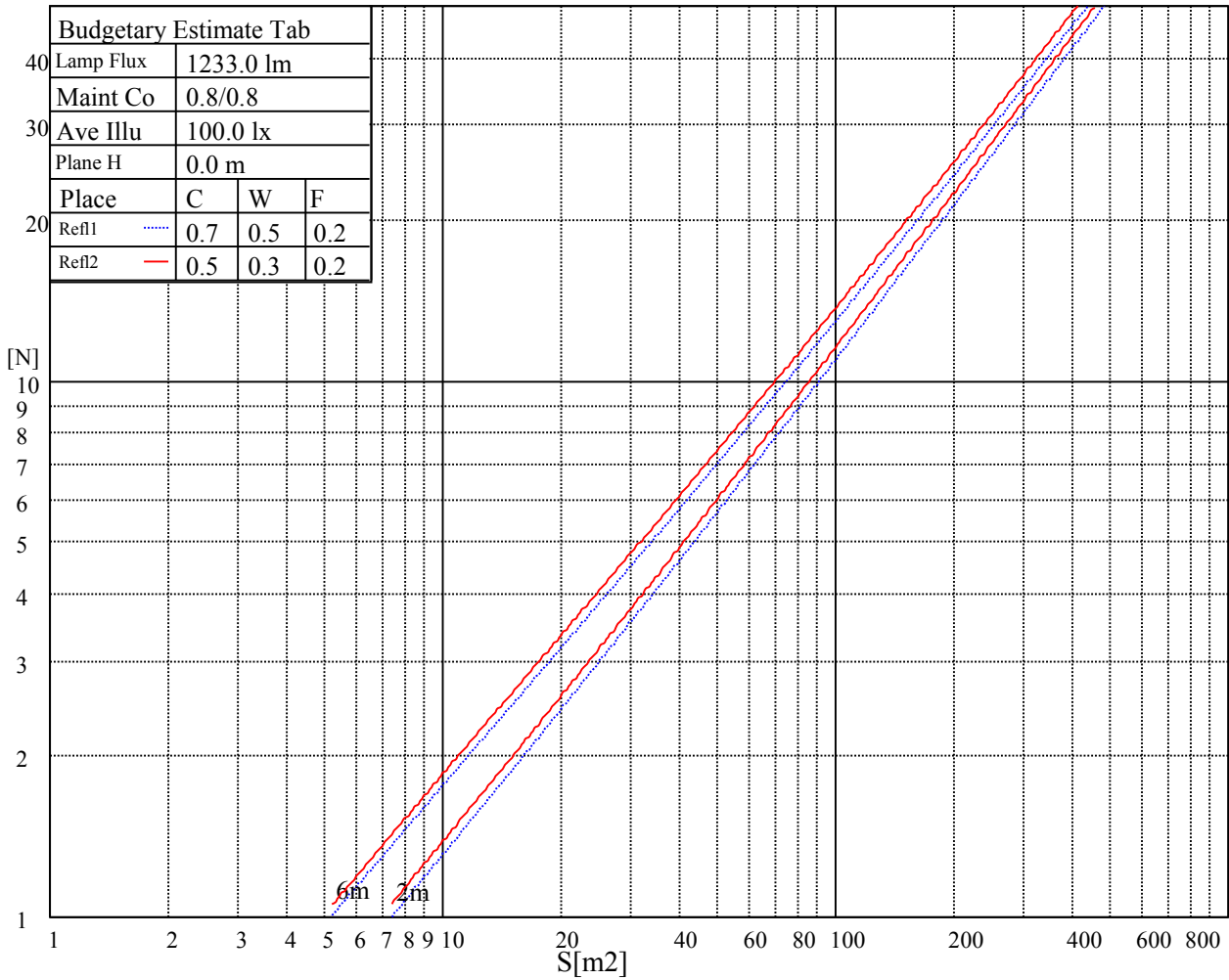
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
100989	100989	100989	176040	176040	176040	505829	505829	505829

Glare Table

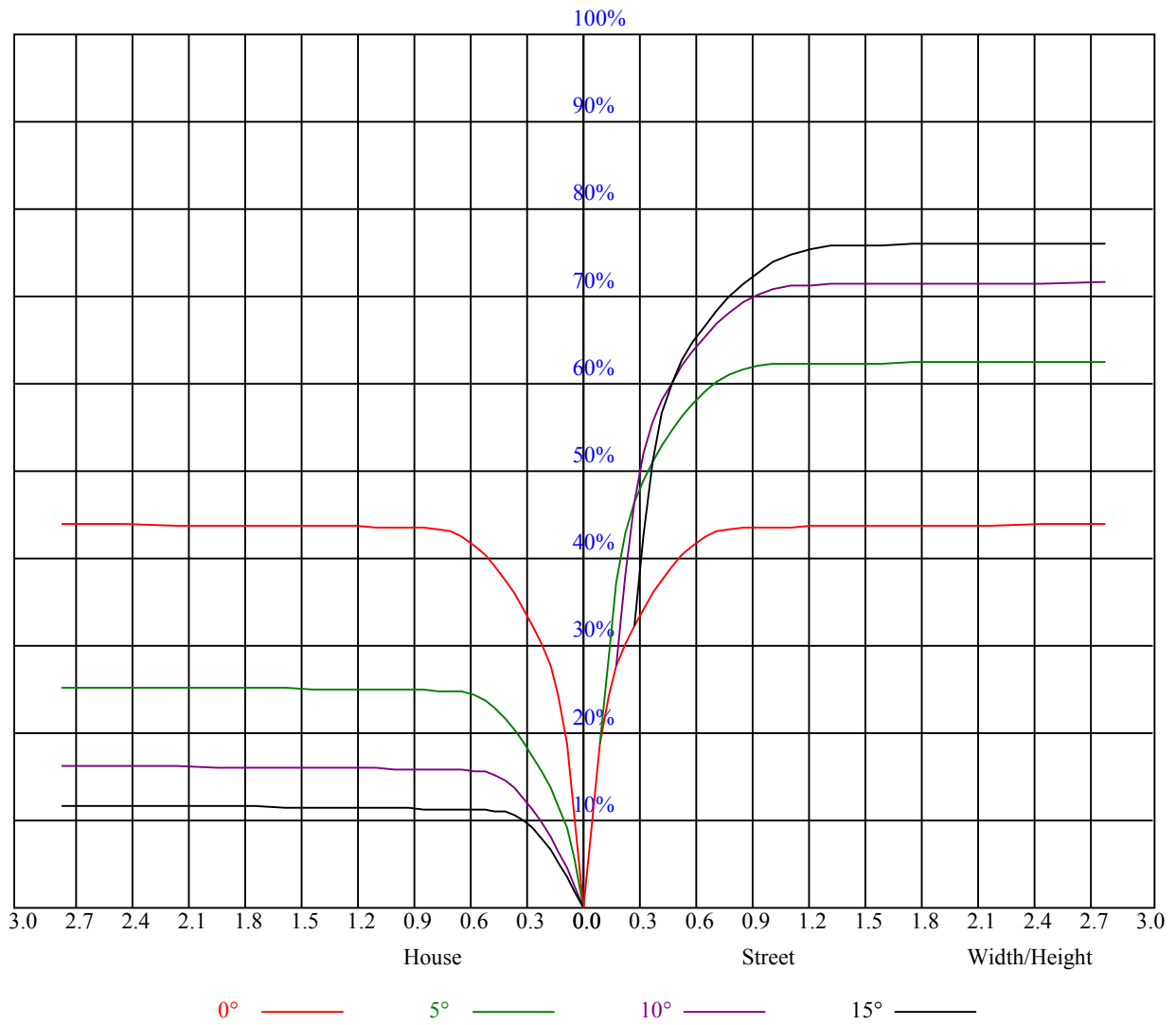
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve





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	COEFFICIENTS OF UTILIZATION RHOFC=20 CU															
0	1.05	1.05	1.05	1.03	1.03	1.03	0.98	0.98	0.98	0.94	0.94	0.94	0.90	0.90	0.90	0.89
1	0.99	0.98	0.96	0.98	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87	0.86	0.85
2	0.94	0.92	0.89	0.93	0.90	0.88	0.90	0.88	0.86	0.88	0.86	0.85	0.85	0.84	0.83	0.81
3	0.90	0.87	0.84	0.89	0.86	0.83	0.87	0.84	0.82	0.85	0.83	0.81	0.83	0.81	0.80	0.78
4	0.86	0.83	0.80	0.85	0.82	0.79	0.84	0.81	0.78	0.82	0.80	0.78	0.80	0.78	0.77	0.76
5	0.83	0.79	0.76	0.82	0.79	0.76	0.81	0.78	0.75	0.79	0.77	0.75	0.78	0.76	0.74	0.73
6	0.80	0.76	0.73	0.79	0.76	0.73	0.78	0.75	0.73	0.77	0.74	0.72	0.76	0.74	0.72	0.71
7	0.77	0.73	0.71	0.77	0.73	0.71	0.76	0.73	0.70	0.75	0.72	0.70	0.74	0.71	0.70	0.69
8	0.75	0.71	0.68	0.74	0.71	0.68	0.74	0.70	0.68	0.73	0.70	0.68	0.72	0.69	0.68	0.67
9	0.73	0.69	0.66	0.72	0.69	0.66	0.72	0.68	0.66	0.71	0.68	0.66	0.70	0.68	0.66	0.65
10	0.71	0.67	0.65	0.70	0.67	0.64	0.70	0.67	0.64	0.69	0.66	0.64	0.69	0.66	0.64	0.63



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	13449.38	12886.88	11643.75	10175.63	8325.00	6665.63	4927.50	3448.13	2896.88
45.0	13421.25	13140.00	12183.75	10642.50	9073.13	7481.25	5529.38	4066.88	2874.38
90.0	13393.13	13100.63	11188.69	10837.13	9083.81	7493.63	5725.13	4073.63	2871.00
135.0	13235.63	13477.50	13055.63	12178.13	10715.63	9180.00	7402.50	5636.25	4207.50
180.0	13449.38	13370.63	12746.25	11118.94	10210.50	8664.19	6703.31	5180.63	3828.38
225.0	13421.25	13089.38	12082.50	11057.63	9381.94	7792.88	6080.63	4496.06	3279.38
270.0	13393.13	13095.00	12189.38	11154.38	9298.13	7695.00	6125.63	4365.00	3161.25
315.0	13235.63	12453.75	11070.56	9165.94	7744.50	6131.81	4163.06	3118.50	2211.75
360.0	13449.38	12886.88	11643.75	10175.63	8325.00	6665.63	4927.50	3448.13	2896.88
C/ γ (°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	1679.63	1252.69	973.69	819.00	725.06	658.13	618.75	577.69	537.19
45.0	1948.50	1357.31	1056.94	889.31	753.75	686.25	644.06	588.94	552.38
90.0	2009.25	1121.12	1059.98	879.64	749.93	694.18	649.69	606.43	565.65
135.0	2908.13	2009.81	1485.00	1153.13	905.63	788.63	718.88	658.69	612.56
180.0	2622.94	1814.06	1106.44	1048.56	855.96	755.16	668.70	625.50	576.23
225.0	2348.44	1604.81	1116.00	1009.58	819.28	732.88	669.04	615.99	578.31
270.0	2908.13	1552.50	1200.94	966.38	792.00	705.38	646.88	599.06	561.94
315.0	1528.31	1093.61	912.04	786.71	686.59	636.86	593.83	556.59	530.04
360.0	1679.63	1252.69	973.69	819.00	725.06	658.13	618.75	577.69	537.19
C/ γ (°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	519.19	507.94	496.69	488.81	480.94	471.94	462.38	453.38	442.13
45.0	529.31	510.75	497.25	488.25	478.13	470.81	462.94	452.81	443.81
90.0	536.46	518.51	506.81	495.39	486.00	478.29	468.96	458.66	448.54
135.0	567.56	537.75	521.44	511.31	501.19	493.31	483.75	473.06	462.94
180.0	549.45	532.01	517.39	504.68	496.91	489.38	478.86	469.80	460.24
225.0	551.03	532.69	523.63	514.69	505.91	499.05	489.15	477.73	469.18
270.0	539.44	522.00	509.63	500.63	491.63	483.75	474.19	465.19	456.19
315.0	515.03	503.49	494.72	486.06	477.56	469.80	460.69	450.79	441.56
360.0	519.19	507.94	496.69	488.81	480.94	471.94	462.38	453.38	442.13
C/ γ (°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	432.56	423.56	414.56	405.56	396.00	384.19	349.31	306.56	249.41
45.0	434.25	424.13	415.69	407.25	393.75	384.75	360.00	306.00	286.31
90.0	438.13	425.98	416.08	405.68	392.06	380.70	358.88	309.32	248.51
135.0	450.56	437.63	426.38	416.25	401.63	389.25	379.69	363.38	310.50
180.0	450.06	437.29	426.83	415.52	401.34	388.35	378.23	354.88	304.93
225.0	458.78	445.50	436.16	425.03	410.29	397.63	386.10	348.47	290.53
270.0	446.63	436.50	428.63	420.19	406.69	397.13	386.44	347.63	289.13
315.0	432.68	422.44	414.06	404.38	394.26	380.76	343.01	283.28	216.45
360.0	432.56	423.56	414.56	405.56	396.00	384.19	349.31	306.56	249.41
C/ γ (°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	163.46	106.26	51.47	18.96	14.23	11.31	8.89	7.71	6.02
45.0	184.56	121.39	71.27	26.44	15.41	12.66	10.07	8.55	7.31
90.0	191.25	128.98	78.13	32.51	17.10	14.34	10.74	9.17	7.14
135.0	285.19	208.86	134.33	76.05	38.87	15.24	13.16	11.31	8.72
180.0	251.38	187.43	129.71	72.23	27.84	14.91	13.28	10.63	8.21
225.0	233.16	165.71	109.97	54.84	23.29	15.58	12.60	10.07	7.31
270.0	254.14	160.93	103.78	50.18	19.18	14.85	10.91	9.23	7.65
315.0	155.64	94.05	49.16	19.13	14.85	11.31	9.51	8.10	6.08
360.0	163.46	106.26	51.47	18.96	14.23	11.31	8.89	7.71	6.02

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	5.29	5.01	4.89	4.84	4.73	4.67	4.61	4.56	4.50
45.0	6.19	5.06	5.01	4.89	4.84	4.78	4.73	4.67	4.61
90.0	5.57	5.01	4.95	4.89	4.78	4.73	4.67	4.61	4.56
135.0	6.24	5.40	5.01	4.89	4.84	4.78	4.73	4.67	4.56
180.0	6.98	5.06	4.95	4.89	4.78	4.73	4.67	4.61	4.56
225.0	5.63	5.18	5.06	4.95	4.89	4.78	4.73	4.67	4.56
270.0	6.08	5.12	5.01	4.89	4.78	4.73	4.67	4.61	4.56
315.0	5.12	4.89	4.78	4.73	4.67	4.61	4.56	4.50	4.44
360.0	5.29	5.01	4.89	4.84	4.73	4.67	4.61	4.56	4.50
C/ γ (°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	4.44	4.44	4.39	4.39	4.33	4.33	4.28	4.28	4.28
45.0	4.56	4.50	4.44	4.44	4.44	4.39	4.39	4.33	4.33
90.0	4.56	4.50	4.44	4.44	4.39	4.39	4.39	4.33	4.33
135.0	4.56	4.50	4.44	4.44	4.39	4.39	4.39	4.33	4.33
180.0	4.50	4.44	4.39	4.39	4.33	4.33	4.33	4.28	4.28
225.0	4.56	4.50	4.44	4.39	4.39	4.33	4.33	4.33	4.28
270.0	4.50	4.44	4.39	4.33	4.33	4.33	4.28	4.28	4.28
315.0	4.44	4.39	4.33	4.28	4.28	4.28	4.22	4.22	4.22
360.0	4.44	4.44	4.39	4.39	4.33	4.33	4.28	4.28	4.28
C/ γ (°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	4.33	4.33	4.33	4.28	4.28	4.28	4.28	4.33	4.44
45.0	4.33	4.28	4.28	4.28	4.28	4.28	4.28	4.28	4.39
90.0	4.33	4.28	4.28	4.28	4.28	4.28	4.28	4.28	4.33
135.0	4.33	4.28	4.33	4.28	4.28	4.28	4.28	4.28	4.28
180.0	4.28	4.22	4.28	4.22	4.22	4.22	4.22	4.22	4.22
225.0	4.28	4.28	4.28	4.28	4.22	4.22	4.22	4.28	4.22
270.0	4.28	4.22	4.22	4.16	4.22	4.22	4.22	4.16	4.22
315.0	4.16	4.16	4.16	4.22	4.16	4.16	4.22	4.78	4.61
360.0	4.33	4.33	4.33	4.28	4.28	4.28	4.28	4.33	4.44
C/ γ (°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	4.78	4.95	4.78	4.67	4.78	4.89	5.06	5.12	4.95
45.0	4.95	4.50	4.28	4.22	4.22	4.28	4.28	4.28	4.28
90.0	4.39	4.33	4.28	4.28	4.28	4.28	4.28	4.28	4.33
135.0	4.95	5.96	6.24	6.13	6.02	6.08	5.91	6.24	6.08
180.0	4.28	5.18	5.06	4.44	4.33	4.22	4.22	4.22	4.28
225.0	4.22	4.22	4.22	4.28	4.22	4.22	4.22	4.28	4.28
270.0	4.22	4.22	4.22	4.22	4.16	4.22	4.22	4.22	4.22
315.0	4.28	4.22	4.22	4.22	4.22	4.22	4.16	4.16	4.22
360.0	4.78	4.95	4.78	4.67	4.78	4.89	5.06	5.12	4.95
C/ γ (°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	4.84	4.78	4.61	4.61	4.73	4.73	4.61	4.28	4.11
45.0	4.28	4.28	4.28	4.28	4.28	4.28	4.28	4.22	4.11
90.0	4.33	4.33	4.28	4.33	4.33	4.33	4.33	4.22	4.05
135.0	5.34	4.44	4.44	4.50	4.56	4.67	4.73	4.33	4.05
180.0	4.28	4.28	4.33	4.33	4.33	4.33	4.33	4.28	3.99
225.0	4.28	4.28	4.33	4.39	4.44	4.56	4.67	4.28	4.05
270.0	4.22	4.28	4.33	4.39	4.39	4.39	4.44	4.28	4.11
315.0	4.22	4.22	4.22	4.22	4.22	4.22	4.22	4.22	4.05
360.0	4.84	4.78	4.61	4.61	4.73	4.73	4.61	4.28	4.11

Intensity data(cd)

C/γ(°)	90.0
0.0	3.99
45.0	4.05
90.0	4.05
135.0	4.05
180.0	3.99
225.0	4.05
270.0	4.05
315.0	3.99
360.0	3.99