
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): 1797.1

Power (W): 19.480

Number of Lamps: 1

PF: 0.974

Length(mm): 400

Width(mm): 200

Phm Type: C

Height(mm): 360

Photometric Results

Lumens(lm): 1797.08, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 92.25

Central intensity(cd): 167.773, Maximum intensity(cd): 169.567

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 : 27.122%

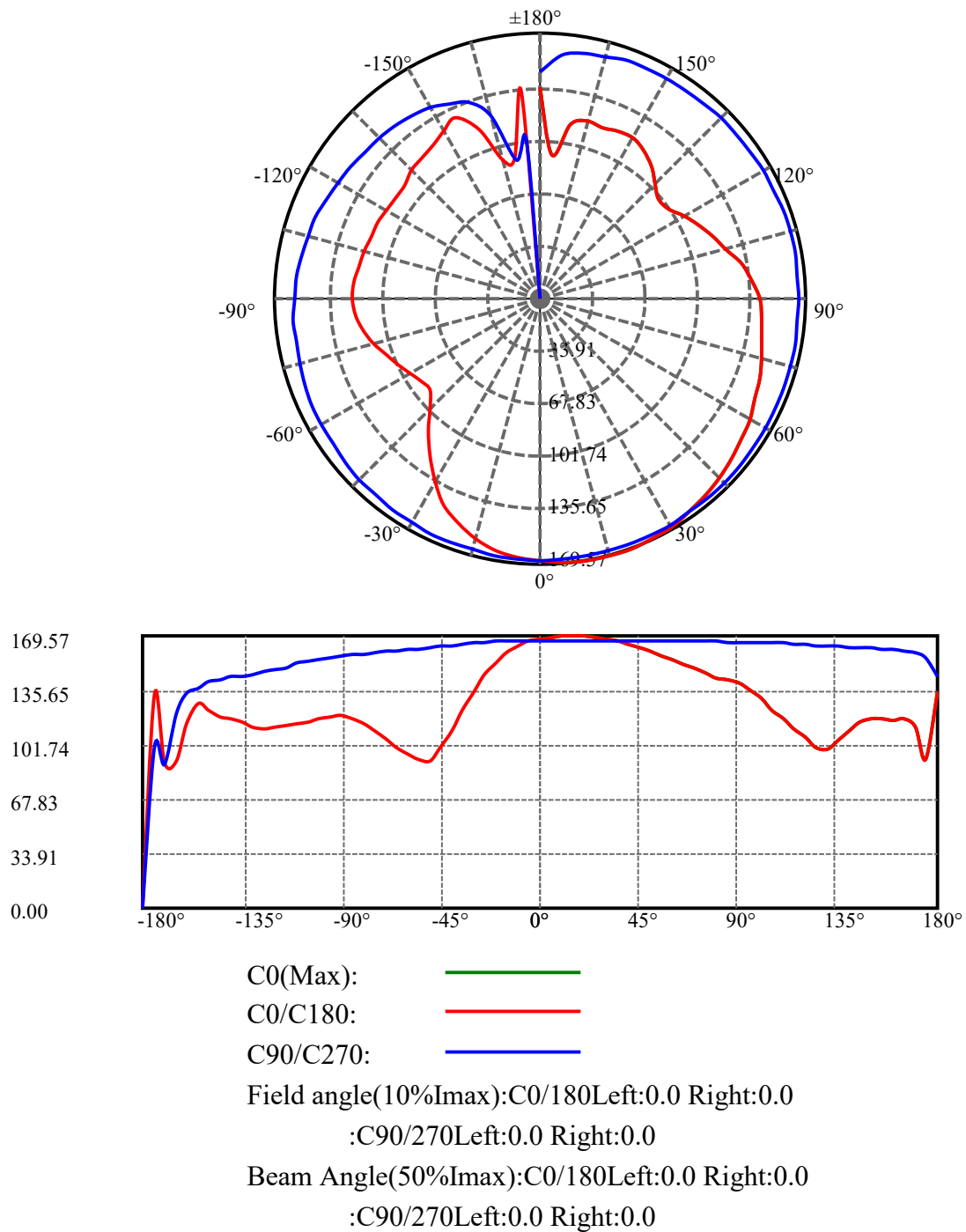
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	166.801	0.000	0	0.00%	0.00%
5.0	166.577	3.985	3.985	0.22%	0.22%
10.0	166.166	11.903	15.889	0.66%	0.88%
15.0	165.007	19.645	35.534	1.09%	1.98%
20.0	163.511	27.075	62.608	1.51%	3.48%
25.0	161.754	34.114	96.723	1.90%	5.38%
30.0	159.474	40.652	137.374	2.26%	7.64%
35.0	157.007	46.604	183.978	2.59%	10.24%
40.0	154.465	51.967	235.945	2.89%	13.13%
45.0	152.185	56.779	292.724	3.16%	16.29%
50.0	150.241	61.109	353.833	3.40%	19.69%
55.0	148.820	65.026	418.859	3.62%	23.31%
60.0	147.736	68.548	487.407	3.81%	27.12%
65.0	146.839	71.612	559.019	3.98%	31.11%
70.0	146.129	74.181	633.2	4.13%	35.23%
75.0	145.717	76.284	709.484	4.24%	39.48%
80.0	145.231	77.850	787.333	4.33%	43.81%
85.0	144.671	78.773	866.107	4.38%	48.20%
90.0	143.736	78.968	945.075	4.39%	52.59%
95.0	142.353	78.333	1023.408	4.36%	56.95%
100.0	140.895	76.965	1100.373	4.28%	61.23%
105.0	139.101	74.919	1175.292	4.17%	65.40%
110.0	137.755	72.366	1247.658	4.03%	69.43%
115.0	136.297	69.392	1317.05	3.86%	73.29%
120.0	135.325	66.032	1383.081	3.67%	76.96%
125.0	134.204	62.301	1445.382	3.47%	80.43%
130.0	133.418	58.190	1503.572	3.24%	83.67%
135.0	132.895	53.813	1557.385	2.99%	86.66%
140.0	132.484	49.137	1606.522	2.73%	89.40%
145.0	132.372	44.189	1650.711	2.46%	91.86%
150.0	132.447	38.996	1689.707	2.17%	94.03%
155.0	131.736	33.433	1723.14	1.86%	95.89%
160.0	129.007	27.347	1750.487	1.52%	97.41%
165.0	124.035	20.854	1771.341	1.16%	98.57%
170.0	120.858	14.527	1785.868	0.81%	99.38%
175.0	127.998	8.902	1794.77	0.50%	99.87%
180.0	65.270	2.310	1797.081	0.13%	100.00%

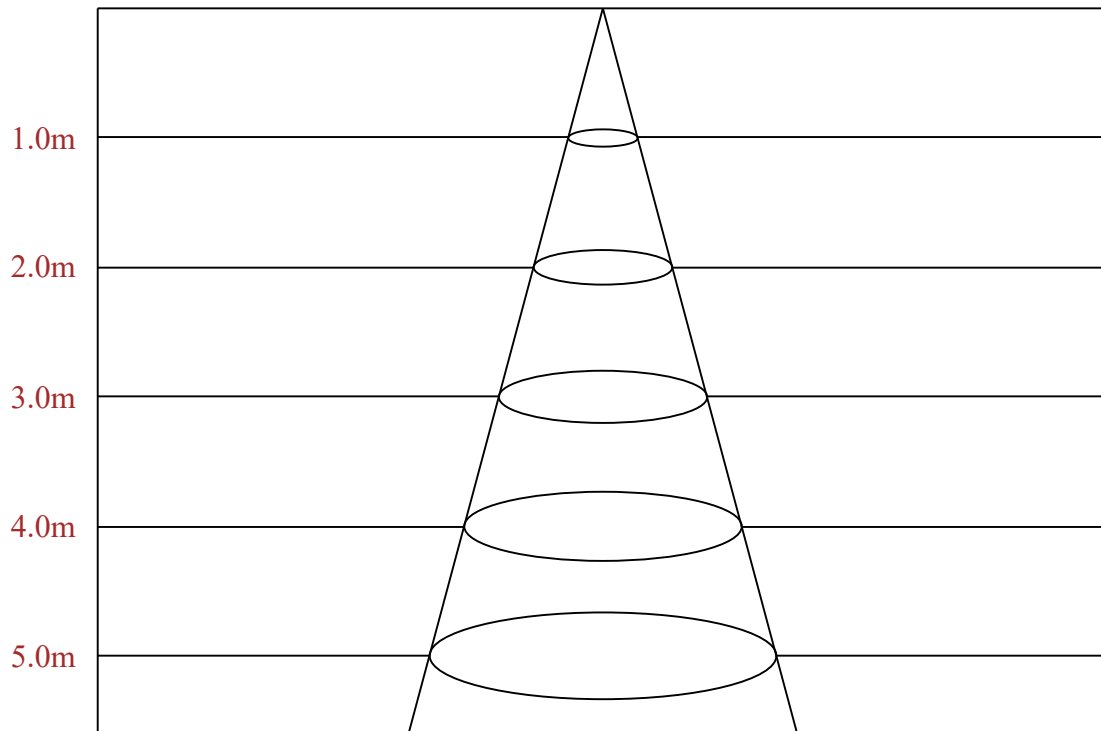
ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	137.37	7.64%	7.64%
0-40	235.94	13.13%	13.13%
0-60	487.41	27.12%	27.12%
0-90	945.07	52.59%	52.59%
0-120	1383.08	76.96%	76.96%
0-180	1797.08	100.00%	100.00%
60-90	457.67	25.47%	25.47%
90-120	438.01	24.37%	24.37%
90-130	558.50	31.08%	31.08%
90-150	744.63	41.44%	41.44%
90-180	849.70	47.28%	47.28%
0-124.38	1437.67	80.00%	80.00%

ZONAL LUMEN SUMMARY

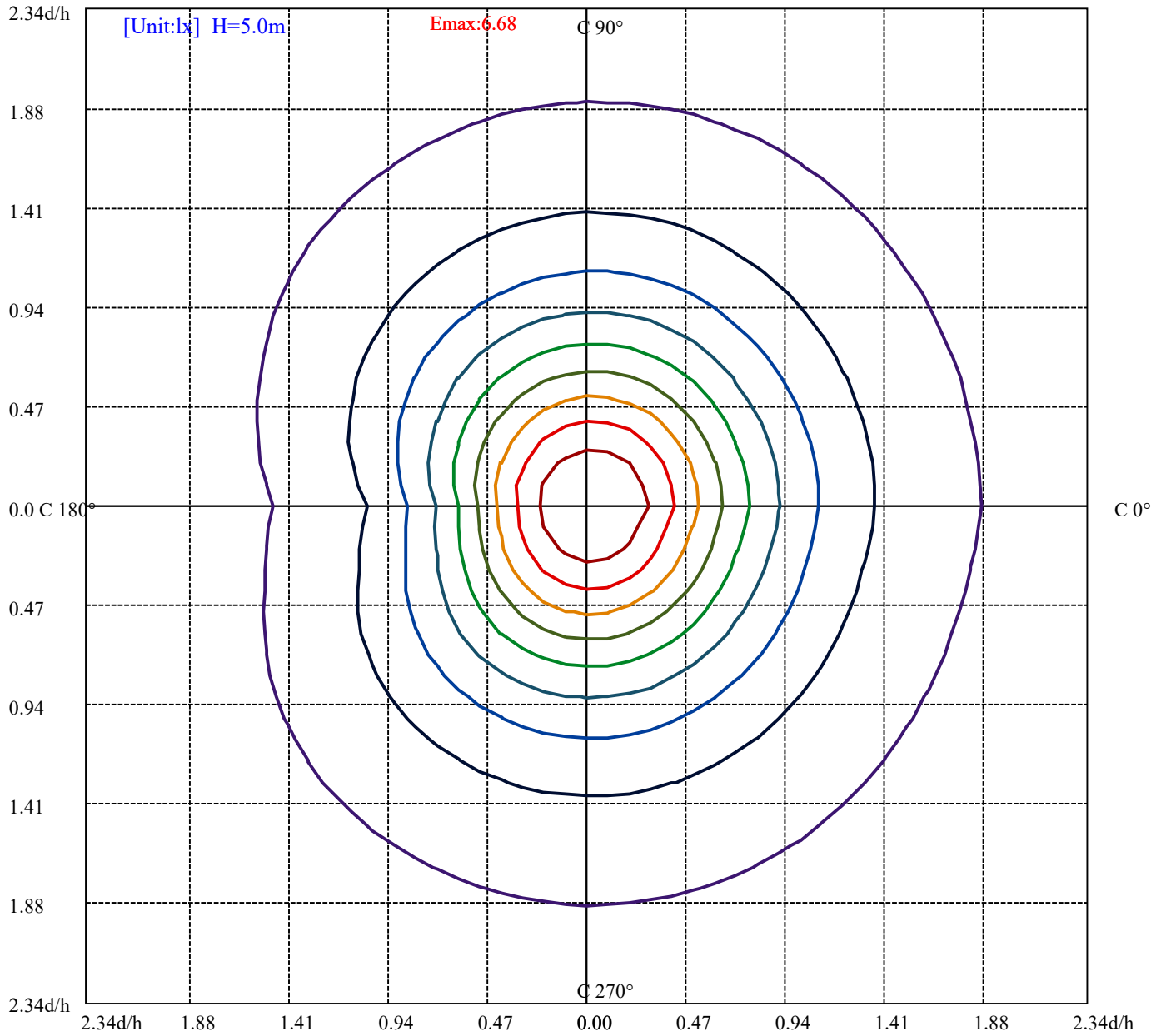
0-10	15.89
10-20	46.72
20-30	74.77
30-40	98.57
40-50	117.89
50-60	133.57
60-70	145.79
70-80	154.13
80-90	157.74
90-100	155.30
100-110	147.28
110-120	135.42
120-130	120.49
130-140	102.95
140-150	83.19
150-160	60.78
160-170	35.38
170-180	8.90



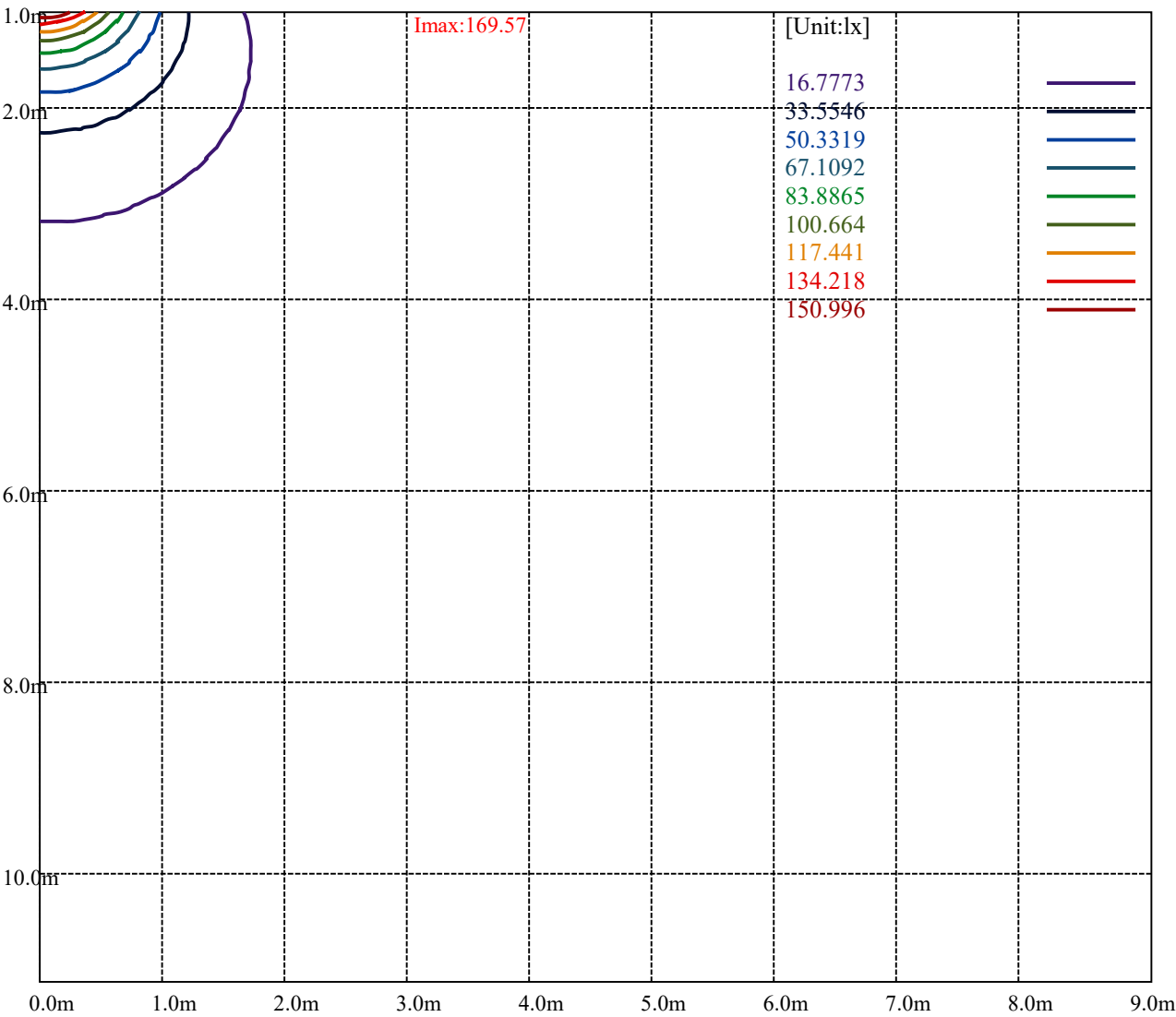


Max , Ave

Beam angle of C0 plane 180.00



(10%Emax) 0.667504	—
(20%Emax) 1.335008	—
(30%Emax) 2.002512	—
(40%Emax) 2.670016	—
(50%Emax) 3.33752	—
(60%Emax) 4.00504	—
(70%Emax) 4.67252	—
(80%Emax) 5.34004	—
(90%Emax) 6.00752	—



Luminance Table

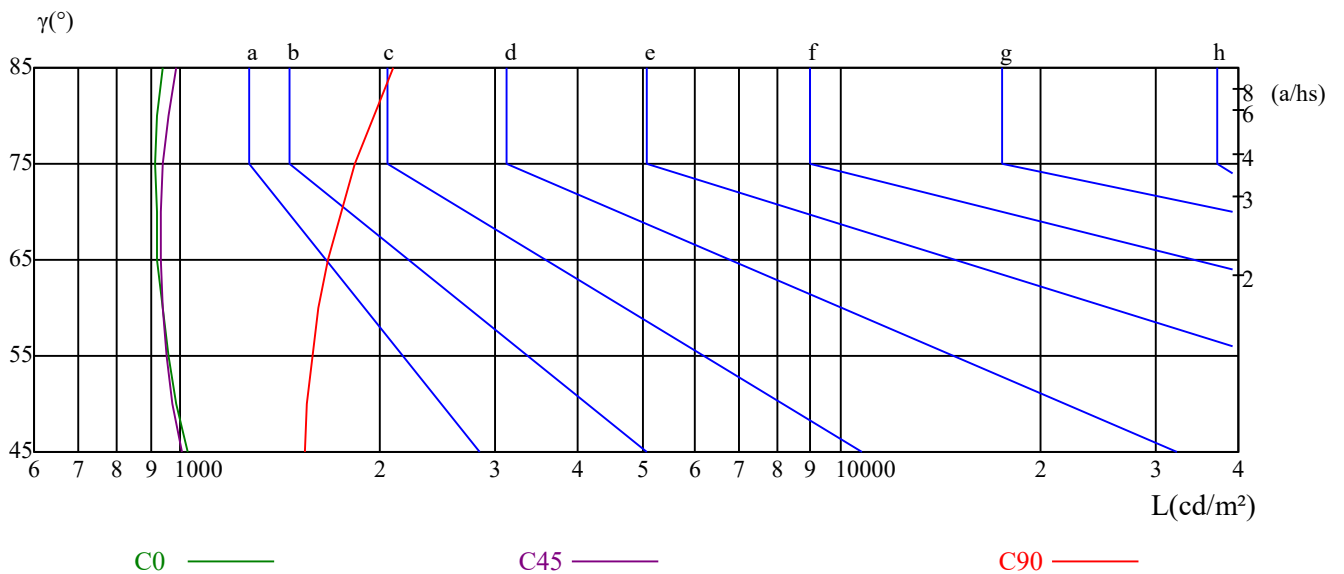
γ	45	50	55	60	65	70	75	80	85
C0	1025	987	958	942	923	921	915	922	942
C45	1003	975	955	937	932	935	939	961	987
C90	1544	1557	1583	1622	1675	1747	1839	1957	2098

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3728	4830	4432	6196	7843	7095	18658	23162	20781

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	167.77	168.67	169.57	169.57	169.57	168.67	167.77	165.98	164.18
15.0	167.77	168.67	169.57	169.57	168.67	168.67	166.88	165.98	164.18
30.0	166.88	167.77	168.67	168.67	168.67	168.67	167.77	165.98	165.08
45.0	166.88	167.77	168.67	168.67	168.67	168.67	168.67	167.77	166.88
60.0	166.88	167.77	168.67	168.67	168.67	169.57	168.67	168.67	167.77
75.0	166.88	166.88	166.88	167.77	167.77	167.77	167.77	167.77	167.77
90.0	166.88	166.88	166.88	166.88	166.88	166.88	166.88	165.98	165.98
105.0	166.88	165.98	165.98	165.08	165.08	164.18	164.18	163.29	162.39
120.0	166.88	165.98	165.08	164.18	163.29	161.49	160.60	159.70	158.80
135.0	165.98	165.98	165.08	162.39	160.60	157.90	156.11	154.32	151.62
150.0	165.98	165.08	164.18	161.49	156.11	154.32	149.83	145.34	140.86
165.0	165.98	165.08	163.29	160.60	157.01	151.62	145.34	138.17	129.19
180.0	167.77	165.98	163.29	158.80	152.52	145.34	134.58	122.91	110.35
195.0	167.77	165.08	162.39	158.80	153.42	146.24	137.27	128.30	118.43
210.0	166.88	165.08	163.29	160.60	156.11	150.73	145.34	139.06	135.47
225.0	166.88	165.98	164.18	161.49	158.80	156.11	152.52	150.73	148.93
240.0	166.88	165.98	165.08	163.29	162.39	161.49	159.70	158.80	157.90
255.0	166.88	165.98	165.98	165.08	164.18	164.18	163.29	162.39	161.49
270.0	166.88	166.88	166.88	165.98	165.98	165.08	165.08	164.18	163.29
285.0	166.88	166.88	166.88	166.88	166.88	165.98	165.98	165.08	165.08
300.0	166.88	166.88	166.88	166.88	166.88	165.08	165.08	164.18	163.29
315.0	165.98	166.88	166.88	166.88	165.98	165.08	163.29	162.39	160.60
330.0	165.98	166.88	166.88	165.98	165.08	164.18	162.39	160.60	158.80
345.0	165.98	166.88	166.88	165.98	165.08	164.18	162.39	160.60	158.80
360.0	167.77	168.67	169.57	169.57	169.57	168.67	167.77	165.98	164.18
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	162.39	159.70	157.01	155.21	151.62	149.83	146.24	143.55	141.75
15.0	162.39	160.60	157.90	155.21	151.62	148.93	147.14	145.34	143.55
30.0	163.29	161.49	159.70	157.01	155.21	152.52	151.62	148.93	148.04
45.0	165.08	164.18	163.29	161.49	160.60	159.70	157.90	157.01	157.01
60.0	167.77	166.88	165.98	165.98	165.08	165.08	164.18	164.18	164.18
75.0	167.77	167.77	167.77	167.77	166.88	166.88	166.88	166.88	166.88
90.0	165.98	165.98	165.98	165.98	165.98	165.98	165.98	165.98	165.08
105.0	162.39	161.49	161.49	161.49	160.60	160.60	160.60	159.70	159.70
120.0	157.01	156.11	155.21	154.32	153.42	152.52	151.62	150.73	150.73
135.0	149.83	147.14	146.24	145.34	143.55	141.75	140.86	139.96	139.06
150.0	137.27	134.58	131.89	129.19	128.30	127.40	127.40	128.30	127.40
165.0	122.91	117.53	113.04	109.46	108.56	109.46	111.25	113.94	116.63
180.0	99.59	91.51	92.41	96.00	100.48	104.97	110.35	114.84	118.43
195.0	111.25	107.66	105.87	105.87	108.56	111.25	115.74	118.43	119.33
210.0	132.78	130.09	128.30	127.40	127.40	126.50	126.50	126.50	123.81
225.0	147.14	146.24	144.45	143.55	142.65	140.86	139.06	137.27	134.58
240.0	156.11	155.21	153.42	152.52	151.62	149.83	148.04	146.24	144.45
255.0	160.60	159.70	158.80	157.90	157.01	157.01	156.11	155.21	153.42
270.0	163.29	162.39	161.49	161.49	160.60	159.70	158.80	157.90	157.90
285.0	163.29	162.39	162.39	161.49	160.60	159.70	159.70	158.80	157.90
300.0	161.49	160.60	159.70	158.80	157.90	156.11	156.11	155.21	154.32
315.0	159.70	157.90	156.11	154.32	152.52	151.62	149.83	148.93	148.93
330.0	157.01	155.21	152.52	149.83	148.04	146.24	144.45	141.75	140.86
345.0	156.11	153.42	150.73	148.04	145.34	142.65	140.86	139.06	138.17
360.0	162.39	159.70	157.01	155.21	151.62	149.83	146.24	143.55	141.75

Intensity data(cd)

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	139.96	135.47	130.09	122.91	117.53	111.25	105.87	100.48	98.69
15.0	141.75	139.06	134.58	129.19	124.71	119.33	115.74	113.04	113.94
30.0	147.14	146.24	146.24	143.55	140.86	139.06	138.17	137.27	137.27
45.0	157.01	156.11	156.11	156.11	156.11	156.11	155.21	155.21	154.32
60.0	163.29	163.29	163.29	163.29	163.29	163.29	162.39	162.39	162.39
75.0	166.88	166.88	165.98	165.98	165.98	165.98	165.08	165.08	164.18
90.0	165.08	165.08	165.08	165.08	165.08	164.18	164.18	163.29	163.29
105.0	159.70	159.70	159.70	158.80	158.80	158.80	158.80	158.80	158.80
120.0	149.83	149.83	150.73	150.73	150.73	150.73	151.62	151.62	152.52
135.0	139.06	139.06	139.06	139.06	139.96	140.86	141.75	142.65	143.55
150.0	127.40	127.40	127.40	128.30	129.19	130.09	131.89	132.78	134.58
165.0	119.33	120.22	120.22	120.22	120.22	120.22	121.12	122.02	122.91
180.0	120.22	119.33	117.53	115.74	114.84	113.94	113.04	112.15	113.04
195.0	117.53	113.94	109.46	105.87	102.28	100.48	98.69	96.90	96.90
210.0	120.22	114.84	110.35	106.76	103.18	99.59	96.00	94.20	92.41
225.0	130.99	127.40	122.91	119.33	116.63	113.04	112.15	107.66	105.87
240.0	141.75	139.96	138.17	133.68	130.99	128.30	125.61	123.81	122.02
255.0	151.62	149.83	148.04	146.24	144.45	141.75	139.96	138.17	136.37
270.0	157.01	156.11	154.32	153.42	152.52	149.83	148.04	147.14	145.34
285.0	157.01	156.11	156.11	155.21	154.32	153.42	152.52	150.73	149.83
300.0	153.42	152.52	152.52	151.62	151.62	151.62	150.73	148.93	147.14
315.0	148.04	147.14	147.14	147.14	147.14	147.14	146.24	144.45	140.86
330.0	139.96	139.96	139.06	137.27	136.37	135.47	135.47	133.68	129.19
345.0	135.47	130.99	127.40	122.91	119.33	117.53	117.53	118.43	116.63
360.0	139.96	135.47	130.09	122.91	117.53	111.25	105.87	100.48	98.69
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	104.07	110.35	115.74	118.43	117.53	116.63	117.53	113.04	92.41
15.0	116.63	122.02	128.30	131.89	132.78	133.68	132.78	131.89	106.76
30.0	138.17	139.96	142.65	146.24	147.14	147.14	146.24	145.34	124.71
45.0	154.32	154.32	155.21	155.21	156.11	155.21	154.32	151.62	140.86
60.0	162.39	162.39	162.39	161.49	161.49	159.70	157.90	156.11	153.42
75.0	164.18	163.29	163.29	163.29	162.39	161.49	160.60	158.80	154.32
90.0	163.29	162.39	162.39	162.39	161.49	161.49	159.70	158.80	156.11
105.0	158.80	159.70	159.70	159.70	159.70	159.70	158.80	157.90	156.11
120.0	153.42	154.32	155.21	156.11	156.11	157.01	156.11	156.11	155.21
135.0	145.34	147.14	148.04	149.83	150.73	151.62	151.62	152.52	152.52
150.0	135.47	137.27	139.96	141.75	142.65	144.45	146.24	148.04	148.93
165.0	124.71	126.50	129.19	131.89	132.78	135.47	139.06	140.86	142.65
180.0	115.74	117.53	119.33	122.91	127.40	114.84	91.51	90.62	132.78
195.0	96.90	98.69	101.38	106.76	111.25	108.56	83.44	97.79	131.89
210.0	91.51	90.62	88.82	93.31	97.79	87.92	81.64	104.97	119.33
225.0	102.28	99.59	99.59	102.28	103.18	96.90	95.10	106.76	100.48
240.0	120.22	118.43	118.43	120.22	122.91	115.74	113.04	102.28	87.92
255.0	135.47	134.58	133.68	133.68	134.58	130.99	126.50	95.10	87.03
270.0	144.45	144.45	142.65	140.86	137.27	133.68	121.12	89.72	100.48
285.0	148.04	145.34	141.75	136.37	130.09	124.71	107.66	82.54	112.15
300.0	143.55	138.17	132.78	125.61	117.53	111.25	96.00	78.95	122.91
315.0	134.58	127.40	121.12	113.94	104.97	97.79	87.03	81.64	129.19
330.0	122.91	115.74	109.46	102.28	95.10	90.62	89.72	92.41	130.99
345.0	113.04	109.46	105.87	102.28	98.69	99.59	103.18	106.76	132.78
360.0	104.07	110.35	115.74	118.43	117.53	116.63	117.53	113.04	92.41

Intensity data(cd)

C/ γ (°)	180.0
0.0	134.58
15.0	93.31
30.0	90.62
45.0	103.18
60.0	120.22
75.0	135.47
90.0	144.45
105.0	149.83
120.0	151.62
135.0	150.73
150.0	148.04
165.0	144.45
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	134.58