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Nata

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LumCAT: 3-1945-M  
Luminaire: BJB 47.319.2021  
Report No: GC2017070609  
Test No: NT-0010  
LampCAT: SEOUL SAWx15  
Lamp flux(lm): 2402.0  
Number of Lamps: 1  
Length(mm): 86  
Phm Type: C

Voltage(V): 34.5600  
Current(A): 0.5000  
Power (W): 17.2800  
PF: 0.0000  
Ballast type: DC  
Width(mm): 86  
Height(mm): 0

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Photometric Results

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Lumens(lm): 2129.81  
Efficiency(%): 88.67%  
Lumens(lm)/Power(W): 123.25  
Central intensity(cd): 2787.589  
Maximum intensity(cd): 2787.589  
Angle of maximum intensity: C=0.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [C0/180]Total=56.2  
                                  [C90/270]Total=56.2  
Field angle(10%Imax): [C0/180]Total=74.7  
                                  [C90/270]Total=74.7  
Maximum s/h(1/2): C0\_180=0.90 C90\_270=0.90  
Maximum s/h(1/4): C0\_180=0.84 C90\_270=0.84  
Up flux rate of lamp(%): 0.00%  
Down flux rate of lamp(%): 88.67%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 98.559%

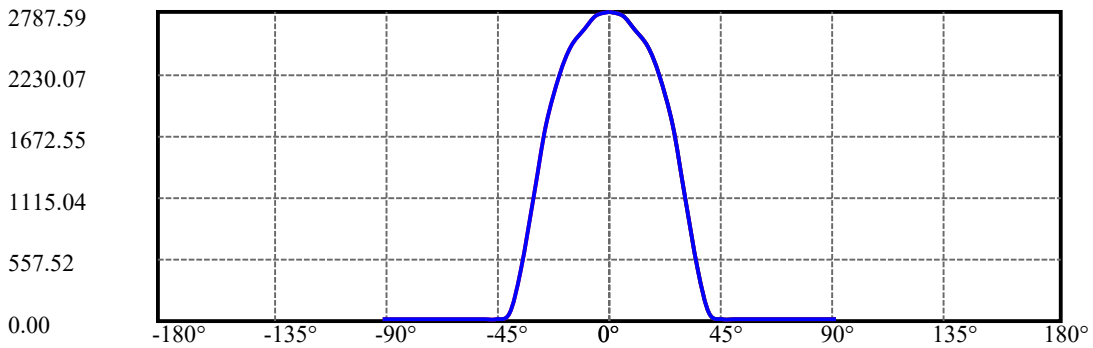
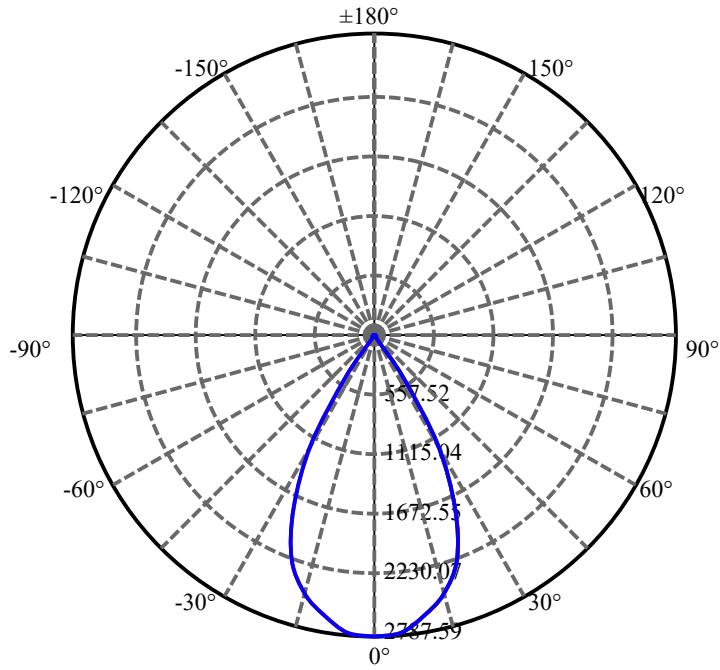
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2787.589	0.000	0	.000%	.000%
5.0	2755.032	66.260	66.26	2.759%	3.111%
10.0	2638.373	192.939	259.2	8.032%	12.170%
15.0	2482.757	303.782	562.982	12.647%	26.433%
20.0	2211.873	386.903	949.885	16.108%	44.600%
25.0	1768.817	417.501	1367.386	17.381%	64.202%
30.0	1166.026	371.407	1738.793	15.462%	81.641%
35.0	468.851	240.747	1979.54	10.023%	92.944%
40.0	62.309	88.620	2068.16	3.689%	97.105%
45.0	17.329	14.746	2082.905	.614%	97.798%
50.0	12.647	6.057	2088.962	.252%	98.082%
55.0	11.151	5.174	2094.137	.215%	98.325%
60.0	10.400	4.981	2099.118	.207%	98.559%
65.0	9.836	4.919	2104.038	.205%	98.790%
70.0	9.412	4.874	2108.911	.203%	99.019%
75.0	10.490	5.202	2114.114	.217%	99.263%
80.0	9.829	5.437	2119.551	.226%	99.518%
85.0	9.475	5.245	2124.796	.218%	99.765%
90.0	8.835	5.013	2129.809	.209%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1738.79	72.39%	81.64%
0-40	2068.16	86.10%	97.11%
0-60	2099.12	87.39%	98.56%
0-90	2124.80	88.46%	99.76%
0-120	2124.80	88.46%	99.76%
0-180	2129.81	88.67%	100.00%
60-90	30.66	1.28%	1.44%
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%
0-29.53	1703.85	70.93%	80.00%

ZONAL LUMEN SUMMARY

0-10	259.20
10-20	690.69
20-30	788.91
30-40	329.37
40-50	20.80
50-60	10.16
60-70	9.79
70-80	10.64
80-90	5.25
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: —————

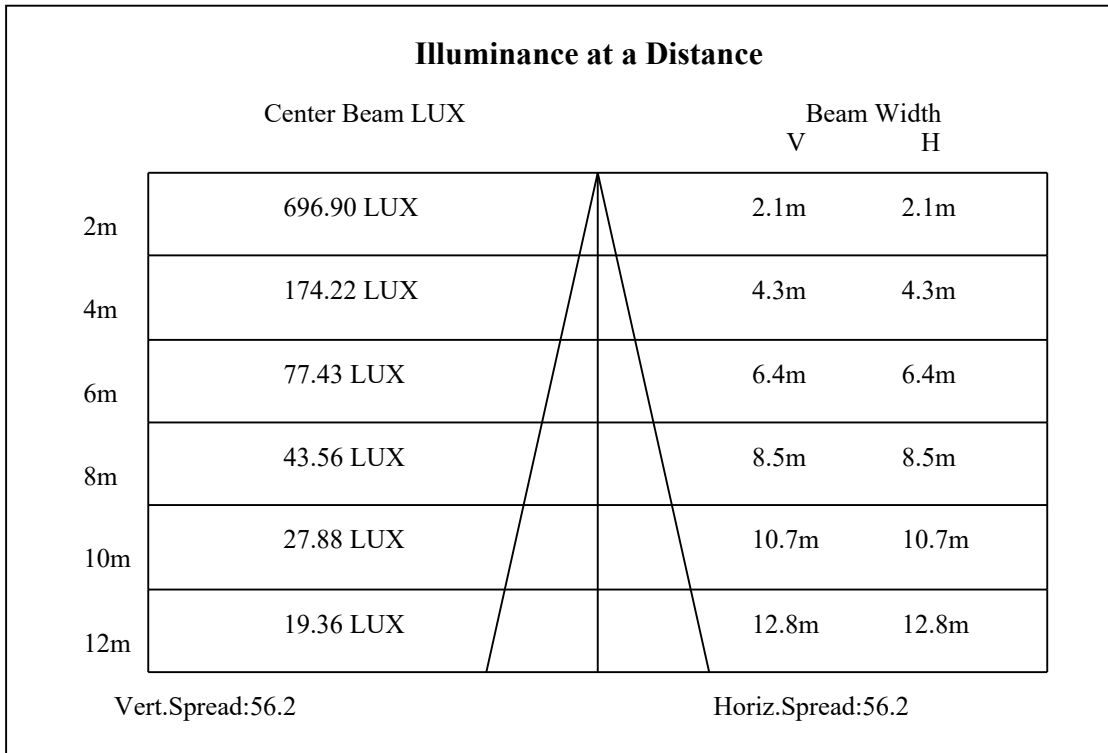
C90/C270: —————

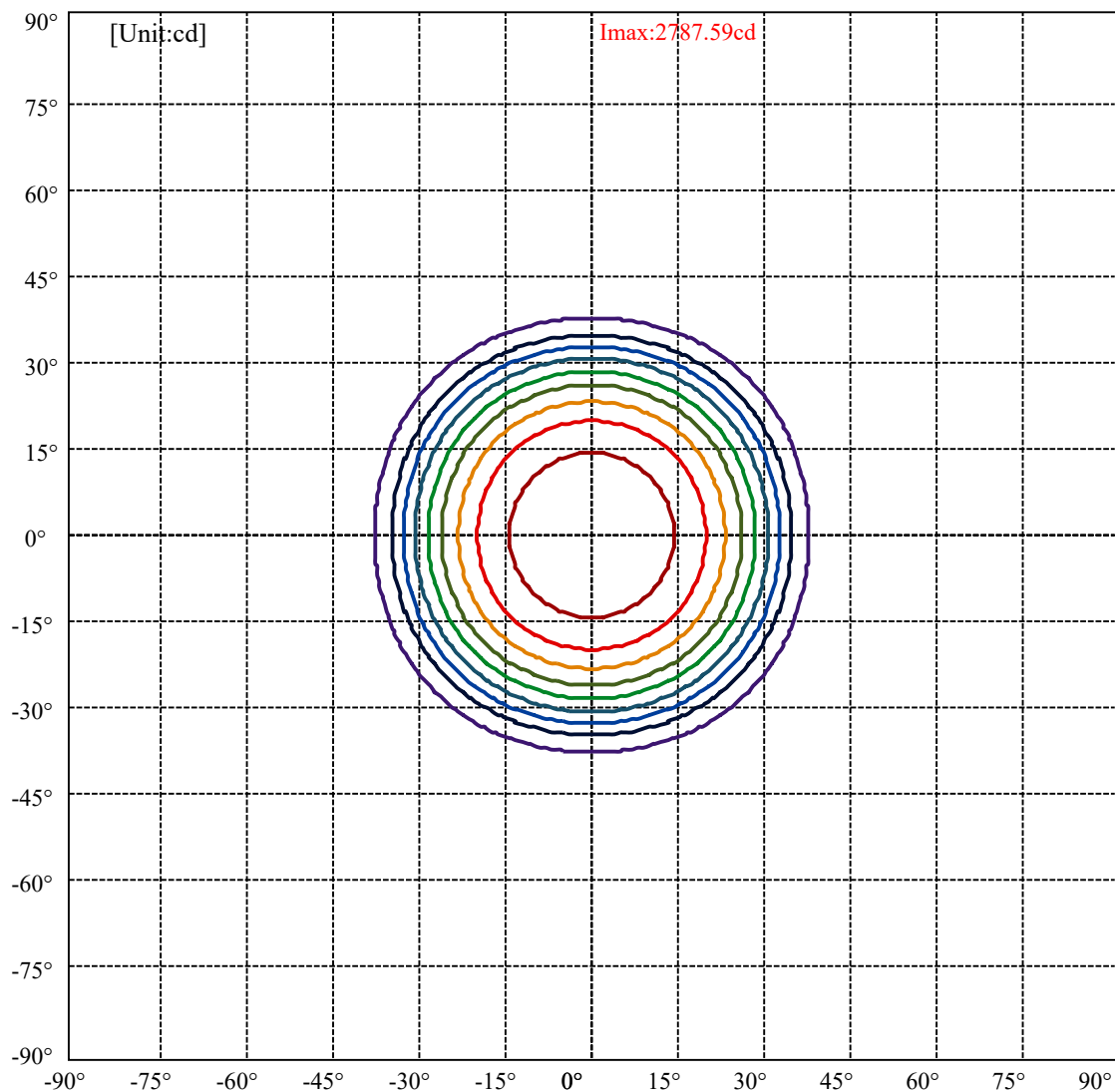
Field angle(10%Imax):C0/180Left:37.3 Right:37.3

:C90/270Left:37.3 Right:37.3

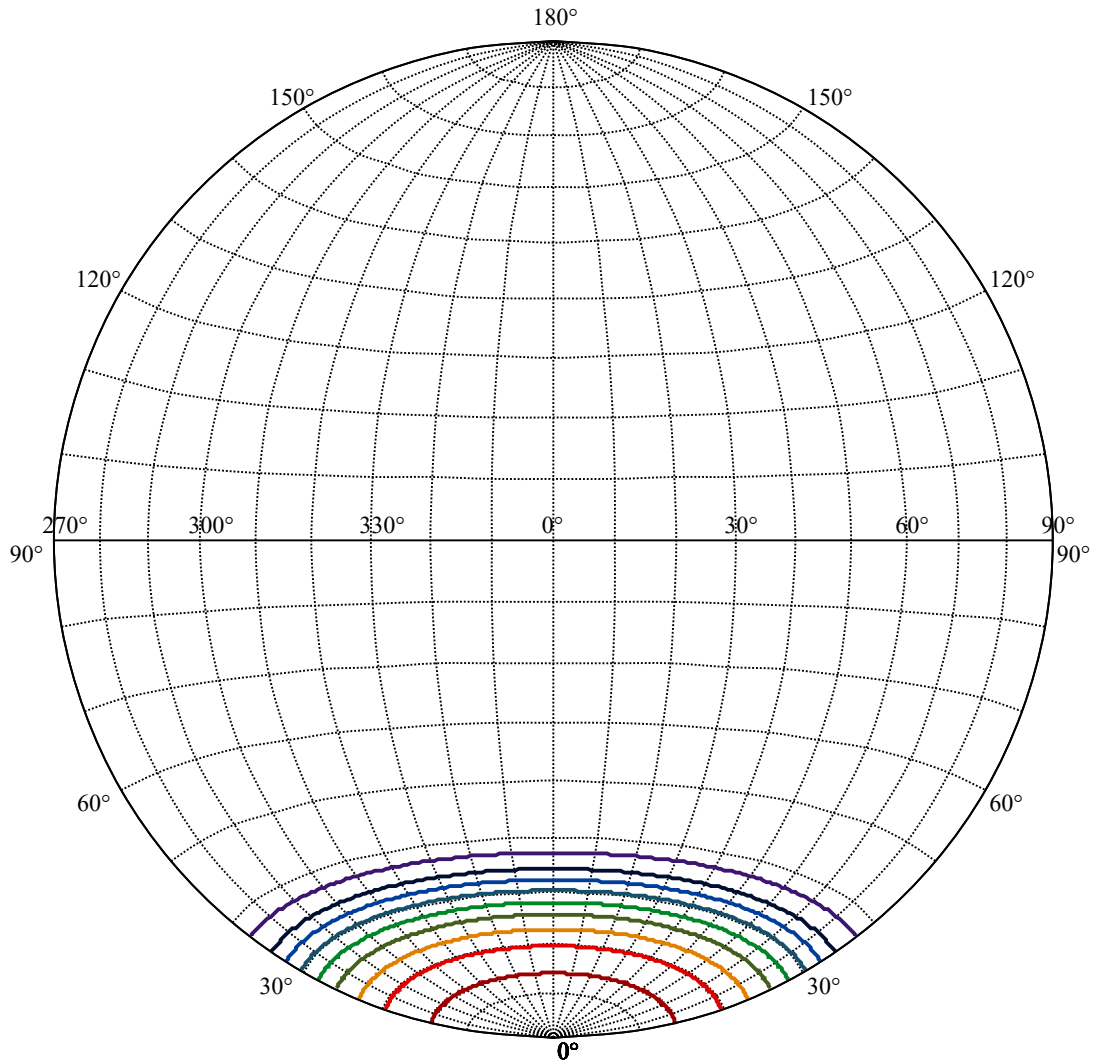
Beam Angle(50%Imax):C0/180Left:28.1 Right:28.1

:C90/270Left:28.1 Right:28.1





(10%Imax) 278.759	—
(20%Imax) 557.518	—
(30%Imax) 836.277	—
(40%Imax) 1115.04	—
(50%Imax) 1393.79	—
(60%Imax) 1672.55	—
(70%Imax) 1951.31	—
(80%Imax) 2230.07	—
(90%Imax) 2508.83	—



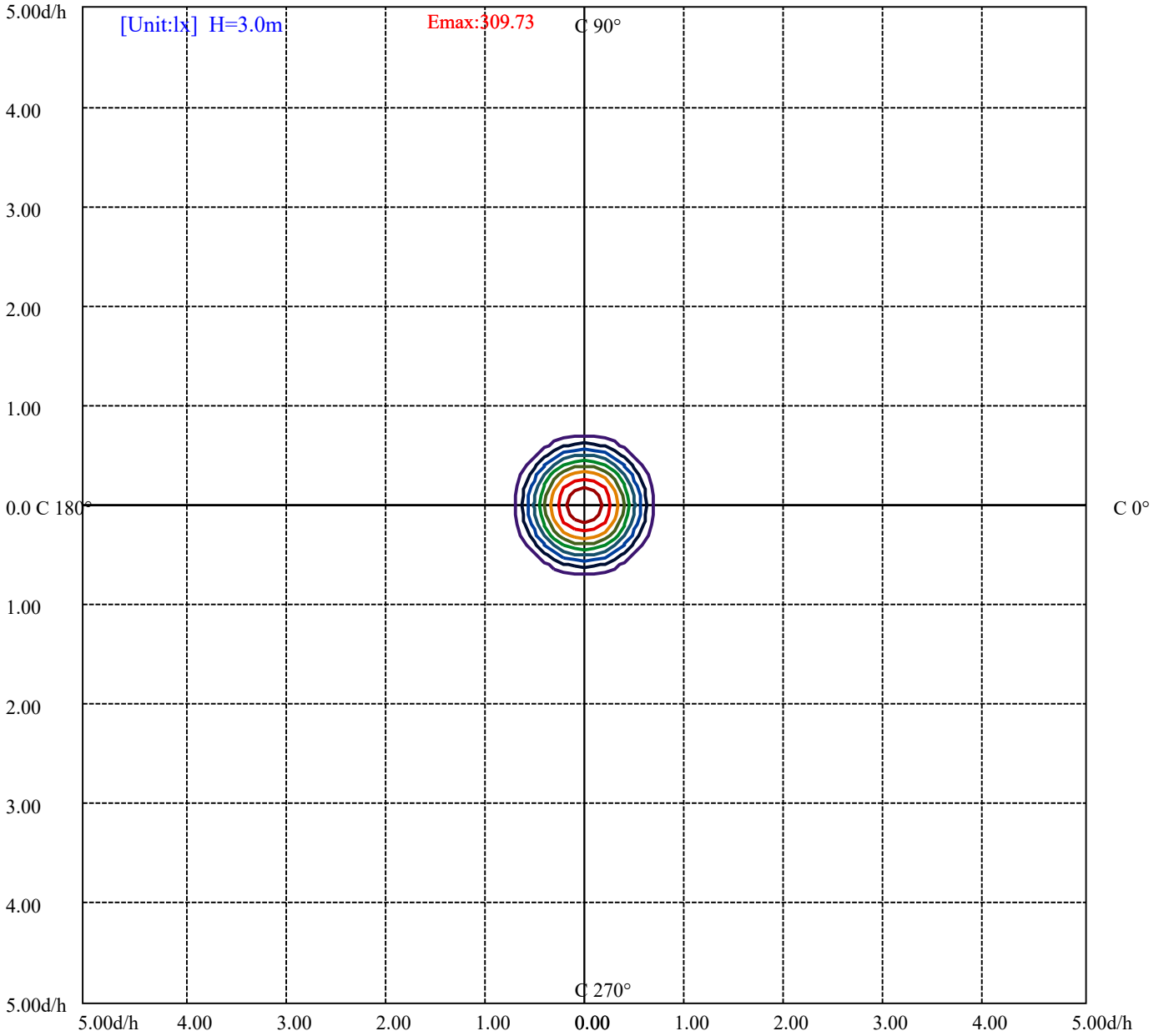
House

[Unit:cd]

Road

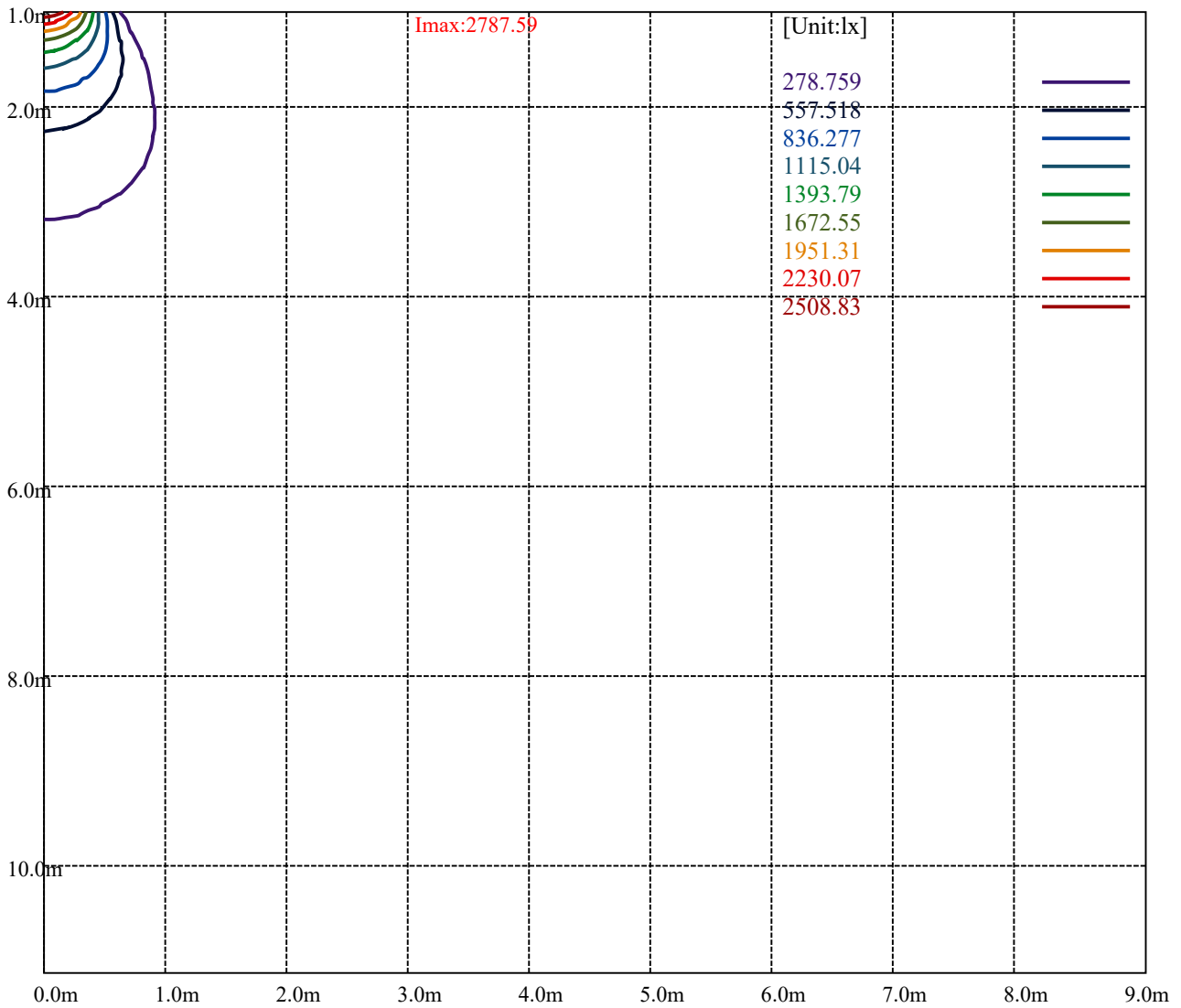
**Imax:2787.59**

(10%Imax) 278.759	—
(20%Imax) 557.518	—
(30%Imax) 836.277	—
(40%Imax) 1115.04	—
(50%Imax) 1393.79	—
(60%Imax) 1672.55	—
(70%Imax) 1951.31	—
(80%Imax) 2230.07	—
(90%Imax) 2508.83	—



(10%Emax) 30.97322	—
(20%Emax) 61.94645	—
(30%Emax) 92.91956	—
(40%Emax) 123.8933	—
(50%Emax) 154.8656	—
(60%Emax) 185.8389	—
(70%Emax) 216.8122	—
(80%Emax) 247.7856	—
(90%Emax) 278.7589	—





Luminance Table

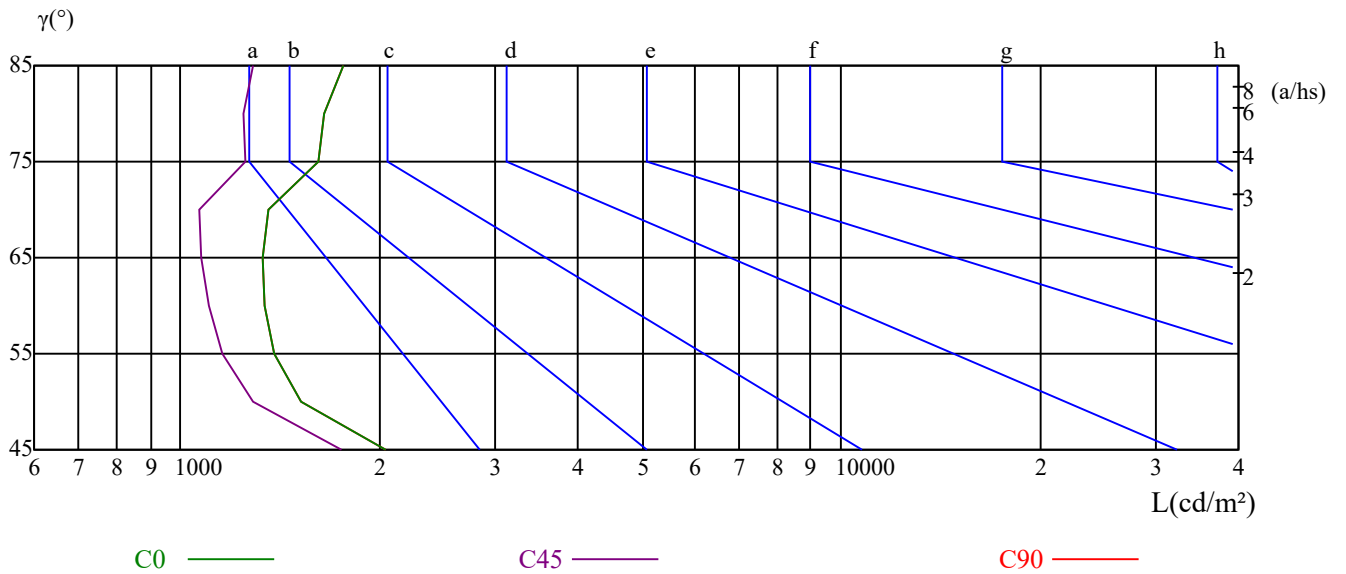
$\gamma$	45	50	55	60	65	70	75	80	85
C0	2045	1525	1386	1345	1335	1355	1622	1654	1764
C45	1756	1290	1155	1101	1075	1070	1253	1247	1292
C90	2045	1525	1386	1345	1335	1355	1622	1654	1764

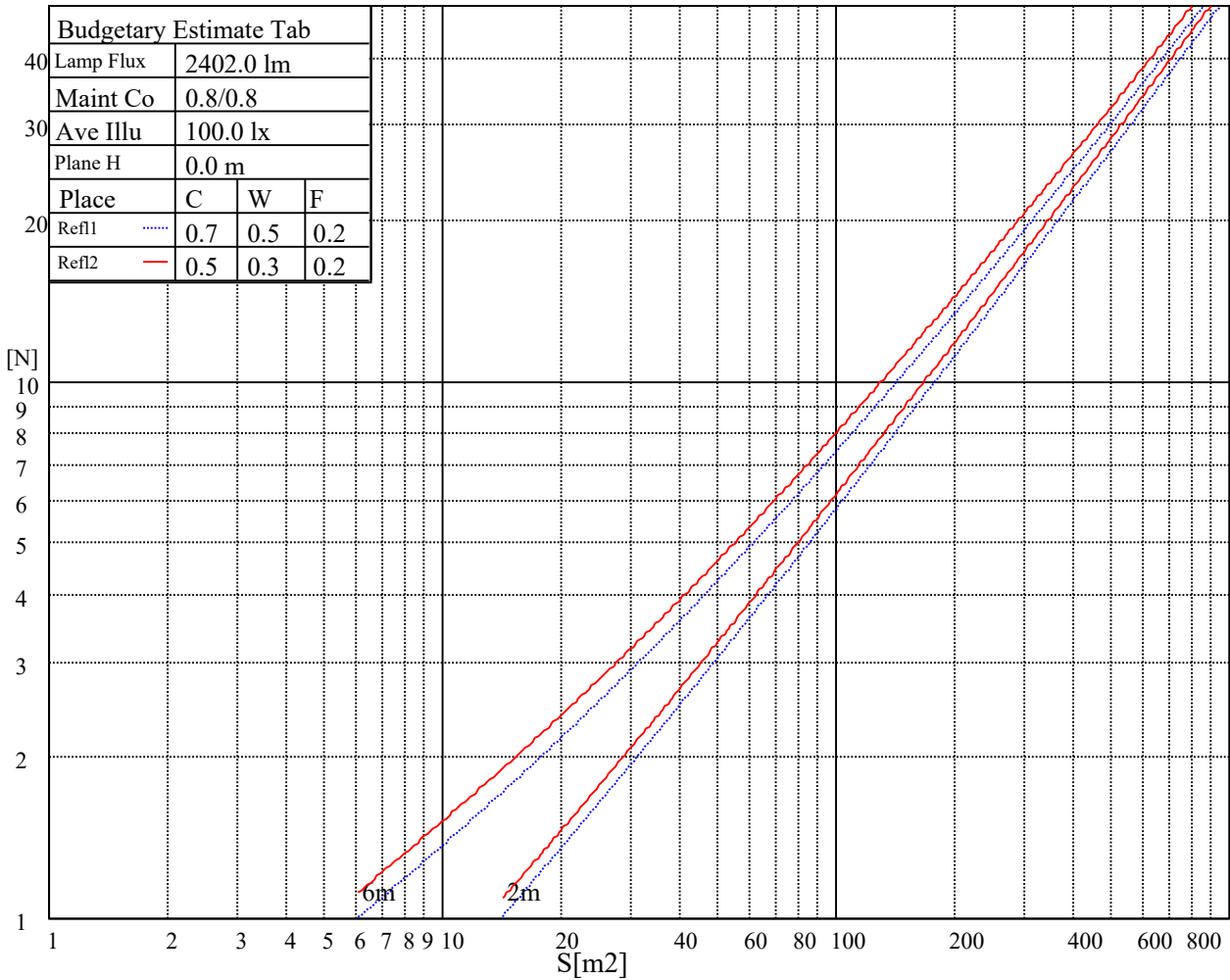
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3221	3221	3221	5610	5610	5610	15046	15046	15046

Glare Table

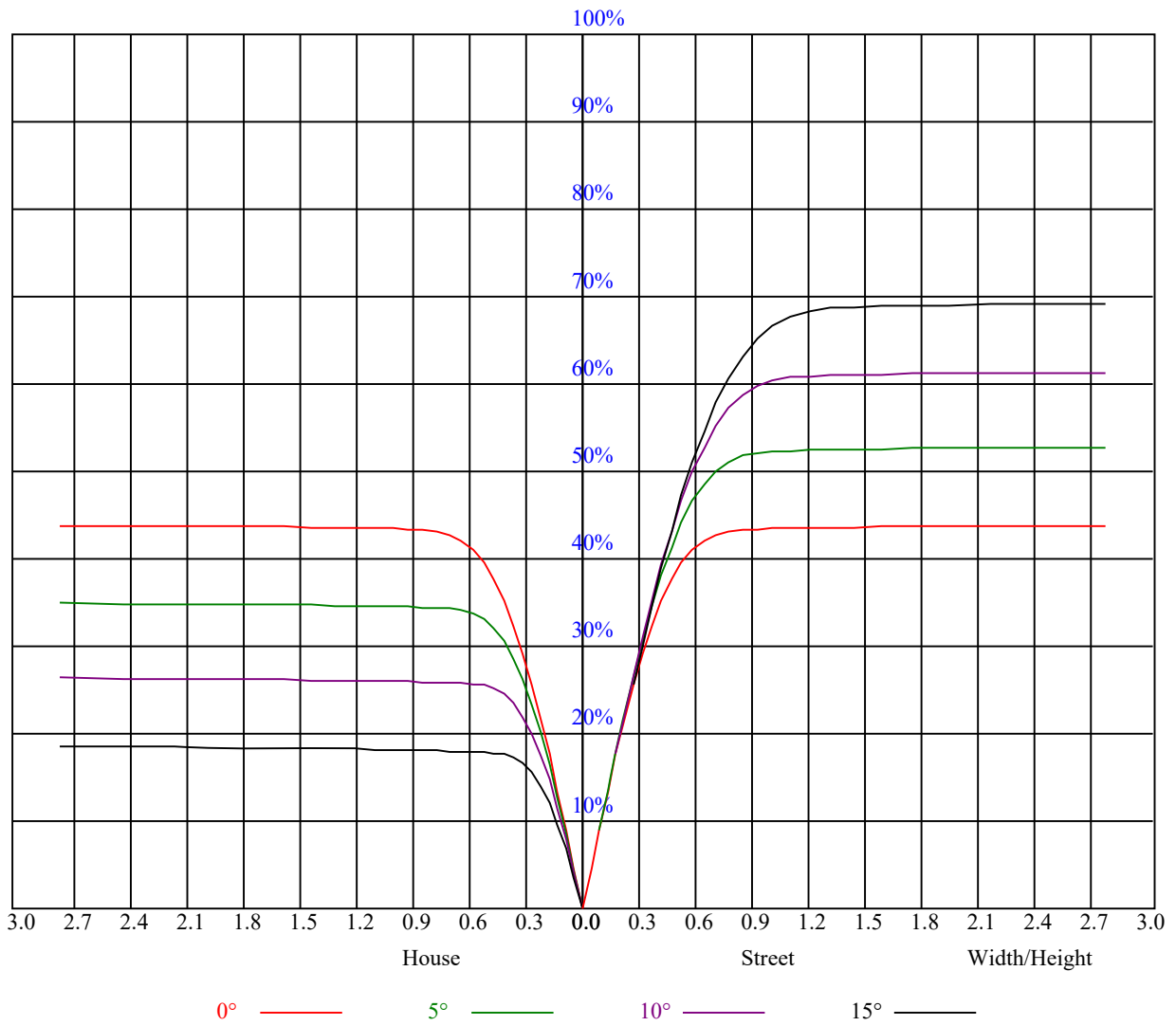
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.06	1.06	1.06	1.03	1.03	1.03	0.99	0.99	0.99	0.94	0.94	0.94	0.90	0.90	0.90	0.89
1	0.98	0.96	0.94	0.96	0.94	0.93	0.93	0.91	0.90	0.90	0.88	0.87	0.87	0.86	0.85	0.83
2	0.92	0.89	0.86	0.90	0.87	0.85	0.88	0.85	0.83	0.85	0.83	0.81	0.83	0.81	0.79	0.78
3	0.86	0.82	0.79	0.85	0.81	0.78	0.83	0.80	0.77	0.81	0.78	0.76	0.79	0.76	0.75	0.73
4	0.81	0.77	0.73	0.80	0.76	0.73	0.78	0.75	0.72	0.77	0.73	0.71	0.75	0.72	0.70	0.69
5	0.77	0.72	0.68	0.76	0.71	0.68	0.74	0.70	0.67	0.73	0.69	0.67	0.71	0.68	0.66	0.65
6	0.72	0.67	0.64	0.72	0.67	0.64	0.70	0.66	0.63	0.69	0.66	0.63	0.68	0.65	0.62	0.61
7	0.68	0.63	0.60	0.68	0.63	0.60	0.67	0.63	0.59	0.66	0.62	0.59	0.65	0.61	0.59	0.58
8	0.65	0.60	0.57	0.64	0.60	0.56	0.63	0.59	0.56	0.63	0.59	0.56	0.62	0.58	0.56	0.55
9	0.62	0.57	0.53	0.61	0.57	0.53	0.60	0.56	0.53	0.60	0.56	0.53	0.59	0.55	0.53	0.52
10	0.59	0.54	0.51	0.58	0.54	0.50	0.58	0.53	0.50	0.57	0.53	0.50	0.56	0.53	0.50	0.49



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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	2790.93	2788.15	2678.51	2557.75	2330.13	1954.48	1373.48	623.85	150.48
45.0	2780.91	2779.24	2691.87	2564.43	2293.96	1867.67	1274.42	533.70	56.10
90.0	2786.48	2762.55	2654.58	2455.35	2137.02	1633.37	1026.72	360.12	38.79
135.0	2792.04	2761.99	2632.88	2457.57	2157.61	1687.91	1177.03	432.97	48.36
180.0	2790.93	2733.05	2604.49	2408.60	2110.87	1617.79	1011.36	319.16	37.01
225.0	2780.91	2719.14	2591.14	2428.64	2167.07	1686.24	1081.20	391.84	43.24
270.0	2786.48	2740.28	2621.75	2488.74	2263.91	1864.33	1309.48	639.44	69.34
315.0	2792.04	2755.87	2631.76	2500.98	2234.41	1838.73	1074.52	449.72	55.15
360.0	2790.93	2788.15	2678.51	2557.75	2330.13	1954.48	1373.48	623.85	150.48
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	19.87	13.08	11.69	10.80	9.96	9.46	9.29	9.46	9.74
45.0	17.25	12.52	11.02	10.24	9.85	9.46	10.52	9.74	9.52
90.0	15.64	12.24	10.85	10.24	9.91	9.52	12.63	9.57	9.35
135.0	16.97	12.58	11.02	10.18	9.68	9.24	9.07	9.07	9.18
180.0	15.69	12.08	10.80	10.02	9.52	9.13	9.07	9.24	9.52
225.0	16.31	12.35	10.80	9.96	9.46	9.13	9.07	9.13	9.46
270.0	19.03	13.25	11.35	10.41	9.96	9.52	9.29	10.63	9.35
315.0	17.86	13.08	11.69	11.35	10.35	9.85	14.97	11.80	9.68
360.0	19.87	13.08	11.69	10.80	9.96	9.46	9.29	9.46	9.74
C/γ(°)	90.0								
0.0	8.90								
45.0	8.79								
90.0	8.79								
135.0	8.79								
180.0	8.85								
225.0	8.85								
270.0	8.85								
315.0	8.85								
360.0	8.90								