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Nata

LumCAT: CR01D02960AC

Luminaire:

Report No:

Voltage(V): 38.19

Test No: GC2019101103

Current(A): 0.296

LampCAT: CREE CXA1512

Power (W): 11.3000

Lamp flux(lm): 748.3

PF: 11.3

Number of Lamps: 1

Ballast type: DC

Length(feet)(ft.):0.000

Width(feet)(ft.):0.000

Phm Type: C

Height(feet)(ft.):0.000

Photometric Results

Lumens(lm): 605.10

Efficiency(%): 80.86%

Lumens(lm)/Power(W): 53.55

Central intensity(cd): 528.356

Maximum intensity(cd): 528.356

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=59.2

[C90/270]Total=59.2

Field angle(10%Imax): [C0/180]Total=101.3

[C90/270]Total=101.3

Maximum s/h(1/2): C0_180=0.91 C90_270=0.91

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(%): 81.21%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 91.639%

Equipment: 123
Temperature(°C): 345

Date: 2019/10/11
Humidity(%): 456%

Operator: 234

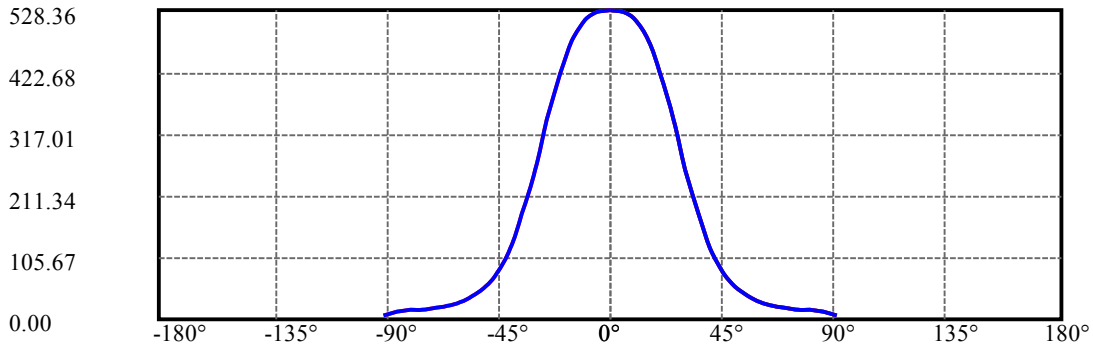
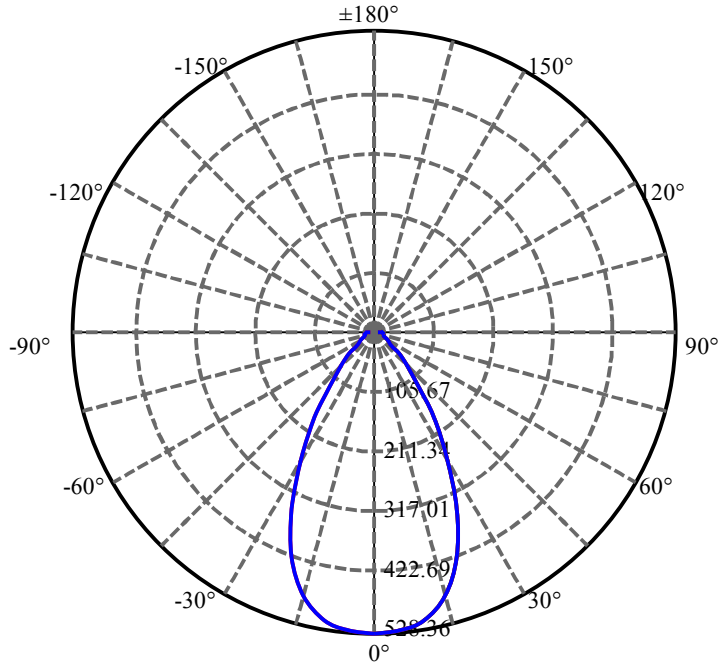
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	528.356	3.160	3.16	.422%	.522%
5.0	524.848	25.074	28.233	3.351%	4.666%
10.0	512.571	48.788	77.021	6.520%	12.729%
15.0	476.276	67.569	144.59	9.029%	23.895%
20.0	420.152	78.768	223.358	10.526%	36.912%
25.0	340.819	78.952	302.309	10.550%	49.960%
30.0	257.506	70.574	372.884	9.431%	61.623%
35.0	180.267	56.676	429.559	7.574%	70.989%
40.0	122.133	43.032	472.591	5.750%	78.101%
45.0	78.947	30.599	503.19	4.089%	83.158%
50.0	55.013	23.100	526.29	3.087%	86.975%
55.0	38.475	17.276	543.566	2.309%	89.830%
60.0	28.048	13.314	556.88	1.779%	92.030%
65.0	21.678	10.769	567.649	1.439%	93.810%
70.0	19.329	9.956	577.605	1.330%	95.456%
75.0	17.571	9.303	586.908	1.243%	96.993%
80.0	15.525	8.381	595.289	1.120%	98.378%
85.0	14.520	7.928	603.217	1.059%	99.688%
90.0	6.884	1.887	605.104	.252%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	372.88	49.83%	61.62%
0-40	472.59	63.15%	78.10%
0-60	556.88	74.42%	92.03%
0-90	603.22	80.61%	99.69%
0-120	603.22	80.61%	99.69%
0-180	605.10	80.86%	100.00%
60-90	59.65	7.97%	9.86%
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%
0-41.88	484.08	64.69%	80.00%

ZONAL LUMEN SUMMARY

0-10	77.02
10-20	146.34
20-30	149.53
30-40	99.71
40-50	53.70
50-60	30.59
60-70	20.72
70-80	17.68
80-90	7.93
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



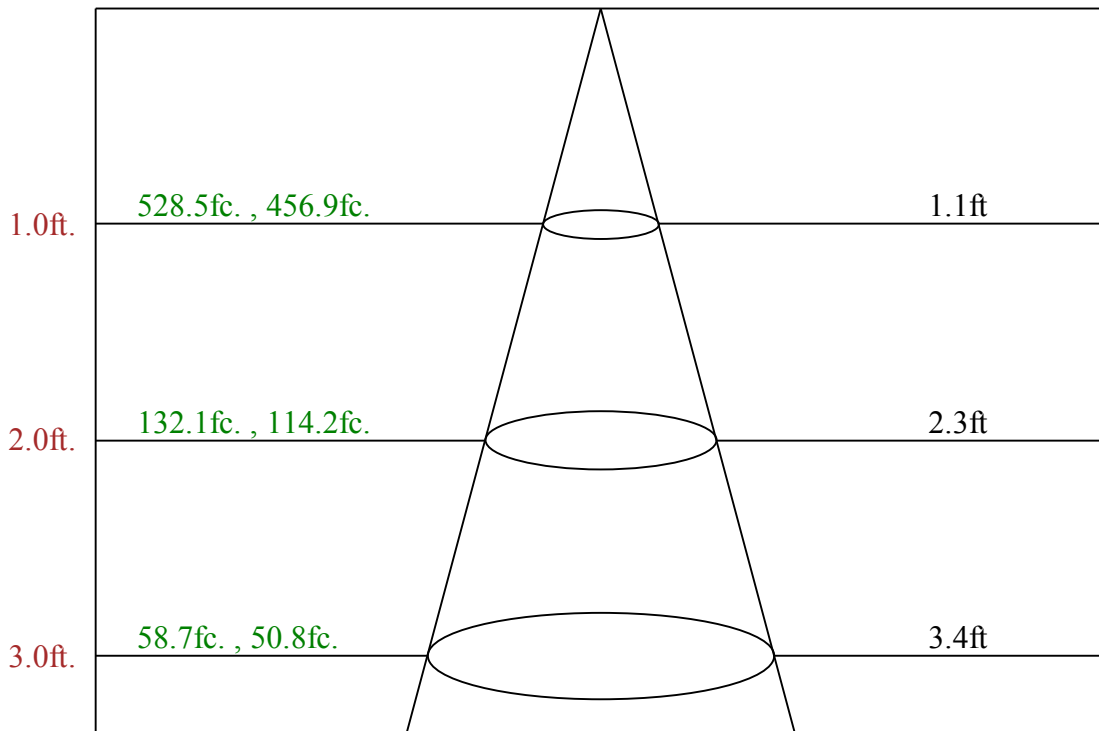
C0(Max): —————

C0/C180: —————

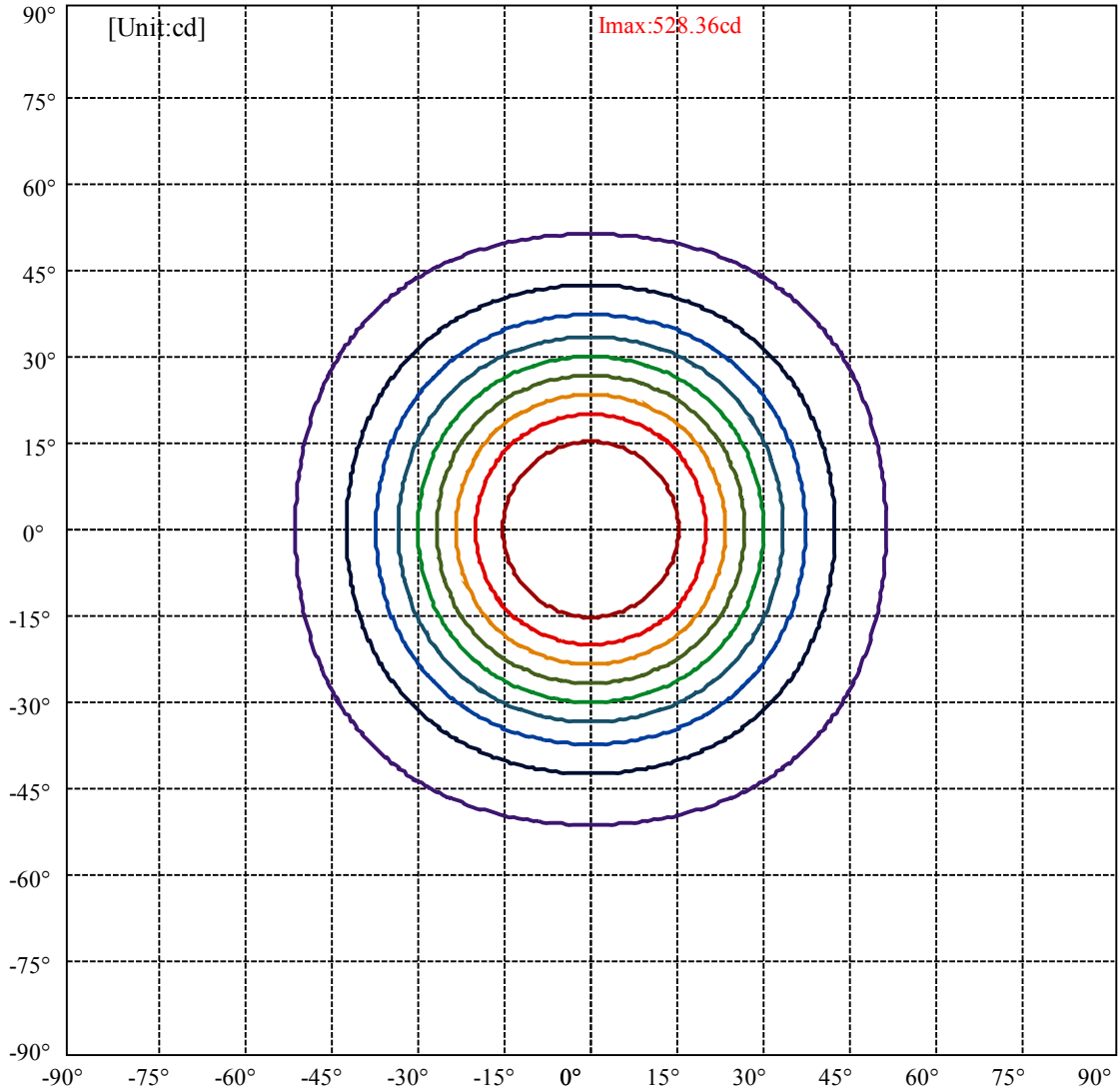
C90/C270: —————

Field angle(10%Imax):C0/180Left:50.7 Right:50.7
:C90/270Left:50.7 Right:50.7

Beam Angle(50%Imax):C0/180Left:29.6 Right:29.6
:C90/270Left:29.6 Right:29.6



Max , Ave Beam angle of C0 plane 59.41

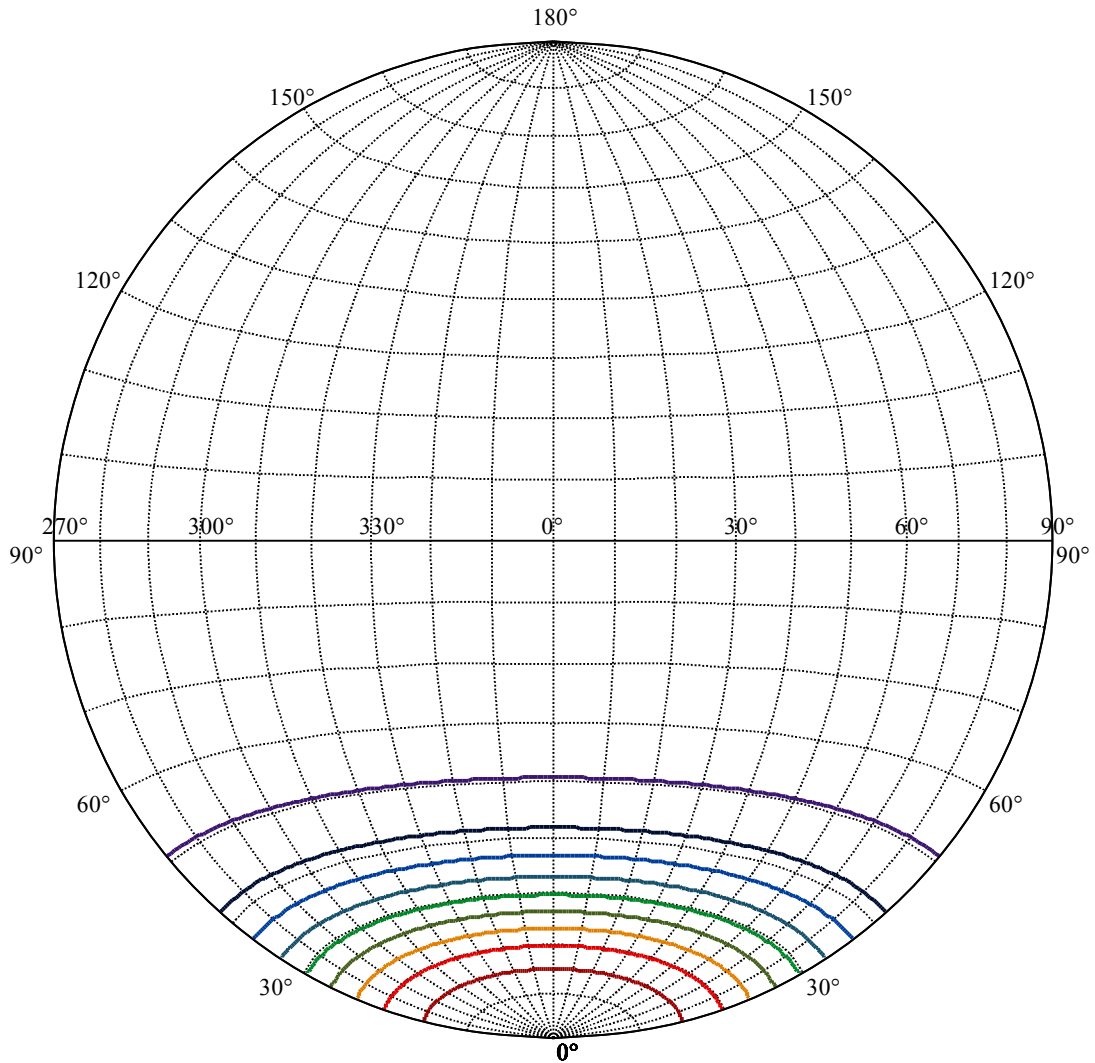


(10%Imax) 52.8356	—
(20%Imax) 105.671	—
(30%Imax) 158.507	—
(40%Imax) 211.342	—
(50%Imax) 264.178	—
(60%Imax) 317.014	—
(70%Imax) 369.849	—
(80%Imax) 422.685	—
(90%Imax) 475.521	—

Equipment: 123
Temperature(°C): 345

Date: 2019/10/11
Humidity(%): 456%

Operator: 234



House

[Unit:cd]

Road

Imax:528.36

(10%Imax) 52.8356

(20%Imax) 105.671

(30%Imax) 158.507

(40%Imax) 211.342

(50%Imax) 264.178

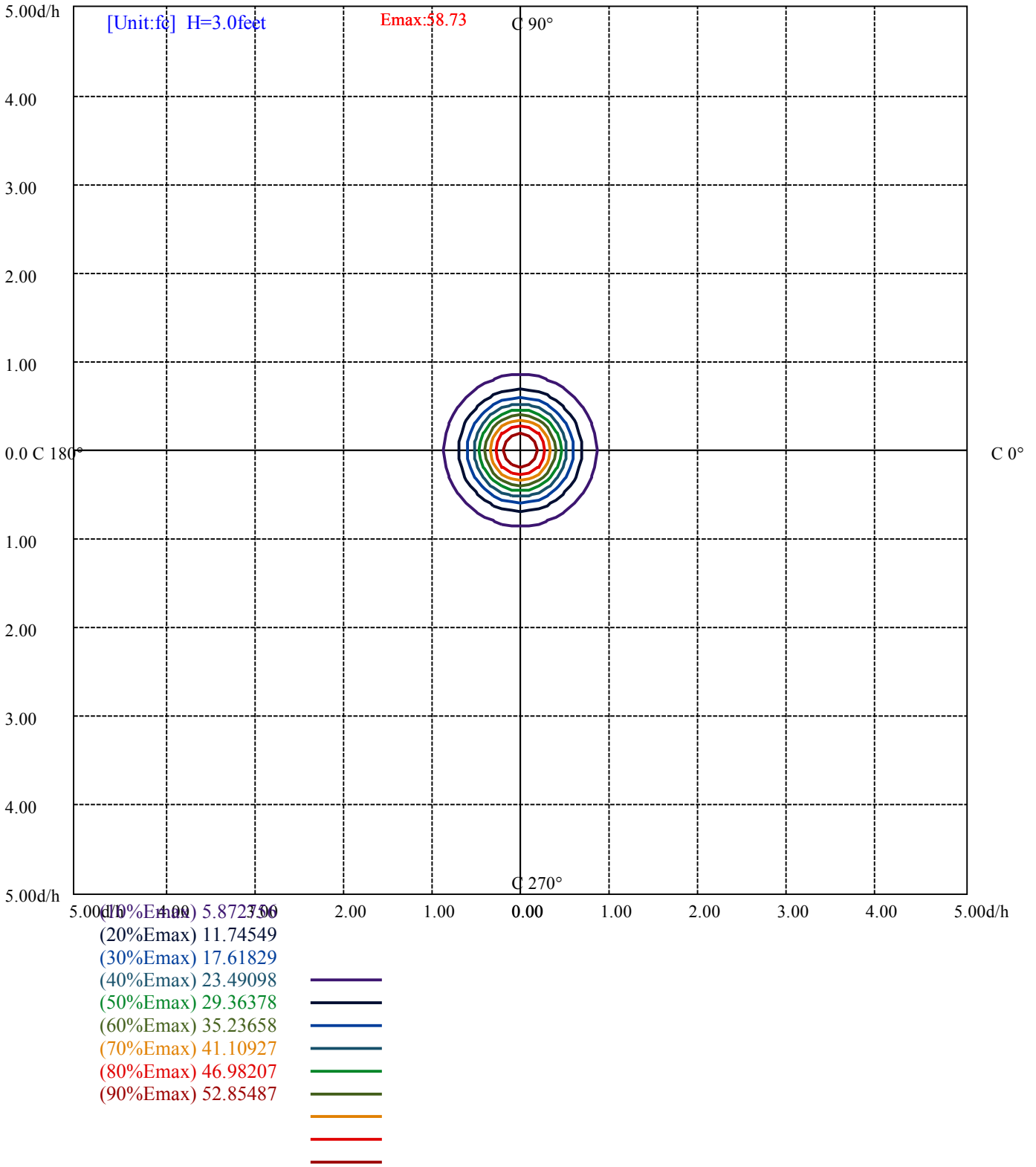
(60%Imax) 317.014

(70%Imax) 369.849

(80%Imax) 422.685

(90%Imax) 475.521

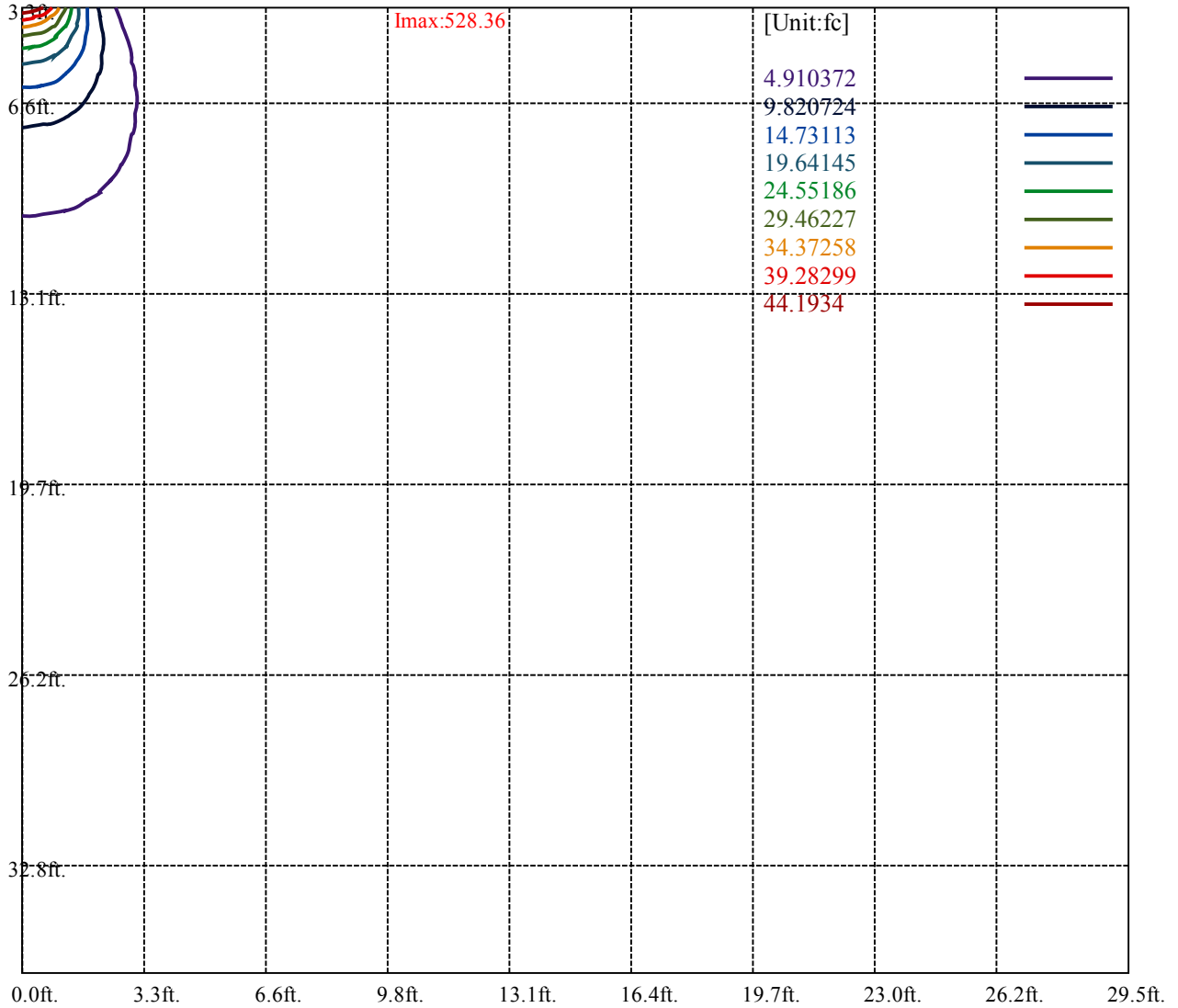




Equipment: 123
Temperature(°C): 345

Date: 2019/10/11
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Luminance Table

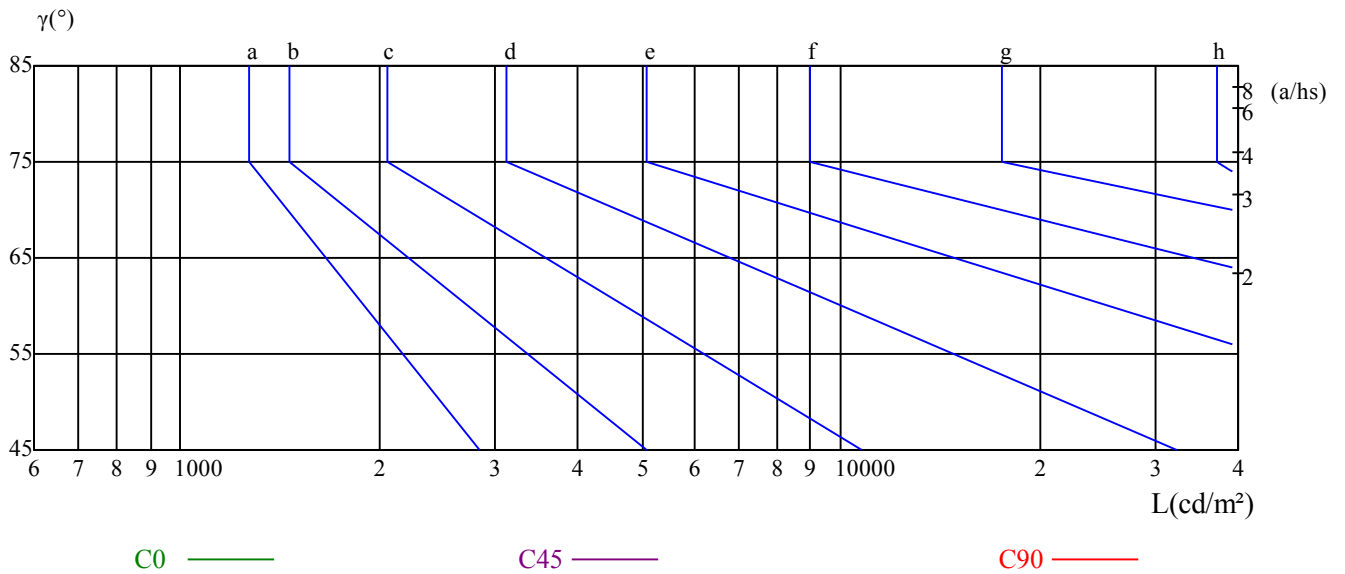
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

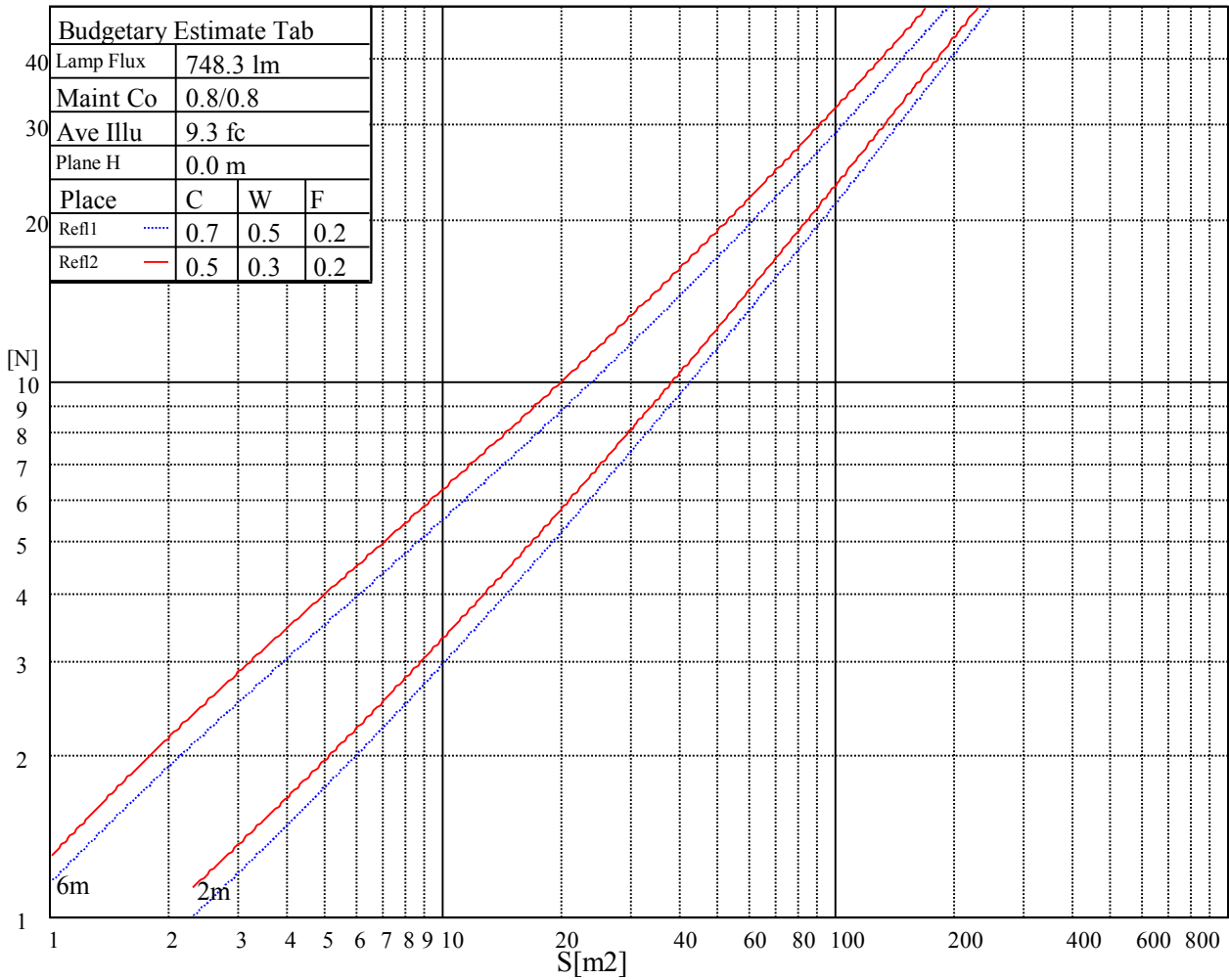
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

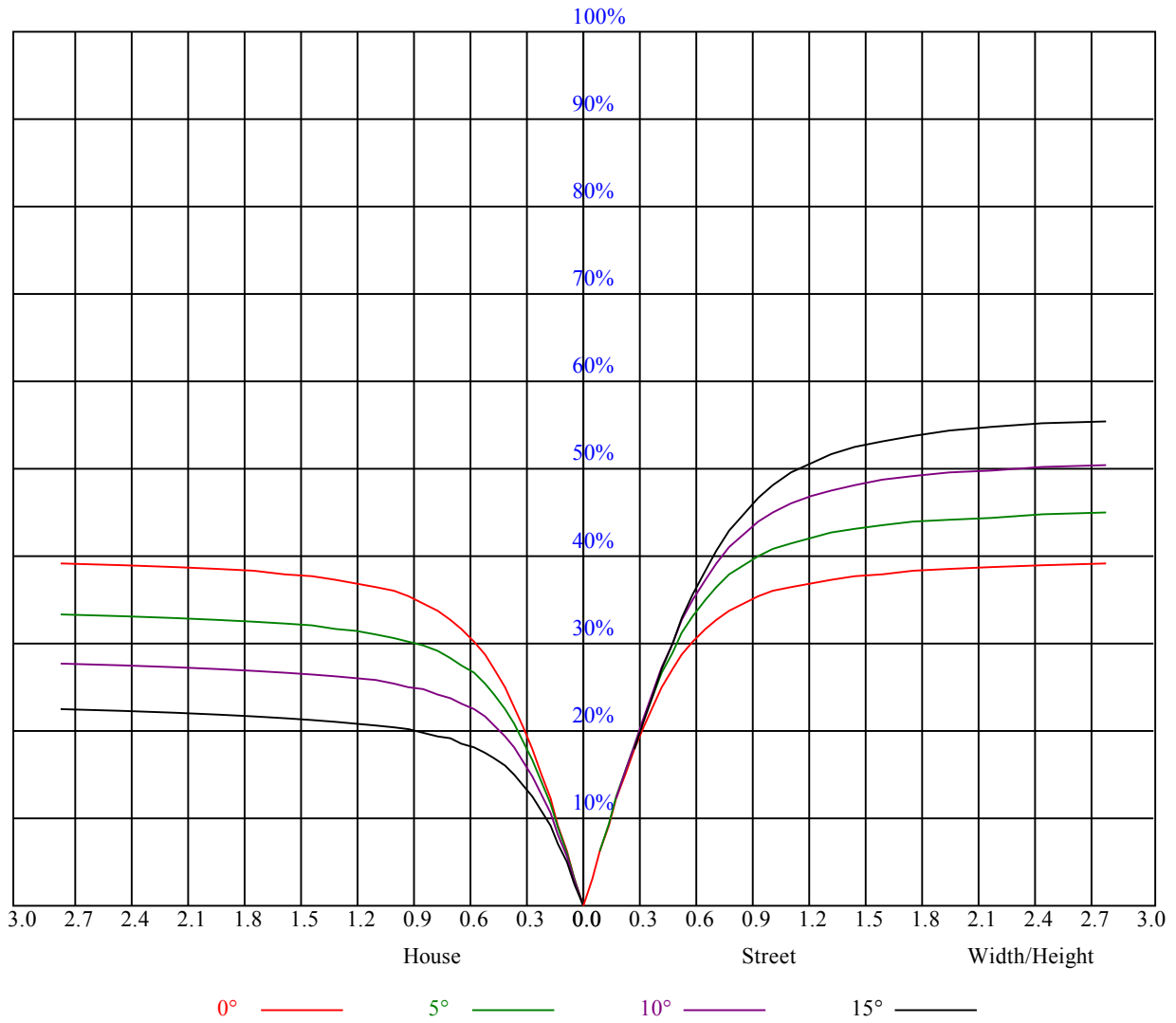
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	0.97	0.97	0.97	0.94	0.94	0.94	0.90	0.90	0.90	0.86	0.86	0.86	0.83	0.83	0.83	0.81
1	0.87	0.85	0.82	0.86	0.83	0.81	0.82	0.80	0.79	0.79	0.78	0.76	0.76	0.75	0.74	0.72
2	0.80	0.76	0.73	0.79	0.75	0.72	0.76	0.73	0.70	0.73	0.71	0.69	0.71	0.69	0.67	0.66
3	0.74	0.69	0.65	0.73	0.68	0.65	0.70	0.67	0.63	0.68	0.65	0.62	0.66	0.64	0.61	0.60
4	0.68	0.63	0.59	0.67	0.62	0.59	0.66	0.61	0.58	0.64	0.60	0.57	0.62	0.59	0.57	0.55
5	0.64	0.58	0.54	0.63	0.58	0.54	0.61	0.57	0.53	0.60	0.56	0.53	0.59	0.55	0.52	0.51
6	0.59	0.54	0.50	0.59	0.54	0.50	0.57	0.53	0.50	0.56	0.52	0.49	0.55	0.52	0.49	0.48
7	0.56	0.50	0.47	0.55	0.50	0.46	0.54	0.49	0.46	0.53	0.49	0.46	0.52	0.48	0.46	0.44
8	0.52	0.47	0.43	0.52	0.47	0.43	0.51	0.46	0.43	0.50	0.46	0.43	0.49	0.46	0.43	0.42
9	0.50	0.44	0.41	0.49	0.44	0.41	0.48	0.44	0.41	0.48	0.43	0.40	0.47	0.43	0.40	0.39
10	0.47	0.42	0.38	0.47	0.42	0.38	0.46	0.41	0.38	0.45	0.41	0.38	0.45	0.41	0.38	0.37



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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	527.46	530.27	525.54	491.51	435.60	351.79	268.26	188.16	126.11
45.0	528.98	527.68	517.11	483.69	428.91	348.75	265.61	186.86	127.13
90.0	528.64	523.52	508.84	471.49	416.08	338.57	251.38	177.13	121.44
135.0	528.36	520.48	505.46	469.58	415.80	336.60	257.51	182.14	123.47
180.0	527.46	516.99	497.98	455.29	394.76	313.65	235.58	163.63	108.73
225.0	528.98	520.71	502.71	462.04	402.08	328.84	242.78	169.03	114.53
270.0	528.64	527.91	519.30	488.53	436.61	357.24	277.76	194.40	131.74
315.0	528.36	531.23	523.63	488.08	431.38	351.11	261.17	180.79	123.92
360.0	527.46	530.27	525.54	491.51	435.60	351.79	268.26	188.16	126.11

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	84.04	57.66	40.22	30.15	22.50	20.53	18.56	16.43	12.99
45.0	81.23	57.99	41.57	30.66	24.13	21.21	19.01	16.88	17.61
90.0	76.05	52.88	37.46	26.72	20.59	18.62	16.93	14.85	14.12
135.0	80.38	55.24	38.42	28.13	21.88	19.86	17.94	15.69	14.18
180.0	72.06	51.08	36.45	27.06	21.49	19.41	17.55	15.47	13.39
225.0	74.31	51.81	36.28	26.33	20.87	18.34	16.99	15.41	16.20
270.0	83.93	58.67	39.94	27.79	20.81	17.89	16.26	14.12	13.67
315.0	79.59	54.79	37.46	27.56	21.15	18.79	17.33	15.36	14.01
360.0	84.04	57.66	40.22	30.15	22.50	20.53	18.56	16.43	12.99

C/γ(°)	90.0
0.0	7.59
45.0	6.08
90.0	5.68
135.0	7.26
180.0	6.13
225.0	7.20
270.0	7.20
315.0	7.93
360.0	7.59