NATA LIGHTING CO.,LTD.
www.nata.cn
Email:info@nata.com
Tel:+86-750-3770000 Fax:+86-750-3771111
Address:380JinOu Road,GaoXin Zone,Jiang Men City,Guangdong,China

Nata

LumCAT: 2-2321-M
Luminaire: 92.70.131.00
Report No: 210807-B005
Test No: 210807-C005
LampCAT: SAMSUNG LC026D LES14.5
Lamp flux(lm): 2465.7
Number of Lamps: 1
Length(mm): 570
Phm Type: C

Voltage(V): 33.6100
Current(A): 0.4700
Power (W): 15.7960
PF: 1.0000
Ballast type: DC
Width(mm): 45
Height(mm): 20

Photometric Results

Lumens(lm): 2381.18
Efficiency(%): 96.57%
Lumens(lm)/Power(W): 150.75
Central intensity(cd): 3243.985
Maximum intensity(cd): 3294.775
Angle of maximum intensity: C=225.0 γ=10.0
Beam Angle(50%Imax): [C0/180]Total=49.3
[C90/270]Total=48.9
Field angle(10%Imax): [C0/180]Total=65.8
[C90/270]Total=65.6
Maximum s/h(1/2): C0_180=0.80 C90_270=0.76
Maximum s/h(1/4): C0_180=0.70 C90_270=0.67
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 96.57%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.379%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3252.574	0.000	0	.000%	.000%
1.0	3252.500	3.113	3.113	.126%	.131%
2.0	3254.927	9.340	12.453	.379%	.523%
3.0	3256.458	15.573	28.026	.632%	1.177%
4.0	3258.512	21.808	49.833	.884%	2.093%
5.0	3261.015	28.047	77.88	1.137%	3.271%
6.0	3259.745	34.268	112.148	1.390%	4.710%
7.0	3256.720	40.448	152.596	1.640%	6.408%
8.0	3250.558	46.571	199.167	1.889%	8.364%
9.0	3239.503	52.598	251.766	2.133%	10.573%
10.0	3223.370	58.487	310.252	2.372%	13.029%
11.0	3202.382	64.206	374.459	2.604%	15.726%
12.0	3173.290	69.695	444.154	2.827%	18.653%
13.0	3138.036	74.900	519.054	3.038%	21.798%
14.0	3097.702	79.817	598.871	3.237%	25.150%
15.0	3053.635	84.448	683.319	3.425%	28.697%
16.0	3002.882	88.745	772.064	3.599%	32.424%
17.0	2943.577	92.602	864.666	3.756%	36.312%
18.0	2871.015	95.870	960.536	3.888%	40.339%
19.0	2788.855	98.470	1059.006	3.994%	44.474%
20.0	2683.204	100.154	1159.16	4.062%	48.680%
21.0	2557.200	100.626	1259.786	4.081%	52.906%
22.0	2420.179	100.023	1359.809	4.057%	57.106%
23.0	2266.315	98.335	1458.144	3.988%	61.236%
24.0	2086.963	95.178	1553.323	3.860%	65.233%
25.0	1908.235	90.842	1644.165	3.684%	69.048%
26.0	1739.795	86.112	1730.277	3.492%	72.665%
27.0	1543.608	80.329	1810.606	3.258%	76.038%
28.0	1350.255	73.266	1883.873	2.971%	79.115%
29.0	1130.334	64.899	1948.772	2.632%	81.840%
30.0	989.631	57.239	2006.01	2.321%	84.244%
31.0	824.680	50.490	2056.5	2.048%	86.365%
32.0	680.339	43.117	2099.617	1.749%	88.175%
33.0	563.545	36.645	2136.262	1.486%	89.714%
34.0	460.000	30.975	2167.238	1.256%	91.015%
35.0	375.405	25.945	2193.182	1.052%	92.105%
36.0	300.609	21.524	2214.707	.873%	93.009%
37.0	245.006	17.795	2232.502	.722%	93.756%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	202.170	14.926	2247.428	.605%	94.383%
39.0	167.162	12.606	2260.034	.511%	94.912%
40.0	135.863	10.568	2270.603	.429%	95.356%
41.0	113.788	8.890	2279.493	.361%	95.729%
42.0	95.310	7.597	2287.09	.308%	96.048%
43.0	81.320	6.543	2293.632	.265%	96.323%
44.0	70.572	5.733	2299.365	.233%	96.564%
45.0	61.340	5.070	2304.435	.206%	96.777%
46.0	53.576	4.494	2308.929	.182%	96.966%
47.0	47.085	4.004	2312.932	.162%	97.134%
48.0	41.764	3.592	2316.524	.146%	97.285%
49.0	37.204	3.243	2319.767	.132%	97.421%
50.0	33.077	2.930	2322.697	.119%	97.544%
51.0	29.906	2.665	2325.362	.108%	97.656%
52.0	27.247	2.453	2327.814	.099%	97.759%
53.0	24.876	2.267	2330.082	.092%	97.854%
54.0	22.829	2.103	2332.184	.085%	97.942%
55.0	21.246	1.967	2334.152	.080%	98.025%
56.0	19.827	1.856	2336.008	.075%	98.103%
57.0	18.613	1.758	2337.765	.071%	98.177%
58.0	17.593	1.674	2339.44	.068%	98.247%
59.0	16.761	1.606	2341.046	.065%	98.314%
60.0	16.006	1.548	2342.594	.063%	98.379%
61.0	15.386	1.498	2344.092	.061%	98.442%
62.0	14.852	1.457	2345.549	.059%	98.503%
63.0	14.434	1.424	2346.973	.058%	98.563%
64.0	14.057	1.398	2348.371	.057%	98.622%
65.0	13.717	1.375	2349.746	.056%	98.680%
66.0	13.441	1.355	2351.101	.055%	98.737%
67.0	13.213	1.340	2352.441	.054%	98.793%
68.0	12.978	1.327	2353.768	.054%	98.849%
69.0	12.798	1.315	2355.083	.053%	98.904%
70.0	12.638	1.306	2356.389	.053%	98.959%
71.0	12.485	1.298	2357.688	.053%	99.013%
72.0	12.346	1.291	2358.979	.052%	99.067%
73.0	12.234	1.285	2360.264	.052%	99.121%
74.0	12.152	1.282	2361.546	.052%	99.175%
75.0	12.070	1.280	2362.826	.052%	99.229%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	11.999	1.278	2364.104	.052%	99.283%
77.0	11.984	1.279	2365.382	.052%	99.336%
78.0	11.917	1.279	2366.662	.052%	99.390%
79.0	11.865	1.278	2367.94	.052%	99.444%
80.0	11.783	1.275	2369.215	.052%	99.497%
81.0	11.633	1.266	2370.481	.051%	99.551%
82.0	11.514	1.255	2371.736	.051%	99.603%
83.0	11.252	1.238	2372.974	.050%	99.655%
84.0	11.125	1.219	2374.193	.049%	99.706%
85.0	10.961	1.205	2375.398	.049%	99.757%
86.0	10.744	1.186	2376.585	.048%	99.807%
87.0	10.584	1.167	2377.752	.047%	99.856%
88.0	10.464	1.153	2378.905	.047%	99.904%
89.0	10.386	1.143	2380.048	.046%	99.952%
90.0	10.337	1.136	2381.184	.046%	100.000%

Zonal flux distribution table

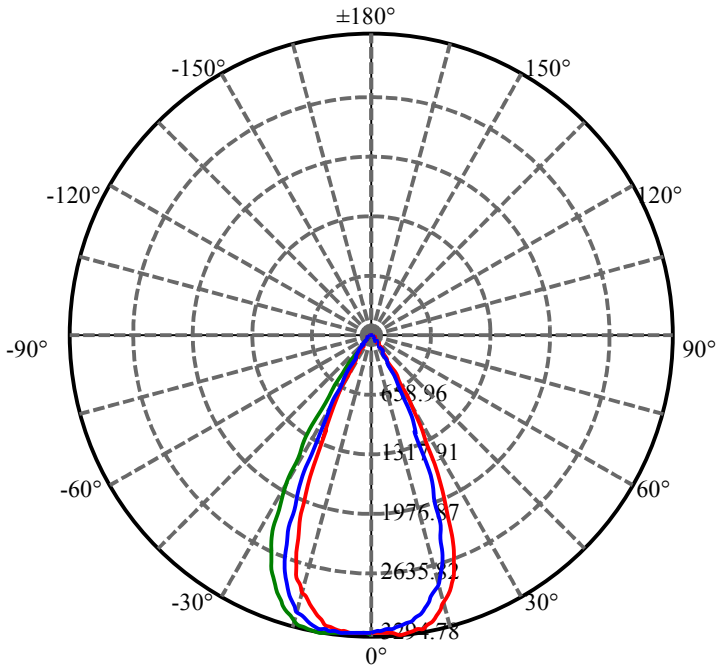
ZONAL LUMEN SUMMARY

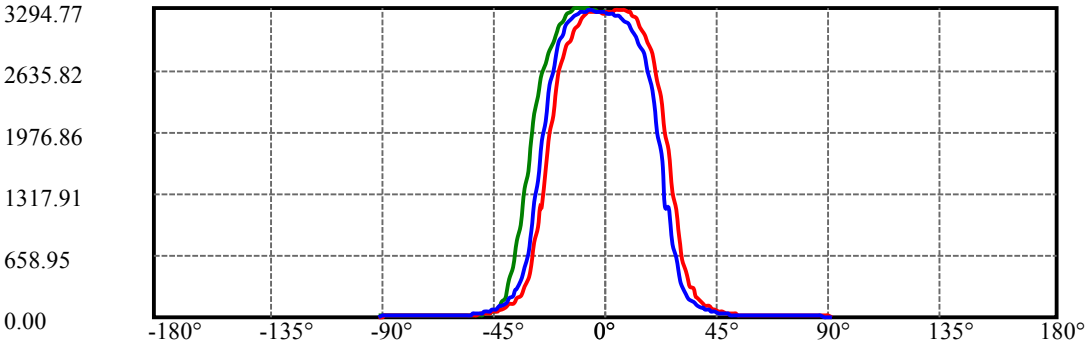
Zone	Lumens	%Lamp	%Fixt
0-30	2006.01	81.36%	84.24%
0-40	2270.60	92.09%	95.36%
0-60	2342.59	95.01%	98.38%
0-90	2380.05	96.53%	99.95%
0-120	2380.05	96.53%	99.95%
0-180	2381.18	96.57%	100.00%
60-90	39.00	1.58%	1.64%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-28.32	1904.95	77.26%	80.00%

ZONAL LUMEN SUMMARY

0-10	310.25
10-20	848.91
20-30	846.85
30-40	264.59
40-50	52.09
50-60	19.90
60-70	13.80
70-80	12.83
80-90	10.83
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]





C225(Max):

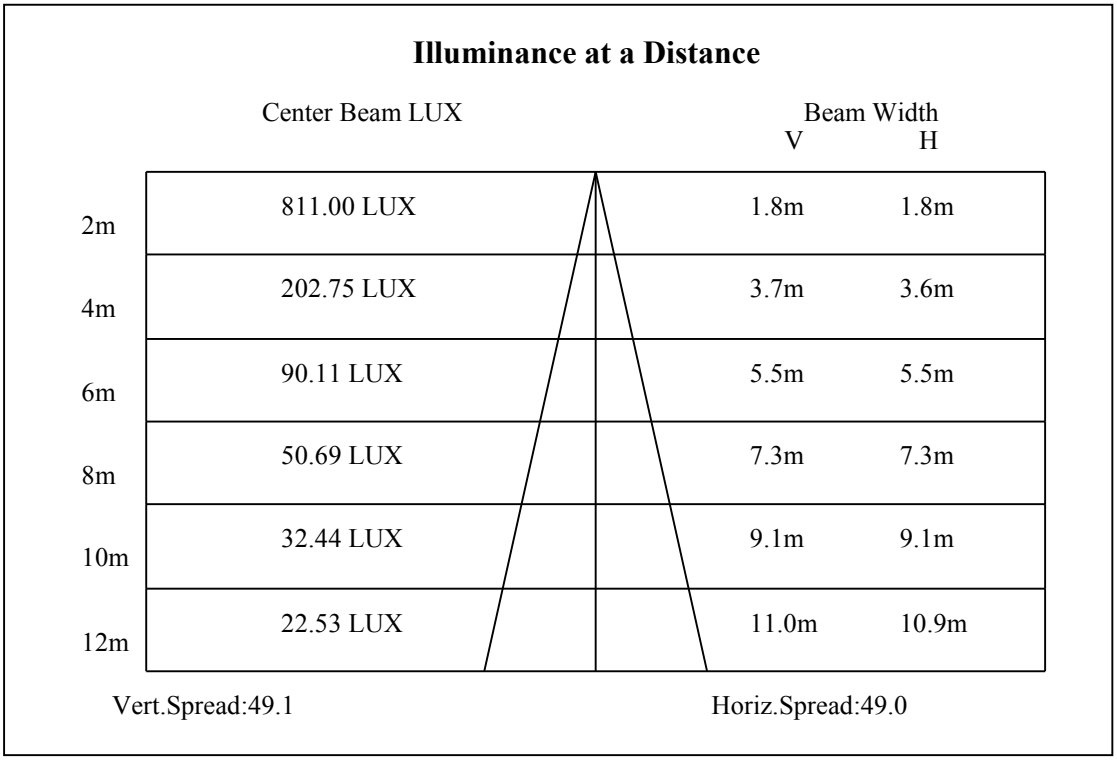
C0/C180:

C90/C270:

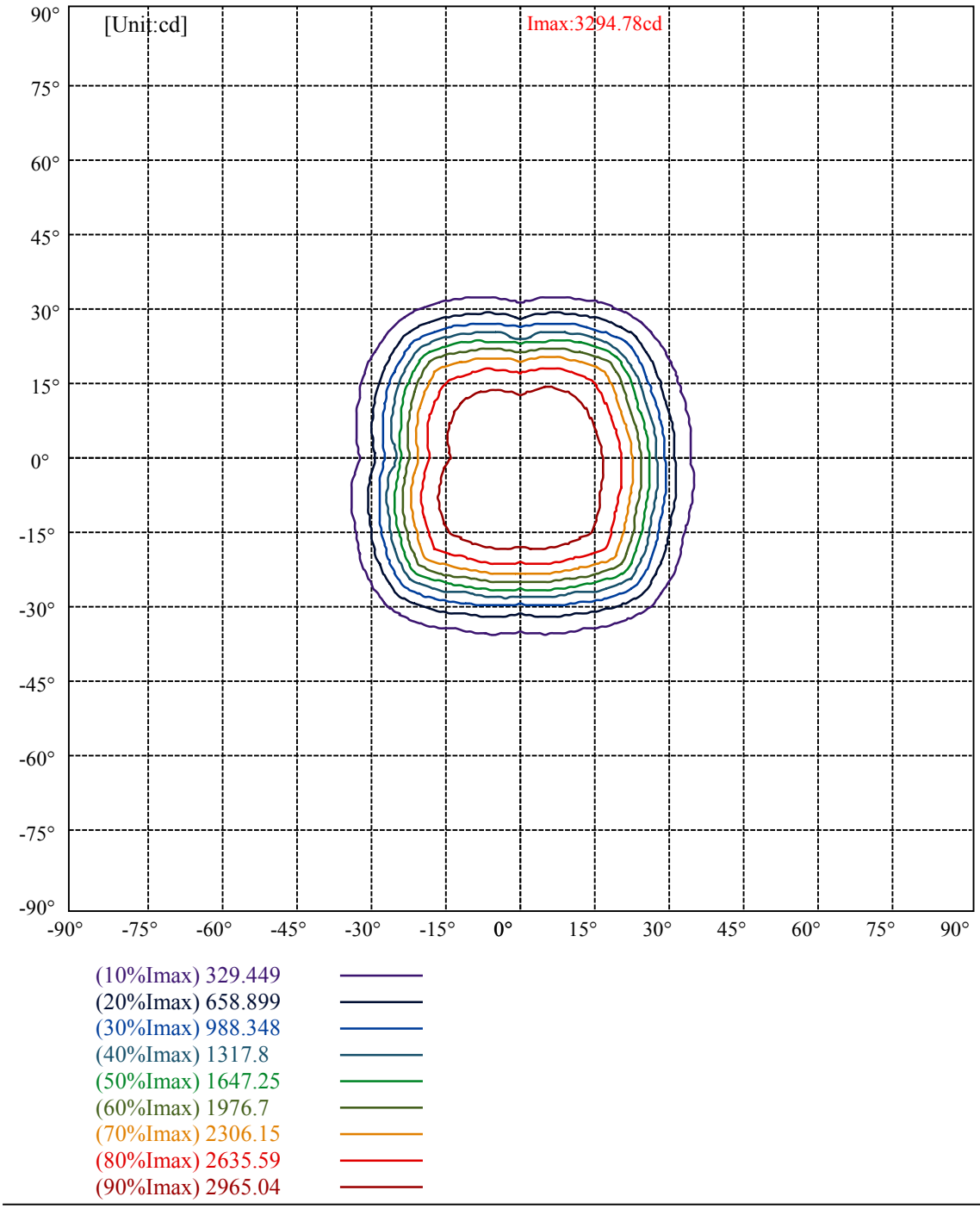
Field angle(10%Imax):C0/180Left:37.9 Right:27.9
:C90/270Left:28.7 Right:36.9

Beam Angle(50%Imax):C0/180Left:29.7 Right:19.6
:C90/270Left:20.1 Right:28.8

Lux distance Curve



ISO-Intensity(V-H)



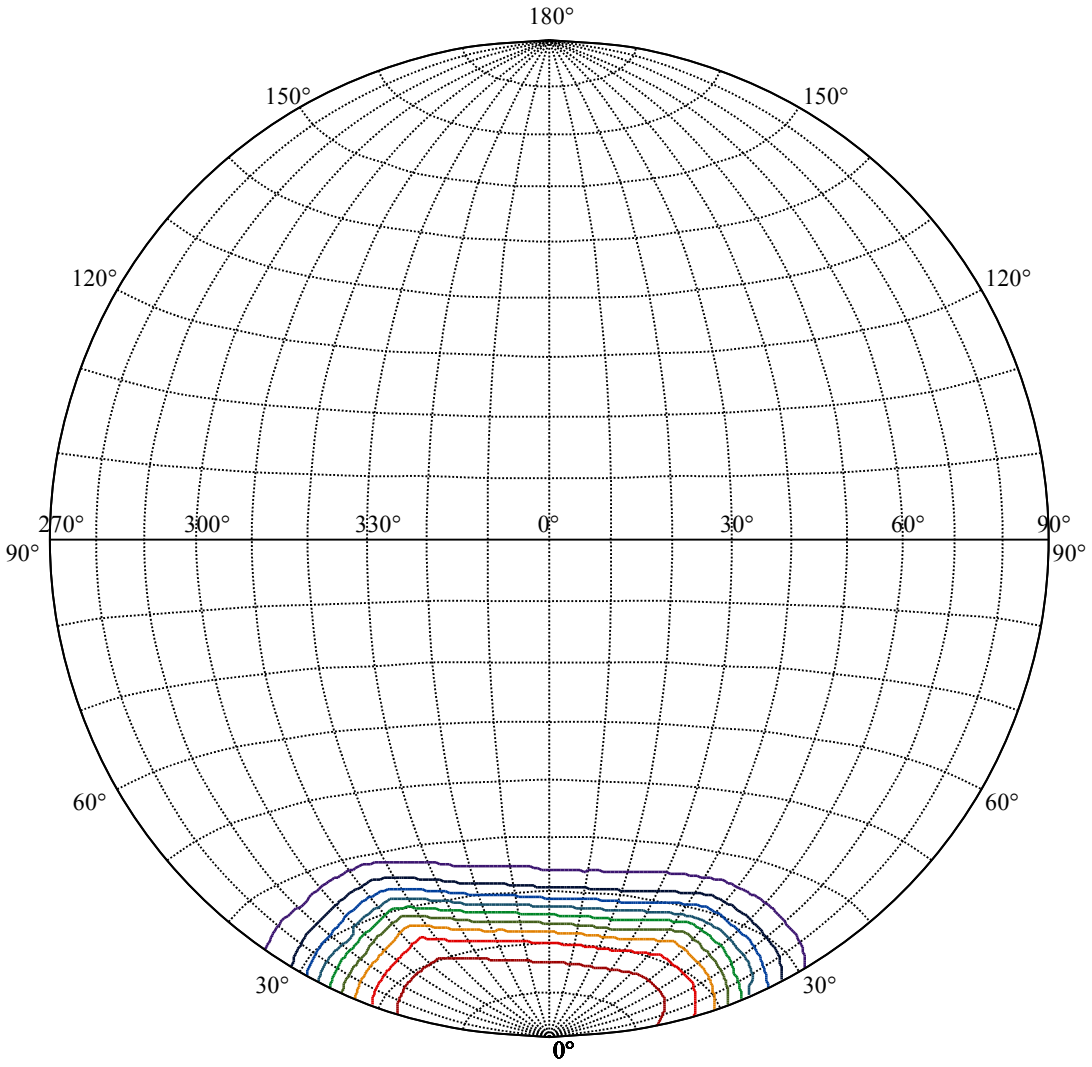
(10%Imax) 329.449
(20%Imax) 658.899
(30%Imax) 988.348
(40%Imax) 1317.8
(50%Imax) 1647.25
(60%Imax) 1976.7
(70%Imax) 2306.15
(80%Imax) 2635.59
(90%Imax) 2965.04

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2021/8/07
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.73

ISO candela diagram on circular web



House [Unit:cd] Road

Imax:3294.78

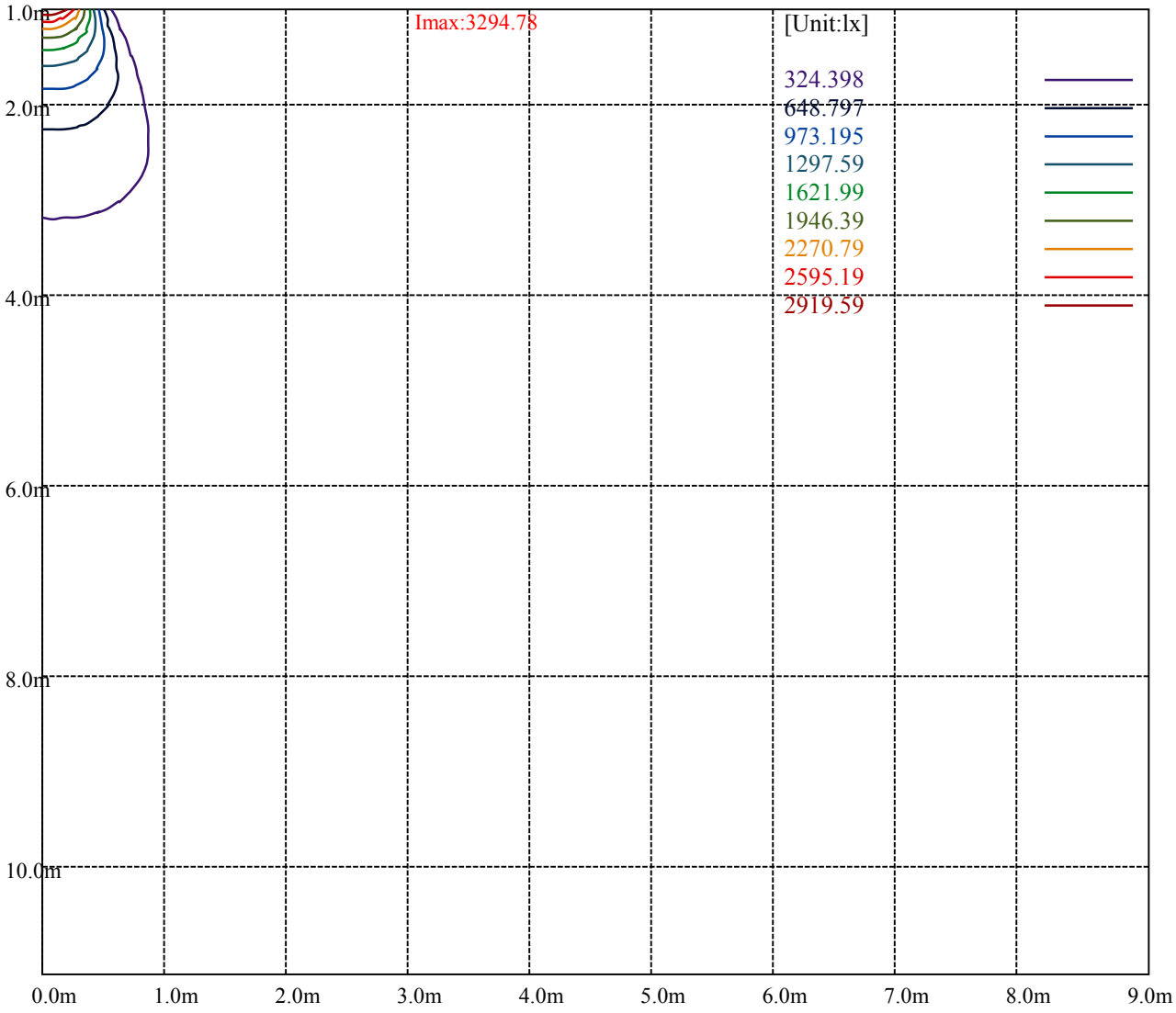
(10%Imax) 329.477
(20%Imax) 658.955
(30%Imax) 988.432
(40%Imax) 1317.91
(50%Imax) 1647.39
(60%Imax) 1976.86
(70%Imax) 2306.34
(80%Imax) 2635.82
(90%Imax) 2965.3

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2021/8/07
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.73

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 25.0

Date: 2021/8/07
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.73

Nata 2-2321-M

Luminance Limitting Curve(no luminous side)

Luminance Table

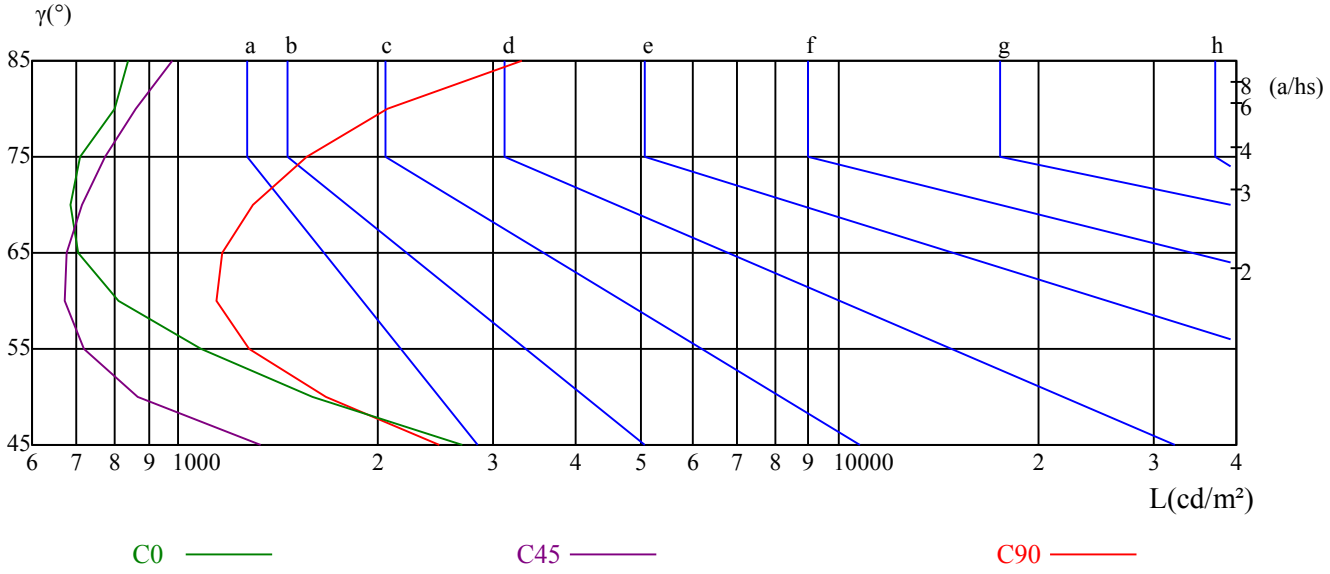
γ	45	50	55	60	65	70	75	80	85
C0	2689	1594	1078	811	706	687	708	800	840
C45	1331	867	717	672	677	716	775	863	981
C90	2483	1677	1276	1142	1164	1292	1560	2070	3319

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
1342	1315	1198	1863	1850	1784	5012	4825	4911

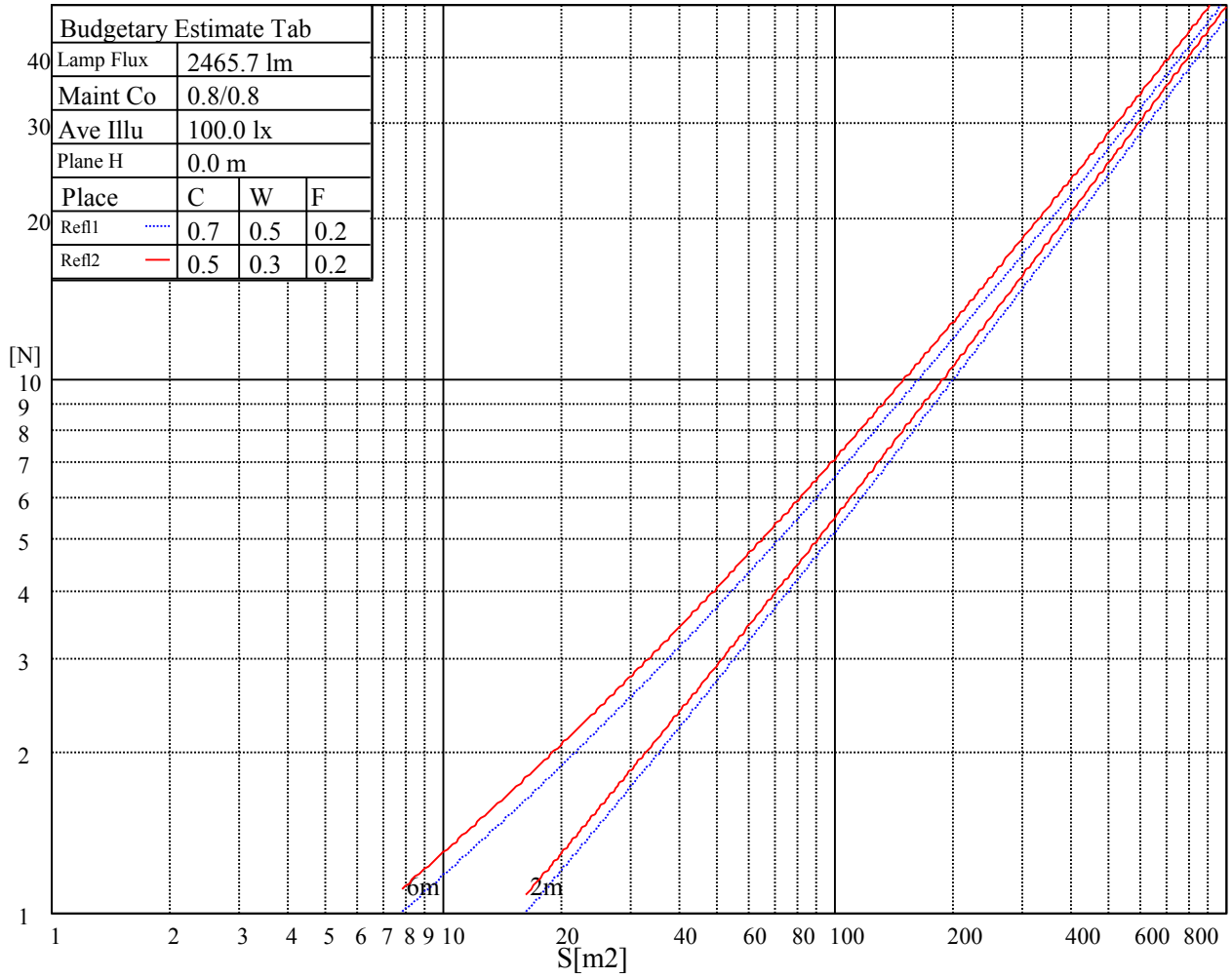
Glare Table

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



Budgetary Estimate Table

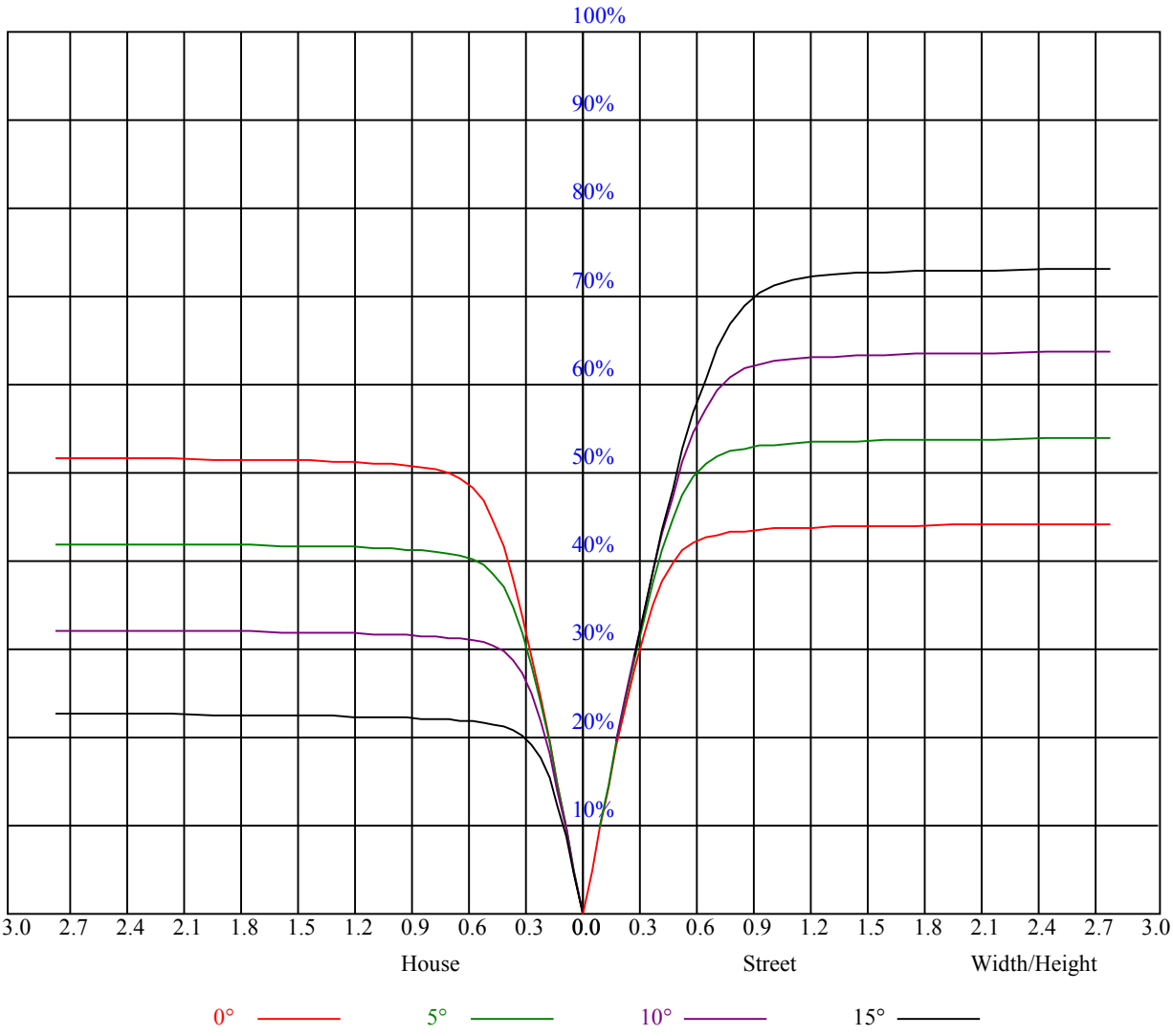


Equipment: GMS1980 Date: 2021/8/07 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 65.0% Distance(m): 7.73

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	1.15	1.15	1.15	1.12	1.12	1.12	1.07	1.07	1.07	1.03	1.03	1.03	0.99	0.99	0.99	0.97
1	1.07	1.05	1.03	1.05	1.03	1.01	1.01	1.00	0.98	0.98	0.96	0.95	0.94	0.93	0.92	0.91
2	1.00	0.97	0.94	0.99	0.95	0.92	0.96	0.93	0.90	0.93	0.91	0.89	0.90	0.88	0.87	0.85
3	0.94	0.90	0.86	0.93	0.89	0.86	0.90	0.87	0.84	0.88	0.85	0.83	0.86	0.84	0.82	0.80
4	0.89	0.84	0.80	0.88	0.83	0.80	0.86	0.82	0.79	0.84	0.80	0.78	0.82	0.79	0.77	0.76
5	0.84	0.79	0.75	0.83	0.78	0.75	0.81	0.77	0.74	0.80	0.76	0.73	0.78	0.75	0.73	0.71
6	0.79	0.74	0.70	0.79	0.74	0.70	0.77	0.73	0.70	0.76	0.72	0.69	0.75	0.71	0.69	0.67
7	0.75	0.70	0.66	0.75	0.70	0.66	0.74	0.69	0.66	0.72	0.68	0.65	0.71	0.68	0.65	0.64
8	0.72	0.66	0.63	0.71	0.66	0.63	0.70	0.66	0.62	0.69	0.65	0.62	0.68	0.65	0.62	0.61
9	0.68	0.63	0.59	0.68	0.63	0.59	0.67	0.62	0.59	0.66	0.62	0.59	0.65	0.61	0.59	0.58
10	0.65	0.60	0.56	0.65	0.60	0.56	0.64	0.59	0.56	0.63	0.59	0.56	0.62	0.59	0.56	0.55

Coefficient Utilization Curve



Equipment: GMS1980
Temperature(°C): 25.0

Date: 2021/8/07
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.73

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	3243.98	3248.77	3260.12	3263.11	3270.87	3276.85	3282.23	3276.25	3273.86
22.5	3266.09	3271.47	3276.25	3279.24	3282.82	3282.23	3271.47	3269.68	3259.52
45.0	3267.29	3264.30	3266.69	3269.08	3271.47	3272.07	3266.69	3258.92	3251.75
67.5	3251.75	3252.35	3252.35	3251.16	3247.57	3246.38	3244.58	3238.01	3224.86
90.0	3245.78	3238.61	3235.02	3223.67	3220.08	3211.72	3195.59	3180.65	3158.54
112.5	3252.35	3246.38	3242.19	3238.01	3228.45	3226.66	3214.11	3207.54	3195.59
135.0	3245.78	3239.20	3240.40	3235.62	3236.81	3241.00	3239.20	3232.63	3227.25
157.5	3247.57	3242.79	3244.58	3242.79	3247.57	3249.96	3249.36	3249.96	3239.80
180.0	3243.98	3243.39	3248.17	3254.74	3256.53	3253.55	3251.16	3243.98	3223.67
202.5	3266.09	3265.50	3263.70	3266.69	3275.65	3286.41	3285.81	3289.40	3291.19
225.0	3267.29	3262.51	3258.92	3262.51	3264.90	3271.47	3276.25	3287.01	3291.79
247.5	3251.75	3251.75	3253.55	3258.92	3256.53	3258.33	3266.09	3264.30	3263.11
270.0	3245.78	3248.17	3250.56	3257.13	3261.91	3264.30	3268.48	3265.50	3263.70
292.5	3252.35	3257.13	3263.70	3266.09	3270.28	3275.65	3278.04	3280.43	3282.82
315.0	3245.78	3251.16	3260.72	3267.29	3272.67	3279.24	3282.82	3291.19	3291.79
337.5	3247.57	3256.53	3261.91	3267.29	3272.07	3280.43	3284.02	3272.07	3269.68
360.0	3243.98	3248.77	3260.12	3263.11	3270.87	3276.85	3282.23	3276.25	3273.86

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	3260.12	3250.56	3221.88	3190.21	3151.37	3092.81	3038.43	2985.25	2918.33
22.5	3244.58	3224.27	3192.00	3153.16	3110.14	3055.17	3008.56	2957.17	2891.44
45.0	3241.59	3224.86	3211.12	3177.06	3140.01	3098.79	3046.80	2999.00	2934.46
67.5	3206.94	3188.41	3159.73	3116.71	3071.30	3028.87	2978.08	2919.53	2857.38
90.0	3125.08	3082.65	3041.42	2988.84	2935.66	2884.87	2814.36	2732.50	2621.96
112.5	3173.48	3149.58	3122.69	3080.26	3037.84	2995.41	2943.43	2892.04	2825.71
135.0	3218.29	3202.76	3184.83	3153.16	3118.50	3075.48	3021.70	2975.10	2923.11
157.5	3228.45	3199.77	3168.70	3129.86	3084.44	3041.42	2989.44	2935.06	2889.05
180.0	3198.57	3159.14	3114.32	3068.91	3018.12	2951.79	2905.78	2844.84	2768.35
202.5	3288.20	3278.04	3256.53	3234.42	3192.60	3150.77	3107.75	3056.36	2997.21
225.0	3293.58	3294.77	3292.38	3288.20	3278.64	3257.13	3235.62	3196.78	3153.16
247.5	3260.12	3262.51	3252.95	3242.79	3223.07	3192.60	3162.72	3129.86	3081.46
270.0	3259.52	3251.16	3241.00	3216.50	3192.00	3162.72	3130.45	3083.25	3016.33
292.5	3280.43	3272.67	3266.09	3252.35	3233.23	3203.35	3171.68	3134.04	3090.42
315.0	3289.40	3281.63	3281.63	3272.67	3260.12	3247.57	3221.28	3186.62	3151.37
337.5	3263.70	3251.16	3230.84	3207.54	3161.53	3124.48	3082.05	3018.72	2977.49
360.0	3260.12	3250.56	3221.88	3190.21	3151.37	3092.81	3038.43	2985.25	2918.33

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	2852.01	2768.95	2642.87	2507.83	2354.86	2162.46	1961.69	1774.06	1556.56
22.5	2818.54	2728.32	2587.90	2447.48	2290.93	2103.30	1910.30	1734.03	1535.05
45.0	2860.97	2791.06	2722.34	2624.94	2531.73	2424.77	2267.62	2122.42	1953.92
67.5	2765.96	2666.77	2533.52	2379.36	2215.64	2015.47	1821.27	1640.22	1478.29
90.0	2485.72	2344.70	2184.57	1961.69	1774.06	1587.63	1185.80	1162.97	984.97
112.5	2737.88	2641.08	2500.06	2357.25	2186.96	2001.12	1800.95	1624.08	1450.20
135.0	2845.43	2781.50	2713.98	2629.73	2544.88	2442.10	2313.63	2158.87	1996.94
157.5	2814.96	2733.70	2617.77	2473.77	2324.99	2139.15	1952.13	1775.26	1596.60
180.0	2645.86	2512.61	2360.24	2145.73	1967.07	1779.44	1567.92	1183.94	1161.00
202.5	2951.20	2893.83	2811.37	2704.42	2577.74	2410.43	2249.10	2054.30	1848.75
225.0	3116.11	3052.78	2988.24	2928.49	2843.64	2776.72	2708.60	2599.25	2488.71
247.5	3025.29	2971.51	2883.08	2774.33	2651.24	2491.10	2331.56	2127.20	1918.67
270.0	2948.81	2866.94	2736.68	2614.79	2470.18	2286.74	2081.19	1885.80	1661.73
292.5	3033.65	2969.72	2889.05	2781.50	2643.47	2500.06	2336.94	2114.06	1924.64
315.0	3105.96	3051.58	2987.05	2923.71	2849.62	2774.92	2700.23	2589.69	2474.97
337.5	2927.89	2846.63	2772.53	2660.20	2495.88	2365.62	2202.49	1985.59	1805.73
360.0	2852.01	2768.95	2642.87	2507.83	2354.86	2162.46	1961.69	1774.06	1556.56

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	1336.07	1144.27	942.90	776.79	619.04	495.35	403.93	318.48	302.95
22.5	1347.43	1150.24	959.03	806.66	654.89	519.85	427.83	344.77	307.13
45.0	1768.69	1532.06	1191.53	1147.38	952.76	781.81	641.99	503.78	383.85
67.5	1226.13	1052.85	905.85	715.24	568.25	469.06	354.93	301.75	229.27
90.0	775.65	624.90	501.51	393.89	318.00	255.68	212.24	186.55	162.47
112.5	1214.78	1047.47	878.97	717.63	574.82	460.10	364.49	309.52	231.42
135.0	1793.78	1604.96	1383.88	1170.08	997.46	823.10	656.45	530.37	420.06
157.5	1368.34	1188.49	1019.38	841.92	686.56	553.91	446.35	347.76	308.32
180.0	962.62	793.46	629.68	499.59	405.90	322.13	261.42	227.96	201.25
202.5	1667.11	1455.58	1179.52	1069.58	906.57	705.62	592.63	485.13	363.24
225.0	2362.63	2164.25	1987.38	1799.16	1554.77	1367.74	1185.50	990.70	810.25
247.5	1730.44	1540.43	1171.52	1129.81	964.17	776.85	645.81	527.26	416.24
270.0	1453.79	1224.34	1009.82	830.57	667.44	541.36	454.12	382.42	306.53
292.5	1740.60	1525.49	1178.75	1133.39	929.46	781.87	648.74	499.06	415.40
315.0	2324.39	2140.95	1958.70	1766.89	1520.71	1334.28	1149.65	938.12	779.18
337.5	1625.28	1414.35	1186.93	1035.52	874.07	696.72	570.64	466.37	368.91
360.0	1336.07	1144.27	942.90	776.79	619.04	495.35	403.93	318.48	302.95

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	225.99	198.86	169.28	149.50	131.76	115.38	101.34	90.41	79.83
22.5	224.13	196.23	174.84	144.30	126.68	112.75	94.05	82.76	74.09
45.0	293.92	211.53	156.43	109.05	80.01	64.65	53.30	42.66	36.63
67.5	189.54	166.05	142.93	121.36	105.58	92.38	78.46	68.95	60.71
90.0	139.16	124.29	110.12	95.19	84.79	75.77	65.85	59.04	53.06
112.5	201.96	170.65	146.16	129.78	108.45	94.77	83.36	71.11	62.74
135.0	303.13	226.82	165.87	115.08	83.06	66.50	53.72	44.10	37.76
157.5	229.15	200.29	171.37	149.74	127.63	111.98	93.99	82.46	72.84
180.0	171.97	151.89	134.26	115.38	102.36	91.18	80.13	70.57	63.22
202.5	299.96	249.11	213.02	183.44	159.90	138.09	121.00	104.69	90.82
225.0	667.44	522.24	409.31	310.12	211.64	154.70	110.24	83.65	68.18
247.5	330.49	275.10	233.22	199.93	173.22	148.19	128.95	110.78	95.13
270.0	276.60	228.38	197.07	169.82	149.44	129.54	112.99	100.15	87.42
292.5	329.06	261.84	231.36	197.78	168.20	145.98	126.92	106.96	93.33
315.0	637.56	494.16	370.47	301.75	204.71	143.77	102.30	80.43	64.59
337.5	289.68	242.66	209.02	182.37	156.37	134.98	118.37	102.42	88.79
360.0	225.99	198.86	169.28	149.50	131.76	115.38	101.34	90.41	79.83

C/γ(°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0
0.0	70.45	63.10	56.77	50.37	44.87	40.21	36.57	33.52	30.18
22.5	63.46	55.39	49.89	43.26	38.72	34.78	30.65	27.90	25.57
45.0	32.33	28.20	25.69	23.60	21.69	20.08	18.88	17.87	17.03
67.5	52.10	46.19	41.11	36.21	32.15	28.98	26.05	23.84	21.75
90.0	46.61	42.19	38.42	34.18	31.73	28.80	26.29	24.32	22.71
112.5	55.57	47.86	42.60	38.06	33.28	30.06	27.31	24.62	22.41
135.0	32.74	29.22	26.17	23.78	21.99	20.38	19.06	18.05	17.27
157.5	62.32	55.09	48.88	43.50	37.82	33.94	30.71	27.61	25.04
180.0	56.05	50.43	45.11	40.45	36.93	33.46	30.35	28.08	25.99
202.5	80.01	69.49	60.47	53.72	47.68	41.35	37.05	33.46	30.35
225.0	56.41	45.47	39.08	34.36	30.18	26.89	24.56	22.47	20.73
247.5	83.00	72.48	61.37	53.90	47.56	40.87	36.39	32.68	29.16
270.0	77.86	68.30	60.17	53.84	48.40	42.42	38.36	34.90	31.19
292.5	81.38	69.79	60.11	52.70	45.77	39.97	35.61	31.61	28.56
315.0	52.82	44.81	38.06	33.64	29.64	26.47	24.26	22.17	20.55
337.5	78.34	69.19	59.45	52.64	46.85	40.57	36.39	32.86	29.52
360.0	70.45	63.10	56.77	50.37	44.87	40.21	36.57	33.52	30.18

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	27.90	25.93	23.72	22.23	20.85	19.54	18.40	17.51	16.67
22.5	23.12	21.51	20.14	18.64	17.69	16.85	16.01	15.42	14.88
45.0	16.31	15.66	15.12	14.70	14.28	13.98	13.68	13.38	13.15
67.5	20.02	18.70	17.57	16.55	15.83	15.30	14.70	14.28	13.92
90.0	20.79	19.72	18.70	17.51	16.85	16.19	15.54	15.06	14.58
112.5	20.73	19.24	18.05	17.09	16.19	15.54	14.88	14.40	14.04
135.0	16.37	15.77	15.30	14.88	14.40	14.10	13.80	13.44	13.21
157.5	23.06	21.27	19.72	18.58	17.51	16.73	15.83	15.30	14.82
180.0	23.72	22.23	20.91	19.60	18.52	17.69	16.85	16.07	15.54
202.5	27.07	24.92	23.00	21.03	19.66	18.52	17.45	16.61	15.89
225.0	19.54	18.34	17.45	16.67	15.95	15.42	14.88	14.46	14.10
247.5	26.17	23.96	21.87	20.32	18.82	17.57	16.73	15.89	15.18
270.0	28.68	26.41	24.38	22.53	21.09	19.72	18.64	17.63	16.73
292.5	25.75	23.36	21.57	20.02	18.46	17.51	16.61	15.77	15.18
315.0	19.36	18.40	17.27	16.55	16.01	15.36	14.82	14.52	14.10
337.5	26.65	24.50	22.47	20.91	19.36	18.16	17.27	16.43	15.66
360.0	27.90	25.93	23.72	22.23	20.85	19.54	18.40	17.51	16.67

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	16.07	15.48	14.94	14.52	14.16	13.80	13.56	13.38	13.09
22.5	14.46	14.10	13.74	13.44	13.27	13.03	12.85	12.73	12.55
45.0	12.97	12.79	12.67	12.55	12.43	12.31	12.19	12.13	12.01
67.5	13.56	13.27	13.09	12.85	12.61	12.49	12.31	12.19	12.07
90.0	14.16	13.80	13.56	13.27	13.03	12.85	12.67	12.43	12.31
112.5	13.74	13.38	13.15	12.91	12.73	12.55	12.43	12.25	12.19
135.0	13.03	12.91	12.73	12.61	12.49	12.37	12.25	12.13	12.07
157.5	14.46	13.98	13.68	13.44	13.15	12.97	12.79	12.61	12.43
180.0	15.00	14.58	14.16	13.86	13.56	13.32	13.09	12.91	12.73
202.5	15.30	14.82	14.40	13.98	13.68	13.38	13.15	12.91	12.79
225.0	13.80	13.50	13.27	13.09	12.97	12.73	12.61	12.49	12.37
247.5	14.64	14.28	13.80	13.50	13.27	12.97	12.79	12.61	12.43
270.0	16.13	15.48	14.94	14.52	14.22	13.74	13.56	13.32	13.15
292.5	14.70	14.28	13.86	13.56	13.27	13.03	12.85	12.67	12.49
315.0	13.80	13.56	13.27	13.09	12.97	12.79	12.61	12.55	12.37
337.5	15.12	14.70	14.22	13.86	13.62	13.32	13.09	12.91	12.73
360.0	16.07	15.48	14.94	14.52	14.16	13.80	13.56	13.38	13.09

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	12.91	12.73	12.61	12.49	12.43	12.43	12.37	12.49	12.55
22.5	12.43	12.25	12.19	12.13	12.13	12.13	12.13	12.07	11.95
45.0	11.95	11.83	11.83	11.65	11.53	11.47	11.41	11.29	11.23
67.5	11.95	11.89	11.71	11.59	11.53	11.41	11.29	11.23	11.11
90.0	12.13	11.95	11.83	11.71	11.53	11.41	11.29	11.11	11.05
112.5	12.01	11.95	11.83	11.71	11.59	11.53	11.41	11.29	11.17
135.0	11.95	11.89	11.83	11.71	11.59	11.53	11.41	11.35	11.29
157.5	12.37	12.19	12.07	12.07	12.01	11.95	11.95	11.95	11.83
180.0	12.55	12.43	12.31	12.25	12.19	12.25	12.19	12.13	12.07
202.5	12.61	12.49	12.31	12.19	12.13	12.07	12.01	11.95	11.77
225.0	12.25	12.19	12.07	12.01	11.89	11.89	11.83	11.77	11.65
247.5	12.37	12.31	12.25	12.25	12.25	12.37	12.25	12.31	12.25
270.0	12.85	12.67	12.85	12.85	12.73	12.91	12.85	12.61	12.55
292.5	12.43	12.37	12.37	12.31	12.37	12.43	12.37	12.43	12.37
315.0	12.25	12.19	12.07	12.01	11.95	11.89	11.83	11.77	11.71
337.5	12.55	12.43	12.31	12.19	12.13	12.07	12.07	12.07	11.95
360.0	12.91	12.73	12.61	12.49	12.43	12.43	12.37	12.49	12.55

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	12.55	12.49	11.65	11.47	11.41	10.88	10.76	10.52	10.28
22.5	11.53	11.41	11.35	11.17	10.76	10.64	10.40	10.28	10.28
45.0	11.17	11.11	10.99	10.88	10.70	10.58	10.52	10.40	10.40
67.5	11.05	10.93	10.82	10.76	10.58	10.52	10.46	10.28	10.28
90.0	10.93	10.88	10.76	10.58	10.40	10.28	10.16	10.16	10.16
112.5	11.11	10.99	10.88	10.82	10.70	10.58	10.46	10.40	10.40
135.0	11.17	11.11	11.05	10.99	10.88	10.64	10.58	10.46	10.46
157.5	11.47	11.29	11.17	11.11	11.05	10.64	10.52	10.40	10.34
180.0	11.47	11.29	11.17	11.05	10.99	10.52	10.40	10.28	10.16
202.5	11.59	11.41	11.35	11.17	11.11	11.05	10.82	10.64	10.52
225.0	11.59	11.47	11.35	11.23	11.11	11.05	10.82	10.76	10.64
247.5	12.19	12.07	11.59	11.17	11.05	10.93	10.64	10.58	10.46
270.0	12.55	12.67	11.47	11.71	11.17	10.93	10.58	10.46	10.34
292.5	12.31	12.01	11.59	11.23	11.05	10.82	10.70	10.58	10.52
315.0	11.59	11.47	11.41	11.29	11.23	10.99	10.88	10.70	10.64
337.5	11.83	11.59	11.41	11.35	11.17	10.88	10.70	10.58	10.34
360.0	12.55	12.49	11.65	11.47	11.41	10.88	10.76	10.52	10.28

C/γ(°)	90.0
0.0	10.16
22.5	10.28
45.0	10.40
67.5	10.28
90.0	10.16
112.5	10.34
135.0	10.40
157.5	10.34
180.0	10.22
202.5	10.40
225.0	10.52
247.5	10.40
270.0	10.22
292.5	10.46
315.0	10.52
337.5	10.34
360.0	10.16