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NATA

LumCAT: LM01D01560BY

Luminaire:

Report No: NATA0100

Voltage(V): 25.2000

Test No: GC2018122909

Current(A): 0.2000

LampCAT: LUMILEDS LUXEON5050

Power (W): 5.0400

Lamp flux(lm): 710.0

PF: 0.0000

Number of Lamps: 1

Ballast type:

Length(mm): 15

Width(mm): 15

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 671.55

Efficiency(%): 94.58%

Lumens(lm)/Power(W): 133.75

Central intensity(cd): 534.052

Maximum intensity(cd): 534.052

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=63.2

[C90/270]Total=63.2

Field angle(10%Imax): [C0/180]Total=108.0

[C90/270]Total=108.0

Maximum s/h(1/2): C0_180=0.95 C90_270=0.95

Maximum s/h(1/4): C0_180=0.95 C90_270=0.95

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 94.94%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 92.584%

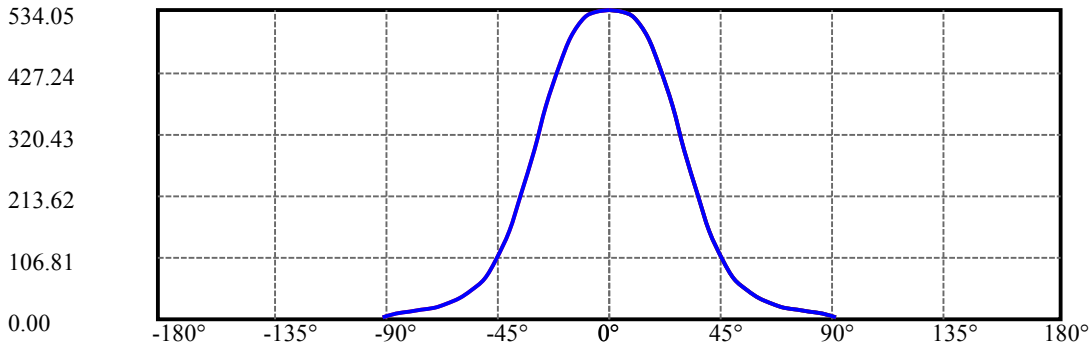
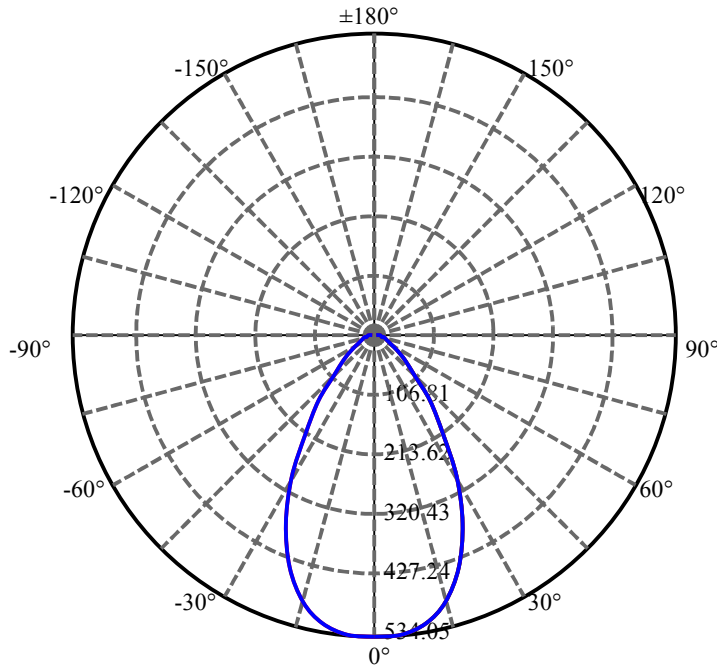
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	534.052	3.194	3.194	.450%	.476%
5.0	532.245	25.427	28.621	3.581%	4.262%
10.0	519.279	49.427	78.047	6.961%	11.622%
15.0	488.208	69.261	147.309	9.755%	21.936%
20.0	437.780	82.072	229.381	11.559%	34.157%
25.0	366.764	84.962	314.343	11.966%	46.809%
30.0	291.213	79.812	394.155	11.241%	58.694%
35.0	215.416	67.727	461.882	9.539%	68.779%
40.0	152.107	53.593	515.475	7.548%	76.759%
45.0	102.600	39.767	555.242	5.601%	82.681%
50.0	70.650	29.666	584.907	4.178%	87.099%
55.0	49.170	22.078	606.985	3.110%	90.386%
60.0	36.077	17.126	624.111	2.412%	92.936%
65.0	27.105	13.465	637.576	1.897%	94.941%
70.0	21.417	11.032	648.608	1.554%	96.584%
75.0	16.833	8.912	657.52	1.255%	97.911%
80.0	13.760	7.428	664.948	1.046%	99.017%
85.0	10.765	5.878	670.826	.828%	99.893%
90.0	2.630	0.721	671.547	.102%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	394.16	55.51%	58.69%
0-40	515.47	72.60%	76.76%
0-60	624.11	87.90%	92.94%
0-90	670.83	94.48%	99.89%
0-120	670.83	94.48%	99.89%
0-180	671.55	94.58%	100.00%
60-90	63.84	8.99%	9.51%
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%
0-42.74	537.24	75.67%	80.00%

ZONAL LUMEN SUMMARY

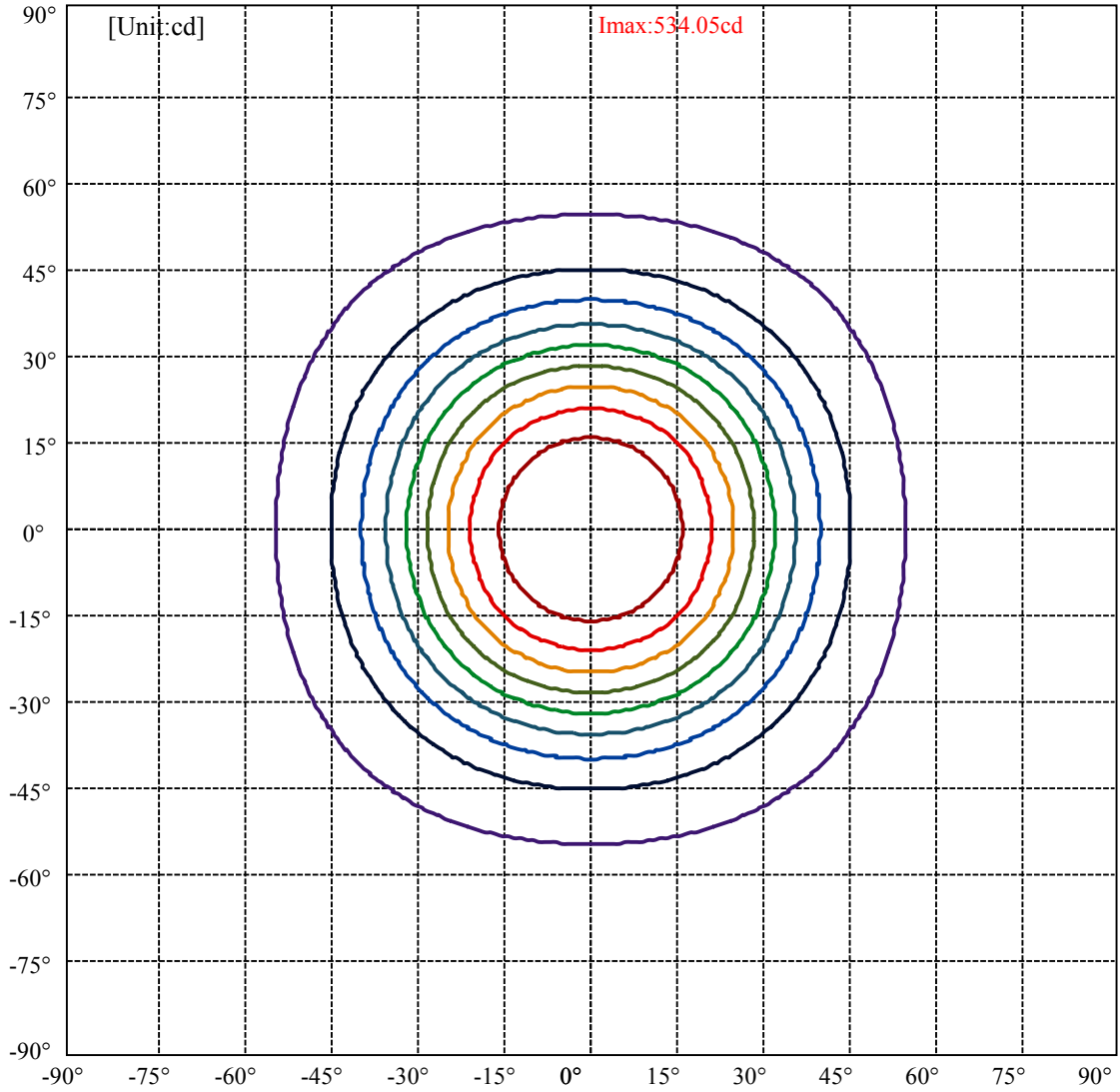
0-10	78.05
10-20	151.33
20-30	164.77
30-40	121.32
40-50	69.43
50-60	39.20
60-70	24.50
70-80	16.34
80-90	5.88
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



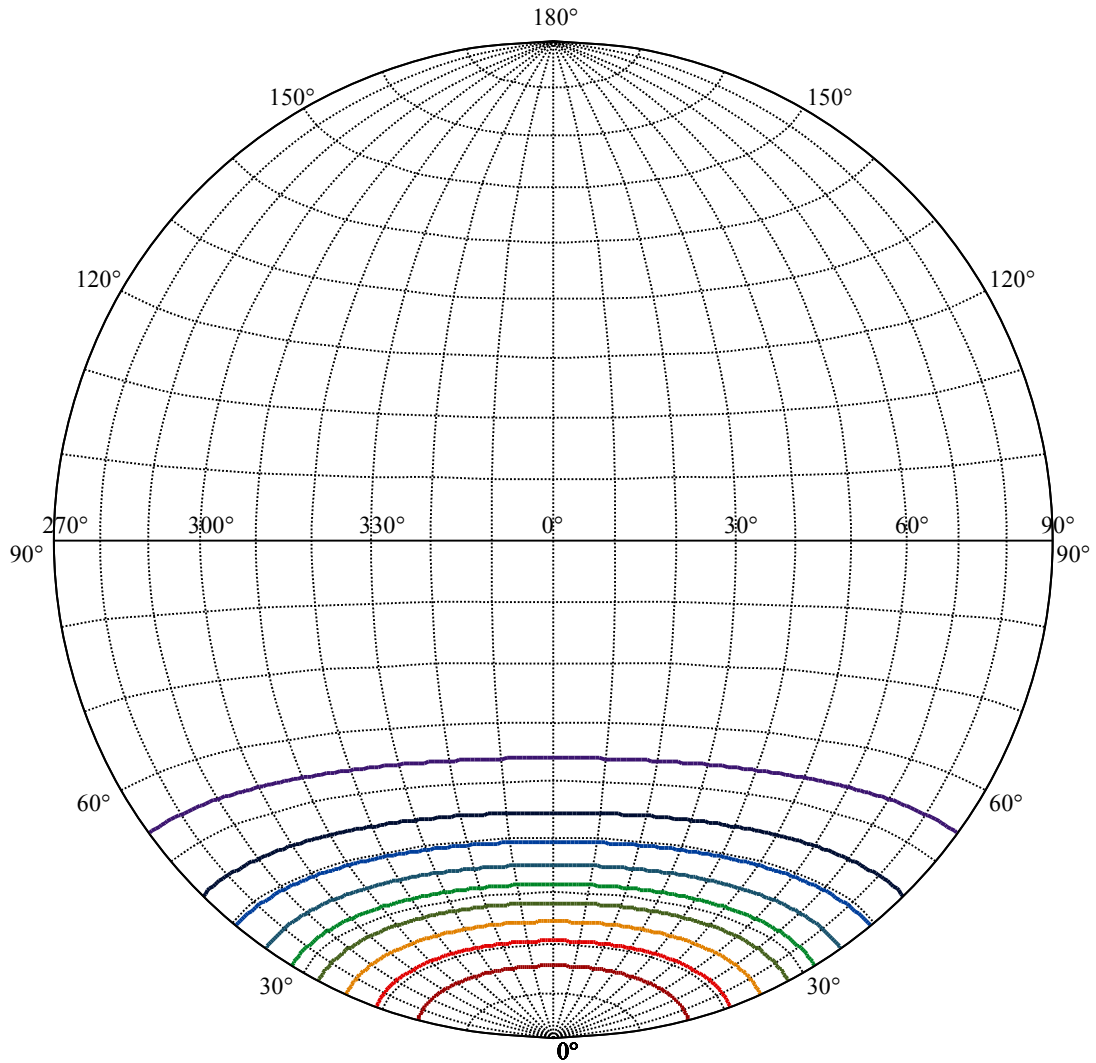
C0(Max): —————
 C0/C180: —————
 C90/C270: —————

Field angle(10%Imax):C0/180Left:54.0 Right:54.0
 :C90/270Left:54.0 Right:54.0

Beam Angle(50%Imax):C0/180Left:31.6 Right:31.6
 :C90/270Left:31.6 Right:31.6



(10%Imax) 53.4052	—
(20%Imax) 106.81	—
(30%Imax) 160.215	—
(40%Imax) 213.621	—
(50%Imax) 267.026	—
(60%Imax) 320.431	—
(70%Imax) 373.836	—
(80%Imax) 427.241	—
(90%Imax) 480.646	—



House

[Unit:cd]

Road

Imax:534.05

(10%Imax) 53.4052

(20%Imax) 106.81

(30%Imax) 160.215

(40%Imax) 213.621

(50%Imax) 267.026

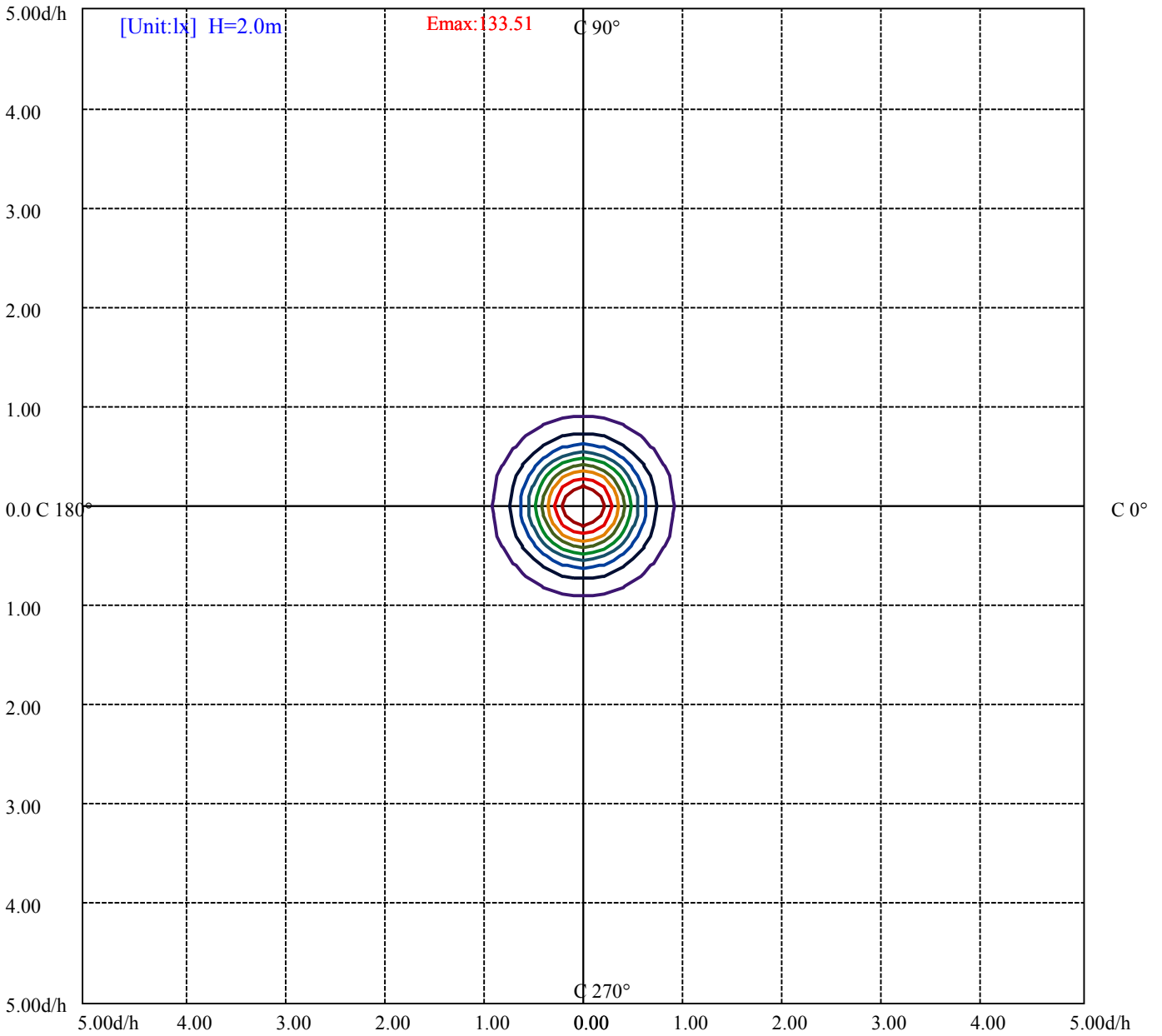
(60%Imax) 320.431

(70%Imax) 373.836

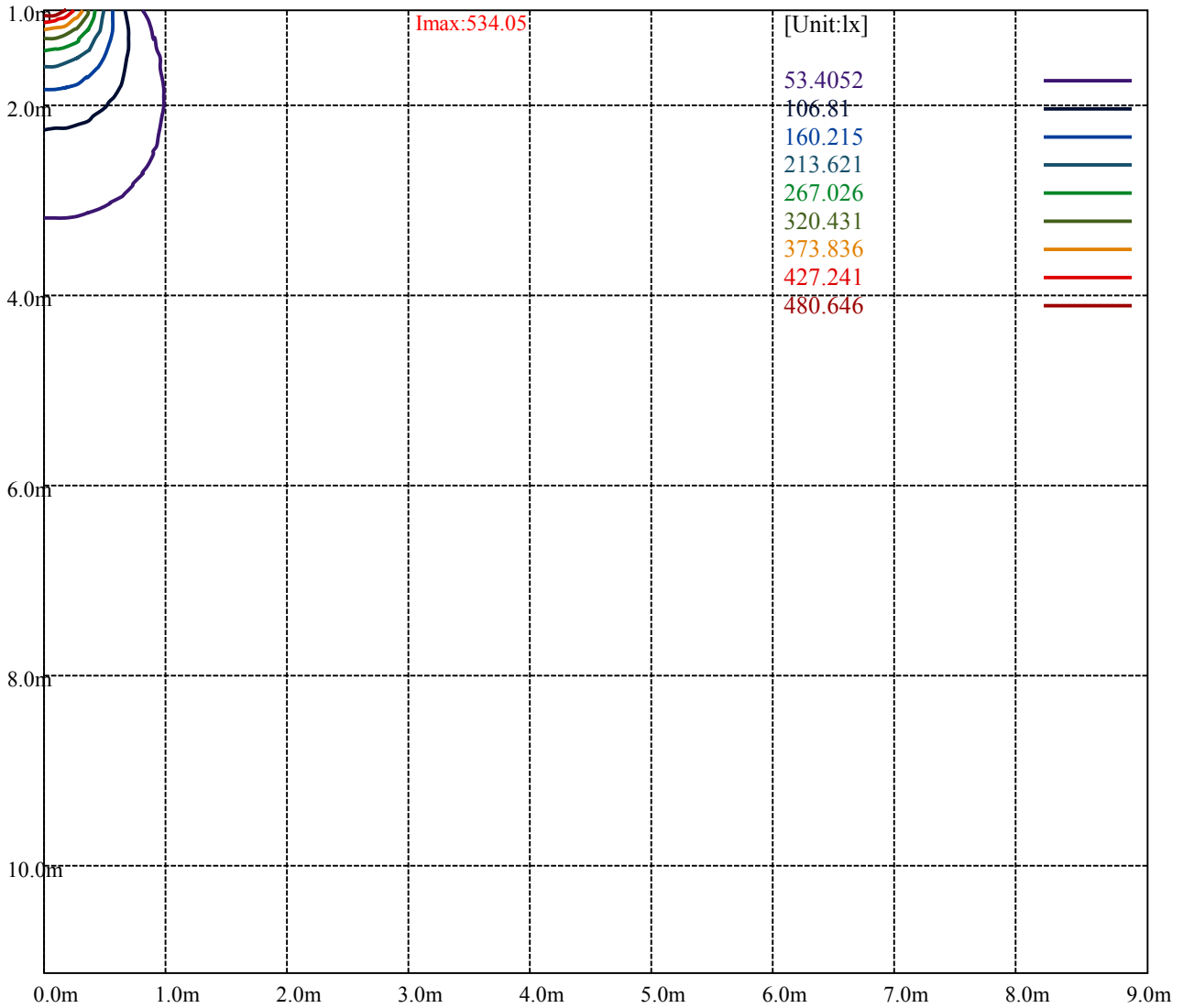
(80%Imax) 427.241

(90%Imax) 480.646





(10%Emax) 13.3513	—
(20%Emax) 26.7025	—
(30%Emax) 40.05375	—
(40%Emax) 53.40525	—
(50%Emax) 66.7565	—
(60%Emax) 80.10775	—
(70%Emax) 93.459	—
(80%Emax) 106.8102	—
(90%Emax) 120.1615	—



Luminance Table

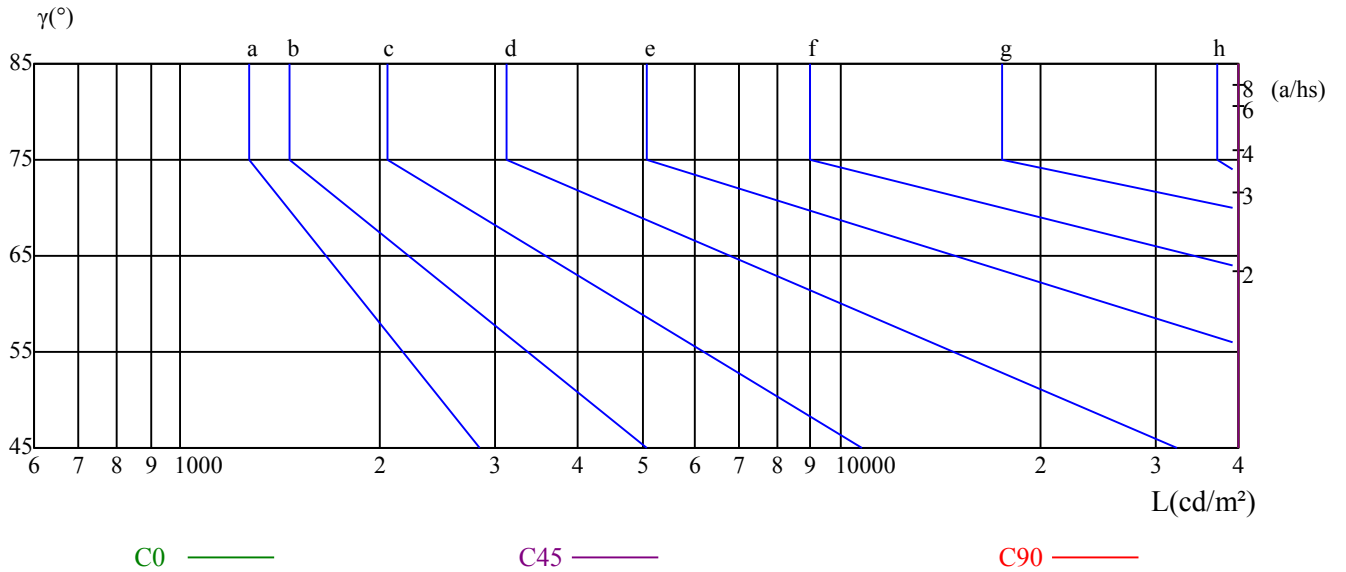
γ	45	50	55	60	65	70	75	80	85
C0	644882	488497	380998	320688	285053	278310	289053	352185	548945
C45	644882	488497	380998	320688	285053	278310	289053	352185	548945
C90	644882	488497	380998	320688	285053	278310	289053	352185	548945

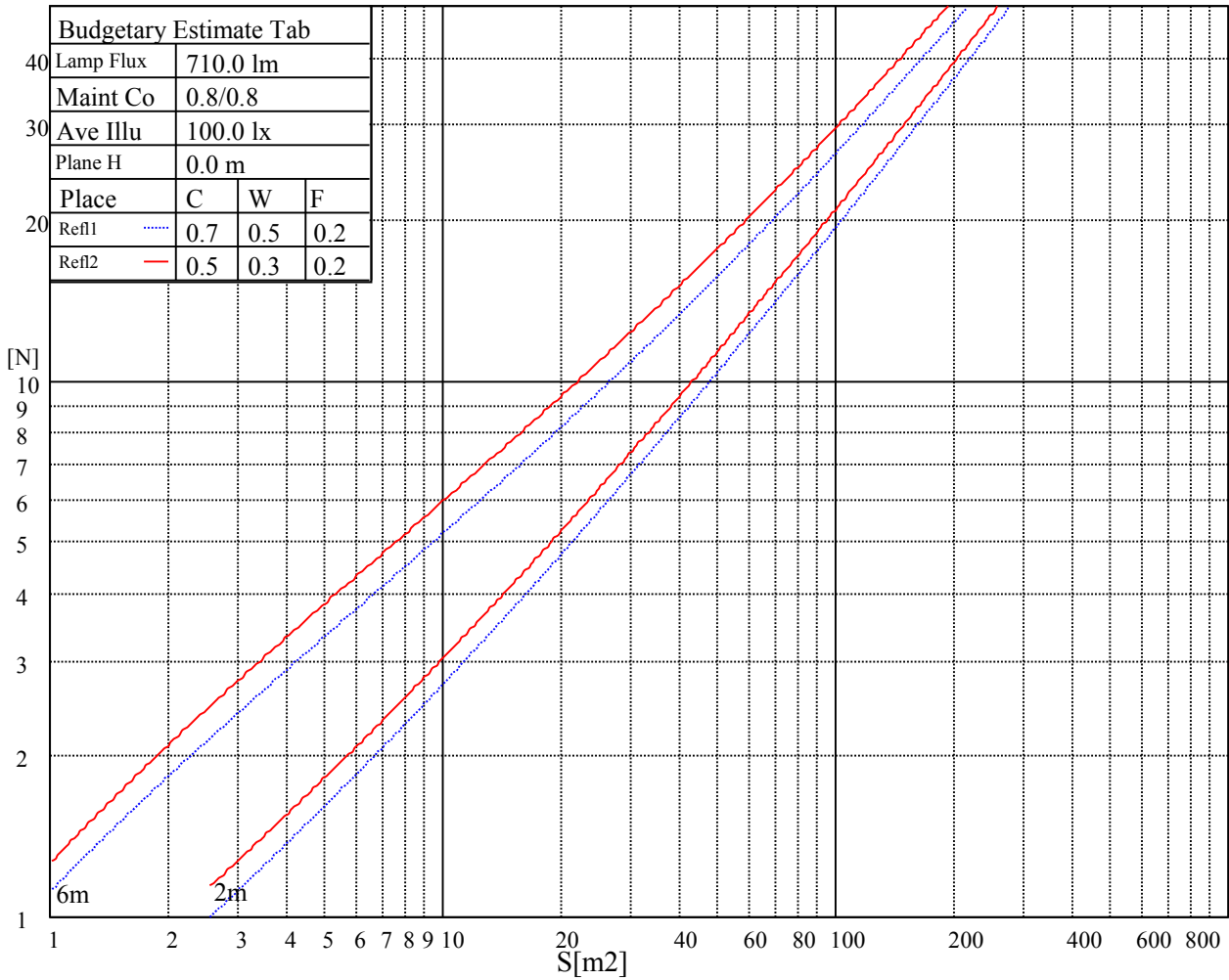
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
285053	285053	285053	289053	289053	289053	548945	548945	548945

Glare Table

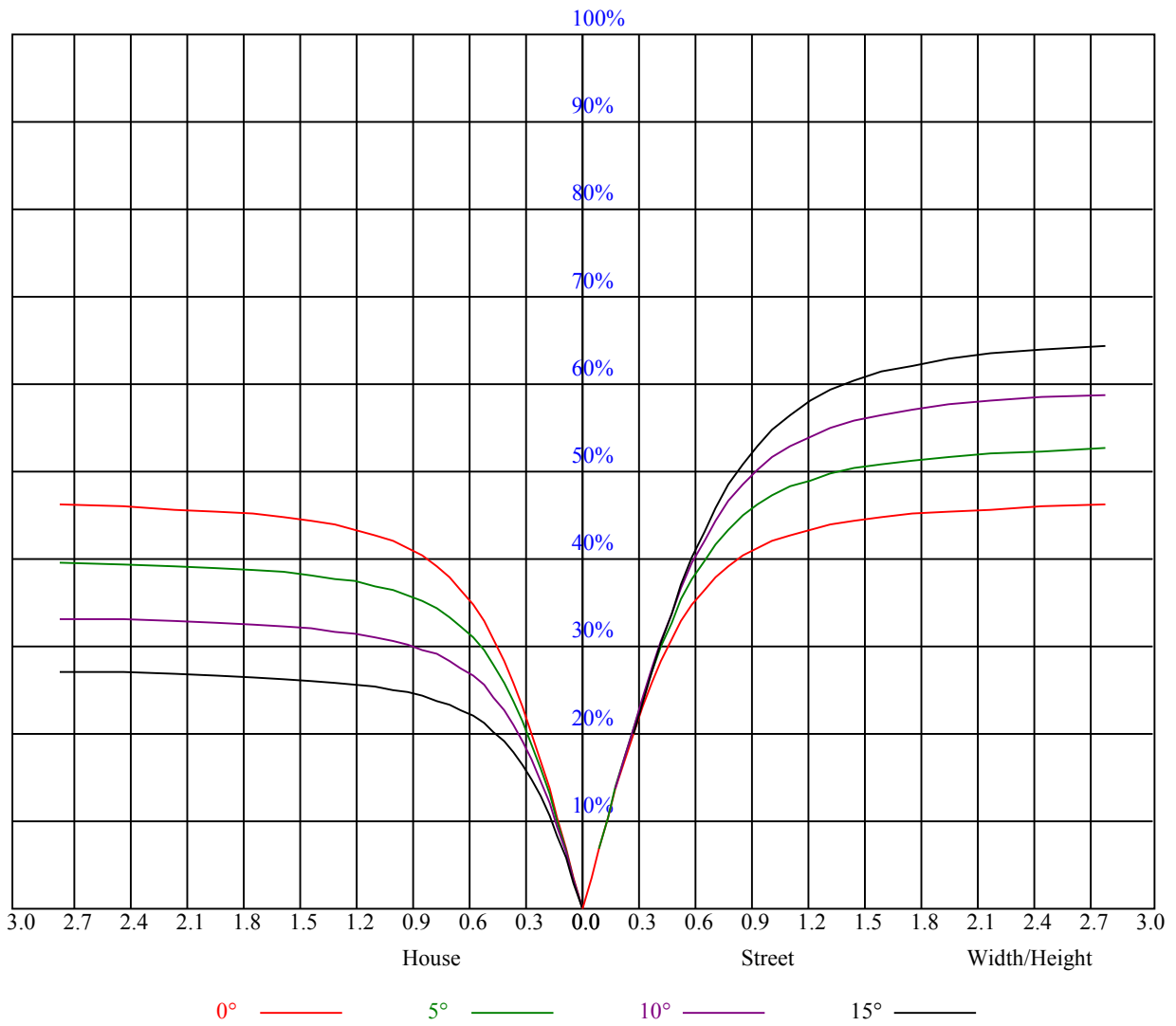
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.13	1.13	1.13	1.10	1.10	1.10	1.05	1.05	1.05	1.01	1.01	1.01	0.97	0.97	0.97	0.95
1	1.03	1.00	0.97	1.00	0.98	0.95	0.97	0.94	0.92	0.93	0.91	0.89	0.90	0.88	0.87	0.85
2	0.94	0.89	0.85	0.92	0.88	0.84	0.89	0.85	0.82	0.86	0.83	0.80	0.83	0.81	0.79	0.77
3	0.86	0.80	0.76	0.85	0.79	0.75	0.82	0.78	0.74	0.80	0.76	0.73	0.78	0.74	0.72	0.70
4	0.80	0.73	0.69	0.78	0.73	0.68	0.76	0.71	0.67	0.74	0.70	0.66	0.72	0.69	0.66	0.64
5	0.74	0.67	0.63	0.73	0.67	0.62	0.71	0.66	0.62	0.69	0.65	0.61	0.68	0.64	0.61	0.59
6	0.69	0.62	0.58	0.68	0.62	0.57	0.66	0.61	0.57	0.65	0.60	0.56	0.64	0.59	0.56	0.55
7	0.64	0.58	0.53	0.64	0.57	0.53	0.62	0.57	0.53	0.61	0.56	0.52	0.60	0.56	0.52	0.51
8	0.60	0.54	0.50	0.60	0.54	0.49	0.59	0.53	0.49	0.58	0.53	0.49	0.57	0.52	0.49	0.47
9	0.57	0.51	0.46	0.56	0.50	0.46	0.55	0.50	0.46	0.54	0.49	0.46	0.54	0.49	0.46	0.44
10	0.54	0.48	0.43	0.53	0.47	0.43	0.52	0.47	0.43	0.52	0.47	0.43	0.51	0.46	0.43	0.42



NATA LM01D01560BY

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	535.16	537.47	528.36	505.52	453.66	386.94	316.07	235.29	167.06
45.0	532.52	539.10	533.36	508.95	463.89	393.98	317.53	237.21	168.13
90.0	535.44	543.09	537.69	512.21	462.38	388.86	305.94	223.03	154.24
135.0	532.80	536.63	532.80	509.57	462.99	388.91	305.38	223.26	152.94
180.0	535.16	529.59	511.54	477.73	422.27	346.84	269.10	194.06	138.99
225.0	532.52	520.93	495.68	454.56	399.71	325.86	255.32	190.07	136.35
270.0	536.01	523.74	503.38	464.57	414.62	347.91	278.33	214.82	150.69
315.0	532.80	527.40	511.43	472.56	422.72	354.83	282.04	205.59	148.44
360.0	535.16	537.47	528.36	505.52	453.66	386.94	316.07	235.29	167.06

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	113.57	78.19	52.71	37.80	28.63	21.88	17.33	14.63	11.98
45.0	112.50	76.16	52.37	37.91	28.01	22.05	16.76	13.33	10.35
90.0	101.25	69.53	48.88	36.34	26.78	21.32	16.59	13.39	10.52
135.0	100.24	71.27	48.94	36.73	28.07	22.22	17.27	13.67	10.46
180.0	92.81	64.58	45.84	34.48	26.16	20.64	16.20	13.28	9.56
225.0	94.39	65.70	46.74	34.71	26.55	21.26	16.93	13.89	11.03
270.0	104.91	71.78	49.44	35.72	26.55	21.04	16.71	14.01	11.03
315.0	101.14	68.01	48.43	34.93	26.10	20.93	16.88	13.89	11.19
360.0	113.57	78.19	52.71	37.80	28.63	21.88	17.33	14.63	11.98

C/γ(°)	90.0
0.0	2.64
45.0	2.59
90.0	2.64
135.0	2.64
180.0	2.59
225.0	2.64
270.0	2.64
315.0	2.64
360.0	2.64