



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: 1408-N	
Luminaire: 92.70.051.00	
Report No: NATA0100	Voltage(V): 10.2200
Test No: GC2019010818	Current(A): 0.6010
LampCAT: BRIDGELUX V6	Power (W): 6.1400
Lamp flux(lm): 519.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 39	Width(mm): 39
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 438.23
Efficiency(%): 84.44%
Lumens(lm)/Power(W): 71.70
Central intensity(cd): 410.133
Maximum intensity(cd): 410.133
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=58.5
[C90/270]Total=58.5
Field angle(10%Imax): [C0/180]Total=100.0
[C90/270]Total=100.0
Maximum s/h(1/2): C0_180=0.86 C90_270=0.86
Maximum s/h(1/4): C0_180=0.91 C90_270=0.91
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 84.83%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 95.456%

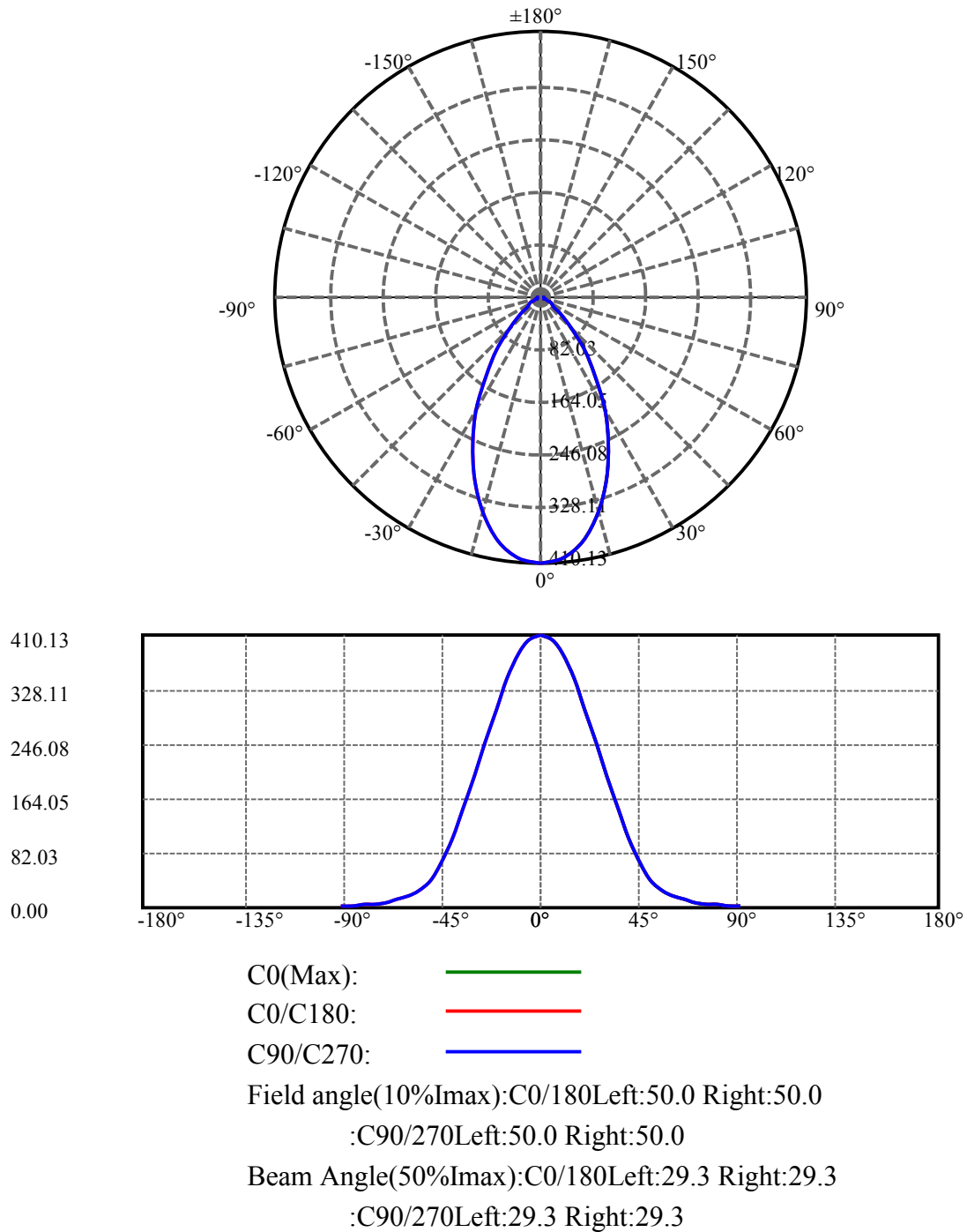
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	410.133	2.453	2.453	.473%	.560%
5.0	403.587	19.281	21.733	3.715%	4.959%
10.0	381.755	36.337	58.07	7.001%	13.251%
15.0	344.074	48.813	106.883	9.405%	24.390%
20.0	298.371	55.937	162.82	10.778%	37.154%
25.0	246.649	57.137	219.957	11.009%	50.192%
30.0	197.796	54.210	274.167	10.445%	62.563%
35.0	147.642	46.419	320.585	8.944%	73.155%
40.0	104.843	36.940	357.525	7.118%	81.584%
45.0	65.981	25.574	383.099	4.928%	87.420%
50.0	40.943	17.192	400.291	3.312%	91.343%
55.0	25.812	11.590	411.88	2.233%	93.988%
60.0	17.648	8.378	420.258	1.614%	95.900%
65.0	12.312	6.116	426.374	1.178%	97.295%
70.0	8.852	4.560	430.934	.879%	98.336%
75.0	6.103	3.231	434.165	.623%	99.073%
80.0	4.064	2.194	436.359	.423%	99.574%
85.0	2.524	1.378	437.738	.266%	99.888%
90.0	1.786	0.489	438.227	.094%	100.000%

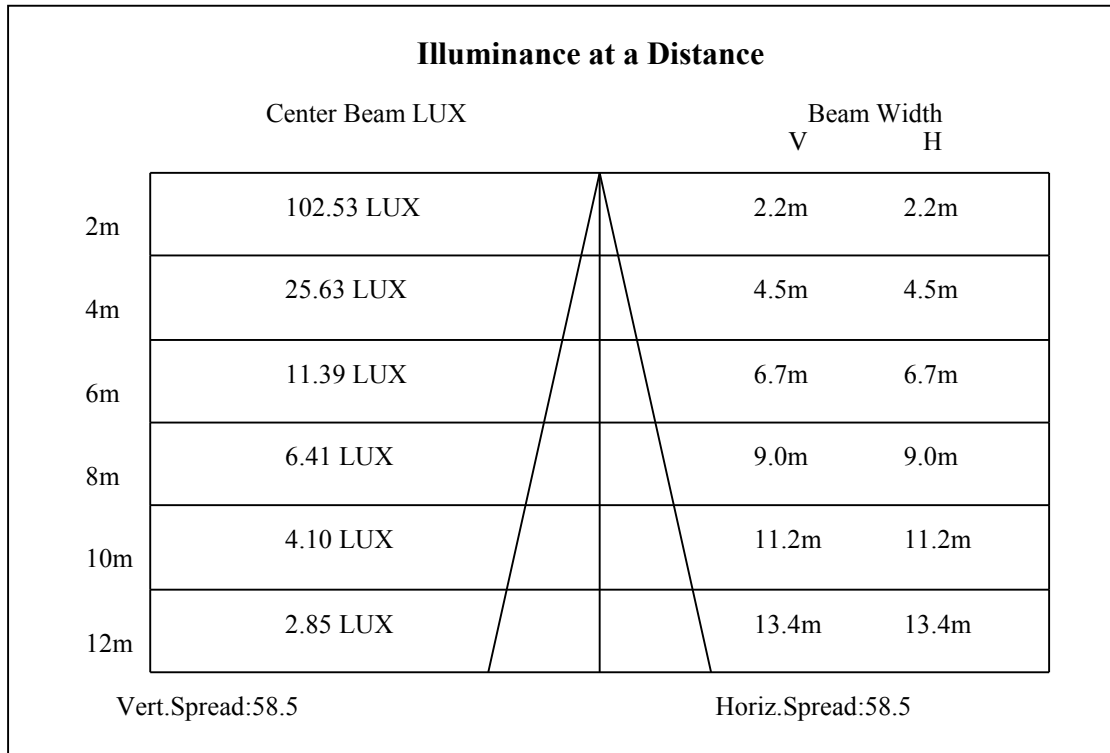
ZONAL LUMEN SUMMARY

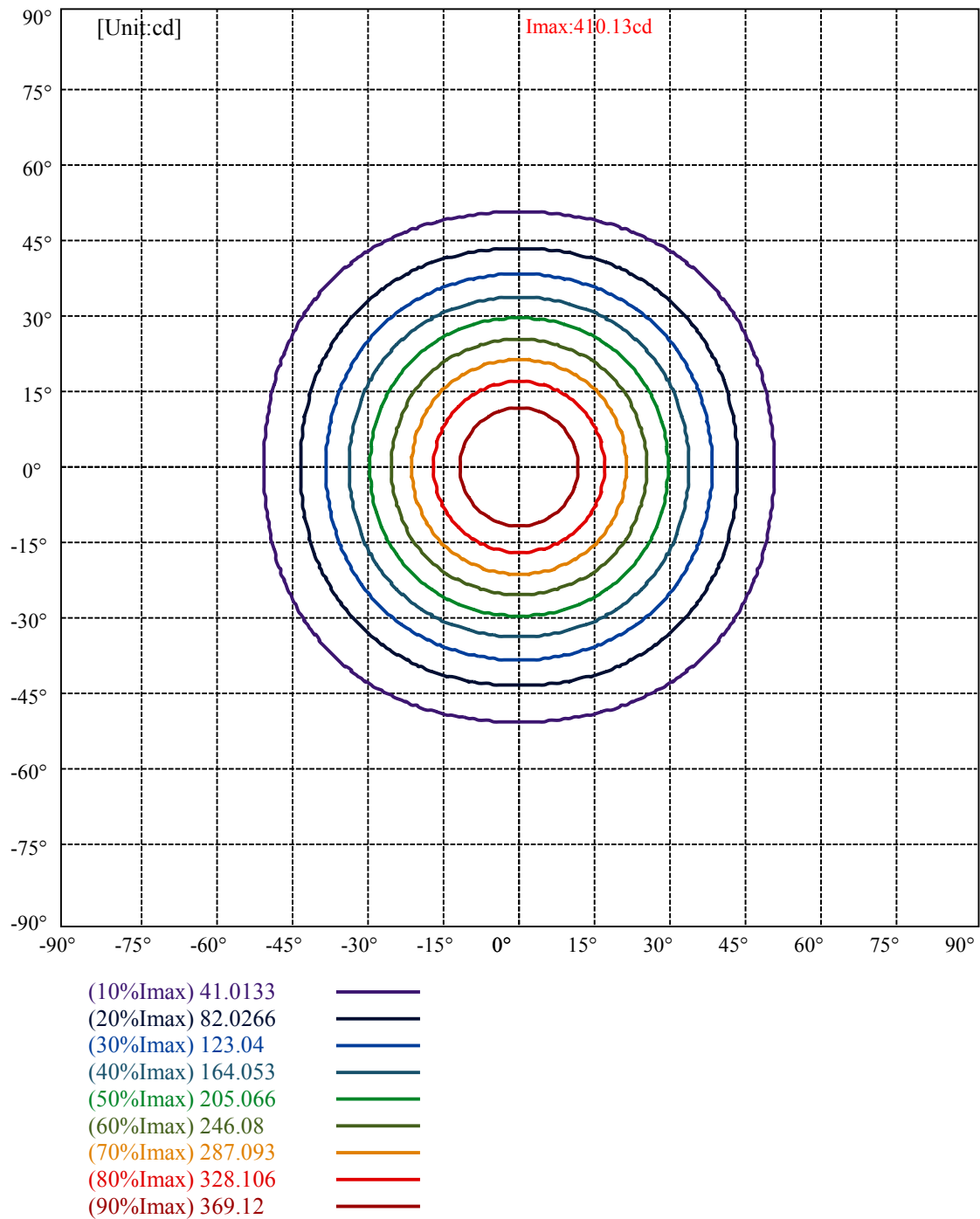
Zone	Lumens	%Lamp	%Fixt
0-30	274.17	52.83%	62.56%
0-40	357.53	68.89%	81.58%
0-60	420.26	80.97%	95.90%
0-90	437.74	84.34%	99.89%
0-120	437.74	84.34%	99.89%
0-180	438.23	84.44%	100.00%
60-90	25.86	4.98%	5.90%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-39.06	350.58	67.55%	80.00%

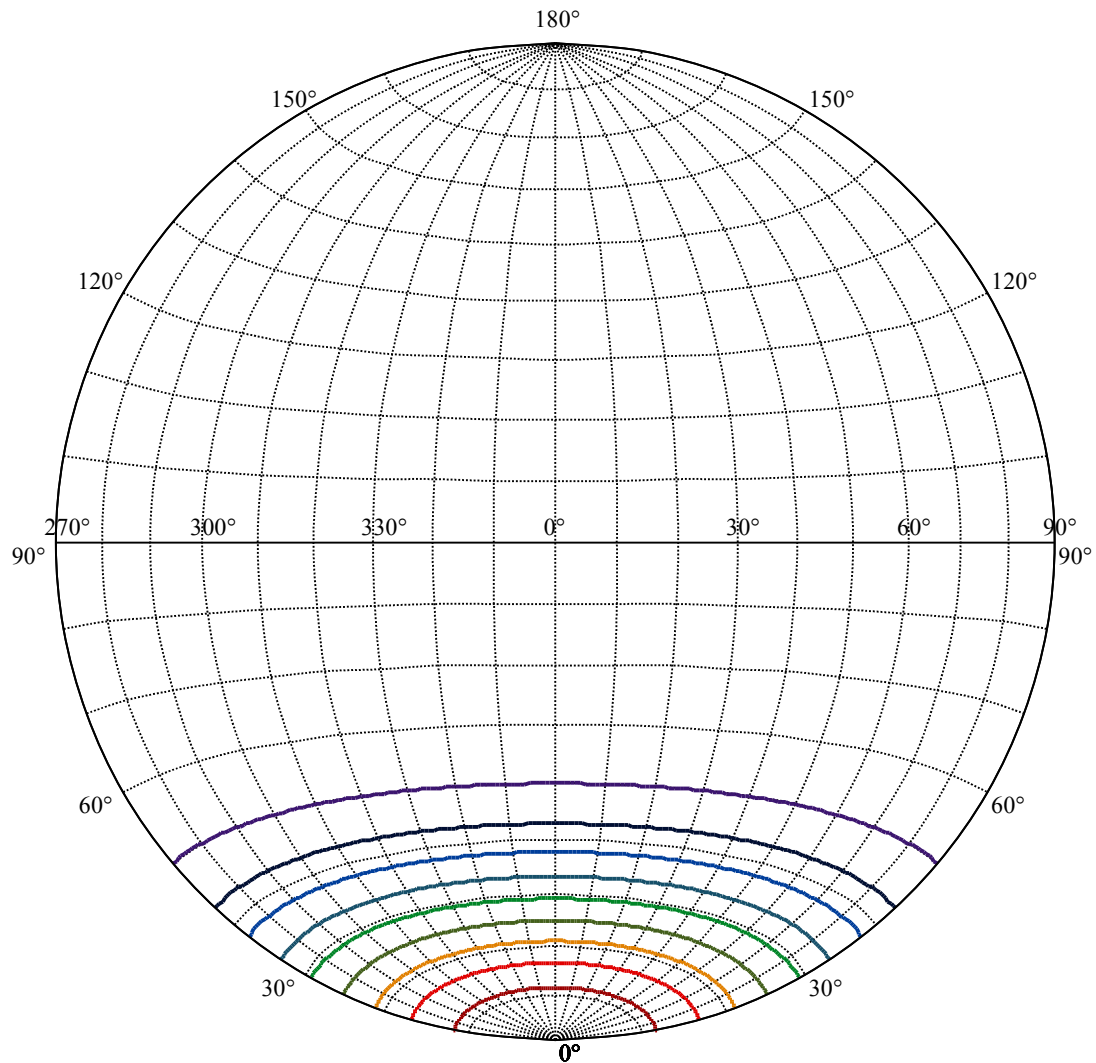
ZONAL LUMEN SUMMARY

0-10	58.07
10-20	104.75
20-30	111.35
30-40	83.36
40-50	42.77
50-60	19.97
60-70	10.68
70-80	5.43
80-90	1.38
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:410.13

(10%Imax) 41.0133

(20%Imax) 82.0266

(30%Imax) 123.04

(40%Imax) 164.053

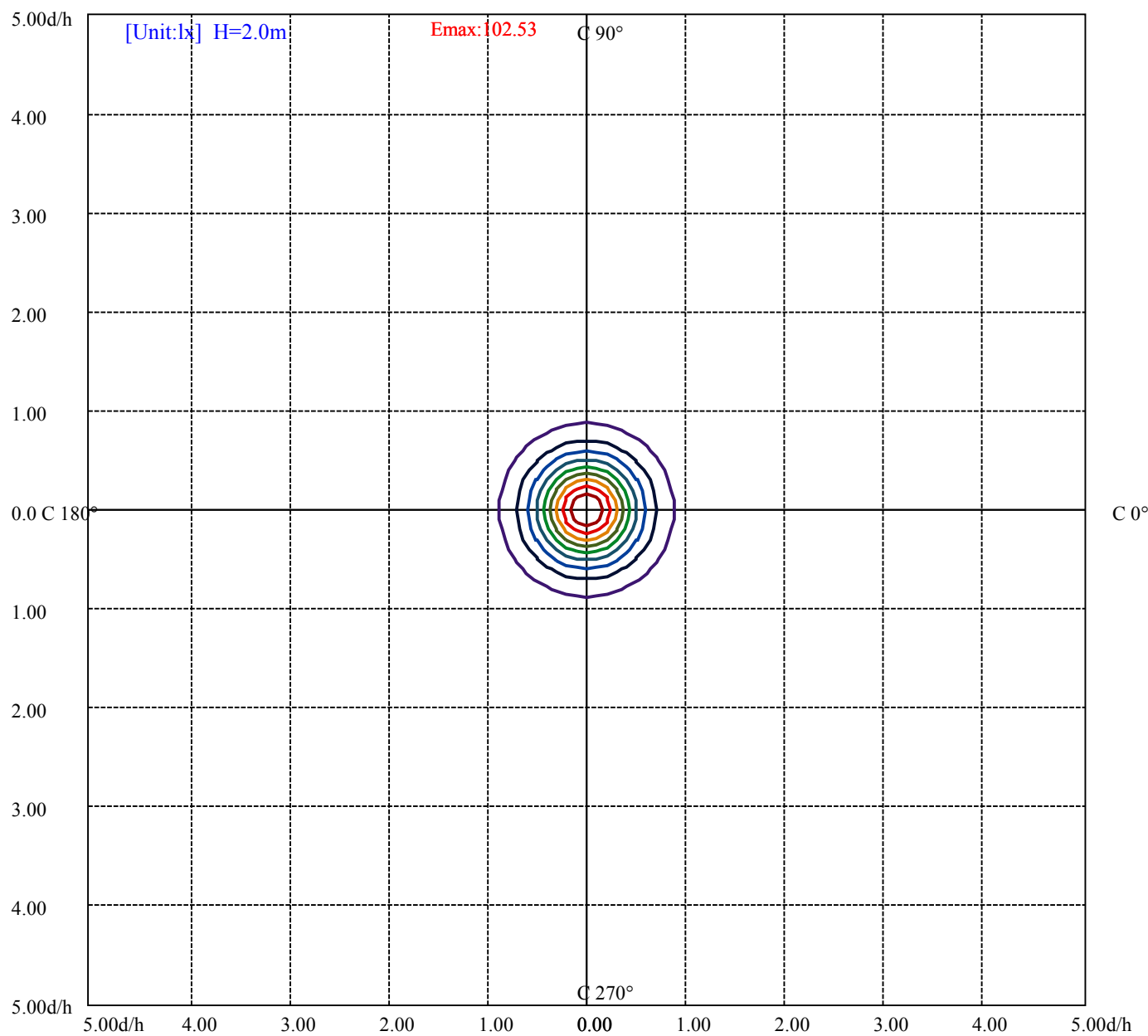
(50%Imax) 205.066

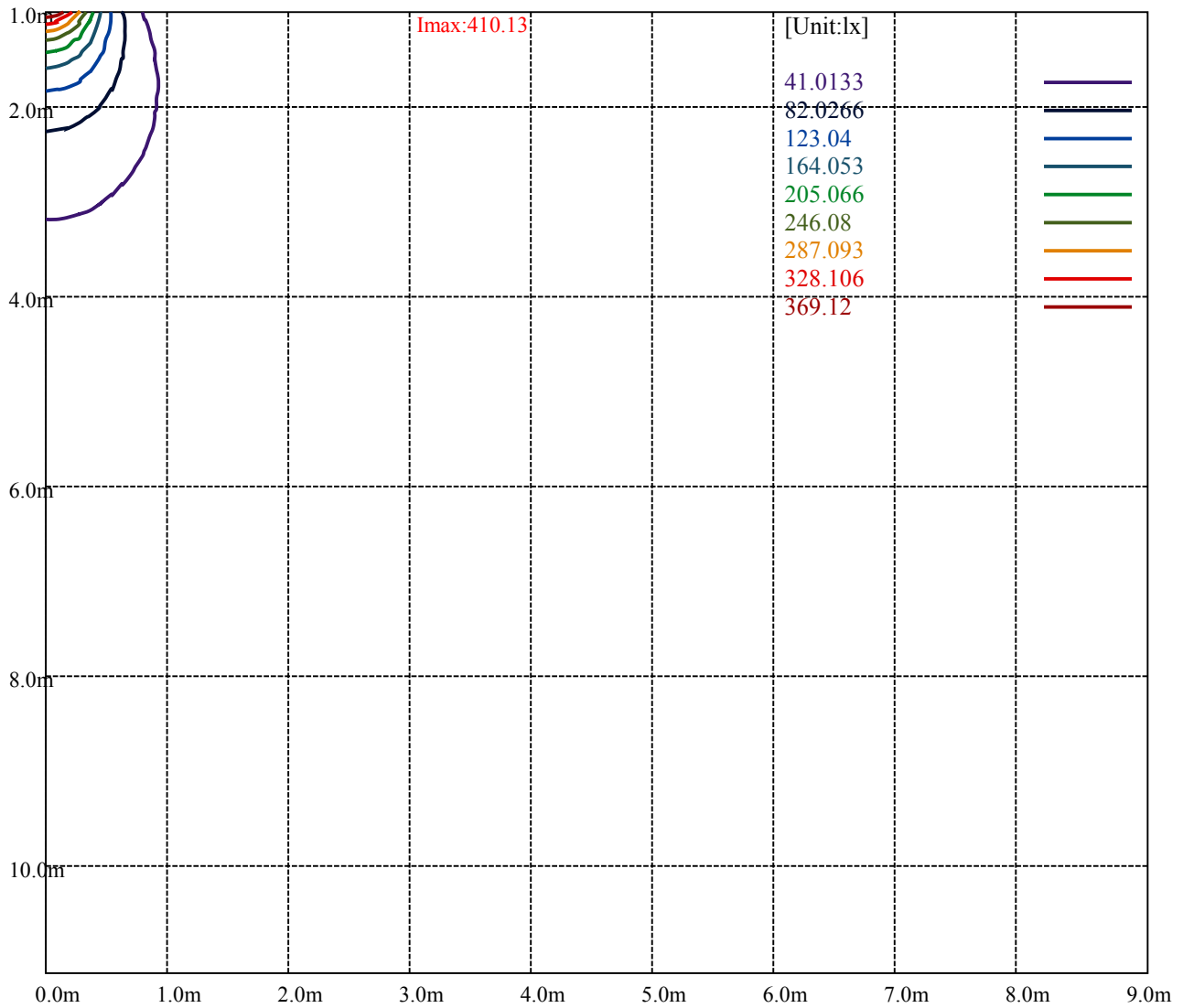
(60%Imax) 246.08

(70%Imax) 287.093

(80%Imax) 328.106

(90%Imax) 369.12





Luminance Table

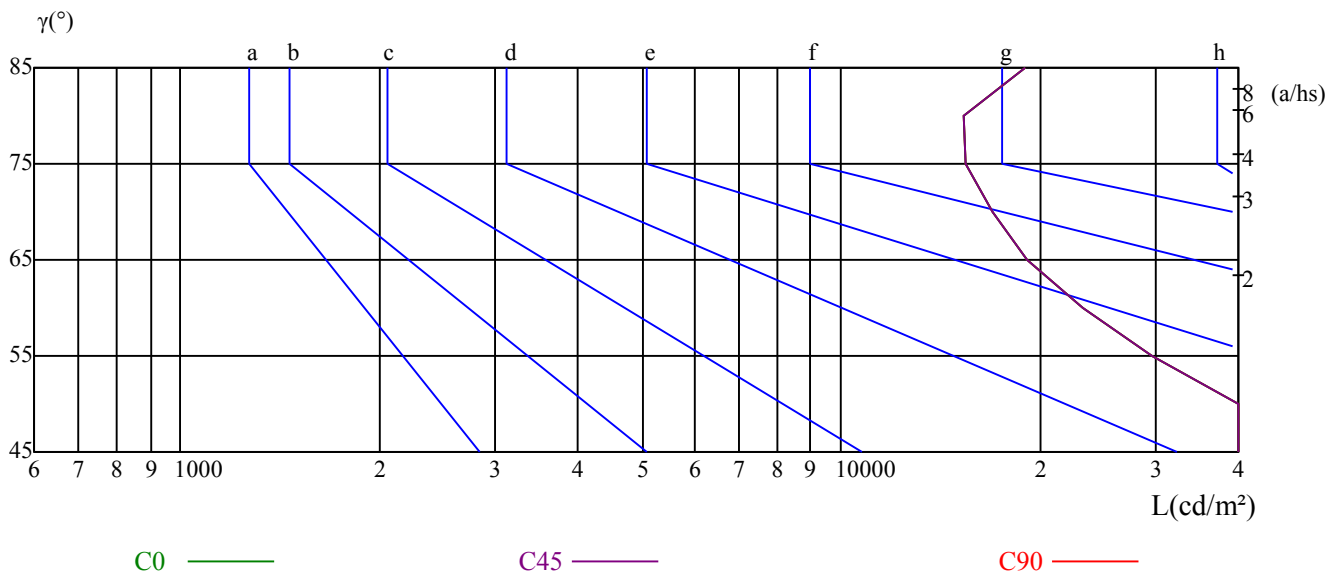
γ	45	50	55	60	65	70	75	80	85
C0	61349	41878	29587	23206	19153	17017	15503	15387	19042
C45	61349	41878	29587	23206	19153	17017	15503	15387	19042
C90	61349	41878	29587	23206	19153	17017	15503	15387	19042

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
19153	19153	19153	15503	15503	15503	19042	19042	19042

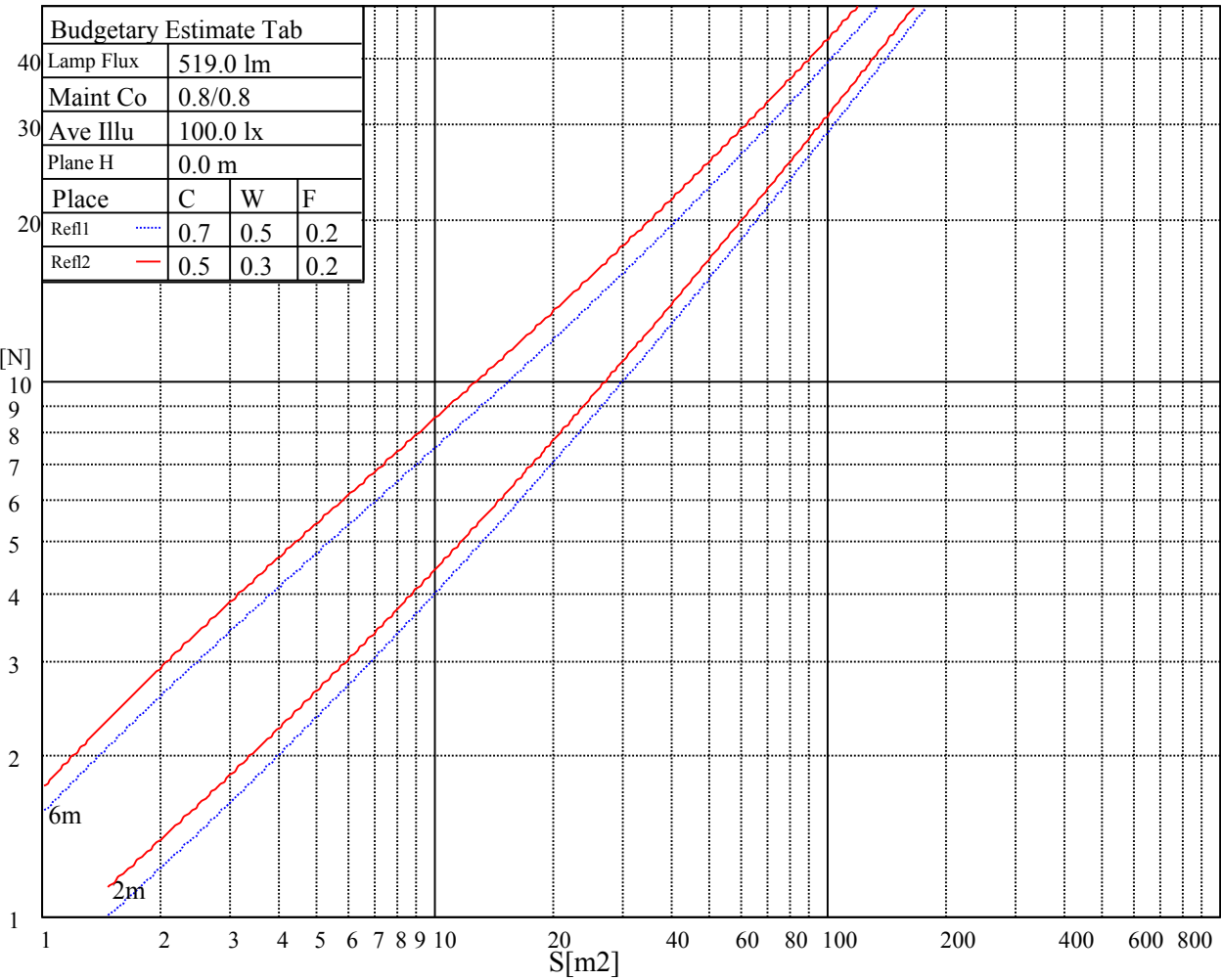
Glare Table

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

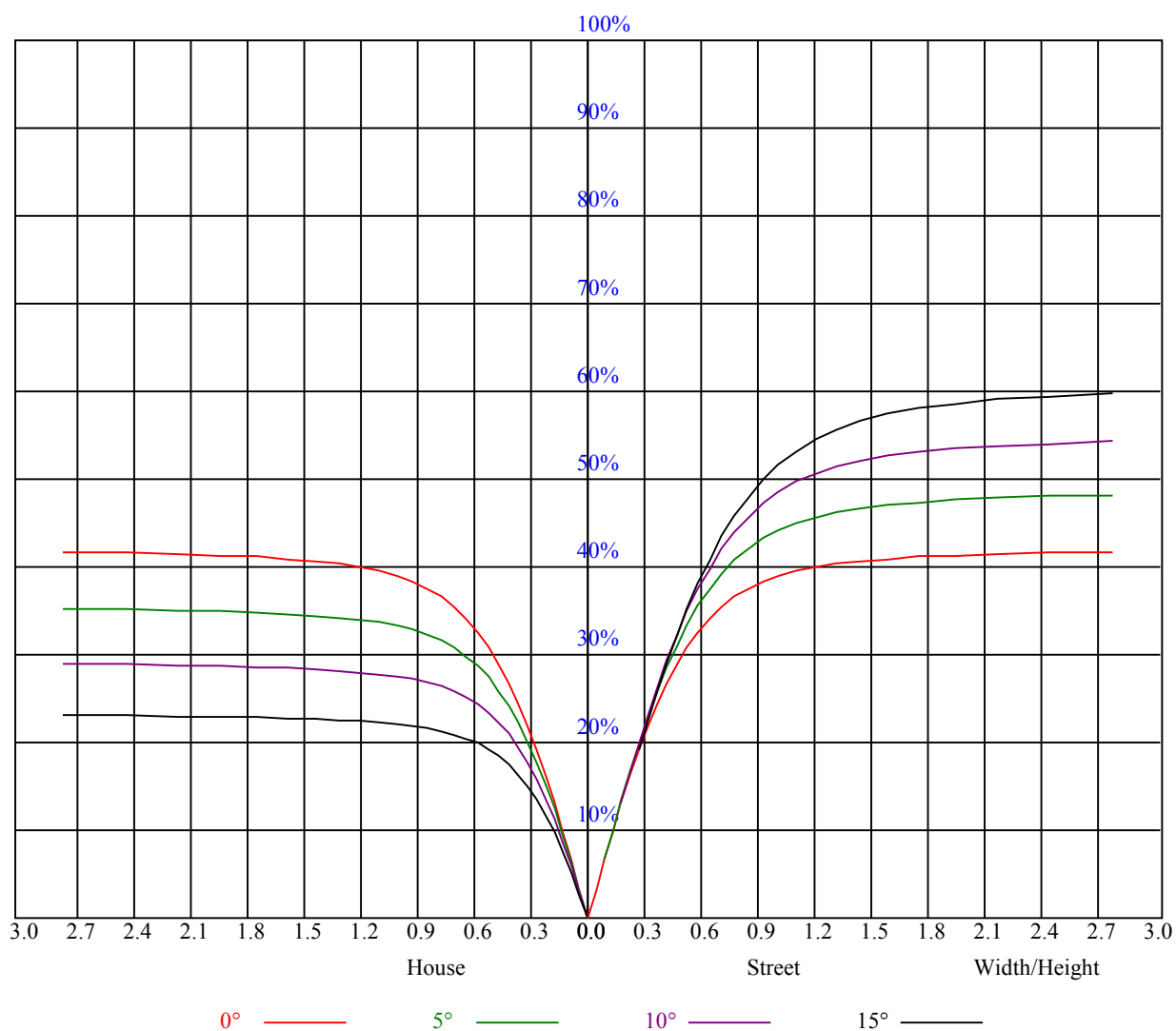
Luminance Limiting Curve



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	22.72	23.91	23.09	24.22	24.54	22.79	23.98	23.15	24.29	24.61
	3H	23.74	24.79	24.12	25.12	25.49	23.81	24.86	24.19	25.19	25.56
	4H	24.13	25.11	24.53	25.46	25.85	24.21	25.18	24.61	25.54	25.92
	6H	24.45	25.35	24.87	25.72	26.12	24.56	25.45	24.97	25.83	26.22
	8H	24.59	25.44	25.02	25.83	26.24	24.71	25.56	25.14	25.95	26.36
	12H	24.83	25.64	25.26	26.02	26.45	24.98	25.79	25.41	26.17	26.60
4H	2H	22.99	23.97	23.39	24.32	24.71	23.05	24.03	23.45	24.38	24.76
	3H	24.23	25.03	24.64	25.43	25.84	24.28	25.08	24.70	25.49	25.90
	4H	24.74	25.45	25.17	25.87	26.32	24.81	25.52	25.24	25.94	26.39
	6H	25.12	25.74	25.59	26.19	26.66	25.22	25.84	25.69	26.28	26.75
	8H	25.32	25.90	25.80	26.35	26.82	25.45	26.02	25.92	26.47	26.94
	12H	25.61	26.11	26.10	26.60	27.07	25.76	26.27	26.25	26.75	27.23
8H	4H	24.90	25.47	25.37	25.92	26.39	24.96	25.54	25.43	25.98	26.46
	6H	25.43	25.90	25.94	26.40	26.88	25.52	25.99	26.03	26.49	26.97
	8H	25.73	26.15	26.26	26.67	27.16	25.85	26.27	26.38	26.79	27.28
	12H	26.53	26.89	27.04	27.39	27.96	26.67	27.04	27.19	27.54	28.11
12H	4H	24.90	25.41	25.39	25.89	26.37	24.96	25.46	25.45	25.95	26.43
	6H	25.96	25.90	26.01	26.37	26.92	26.04	25.99	26.10	26.46	27.00
	8H	25.85	26.22	26.37	26.71	27.29	25.96	26.33	26.48	26.83	27.40
Variation with the observer position at spacings:											
S = 1.0H		1.3/-2.0					1.3/-2.0				
S = 1.5H		2.7/-2.6					2.7/-2.6				
S = 2.0H		4.6/-2.7					4.6/-2.7				
Standard tables:		BK2					BK2				
Uncorrected UGR		6.5					6.5				



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	1.01	1.01	1.01	0.99	0.99	0.99	0.94	0.94	0.94	0.90	0.90	0.90	0.87	0.87	0.87	0.85
1	0.92	0.90	0.88	0.91	0.88	0.86	0.87	0.85	0.84	0.84	0.82	0.81	0.81	0.80	0.79	0.77
2	0.85	0.81	0.78	0.84	0.80	0.77	0.81	0.78	0.75	0.78	0.76	0.74	0.76	0.74	0.72	0.71
3	0.79	0.74	0.70	0.77	0.73	0.69	0.75	0.71	0.68	0.73	0.70	0.67	0.71	0.68	0.66	0.65
4	0.73	0.68	0.64	0.72	0.67	0.63	0.70	0.66	0.63	0.68	0.65	0.62	0.67	0.64	0.61	0.60
5	0.68	0.62	0.58	0.67	0.62	0.58	0.66	0.61	0.58	0.64	0.60	0.57	0.63	0.59	0.57	0.55
6	0.63	0.58	0.54	0.63	0.58	0.54	0.61	0.57	0.53	0.60	0.56	0.53	0.59	0.55	0.53	0.51
7	0.60	0.54	0.50	0.59	0.54	0.50	0.58	0.53	0.50	0.57	0.53	0.49	0.56	0.52	0.49	0.48
8	0.56	0.51	0.47	0.55	0.50	0.47	0.55	0.50	0.47	0.54	0.49	0.46	0.53	0.49	0.46	0.45
9	0.53	0.47	0.44	0.52	0.47	0.44	0.52	0.47	0.44	0.51	0.47	0.44	0.50	0.46	0.43	0.42
10	0.50	0.45	0.41	0.50	0.45	0.41	0.49	0.44	0.41	0.48	0.44	0.41	0.48	0.44	0.41	0.40



NATA 1408-N

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	409.16	399.60	379.58	347.23	304.43	252.62	203.85	152.55	107.66		
45.0	411.98	403.65	381.99	342.62	299.81	248.23	199.01	151.93	108.17		
90.0	410.51	401.96	377.78	336.04	289.46	234.79	183.71	134.38	95.01		
135.0	408.88	404.78	385.14	348.98	303.47	252.68	209.64	156.60	110.93		
180.0	409.16	403.76	381.99	344.42	298.91	247.84	196.43	146.08	104.74		
225.0	411.98	407.93	386.04	345.71	302.01	249.41	200.25	150.36	107.94		
270.0	410.51	407.36	387.28	353.93	304.43	249.75	199.46	147.49	102.60		
315.0	408.88	399.66	374.23	333.68	284.46	237.88	190.01	141.75	101.70		
360.0	409.16	399.60	379.58	347.23	304.43	252.62	203.85	152.55	107.66		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	72.39	43.99	27.45	18.56	13.11	9.34	6.41	4.39	2.70		
45.0	68.85	45.11	27.28	18.51	12.77	9.23	6.30	4.28	2.59		
90.0	59.68	37.69	24.58	16.99	11.87	8.66	5.91	3.71	2.36		
135.0	68.06	42.69	26.66	18.34	12.99	9.39	6.53	4.44	2.64		
180.0	63.34	38.19	23.96	16.88	11.81	8.49	5.96	3.94	2.48		
225.0	66.88	39.15	25.37	17.04	11.64	8.44	5.74	3.83	2.53		
270.0	64.46	41.23	26.04	17.83	12.54	9.00	6.13	4.05	2.42		
315.0	64.18	39.49	25.14	17.04	11.76	8.27	5.85	3.88	2.48		
360.0	72.39	43.99	27.45	18.56	13.11	9.34	6.41	4.39	2.70		
C/γ(°)	90.0										
0.0	1.86										
45.0	1.74										
90.0	1.74										
135.0	1.80										
180.0	1.80										
225.0	1.80										
270.0	1.69										
315.0	1.86										
360.0	1.86										