
Nata

LumCAT: 2-1569-M	
Luminaire: BJB47.319.2021	
Report No: NT2017070311	Voltage(V): 34.5600
Test No: GC2017070311	Current(A): 0.5000
LampCAT: SEOUL SAWx15	Power (W): 17.2800
Lamp flux(lm): 2402.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 70	Width(mm): 70
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 2153.98
Efficiency(%): 89.67%
Lumens(lm)/Power(W): 124.65
Central intensity(cd): 2382.612
Maximum intensity(cd): 2382.612
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=61.4
[C90/270]Total=61.4
Field angle(10%Imax): [C0/180]Total=79.6
[C90/270]Total=79.6
Maximum s/h(1/2): C0_180=0.99 C90_270=0.99
Maximum s/h(1/4): C0_180=0.90 C90_270=0.90
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 90.18%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.207%

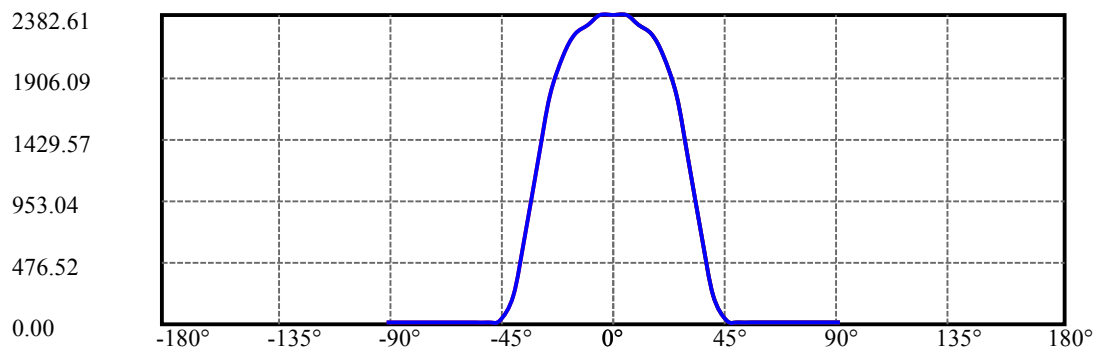
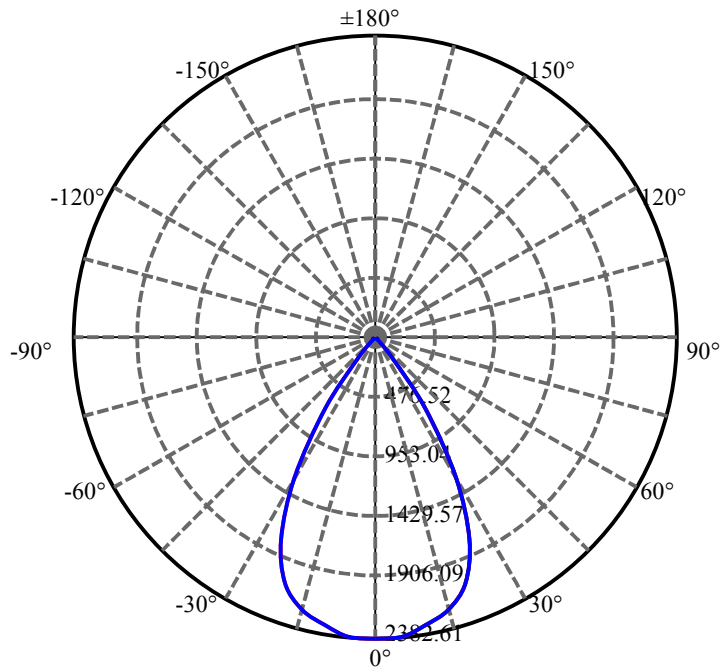
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2382.612	14.248	14.248	.593%	.661%
5.0	2376.880	113.551	127.8	4.727%	5.933%
10.0	2313.047	220.163	347.963	9.166%	16.154%
15.0	2227.455	316.006	663.968	13.156%	30.825%
20.0	2072.132	388.471	1052.439	16.173%	48.860%
25.0	1763.377	408.491	1460.93	17.006%	67.825%
30.0	1275.089	349.462	1810.393	14.549%	84.049%
35.0	676.723	212.761	2023.154	8.858%	93.926%
40.0	220.937	77.844	2100.998	3.241%	97.540%
45.0	25.822	10.009	2111.006	.417%	98.005%
50.0	14.358	6.029	2117.035	.251%	98.285%
55.0	11.576	5.198	2122.233	.216%	98.526%
60.0	10.741	5.099	2127.331	.212%	98.763%
65.0	10.073	5.004	2132.335	.208%	98.995%
70.0	9.516	4.902	2137.237	.204%	99.223%
75.0	9.071	4.803	2142.04	.200%	99.446%
80.0	8.849	4.777	2146.816	.199%	99.667%
85.0	8.737	4.771	2151.587	.199%	99.889%
90.0	8.737	2.395	2153.982	.100%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1810.39	75.37%	84.05%
0-40	2101.00	87.47%	97.54%
0-60	2127.33	88.56%	98.76%
0-90	2151.59	89.57%	99.89%
0-120	2151.59	89.57%	99.89%
0-180	2153.98	89.67%	100.00%
60-90	29.35	1.22%	1.36%
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%
0-28.75	1723.19	71.74%	80.00%

ZONAL LUMEN SUMMARY

0-10	347.96
10-20	704.48
20-30	757.95
30-40	290.60
40-50	16.04
50-60	10.30
60-70	9.91
70-80	9.58
80-90	4.77
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



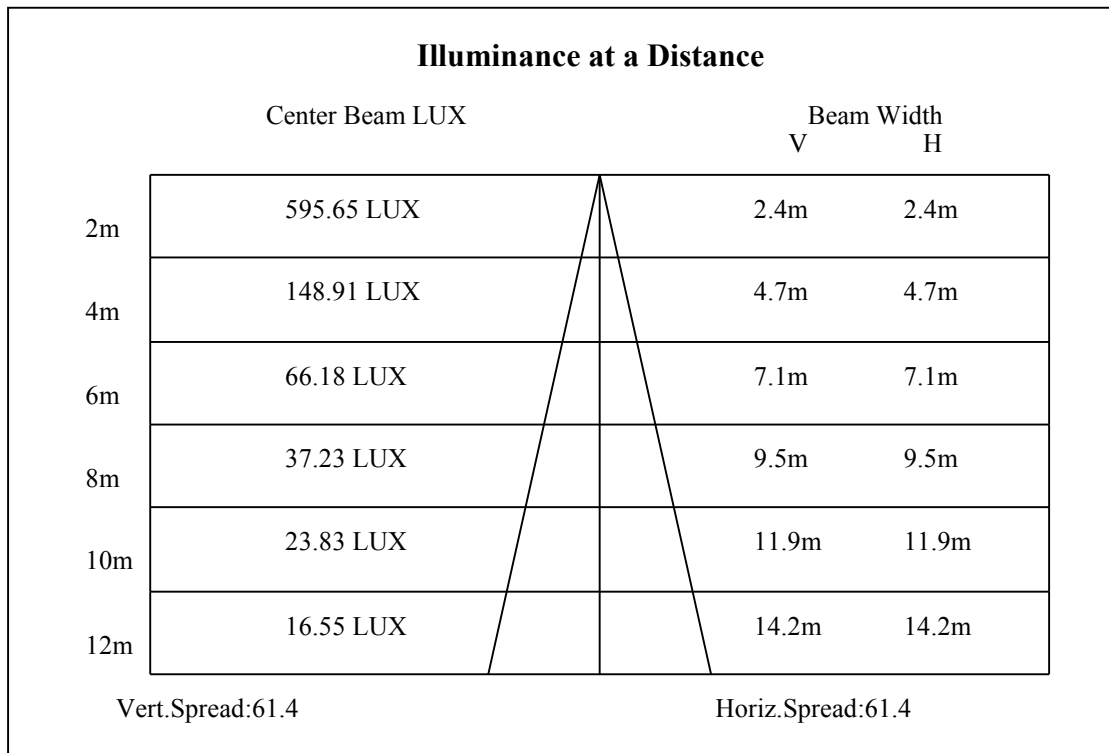
C0(Max): —————

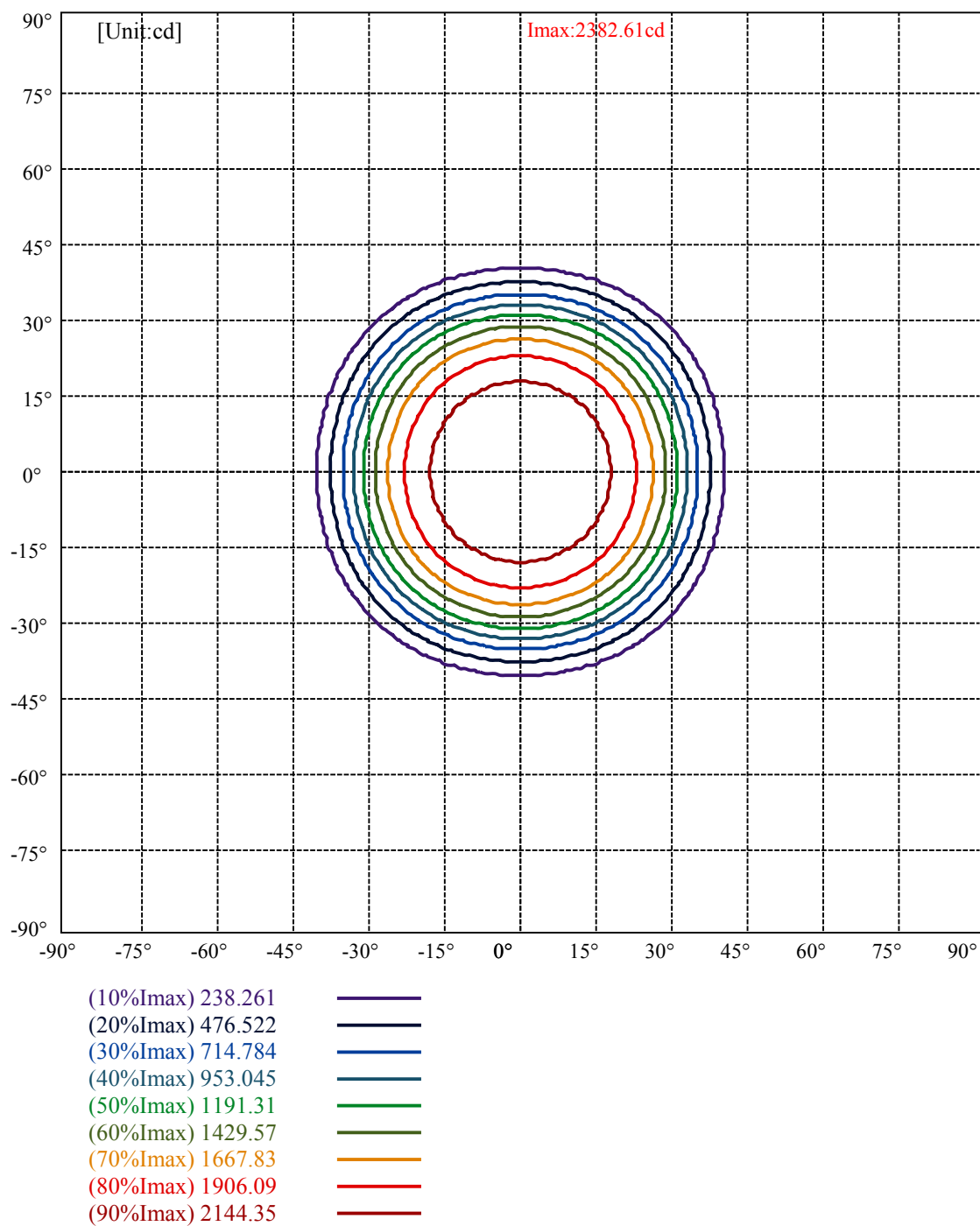
C0/C180: —————

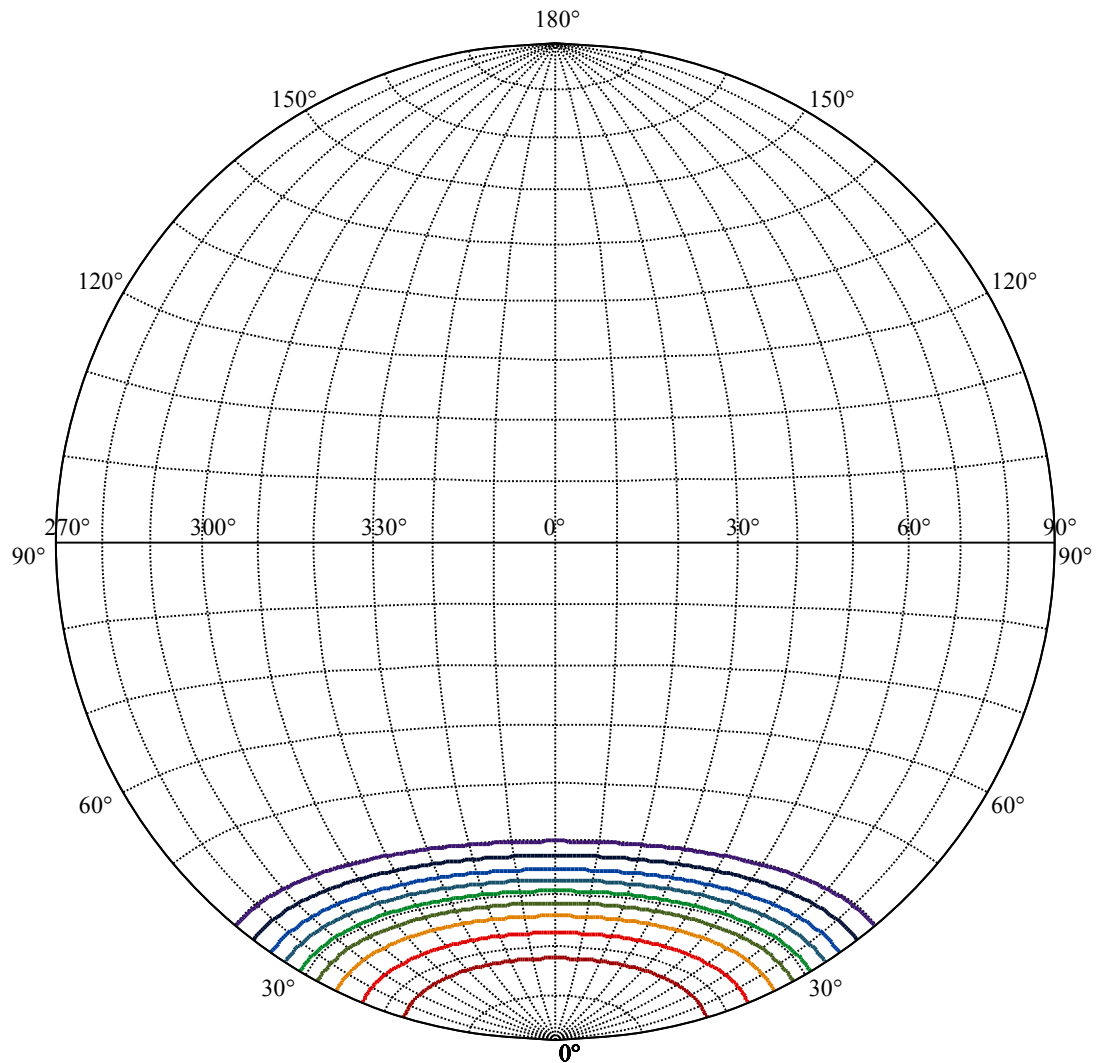
C90/C270: —————

Field angle(10%Imax):C0/180Left:39.8 Right:39.8
:C90/270Left:39.8 Right:39.8

Beam Angle(50%Imax):C0/180Left:30.7 Right:30.7
:C90/270Left:30.7 Right:30.7







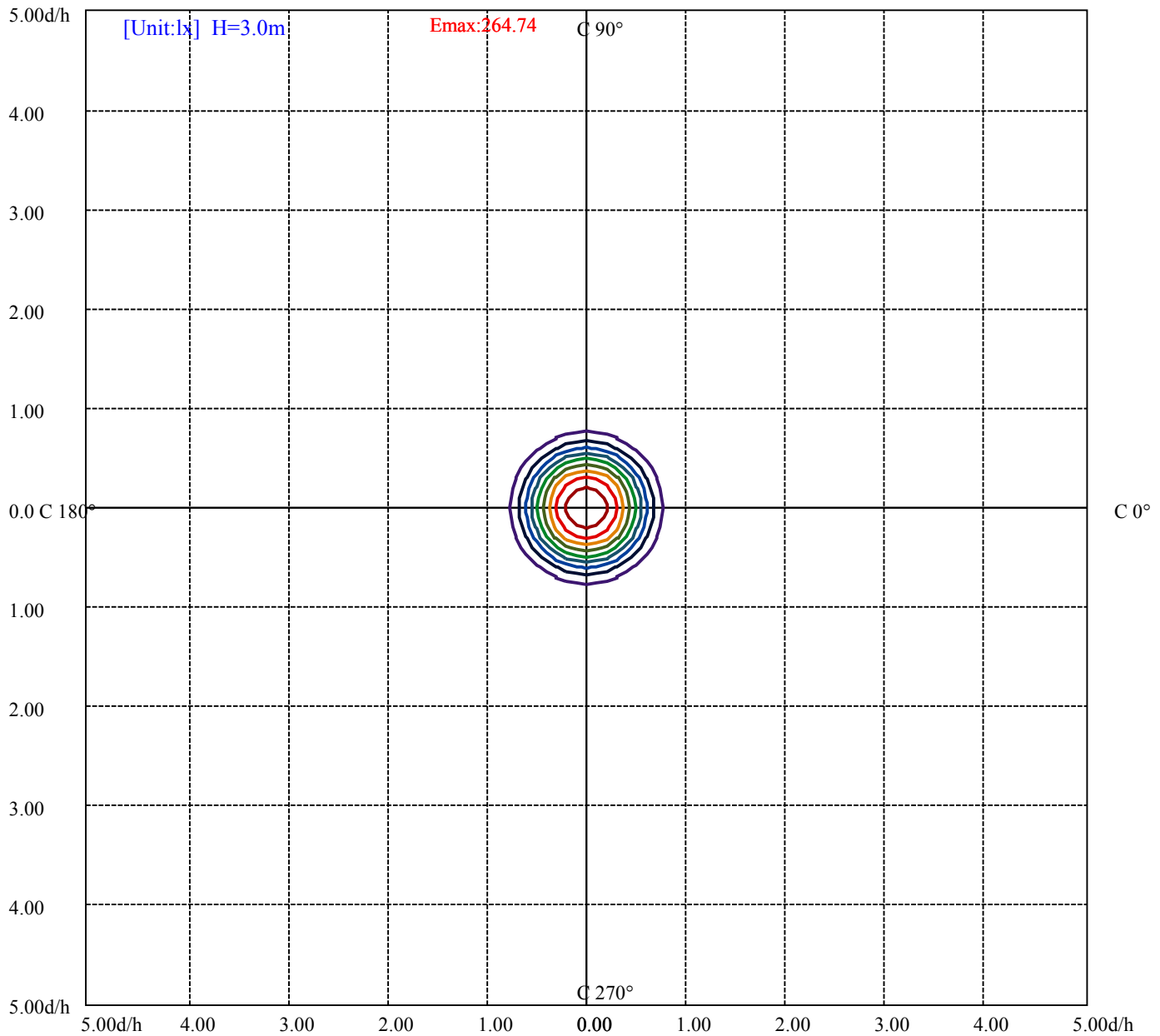
House

[Unit:cd]

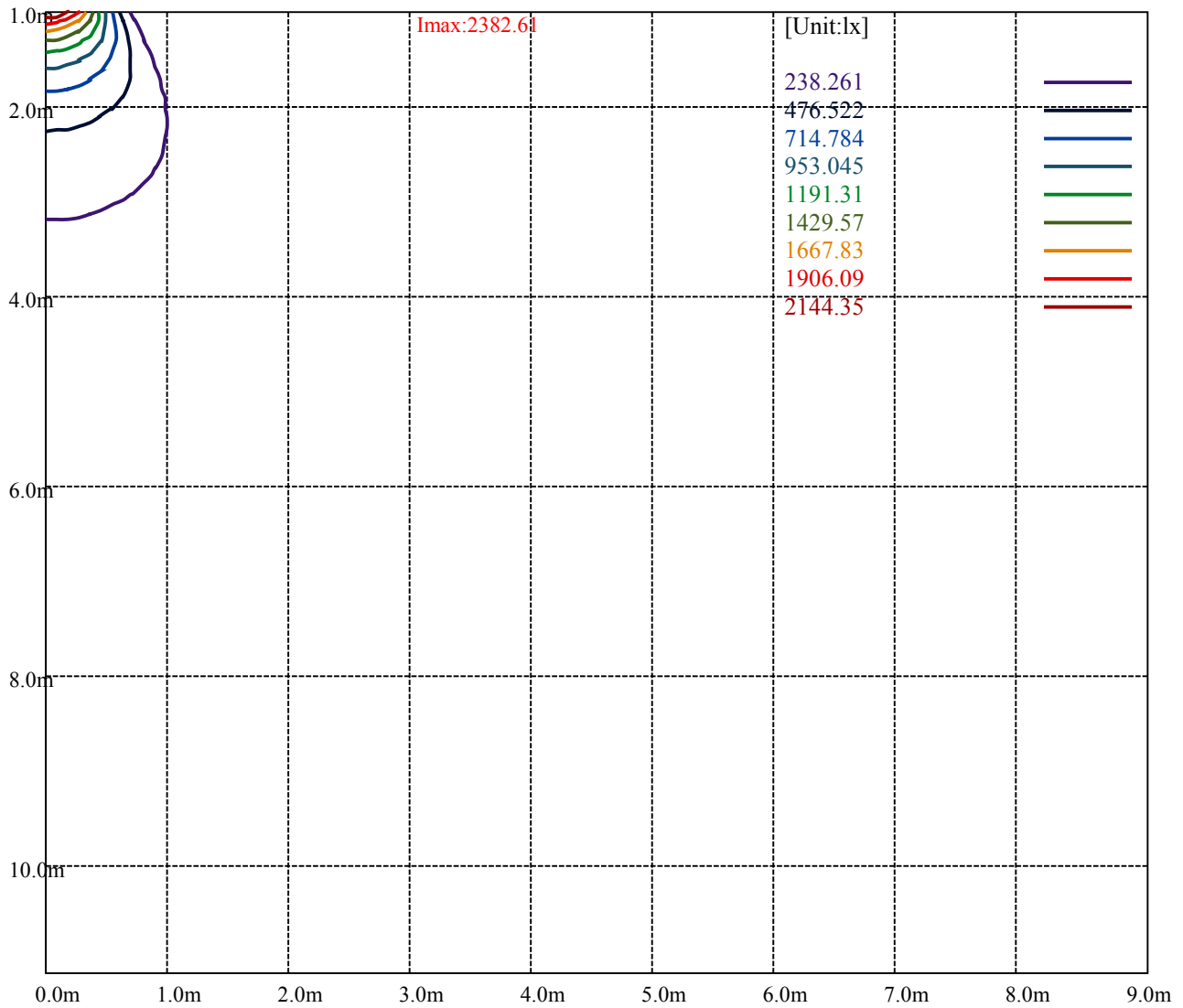
Road

Imax:2382.61

(10%Imax)	238.261	—
(20%Imax)	476.522	—
(30%Imax)	714.784	—
(40%Imax)	953.045	—
(50%Imax)	1191.31	—
(60%Imax)	1429.57	—
(70%Imax)	1667.83	—
(80%Imax)	1906.09	—
(90%Imax)	2144.35	—



(10%Emax) 26.47344	—
(20%Emax) 52.94689	—
(30%Emax) 79.42033	—
(40%Emax) 105.8939	—
(50%Emax) 132.3678	—
(60%Emax) 158.8411	—
(70%Emax) 185.3144	—
(80%Emax) 211.7878	—
(90%Emax) 238.2611	—



Luminance Table

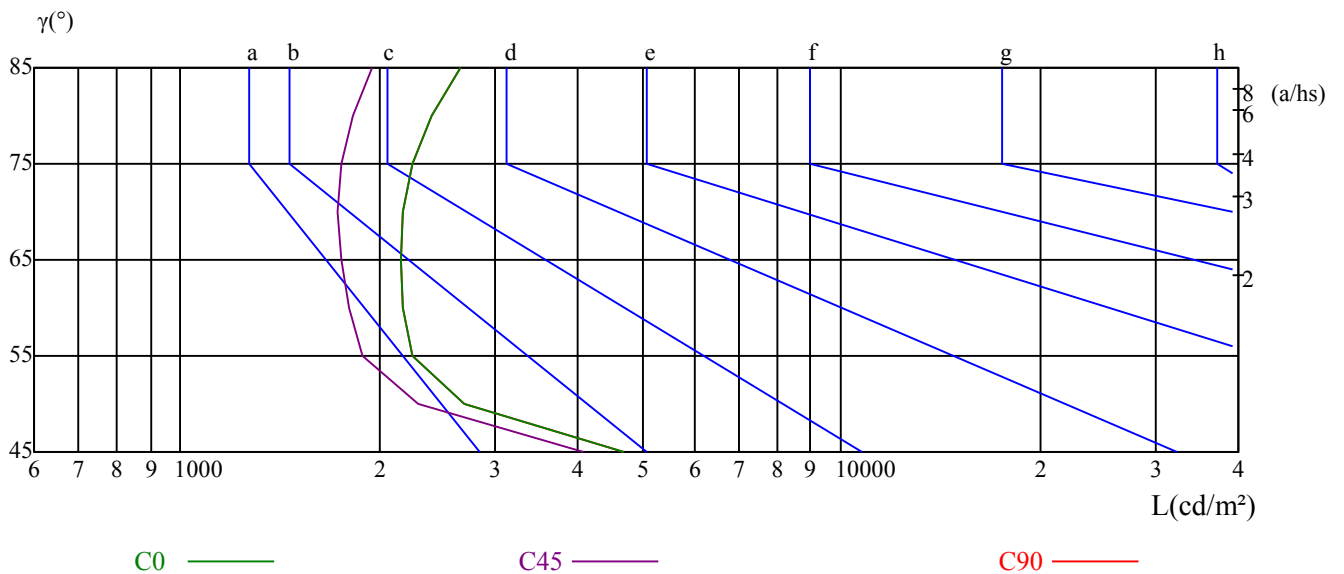
γ	45	50	55	60	65	70	75	80	85
C0	4700	2685	2243	2176	2156	2176	2245	2406	2659
C45	4076	2294	1887	1801	1752	1733	1748	1825	1954
C90	4700	2685	2243	2176	2156	2176	2245	2406	2659

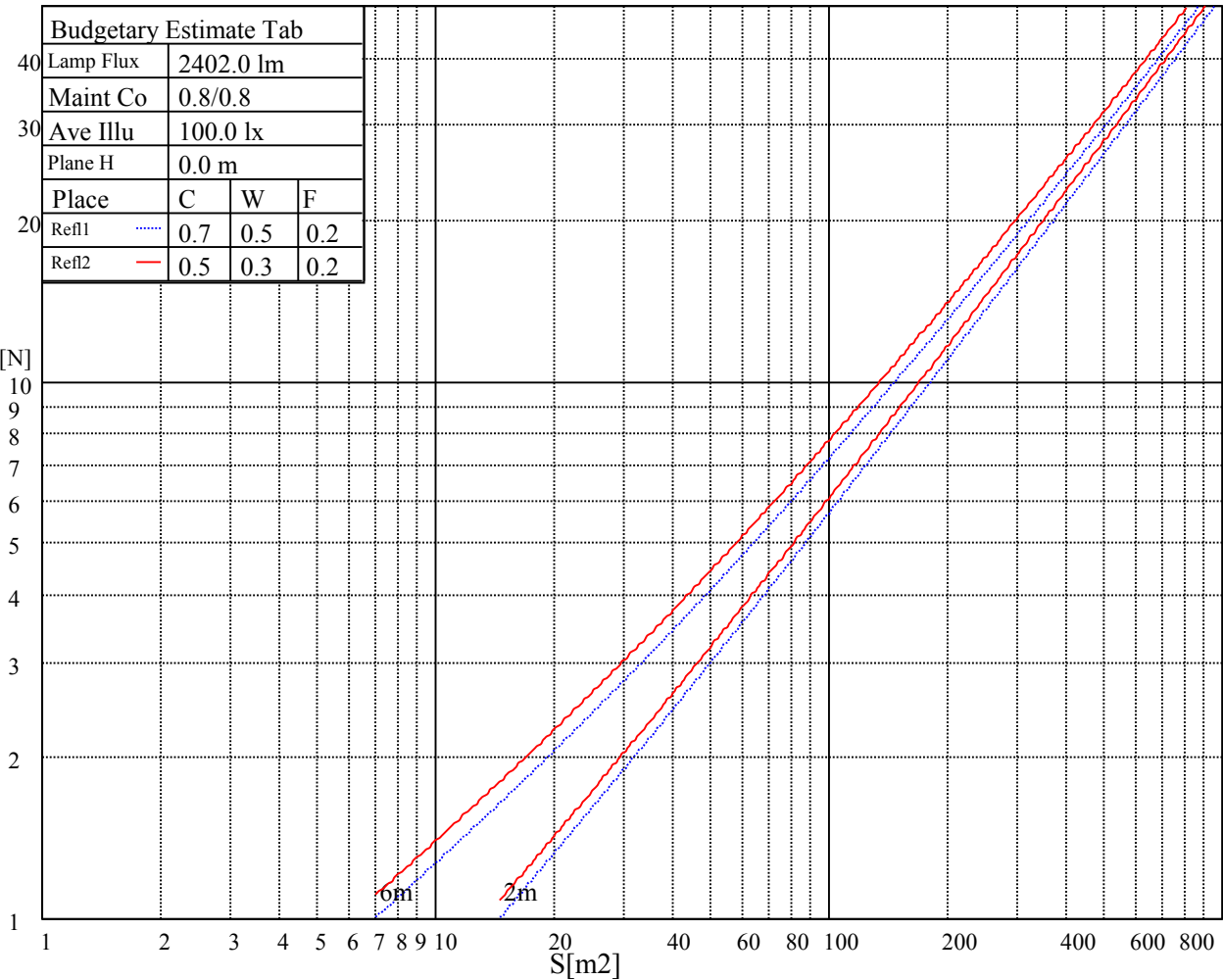
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4864	4864	4864	7153	7153	7153	20459	20459	20459

Glare Table

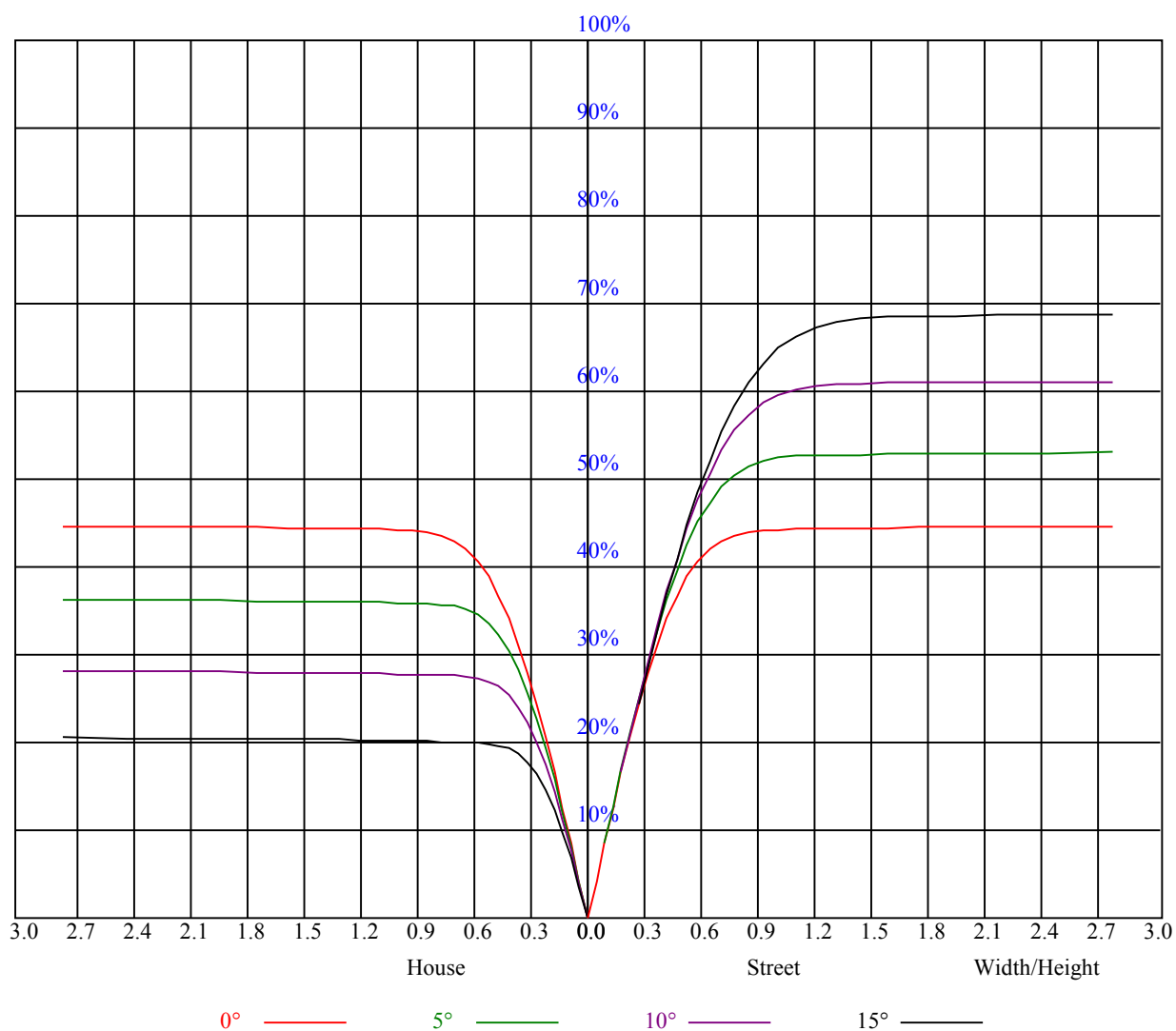
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

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	0.97	0.95	0.98	0.96	0.94	0.94	0.92	0.91	0.91	0.89	0.88	0.88	0.86	0.86	0.84
2	0.93	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	0.80	0.79
3	0.88	0.84	0.80	0.87	0.83	0.80	0.84	0.81	0.78	0.82	0.79	0.77	0.80	0.78	0.76	0.75
4	0.83	0.78	0.75	0.82	0.78	0.74	0.80	0.76	0.73	0.78	0.75	0.73	0.77	0.74	0.72	0.70
5	0.78	0.73	0.70	0.78	0.73	0.70	0.76	0.72	0.69	0.74	0.71	0.68	0.73	0.70	0.68	0.67
6	0.74	0.69	0.66	0.74	0.69	0.66	0.72	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.64	0.63
7	0.71	0.66	0.62	0.70	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.61	0.67	0.63	0.61	0.60
8	0.67	0.62	0.59	0.67	0.62	0.59	0.66	0.61	0.58	0.65	0.61	0.58	0.64	0.60	0.58	0.57
9	0.64	0.59	0.56	0.63	0.59	0.56	0.63	0.58	0.55	0.62	0.58	0.55	0.61	0.58	0.55	0.54
10	0.61	0.56	0.53	0.61	0.56	0.53	0.60	0.56	0.53	0.59	0.55	0.53	0.59	0.55	0.53	0.51



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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	2382.61	2376.88	2313.05	2227.46	2072.13	1763.38	1275.09	676.72	220.94		
45.0	2382.61	2376.88	2313.05	2227.46	2072.13	1763.38	1275.09	676.72	220.94		
90.0	2382.61	2376.88	2313.05	2227.46	2072.13	1763.38	1275.09	676.72	220.94		
135.0	2382.61	2376.88	2313.05	2227.46	2072.13	1763.38	1275.09	676.72	220.94		
180.0	2382.61	2376.88	2313.05	2227.46	2072.13	1763.38	1275.09	676.72	220.94		
225.0	2382.61	2376.88	2313.05	2227.46	2072.13	1763.38	1275.09	676.72	220.94		
270.0	2382.61	2376.88	2313.05	2227.46	2072.13	1763.38	1275.09	676.72	220.94		
315.0	2382.61	2376.88	2313.05	2227.46	2072.13	1763.38	1275.09	676.72	220.94		
360.0	2382.61	2376.88	2313.05	2227.46	2072.13	1763.38	1275.09	676.72	220.94		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	25.82	14.36	11.58	10.74	10.07	9.52	9.07	8.85	8.74		
45.0	25.82	14.36	11.58	10.74	10.07	9.52	9.07	8.85	8.74		
90.0	25.82	14.36	11.58	10.74	10.07	9.52	9.07	8.85	8.74		
135.0	25.82	14.36	11.58	10.74	10.07	9.52	9.07	8.85	8.74		
180.0	25.82	14.36	11.58	10.74	10.07	9.52	9.07	8.85	8.74		
225.0	25.82	14.36	11.58	10.74	10.07	9.52	9.07	8.85	8.74		
270.0	25.82	14.36	11.58	10.74	10.07	9.52	9.07	8.85	8.74		
315.0	25.82	14.36	11.58	10.74	10.07	9.52	9.07	8.85	8.74		
360.0	25.82	14.36	11.58	10.74	10.07	9.52	9.07	8.85	8.74		
C/γ(°)	90.0										
0.0	8.74										
45.0	8.74										
90.0	8.74										
135.0	8.74										
180.0	8.74										
225.0	8.74										
270.0	8.74										
315.0	8.74										
360.0	8.74										