
Nata

LumCAT: 1451-E	
Luminaire: 92.70.046.00	
Report No: NT201709011	Voltage(V): 0.0000
Test No: GC2017083003	Current(A): 0.0000
LampCAT: CREE CXA1512	Power (W): 0.0000
Lamp flux(lm): 945.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 100	Width(mm): 100
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 813.85
Efficiency(%): 86.12%
Lumens(lm)/Power(W): 0.00
Central intensity(cd): 1361.545
Maximum intensity(cd): 1361.545
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=40.3
[C90/270]Total=40.3
Field angle(10%Imax): [C0/180]Total=79.3
[C90/270]Total=79.3
Maximum s/h(1/2): C0_180=0.64 C90_270=0.64
Maximum s/h(1/4): C0_180=0.68 C90_270=0.68
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 86.12%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.759%

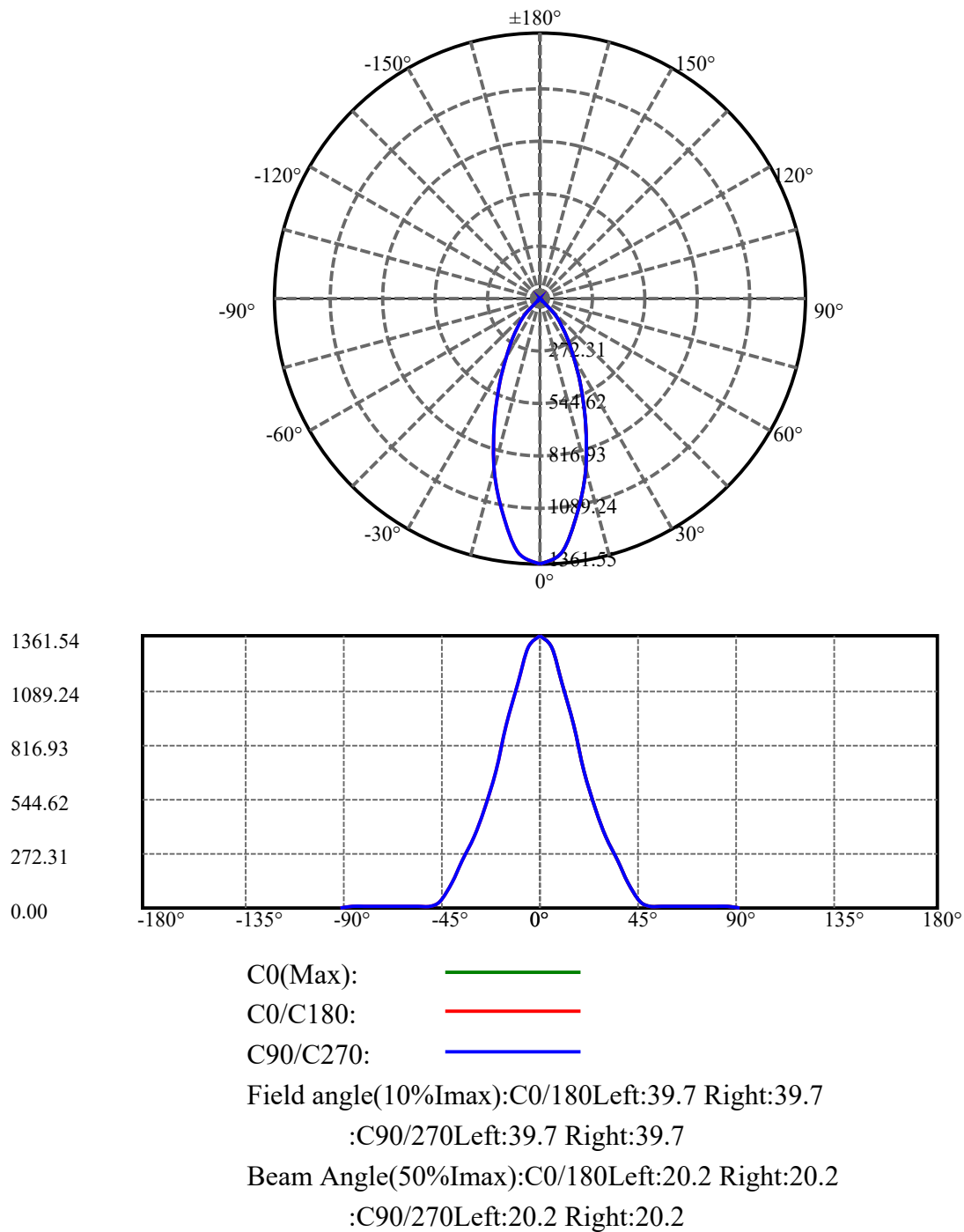
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1361.545	0.000	0	.000%	.000%
5.0	1304.906	31.877	31.877	3.373%	3.917%
10.0	1122.022	86.819	118.695	9.187%	14.584%
15.0	911.576	120.632	239.327	12.765%	29.407%
20.0	687.448	131.782	371.109	13.945%	45.599%
25.0	487.366	123.216	494.325	13.039%	60.739%
30.0	352.616	106.300	600.626	11.249%	73.800%
35.0	239.709	87.224	687.85	9.230%	84.518%
40.0	128.591	61.448	749.298	6.502%	92.068%
45.0	31.300	29.605	778.903	3.133%	95.705%
50.0	11.197	8.587	787.49	.909%	96.761%
55.0	8.658	4.317	791.807	.457%	97.291%
60.0	7.804	3.805	795.612	.403%	97.759%
65.0	7.178	3.642	799.254	.385%	98.206%
70.0	6.744	3.525	802.78	.373%	98.639%
75.0	6.297	3.409	806.188	.361%	99.058%
80.0	5.058	3.038	809.227	.322%	99.431%
85.0	4.322	2.549	811.776	.270%	99.745%
90.0	3.269	2.078	813.854	.220%	100.000%

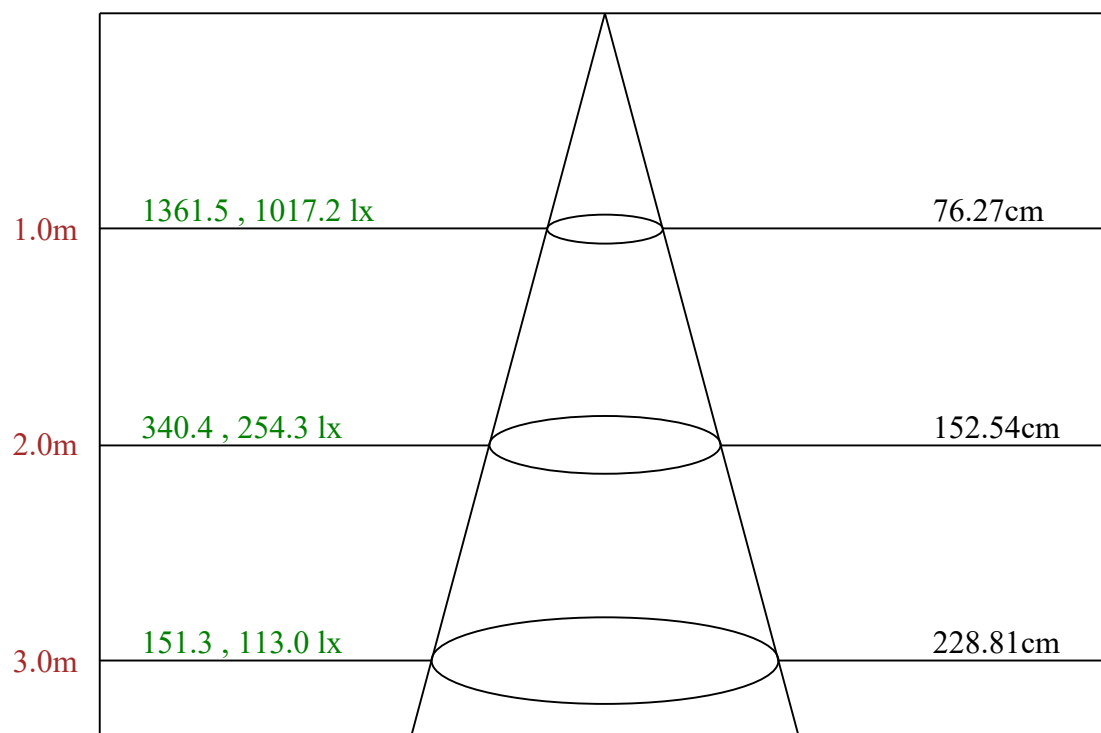
ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	600.63	63.56%	73.80%
0-40	749.30	79.29%	92.07%
0-60	795.61	84.19%	97.76%
0-90	811.78	85.90%	99.74%
0-120	811.78	85.90%	99.74%
0-180	813.85	86.12%	100.00%
60-90	19.97	2.11%	2.45%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-32.89	651.08	68.90%	80.00%

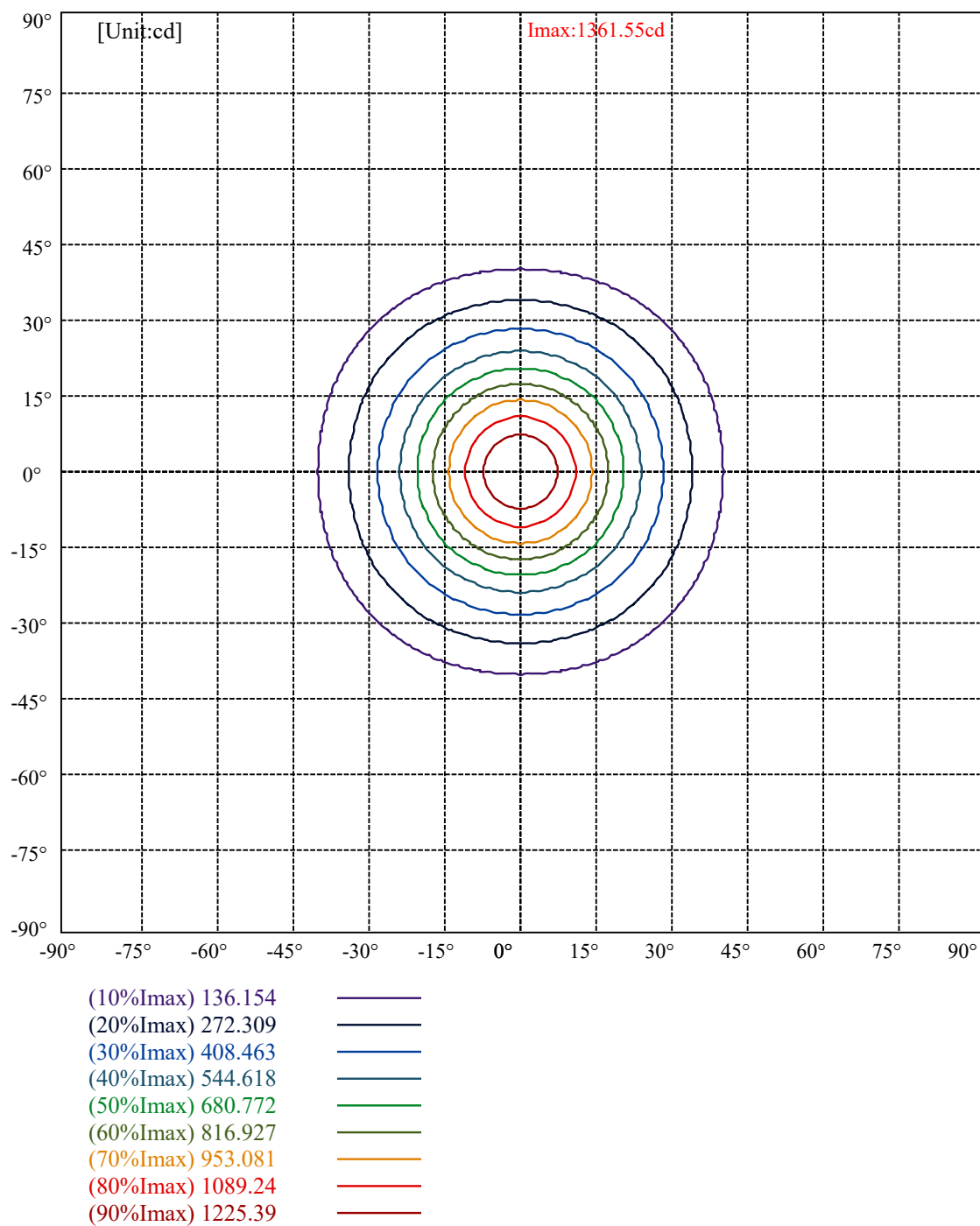
ZONAL LUMEN SUMMARY

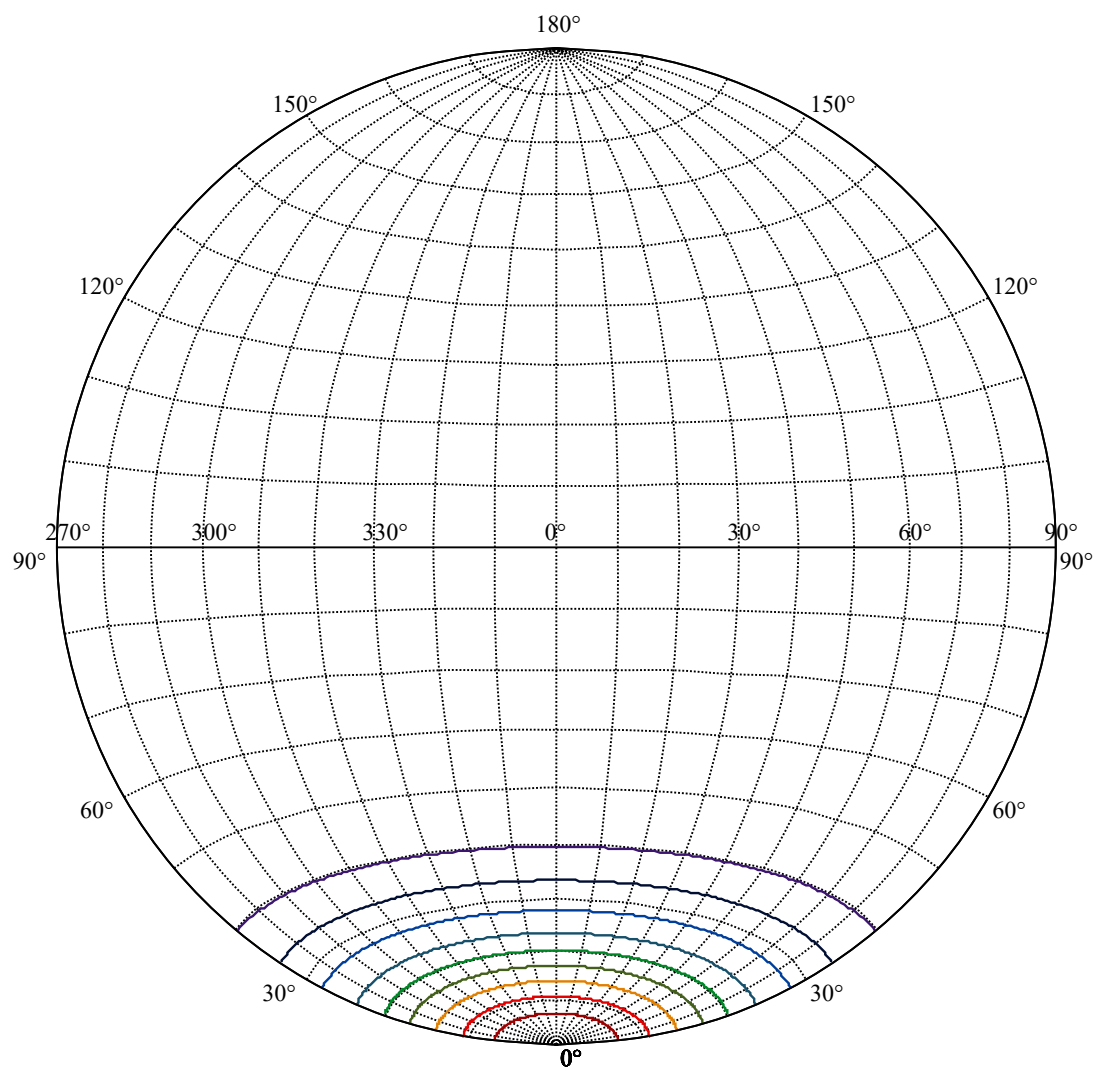
0-10	118.70
10-20	252.41
20-30	229.52
30-40	148.67
40-50	38.19
50-60	8.12
60-70	7.17
70-80	6.45
80-90	2.55
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00





Max , Ave Beam angle of C0 plane 41.75





House

[Unit:cd]

Road

Imax:1361.55

(10%Imax) 136.154

(20%Imax) 272.309

(30%Imax) 408.463

(40%Imax) 544.618

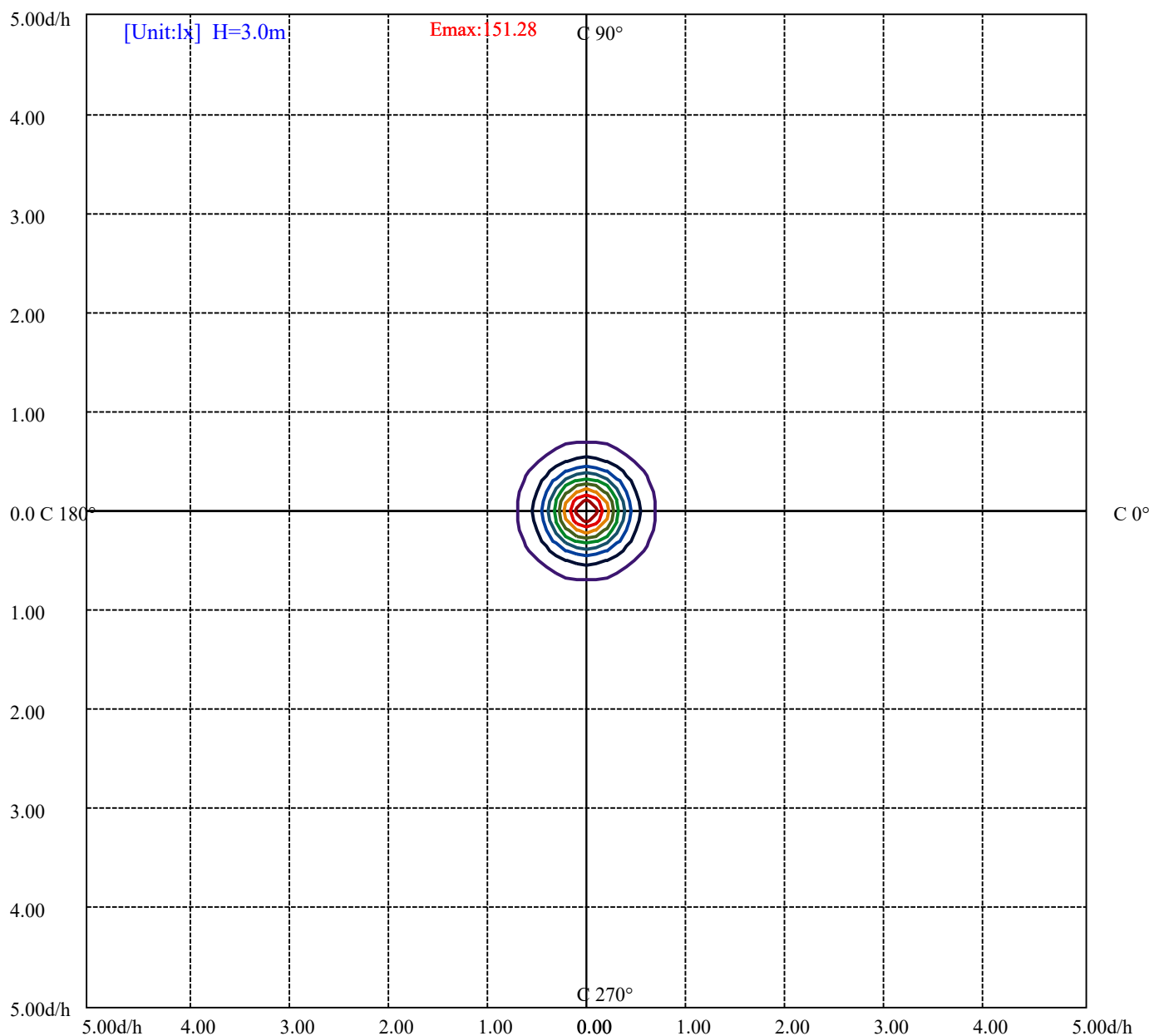
(50%Imax) 680.772

(60%Imax) 816.927

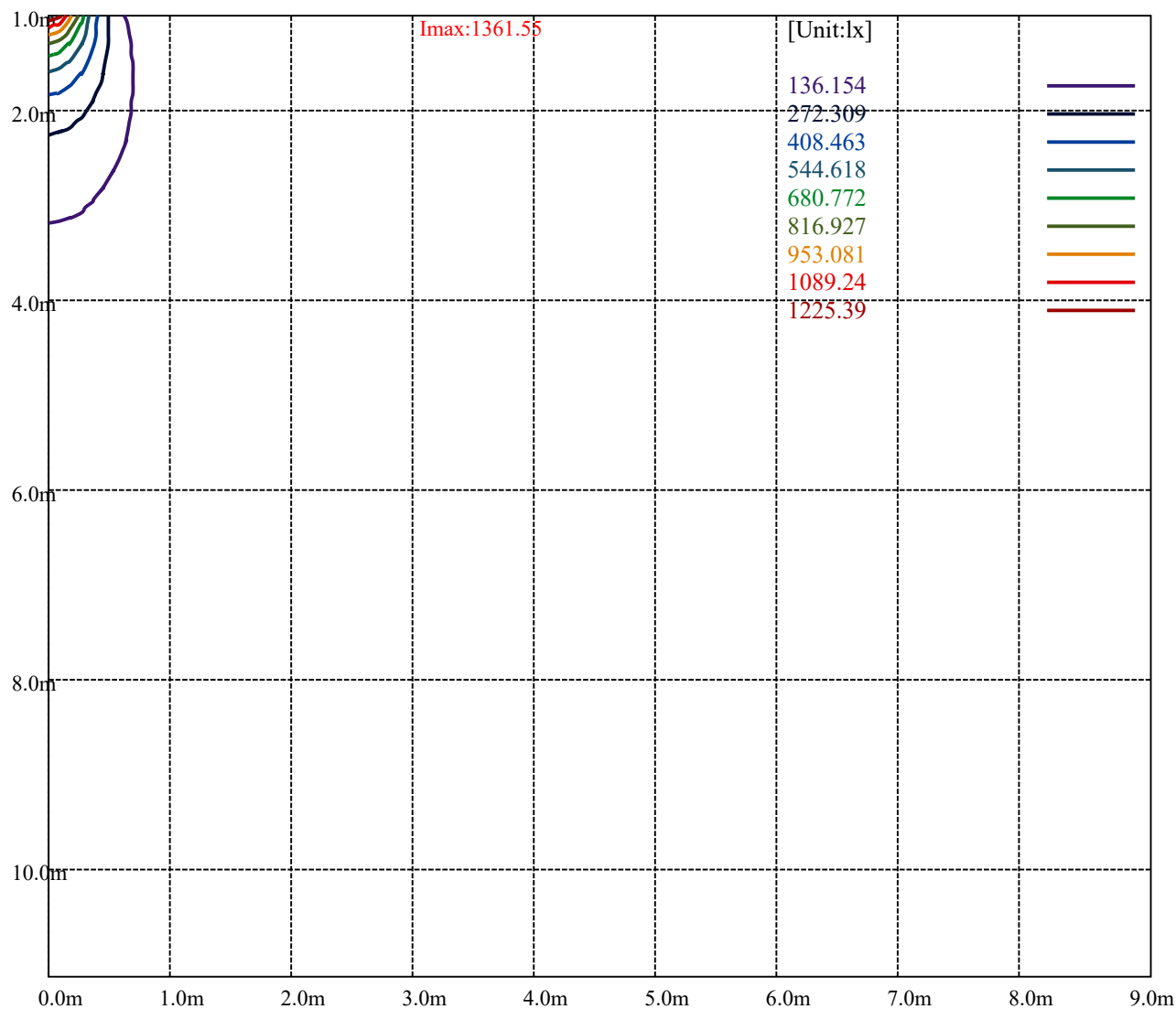
(70%Imax) 953.081

(80%Imax) 1089.24

(90%Imax) 1225.39



(10%Emax)	15.12822	—
(20%Emax)	30.25655	—
(30%Emax)	45.38478	—
(40%Emax)	60.513	—
(50%Emax)	75.64133	—
(60%Emax)	90.76956	—
(70%Emax)	105.8978	—
(80%Emax)	121.0256	—
(90%Emax)	136.1544	—



Luminance Table

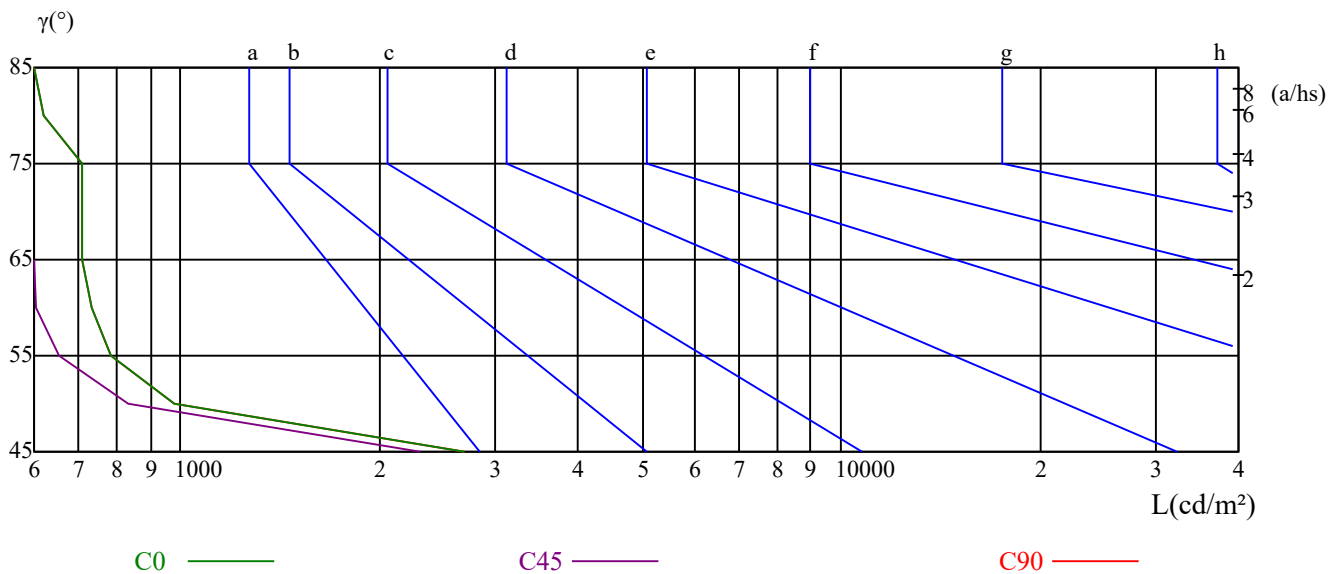
γ	45	50	55	60	65	70	75	80	85
C0	2683	982	783	734	709	708	710	622	588
C45	2306	831	653	602	572	559	549	469	431
C90	2683	982	783	734	709	708	710	622	588

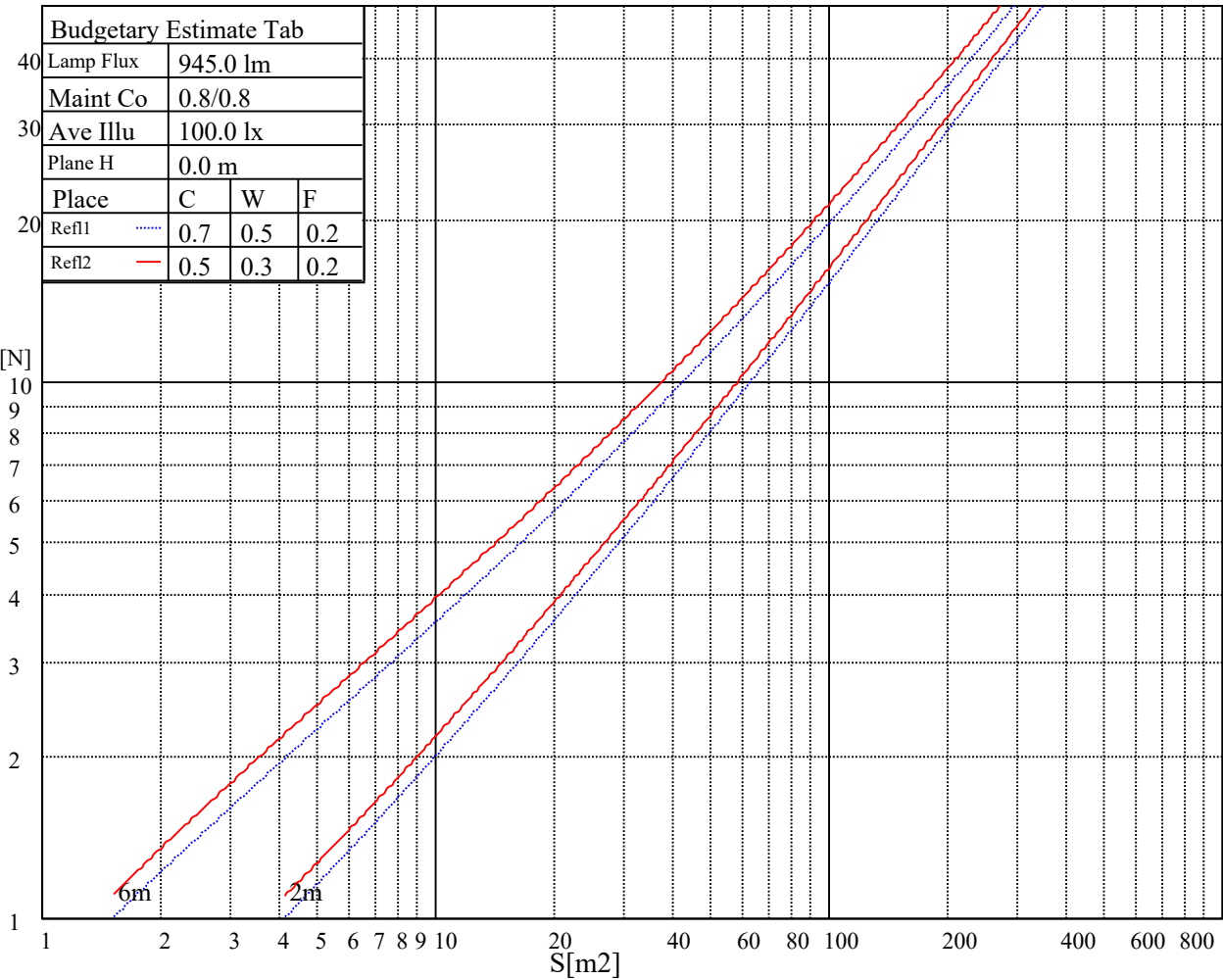
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
1698	1698	1698	2433	2433	2433	4959	4959	4959

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





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 RHOF=20 CU															
0	1.03	1.03	1.03	1.00	1.00	1.00	0.96	0.96	0.96	0.92	0.92	0.92	0.88	0.88	0.88	0.86
1	0.95	0.93	0.91	0.93	0.91	0.90	0.90	0.88	0.87	0.87	0.85	0.84	0.84	0.83	0.82	0.80
2	0.89	0.85	0.82	0.87	0.84	0.81	0.84	0.82	0.80	0.82	0.80	0.78	0.80	0.78	0.76	0.75
3	0.83	0.79	0.75	0.82	0.78	0.75	0.80	0.76	0.74	0.77	0.75	0.72	0.76	0.73	0.71	0.70
4	0.78	0.73	0.70	0.77	0.73	0.69	0.75	0.71	0.68	0.73	0.70	0.68	0.72	0.69	0.67	0.66
5	0.73	0.68	0.65	0.73	0.68	0.65	0.71	0.67	0.64	0.70	0.66	0.63	0.68	0.65	0.63	0.62
6	0.69	0.64	0.61	0.68	0.64	0.60	0.67	0.63	0.60	0.66	0.62	0.60	0.65	0.62	0.59	0.58
7	0.65	0.60	0.57	0.65	0.60	0.57	0.64	0.60	0.56	0.63	0.59	0.56	0.62	0.58	0.56	0.55
8	0.62	0.57	0.54	0.61	0.57	0.54	0.61	0.56	0.53	0.60	0.56	0.53	0.59	0.55	0.53	0.52
9	0.59	0.54	0.51	0.58	0.54	0.51	0.58	0.53	0.50	0.57	0.53	0.50	0.56	0.53	0.50	0.49
10	0.56	0.51	0.48	0.56	0.51	0.48	0.55	0.51	0.48	0.54	0.50	0.48	0.54	0.50	0.48	0.46

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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	1364.85	1319.15	1162.24	952.48	709.68	494.41	341.35	222.04	115.89
45.0	1359.34	1305.39	1128.66	899.07	665.08	462.47	335.29	214.11	112.26
90.0	1362.10	1285.02	1097.05	856.18	624.56	428.72	311.29	200.85	102.52
135.0	1359.89	1314.20	1149.03	931.00	714.08	515.33	385.95	286.84	151.46
180.0	1364.85	1298.23	1089.51	886.52	691.62	503.93	380.49	257.44	147.50
225.0	1359.34	1294.38	1088.52	904.30	683.42	487.30	353.68	240.10	140.06
270.0	1362.10	1319.70	1173.25	946.97	723.44	527.99	380.44	282.99	151.57
315.0	1359.89	1303.18	1087.91	916.08	687.71	478.77	332.43	213.29	107.47
360.0	1364.85	1319.15	1162.24	952.48	709.68	494.41	341.35	222.04	115.89
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	25.11	11.78	8.42	7.98	7.65	7.54	6.88	5.84	5.12
45.0	24.17	12.11	10.57	10.24	9.91	9.47	8.75	5.89	4.62
90.0	22.79	10.57	9.03	8.20	7.49	6.83	6.22	4.96	4.18
135.0	39.31	9.25	6.83	5.62	4.73	4.29	4.13	4.24	4.02
180.0	33.75	8.37	6.66	5.45	4.51	4.18	4.02	4.02	3.91
225.0	37.33	11.29	8.92	7.87	7.05	6.39	6.28	4.57	3.91
270.0	45.64	15.91	10.79	9.86	9.25	8.48	8.15	5.84	4.18
315.0	22.30	10.30	8.04	7.21	6.83	6.77	5.95	5.12	4.62
360.0	25.11	11.78	8.42	7.98	7.65	7.54	6.88	5.84	5.12
C/ γ (°)	90.0								
0.0	3.30								
45.0	3.19								
90.0	3.19								
135.0	3.25								
180.0	3.36								
225.0	3.30								
270.0	3.25								
315.0	3.30								
360.0	3.30								