
AFX

Client:

LumCAT: VRNV1407LAJUDSN

Luminaire: LED 灯具

Report No:

Ballast type:

Test No: LCZP24070158

Voltage(V): 120.090

LampCAT:

Current(A): 0.169

Lamp flux(lm): 1577.7

Power (W): 20.110

Number of Lamps: 1

PF: 0.990

Length(mm): 350

Width(mm): 120

Phm Type: C

Height(mm): 120

Photometric Results

Lumens(lm): 1577.68, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 78.45

Central intensity(cd): 187.761, Maximum intensity(cd): 192.802

Angle of maximum intensity: C=60.0 γ =175.0

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=1.31 C90_270=1.31

Maximum s/h(1/4): C0_180=1.49 C90_270=1.49

Up flux rate of lamp(%): 49.51%

Down flux rate of lamp(%): 50.49%

Up flux rate of LUM(%): 49.51%

Down flux rate of LUM(%): 50.49%

CIE Type : General diffuse lighting

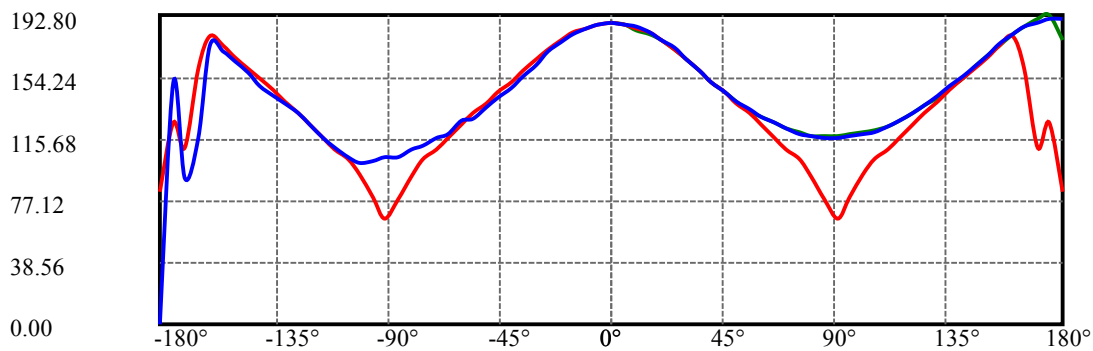
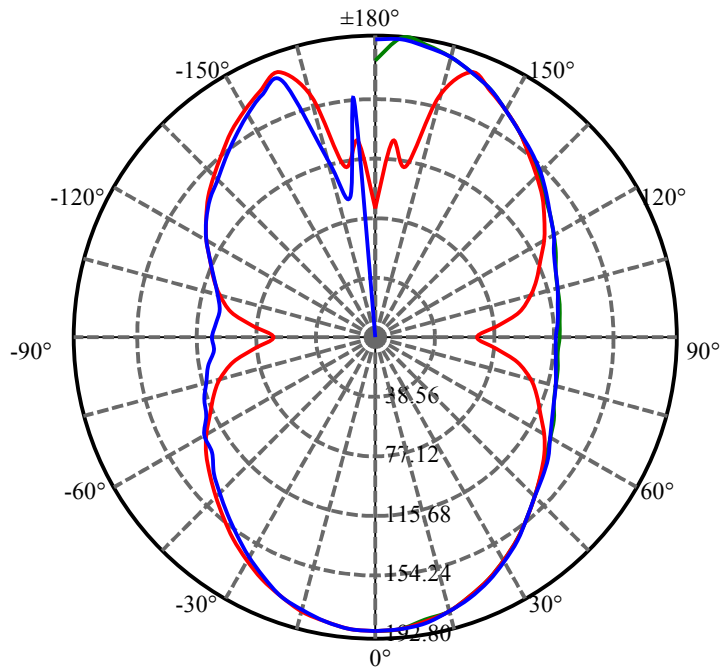
Output flux ratio in π solid angle : 29.635%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	187.761	0.000	0	0.00%	0.00%
5.0	186.983	4.480	4.48	0.28%	0.28%
10.0	184.819	13.301	17.78	0.84%	1.13%
15.0	181.346	21.721	39.501	1.38%	2.50%
20.0	176.675	29.506	69.007	1.87%	4.37%
25.0	170.354	36.397	105.404	2.31%	6.68%
30.0	163.018	42.189	147.593	2.67%	9.36%
35.0	155.546	46.911	194.503	2.97%	12.33%
40.0	147.838	50.617	245.121	3.21%	15.54%
45.0	140.647	53.415	298.536	3.39%	18.92%
50.0	133.325	55.360	353.896	3.51%	22.43%
55.0	126.783	56.556	410.452	3.58%	26.02%
60.0	120.215	57.093	467.545	3.62%	29.63%
65.0	113.766	56.881	524.426	3.61%	33.24%
70.0	108.035	56.161	580.588	3.56%	36.80%
75.0	103.298	55.239	635.827	3.50%	40.30%
80.0	99.938	54.380	690.207	3.45%	43.75%
85.0	97.073	53.533	743.739	3.39%	47.14%
90.0	95.611	52.758	796.498	3.34%	50.49%
95.0	97.647	52.915	849.413	3.35%	53.84%
100.0	100.930	53.958	903.371	3.42%	57.26%
105.0	104.895	55.073	958.444	3.49%	60.75%
110.0	109.502	56.040	1014.484	3.55%	64.30%
115.0	115.271	56.914	1071.398	3.61%	67.91%
120.0	121.274	57.505	1128.902	3.64%	71.55%
125.0	127.458	57.494	1186.396	3.64%	75.20%
130.0	133.302	56.698	1243.094	3.59%	78.79%
135.0	139.187	55.060	1298.154	3.49%	82.28%
140.0	145.198	52.656	1350.811	3.34%	85.62%
145.0	151.737	49.541	1400.352	3.14%	88.76%
150.0	157.948	45.603	1445.956	2.89%	91.65%
155.0	163.656	40.699	1486.655	2.58%	94.23%
160.0	162.559	34.214	1520.869	2.17%	96.40%
165.0	148.971	25.675	1546.543	1.63%	98.03%
170.0	141.623	17.238	1563.781	1.09%	99.12%
175.0	164.095	10.937	1574.718	0.69%	99.81%
180.0	83.704	2.962	1577.68	0.19%	100.00%

ZONAL LUMEN SUMMARY			
Zone	Lumens	%Lamp	%Fixt
0-30	147.59	9.36%	9.36%
0-40	245.12	15.54%	15.54%
0-60	467.55	29.63%	29.63%
0-90	796.50	50.49%	50.49%
0-120	1128.90	71.55%	71.55%
0-180	1577.68	100.00%	100.00%
60-90	328.95	20.85%	20.85%
90-120	332.40	21.07%	21.07%
90-130	446.60	28.31%	28.31%
90-150	649.46	41.17%	41.17%
90-180	778.22	49.33%	49.33%
0-131.73	1262.14	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	17.78
10-20	51.23
20-30	78.59
30-40	97.53
40-50	108.78
50-60	113.65
60-70	113.04
70-80	109.62
80-90	106.29
90-100	106.87
100-110	111.11
110-120	114.42
120-130	114.19
130-140	107.72
140-150	95.14
150-160	74.91
160-170	42.91
170-180	10.94



C60(Max): —————

C0/C180: —————

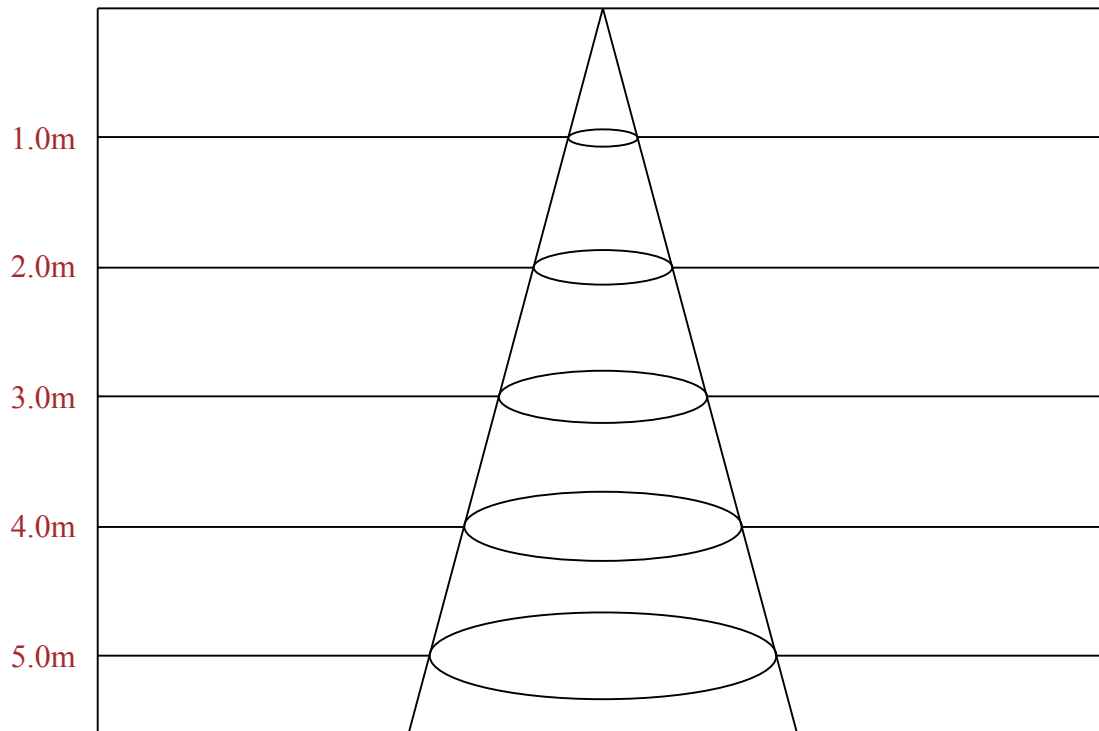
C90/C270: —————

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

:C90/270Left:0.0 Right:0.0

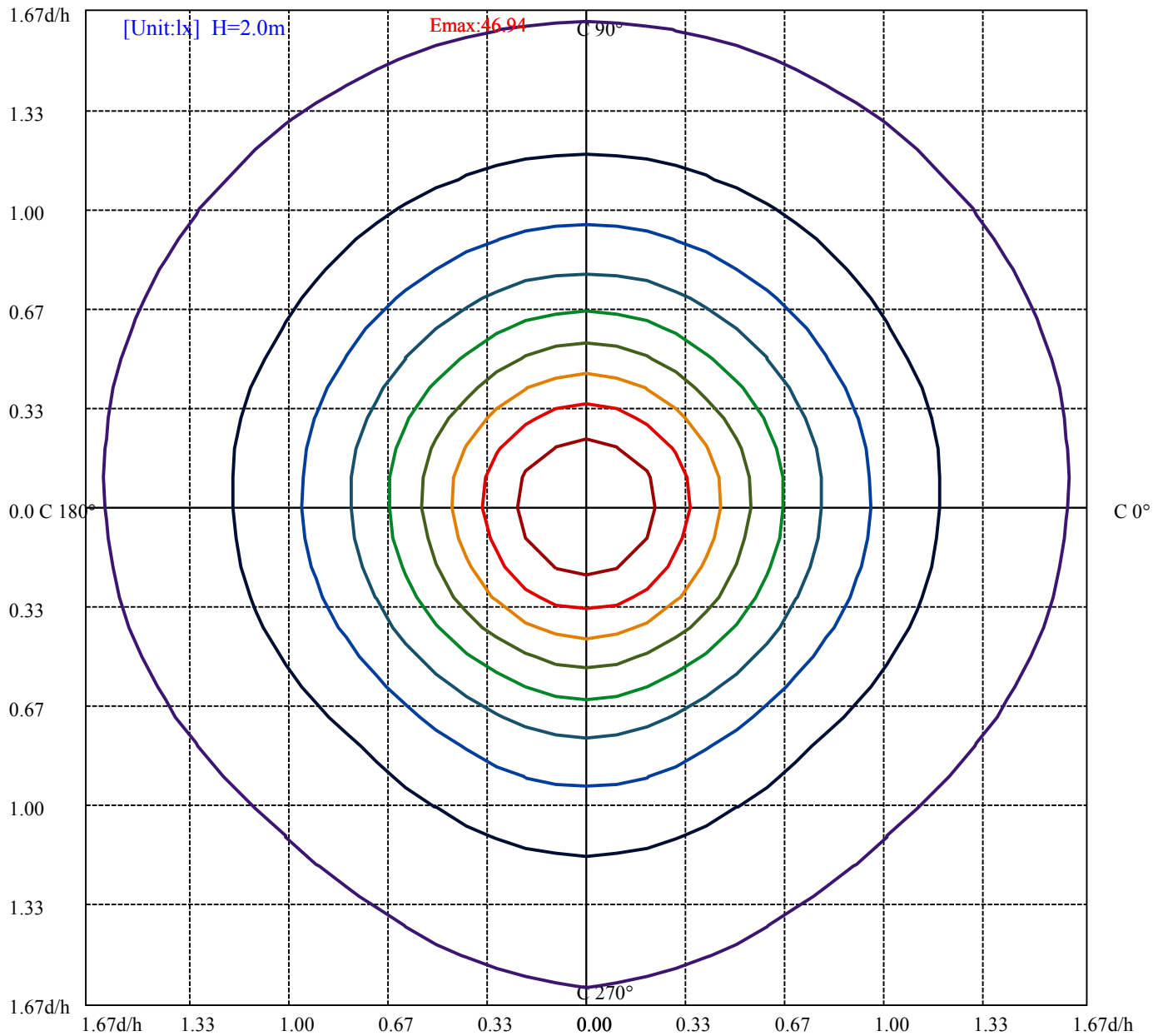
Beam Angle(50%Imax):C0/180Left:178.7 Right:178.7

:C90/270Left:0.0 Right:0.0

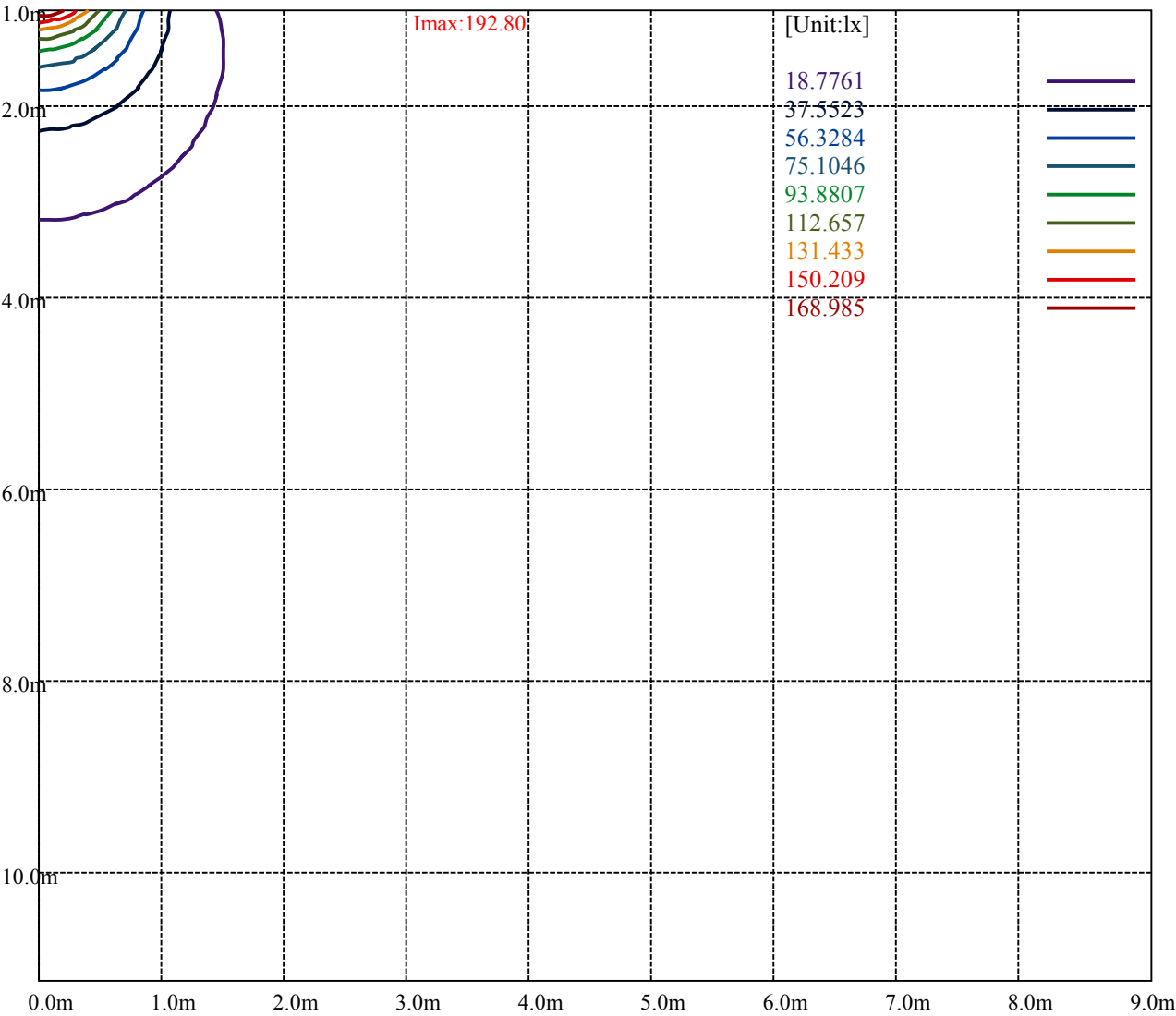


Max , Ave

Beam angle of C60 plane 245.99



(10%Emax)	4.694025	
(20%Emax)	9.388075	
(30%Emax)	14.0821	
(40%Emax)	18.77615	
(50%Emax)	23.47017	
(60%Emax)	28.16425	
(70%Emax)	32.85825	
(80%Emax)	37.55225	
(90%Emax)	42.24625	



Luminance Limiting Curve(no luminous side)

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Luminance Table

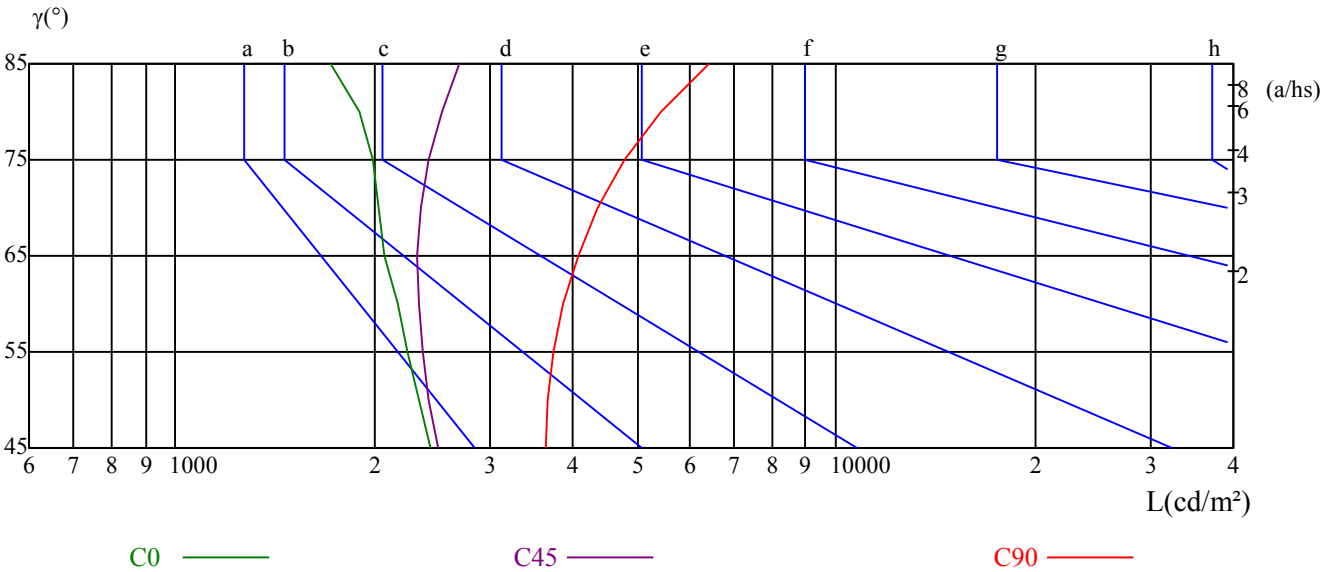
γ	45	50	55	60	65	70	75	80	85
C0	2431	2333	2246	2166	2077	2032	1992	1899	1718
C45	2499	2414	2366	2332	2327	2358	2423	2530	2686
C90	3627	3659	3741	3855	4063	4370	4799	5445	6439

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
6530	6878	6083	9427	10608	8825	21360	30034	25155

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	0.50
1	0.89	0.84	0.80	0.82	0.78	0.74	0.69	0.65	0.62	0.56	0.54	0.52	0.45	0.43	0.42	0.36
2	0.76	0.69	0.63	0.70	0.64	0.58	0.59	0.54	0.49	0.48	0.44	0.41	0.38	0.35	0.33	0.28
3	0.66	0.58	0.51	0.61	0.53	0.47	0.51	0.45	0.40	0.42	0.37	0.34	0.33	0.30	0.27	0.23
4	0.58	0.49	0.42	0.53	0.46	0.40	0.45	0.39	0.34	0.37	0.32	0.28	0.29	0.26	0.23	0.19
5	0.51	0.43	0.36	0.47	0.39	0.34	0.40	0.33	0.29	0.33	0.28	0.24	0.26	0.22	0.19	0.16
6	0.46	0.37	0.31	0.42	0.35	0.29	0.36	0.29	0.25	0.29	0.24	0.21	0.23	0.20	0.17	0.14
7	0.41	0.33	0.27	0.38	0.30	0.25	0.32	0.26	0.22	0.27	0.22	0.18	0.21	0.18	0.15	0.12
8	0.37	0.29	0.24	0.35	0.27	0.22	0.29	0.23	0.19	0.24	0.19	0.16	0.20	0.16	0.13	0.11
9	0.34	0.26	0.21	0.32	0.24	0.19	0.27	0.21	0.17	0.22	0.18	0.14	0.18	0.14	0.12	0.09
10	0.31	0.24	0.19	0.29	0.22	0.17	0.25	0.19	0.15	0.21	0.16	0.13	0.17	0.13	0.11	0.08

Intensity data(cd)

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C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	187.76	187.14	185.19	181.82	177.39	171.63	165.60	158.42	152.12
15.0	187.76	187.58	185.27	181.89	177.62	171.84	165.44	158.68	152.18
30.0	187.76	187.23	184.92	181.45	177.18	170.77	164.64	157.52	151.12
45.0	187.76	186.87	185.08	181.24	176.51	170.80	163.83	156.60	149.91
60.0	187.76	186.78	184.36	180.78	176.13	170.13	163.42	156.35	150.08
75.0	187.76	186.77	184.62	181.21	176.81	171.07	164.52	157.60	150.42
90.0	187.76	187.31	185.24	181.99	177.66	172.15	165.57	158.26	151.22
105.0	187.76	187.58	185.59	182.24	177.71	172.55	165.76	158.70	152.09
120.0	187.76	187.04	182.97	181.61	177.27	172.39	165.97	158.74	151.24
135.0	187.76	187.94	186.31	182.88	178.63	173.02	161.35	159.54	152.22
150.0	187.76	188.12	186.68	183.87	179.80	174.64	167.85	160.62	153.10
165.0	187.76	187.76	186.67	184.40	180.32	175.60	169.52	162.26	154.73
180.0	187.76	186.61	184.66	181.29	176.33	170.83	164.00	156.91	149.82
195.0	187.76	187.05	185.00	181.45	176.82	170.86	164.28	157.08	149.69
210.0	187.76	186.87	184.92	181.27	176.73	170.86	164.01	154.59	143.11
225.0	187.76	187.05	185.17	181.51	176.87	170.98	164.01	153.21	139.73
240.0	187.76	186.96	184.81	181.41	176.84	170.94	163.87	155.19	145.16
255.0	187.76	186.68	184.71	181.66	176.90	170.80	163.71	156.62	149.26
270.0	187.76	187.04	184.24	180.63	176.57	169.72	161.33	154.29	147.70
285.0	187.76	186.58	185.86	180.52	175.54	165.76	156.53	148.11	141.77
300.0	187.76	186.32	183.96	180.35	174.20	163.44	153.23	143.10	133.79
315.0	187.76	186.31	183.69	179.80	173.65	165.42	155.56	146.52	138.02
330.0	187.76	186.22	183.24	178.89	173.46	166.04	158.53	150.75	142.88
345.0	187.76	185.76	182.50	178.14	173.24	166.25	159.90	153.46	146.74
360.0	187.76	187.14	185.19	181.82	177.39	171.63	165.60	158.42	152.12
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	145.65	139.45	132.80	125.26	117.02	110.37	102.75	91.31	77.21
15.0	145.96	139.64	134.31	129.15	122.48	116.52	111.00	105.40	100.06
30.0	144.89	139.20	134.48	130.04	126.21	122.92	120.79	118.30	116.07
45.0	144.10	139.01	134.28	129.91	126.07	123.21	120.80	119.19	117.94
60.0	144.00	138.36	133.44	129.23	125.65	122.34	120.28	118.67	118.67
75.0	144.05	138.85	133.37	129.06	125.20	122.42	119.37	117.31	116.68
90.0	144.63	139.13	134.26	129.02	125.14	121.90	118.92	116.93	115.94
105.0	145.57	139.42	134.08	129.46	125.11	121.67	119.23	117.06	116.15
120.0	144.82	138.76	133.52	129.09	125.11	121.41	118.97	117.16	116.44
135.0	145.25	138.83	134.31	129.15	124.72	121.29	118.57	116.40	115.14
150.0	146.50	135.55	134.37	129.49	124.96	121.07	118.09	116.10	113.65
165.0	147.83	141.39	135.04	129.14	124.51	117.88	112.80	107.36	101.55
180.0	143.17	136.61	129.96	123.31	114.80	108.42	102.21	93.53	79.16
195.0	142.93	134.84	126.57	119.81	111.45	103.53	98.46	93.48	89.21
210.0	133.42	126.03	117.67	108.42	99.44	91.08	83.25	78.36	75.51
225.0	127.14	115.62	110.00	101.87	94.01	84.19	75.09	69.73	67.14
240.0	134.42	123.77	113.57	103.55	95.40	86.45	80.19	76.70	77.15
255.0	141.81	133.46	124.49	115.24	109.05	103.39	96.93	95.95	94.24
270.0	141.38	135.34	128.12	126.41	119.01	116.03	111.70	108.72	103.94
285.0	136.61	129.46	121.13	115.79	110.36	104.65	101.39	101.58	98.05
300.0	128.82	120.87	112.19	103.42	94.47	87.15	81.99	81.90	84.34
315.0	129.33	119.66	109.53	97.95	87.10	76.15	69.28	68.10	68.10
330.0	134.01	125.23	116.55	106.78	96.37	87.50	81.62	78.18	78.54
345.0	139.21	131.32	124.78	114.62	106.72	101.28	95.47	91.11	88.84
360.0	145.65	139.45	132.80	125.26	117.02	110.37	102.75	91.31	77.21

Intensity data(cd)

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C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	67.20	83.51	96.27	105.05	111.17	117.37	126.59	133.15	140.07
15.0	99.08	102.82	108.07	112.34	118.03	124.61	130.21	135.20	141.60
30.0	116.07	117.76	119.54	121.32	124.08	127.55	132.17	136.97	142.31
45.0	118.30	119.19	120.53	122.32	125.00	128.66	132.94	137.76	143.30
60.0	119.30	119.92	120.55	121.98	124.58	128.43	132.81	138.00	143.37
75.0	117.22	117.75	118.92	121.08	123.95	127.72	132.12	137.59	143.24
90.0	116.03	117.11	118.38	120.27	123.34	126.59	131.19	136.69	142.47
105.0	115.97	116.79	118.05	120.04	122.58	126.38	130.73	135.80	141.50
120.0	116.25	117.34	118.24	119.42	121.68	125.20	129.72	134.06	139.31
135.0	114.41	114.77	115.68	117.85	120.11	123.46	127.89	132.95	138.29
150.0	111.84	111.75	113.20	115.91	118.63	121.71	125.96	131.03	136.36
165.0	96.29	94.38	97.47	103.18	108.26	114.34	121.79	128.50	134.40
180.0	63.74	74.38	89.63	100.09	107.53	114.80	123.14	131.38	138.12
195.0	86.81	88.59	94.01	100.68	106.38	113.76	123.54	128.61	135.55
210.0	74.54	78.45	83.25	88.41	95.97	103.71	110.02	117.23	124.52
225.0	66.34	66.78	67.32	72.32	77.68	85.09	86.25	97.94	102.41
240.0	80.81	78.67	78.31	79.11	83.50	90.03	98.71	105.07	109.72
255.0	92.35	89.93	91.91	95.50	100.43	108.33	118.02	126.46	133.37
270.0	104.39	101.96	101.05	104.39	110.35	116.39	124.33	131.46	137.23
285.0	98.14	99.40	100.58	103.11	108.28	117.15	125.39	132.45	137.79
300.0	81.90	82.54	86.15	90.49	95.01	102.06	107.21	112.19	118.15
315.0	66.57	67.20	71.36	77.33	83.48	90.44	95.69	100.21	105.01
330.0	79.72	85.15	90.31	95.65	101.44	107.86	114.10	121.25	127.32
345.0	91.39	97.37	103.55	109.63	116.61	124.87	130.04	137.03	143.84
360.0	67.20	83.51	96.27	105.05	111.17	117.37	126.59	133.15	140.07
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	146.80	153.63	159.84	167.11	173.93	179.78	181.56	123.40	99.47
15.0	147.47	153.87	160.54	167.84	174.24	180.11	184.92	161.61	103.89
30.0	148.09	153.96	161.08	168.02	174.86	180.82	185.98	190.25	143.11
45.0	148.66	154.91	161.60	168.74	175.62	181.78	187.23	191.42	186.33
60.0	149.10	155.27	161.90	169.33	176.04	182.12	187.05	190.18	192.06
75.0	148.99	155.18	162.00	169.00	174.93	181.03	184.89	188.66	190.54
90.0	148.78	155.01	161.05	167.73	174.59	180.36	185.05	188.21	190.92
105.0	147.29	153.54	160.42	167.57	174.18	179.89	185.23	189.21	192.56
120.0	145.45	151.69	158.02	165.16	172.21	178.99	184.78	189.84	193.55
135.0	143.90	149.68	155.93	162.71	170.40	177.00	183.15	188.85	192.37
150.0	142.34	148.40	154.82	161.34	168.22	175.27	181.43	185.59	188.94
165.0	141.03	147.56	154.09	160.54	167.89	174.06	179.50	183.68	186.49
180.0	145.30	152.30	159.57	166.84	174.29	179.78	136.17	97.52	152.39
195.0	143.47	150.76	158.05	165.35	172.55	172.91	106.02	96.15	171.40
210.0	131.73	133.15	142.67	148.18	149.16	128.97	95.62	97.39	157.34
225.0	106.34	111.42	116.69	118.39	119.55	103.57	94.01	97.59	114.91
240.0	114.38	121.27	126.99	130.22	134.51	122.34	108.29	70.70	92.27
255.0	139.39	144.95	152.76	161.02	166.04	162.90	126.73	67.76	119.01
270.0	142.65	149.05	156.36	163.58	170.53	173.96	115.67	90.77	151.22
285.0	143.40	150.92	157.98	164.59	169.66	152.73	97.14	95.06	175.90
300.0	123.67	129.18	132.89	137.05	141.21	118.51	93.29	102.33	184.60
315.0	108.98	114.14	118.39	119.84	122.55	110.16	95.60	109.44	187.13
330.0	132.65	137.36	143.60	148.85	153.38	143.78	127.77	134.83	185.68
345.0	150.64	157.54	164.44	171.79	177.23	180.59	168.25	168.52	186.22
360.0	146.80	153.63	159.84	167.11	173.93	179.78	181.56	123.40	99.47

Intensity data(cd)

C/ γ (°)	180.0
0.0	165.69
15.0	131.46
30.0	99.80
45.0	118.66
60.0	163.33
75.0	188.57
90.0	190.38
105.0	190.93
120.0	191.29
135.0	191.11
150.0	189.39
165.0	188.31
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	165.69