
乐达凯

Client:

LumCAT: SYDC13LAJUDSN

Luminaire: LED lamp

Report No:

Ballast type:

Test No:

Voltage(V): 119.990

LampCAT:

Current(A): 0.211

Lamp flux(lm): 1831.1

Power (W): 25.120

Number of Lamps: 1

PF: 0.994

Length(mm): -320

Width(mm): -320

Phm Type: C

Height(mm): 70

Photometric Results

Lumens(lm): 1831.08, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 72.89

Central intensity(cd): 314.313, Maximum intensity(cd): 317.011

Angle of maximum intensity: C=60.0 γ =10.0

Beam Angle(50%Imax): [C0/180]Total=138.8

[C90/270]Total=138.0

Field angle(10%Imax): [C0/180]Total=N.A.

[C90/270]Total=N.A.

Maximum s/h(1/2): C0_180=1.38 C90_270=1.38

Maximum s/h(1/4): C0_180=1.52 C90_270=1.51

Up flux rate of lamp(%): 32.25%

Down flux rate of lamp(%): 67.75%

Up flux rate of LUM(%): 32.25%

Down flux rate of LUM(%): 67.75%

CIE Type : Semidirect lighting

Output flux ratio in π solid angle : 44.922%

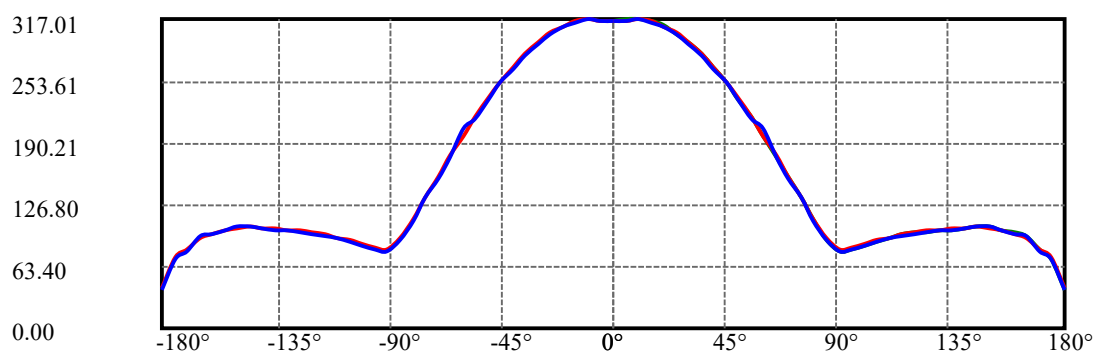
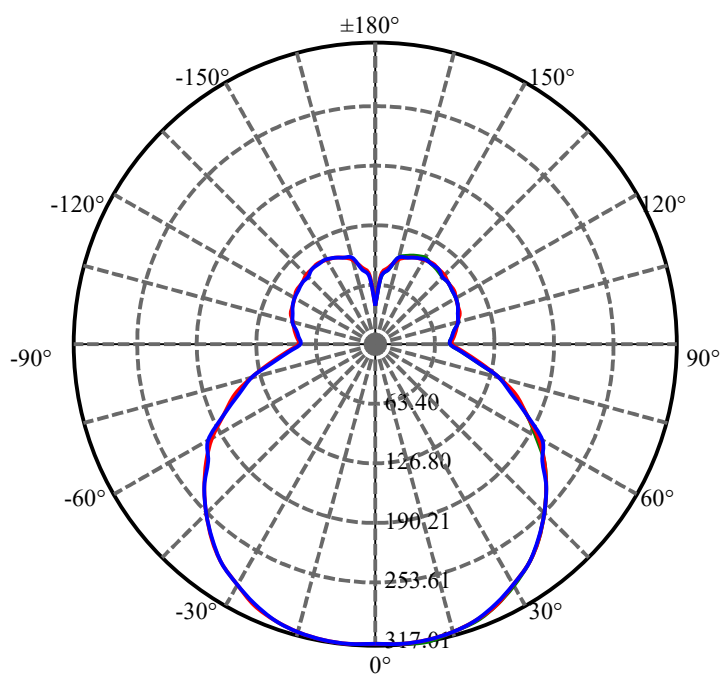
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	314.313	0.000	0	0.00%	0.00%
5.0	315.846	7.533	7.533	0.41%	0.41%
10.0	316.444	22.619	30.152	1.24%	1.65%
15.0	314.127	37.405	67.557	2.04%	3.69%
20.0	309.154	51.367	118.925	2.81%	6.49%
25.0	301.977	64.096	183.021	3.50%	10.00%
30.0	292.595	75.244	258.264	4.11%	14.10%
35.0	280.968	84.461	342.726	4.61%	18.72%
40.0	267.624	91.529	434.254	5.00%	23.72%
45.0	251.773	96.171	530.425	5.25%	28.97%
50.0	234.875	98.334	628.759	5.37%	34.34%
55.0	216.334	98.108	726.867	5.36%	39.70%
60.0	197.605	95.681	822.548	5.23%	44.92%
65.0	176.409	90.924	913.471	4.97%	49.89%
70.0	155.100	83.940	997.412	4.58%	54.47%
75.0	133.568	75.453	1072.865	4.12%	58.59%
80.0	112.260	65.777	1138.642	3.59%	62.18%
85.0	91.026	55.238	1193.879	3.02%	65.20%
90.0	79.400	46.664	1240.543	2.55%	67.75%
95.0	81.831	44.146	1284.689	2.41%	70.16%
100.0	85.457	45.456	1330.145	2.48%	72.64%
105.0	89.643	46.852	1376.997	2.56%	75.20%
110.0	92.971	47.732	1424.73	2.61%	77.81%
115.0	95.812	47.801	1472.531	2.61%	80.42%
120.0	97.681	47.038	1519.569	2.57%	82.99%
125.0	99.100	45.485	1565.054	2.48%	85.47%
130.0	100.297	43.356	1608.41	2.37%	87.84%
135.0	101.380	40.752	1649.162	2.23%	90.07%
140.0	102.577	37.764	1686.926	2.06%	92.13%
145.0	103.362	34.359	1721.285	1.88%	94.00%
150.0	103.139	30.409	1751.694	1.66%	95.66%
155.0	100.821	25.811	1777.505	1.41%	97.07%
160.0	97.494	20.800	1798.305	1.14%	98.21%
165.0	93.308	15.725	1814.029	0.86%	99.07%
170.0	79.996	10.280	1824.31	0.56%	99.63%
175.0	71.735	5.428	1829.737	0.30%	99.93%
180.0	40.336	1.340	1831.077	0.07%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	258.26	14.10%	14.10%
0-40	434.25	23.72%	23.72%
0-60	822.55	44.92%	44.92%
0-90	1240.54	67.75%	67.75%
0-120	1519.57	82.99%	82.99%
0-180	1831.08	100.00%	100.00%
60-90	418.00	22.83%	22.83%
90-120	279.03	15.24%	15.24%
90-130	367.87	20.09%	20.09%
90-150	511.15	27.92%	27.92%
90-180	589.19	32.18%	32.18%
0-114.20	1464.86	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	30.15
10-20	88.77
20-30	139.34
30-40	175.99
40-50	194.50
50-60	193.79
60-70	174.86
70-80	141.23
80-90	101.90
90-100	89.60
100-110	94.58
110-120	94.84
120-130	88.84
130-140	78.52
140-150	64.77
150-160	46.61
160-170	26.00
170-180	5.43



C60(Max): ———

C0/C180: ———

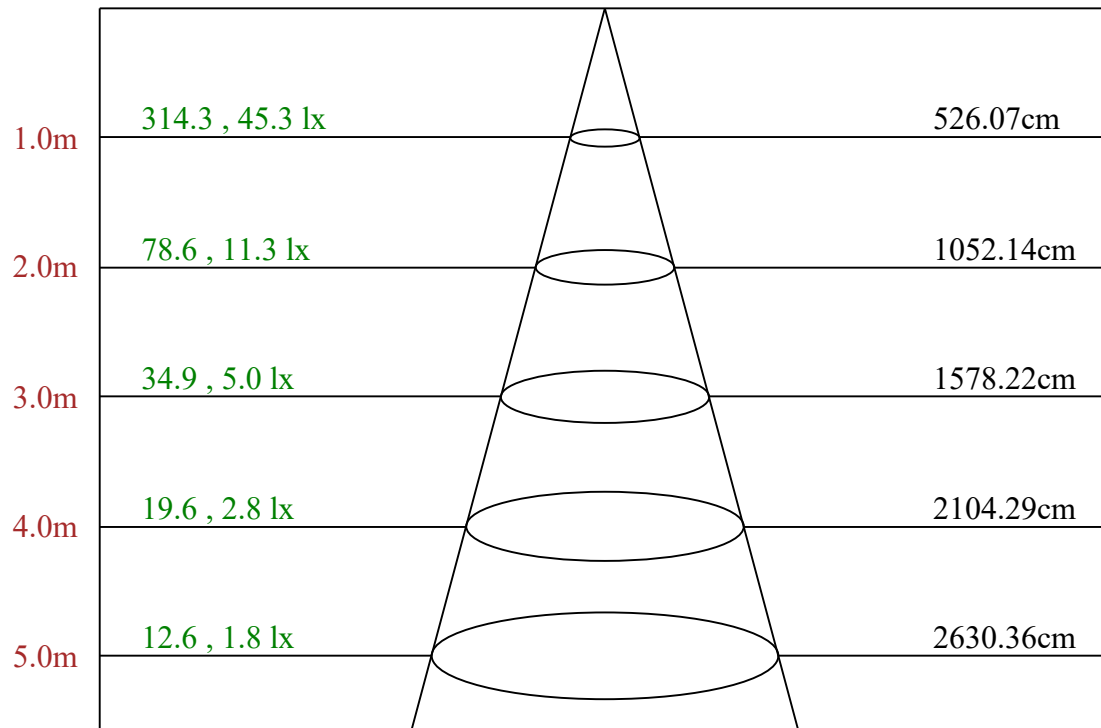
C90/C270: ———

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

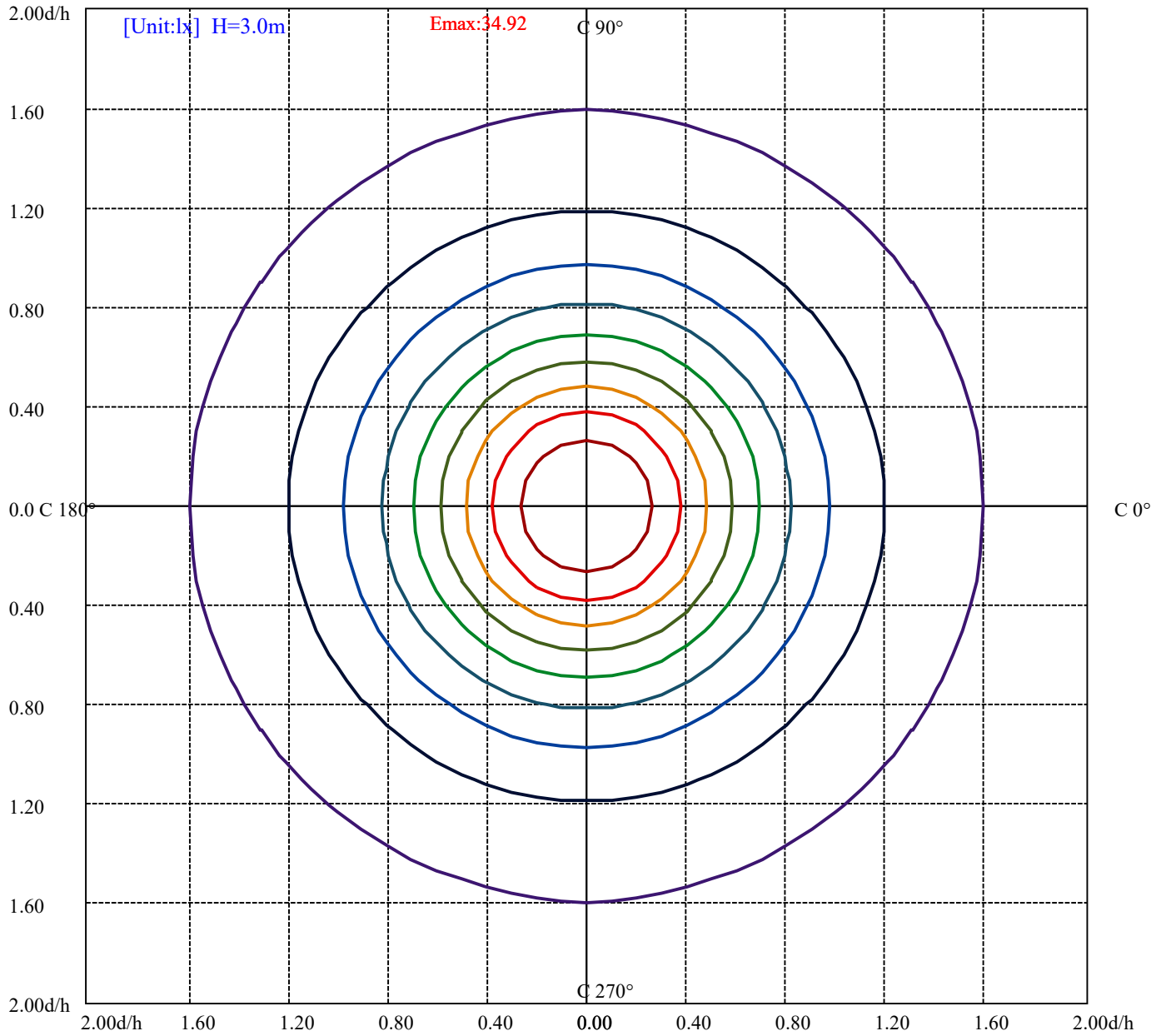
:C90/270Left:0.0 Right:0.0

Beam Angle(50%Imax):C0/180Left:79.4 Right:59.4

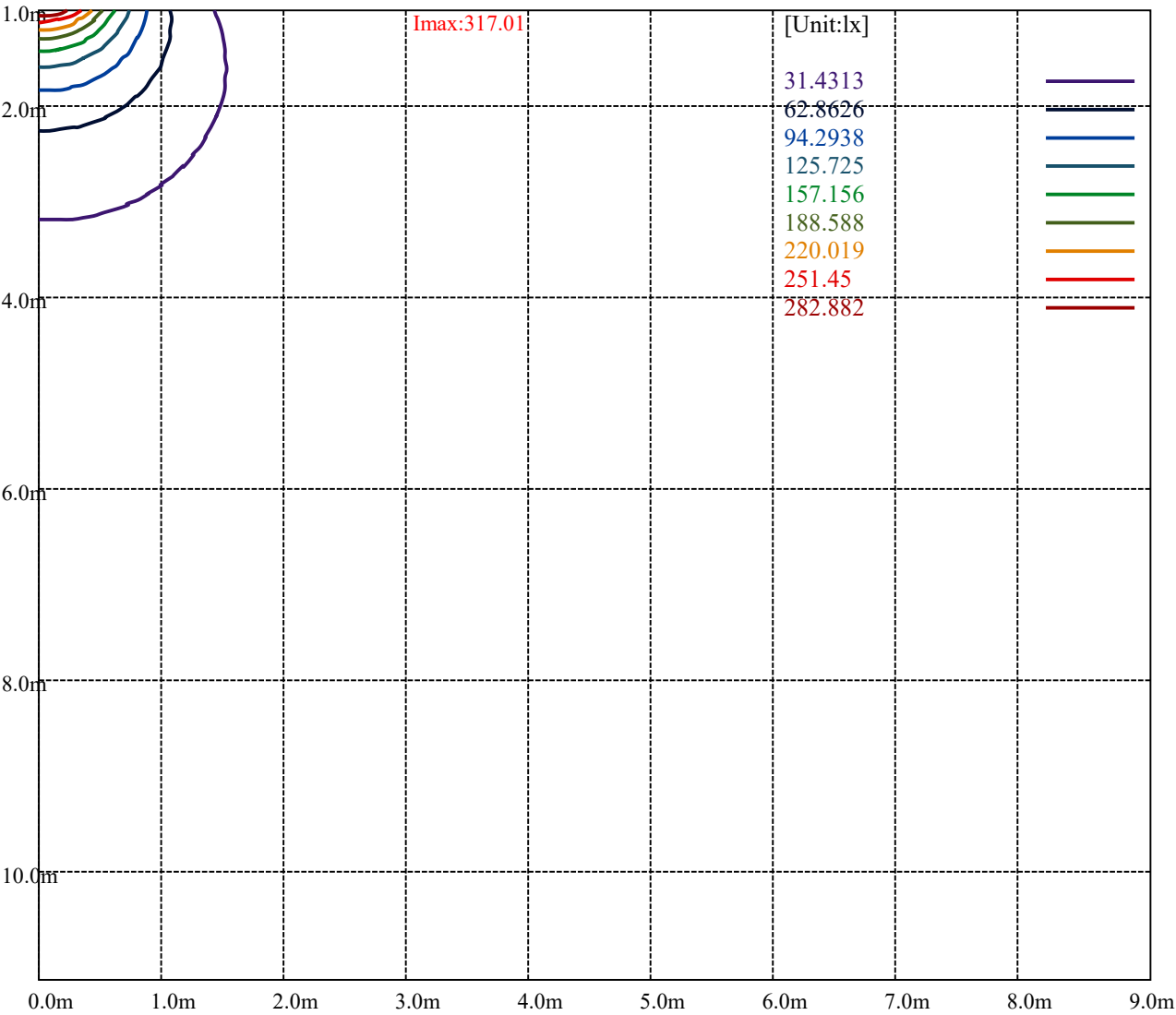
:C90/270Left:79.0 Right:59.0



Max , Ave Beam angle of C60 plane 138.37



(10%Emax) 3.492367	—
(20%Emax) 6.984733	—
(30%Emax) 10.4771	—
(40%Emax) 13.96944	—
(50%Emax) 17.46178	—
(60%Emax) 20.95422	—
(70%Emax) 24.44656	—
(80%Emax) 27.93889	—
(90%Emax) 31.43133	—



Luminance Table

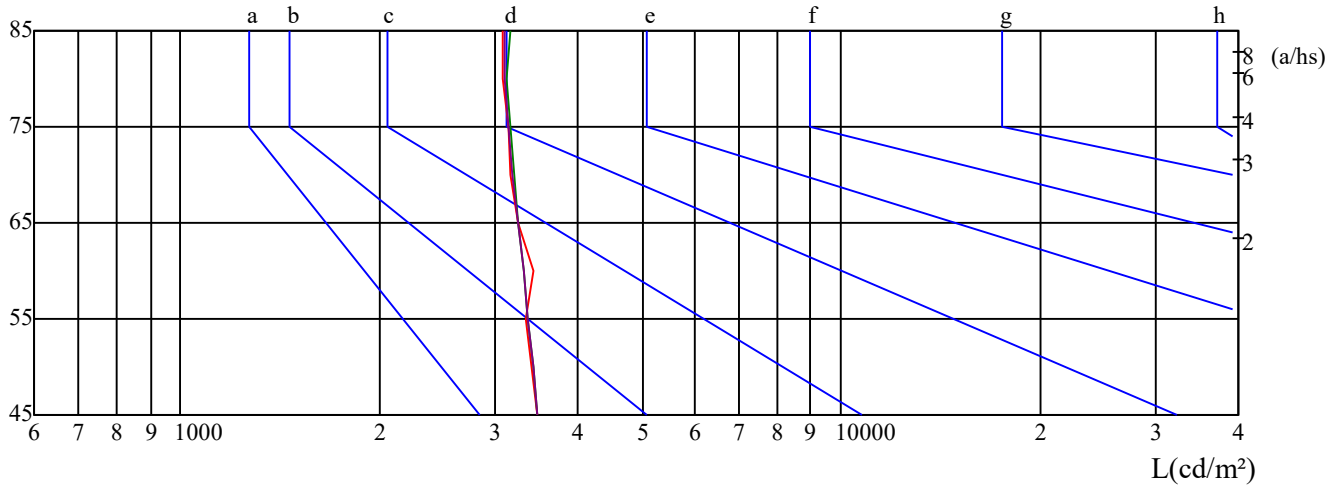
γ	45	50	55	60	65	70	75	80	85
C0	3466	3420	3356	3316	3256	3209	3157	3127	3158
C45	3460	3412	3355	3302	3250	3186	3142	3087	3089
C90	3458	3391	3343	3420	3242	3163	3131	3079	3078

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
5200	5179	5191	6438	6385	6408	13211	12876	12921

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

 $\gamma(^{\circ})$ 

C0 ———

C45 ———

C90 ———

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	1.11	1.11	1.11	1.05	1.05	1.05	0.93	0.93	0.93	0.82	0.82	0.82	0.72	0.72	0.72	0.68
1	0.94	0.89	0.84	0.88	0.84	0.80	0.78	0.75	0.71	0.69	0.66	0.64	0.60	0.58	0.56	0.52
2	0.80	0.73	0.67	0.76	0.69	0.63	0.67	0.62	0.57	0.59	0.55	0.51	0.51	0.48	0.45	0.41
3	0.70	0.61	0.54	0.66	0.58	0.52	0.58	0.52	0.47	0.51	0.46	0.42	0.45	0.41	0.37	0.34
4	0.61	0.52	0.45	0.58	0.50	0.43	0.51	0.45	0.39	0.45	0.40	0.35	0.39	0.35	0.32	0.28
5	0.54	0.45	0.38	0.51	0.43	0.37	0.46	0.39	0.33	0.40	0.35	0.30	0.35	0.31	0.27	0.24
6	0.49	0.40	0.33	0.46	0.38	0.32	0.41	0.34	0.29	0.36	0.30	0.26	0.32	0.27	0.23	0.21
7	0.44	0.35	0.29	0.41	0.33	0.28	0.37	0.30	0.25	0.33	0.27	0.23	0.29	0.24	0.21	0.18
8	0.40	0.31	0.25	0.38	0.30	0.24	0.34	0.27	0.22	0.30	0.24	0.20	0.26	0.22	0.18	0.16
9	0.36	0.28	0.23	0.34	0.27	0.22	0.31	0.24	0.20	0.27	0.22	0.18	0.24	0.20	0.16	0.14
10	0.33	0.25	0.20	0.32	0.24	0.19	0.28	0.22	0.18	0.25	0.20	0.16	0.23	0.18	0.15	0.13

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	314.31	315.20	317.87	316.98	313.42	308.08	299.18	288.49	276.92
15.0	314.31	316.10	317.88	316.99	313.42	307.17	299.13	288.42	275.92
30.0	314.31	315.21	316.99	316.10	312.53	306.28	298.24	287.52	274.13
45.0	314.31	316.10	317.89	316.10	312.52	306.25	297.30	286.55	273.12
60.0	314.31	316.11	317.90	316.11	311.62	305.33	296.35	285.58	273.00
75.0	314.31	315.21	317.01	315.21	311.62	304.43	295.45	284.68	271.21
90.0	314.31	315.21	317.01	315.21	310.72	303.54	294.56	282.88	269.41
105.0	314.31	316.11	317.01	315.21	310.71	303.51	294.50	282.79	269.28
120.0	314.31	316.11	317.01	314.31	309.81	302.60	293.60	281.89	268.38
135.0	314.31	315.21	315.21	313.41	308.03	300.84	291.86	280.19	266.72
150.0	314.31	315.21	316.11	313.41	302.60	301.70	292.70	280.99	267.48
165.0	314.31	315.21	315.21	313.41	308.01	300.80	291.80	280.09	265.68
180.0	314.31	316.09	315.20	311.64	305.41	296.50	285.82	273.35	259.11
195.0	314.31	315.21	315.21	310.74	304.49	297.35	285.74	274.13	258.95
210.0	314.31	315.21	314.31	310.74	304.49	296.45	285.74	273.24	258.06
225.0	314.31	316.10	315.21	311.63	305.36	297.30	287.45	274.91	259.69
240.0	314.31	316.11	316.11	312.52	307.13	299.05	288.27	275.70	261.33
255.0	314.31	315.21	315.21	312.52	307.13	299.05	288.27	276.60	262.23
270.0	314.31	316.11	315.21	312.52	308.03	299.94	290.07	277.49	263.12
285.0	314.31	317.01	317.01	314.31	308.91	300.80	291.80	280.09	276.49
300.0	314.31	317.01	317.01	315.21	313.41	301.70	292.70	280.99	267.48
315.0	314.31	315.21	316.11	314.31	308.92	301.74	292.76	281.09	266.72
330.0	314.31	317.01	317.01	315.21	310.71	303.51	294.50	282.79	269.28
345.0	314.31	317.01	317.92	315.21	310.71	303.51	294.50	282.79	269.28
360.0	314.31	315.20	317.87	316.98	313.42	308.08	299.18	288.49	276.92
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	261.78	245.75	227.94	209.25	188.77	168.29	146.92	124.66	103.29
15.0	260.74	244.66	226.81	208.95	188.41	167.87	145.55	123.22	102.69
30.0	259.84	243.77	225.91	206.27	186.62	166.09	144.66	122.33	100.90
45.0	258.79	242.67	223.87	205.96	185.36	163.87	142.38	119.99	99.40
60.0	256.84	241.57	222.71	203.85	183.20	161.65	140.99	118.54	97.89
75.0	255.94	238.88	220.92	202.06	182.30	160.75	138.30	116.74	96.09
90.0	255.04	237.08	219.12	200.26	179.61	158.05	137.40	114.95	94.29
105.0	253.97	236.86	217.95	199.94	179.22	157.61	135.99	113.48	92.76
120.0	252.17	235.96	217.95	198.13	177.42	155.81	135.09	113.48	92.76
135.0	251.45	234.39	216.43	196.67	176.91	155.36	133.81	111.36	90.70
150.0	252.17	235.06	216.15	196.33	175.62	154.90	133.29	110.78	90.96
165.0	251.27	234.16	215.25	195.43	175.62	154.90	132.39	110.78	90.06
180.0	242.19	225.27	204.79	186.09	164.72	143.36	121.10	100.62	81.92
195.0	242.88	225.02	206.27	185.73	164.30	143.76	122.33	100.90	81.26
210.0	242.88	224.13	206.27	185.73	165.19	143.76	121.44	101.79	80.36
225.0	243.57	226.56	207.75	187.15	166.56	144.17	123.58	101.19	81.49
240.0	245.16	228.10	208.34	189.49	167.93	146.38	124.83	103.27	83.52
255.0	246.06	229.00	210.14	190.38	168.83	149.07	126.62	120.34	83.52
270.0	247.86	229.90	211.94	207.45	172.42	149.07	128.42	106.87	86.21
285.0	250.37	233.26	214.35	194.53	173.82	152.20	130.59	108.97	88.26
300.0	252.17	234.16	216.15	196.33	175.62	154.90	133.29	110.78	90.06
315.0	252.35	236.18	217.32	197.57	176.91	155.36	133.81	112.25	90.70
330.0	253.97	236.86	218.85	199.03	179.22	157.61	135.99	113.48	92.76
345.0	253.07	237.76	218.85	199.94	179.22	157.61	136.89	113.48	92.76
360.0	261.78	245.75	227.94	209.25	188.77	168.29	146.92	124.66	103.29

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	84.59	84.59	87.26	91.71	94.38	97.94	99.73	101.51	102.40
15.0	83.94	84.83	87.51	91.97	94.65	97.33	100.01	100.90	102.69
30.0	83.04	83.94	87.51	91.08	94.65	97.33	99.12	100.01	101.79
45.0	83.28	84.17	86.86	91.34	94.03	96.71	99.40	100.29	101.19
60.0	81.72	83.52	87.11	90.70	94.29	96.99	98.78	100.58	101.48
75.0	80.82	82.62	86.21	90.70	93.40	96.09	98.78	99.68	101.48
90.0	79.93	82.62	86.21	89.80	93.40	96.09	97.89	98.78	100.58
105.0	79.25	81.96	85.56	90.06	92.76	96.37	98.17	99.07	99.97
120.0	78.35	81.05	85.56	89.16	92.76	95.46	97.27	99.07	99.97
135.0	78.13	80.82	84.42	88.01	91.60	95.19	96.99	98.78	99.68
150.0	77.45	80.15	83.76	88.26	90.96	94.56	96.37	98.17	99.97
165.0	76.55	79.25	82.86	87.36	90.96	93.66	96.37	98.17	99.97
180.0	77.47	80.14	84.59	89.04	92.60	95.27	97.05	98.83	99.73
195.0	75.90	79.47	83.94	88.40	91.97	94.65	96.44	98.22	99.12
210.0	75.01	78.58	83.04	87.51	91.08	93.76	95.54	98.22	99.12
225.0	75.22	78.80	83.28	86.86	90.44	93.13	94.03	97.61	99.40
240.0	75.44	78.13	79.93	87.11	90.70	93.40	96.09	96.99	98.78
255.0	75.44	79.03	82.62	87.11	90.70	93.40	96.09	96.99	97.89
270.0	77.23	79.93	83.52	88.01	91.60	94.29	96.09	96.99	98.78
285.0	78.35	81.05	85.56	89.16	92.76	95.46	96.37	98.17	99.07
300.0	80.15	82.86	86.46	90.06	93.66	96.37	98.17	99.07	99.97
315.0	81.72	84.42	88.01	91.60	95.19	97.89	98.78	99.68	99.68
330.0	82.86	85.56	89.16	92.76	96.37	99.07	99.97	100.87	101.77
345.0	83.76	86.46	90.06	93.66	96.37	99.07	100.87	101.77	102.67
360.0	84.59	84.59	87.26	91.71	94.38	97.94	99.73	101.51	102.40
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	103.29	104.18	105.96	103.29	99.73	96.16	93.49	81.92	70.34
15.0	103.58	104.47	105.37	103.58	100.01	96.44	93.76	82.15	69.65
30.0	103.58	104.47	103.58	104.47	101.79	97.33	92.87	81.26	69.65
45.0	102.08	102.98	105.67	105.67	102.98	98.50	93.13	81.49	68.95
60.0	101.48	103.27	105.07	105.97	103.27	98.78	93.40	81.72	69.15
75.0	102.38	103.27	104.17	105.07	102.38	98.78	94.29	81.72	69.15
90.0	102.38	103.27	104.17	104.17	101.48	97.89	94.29	80.82	69.15
105.0	101.77	103.57	104.47	103.57	101.77	98.17	95.46	81.96	69.35
120.0	100.87	102.67	104.47	103.57	100.87	98.17	95.46	81.96	69.35
135.0	100.58	101.48	103.27	102.38	100.58	97.89	96.09	82.62	70.05
150.0	100.87	102.67	101.77	100.87	99.97	98.17	96.37	82.86	71.15
165.0	100.87	102.67	101.77	100.87	99.97	98.17	95.46	82.86	72.05
180.0	100.62	102.40	102.40	100.62	99.73	97.05	91.71	80.14	76.57
195.0	100.90	102.69	101.79	101.79	100.90	100.01	92.87	80.36	75.90
210.0	100.90	100.90	101.79	102.69	100.90	97.33	92.87	80.36	75.90
225.0	100.29	102.08	102.98	102.98	101.19	96.71	93.13	80.59	75.22
240.0	100.58	102.38	103.27	103.27	100.58	97.89	94.29	79.93	74.54
255.0	100.58	102.38	103.27	103.27	100.58	97.89	93.40	79.03	72.74
270.0	99.68	101.48	103.27	103.27	100.58	96.99	93.40	78.13	72.74
285.0	99.07	99.97	102.67	103.57	100.87	98.17	92.76	77.45	72.95
300.0	99.97	99.97	101.77	103.57	100.87	97.27	92.76	76.55	72.05
315.0	100.58	101.48	102.38	102.38	99.68	96.09	89.80	75.44	70.94
330.0	102.67	102.67	102.67	102.67	99.97	95.46	89.16	73.85	72.05
345.0	103.57	104.47	102.67	101.77	99.07	94.56	89.16	74.75	72.05
360.0	103.29	104.18	105.96	103.29	99.73	96.16	93.49	81.92	70.34

Intensity data(cd)

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C/ $\gamma(^{\circ})$	180.0
0.0	81.03
15.0	81.26
30.0	79.47
45.0	79.70
60.0	79.93
75.0	80.82
90.0	79.93
105.0	81.05
120.0	81.05
135.0	80.82
150.0	81.05
165.0	81.96
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	81.03