
亮明

Client:

LumCAT: CES1112LAJUDPC

Luminaire: LED LAMP

Report No:

Ballast type:

Test No:

Voltage(V): 120.050

LampCAT:

Current(A): 0.164

Lamp flux(lm): 1391.5

Power (W): 19.320

Number of Lamps: 1

PF: 0.984

Length(mm): 270

Width(mm): 70

Phm Type: C

Height(mm): 280

Photometric Results

Lumens(lm): 1391.54, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 72.03

Central intensity(cd): 10.562, Maximum intensity(cd): 288.318

Angle of maximum intensity: C=90.0 γ =95.0

Beam Angle(50%Imax): [C0/180]Total=332.6

[C90/270]Total=153.9

Field angle(10%Imax): [C0/180]Total=355.6

[C90/270]Total=340.1

Maximum s/h(1/2): C0_180=3.83 C90_270=139.03

Maximum s/h(1/4): C0_180=3.59 C90_270=4.99

Up flux rate of lamp(%): 49.47%

Down flux rate of lamp(%): 50.53%

Up flux rate of LUM(%): 49.47%

Down flux rate of LUM(%): 50.53%

CIE Type : General diffuse lighting

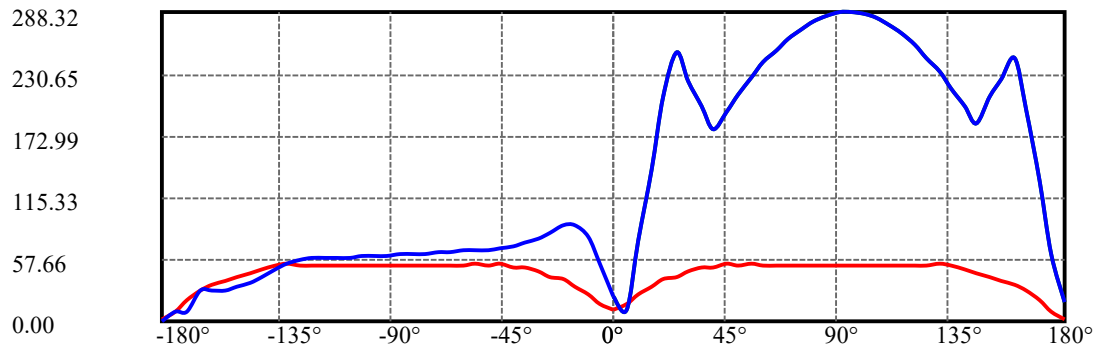
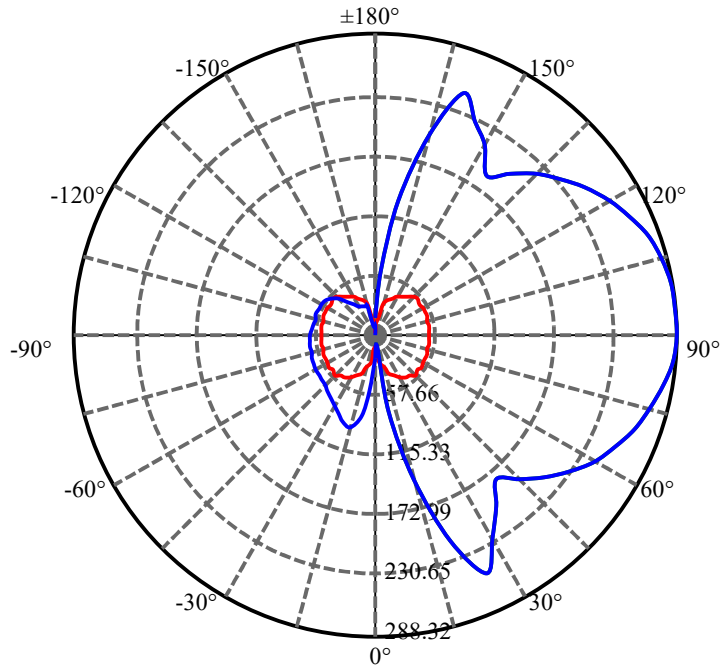
Output flux ratio in π solid angle : 23.525%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	16.507	0.000	0	0.00%	0.00%
5.0	24.891	0.495	0.495	0.04%	0.04%
10.0	52.214	2.758	3.253	0.20%	0.23%
15.0	77.874	7.717	10.97	0.55%	0.79%
20.0	100.920	14.735	25.705	1.06%	1.85%
25.0	115.705	22.720	48.425	1.63%	3.48%
30.0	117.430	29.503	77.928	2.12%	5.60%
35.0	113.226	33.966	111.894	2.44%	8.04%
40.0	106.714	36.695	148.59	2.64%	10.68%
45.0	104.888	39.180	187.77	2.82%	13.49%
50.0	105.421	42.496	230.266	3.05%	16.55%
55.0	107.942	46.392	276.658	3.33%	19.88%
60.0	111.389	50.698	327.355	3.64%	23.52%
65.0	114.844	54.998	382.353	3.95%	27.48%
70.0	117.909	58.935	441.288	4.24%	31.71%
75.0	120.322	62.270	503.557	4.47%	36.19%
80.0	122.240	64.903	568.46	4.66%	40.85%
85.0	123.684	66.824	635.283	4.80%	45.65%
90.0	124.298	67.899	703.183	4.88%	50.53%
95.0	124.186	68.037	771.22	4.89%	55.42%
100.0	123.460	67.291	838.511	4.84%	60.26%
105.0	122.229	65.739	904.25	4.72%	64.98%
110.0	120.299	63.393	967.643	4.56%	69.54%
115.0	117.681	60.258	1027.901	4.33%	73.87%
120.0	114.612	56.471	1084.372	4.06%	77.93%
125.0	110.771	52.097	1136.469	3.74%	81.67%
130.0	106.521	47.247	1183.715	3.40%	85.07%
135.0	101.951	42.125	1225.84	3.03%	88.09%
140.0	99.005	37.209	1263.049	2.67%	90.77%
145.0	97.079	32.715	1295.764	2.35%	93.12%
150.0	98.187	28.754	1324.518	2.07%	95.18%
155.0	96.052	24.581	1349.099	1.77%	96.95%
160.0	90.165	19.531	1368.63	1.40%	98.35%
165.0	70.867	13.271	1381.901	0.95%	99.31%
170.0	44.316	6.833	1388.734	0.49%	99.80%
175.0	23.891	2.440	1391.174	0.18%	99.97%
180.0	6.408	0.362	1391.536	0.03%	100.00%

ZONAL LUMEN SUMMARY			
Zone	Lumens	%Lamp	%Fixt
0-30	77.93	5.60%	5.60%
0-40	148.59	10.68%	10.68%
0-60	327.36	23.52%	23.52%
0-90	703.18	50.53%	50.53%
0-120	1084.37	77.93%	77.93%
0-180	1391.54	100.00%	100.00%
60-90	375.83	27.01%	27.01%
90-120	381.19	27.39%	27.39%
90-130	480.53	34.53%	34.53%
90-150	621.34	44.65%	44.65%
90-180	687.99	49.44%	49.44%
0-122.77	1113.23	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	3.25
10-20	22.45
20-30	52.22
30-40	70.66
40-50	81.68
50-60	97.09
60-70	113.93
70-80	127.17
80-90	134.72
90-100	135.33
100-110	129.13
110-120	116.73
120-130	99.34
130-140	79.33
140-150	61.47
150-160	44.11
160-170	20.10
170-180	2.44



C90(Max): —————

C0/C180: —————

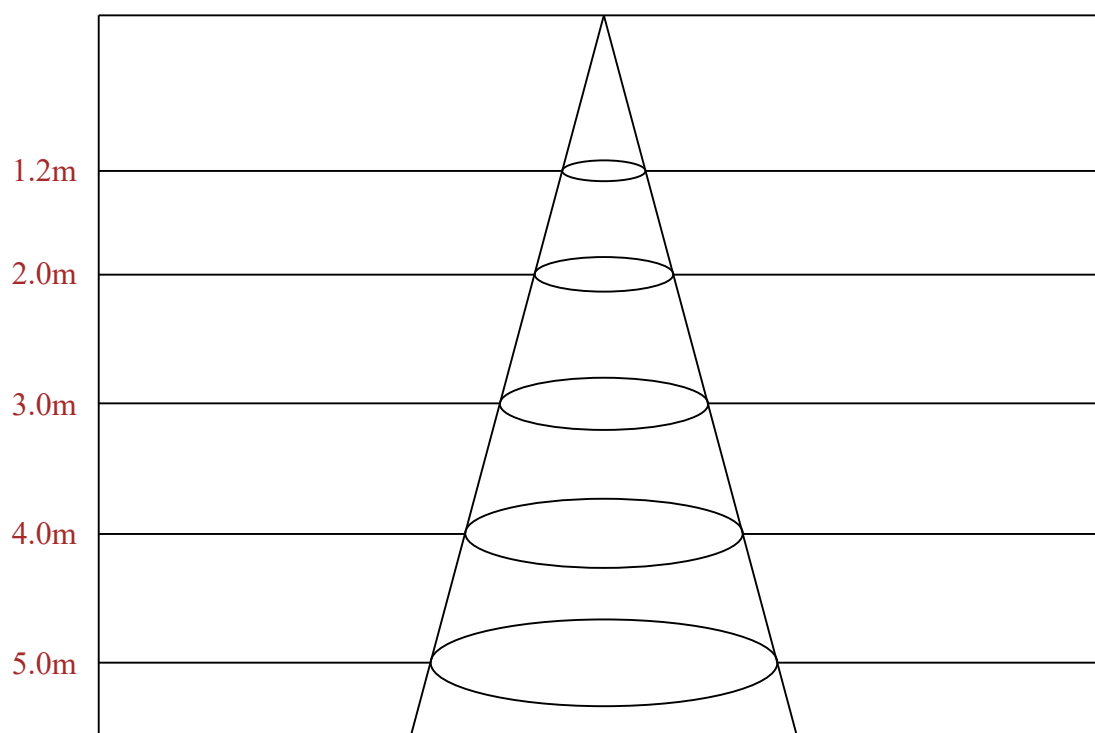
C90/C270: —————

Field angle(10%Imax):C0/180Left:222.8 Right:132.8

:C90/270Left:256.3 Right:83.8

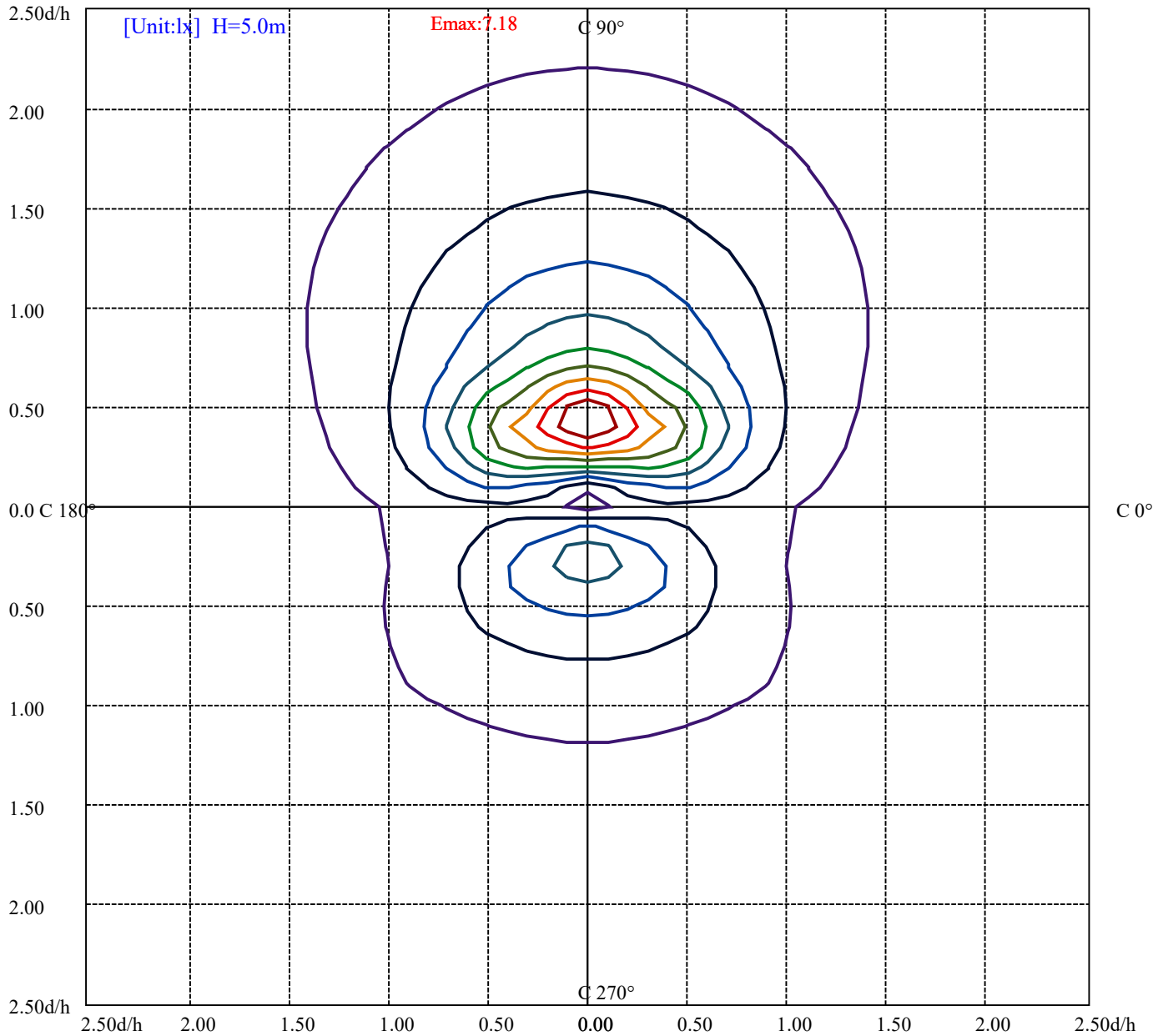
Beam Angle(50%Imax):C0/180Left:211.3 Right:121.3

:C90/270Left:79.9 Right:74.0

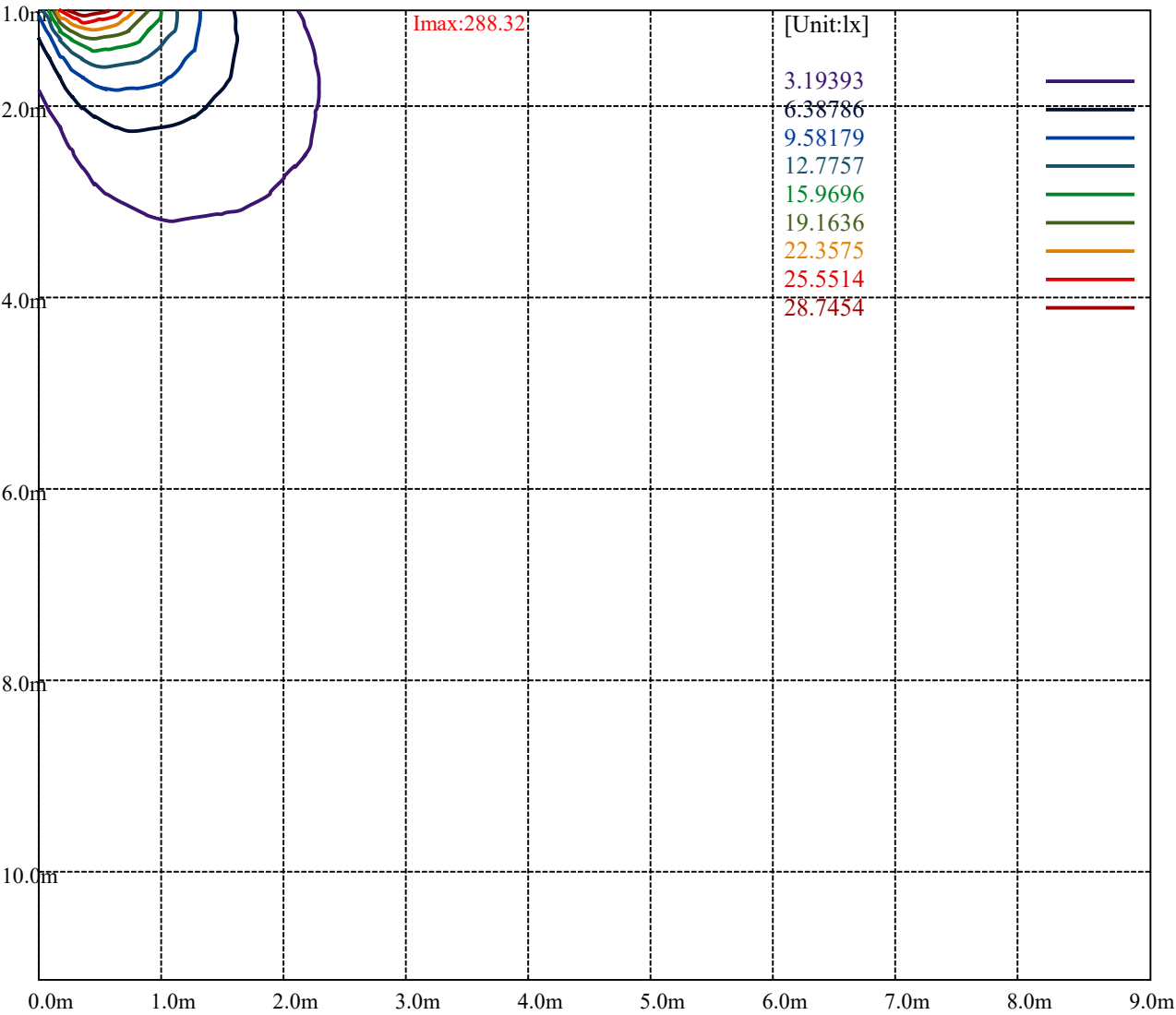


Max , Ave

Beam angle of C90 plane 344.37



(10%Emax) 0.717724	—
(20%Emax) 1.435448	—
(30%Emax) 2.153168	—
(40%Emax) 2.870892	—
(50%Emax) 3.588616	—
(60%Emax) 4.30632	—
(70%Emax) 5.02408	—
(80%Emax) 5.7418	—
(90%Emax) 6.45952	—



Luminance Table

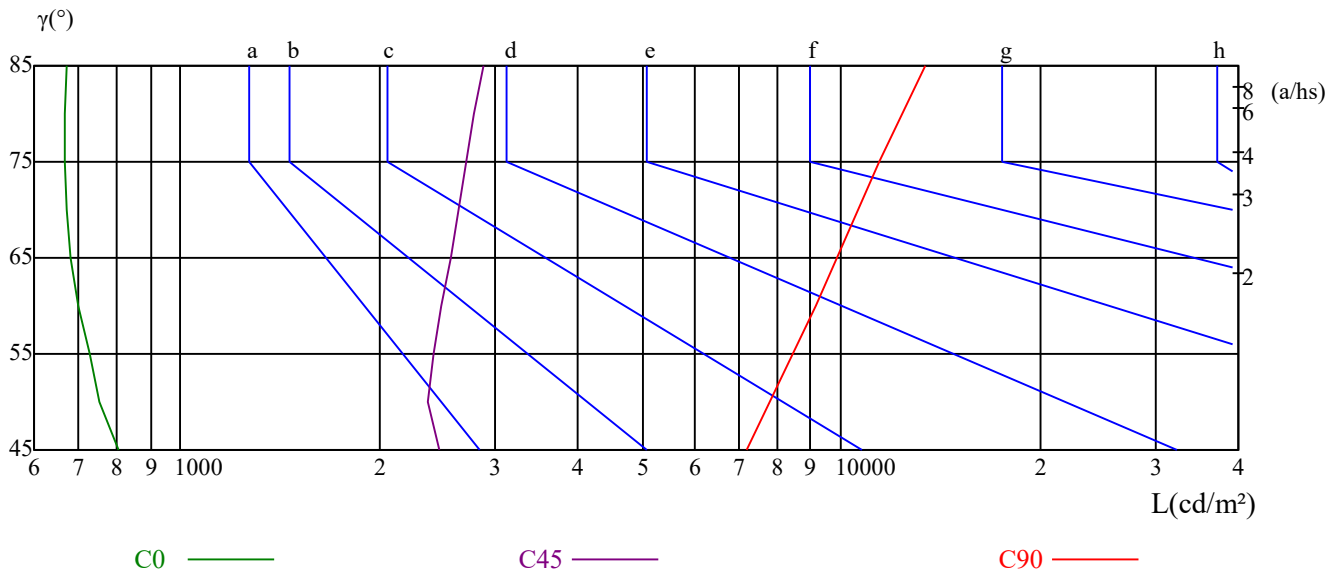
γ	45	50	55	60	65	70	75	80	85
C0	804	751	727	700	682	672	666	667	671
C45	2470	2366	2421	2490	2564	2636	2709	2787	2877
C90	7201	7797	8446	9144	9836	10612	11445	12385	13464

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
6536	19892	15824	10616	34338	27183	31328	105457	83128

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	1.07	1.07	1.07	0.99	0.99	0.99	0.84	0.84	0.84	0.70	0.70	0.70	0.57	0.57	0.57	0.51
1	0.87	0.81	0.76	0.80	0.75	0.70	0.66	0.62	0.59	0.54	0.51	0.48	0.43	0.40	0.38	0.33
2	0.73	0.65	0.58	0.67	0.60	0.54	0.55	0.50	0.45	0.45	0.41	0.37	0.35	0.32	0.29	0.24
3	0.63	0.54	0.47	0.58	0.50	0.43	0.48	0.41	0.36	0.38	0.33	0.29	0.30	0.26	0.23	0.18
4	0.55	0.45	0.38	0.50	0.42	0.35	0.41	0.35	0.30	0.33	0.28	0.24	0.26	0.22	0.18	0.15
5	0.48	0.39	0.32	0.44	0.36	0.30	0.37	0.30	0.25	0.29	0.24	0.20	0.23	0.19	0.15	0.12
6	0.43	0.34	0.27	0.39	0.31	0.25	0.33	0.26	0.21	0.26	0.21	0.17	0.20	0.16	0.13	0.10
7	0.38	0.30	0.23	0.35	0.27	0.22	0.29	0.23	0.18	0.24	0.18	0.15	0.18	0.14	0.11	0.08
8	0.35	0.26	0.20	0.32	0.24	0.19	0.26	0.20	0.16	0.21	0.16	0.13	0.17	0.13	0.10	0.07
9	0.31	0.23	0.18	0.29	0.21	0.16	0.24	0.18	0.14	0.20	0.15	0.11	0.15	0.11	0.09	0.06
10	0.29	0.21	0.16	0.26	0.19	0.14	0.22	0.16	0.12	0.18	0.13	0.10	0.14	0.10	0.08	0.05

亮明 CES1112LAJUDPC

Intensity data(cd)										Appendix Page: 10 Total:12	
C/ γ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0		
0.0	10.56	10.10	22.79	30.39	37.61	41.60	46.14	50.12	49.75		
15.0	11.86	10.28	29.46	42.90	67.63	92.55	105.25	106.27	107.84		
30.0	15.66	10.38	35.30	73.75	102.93	141.10	161.76	164.17	150.92		
45.0	18.53	11.21	49.47	100.24	139.90	176.86	189.93	177.98	162.50		
60.0	21.77	11.12	64.20	124.89	178.81	202.06	183.90	178.07	159.08		
75.0	22.24	11.77	74.21	136.38	198.36	232.64	217.44	187.89	173.99		
90.0	22.79	11.21	74.49	142.31	208.92	251.26	224.58	200.12	179.36		
105.0	21.31	11.77	71.99	126.46	190.85	232.73	216.33	192.98	172.88		
120.0	19.09	10.56	60.04	112.94	160.84	191.69	195.49	184.92	169.17		
135.0	6.11	10.01	44.84	88.48	122.20	163.52	191.04	194.93	170.66		
150.0	15.01	8.62	30.57	59.11	113.68	119.61	150.64	154.16	154.26		
165.0	13.16	7.69	19.83	30.11	51.33	72.73	86.44	93.85	97.74		
180.0	10.56	20.75	28.63	34.37	40.02	42.06	46.79	49.66	51.79		
195.0	11.86	25.01	34.56	44.56	47.62	53.18	56.61	58.74	58.00		
210.0	15.66	33.91	47.16	55.87	64.67	70.60	72.82	72.64	71.62		
225.0	18.53	42.62	59.57	73.47	81.44	83.66	82.27	80.51	78.75		
240.0	21.77	49.38	71.89	85.33	87.83	84.77	80.42	76.62	73.75		
255.0	22.24	52.53	78.29	89.78	88.48	83.57	77.82	73.56	70.23		
270.0	22.79	53.74	79.21	90.42	88.66	82.92	77.55	73.19	70.04		
285.0	21.31	51.33	76.43	88.29	87.74	82.73	77.73	73.28	72.26		
300.0	19.09	47.16	67.82	81.34	83.48	83.01	79.58	75.97	73.38		
315.0	6.11	39.10	55.68	67.08	75.51	78.38	78.01	76.43	74.86		
330.0	15.01	31.87	43.08	51.05	59.20	64.95	67.73	67.08	64.95		
345.0	13.16	25.29	33.63	39.47	44.38	48.73	52.07	54.29	53.36		
360.0	10.56	10.10	22.79	30.39	37.61	41.60	46.14	50.12	49.75		
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	54.85	52.53	53.46	52.99	52.81	52.72	52.62	52.53	52.35		
15.0	92.18	87.92	83.94	85.24	88.20	90.70	92.74	94.22	95.70		
30.0	131.84	121.09	122.39	128.50	133.69	138.79	142.77	145.92	148.61		
45.0	147.03	153.98	163.43	172.69	181.22	188.17	194.19	198.82	202.80		
60.0	172.60	185.85	198.54	210.31	220.78	229.67	237.36	243.48	248.39		
75.0	190.67	205.31	220.04	233.93	245.89	256.17	264.04	271.55	276.74		
90.0	196.04	211.79	227.17	241.62	253.30	264.04	272.66	279.70	285.08		
105.0	188.63	202.90	217.26	230.60	242.27	252.46	260.62	266.64	272.48		
120.0	167.41	180.57	192.80	203.92	214.66	222.45	229.67	235.32	240.05		
135.0	154.07	147.49	156.02	164.73	172.60	179.46	184.55	189.00	192.52		
150.0	133.97	121.46	114.88	120.16	125.17	129.61	132.95	135.91	138.04		
165.0	97.93	87.27	81.07	77.45	80.33	82.73	84.77	86.25	87.18		
180.0	52.62	52.72	52.35	51.88	51.60	51.42	51.23	51.14	50.86		
195.0	55.31	52.16	49.20	46.88	45.21	44.47	43.73	42.99	42.15		
210.0	70.23	69.11	68.74	68.56	68.19	68.19	68.00	67.17	66.15		
225.0	77.82	77.27	76.99	76.99	76.99	77.36	76.99	76.90	76.25		
240.0	71.62	70.23	69.58	69.02	68.65	68.28	67.63	66.89	66.34		
255.0	67.91	66.52	65.41	64.67	64.11	63.56	62.81	62.44	61.52		
270.0	68.00	66.52	65.69	65.41	64.48	63.93	63.28	62.72	62.35		
285.0	67.91	66.71	65.78	65.50	65.13	64.85	64.39	63.93	63.56		
300.0	71.62	70.50	70.23	69.95	69.95	70.04	70.04	69.86	69.76		
315.0	74.03	73.65	73.75	74.12	74.77	75.60	76.16	76.34	76.16		
330.0	62.72	60.50	59.57	58.83	58.74	58.83	59.11	59.20	59.11		
345.0	50.31	46.05	42.34	39.38	37.52	36.32	35.39	34.84	34.28		
360.0	54.85	52.53	53.46	52.99	52.81	52.72	52.62	52.53	52.35		

亮明 CES1112LAJUDPC

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	52.07	51.70	51.88	51.98	51.79	51.70	51.79	51.88	53.09
15.0	96.35	96.35	95.98	95.06	93.48	91.26	88.76	85.61	86.53
30.0	150.00	150.00	149.07	147.49	144.62	140.82	136.56	131.28	125.91
45.0	205.03	205.03	203.92	201.41	197.06	191.13	184.55	176.49	167.32
60.0	250.80	251.17	249.31	246.44	241.16	233.66	224.58	215.03	203.27
75.0	279.61	279.98	277.94	274.79	268.58	260.62	250.24	238.47	225.23
90.0	288.04	288.32	286.28	282.67	276.55	267.75	257.74	244.96	231.99
105.0	274.98	275.44	273.49	269.60	264.32	256.08	245.79	234.21	221.33
120.0	242.37	242.74	240.70	237.55	232.64	225.60	216.61	207.16	195.95
135.0	194.56	195.02	193.73	191.04	187.05	181.68	174.83	166.95	158.80
150.0	139.43	139.62	138.88	137.40	134.52	131.00	126.74	122.02	116.36
165.0	87.74	88.01	87.74	87.00	85.70	83.94	81.53	79.03	75.79
180.0	50.86	51.51	51.79	52.07	52.35	52.81	53.27	53.46	52.81
195.0	41.51	41.69	42.06	42.34	43.08	44.75	47.16	49.66	52.07
210.0	65.04	64.20	63.56	63.00	62.07	61.24	60.68	60.13	59.20
225.0	75.41	74.03	73.10	71.71	70.50	68.93	68.56	65.78	63.37
240.0	65.41	64.20	63.74	62.35	61.43	60.31	58.92	57.16	55.50
255.0	60.59	59.48	58.55	58.00	57.44	57.07	56.51	55.13	53.18
270.0	61.70	60.87	60.04	59.66	59.66	59.48	59.11	57.35	54.11
285.0	62.91	62.07	61.33	61.05	60.87	59.94	59.02	57.44	56.24
300.0	69.02	68.19	67.91	67.45	66.71	65.78	64.67	63.37	61.52
315.0	75.97	75.51	75.14	74.58	74.03	73.28	72.54	71.43	70.04
330.0	59.11	59.66	60.22	60.68	61.05	61.70	62.81	63.65	64.20
345.0	34.65	35.67	36.69	38.17	40.49	43.82	47.71	50.86	52.72
360.0	52.07	51.70	51.88	51.98	51.79	51.70	51.79	51.88	53.09
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	52.81	50.40	47.34	45.21	40.39	36.04	32.24	27.79	15.19
15.0	88.01	97.19	91.81	81.62	74.67	61.61	45.86	33.35	19.92
30.0	131.74	147.31	162.97	165.75	153.42	116.64	75.79	53.64	27.89
45.0	158.43	163.89	184.28	203.18	203.27	165.19	118.40	77.27	43.17
60.0	190.76	177.60	186.78	207.53	198.45	203.92	157.41	106.73	53.36
75.0	211.61	196.50	181.50	201.60	214.48	224.58	187.98	119.89	58.28
90.0	216.98	201.23	185.29	209.85	225.50	245.79	197.06	131.19	63.46
105.0	207.71	193.45	177.98	191.78	206.51	216.42	187.61	121.92	60.78
120.0	183.53	170.84	171.77	179.64	174.83	191.87	154.07	102.65	52.72
135.0	149.07	151.94	157.50	169.45	178.99	150.46	115.25	78.29	39.84
150.0	115.35	121.83	132.76	130.63	116.74	106.17	77.92	52.35	30.94
165.0	73.10	75.32	78.84	68.74	66.80	58.92	47.90	34.84	23.35
180.0	50.68	47.62	42.80	37.80	35.76	32.89	26.78	11.21	4.08
195.0	52.62	50.03	44.66	38.54	37.61	32.61	22.70	8.71	4.54
210.0	57.35	56.24	51.14	44.84	37.80	28.91	21.31	4.63	5.65
225.0	60.59	59.02	56.42	48.92	39.93	32.06	21.96	3.43	6.67
240.0	54.11	51.79	46.32	41.51	37.06	32.80	25.66	4.26	8.06
255.0	48.45	42.06	37.15	33.26	30.85	30.20	25.48	6.49	8.52
270.0	48.08	40.67	35.67	31.50	29.46	29.00	28.35	9.54	9.73
285.0	52.62	48.27	43.08	38.08	33.82	34.00	28.91	13.62	8.80
300.0	61.15	61.05	56.98	50.49	43.82	37.15	27.05	16.31	8.89
315.0	67.35	65.13	62.07	55.03	44.38	33.35	25.39	15.01	8.15
330.0	63.00	59.20	53.36	45.03	47.53	28.54	25.94	15.94	6.30
345.0	51.70	47.53	41.41	36.50	33.17	34.84	23.81	14.55	5.10
360.0	52.81	50.40	47.34	45.21	40.39	36.04	32.24	27.79	15.19

Intensity data(cd)

C/γ(°)	180.0
0.0	3.80
15.0	8.25
30.0	10.65
45.0	12.41
60.0	15.29
75.0	17.97
90.0	17.42
105.0	16.12
120.0	16.12
135.0	13.43
150.0	12.14
165.0	10.19
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	3.80