
AFX

Client:

LumCAT: ARNS1318LAJD4BKLB

Luminaire: LED LAMP

Report No:

Ballast type:

Test No:

Voltage(V): 119.990

LampCAT:

Current(A): 0.167

Lamp flux(lm): 1877.9

Power (W): 19.550

Number of Lamps: 1

PF: 0.974

Length(mm): 400

Width(mm): 200

Phm Type: C

Height(mm): 360

Photometric Results

Lumens(lm): 1877.94, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 96.06

Central intensity(cd): 175.848, Maximum intensity(cd): 177.642

Angle of maximum intensity: C=0.0 γ =10.0

Beam Angle(50%Imax): [C0/180]Total=N.A.

[C90/270]Total=N.A.

Field angle(10%Imax): [C0/180]Total=N.A.

[C90/270]Total=N.A.

Maximum s/h(1/2): C0_180=1.20 C90_270=1.53

Maximum s/h(1/4): C0_180=1.30 C90_270=1.74

Up flux rate of lamp(%): 47.40%

Down flux rate of lamp(%): 52.60%

Up flux rate of LUM(%): 47.40%

Down flux rate of LUM(%): 52.60%

CIE Type : General diffuse lighting

Output flux ratio in π solid angle : 27.122%

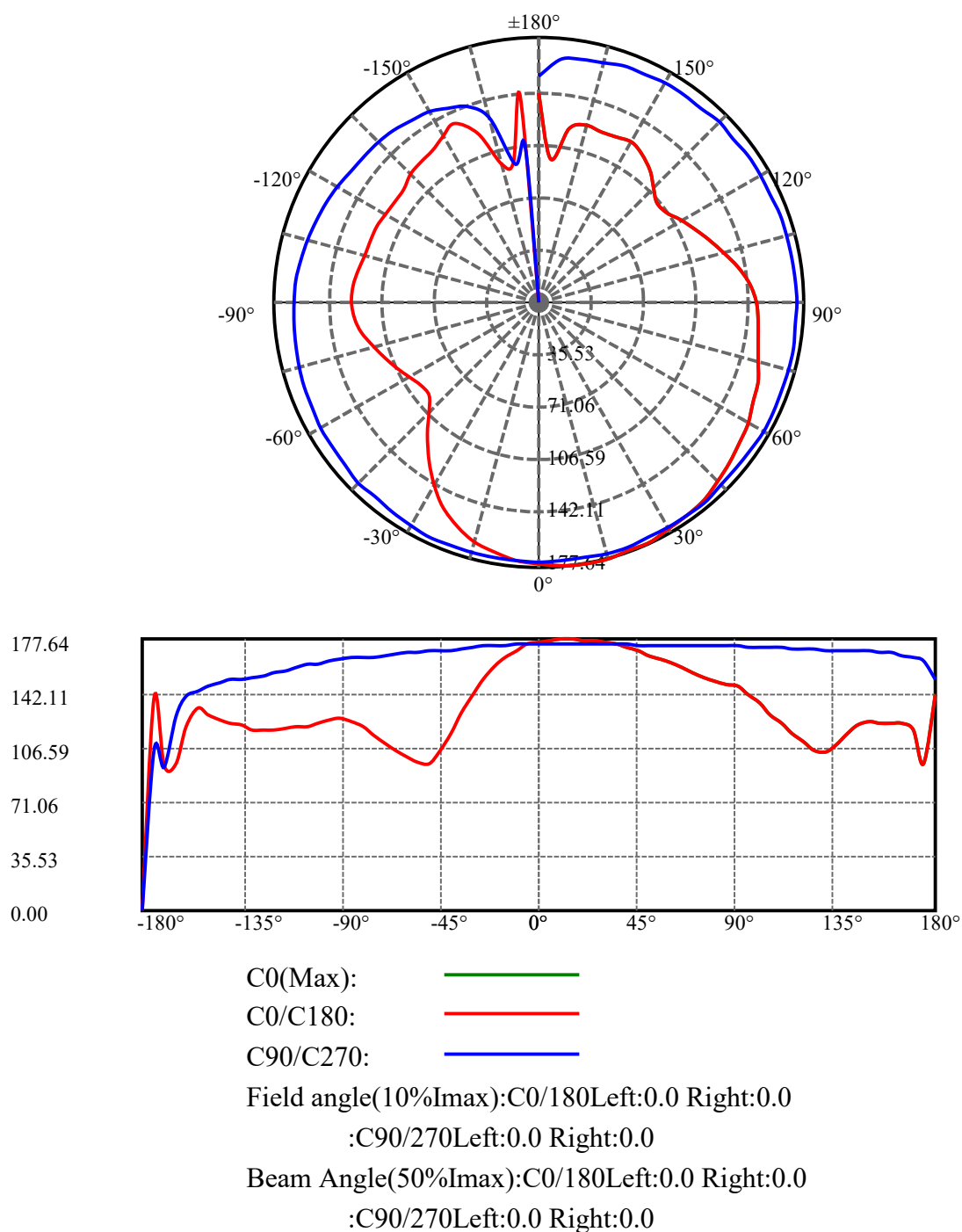
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	174.128	0.000	0	0.00%	0.00%
5.0	174.053	4.162	4.162	0.22%	0.22%
10.0	173.567	12.435	16.598	0.66%	0.88%
15.0	172.334	20.519	37.117	1.09%	1.98%
20.0	170.801	28.279	65.396	1.51%	3.48%
25.0	169.119	35.651	101.047	1.90%	5.38%
30.0	166.689	42.497	143.544	2.26%	7.64%
35.0	164.035	48.701	192.245	2.59%	10.24%
40.0	161.568	54.324	246.569	2.89%	13.13%
45.0	159.026	59.360	305.93	3.16%	16.29%
50.0	156.932	63.844	369.774	3.40%	19.69%
55.0	155.512	67.936	437.709	3.62%	23.31%
60.0	154.353	71.624	509.334	3.81%	27.12%
65.0	153.456	74.829	584.162	3.98%	31.11%
70.0	152.820	77.551	661.713	4.13%	35.24%
75.0	152.297	79.753	741.466	4.25%	39.48%
80.0	151.811	81.371	822.837	4.33%	43.82%
85.0	151.213	82.339	905.175	4.38%	48.20%
90.0	150.278	82.550	987.726	4.40%	52.60%
95.0	148.820	81.895	1069.621	4.36%	56.96%
100.0	147.175	80.429	1150.05	4.28%	61.24%
105.0	145.306	78.260	1228.31	4.17%	65.41%
110.0	143.773	75.561	1303.871	4.02%	69.43%
115.0	142.390	72.458	1376.329	3.86%	73.29%
120.0	141.344	68.976	1445.306	3.67%	76.96%
125.0	140.222	65.083	1510.389	3.47%	80.43%
130.0	139.587	60.840	1571.228	3.24%	83.67%
135.0	138.876	56.268	1627.496	3.00%	86.66%
140.0	138.503	51.359	1678.855	2.73%	89.40%
145.0	138.278	46.179	1725.034	2.46%	91.86%
150.0	138.353	40.736	1765.769	2.17%	94.03%
155.0	137.531	34.913	1800.683	1.86%	95.89%
160.0	134.839	28.567	1829.249	1.52%	97.41%
165.0	129.531	21.788	1851.037	1.16%	98.57%
170.0	126.353	15.179	1866.216	0.81%	99.38%
175.0	133.792	9.306	1875.522	0.50%	99.87%
180.0	68.261	2.415	1877.938	0.13%	100.00%

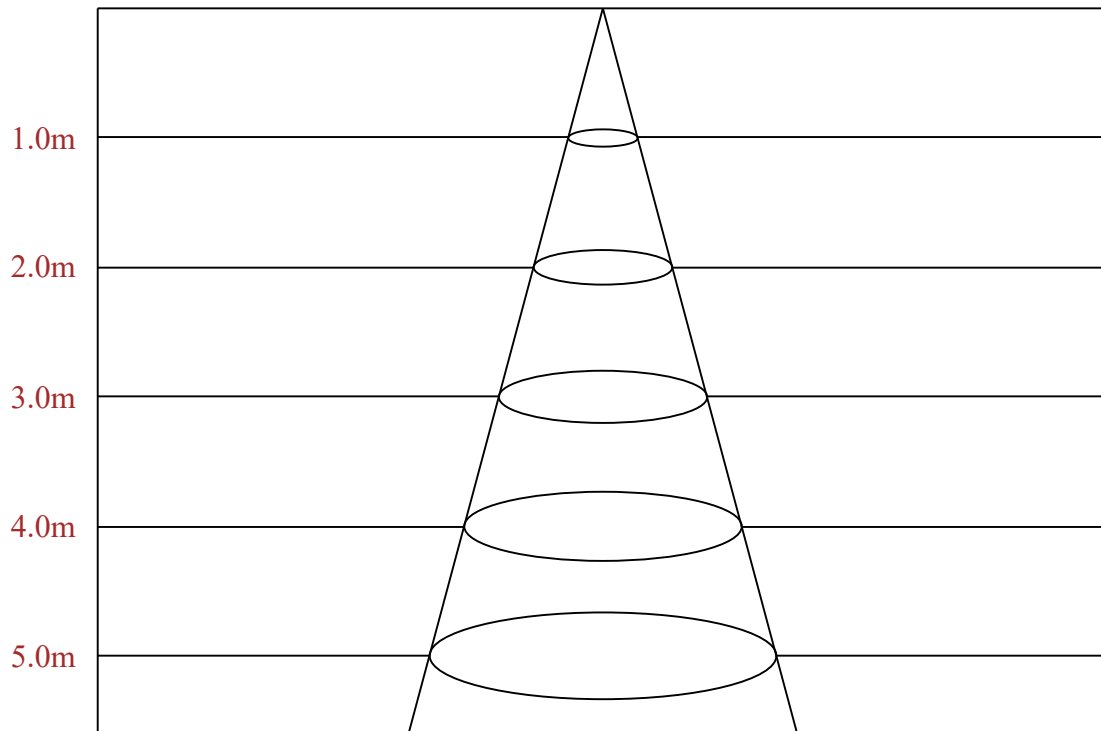
ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	143.54	7.64%	7.64%
0-40	246.57	13.13%	13.13%
0-60	509.33	27.12%	27.12%
0-90	987.73	52.60%	52.60%
0-120	1445.31	76.96%	76.96%
0-180	1877.94	100.00%	100.00%
60-90	478.39	25.47%	25.47%
90-120	457.58	24.37%	24.37%
90-130	583.50	31.07%	31.07%
90-150	778.04	41.43%	41.43%
90-180	887.80	47.28%	47.28%
0-124.38	1502.35	80.00%	80.00%

ZONAL LUMEN SUMMARY

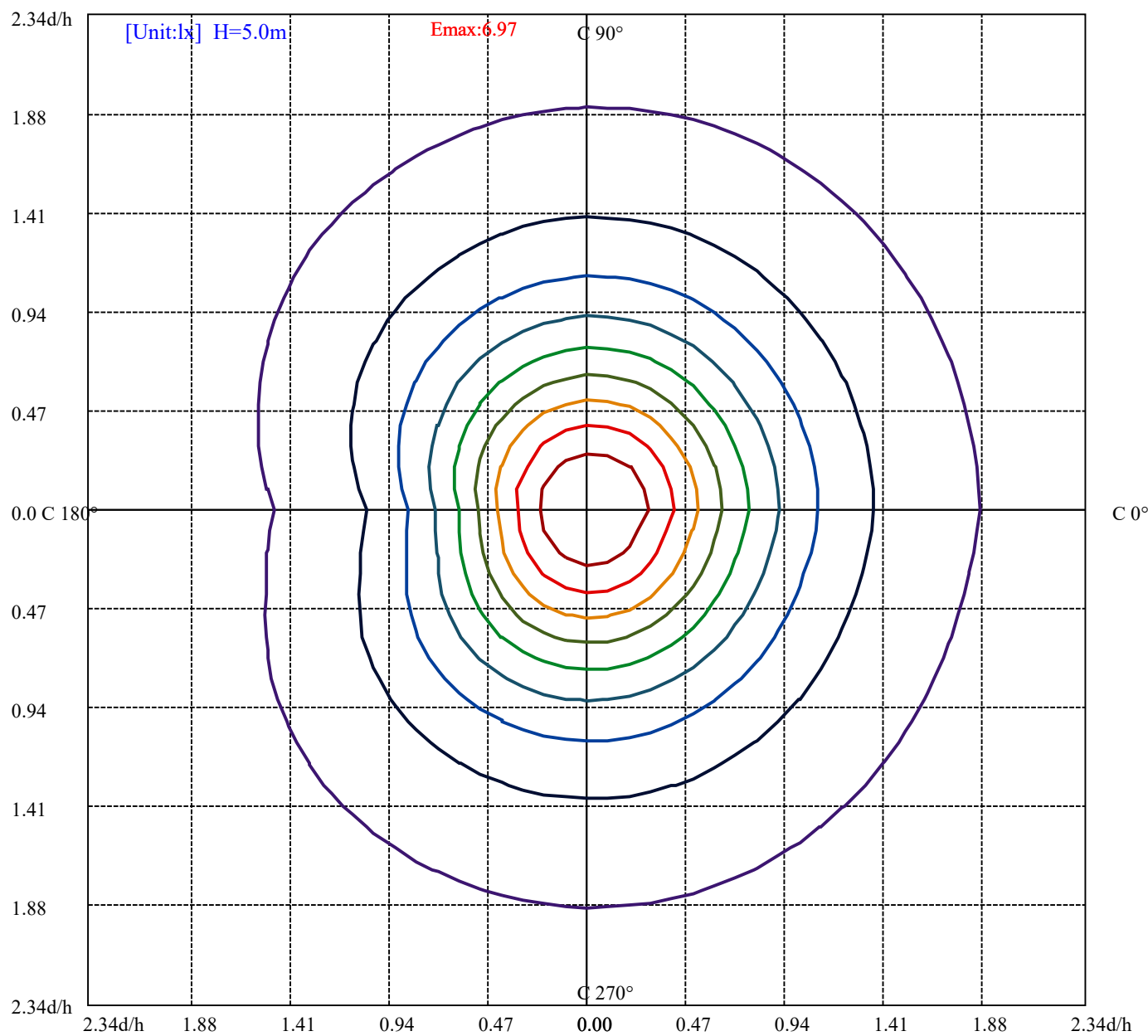
0-10	16.60
10-20	48.80
20-30	78.15
30-40	103.03
40-50	123.20
50-60	139.56
60-70	152.38
70-80	161.12
80-90	164.89
90-100	162.32
100-110	153.82
110-120	141.43
120-130	125.92
130-140	107.63
140-150	86.91
150-160	63.48
160-170	36.97
170-180	9.31



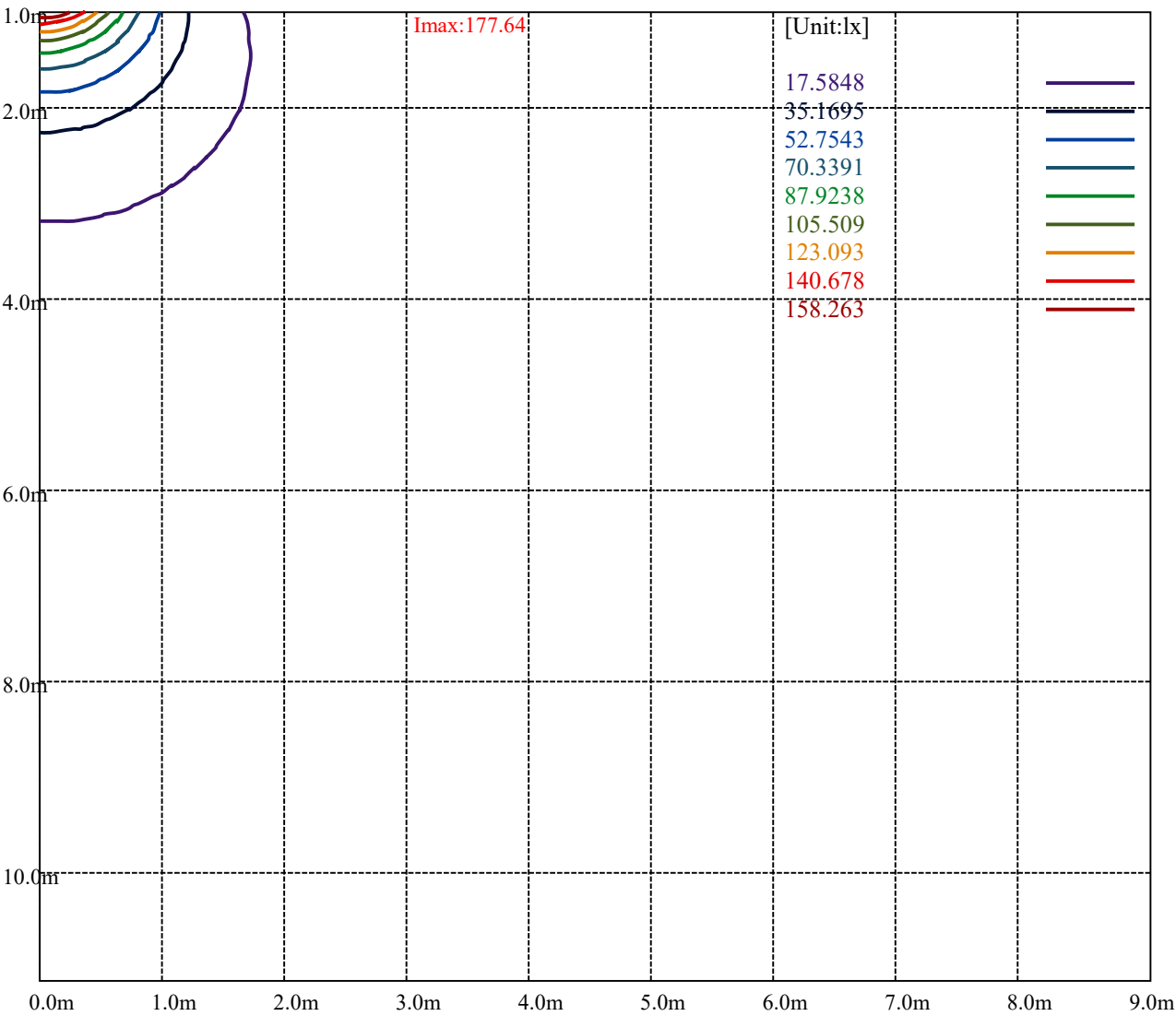


Max , Ave

Beam angle of C0 plane 180.00



(10%Emax) 0.697008	—
(20%Emax) 1.394012	—
(30%Emax) 2.09102	—
(40%Emax) 2.788024	—
(50%Emax) 3.485032	—
(60%Emax) 4.18204	—
(70%Emax) 4.87904	—
(80%Emax) 5.57604	—
(90%Emax) 6.27304	—



Luminance Table

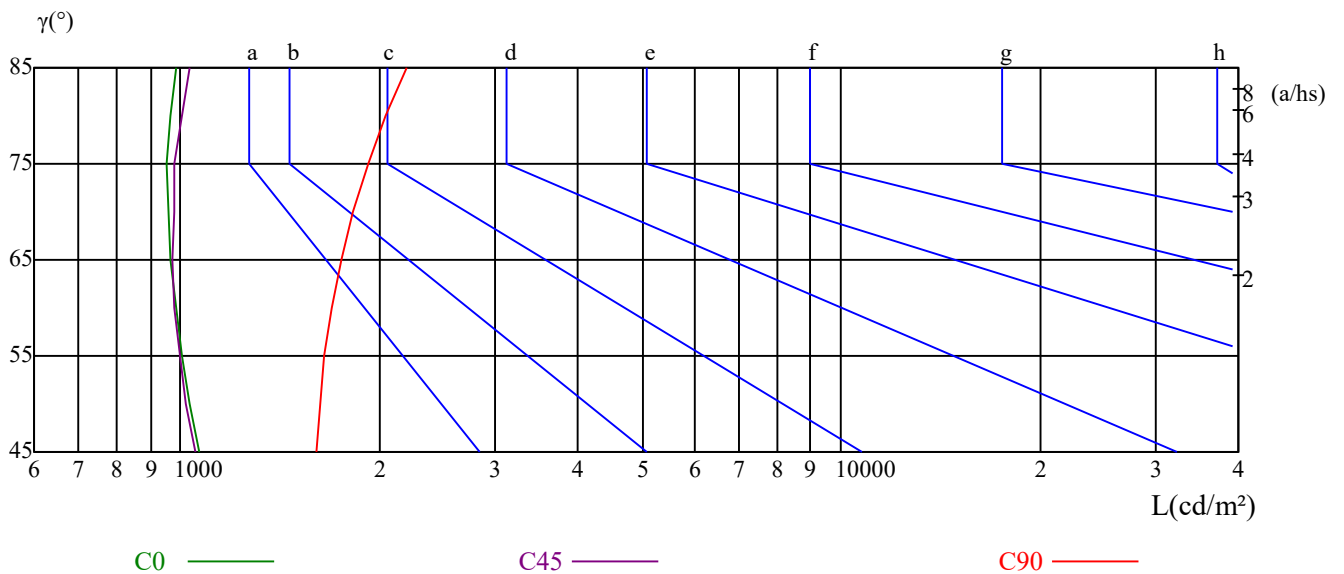
γ	45	50	55	60	65	70	75	80	85
C0	1071	1032	1002	986	966	960	954	962	984
C45	1052	1017	997	979	974	977	981	1005	1032
C90	1611	1625	1651	1692	1748	1822	1919	2042	2200

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3901	5042	4631	6456	8189	7420	19494	24255	21714

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



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	1.08	1.08	1.08	1.00	1.00	1.00	0.85	0.85	0.85	0.71	0.71	0.71	0.59	0.59	0.59	0.53
1	0.88	0.82	0.78	0.81	0.76	0.72	0.68	0.64	0.61	0.56	0.53	0.51	0.45	0.43	0.41	0.36
2	0.75	0.67	0.60	0.69	0.62	0.56	0.57	0.52	0.47	0.47	0.43	0.39	0.37	0.34	0.32	0.27
3	0.64	0.56	0.48	0.59	0.51	0.45	0.49	0.43	0.38	0.40	0.36	0.32	0.32	0.28	0.25	0.21
4	0.56	0.47	0.40	0.52	0.44	0.37	0.43	0.37	0.32	0.35	0.30	0.26	0.28	0.24	0.21	0.17
5	0.50	0.40	0.34	0.46	0.37	0.31	0.38	0.32	0.27	0.31	0.26	0.22	0.25	0.21	0.18	0.14
6	0.44	0.35	0.29	0.41	0.33	0.27	0.34	0.28	0.23	0.28	0.23	0.19	0.22	0.18	0.15	0.12
7	0.40	0.31	0.25	0.37	0.29	0.23	0.31	0.24	0.20	0.25	0.20	0.16	0.20	0.16	0.13	0.10
8	0.36	0.27	0.22	0.33	0.26	0.20	0.28	0.22	0.17	0.23	0.18	0.14	0.19	0.15	0.12	0.09
9	0.33	0.25	0.19	0.30	0.23	0.18	0.26	0.20	0.15	0.21	0.16	0.13	0.17	0.13	0.10	0.08
10	0.30	0.22	0.17	0.28	0.21	0.16	0.23	0.18	0.14	0.20	0.15	0.11	0.16	0.12	0.09	0.07

Intensity data(cd)

C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	175.85	176.74	177.64	177.64	176.74	176.74	174.95	174.05	172.26
15.0	174.95	175.85	176.74	176.74	176.74	175.85	174.95	173.16	172.26
30.0	174.05	175.85	176.74	176.74	176.74	175.85	174.95	174.05	172.26
45.0	174.05	174.95	175.85	176.74	176.74	176.74	175.85	174.95	174.05
60.0	174.05	174.95	175.85	175.85	176.74	176.74	176.74	175.85	175.85
75.0	174.05	174.05	174.95	174.95	174.95	175.85	175.85	175.85	175.85
90.0	174.05	174.05	174.05	174.05	174.05	174.05	174.05	174.05	174.05
105.0	174.05	174.05	174.05	173.16	172.26	172.26	171.36	170.46	170.46
120.0	174.05	174.05	172.26	171.36	170.46	169.57	167.77	166.88	165.98
135.0	174.05	173.16	172.26	169.57	167.77	165.08	163.29	160.60	158.80
150.0	173.16	173.16	171.36	168.67	162.39	161.49	157.01	151.62	147.14
165.0	173.16	172.26	170.46	167.77	164.18	158.80	151.62	144.45	134.58
180.0	175.85	174.05	170.46	165.98	159.70	151.62	140.86	129.19	115.74
195.0	174.95	172.26	170.46	165.98	159.70	152.52	143.55	133.68	123.81
210.0	174.05	173.16	170.46	167.77	163.29	157.90	151.62	145.34	141.75
225.0	174.05	173.16	171.36	168.67	165.98	163.29	159.70	157.01	156.11
240.0	174.05	173.16	172.26	170.46	169.57	168.67	167.77	165.98	165.08
255.0	174.05	174.05	173.16	172.26	172.26	171.36	170.46	169.57	168.67
270.0	174.05	174.05	174.05	173.16	173.16	173.16	172.26	171.36	170.46
285.0	174.05	174.05	174.05	174.05	174.05	173.16	173.16	172.26	172.26
300.0	174.05	174.05	174.95	174.05	174.05	173.16	172.26	171.36	170.46
315.0	174.05	174.05	174.05	174.05	173.16	172.26	170.46	169.57	167.77
330.0	173.16	174.05	174.05	173.16	172.26	171.36	170.46	167.77	165.98
345.0	173.16	174.05	174.05	173.16	172.26	171.36	169.57	167.77	165.98
360.0	175.85	176.74	177.64	177.64	176.74	176.74	174.95	174.05	172.26
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	169.57	166.88	164.18	162.39	158.80	156.11	152.52	149.83	148.04
15.0	169.57	167.77	164.18	161.49	158.80	156.11	153.42	151.62	149.83
30.0	170.46	168.67	166.88	164.18	162.39	159.70	157.90	156.11	154.32
45.0	173.16	171.36	170.46	168.67	167.77	166.88	165.08	165.08	164.18
60.0	174.95	174.05	174.05	173.16	173.16	172.26	172.26	171.36	171.36
75.0	175.85	174.95	174.95	174.95	174.95	174.95	174.95	174.95	174.05
90.0	173.16	173.16	173.16	173.16	173.16	173.16	173.16	173.16	173.16
105.0	169.57	169.57	169.57	168.67	167.77	167.77	167.77	166.88	166.88
120.0	164.18	163.29	161.49	160.60	160.60	158.80	158.80	157.90	157.90
135.0	156.11	154.32	153.42	151.62	149.83	148.93	147.14	146.24	145.34
150.0	143.55	140.86	137.27	135.47	133.68	133.68	133.68	133.68	133.68
165.0	128.30	122.02	118.43	114.84	113.94	114.84	116.63	119.33	122.02
180.0	104.07	96.00	96.90	100.48	104.97	109.46	114.84	120.22	123.81
195.0	116.63	112.15	110.35	110.35	113.04	116.63	120.22	123.81	124.71
210.0	138.17	135.47	133.68	132.78	132.78	132.78	132.78	132.78	129.19
225.0	154.32	152.52	150.73	149.83	148.93	147.14	145.34	142.65	140.86
240.0	163.29	162.39	160.60	159.70	157.90	157.01	154.32	152.52	151.62
255.0	167.77	166.88	165.98	165.08	164.18	164.18	163.29	162.39	159.70
270.0	170.46	169.57	168.67	168.67	167.77	166.88	165.98	165.08	165.08
285.0	170.46	169.57	169.57	168.67	167.77	166.88	166.88	165.98	165.08
300.0	168.67	167.77	166.88	165.98	165.08	163.29	163.29	162.39	161.49
315.0	166.88	165.08	163.29	161.49	159.70	157.90	157.01	156.11	155.21
330.0	164.18	161.49	159.70	157.01	154.32	152.52	150.73	148.04	147.14
345.0	163.29	160.60	157.90	155.21	151.62	149.83	147.14	145.34	144.45
360.0	169.57	166.88	164.18	162.39	158.80	156.11	152.52	149.83	148.04

AFX ARNS1318LAJD4BKLB

Intensity data(cd)

Appendix Page: 11 Total:12

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	146.24	141.75	135.47	128.30	122.02	115.74	110.35	104.97	103.18
15.0	148.93	145.34	139.96	135.47	130.09	124.71	120.22	118.43	119.33
30.0	153.42	153.42	152.52	149.83	147.14	145.34	144.45	143.55	143.55
45.0	164.18	163.29	163.29	163.29	163.29	162.39	162.39	161.49	161.49
60.0	170.46	170.46	170.46	170.46	170.46	170.46	170.46	169.57	170.46
75.0	174.05	174.05	174.05	173.16	173.16	173.16	172.26	172.26	172.26
90.0	173.16	172.26	172.26	172.26	172.26	171.36	171.36	171.36	170.46
105.0	166.88	166.88	166.88	165.98	165.98	165.98	165.98	165.98	165.98
120.0	157.01	157.01	157.01	157.01	157.01	157.90	157.90	158.80	159.70
135.0	145.34	145.34	145.34	145.34	146.24	147.14	148.04	148.93	150.73
150.0	132.78	132.78	132.78	133.68	134.58	136.37	137.27	139.06	140.86
165.0	124.71	125.61	125.61	125.61	125.61	125.61	126.50	127.40	128.30
180.0	125.61	124.71	122.91	120.22	120.22	119.33	118.43	117.53	118.43
195.0	122.91	119.33	114.84	110.35	107.66	104.97	103.18	101.38	100.48
210.0	125.61	120.22	115.74	111.25	107.66	104.07	100.48	97.79	96.90
225.0	137.27	132.78	128.30	124.71	121.12	118.43	117.53	112.15	110.35
240.0	148.04	146.24	144.45	139.96	136.37	133.68	131.89	129.19	127.40
255.0	158.80	157.01	155.21	153.42	150.73	148.04	146.24	144.45	142.65
270.0	164.18	163.29	161.49	160.60	158.80	157.01	155.21	153.42	152.52
285.0	164.18	163.29	162.39	162.39	161.49	159.70	158.80	157.90	156.11
300.0	160.60	159.70	159.70	158.80	158.80	157.90	157.90	156.11	154.32
315.0	154.32	153.42	153.42	153.42	153.42	153.42	152.52	150.73	147.14
330.0	146.24	146.24	145.34	143.55	141.75	141.75	140.86	139.06	135.47
345.0	141.75	137.27	132.78	128.30	124.71	122.91	122.02	123.81	122.02
360.0	146.24	141.75	135.47	128.30	122.02	115.74	110.35	104.97	103.18
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	108.56	115.74	121.12	123.81	122.91	122.02	122.91	118.43	96.00
15.0	122.02	127.40	134.58	137.27	138.17	139.06	139.06	137.27	112.15
30.0	144.45	146.24	149.83	152.52	153.42	153.42	152.52	151.62	130.09
45.0	161.49	161.49	161.49	162.39	162.39	162.39	160.60	158.80	147.14
60.0	169.57	169.57	169.57	168.67	168.67	166.88	165.08	163.29	159.70
75.0	171.36	171.36	170.46	170.46	169.57	168.67	167.77	165.98	161.49
90.0	170.46	169.57	169.57	169.57	168.67	168.67	166.88	165.98	163.29
105.0	165.98	166.88	166.88	166.88	166.88	166.88	165.98	165.08	163.29
120.0	160.60	161.49	162.39	163.29	163.29	163.29	163.29	163.29	161.49
135.0	151.62	153.42	154.32	156.11	157.01	158.80	158.80	159.70	159.70
150.0	141.75	143.55	146.24	148.04	148.93	150.73	152.52	155.21	156.11
165.0	130.09	132.78	135.47	137.27	139.06	141.75	145.34	147.14	148.93
180.0	121.12	122.91	124.71	128.30	132.78	120.22	96.00	95.10	139.06
195.0	101.38	103.18	105.87	112.15	115.74	113.94	87.03	102.28	138.17
210.0	95.10	94.20	92.41	96.90	102.28	92.41	85.23	109.46	124.71
225.0	106.76	104.07	104.07	106.76	107.66	101.38	98.69	112.15	104.97
240.0	125.61	123.81	123.81	125.61	128.30	121.12	118.43	106.76	91.51
255.0	141.75	139.96	139.06	139.96	139.96	137.27	131.89	99.59	91.51
270.0	151.62	150.73	148.93	147.14	143.55	139.96	127.40	94.20	104.97
285.0	154.32	151.62	148.04	142.65	136.37	130.09	112.15	86.13	117.53
300.0	149.83	144.45	139.06	131.89	122.91	116.63	99.59	82.54	128.30
315.0	140.86	133.68	126.50	119.33	109.46	102.28	90.62	85.23	135.47
330.0	128.30	121.12	113.94	106.76	99.59	94.20	93.31	96.00	137.27
345.0	118.43	114.84	110.35	106.76	103.18	104.07	107.66	111.25	138.17
360.0	108.56	115.74	121.12	123.81	122.91	122.02	122.91	118.43	96.00

Intensity data(cd)

C/ γ (°)	180.0
0.0	140.86
15.0	97.79
30.0	94.20
45.0	107.66
60.0	125.61
75.0	141.75
90.0	151.62
105.0	157.01
120.0	157.90
135.0	157.01
150.0	155.21
165.0	151.62
180.0	0.00
195.0	0.00
210.0	0.00
225.0	0.00
240.0	0.00
255.0	0.00
270.0	0.00
285.0	0.00
300.0	0.00
315.0	0.00
330.0	0.00
345.0	0.00
360.0	140.86