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NATA

LumCAT: 2-1568-M
Luminaire: BJB 47.319.2021
Report No: NATA0100
Test No: GC2020011325
LampCAT: LUMINUS CXM-14-AC40
Lamp flux(lm): 2552.0
Number of Lamps: 1
Length(mm): 0
Phm Type: C

Voltage(V): 34.2800
Current(A): 0.6020
Power (W): 20.6000
PF: 0.0000
Ballast type: DC
Width(mm): 0
Height(mm): 0

Photometric Results

Lumens(lm): 2326.68
Efficiency(%): 91.17%
Lumens(lm)/Power(W): 112.95
Central intensity(cd): 4530.234
Maximum intensity(cd): 4530.234
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=39.1
 [C90/270]Total=39.1
Field angle(10%Imax): [C0/180]Total=73.8
 [C90/270]Total=73.8
Maximum s/h(1/2): C0_180=0.64 C90_270=0.64
Maximum s/h(1/4): C0_180=0.62 C90_270=0.62
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 91.17%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.550%

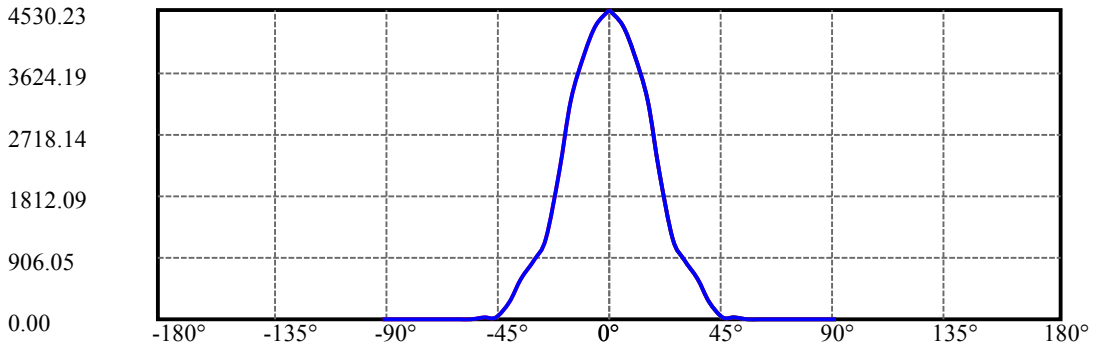
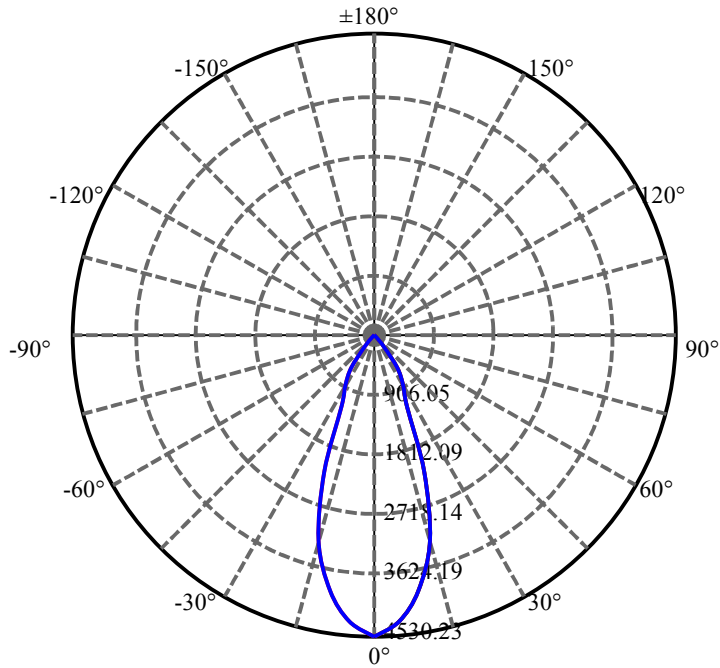
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4530.234	0.000	0	.000%	.000%
5.0	4310.930	105.694	105.694	4.142%	4.543%
10.0	3888.070	293.304	398.998	11.493%	17.149%
15.0	3209.695	421.035	820.032	16.498%	35.245%
20.0	2167.172	443.129	1263.162	17.364%	54.290%
25.0	1185.096	351.591	1614.753	13.777%	69.401%
30.0	861.532	259.003	1873.755	10.149%	80.533%
35.0	581.541	212.503	2086.258	8.327%	89.667%
40.0	240.870	137.213	2223.471	5.377%	95.564%
45.0	24.398	49.117	2272.587	1.925%	97.675%
50.0	15.884	8.140	2280.727	.319%	98.025%
55.0	13.275	6.340	2287.067	.248%	98.297%
60.0	12.171	5.882	2292.949	.230%	98.550%
65.0	11.412	5.733	2298.682	.225%	98.796%
70.0	10.898	5.649	2304.331	.221%	99.039%
75.0	10.547	5.605	2309.936	.220%	99.280%
80.0	10.336	5.588	2315.524	.219%	99.520%
85.0	10.223	5.586	2321.11	.219%	99.760%
90.0	10.132	5.573	2326.684	.218%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1873.76	73.42%	80.53%
0-40	2223.47	87.13%	95.56%
0-60	2292.95	89.85%	98.55%
0-90	2321.11	90.95%	99.76%
0-120	2321.11	90.95%	99.76%
0-180	2326.68	91.17%	100.00%
60-90	34.04	1.33%	1.46%
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%
0-29.76	1861.35	72.94%	80.00%

ZONAL LUMEN SUMMARY

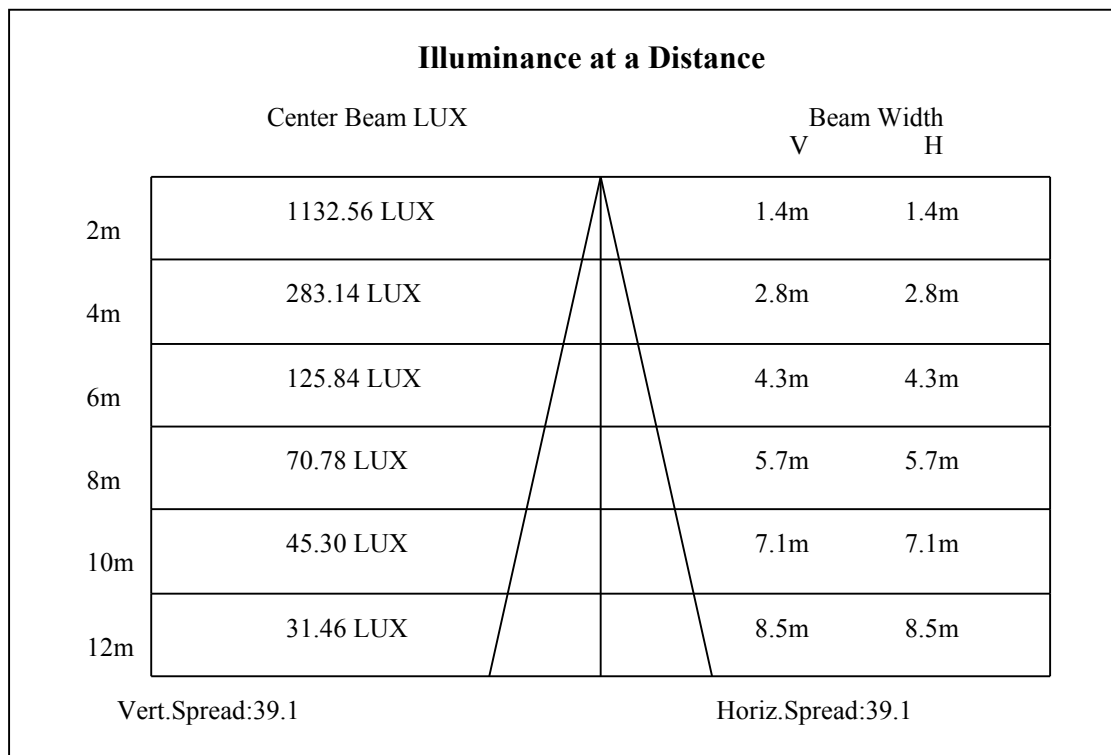
0-10	399.00
10-20	864.16
20-30	610.59
30-40	349.72
40-50	57.26
50-60	12.22
60-70	11.38
70-80	11.19
80-90	5.59
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

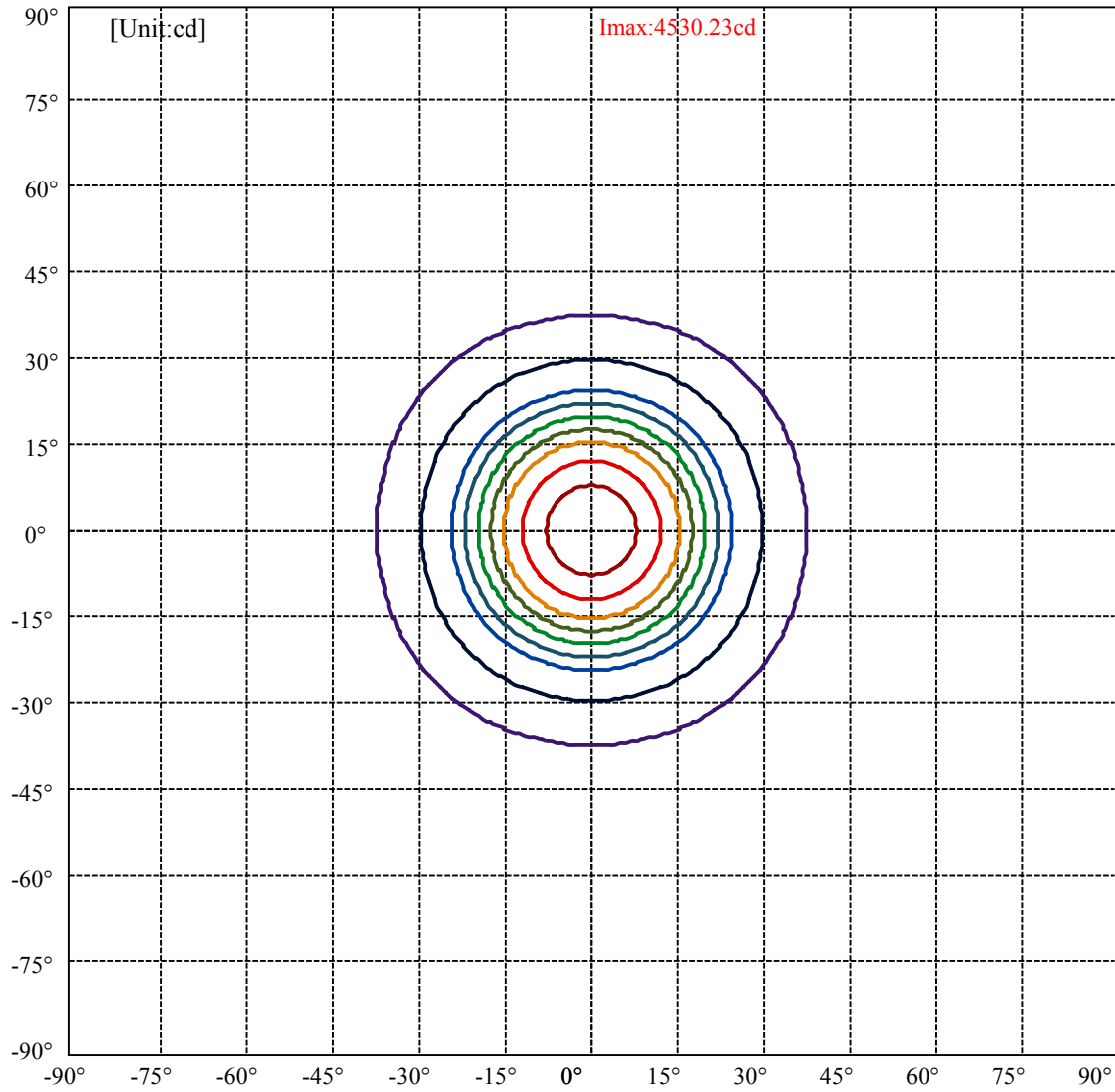


C0(Max): —————
C0/C180: —————
C90/C270: —————

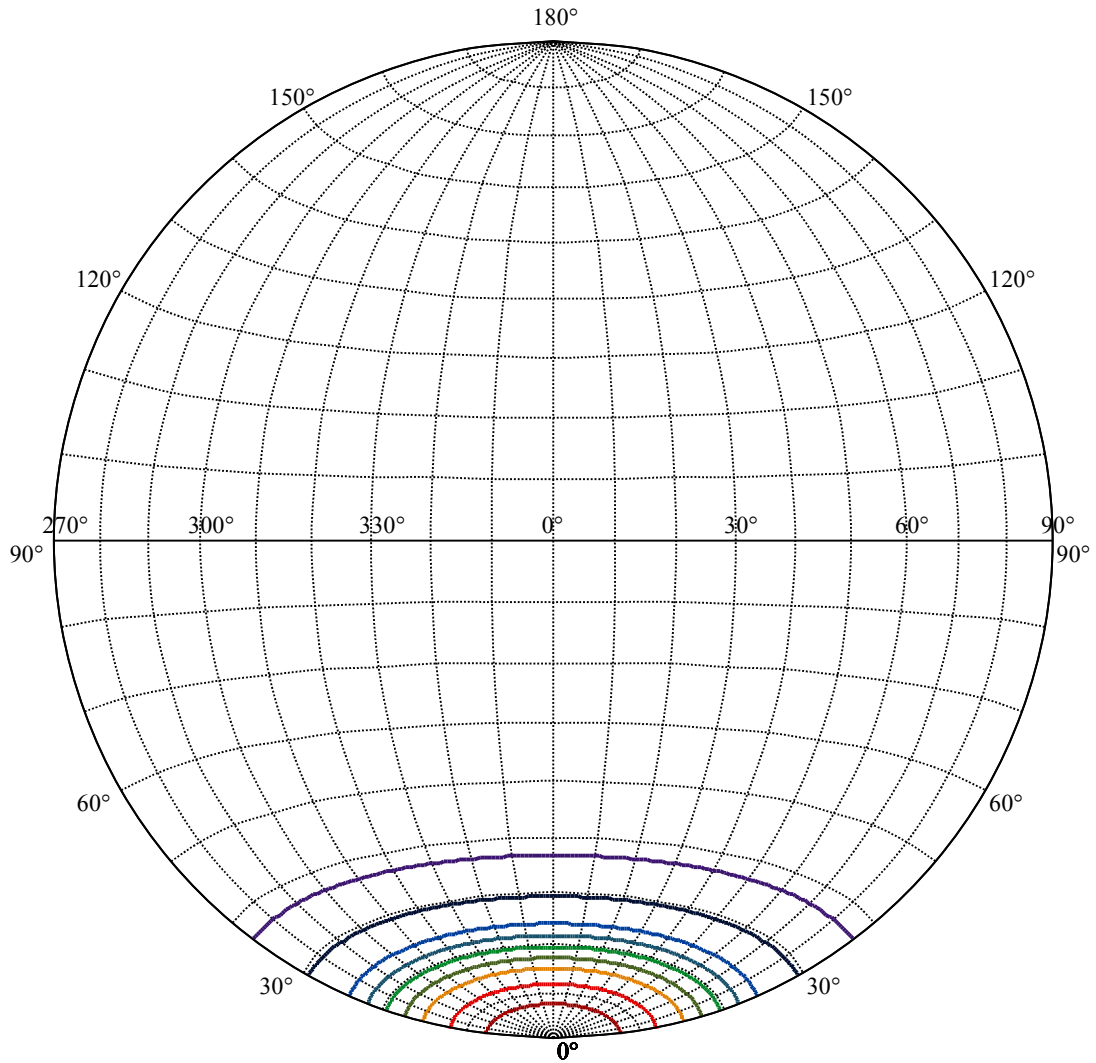
Field angle(10%Imax):C0/180Left:36.9 Right:36.9
:C90/270Left:36.9 Right:36.9

Beam Angle(50%Imax):C0/180Left:19.5 Right:19.5
:C90/270Left:19.5 Right:19.5



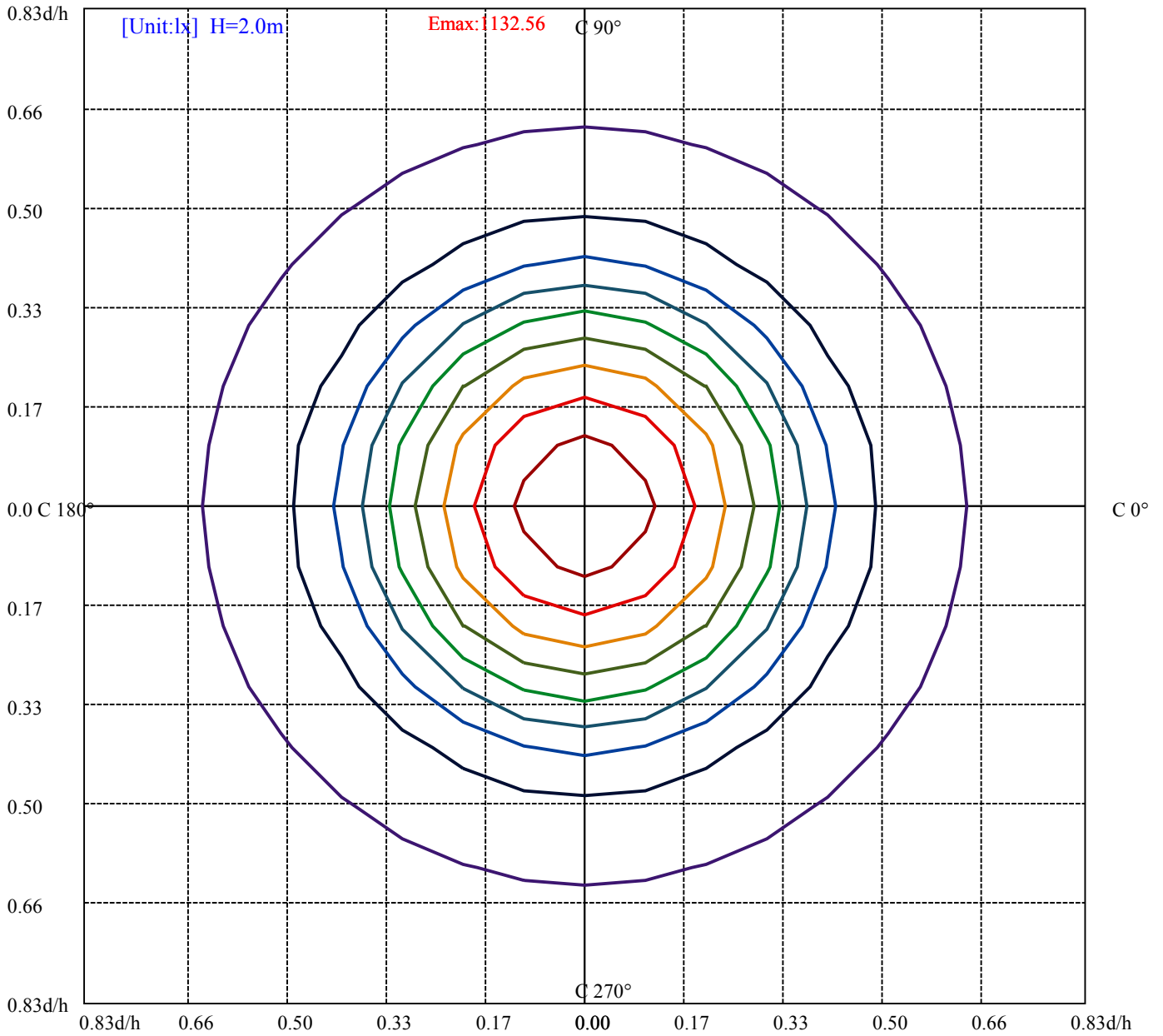


(10%Imax) 453.023	—
(20%Imax) 906.047	—
(30%Imax) 1359.07	—
(40%Imax) 1812.09	—
(50%Imax) 2265.12	—
(60%Imax) 2718.14	—
(70%Imax) 3171.16	—
(80%Imax) 3624.19	—
(90%Imax) 4077.21	—

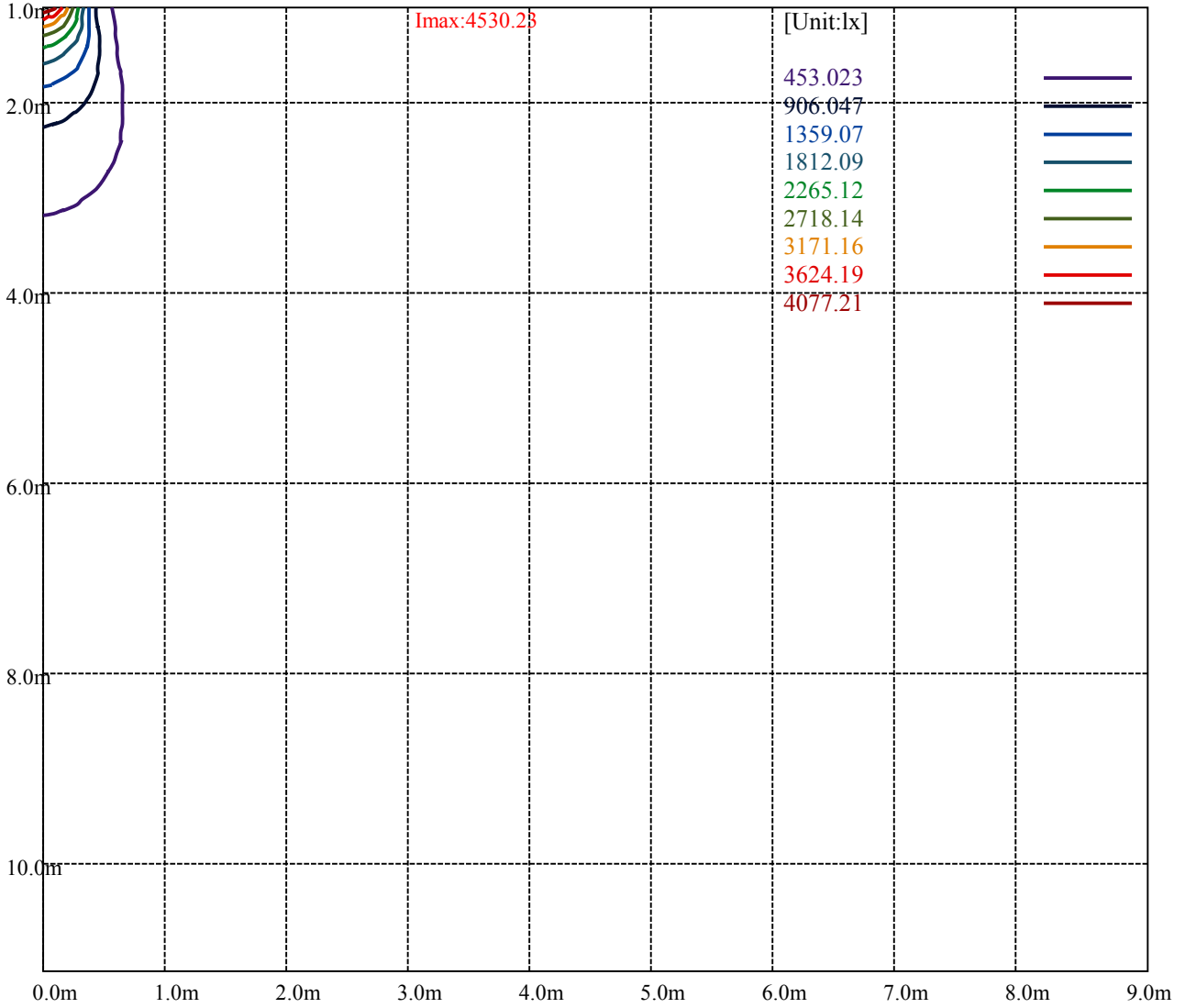


Imax:4530.23

(10%Imax) 453.023	—
(20%Imax) 906.047	—
(30%Imax) 1359.07	—
(40%Imax) 1812.09	—
(50%Imax) 2265.12	—
(60%Imax) 2718.14	—
(70%Imax) 3171.16	—
(80%Imax) 3624.19	—
(90%Imax) 4077.21	—



(10%Emax) 113.2558	—
(20%Emax) 226.5115	—
(30%Emax) 339.7675	—
(40%Emax) 453.0225	—
(50%Emax) 566.2775	—
(60%Emax) 679.535	—
(70%Emax) 792.79	—
(80%Emax) 906.045	—
(90%Emax) 1019.3	—



Luminance Table

γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

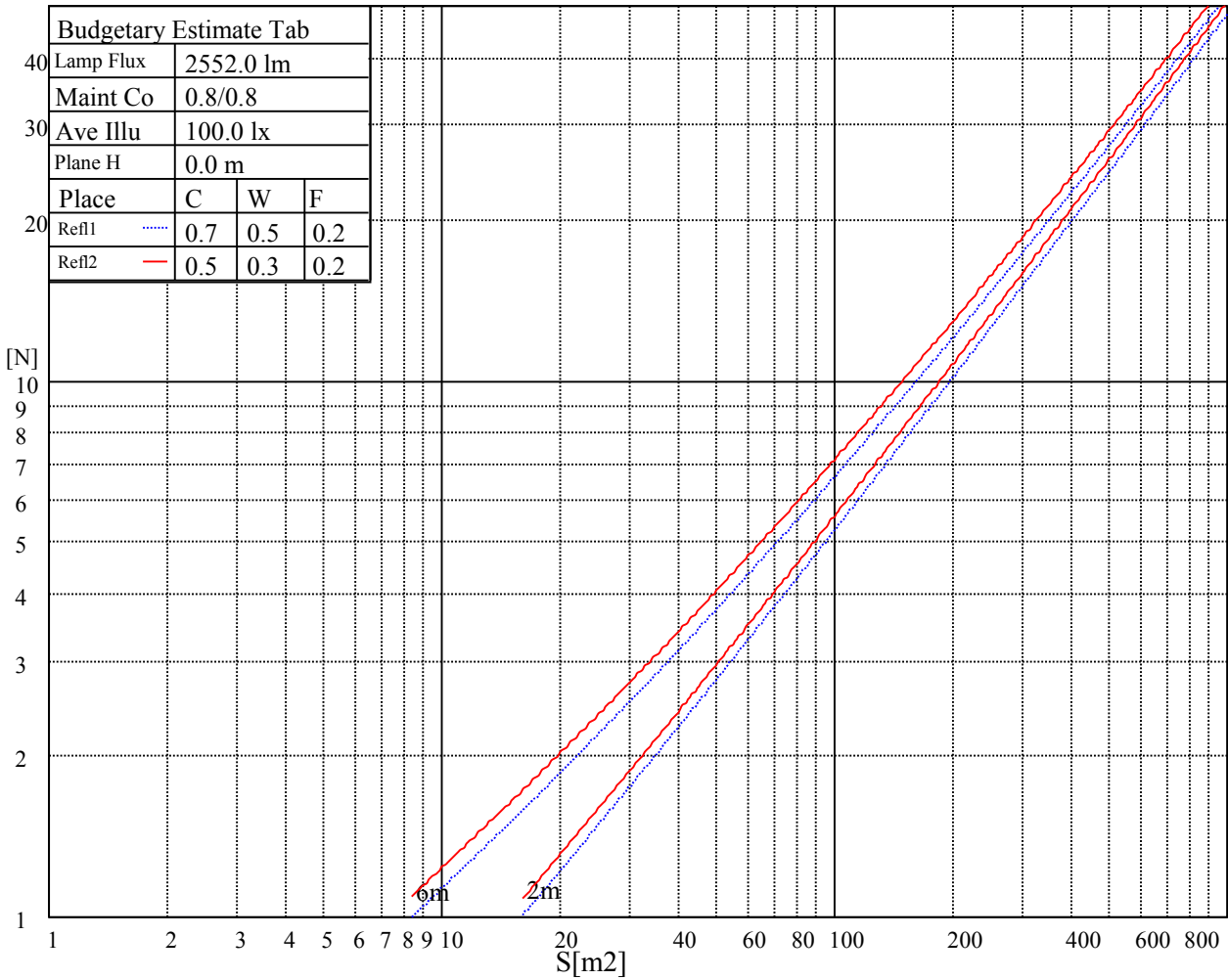
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

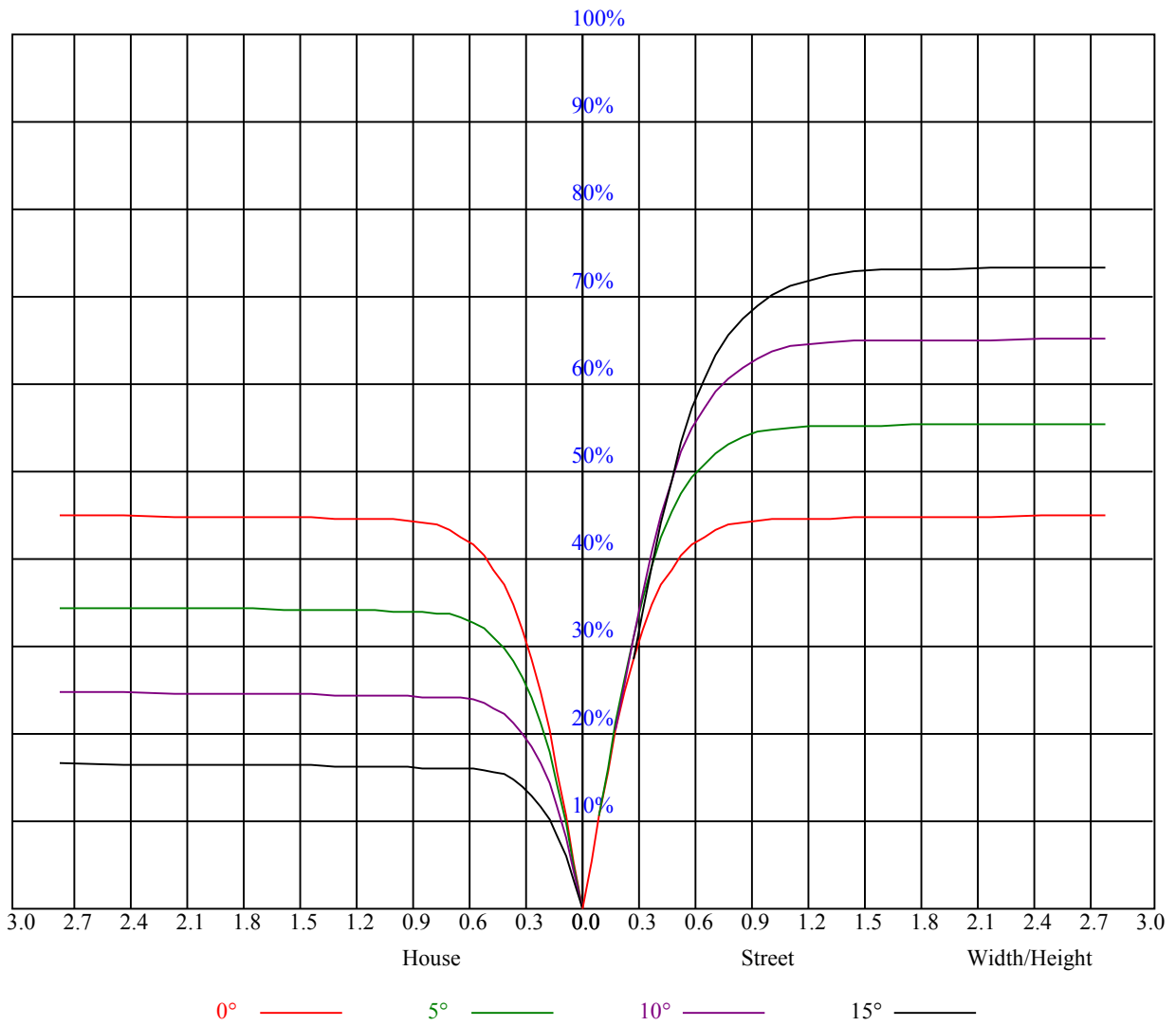
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.09	1.09	1.09	1.06	1.06	1.06	1.01	1.01	1.01	0.97	0.97	0.97	0.93	0.93	0.93	0.91
1	1.01	0.99	0.97	0.99	0.97	0.96	0.96	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87	0.86
2	0.95	0.92	0.89	0.94	0.90	0.88	0.91	0.88	0.86	0.88	0.86	0.84	0.85	0.84	0.82	0.81
3	0.90	0.85	0.82	0.88	0.84	0.81	0.86	0.83	0.80	0.84	0.81	0.79	0.82	0.80	0.78	0.76
4	0.85	0.80	0.76	0.84	0.79	0.76	0.82	0.78	0.75	0.80	0.77	0.74	0.78	0.76	0.73	0.72
5	0.80	0.75	0.72	0.79	0.75	0.71	0.78	0.74	0.71	0.76	0.73	0.70	0.75	0.72	0.70	0.68
6	0.76	0.71	0.68	0.75	0.71	0.67	0.74	0.70	0.67	0.73	0.69	0.66	0.72	0.68	0.66	0.65
7	0.72	0.67	0.64	0.72	0.67	0.64	0.71	0.66	0.63	0.70	0.66	0.63	0.69	0.65	0.63	0.62
8	0.69	0.64	0.61	0.68	0.64	0.61	0.67	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.60	0.59
9	0.66	0.61	0.58	0.65	0.61	0.58	0.64	0.60	0.57	0.64	0.60	0.57	0.63	0.60	0.57	0.56
10	0.63	0.58	0.55	0.62	0.58	0.55	0.62	0.58	0.55	0.61	0.57	0.55	0.60	0.57	0.54	0.53



NATA 2-1568-M

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	4536.00	4306.50	3893.06	3286.13	2272.50	1277.44	879.19	579.94	303.75
45.0	4535.44	4270.50	3841.88	3240.00	2188.69	1236.94	879.19	534.94	309.94
90.0	4515.19	4162.50	3659.06	2891.25	1834.88	1053.96	826.43	498.32	117.79
135.0	4534.31	4286.81	3858.75	3162.38	2183.63	1207.69	861.75	635.06	303.75
180.0	4536.00	4340.81	3904.88	3238.88	2116.13	1121.46	847.58	552.49	181.97
225.0	4535.44	4367.25	3997.69	3367.13	2297.81	1113.36	868.78	581.91	205.71
270.0	4515.19	4435.31	4069.69	3432.94	2400.19	1373.06	898.31	691.88	320.06
315.0	4534.31	4317.75	3879.56	3058.88	2043.56	1096.88	831.04	577.80	183.99
360.0	4536.00	4306.50	3893.06	3286.13	2272.50	1277.44	879.19	579.94	303.75

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	24.86	15.98	13.11	12.09	11.36	10.86	10.52	10.35	10.29
45.0	22.73	15.47	13.22	12.15	11.42	10.91	10.58	10.35	10.24
90.0	22.28	15.53	13.39	12.21	11.42	10.86	10.52	10.29	10.18
135.0	25.37	16.65	13.73	12.49	11.64	11.03	10.63	10.35	10.18
180.0	23.51	15.69	13.44	12.26	11.48	10.91	10.52	10.29	10.24
225.0	24.69	15.30	13.11	12.09	11.31	10.86	10.52	10.35	10.24
270.0	28.52	16.88	13.28	12.15	11.42	10.97	10.58	10.35	10.24
315.0	23.23	15.58	12.94	11.93	11.25	10.80	10.52	10.35	10.18
360.0	24.86	15.98	13.11	12.09	11.36	10.86	10.52	10.35	10.29

C/γ(°)	90.0
0.0	10.13
45.0	10.13
90.0	10.13
135.0	10.13
180.0	10.13
225.0	10.13
270.0	10.18
315.0	10.13
360.0	10.13