



SGSO

Address: LIT by CARDI

Client:

LumCAT: 0017440218 RIO 12W 6500K 1200lm

Luminaire:

Report No:

Voltage(V): 230.3000

Test No: KYZ-A251014055-01-009

Current(A): 0.0545

LampCAT: LED

Power (W): 12.0000

Lamp flux(lm): -1.0

PF: 0.9565

Number of Lamps: 1

Ballast type:

Length(mm): -80

Width(mm): -80

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1200.00

Efficiency(%): 100.00%

Lumens(lm)/Power(W): 100.00

Central intensity(cd): 583.159

Maximum intensity(cd): 594.456

Angle of maximum intensity: C=270.0 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=87.4

[C90/270]Total=87.7

Field angle(10%Imax): [C0/180]Total=141.4

[C90/270]Total=144.0

Maximum s/h(1/2): C0_180=1.17 C90_270=1.19

Maximum s/h(1/4): C0_180=1.19 C90_270=1.22

Up flux rate of lamp(%): 0.78%

Down flux rate of lamp(%): 99.22%

Up flux rate of LUM(%): 0.78%

Down flux rate of LUM(%): 99.22%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 87.603%

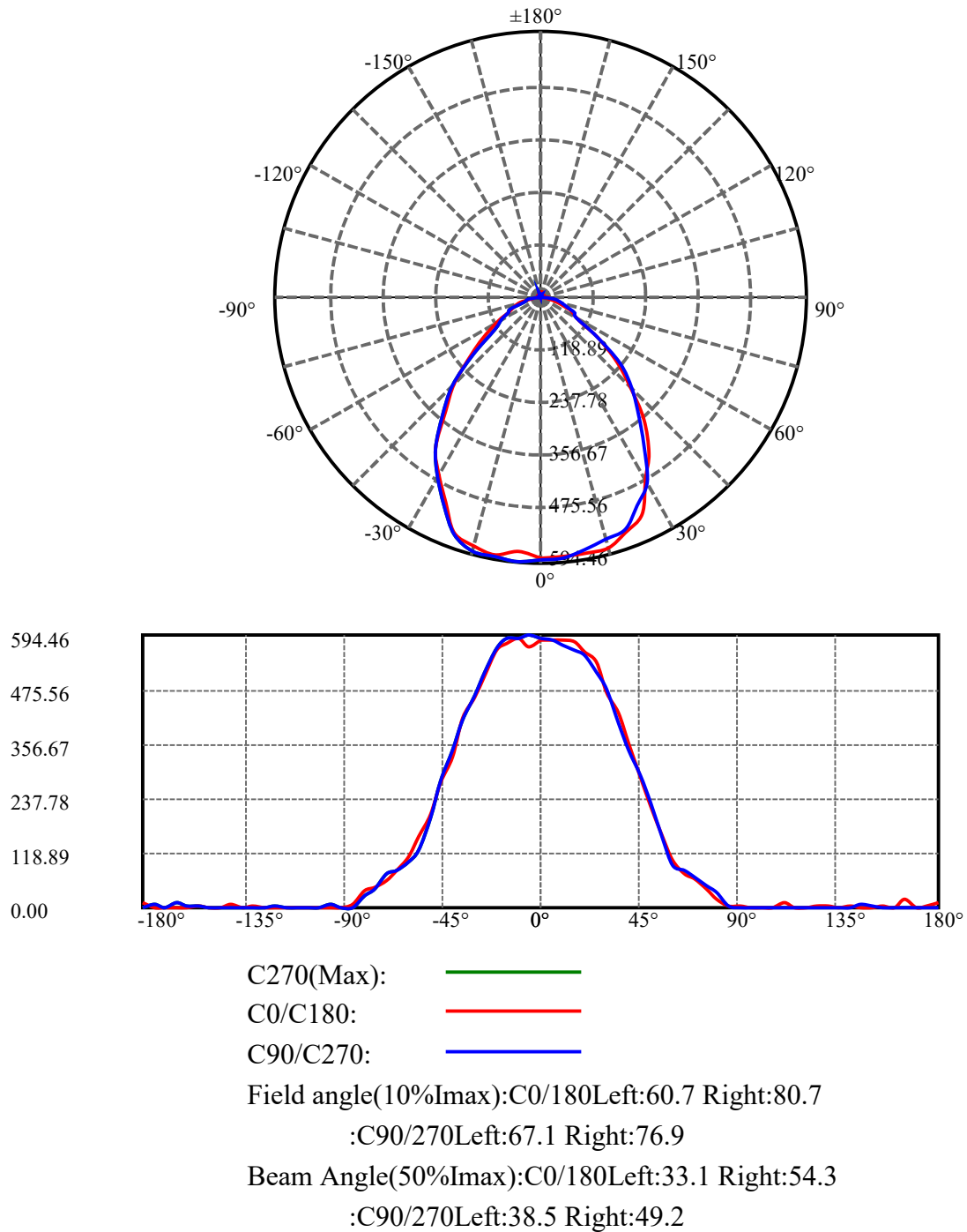
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	644.878	0.000	0	.000%	.000%
5.0	643.439	13.810	13.81	.000%	1.151%
10.0	646.208	41.367	55.177	.000%	4.598%
15.0	639.529	68.388	123.565	.000%	10.297%
20.0	615.580	92.750	216.315	.000%	18.026%
25.0	575.204	111.986	328.301	.000%	27.359%
30.0	520.844	124.373	452.674	.000%	37.723%
35.0	455.705	128.944	581.618	.000%	48.468%
40.0	383.370	125.527	707.145	.000%	58.929%
45.0	300.798	113.589	820.734	.000%	68.395%
50.0	225.232	95.309	916.043	.000%	76.337%
55.0	164.845	76.051	992.094	.000%	82.675%
60.0	120.504	59.142	1051.236	.000%	87.603%
65.0	91.532	46.220	1097.456	.000%	91.455%
70.0	69.484	36.557	1134.013	.000%	94.501%
75.0	48.848	27.734	1161.747	.000%	96.813%
80.0	28.700	18.606	1180.353	.000%	98.363%
85.0	6.300	8.528	1188.88	.000%	99.074%
90.0	0.842	1.753	1190.634	.000%	99.220%
95.0	1.140	0.487	1191.12	.000%	99.260%
100.0	1.222	0.576	1191.696	.000%	99.308%
105.0	1.493	0.651	1192.347	.000%	99.363%
110.0	2.525	0.942	1193.289	.000%	99.441%
115.0	0.244	0.629	1193.918	.000%	99.493%
120.0	0.625	0.189	1194.107	.000%	99.509%
125.0	0.842	0.304	1194.411	.000%	99.535%
130.0	1.222	0.402	1194.814	.000%	99.568%
135.0	1.765	0.541	1195.355	.000%	99.613%
140.0	3.910	0.942	1196.297	.000%	99.692%
145.0	1.765	0.849	1197.146	.000%	99.762%
150.0	3.801	0.735	1197.881	.000%	99.824%
155.0	3.584	0.838	1198.719	.000%	99.894%
160.0	2.118	0.536	1199.255	.000%	99.938%
165.0	3.557	0.419	1199.675	.000%	99.973%
170.0	0.489	0.215	1199.89	.000%	99.991%
175.0	1.683	0.070	1199.959	.000%	99.997%
180.0	1.792	0.037	1199.997	.000%	100.000%

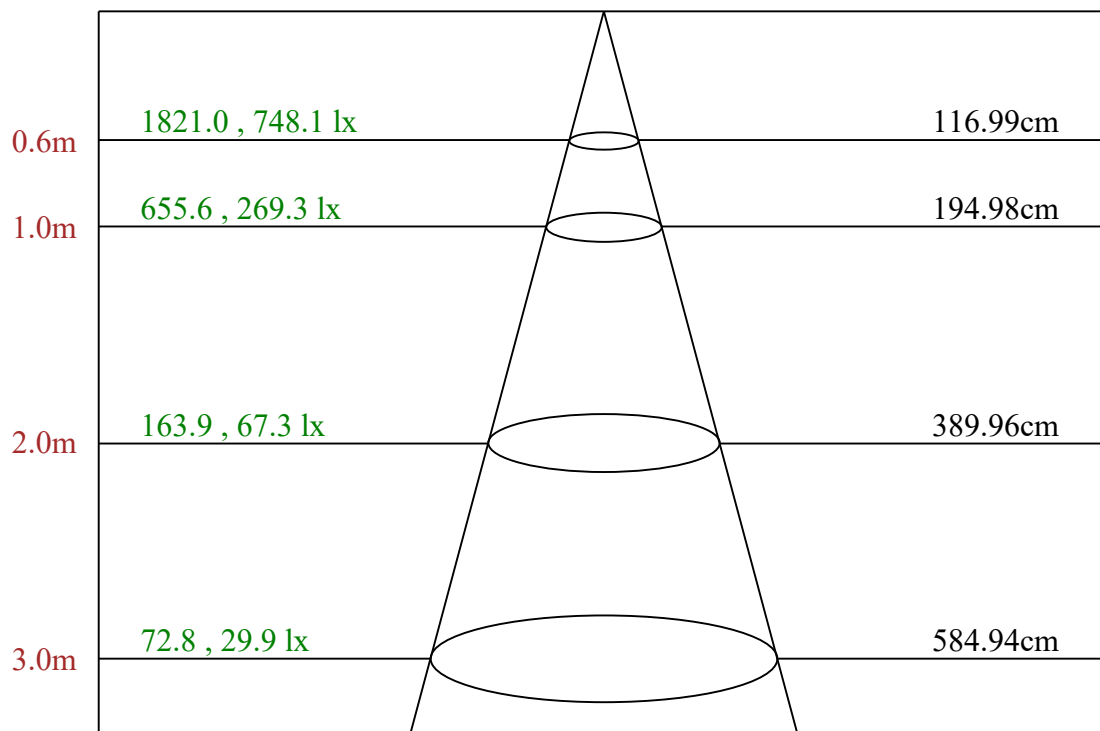
ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	452.67	N.A.	37.72%
0-40	707.15	N.A.	58.93%
0-60	1051.24	N.A.	87.60%
0-90	1190.63	N.A.	99.22%
0-120	1194.11	N.A.	99.51%
0-180	1200.00	N.A.	100.00%
60-90	198.54	N.A.	16.54%
90-120	5.23	N.A.	0.44%
90-130	5.93	N.A.	0.49%
90-150	9.00	N.A.	0.75%
90-180	11.08	N.A.	0.92%
0-52.89	960.00	N.A.	80.00%

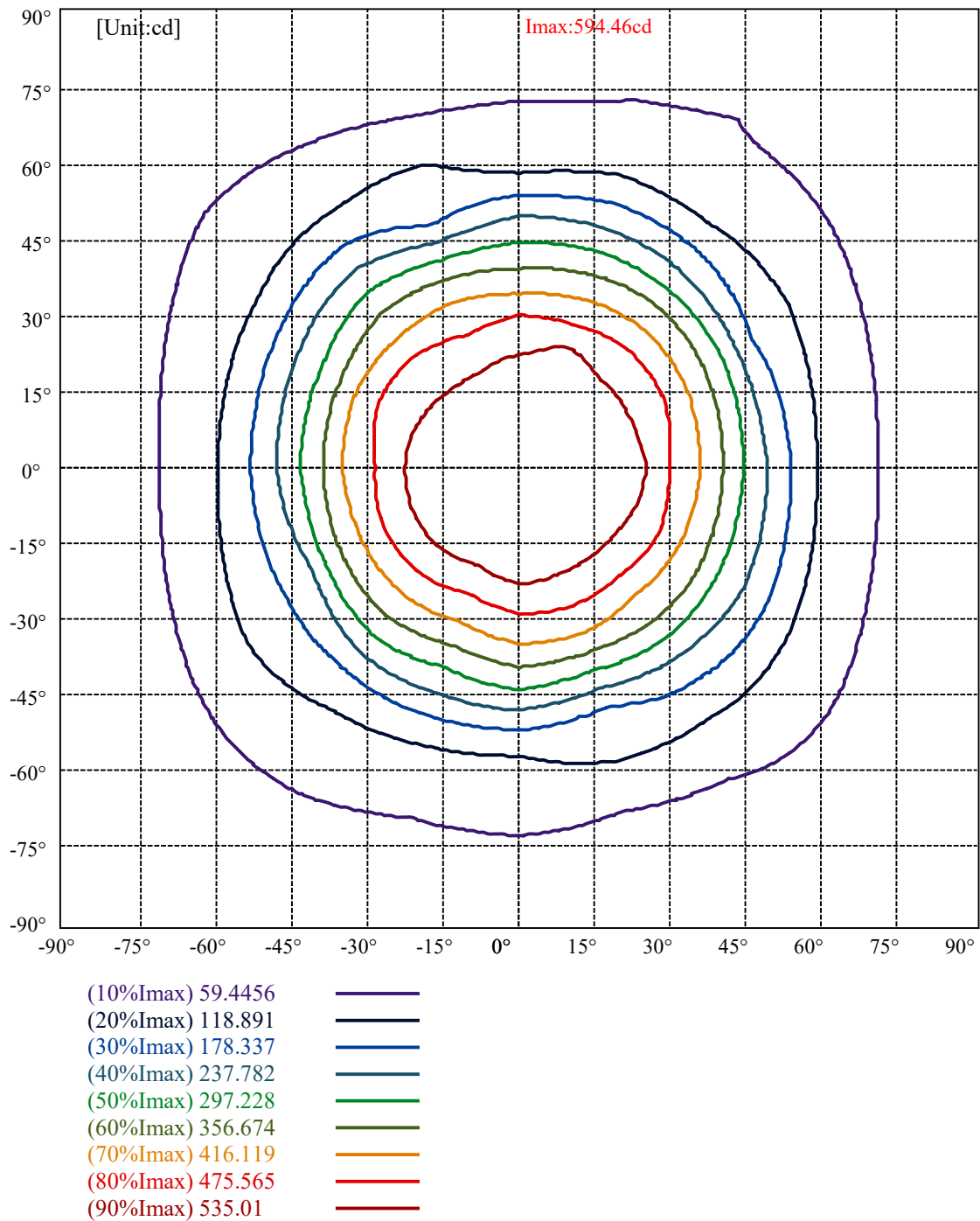
ZONAL LUMEN SUMMARY

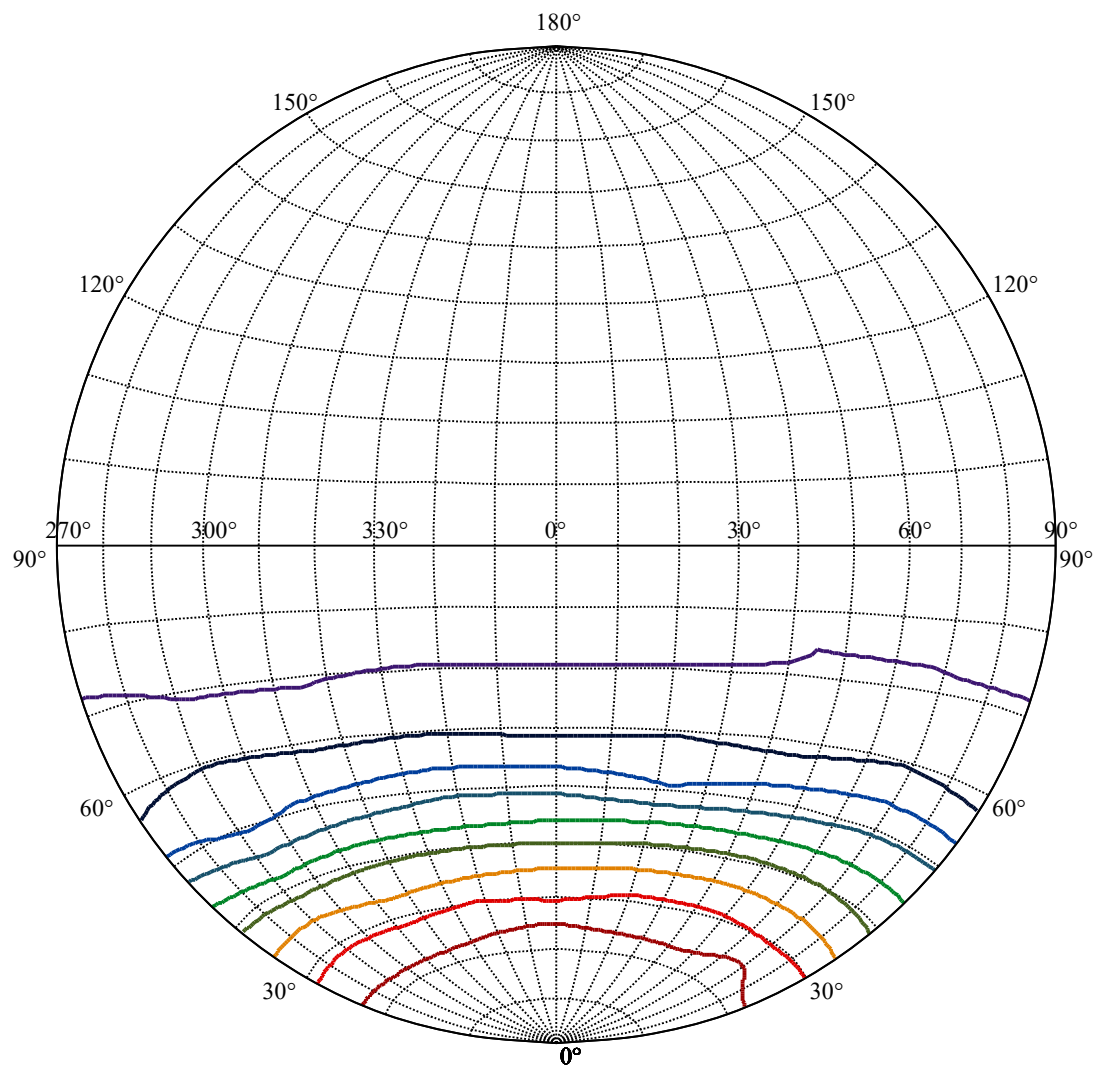
0-10	55.18
10-20	161.14
20-30	236.36
30-40	254.47
40-50	208.90
50-60	135.19
60-70	82.78
70-80	46.34
80-90	10.28
90-100	1.06
100-110	1.59
110-120	0.82
120-130	0.71
130-140	1.48
140-150	1.58
150-160	1.37
160-170	0.63
170-180	0.07





Max , Ave Beam angle of C270 plane 88.54





[Unit:cd]

Imax:594.46

(10%Imax) 53.30289

(20%Imax) 106.6056

(30%Imax) 159.9088

(40%Imax) 213.2112

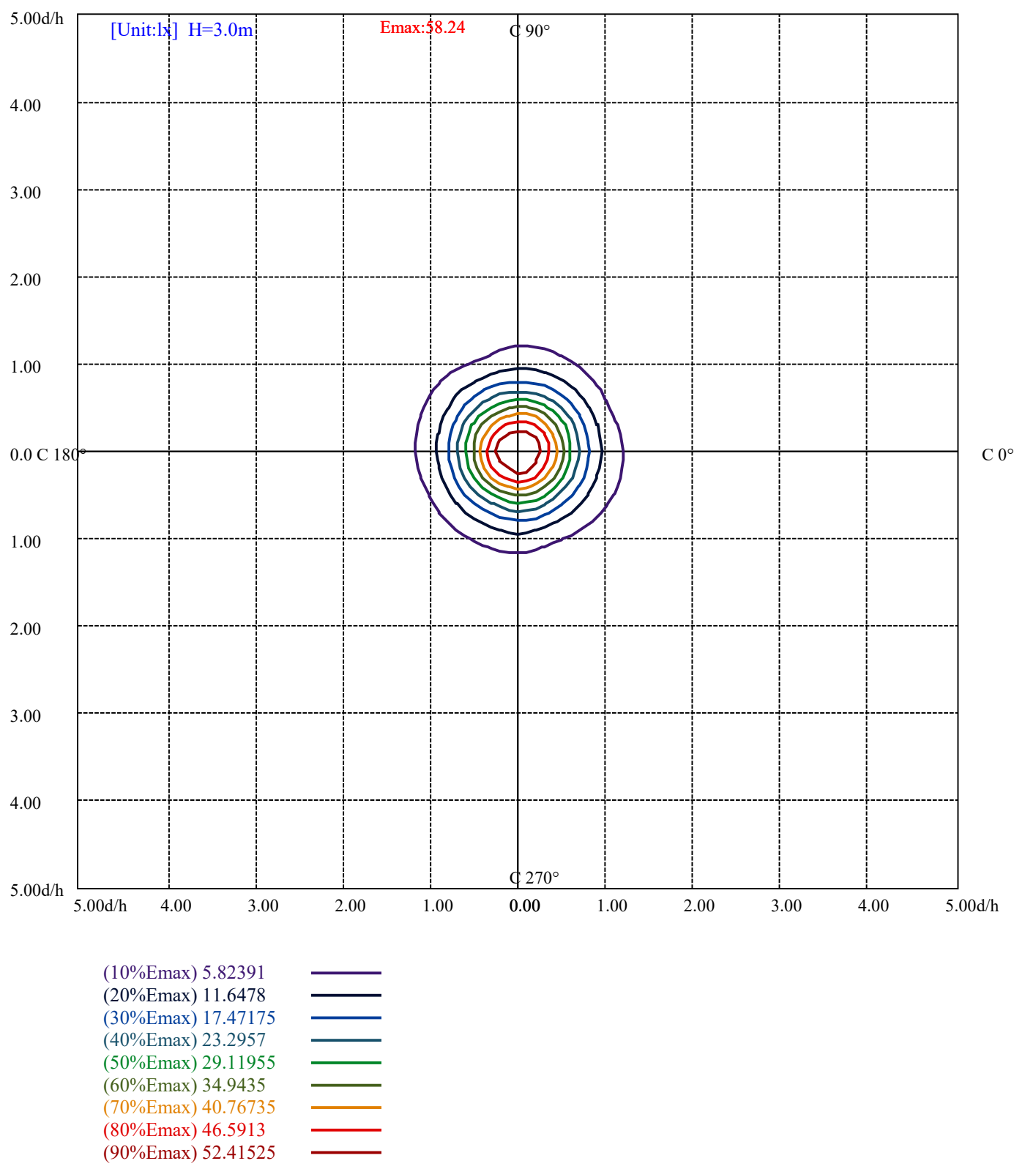
(50%Imax) 266.5144

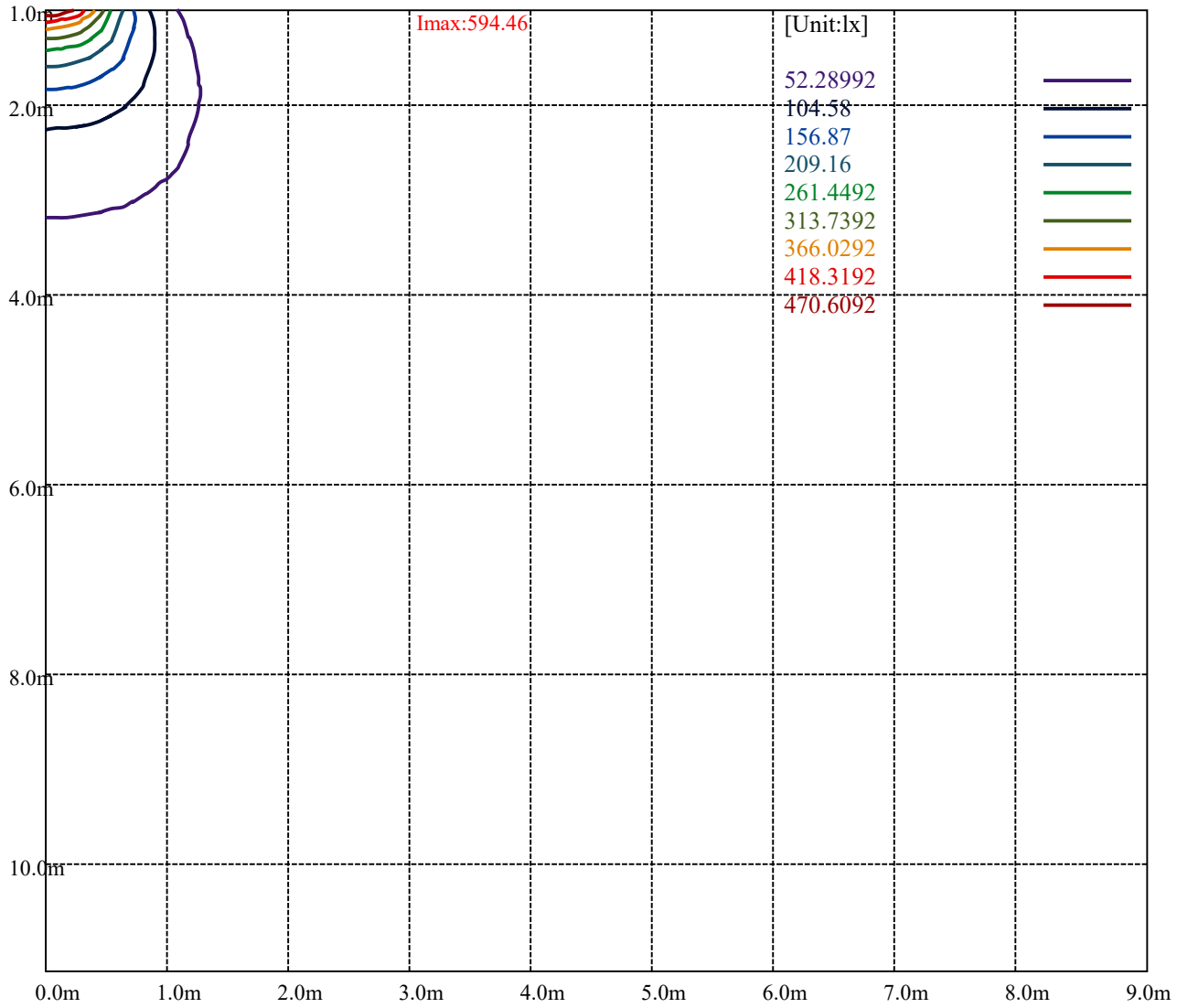
(60%Imax) 319.8177

(70%Imax) 373.12

(80%Imax) 426.4233

(90%Imax) 479.7256





Luminance Table

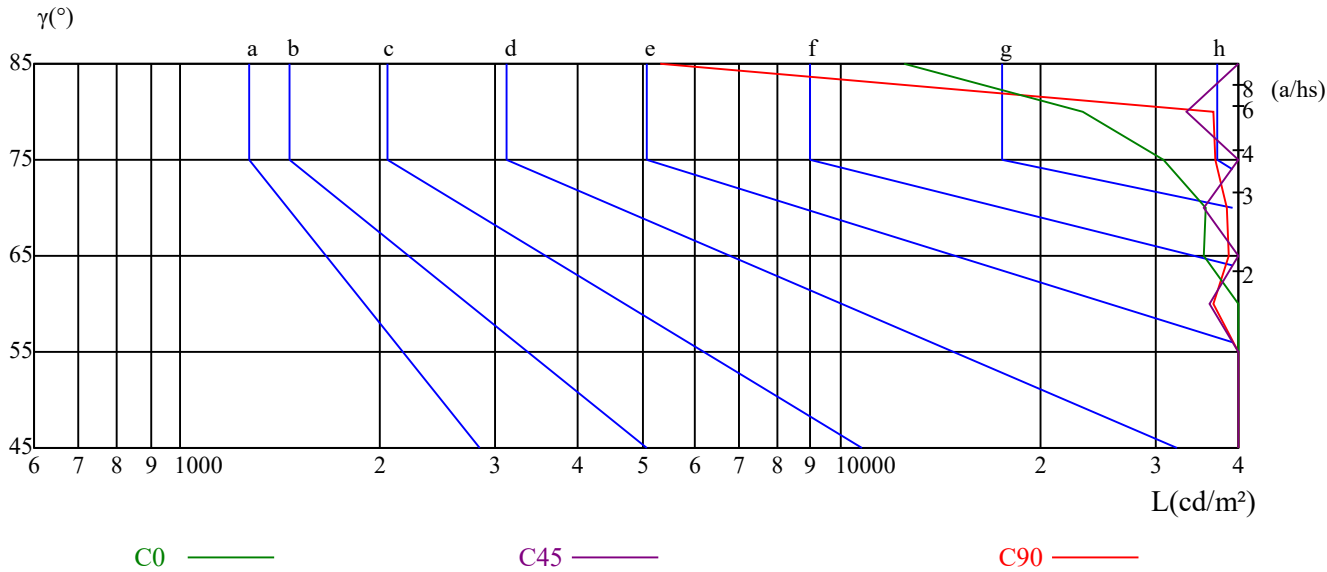
γ	45	50	55	60	65	70	75	80	85
C0	79679	69085	54316	40764	35575	35801	30842	23207	12448
C45	80666	65588	53370	36269	41443	35348	45514	33472	42681
C90	80994	71376	52290	36734	38693	38520	36830	36596	5336

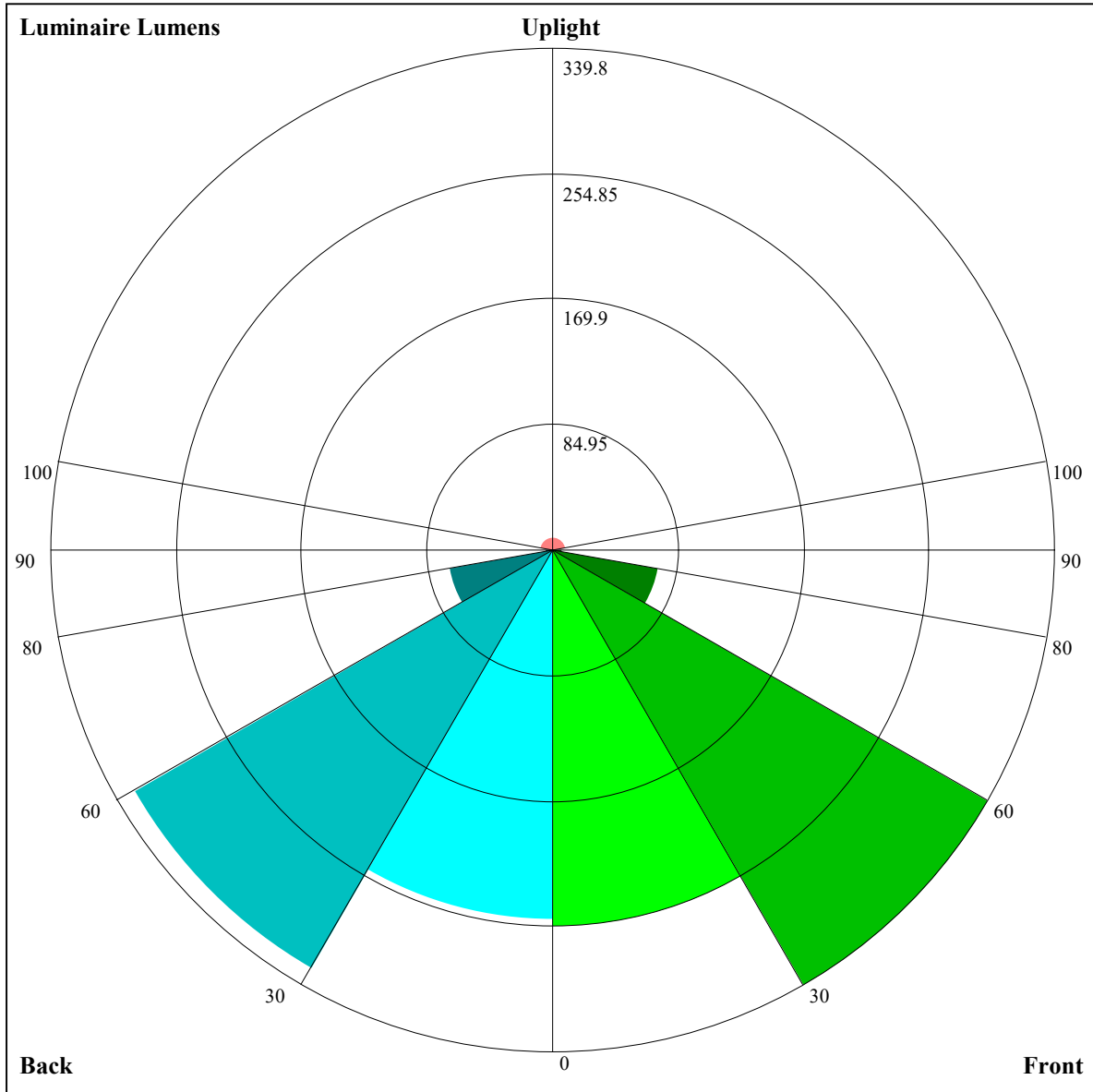
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
36584	38326	35896	32938	33686	33312	13338	3557	25342

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





Luminaire Lumens:

FL=254.56,FM=339.8,FH=72.75,FVH=6.31

BL=249.91,BM=326.79,BH=71.31,BVH=4.97

UL=1.18,UH=9.26

BUG Rating:B1-U1-G0

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	583.16	582.38	582.38	580.82	558.23	536.02	468.63	423.44	356.83
22.5	570.30	573.81	577.32	587.83	569.52	524.73	490.45	428.12	365.01
45.0	572.64	567.58	583.55	578.87	560.56	522.00	489.28	426.17	369.29
67.5	576.54	582.38	580.82	577.71	553.55	541.09	472.53	416.43	357.61
90.0	587.83	583.55	573.42	561.34	551.22	512.26	474.47	402.41	344.36
112.5	584.33	568.74	571.47	573.81	535.24	503.69	453.44	412.92	344.75
135.0	580.82	578.48	566.80	567.19	535.24	512.65	471.36	404.35	353.32
157.5	570.30	577.71	591.73	564.07	543.42	515.77	476.42	412.92	329.56
180.0	583.16	568.36	586.27	574.59	559.40	505.64	457.33	411.76	328.78
202.5	570.30	574.20	572.64	570.30	553.16	514.60	462.40	396.56	330.34
225.0	572.64	566.02	578.48	568.36	550.05	507.98	452.66	392.28	335.40
247.5	576.54	570.69	574.98	554.72	541.87	490.06	439.02	383.71	309.69
270.0	587.83	594.46	586.66	587.44	563.29	513.04	460.06	410.98	343.58
292.5	584.33	580.82	580.82	587.05	556.67	506.81	467.07	411.37	328.00
315.0	580.82	583.55	581.60	575.76	551.99	515.38	459.67	393.45	349.04
337.5	570.30	578.48	581.99	565.24	548.10	530.57	477.59	410.98	354.49
360.0	583.16	582.38	582.38	580.82	558.23	536.02	468.63	423.44	356.83
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	283.20	223.21	156.60	102.45	75.57	61.55	40.12	20.26	5.45
22.5	287.49	184.26	145.30	114.53	97.39	61.55	50.64	34.67	20.26
45.0	286.71	211.92	153.87	91.16	88.04	60.77	59.21	29.22	18.70
67.5	290.61	227.11	167.51	113.75	94.27	62.33	58.04	27.27	0.00
90.0	287.88	230.61	150.76	92.32	82.20	66.22	47.92	31.94	2.34
112.5	261.39	173.35	135.17	128.16	88.04	60.38	38.57	19.87	0.00
135.0	286.71	220.10	155.04	110.63	76.35	61.55	32.72	31.55	9.35
157.5	265.67	211.14	142.97	106.74	99.34	67.00	49.08	25.32	9.35
180.0	271.52	201.40	156.21	109.46	79.86	60.77	45.58	36.23	6.23
202.5	224.38	183.48	148.03	122.71	64.67	61.94	47.53	24.93	0.00
225.0	257.88	181.14	132.06	100.89	72.07	65.45	38.57	14.41	0.00
247.5	256.32	190.10	127.77	98.95	77.52	59.99	37.01	22.98	0.00
270.0	276.97	197.50	126.99	99.34	80.64	73.63	39.73	27.27	0.78
292.5	244.25	167.90	156.99	114.53	78.30	53.76	35.45	26.49	0.00
315.0	262.95	200.23	146.86	108.68	68.56	55.71	42.85	17.14	16.36
337.5	271.52	227.89	162.83	114.53	90.38	64.28	37.79	22.20	1.56
360.0	283.20	223.21	156.60	102.45	75.57	61.55	40.12	20.26	5.45
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	1.95	0.00	0.00	1.56	11.30	0.00	0.00	3.51	1.95
22.5	0.00	0.00	0.00	10.91	3.51	0.00	3.51	0.00	0.00
45.0	5.45	0.00	0.78	2.34	0.00	0.00	0.00	0.00	0.00
67.5	0.00	8.57	0.00	0.00	0.78	0.00	3.12	0.00	0.00
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
112.5	0.00	0.00	0.00	3.90	0.00	0.00	0.00	0.00	7.79
135.0	0.00	0.00	0.00	0.00	1.56	0.00	0.00	0.00	0.39
157.5	0.00	0.00	0.00	0.00	0.00	2.34	0.00	1.95	0.00
180.0	0.00	0.00	0.00	0.00	0.78	0.00	0.00	0.78	2.34
202.5	4.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
225.0	0.00	0.00	2.73	0.00	5.45	0.00	0.00	1.95	0.00
247.5	0.00	0.00	7.79	2.73	1.17	0.00	0.00	0.00	0.00
270.0	0.00	7.79	0.00	0.00	0.00	0.00	2.34	0.00	0.00
292.5	0.00	0.00	0.00	0.00	1.95	1.17	0.00	3.90	0.00
315.0	0.00	0.00	6.23	0.00	9.74	0.00	0.00	0.00	0.00
337.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.06
360.0	1.95	0.00	0.00	1.56	11.30	0.00	0.00	3.51	1.95

Intensity data(cd)

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C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	0.00	3.90	0.00	0.00	3.90	0.00	17.14	1.17	4.29
22.5	0.00	0.00	0.00	4.29	4.67	8.96	0.00	0.00	2.73
45.0	4.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
67.5	0.00	4.29	0.00	2.34	2.73	0.00	0.00	0.00	0.00
90.0	1.56	0.00	7.79	2.73	0.00	0.00	0.00	0.00	0.78
112.5	0.78	9.74	2.34	5.45	7.79	4.29	5.45	0.00	0.00
135.0	6.23	0.00	0.00	0.00	2.34	0.00	3.90	0.00	0.00
157.5	0.00	4.67	0.00	8.57	0.00	0.00	0.00	0.00	0.39
180.0	0.00	8.96	0.00	0.00	1.95	0.00	0.00	0.00	0.00
202.5	0.39	0.00	0.00	10.13	0.00	0.00	8.96	1.95	2.34
225.0	1.95	9.74	8.18	2.73	0.00	0.00	0.00	0.00	0.00
247.5	1.95	2.73	7.01	0.00	0.00	0.00	0.00	3.90	0.00
270.0	0.00	0.39	0.00	0.78	4.29	3.90	11.30	0.00	7.40
292.5	0.00	7.40	0.00	8.57	8.96	9.35	1.17	0.00	0.00
315.0	1.95	1.95	0.00	7.40	9.74	0.00	3.12	0.00	6.23
337.5	6.23	2.34	0.00	1.56	5.06	3.90	0.00	0.00	0.00
360.0	0.00	3.90	0.00	0.00	3.90	0.00	17.14	1.17	4.29

C/γ(°)	180.0
0.0	10.91
22.5	0.00
45.0	0.00
67.5	0.00
90.0	0.00
112.5	0.00
135.0	0.00
157.5	1.95
180.0	10.91
202.5	0.00
225.0	0.00
247.5	0.00
270.0	0.00
292.5	0.00
315.0	0.00
337.5	1.95
360.0	10.91