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Nata

LumCAT: 1-1008-M
Luminaire: BJB 47.360.1020
Report No: 210716-B015
Test No: 210716-C015
LampCAT: Fortimo LED SLM 1203 G7N
Lamp flux(lm): 2154.2
Number of Lamps: 1
Length(mm): 570
Phm Type: C

Voltage(V): 36.9900
Current(A): 0.4510
Power (W): 16.6820
PF: 0.0000
Ballast type: DC
Width(mm): 45
Height(mm): 20

Photometric Results

Lumens(lm): 1573.37
Efficiency(%): 73.04%
Lumens(lm)/Power(W): 94.32
Central intensity(cd): 11623.580
Maximum intensity(cd): 11623.580
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=17.6
 [C90/270]Total=17.6
Field angle(10%Imax): [C0/180]Total=38.7
 [C90/270]Total=38.7
IES Classification : TypeI
Longitudinal Classification : VeryShort
Cut Off Classification : Cutoff
Max Cd(At 90°Vert) : 6.8625
Max Cd(80 to 90°Vert) : 7.164844
Street Side UpWard Lumens: - -of Lamp 0.00%of Luminaire
Street Side DownWard Lumens: 36.52%of Lamp 50.00%of Luminaire
House Side UpWard Lumens: - -of lamp 0.00%of Luminaire
House Side DownWard Lumens: 36.52%of Lamp 50.00%of Luminaire

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2021/7/16
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	11623.584	0.000	0	.000%	.000%
1.0	11530.983	11.079	11.079	.514%	.704%
2.0	11041.945	32.399	43.478	1.504%	2.763%
3.0	10433.447	51.362	94.84	2.384%	6.028%
4.0	9746.002	67.547	162.387	3.136%	10.321%
5.0	8897.611	80.204	242.591	3.723%	15.419%
6.0	8080.017	89.222	331.813	4.142%	21.089%
7.0	7251.314	95.161	426.974	4.417%	27.137%
8.0	6436.814	97.963	524.937	4.548%	33.364%
9.0	5656.838	98.012	622.95	4.550%	39.593%
10.0	4969.603	96.165	719.115	4.464%	45.705%
11.0	4374.197	93.364	812.479	4.334%	51.639%
12.0	3844.814	89.846	902.325	4.171%	57.350%
13.0	3365.142	85.564	987.889	3.972%	62.788%
14.0	2959.495	80.955	1068.843	3.758%	67.933%
15.0	2518.552	75.205	1144.049	3.491%	72.713%
16.0	2173.655	68.754	1212.802	3.192%	77.083%
17.0	1821.023	62.208	1275.01	2.888%	81.037%
18.0	1492.727	54.637	1329.647	2.536%	84.509%
19.0	1263.839	47.959	1377.606	2.226%	87.557%
20.0	970.538	40.895	1418.501	1.898%	90.157%
21.0	752.660	33.089	1451.59	1.536%	92.260%
22.0	561.881	26.416	1478.006	1.226%	93.939%
23.0	398.728	20.156	1498.162	.936%	95.220%
24.0	230.098	13.748	1511.911	.638%	96.094%
25.0	134.641	8.293	1520.204	.385%	96.621%
26.0	69.012	4.807	1525.011	.223%	96.926%
27.0	29.299	2.405	1527.416	.112%	97.079%
28.0	19.624	1.239	1528.655	.057%	97.158%
29.0	15.877	0.929	1529.584	.043%	97.217%
30.0	14.203	0.812	1530.396	.038%	97.268%
31.0	13.085	0.759	1531.155	.035%	97.317%
32.0	12.129	0.722	1531.878	.034%	97.363%
33.0	11.405	0.693	1532.571	.032%	97.407%
34.0	10.814	0.672	1533.243	.031%	97.449%
35.0	10.315	0.656	1533.9	.030%	97.491%
36.0	9.907	0.644	1534.543	.030%	97.532%
37.0	9.577	0.635	1535.179	.029%	97.572%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	9.288	0.630	1535.809	.029%	97.612%
39.0	9.035	0.625	1536.434	.029%	97.652%
40.0	8.866	0.624	1537.058	.029%	97.692%
41.0	8.705	0.626	1537.684	.029%	97.732%
42.0	8.557	0.627	1538.311	.029%	97.772%
43.0	8.459	0.630	1538.942	.029%	97.812%
44.0	8.367	0.635	1539.577	.029%	97.852%
45.0	8.283	0.640	1540.216	.030%	97.893%
46.0	8.205	0.645	1540.861	.030%	97.934%
47.0	8.128	0.650	1541.511	.030%	97.975%
48.0	8.079	0.655	1542.166	.030%	98.017%
49.0	8.037	0.662	1542.828	.031%	98.059%
50.0	7.966	0.667	1543.495	.031%	98.101%
51.0	7.938	0.673	1544.168	.031%	98.144%
52.0	7.903	0.680	1544.848	.032%	98.187%
53.0	7.861	0.686	1545.533	.032%	98.231%
54.0	7.826	0.691	1546.225	.032%	98.275%
55.0	7.784	0.697	1546.922	.032%	98.319%
56.0	7.748	0.702	1547.624	.033%	98.363%
57.0	7.713	0.707	1548.33	.033%	98.408%
58.0	7.692	0.712	1549.043	.033%	98.454%
59.0	7.685	0.719	1549.762	.033%	98.499%
60.0	7.636	0.724	1550.486	.034%	98.545%
61.0	7.622	0.728	1551.214	.034%	98.592%
62.0	7.594	0.733	1551.947	.034%	98.638%
63.0	7.566	0.737	1552.684	.034%	98.685%
64.0	7.552	0.742	1553.426	.034%	98.732%
65.0	7.538	0.747	1554.173	.035%	98.780%
66.0	7.509	0.751	1554.923	.035%	98.827%
67.0	7.516	0.756	1555.679	.035%	98.875%
68.0	7.502	0.761	1556.44	.035%	98.924%
69.0	7.467	0.764	1557.203	.035%	98.972%
70.0	7.467	0.767	1557.97	.036%	99.021%
71.0	7.446	0.771	1558.741	.036%	99.070%
72.0	7.432	0.774	1559.515	.036%	99.119%
73.0	7.425	0.777	1560.292	.036%	99.169%
74.0	7.404	0.780	1561.071	.036%	99.218%
75.0	7.397	0.782	1561.853	.036%	99.268%

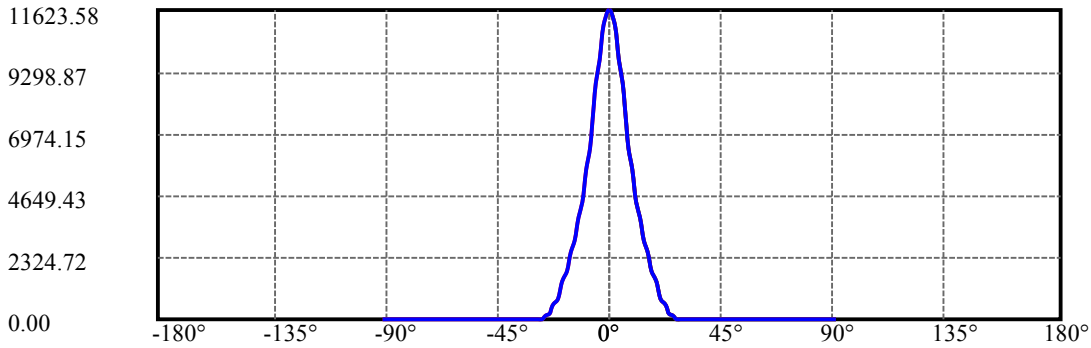
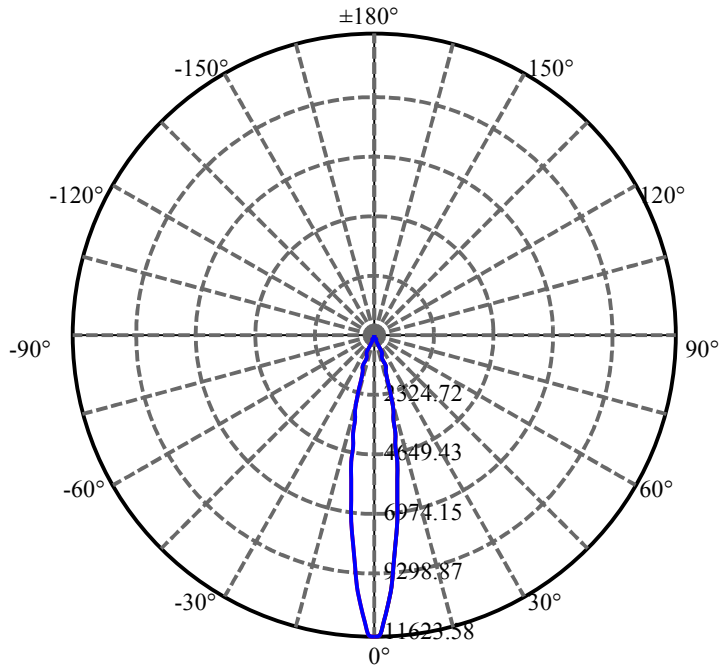
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	7.362	0.783	1562.637	.036%	99.318%
77.0	7.341	0.784	1563.421	.036%	99.367%
78.0	7.320	0.785	1564.205	.036%	99.417%
79.0	7.249	0.783	1564.988	.036%	99.467%
80.0	7.165	0.777	1565.765	.036%	99.516%
81.0	7.080	0.770	1566.536	.036%	99.565%
82.0	7.045	0.766	1567.302	.036%	99.614%
83.0	7.024	0.765	1568.067	.036%	99.663%
84.0	7.017	0.765	1568.832	.036%	99.711%
85.0	6.982	0.764	1569.596	.035%	99.760%
86.0	6.947	0.761	1570.357	.035%	99.808%
87.0	6.884	0.757	1571.114	.035%	99.856%
88.0	6.877	0.754	1571.868	.035%	99.904%
89.0	6.863	0.753	1572.621	.035%	99.952%
90.0	6.863	0.753	1573.373	.035%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1530.40	71.04%	97.27%
0-40	1537.06	71.35%	97.69%
0-60	1550.49	71.97%	98.55%
0-90	1572.62	73.00%	99.95%
0-120	1572.62	73.00%	99.95%
0-180	1573.37	73.04%	100.00%
60-90	22.86	1.06%	1.45%
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%
0-16.74	1258.70	58.43%	80.00%

ZONAL LUMEN SUMMARY

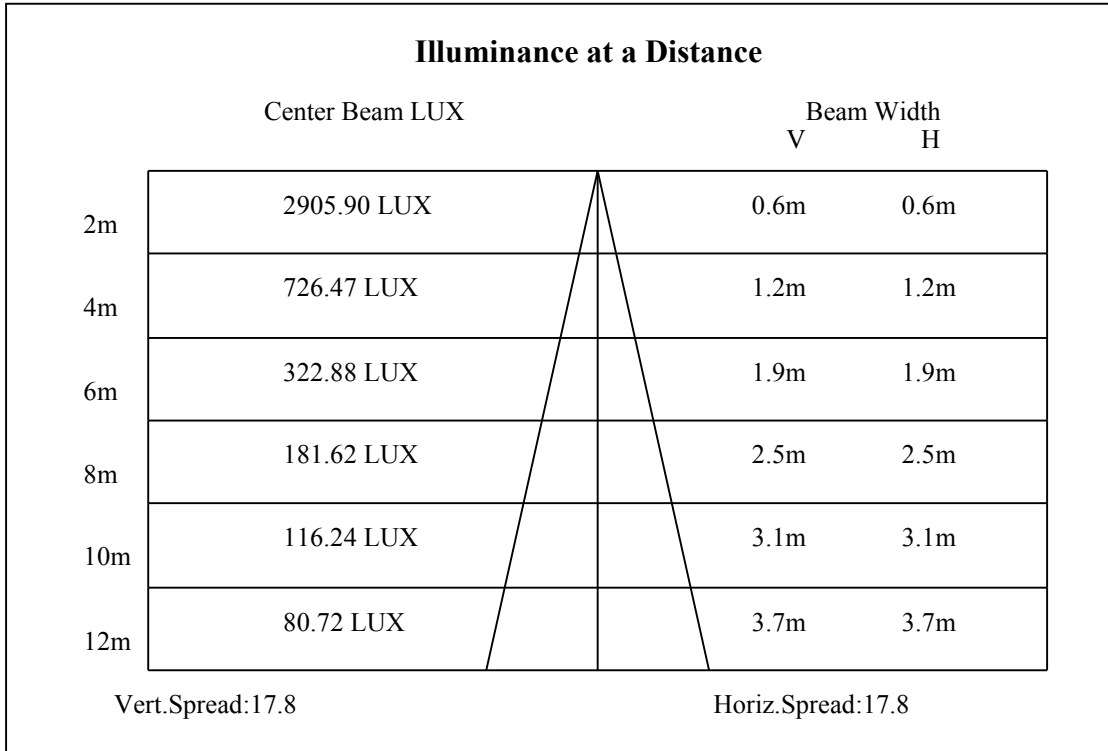
0-10	719.12
10-20	699.39
20-30	111.90
30-40	6.66
40-50	6.44
50-60	6.99
60-70	7.48
70-80	7.79
80-90	6.86
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

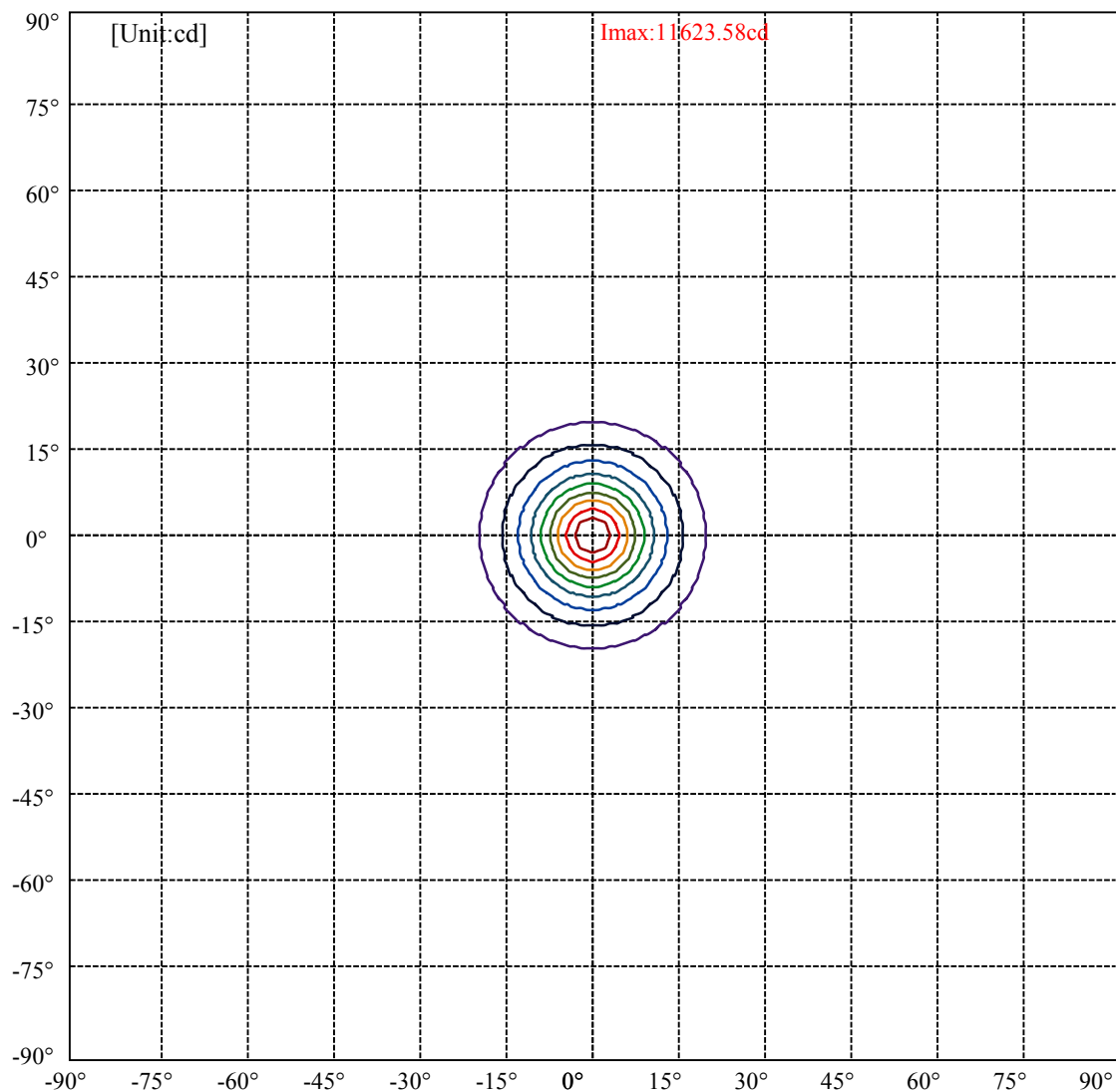


C0(Max): ———
C0/C180: ———
C90/C270: ———

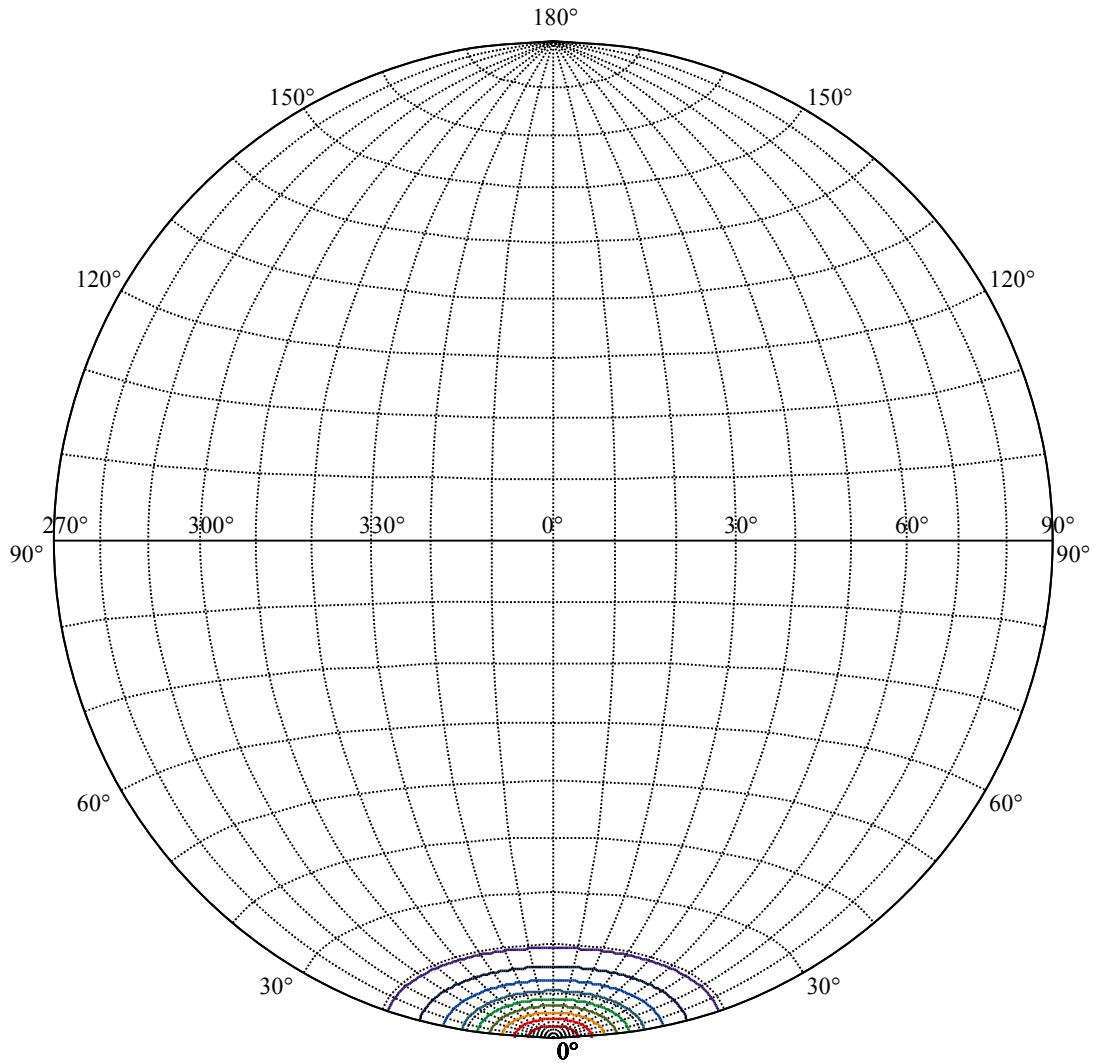
Field angle(10%Imax):C0/180Left:19.3 Right:19.3
:C90/270Left:19.3 Right:19.3

Beam Angle(50%Imax):C0/180Left:8.8 Right:8.8
:C90/270Left:8.8 Right:8.8





(10%Imax) 1162.36	—
(20%Imax) 2324.72	—
(30%Imax) 3487.08	—
(40%Imax) 4649.43	—
(50%Imax) 5811.79	—
(60%Imax) 6974.15	—
(70%Imax) 8136.51	—
(80%Imax) 9298.87	—
(90%Imax) 10461.2	—



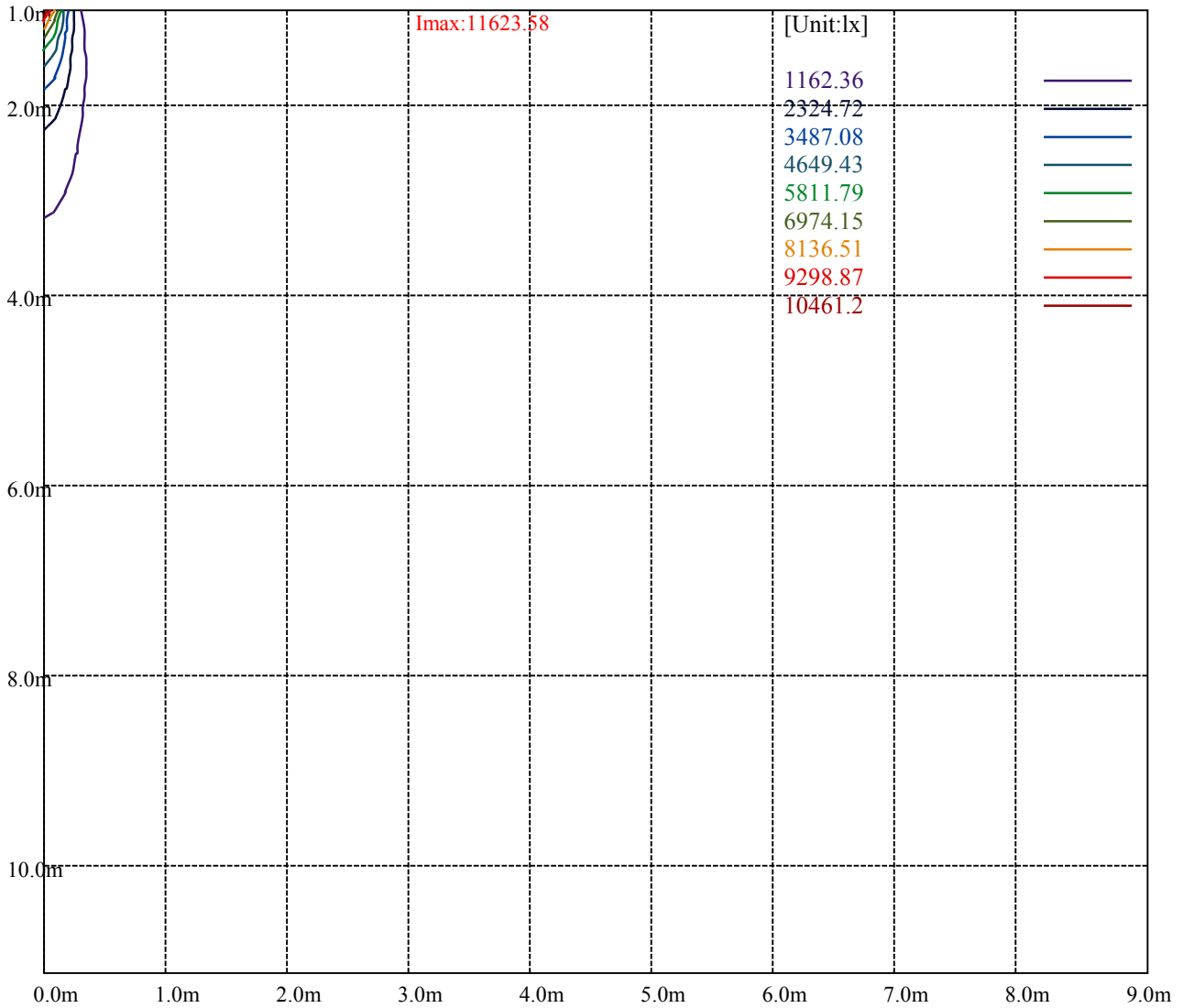
House

[Unit:cd]

Road

Imax:11623.58

(10%Imax)	1162.36	—
(20%Imax)	2324.72	—
(30%Imax)	3487.08	—
(40%Imax)	4649.43	—
(50%Imax)	5811.79	—
(60%Imax)	6974.15	—
(70%Imax)	8136.51	—
(80%Imax)	9298.87	—
(90%Imax)	10461.2	—



Luminance Table

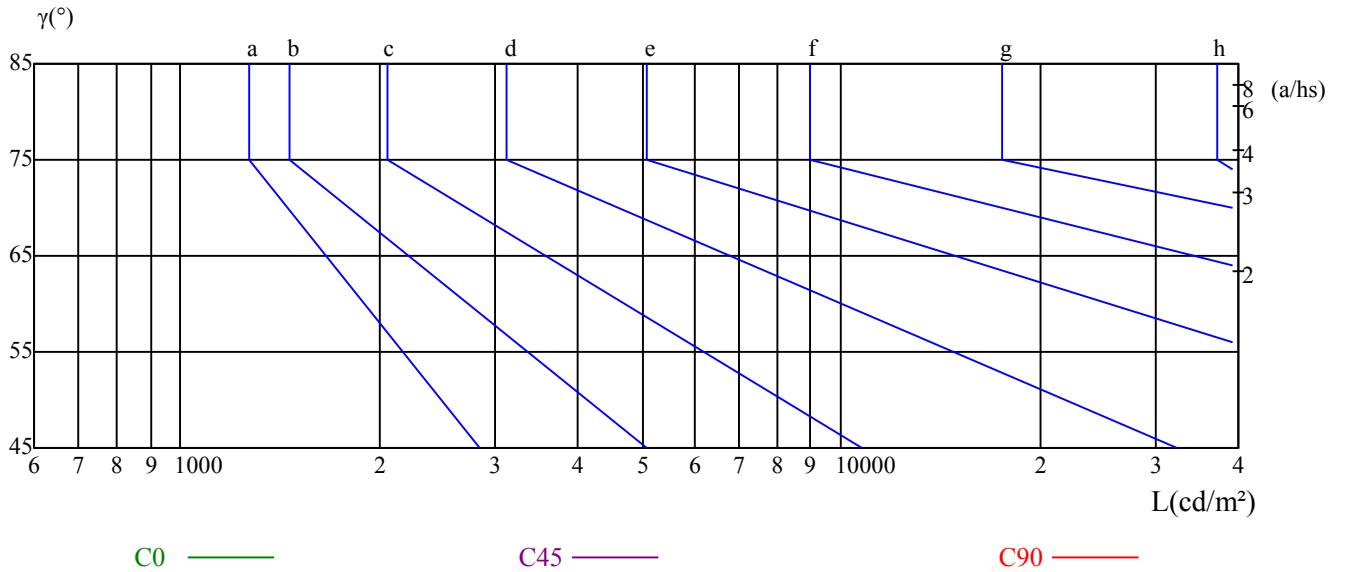
γ	45	50	55	60	65	70	75	80	85
C0	316	316	324	336	356	383	419	457	514
C45	341	344	356	375	403	441	492	550	641
C90	441	464	504	561	647	776	985	1342	2229

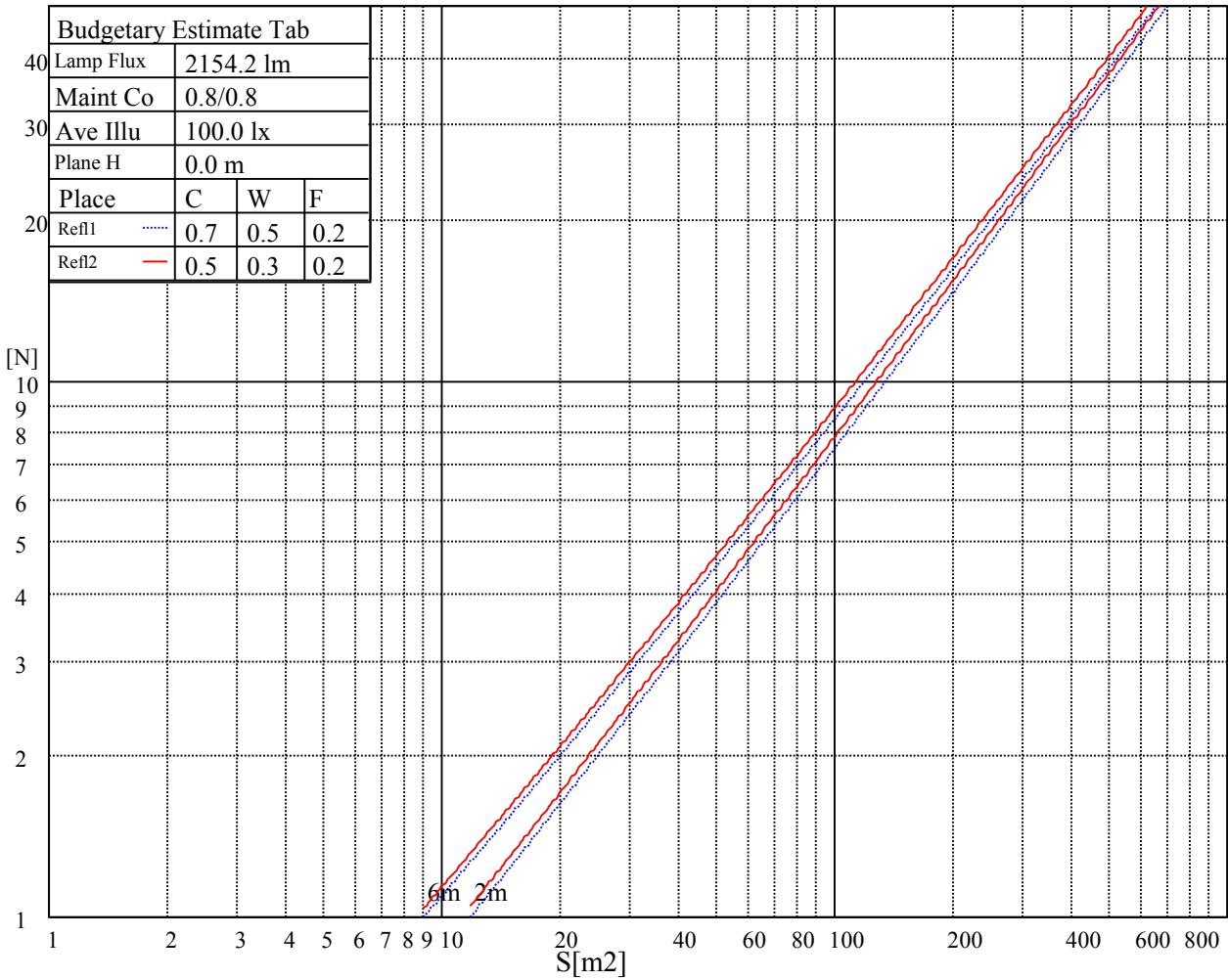
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
695	695	695	1114	1114	1114	3123	3123	3123

Glare Table

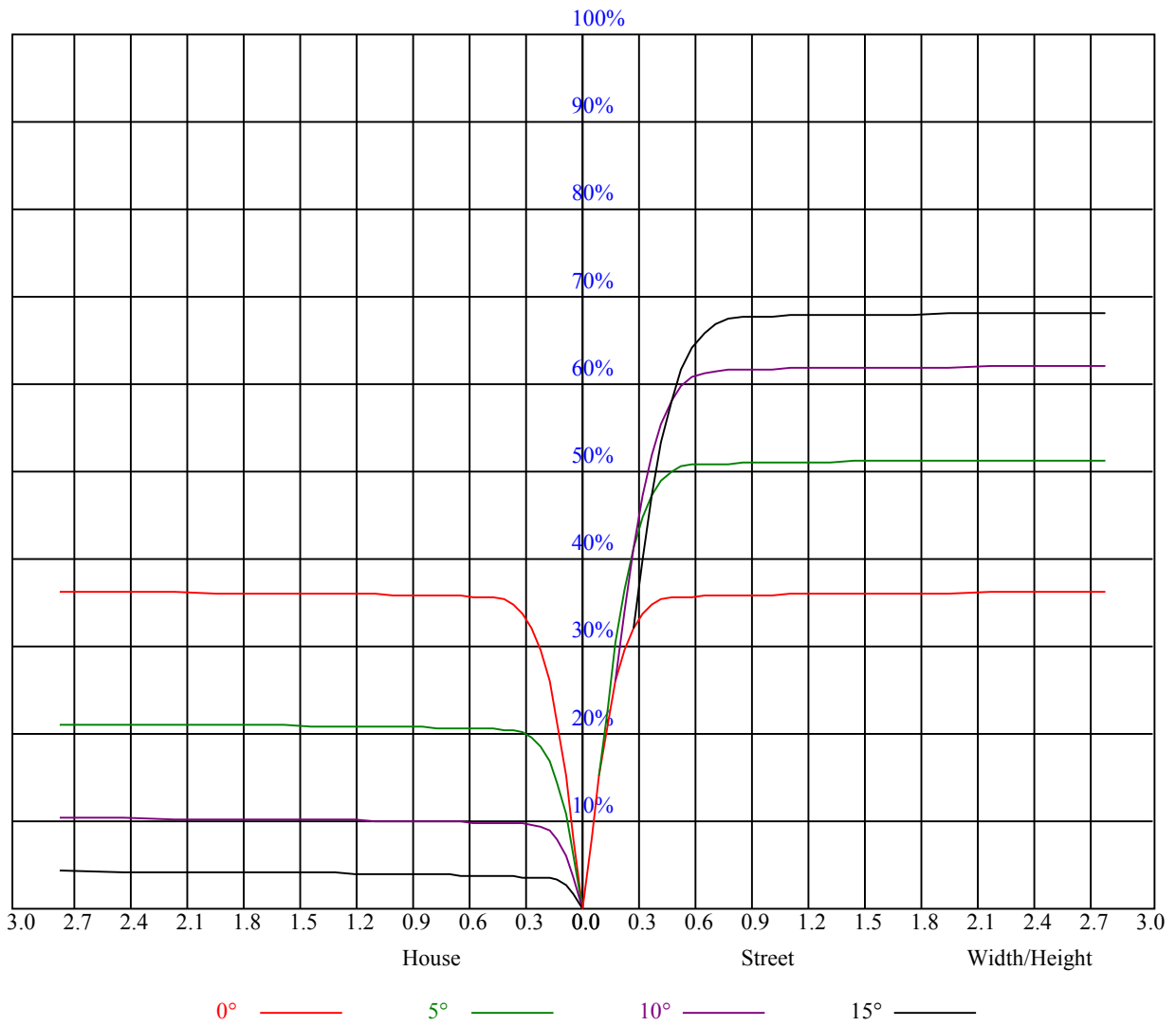
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	0.87	0.87	0.87	0.85	0.85	0.85	0.81	0.81	0.81	0.78	0.78	0.78	0.75	0.75	0.75	0.73
1	0.83	0.81	0.80	0.81	0.80	0.79	0.78	0.77	0.76	0.75	0.75	0.74	0.73	0.72	0.72	0.71
2	0.79	0.77	0.75	0.78	0.76	0.74	0.76	0.74	0.73	0.73	0.72	0.71	0.72	0.71	0.70	0.69
3	0.76	0.74	0.72	0.75	0.73	0.71	0.73	0.72	0.70	0.72	0.70	0.69	0.70	0.69	0.68	0.67
4	0.74	0.71	0.69	0.73	0.70	0.68	0.71	0.69	0.68	0.70	0.68	0.67	0.69	0.67	0.66	0.65
5	0.71	0.69	0.67	0.71	0.68	0.66	0.70	0.67	0.66	0.69	0.67	0.65	0.68	0.66	0.65	0.64
6	0.69	0.67	0.65	0.69	0.66	0.64	0.68	0.66	0.64	0.67	0.65	0.64	0.66	0.65	0.63	0.63
7	0.68	0.65	0.63	0.67	0.65	0.63	0.66	0.64	0.63	0.66	0.64	0.62	0.65	0.63	0.62	0.61
8	0.66	0.63	0.61	0.66	0.63	0.61	0.65	0.63	0.61	0.64	0.62	0.61	0.64	0.62	0.61	0.60
9	0.65	0.62	0.60	0.64	0.62	0.60	0.64	0.61	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	0.62	0.60	0.59	0.62	0.60	0.59	0.62	0.60	0.58	0.58



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	11767.61	11857.61	11514.49	10980.11	10372.61	9331.99	8589.49	7807.61	6924.49
45.0	11745.11	11278.24	10417.61	9686.36	8943.86	7998.86	7183.24	6384.49	5580.11
90.0	11191.50	10854.00	10133.44	9205.31	8456.06	7676.44	6765.75	5900.06	5215.50
135.0	11790.11	11413.24	10603.24	9900.11	9196.99	8246.36	7447.61	6648.86	5810.74
180.0	11767.61	11187.56	10793.81	9946.13	9209.25	8456.63	7550.44	6634.13	5883.19
225.0	11745.11	11919.49	11767.61	11183.63	10577.25	9766.69	8998.88	8141.06	7253.44
270.0	11191.50	11868.86	11902.61	11598.86	10935.11	10125.11	9382.61	8623.24	7745.74
315.0	11790.11	11868.86	11202.75	10967.06	10276.88	9578.81	8722.13	7871.06	7081.31
360.0	11767.61	11857.61	11514.49	10980.11	10372.61	9331.99	8589.49	7807.61	6924.49
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	6069.49	5383.24	4730.74	4201.99	3712.61	3150.11	2846.36	2365.88	2004.75
45.0	4882.61	4314.49	3746.36	3279.49	2868.86	2675.25	2115.56	1786.50	1549.69
90.0	4557.94	3981.38	3506.63	3020.63	2642.63	2259.56	1914.75	1634.63	1262.81
135.0	5079.49	4505.74	3915.11	3436.99	2958.86	2857.61	2210.06	1867.50	1564.88
180.0	5136.19	4487.06	3972.94	3442.50	3021.75	2604.38	2225.81	1917.00	1634.06
225.0	6467.06	5647.50	4947.75	4393.69	3888.56	3308.06	2900.81	2536.88	2121.19
270.0	6851.36	6007.61	5343.86	4758.86	4106.36	3622.61	3172.61	2868.86	2338.88
315.0	6210.56	5429.81	4830.19	4224.38	3721.50	3198.38	2762.44	2412.00	2091.94
360.0	6069.49	5383.24	4730.74	4201.99	3712.61	3150.11	2846.36	2365.88	2004.75
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1712.25	1447.31	1139.06	905.06	691.88	460.69	300.94	222.86	73.29
45.0	1219.50	965.81	744.19	515.25	349.88	293.63	86.23	39.94	25.31
90.0	1013.23	821.64	616.67	370.63	248.51	138.15	54.28	27.51	19.35
135.0	1299.94	1051.88	775.69	568.69	396.56	300.38	110.59	46.35	24.41
180.0	1118.03	1057.44	830.76	577.74	402.64	252.28	128.31	48.49	25.59
225.0	1827.56	1558.69	1121.18	1001.70	777.88	551.87	374.18	212.51	97.59
270.0	2027.81	1744.31	1415.25	1167.19	932.63	689.06	471.94	309.38	205.88
315.0	1723.50	1463.63	1121.51	915.02	695.08	503.78	314.33	170.10	80.66
360.0	1712.25	1447.31	1139.06	905.06	691.88	460.69	300.94	222.86	73.29
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	33.19	23.40	17.89	15.81	14.40	13.22	12.38	11.59	10.91
45.0	17.38	14.91	13.61	12.66	11.76	11.19	10.63	10.29	9.90
90.0	15.36	13.78	12.77	11.87	11.25	10.69	10.24	9.90	9.62
135.0	17.55	15.19	13.61	12.71	11.81	11.14	10.69	10.18	9.79
180.0	18.11	15.41	13.84	12.71	11.93	11.19	10.63	10.18	9.84
225.0	40.28	24.08	18.00	16.03	14.63	13.28	12.32	11.53	10.91
270.0	61.37	28.69	19.86	16.82	15.02	13.61	12.66	11.76	11.03
315.0	31.16	21.54	17.44	15.02	13.89	12.71	11.70	11.08	10.52
360.0	33.19	23.40	17.89	15.81	14.40	13.22	12.38	11.59	10.91
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	10.46	10.07	9.68	9.39	9.23	9.00	8.83	8.72	8.61
45.0	9.68	9.39	9.17	9.00	8.89	8.78	8.66	8.61	8.49
90.0	9.39	9.17	9.06	8.83	8.78	8.66	8.55	8.55	8.49
135.0	9.56	9.28	9.06	8.89	8.78	8.61	8.49	8.44	8.33
180.0	9.45	9.23	9.00	8.83	8.66	8.49	8.38	8.33	8.27
225.0	10.29	9.84	9.51	9.11	8.89	8.72	8.49	8.33	8.27
270.0	10.46	10.01	9.56	9.28	9.00	8.78	8.61	8.44	8.33
315.0	9.96	9.62	9.28	8.94	8.72	8.61	8.44	8.27	8.16
360.0	10.46	10.07	9.68	9.39	9.23	9.00	8.83	8.72	8.61

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	8.49	8.44	8.33	8.27	8.21	8.16	8.10	8.10	8.04
45.0	8.44	8.33	8.27	8.27	8.21	8.16	8.10	8.10	8.04
90.0	8.44	8.33	8.33	8.27	8.21	8.16	8.16	8.10	8.10
135.0	8.27	8.21	8.10	8.04	8.04	7.99	7.93	7.88	7.82
180.0	8.16	8.10	7.99	7.93	7.93	7.82	7.82	7.76	7.71
225.0	8.16	8.10	7.99	7.93	7.88	7.82	7.76	7.76	7.71
270.0	8.21	8.16	8.10	8.04	7.99	7.88	7.88	7.82	7.82
315.0	8.10	7.99	7.93	7.88	7.82	7.76	7.76	7.71	7.65
360.0	8.49	8.44	8.33	8.27	8.21	8.16	8.10	8.10	8.04
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	7.99	7.93	7.88	7.88	7.82	7.82	7.76	7.76	7.71
45.0	8.04	7.99	7.99	7.93	7.93	7.93	7.88	7.88	7.88
90.0	8.04	7.99	7.99	7.93	7.93	7.93	7.88	7.82	7.82
135.0	7.76	7.76	7.71	7.65	7.65	7.59	7.54	7.54	7.48
180.0	7.71	7.65	7.59	7.59	7.54	7.54	7.48	7.48	7.43
225.0	7.65	7.65	7.59	7.54	7.54	7.54	7.48	7.48	7.48
270.0	7.76	7.71	7.71	7.65	7.65	7.65	7.59	7.59	7.54
315.0	7.65	7.59	7.54	7.54	7.48	7.48	7.48	7.43	7.43
360.0	7.99	7.93	7.88	7.88	7.82	7.82	7.76	7.76	7.71
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	7.71	7.65	7.65	7.59	7.59	7.59	7.54	7.54	7.48
45.0	7.82	7.82	7.88	7.82	7.88	7.88	7.82	7.82	7.82
90.0	7.82	7.76	7.71	7.71	7.71	7.65	7.59	7.54	7.54
135.0	7.43	7.43	7.43	7.37	7.37	7.37	7.31	7.31	7.31
180.0	7.43	7.43	7.37	7.37	7.37	7.37	7.31	7.31	7.31
225.0	7.43	7.43	7.43	7.43	7.43	7.43	7.43	7.48	7.48
270.0	7.54	7.54	7.54	7.48	7.48	7.48	7.48	7.48	7.43
315.0	7.37	7.37	7.31	7.31	7.31	7.26	7.26	7.26	7.20
360.0	7.71	7.65	7.65	7.59	7.59	7.59	7.54	7.54	7.48
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	7.48	7.48	7.43	7.37	7.37	7.37	7.37	7.31	7.26
45.0	7.82	7.82	7.82	7.76	7.71	7.65	7.54	7.31	7.09
90.0	7.54	7.48	7.48	7.48	7.43	7.37	7.37	7.26	7.14
135.0	7.31	7.31	7.26	7.26	7.20	7.20	7.20	7.14	7.14
180.0	7.26	7.26	7.26	7.26	7.20	7.20	7.20	7.20	7.14
225.0	7.43	7.43	7.43	7.48	7.43	7.48	7.43	7.31	7.20
270.0	7.43	7.43	7.43	7.37	7.37	7.31	7.31	7.31	7.26
315.0	7.20	7.20	7.14	7.20	7.14	7.14	7.14	7.14	7.09
360.0	7.48	7.48	7.43	7.37	7.37	7.37	7.37	7.31	7.26
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	7.26	7.26	7.20	7.20	7.26	7.20	7.03	6.98	6.98
45.0	6.92	6.92	6.92	6.92	6.86	6.81	6.75	6.75	6.75
90.0	6.98	6.98	6.92	6.92	6.92	6.86	6.81	6.86	6.81
135.0	7.09	7.09	7.03	7.03	6.98	6.98	6.98	6.92	6.92
180.0	7.14	7.09	7.14	7.14	6.98	6.98	6.92	6.92	6.92
225.0	6.98	6.86	6.86	6.86	6.86	6.86	6.81	6.81	6.75
270.0	7.20	7.09	7.03	6.98	6.92	6.92	6.86	6.86	6.86
315.0	7.09	7.09	7.09	7.09	7.09	6.98	6.92	6.92	6.92
360.0	7.26	7.26	7.20	7.20	7.26	7.20	7.03	6.98	6.98

Intensity data(cd)

C/ γ (°)	90.0
0.0	6.92
45.0	6.75
90.0	6.81
135.0	6.92
180.0	6.98
225.0	6.75
270.0	6.86
315.0	6.92
360.0	6.92