
Nata

LumCAT: 3-2046-M
Luminaire: 92.70.135.00
Report No: GC2017103109
Test No: NT-0010
LampCAT: NICHIA NFCWD084B-V2
Lamp flux(lm): 2537.0
Number of Lamps: 1
Length(mm): 84
Phm Type: C

Voltage(V): 34.3000
Current(A): 0.5000
Power (W): 17.1500
PF: 0.0000
Ballast type: DC
Width(mm): 84
Height(mm): 0

Photometric Results

Lumens(lm): 2284.74
Efficiency(%): 90.06%
Lumens(lm)/Power(W): 133.22
Central intensity(cd): 5636.537
Maximum intensity(cd): 5636.537
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=33.0
 [C90/270]Total=33.0
Field angle(10%Imax): [C0/180]Total=67.3
 [C90/270]Total=67.3
Maximum s/h(1/2): C0_180=0.54 C90_270=0.54
Maximum s/h(1/4): C0_180=0.57 C90_270=0.57
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 90.06%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.545%

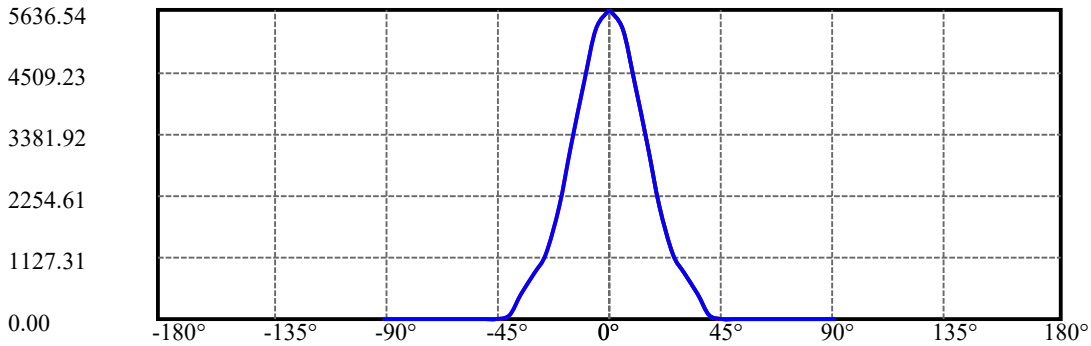
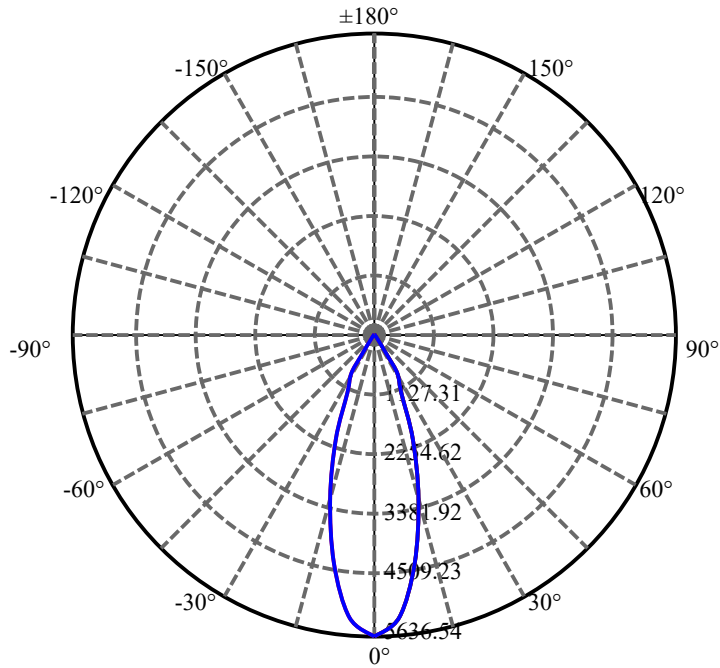
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5636.537	0.000	0	.000%	.000%
5.0	5280.597	130.511	130.511	5.144%	5.712%
10.0	4331.906	343.870	474.381	13.554%	20.763%
15.0	3150.190	443.833	918.214	17.494%	40.189%
20.0	2061.587	429.524	1347.737	16.930%	58.989%
25.0	1181.077	340.096	1687.833	13.405%	73.874%
30.0	839.596	255.718	1943.551	10.080%	85.067%
35.0	461.620	191.613	2135.164	7.553%	93.453%
40.0	55.717	86.314	2221.478	3.402%	97.231%
45.0	15.430	13.173	2234.651	.519%	97.808%
50.0	13.310	5.807	2240.458	.229%	98.062%
55.0	12.188	5.544	2246.003	.219%	98.305%
60.0	11.521	5.480	2251.483	.216%	98.545%
65.0	11.073	5.493	2256.975	.216%	98.785%
70.0	10.770	5.531	2262.506	.218%	99.027%
75.0	10.516	5.564	2268.07	.219%	99.271%
80.0	10.302	5.570	2273.64	.220%	99.514%
85.0	10.158	5.560	2279.2	.219%	99.758%
90.0	10.062	5.536	2284.736	.218%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1943.55	76.61%	85.07%
0-40	2221.48	87.56%	97.23%
0-60	2251.48	88.75%	98.54%
0-90	2279.20	89.84%	99.76%
0-120	2279.20	89.84%	99.76%
0-180	2284.74	90.06%	100.00%
60-90	33.20	1.31%	1.45%
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%
0-27.74	1827.79	72.05%	80.00%

ZONAL LUMEN SUMMARY

0-10	474.38
10-20	873.36
20-30	595.81
30-40	277.93
40-50	18.98
50-60	11.02
60-70	11.02
70-80	11.13
80-90	5.56
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



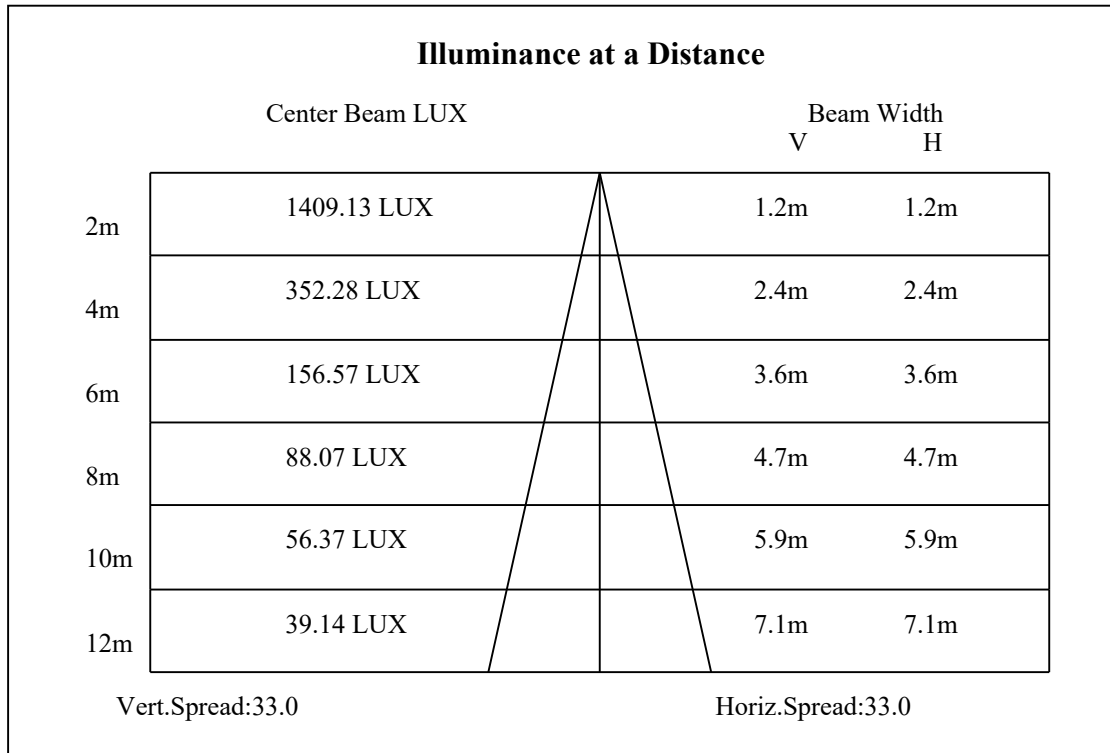
C0(Max): —————

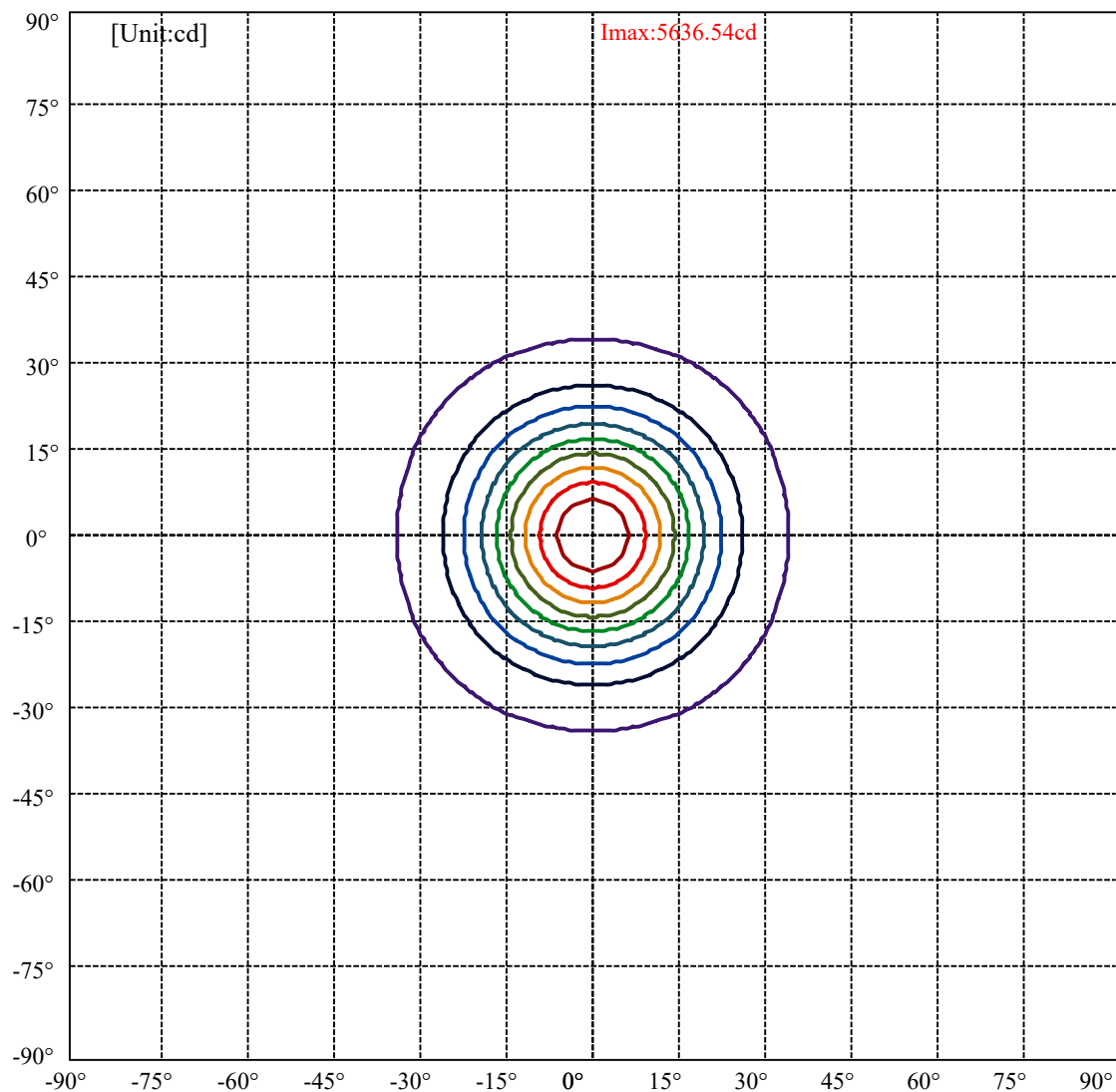
C0/C180: —————

C90/C270: —————

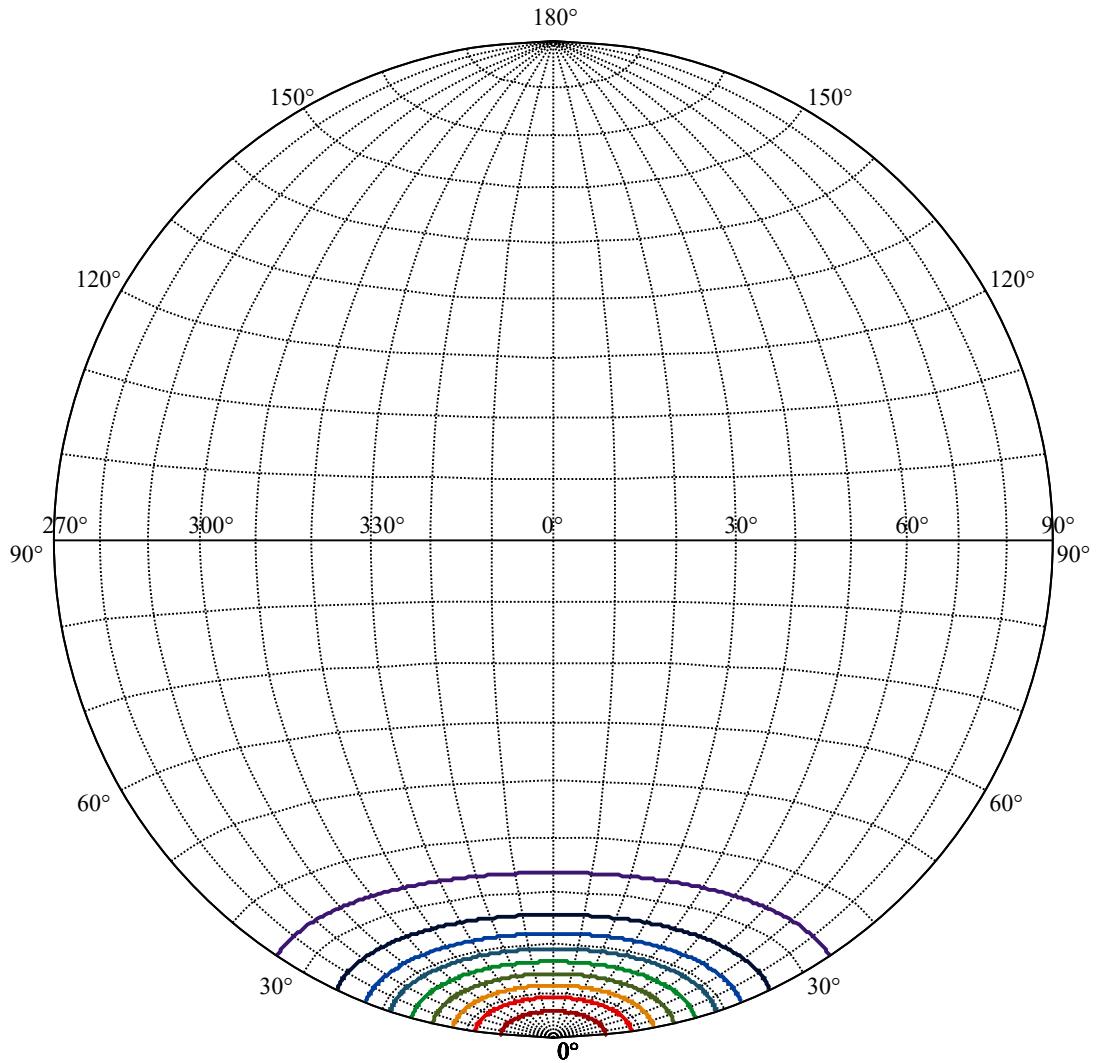
Field angle(10%Imax):C0/180Left:33.7 Right:33.7
:C90/270Left:33.7 Right:33.7

Beam Angle(50%Imax):C0/180Left:16.5 Right:16.5
:C90/270Left:16.5 Right:16.5





(10%Imax) 563.654	—
(20%Imax) 1127.31	—
(30%Imax) 1690.96	—
(40%Imax) 2254.61	—
(50%Imax) 2818.27	—
(60%Imax) 3381.92	—
(70%Imax) 3945.58	—
(80%Imax) 4509.23	—
(90%Imax) 5072.88	—



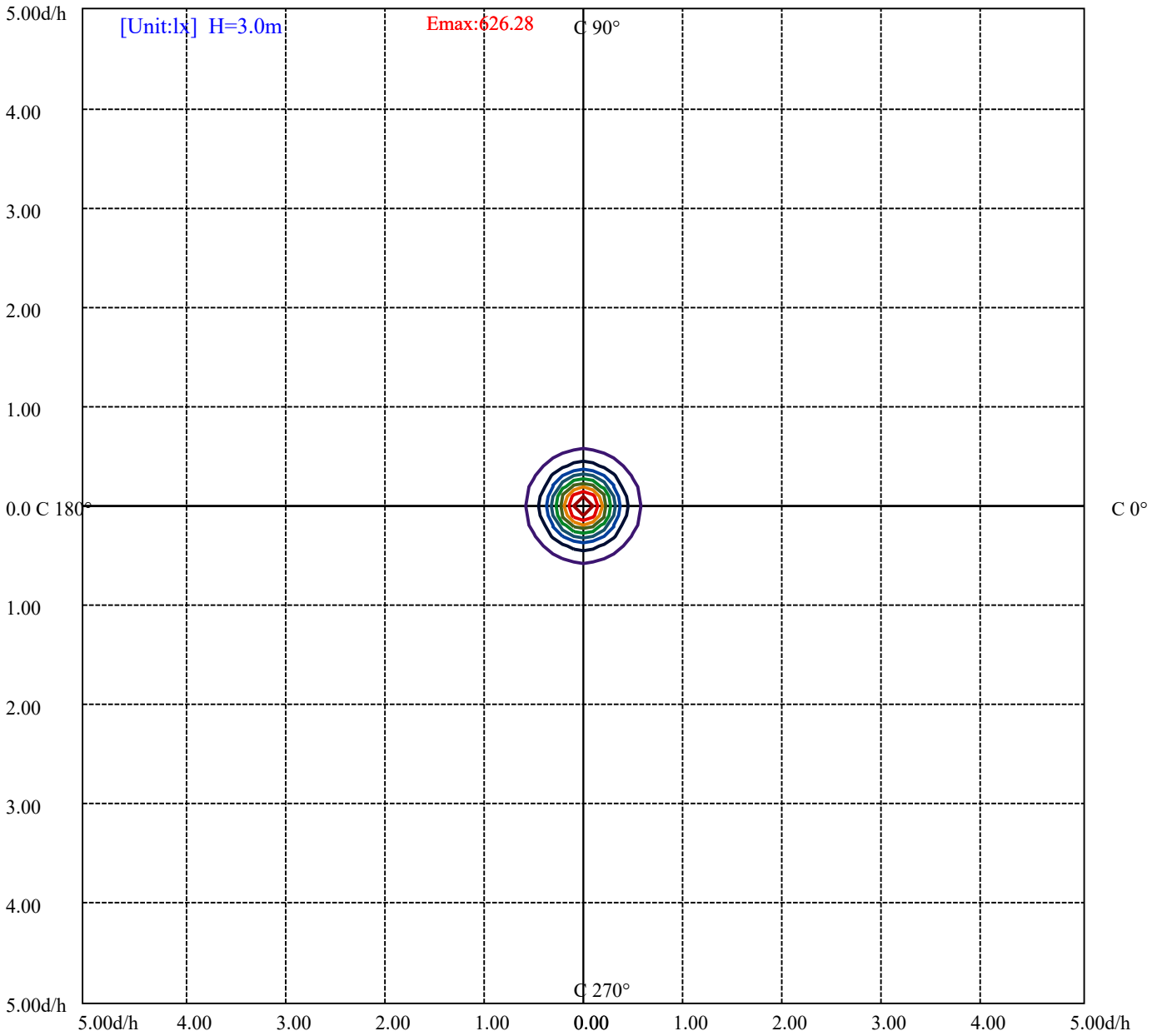
House

[Unit:cd]

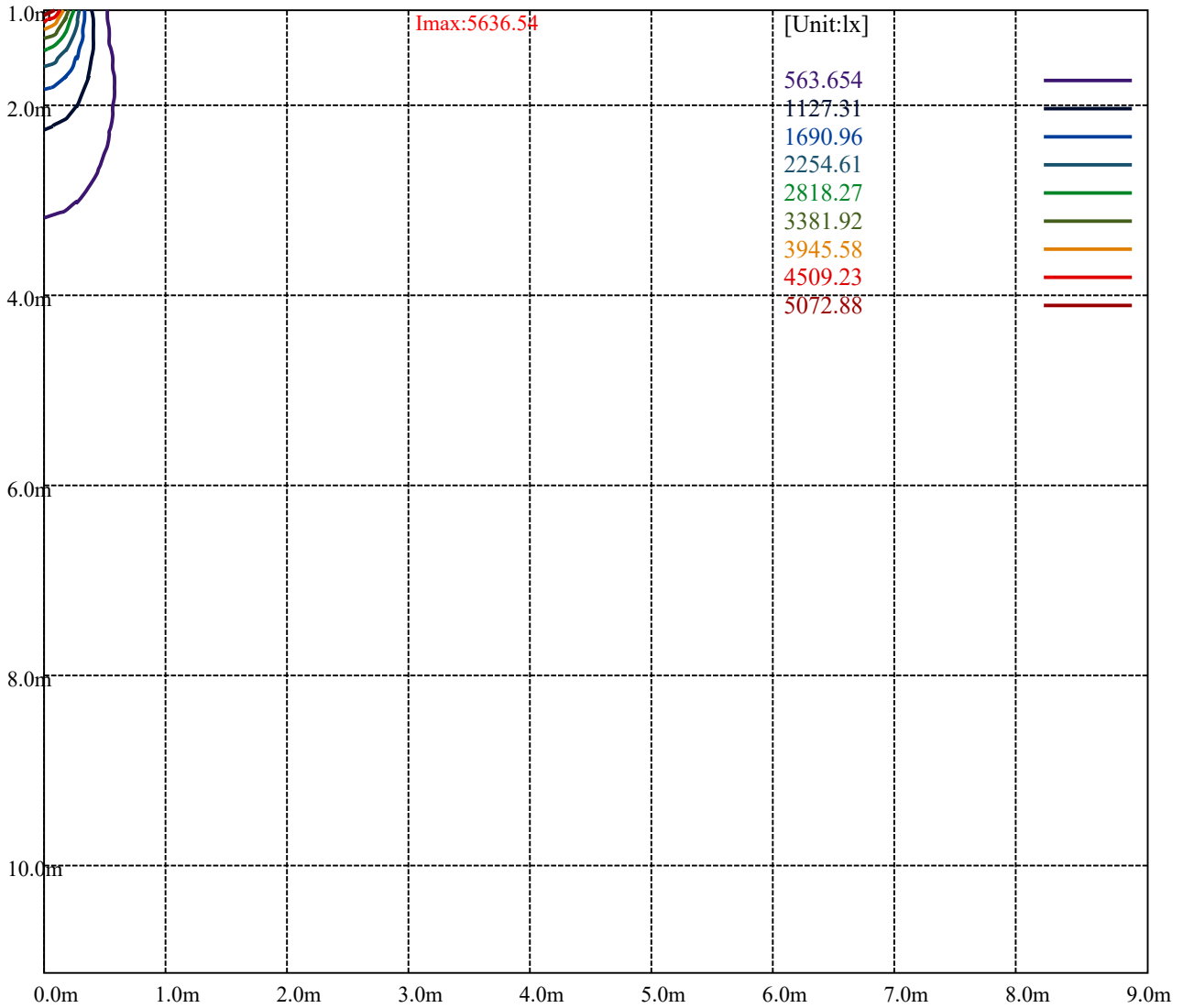
Road

Imax:5636.54

(10%Imax) 563.654	—
(20%Imax) 1127.31	—
(30%Imax) 1690.96	—
(40%Imax) 2254.61	—
(50%Imax) 2818.27	—
(60%Imax) 3381.92	—
(70%Imax) 3945.58	—
(80%Imax) 4509.23	—
(90%Imax) 5072.88	—



- (10%E_{max}) 62.62811
- (20%E_{max}) 125.2567
- (30%E_{max}) 187.8844
- (40%E_{max}) 250.5122
- (50%E_{max}) 313.14
- (60%E_{max}) 375.7689
- (70%E_{max}) 438.3967
- (80%E_{max}) 501.0245
- (90%E_{max}) 563.6522



Luminance Table

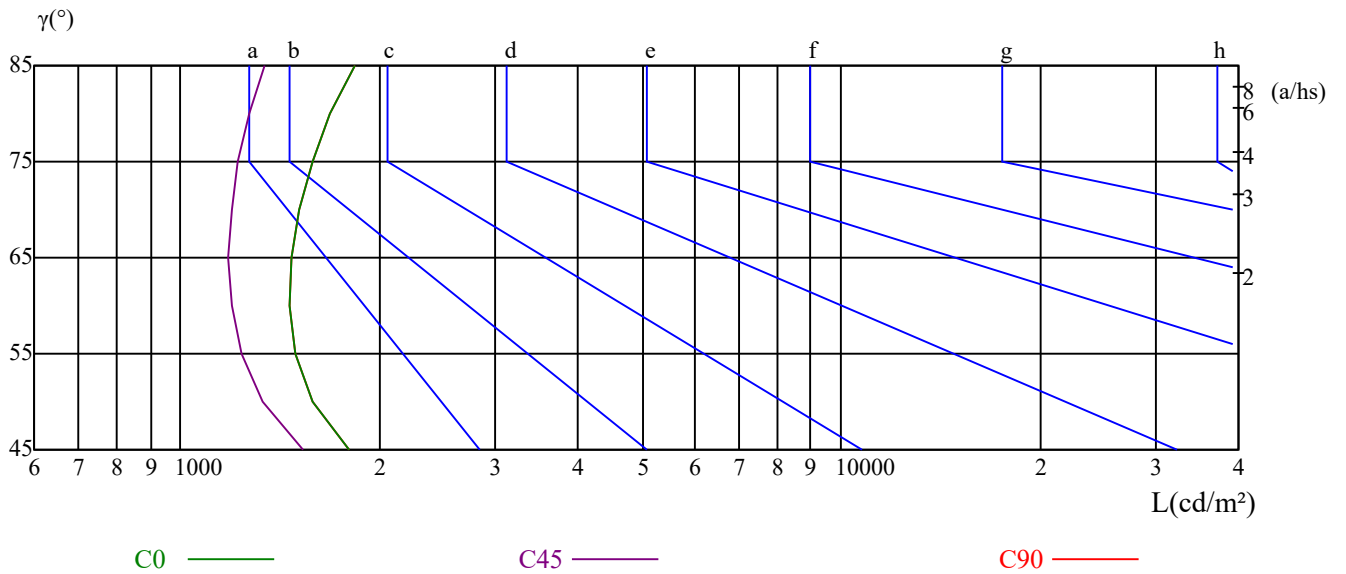
γ	45	50	55	60	65	70	75	80	85
C0	1795	1581	1490	1462	1472	1516	1586	1686	1833
C45	1537	1333	1237	1194	1181	1194	1222	1269	1341
C90	1795	1581	1490	1462	1472	1516	1586	1686	1833

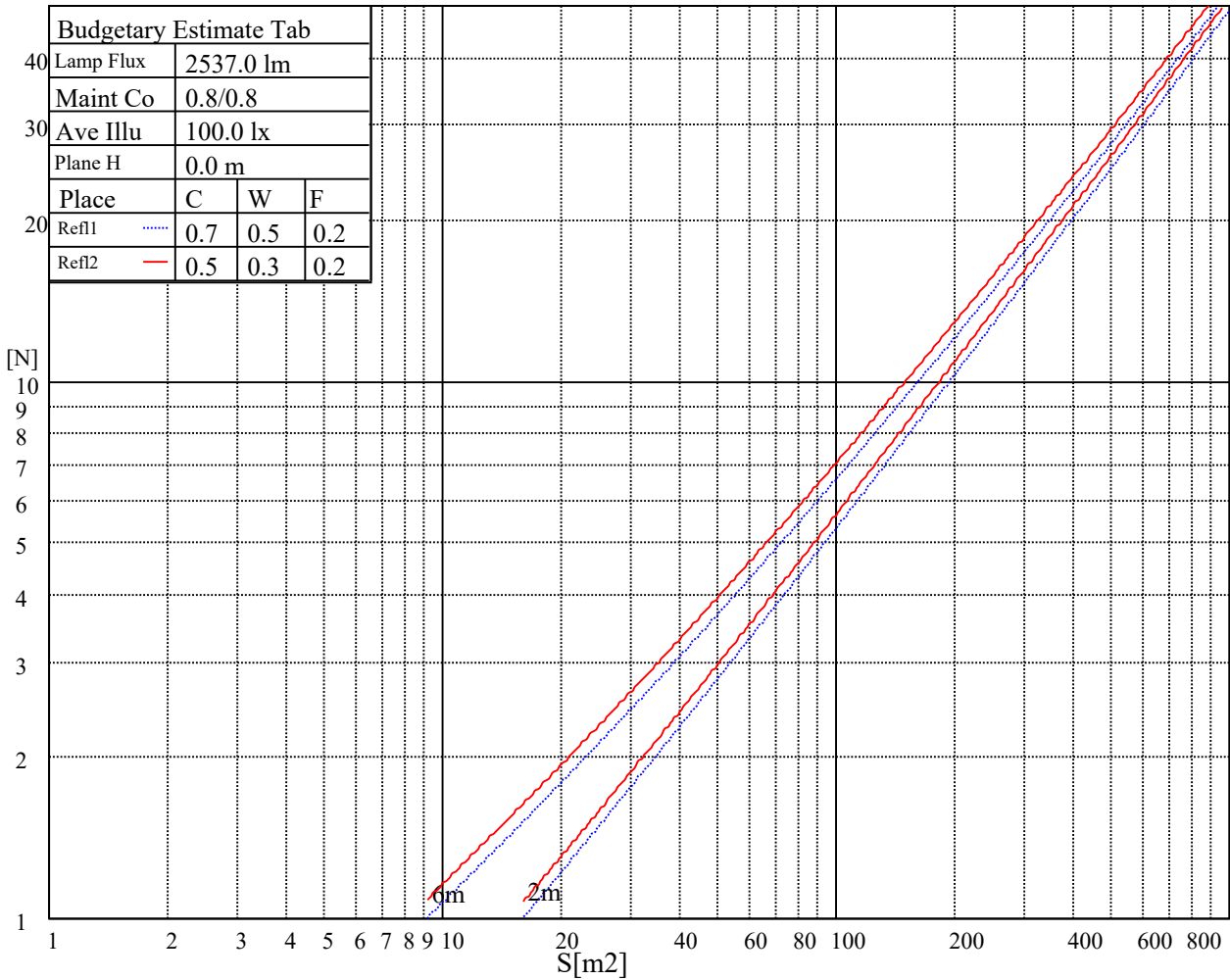
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3627	3627	3627	5624	5624	5624	16131	16131	16131

Glare Table

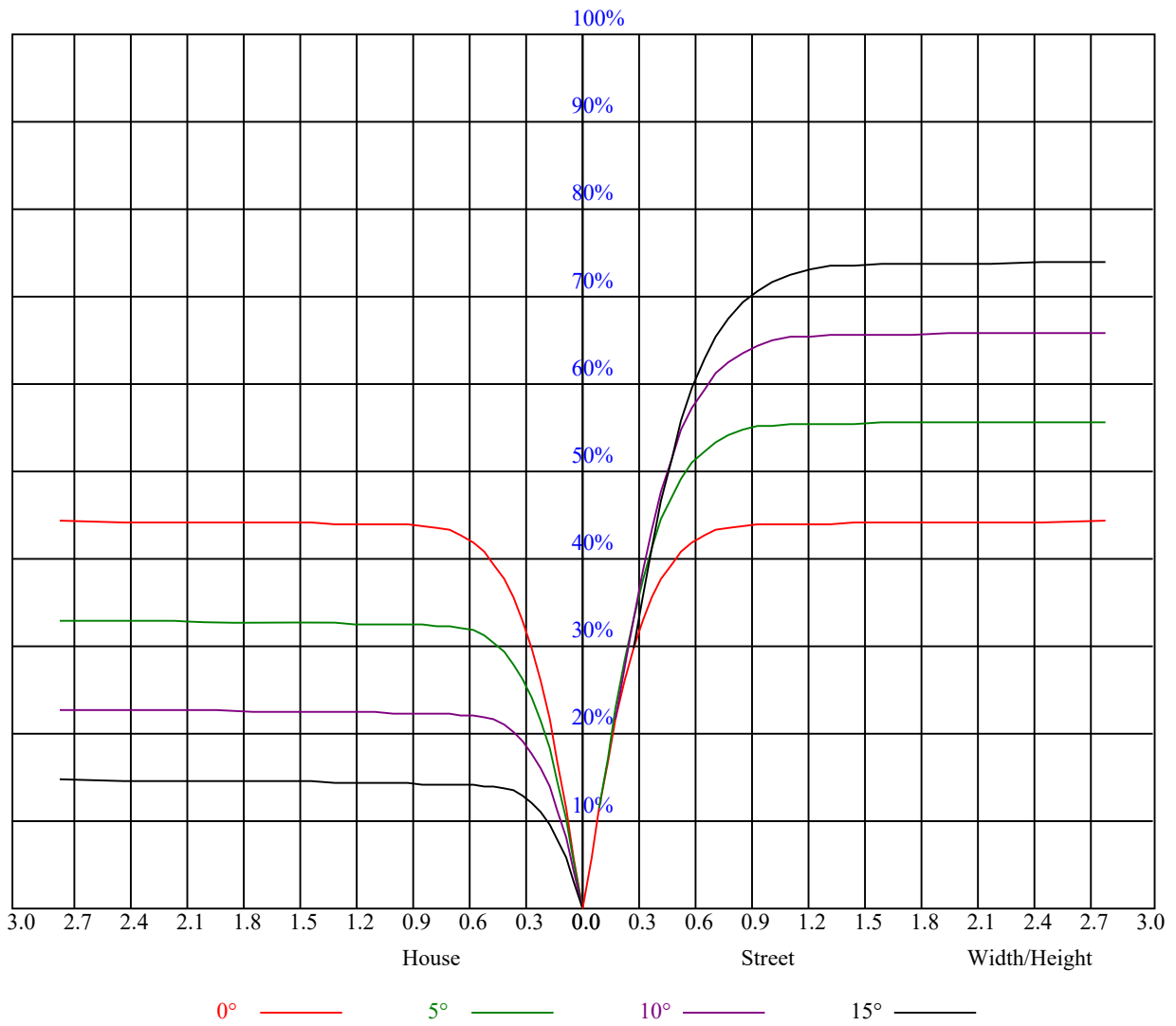
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	0.97	0.95	0.95	0.93	0.92	0.92	0.90	0.89	0.88	0.88	0.87	0.85
2	0.95	0.91	0.89	0.93	0.90	0.88	0.90	0.88	0.86	0.87	0.86	0.84	0.85	0.84	0.82	0.81
3	0.89	0.85	0.82	0.88	0.85	0.82	0.86	0.83	0.80	0.84	0.81	0.79	0.82	0.80	0.78	0.77
4	0.85	0.80	0.77	0.84	0.80	0.77	0.82	0.78	0.76	0.80	0.77	0.75	0.79	0.76	0.74	0.73
5	0.81	0.76	0.73	0.80	0.76	0.72	0.78	0.75	0.72	0.77	0.74	0.71	0.75	0.73	0.71	0.69
6	0.77	0.72	0.69	0.76	0.72	0.69	0.75	0.71	0.68	0.74	0.70	0.68	0.73	0.70	0.67	0.66
7	0.73	0.69	0.66	0.73	0.68	0.65	0.72	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.64	0.63
8	0.70	0.66	0.62	0.70	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.62	0.61
9	0.67	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.59	0.65	0.62	0.59	0.65	0.61	0.59	0.58
10	0.65	0.60	0.57	0.64	0.60	0.57	0.64	0.60	0.57	0.63	0.59	0.57	0.62	0.59	0.57	0.56



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	5636.12	5396.08	4567.48	3442.68	2260.07	1330.71	889.71	583.60	71.30
45.0	5638.88	5240.82	4340.10	3173.45	2096.55	1286.67	856.68	481.74	55.55
90.0	5622.91	5109.23	3993.79	2889.36	1864.21	1097.82	813.51	347.08	26.32
135.0	5648.24	5281.01	4223.38	3101.88	2022.77	1173.80	833.55	441.55	30.50
180.0	5636.12	5140.07	4130.88	2889.36	1811.91	1085.49	796.23	333.75	28.41
225.0	5638.88	5314.59	4364.87	3136.01	1982.03	1048.88	818.47	432.30	31.05
270.0	5622.91	5446.18	4640.15	3411.29	2353.11	1331.26	870.44	569.28	156.42
315.0	5648.24	5316.80	4394.60	3157.48	2102.05	1093.97	838.18	503.66	46.19
360.0	5636.12	5396.08	4567.48	3442.68	2260.07	1330.71	889.71	583.60	71.30
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	17.40	13.76	12.44	11.67	11.23	10.90	10.63	10.46	10.24
45.0	15.09	13.21	12.11	11.45	11.07	10.79	10.52	10.30	10.13
90.0	14.31	12.94	11.95	11.34	11.01	10.68	10.46	10.24	10.13
135.0	14.81	13.32	12.22	11.56	11.07	10.74	10.52	10.30	10.13
180.0	14.31	12.88	11.89	11.34	10.90	10.68	10.41	10.24	10.13
225.0	14.76	12.99	11.95	11.34	10.90	10.68	10.41	10.24	10.13
270.0	17.07	13.60	12.39	11.62	11.12	10.79	10.57	10.30	10.19
315.0	15.69	13.76	12.55	11.84	11.29	10.90	10.63	10.35	10.19
360.0	17.40	13.76	12.44	11.67	11.23	10.90	10.63	10.46	10.24
C/ γ (°)	90.0								
0.0	10.08								
45.0	10.02								
90.0	10.02								
135.0	10.08								
180.0	10.08								
225.0	10.08								
270.0	10.08								
315.0	10.08								
360.0	10.08								