
NATA

LumCAT: 2-1568-M	
Luminaire: BJB 47.319.2344	
Report No: NT20170617004	Voltage(V): 34.4000
Test No: GC20170617004	Current(A): 0.5000
LampCAT: Certaflux SLM 1208 L14 G1	Power (W): 17.2000
Lamp flux(lm): 2401.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 70	Width(mm): 70
Phm Type: C	Height(mm): 41

Photometric Results

Lumens(lm): 2224.76
Efficiency(%): 92.66%
Lumens(lm)/Power(W): 129.35
Central intensity(cd): 4640.841
Maximum intensity(cd): 4640.841
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=37.4
[C90/270]Total=37.4
Field angle(10%Imax): [C0/180]Total=72.0
[C90/270]Total=72.0
Maximum s/h(1/2): C0_180=0.62 C90_270=0.62
Maximum s/h(1/4): C0_180=0.60 C90_270=0.60
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 92.66%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.711%

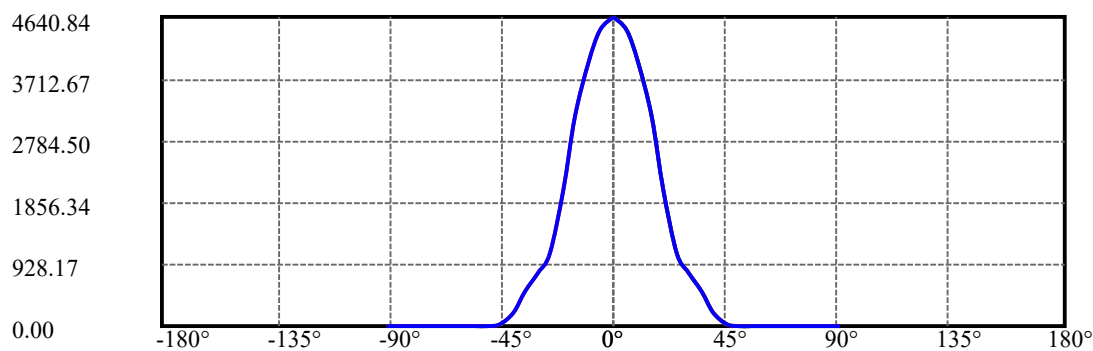
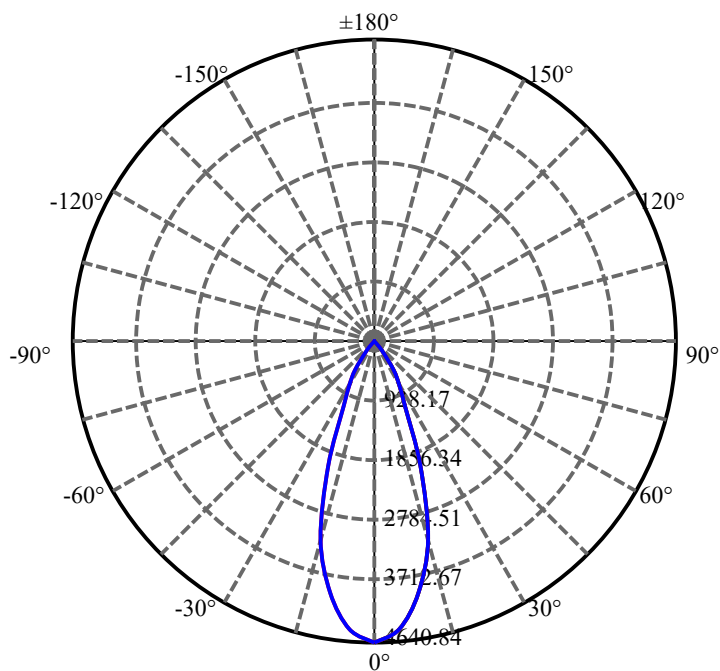
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4640.842	0.000	0	.000%	.000%
5.0	4445.323	108.623	108.623	4.524%	4.882%
10.0	3945.892	300.180	408.803	12.502%	18.375%
15.0	3143.101	420.514	829.317	17.514%	37.277%
20.0	2035.986	426.830	1256.146	17.777%	56.462%
25.0	1099.229	328.826	1584.973	13.695%	71.243%
30.0	795.496	239.779	1824.752	9.987%	82.020%
35.0	533.207	195.661	2020.413	8.149%	90.815%
40.0	195.085	121.510	2141.923	5.061%	96.277%
45.0	16.909	39.253	2181.175	1.635%	98.041%
50.0	11.225	5.685	2186.86	.237%	98.297%
55.0	10.103	4.637	2191.497	.193%	98.505%
60.0	9.697	4.577	2196.074	.191%	98.711%
65.0	9.408	4.644	2200.718	.193%	98.919%
70.0	9.194	4.710	2205.429	.196%	99.131%
75.0	9.057	4.771	2210.199	.199%	99.346%
80.0	8.967	4.823	2215.022	.201%	99.562%
85.0	8.926	4.862	2219.884	.203%	99.781%
90.0	8.871	4.873	2224.757	.203%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1824.75	76.00%	82.02%
0-40	2141.92	89.21%	96.28%
0-60	2196.07	91.46%	98.71%
0-90	2219.88	92.46%	99.78%
0-120	2219.88	92.46%	99.78%
0-180	2224.76	92.66%	100.00%
60-90	28.39	1.18%	1.28%
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%
0-29.06	1779.81	74.13%	80.00%

ZONAL LUMEN SUMMARY

0-10	408.80
10-20	847.34
20-30	568.61
30-40	317.17
40-50	44.94
50-60	9.21
60-70	9.35
70-80	9.59
80-90	4.86
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:

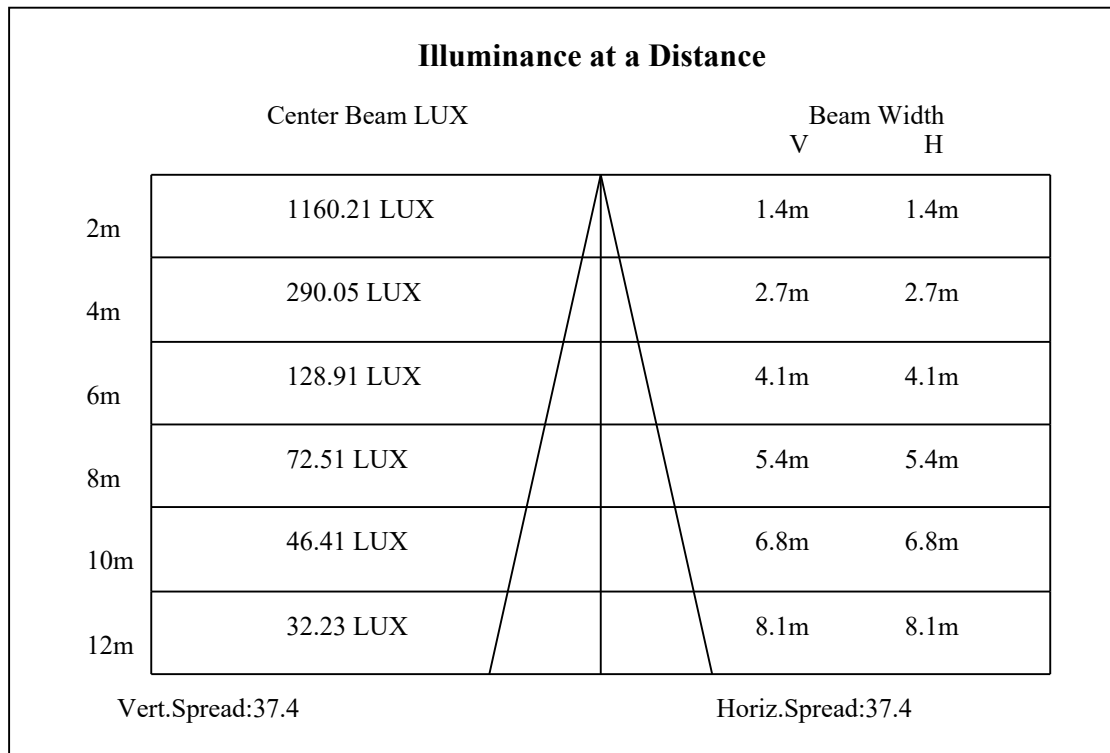
C90/C270:

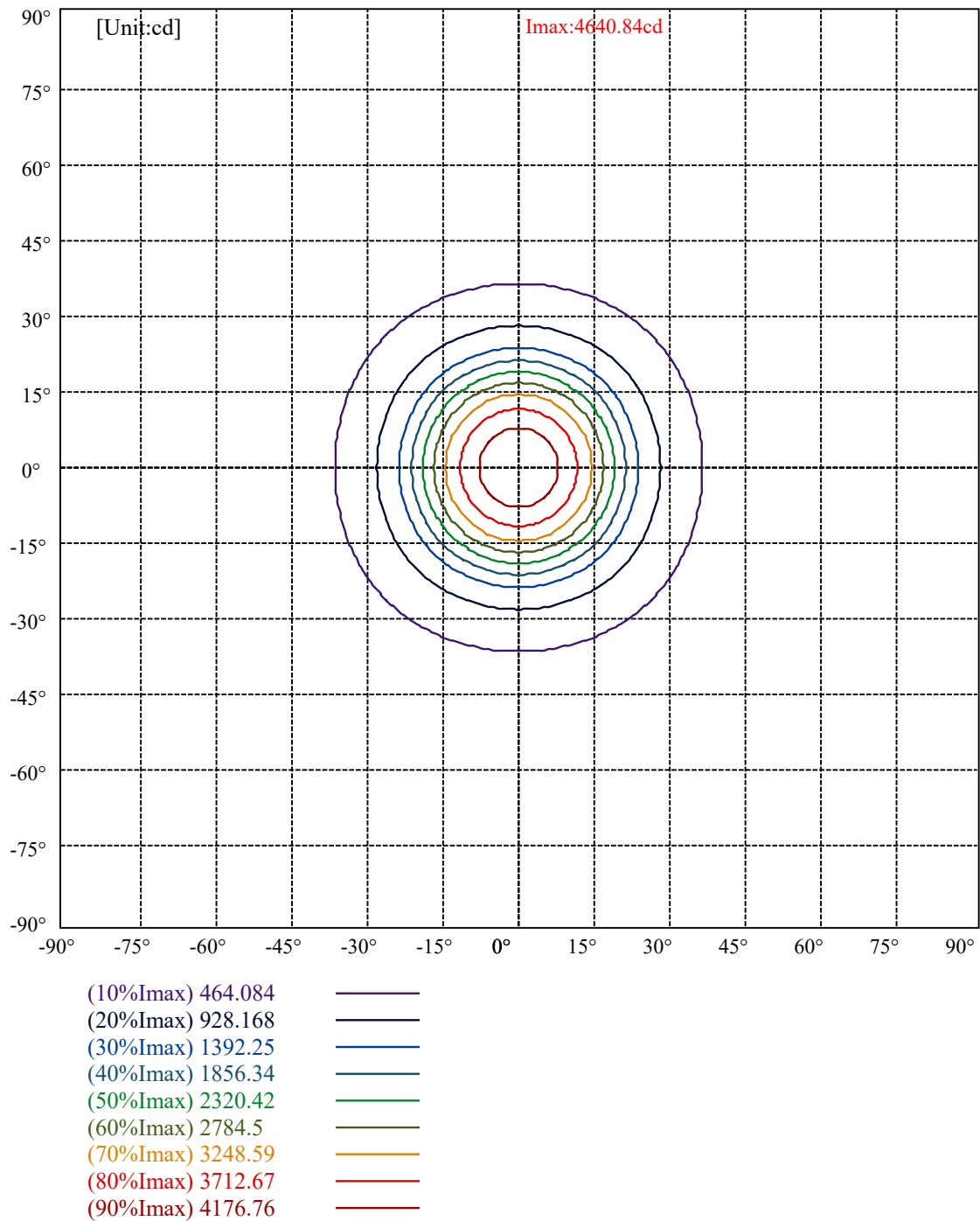
Field angle(10%Imax):C0/180Left:36.0 Right:36.0

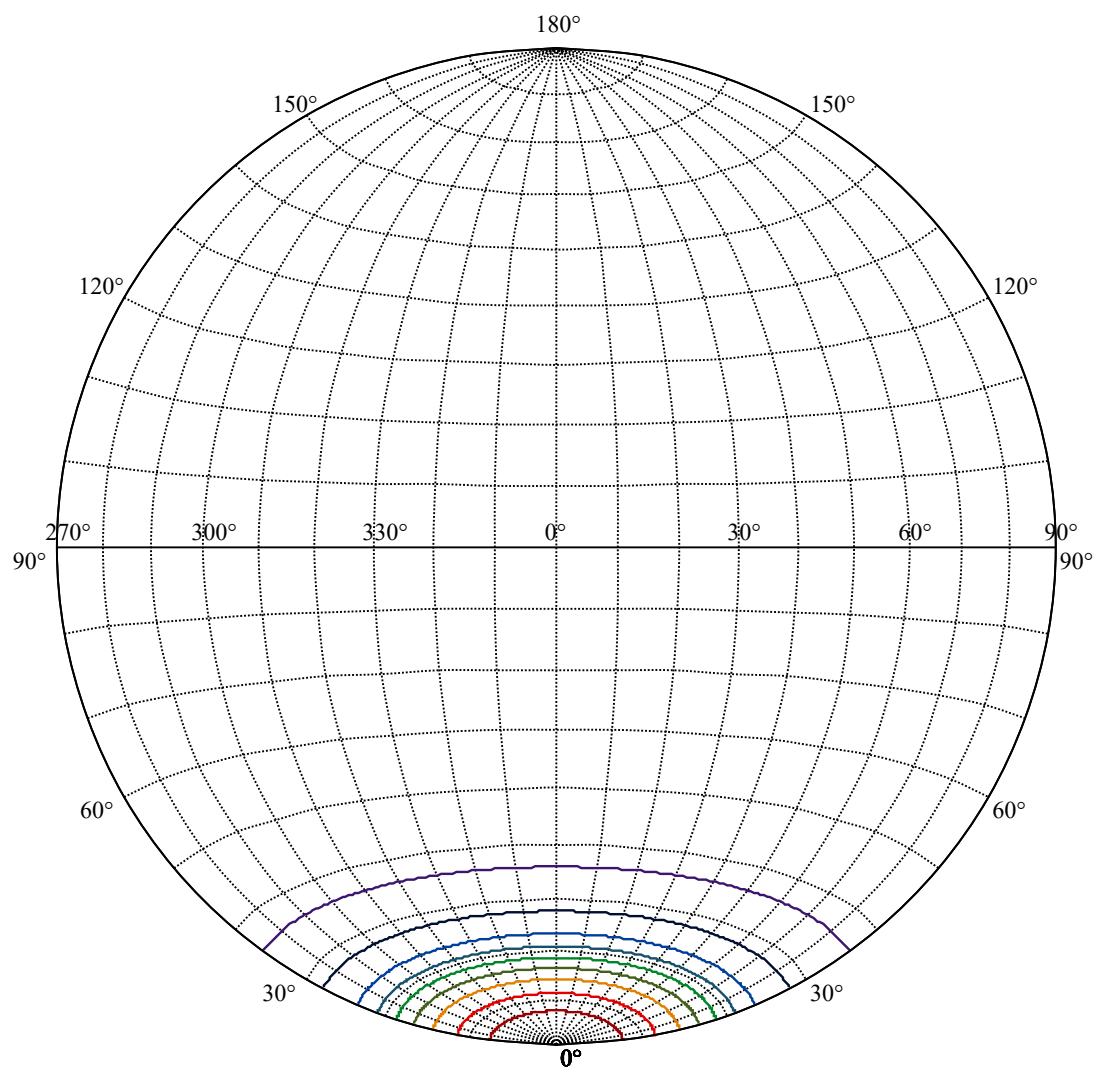
:C90/270Left:36.0 Right:36.0

Beam Angle(50%Imax):C0/180Left:18.7 Right:18.7

:C90/270Left:18.7 Right:18.7







House

[Unit:cd]

Road

Imax:4640.84

(10%Imax) 464.084

(20%Imax) 928.168

(30%Imax) 1392.25

(40%Imax) 1856.34

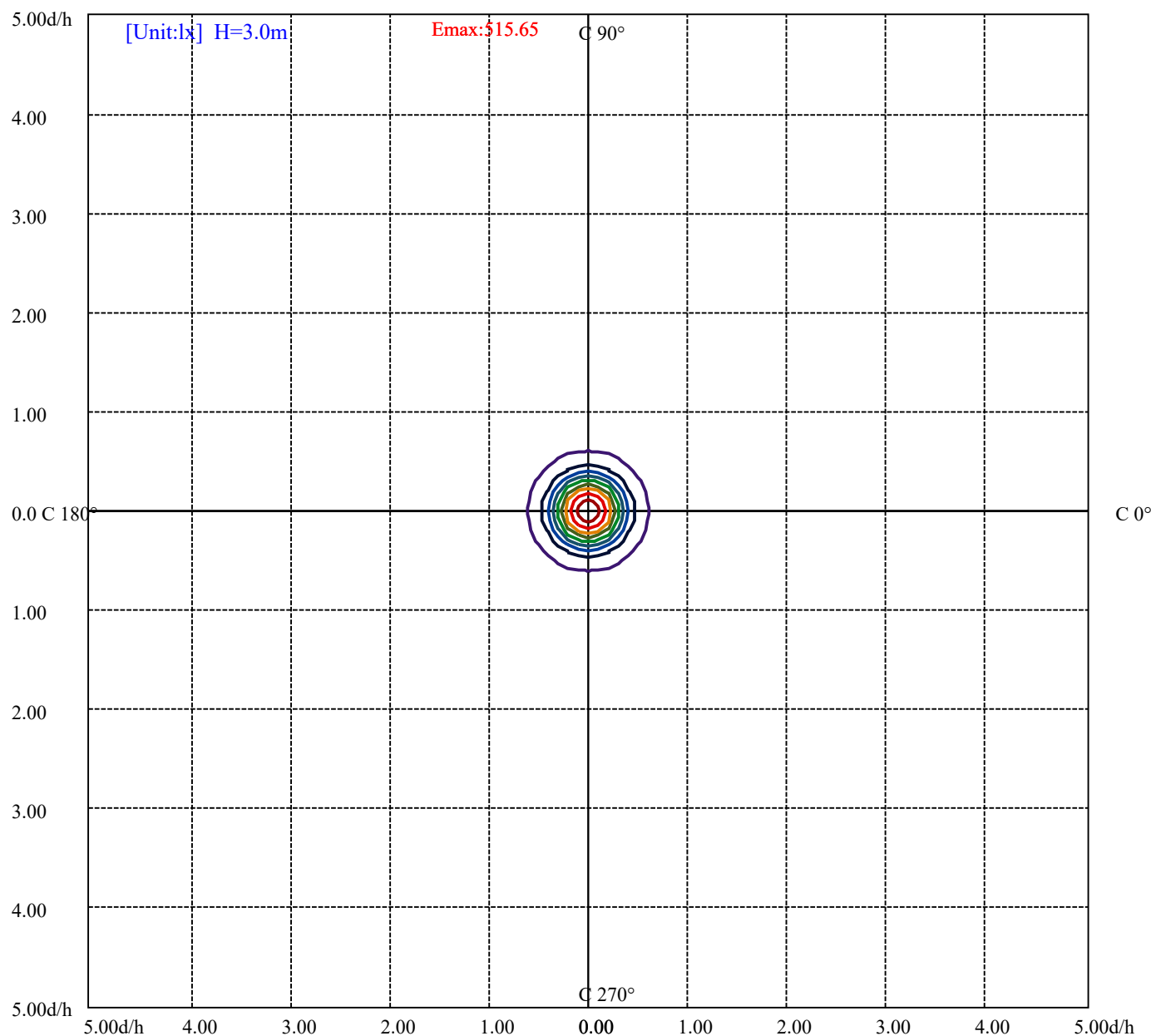
(50%Imax) 2320.42

(60%Imax) 2784.5

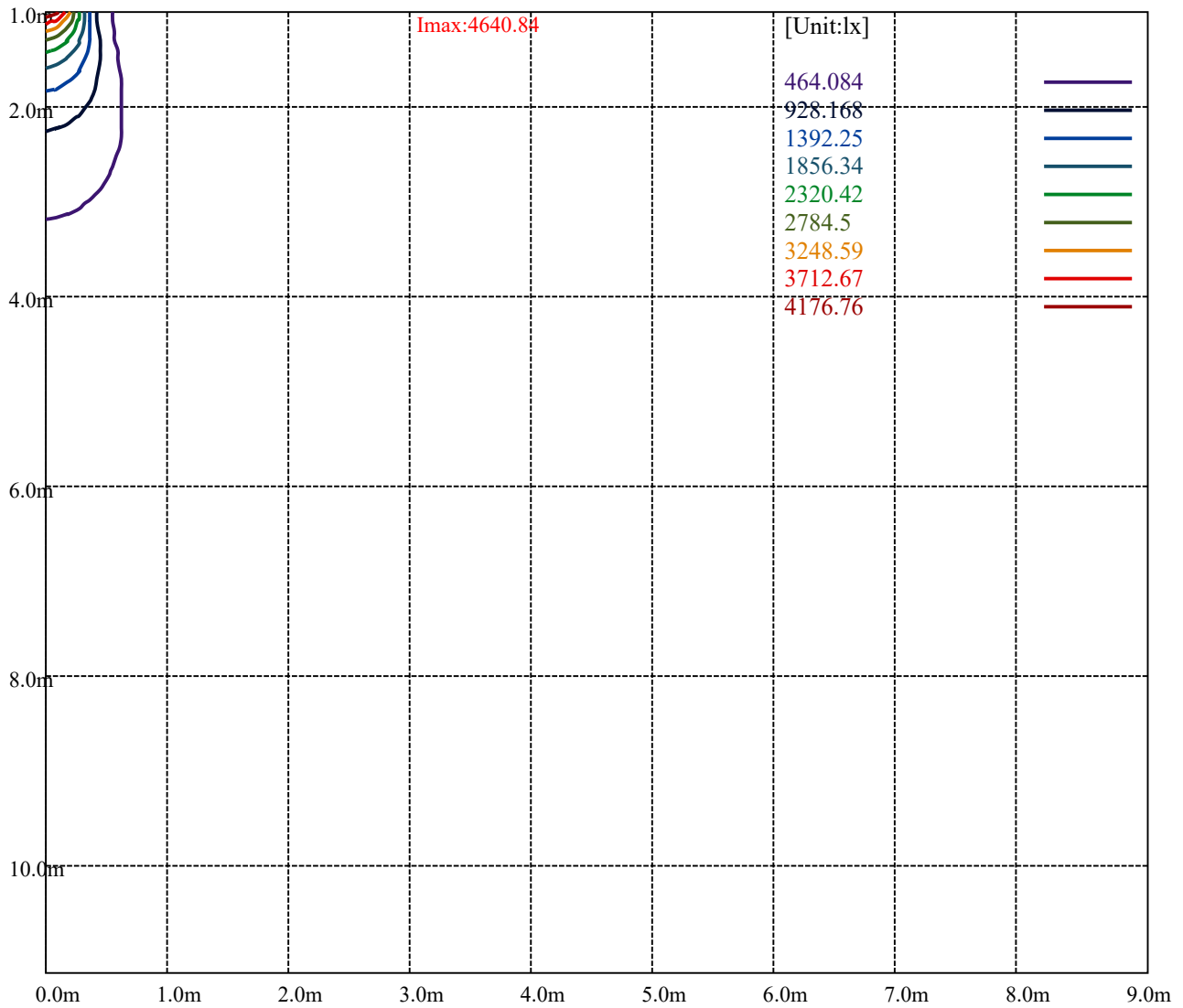
(70%Imax) 3248.59

(80%Imax) 3712.67

(90%Imax) 4176.76



(10%Emax)	51.56489	———
(20%Emax)	103.1297	———
(30%Emax)	154.6944	———
(40%Emax)	206.2589	———
(50%Emax)	257.8244	———
(60%Emax)	309.3889	———
(70%Emax)	360.9533	———
(80%Emax)	412.5189	———
(90%Emax)	464.0833	———



Luminance Table

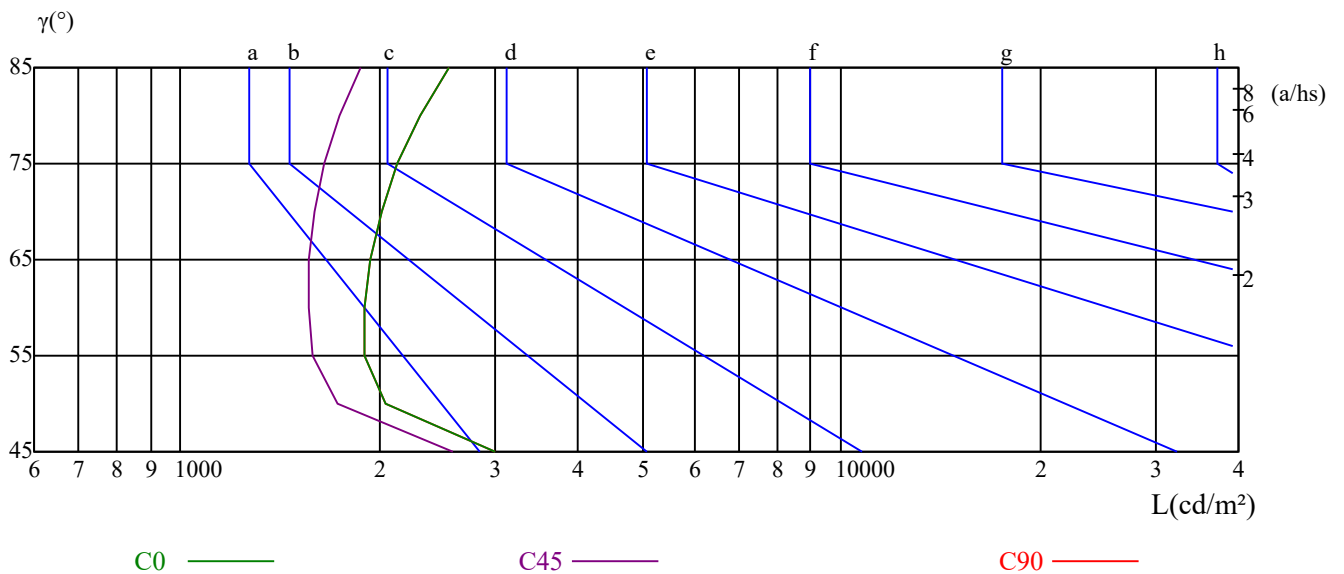
γ	45	50	55	60	65	70	75	80	85
C0	2997	2037	1894	1895	1935	2012	2134	2309	2554
C45	2584	1730	1584	1558	1563	1594	1654	1744	1873
C90	2997	2037	1894	1895	1935	2012	2134	2309	2554

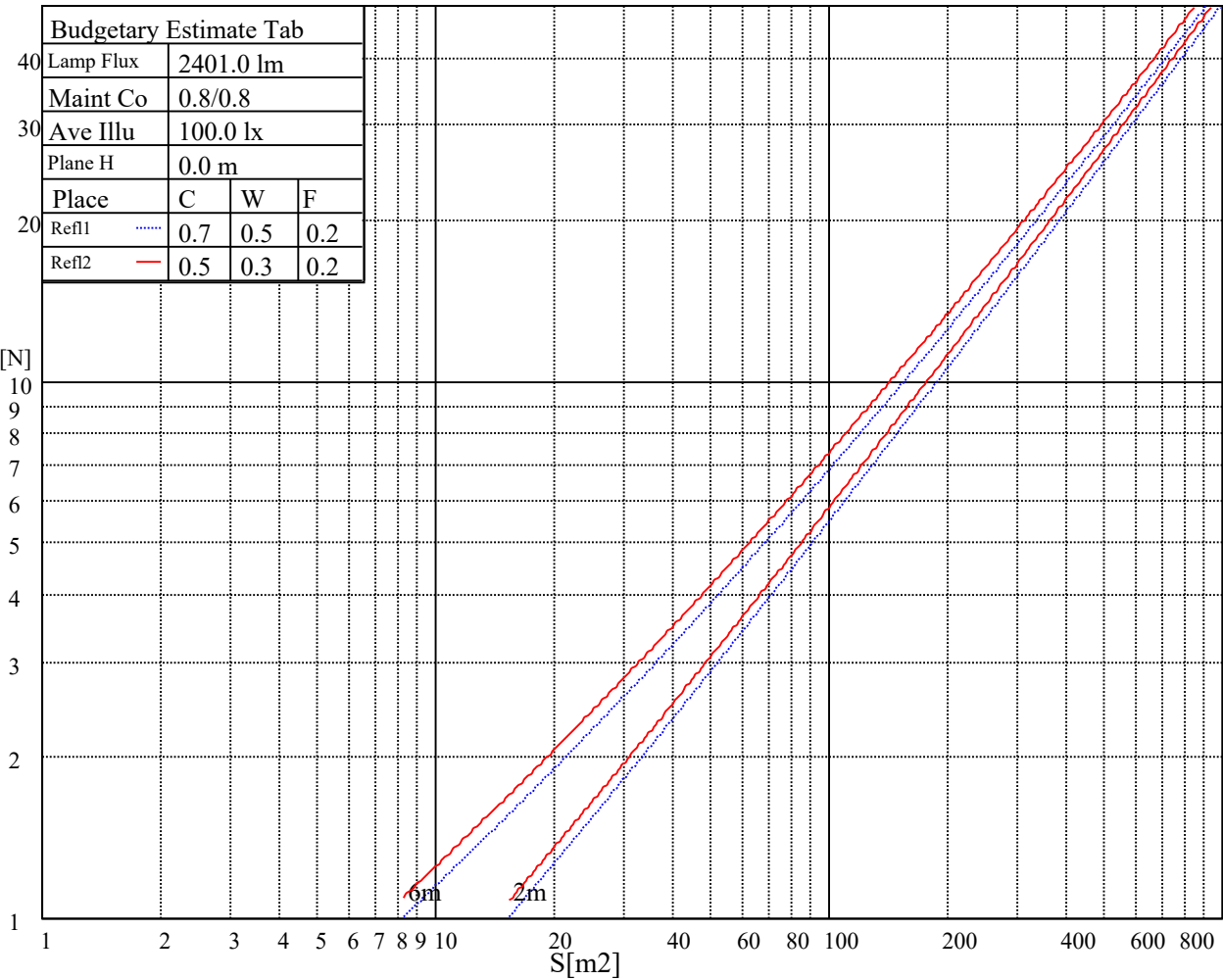
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4543	4543	4543	7141	7141	7141	20901	20901	20901

Glare Table

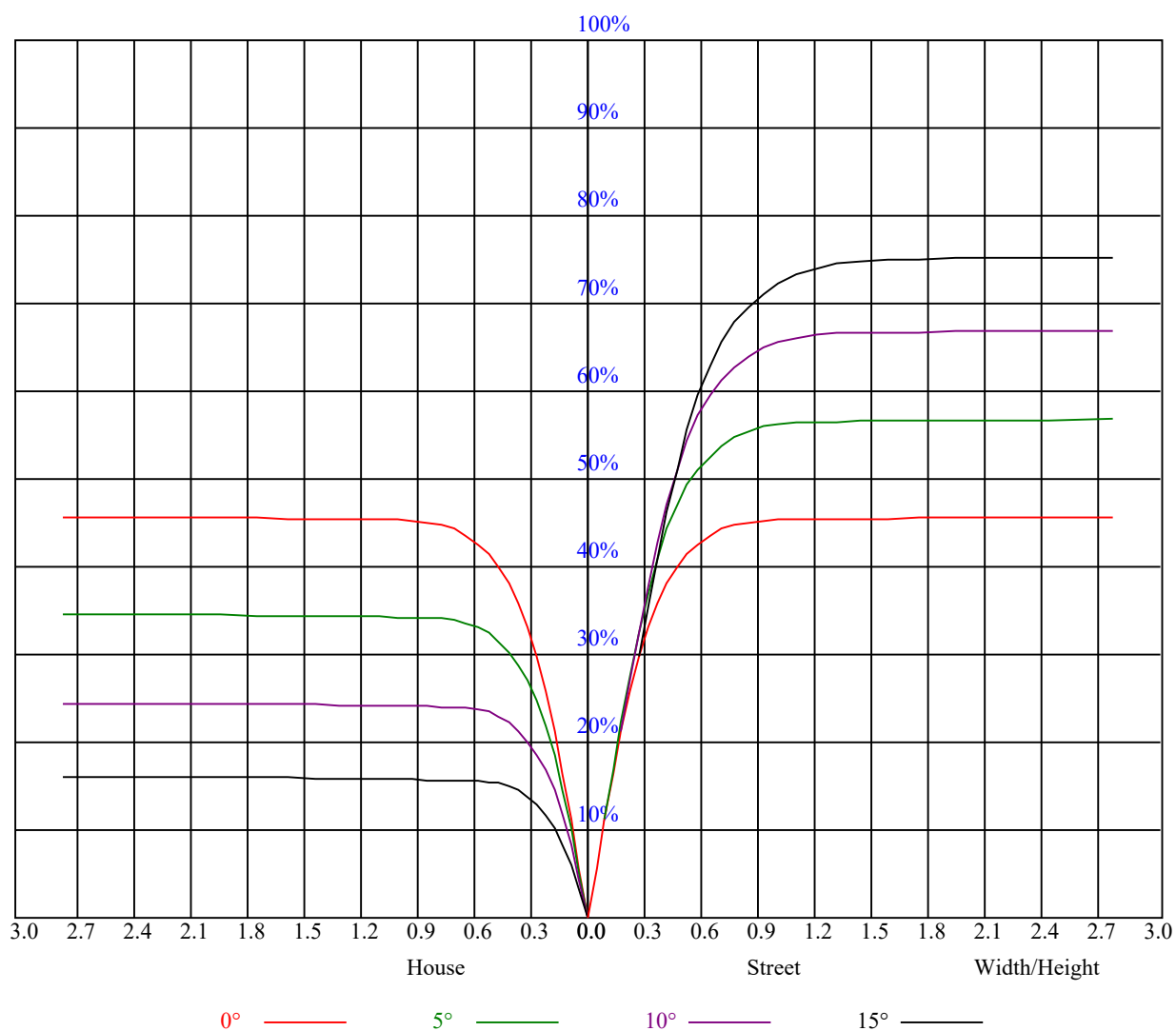
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

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	1.10	1.10	1.10	1.08	1.08	1.08	1.03	1.03	1.03	0.99	0.99	0.99	0.95	0.95	0.95	0.93
1	1.03	1.01	0.99	1.01	0.99	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.87
2	0.97	0.94	0.91	0.95	0.92	0.90	0.92	0.90	0.88	0.90	0.88	0.86	0.87	0.86	0.84	0.83
3	0.91	0.87	0.84	0.90	0.86	0.83	0.88	0.85	0.82	0.86	0.83	0.81	0.84	0.81	0.80	0.78
4	0.86	0.82	0.78	0.85	0.81	0.78	0.84	0.80	0.77	0.82	0.79	0.76	0.80	0.77	0.75	0.74
5	0.82	0.77	0.74	0.81	0.77	0.73	0.80	0.76	0.73	0.78	0.75	0.72	0.77	0.74	0.72	0.70
6	0.78	0.73	0.70	0.77	0.73	0.69	0.76	0.72	0.69	0.75	0.71	0.68	0.74	0.70	0.68	0.67
7	0.74	0.69	0.66	0.74	0.69	0.66	0.73	0.68	0.65	0.71	0.68	0.65	0.71	0.67	0.65	0.64
8	0.71	0.66	0.63	0.70	0.66	0.63	0.69	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.62	0.61
9	0.68	0.63	0.60	0.67	0.63	0.60	0.67	0.62	0.59	0.66	0.62	0.59	0.65	0.62	0.59	0.58
10	0.65	0.60	0.57	0.65	0.60	0.57	0.64	0.60	0.57	0.63	0.59	0.57	0.63	0.59	0.57	0.55



NATA 2-1568-M

Intensity data(cd)										Appendix Page: 14 Total:14	
C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0		
0.0	4644.56	4510.22	4062.61	3363.95	2280.99	1204.63	822.54	608.37	294.00		
45.0	4628.59	4518.48	4081.88	3374.96	2299.71	1210.14	842.36	620.49	282.44		
90.0	4644.01	4425.43	3924.42	3093.07	1939.09	1075.64	788.85	519.13	127.24		
135.0	4646.21	4500.86	4010.31	3214.74	2160.41	1148.48	809.88	553.32	299.51		
180.0	4644.56	4396.80	3837.43	2958.18	1874.12	1016.40	768.75	459.61	81.37		
225.0	4628.59	4354.96	3795.59	2884.96	1736.48	985.34	757.19	436.54	79.17		
270.0	4644.01	4429.29	3962.96	3170.70	2051.95	1114.89	793.91	557.72	280.24		
315.0	4646.21	4426.53	3891.94	3084.26	1945.14	1038.31	780.48	510.48	116.72		
360.0	4644.56	4510.22	4062.61	3363.95	2280.99	1204.63	822.54	608.37	294.00		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	18.55	11.56	10.13	9.69	9.47	9.19	9.03	9.03	8.97		
45.0	18.44	12.28	10.19	9.74	9.41	9.25	9.03	8.97	8.92		
90.0	16.96	10.63	9.97	9.63	9.30	9.19	8.97	8.97	8.86		
135.0	16.90	11.07	10.08	9.69	9.41	9.25	9.08	8.97	8.97		
180.0	14.92	11.07	10.08	9.69	9.41	9.19	9.14	9.03	9.08		
225.0	14.98	10.90	10.19	9.80	9.47	9.19	9.08	8.92	8.86		
270.0	18.50	11.29	10.19	9.74	9.47	9.19	9.08	8.92	8.86		
315.0	16.02	11.01	10.02	9.58	9.30	9.08	9.03	8.92	8.86		
360.0	18.55	11.56	10.13	9.69	9.47	9.19	9.03	9.03	8.97		
C/γ(°)	90.0										
0.0	8.92										
45.0	8.86										
90.0	8.86										
135.0	8.81										
180.0	8.86										
225.0	8.92										
270.0	8.86										
315.0	8.86										
360.0	8.92										