LCTECH

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革星

LumCAT: LSL484100L40D2WH-MS
Luminaire: LED lamp

Report No:	Voltage(V): 119.9900
Test No: LCZP19070064	Current(A): 0.2600
LampCAT:	Power (W): 30.9300
Lamp flux(lm): 3137.1	PF: 0.9907
Number of Lamps: 1	Ballast type:
Length(mm): 12200	Width(mm): 125
Phm Type: C	Height(mm): 35

Photometric Results

Lumens(lm): 3137.07
Efficiency(%): 100.00%
Lumens(lm)/Power(W): 101.42
Central intensity(cd): 958.185
Maximum intensity(cd): 958.185
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=108.1
[C90/270]Total=124.1
Field angle(10%Imax): [C0/180]Total=158.8
[C90/270]Total=202.2
Maximum s/h(1/2): C0_180=1.23 C90_270=1.29
Maximum s/h(1/4): C0_180=1.35 C90_270=1.42
Up flux rate of lamp(%): 5.49%
Down flux rate of lamp(%): 94.51%
Up flux rate of LUM(%): 5.49%
Down flux rate of LUM(%): 94.51%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 69.530%

Equipment: LC-I-902 GMS-2000	Date: 2019/7/9	Operator: Kang
Temperature(°C): 25.0	Humidity(%): 65.0%	Distance(m): 30.00

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Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	958.185	.000	.000	.000%	.000%
5.0	954.173	22.862	22.862	.729%	.729%
10.0	941.418	67.811	90.673	2.162%	2.890%
15.0	920.321	110.437	201.110	3.520%	6.411%
20.0	891.301	149.303	350.413	4.759%	11.170%
25.0	854.383	183.090	533.503	5.836%	17.006%
30.0	811.043	210.761	744.264	6.718%	23.725%
35.0	761.289	231.537	975.801	7.381%	31.105%
40.0	705.657	244.749	1220.550	7.802%	38.907%
45.0	646.552	250.372	1470.922	7.981%	46.888%
50.0	582.802	248.409	1719.331	7.918%	54.807%
55.0	516.560	239.038	1958.369	7.620%	62.427%
60.0	447.509	222.842	2181.210	7.103%	69.530%
65.0	377.947	200.670	2381.880	6.397%	75.927%
70.0	309.600	174.091	2555.972	5.549%	81.476%
75.0	243.837	144.659	2700.631	4.611%	86.088%
80.0	184.974	114.738	2815.369	3.657%	89.745%
85.0	133.954	86.660	2902.029	2.762%	92.508%
90.0	95.209	62.747	2964.776	2.000%	94.508%
95.0	69.076	44.983	3009.758	1.434%	95.942%
100.0	50.113	32.386	3042.145	1.032%	96.974%
105.0	36.679	23.223	3065.368	.740%	97.714%
110.0	27.723	16.834	3082.202	.537%	98.251%
115.0	21.607	12.491	3094.692	.398%	98.649%
120.0	17.411	9.485	3104.178	.302%	98.951%
125.0	14.542	7.386	3111.564	.235%	99.187%
130.0	12.433	5.865	3117.429	.187%	99.374%
135.0	10.804	4.695	3122.125	.150%	99.524%
140.0	9.658	3.789	3125.913	.121%	99.644%
145.0	8.755	3.072	3128.985	.098%	99.742%
150.0	7.942	2.459	3131.444	.078%	99.821%
155.0	7.179	1.914	3133.357	.061%	99.882%
160.0	6.527	1.438	3134.795	.046%	99.927%
165.0	6.030	1.035	3135.830	.033%	99.960%
170.0	5.745	.698	3136.528	.022%	99.983%
175.0	5.611	.406	3136.935	.013%	99.996%
180.0	5.604	.134	3137.069	.004%	100.000%

Zonal flux distribution table

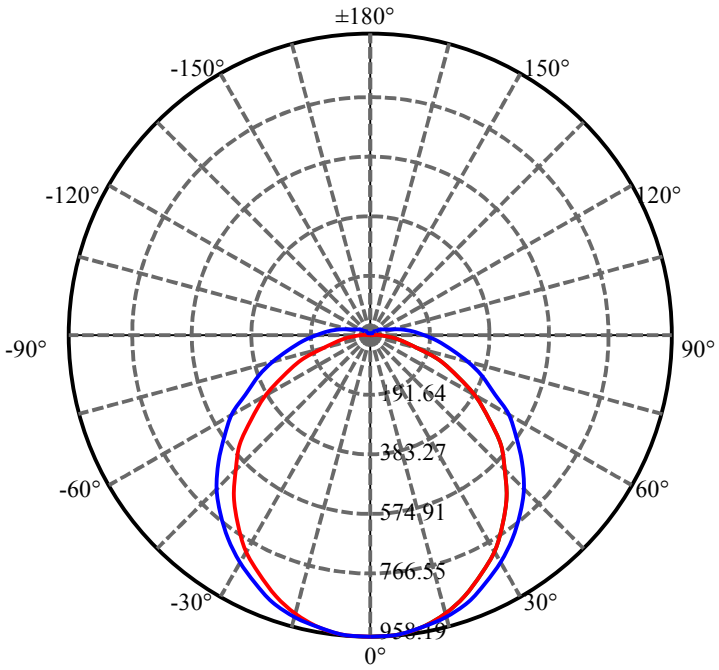
ZONAL LUMEN SUMMARY

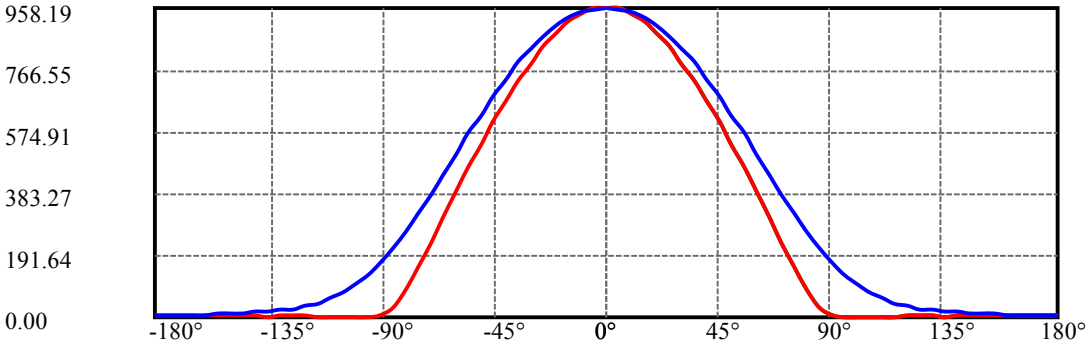
Zone	Lumens	%Lamp	%Fixt
0-30	744.26	23.72%	23.72%
0-40	1220.55	38.91%	38.91%
0-60	2181.21	69.53%	69.53%
0-90	2964.78	94.51%	94.51%
0-120	3104.18	98.95%	98.95%
0-180	3137.07	100.00%	100.00%
60-90	1006.41	32.08%	32.08%
90-120	202.15	6.44%	6.44%
90-130	215.40	6.87%	6.87%
90-150	229.41	7.31%	7.31%
90-180	234.91	7.49%	7.49%
0-68.67	2509.66	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	90.67
10-20	259.74
20-30	393.85
30-40	476.29
40-50	498.78
50-60	461.88
60-70	374.76
70-80	259.40
80-90	149.41
90-100	77.37
100-110	40.06
110-120	21.98
120-130	13.25
130-140	8.48
140-150	5.53
150-160	3.35
160-170	1.73
170-180	0.41

Light Distribution Curve [Unit:cd]





C0(Max):

C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:79.4 Right:79.4
:C90/270Left:101.1 Right:101.1

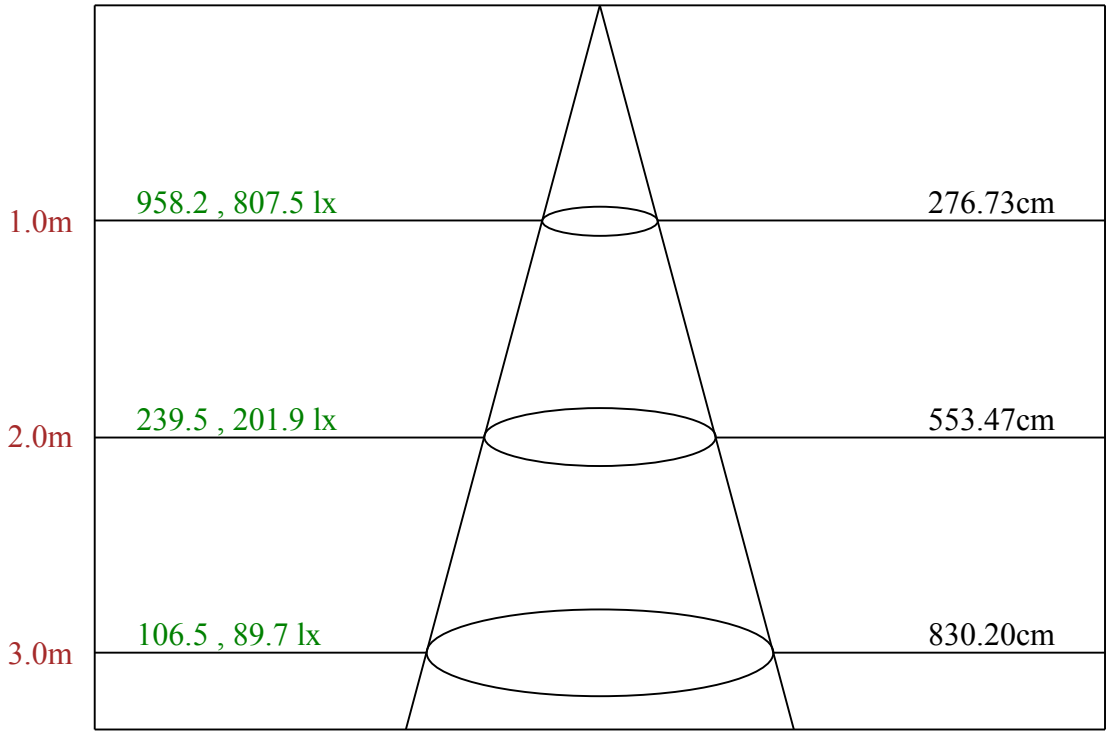
Beam Angle(50%Imax):C0/180Left:54.1 Right:54.1
:C90/270Left:62.0 Right:62.0

Equipment: LC-I-902 GMS-2000
Temperature(°C): 25.0

Date: 2019/7/9
Humidity(%): 65.0%

Operator: Kang
Distance(m): 30.00

Lux distance Curve



Max , Ave

Beam angle of C0plane108.29

Equipment: LC-I-902 GMS-2000
Temperature(°C): 25.0

Date: 2019/7/9
Humidity(%): 65.0%

Operator: Kang
Distance(m): 30.00

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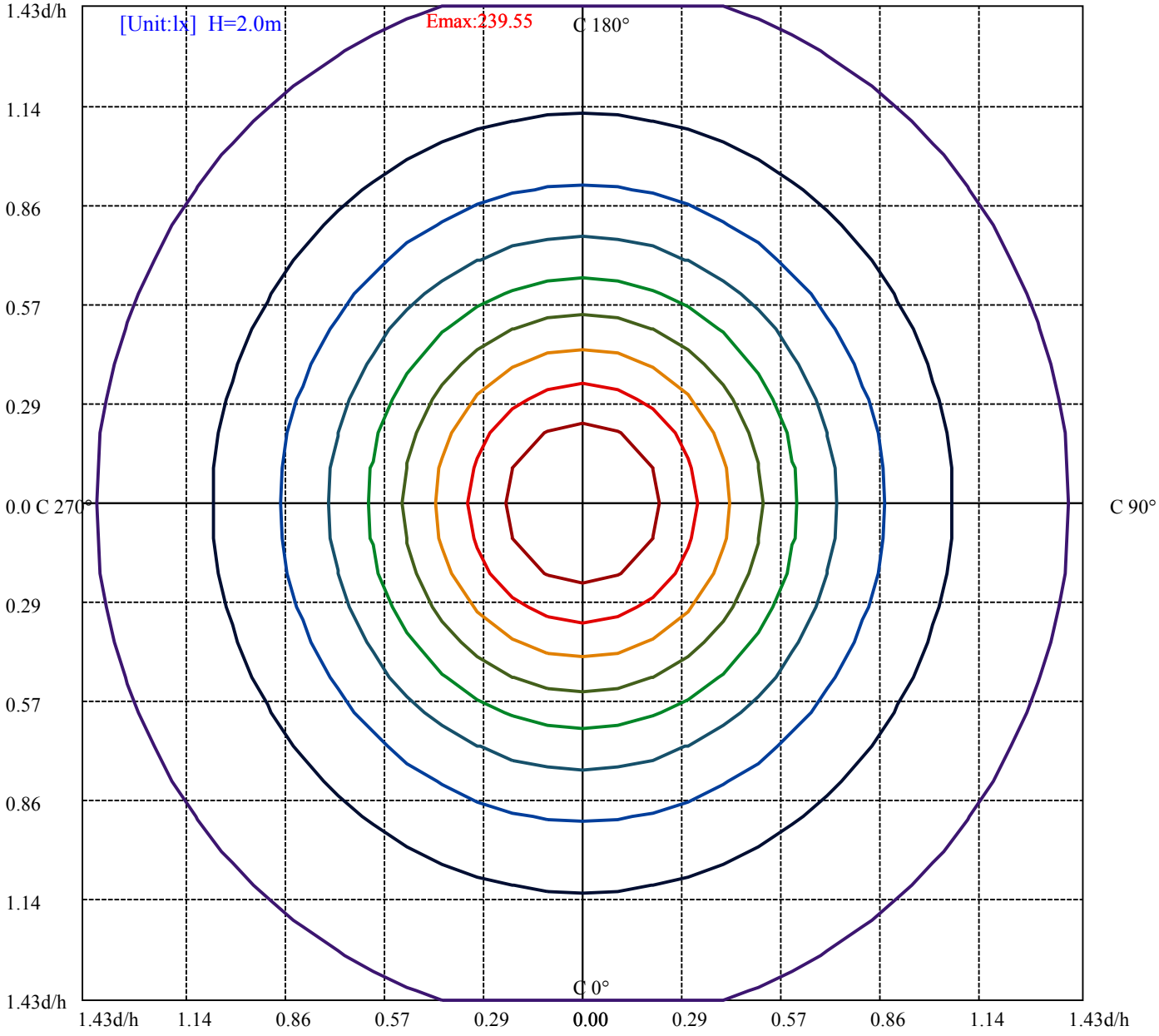
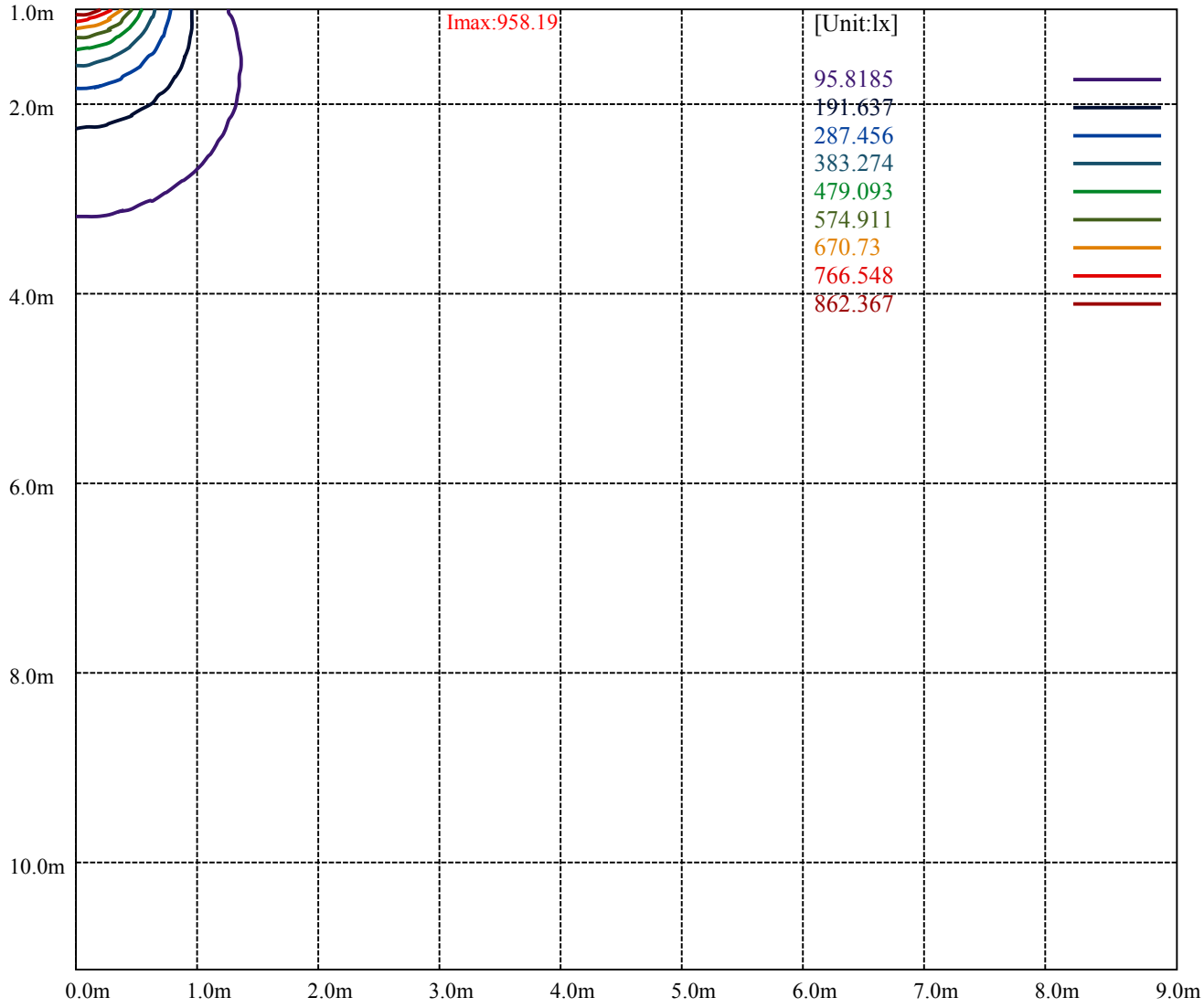
ISO illuminance diagram



Equipment: LC-I-902 GMS-2000 Date: 2019/7/9 Operator: Kang

Temperature(°C): 25.0 Humidity(%): 65.0% Distance(m): 30.00

Space ISO Lux diagram



Equipment: LC-I-902 GMS-2000
Temperature(°C): 25.0

Date: 2019/7/9
Humidity(%): 65.0%

Operator: Kang
Distance(m): 30.00

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Luminance Limitting Curve(no luminous side)

Luminance Table

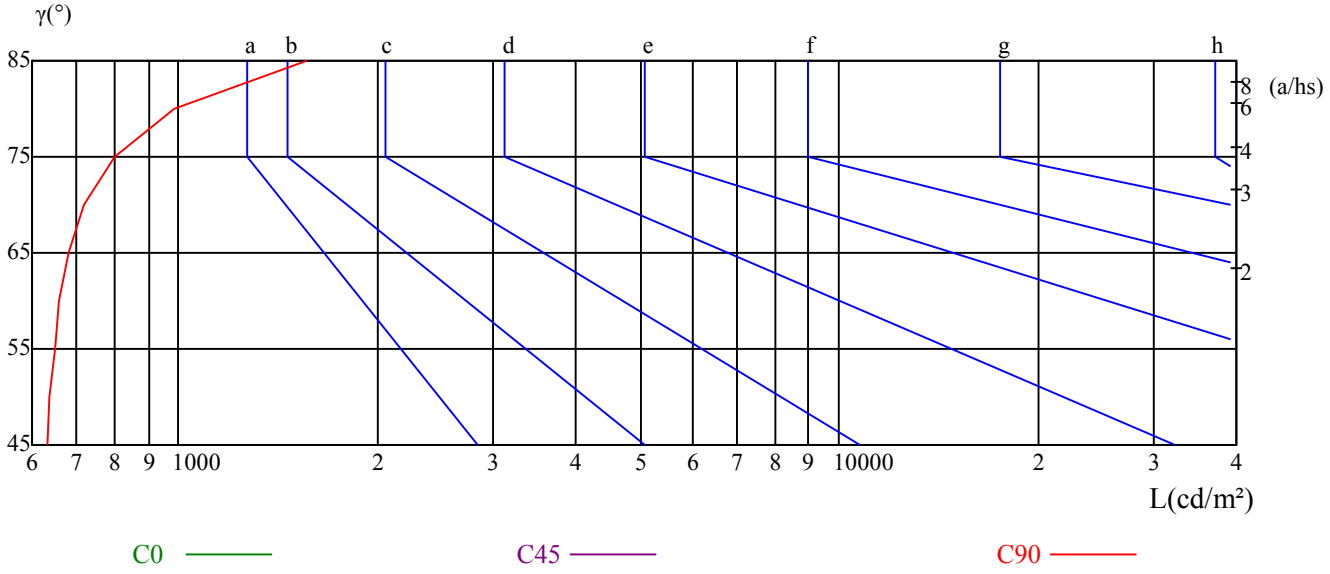
γ	45	50	55	60	65	70	75	80	85
C0	440	412	380	345	303	254	193	127	52
C45	500	481	460	437	413	388	360	342	328
C90	635	638	648	660	680	721	801	987	1563

L横(65)	L纵(65)	L45(65)	L横(75)	L纵(75)	L45(75)	L横(85)	L纵(85)	L45(85)
485	684	590	395	810	629	216	1615	1078

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 Limitting Curve



Utilization factor table for indoor luminaire

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	COEFFCIENTS OF UTILIZATION RHOFC=20 CU															
0	1.18	1.18	1.18	1.14	1.14	1.14	1.08	1.08	1.08	1.02	1.02	1.02	0.97	0.97	0.97	0.95
1	1.01	0.96	0.91	0.98	0.93	0.89	0.92	0.89	0.86	0.88	0.85	0.82	0.83	0.81	0.79	0.76
2	0.87	0.80	0.73	0.85	0.78	0.72	0.80	0.74	0.70	0.76	0.71	0.67	0.72	0.68	0.65	0.62
3	0.76	0.67	0.60	0.74	0.66	0.60	0.70	0.63	0.58	0.67	0.61	0.56	0.63	0.59	0.54	0.52
4	0.67	0.58	0.51	0.65	0.57	0.50	0.62	0.55	0.49	0.59	0.53	0.48	0.56	0.51	0.46	0.44
5	0.60	0.51	0.44	0.58	0.50	0.43	0.56	0.48	0.42	0.53	0.46	0.41	0.51	0.45	0.40	0.38
6	0.54	0.45	0.38	0.52	0.44	0.38	0.50	0.42	0.37	0.48	0.41	0.36	0.46	0.40	0.35	0.33
7	0.49	0.40	0.33	0.48	0.39	0.33	0.46	0.38	0.32	0.44	0.37	0.32	0.42	0.36	0.31	0.29
8	0.44	0.36	0.30	0.43	0.35	0.29	0.42	0.34	0.29	0.40	0.33	0.28	0.38	0.32	0.28	0.26
9	0.41	0.32	0.27	0.40	0.32	0.26	0.38	0.31	0.26	0.37	0.30	0.26	0.35	0.30	0.25	0.23
10	0.37	0.29	0.24	0.37	0.29	0.24	0.35	0.28	0.24	0.34	0.28	0.23	0.33	0.27	0.23	0.21

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	958.19	956.02	939.87	915.13	881.12	838.29	788.13	732.15	670.68
15.0	958.19	953.06	938.21	913.45	880.28	838.59	790.15	735.20	674.13
30.0	958.19	953.54	939.83	916.70	884.88	844.97	798.64	745.21	686.20
45.0	958.19	953.89	940.92	920.79	891.96	854.96	811.01	762.23	706.93
60.0	958.19	954.52	942.81	923.58	897.47	863.49	823.11	776.72	724.18
75.0	958.19	954.67	944.35	926.39	901.57	869.73	832.16	787.09	737.11
90.0	958.19	954.70	944.90	926.91	902.16	870.80	834.24	790.43	740.09
105.0	958.19	954.67	944.35	926.39	901.57	869.73	832.16	787.09	737.11
120.0	958.19	954.52	942.81	923.58	897.47	863.49	823.11	776.72	724.18
135.0	958.19	953.89	940.92	920.79	891.96	854.96	811.01	762.23	706.93
150.0	958.19	953.54	939.83	916.70	884.88	844.97	798.64	745.21	686.20
165.0	958.19	953.06	938.21	913.45	880.28	838.59	790.15	735.20	674.13
180.0	958.19	956.02	939.87	915.13	881.12	838.29	788.13	732.15	670.68
195.0	958.19	953.06	938.21	913.45	880.28	838.59	790.15	735.20	674.13
210.0	958.19	953.54	939.83	916.70	884.88	844.97	798.64	745.21	686.20
225.0	958.19	953.89	940.92	920.79	891.96	854.96	811.01	762.23	706.93
240.0	958.19	954.52	942.81	923.58	897.47	863.49	823.11	776.72	724.18
255.0	958.19	954.67	944.35	926.39	901.57	869.73	832.16	787.09	737.11
270.0	958.19	954.70	944.90	926.91	902.16	870.80	834.24	790.43	740.09
285.0	958.19	954.67	944.35	926.39	901.57	869.73	832.16	787.09	737.11
300.0	958.19	954.52	942.81	923.58	897.47	863.49	823.11	776.72	724.18
315.0	958.19	953.89	940.92	920.79	891.96	854.96	811.01	762.23	706.93
330.0	958.19	953.54	939.83	916.70	884.88	844.97	798.64	745.21	686.20
345.0	958.19	953.06	938.21	913.45	880.28	838.59	790.15	735.20	674.13
360.0	958.19	956.02	939.87	915.13	881.12	838.29	788.13	732.15	670.68

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	607.69	538.09	465.59	390.52	312.33	234.77	155.91	87.35	28.75
15.0	611.92	543.33	472.40	397.79	320.84	245.87	172.10	104.56	53.43
30.0	625.09	558.08	489.13	415.95	343.94	273.48	205.53	146.82	97.84
45.0	646.49	583.72	516.80	448.72	380.35	313.18	248.42	193.47	143.21
60.0	666.44	605.05	541.84	477.10	411.19	346.75	286.69	231.70	181.04
75.0	682.32	623.98	561.79	497.52	434.70	371.52	312.56	256.76	206.52
90.0	686.40	627.20	569.21	505.40	440.97	378.82	319.53	265.70	214.60
105.0	682.32	623.98	561.79	497.52	434.70	371.52	312.56	256.76	206.52
120.0	666.44	605.05	541.84	477.10	411.19	346.75	286.69	231.70	181.04
135.0	646.49	583.72	516.80	448.72	380.35	313.18	248.42	193.47	143.21
150.0	625.09	558.08	489.13	415.95	343.94	273.48	205.53	146.82	97.84
165.0	611.92	543.33	472.40	397.79	320.84	245.87	172.10	104.56	53.43
180.0	607.69	538.09	465.59	390.52	312.33	234.77	155.91	87.35	28.75
195.0	611.92	543.33	472.40	397.79	320.84	245.87	172.10	104.56	53.43
210.0	625.09	558.08	489.13	415.95	343.94	273.48	205.53	146.82	97.84
225.0	646.49	583.72	516.80	448.72	380.35	313.18	248.42	193.47	143.21
240.0	666.44	605.05	541.84	477.10	411.19	346.75	286.69	231.70	181.04
255.0	682.32	623.98	561.79	497.52	434.70	371.52	312.56	256.76	206.52
270.0	686.40	627.20	569.21	505.40	440.97	378.82	319.53	265.70	214.60
285.0	682.32	623.98	561.79	497.52	434.70	371.52	312.56	256.76	206.52
300.0	666.44	605.05	541.84	477.10	411.19	346.75	286.69	231.70	181.04
315.0	646.49	583.72	516.80	448.72	380.35	313.18	248.42	193.47	143.21
330.0	625.09	558.08	489.13	415.95	343.94	273.48	205.53	146.82	97.84
345.0	611.92	543.33	472.40	397.79	320.84	245.87	172.10	104.56	53.43
360.0	607.69	538.09	465.59	390.52	312.33	234.77	155.91	87.35	28.75

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	3.17	2.22	2.17	2.22	2.58	2.85	3.07	3.12	3.03
15.0	22.27	9.92	6.33	5.47	5.35	5.40	5.24	5.04	4.65
30.0	60.45	36.50	22.65	15.47	12.28	10.84	10.01	9.25	8.35
45.0	102.07	71.67	49.32	34.17	25.23	19.63	16.41	14.41	12.67
60.0	137.84	103.79	75.77	54.81	40.69	30.63	24.07	19.72	16.73
75.0	162.33	124.88	94.84	71.04	52.97	39.99	30.62	24.26	20.07
90.0	169.41	133.16	101.35	76.02	57.05	43.45	33.16	26.04	21.21
105.0	162.33	124.88	94.84	71.04	52.97	39.99	30.62	24.26	20.07
120.0	137.84	103.79	75.77	54.81	40.69	30.63	24.07	19.72	16.73
135.0	102.07	71.67	49.32	34.17	25.23	19.63	16.41	14.41	12.67
150.0	60.45	36.50	22.65	15.47	12.28	10.84	10.01	9.25	8.35
165.0	22.27	9.92	6.33	5.47	5.35	5.40	5.24	5.04	4.65
180.0	3.17	2.22	2.17	2.22	2.58	2.85	3.07	3.12	3.03
195.0	22.27	9.92	6.33	5.47	5.35	5.40	5.24	5.04	4.65
210.0	60.45	36.50	22.65	15.47	12.28	10.84	10.01	9.25	8.35
225.0	102.07	71.67	49.32	34.17	25.23	19.63	16.41	14.41	12.67
240.0	137.84	103.79	75.77	54.81	40.69	30.63	24.07	19.72	16.73
255.0	162.33	124.88	94.84	71.04	52.97	39.99	30.62	24.26	20.07
270.0	169.41	133.16	101.35	76.02	57.05	43.45	33.16	26.04	21.21
285.0	162.33	124.88	94.84	71.04	52.97	39.99	30.62	24.26	20.07
300.0	137.84	103.79	75.77	54.81	40.69	30.63	24.07	19.72	16.73
315.0	102.07	71.67	49.32	34.17	25.23	19.63	16.41	14.41	12.67
330.0	60.45	36.50	22.65	15.47	12.28	10.84	10.01	9.25	8.35
345.0	22.27	9.92	6.33	5.47	5.35	5.40	5.24	5.04	4.65
360.0	3.17	2.22	2.17	2.22	2.58	2.85	3.07	3.12	3.03

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	2.94	3.16	3.44	3.75	4.07	4.43	4.88	5.29	5.61
15.0	4.22	4.13	4.20	4.27	4.43	4.70	5.04	5.45	5.65
30.0	7.52	6.89	6.44	6.02	5.59	5.36	5.41	5.50	5.61
45.0	11.21	10.02	9.05	8.24	7.34	6.46	5.87	5.72	5.65
60.0	14.53	12.77	11.36	10.05	8.79	7.71	6.57	5.82	5.60
75.0	16.92	14.83	12.96	11.30	9.86	8.39	7.20	6.19	5.58
90.0	17.90	15.44	13.60	11.81	10.07	8.64	7.29	6.31	5.55
105.0	16.92	14.83	12.96	11.30	9.86	8.39	7.20	6.19	5.58
120.0	14.53	12.77	11.36	10.05	8.79	7.71	6.57	5.82	5.60
135.0	11.21	10.02	9.05	8.24	7.34	6.46	5.87	5.72	5.65
150.0	7.52	6.89	6.44	6.02	5.59	5.36	5.41	5.50	5.61
165.0	4.22	4.13	4.20	4.27	4.43	4.70	5.04	5.45	5.65
180.0	2.94	3.16	3.44	3.75	4.07	4.43	4.88	5.29	5.61
195.0	4.22	4.13	4.20	4.27	4.43	4.70	5.04	5.45	5.65
210.0	7.52	6.89	6.44	6.02	5.59	5.36	5.41	5.50	5.61
225.0	11.21	10.02	9.05	8.24	7.34	6.46	5.87	5.72	5.65
240.0	14.53	12.77	11.36	10.05	8.79	7.71	6.57	5.82	5.60
255.0	16.92	14.83	12.96	11.30	9.86	8.39	7.20	6.19	5.58
270.0	17.90	15.44	13.60	11.81	10.07	8.64	7.29	6.31	5.55
285.0	16.92	14.83	12.96	11.30	9.86	8.39	7.20	6.19	5.58
300.0	14.53	12.77	11.36	10.05	8.79	7.71	6.57	5.82	5.60
315.0	11.21	10.02	9.05	8.24	7.34	6.46	5.87	5.72	5.65
330.0	7.52	6.89	6.44	6.02	5.59	5.36	5.41	5.50	5.61
345.0	4.22	4.13	4.20	4.27	4.43	4.70	5.04	5.45	5.65
360.0	2.94	3.16	3.44	3.75	4.07	4.43	4.88	5.29	5.61

Intensity data(cd)

C/γ(°)	180.0
0.0	5.70
15.0	5.83
30.0	5.66
45.0	5.67
60.0	5.58
75.0	5.36
90.0	5.37
105.0	5.36
120.0	5.58
135.0	5.67
150.0	5.66
165.0	5.83
180.0	5.70
195.0	5.83
210.0	5.66
225.0	5.67
240.0	5.58
255.0	5.36
270.0	5.37
285.0	5.36
300.0	5.58
315.0	5.67
330.0	5.66
345.0	5.83
360.0	5.70