



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: 1407-N	
Luminaire: 92.70.051.00	
Report No: NATA0100	Voltage(V): 10.2400
Test No: GC2019010817	Current(A): 0.6000
LampCAT: BRIDGELUX V6	Power (W): 6.1440
Lamp flux(lm): 519.0	PF: 1.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 39	Width(mm): 39
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 436.13
Efficiency(%): 84.03%
Lumens(lm)/Power(W): 71.44
Central intensity(cd): 539.620
Maximum intensity(cd): 539.620
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=43.9
[C90/270]Total=43.9
Field angle(10%Imax): [C0/180]Total=93.6
[C90/270]Total=93.6
Maximum s/h(1/2): C0_180=0.67 C90_270=0.67
Maximum s/h(1/4): C0_180=0.76 C90_270=0.76
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 84.58%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 95.337%

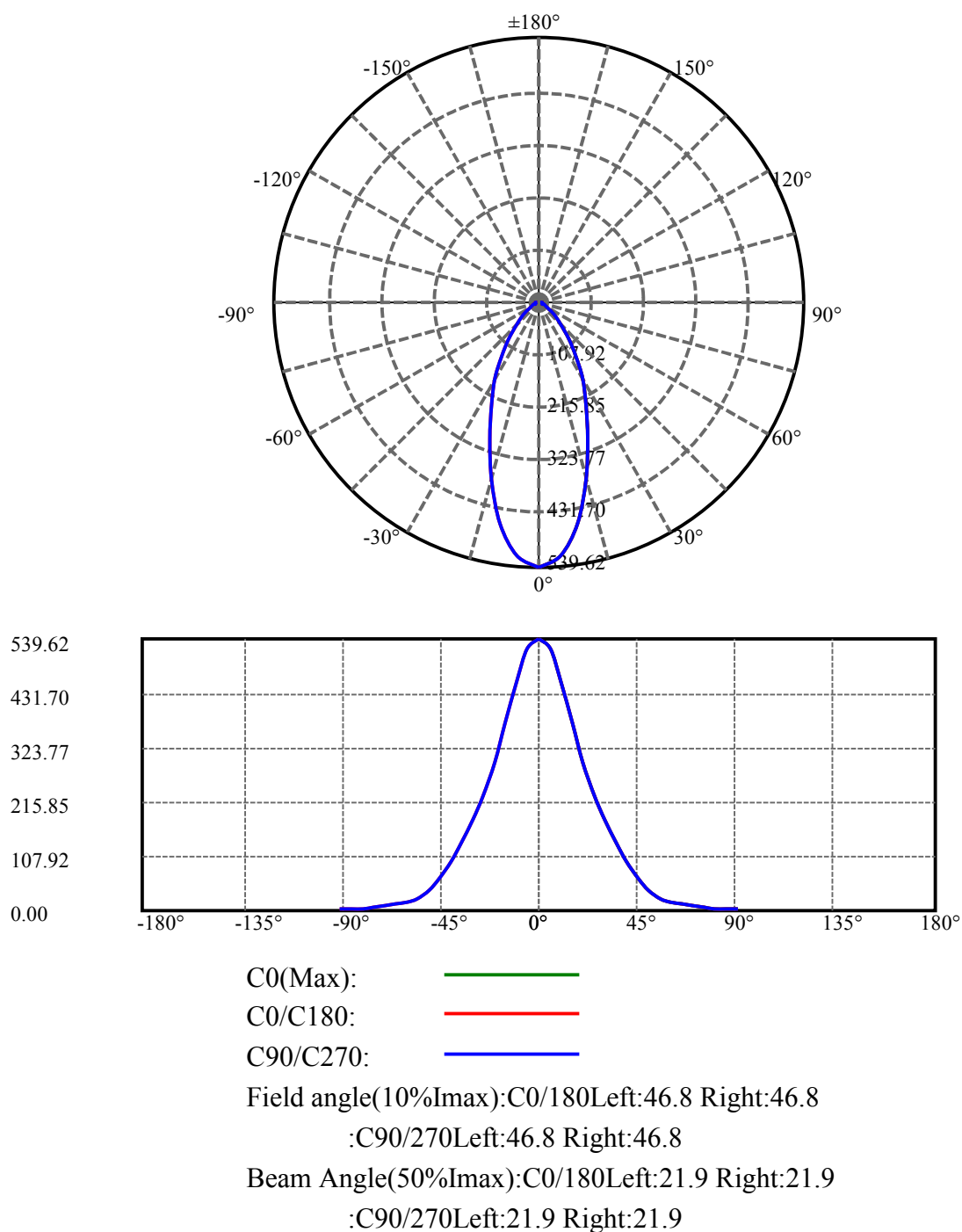
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	539.620	3.227	3.227	.622%	.740%
5.0	517.922	24.743	27.97	4.767%	6.413%
10.0	456.553	43.456	71.426	8.373%	16.377%
15.0	372.945	52.909	124.335	10.194%	28.509%
20.0	295.228	55.348	179.683	10.664%	41.199%
25.0	229.577	53.182	232.865	10.247%	53.393%
30.0	179.684	49.246	282.111	9.489%	64.685%
35.0	134.571	42.309	324.42	8.152%	74.386%
40.0	96.778	34.098	358.518	6.570%	82.204%
45.0	62.388	24.181	382.699	4.659%	87.748%
50.0	39.227	16.471	399.171	3.174%	91.525%
55.0	24.877	11.170	410.34	2.152%	94.086%
60.0	17.135	8.134	418.474	1.567%	95.951%
65.0	12.016	5.970	424.444	1.150%	97.320%
70.0	8.641	4.451	428.895	.858%	98.341%
75.0	6.012	3.183	432.078	.613%	99.070%
80.0	4.015	2.167	434.245	.418%	99.567%
85.0	2.531	1.382	435.627	.266%	99.884%
90.0	1.842	0.505	436.132	.097%	100.000%

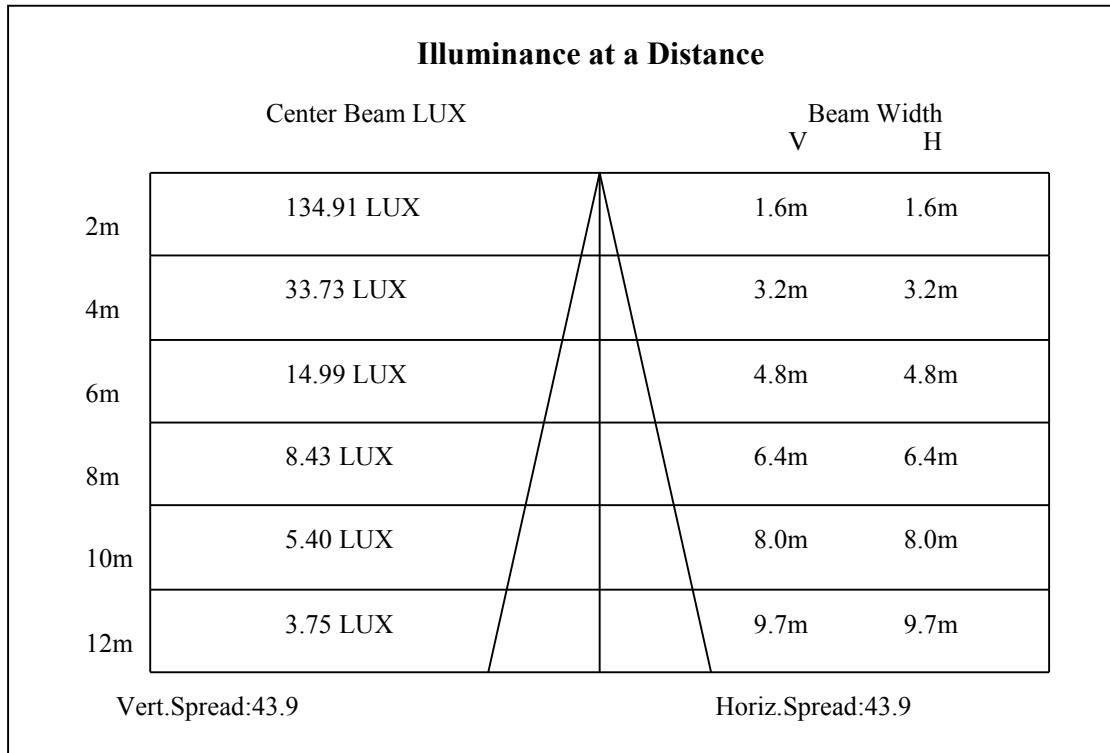
ZONAL LUMEN SUMMARY

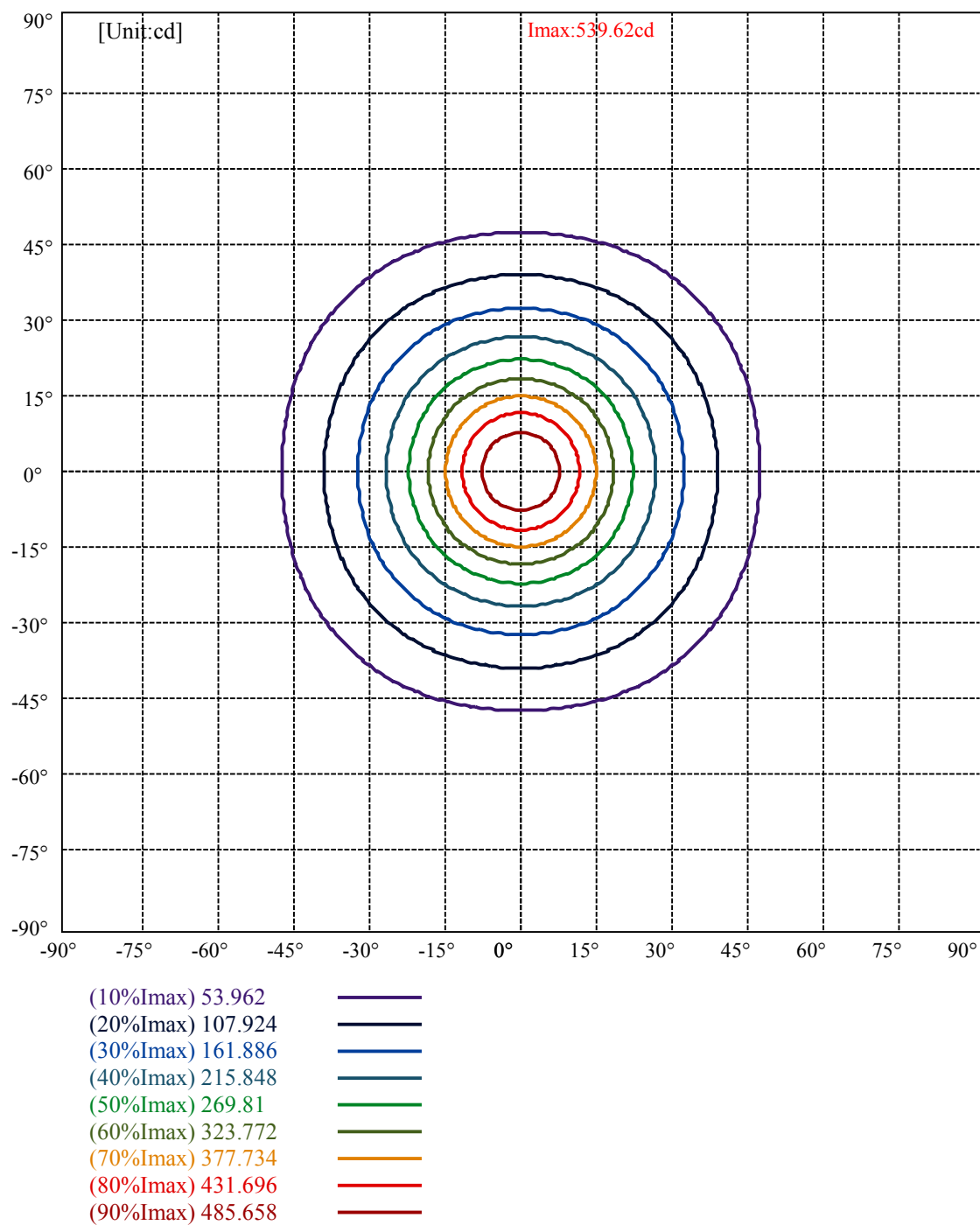
Zone	Lumens	%Lamp	%Fixt
0-30	282.11	54.36%	64.68%
0-40	358.52	69.08%	82.20%
0-60	418.47	80.63%	95.95%
0-90	435.63	83.94%	99.88%
0-120	435.63	83.94%	99.88%
0-180	436.13	84.03%	100.00%
60-90	25.29	4.87%	5.80%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-38.59	348.91	67.23%	80.00%

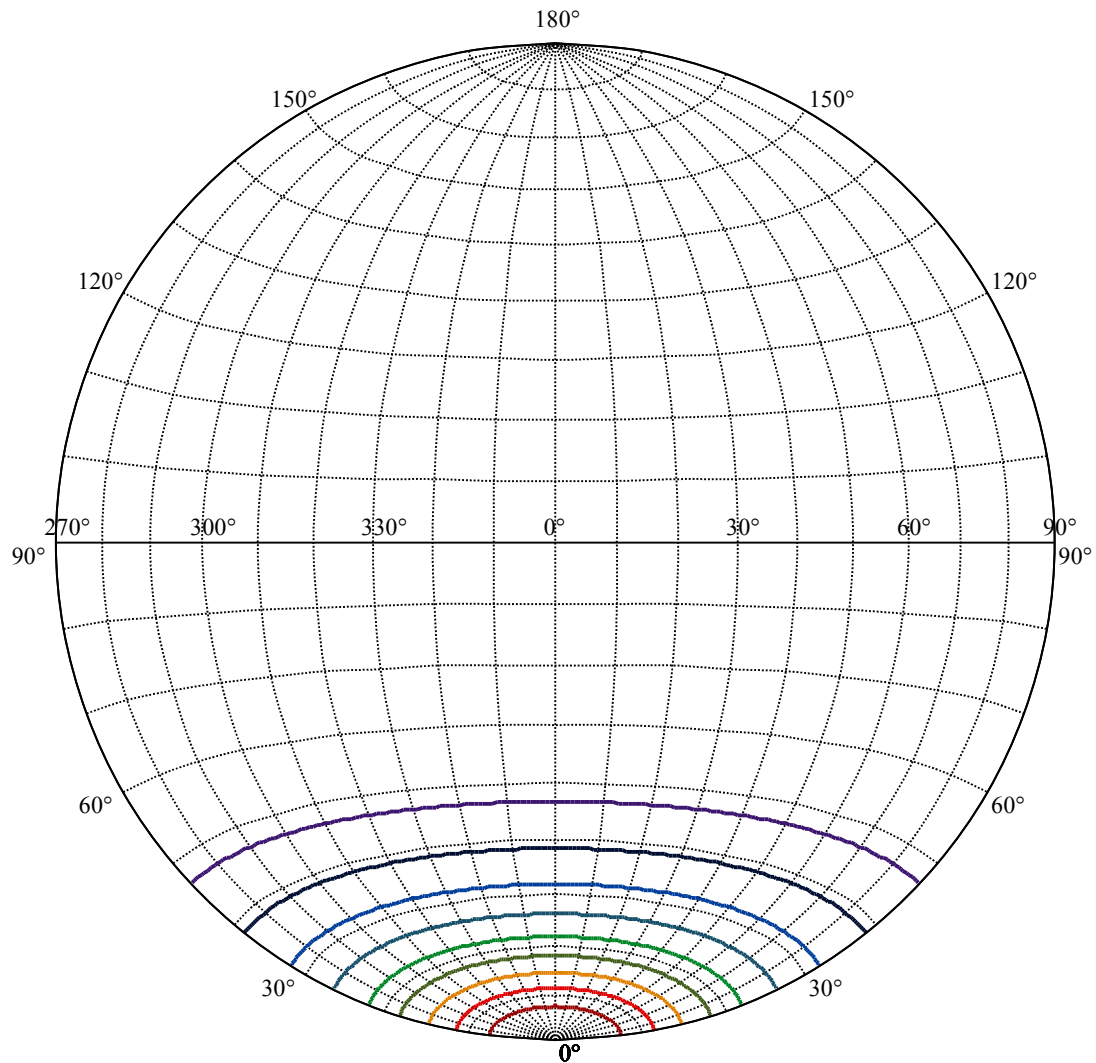
ZONAL LUMEN SUMMARY

0-10	71.43
10-20	108.26
20-30	102.43
30-40	76.41
40-50	40.65
50-60	19.30
60-70	10.42
70-80	5.35
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:539.62

(10%Imax) 53.962

(20%Imax) 107.924

(30%Imax) 161.886

(40%Imax) 215.848

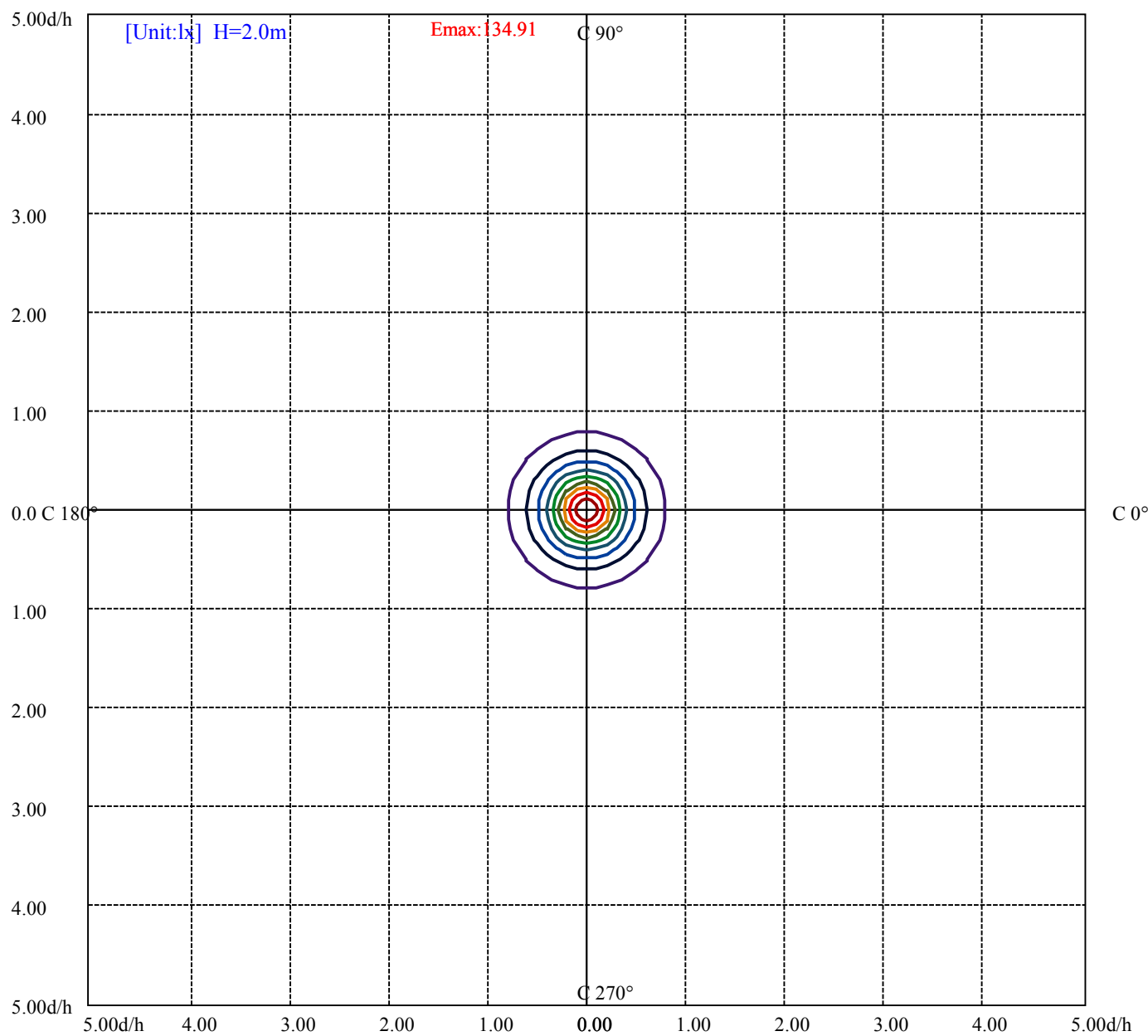
(50%Imax) 269.81

(60%Imax) 323.772

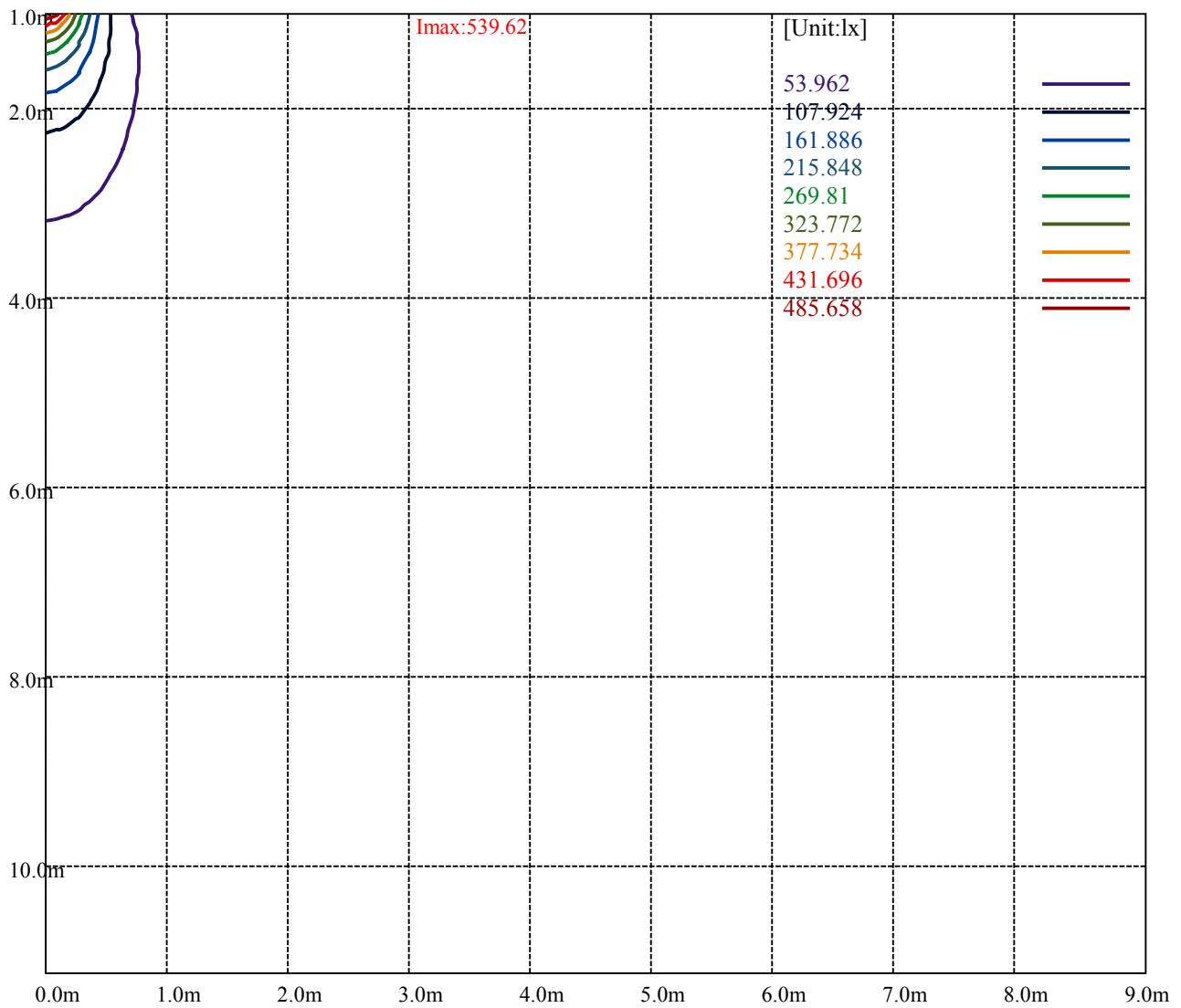
(70%Imax) 377.734

(80%Imax) 431.696

(90%Imax) 485.658



(10%E_{max}) 13.4905
(20%E_{max}) 26.981
(30%E_{max}) 40.4715
(40%E_{max}) 53.962
(50%E_{max}) 67.4525
(60%E_{max}) 80.943
(70%E_{max}) 94.4335
(80%E_{max}) 107.924
(90%E_{max}) 121.4145



Luminance Table

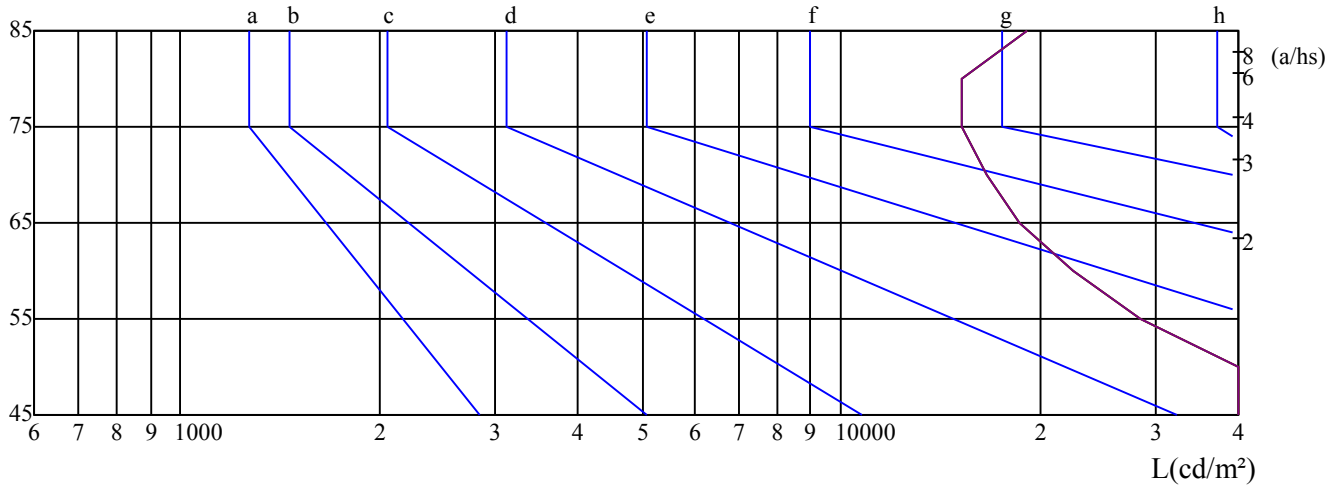
γ	45	50	55	60	65	70	75	80	85
C0	58008	40123	28515	22531	18694	16611	15271	15201	19095
C45	58008	40123	28515	22531	18694	16611	15271	15201	19095
C90	58008	40123	28515	22531	18694	16611	15271	15201	19095

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
18694	18694	18694	15271	15271	15271	19095	19095	19095

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

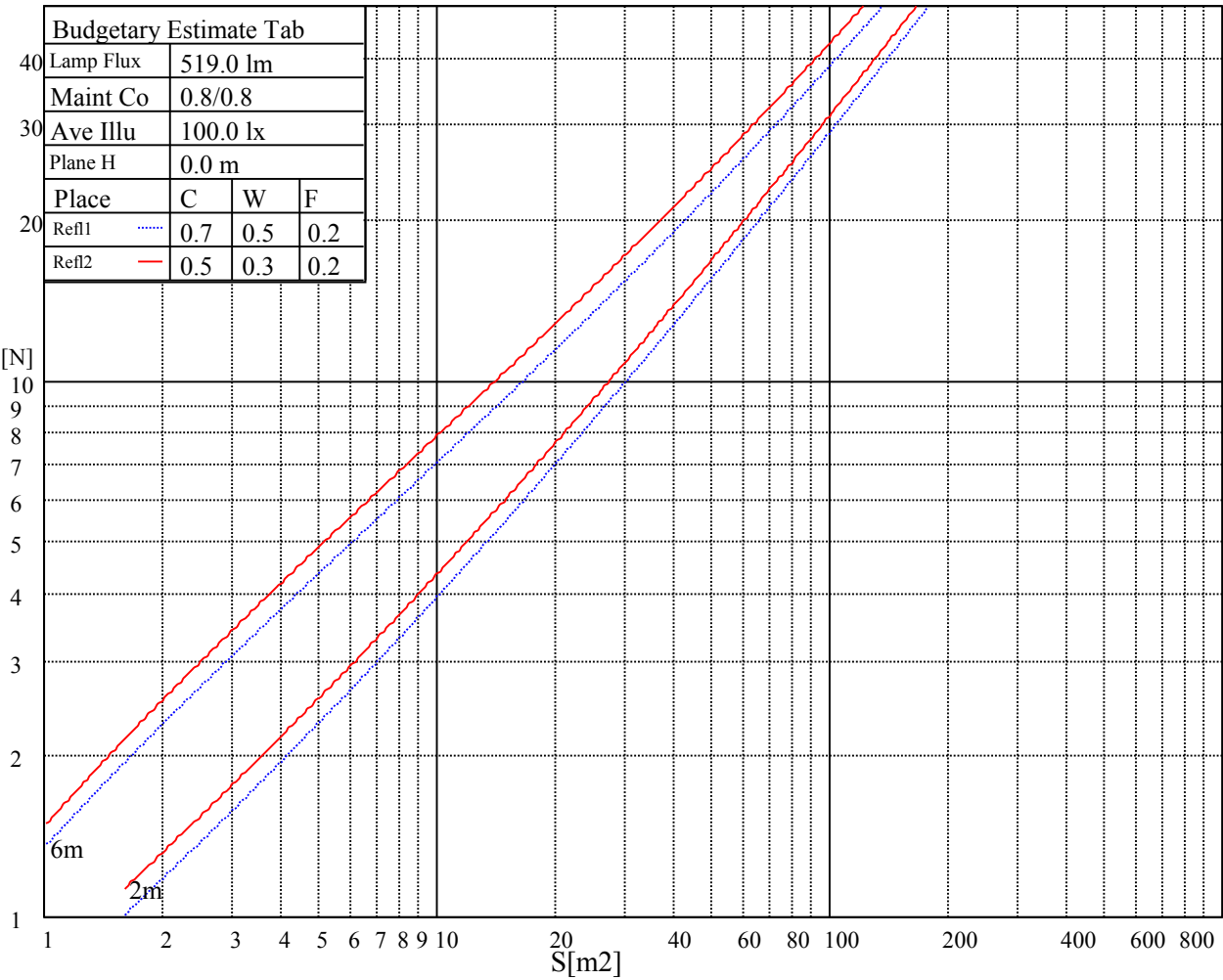
 $\gamma(^{\circ})$ 

C0 ———

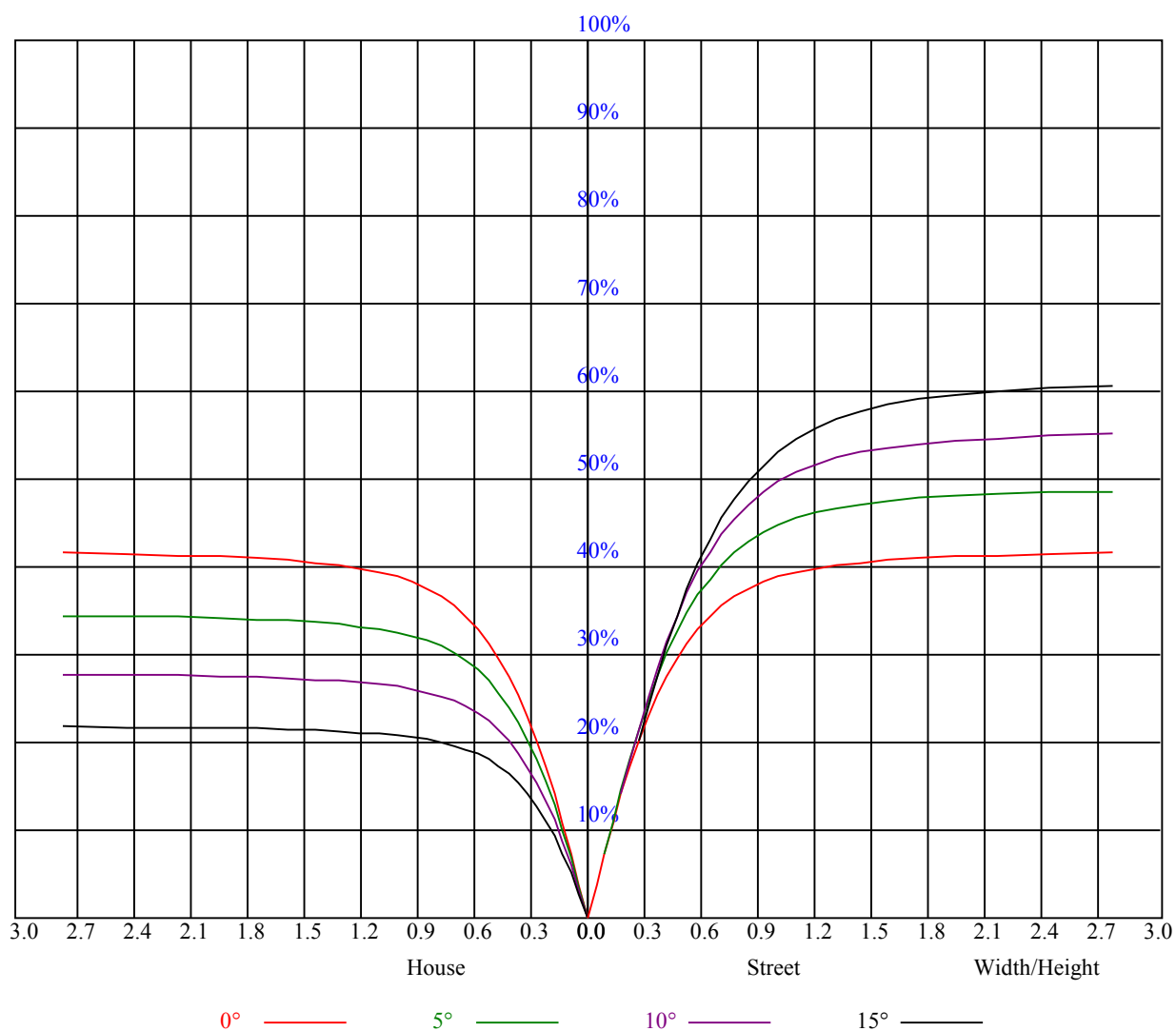
C45 ———

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	22.48	23.66	22.85	23.97	24.29	22.65	23.83	23.01	24.14	24.45
	3H	23.52	24.57	23.90	24.90	25.26	23.67	24.72	24.05	25.05	25.41
	4H	23.92	24.89	24.33	25.25	25.63	24.08	25.05	24.49	25.41	25.79
	6H	24.26	25.15	24.68	25.52	25.92	24.45	25.34	24.86	25.71	26.10
	8H	24.41	25.25	24.84	25.64	26.05	24.61	25.45	25.04	25.84	26.25
	12H	24.66	25.46	25.09	25.85	26.28	24.90	25.70	25.33	26.08	26.51
4H	2H	22.77	23.74	23.17	24.09	24.48	22.91	23.88	23.31	24.23	24.62
	3H	24.03	24.82	24.44	25.23	25.63	24.15	24.95	24.57	25.35	25.76
	4H	24.55	25.26	24.99	25.68	26.13	24.69	25.40	25.13	25.82	26.27
	6H	24.96	25.57	25.42	26.01	26.48	25.12	25.73	25.58	26.18	26.65
	8H	25.17	25.74	25.64	26.19	26.66	25.35	25.92	25.83	26.37	26.84
	12H	25.47	25.97	25.96	26.45	26.93	25.69	26.19	26.18	26.68	27.15
8H	4H	24.72	25.29	25.19	25.74	26.21	24.85	25.42	25.32	25.87	26.34
	6H	25.28	25.74	25.78	26.24	26.72	25.43	25.89	25.93	26.39	26.87
	8H	25.59	26.01	26.12	26.52	27.02	25.77	26.18	26.29	26.70	27.19
	12H	26.40	26.76	26.92	27.26	27.83	26.60	26.97	27.12	27.46	28.04
12H	4H	24.73	25.23	25.21	25.71	26.19	24.85	25.35	25.34	25.83	26.31
	6H	25.79	25.74	25.86	26.21	26.76	25.94	25.89	26.01	26.36	26.90
	8H	25.71	26.08	26.23	26.57	27.15	25.88	26.24	26.40	26.74	27.32
Variation with the observer position at spacings:											
S = 1.0H		1.2/-1.9					1.2/-1.9				
S = 1.5H		2.5/-2.5					2.5/-2.5				
S = 2.0H		4.3/-2.6					4.3/-2.6				
Standard tables:		BK2					BK2				
Uncorrected UGR		6.2					6.2				



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	0.98	0.98	0.98	0.94	0.94	0.94	0.90	0.90	0.90	0.86	0.86	0.86	0.85
1	0.92	0.90	0.87	0.90	0.88	0.86	0.87	0.85	0.83	0.84	0.82	0.81	0.81	0.80	0.78	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	0.78	0.73	0.70	0.75	0.72	0.69	0.73	0.70	0.68	0.71	0.69	0.67	0.65
4	0.73	0.68	0.64	0.72	0.68	0.64	0.70	0.66	0.63	0.69	0.65	0.62	0.67	0.64	0.62	0.60
5	0.69	0.63	0.59	0.68	0.63	0.59	0.66	0.62	0.58	0.65	0.61	0.58	0.63	0.60	0.57	0.56
6	0.64	0.59	0.55	0.64	0.59	0.55	0.62	0.58	0.54	0.61	0.57	0.54	0.60	0.56	0.54	0.52
7	0.60	0.55	0.51	0.60	0.55	0.51	0.59	0.54	0.51	0.58	0.54	0.51	0.57	0.53	0.50	0.49
8	0.57	0.52	0.48	0.57	0.52	0.48	0.56	0.51	0.48	0.55	0.51	0.48	0.54	0.50	0.47	0.46
9	0.54	0.49	0.45	0.54	0.49	0.45	0.53	0.48	0.45	0.52	0.48	0.45	0.51	0.48	0.45	0.44
10	0.51	0.46	0.43	0.51	0.46	0.43	0.50	0.46	0.43	0.50	0.46	0.43	0.49	0.45	0.43	0.41



NATA 1407-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	538.93	523.18	469.97	393.13	313.20	241.82	191.19	145.74	106.14		
45.0	540.11	516.04	454.84	370.24	298.13	232.48	183.60	139.73	99.17		
90.0	539.38	506.59	429.36	338.40	266.01	202.56	153.28	110.64	77.63		
135.0	540.06	512.89	446.06	357.81	278.83	214.48	170.04	128.08	92.53		
180.0	538.93	508.73	448.88	368.61	295.37	234.39	184.05	132.58	92.14		
225.0	540.11	522.11	459.79	371.87	297.73	230.74	180.79	135.84	99.39		
270.0	539.38	530.27	478.74	403.37	313.37	239.96	185.40	141.24	102.26		
315.0	540.06	523.58	464.79	380.14	299.19	240.19	189.11	142.71	104.96		
360.0	538.93	523.18	469.97	393.13	313.20	241.82	191.19	145.74	106.14		
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	72.39	44.04	27.45	19.18	13.33	9.73	6.81	4.78	2.98		
45.0	62.49	40.39	25.37	17.38	12.04	8.83	6.13	4.11	2.53		
90.0	48.88	31.67	21.32	15.13	10.69	7.76	5.23	3.26	2.08		
135.0	59.23	38.36	24.30	16.71	11.76	8.33	5.63	3.66	2.25		
180.0	57.60	35.72	22.33	15.69	10.91	7.76	5.46	3.49	2.31		
225.0	63.62	38.08	24.53	16.54	11.42	8.33	5.85	3.83	2.48		
270.0	67.11	43.26	26.78	18.11	13.11	9.34	6.47	4.44	2.70		
315.0	67.78	42.30	26.94	18.34	12.88	9.06	6.53	4.56	2.93		
360.0	72.39	44.04	27.45	19.18	13.33	9.73	6.81	4.78	2.98		
C/ γ (°)	90.0										
0.0	2.08										
45.0	1.86										
90.0	1.69										
135.0	1.80										
180.0	1.69										
225.0	1.74										
270.0	1.86										
315.0	2.03										
360.0	2.08										