
AFX

Client:

LumCAT: MIAV3604LAJUDLB

Luminaire: LED LAMP

Report No:

Ballast type:

Test No: LCZP25100195

Voltage(V): 120.040

LampCAT:

Current(A): 0.242

Lamp flux(lm): 2510.6

Power (W): 28.810

Number of Lamps: 1

PF: 0.992

Length(mm): 890

Width(mm): 50

Phm Type: C

Height(mm): 50

Photometric Results

Lumens(lm): 2510.62, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 87.14

Central intensity(cd): 333.662, Maximum intensity(cd): 427.059

Angle of maximum intensity: C=90.0 γ =125.0

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=1.27 C90_270=1.79

Maximum s/h(1/4): C0_180=1.40 C90_270=1.95

Up flux rate of lamp(%): 49.52%

Down flux rate of lamp(%): 50.48%

Up flux rate of LUM(%): 49.52%

Down flux rate of LUM(%): 50.48%

CIE Type : General diffuse lighting

Output flux ratio in π solid angle : 31.879%

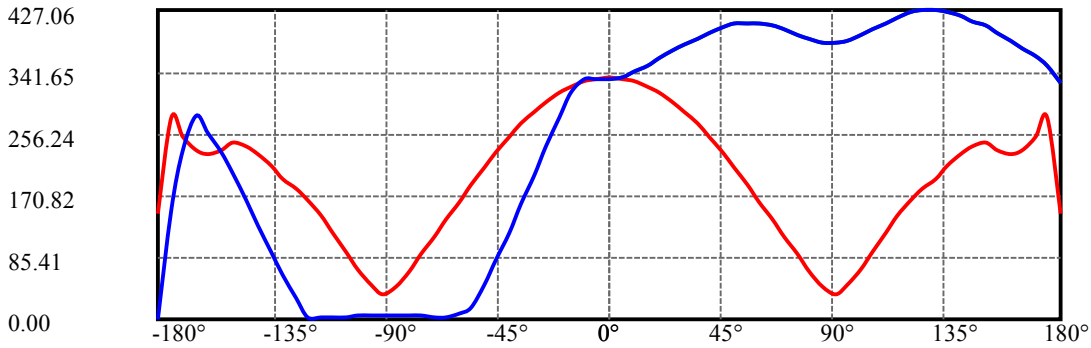
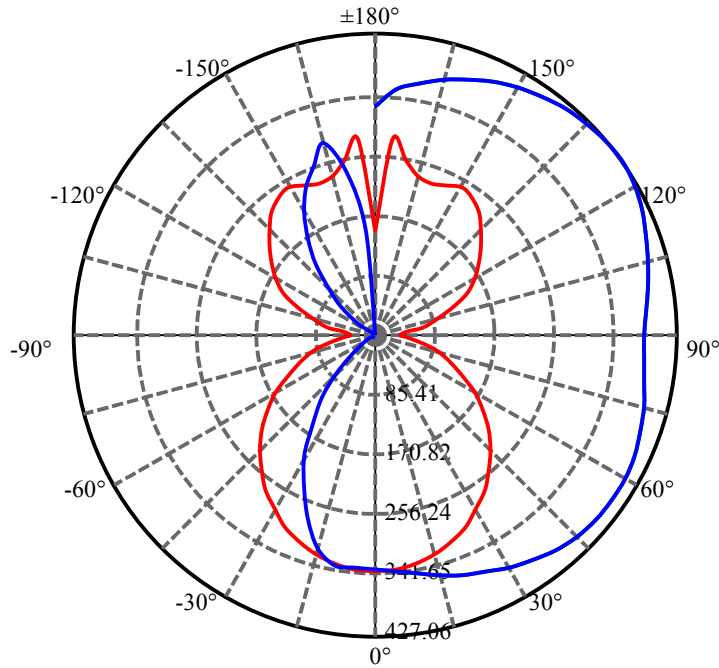
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	330.761	0.000	0	0.00%	0.00%
5.0	331.139	7.913	7.913	0.32%	0.32%
10.0	331.359	23.700	31.612	0.94%	1.26%
15.0	328.369	39.135	70.747	1.56%	2.82%
20.0	319.913	53.427	124.175	2.13%	4.95%
25.0	306.631	65.713	189.887	2.62%	7.56%
30.0	291.300	75.669	265.556	3.01%	10.58%
35.0	274.467	83.313	348.869	3.32%	13.90%
40.0	257.940	88.828	437.697	3.54%	17.43%
45.0	237.850	91.800	529.497	3.66%	21.09%
50.0	218.479	92.208	621.705	3.67%	24.76%
55.0	198.902	90.752	712.457	3.61%	28.38%
60.0	181.418	87.910	800.367	3.50%	31.88%
65.0	167.672	84.864	885.231	3.38%	35.26%
70.0	155.796	81.904	967.135	3.26%	38.52%
75.0	146.237	78.946	1046.082	3.14%	41.67%
80.0	138.211	76.110	1122.192	3.03%	44.70%
85.0	132.230	73.485	1195.677	2.93%	47.62%
90.0	129.490	71.661	1267.338	2.85%	50.48%
95.0	131.751	71.530	1338.868	2.85%	53.33%
100.0	138.387	73.403	1412.271	2.92%	56.25%
105.0	147.112	76.391	1488.662	3.04%	59.29%
110.0	158.087	79.774	1568.436	3.18%	62.47%
115.0	170.629	83.233	1651.669	3.32%	65.79%
120.0	184.046	86.222	1737.892	3.43%	69.22%
125.0	202.939	89.450	1827.342	3.56%	72.78%
130.0	221.017	92.182	1919.524	3.67%	76.46%
135.0	238.378	92.827	2012.351	3.70%	80.15%
140.0	253.985	91.165	2103.516	3.63%	83.78%
145.0	269.540	87.346	2190.862	3.48%	87.26%
150.0	281.192	81.099	2271.962	3.23%	90.49%
155.0	286.893	71.892	2343.853	2.86%	93.36%
160.0	287.921	60.287	2404.14	2.40%	95.76%
165.0	285.704	47.275	2451.415	1.88%	97.64%
170.0	283.790	33.782	2485.197	1.35%	98.99%
175.0	283.880	20.307	2505.504	0.81%	99.80%
180.0	143.957	5.115	2510.619	0.20%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	265.56	10.58%	10.58%
0-40	437.70	17.43%	17.43%
0-60	800.37	31.88%	31.88%
0-90	1267.34	50.48%	50.48%
0-120	1737.89	69.22%	69.22%
0-180	2510.62	100.00%	100.00%
60-90	466.97	18.60%	18.60%
90-120	470.55	18.74%	18.74%
90-130	652.19	25.98%	25.98%
90-150	1004.62	40.01%	40.01%
90-180	1238.17	49.32%	49.32%
0-134.79	2008.50	80.00%	80.00%

ZONAL LUMEN SUMMARY

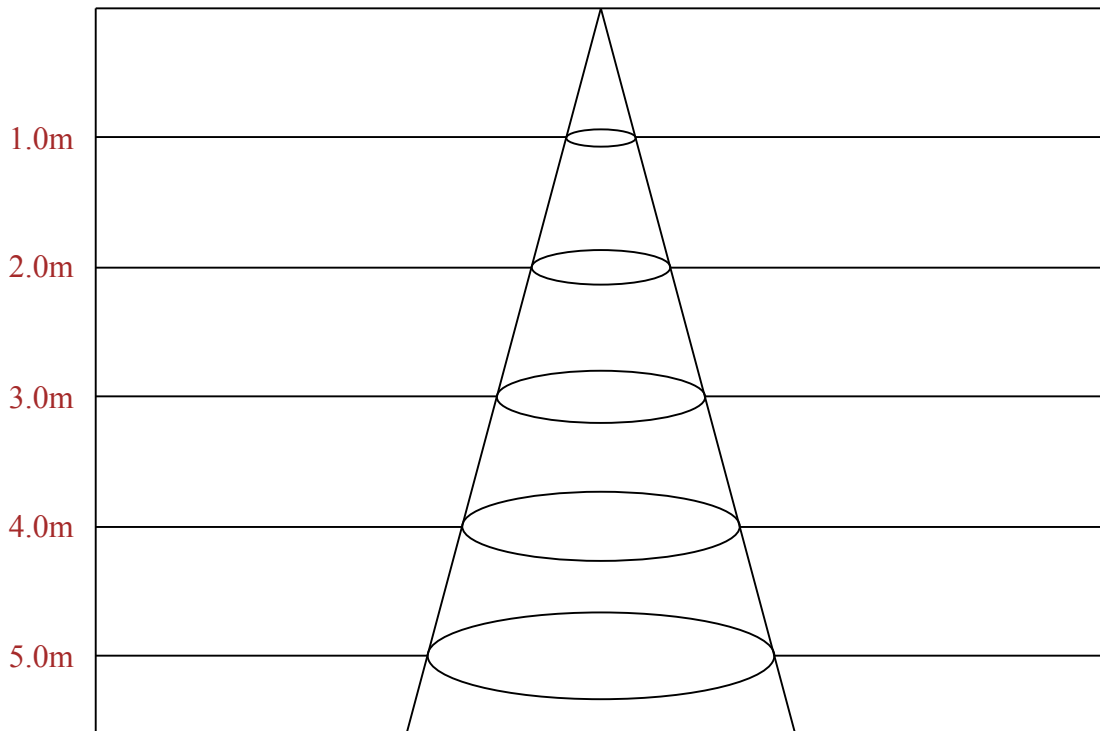
0-10	31.61
10-20	92.56
20-30	141.38
30-40	172.14
40-50	184.01
50-60	178.66
60-70	166.77
70-80	155.06
80-90	145.15
90-100	144.93
100-110	156.17
110-120	169.46
120-130	181.63
130-140	183.99
140-150	168.45
150-160	132.18
160-170	81.06
170-180	20.31



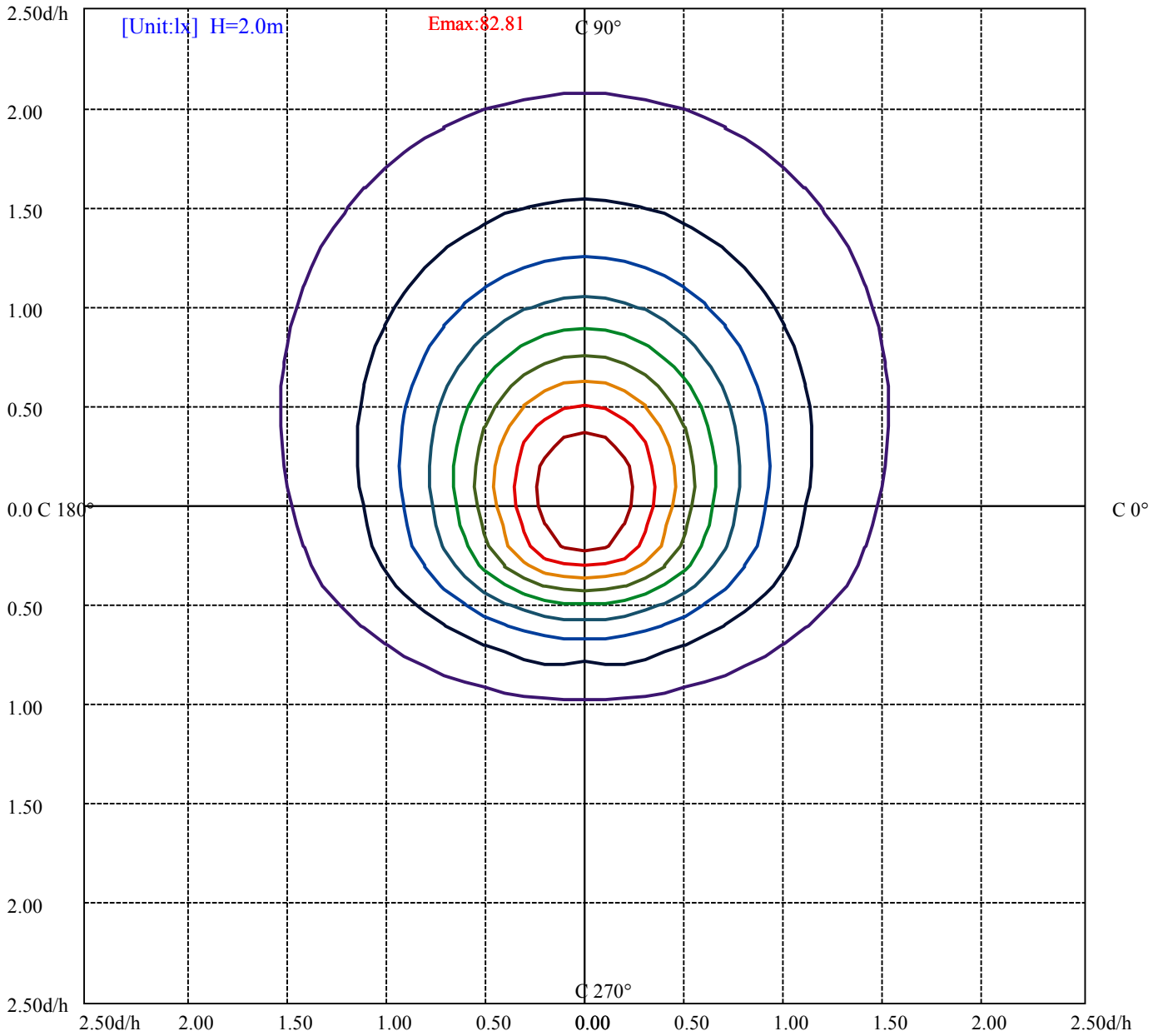
C90(Max): ———
 C0/C180: ———
 C90/C270: ———

Field angle(10%Imax):C0/180Left:0.0 Right:0.0
 :C90/270Left:0.0 Right:0.0

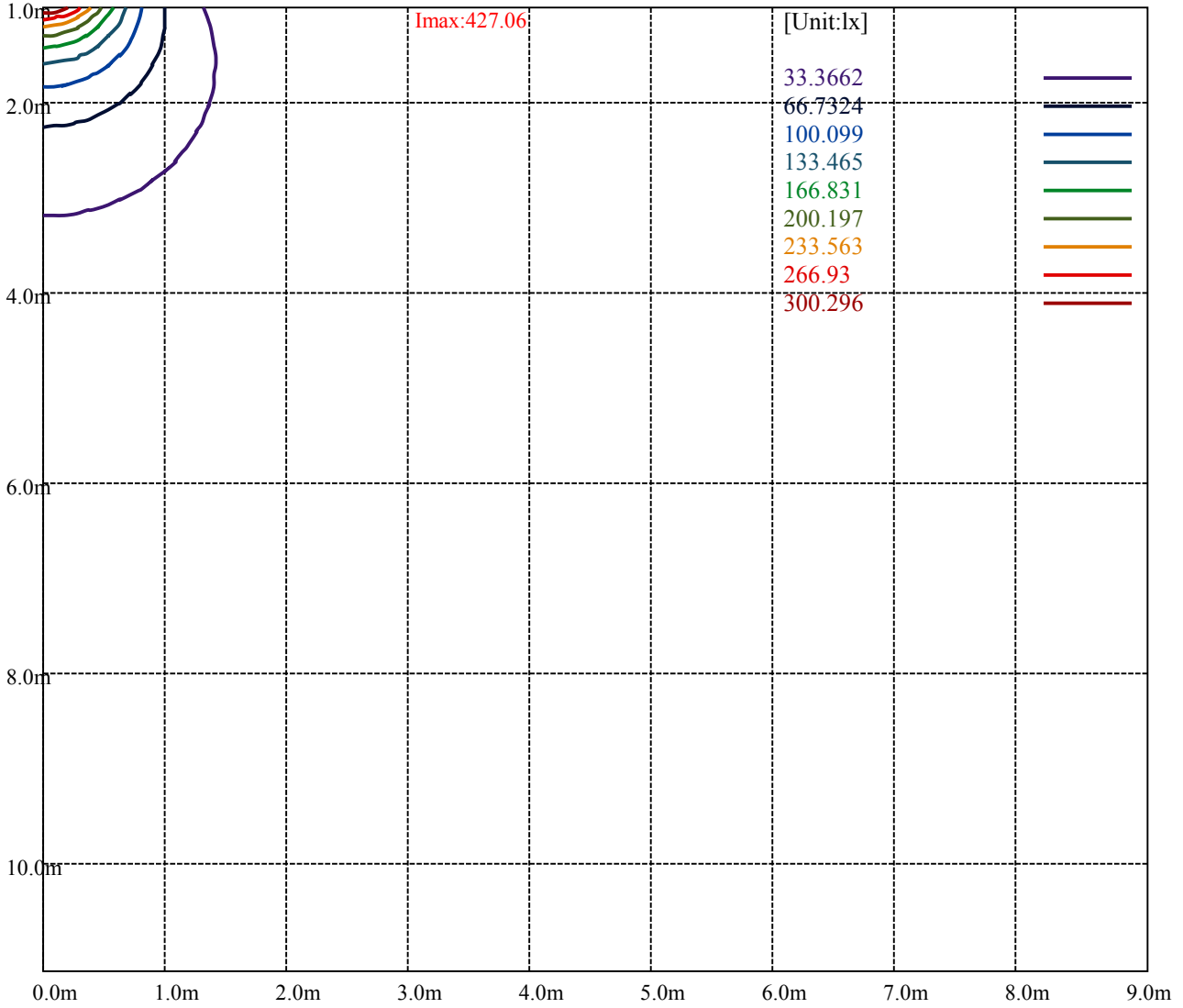
Beam Angle(50%Imax):C0/180Left:179.2 Right:179.2
 :C90/270Left:0.0 Right:0.0



Max , Ave Beam angle of C90 plane 214.11



(10%Emax) 8.281	—
(20%Emax) 16.56198	—
(30%Emax) 24.84298	—
(40%Emax) 33.124	—
(50%Emax) 41.405	—
(60%Emax) 49.686	—
(70%Emax) 57.967	—
(80%Emax) 66.248	—
(90%Emax) 74.529	—



Luminance Table

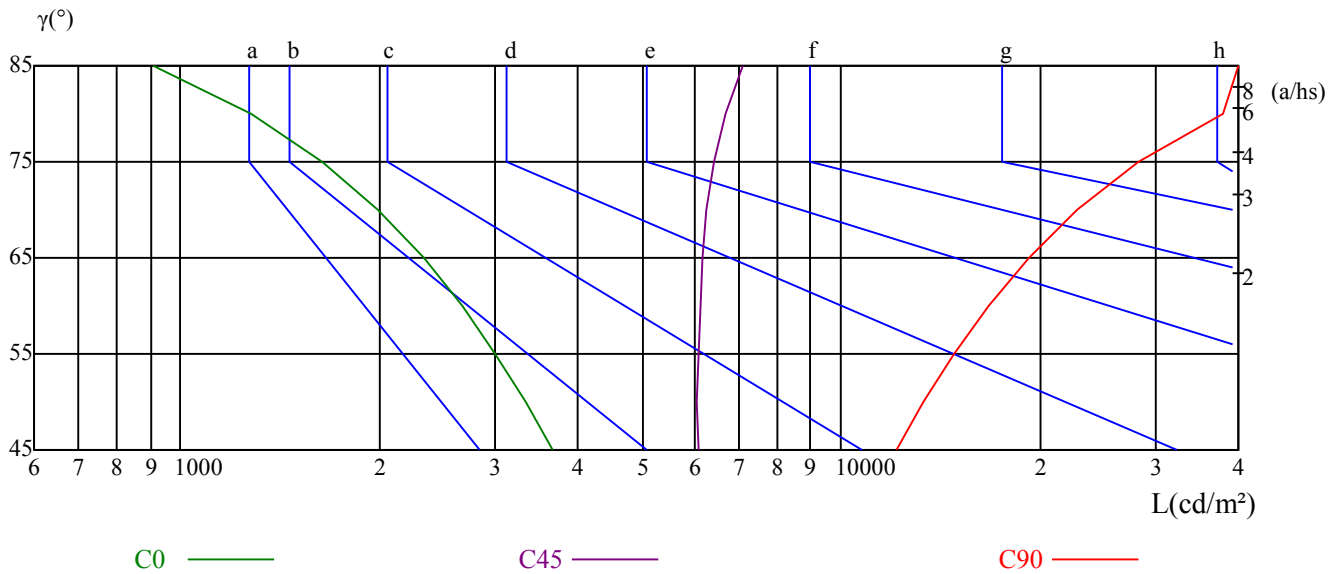
γ	45	50	55	60	65	70	75	80	85
C0	3663	3324	2999	2667	2341	1984	1635	1281	910
C45	6073	6068	6086	6118	6175	6265	6427	6683	7126
C90	12124	13370	14861	16724	19210	22735	28231	37994	60038

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
7361	10860	8573	7735	17258	13005	11312	49885	36474

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



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	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	0.50
1	0.90	0.85	0.81	0.83	0.79	0.75	0.70	0.66	0.63	0.57	0.55	0.53	0.46	0.44	0.43	0.37
2	0.77	0.70	0.64	0.71	0.65	0.60	0.60	0.55	0.51	0.49	0.46	0.42	0.39	0.37	0.34	0.30
3	0.67	0.59	0.53	0.62	0.55	0.49	0.52	0.46	0.42	0.43	0.39	0.35	0.34	0.31	0.28	0.24
4	0.59	0.51	0.44	0.55	0.47	0.41	0.46	0.40	0.35	0.38	0.33	0.30	0.30	0.27	0.24	0.20
5	0.53	0.44	0.37	0.49	0.41	0.35	0.41	0.35	0.30	0.34	0.29	0.25	0.27	0.24	0.21	0.17
6	0.47	0.38	0.32	0.43	0.36	0.30	0.37	0.31	0.26	0.30	0.26	0.22	0.25	0.21	0.18	0.15
7	0.42	0.34	0.28	0.39	0.32	0.26	0.33	0.27	0.23	0.28	0.23	0.19	0.22	0.19	0.16	0.13
8	0.38	0.30	0.25	0.36	0.28	0.23	0.30	0.24	0.20	0.25	0.21	0.17	0.20	0.17	0.14	0.12
9	0.35	0.27	0.22	0.32	0.25	0.21	0.28	0.22	0.18	0.23	0.19	0.15	0.19	0.15	0.13	0.10
10	0.32	0.25	0.20	0.30	0.23	0.18	0.25	0.20	0.16	0.21	0.17	0.14	0.17	0.14	0.11	0.09

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	333.66	333.21	331.96	326.84	319.04	308.36	295.08	280.64	263.14
15.0	332.14	333.39	332.94	330.25	324.33	317.15	306.84	294.63	280.37
30.0	332.23	334.65	335.99	336.35	335.01	332.14	327.29	320.11	311.32
45.0	330.88	334.02	337.88	341.92	344.52	347.48	347.21	346.13	343.35
60.0	329.80	333.75	339.05	346.13	352.95	359.05	363.90	368.47	371.52
75.0	330.34	334.47	341.29	349.81	359.59	368.02	376.01	383.99	391.08
90.0	331.24	334.56	341.47	350.89	360.49	370.18	378.97	387.94	396.38
105.0	332.23	335.64	342.10	350.71	358.96	367.67	374.75	382.20	388.75
120.0	331.78	334.83	340.03	346.13	352.05	356.99	360.58	363.72	365.51
135.0	331.60	333.12	336.26	338.15	340.84	340.93	339.85	337.34	333.39
150.0	327.02	328.91	329.71	328.55	323.34	321.64	316.17	307.46	298.40
165.0	326.22	327.65	326.48	322.72	316.17	307.28	296.07	282.70	267.09
180.0	333.66	330.97	325.05	316.62	305.58	291.67	275.70	257.94	238.20
195.0	332.14	329.00	323.61	315.45	304.68	292.03	277.77	261.35	243.14
210.0	332.23	329.80	325.68	319.40	311.14	298.40	269.69	238.74	206.26
225.0	330.88	329.27	326.57	322.45	306.30	273.46	241.88	206.53	170.55
240.0	329.80	328.73	327.65	320.56	288.71	253.63	216.58	178.54	142.56
255.0	330.34	330.16	329.98	313.83	279.29	241.43	204.11	163.74	124.17
270.0	331.24	331.42	331.33	313.39	277.77	239.37	199.08	158.44	118.52
285.0	332.23	332.05	331.96	317.06	282.79	246.73	207.34	167.15	157.99
300.0	331.78	330.52	329.54	324.96	317.15	260.81	221.96	186.34	148.66
315.0	331.60	328.28	325.68	321.55	308.45	278.58	245.92	211.65	176.66
330.0	327.02	325.14	321.19	315.27	307.11	296.88	273.73	242.78	212.81
345.0	326.22	323.79	319.22	311.86	301.63	289.25	274.72	258.66	240.71
360.0	333.66	333.21	331.96	326.84	319.04	308.36	295.08	280.64	263.14
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	243.41	222.41	199.89	176.12	152.97	127.13	103.36	78.68	55.36
15.0	264.67	247.44	228.69	210.21	190.02	170.29	151.26	133.59	115.20
30.0	300.38	289.25	276.60	263.05	248.61	233.27	218.02	204.29	193.16
45.0	339.58	334.47	328.01	319.22	309.44	298.49	287.91	277.86	271.04
60.0	374.12	374.57	373.05	369.19	362.91	355.28	347.21	339.31	333.66
75.0	397.18	401.40	402.12	400.77	396.64	390.45	383.81	377.89	372.24
90.0	402.92	408.04	409.74	408.31	404.81	399.43	393.32	387.13	382.38
105.0	394.31	397.54	397.63	395.57	391.17	385.16	378.16	371.61	366.68
120.0	365.96	365.60	363.27	358.33	351.52	344.16	335.73	328.01	322.36
135.0	328.01	321.64	314.01	305.22	294.81	283.51	272.74	262.87	256.06
150.0	286.92	274.09	260.27	245.92	232.19	215.86	201.78	188.05	177.28
165.0	251.66	233.81	216.31	195.50	175.49	155.66	136.82	119.95	101.47
180.0	217.66	194.33	171.81	148.12	123.90	99.23	74.82	53.38	32.39
195.0	216.31	186.43	155.93	125.25	96.45	66.93	43.51	31.58	31.31
210.0	173.07	141.49	107.66	78.68	51.05	27.45	26.20	26.02	25.93
225.0	134.76	100.75	68.19	39.66	18.66	18.66	18.93	19.20	19.20
240.0	103.80	71.24	39.92	12.29	11.48	11.84	12.11	12.47	12.65
255.0	86.04	51.32	19.56	4.58	4.84	5.02	5.29	5.38	5.74
270.0	82.36	47.55	15.52	7.63	3.68	3.95	4.22	4.40	4.58
285.0	88.46	53.47	23.15	5.11	5.29	5.65	6.01	6.28	6.37
300.0	111.70	76.89	45.13	16.60	12.11	12.56	12.83	13.01	13.19
315.0	143.46	107.39	77.16	48.00	21.98	19.47	19.56	19.56	19.56
330.0	180.69	148.30	116.81	86.58	59.84	33.91	26.29	25.84	25.75
345.0	220.98	194.06	163.20	134.13	104.25	75.72	49.79	30.68	29.97
360.0	243.41	222.41	199.89	176.12	152.97	127.13	103.36	78.68	55.36

AFX MIAV3604LAJUDLB

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	34.18	34.36	55.36	79.22	104.34	129.82	153.51	172.80	188.23
15.0	103.27	104.88	119.15	137.27	156.38	174.68	194.60	215.23	234.88
30.0	187.15	189.04	198.10	210.03	224.39	239.91	255.07	269.60	284.23
45.0	267.27	269.42	276.51	286.74	297.60	309.53	320.74	330.43	338.51
60.0	331.78	334.29	341.02	349.90	359.59	369.10	377.09	383.19	387.04
75.0	371.70	374.66	381.66	390.36	399.34	406.96	413.33	417.55	418.45
90.0	381.21	384.53	391.53	399.69	408.94	417.28	423.47	427.06	426.97
105.0	365.24	369.10	375.92	384.89	394.04	401.22	407.50	411.90	412.88
120.0	319.85	323.43	329.71	338.96	348.73	358.33	366.77	373.86	378.07
135.0	252.83	255.52	263.14	273.55	285.75	298.04	310.07	320.65	329.36
150.0	171.63	174.77	184.01	197.74	213.35	229.68	244.12	261.62	275.70
165.0	89.81	93.58	109.64	128.57	146.69	168.40	188.41	208.86	228.96
180.0	37.05	60.47	82.99	107.39	133.05	156.29	173.07	187.24	201.51
195.0	31.49	31.85	40.91	59.03	79.67	103.09	120.13	133.77	155.03
210.0	26.02	25.93	26.02	26.20	44.05	67.29	92.77	119.24	148.75
225.0	19.38	19.29	19.02	18.66	18.57	31.22	36.69	85.86	114.30
240.0	12.56	12.47	12.29	11.75	11.21	10.95	27.45	56.07	85.32
255.0	5.74	5.56	5.38	5.02	4.67	4.40	8.25	35.08	66.75
270.0	4.49	4.31	4.13	3.86	3.50	3.23	3.59	30.32	62.26
285.0	6.46	6.19	6.01	5.65	5.29	5.02	8.43	36.25	67.38
300.0	13.28	13.10	12.74	12.38	11.84	11.48	29.43	57.51	87.83
315.0	19.65	19.38	19.11	18.84	18.48	33.82	58.94	85.14	115.20
330.0	25.66	25.48	25.57	26.92	45.40	67.02	91.06	118.70	144.18
345.0	30.06	30.41	41.36	58.05	79.22	98.33	112.60	132.60	152.61
360.0	34.18	34.36	55.36	79.22	104.34	129.82	153.51	172.80	188.23

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	206.17	223.94	237.75	250.13	245.20	231.47	227.62	236.86	263.77
15.0	253.10	271.76	287.73	302.62	300.65	280.73	257.76	252.65	262.43
30.0	297.15	309.53	320.47	329.62	336.08	321.46	285.39	268.44	262.52
45.0	344.97	349.63	354.75	357.26	358.60	357.53	328.01	280.55	258.57
60.0	388.39	387.76	386.33	383.90	379.69	374.21	366.50	333.48	262.34
75.0	415.75	411.81	405.89	399.34	391.80	383.01	373.32	362.10	343.71
90.0	423.83	418.27	411.63	404.54	395.57	385.70	374.39	363.00	350.17
105.0	411.45	407.23	402.03	395.93	388.66	381.48	371.43	362.46	351.52
120.0	380.05	380.32	379.24	377.27	374.66	370.45	364.97	358.60	347.48
135.0	336.53	343.35	348.20	352.23	354.57	354.84	353.04	350.44	339.49
150.0	289.97	303.16	314.82	323.79	331.51	337.34	341.38	340.30	329.00
165.0	248.16	265.03	281.98	297.24	308.27	316.53	319.13	318.59	311.50
180.0	217.66	231.47	239.19	236.05	223.04	223.58	237.84	267.45	291.40
195.0	178.00	194.24	209.04	212.72	201.69	198.19	222.23	259.38	288.09
210.0	169.12	172.53	211.56	237.13	258.57	264.22	255.70	257.94	282.70
225.0	145.79	177.10	199.44	221.60	248.07	273.28	281.27	278.04	271.04
240.0	119.24	151.00	185.18	213.08	239.19	266.28	288.80	289.52	256.24
255.0	100.30	135.47	171.18	203.93	232.91	259.29	285.39	290.15	213.71
270.0	94.02	130.54	164.99	201.33	229.95	256.15	281.89	233.63	151.26
285.0	100.75	135.38	169.75	205.01	232.28	257.22	243.58	157.46	242.69
300.0	119.33	150.19	182.76	211.29	237.21	230.49	180.42	213.17	271.49
315.0	144.98	173.87	196.57	220.98	223.49	199.35	194.96	234.70	284.77
330.0	162.48	182.31	206.62	217.93	212.09	195.41	205.10	247.62	287.46
345.0	173.87	189.75	201.87	193.70	181.68	191.91	216.76	254.44	289.79
360.0	206.17	223.94	237.75	250.13	245.20	231.47	227.62	236.86	263.77

Intensity data(cd)

C/ γ (°)	180.0
0.0	292.21
15.0	283.33
30.0	272.65
45.0	258.21
60.0	232.46
75.0	201.42
90.0	325.05
105.0	326.13
120.0	323.70
135.0	318.86
150.0	315.63
165.0	305.31
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	292.21