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Nata

LumCAT: 3-1742-N
Luminaire: 92.70.065.00+92.70.061.00
Report No: NT2018041606
Test No: nata-0100
LampCAT: CITIZEN CLU038
Lamp flux(lm): 2449.0
Number of Lamps: 1
Length(mm): 86
Phm Type: C

Voltage(V): 36.6000
Current(A): 0.6000
Power (W): 21.9600
PF: 0.0000
Ballast type: DC
Width(mm): 86
Height(mm): 0

Photometric Results

Lumens(lm): 1916.21
Efficiency(%): 78.24%
Lumens(lm)/Power(W): 87.26
Central intensity(cd): 7721.522
Maximum intensity(cd): 7721.522
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=23.7
 [C90/270]Total=23.7
Field angle(10%Imax): [C0/180]Total=47.4
 [C90/270]Total=47.4
Maximum s/h(1/2): C0_180=0.40 C90_270=0.40
Maximum s/h(1/4): C0_180=0.41 C90_270=0.41
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 80.06%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 95.903%

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2018/4/16
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.42

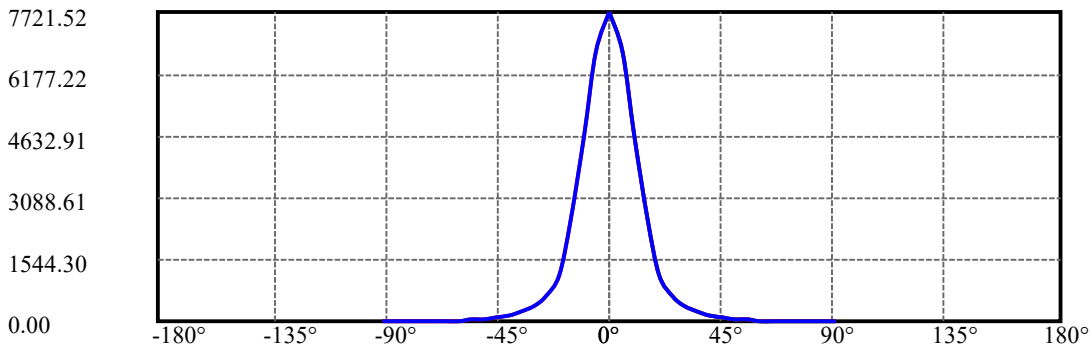
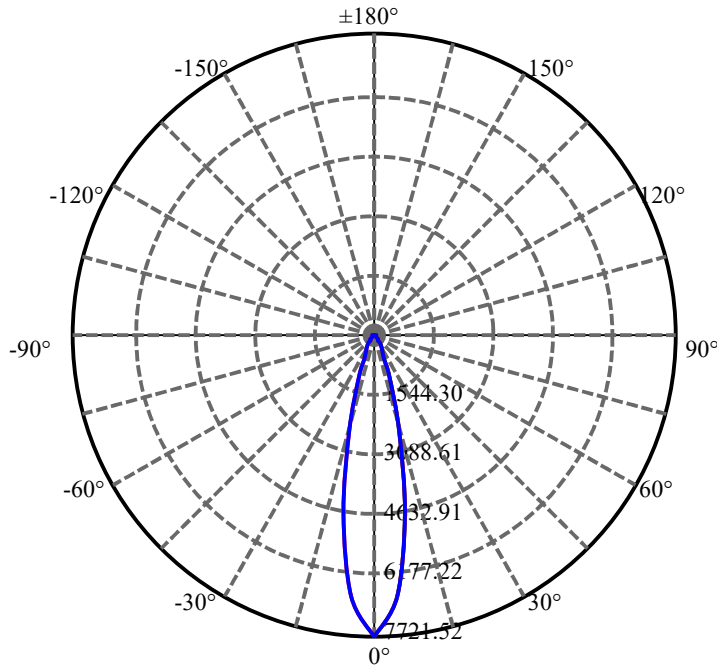
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	7721.522	46.176	46.176	1.886%	2.410%
5.0	6732.159	321.618	367.794	13.133%	19.194%
10.0	4645.453	442.168	809.962	18.055%	42.269%
15.0	2523.028	357.938	1167.9	14.616%	60.948%
20.0	1152.647	216.091	1383.992	8.824%	72.226%
25.0	635.970	147.324	1531.316	6.016%	79.914%
30.0	405.298	111.079	1642.395	4.536%	85.711%
35.0	260.843	82.009	1724.404	3.349%	89.990%
40.0	167.371	58.971	1783.375	2.408%	93.068%
45.0	106.059	41.108	1824.483	1.679%	95.213%
50.0	65.689	27.583	1852.066	1.126%	96.653%
55.0	38.120	17.116	1869.182	.699%	97.546%
60.0	23.289	11.055	1880.237	.451%	98.123%
65.0	17.150	8.520	1888.757	.348%	98.567%
70.0	14.851	7.650	1896.406	.312%	98.967%
75.0	12.966	6.865	1903.271	.280%	99.325%
80.0	11.046	5.963	1909.234	.243%	99.636%
85.0	8.940	4.882	1914.115	.199%	99.891%
90.0	7.639	2.094	1916.209	.085%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1642.40	67.06%	85.71%
0-40	1783.38	72.82%	93.07%
0-60	1880.24	76.78%	98.12%
0-90	1914.12	78.16%	99.89%
0-120	1914.12	78.16%	99.89%
0-180	1916.21	78.24%	100.00%
60-90	44.93	1.83%	2.34%
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%
0-25.07	1532.97	62.60%	80.00%

ZONAL LUMEN SUMMARY

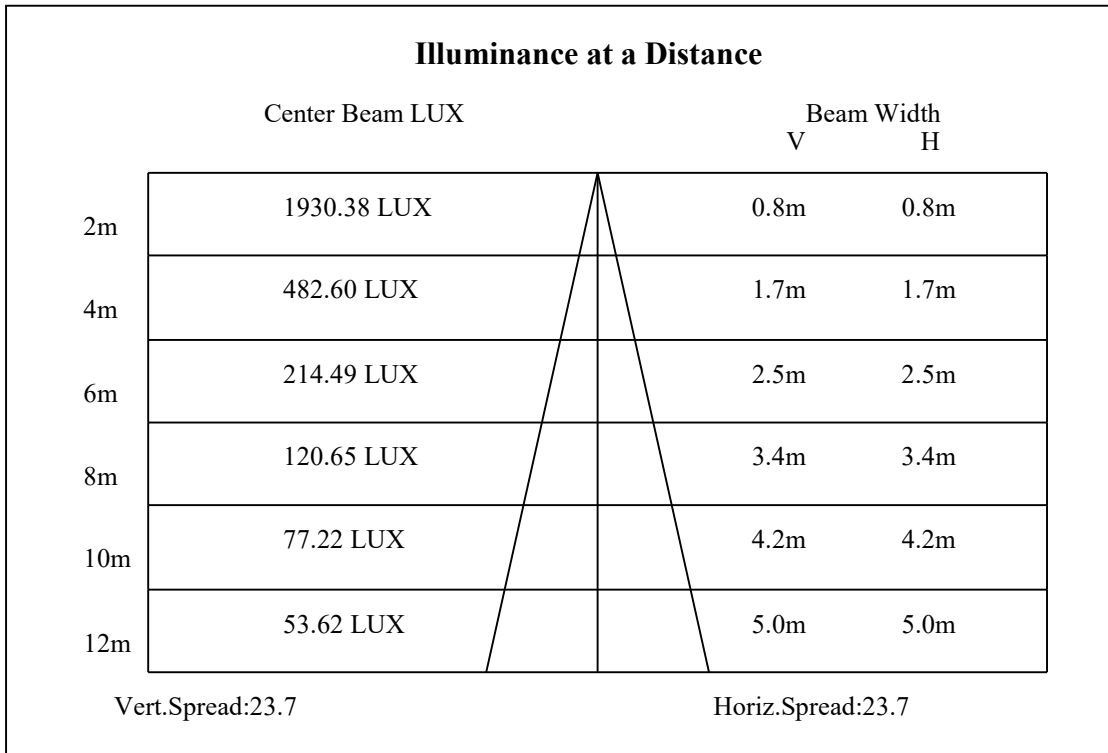
0-10	809.96
10-20	574.03
20-30	258.40
30-40	140.98
40-50	68.69
50-60	28.17
60-70	16.17
70-80	12.83
80-90	4.88
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

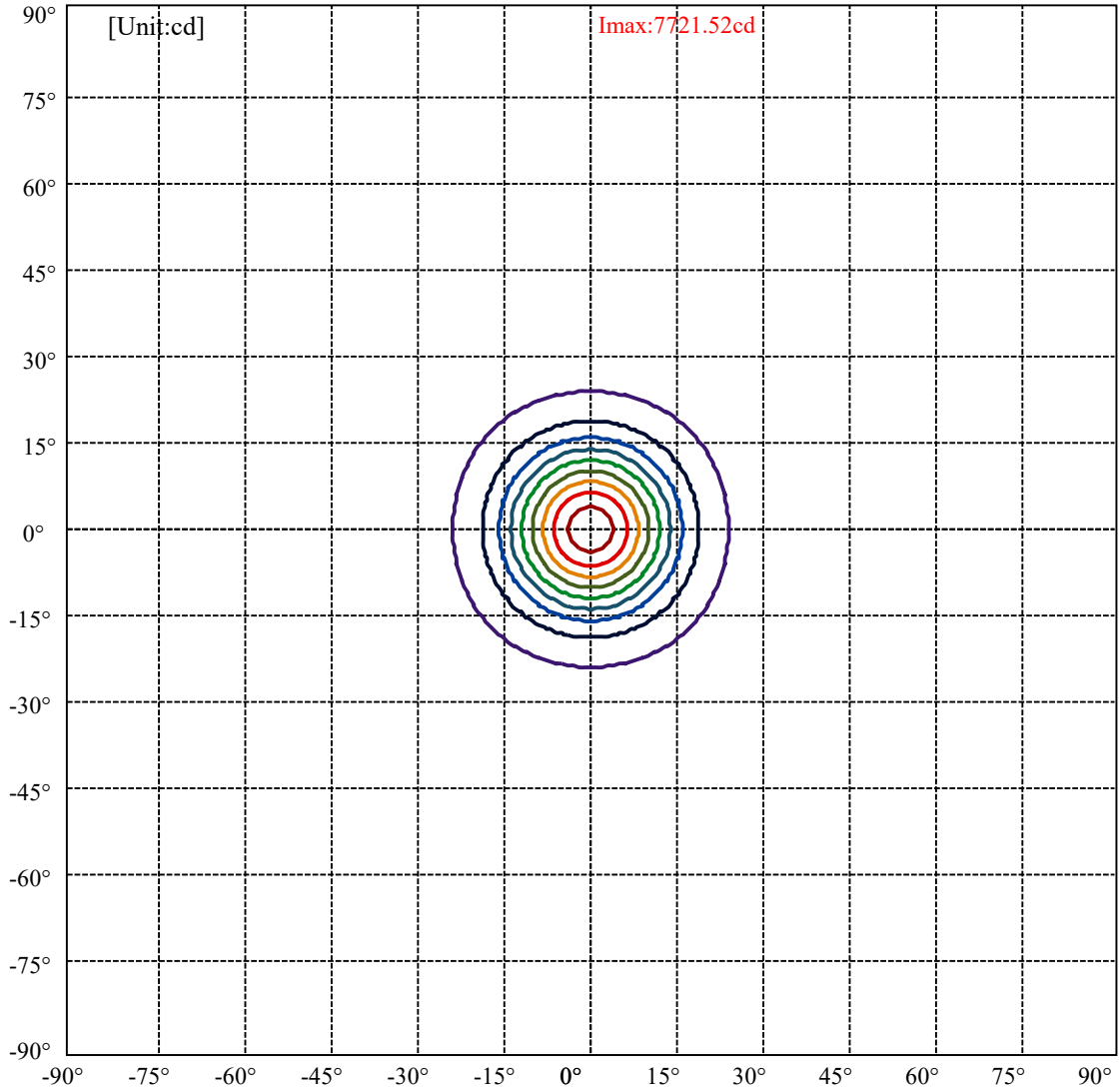


C0(Max): —————
C0/C180: —————
C90/C270: —————

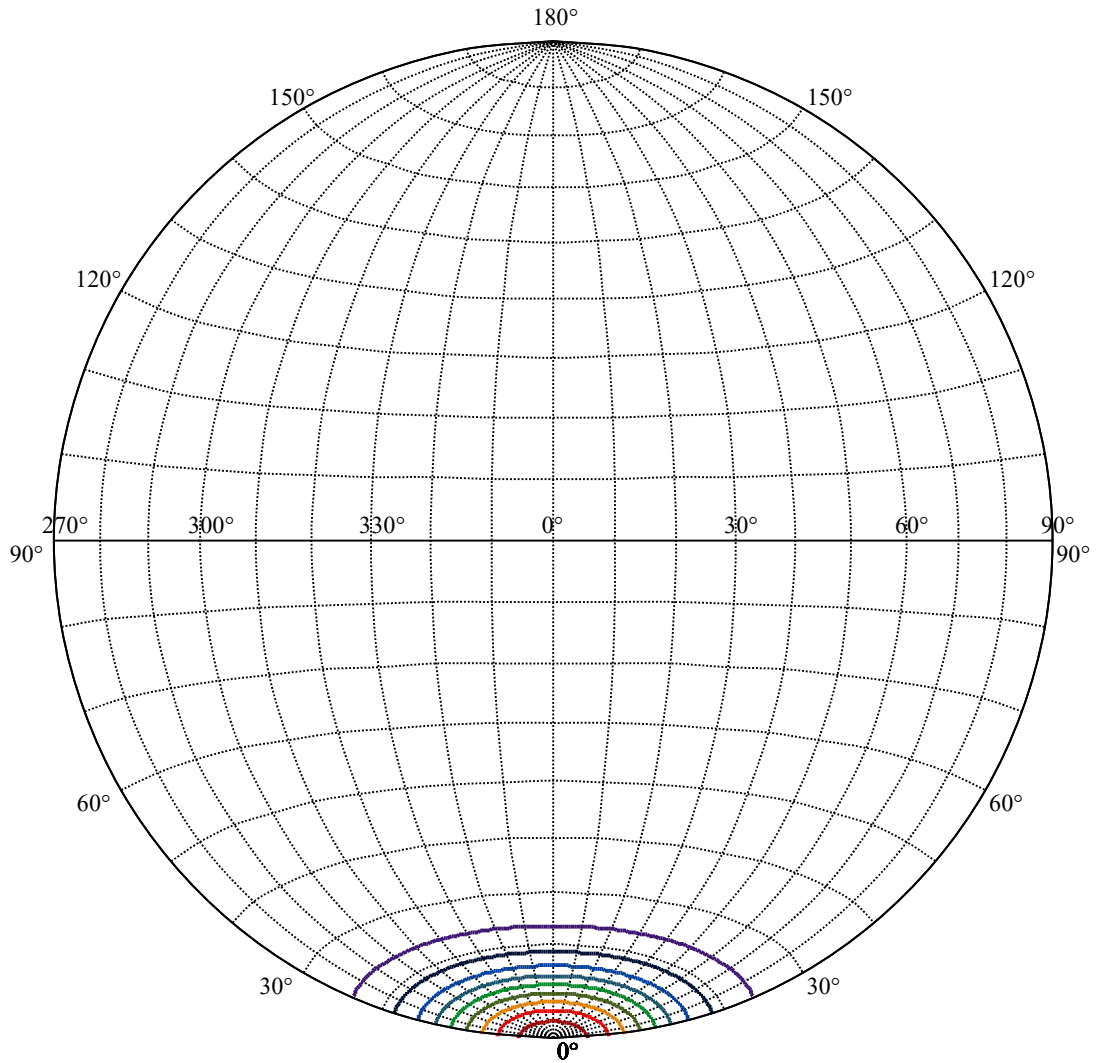
Field angle(10%Imax):C0/180Left:23.7 Right:23.7
:C90/270Left:23.7 Right:23.7

Beam Angle(50%Imax):C0/180Left:11.8 Right:11.8
:C90/270Left:11.8 Right:11.8





(10%Imax) 772.152	—
(20%Imax) 1544.3	—
(30%Imax) 2316.46	—
(40%Imax) 3088.61	—
(50%Imax) 3860.76	—
(60%Imax) 4632.91	—
(70%Imax) 5405.07	—
(80%Imax) 6177.22	—
(90%Imax) 6949.37	—



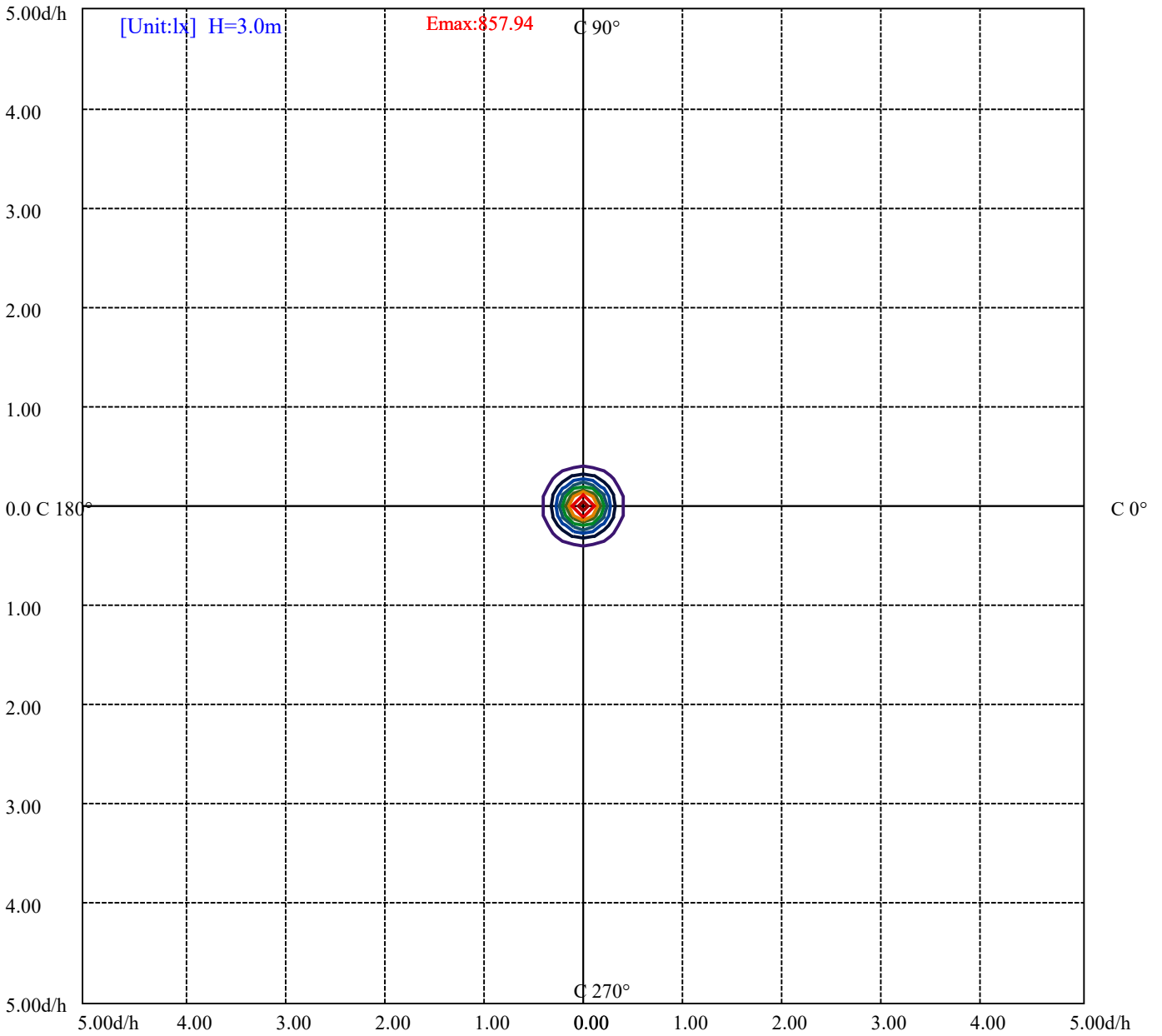
House

[Unit:cd]

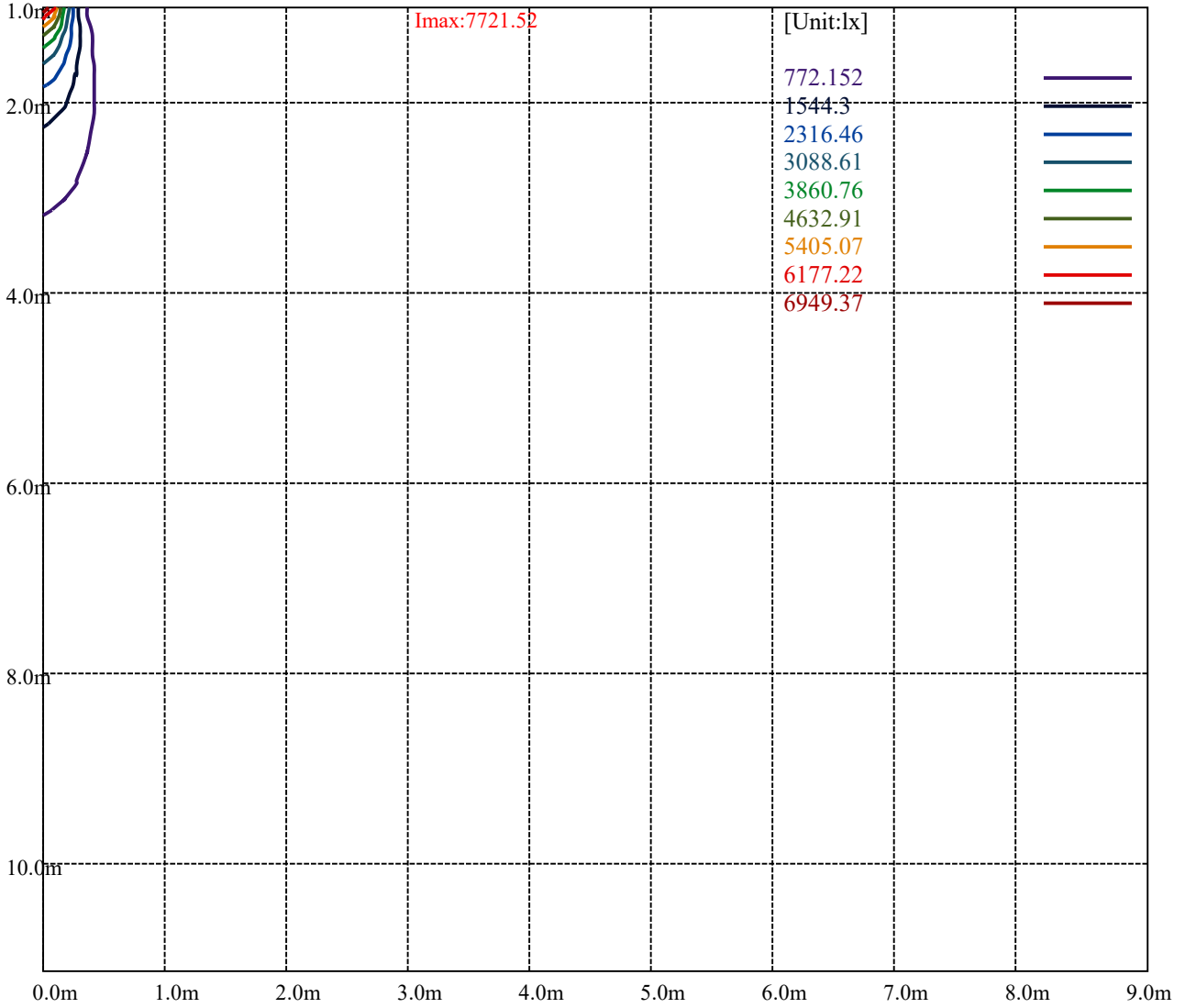
Road

Imax:7721.52

(10%Imax) 772.152	—
(20%Imax) 1544.3	—
(30%Imax) 2316.46	—
(40%Imax) 3088.61	—
(50%Imax) 3860.76	—
(60%Imax) 4632.91	—
(70%Imax) 5405.07	—
(80%Imax) 6177.22	—
(90%Imax) 6949.37	—



(10%E _{max}) 85.79433	—
(20%E _{max}) 171.5889	—
(30%E _{max}) 257.3833	—
(40%E _{max}) 343.1778	—
(50%E _{max}) 428.9722	—
(60%E _{max}) 514.7667	—
(70%E _{max}) 600.56	—
(80%E _{max}) 686.3544	—
(90%E _{max}) 772.1489	—



Luminance Table

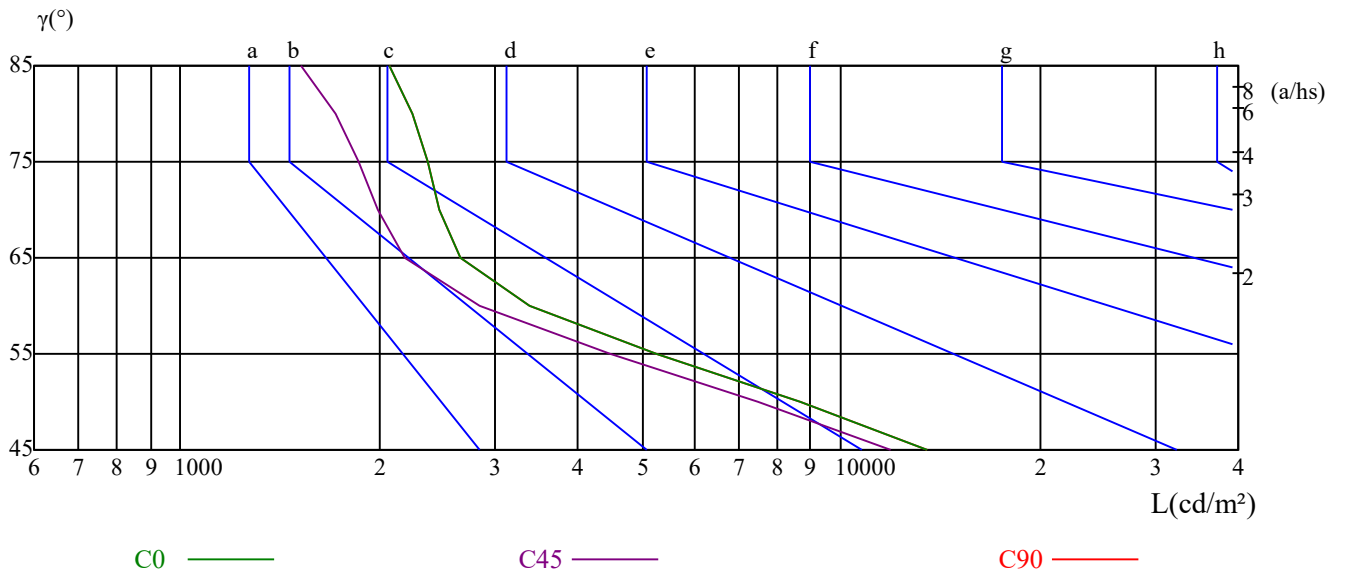
γ	45	50	55	60	65	70	75	80	85
C0	13520	8658	5242	3375	2648	2473	2363	2242	2065
C45	11880	7499	4471	2831	2180	1995	1861	1717	1527
C90	13520	8658	5242	3375	2648	2473	2363	2242	2065

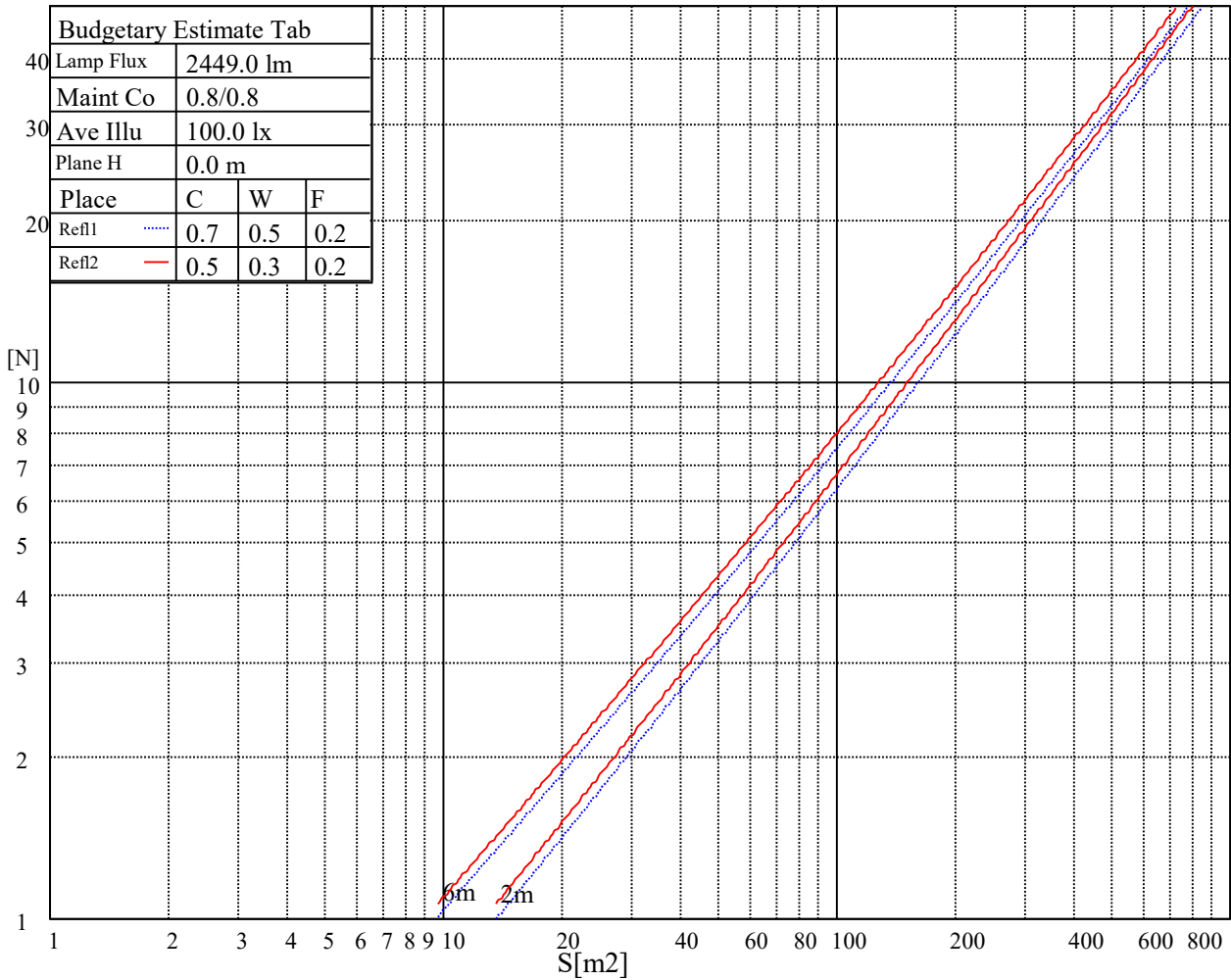
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
5487	5487	5487	6773	6773	6773	13869	13869	13869

Glare Table

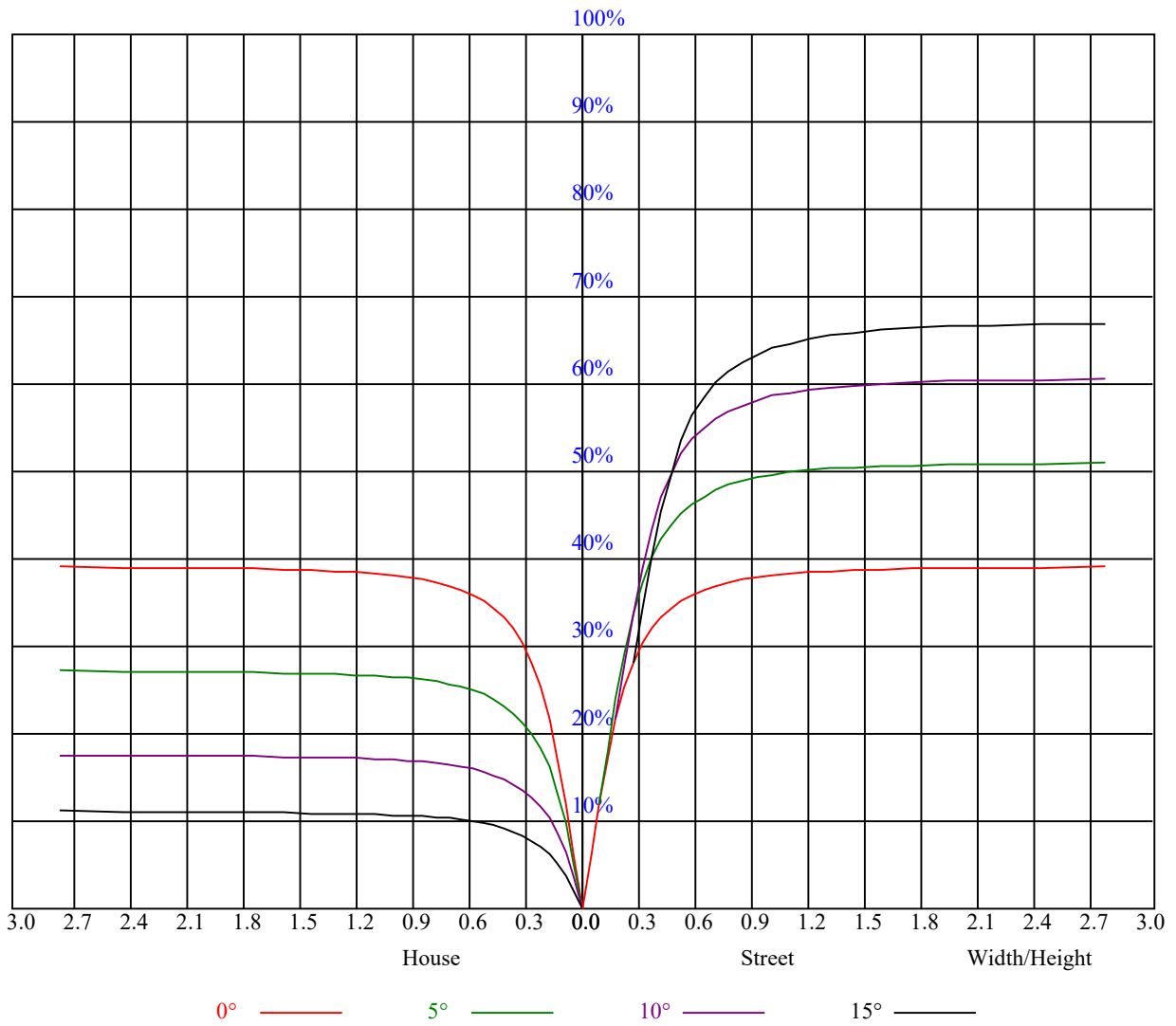
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	0.95	0.95	0.95	0.93	0.93	0.93	0.89	0.89	0.89	0.85	0.85	0.85	0.82	0.82	0.82	0.80
1	0.87	0.85	0.83	0.86	0.83	0.82	0.82	0.81	0.79	0.79	0.78	0.77	0.76	0.75	0.74	0.73
2	0.83	0.79	0.77	0.81	0.78	0.76	0.79	0.76	0.74	0.76	0.74	0.73	0.74	0.73	0.71	0.70
3	0.79	0.75	0.72	0.78	0.74	0.71	0.75	0.73	0.70	0.74	0.71	0.69	0.72	0.70	0.68	0.67
4	0.75	0.71	0.68	0.74	0.71	0.68	0.73	0.70	0.67	0.71	0.68	0.66	0.70	0.67	0.66	0.65
5	0.72	0.68	0.65	0.71	0.68	0.65	0.70	0.67	0.64	0.69	0.66	0.64	0.68	0.65	0.63	0.62
6	0.69	0.65	0.63	0.69	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.62	0.66	0.63	0.61	0.60
7	0.67	0.63	0.60	0.66	0.63	0.60	0.66	0.62	0.60	0.65	0.62	0.60	0.64	0.61	0.59	0.58
8	0.65	0.61	0.58	0.64	0.61	0.58	0.64	0.60	0.58	0.63	0.60	0.58	0.62	0.60	0.58	0.57
9	0.63	0.59	0.57	0.62	0.59	0.57	0.62	0.59	0.56	0.61	0.58	0.56	0.61	0.58	0.56	0.55
10	0.61	0.57	0.55	0.61	0.57	0.55	0.60	0.57	0.55	0.60	0.57	0.55	0.59	0.57	0.55	0.54



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	7712.85	7173.30	5298.63	3164.09	1454.04	749.32	465.78	289.05	188.24
45.0	7696.33	7113.29	5100.42	2862.93	1330.16	711.88	448.16	280.79	179.70
90.0	7707.90	6320.47	4175.48	2166.47	1045.41	593.84	380.33	241.92	156.58
135.0	7769.01	6656.32	4429.29	2489.10	1100.03	610.02	396.96	282.44	164.18
180.0	7712.85	6260.46	4180.98	2085.54	959.36	563.67	361.72	224.80	147.99
225.0	7696.33	6383.79	4203.01	2132.88	960.68	547.10	360.95	225.40	150.19
270.0	7707.90	7089.06	4983.15	2703.82	1282.81	662.88	419.53	282.99	177.67
315.0	7769.01	6860.58	4792.66	2579.39	1088.69	649.06	408.96	259.37	174.42
360.0	7712.85	7173.30	5298.63	3164.09	1454.04	749.32	465.78	289.05	188.24

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	118.98	73.83	42.94	26.32	17.89	15.47	13.60	11.73	9.47
45.0	112.98	70.75	42.39	25.55	17.45	15.03	13.10	11.18	8.97
90.0	96.95	61.22	34.85	21.36	16.52	14.26	12.28	10.30	8.48
135.0	103.34	63.15	35.73	21.75	16.85	14.59	12.72	10.90	8.42
180.0	94.59	57.92	31.82	20.81	16.52	14.31	12.55	10.52	8.59
225.0	97.06	59.90	34.74	21.03	16.63	14.48	12.61	10.74	8.75
270.0	113.58	72.40	41.84	25.11	17.78	15.42	13.43	11.51	9.30
315.0	110.99	66.34	40.63	24.39	17.56	15.25	13.43	11.51	9.52
360.0	118.98	73.83	42.94	26.32	17.89	15.47	13.60	11.73	9.47

C/γ(°)	90.0
0.0	7.76
45.0	7.60
90.0	7.60
135.0	7.65
180.0	7.65
225.0	7.54
270.0	7.60
315.0	7.71
360.0	7.76