



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: 3-1941-M	
Luminaire: BJB 47.319.2020	
Report No: NATA0100	Voltage(V): 34.3000
Test No: GC2019021905	Current(A): 0.5000
LampCAT: BRIDGELUX V13B	Power (W): 17.1500
Lamp flux(lm): 2579.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 78	Width(mm): 78
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 2287.32
Efficiency(%): 88.69%
Lumens(lm)/Power(W): 134.26
Central intensity(cd): 2899.828
Maximum intensity(cd): 2904.328
Angle of maximum intensity: $C=0.0$ $\gamma=5.0$
Beam Angle(50%Imax): [C0/180]Total=56.7
[C90/270]Total=56.7
Field angle(10%Imax): [C0/180]Total=74.5
[C90/270]Total=74.5
Maximum s/h(1/2): C0_180=0.93 C90_270=0.93
Maximum s/h(1/4): C0_180=0.84 C90_270=0.84
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 89.28%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.129%

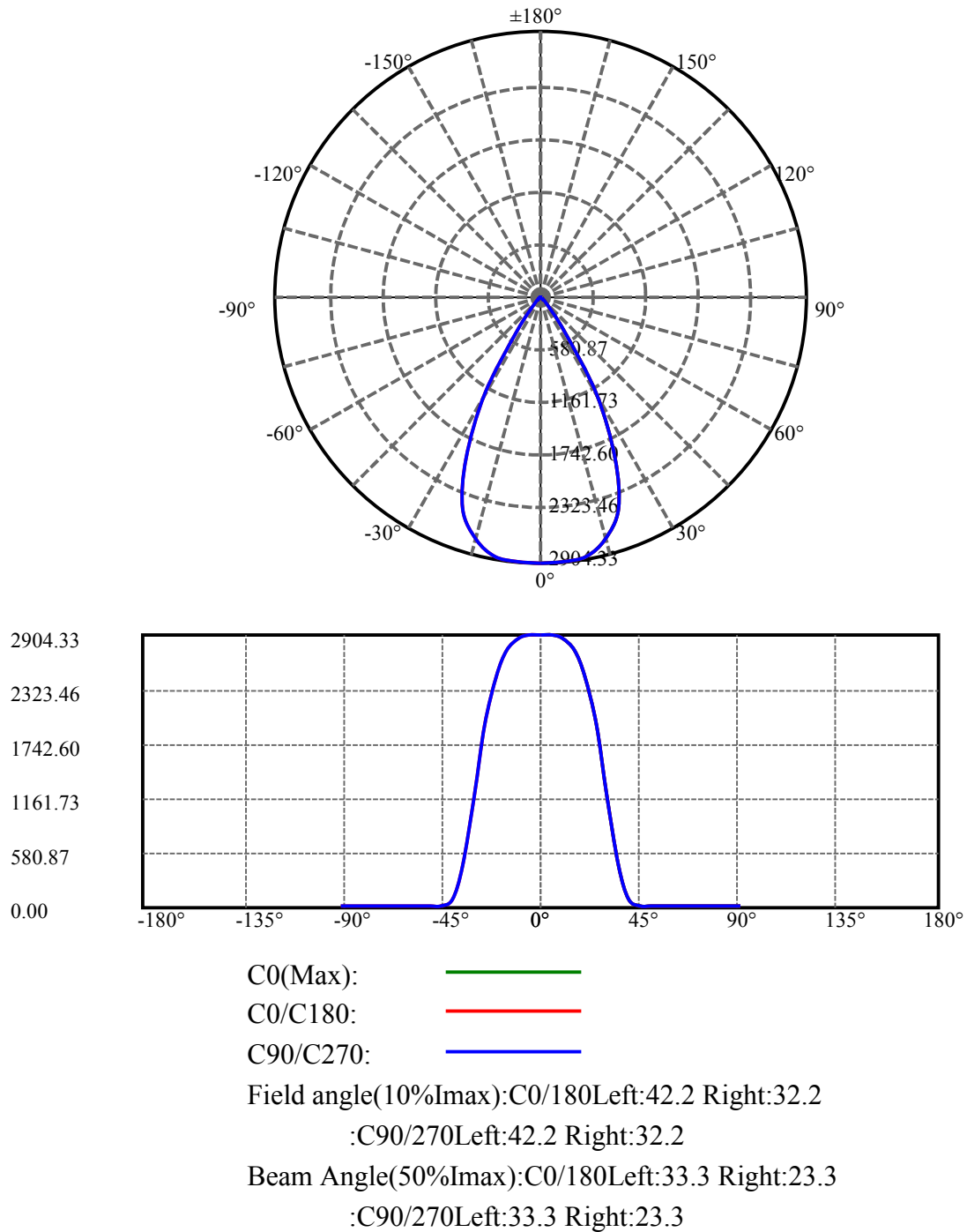
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2899.828	17.342	17.342	.672%	.758%
5.0	2904.328	138.749	156.091	5.380%	6.824%
10.0	2872.969	273.458	429.549	10.603%	18.780%
15.0	2743.102	389.159	818.708	15.090%	35.793%
20.0	2466.914	462.482	1281.191	17.933%	56.013%
25.0	1939.852	449.372	1730.563	17.424%	75.659%
30.0	1209.220	331.409	2061.972	12.850%	90.148%
35.0	459.246	144.386	2206.359	5.599%	96.460%
40.0	83.658	29.476	2235.834	1.143%	97.749%
45.0	18.844	7.304	2243.138	.283%	98.068%
50.0	13.753	5.775	2248.913	.224%	98.321%
55.0	11.890	5.339	2254.251	.207%	98.554%
60.0	10.884	5.167	2259.418	.200%	98.780%
65.0	10.181	5.058	2264.476	.196%	99.001%
70.0	9.738	5.016	2269.492	.194%	99.220%
75.0	9.443	5.000	2274.492	.194%	99.439%
80.0	9.415	5.082	2279.574	.197%	99.661%
85.0	9.485	5.179	2284.753	.201%	99.888%
90.0	9.373	2.569	2287.322	.100%	100.000%

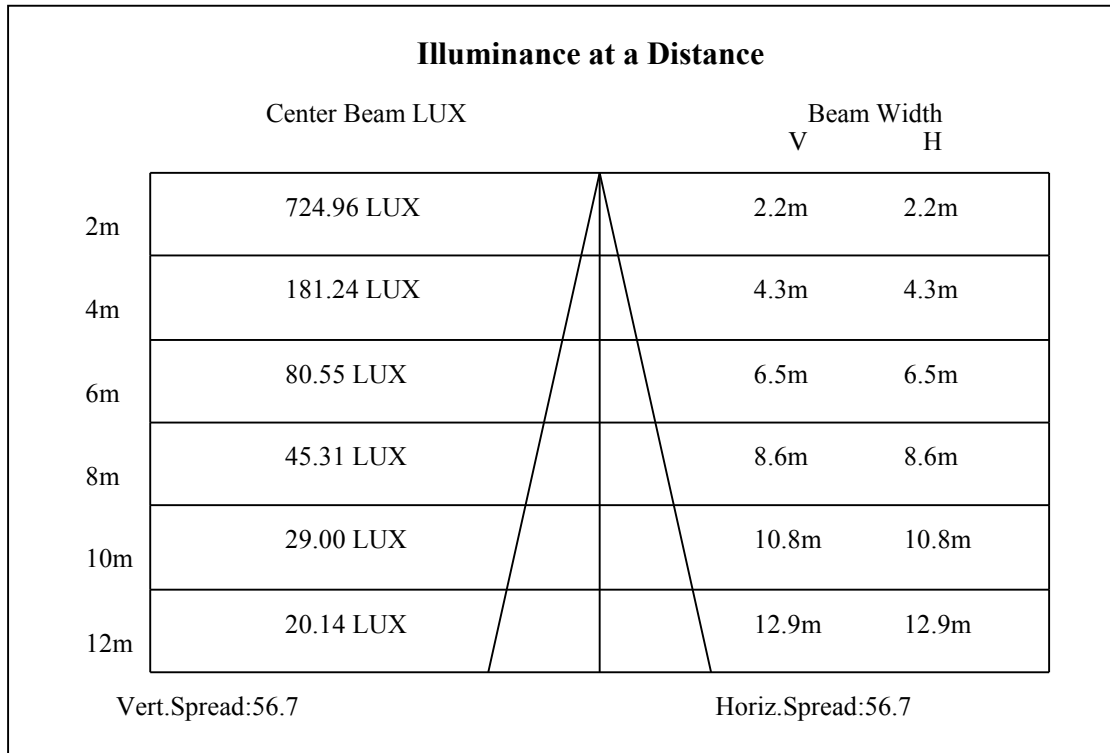
ZONAL LUMEN SUMMARY

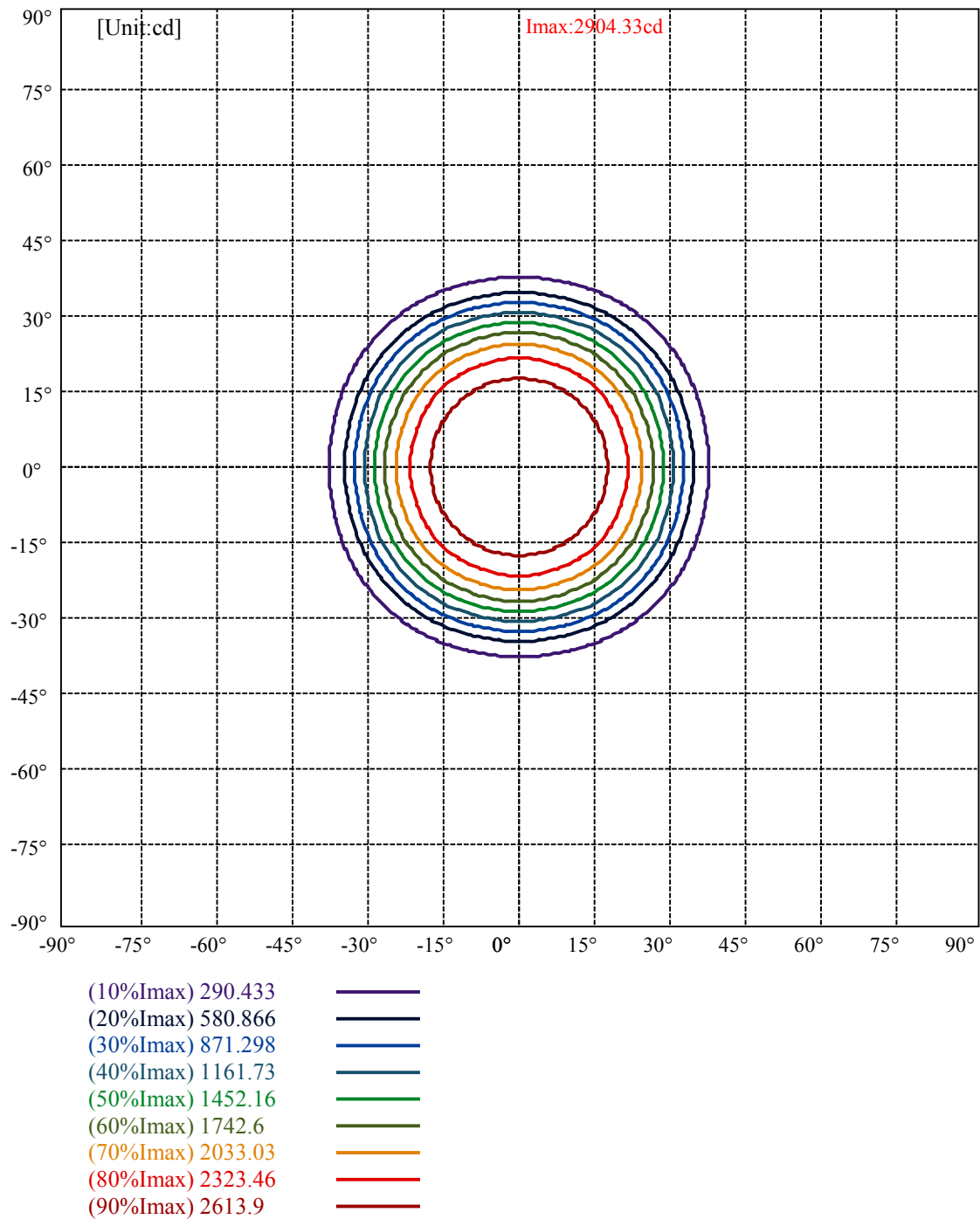
Zone	Lumens	%Lamp	%Fixt
0-30	2061.97	79.95%	90.15%
0-40	2235.83	86.69%	97.75%
0-60	2259.42	87.61%	98.78%
0-90	2284.75	88.59%	99.89%
0-120	2284.75	88.59%	99.89%
0-180	2287.32	88.69%	100.00%
60-90	30.50	1.18%	1.33%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-26.50	1829.86	70.95%	80.00%

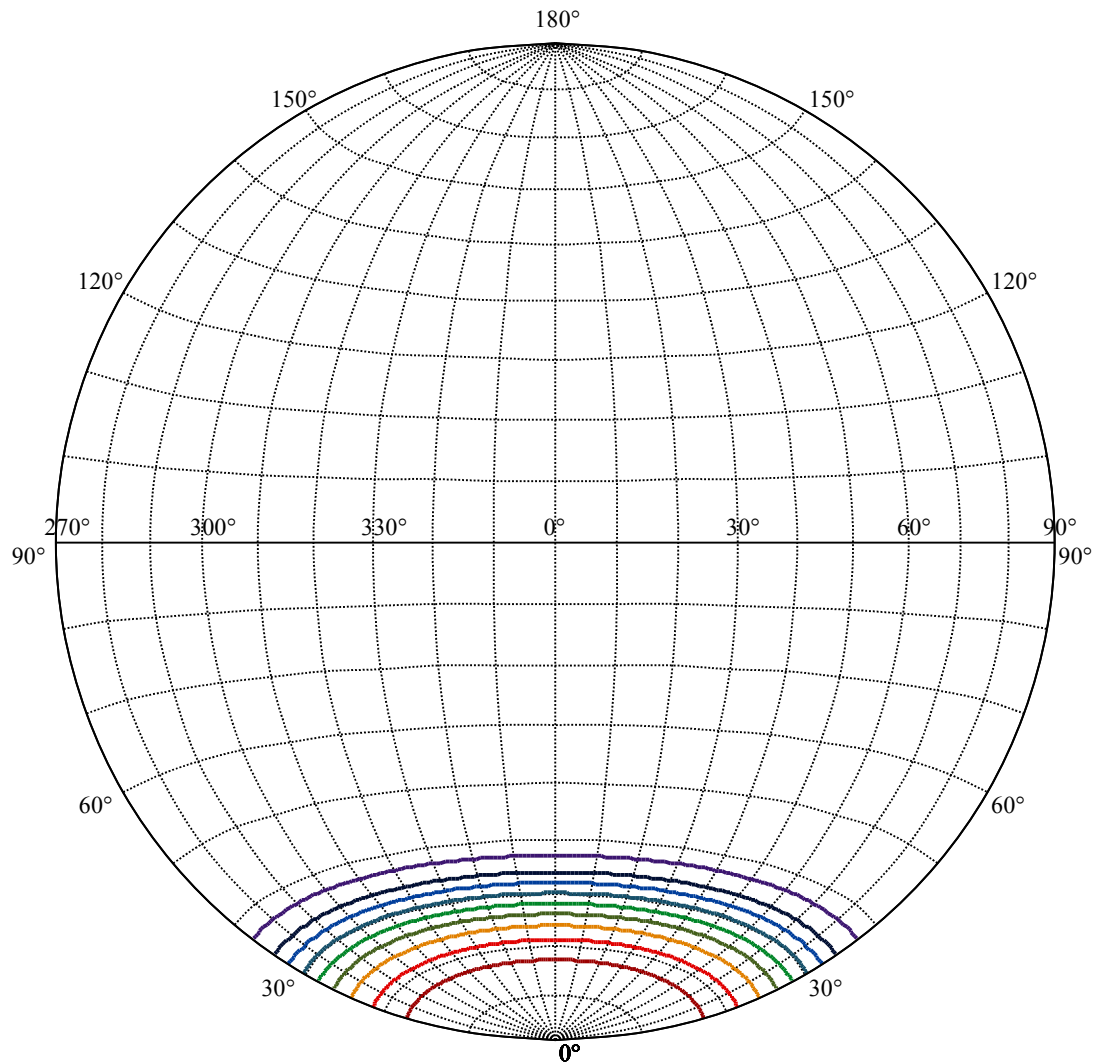
ZONAL LUMEN SUMMARY

0-10	429.55
10-20	851.64
20-30	780.78
30-40	173.86
40-50	13.08
50-60	10.51
60-70	10.07
70-80	10.08
80-90	5.18
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









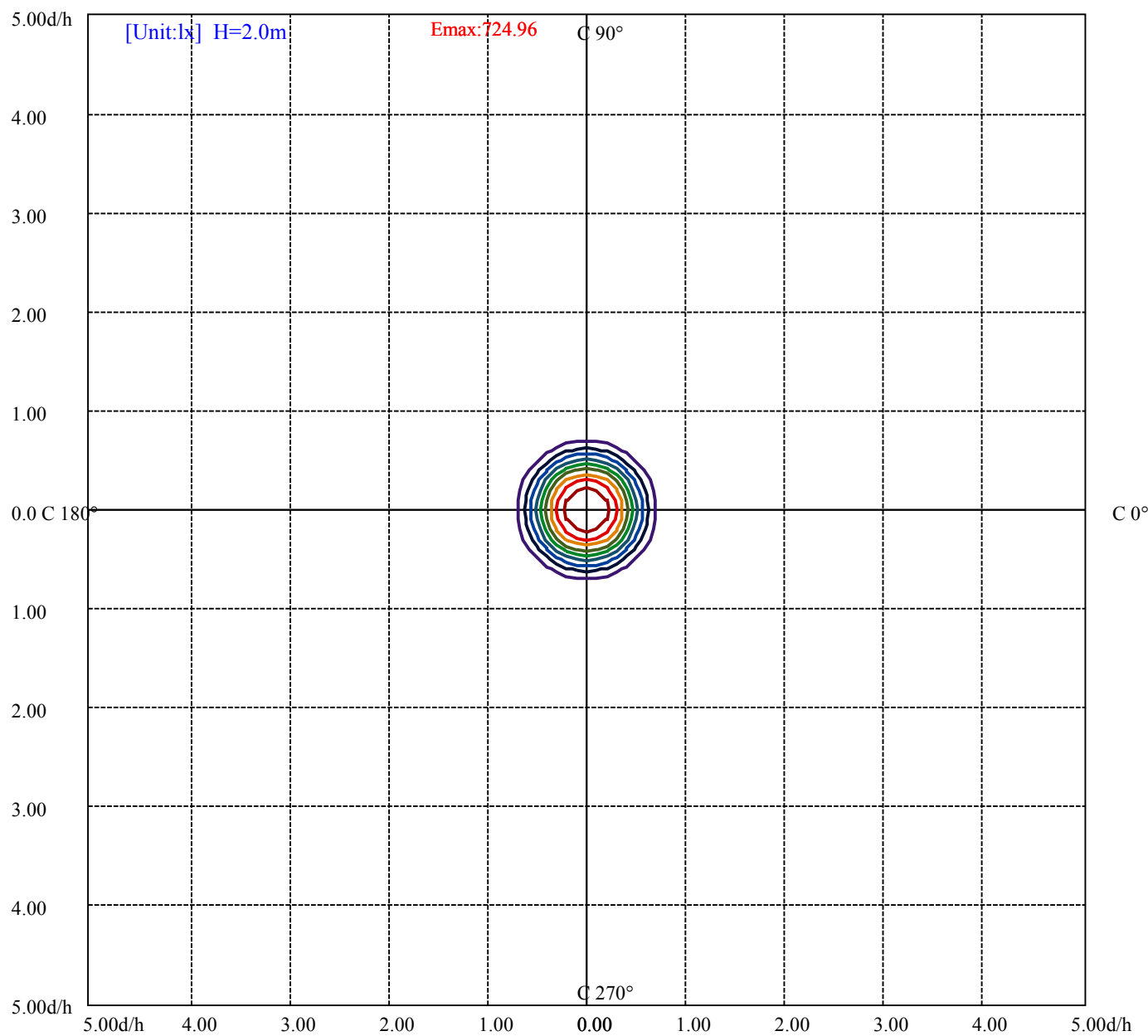
House

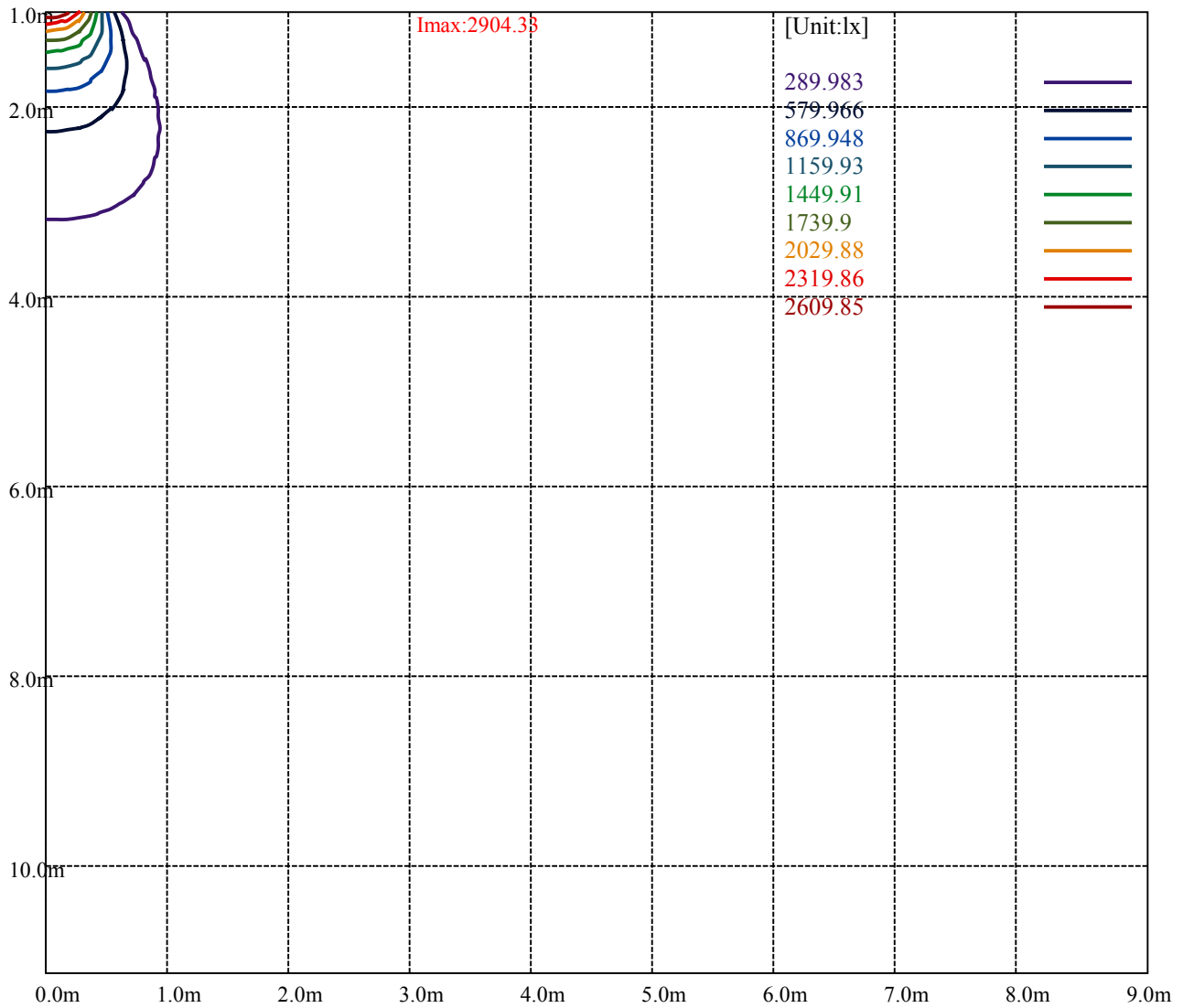
[Unit:cd]

Road

Imax:2904.33

(10%Imax)	290.433	
(20%Imax)	580.866	
(30%Imax)	871.298	
(40%Imax)	1161.73	
(50%Imax)	1452.16	
(60%Imax)	1742.6	
(70%Imax)	2033.03	
(80%Imax)	2323.46	
(90%Imax)	2613.9	





Luminance Table

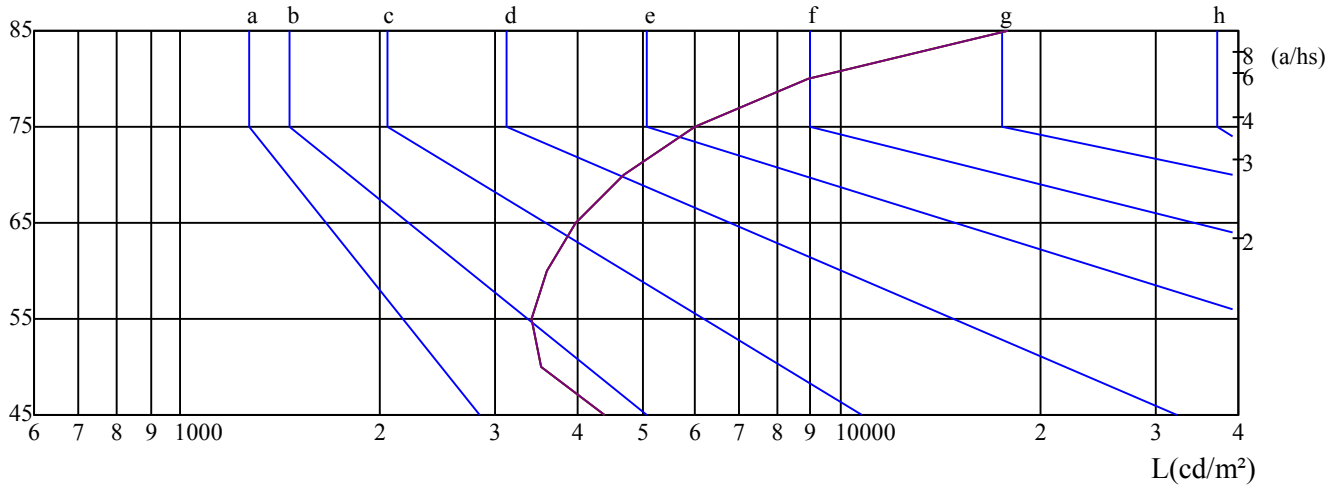
γ	45	50	55	60	65	70	75	80	85
C0	4380	3517	3407	3578	3960	4680	5997	8912	17888
C45	4380	3517	3407	3578	3960	4680	5997	8912	17888
C90	4380	3517	3407	3578	3960	4680	5997	8912	17888

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3960	3960	3960	5997	5997	5997	17888	17888	17888

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

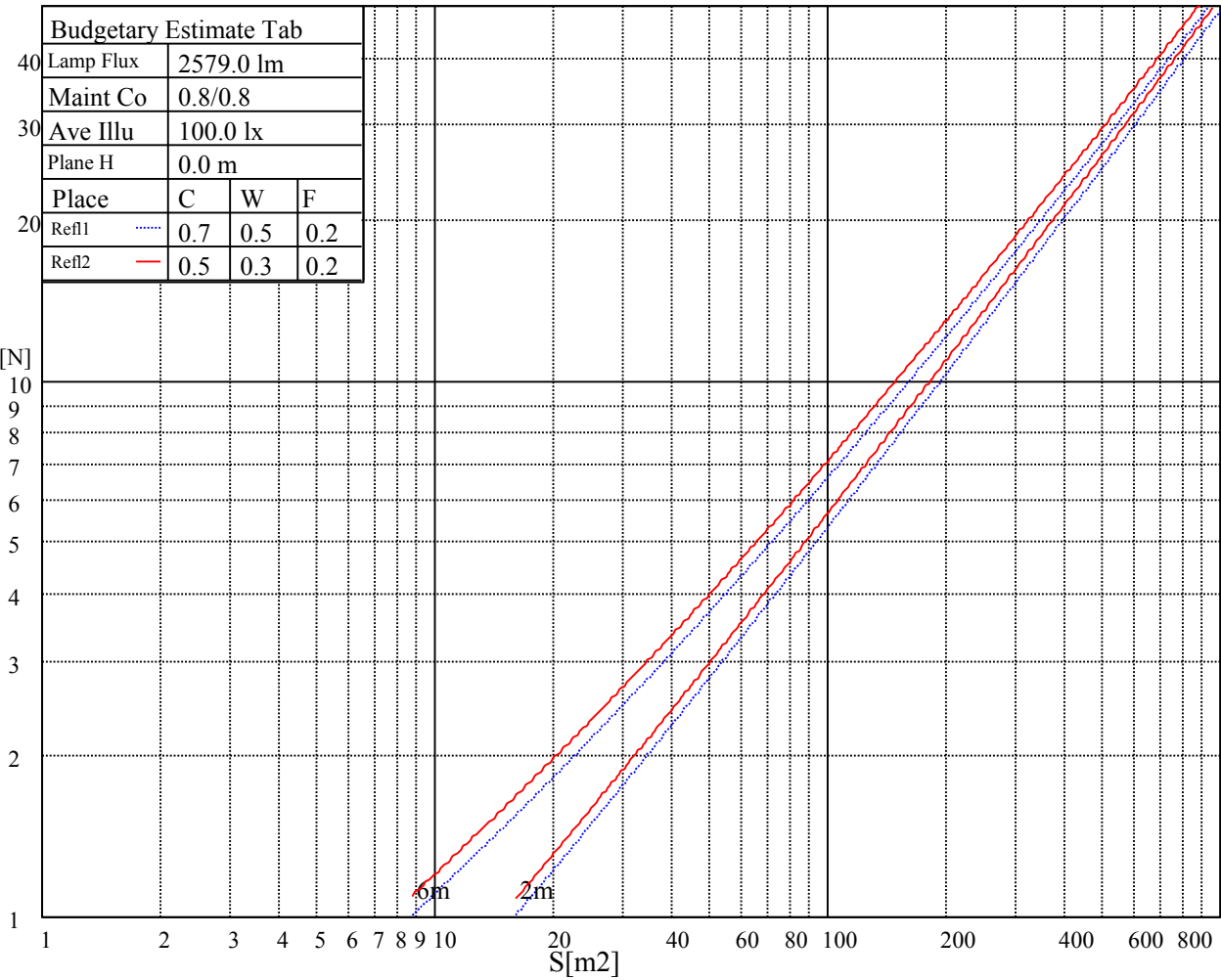
 $\gamma(^{\circ})$ 

C0 ———

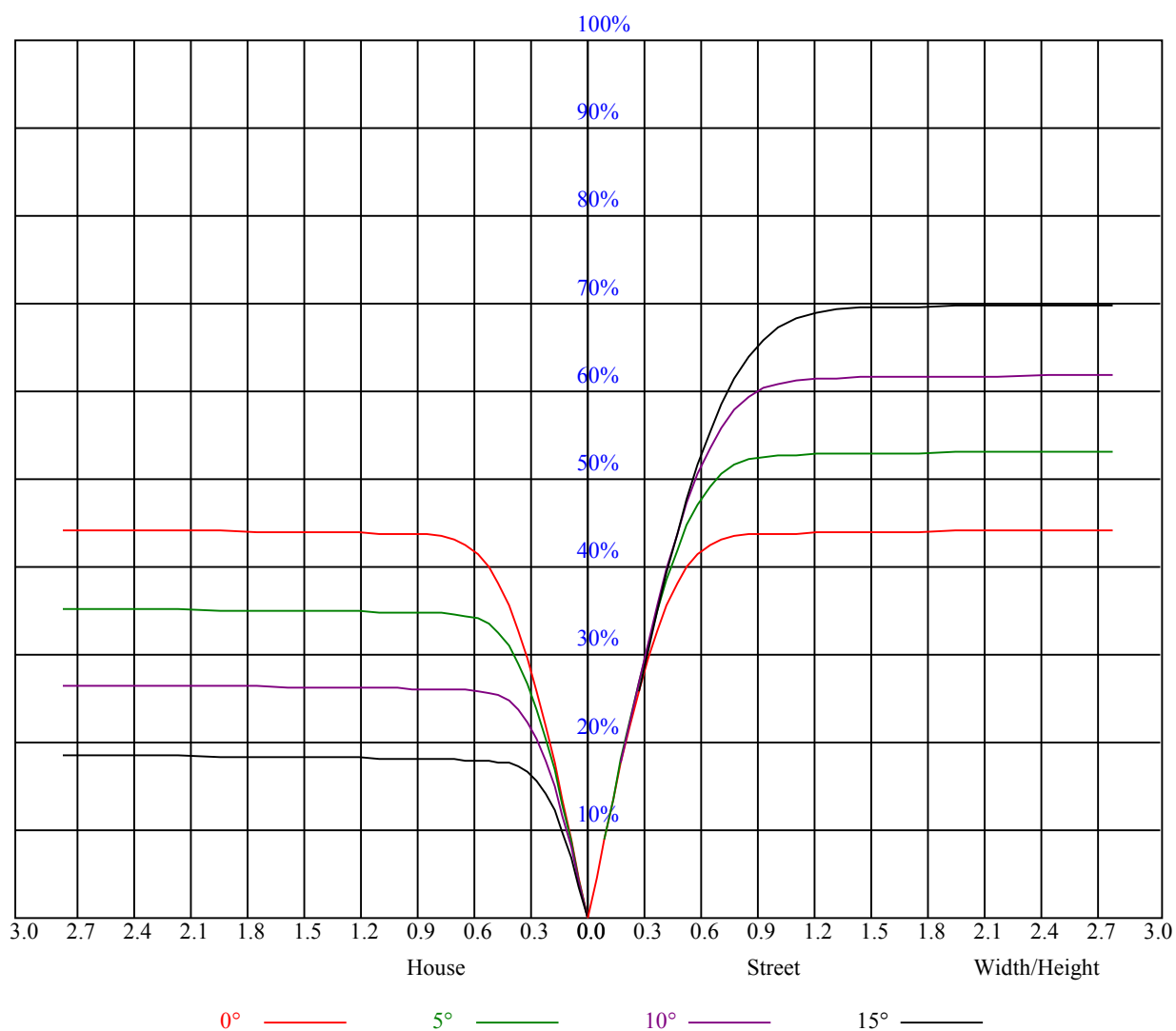
C45 ———

C90 ———

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	2.40	3.32	2.77	3.63	3.94	2.40	3.32	2.77	3.63	3.94
	3H	5.29	6.10	5.68	6.44	6.81	5.31	6.11	5.69	6.45	6.82
	4H	6.90	7.65	7.31	8.00	8.39	6.90	7.65	7.31	8.00	8.39
	6H	8.79	9.48	9.21	9.85	10.25	8.77	9.45	9.19	9.83	10.23
	8H	9.88	10.52	10.32	10.91	11.32	9.84	10.48	10.28	10.87	11.28
	12H	11.67	12.28	12.10	12.66	13.10	11.60	12.21	12.03	12.59	13.02
4H	2H	3.20	3.95	3.61	4.30	4.70	3.20	3.95	3.61	4.30	4.69
	3H	6.38	6.99	6.80	7.40	7.81	6.39	7.00	6.80	7.41	7.82
	4H	8.17	8.72	8.61	9.14	9.59	8.16	8.71	8.60	9.14	9.59
	6H	10.25	10.72	10.72	11.17	11.64	10.23	10.70	10.70	11.15	11.63
	8H	11.44	11.88	11.92	12.33	12.80	11.40	11.84	11.88	12.29	12.77
	12H	13.13	13.50	13.62	13.99	14.47	13.07	13.44	13.56	13.93	14.41
8H	4H	8.87	9.31	9.35	9.76	10.23	8.87	9.30	9.35	9.75	10.23
	6H	11.24	11.58	11.75	12.08	12.57	11.22	11.56	11.73	12.07	12.55
	8H	12.62	12.93	13.16	13.45	13.95	12.59	12.89	13.12	13.42	13.91
	12H	14.46	14.72	14.98	15.22	15.80	14.40	14.66	14.92	15.16	15.74
12H	4H	9.07	9.45	9.56	9.94	10.41	9.07	9.44	9.56	9.93	10.41
	6H	11.76	11.86	12.09	12.33	12.88	11.74	11.84	12.08	12.32	12.87
	8H	13.08	13.34	13.60	13.84	14.42	13.04	13.30	13.57	13.80	14.38
Variation with the observer position at spacings:											
S = 1.0H		6.1/-8.0					6.1/-8.0				
S = 1.5H		8.3/-6.0					8.3/-6.0				
S = 2.0H		9.8/-4.6					9.8/-4.6				
Standard tables:		BK2					BK2				
Uncorrected UGR		1.0					1.0				



RHOC	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	1.06	1.06	1.06	1.04	1.04	1.04	0.99	0.99	0.99	0.95	0.95	0.95	0.91	0.91	0.91	0.89
1	0.99	0.97	0.94	0.97	0.95	0.93	0.93	0.92	0.90	0.90	0.89	0.87	0.87	0.86	0.85	0.83
2	0.93	0.90	0.87	0.91	0.88	0.86	0.89	0.86	0.84	0.86	0.84	0.82	0.83	0.82	0.80	0.79
3	0.88	0.84	0.81	0.87	0.83	0.80	0.84	0.81	0.79	0.82	0.80	0.77	0.80	0.78	0.76	0.75
4	0.83	0.79	0.75	0.82	0.78	0.75	0.80	0.77	0.74	0.79	0.76	0.73	0.77	0.75	0.72	0.71
5	0.79	0.74	0.71	0.78	0.74	0.71	0.77	0.73	0.70	0.75	0.72	0.70	0.74	0.71	0.69	0.68
6	0.75	0.71	0.67	0.75	0.70	0.67	0.73	0.69	0.67	0.72	0.69	0.66	0.71	0.68	0.66	0.65
7	0.72	0.67	0.64	0.71	0.67	0.64	0.70	0.66	0.63	0.69	0.66	0.63	0.68	0.65	0.63	0.62
8	0.69	0.64	0.61	0.68	0.64	0.61	0.67	0.63	0.60	0.66	0.63	0.60	0.66	0.62	0.60	0.59
9	0.66	0.61	0.58	0.65	0.61	0.58	0.65	0.61	0.58	0.64	0.60	0.58	0.63	0.60	0.57	0.56
10	0.63	0.58	0.56	0.63	0.58	0.55	0.62	0.58	0.55	0.61	0.58	0.55	0.61	0.57	0.55	0.54



NATA 3-1941-M

Intensity data(cd)										Appendix Page: 15 Total:15	
C/ γ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0		
0.0	2898.56	2921.06	2888.44	2743.31	2467.13	1927.13	1252.69	439.88	50.91		
45.0	2900.25	2921.06	2892.38	2776.50	2486.81	1990.69	1344.94	559.69	67.05		
90.0	2900.81	2908.13	2873.81	2759.63	2486.25	1992.38	1084.89	512.55	71.10		
135.0	2899.69	2882.81	2877.19	2799.00	2584.13	2165.63	1515.94	700.88	302.06		
180.0	2898.56	2887.31	2864.25	2747.25	2500.88	1979.44	1121.79	500.74	57.54		
225.0	2900.25	2900.25	2864.25	2729.81	2453.63	1879.88	1096.03	344.93	45.23		
270.0	2900.81	2903.06	2871.56	2721.94	2428.88	1877.63	1230.19	387.00	42.81		
315.0	2899.69	2910.94	2851.88	2667.38	2327.63	1706.06	1027.29	228.32	32.57		
360.0	2898.56	2921.06	2888.44	2743.31	2467.13	1927.13	1252.69	439.88	50.91		
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	18.00	13.56	11.76	10.80	10.07	9.68	9.34	9.34	9.34		
45.0	20.03	14.51	12.38	11.19	10.41	9.84	9.51	9.45	9.45		
90.0	20.87	14.40	12.09	11.08	10.29	9.79	9.45	9.39	9.39		
135.0	23.74	14.63	12.43	11.19	10.35	9.84	9.51	9.39	9.34		
180.0	18.39	13.89	11.87	10.86	10.18	9.73	9.39	9.34	9.39		
225.0	17.38	13.39	11.81	10.86	10.18	9.79	9.56	9.62	9.84		
270.0	16.88	13.11	11.53	10.69	10.07	9.68	9.45	9.45	9.73		
315.0	15.47	12.54	11.25	10.41	9.90	9.56	9.34	9.34	9.39		
360.0	18.00	13.56	11.76	10.80	10.07	9.68	9.34	9.34	9.34		
C/ γ (°)	90.0										
0.0	9.28										
45.0	9.39										
90.0	9.34										
135.0	9.34										
180.0	9.51										
225.0	9.51										
270.0	9.34										
315.0	9.28										
360.0	9.28										