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Nata

LumCAT: 1-0943-N
Luminaire: 92.70.360.00
Report No: 220513-B001
Test No: 220513-C001
LampCAT: NICHIA NTCWT012B-V3
Lamp flux(lm): 754.4
Number of Lamps: 1
Length(mm): 43
Phm Type: C

Voltage(V): 37.1000
Current(A): 0.1720
Power (W): 6.3810
PF: 0.0000
Ballast type: DC
Width(mm): 43
Height(mm): 0

Photometric Results

Lumens(lm): 620.64
Efficiency(%): 82.27%
Lumens(lm)/Power(W): 97.26
Central intensity(cd): 1283.044
Maximum intensity(cd): 1283.044
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=41.7
[C90/270]Total=41.7
Field angle(10%Imax): [C0/180]Total=62.7
[C90/270]Total=62.7
Maximum s/h(1/2): C0_180=0.68 C90_270=0.68
Maximum s/h(1/4): C0_180=0.65 C90_270=0.65
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 82.27%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.015%

Equipment: GMS1980
Temperature(°C): 25.0
Date: 2022/5/13
Humidity(%): 65.0%
Operator: NT07
Distance(m): 7.73

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1283.044	0.000	0	.000%	.000%
5.0	1238.775	30.148	30.148	3.996%	4.858%
10.0	1122.503	84.470	114.618	11.197%	18.468%
15.0	931.406	121.836	236.454	16.151%	38.099%
20.0	691.072	133.715	370.169	17.725%	59.643%
25.0	407.201	115.189	485.358	15.270%	78.203%
30.0	166.248	72.570	557.928	9.620%	89.896%
35.0	25.619	28.254	586.182	3.745%	94.448%
40.0	13.930	6.598	592.781	.875%	95.512%
45.0	11.077	4.630	597.411	.614%	96.258%
50.0	9.217	4.101	601.511	.544%	96.918%
55.0	7.536	3.643	605.154	.483%	97.505%
60.0	6.140	3.161	608.315	.419%	98.015%
65.0	4.974	2.702	611.017	.358%	98.450%
70.0	4.228	2.330	613.347	.309%	98.825%
75.0	3.697	2.071	615.418	.275%	99.159%
80.0	3.421	1.905	617.323	.252%	99.466%
85.0	3.085	1.768	619.091	.234%	99.751%
90.0	2.562	1.546	620.637	.205%	100.000%

Zonal flux distribution table

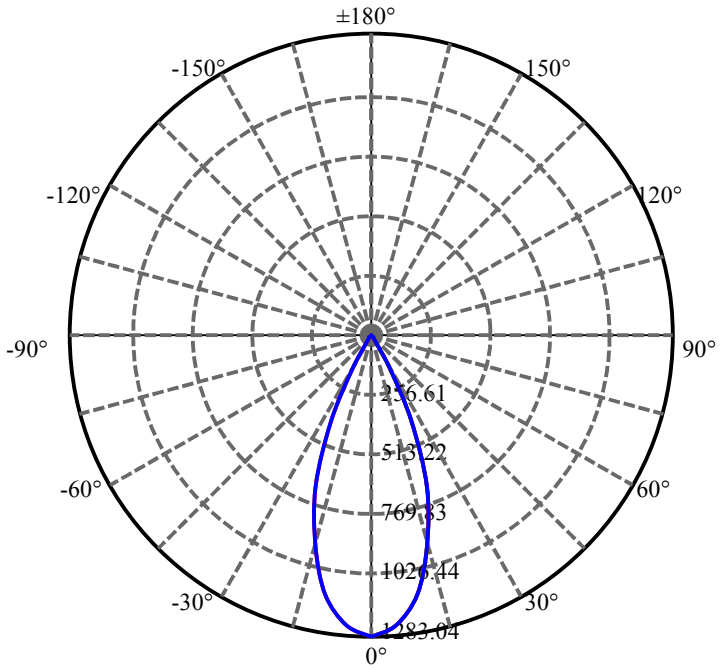
ZONAL LUMEN SUMMARY

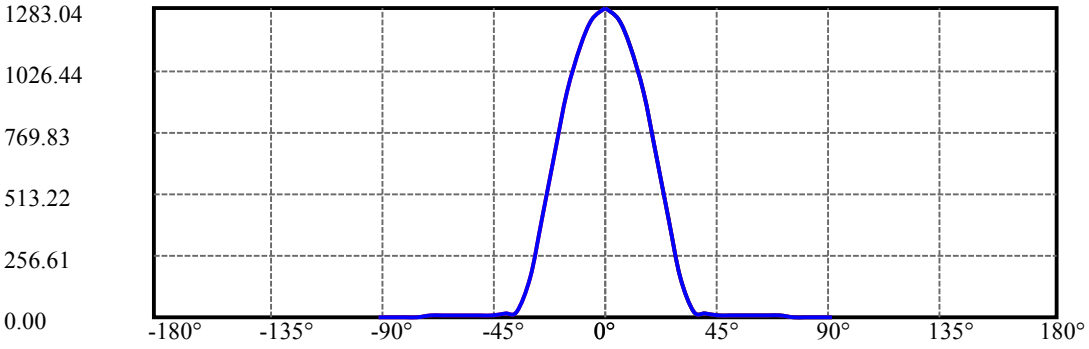
Zone	Lumens	%Lamp	%Fixt
0-30	557.93	73.96%	89.90%
0-40	592.78	78.58%	95.51%
0-60	608.32	80.64%	98.01%
0-90	619.09	82.07%	99.75%
0-120	619.09	82.07%	99.75%
0-180	620.64	82.27%	100.00%
60-90	13.94	1.85%	2.25%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-25.77	496.51	65.82%	80.00%

ZONAL LUMEN SUMMARY

0-10	114.62
10-20	255.55
20-30	187.76
30-40	34.85
40-50	8.73
50-60	6.80
60-70	5.03
70-80	3.98
80-90	1.77
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

Light Distribution Curve [Unit:cd]





C0(Max):

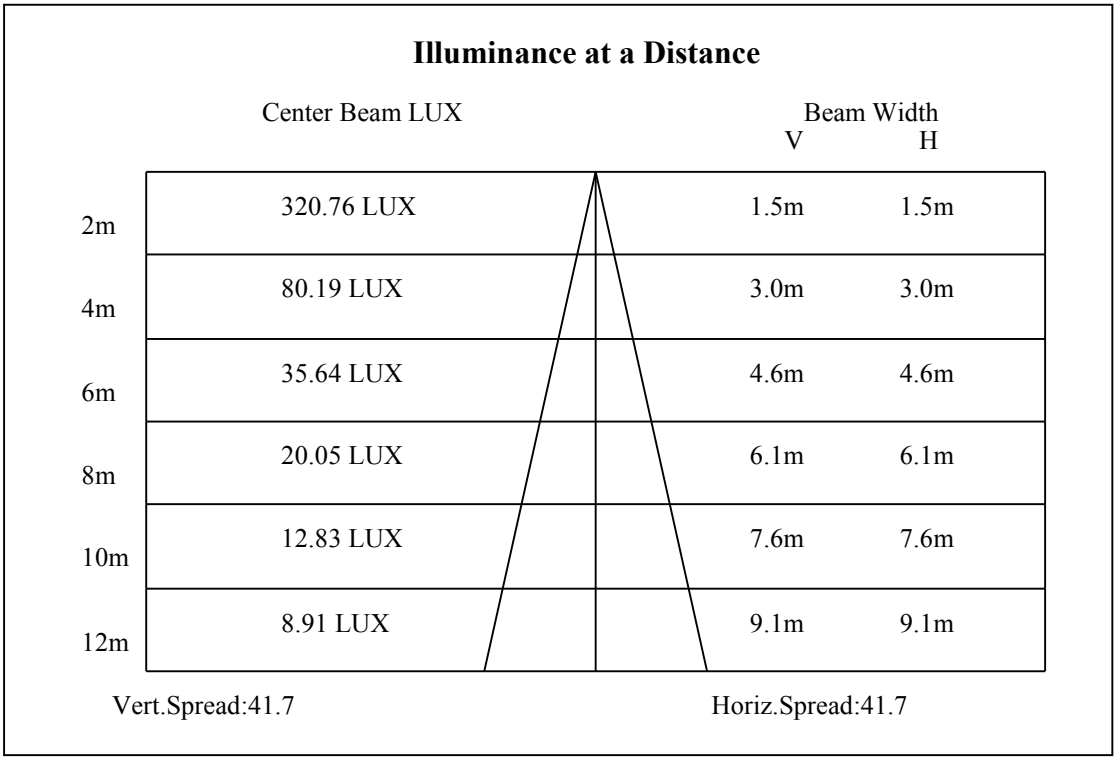
C0/C180:

C90/C270:

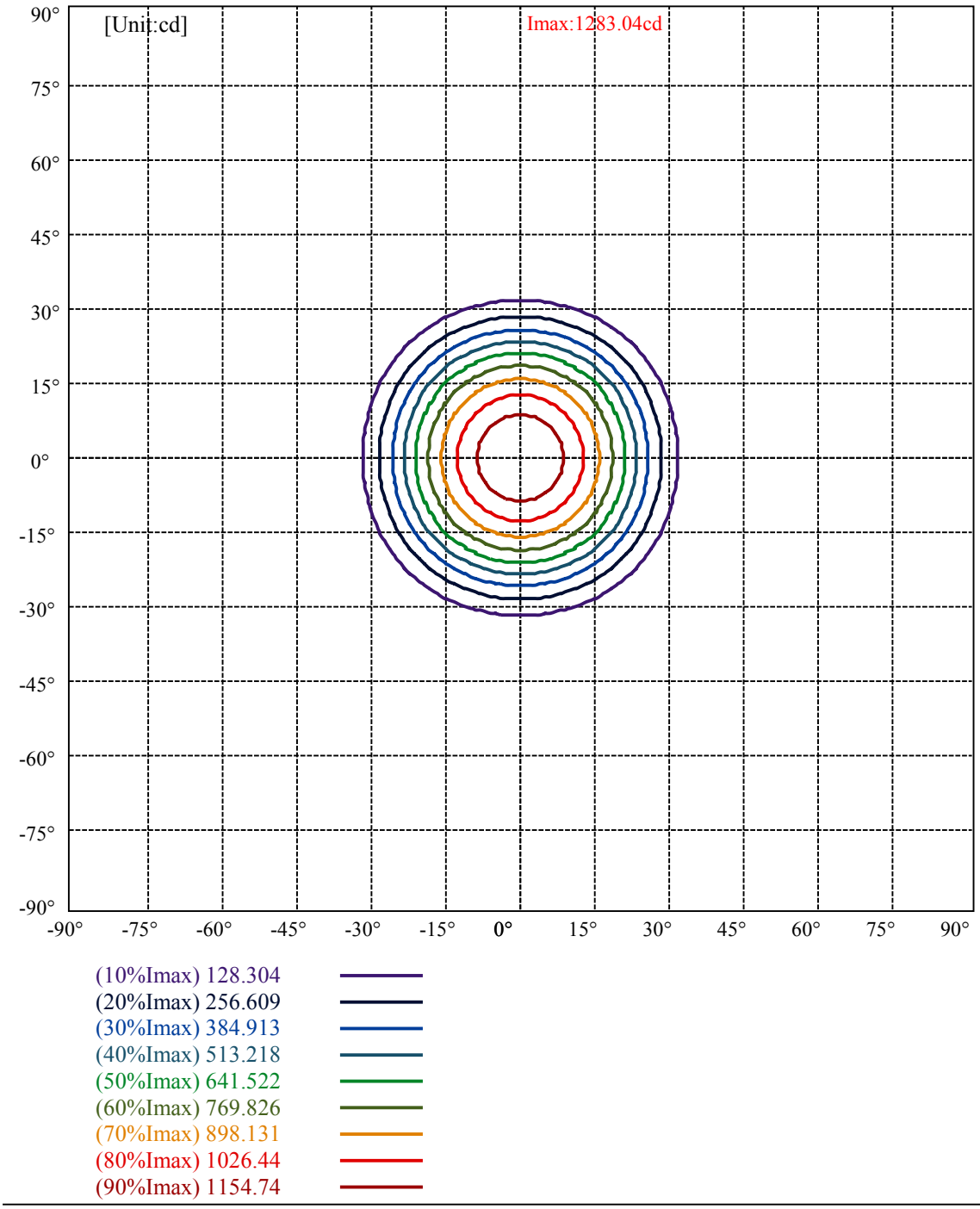
Field angle(10%Imax):C0/180Left:31.3 Right:31.3
:C90/270Left:31.3 Right:31.3

Beam Angle(50%Imax):C0/180Left:20.9 Right:20.9
:C90/270Left:20.9 Right:20.9

Lux distance Curve



ISO-Intensity(V-H)



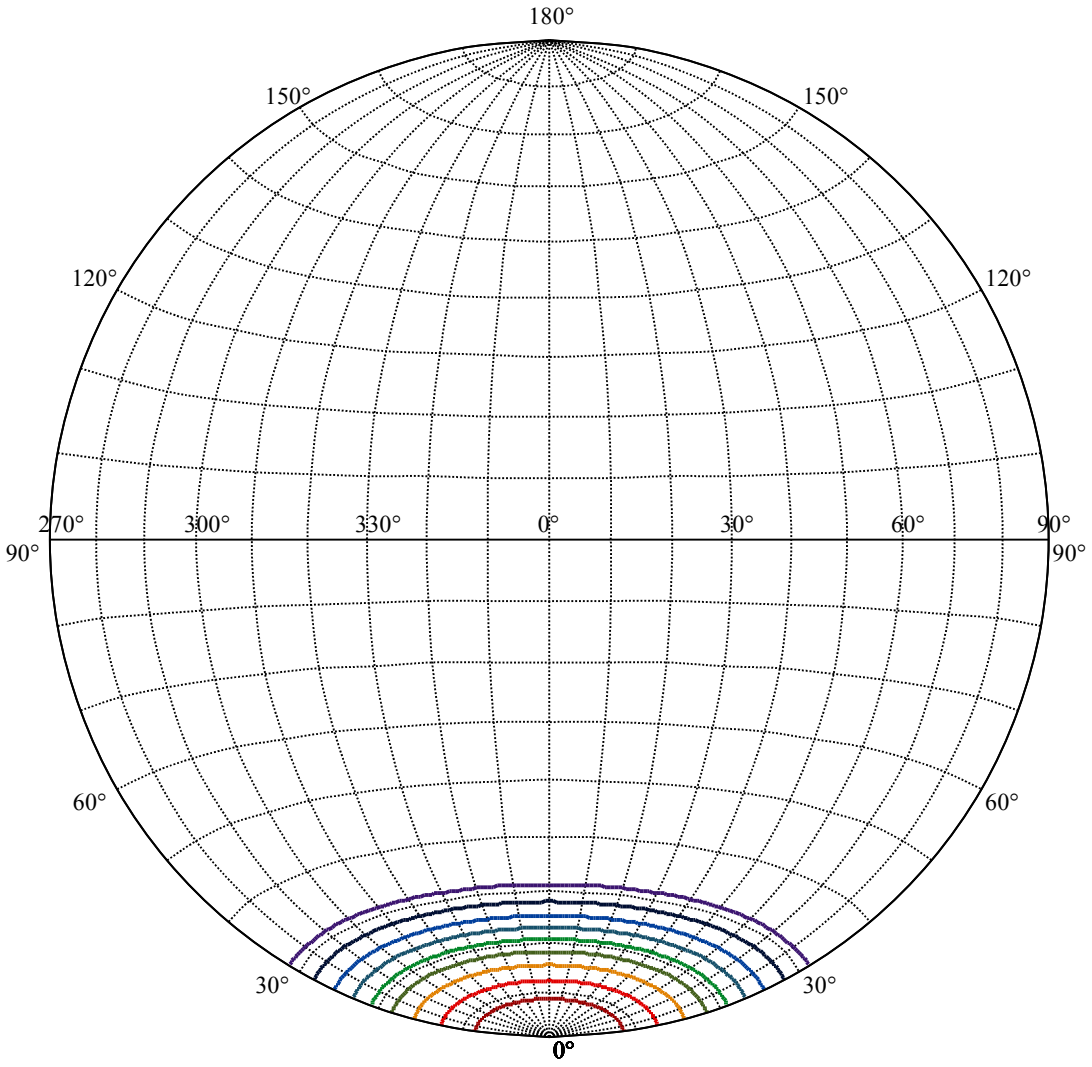
(10%Imax) 128.304
(20%Imax) 256.609
(30%Imax) 384.913
(40%Imax) 513.218
(50%Imax) 641.522
(60%Imax) 769.826
(70%Imax) 898.131
(80%Imax) 1026.44
(90%Imax) 1154.74

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2022/5/13
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.73

ISO candela diagram on circular web



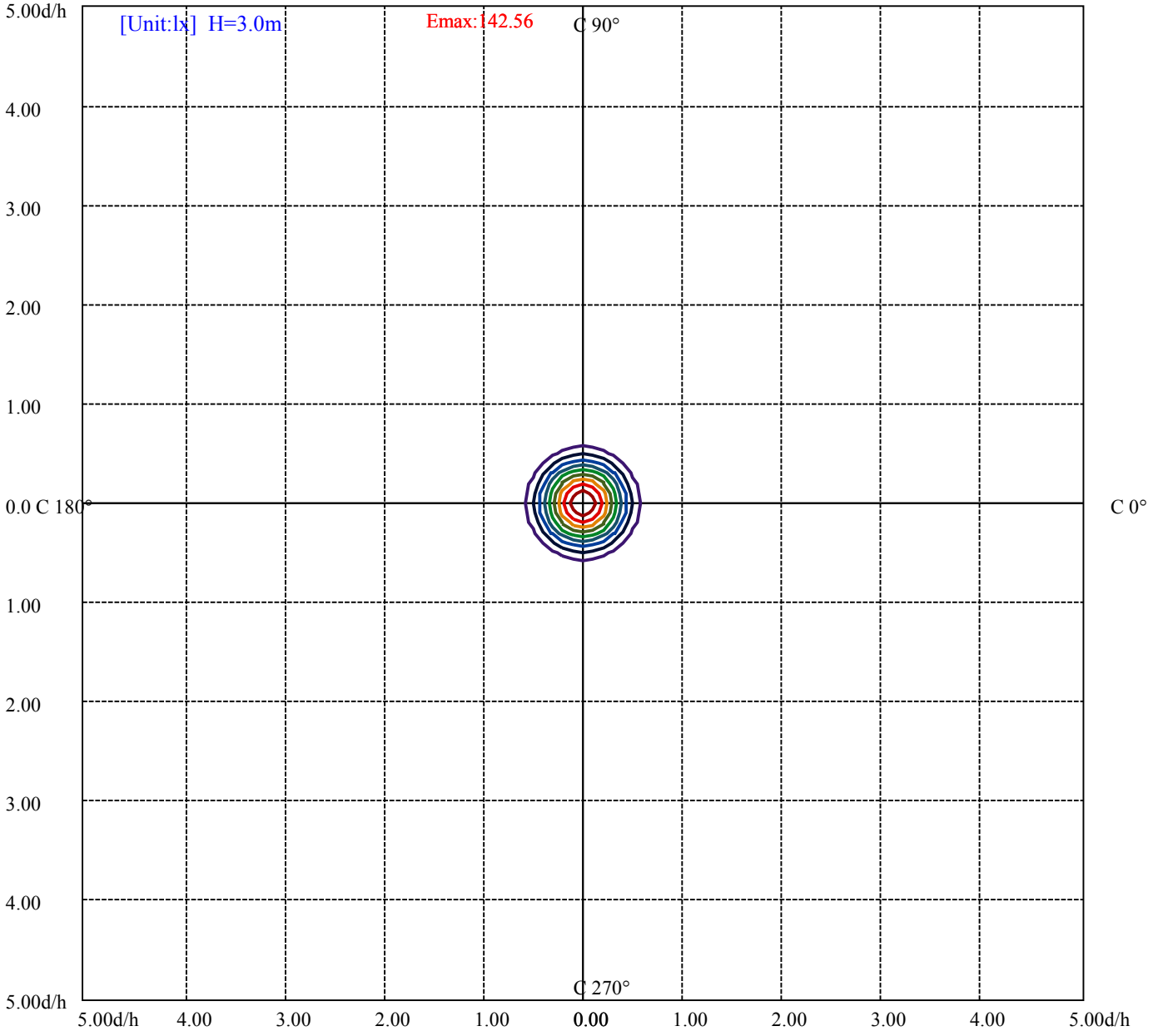
House [Unit:cd] Road

Imax:1283.04

(10%Imax) 128.304
(20%Imax) 256.609
(30%Imax) 384.913
(40%Imax) 513.218
(50%Imax) 641.522
(60%Imax) 769.826
(70%Imax) 898.131
(80%Imax) 1026.44
(90%Imax) 1154.74

Equipment: GMS1980 Date: 2022/5/13 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 65.0% Distance(m): 7.73

ISO illuminance diagram

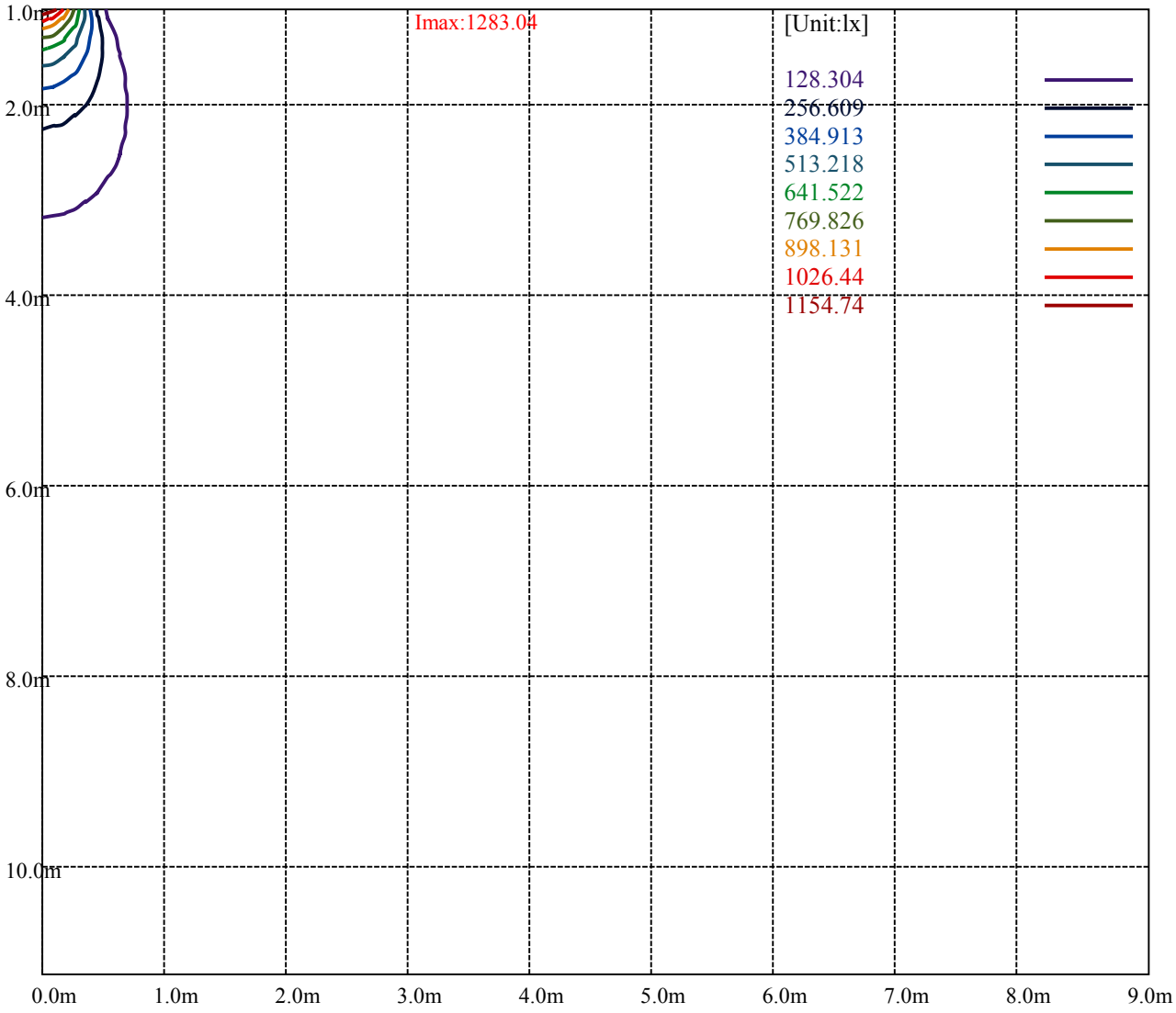


Equipment: GMS1980
Temperature(°C): 25.0

Date: 2022/5/13
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.73

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 25.0

Date: 2022/5/13
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.73

Luminance Limitting Curve(no luminous side)

Luminance Table

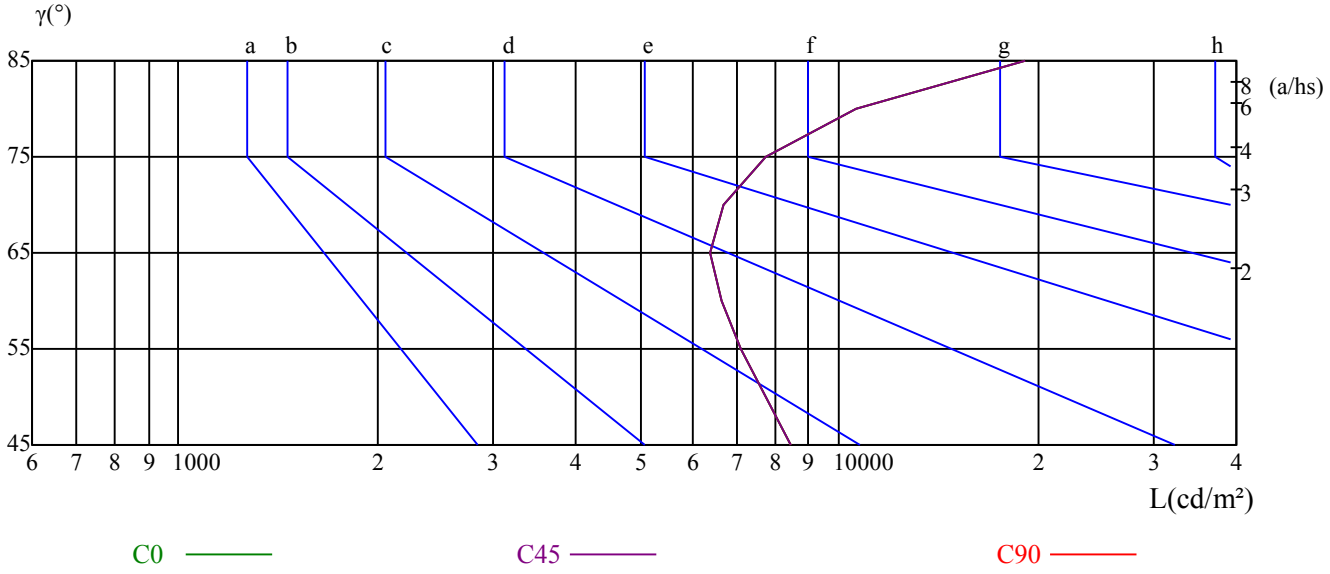
γ	45	50	55	60	65	70	75	80	85
C0	8472	7755	7106	6641	6366	6685	7726	10654	19142
C45	8472	7755	7106	6641	6366	6685	7726	10654	19142
C90	8472	7755	7106	6641	6366	6685	7726	10654	19142

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
6366	6366	6366	7726	7726	7726	19142	19142	19142

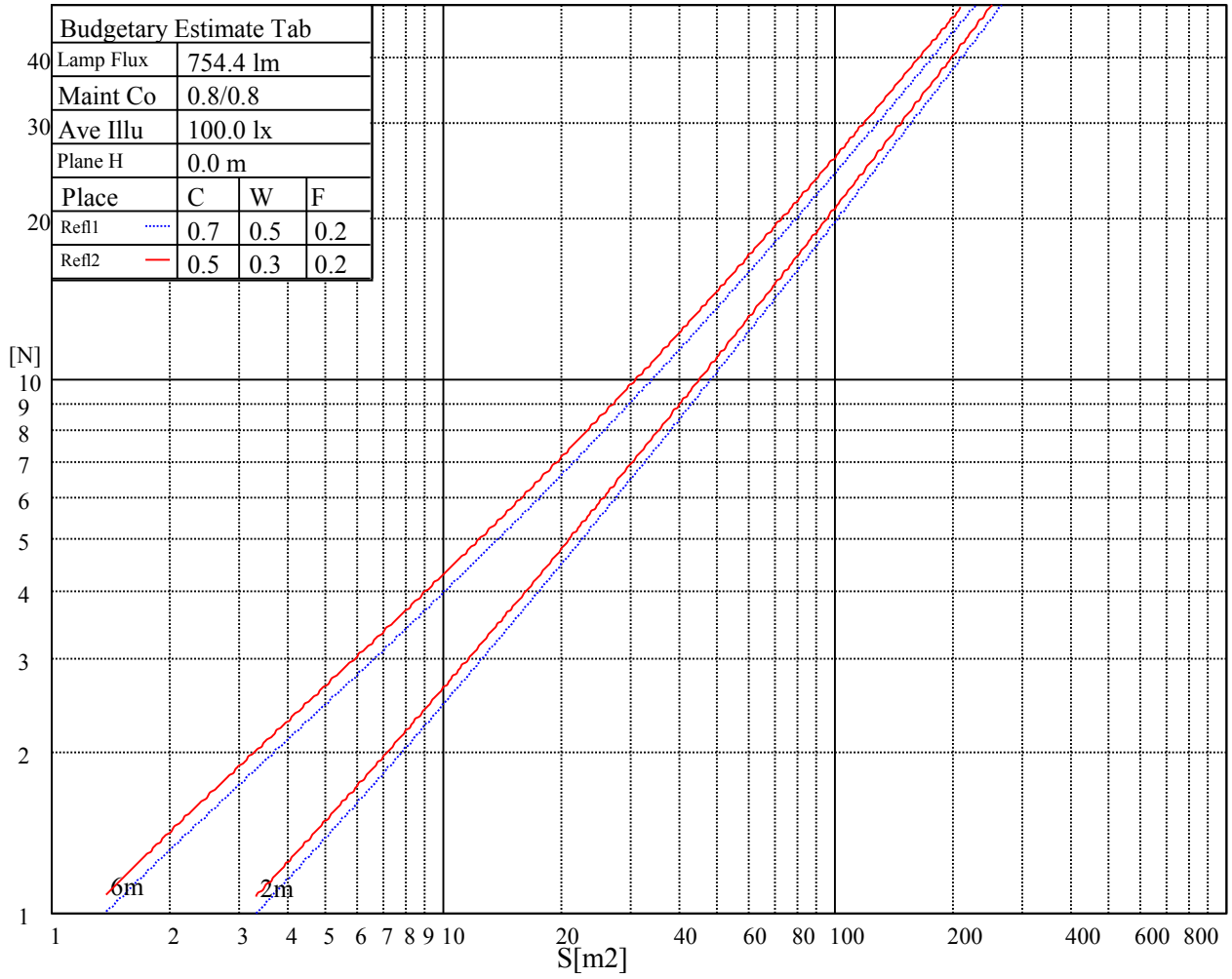
Glare Table

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 Limitting Curve



Budgetary Estimate Table



Equipment: GMS1980
Temperature(°C): 25.0

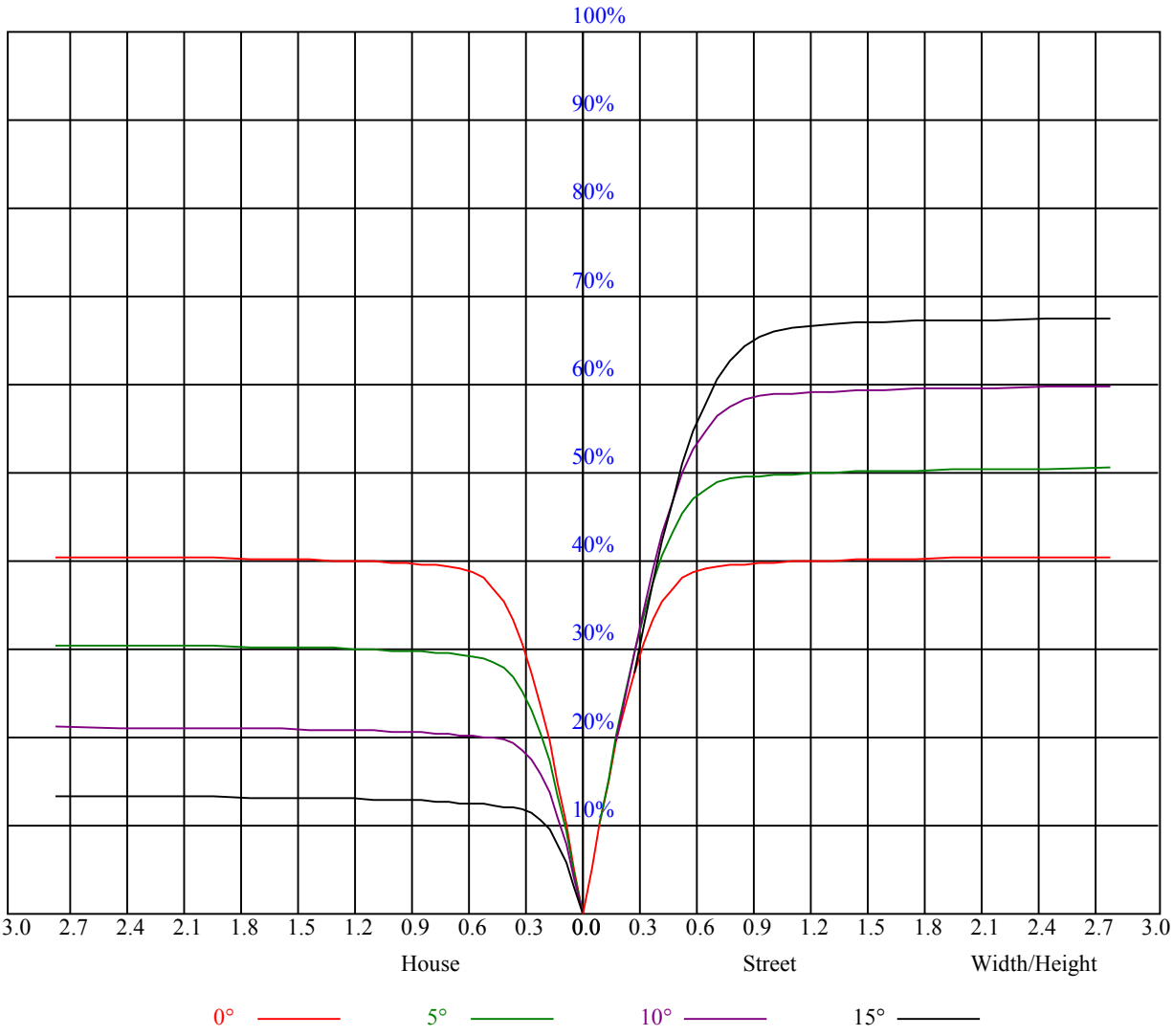
Date: 2022/5/13
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.73

Utilization factor table for indoor luminaire

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	COEFFCIENTS OF UTILIZATION RHOFC=20 CU															
0	0.98	0.98	0.98	0.96	0.96	0.96	0.91	0.91	0.91	0.88	0.88	0.88	0.84	0.84	0.84	0.82
1	0.92	0.90	0.88	0.90	0.88	0.87	0.87	0.85	0.84	0.84	0.82	0.81	0.81	0.80	0.79	0.78
2	0.86	0.83	0.81	0.85	0.82	0.80	0.82	0.80	0.78	0.80	0.78	0.76	0.78	0.76	0.75	0.74
3	0.81	0.78	0.75	0.80	0.77	0.74	0.78	0.76	0.73	0.76	0.74	0.72	0.75	0.73	0.71	0.70
4	0.77	0.73	0.70	0.76	0.73	0.70	0.75	0.72	0.69	0.73	0.70	0.68	0.72	0.69	0.68	0.66
5	0.74	0.69	0.66	0.73	0.69	0.66	0.71	0.68	0.65	0.70	0.67	0.65	0.69	0.66	0.64	0.63
6	0.70	0.66	0.63	0.69	0.66	0.63	0.68	0.65	0.62	0.67	0.64	0.62	0.66	0.64	0.61	0.60
7	0.67	0.63	0.60	0.66	0.62	0.60	0.65	0.62	0.59	0.65	0.61	0.59	0.64	0.61	0.59	0.58
8	0.64	0.60	0.57	0.64	0.60	0.57	0.63	0.59	0.57	0.62	0.59	0.56	0.61	0.58	0.56	0.55
9	0.61	0.57	0.55	0.61	0.57	0.54	0.60	0.57	0.54	0.60	0.56	0.54	0.59	0.56	0.54	0.53
10	0.59	0.55	0.52	0.59	0.55	0.52	0.58	0.54	0.52	0.57	0.54	0.52	0.57	0.54	0.52	0.51

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2022/5/13	Operator: NT07
Temperature(°C): 25.0	Humidity(%): 65.0%	Distance(m): 7.73

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	1279.91	1267.96	1172.95	1002.65	779.18	489.97	310.72	30.83	14.58
45.0	1287.67	1226.73	1103.64	896.89	634.58	355.53	95.07	17.75	13.21
90.0	1278.71	1189.62	1039.40	833.19	560.48	265.84	43.74	15.60	12.19
135.0	1285.88	1218.36	1084.52	886.73	628.60	335.21	92.44	17.57	12.85
180.0	1279.91	1192.31	1068.92	857.51	600.22	326.79	80.97	17.75	13.27
225.0	1287.67	1263.77	1149.05	969.67	739.20	458.42	190.49	26.65	14.76
270.0	1278.71	1280.50	1198.05	1026.55	821.60	546.14	314.90	51.99	15.95
315.0	1285.88	1270.94	1163.51	978.04	764.72	479.70	201.67	26.83	14.64
360.0	1279.91	1267.96	1172.95	1002.65	779.18	489.97	310.72	30.83	14.58

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	11.65	9.68	8.01	6.63	5.38	4.42	3.76	3.47	2.99
45.0	10.64	8.90	7.35	5.92	4.72	4.06	3.59	3.29	2.75
90.0	10.04	8.48	6.81	5.56	4.60	4.00	3.70	3.76	2.69
135.0	10.40	8.72	7.05	5.74	4.72	4.06	3.53	3.23	2.75
180.0	10.58	8.72	7.05	5.68	4.60	4.00	3.53	3.23	2.75
225.0	11.65	9.56	7.77	6.27	5.08	4.24	3.70	3.35	2.93
270.0	12.13	10.10	8.31	6.81	5.44	4.60	3.94	3.59	4.90
315.0	11.53	9.56	7.95	6.51	5.26	4.42	3.82	3.47	2.93
360.0	11.65	9.68	8.01	6.63	5.38	4.42	3.76	3.47	2.99

C/γ(°)	90.0
0.0	2.57
45.0	2.51
90.0	2.51
135.0	2.57
180.0	2.57
225.0	2.57
270.0	2.63
315.0	2.57
360.0	2.57