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## Nata

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Client: NT

LumCAT: 69-0020 & 11-0161-S3-GW

Luminaire: L280\*W40\*H20(glossy white)

Report No: 20241119-B008

Ballast type: AC

Test No: 20241119-C008

Voltage(V): 23.660

LampCAT: CREE JE2835B\_N×2

Current(A): 0.453

Lamp flux(lm): 1205.1

Power (W): 10.717

Number of Lamps: 1

PF: 0.000

Length(mm): 280

Width(mm): 40

Phm Type: C

Height(mm): 20

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## Photometric Results

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Lumens(lm): 1139.34, Efficiency(%): 94.54% , Luminous Efficacy(lm/W): 106.31

Central intensity(cd): 1214.400, Maximum intensity(cd): 1214.400

Angle of maximum intensity: C=0.0  $\gamma$ =0.0

Beam Angle(50%Imax): [C0/180]Total=61.4

[C90/270]Total=62.8

Field angle(10%Imax): [C0/180]Total=79.0

[C90/270]Total=80.0

Maximum s/h(1/2): C0\_180=0.99 C90\_270=1.02

Maximum s/h(1/4): C0\_180=0.90 C90\_270=0.92

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 94.59%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 98.369%

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Equipment: GMS1980  
Temperature(°C): 25.0

Date: 2024/11/19  
Humidity(%): 60.0%

Operator: NT07  
Distance(m): 7.65

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1203.171	0.000	0	0.00%	0.00%
1.0	1202.659	1.151	1.151	0.10%	0.10%
2.0	1201.452	3.451	4.602	0.29%	0.40%
3.0	1199.258	5.742	10.343	0.48%	0.91%
4.0	1196.770	8.020	18.364	0.67%	1.61%
5.0	1194.320	10.286	28.65	0.85%	2.51%
6.0	1191.438	12.538	41.188	1.04%	3.62%
7.0	1186.774	14.762	55.949	1.22%	4.91%
8.0	1181.727	16.951	72.9	1.41%	6.40%
9.0	1176.236	19.110	92.01	1.59%	8.08%
10.0	1173.321	21.263	113.273	1.76%	9.94%
11.0	1164.305	23.358	136.631	1.94%	11.99%
12.0	1159.664	25.404	162.035	2.11%	14.22%
13.0	1153.138	27.447	189.482	2.28%	16.63%
14.0	1145.465	29.422	218.904	2.44%	19.21%
15.0	1136.942	31.334	250.238	2.60%	21.96%
16.0	1126.159	33.161	283.399	2.75%	24.87%
17.0	1114.473	34.893	318.291	2.90%	27.94%
18.0	1101.042	36.529	354.82	3.03%	31.14%
19.0	1084.663	38.027	392.847	3.16%	34.48%
20.0	1064.828	39.342	432.189	3.26%	37.93%
21.0	1043.471	40.484	472.672	3.36%	41.49%
22.0	1017.911	41.424	514.097	3.44%	45.12%
23.0	989.967	42.131	556.227	3.50%	48.82%
24.0	956.265	42.552	598.779	3.53%	52.55%
25.0	916.649	42.586	641.365	3.53%	56.29%
26.0	875.661	42.308	683.673	3.51%	60.01%
27.0	828.262	41.687	725.36	3.46%	63.67%
28.0	775.683	40.608	765.968	3.37%	67.23%
29.0	723.905	39.233	805.202	3.26%	70.67%
30.0	667.336	37.563	842.765	3.12%	73.97%
31.0	606.761	35.456	878.221	2.94%	77.08%
32.0	544.534	32.983	911.204	2.74%	79.98%
33.0	484.215	30.307	941.512	2.51%	82.64%
34.0	425.989	27.545	969.057	2.29%	85.05%
35.0	365.605	24.584	993.641	2.04%	87.21%
36.0	311.380	21.555	1015.196	1.79%	89.10%
37.0	269.361	18.941	1034.137	1.57%	90.77%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	231.581	16.721	1050.858	1.39%	92.23%
39.0	178.570	14.000	1064.857	1.16%	93.46%
40.0	127.367	10.670	1075.527	0.89%	94.40%
41.0	97.301	8.000	1083.528	0.66%	95.10%
42.0	73.310	6.199	1089.726	0.51%	95.65%
43.0	54.945	4.751	1094.477	0.39%	96.06%
44.0	41.734	3.649	1098.126	0.30%	96.38%
45.0	32.919	2.869	1100.995	0.24%	96.63%
46.0	27.352	2.357	1103.352	0.20%	96.84%
47.0	23.511	2.023	1105.375	0.17%	97.02%
48.0	20.834	1.793	1107.168	0.15%	97.18%
49.0	18.727	1.625	1108.792	0.13%	97.32%
50.0	17.224	1.499	1110.291	0.12%	97.45%
51.0	15.903	1.402	1111.693	0.12%	97.57%
52.0	14.755	1.316	1113.008	0.11%	97.69%
53.0	13.771	1.241	1114.249	0.10%	97.80%
54.0	12.908	1.176	1115.425	0.10%	97.90%
55.0	12.136	1.118	1116.543	0.09%	98.00%
56.0	11.423	1.065	1117.608	0.09%	98.09%
57.0	10.750	1.014	1118.621	0.08%	98.18%
58.0	10.124	0.965	1119.587	0.08%	98.27%
59.0	9.550	0.920	1120.507	0.08%	98.35%
60.0	9.067	0.880	1121.386	0.07%	98.42%
61.0	8.577	0.842	1122.228	0.07%	98.50%
62.0	8.142	0.806	1123.034	0.07%	98.57%
63.0	7.769	0.774	1123.808	0.06%	98.64%
64.0	7.436	0.746	1124.554	0.06%	98.70%
65.0	7.140	0.721	1125.275	0.06%	98.77%
66.0	6.851	0.698	1125.973	0.06%	98.83%
67.0	6.624	0.678	1126.651	0.06%	98.89%
68.0	6.416	0.661	1127.311	0.05%	98.94%
69.0	6.222	0.645	1127.956	0.05%	99.00%
70.0	6.031	0.629	1128.585	0.05%	99.06%
71.0	5.867	0.615	1129.2	0.05%	99.11%
72.0	5.710	0.602	1129.802	0.05%	99.16%
73.0	5.578	0.590	1130.392	0.05%	99.21%
74.0	5.454	0.580	1130.972	0.05%	99.27%
75.0	5.340	0.570	1131.543	0.05%	99.32%

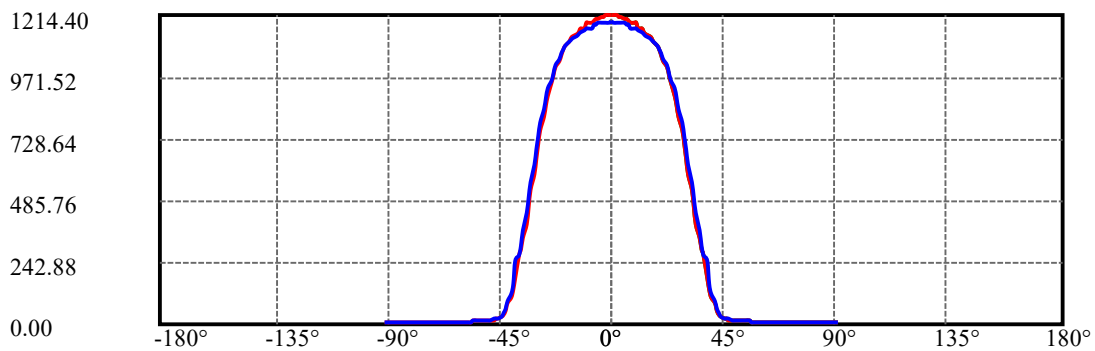
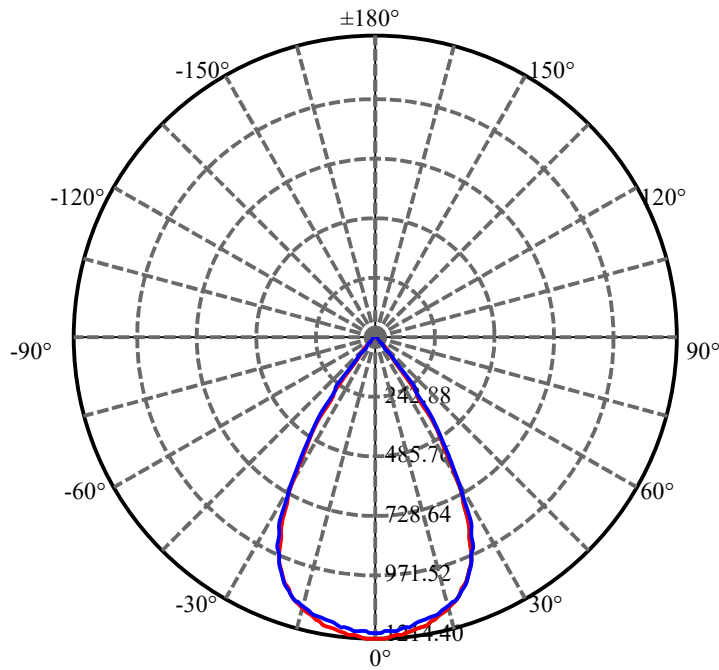
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	5.227	0.561	1132.104	0.05%	99.37%
77.0	5.121	0.552	1132.655	0.05%	99.41%
78.0	5.033	0.544	1133.199	0.05%	99.46%
79.0	4.949	0.536	1133.735	0.04%	99.51%
80.0	4.876	0.530	1134.265	0.04%	99.55%
81.0	4.810	0.524	1134.788	0.04%	99.60%
82.0	4.748	0.518	1135.307	0.04%	99.65%
83.0	4.685	0.513	1135.82	0.04%	99.69%
84.0	4.631	0.508	1136.327	0.04%	99.74%
85.0	4.609	0.504	1136.831	0.04%	99.78%
86.0	4.579	0.502	1137.334	0.04%	99.82%
87.0	4.579	0.501	1137.835	0.04%	99.87%
88.0	4.572	0.501	1138.336	0.04%	99.91%
89.0	4.565	0.501	1138.837	0.04%	99.96%
90.0	4.576	0.501	1139.338	0.04%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	842.76	69.93%	73.97%
0-40	1075.53	89.25%	94.40%
0-60	1121.39	93.05%	98.42%
0-90	1138.84	94.50%	99.96%
0-120	1138.84	94.50%	99.96%
0-180	1139.34	94.54%	100.00%
60-90	17.45	1.45%	1.53%
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%
0-32.01	911.47	75.63%	80.00%

ZONAL LUMEN SUMMARY

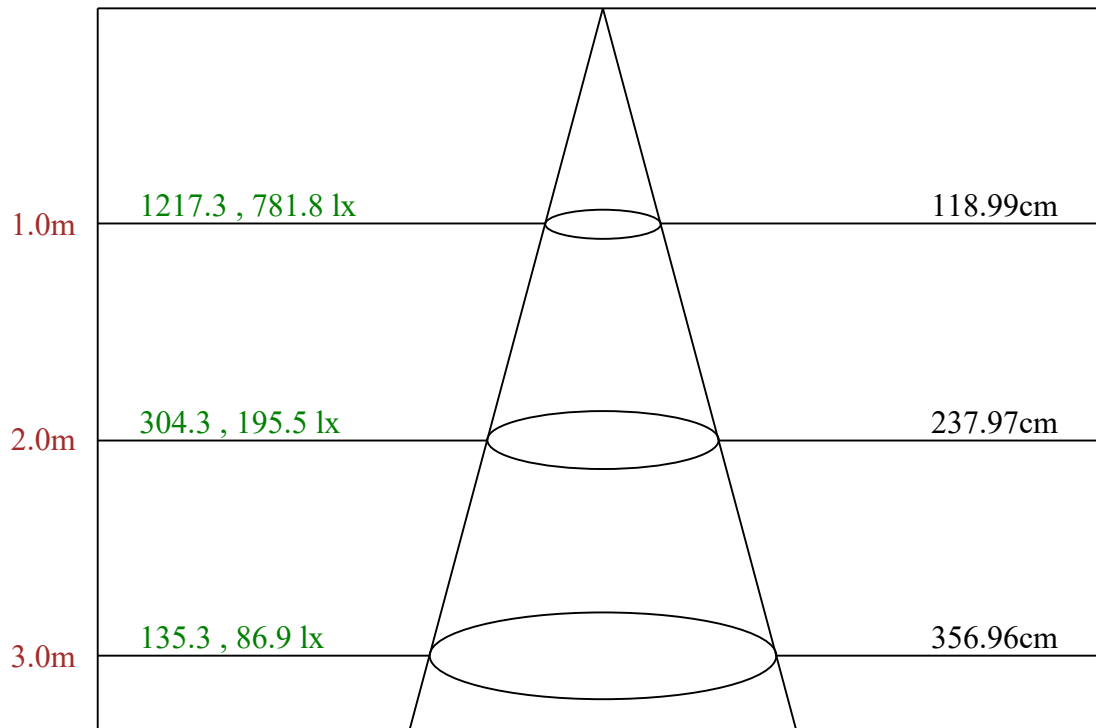
0-10	113.27
10-20	318.92
20-30	410.58
30-40	232.76
40-50	34.76
50-60	11.09
60-70	7.20
70-80	5.68
80-90	4.57
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



C0(Max): ———  
 C0/C180: ———  
 C90/C270: ———

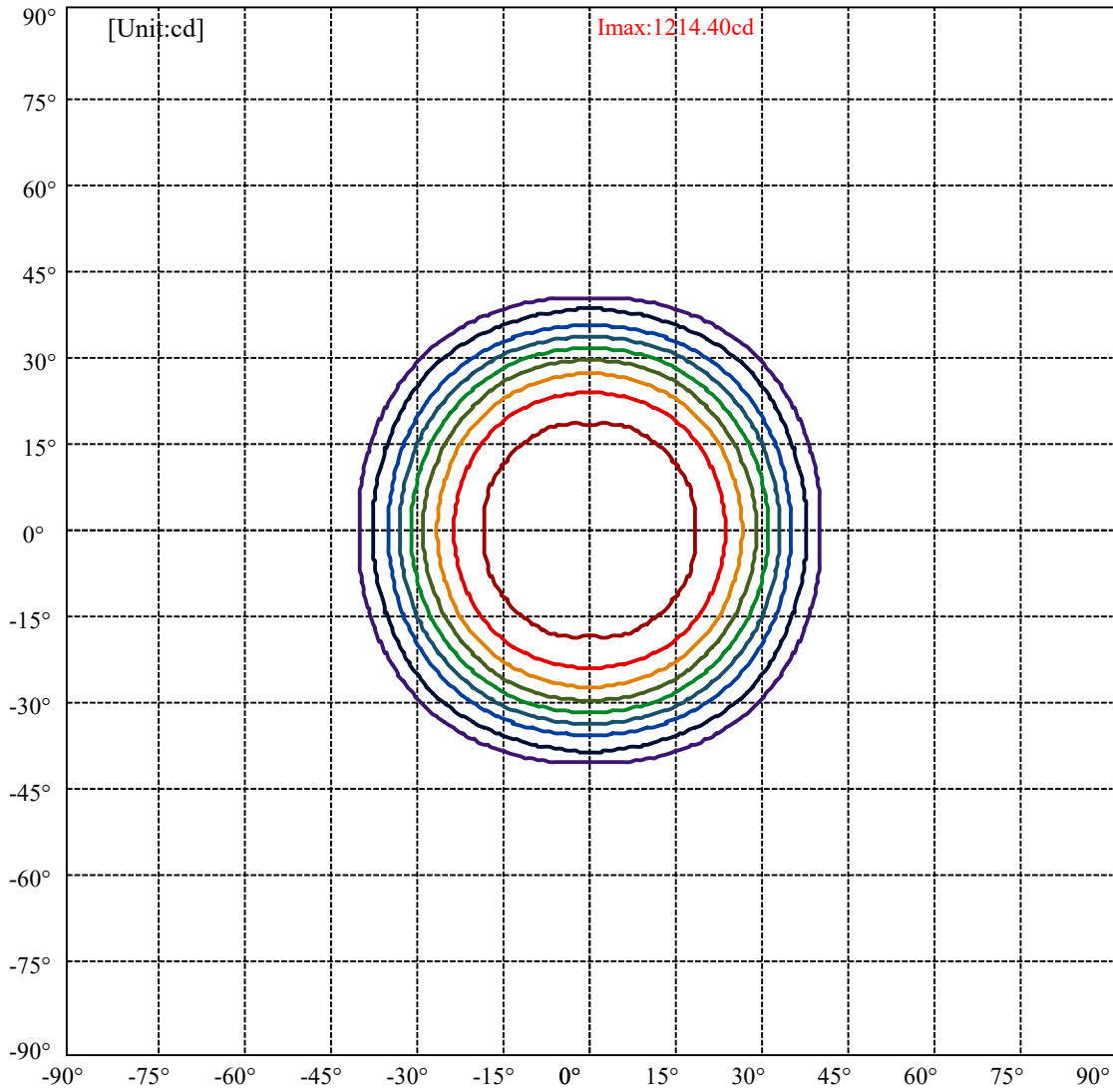
Field angle(10%Imax):C0/180Left:39.4 Right:39.4  
 :C90/270Left:40.0 Right:40.0

Beam Angle(50%Imax):C0/180Left:30.7 Right:30.7  
 :C90/270Left:31.4 Right:31.4



Max , Ave      Beam angle of C0 plane 61.50

ISO-Intensity(V-H)



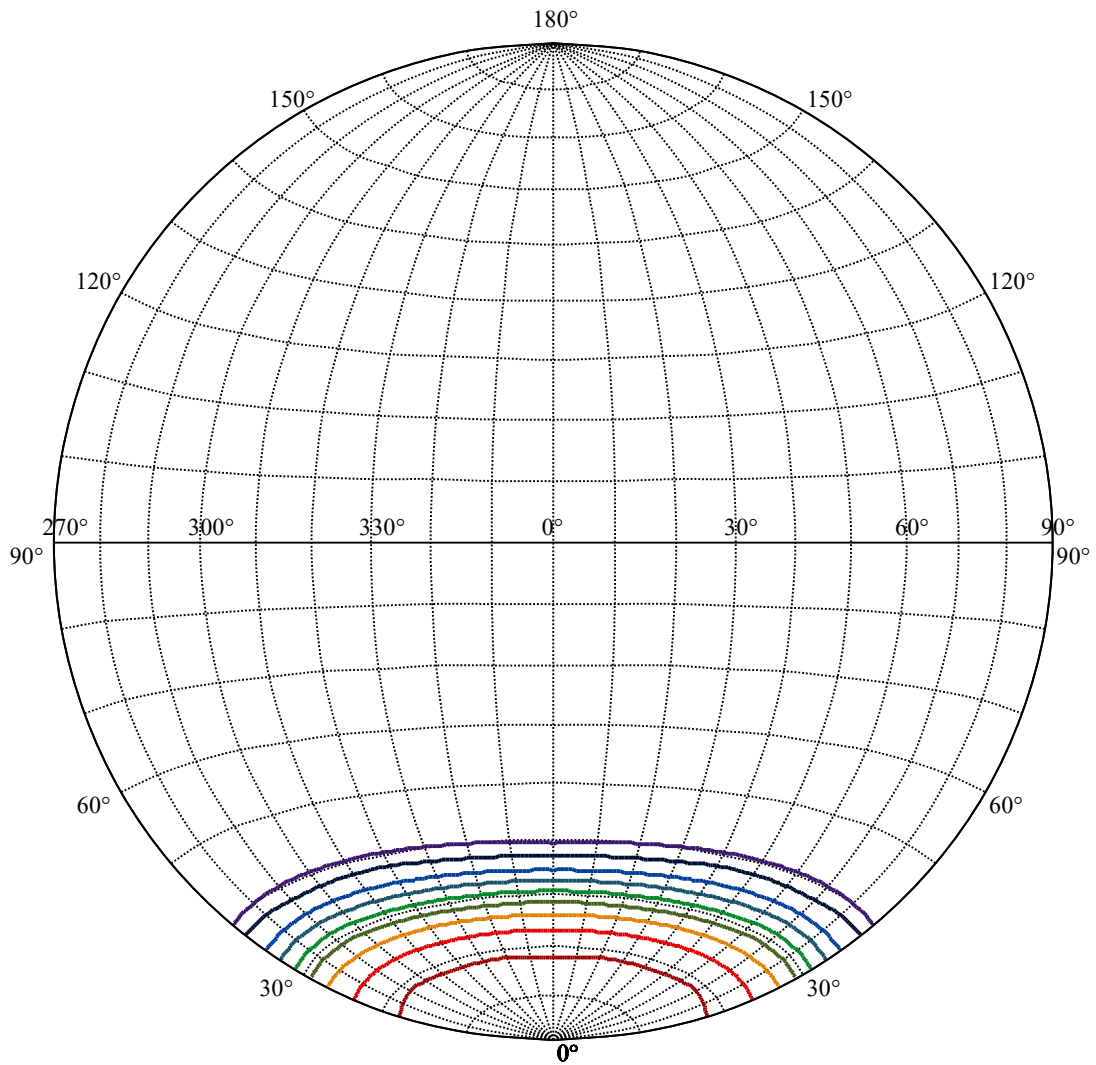
(10%Imax) 121.294	—
(20%Imax) 242.587	—
(30%Imax) 363.881	—
(40%Imax) 485.175	—
(50%Imax) 606.469	—
(60%Imax) 727.762	—
(70%Imax) 849.056	—
(80%Imax) 970.35	—
(90%Imax) 1091.64	—

Equipment: GMS1980  
Temperature(°C): 25.0

Date: 2024/11/19  
Humidity(%): 60.0%

Operator: NT07  
Distance(m): 7.65





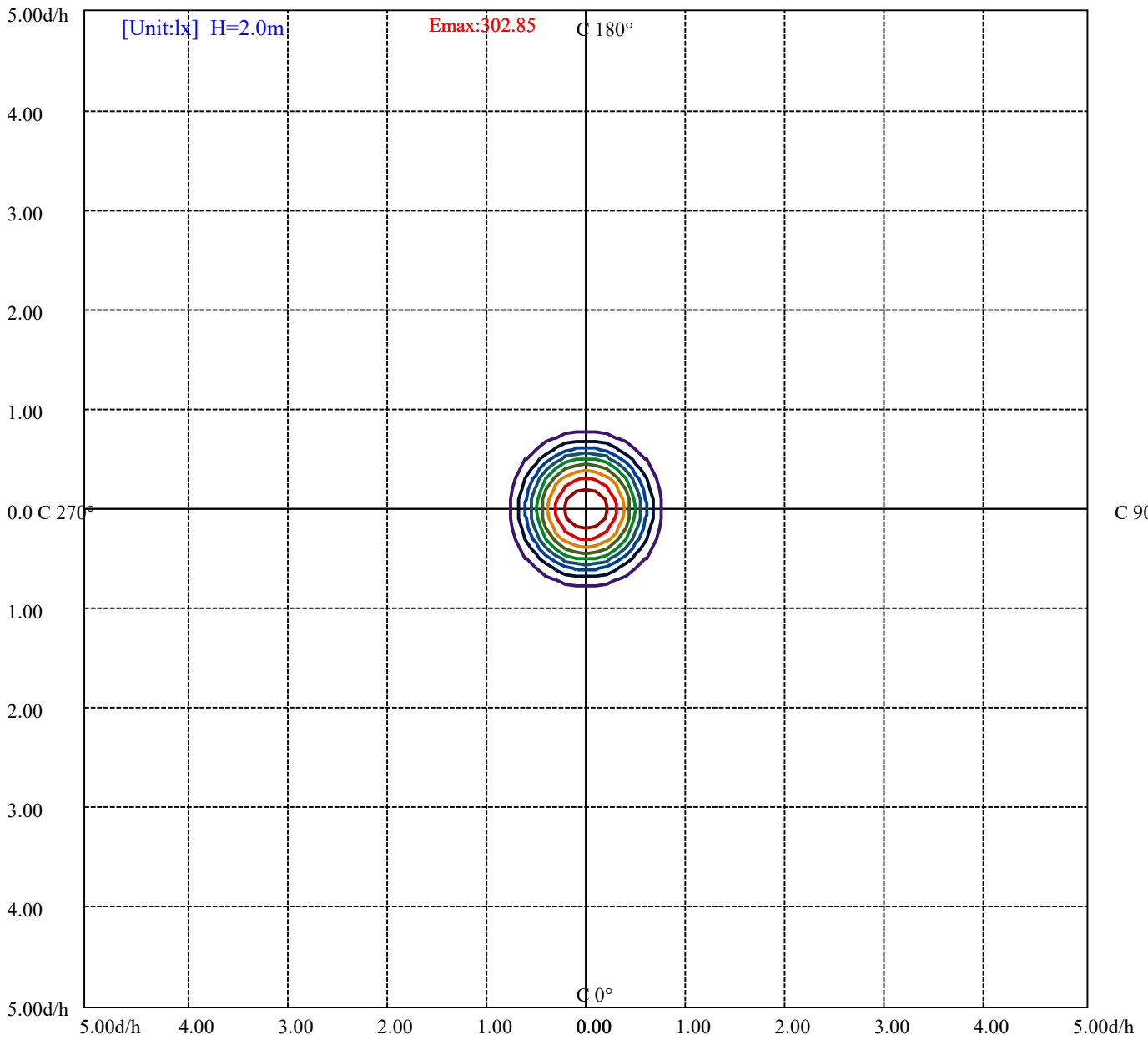
House

[Unit:cd]

Road

**I<sub>max</sub>:1214.40**

(10%I <sub>max</sub> ) 121.727	—
(20%I <sub>max</sub> ) 243.454	—
(30%I <sub>max</sub> ) 365.18	—
(40%I <sub>max</sub> ) 486.907	—
(50%I <sub>max</sub> ) 608.634	—
(60%I <sub>max</sub> ) 730.361	—
(70%I <sub>max</sub> ) 852.088	—
(80%I <sub>max</sub> ) 973.814	—
(90%I <sub>max</sub> ) 1095.54	—



- (10%Emax) 30.28525
- (20%Emax) 60.57075
- (30%Emax) 90.856
- (40%Emax) 121.1413
- (50%Emax) 151.4265
- (60%Emax) 181.712
- (70%Emax) 211.9973
- (80%Emax) 242.2825
- (90%Emax) 272.5675

Luminance Table

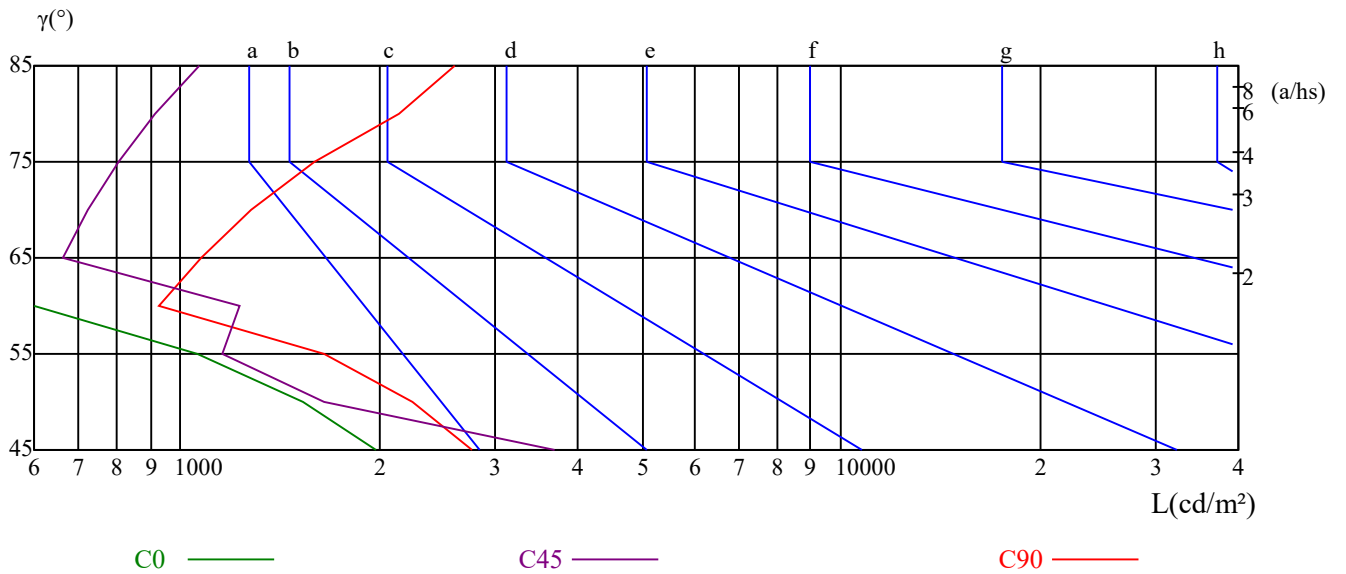
$\gamma$	45	50	55	60	65	70	75	80	85
C0	1971	1528	1063	560	597	644	704	785	893
C45	3684	1646	1155	1230	662	724	805	914	1067
C90	2759	2247	1653	930	1072	1277	1594	2142	2607

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	1236	2019	2019	2019	5995	4736	5366

Glare Table

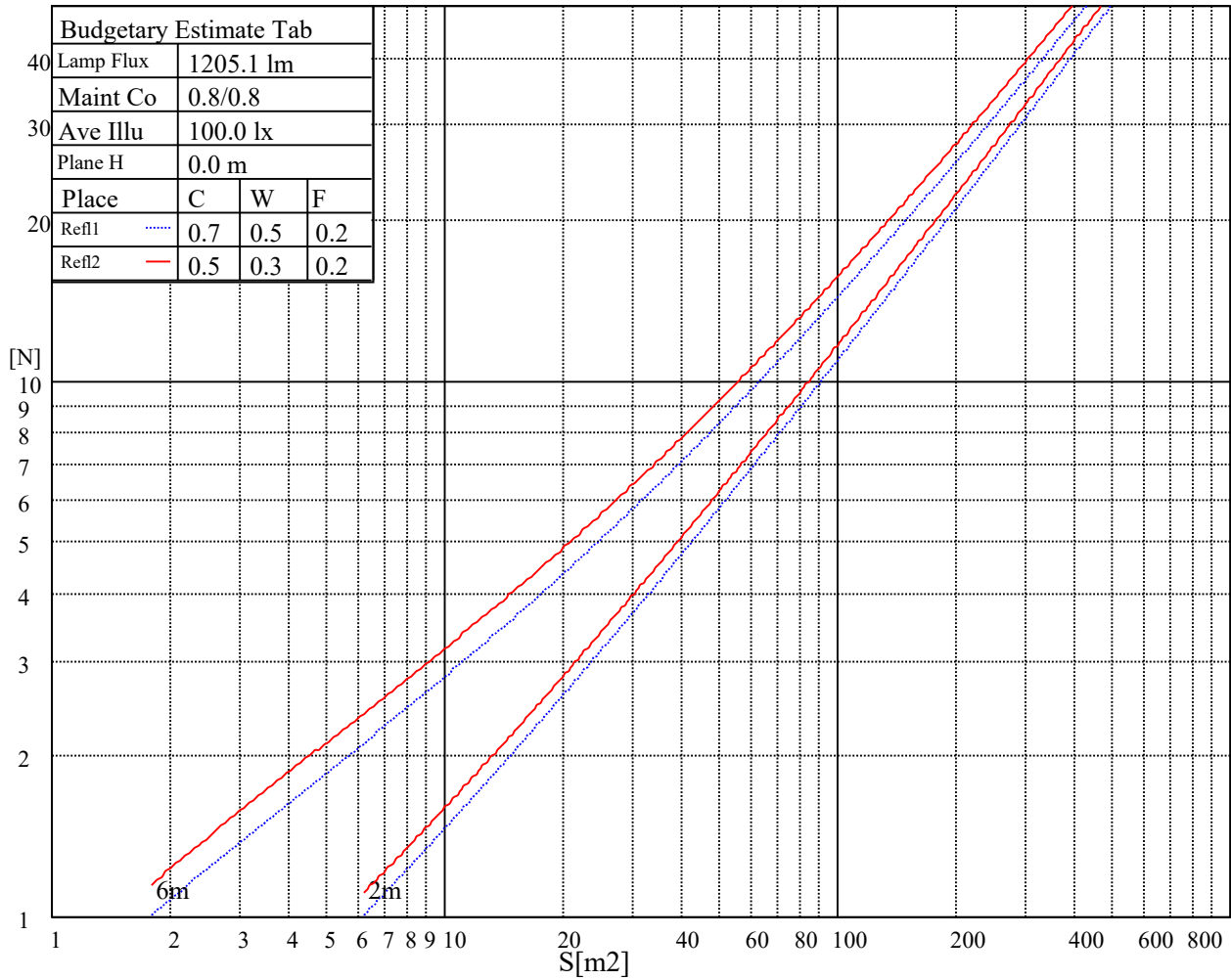
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve



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	15.49	16.45	15.85	16.76	17.08	15.68	16.64	16.04	16.95	17.27
	3H	15.34	16.19	15.72	16.53	16.87	15.53	16.38	15.92	16.72	17.07
	4H	15.27	16.06	15.67	16.41	16.78	15.48	16.27	15.88	16.62	16.99
	6H	15.23	15.96	15.65	16.33	16.73	15.47	16.20	15.89	16.57	16.97
	8H	15.19	15.88	15.61	16.27	16.68	15.46	16.15	15.89	16.54	16.95
	12H	15.16	15.82	15.59	16.21	16.63	15.49	16.14	15.91	16.54	16.95
4H	2H	15.20	15.99	15.60	16.34	16.71	15.38	16.17	15.79	16.53	16.90
	3H	15.03	15.70	15.46	16.09	16.51	15.23	15.89	15.65	16.29	16.70
	4H	15.02	15.59	15.46	16.02	16.47	15.24	15.81	15.67	16.23	16.68
	6H	14.97	15.48	15.45	15.93	16.39	15.24	15.74	15.71	16.20	16.65
	8H	14.98	15.45	15.46	15.91	16.38	15.29	15.76	15.78	16.22	16.69
	12H	15.00	15.43	15.49	15.89	16.41	15.40	15.83	15.89	16.28	16.81
8H	4H	14.86	15.33	15.35	15.79	16.26	15.07	15.54	15.56	16.00	16.47
	6H	14.84	15.23	15.35	15.71	16.22	15.11	15.50	15.62	15.97	16.49
	8H	14.93	15.25	15.47	15.78	16.27	15.26	15.58	15.79	16.10	16.60
	12H	15.00	15.25	15.55	15.77	16.29	15.45	15.70	15.99	16.22	16.74
12H	4H	14.82	15.25	15.31	15.70	16.22	15.03	15.46	15.52	15.91	16.43
	6H	14.86	15.18	15.39	15.70	16.20	15.12	15.44	15.65	15.96	16.46
	8H	14.93	15.17	15.47	15.69	16.21	15.25	15.50	15.80	16.02	16.54
Variation with the observer position at spacings:											
S = 1.0H	5.5/-8.2					5.4/-8.3					
S = 1.5H	8.0/-7.1					8.0/-7.4					
S = 2.0H	9.8/-6.2					9.9/-6.6					
Standard tables:	BK1					BK1					
Uncorrected UGR	-3.3					-3.9					

UGR calculation is based on CIE Publ. 117 ,S/H = 0.25



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	1.13	1.13	1.13	1.10	1.10	1.10	1.05	1.05	1.05	1.01	1.01	1.01	0.97	0.97	0.97	0.95
1	1.04	1.02	1.00	1.02	1.00	0.98	0.99	0.97	0.95	0.95	0.94	0.92	0.92	0.91	0.90	0.88
2	0.97	0.93	0.90	0.96	0.92	0.89	0.93	0.90	0.87	0.90	0.87	0.85	0.87	0.85	0.83	0.82
3	0.91	0.86	0.82	0.89	0.85	0.82	0.87	0.83	0.80	0.85	0.82	0.79	0.82	0.80	0.78	0.76
4	0.85	0.80	0.76	0.84	0.79	0.75	0.82	0.78	0.74	0.80	0.76	0.73	0.78	0.75	0.73	0.71
5	0.80	0.74	0.70	0.79	0.73	0.70	0.77	0.72	0.69	0.75	0.71	0.68	0.74	0.71	0.68	0.66
6	0.75	0.69	0.65	0.74	0.69	0.65	0.73	0.68	0.64	0.71	0.67	0.64	0.70	0.66	0.63	0.62
7	0.70	0.65	0.61	0.70	0.64	0.61	0.68	0.64	0.60	0.67	0.63	0.60	0.66	0.62	0.60	0.58
8	0.66	0.61	0.57	0.66	0.60	0.57	0.65	0.60	0.56	0.64	0.59	0.56	0.63	0.59	0.56	0.55
9	0.63	0.57	0.53	0.62	0.57	0.53	0.61	0.56	0.53	0.60	0.56	0.53	0.60	0.56	0.53	0.51
10	0.59	0.54	0.50	0.59	0.54	0.50	0.58	0.53	0.50	0.57	0.53	0.50	0.57	0.53	0.50	0.48

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	1214.40	1214.40	1213.82	1212.64	1210.89	1207.96	1202.70	1198.01	1193.92
22.5	1208.55	1210.30	1210.89	1209.72	1209.72	1207.96	1206.79	1205.62	1202.11
45.0	1212.06	1213.82	1215.57	1214.40	1212.06	1208.55	1205.04	1200.35	1195.67
67.5	1193.92	1195.67	1196.26	1195.67	1194.50	1193.92	1192.75	1190.99	1188.07
90.0	1188.07	1189.24	1190.41	1189.82	1189.24	1188.65	1185.72	1182.80	1167.70
112.5	1185.14	1187.48	1189.82	1191.58	1192.16	1192.16	1192.75	1190.99	1188.65
135.0	1207.96	1207.38	1206.79	1205.62	1202.70	1198.01	1192.75	1188.07	1195.67
157.5	1215.57	1215.57	1213.23	1211.47	1207.96	1203.28	1198.01	1193.92	1188.65
180.0	1214.40	1211.47	1209.13	1205.62	1199.77	1195.09	1191.58	1186.31	1181.63
202.5	1208.55	1206.79	1203.87	1199.18	1195.09	1192.16	1188.65	1185.72	1166.47
225.0	1212.06	1208.55	1206.79	1204.45	1199.77	1195.67	1190.41	1183.97	1173.43
247.5	1193.92	1192.16	1189.24	1186.31	1183.38	1181.04	1167.11	1167.11	1164.01
270.0	1188.07	1186.31	1183.97	1179.87	1176.95	1174.02	1168.75	1165.24	1159.39
292.5	1184.55	1183.38	1181.63	1179.29	1178.12	1178.12	1192.16	1166.70	1166.70
315.0	1207.96	1205.04	1199.77	1192.75	1190.41	1189.82	1190.41	1187.48	1182.80
337.5	1215.57	1214.99	1212.06	1209.72	1205.62	1202.70	1197.43	1195.09	1192.75
360.0	1214.40	1214.40	1213.82	1212.64	1210.89	1207.96	1202.70	1198.01	1193.92
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	1189.24	1193.33	1167.17	1167.17	1154.36	1144.00	1134.99	1123.69	1108.47
22.5	1197.43	1193.92	1189.82	1185.14	1180.46	1174.02	1167.00	1155.88	1144.76
45.0	1192.16	1186.89	1166.94	1166.94	1163.95	1156.52	1149.67	1139.55	1130.19
67.5	1184.55	1181.63	1179.87	1178.12	1174.61	1169.92	1166.41	1158.80	1150.61
90.0	1167.70	1165.18	1160.03	1154.77	1147.98	1141.07	1131.47	1123.75	1114.68
112.5	1184.55	1181.04	1175.78	1172.26	1167.00	1161.73	1152.95	1145.93	1134.81
135.0	1167.70	1167.70	1160.44	1154.30	1147.28	1136.16	1125.80	1115.09	1103.68
157.5	1183.38	1179.87	1174.61	1168.75	1162.90	1157.05	1150.03	1137.74	1127.20
180.0	1175.78	1170.51	1163.49	1155.29	1145.93	1135.98	1127.20	1116.67	1104.38
202.5	1166.47	1162.96	1155.23	1148.27	1140.02	1128.43	1117.78	1106.13	1092.67
225.0	1165.24	1157.05	1150.03	1143.59	1137.74	1132.47	1124.86	1118.42	1109.65
247.5	1160.79	1156.87	1150.84	1144.29	1137.85	1130.36	1119.07	1107.42	1094.55
270.0	1155.29	1150.61	1146.51	1141.25	1134.81	1126.03	1117.84	1104.38	1095.60
292.5	1162.73	1157.05	1151.37	1144.76	1138.85	1131.83	1123.16	1113.57	1098.82
315.0	1178.12	1174.61	1169.34	1162.32	1158.22	1151.78	1142.42	1125.45	1110.23
337.5	1188.65	1193.92	1167.41	1167.41	1158.28	1150.08	1140.43	1126.09	1111.28
360.0	1189.24	1193.33	1167.17	1167.17	1154.36	1144.00	1134.99	1123.69	1108.47
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1096.95	1082.02	1058.79	1039.48	1014.49	988.45	953.57	904.00	863.21
22.5	1132.47	1120.76	1104.38	1089.16	1069.85	1038.83	1010.74	969.78	933.49
45.0	1120.59	1106.84	1091.74	1073.42	1043.87	1015.31	984.23	947.60	896.86
67.5	1141.83	1130.13	1112.57	1095.01	1075.12	1051.71	1018.94	987.92	953.98
90.0	1104.03	1088.28	1072.31	1052.00	1028.71	995.53	965.56	934.37	889.02
112.5	1124.86	1111.99	1093.26	1076.87	1057.56	1035.32	1000.21	965.09	927.64
135.0	1091.74	1071.37	1051.94	1029.76	997.11	965.09	928.34	879.42	834.65
157.5	1115.50	1098.53	1082.14	1053.46	1028.30	999.62	968.61	921.20	879.65
180.0	1087.99	1069.26	1052.29	1030.05	1001.96	977.97	940.52	893.11	851.56
202.5	1072.60	1051.47	1026.37	999.51	962.17	929.57	893.87	838.39	793.04
225.0	1096.77	1080.38	1058.15	1037.08	1011.33	982.65	940.52	904.23	863.85
247.5	1078.57	1058.32	1039.77	1007.87	978.61	949.41	905.40	866.37	827.68
270.0	1083.31	1069.85	1050.54	1032.40	1007.23	982.65	949.29	920.03	886.09
292.5	1084.71	1066.92	1041.29	1018.29	993.07	956.32	922.78	886.79	850.33
315.0	1094.43	1076.29	1048.78	1031.81	1020.69	1003.13	982.65	952.22	907.74
337.5	1090.33	1072.19	1052.94	1029.35	996.52	967.90	935.01	895.86	851.79
360.0	1096.95	1082.02	1058.79	1039.48	1014.49	988.45	953.57	904.00	863.21

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	820.49	775.07	726.62	661.95	607.64	551.81	476.26	415.63	356.17
22.5	893.11	846.29	782.50	730.42	676.58	620.40	551.34	493.99	437.81
45.0	849.28	796.49	742.88	674.18	618.00	562.87	496.27	441.38	375.83
67.5	905.99	865.02	818.20	756.75	701.16	630.93	574.16	515.64	455.36
90.0	845.47	785.90	735.10	681.38	609.28	548.30	486.56	426.28	353.59
112.5	879.65	836.35	787.77	736.27	681.26	609.28	550.76	477.02	418.49
135.0	773.20	720.06	666.81	614.08	548.65	495.28	441.90	390.75	328.31
157.5	833.42	772.56	719.89	664.87	609.28	540.81	485.21	430.20	362.31
180.0	807.08	749.73	698.23	640.29	570.07	510.37	447.76	375.77	319.59
202.5	744.99	680.15	625.84	572.41	501.07	444.48	389.99	337.85	274.88
225.0	817.62	760.27	708.77	654.93	604.01	541.39	486.97	423.76	373.43
247.5	776.42	729.31	675.93	621.98	553.33	497.09	439.27	384.38	318.71
270.0	846.88	791.28	744.46	692.96	636.78	562.46	505.11	448.93	392.16
292.5	800.00	753.83	703.15	648.49	578.20	521.67	450.10	394.62	339.84
315.0	865.61	804.74	766.70	699.99	643.22	573.58	519.15	465.90	413.81
337.5	792.98	743.88	679.62	626.42	569.66	501.83	446.64	393.74	329.36
360.0	820.49	775.07	726.62	661.95	607.64	551.81	476.26	415.63	356.17
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	286.64	237.95	193.71	147.07	115.41	88.54	61.39	45.41	34.18
22.5	382.21	316.08	303.21	303.21	168.95	135.95	107.27	78.36	59.69
45.0	325.85	278.45	232.86	179.25	144.96	115.58	91.06	68.65	55.83
67.5	380.45	322.52	296.77	296.77	169.25	135.01	105.11	80.23	56.30
90.0	297.76	245.97	199.50	146.01	111.31	82.34	59.75	39.97	30.14
112.5	359.97	295.01	295.01	235.49	157.72	116.05	89.31	68.00	47.75
135.0	279.04	231.81	177.21	140.45	110.96	81.93	64.37	51.03	39.85
157.5	311.40	298.52	236.66	157.84	124.07	89.60	67.59	51.15	39.21
180.0	303.21	303.21	161.93	126.23	98.08	72.51	48.63	36.28	27.56
202.5	230.05	189.20	151.75	111.90	85.62	64.61	45.41	34.82	26.74
225.0	320.18	296.77	296.77	170.18	135.01	97.62	75.79	60.63	48.98
247.5	269.61	223.09	171.76	135.71	97.44	74.09	55.89	42.49	31.43
270.0	325.44	299.69	299.69	165.91	127.34	96.74	64.90	46.53	34.29
292.5	276.40	229.29	187.92	142.03	110.20	84.74	64.08	48.92	35.58
315.0	351.78	304.96	304.96	249.07	162.52	129.04	101.83	76.43	61.51
337.5	282.08	237.25	195.58	149.99	119.03	92.47	70.58	50.21	38.68
360.0	286.64	237.95	193.71	147.07	115.41	88.54	61.39	45.41	34.18
C/γ(°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0
0.0	26.63	21.65	19.49	18.02	16.91	15.74	14.86	13.93	13.23
22.5	42.84	33.59	27.45	23.17	19.72	17.85	16.56	15.51	14.51
45.0	46.12	38.98	32.19	27.97	23.88	21.07	18.79	16.39	14.92
67.5	42.72	33.47	25.98	22.30	19.31	17.73	16.56	15.51	14.46
90.0	23.35	20.42	18.67	17.09	16.15	15.22	14.40	13.40	12.64
112.5	36.81	29.38	24.35	20.66	18.79	17.38	16.04	15.10	14.28
135.0	33.77	29.09	25.52	22.12	19.84	17.97	15.98	14.75	13.75
157.5	29.38	24.40	21.24	19.20	17.44	16.33	15.45	14.63	13.69
180.0	22.00	19.72	18.02	16.97	16.09	15.16	14.22	13.46	12.76
202.5	22.82	20.01	18.26	16.74	15.80	14.92	14.16	13.34	12.70
225.0	38.74	33.12	28.56	25.22	21.77	19.66	17.32	15.80	14.51
247.5	25.87	22.41	20.01	18.08	16.85	15.86	14.69	13.87	13.17
270.0	25.63	21.95	19.61	18.20	16.85	15.92	15.04	14.28	13.28
292.5	28.68	24.05	20.48	18.73	17.32	15.92	14.98	13.93	13.17
315.0	50.45	40.79	35.05	30.26	25.75	22.82	20.31	18.14	15.92
337.5	30.90	24.58	21.30	18.61	17.15	16.04	15.10	14.05	13.34
360.0	26.63	21.65	19.49	18.02	16.91	15.74	14.86	13.93	13.23



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	12.47	11.59	10.89	10.24	9.77	9.07	8.66	8.31	7.96
22.5	13.75	13.11	12.52	11.70	11.12	10.42	9.83	9.25	8.72
45.0	13.81	12.82	12.00	11.35	10.77	10.36	9.77	9.25	8.78
67.5	13.69	12.93	12.23	11.41	10.77	10.12	9.48	8.84	8.31
90.0	11.88	11.12	10.30	9.71	9.19	8.54	8.13	7.78	7.49
112.5	13.34	12.64	12.00	11.29	10.53	9.89	9.36	8.72	8.19
135.0	12.99	12.11	11.53	10.94	10.30	9.83	9.36	8.78	8.37
157.5	12.82	12.17	11.53	10.89	10.12	9.60	9.13	8.66	8.19
180.0	11.94	11.06	10.42	9.89	9.42	8.84	8.49	8.08	7.72
202.5	12.00	11.35	10.59	10.07	9.42	8.95	8.54	8.08	7.78
225.0	13.34	12.52	11.88	11.35	10.59	10.12	9.71	9.25	8.60
247.5	12.23	11.59	10.94	10.12	9.48	8.90	8.43	7.96	7.55
270.0	12.52	11.70	10.77	10.12	9.36	8.78	8.37	8.02	7.61
292.5	12.52	11.88	11.24	10.42	9.83	9.25	8.72	8.13	7.78
315.0	14.51	13.52	12.70	11.82	11.24	10.71	10.12	9.66	9.07
337.5	12.70	12.06	11.24	10.65	10.07	9.42	8.95	8.49	8.13
360.0	12.47	11.59	10.89	10.24	9.77	9.07	8.66	8.31	7.96
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	7.61	7.37	7.14	6.96	6.73	6.50	6.32	6.14	5.97
22.5	8.25	8.02	7.67	7.26	7.08	6.85	6.67	6.38	6.20
45.0	8.25	7.78	7.37	6.96	6.67	6.44	6.26	6.09	5.85
67.5	7.84	7.55	7.26	6.91	6.67	6.50	6.32	6.14	5.97
90.0	7.20	6.96	6.73	6.50	6.32	6.20	5.97	5.79	5.68
112.5	7.84	7.49	7.20	6.91	6.67	6.44	6.26	6.03	5.91
135.0	7.90	7.49	7.08	6.79	6.61	6.38	6.14	5.91	5.74
157.5	7.84	7.55	7.26	7.02	6.79	6.50	6.32	6.20	5.97
180.0	7.49	7.20	6.96	6.79	6.50	6.32	6.20	6.03	5.85
202.5	7.43	7.14	6.96	6.73	6.50	6.26	6.09	5.97	5.79
225.0	8.19	7.72	7.26	6.91	6.67	6.44	6.20	5.97	5.79
247.5	7.32	6.96	6.73	6.55	6.32	6.14	5.97	5.79	5.62
270.0	7.37	7.08	6.91	6.61	6.44	6.32	6.09	5.91	5.79
292.5	7.49	7.14	6.91	6.61	6.44	6.20	6.03	5.85	5.74
315.0	8.54	8.08	7.67	7.20	6.91	6.67	6.44	6.20	6.03
337.5	7.72	7.43	7.14	6.91	6.67	6.50	6.26	6.09	5.97
360.0	7.61	7.37	7.14	6.96	6.73	6.50	6.32	6.14	5.97
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	5.85	5.74	5.56	5.44	5.38	5.21	5.21	5.09	4.97
22.5	6.03	5.85	5.74	5.50	5.38	5.27	5.21	5.03	4.97
45.0	5.68	5.50	5.44	5.38	5.21	5.09	4.97	4.97	4.86
67.5	5.79	5.68	5.56	5.44	5.33	5.21	5.09	4.97	4.92
90.0	5.56	5.44	5.33	5.27	5.15	5.09	4.97	4.92	4.80
112.5	5.74	5.62	5.44	5.38	5.27	5.21	5.03	4.97	4.92
135.0	5.56	5.44	5.33	5.21	5.15	4.97	4.97	4.86	4.80
157.5	5.79	5.68	5.56	5.38	5.27	5.15	5.09	4.97	4.92
180.0	5.74	5.62	5.50	5.33	5.27	5.15	5.03	4.97	4.92
202.5	5.62	5.44	5.33	5.21	5.09	5.03	4.97	4.86	4.80
225.0	5.68	5.56	5.38	5.27	5.21	5.09	4.97	4.92	4.80
247.5	5.56	5.38	5.27	5.21	5.09	5.03	4.92	4.86	4.80
270.0	5.62	5.56	5.44	5.33	5.21	5.09	5.03	4.92	4.92
292.5	5.62	5.44	5.38	5.27	5.15	5.03	4.97	4.92	4.86
315.0	5.79	5.68	5.50	5.44	5.27	5.15	5.03	5.03	4.92
337.5	5.74	5.62	5.50	5.38	5.21	5.15	5.03	4.92	4.86
360.0	5.85	5.74	5.56	5.44	5.38	5.21	5.21	5.09	4.97

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	4.92	4.80	4.68	4.62	4.62	4.56	4.56	4.56	4.62
22.5	4.92	4.86	4.80	4.68	4.62	4.56	4.56	4.62	4.56
45.0	4.80	4.74	4.62	4.62	4.62	4.56	4.62	4.68	4.62
67.5	4.86	4.80	4.68	4.68	4.62	4.62	4.56	4.56	4.56
90.0	4.80	4.68	4.68	4.62	4.62	4.56	4.56	4.56	4.56
112.5	4.80	4.80	4.68	4.68	4.62	4.62	4.56	4.56	4.56
135.0	4.74	4.68	4.68	4.62	4.68	4.68	4.68	4.62	4.62
157.5	4.86	4.80	4.74	4.62	4.62	4.56	4.56	4.56	4.56
180.0	4.86	4.80	4.68	4.68	4.56	4.62	4.62	4.62	4.56
202.5	4.74	4.68	4.68	4.56	4.56	4.56	4.56	4.51	4.56
225.0	4.74	4.68	4.68	4.62	4.56	4.56	4.56	4.51	4.56
247.5	4.74	4.68	4.62	4.56	4.62	4.51	4.56	4.56	4.56
270.0	4.80	4.74	4.68	4.62	4.62	4.56	4.56	4.56	4.51
292.5	4.74	4.74	4.68	4.62	4.62	4.56	4.56	4.51	4.51
315.0	4.86	4.74	4.74	4.68	4.62	4.56	4.56	4.56	4.51
337.5	4.80	4.74	4.62	4.56	4.51	4.56	4.56	4.56	4.56
360.0	4.92	4.80	4.68	4.62	4.62	4.56	4.56	4.56	4.62

C/γ(°)	90.0
0.0	4.62
22.5	4.56
45.0	4.62
67.5	4.56
90.0	4.56
112.5	4.56
135.0	4.62
157.5	4.56
180.0	4.62
202.5	4.56
225.0	4.56
247.5	4.56
270.0	4.51
292.5	4.56
315.0	4.56
337.5	4.56
360.0	4.62