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Nata

LumCAT: 3-1941-M
Luminaire: BJB 47.319.2011
Report No: GC2017060704
Test No: NT-0010
LampCAT: LUMILEDS LUXEON CoB 1208
Lamp flux(lm): 3235.0
Number of Lamps: 1
Length(mm): 78
Phm Type: C

Voltage(V): 219.4000
Current(A): 0.1350
Power (W): 28.0000
PF: 0.9430
Ballast type: DC
Width(mm): 78
Height(mm): 51

Photometric Results

Lumens(lm): 2920.88
Efficiency(%): 90.29%
Lumens(lm)/Power(W): 104.32
Central intensity(cd): 3535.309
Maximum intensity(cd): 3535.309
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=58.2
 [C90/270]Total=58.2
Field angle(10%Imax): [C0/180]Total=76.6
 [C90/270]Total=76.6
Maximum s/h(1/2): C0_180=0.94 C90_270=0.94
Maximum s/h(1/4): C0_180=0.86 C90_270=0.86
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 90.29%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.685%

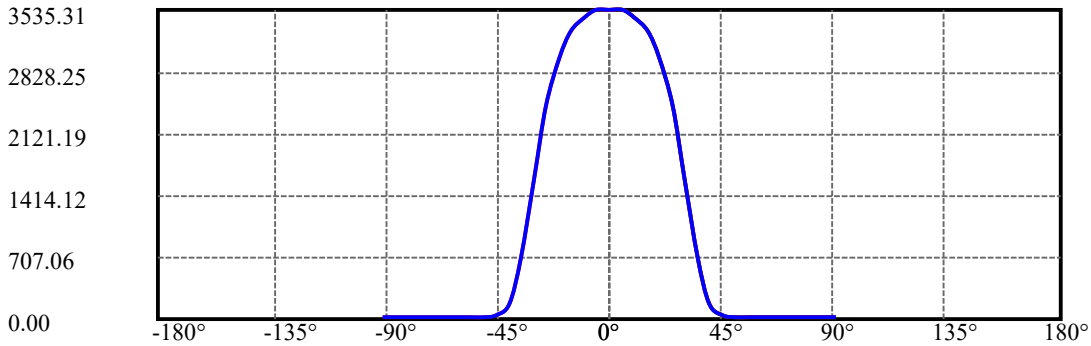
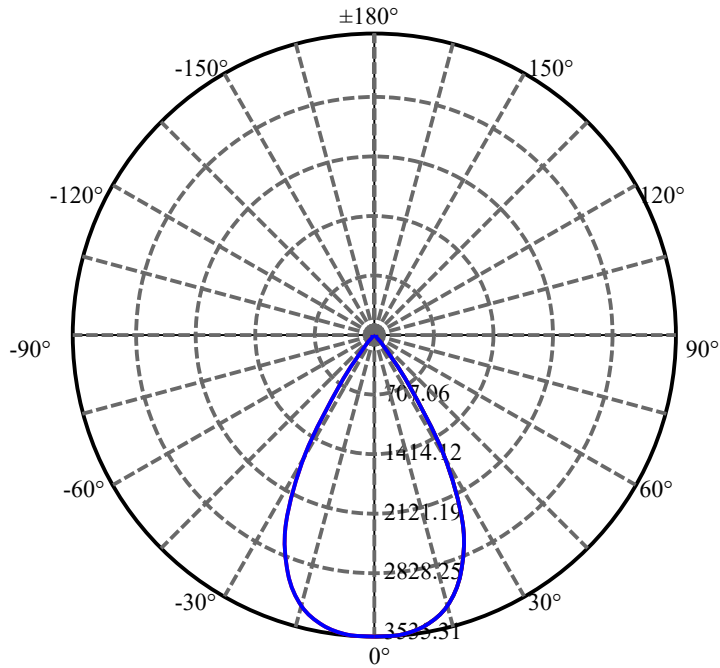
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3535.309	0.000	0	.000%	.000%
5.0	3528.909	84.451	84.451	2.611%	2.891%
10.0	3456.303	249.883	334.334	7.724%	11.446%
15.0	3284.940	399.886	734.22	12.361%	25.137%
20.0	2976.762	516.052	1250.272	15.952%	42.805%
25.0	2430.602	567.133	1817.405	17.531%	62.221%
30.0	1619.229	512.510	2329.914	15.843%	79.768%
35.0	712.223	343.323	2673.237	10.613%	91.522%
40.0	169.168	147.053	2820.29	4.546%	96.556%
45.0	36.110	38.009	2858.299	1.175%	97.857%
50.0	17.453	10.823	2869.123	.335%	98.228%
55.0	14.425	6.931	2876.054	.214%	98.465%
60.0	13.392	6.430	2882.484	.199%	98.685%
65.0	12.677	6.337	2888.821	.196%	98.902%
70.0	12.223	6.305	2895.126	.195%	99.118%
75.0	12.002	6.332	2901.458	.196%	99.335%
80.0	11.947	6.408	2907.866	.198%	99.554%
85.0	11.933	6.489	2914.355	.201%	99.777%
90.0	11.899	6.526	2920.881	.202%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2329.91	72.02%	79.77%
0-40	2820.29	87.18%	96.56%
0-60	2882.48	89.10%	98.69%
0-90	2914.35	90.09%	99.78%
0-120	2914.35	90.09%	99.78%
0-180	2920.88	90.29%	100.00%
60-90	38.30	1.18%	1.31%
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%
0-30.10	2336.70	72.23%	80.00%

ZONAL LUMEN SUMMARY

0-10	334.33
10-20	915.94
20-30	1079.64
30-40	490.38
40-50	48.83
50-60	13.36
60-70	12.64
70-80	12.74
80-90	6.49
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: —————

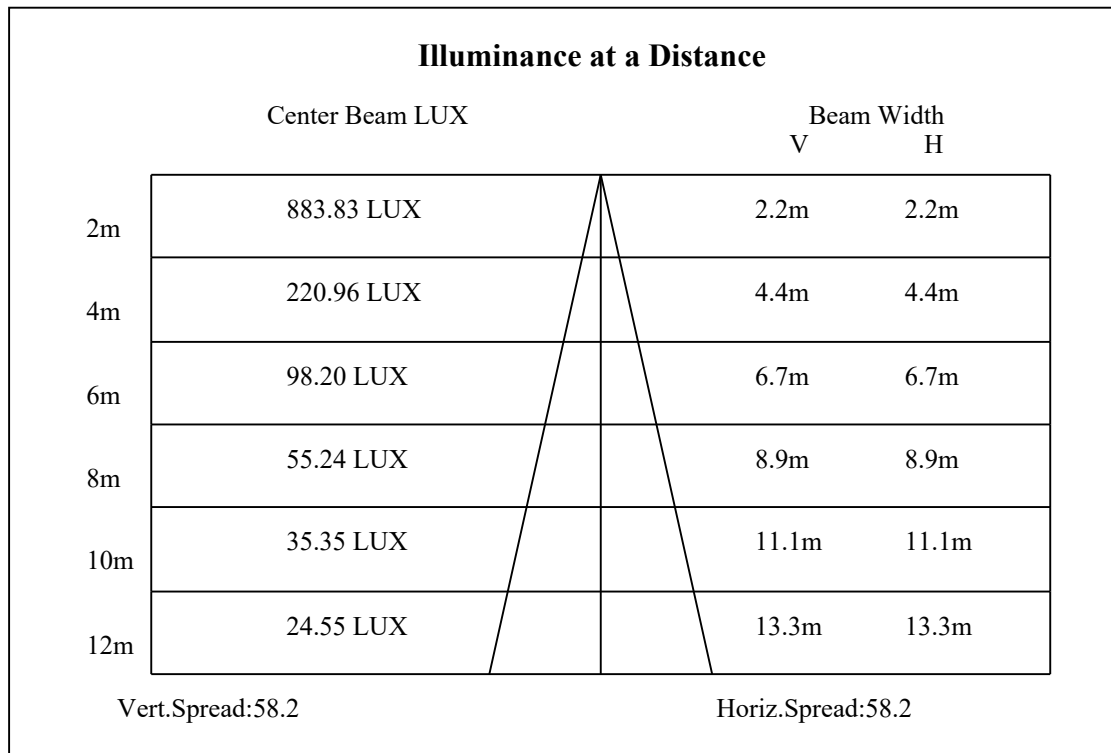
C90/C270: —————

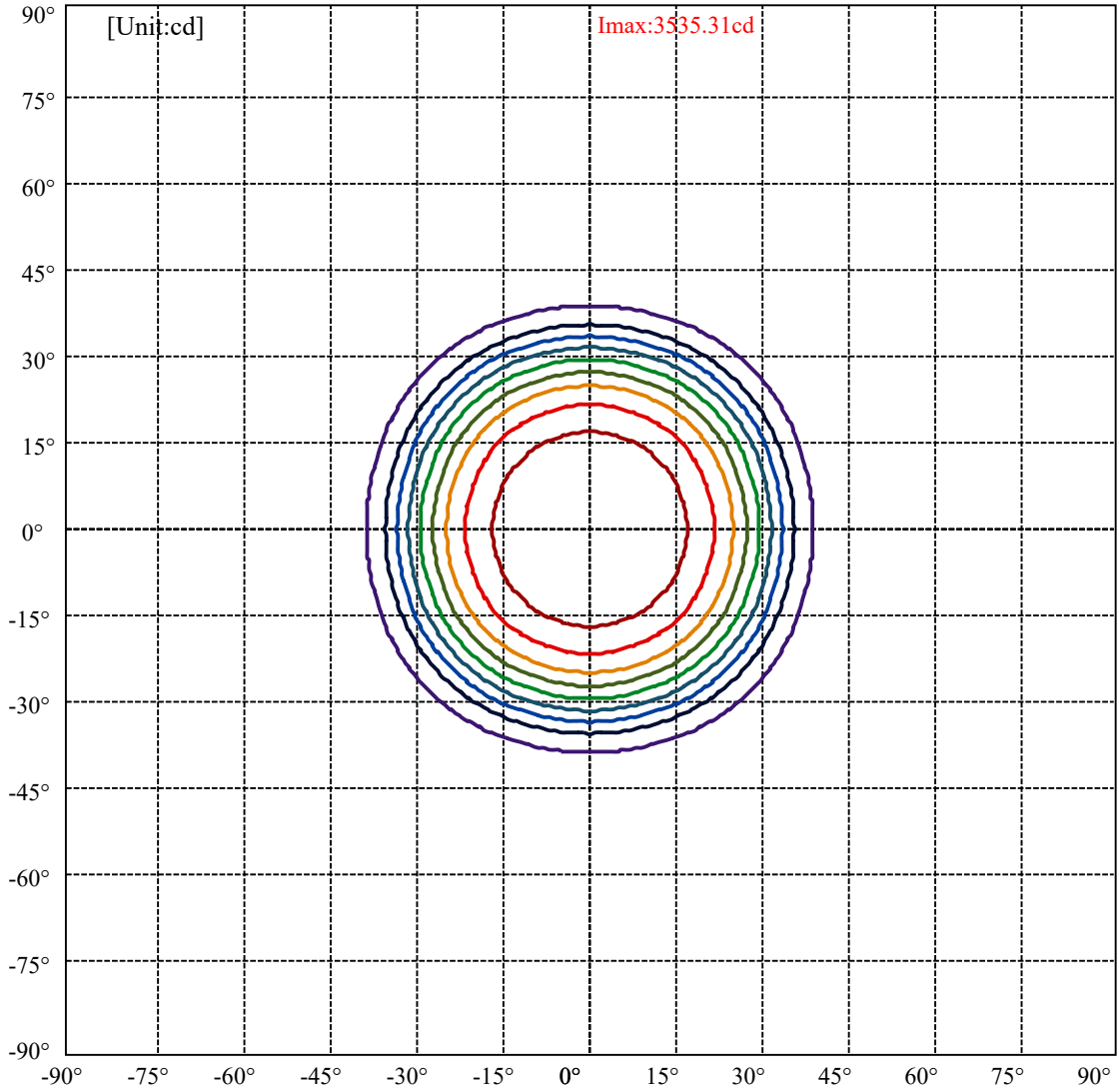
Field angle(10%Imax):C0/180Left:38.3 Right:38.3

:C90/270Left:38.3 Right:38.3

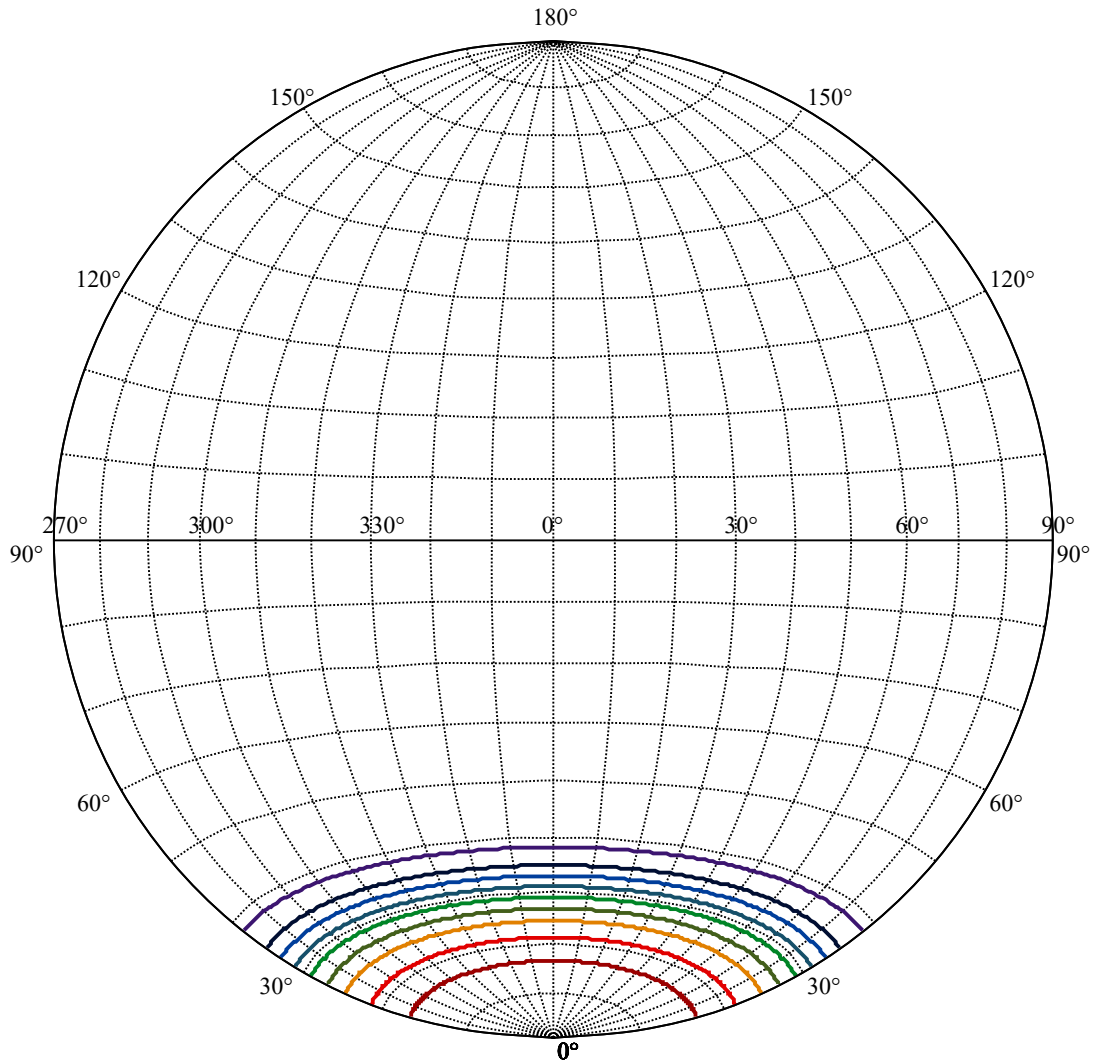
Beam Angle(50%Imax):C0/180Left:29.1 Right:29.1

:C90/270Left:29.1 Right:29.1





(10%Imax) 353.531	—
(20%Imax) 707.062	—
(30%Imax) 1060.59	—
(40%Imax) 1414.12	—
(50%Imax) 1767.65	—
(60%Imax) 2121.19	—
(70%Imax) 2474.72	—
(80%Imax) 2828.25	—
(90%Imax) 3181.78	—



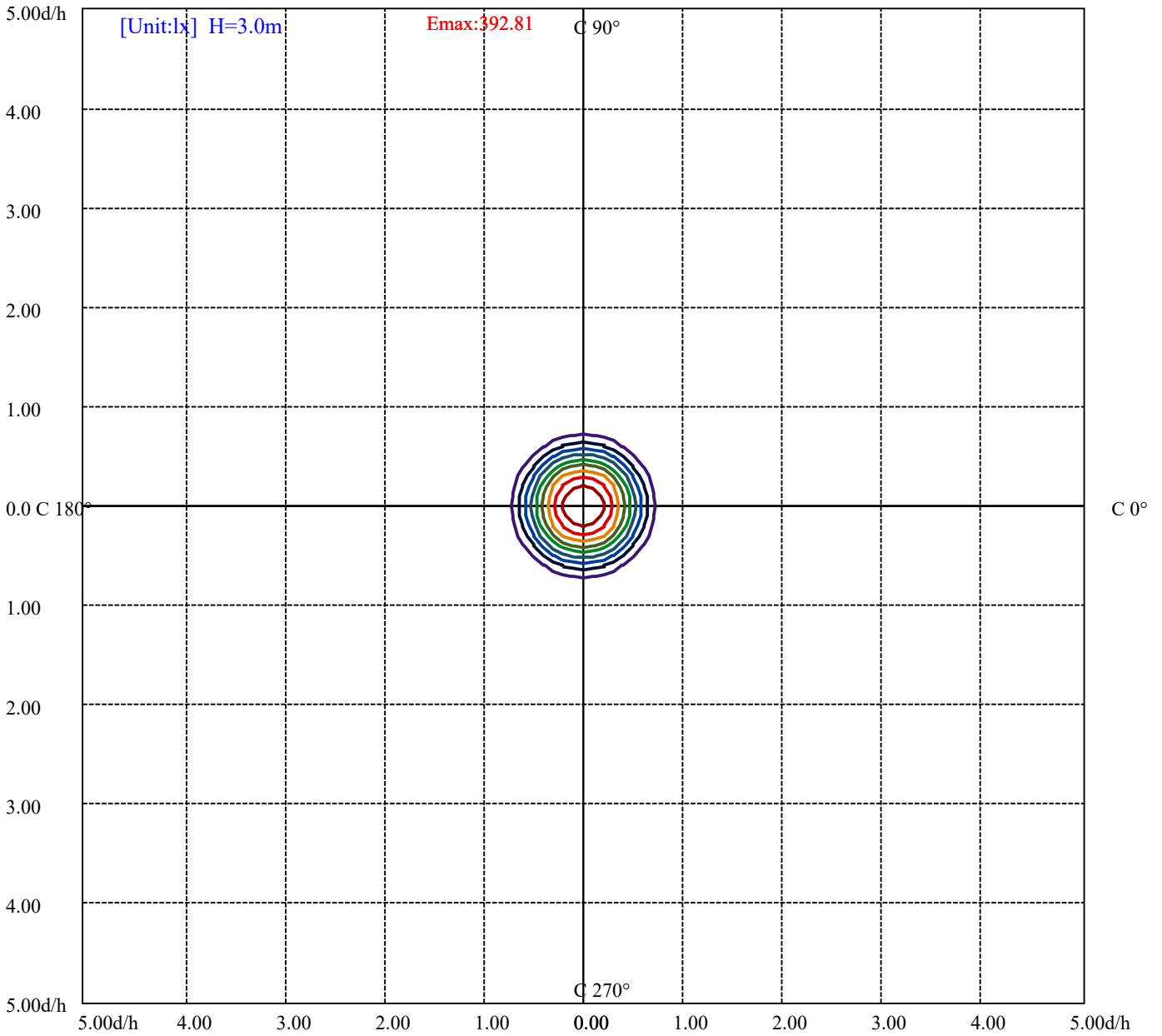
House

[Unit:cd]

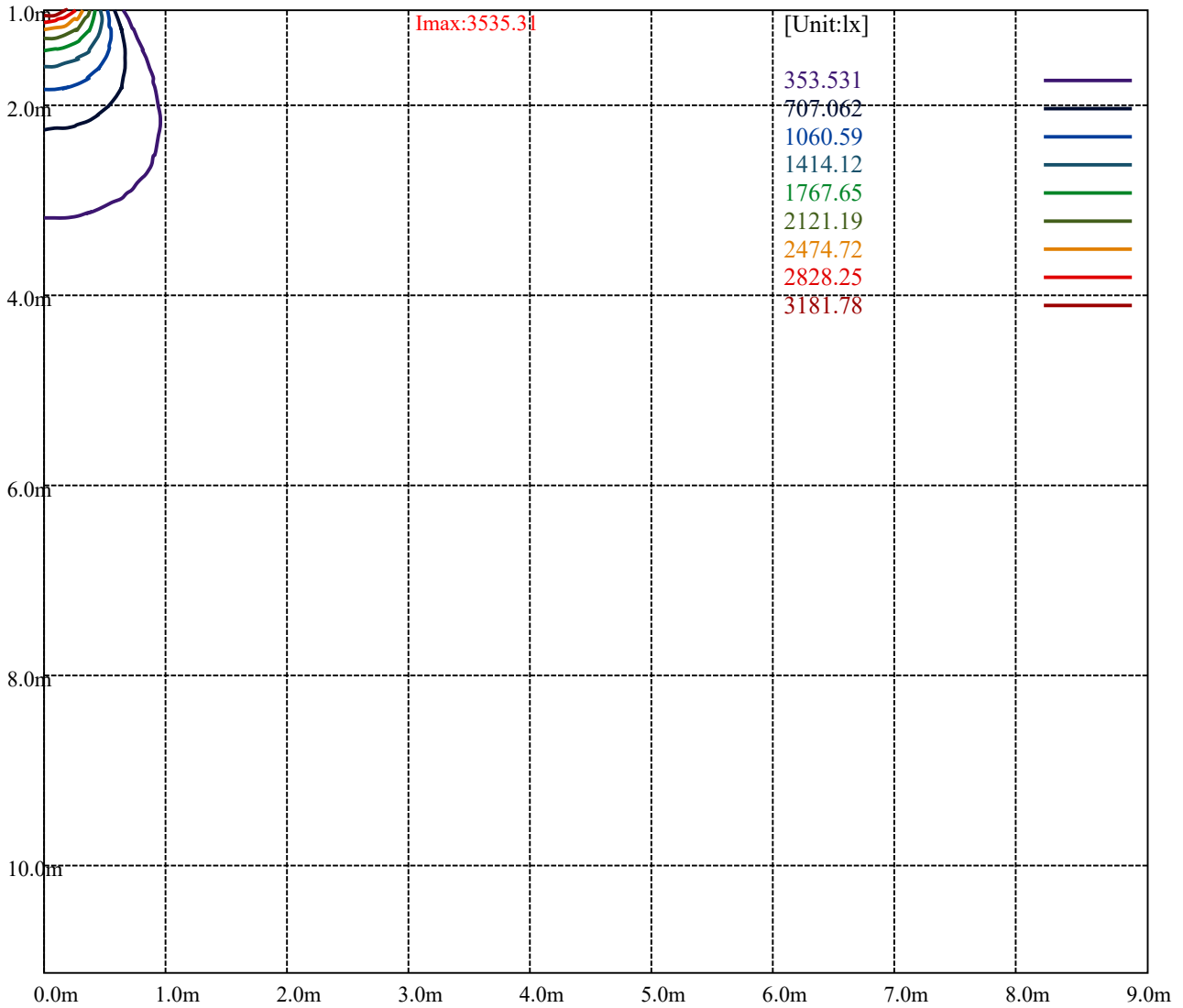
Road

Imax:3535.31

(10%Imax) 353.531	—
(20%Imax) 707.062	—
(30%Imax) 1060.59	—
(40%Imax) 1414.12	—
(50%Imax) 1767.65	—
(60%Imax) 2121.19	—
(70%Imax) 2474.72	—
(80%Imax) 2828.25	—
(90%Imax) 3181.78	—



- (10%Emax) 39.28122
- (20%Emax) 78.56245
- (30%Emax) 117.8433
- (40%Emax) 157.1245
- (50%Emax) 196.4056
- (60%Emax) 235.6878
- (70%Emax) 274.9689
- (80%Emax) 314.25
- (90%Emax) 353.5311



Luminance Table

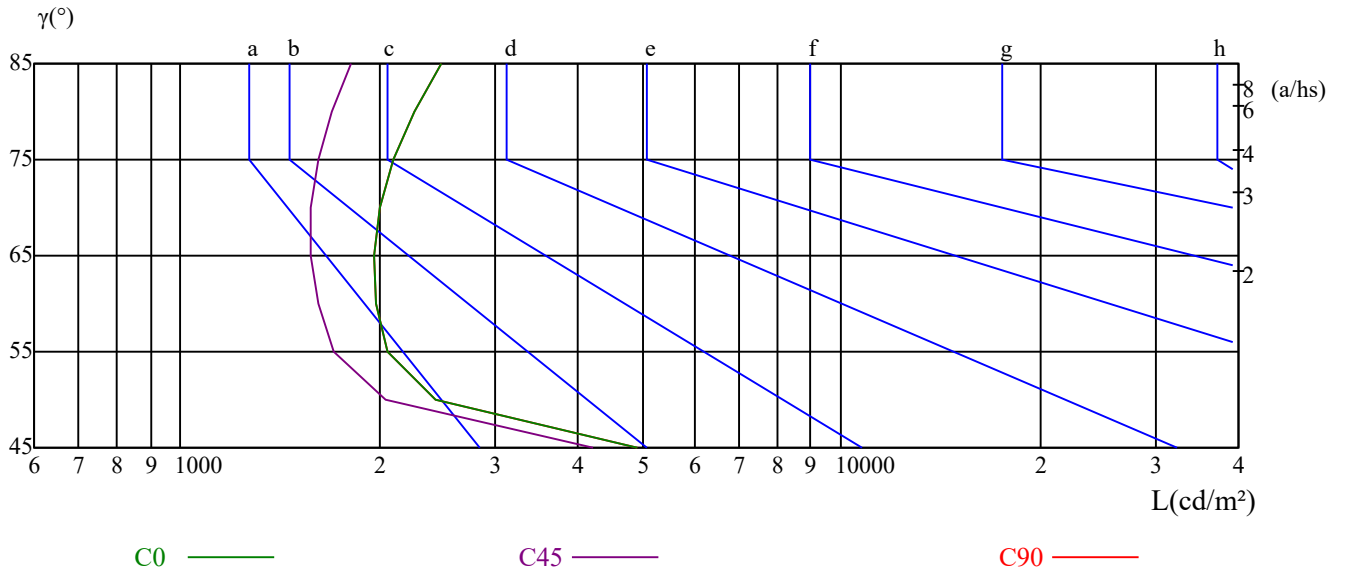
γ	45	50	55	60	65	70	75	80	85
C0	4923	2425	2060	1982	1963	2000	2099	2262	2484
C45	4203	2039	1705	1614	1571	1571	1614	1699	1815
C90	4923	2425	2060	1982	1963	2000	2099	2262	2484

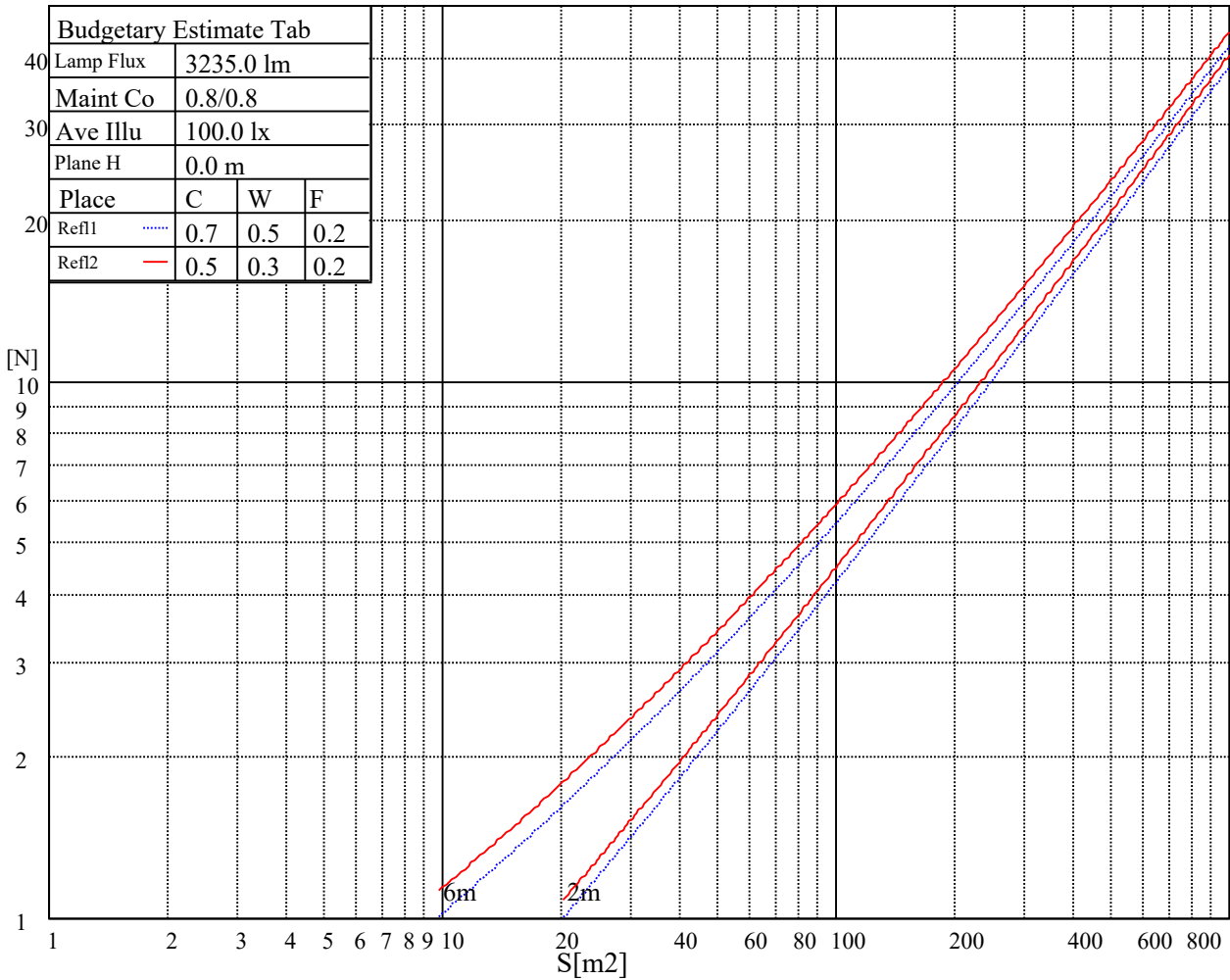
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4930	4930	4930	7622	7622	7622	22505	22505	22505

Glare Table

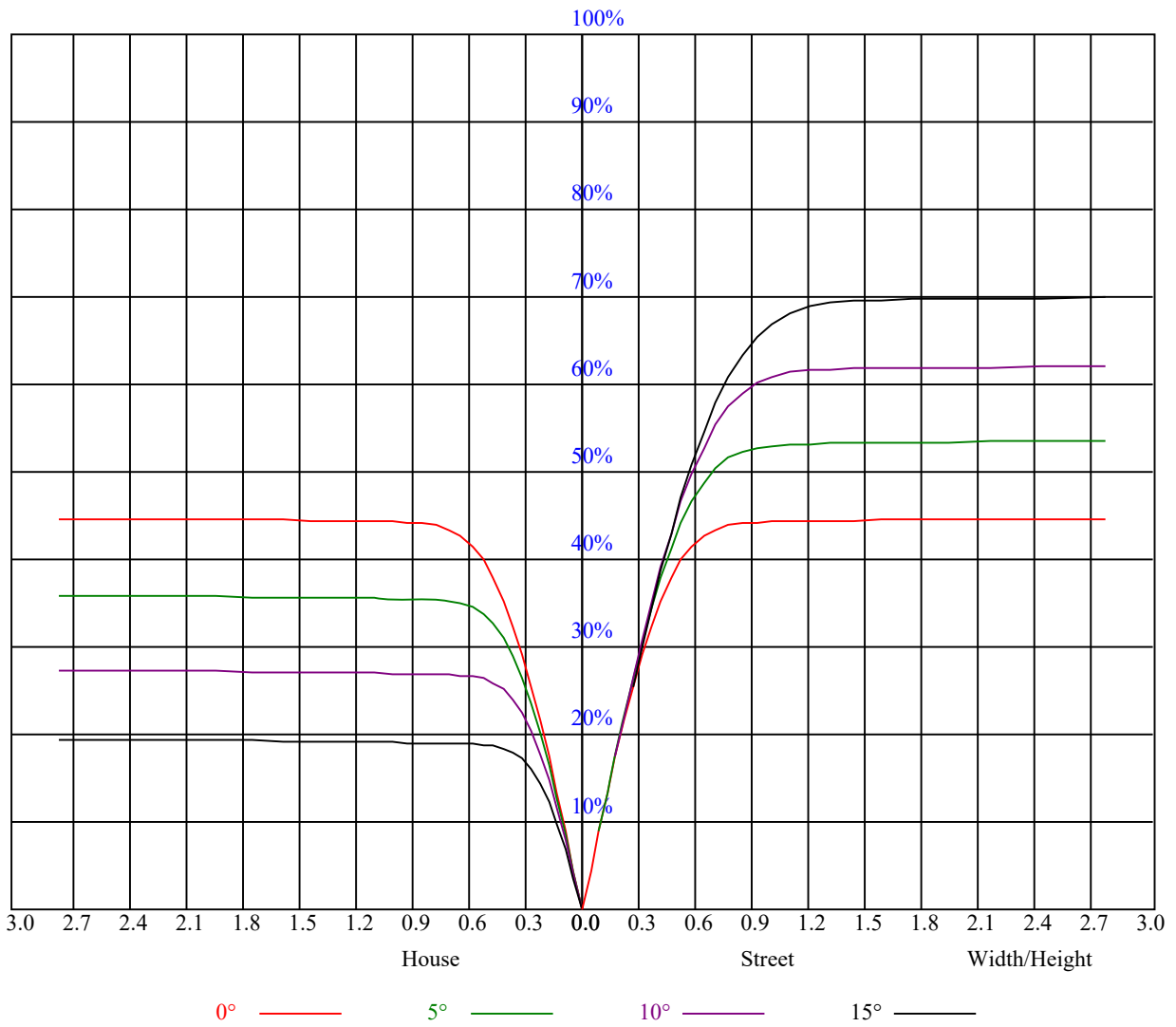
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.07	1.07	1.07	1.05	1.05	1.05	1.00	1.00	1.00	0.96	0.96	0.96	0.92	0.92	0.92	0.90
1	1.00	0.98	0.96	0.98	0.96	0.94	0.94	0.93	0.91	0.91	0.90	0.89	0.88	0.87	0.86	0.85
2	0.94	0.90	0.87	0.92	0.89	0.86	0.89	0.86	0.84	0.86	0.84	0.82	0.84	0.82	0.81	0.79
3	0.88	0.83	0.80	0.86	0.82	0.79	0.84	0.81	0.78	0.82	0.79	0.77	0.80	0.78	0.76	0.74
4	0.82	0.78	0.74	0.81	0.77	0.73	0.79	0.76	0.73	0.78	0.74	0.72	0.76	0.73	0.71	0.70
5	0.77	0.72	0.69	0.77	0.72	0.68	0.75	0.71	0.68	0.74	0.70	0.67	0.72	0.69	0.67	0.65
6	0.73	0.68	0.64	0.72	0.68	0.64	0.71	0.67	0.64	0.70	0.66	0.63	0.69	0.65	0.63	0.62
7	0.69	0.64	0.60	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
8	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	0.59	0.56	0.55
9	0.62	0.57	0.54	0.62	0.57	0.53	0.61	0.56	0.53	0.60	0.56	0.53	0.59	0.56	0.53	0.52
10	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



Nata 3-1941-M

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	3513.15	3482.87	3372.20	3155.83	2776.49	2171.42	1285.57	328.14	58.58
45.0	3550.59	3515.35	3457.54	3343.02	3099.68	2661.43	1982.58	964.59	284.09
90.0	3539.03	3528.56	3452.04	3330.36	3071.05	2604.17	1914.31	962.50	194.68
135.0	3538.47	3523.61	3498.28	3384.32	3184.46	2756.12	2171.97	1241.52	376.04
180.0	3513.15	3545.63	3523.06	3400.28	3157.48	2707.12	2061.86	1083.29	261.68
225.0	3550.59	3561.60	3459.74	3246.68	2855.22	2209.41	1060.77	417.44	66.07
270.0	3539.03	3567.10	3479.56	3272.55	2924.05	2277.68	1417.15	476.24	67.88
315.0	3538.47	3506.54	3407.99	3146.47	2745.66	2057.46	1059.62	224.08	44.32
360.0	3513.15	3482.87	3372.20	3155.83	2776.49	2171.42	1285.57	328.14	58.58

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	20.26	15.42	13.87	13.05	12.33	12.06	11.89	11.95	11.95
45.0	44.43	18.22	14.76	13.60	12.83	12.39	12.06	12.00	11.95
90.0	44.49	18.39	14.76	13.54	12.83	12.33	12.06	11.95	11.89
135.0	69.87	22.46	15.80	14.26	13.21	12.50	12.11	11.95	11.95
180.0	50.98	19.55	15.14	13.76	12.99	12.33	11.95	11.89	11.95
225.0	19.88	15.42	13.71	13.05	12.39	12.06	12.00	11.89	11.89
270.0	20.98	15.47	13.82	13.05	12.50	12.11	11.95	12.00	12.00
315.0	18.00	14.70	13.54	12.83	12.33	12.00	12.00	11.95	11.89
360.0	20.26	15.42	13.87	13.05	12.33	12.06	11.89	11.95	11.95

C/γ(°)	90.0
0.0	11.89
45.0	11.89
90.0	11.89
135.0	11.95
180.0	11.89
225.0	11.89
270.0	11.89
315.0	11.89
360.0	11.89