
AFX

Client:

LumCAT: ARNS1318LAJD4BKLB

Luminaire: LED LAMP

Report No:

Ballast type:

Test No:

Voltage(V): 120.000

LampCAT:

Current(A): 0.166

Lamp flux(lm): 1742.0

Power (W): 19.390

Number of Lamps: 1

PF: 0.973

Length(mm): 400

Width(mm): 200

Phm Type: C

Height(mm): 360

Photometric Results

Lumens(lm): 1741.96, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 89.84

Central intensity(cd): 162.390, Maximum intensity(cd): 165.082

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(%): 47.41%

Down flux rate of lamp(%): 52.59%

Up flux rate of LUM(%): 47.41%

Down flux rate of LUM(%): 52.59%

CIE Type : General diffuse lighting

Output flux ratio in π solid angle : 27.124%

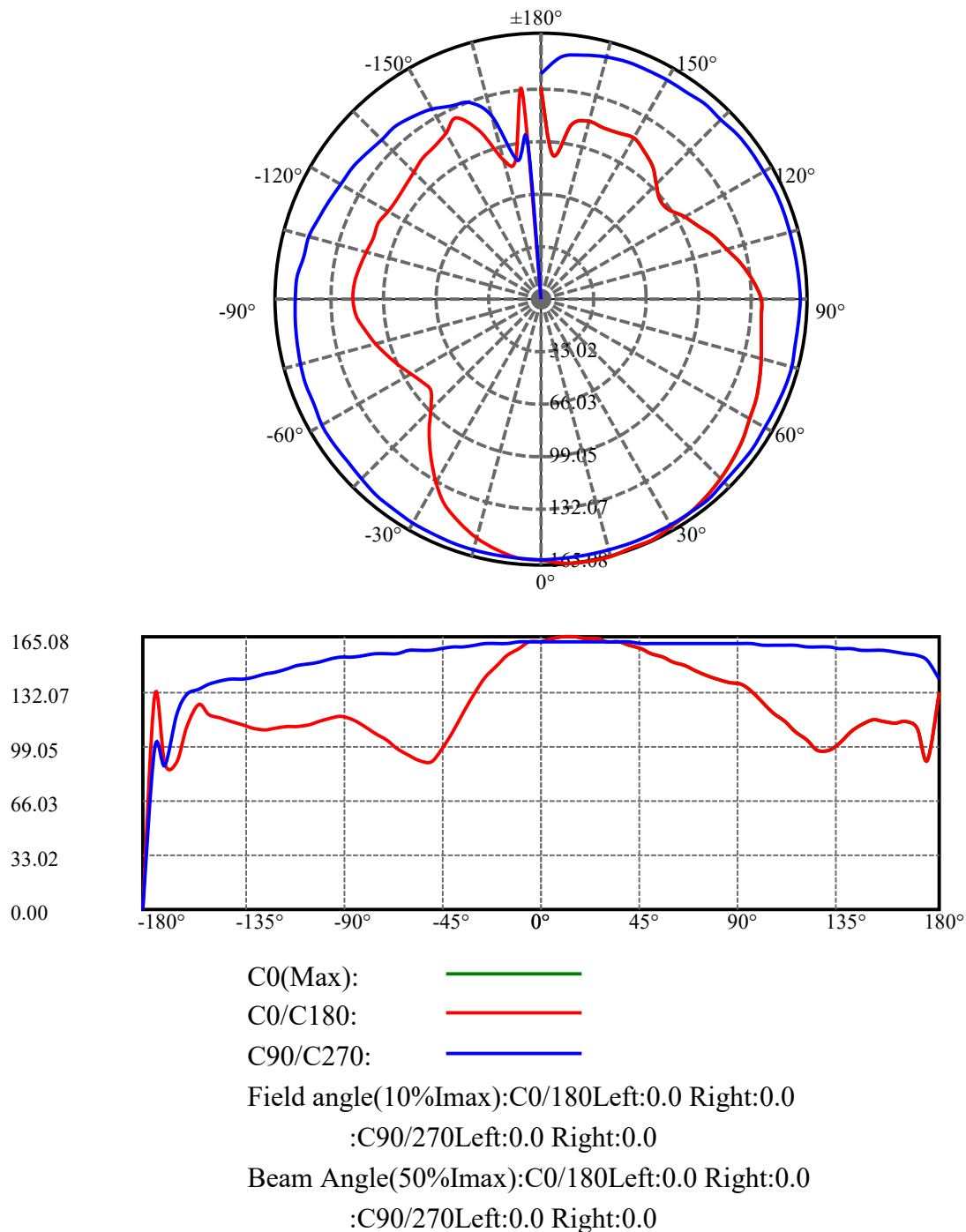
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	161.493	0.000	0	0.00%	0.00%
5.0	161.530	3.862	3.862	0.22%	0.22%
10.0	161.044	11.539	15.401	0.66%	0.88%
15.0	159.885	19.037	34.438	1.09%	1.98%
20.0	158.465	26.237	60.675	1.51%	3.48%
25.0	156.857	33.071	93.746	1.90%	5.38%
30.0	154.689	39.426	133.173	2.26%	7.65%
35.0	152.110	45.178	178.351	2.59%	10.24%
40.0	149.867	50.383	228.734	2.89%	13.13%
45.0	147.586	55.076	283.81	3.16%	16.29%
50.0	145.605	59.244	343.053	3.40%	19.69%
55.0	144.185	63.010	406.063	3.62%	23.31%
60.0	143.213	66.431	472.494	3.81%	27.12%
65.0	142.390	69.431	541.925	3.99%	31.11%
70.0	141.680	71.928	613.853	4.13%	35.24%
75.0	141.231	73.949	687.802	4.25%	39.48%
80.0	140.820	75.469	763.271	4.33%	43.82%
85.0	140.222	76.366	839.637	4.38%	48.20%
90.0	139.325	76.542	916.179	4.39%	52.59%
95.0	138.017	75.938	992.117	4.36%	56.95%
100.0	136.484	74.588	1066.706	4.28%	61.24%
105.0	134.802	72.588	1139.294	4.17%	65.40%
110.0	133.381	70.099	1209.393	4.02%	69.43%
115.0	132.185	67.243	1276.636	3.86%	73.29%
120.0	131.138	64.014	1340.65	3.67%	76.96%
125.0	130.091	60.382	1401.033	3.47%	80.43%
130.0	129.456	56.434	1457.467	3.24%	83.67%
135.0	128.783	52.181	1509.648	3.00%	86.66%
140.0	128.521	47.642	1557.29	2.73%	89.40%
145.0	128.260	42.842	1600.132	2.46%	91.86%
150.0	128.222	37.769	1637.9	2.17%	94.03%
155.0	127.662	32.382	1670.283	1.86%	95.89%
160.0	125.082	26.508	1696.791	1.52%	97.41%
165.0	120.185	20.213	1717.004	1.16%	98.57%
170.0	117.157	14.079	1731.083	0.81%	99.38%
175.0	124.185	8.634	1739.717	0.50%	99.87%
180.0	63.177	2.240	1741.957	0.13%	100.00%

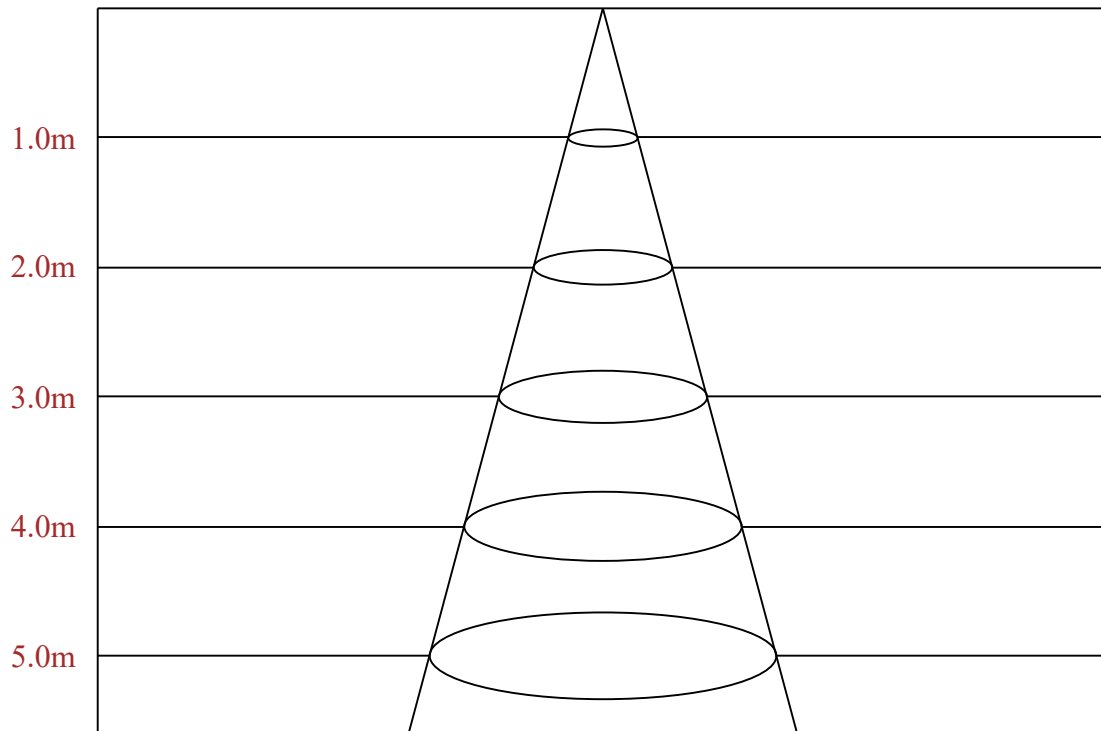
ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	133.17	7.65%	7.65%
0-40	228.73	13.13%	13.13%
0-60	472.49	27.12%	27.12%
0-90	916.18	52.59%	52.59%
0-120	1340.65	76.96%	76.96%
0-180	1741.96	100.00%	100.00%
60-90	443.68	25.47%	25.47%
90-120	424.47	24.37%	24.37%
90-130	541.29	31.07%	31.07%
90-150	721.72	41.43%	41.43%
90-180	823.54	47.28%	47.28%
0-124.38	1393.57	80.00%	80.00%

ZONAL LUMEN SUMMARY

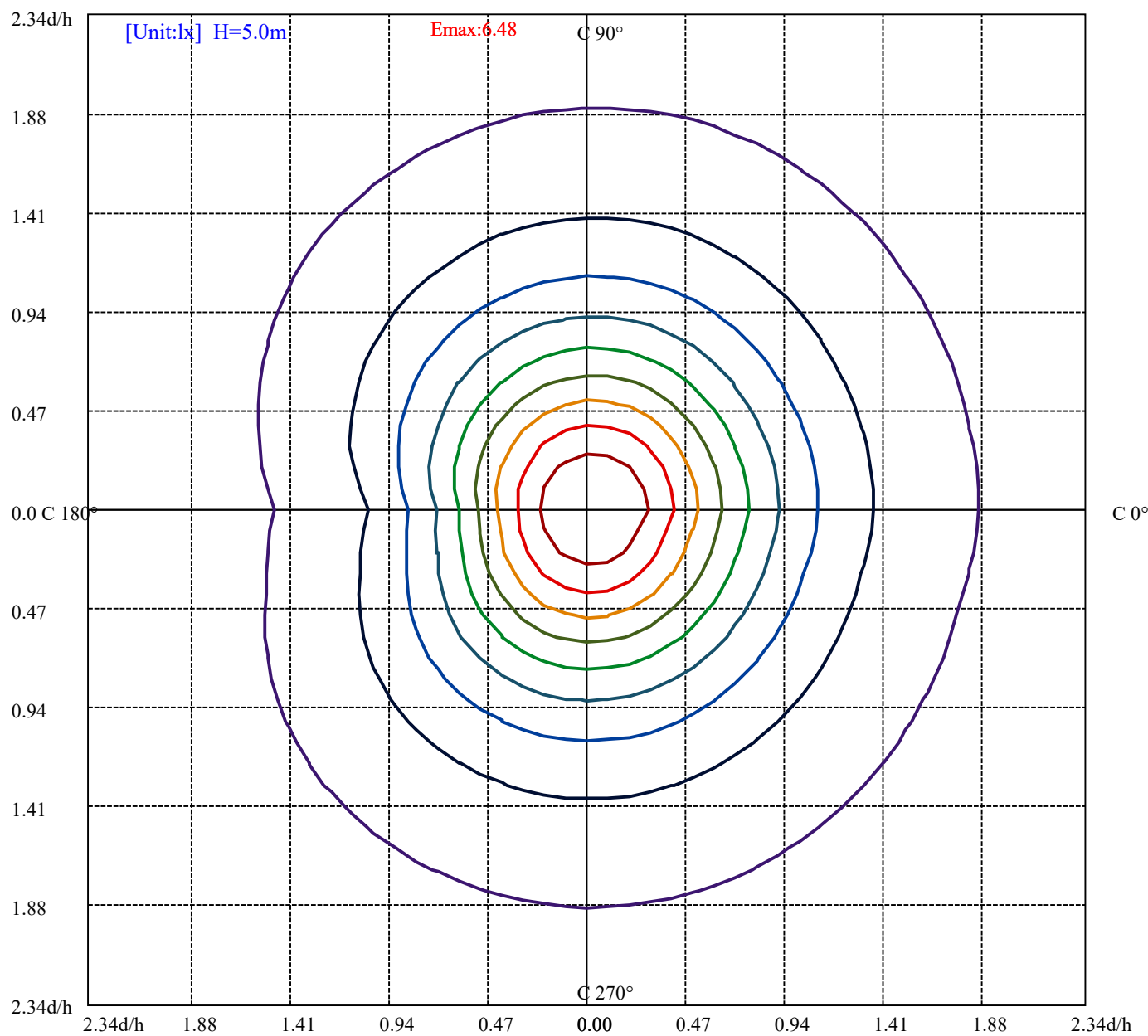
0-10	15.40
10-20	45.27
20-30	72.50
30-40	95.56
40-50	114.32
50-60	129.44
60-70	141.36
70-80	149.42
80-90	152.91
90-100	150.53
100-110	142.69
110-120	131.26
120-130	116.82
130-140	99.82
140-150	80.61
150-160	58.89
160-170	34.29
170-180	8.63



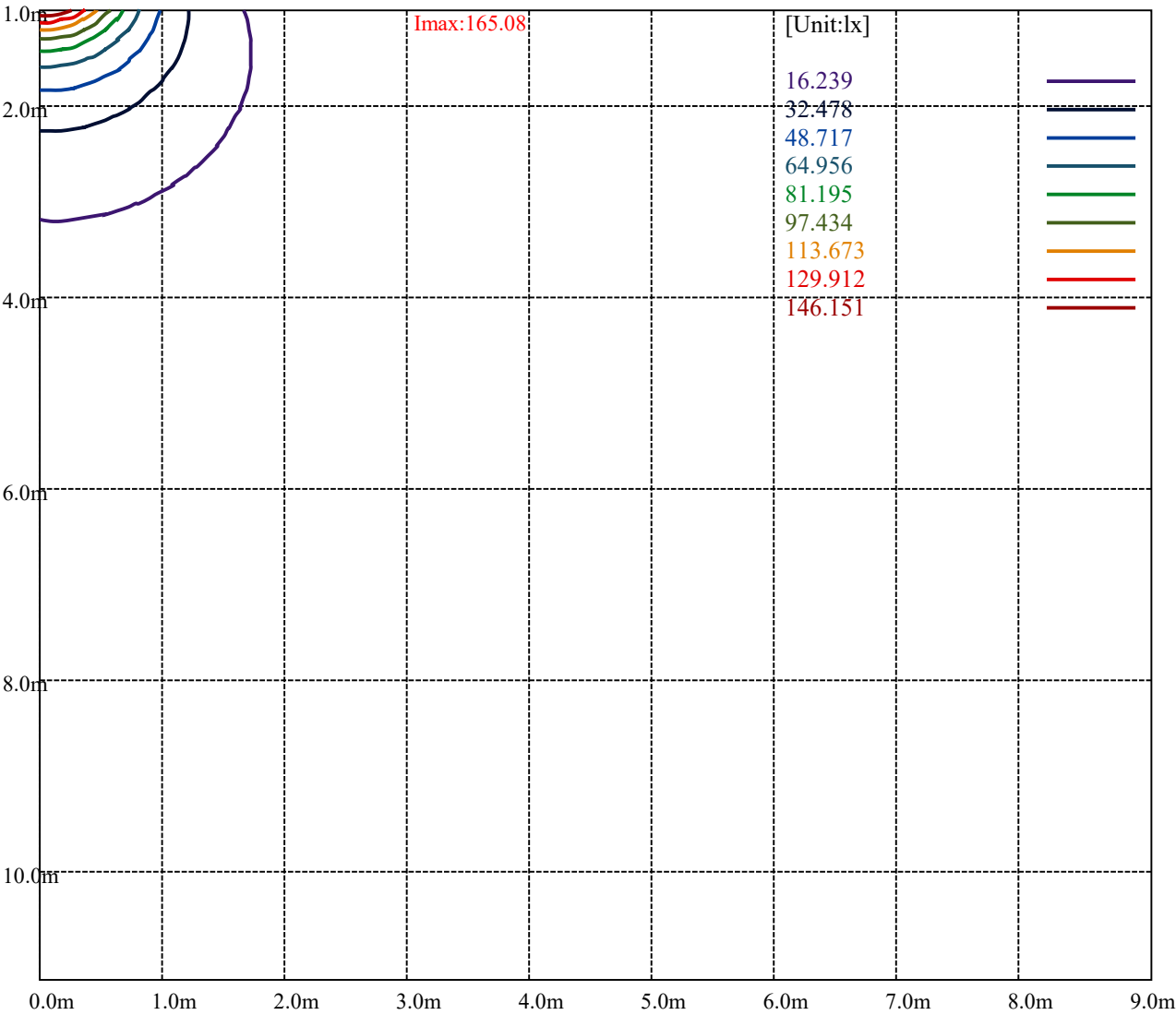


Max , Ave

Beam angle of C0 plane 180.00



(10%Emax) 0.647508	—
(20%Emax) 1.295016	—
(30%Emax) 1.942528	—
(40%Emax) 2.590036	—
(50%Emax) 3.237544	—
(60%Emax) 3.885052	—
(70%Emax) 4.53256	—
(80%Emax) 5.18008	—
(90%Emax) 5.82756	—



Luminance Table

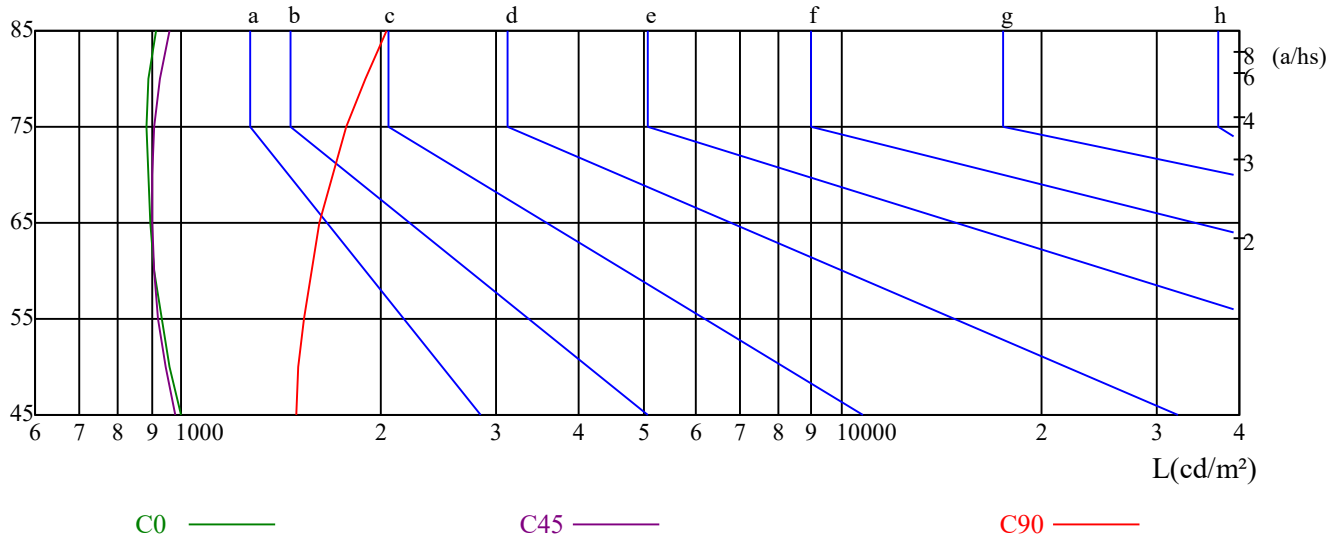
γ	45	50	55	60	65	70	75	80	85
C0	997	960	931	910	895	888	887	893	913
C45	976	948	923	911	901	903	912	928	958
C90	1494	1507	1531	1569	1621	1690	1779	1894	2041

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3622	4670	4292	6001	7605	6879	18079	22454	20138

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

 $\gamma(^{\circ})$ 

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	162.39	164.18	165.08	165.08	164.18	164.18	162.39	161.49	159.70
15.0	162.39	163.29	164.18	164.18	164.18	163.29	162.39	160.60	159.70
30.0	161.49	163.29	164.18	164.18	163.29	163.29	162.39	161.49	159.70
45.0	161.49	162.39	163.29	164.18	164.18	164.18	163.29	162.39	161.49
60.0	161.49	162.39	163.29	163.29	164.18	164.18	164.18	163.29	163.29
75.0	161.49	161.49	162.39	162.39	162.39	162.39	163.29	163.29	163.29
90.0	161.49	161.49	161.49	161.49	161.49	161.49	161.49	161.49	161.49
105.0	161.49	161.49	161.49	160.60	159.70	159.70	158.80	157.90	157.90
120.0	161.49	161.49	160.60	158.80	157.90	157.01	156.11	154.32	153.42
135.0	161.49	160.60	159.70	157.90	155.21	153.42	151.62	148.93	147.14
150.0	160.60	160.60	158.80	156.11	150.73	149.83	145.34	140.86	136.37
165.0	160.60	159.70	157.90	155.21	152.52	147.14	140.86	133.68	125.61
180.0	162.39	161.49	157.90	153.42	148.04	140.86	130.99	119.33	107.66
195.0	162.39	160.60	157.90	154.32	148.04	141.75	132.78	123.81	114.84
210.0	161.49	160.60	157.90	155.21	150.73	146.24	140.86	134.58	130.99
225.0	161.49	160.60	158.80	157.01	154.32	150.73	148.04	146.24	144.45
240.0	161.49	160.60	159.70	157.90	157.01	156.11	155.21	153.42	152.52
255.0	161.49	161.49	160.60	159.70	159.70	158.80	157.90	157.01	156.11
270.0	161.49	161.49	161.49	160.60	160.60	160.60	159.70	158.80	158.80
285.0	161.49	161.49	161.49	161.49	161.49	160.60	160.60	159.70	159.70
300.0	161.49	161.49	162.39	161.49	161.49	160.60	159.70	158.80	157.90
315.0	161.49	161.49	161.49	161.49	160.60	159.70	158.80	157.01	156.11
330.0	160.60	161.49	161.49	160.60	160.60	158.80	157.90	156.11	154.32
345.0	160.60	161.49	161.49	160.60	160.60	158.80	157.90	156.11	154.32
360.0	162.39	164.18	165.08	165.08	164.18	164.18	162.39	161.49	159.70

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	157.90	155.21	152.52	149.83	147.14	144.45	141.75	139.06	137.27
15.0	157.01	155.21	152.52	149.83	147.14	144.45	142.65	140.86	139.06
30.0	157.90	156.11	154.32	152.52	150.73	148.04	147.14	144.45	143.55
45.0	160.60	159.70	157.90	157.01	155.21	154.32	153.42	152.52	152.52
60.0	162.39	161.49	161.49	160.60	160.60	159.70	159.70	158.80	158.80
75.0	163.29	162.39	162.39	162.39	162.39	162.39	162.39	161.49	161.49
90.0	160.60	160.60	160.60	160.60	160.60	160.60	160.60	160.60	160.60
105.0	157.01	157.01	157.01	156.11	156.11	155.21	155.21	155.21	155.21
120.0	152.52	151.62	149.83	148.93	148.93	147.14	147.14	146.24	146.24
135.0	145.34	142.65	141.75	140.86	139.06	138.17	136.37	136.37	135.47
150.0	133.68	130.09	127.40	125.61	124.71	123.81	123.81	124.71	123.81
165.0	118.43	113.94	109.46	106.76	104.97	105.87	107.66	110.35	113.04
180.0	96.00	88.82	89.72	93.31	97.79	102.28	106.76	111.25	114.84
195.0	108.56	104.07	102.28	103.18	104.97	108.56	112.15	114.84	115.74
210.0	128.30	125.61	123.81	123.81	122.91	122.91	122.91	122.91	120.22
225.0	142.65	141.75	139.96	139.06	138.17	136.37	134.58	132.78	130.09
240.0	151.62	150.73	148.93	148.04	147.14	145.34	143.55	141.75	139.96
255.0	156.11	155.21	154.32	153.42	152.52	151.62	150.73	150.73	148.93
270.0	157.90	157.01	157.01	157.01	155.21	155.21	154.32	153.42	152.52
285.0	158.80	157.90	157.01	156.11	156.11	155.21	154.32	153.42	152.52
300.0	157.01	156.11	154.32	153.42	152.52	151.62	150.73	150.73	149.83
315.0	154.32	152.52	151.62	149.83	148.04	146.24	145.34	144.45	143.55
330.0	152.52	149.83	148.04	145.34	143.55	141.75	139.96	138.17	136.37
345.0	151.62	148.93	146.24	143.55	140.86	139.06	136.37	134.58	133.68
360.0	157.90	155.21	152.52	149.83	147.14	144.45	141.75	139.06	137.27

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	136.37	131.89	125.61	119.33	113.94	107.66	102.28	96.90	96.00
15.0	138.17	135.47	130.09	125.61	120.22	115.74	112.15	110.35	110.35
30.0	142.65	141.75	141.75	139.06	136.37	135.47	133.68	132.78	133.68
45.0	151.62	151.62	151.62	151.62	151.62	150.73	150.73	149.83	149.83
60.0	157.90	157.90	157.90	157.90	157.90	157.90	157.90	157.90	157.90
75.0	161.49	161.49	161.49	160.60	160.60	160.60	159.70	159.70	159.70
90.0	160.60	160.60	159.70	159.70	159.70	159.70	158.80	158.80	158.80
105.0	154.32	154.32	154.32	154.32	154.32	154.32	154.32	154.32	154.32
120.0	145.34	145.34	145.34	145.34	145.34	146.24	147.14	147.14	148.04
135.0	134.58	134.58	134.58	135.47	135.47	136.37	137.27	138.17	139.96
150.0	122.91	122.91	123.81	124.71	124.71	126.50	127.40	129.19	130.09
165.0	115.74	116.63	116.63	116.63	116.63	116.63	117.53	118.43	119.33
180.0	116.63	115.74	113.94	112.15	111.25	111.25	109.46	108.56	109.46
195.0	113.94	110.35	105.87	102.28	99.59	97.79	96.00	94.20	93.31
210.0	115.74	111.25	106.76	103.18	99.59	96.90	93.31	90.62	89.72
225.0	127.40	122.91	119.33	115.74	113.04	109.46	108.56	104.07	102.28
240.0	137.27	135.47	134.58	129.19	126.50	123.81	122.02	120.22	118.43
255.0	147.14	145.34	143.55	141.75	139.96	137.27	135.47	133.68	131.89
270.0	152.52	151.62	149.83	148.93	147.14	145.34	143.55	142.65	140.86
285.0	152.52	151.62	150.73	149.83	149.83	148.04	147.14	146.24	145.34
300.0	148.93	148.04	148.04	147.14	147.14	147.14	146.24	144.45	142.65
315.0	143.55	142.65	142.65	142.65	142.65	142.65	141.75	139.96	136.37
330.0	135.47	135.47	134.58	132.78	131.89	130.99	130.99	129.19	125.61
345.0	130.99	127.40	122.91	119.33	115.74	113.94	113.94	114.84	113.04
360.0	136.37	131.89	125.61	119.33	113.94	107.66	102.28	96.90	96.00
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	100.48	107.66	112.15	114.84	113.94	113.04	113.94	109.46	89.72
15.0	113.04	118.43	124.71	127.40	128.30	129.19	129.19	127.40	104.07
30.0	134.58	135.47	139.06	141.75	142.65	142.65	141.75	140.86	121.12
45.0	149.83	149.83	149.83	150.73	150.73	150.73	148.93	147.14	136.37
60.0	157.90	157.01	157.01	157.01	156.11	154.32	153.42	151.62	148.04
75.0	158.80	158.80	158.80	157.90	157.90	157.01	156.11	153.42	149.83
90.0	157.90	157.90	157.01	157.01	157.01	156.11	155.21	153.42	150.73
105.0	154.32	154.32	154.32	154.32	154.32	154.32	153.42	152.52	151.62
120.0	148.93	149.83	150.73	150.73	151.62	151.62	151.62	151.62	149.83
135.0	140.86	142.65	143.55	145.34	145.34	147.14	147.14	148.04	148.04
150.0	130.99	132.78	135.47	137.27	138.17	139.96	141.75	143.55	144.45
165.0	121.12	122.91	125.61	127.40	129.19	131.89	134.58	136.37	138.17
180.0	112.15	113.94	115.74	118.43	123.81	111.25	88.82	87.92	129.19
195.0	94.20	96.00	97.79	104.07	107.66	104.97	80.75	95.10	128.30
210.0	87.92	87.92	86.13	89.72	95.10	85.23	78.95	102.28	115.74
225.0	98.69	96.90	96.00	98.69	100.48	94.20	91.51	104.07	97.79
240.0	116.63	114.84	114.84	116.63	119.33	112.15	110.35	98.69	85.23
255.0	130.99	130.09	129.19	130.09	130.09	127.40	122.02	92.41	84.34
270.0	139.96	139.96	138.17	136.37	132.78	130.09	117.53	87.03	97.79
285.0	143.55	140.86	137.27	131.89	126.50	121.12	104.07	79.85	109.46
300.0	139.06	134.58	129.19	122.02	113.94	108.56	92.41	77.16	119.33
315.0	130.99	123.81	117.53	110.35	101.38	95.10	84.34	78.95	125.61
330.0	118.43	112.15	105.87	98.69	92.41	87.03	87.03	89.72	127.40
345.0	109.46	105.87	102.28	98.69	95.10	96.90	99.59	103.18	128.30
360.0	100.48	107.66	112.15	114.84	113.94	113.04	113.94	109.46	89.72

Intensity data(cd)

C/ γ (°)	180.0
0.0	130.99
15.0	90.62
30.0	87.03
45.0	99.59
60.0	116.63
75.0	130.99
90.0	139.96
105.0	145.34
120.0	146.24
135.0	145.34
150.0	143.55
165.0	139.96
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	130.99