



SGSO

Address: LIT by CARDI

Client:

LumCAT: 0017440219 RIO 6W 3000K 600lm

Luminaire:

Report No:

Voltage(V): 230.4300

Test No: KYZ-A251030009-04-004

Current(A): 0.0299

LampCAT: LED

Power (W): 6.0000

Lamp flux(lm): -1.0

PF: 0.8694

Number of Lamps: 1

Ballast type:

Length(mm): -126

Width(mm): -126

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 600.00

Efficiency(%): 0.00%

Lumens(lm)/Power(W): 100.00

Central intensity(cd): 306.078

Maximum intensity(cd): 320.438

Angle of maximum intensity: C=90.0 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=85.1

[C90/270]Total=82.7

Field angle(10%Imax): [C0/180]Total=156.6

[C90/270]Total=140.5

Maximum s/h(1/2): C0_180=1.12 C90_270=1.09

Maximum s/h(1/4): C0_180=1.18 C90_270=1.19

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 1.91%

Down flux rate of LUM(%): 98.09%

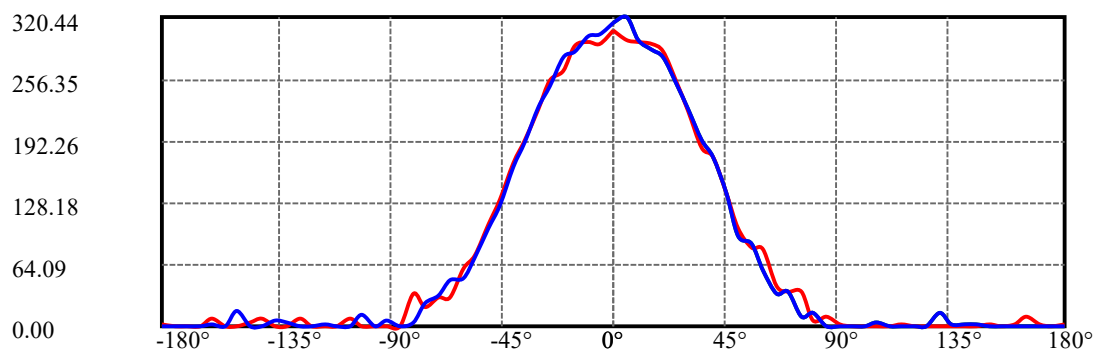
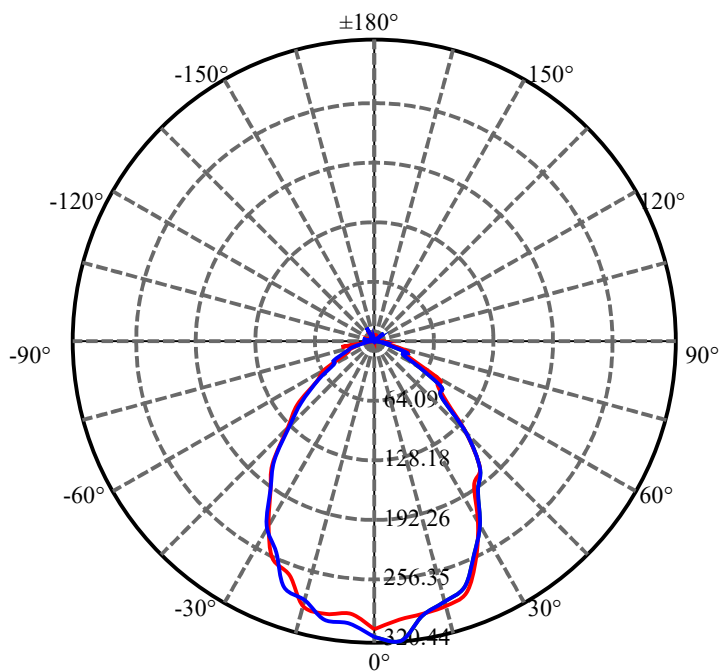
CIE Type : Direct lighting

Output flux ratio in π solid angle : 86.532%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	332.904	0.000	0	.000%	.000%
5.0	324.210	7.276	7.276	.000%	1.213%
10.0	320.999	21.378	28.654	.000%	4.776%
15.0	312.028	34.779	63.433	.000%	10.572%
20.0	300.234	46.735	110.168	.000%	18.361%
25.0	270.941	55.484	165.652	.000%	27.609%
30.0	242.258	60.153	225.805	.000%	37.634%
35.0	213.298	62.133	287.938	.000%	47.989%
40.0	183.009	61.241	349.178	.000%	58.196%
45.0	142.697	55.856	405.035	.000%	67.505%
50.0	108.974	47.101	452.135	.000%	75.355%
55.0	78.741	37.803	489.939	.000%	81.656%
60.0	57.920	29.257	519.196	.000%	86.532%
65.0	41.807	22.455	541.651	.000%	90.275%
70.0	32.117	17.336	558.987	.000%	93.164%
75.0	23.589	13.486	572.473	.000%	95.412%
80.0	14.951	9.551	582.024	.000%	97.003%
85.0	4.319	4.850	586.874	.000%	97.812%
90.0	2.270	1.671	588.545	.000%	98.090%
95.0	1.606	0.983	589.528	.000%	98.254%
100.0	2.658	1.073	590.601	.000%	98.433%
105.0	2.437	1.263	591.864	.000%	98.643%
110.0	1.163	0.871	592.735	.000%	98.789%
115.0	2.492	0.857	593.592	.000%	98.931%
120.0	0.000	0.561	594.153	.000%	99.025%
125.0	1.551	0.332	594.485	.000%	99.080%
130.0	2.935	0.903	595.388	.000%	99.231%
135.0	1.108	0.757	596.145	.000%	99.357%
140.0	3.212	0.741	596.886	.000%	99.480%
145.0	1.994	0.804	597.69	.000%	99.614%
150.0	5.039	0.959	598.649	.000%	99.774%
155.0	0.388	0.636	599.285	.000%	99.880%
160.0	1.551	0.188	599.474	.000%	99.912%
165.0	2.049	0.275	599.748	.000%	99.957%
170.0	0.720	0.152	599.9	.000%	99.983%
175.0	1.661	0.079	599.979	.000%	99.996%
180.0	0.554	0.025	600.004	.000%	100.000%

ZONAL LUMEN SUMMARY			
Zone	Lumens	%Lamp	%Fixt
0-30	225.80	N.A.	37.63%
0-40	349.18	N.A.	58.20%
0-60	519.20	N.A.	86.53%
0-90	588.55	N.A.	98.09%
0-120	594.15	N.A.	99.02%
0-180	600.00	N.A.	100.00%
60-90	98.61	N.A.	16.43%
90-120	7.28	N.A.	1.21%
90-130	8.51	N.A.	1.42%
90-150	11.78	N.A.	1.96%
90-180	13.11	N.A.	2.18%
0-53.69	480.00	N.A.	80.00%

ZONAL LUMEN SUMMARY	
0-10	28.65
10-20	81.51
20-30	115.64
30-40	123.37
40-50	102.96
50-60	67.06
60-70	39.79
70-80	23.04
80-90	6.52
90-100	2.06
100-110	2.13
110-120	1.42
120-130	1.24
130-140	1.50
140-150	1.76
150-160	0.82
160-170	0.43
170-180	0.08

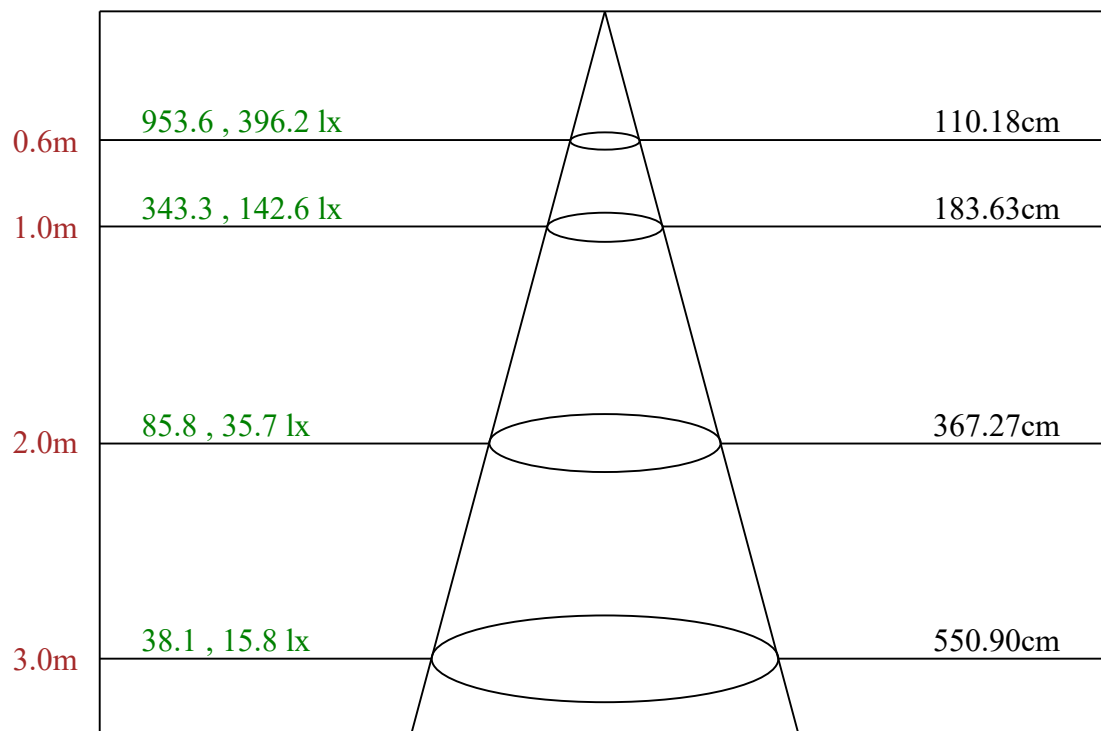
C90(Max): C0/C180: C90/C270: 

Field angle(10%Imax):C0/180Left:80.6 Right:76.0

:C90/270Left:74.7 Right:65.8

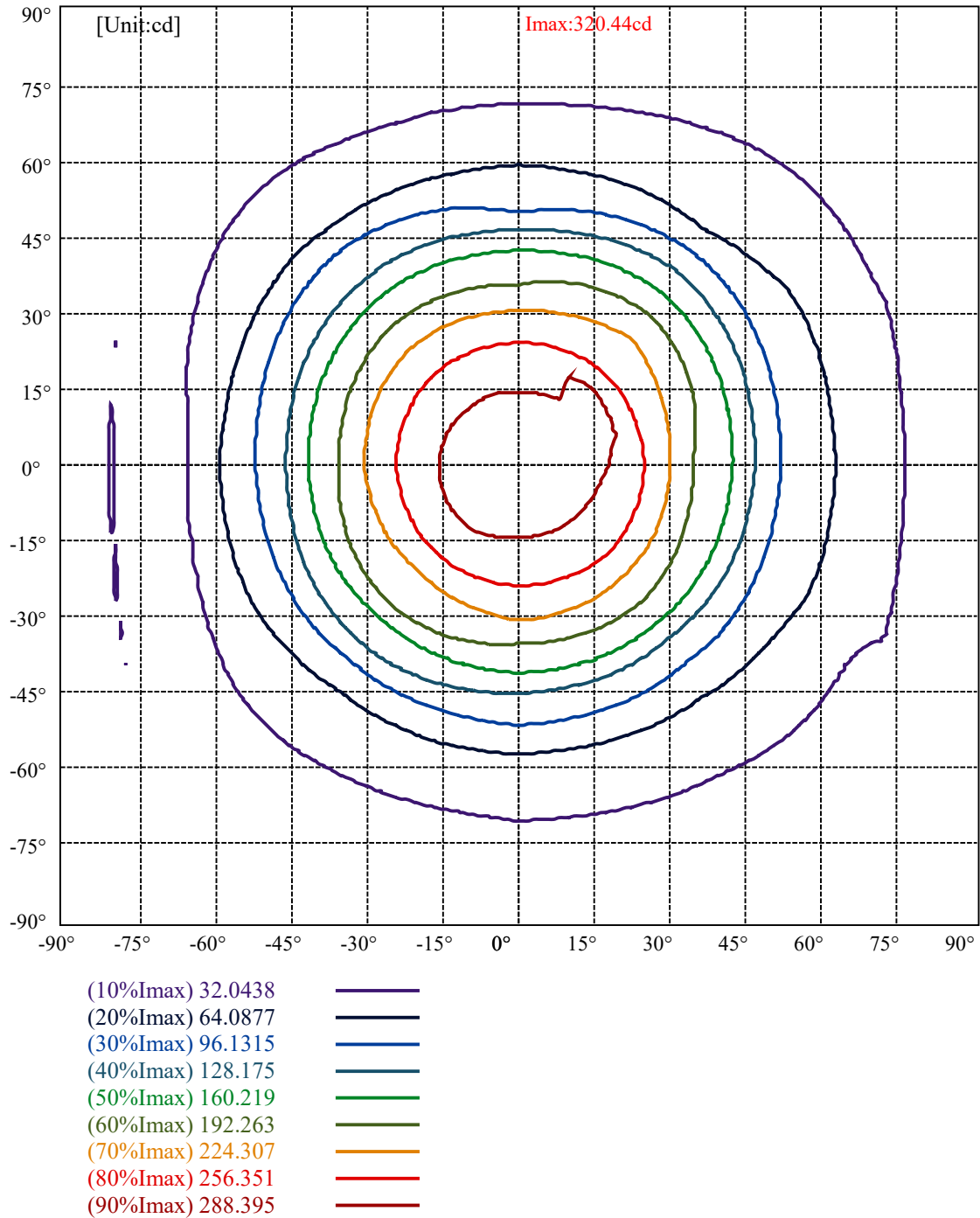
Beam Angle(50%Imax):C0/180Left:42.2 Right:42.9

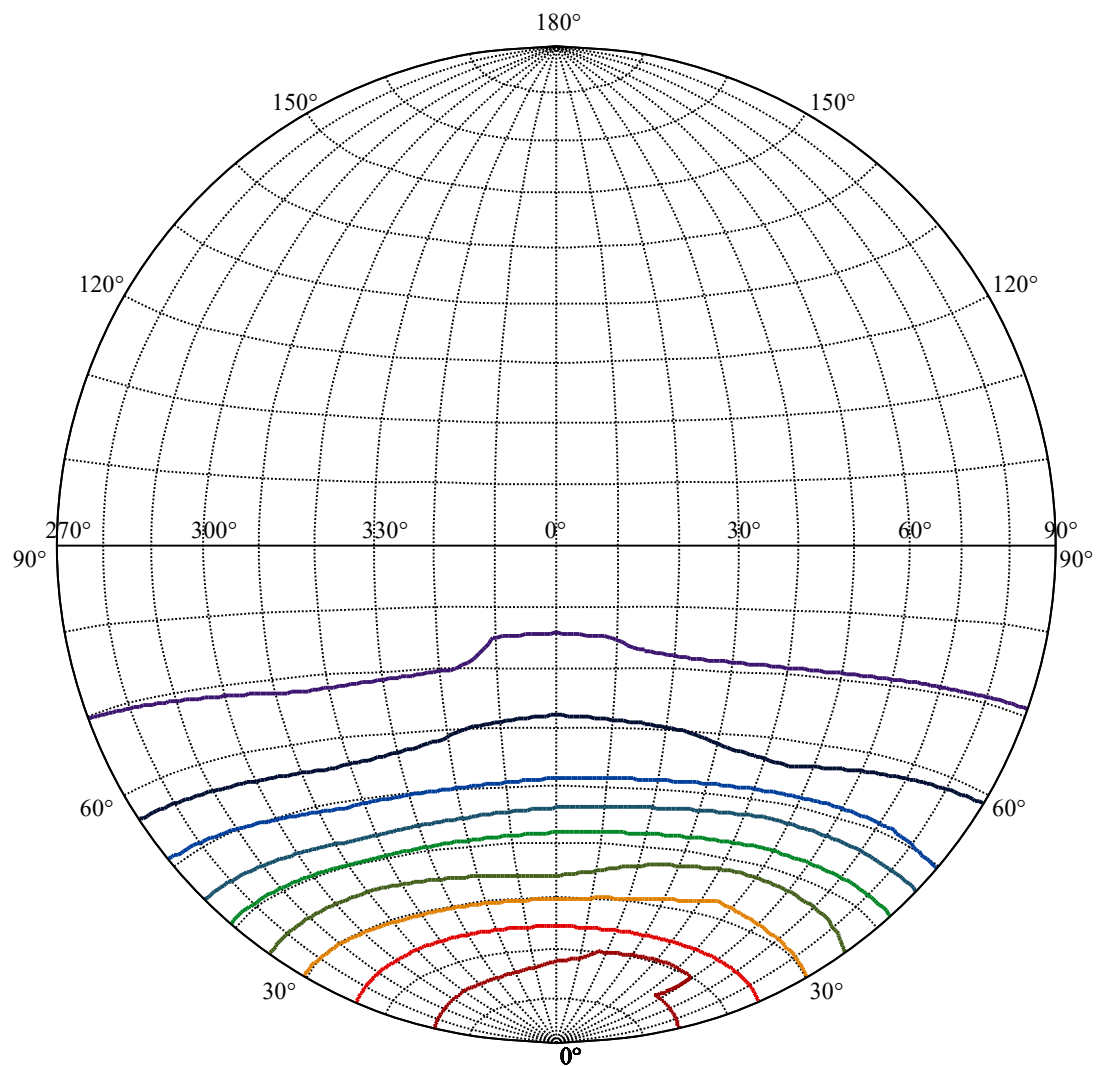
:C90/270Left:45.7 Right:37.0



Max , Ave

Beam angle of C90 plane 85.11





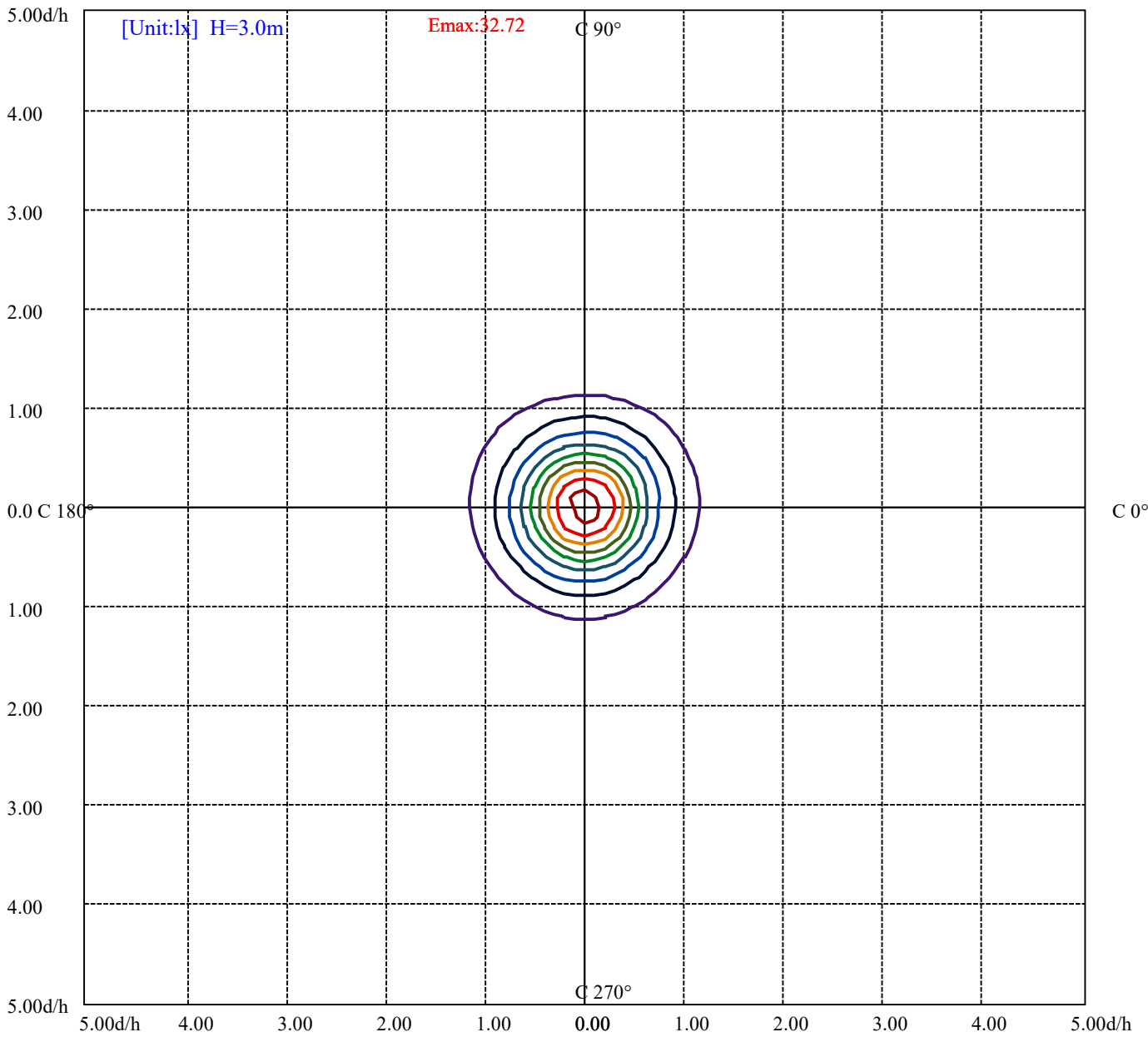
House

[Unit:cd]

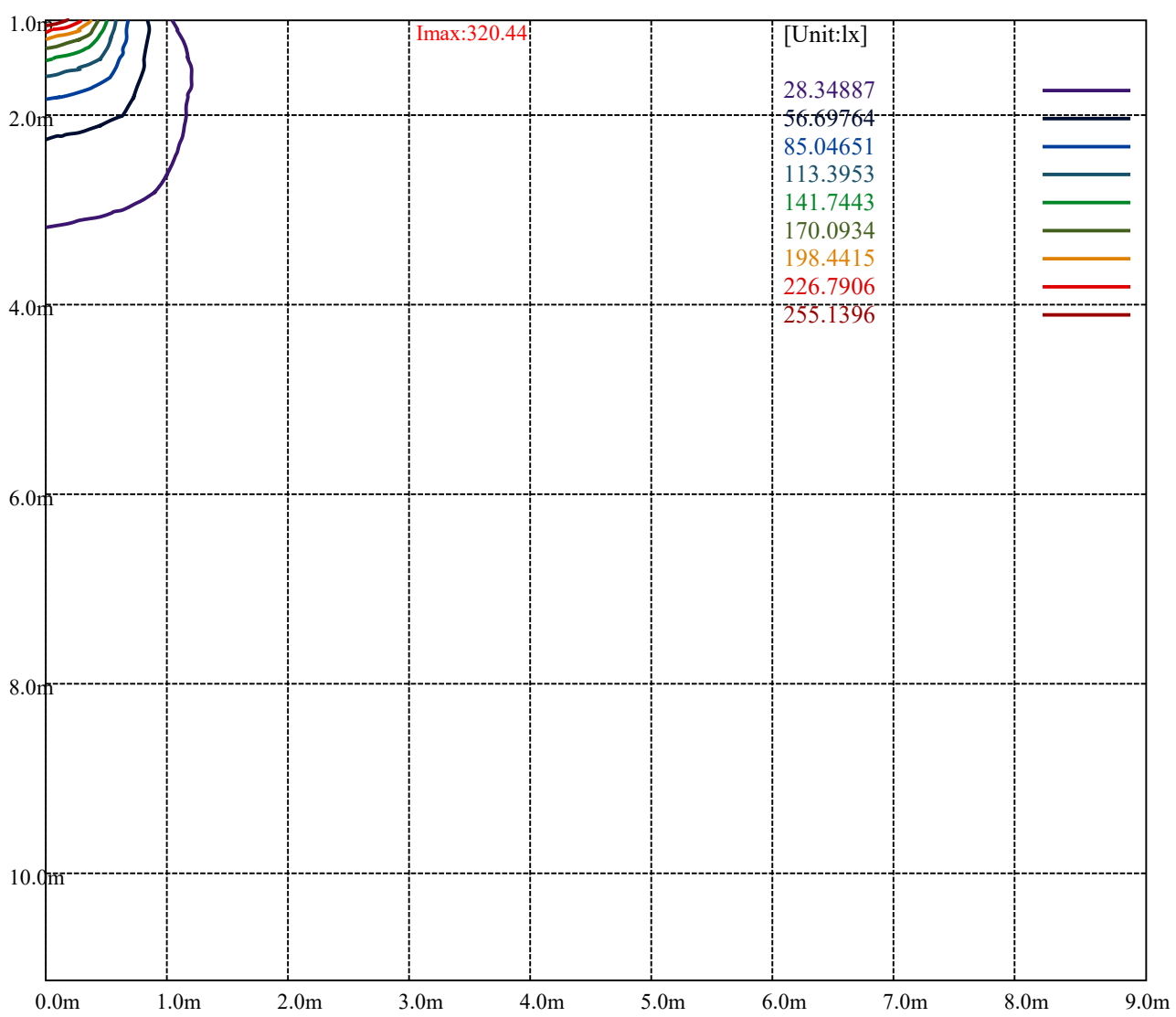
Road

Imax:320.44
(10%Imax) 29.67889
(20%Imax) 59.35786
(30%Imax) 89.03675
(40%Imax) 118.7154
(50%Imax) 148.3944
(60%Imax) 178.0735
(70%Imax) 207.7526
(80%Imax) 237.4317
(90%Imax) 267.1107





(10%Emax) 3.272317	—
(20%Emax) 6.544635	—
(30%Emax) 9.816942	—
(40%Emax) 13.08923	—
(50%Emax) 16.36159	—
(60%Emax) 19.63384	—
(70%Emax) 22.9062	—
(80%Emax) 26.17856	—
(90%Emax) 29.45082	—



Luminance Table

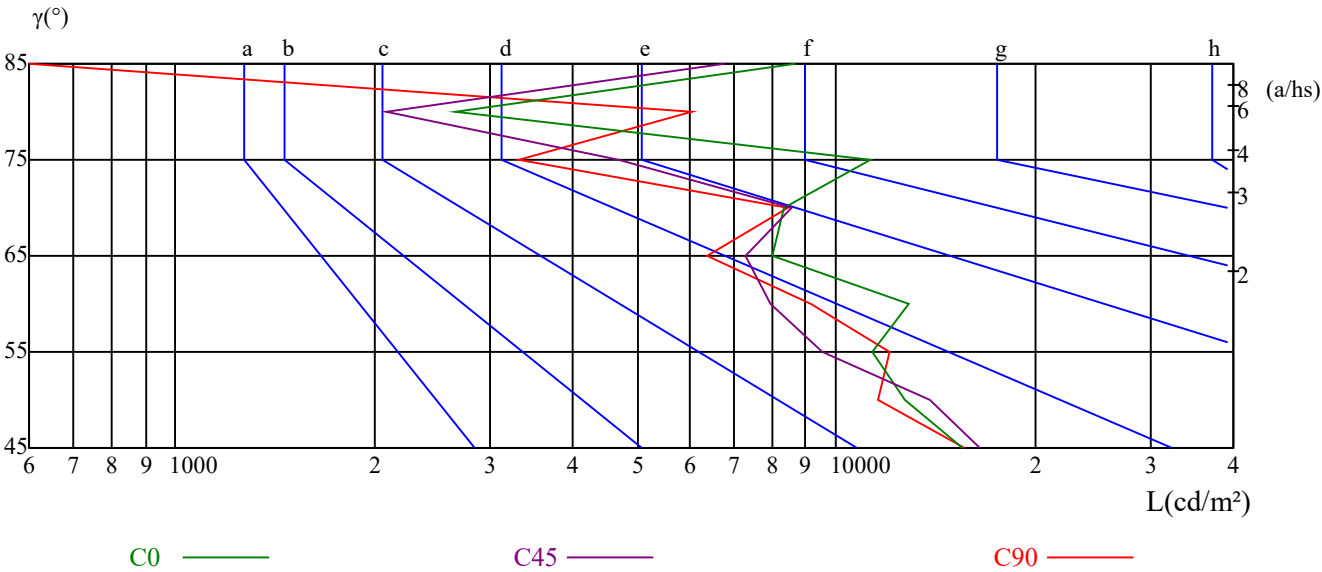
γ	45	50	55	60	65	70	75	80	85
C0	15589	12747	11359	12899	8020	8370	11315	2653	8684
C45	16566	13873	9523	7963	7319	8563	4704	2084	6796
C90	15682	11620	12047	9148	6385	8466	3306	6064	378

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
6930	7630	7416	8645	5213	6611	4342	189	5097

Glare Table

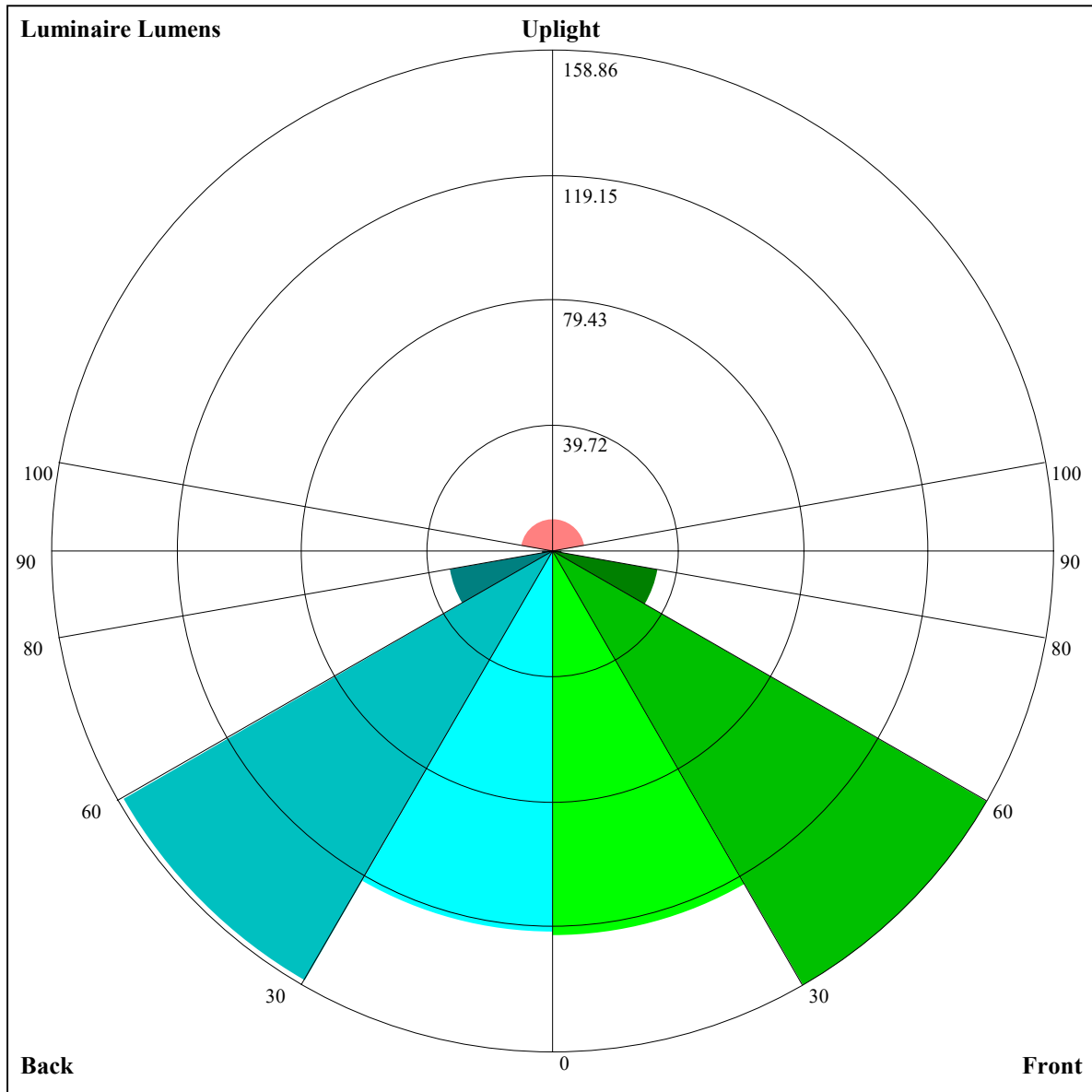
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve



Illumination assessment according UGR											
Rf of Ceiling		70	70	50	50	30	70	70	50	50	30
Rf of Wall		50	30	50	30	30	50	30	50	30	30
Rf of Floor		20	20	20	20	20	20	20	20	20	20
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	16.28	17.68	16.67	18.04	18.40	15.84	17.25	16.23	17.60	17.97
	3H	17.26	18.52	17.67	18.90	19.29	16.76	18.03	17.18	18.41	18.80
	4H	17.93	19.11	18.36	19.51	19.92	16.94	18.12	17.37	18.51	18.92
	6H	18.16	19.25	18.60	19.66	20.10	17.11	18.21	17.55	18.61	19.06
	8H	18.15	19.20	18.59	19.62	20.07	17.15	18.20	17.60	18.62	19.07
	12H	18.22	19.23	18.67	19.65	20.11	17.12	18.12	17.57	18.55	19.01
4H	2H	16.55	17.73	16.98	18.12	18.53	16.17	17.35	16.60	17.74	18.15
	3H	17.77	18.76	18.22	19.19	19.64	17.32	18.31	17.77	18.74	19.19
	4H	18.58	19.45	19.04	19.91	20.39	17.59	18.46	18.05	18.91	19.40
	6H	18.80	19.57	19.29	20.05	20.54	17.78	18.55	18.27	19.03	19.52
	8H	18.83	19.55	19.34	20.04	20.55	17.87	18.59	18.38	19.08	19.59
	12H	18.98	19.65	19.49	20.13	20.68	17.87	18.54	18.38	19.02	19.57
8H	4H	18.60	19.32	19.11	19.81	20.32	17.66	18.39	18.17	18.87	19.38
	6H	18.83	19.43	19.35	19.94	20.48	17.89	18.49	18.41	19.00	19.54
	8H	18.94	19.47	19.49	20.02	20.55	18.07	18.59	18.61	19.14	19.67
	12H	19.20	19.64	19.75	20.18	20.74	18.09	18.53	18.65	19.08	19.63
12H	4H	18.58	19.25	19.09	19.73	20.28	17.64	18.31	18.15	18.79	19.34
	6H	18.85	19.38	19.40	19.92	20.46	17.92	18.44	18.47	18.99	19.52
	8H	18.95	19.39	19.50	19.93	20.49	18.08	18.52	18.63	19.06	19.61
Variation with the observer position at spacings:											
S = 1.0H		0.5/-0.7					0.6/-0.7				
S = 1.5H		0.9/-1.7					0.7/-0.8				
S = 2.0H		2.2/-1.9					1.7/-1.6				
Standard tables:		BK3					BK2				
Uncorrected UGR		4.3					4.5				

UGR calculation is based on CIE Publ. 117 ,S/H = 0.25



Luminaire Lumens:

FL=122.21,FM=158.86,FH=34.15,FVH=2.86

BL=121.23,BM=157.32,BH=33.3,BVH=3.47

UL=2.22,UH=10.16

BUG Rating:B1-U2-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	306.08	296.64	294.59	291.72	285.56	253.56	222.38	185.86	174.78
45.0	317.98	301.98	294.59	288.85	293.36	249.87	233.87	216.63	178.48
90.0	313.87	320.44	297.05	286.79	277.77	250.28	225.25	193.25	174.78
135.0	295.41	293.77	309.77	287.61	280.64	249.87	228.53	197.76	174.37
180.0	306.08	291.72	294.59	291.31	265.46	253.97	225.66	193.25	169.45
225.0	317.98	290.08	290.90	291.31	272.43	248.23	211.30	206.79	155.91
270.0	313.87	301.98	301.15	285.56	278.18	247.82	226.89	192.02	165.76
315.0	295.41	305.67	295.82	288.85	271.20	253.97	221.15	194.89	162.48
360.0	306.08	296.64	294.59	291.72	285.56	253.56	222.38	185.86	174.78
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	137.45	102.16	81.24	80.42	42.26	35.70	36.52	5.74	9.44
45.0	146.06	111.19	68.11	49.65	38.57	36.52	15.18	4.51	7.39
90.0	138.27	93.14	86.16	57.03	33.64	36.11	10.67	13.13	0.41
135.0	130.88	115.70	75.49	41.85	42.67	26.26	24.21	12.31	0.00
180.0	131.29	106.27	74.26	60.31	30.77	30.36	19.28	34.46	0.00
225.0	130.47	86.16	59.90	53.75	36.11	15.59	28.31	22.57	10.26
270.0	125.96	101.75	71.39	49.23	46.77	31.18	22.98	4.10	0.00
315.0	116.93	91.09	66.88	36.93	38.98	26.26	17.64	13.95	4.51
360.0	137.45	102.16	81.24	80.42	42.26	35.70	36.52	5.74	9.44
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	2.46	0.00	0.00	0.00	0.00	1.64	0.00	0.00	0.00
45.0	0.00	9.03	2.87	6.56	0.00	4.51	0.00	2.87	0.00
90.0	0.00	0.00	0.00	4.10	0.00	0.00	0.00	0.00	13.13
135.0	4.51	0.00	2.05	0.00	8.62	0.00	0.00	0.00	3.69
180.0	0.00	0.00	0.00	7.39	0.00	0.00	0.00	7.39	0.00
225.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.23	0.00
270.0	5.74	0.00	12.31	0.00	0.00	2.87	0.00	0.00	4.92
315.0	4.10	2.87	2.46	0.00	0.00	9.44	0.00	0.00	0.00
360.0	2.46	0.00	0.00	0.00	0.00	1.64	0.00	0.00	0.00
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	0.00	0.00	0.00	2.87	0.41	1.23	9.44	2.87	0.00
45.0	0.41	0.00	8.62	11.49	0.00	0.00	0.00	0.00	12.31
90.0	2.05	2.87	1.64	0.00	0.00	0.00	0.00	0.00	0.00
135.0	0.00	3.69	0.00	7.39	2.46	0.00	5.33	2.05	0.00
180.0	0.00	7.80	4.51	0.00	0.00	6.98	0.00	0.41	0.00
225.0	0.00	1.64	0.00	0.00	0.00	0.00	0.41	0.00	0.00
270.0	5.74	0.00	0.00	15.59	0.00	2.05	0.00	0.00	0.00
315.0	0.00	7.80	0.00	0.00	0.00	1.23	0.00	0.00	0.00
360.0	0.00	0.00	0.00	2.87	0.41	1.23	9.44	2.87	0.00
C/γ(°)	180.0								
0.0	2.05								
45.0	0.00								
90.0	0.00								
135.0	0.00								
180.0	2.05								
225.0	0.00								
270.0	0.00								
315.0	0.00								
360.0	2.05								