
Client:

LumCAT: 2411112_840_1530LM_220-240V

Luminaire:

Report No:

Voltage(V): 230.0600

Test No: 230712020-01-001

Current(A): 0.1360

LampCAT:

Power (W): 17.8400

Lamp flux(lm)

PF: 0.5723

Number of Lamps: 1

Ballast type:

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1405.29

Lumens(lm)/Power(W): 78.77

Central intensity(cd): 283.844

Maximum intensity(cd): 295.607

Angle of maximum intensity: C=45.0 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=106.4

[C90/270]Total=200.4

Field angle(10%Imax): [C0/180]Total=154.5

[C90/270]Total=248.9

Maximum s/h(1/2): C0_180=1.29 C90_270=1.47

Maximum s/h(1/4): C0_180=1.41 C90_270=1.69

Up flux rate of LUM(%): 16.23%

Down flux rate of LUM(%): 83.77%

CIE Type : Semidirect lighting

Output flux ratio in π solid angle : 52.274%

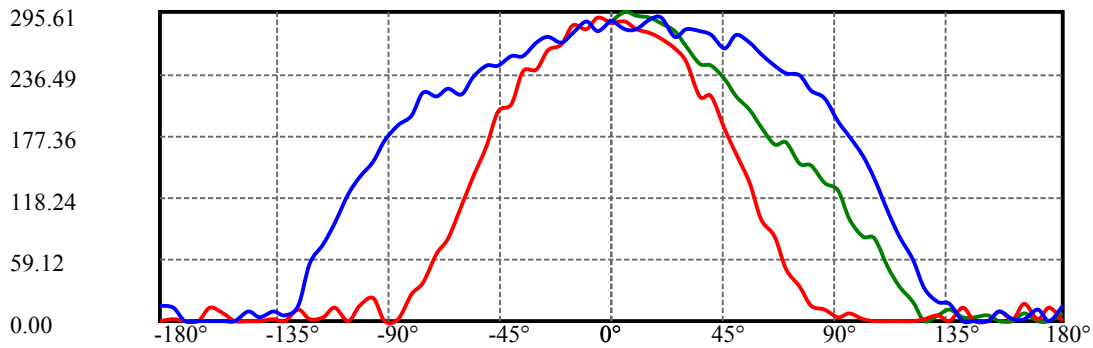
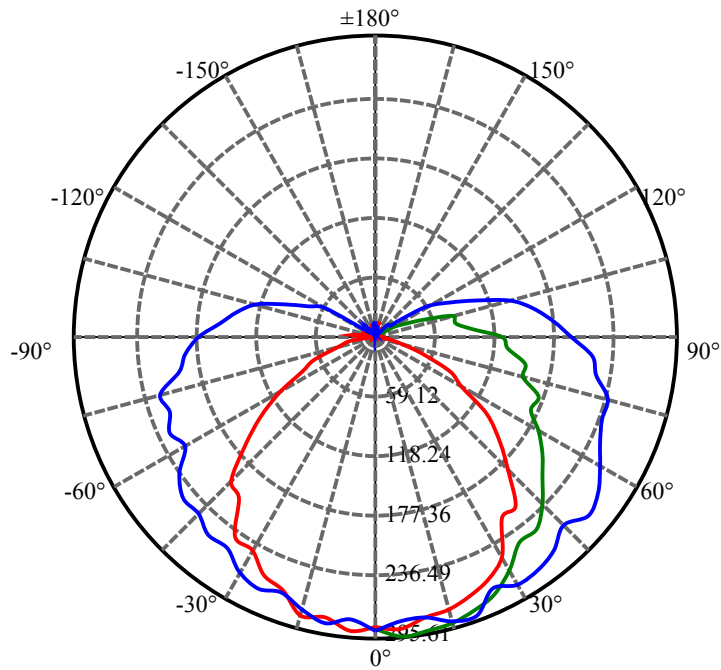
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	287.164	0.000	0	.000%	.000%
5.0	284.745	6.837	6.837	.487%	.487%
10.0	283.844	20.340	27.177	1.447%	1.934%
15.0	281.899	33.559	60.737	2.388%	4.322%
20.0	275.069	45.902	106.639	3.266%	7.588%
25.0	267.906	56.948	163.587	4.052%	11.641%
30.0	258.941	66.673	230.26	4.744%	16.385%
35.0	246.561	74.439	304.698	5.297%	21.682%
40.0	238.971	81.007	385.706	5.764%	27.447%
45.0	225.216	85.948	471.654	6.116%	33.563%
50.0	210.511	88.045	559.699	6.265%	39.828%
55.0	195.759	88.337	648.035	6.286%	46.114%
60.0	178.731	86.562	734.598	6.160%	52.274%
65.0	164.738	83.498	818.095	5.942%	58.216%
70.0	149.701	79.618	897.713	5.666%	63.881%
75.0	140.214	75.779	973.493	5.392%	69.274%
80.0	132.056	72.852	1046.344	5.184%	74.458%
85.0	120.956	68.749	1115.094	4.892%	79.350%
90.0	105.872	62.107	1177.201	4.420%	83.770%
95.0	91.405	54.016	1231.217	3.844%	87.613%
100.0	79.973	46.568	1277.785	3.314%	90.927%
105.0	68.115	39.624	1317.409	2.820%	93.747%
110.0	49.758	30.810	1348.219	2.192%	95.939%
115.0	36.856	21.931	1370.151	1.561%	97.500%
120.0	23.527	14.679	1384.83	1.045%	98.544%
125.0	8.396	7.379	1392.209	.525%	99.069%
130.0	7.684	3.496	1395.705	.249%	99.318%
135.0	7.447	3.058	1398.763	.218%	99.536%
140.0	2.988	1.932	1400.695	.137%	99.673%
145.0	2.941	0.989	1401.684	.070%	99.744%
150.0	1.613	0.671	1402.355	.048%	99.791%
155.0	4.222	0.738	1403.093	.053%	99.844%
160.0	3.747	0.836	1403.929	.059%	99.903%
165.0	3.463	0.594	1404.523	.042%	99.946%
170.0	2.514	0.355	1404.877	.025%	99.971%
175.0	5.075	0.271	1405.149	.019%	99.990%
180.0	6.356	0.137	1405.286	.010%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-30	230.26	16.39%
0-40	385.71	27.45%
0-60	734.60	52.27%
0-90	1177.20	83.77%
0-120	1384.83	98.54%
0-180	1405.29	100.00%
60-90	529.17	37.66%
90-120	269.74	19.19%
90-130	280.61	19.97%
90-150	287.26	20.44%
90-180	290.06	20.64%
0-85.74	1124.23	80.00%

ZONAL LUMEN SUMMARY

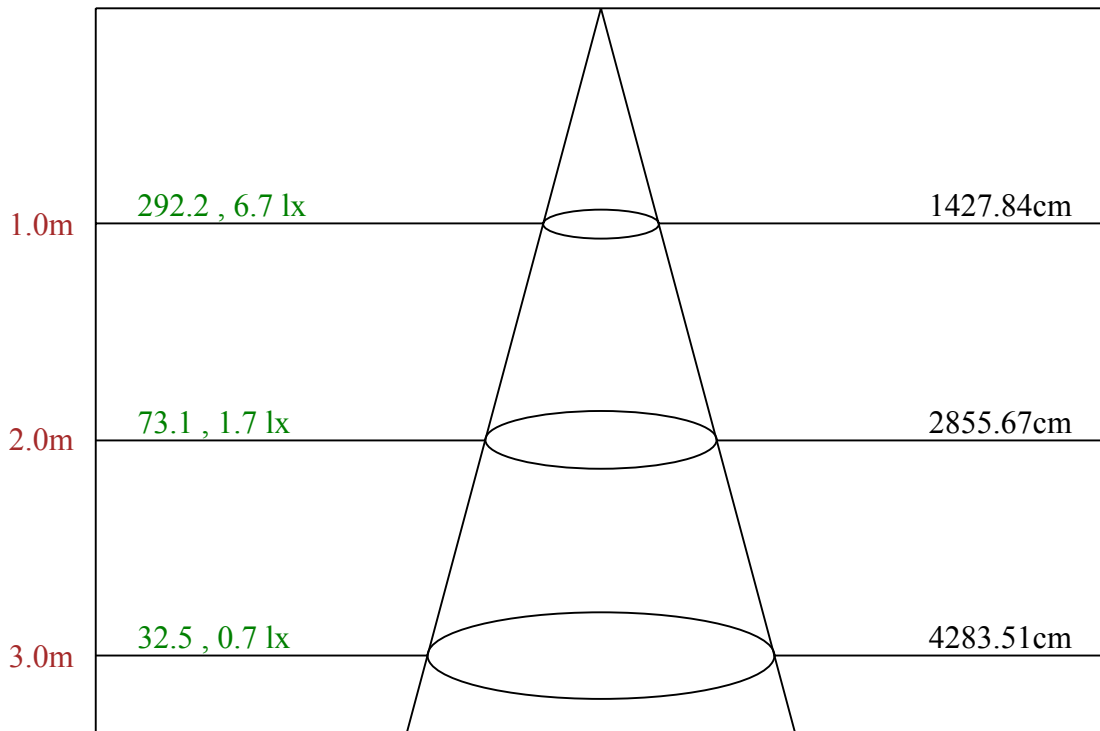
0-10	27.18
10-20	79.46
20-30	123.62
30-40	155.45
40-50	173.99
50-60	174.90
60-70	163.12
70-80	148.63
80-90	130.86
90-100	100.58
100-110	70.43
110-120	36.61
120-130	10.88
130-140	4.99
140-150	1.66
150-160	1.57
160-170	0.95
170-180	0.27



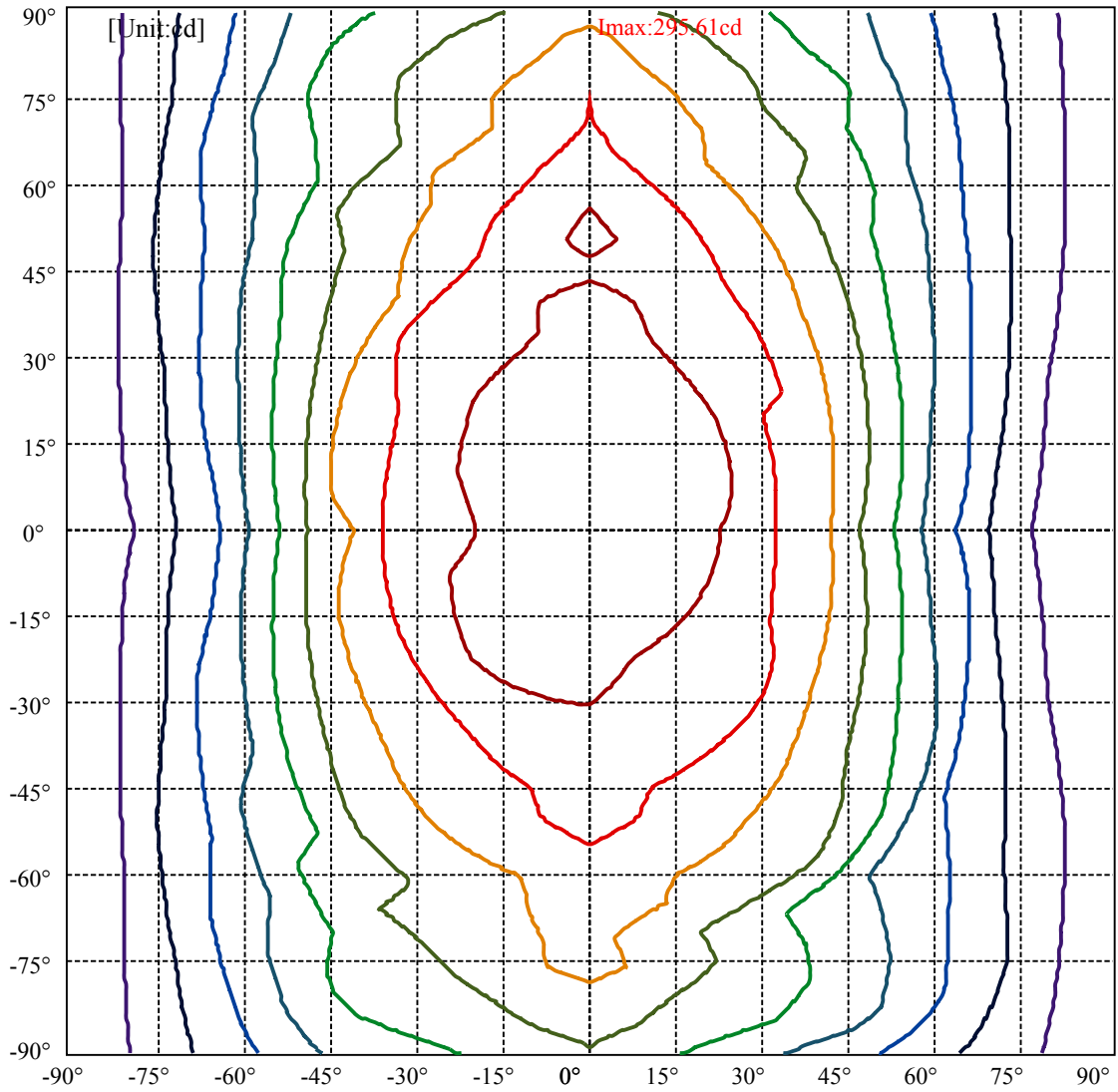
C45(Max): ——
 C0/C180: ——
 C90/C270: ——










Field angle(10%Imax):C0/180Left:73.4 Right:81.1
 :C90/270Left:143.2 Right:105.7

Beam Angle(50%Imax):C0/180Left:48.7 Right:57.7
 :C90/270Left:117.5 Right:82.9



Max , Ave Beam angle of C45 plane 164.05

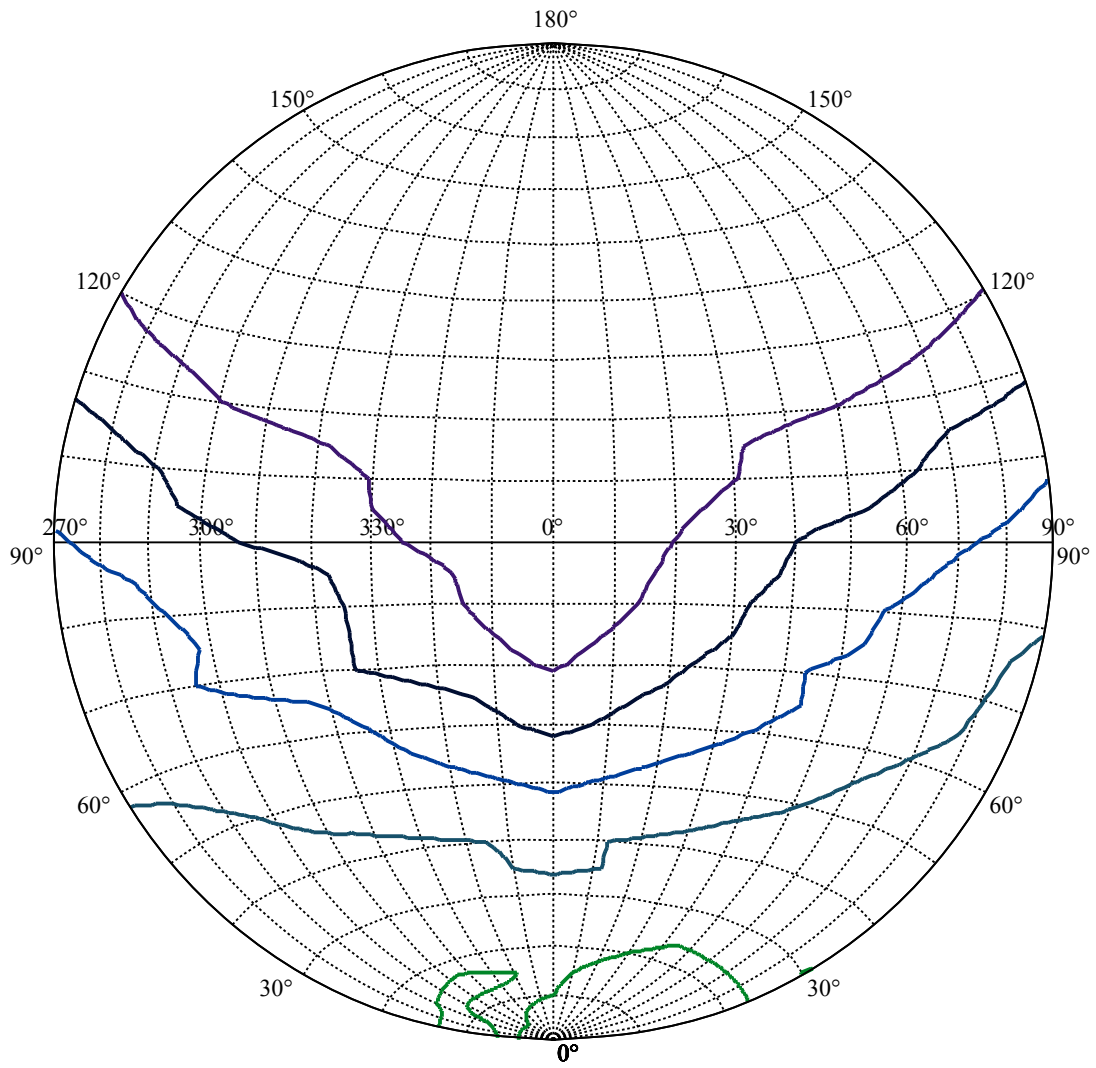


(10%I _{max}) 29.5097	
(20%I _{max}) 59.0194	
(30%I _{max}) 88.5291	
(40%I _{max}) 118.039	
(50%I _{max}) 147.548	
(60%I _{max}) 177.058	
(70%I _{max}) 206.568	
(80%I _{max}) 236.077	
(90%I _{max}) 265.587	

Equipment: Goniophotometer
 Temperature(°C): 0.0

Date: 2023/7/12
 Humidity(%): 0.0%

Operator: Yan
 Distance(m): 19.48



House

[Unit:cd]

Road

Imax:295.61

(10%Imax) 55.858

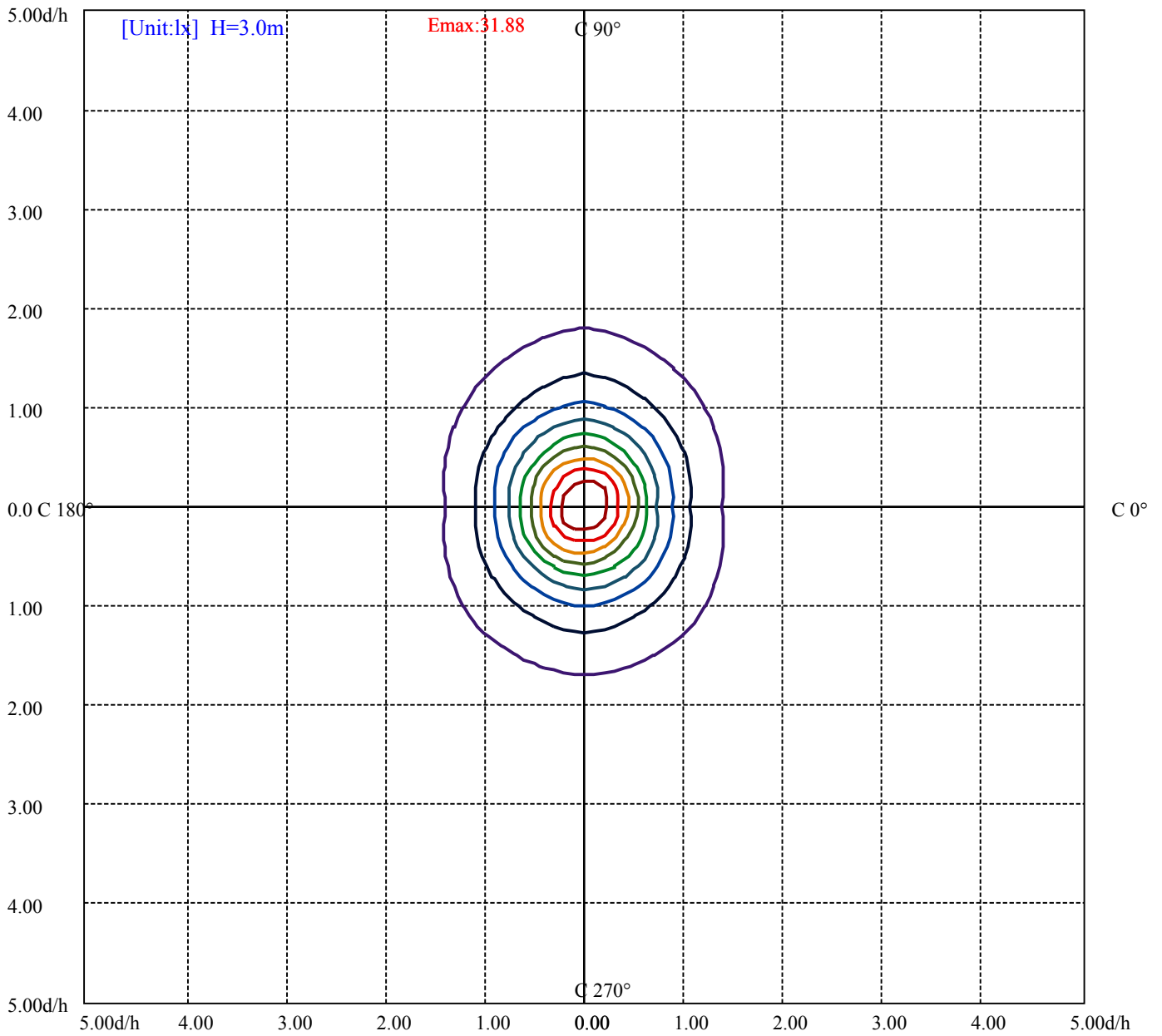
(20%Imax) 111.716

(30%Imax) 167.574

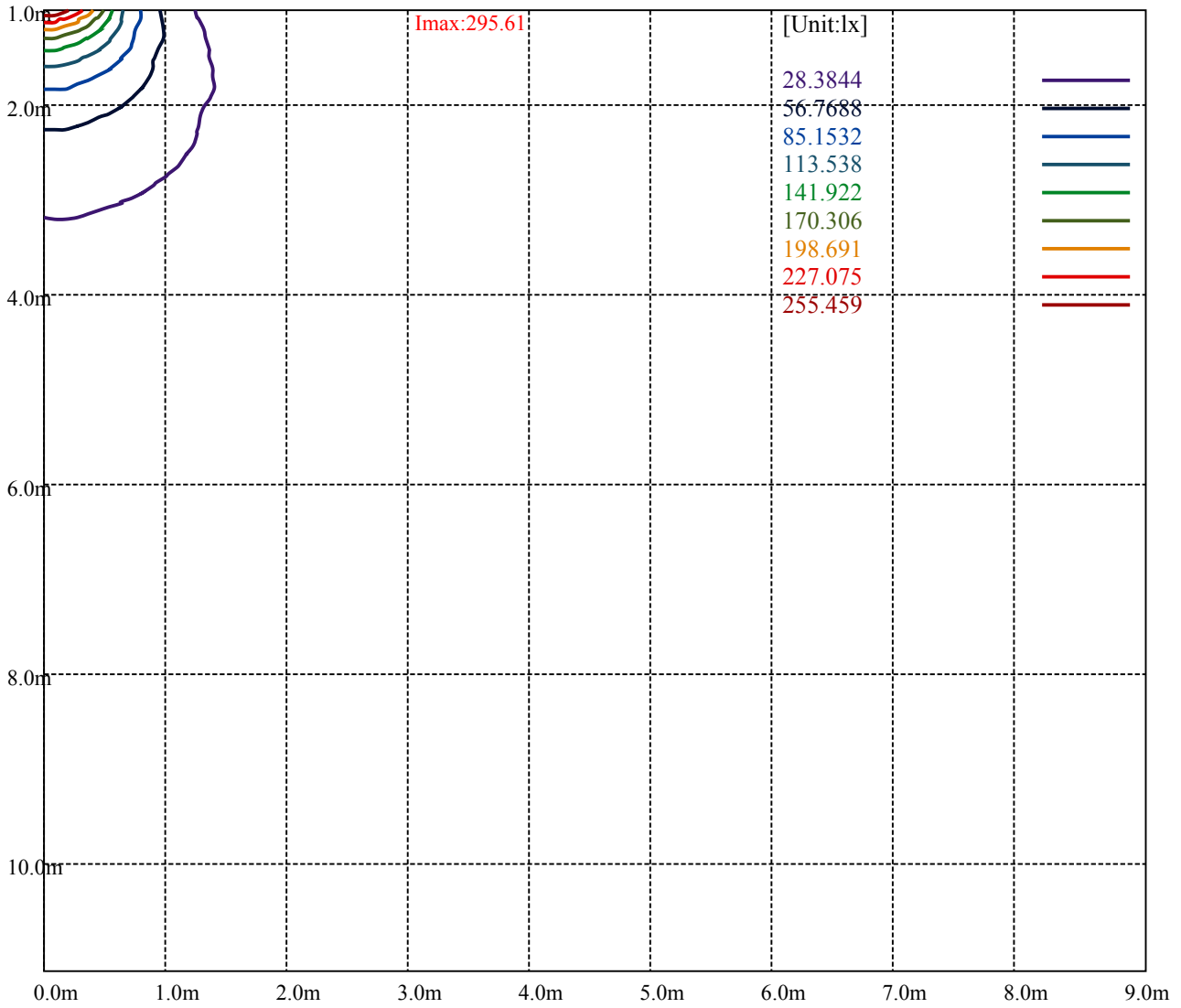
(40%Imax) 223.432

(50%Imax) 279.29





(10%Emax) 3.187556	—
(20%Emax) 6.375111	—
(30%Emax) 9.562667	—
(40%Emax) 12.75022	—
(50%Emax) 15.93778	—
(60%Emax) 19.12533	—
(70%Emax) 22.31289	—
(80%Emax) 25.50044	—
(90%Emax) 28.688	—



Luminance Table

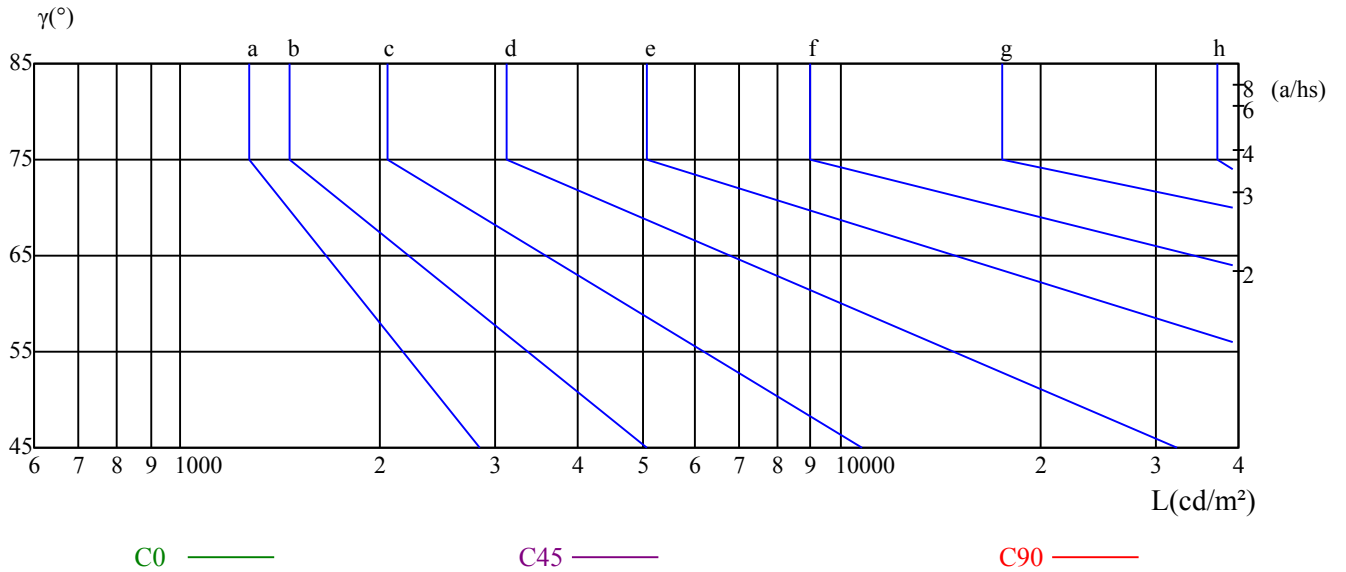
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

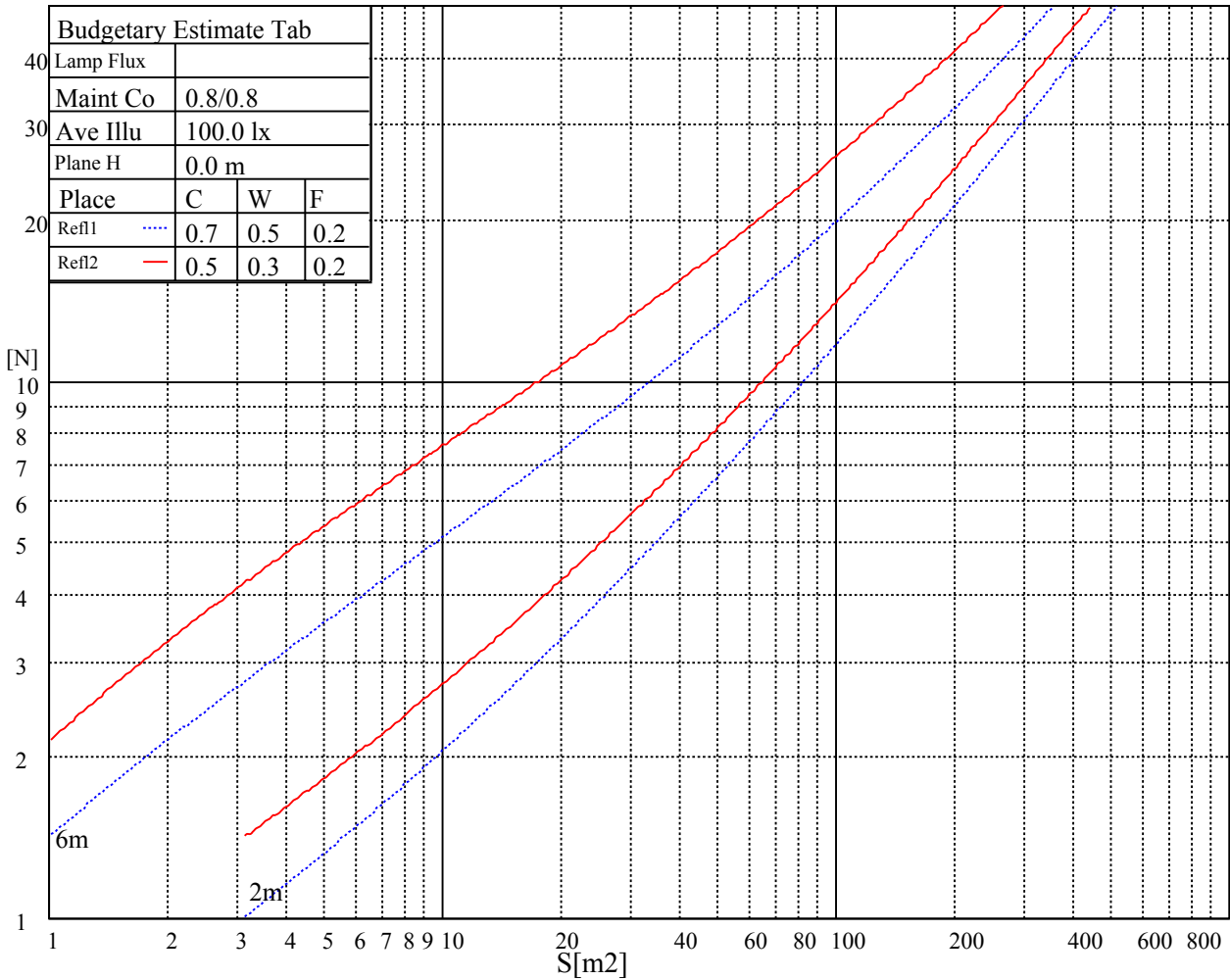
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

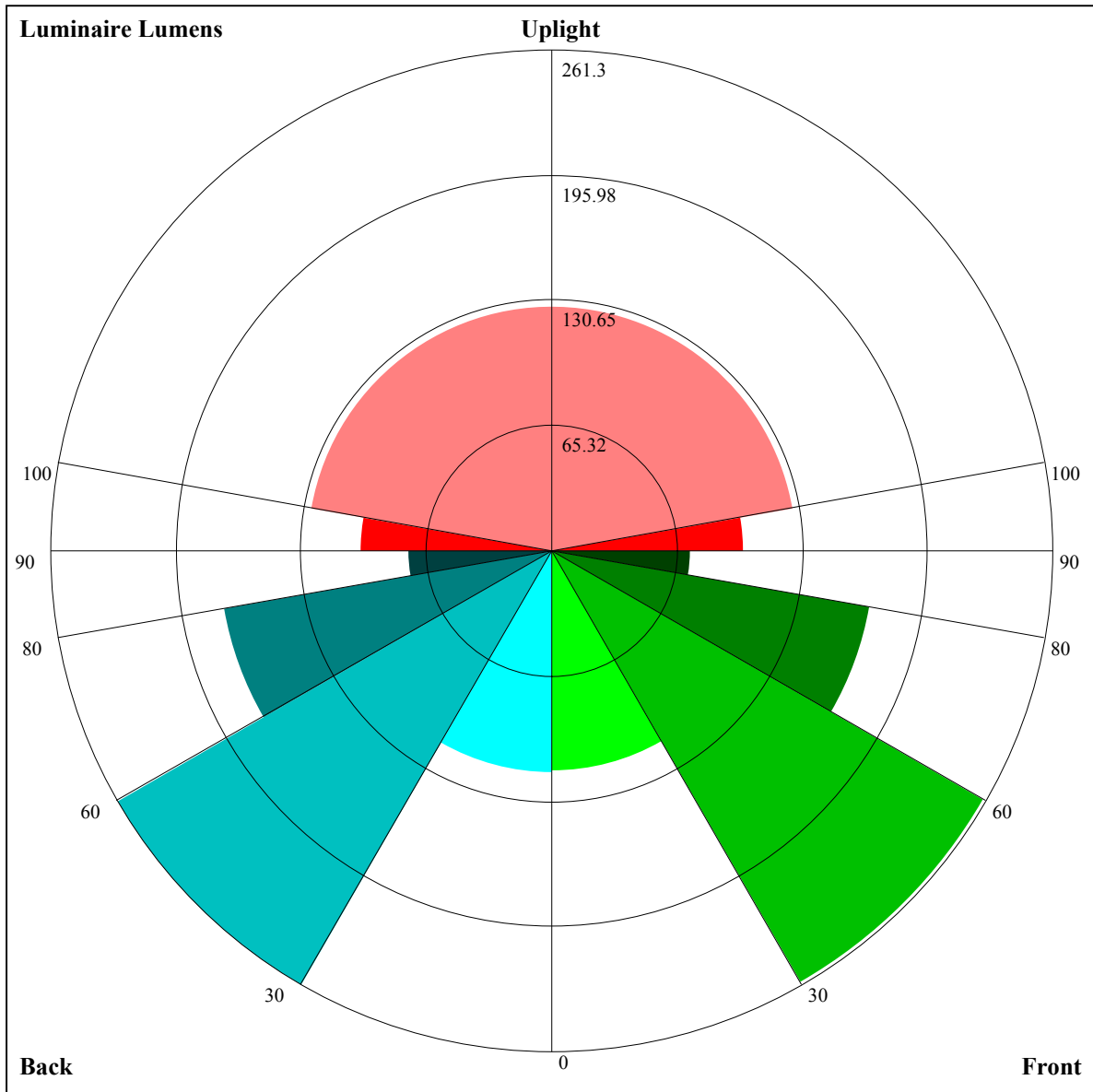
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve





RHOCC	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	1.15	1.15	1.15	1.11	1.11	1.11	1.02	1.02	1.02	0.94	0.94	0.94	0.87	0.87	0.87	0.84
1	0.95	0.89	0.84	0.91	0.86	0.81	0.83	0.79	0.75	0.77	0.73	0.70	0.70	0.68	0.65	0.62
2	0.81	0.72	0.66	0.77	0.70	0.63	0.71	0.65	0.59	0.65	0.60	0.56	0.60	0.56	0.52	0.49
3	0.70	0.60	0.53	0.67	0.58	0.51	0.61	0.54	0.48	0.56	0.50	0.45	0.52	0.47	0.43	0.40
4	0.61	0.51	0.44	0.59	0.50	0.43	0.54	0.46	0.40	0.50	0.43	0.38	0.46	0.40	0.36	0.33
5	0.54	0.44	0.37	0.52	0.43	0.36	0.48	0.40	0.34	0.44	0.38	0.32	0.41	0.35	0.31	0.28
6	0.48	0.39	0.32	0.47	0.38	0.31	0.43	0.35	0.30	0.40	0.33	0.28	0.37	0.31	0.27	0.24
7	0.44	0.34	0.28	0.42	0.33	0.27	0.39	0.31	0.26	0.36	0.30	0.25	0.33	0.28	0.23	0.21
8	0.40	0.31	0.25	0.38	0.30	0.24	0.36	0.28	0.23	0.33	0.27	0.22	0.31	0.25	0.21	0.19
9	0.36	0.28	0.22	0.35	0.27	0.22	0.33	0.26	0.21	0.30	0.24	0.20	0.28	0.23	0.19	0.17
10	0.33	0.25	0.20	0.32	0.25	0.19	0.30	0.23	0.19	0.28	0.22	0.18	0.26	0.21	0.17	0.15



Luminaire Lumens:

FL=115.18,FM=259.82,FH=168.62,FVH=72.58

BL=115.54,BM=261.3,BH=173.72,BVH=75.25

UL=100.59,UH=127.63

BUG Rating:B1-U3-G1

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	283.84	287.26	279.29	276.25	269.80	261.08	247.79	215.16	215.16
45.0	286.88	295.61	291.81	289.92	284.22	277.39	262.97	245.90	244.76
90.0	288.78	279.29	279.67	287.64	290.67	271.70	279.67	278.15	272.84
135.0	289.16	279.67	292.95	271.70	273.60	272.08	264.49	242.48	248.55
180.0	283.84	289.92	279.67	283.08	264.49	258.42	240.58	239.45	207.19
225.0	286.88	291.43	287.64	286.88	276.63	278.53	264.49	246.66	229.58
270.0	288.78	277.01	285.74	275.87	267.15	271.32	265.63	253.11	254.25
315.0	289.16	277.77	273.98	283.84	273.98	252.73	245.90	251.59	239.45
360.0	283.84	287.26	279.29	276.25	269.80	261.08	247.79	215.16	215.16
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	183.28	159.76	132.44	97.90	81.59	49.71	33.39	14.04	11.76
45.0	232.24	214.40	201.12	185.18	168.11	170.00	150.65	149.13	131.30
90.0	260.32	273.60	266.39	255.38	243.62	237.17	235.65	220.47	213.26
135.0	240.58	206.81	199.60	187.08	187.46	159.38	159.76	161.65	147.23
180.0	200.36	166.59	137.37	109.67	78.17	64.13	37.57	25.05	1.90
225.0	219.71	209.09	198.46	186.32	163.17	171.14	150.27	150.65	142.68
270.0	244.00	244.76	233.75	215.92	221.99	215.16	218.57	195.81	187.46
315.0	221.23	209.09	196.95	192.39	173.80	130.92	135.85	139.65	132.06
360.0	183.28	159.76	132.44	97.90	81.59	49.71	33.39	14.04	11.76
C/ γ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	3.42	7.59	2.28	0.00	0.00	0.00	0.00	2.28	6.07
45.0	124.47	96.76	80.83	78.17	50.85	32.63	18.97	0.00	6.07
90.0	191.25	175.69	157.48	136.61	103.97	80.07	58.44	30.74	18.59
135.0	135.47	103.22	82.72	79.31	49.33	40.60	22.01	0.00	13.28
180.0	0.00	22.77	15.56	0.00	13.66	4.17	1.90	11.00	0.00
225.0	120.67	92.59	81.97	65.27	48.19	33.77	22.01	2.66	11.38
270.0	173.42	152.17	138.51	120.67	94.11	72.86	55.78	14.04	6.07
315.0	98.28	80.45	80.45	64.89	37.95	30.74	9.11	6.45	0.00
360.0	3.42	7.59	2.28	0.00	0.00	0.00	0.00	2.28	6.07
C/ γ (°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	0.76	12.90	0.00	0.00	8.35	1.14	16.32	1.52	12.14
45.0	10.63	3.79	4.55	5.69	0.00	0.00	6.45	0.00	0.00
90.0	16.70	0.00	0.00	0.76	9.11	1.14	1.14	11.00	0.00
135.0	5.31	2.66	3.42	0.00	0.00	6.45	1.90	0.00	11.00
180.0	1.90	0.00	0.00	0.00	7.21	12.14	0.00	0.00	2.66
225.0	9.49	0.00	7.21	6.45	7.97	9.11	0.00	7.59	0.00
270.0	9.49	4.17	8.35	0.00	0.00	0.00	0.00	0.00	12.14
315.0	5.31	0.38	0.00	0.00	1.14	0.00	1.90	0.00	2.66
360.0	0.76	12.90	0.00	0.00	8.35	1.14	16.32	1.52	12.14
C/ γ (°)	180.0								
0.0	0.00								
45.0	7.97								
90.0	15.18								
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225.0	7.97								
270.0	15.18								
315.0	2.28								
360.0	0.00								