



SGSO

Address: LIT by CARDI

Client:

LumCAT: 0017440224 KAI 6.6W 4000K 800lm

Luminaire:

Report No:

Voltage(V): 230.4500

Test No:

Current(A): 0.0359

LampCAT: LED

Power (W): 6.6000

Lamp flux(lm): -1.0

PF: 0.7971

Number of Lamps: 1

Ballast type:

Length(mm): -80

Width(mm): -80

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 800.00

Efficiency(%): 100.00%

Lumens(lm)/Power(W): 121.21

Central intensity(cd): 383.078

Maximum intensity(cd): 391.536

Angle of maximum intensity: C=90.0 γ =10.0

Beam Angle(50%Imax): [C0/180]Total=86.1

[C90/270]Total=85.8

Field angle(10%Imax): [C0/180]Total=145.5

[C90/270]Total=142.8

Maximum s/h(1/2): C0_180=1.23 C90_270=1.18

Maximum s/h(1/4): C0_180=1.24 C90_270=1.25

Up flux rate of lamp(%): 1.49%

Down flux rate of lamp(%): 98.51%

Up flux rate of LUM(%): 1.49%

Down flux rate of LUM(%): 98.51%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 86.157%

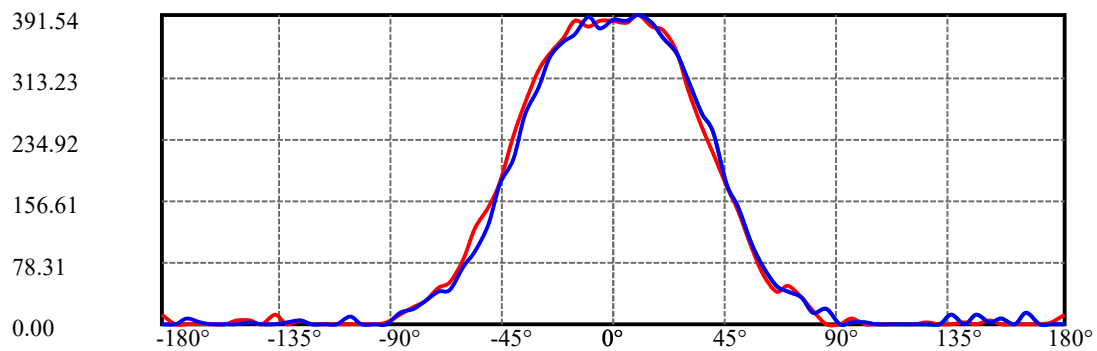
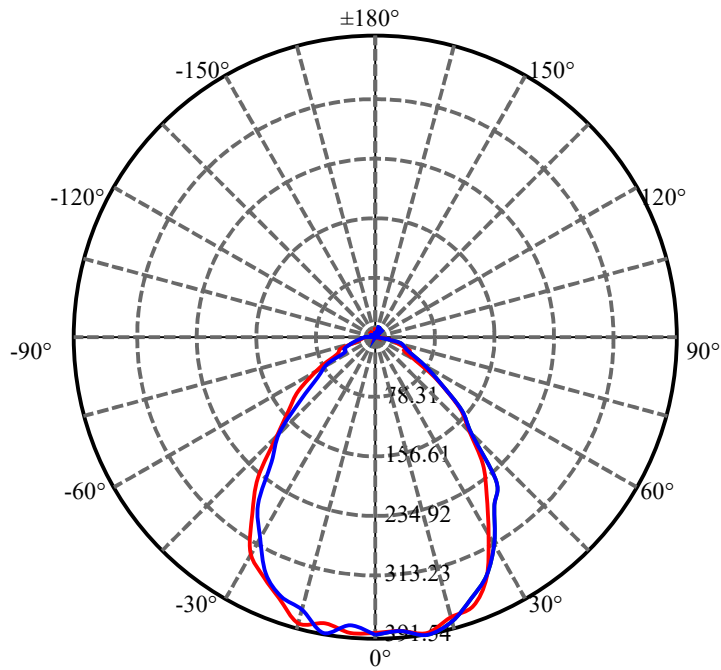
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	403.837	0.000	0	.000%	.000%
5.0	403.188	9.164	9.164	.000%	1.146%
10.0	405.414	27.477	36.642	.000%	4.580%
15.0	397.993	45.270	81.912	.000%	10.239%
20.0	382.180	61.076	142.988	.000%	17.874%
25.0	358.853	73.827	216.815	.000%	27.102%
30.0	322.077	81.855	298.67	.000%	37.334%
35.0	279.505	84.149	382.82	.000%	47.853%
40.0	240.503	82.413	465.233	.000%	58.154%
45.0	177.339	73.491	538.724	.000%	67.341%
50.0	136.436	60.227	598.951	.000%	74.869%
55.0	103.046	49.463	648.414	.000%	81.052%
60.0	82.966	40.842	689.256	.000%	86.157%
65.0	54.584	31.763	721.019	.000%	90.127%
70.0	46.236	24.249	745.269	.000%	93.159%
75.0	32.416	19.529	764.797	.000%	95.600%
80.0	19.849	13.284	778.081	.000%	97.260%
85.0	8.069	7.206	785.287	.000%	98.161%
90.0	2.643	2.786	788.073	.000%	98.509%
95.0	2.133	1.242	789.316	.000%	98.665%
100.0	1.299	0.886	790.202	.000%	98.775%
105.0	1.530	0.719	790.921	.000%	98.865%
110.0	1.438	0.737	791.658	.000%	98.957%
115.0	0.464	0.457	792.115	.000%	99.014%
120.0	0.742	0.278	792.393	.000%	99.049%
125.0	3.107	0.845	793.238	.000%	99.155%
130.0	1.391	0.929	794.168	.000%	99.271%
135.0	4.823	1.193	795.36	.000%	99.420%
140.0	1.252	1.069	796.429	.000%	99.554%
145.0	5.611	1.088	797.517	.000%	99.690%
150.0	2.272	1.103	798.619	.000%	99.828%
155.0	1.623	0.468	799.088	.000%	99.886%
160.0	0.000	0.162	799.249	.000%	99.906%
165.0	4.081	0.319	799.569	.000%	99.946%
170.0	1.484	0.314	799.882	.000%	99.985%
175.0	0.649	0.072	799.955	.000%	99.994%
180.0	3.246	0.044	799.999	.000%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	298.67	N.A.	37.33%
0-40	465.23	N.A.	58.15%
0-60	689.26	N.A.	86.16%
0-90	788.07	N.A.	98.51%
0-120	792.39	N.A.	99.05%
0-180	800.00	N.A.	100.00%
60-90	139.66	N.A.	17.46%
90-120	7.11	N.A.	0.89%
90-130	8.88	N.A.	1.11%
90-150	13.33	N.A.	1.67%
90-180	14.67	N.A.	1.83%
0-54.15	640.00	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	36.64
10-20	106.35
20-30	155.68
30-40	166.56
40-50	133.72
50-60	90.31
60-70	56.01
70-80	32.81
80-90	9.99
90-100	2.13
100-110	1.46
110-120	0.74
120-130	1.77
130-140	2.26
140-150	2.19
150-160	0.63
160-170	0.63
170-180	0.07

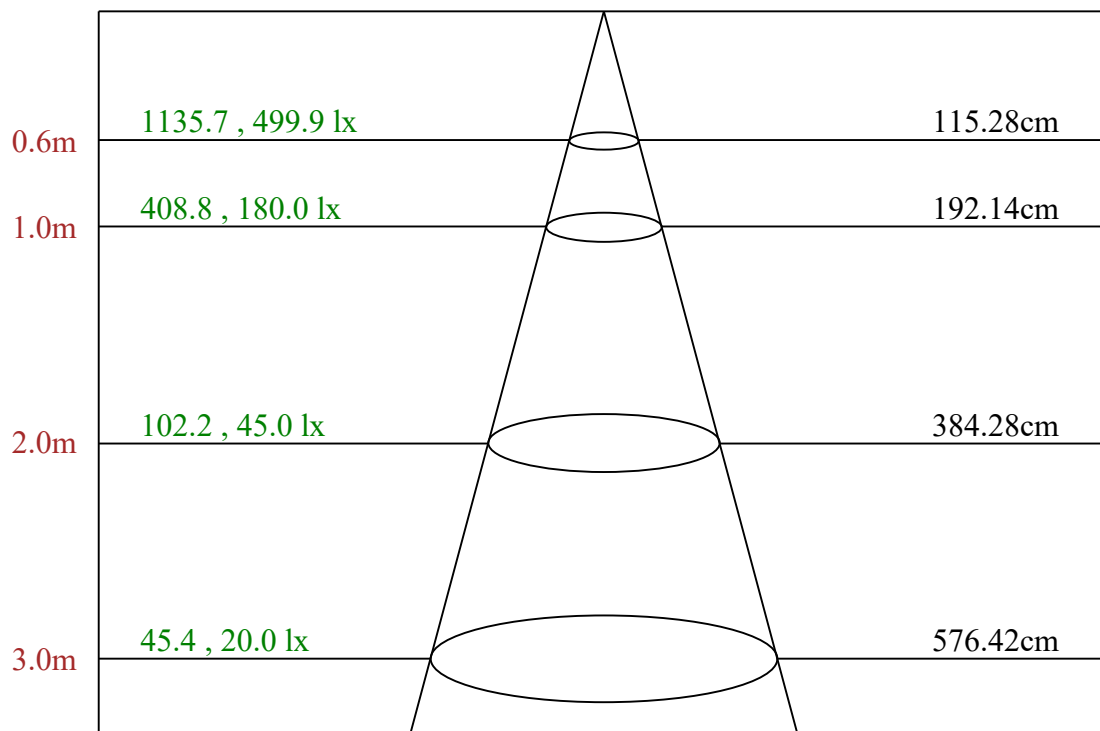
C90(Max): C0/C180: C90/C270: 

Field angle(10%Imax):C0/180Left:82.2 Right:63.3

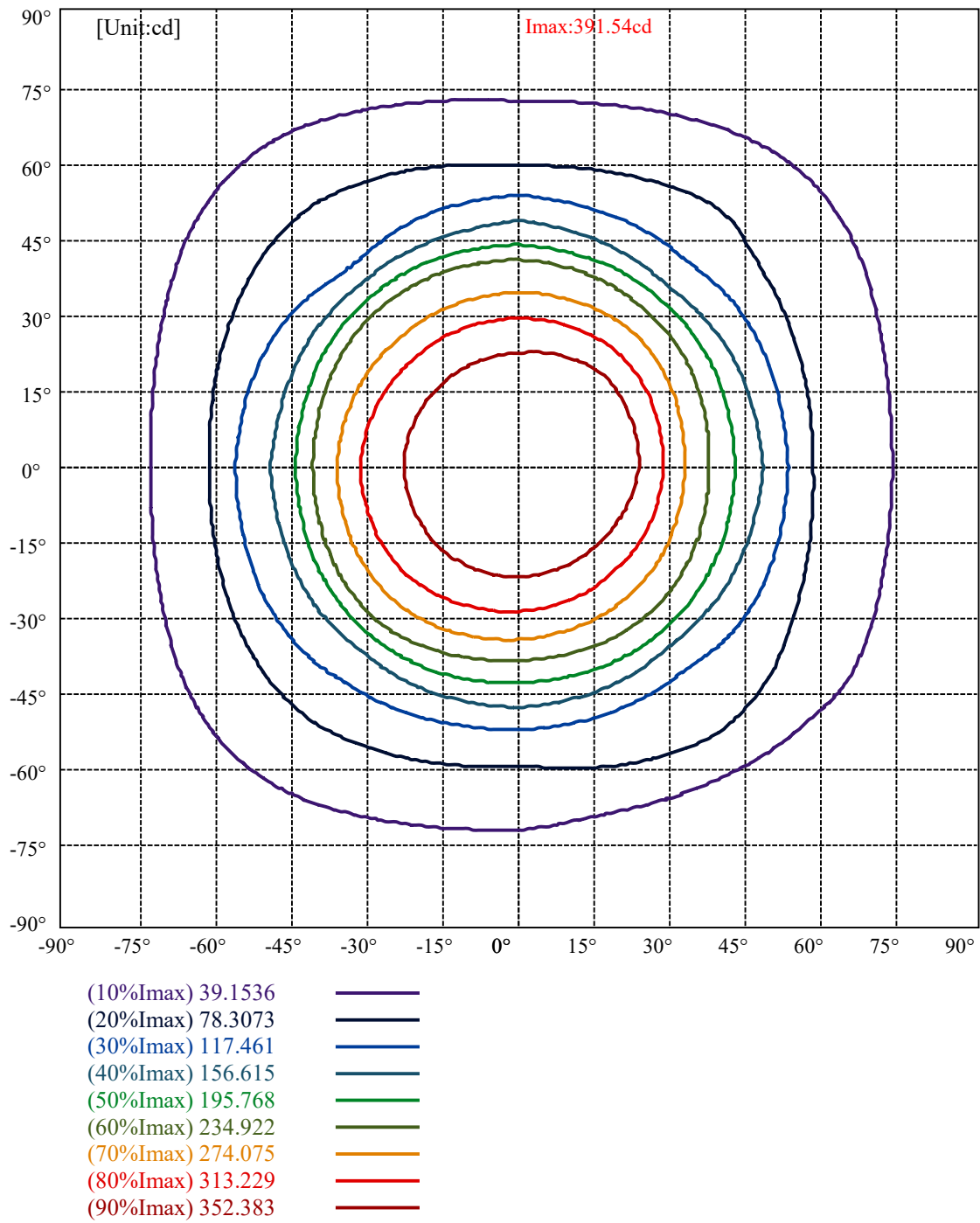
:C90/270Left:81.0 Right:61.8

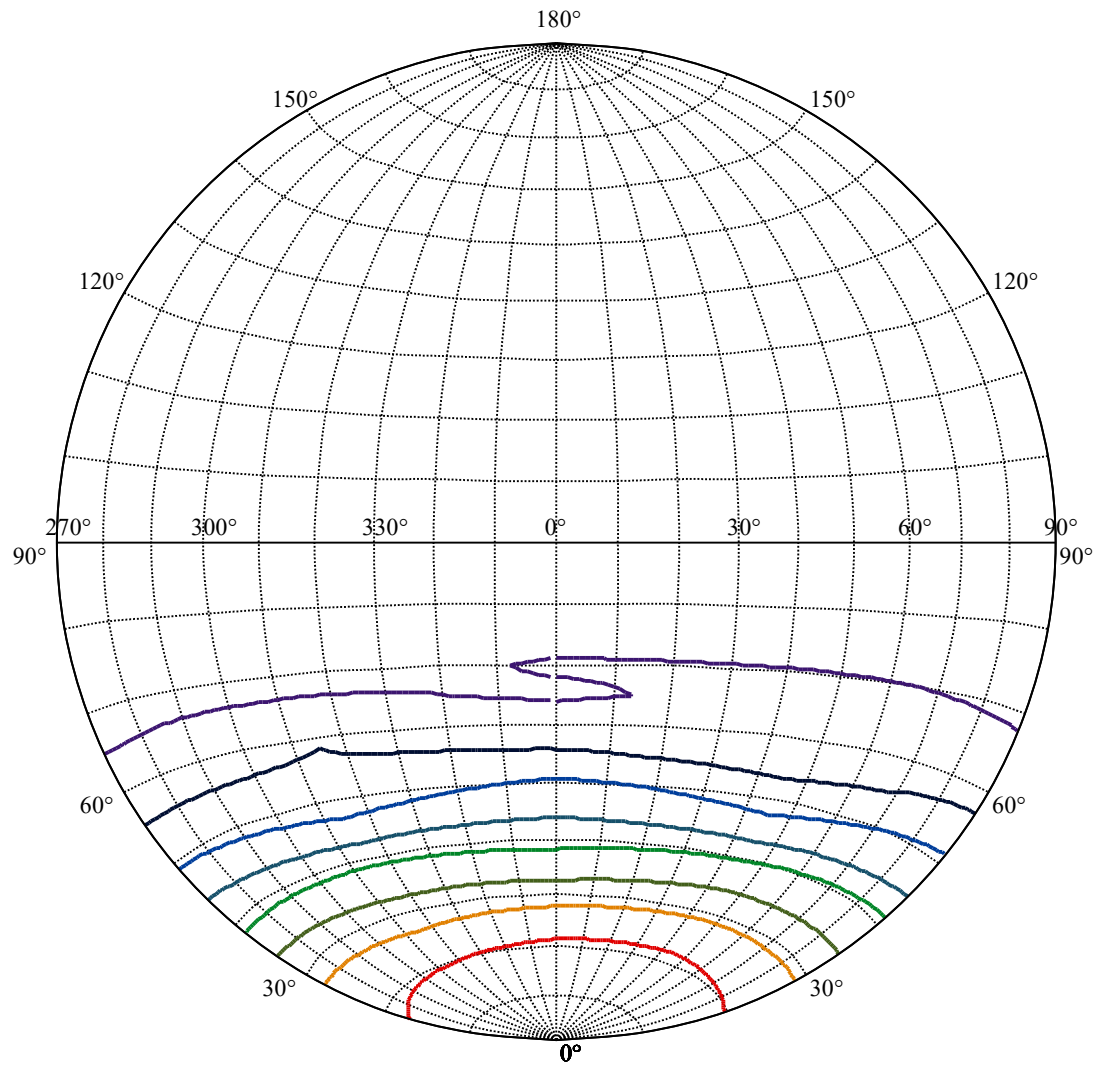
Beam Angle(50%Imax):C0/180Left:53.7 Right:32.4

:C90/270Left:52.2 Right:33.6



Max , Ave Beam angle of C90 plane 87.70



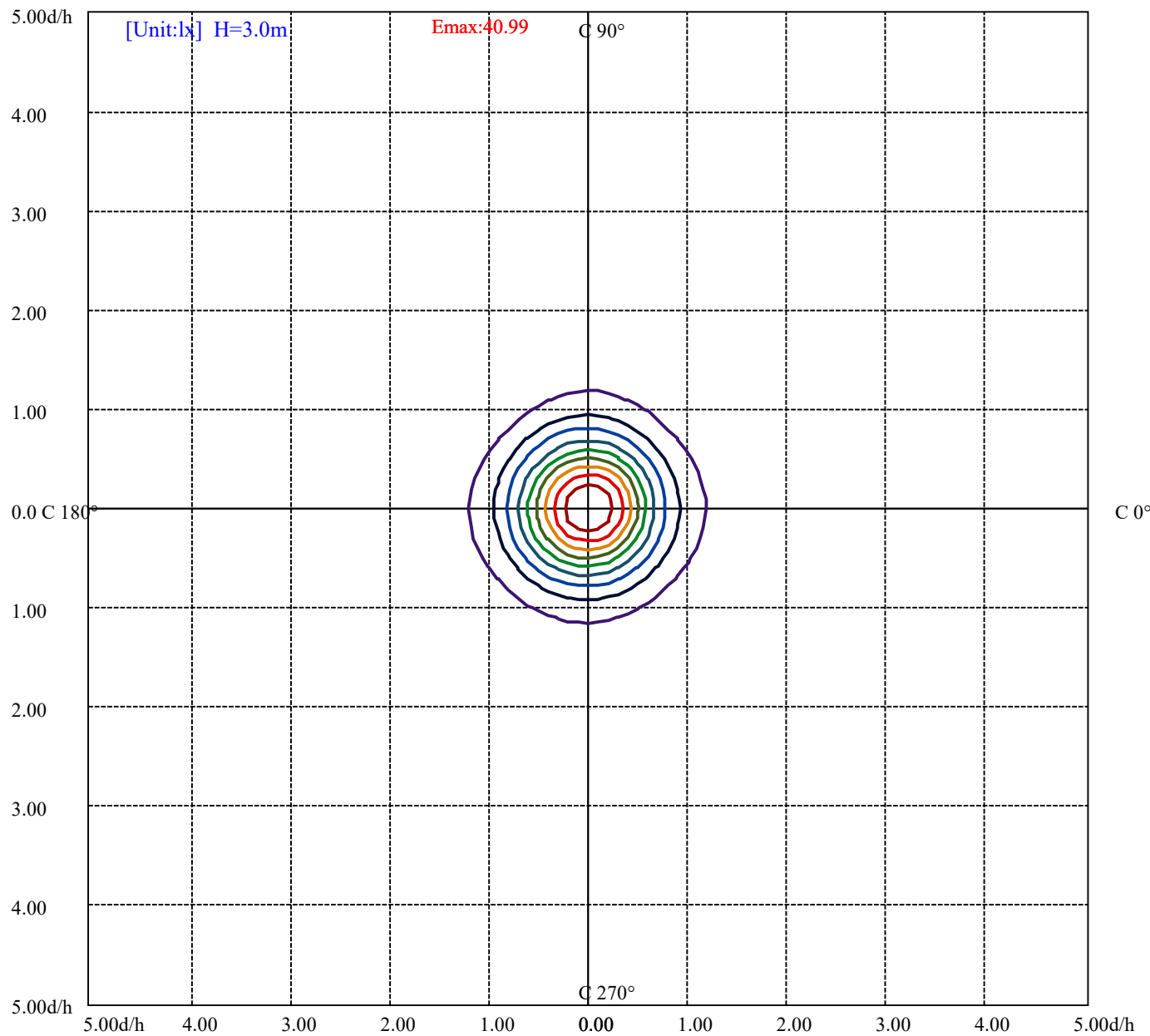


House

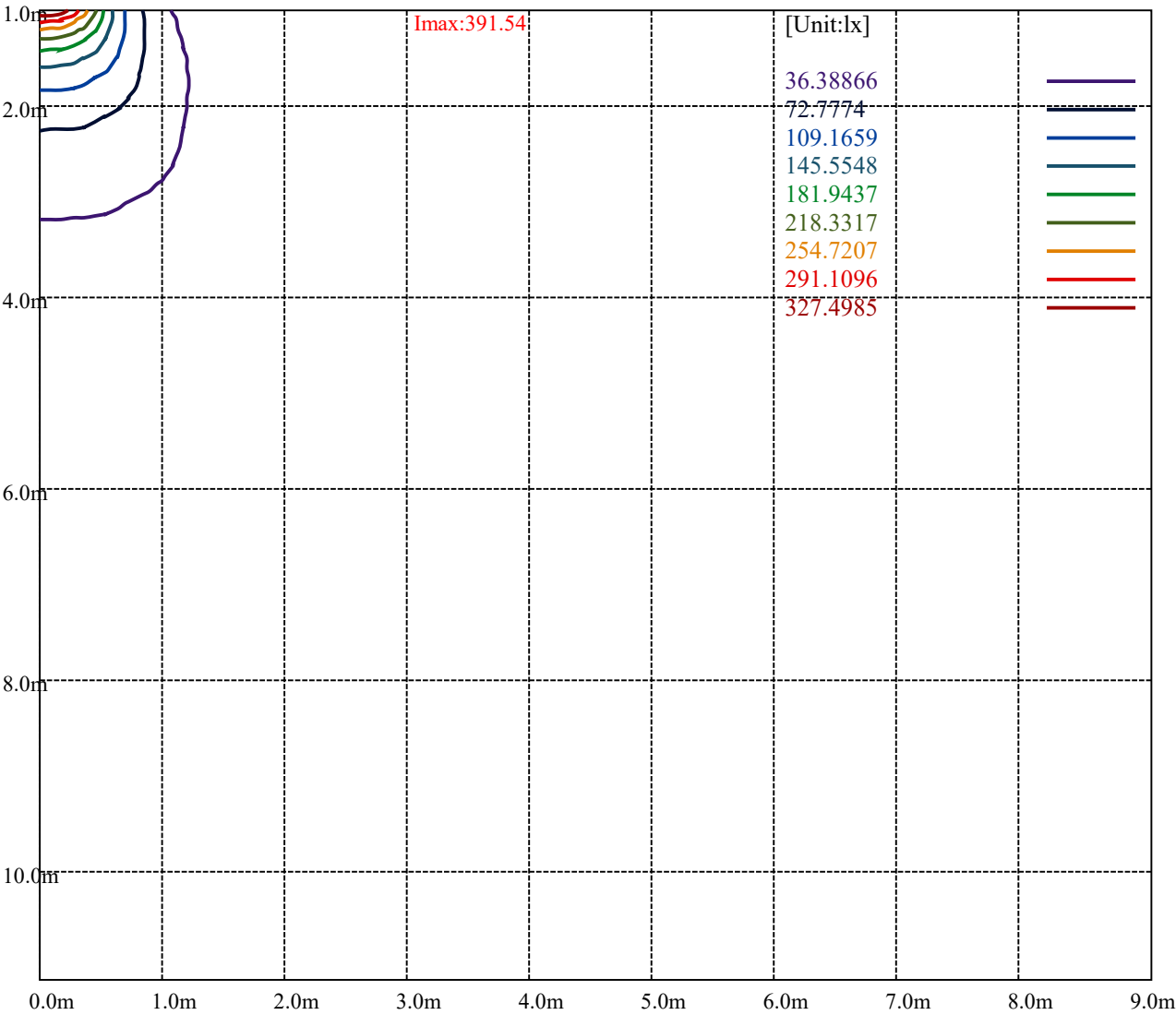
[Unit:cd]

Road

Imax:391.54	
(10%Imax) 43.11711	
(20%Imax) 86.23422	
(30%Imax) 129.3513	
(40%Imax) 172.4684	
(50%Imax) 215.5856	
(60%Imax) 258.7027	
(70%Imax) 301.8198	
(80%Imax) 344.9369	



(10%Emax)	4.098996	
(20%Emax)	8.197981	
(30%Emax)	12.29694	
(40%Emax)	16.39598	
(50%Emax)	20.49493	
(60%Emax)	24.59398	
(70%Emax)	28.69292	
(80%Emax)	32.79197	
(90%Emax)	36.89091	



Luminance Table

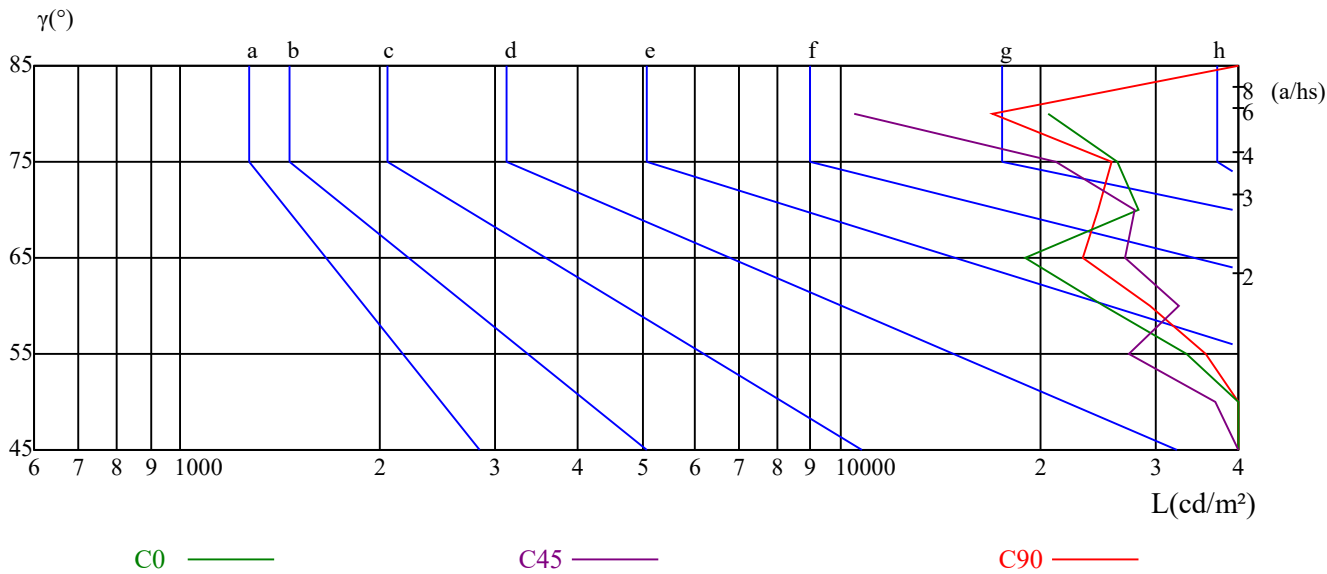
γ	45	50	55	60	65	70	75	80	85
C0	48981	44720	33493	25100	19078	28289	26276	20591	0
C45	43329	36976	27259	32392	26876	27879	21129	10498	0
C90	49973	45593	35692	29307	23225	24599	25734	16958	42635

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
22396	22064	26585	24244	24380	23025	13273	37004	9854

Glare Table

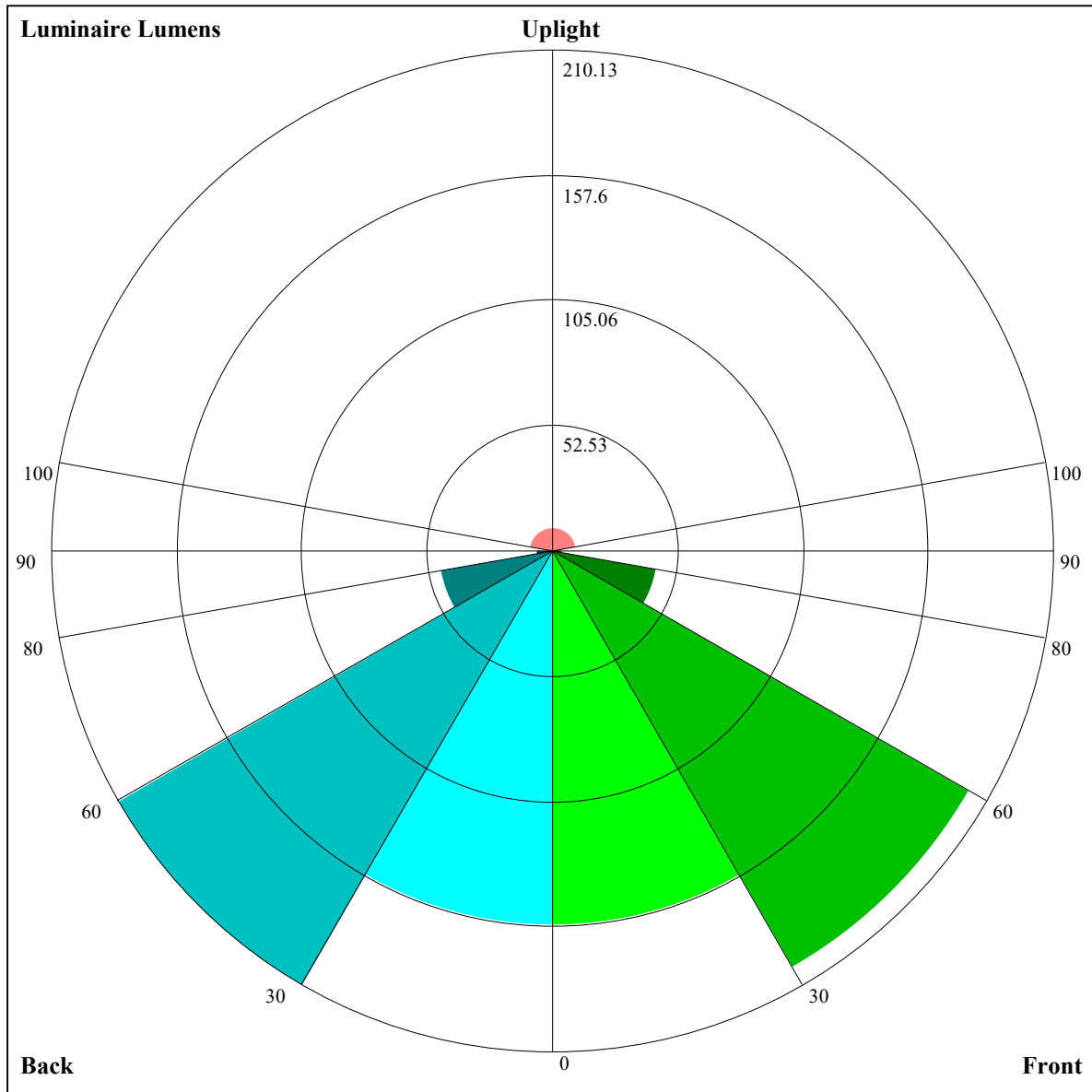
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

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	19.30	20.72	19.68	21.07	21.42	19.64	21.06	20.02	21.40	21.76
	3H	20.39	21.67	20.79	22.03	22.41	20.61	21.89	21.02	22.26	22.64
	4H	20.97	22.17	21.39	22.55	22.95	21.11	22.30	21.53	22.69	23.09
	6H	21.34	22.45	21.78	22.85	23.28	21.40	22.51	21.83	22.91	23.34
	8H	21.37	22.44	21.81	22.85	23.29	21.51	22.58	21.95	22.98	23.42
	12H	21.33	22.35	21.78	22.77	23.22	21.78	22.80	22.22	23.21	23.66
4H	2H	19.77	20.96	20.19	21.34	21.74	20.05	21.24	20.47	21.63	22.03
	3H	21.11	22.12	21.55	22.53	22.98	21.26	22.27	21.70	22.68	23.13
	4H	21.83	22.72	22.29	23.16	23.64	21.90	22.79	22.36	23.24	23.71
	6H	22.22	23.01	22.71	23.48	23.96	22.22	23.00	22.70	23.48	23.96
	8H	22.30	23.03	22.80	23.51	24.01	22.39	23.13	22.89	23.60	24.10
	12H	22.28	22.96	22.79	23.43	23.98	22.76	23.44	23.26	23.91	24.45
8H	4H	21.97	22.70	22.47	23.18	23.68	22.04	22.77	22.54	23.25	23.75
	6H	22.40	23.01	22.91	23.51	24.04	22.38	23.00	22.90	23.50	24.03
	8H	22.53	23.07	23.07	23.61	24.13	22.65	23.19	23.19	23.72	24.25
	12H	22.51	22.96	23.06	23.50	24.04	23.12	23.57	23.67	24.10	24.65
12H	4H	21.95	22.64	22.46	23.11	23.65	22.02	22.71	22.53	23.18	23.72
	6H	22.42	22.96	22.96	23.50	24.02	22.41	22.95	22.95	23.49	24.01
	8H	22.52	22.97	23.07	23.51	24.05	22.65	23.10	23.20	23.64	24.18
Variation with the observer position at spacings:											
S = 1.0H		0.4/-0.6					0.5/-0.5				
S = 1.5H		0.7/-1.1					0.6/-1.2				
S = 2.0H		1.9/-1.5					1.9/-1.6				
Standard tables:		BK3					BK3				
Uncorrected UGR		8.9					8.5				

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



Luminaire Lumens:

FL=156.85,FM=201.25,FH=44.42,FVH=3.92

BL=156.97,BM=210.13,BH=47.98,BVH=7.36

UL=2.24,UH=10.31

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	383.08	382.37	390.83	377.44	371.45	344.66	296.73	250.92	215.68
45.0	388.36	391.18	386.60	380.61	372.15	349.60	307.66	266.78	223.79
90.0	386.95	383.08	391.54	382.73	361.93	342.20	307.66	268.54	244.23
135.0	376.03	384.49	381.67	376.73	356.65	345.37	306.60	264.31	241.76
180.0	383.08	384.84	377.44	384.49	361.23	343.61	322.11	279.12	238.59
225.0	388.36	386.95	389.77	374.27	361.58	336.56	312.59	274.89	236.12
270.0	386.95	374.62	389.42	366.87	358.06	337.26	299.56	265.02	210.04
315.0	376.03	376.38	373.56	381.32	361.23	327.75	294.62	254.45	217.44
360.0	383.08	382.37	390.83	377.44	371.45	344.66	296.73	250.92	215.68
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	174.09	144.49	96.56	63.08	40.53	48.63	34.18	17.97	0.00
45.0	154.01	119.47	78.59	81.41	57.09	47.93	27.49	9.16	0.00
90.0	177.62	147.31	102.91	73.66	49.34	42.29	33.48	14.80	18.68
135.0	168.46	111.72	91.98	88.81	54.98	50.40	32.07	31.72	7.05
180.0	180.79	147.66	121.58	82.11	54.63	47.22	28.90	22.55	11.63
225.0	164.23	125.46	105.73	80.00	61.32	43.35	31.01	24.67	10.22
270.0	176.91	126.87	92.33	71.89	44.41	41.58	29.96	20.44	13.74
315.0	151.54	113.83	93.39	89.51	52.51	29.96	29.25	9.52	0.00
360.0	174.09	144.49	96.56	63.08	40.53	48.63	34.18	17.97	0.00
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.00	6.70	0.00	0.70	0.00	0.00	0.00	2.47	0.00
45.0	0.00	2.82	0.00	0.00	5.64	2.47	1.76	4.93	0.00
90.0	0.00	2.11	3.52	0.00	0.00	1.06	0.00	0.00	0.35
135.0	14.80	0.00	3.52	0.00	4.23	0.00	2.11	2.47	7.40
180.0	1.41	0.00	0.00	0.00	1.06	0.00	0.00	4.58	0.00
225.0	3.88	0.00	0.00	0.00	0.00	0.00	1.76	0.35	0.00
270.0	0.00	0.00	0.00	8.81	0.00	0.00	0.00	5.99	2.82
315.0	0.00	4.58	2.82	2.11	0.00	0.00	0.00	2.82	0.00
360.0	0.00	6.70	0.00	0.70	0.00	0.00	0.00	2.47	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	2.11	0.00	4.93	0.00	0.00	0.00	0.00	1.41
45.0	7.75	0.35	0.00	0.00	0.00	0.00	4.23	2.11	0.00
90.0	13.04	0.00	11.98	2.11	6.34	0.00	14.80	0.00	0.00
135.0	4.58	0.00	0.00	0.00	0.00	0.00	4.23	0.00	0.00
180.0	11.28	0.00	5.29	3.88	0.00	0.00	0.00	0.00	0.00
225.0	0.00	5.64	23.96	2.47	5.99	0.00	5.64	2.47	0.00
270.0	0.00	0.00	1.41	0.00	0.00	0.00	2.11	6.70	0.00
315.0	0.00	1.41	0.00	3.88	0.00	0.00	0.00	0.00	3.52
360.0	0.00	2.11	0.00	4.93	0.00	0.00	0.00	0.00	1.41
C/γ(°)	180.0								
0.0	12.33								
45.0	0.00								
90.0	0.00								
135.0	0.00								
180.0	12.33								
225.0	0.00								
270.0	0.00								
315.0	0.00								
360.0	12.33								