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Nata

LumCAT: 2-1536-A
Luminaire: 92.76.323.00
Report No: NT2017031401
Test No: GC2017031401
LampCAT: PHILIPS SLM 1205 G6
Lamp flux(lm): 3079.0
Number of Lamps: 1
Length(mm): 75
Phm Type: C

Voltage(V): 37.5000
Current(A): 0.7000
Power (W): 26.2500
PF: 0.0000
Ballast type: DC
Width(mm): 75
Height(mm): 0

Photometric Results

Lumens(lm): 2781.12
Efficiency(%): 90.33%
Lumens(lm)/Power(W): 105.95
Central intensity(cd): 20219.460
Maximum intensity(cd): 20219.460
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=14.5
 [C90/270]Total=14.5
Field angle(10%Imax): [C0/180]Total=31.2
 [C90/270]Total=31.2
Maximum s/h(1/2): C0_180=0.25 C90_270=0.25
Maximum s/h(1/4): C0_180=0.26 C90_270=0.26
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 90.48%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.606%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	20219.463	4.837	4.837	.157%	.174%
1.0	19998.549	38.274	43.112	1.243%	1.550%
2.0	19311.721	73.908	117.02	2.400%	4.208%
3.0	18083.963	103.788	220.807	3.371%	7.940%
4.0	16602.258	127.000	347.807	4.125%	12.506%
5.0	14591.391	139.458	487.265	4.529%	17.520%
6.0	12649.552	144.998	632.263	4.709%	22.734%
7.0	10621.137	141.944	774.207	4.610%	27.838%
8.0	8668.905	132.303	906.511	4.297%	32.595%
9.0	7070.687	121.296	1027.807	3.939%	36.957%
10.0	5559.045	105.858	1133.664	3.438%	40.763%
11.0	4509.188	94.352	1228.016	3.064%	44.155%
12.0	3676.253	83.818	1311.833	2.722%	47.169%
13.0	2979.584	73.501	1385.335	2.387%	49.812%
14.0	2521.652	66.898	1452.233	2.173%	52.218%
15.0	2213.887	62.835	1515.068	2.041%	54.477%
16.0	1893.045	57.220	1572.288	1.858%	56.534%
17.0	1686.997	54.088	1626.376	1.757%	58.479%
18.0	1540.478	52.202	1678.579	1.695%	60.356%
19.0	1425.204	50.883	1729.461	1.653%	62.186%
20.0	1335.737	50.098	1779.56	1.627%	63.987%
21.0	1274.693	50.094	1829.654	1.627%	65.788%
22.0	1229.478	50.507	1880.161	1.640%	67.604%
23.0	1196.100	51.250	1931.411	1.665%	69.447%
24.0	1167.127	52.057	1983.468	1.691%	71.319%
25.0	1138.030	52.742	2036.21	1.713%	73.216%
26.0	1113.399	53.523	2089.734	1.738%	75.140%
27.0	1089.931	54.262	2143.996	1.762%	77.091%
28.0	1062.451	54.698	2198.694	1.776%	79.058%
29.0	1038.687	55.221	2253.915	1.793%	81.043%
30.0	1015.474	55.679	2309.594	1.808%	83.046%
31.0	988.944	55.855	2365.449	1.814%	85.054%
32.0	946.777	55.019	2420.468	1.787%	87.032%
33.0	895.479	53.483	2473.951	1.737%	88.955%
34.0	826.156	50.661	2524.612	1.645%	90.777%
35.0	730.261	45.933	2570.544	1.492%	92.428%
36.0	627.533	40.449	2610.993	1.314%	93.883%
37.0	517.069	34.124	2645.118	1.108%	95.110%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	406.557	27.448	2672.566	.891%	96.097%
39.0	292.109	20.159	2692.725	.655%	96.822%
40.0	200.942	14.164	2706.889	.460%	97.331%
41.0	128.825	9.268	2716.157	.301%	97.664%
42.0	77.588	5.693	2721.85	.185%	97.869%
43.0	43.729	3.270	2725.121	.106%	97.987%
44.0	29.627	2.257	2727.378	.073%	98.068%
45.0	26.179	2.030	2729.408	.066%	98.141%
46.0	21.878	1.726	2731.133	.056%	98.203%
47.0	18.595	1.491	2732.625	.048%	98.256%
48.0	17.191	1.401	2734.026	.046%	98.307%
49.0	14.597	1.208	2735.234	.039%	98.350%
50.0	13.386	1.124	2736.358	.037%	98.391%
51.0	12.580	1.072	2737.43	.035%	98.429%
52.0	12.181	1.053	2738.483	.034%	98.467%
53.0	12.037	1.054	2739.537	.034%	98.505%
54.0	11.913	1.057	2740.594	.034%	98.543%
55.0	11.810	1.061	2741.655	.034%	98.581%
56.0	11.713	1.065	2742.72	.035%	98.619%
57.0	11.617	1.068	2743.788	.035%	98.658%
58.0	11.527	1.072	2744.86	.035%	98.696%
59.0	11.486	1.080	2745.94	.035%	98.735%
60.0	11.438	1.086	2747.026	.035%	98.774%
61.0	11.397	1.093	2748.119	.036%	98.813%
62.0	11.335	1.097	2749.217	.036%	98.853%
63.0	11.300	1.104	2750.321	.036%	98.893%
64.0	11.273	1.111	2751.432	.036%	98.933%
65.0	11.225	1.116	2752.548	.036%	98.973%
66.0	11.204	1.122	2753.67	.036%	99.013%
67.0	11.163	1.127	2754.797	.037%	99.054%
68.0	11.142	1.133	2755.93	.037%	99.094%
69.0	11.108	1.137	2757.067	.037%	99.135%
70.0	11.108	1.145	2758.211	.037%	99.176%
71.0	11.094	1.150	2759.362	.037%	99.218%
72.0	11.094	1.157	2760.519	.038%	99.259%
73.0	11.094	1.163	2761.682	.038%	99.301%
74.0	11.011	1.161	2762.843	.038%	99.343%
75.0	11.032	1.169	2764.011	.038%	99.385%

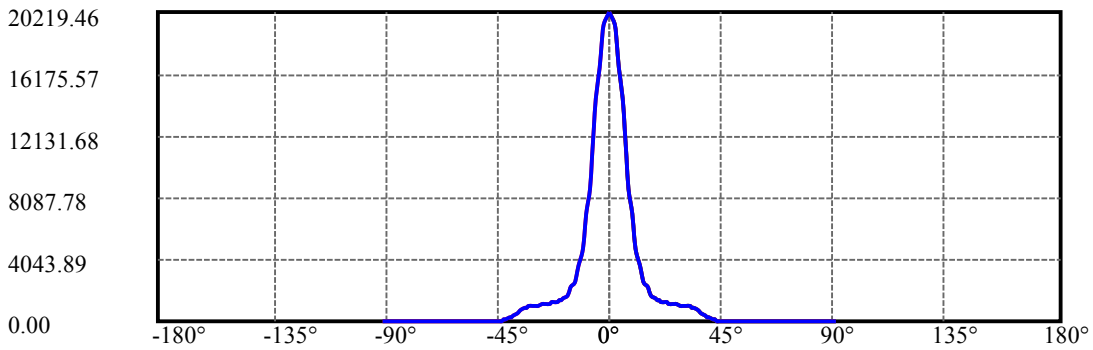
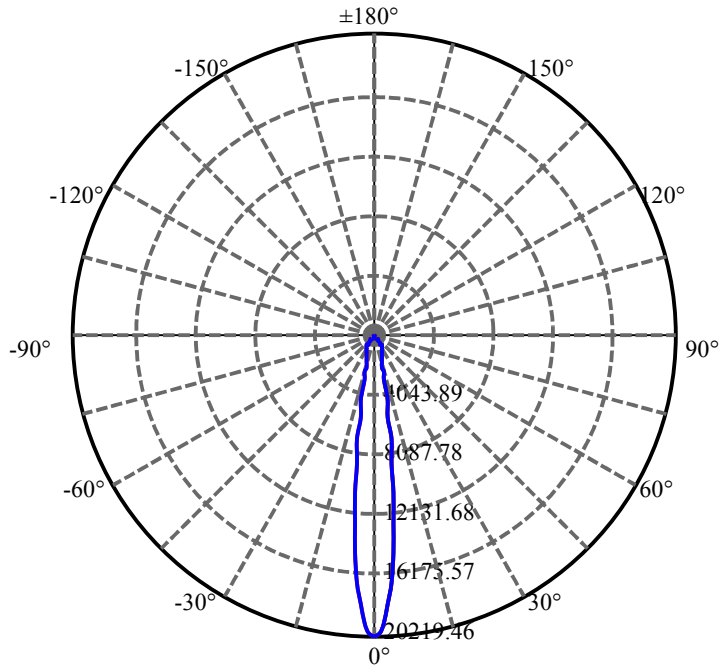
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	11.039	1.175	2765.186	.038%	99.427%
77.0	11.025	1.178	2766.364	.038%	99.469%
78.0	11.046	1.185	2767.549	.038%	99.512%
79.0	11.039	1.188	2768.737	.039%	99.555%
80.0	11.025	1.191	2769.928	.039%	99.598%
81.0	11.004	1.192	2771.12	.039%	99.640%
82.0	10.963	1.191	2772.31	.039%	99.683%
83.0	10.887	1.185	2773.495	.038%	99.726%
84.0	10.812	1.179	2774.674	.038%	99.768%
85.0	10.812	1.181	2775.855	.038%	99.811%
86.0	10.777	1.179	2777.034	.038%	99.853%
87.0	10.764	1.179	2778.213	.038%	99.896%
88.0	10.633	1.165	2779.378	.038%	99.937%
89.0	10.585	1.161	2780.539	.038%	99.979%
90.0	10.564	0.579	2781.118	.019%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2309.59	75.01%	83.05%
0-40	2706.89	87.91%	97.33%
0-60	2747.03	89.22%	98.77%
0-90	2780.54	90.31%	99.98%
0-120	2780.54	90.31%	99.98%
0-180	2781.12	90.33%	100.00%
60-90	34.60	1.12%	1.24%
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%
0-28.47	2224.90	72.26%	80.00%

ZONAL LUMEN SUMMARY

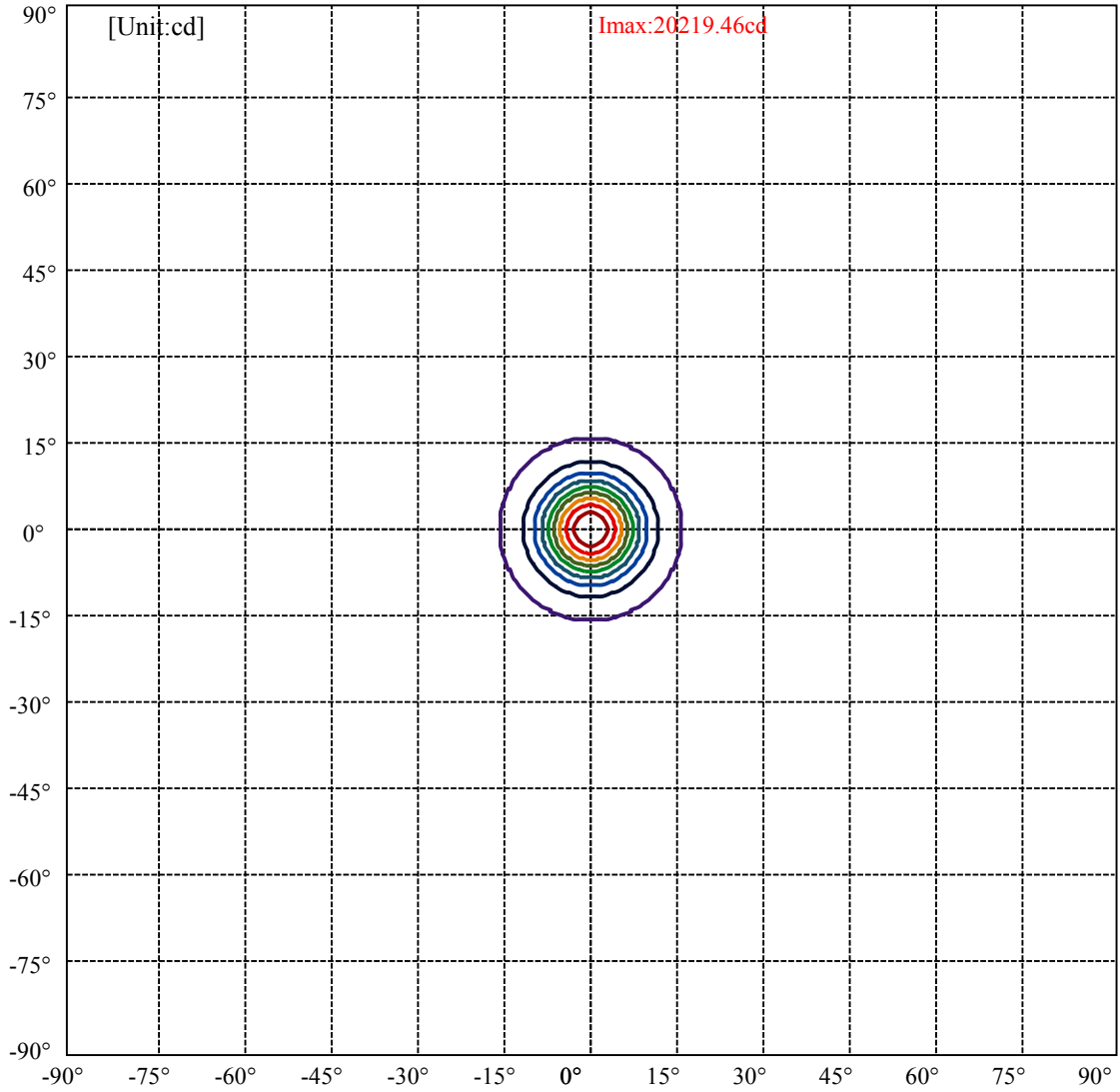
0-10	1133.66
10-20	645.90
20-30	530.03
30-40	397.29
40-50	29.47
50-60	10.67
60-70	11.19
70-80	11.72
80-90	10.61
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



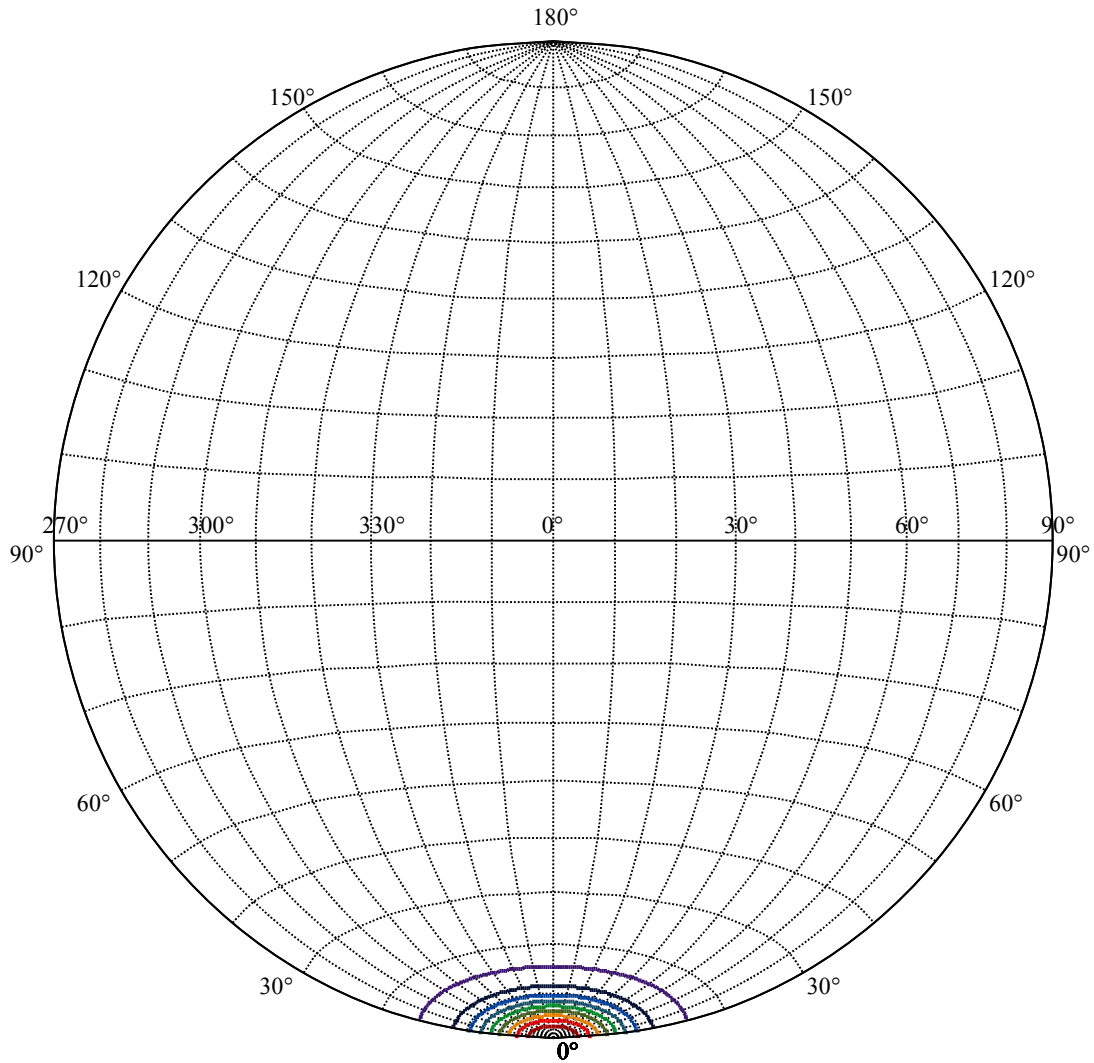
C0(Max): —————
C0/C180: —————
C90/C270: —————

Field angle(10%Imax):C0/180Left:15.6 Right:15.6
:C90/270Left:15.6 Right:15.6

Beam Angle(50%Imax):C0/180Left:7.3 Right:7.3
:C90/270Left:7.3 Right:7.3



(10%I _{max}) 2021.95	—
(20%I _{max}) 4043.89	—
(30%I _{max}) 6065.84	—
(40%I _{max}) 8087.78	—
(50%I _{max}) 10109.7	—
(60%I _{max}) 12131.7	—
(70%I _{max}) 14153.6	—
(80%I _{max}) 16175.6	—
(90%I _{max}) 18197.5	—



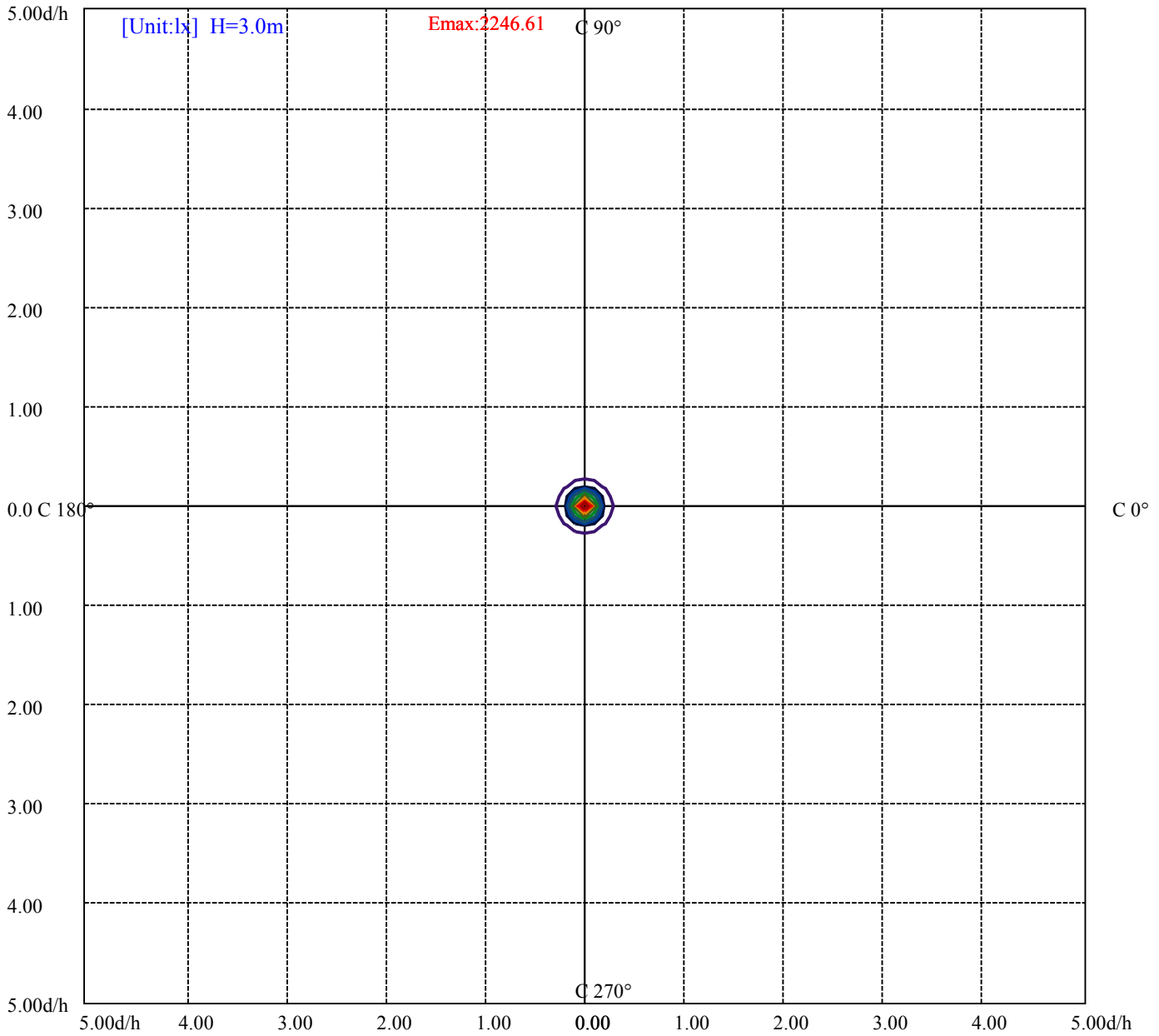
House

[Unit:cd]

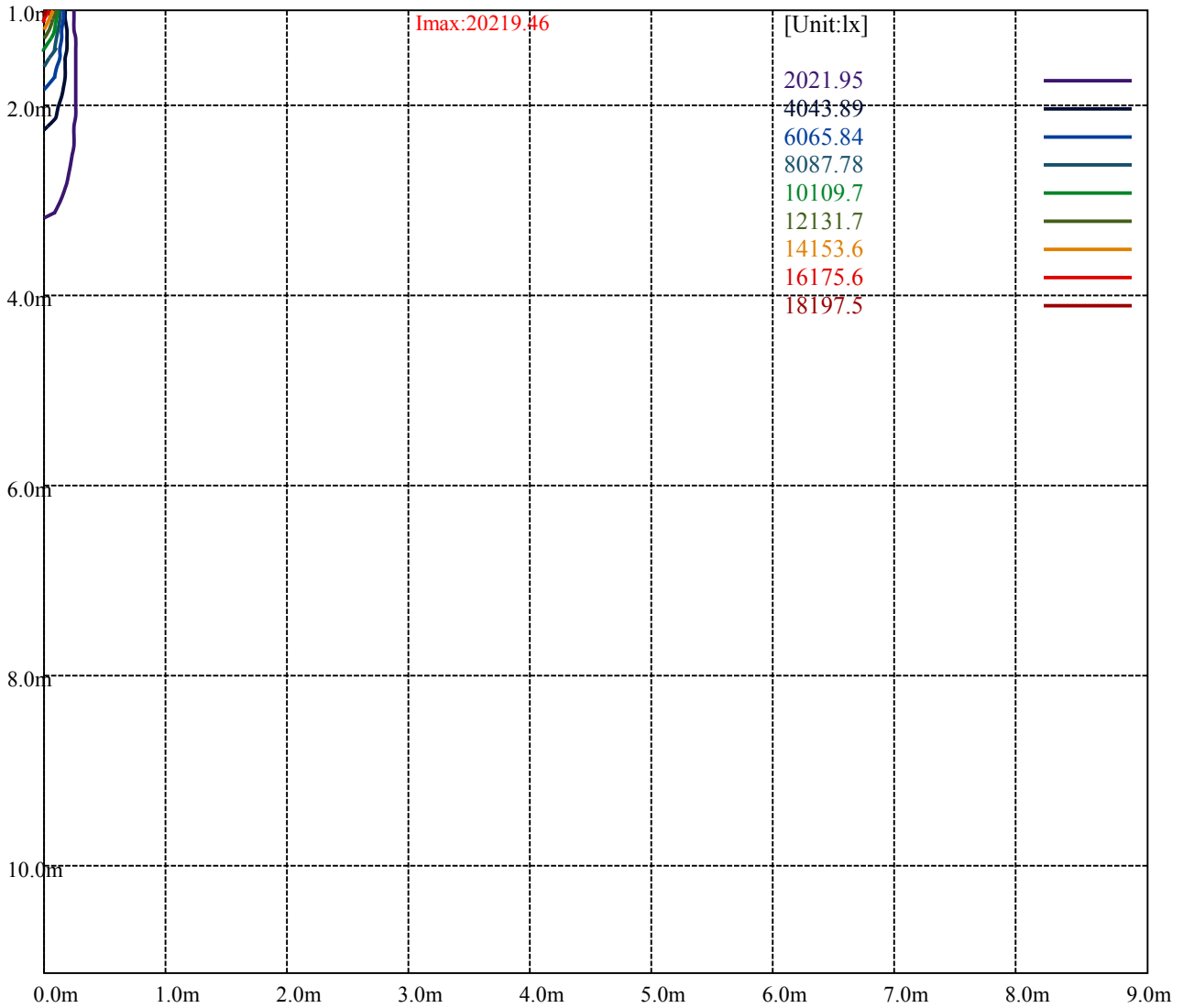
Road

Imax:20219.46

(10%Imax)	2021.95	—
(20%Imax)	4043.89	—
(30%Imax)	6065.84	—
(40%Imax)	8087.78	—
(50%Imax)	10109.7	—
(60%Imax)	12131.7	—
(70%Imax)	14153.6	—
(80%Imax)	16175.6	—
(90%Imax)	18197.5	—



(10%Emax) 224.66	—
(20%Emax) 449.3211	—
(30%Emax) 673.9811	—
(40%Emax) 898.6411	—
(50%Emax) 1123.3	—
(60%Emax) 1347.967	—
(70%Emax) 1572.622	—
(80%Emax) 1797.278	—
(90%Emax) 2021.944	—



Luminance Table

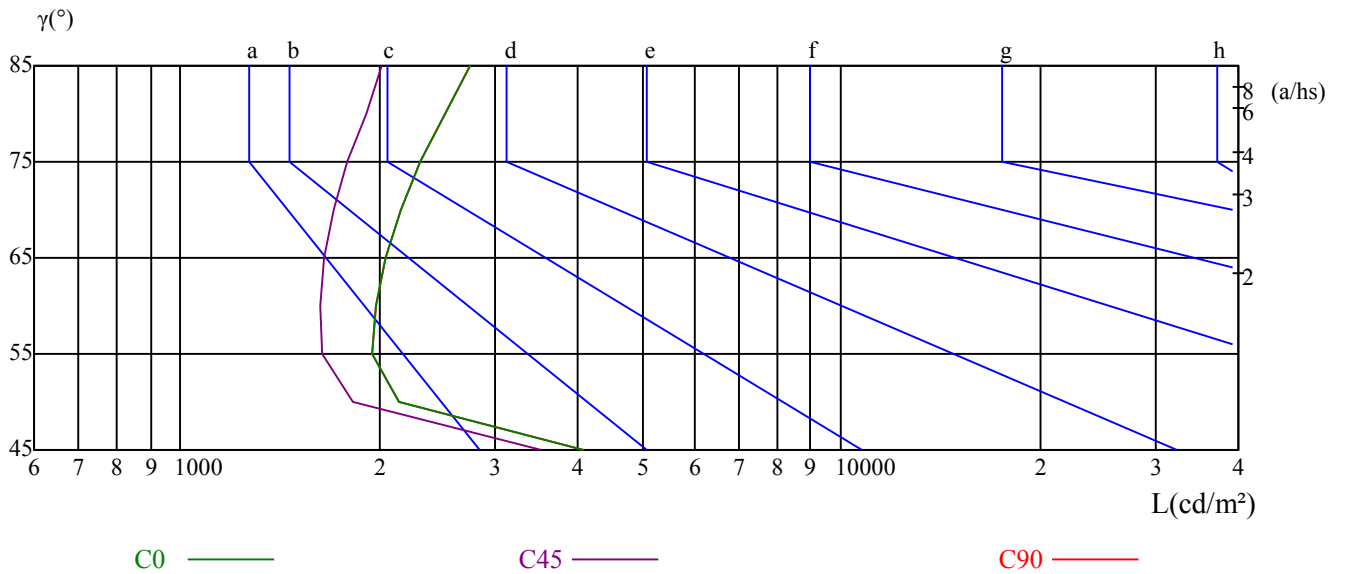
γ	45	50	55	60	65	70	75	80	85
C0	4080	2139	1951	1972	2039	2150	2304	2520	2753
C45	3525	1820	1635	1625	1651	1707	1788	1907	2021
C90	4080	2139	1951	1972	2039	2150	2304	2520	2753

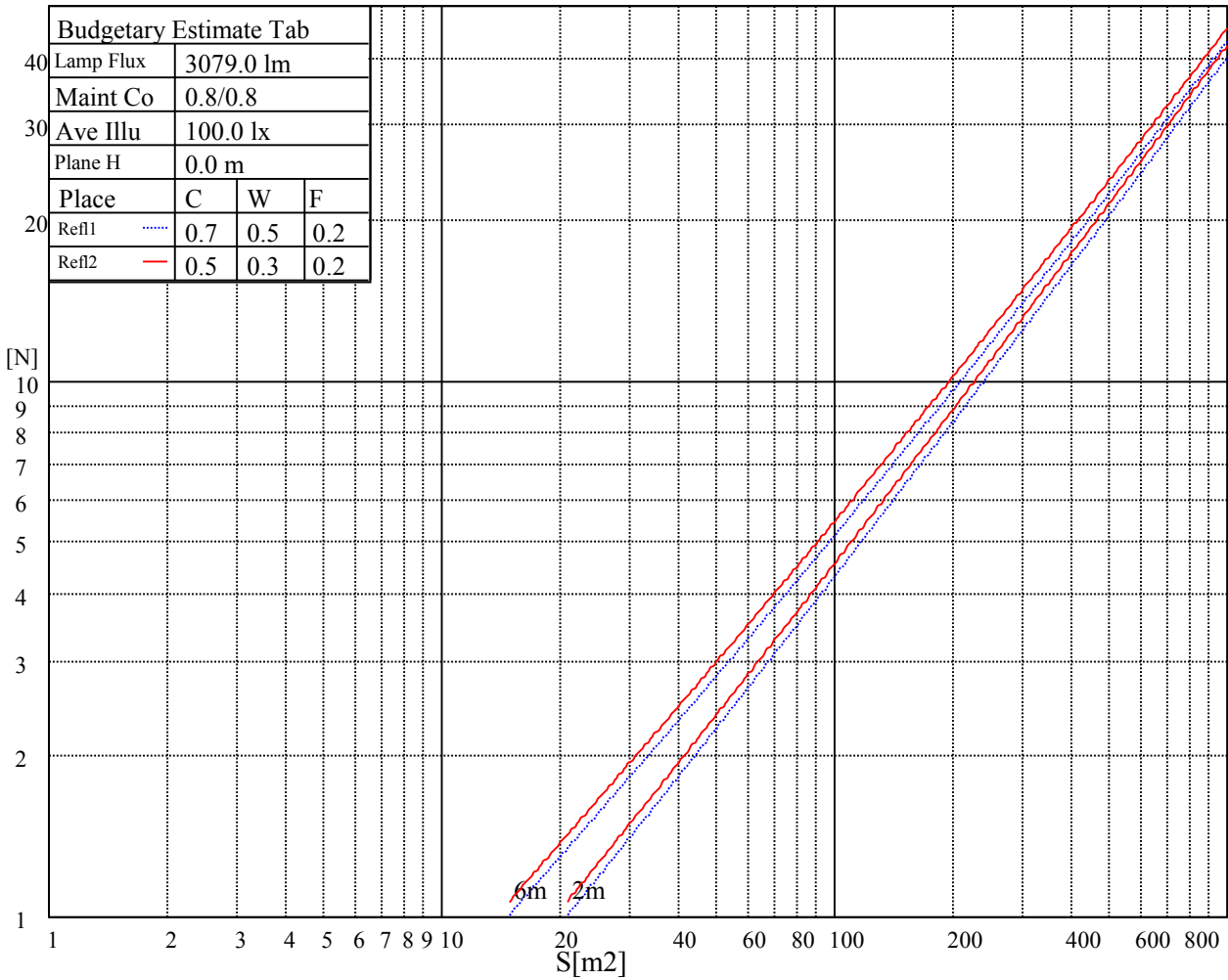
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4722	4722	4722	7578	7578	7578	22053	22053	22053

Glare Table

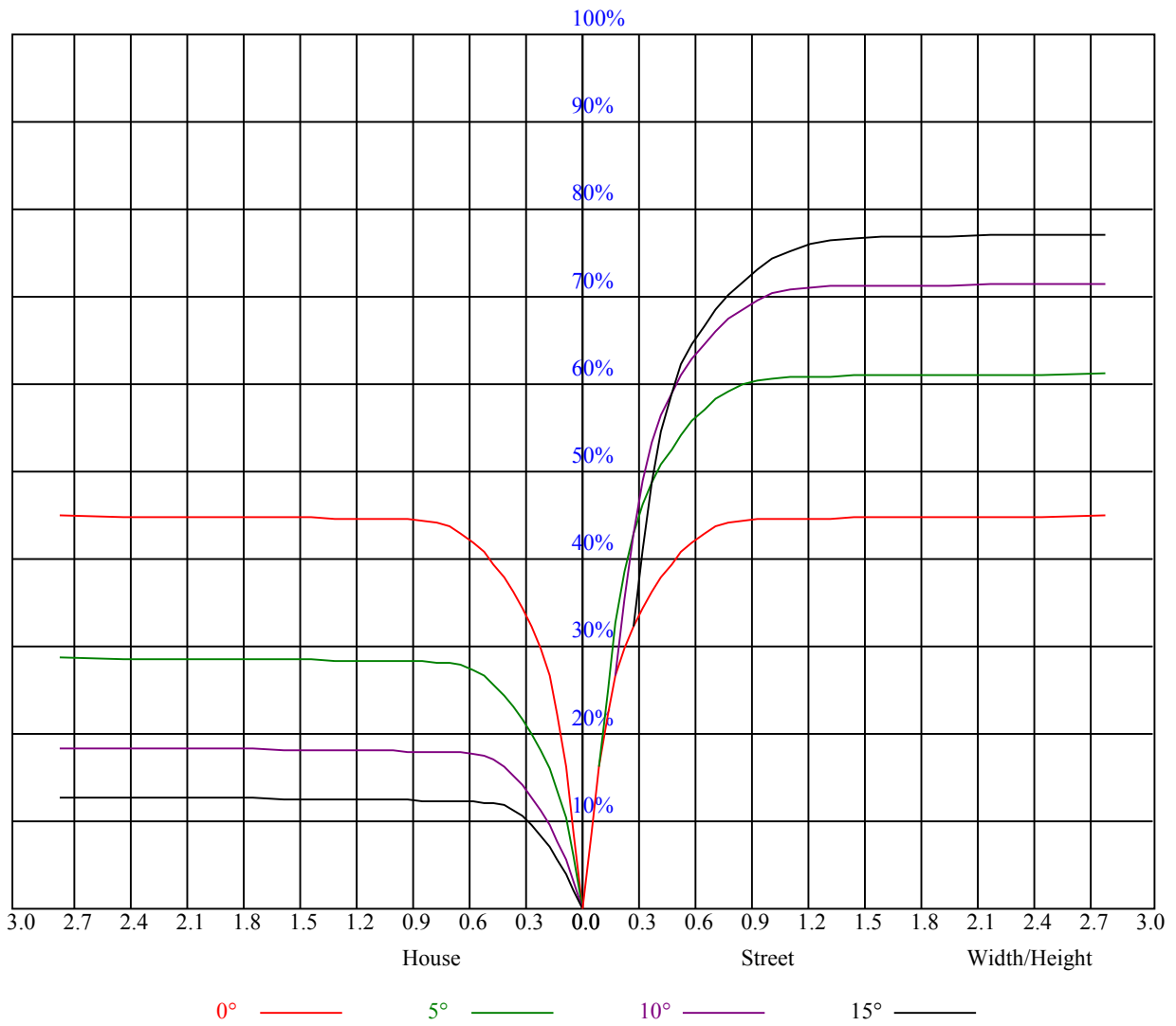
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.08	1.08	1.08	1.05	1.05	1.05	1.01	1.01	1.01	0.96	0.96	0.96	0.92	0.92	0.92	0.90
1	1.01	0.99	0.98	0.99	0.98	0.96	0.96	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.88	0.86
2	0.96	0.93	0.90	0.94	0.92	0.89	0.92	0.89	0.87	0.89	0.87	0.86	0.87	0.85	0.84	0.82
3	0.91	0.88	0.85	0.90	0.87	0.84	0.88	0.85	0.83	0.86	0.83	0.82	0.84	0.82	0.80	0.79
4	0.87	0.83	0.80	0.86	0.83	0.80	0.84	0.81	0.79	0.83	0.80	0.78	0.81	0.79	0.77	0.76
5	0.84	0.80	0.77	0.83	0.79	0.76	0.81	0.78	0.76	0.80	0.77	0.75	0.79	0.76	0.74	0.73
6	0.80	0.76	0.73	0.80	0.76	0.73	0.79	0.75	0.73	0.77	0.74	0.72	0.76	0.74	0.72	0.71
7	0.78	0.73	0.70	0.77	0.73	0.70	0.76	0.72	0.70	0.75	0.72	0.70	0.74	0.71	0.69	0.68
8	0.75	0.71	0.68	0.74	0.71	0.68	0.74	0.70	0.68	0.73	0.70	0.67	0.72	0.69	0.67	0.66
9	0.72	0.68	0.66	0.72	0.68	0.66	0.71	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.65	0.64
10	0.70	0.66	0.64	0.70	0.66	0.64	0.69	0.66	0.63	0.69	0.66	0.63	0.68	0.65	0.63	0.62



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	20189.18	20249.74	19814.80	18988.95	17612.54	16048.94	13984.33	11760.05	9816.56
45.0	20134.13	20717.72	20805.81	20475.48	19622.10	18460.41	16748.16	14650.51	12635.44
90.0	20447.95	20827.84	20822.33	20255.25	19401.88	18179.62	16104.00	14132.98	10772.34
135.0	20106.60	20420.42	20260.76	19660.64	18642.10	17034.45	15002.87	12729.04	10719.48
180.0	20189.18	19715.70	18790.75	17050.97	15294.67	13351.18	10750.86	8725.89	6928.30
225.0	20134.13	19159.63	17722.66	15509.39	13510.84	10823.54	8804.62	7033.46	5600.34
270.0	20447.95	19523.00	18036.48	16351.75	14149.49	12035.33	9722.96	7674.86	6177.33
315.0	20106.60	19374.35	18240.19	16379.28	14584.44	10797.66	10078.62	8262.31	6701.47
360.0	20189.18	20249.74	19814.80	18988.95	17612.54	16048.94	13984.33	11760.05	9816.56
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	7807.00	6105.75	4944.06	4057.66	3226.31	2796.87	2577.19	2048.10	1830.63
45.0	10372.63	8214.41	6568.23	5274.40	4096.20	3407.99	2884.96	2408.72	2121.32
90.0	9777.47	7708.45	6182.28	4854.32	3960.21	3194.92	2631.15	2255.66	1937.99
135.0	8572.28	6645.31	5296.43	4283.39	3369.45	2824.39	2582.15	2104.26	1816.31
180.0	5499.03	4206.31	3447.08	2871.74	2387.25	2048.10	1821.82	1621.41	1478.26
225.0	4383.04	3495.53	2908.63	2411.47	2093.79	1835.03	1639.03	1501.94	1389.62
270.0	4878.00	3897.99	3248.33	2796.87	2263.92	1978.73	1756.85	1566.35	1432.02
315.0	5276.05	4198.60	3478.46	2860.18	2439.55	2087.19	1817.96	1637.93	1489.83
360.0	7807.00	6105.75	4944.06	4057.66	3226.31	2796.87	2577.19	2048.10	1830.63
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1669.31	1492.03	1380.81	1316.95	1251.98	1216.20	1188.67	1159.49	1136.91
45.0	1879.63	1661.60	1498.08	1391.83	1308.69	1256.39	1214.54	1184.81	1161.14
90.0	1692.43	1531.12	1414.95	1315.85	1261.89	1223.35	1190.87	1164.99	1144.07
135.0	1634.07	1504.69	1359.89	1290.52	1245.93	1201.88	1172.15	1152.88	1125.35
180.0	1390.72	1318.05	1269.05	1226.11	1190.32	1163.34	1139.12	1097.16	1082.96
225.0	1315.30	1269.60	1235.47	1203.53	1180.96	1159.49	1138.02	1097.49	1077.40
270.0	1352.19	1296.58	1247.03	1216.75	1187.02	1163.34	1136.91	1113.24	1083.51
315.0	1390.17	1327.96	1280.61	1236.02	1209.04	1184.81	1156.73	1134.16	1095.84
360.0	1669.31	1492.03	1380.81	1316.95	1251.98	1216.20	1188.67	1159.49	1136.91
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	1115.99	1085.16	1059.84	1037.81	1012.49	992.12	971.75	913.94	825.85
45.0	1139.67	1114.89	1095.07	1069.75	1042.22	1021.30	1001.48	979.45	922.19
90.0	1122.60	1097.05	1078.00	1052.68	1029.33	1006.87	987.27	960.02	892.08
135.0	1105.53	1086.26	1055.98	1032.86	1011.94	987.16	967.89	923.30	823.09
180.0	1055.38	1024.32	1000.21	978.52	956.55	899.84	824.25	721.73	620.60
225.0	1051.36	1020.69	999.27	979.07	933.65	851.06	759.34	642.12	520.39
270.0	1055.43	1027.35	1002.58	981.11	954.68	889.16	806.03	714.08	584.70
315.0	1073.49	1043.87	1018.54	992.01	970.70	926.71	845.83	754.60	653.19
360.0	1115.99	1085.16	1059.84	1037.81	1012.49	992.12	971.75	913.94	825.85
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	732.25	614.98	491.10	380.44	278.03	172.77	91.56	41.40	35.95
45.0	842.36	747.12	614.98	505.42	382.09	289.60	166.82	93.32	42.61
90.0	805.42	696.57	587.34	460.11	338.54	237.35	150.14	65.08	35.79
135.0	728.95	623.79	488.35	379.34	288.50	168.25	86.88	41.07	30.94
180.0	504.43	387.05	288.50	186.31	102.07	49.33	34.91	30.50	24.28
225.0	411.99	293.73	196.94	104.50	46.03	32.37	29.40	24.45	20.98
270.0	475.69	363.37	282.44	138.58	68.82	31.49	27.31	24.33	21.80
315.0	519.18	409.95	302.81	182.18	103.45	49.44	33.69	29.68	24.67
360.0	732.25	614.98	491.10	380.44	278.03	172.77	91.56	41.40	35.95

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	32.15	24.61	22.24	20.48	14.37	13.27	12.50	12.33	12.17
45.0	35.13	30.23	23.56	20.98	19.32	15.86	14.15	12.94	12.66
90.0	32.43	26.54	21.03	19.66	18.22	14.92	13.43	12.44	12.28
135.0	27.53	22.90	21.14	19.77	15.31	14.37	12.44	12.17	12.06
180.0	20.76	18.61	16.68	15.53	12.55	12.22	12.11	11.95	11.84
225.0	19.66	15.31	13.21	12.61	12.39	12.22	12.06	11.95	11.84
270.0	20.37	17.84	13.82	12.99	12.28	12.11	12.00	11.89	11.73
315.0	21.42	18.99	17.07	15.53	12.33	12.11	11.95	11.78	11.73
360.0	32.15	24.61	22.24	20.48	14.37	13.27	12.50	12.33	12.17
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	12.06	11.89	11.78	11.67	11.56	11.56	11.51	11.40	11.40
45.0	12.50	12.39	12.22	12.11	12.00	11.89	11.78	11.73	11.62
90.0	12.11	12.00	12.00	11.95	11.73	11.78	11.67	11.62	11.56
135.0	11.95	11.89	11.73	11.62	11.56	11.51	11.45	11.45	11.34
180.0	11.73	11.62	11.51	11.40	11.34	11.23	11.23	11.23	11.18
225.0	11.73	11.62	11.56	11.45	11.40	11.34	11.34	11.34	11.29
270.0	11.67	11.56	11.45	11.40	11.34	11.34	11.29	11.29	11.23
315.0	11.56	11.51	11.45	11.34	11.29	11.23	11.23	11.12	11.07
360.0	12.06	11.89	11.78	11.67	11.56	11.56	11.51	11.40	11.40
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	11.34	11.34	11.29	11.23	11.23	11.23	11.18	11.12	11.07
45.0	11.67	11.51	11.45	11.45	11.40	11.34	11.29	11.23	11.18
90.0	11.56	11.56	11.51	11.51	11.45	11.40	11.34	11.40	11.45
135.0	11.29	11.29	11.29	11.23	11.23	11.18	11.18	11.18	11.18
180.0	11.12	11.12	11.18	11.12	11.01	11.01	10.96	10.96	10.96
225.0	11.18	11.18	11.12	11.12	11.12	11.18	11.18	11.23	11.23
270.0	11.18	11.12	11.07	11.07	11.01	10.96	10.96	10.96	10.90
315.0	11.07	11.07	10.90	10.90	10.85	10.85	10.79	10.79	10.79
360.0	11.34	11.34	11.29	11.23	11.23	11.23	11.18	11.12	11.07
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	11.01	10.96	11.01	10.96	10.96	10.90	10.85	10.90	10.90
45.0	11.12	11.12	11.07	11.01	11.01	10.96	10.90	10.90	10.90
90.0	11.73	11.73	11.12	10.96	10.90	10.85	10.85	10.79	10.85
135.0	11.12	11.18	11.12	11.12	11.18	11.18	11.29	11.23	11.12
180.0	10.96	10.90	10.90	10.90	10.85	10.79	10.79	10.74	10.74
225.0	11.23	11.29	11.40	11.67	11.89	12.00	12.17	12.22	12.22
270.0	10.85	10.79	10.79	10.90	10.79	10.79	10.79	10.79	10.74
315.0	10.74	10.79	10.68	10.74	10.74	10.74	10.74	10.74	10.74
360.0	11.01	10.96	11.01	10.96	10.96	10.90	10.85	10.90	10.90
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	10.96	11.01	10.96	10.85	10.74	10.79	10.79	10.68	10.57
45.0	10.90	10.90	10.90	10.85	10.85	10.79	10.79	10.79	10.79
90.0	10.79	10.79	10.74	10.74	10.74	10.74	10.79	10.68	10.57
135.0	11.01	11.01	10.96	11.01	11.01	11.12	11.18	10.68	10.52
180.0	10.79	10.74	10.74	10.68	10.68	10.68	10.63	10.52	10.52
225.0	12.11	11.78	11.45	11.07	11.12	10.79	10.63	10.63	10.63
270.0	10.74	10.74	10.68	10.68	10.68	10.68	10.68	10.57	10.57
315.0	10.74	10.74	10.68	10.63	10.68	10.63	10.63	10.52	10.52
360.0	10.96	11.01	10.96	10.85	10.74	10.79	10.79	10.68	10.57

Intensity data(cd)

C/γ(°)	90.0
0.0	10.57
45.0	10.63
90.0	10.57
135.0	10.52
180.0	10.52
225.0	10.63
270.0	10.57
315.0	10.52
360.0	10.57