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Address:380JinOu Road,GaoXin Zone,Jiang Men City,Guangdong,China

NATA

LumCAT: 1560-E
Luminaire: 92.70.046.00
Report No: NATA0100
Test No: GC2019010216
LampCAT: CREE CXA1512
Lamp flux(lm): 1552.0
Number of Lamps: 1
Length(mm): 45
Phm Type: C

Voltage(V): 35.5000
Current(A): 0.3000
Power (W): 10.6500
PF: 0.0000
Ballast type: DC
Width(mm): 45
Height(mm): 0

Photometric Results

Lumens(lm): 1304.74
Efficiency(%): 84.07%
Lumens(lm)/Power(W): 122.71
Central intensity(cd): 9106.664
Maximum intensity(cd): 9106.664
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=16.1
[C90/270]Total=16.1
Field angle(10%Imax): [C0/180]Total=41.6
[C90/270]Total=41.6
Maximum s/h(1/2): C0_180=0.27 C90_270=0.27
Maximum s/h(1/4): C0_180=0.32 C90_270=0.32
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 84.21%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.322%

Equipment: GMS1980
Temperature(°C): 10.0
Date: 2019/1/2
Humidity(%): 65.0%
Operator: NT07
Distance(m): 7.50

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	9106.664	2.179	2.179	.140%	.167%
1.0	9017.086	17.257	19.436	1.112%	1.490%
2.0	8712.633	33.344	52.78	2.148%	4.045%
3.0	8185.289	46.977	99.757	3.027%	7.646%
4.0	7528.641	57.591	157.348	3.711%	12.060%
5.0	6767.578	64.682	222.03	4.168%	17.017%
6.0	5996.250	68.733	290.763	4.429%	22.285%
7.0	5216.414	69.714	360.477	4.492%	27.628%
8.0	4570.313	69.751	430.228	4.494%	32.974%
9.0	3969.141	68.090	498.318	4.387%	38.193%
10.0	3459.023	65.868	564.186	4.244%	43.241%
11.0	3041.508	63.641	627.827	4.101%	48.119%
12.0	2678.906	61.078	688.905	3.935%	52.800%
13.0	2349.984	57.970	746.876	3.735%	57.243%
14.0	2069.859	54.912	801.788	3.538%	61.452%
15.0	1829.602	51.928	853.716	3.346%	65.432%
16.0	1610.648	48.684	902.401	3.137%	69.163%
17.0	1406.960	45.110	947.51	2.907%	72.620%
18.0	1251.021	42.393	989.904	2.732%	75.870%
19.0	1111.577	39.686	1029.589	2.557%	78.911%
20.0	992.686	37.232	1066.821	2.399%	81.765%
21.0	888.623	34.922	1101.743	2.250%	84.441%
22.0	777.305	31.931	1133.675	2.057%	86.889%
23.0	669.909	28.704	1162.379	1.849%	89.089%
24.0	554.604	24.737	1187.116	1.594%	90.985%
25.0	434.827	20.152	1207.268	1.298%	92.529%
26.0	334.800	16.095	1223.362	1.037%	93.763%
27.0	252.155	12.554	1235.916	.809%	94.725%
28.0	165.867	8.539	1244.455	.550%	95.379%
29.0	104.562	5.559	1250.014	.358%	95.805%
30.0	68.660	3.765	1253.779	.243%	96.094%
31.0	48.150	2.719	1256.498	.175%	96.302%
32.0	37.730	2.193	1258.691	.141%	96.470%
33.0	30.790	1.839	1260.53	.118%	96.611%
34.0	25.573	1.568	1262.098	.101%	96.731%
35.0	21.959	1.381	1263.479	.089%	96.837%
36.0	19.434	1.253	1264.732	.081%	96.933%
37.0	17.641	1.164	1265.896	.075%	97.023%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	16.320	1.102	1266.998	.071%	97.107%
39.0	15.300	1.056	1268.054	.068%	97.188%
40.0	14.456	1.019	1269.073	.066%	97.266%
41.0	13.739	0.988	1270.061	.064%	97.342%
42.0	13.036	0.957	1271.018	.062%	97.415%
43.0	12.375	0.926	1271.943	.060%	97.486%
44.0	11.805	0.899	1272.842	.058%	97.555%
45.0	11.264	0.873	1273.716	.056%	97.622%
46.0	10.765	0.849	1274.565	.055%	97.687%
47.0	10.315	0.827	1275.392	.053%	97.750%
48.0	9.928	0.809	1276.201	.052%	97.812%
49.0	9.527	0.789	1276.99	.051%	97.873%
50.0	9.204	0.773	1277.763	.050%	97.932%
51.0	8.916	0.760	1278.523	.049%	97.990%
52.0	8.655	0.748	1279.271	.048%	98.048%
53.0	8.402	0.736	1280.007	.047%	98.104%
54.0	8.184	0.726	1280.733	.047%	98.160%
55.0	7.988	0.718	1281.45	.046%	98.215%
56.0	7.798	0.709	1282.159	.046%	98.269%
57.0	7.636	0.702	1282.861	.045%	98.323%
58.0	7.495	0.697	1283.559	.045%	98.376%
59.0	7.369	0.693	1284.251	.045%	98.429%
60.0	7.263	0.690	1284.941	.044%	98.482%
61.0	7.165	0.687	1285.628	.044%	98.535%
62.0	7.073	0.685	1286.313	.044%	98.587%
63.0	7.003	0.684	1286.997	.044%	98.640%
64.0	6.933	0.683	1287.681	.044%	98.692%
65.0	6.877	0.683	1288.364	.044%	98.745%
66.0	6.834	0.685	1289.049	.044%	98.797%
67.0	6.806	0.687	1289.736	.044%	98.850%
68.0	6.736	0.685	1290.421	.044%	98.902%
69.0	6.694	0.685	1291.106	.044%	98.955%
70.0	6.645	0.685	1291.791	.044%	99.007%
71.0	6.602	0.685	1292.475	.044%	99.060%
72.0	6.546	0.683	1293.158	.044%	99.112%
73.0	6.525	0.684	1293.842	.044%	99.164%
74.0	6.490	0.684	1294.526	.044%	99.217%
75.0	6.441	0.682	1295.209	.044%	99.269%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	6.391	0.680	1295.889	.044%	99.321%
77.0	6.349	0.678	1296.567	.044%	99.373%
78.0	6.307	0.677	1297.244	.044%	99.425%
79.0	6.272	0.675	1297.919	.044%	99.477%
80.0	6.251	0.675	1298.594	.043%	99.529%
81.0	6.223	0.674	1299.268	.043%	99.580%
82.0	6.180	0.671	1299.939	.043%	99.632%
83.0	6.110	0.665	1300.604	.043%	99.683%
84.0	6.068	0.662	1301.266	.043%	99.733%
85.0	6.047	0.661	1301.926	.043%	99.784%
86.0	5.984	0.655	1302.581	.042%	99.834%
87.0	5.857	0.641	1303.222	.041%	99.883%
88.0	5.590	0.613	1303.835	.039%	99.930%
89.0	5.534	0.607	1304.442	.039%	99.977%
90.0	5.513	0.302	1304.744	.019%	100.000%

Zonal flux distribution table

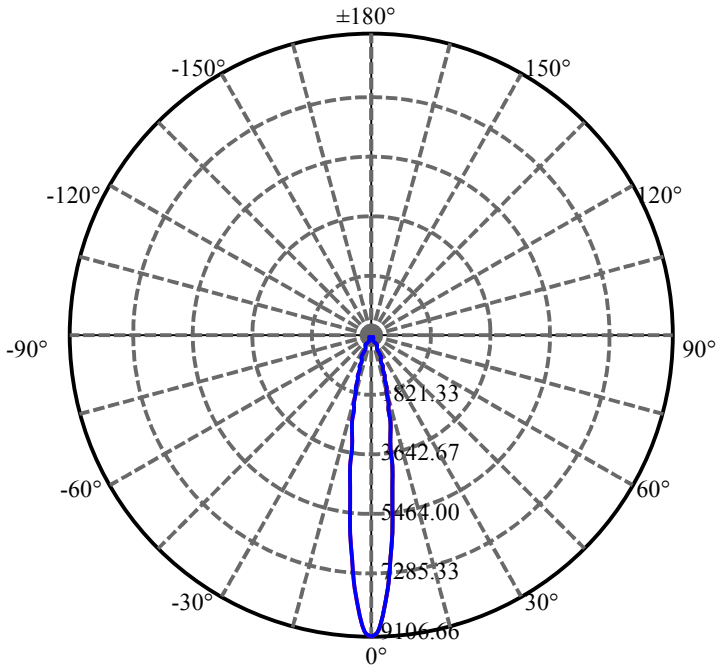
ZONAL LUMEN SUMMARY

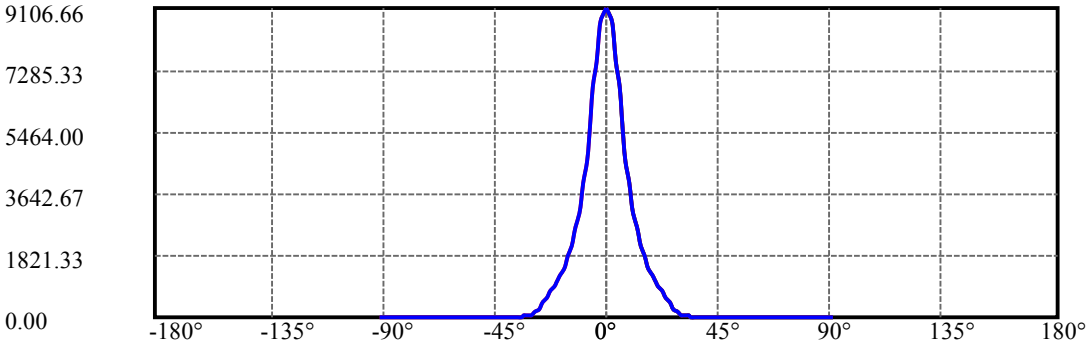
Zone	Lumens	%Lamp	%Fixt
0-30	1253.78	80.78%	96.09%
0-40	1269.07	81.77%	97.27%
0-60	1284.94	82.79%	98.48%
0-90	1304.44	84.05%	99.98%
0-120	1304.44	84.05%	99.98%
0-180	1304.74	84.07%	100.00%
60-90	20.19	1.30%	1.55%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-19.38	1043.80	67.25%	80.00%

ZONAL LUMEN SUMMARY

0-10	564.19
10-20	502.64
20-30	186.96
30-40	15.29
40-50	8.69
50-60	7.18
60-70	6.85
70-80	6.80
80-90	5.85
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):

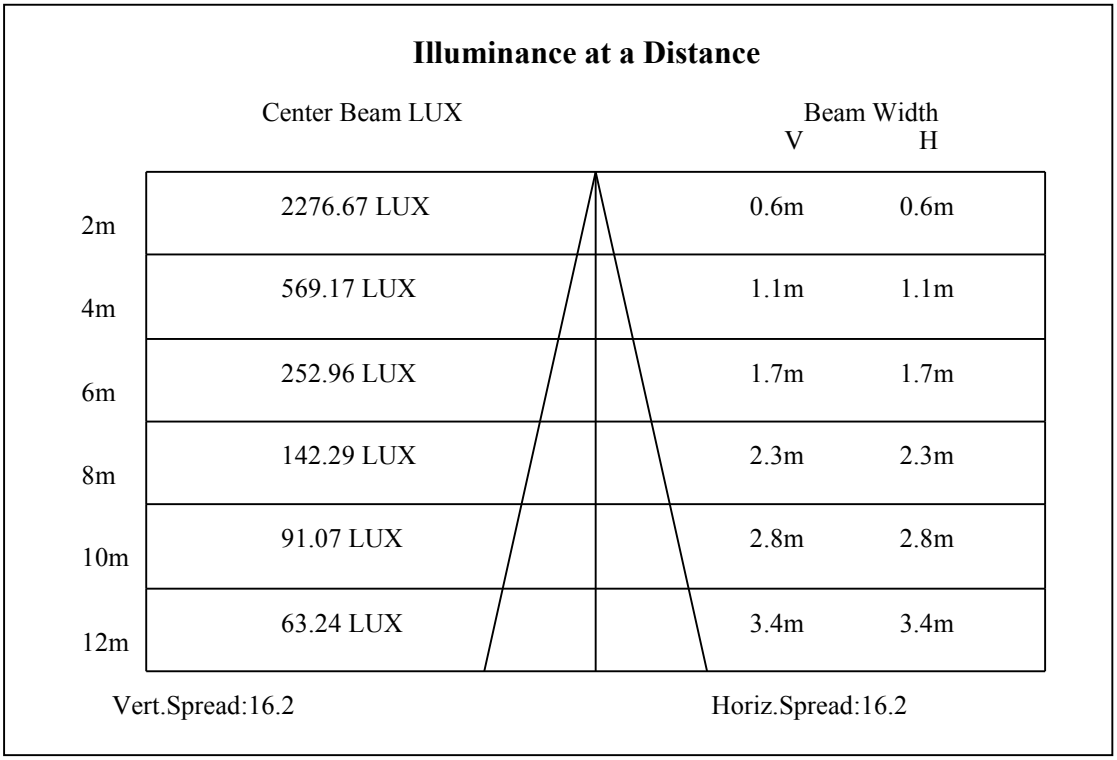
C0/C180:

C90/C270:

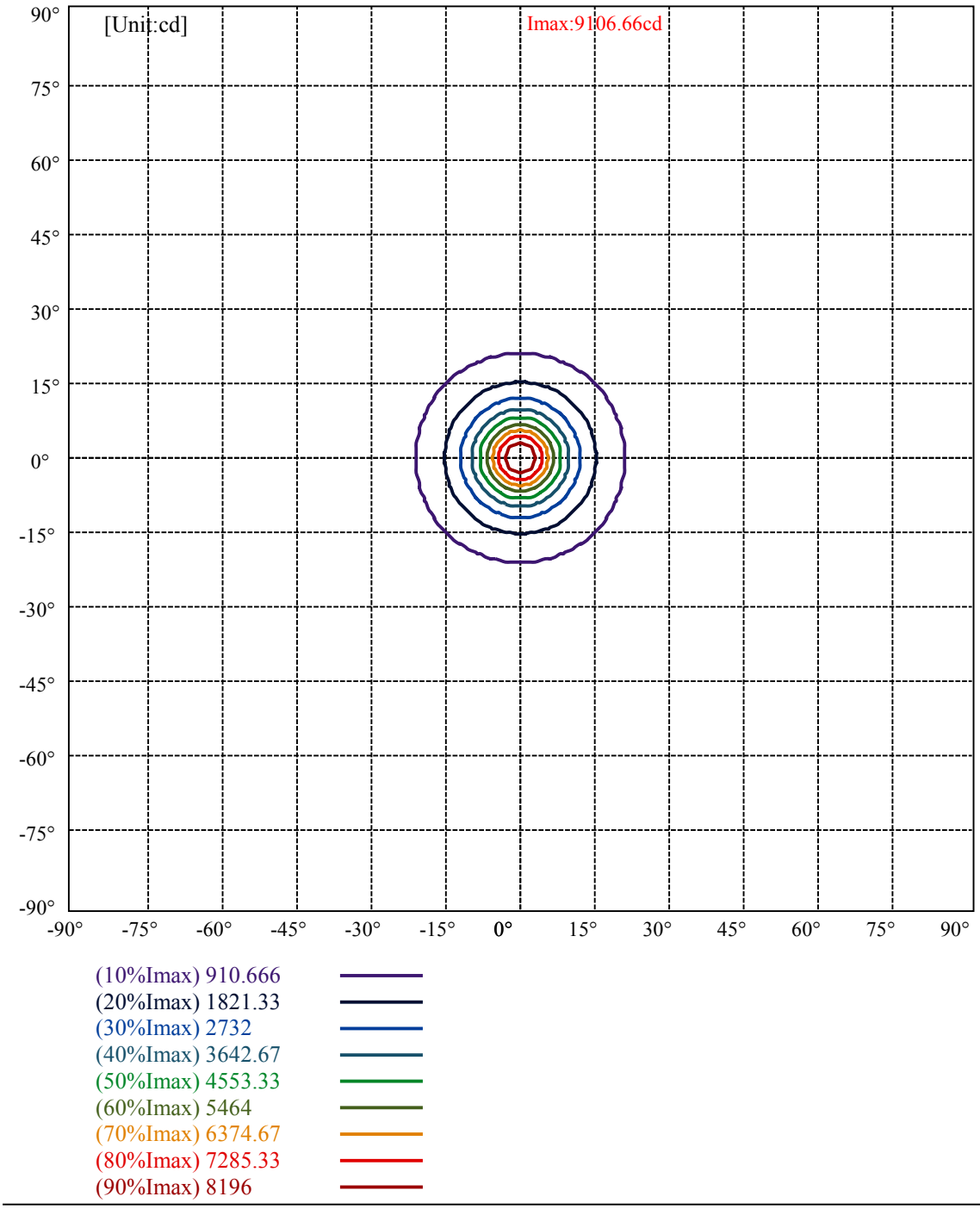
Field angle(10%Imax):C0/180Left:20.8 Right:20.8
:C90/270Left:20.8 Right:20.8

Beam Angle(50%Imax):C0/180Left:8.0 Right:8.0
:C90/270Left:8.0 Right:8.0

Lux distance Curve



ISO-Intensity(V-H)

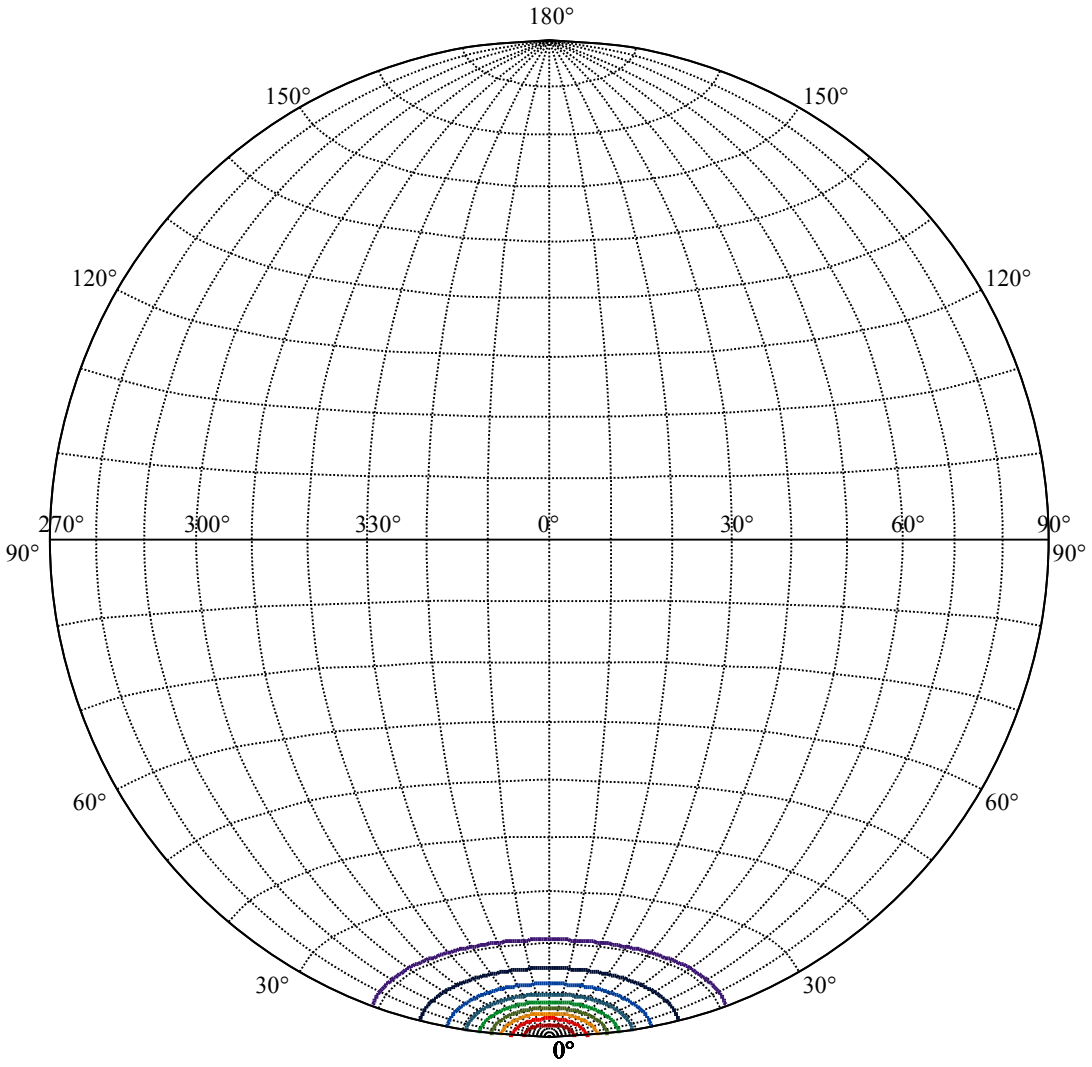


Equipment: GMS1980
Temperature(°C): 10.0

Date: 2019/1/2
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

ISO candela diagram on circular web



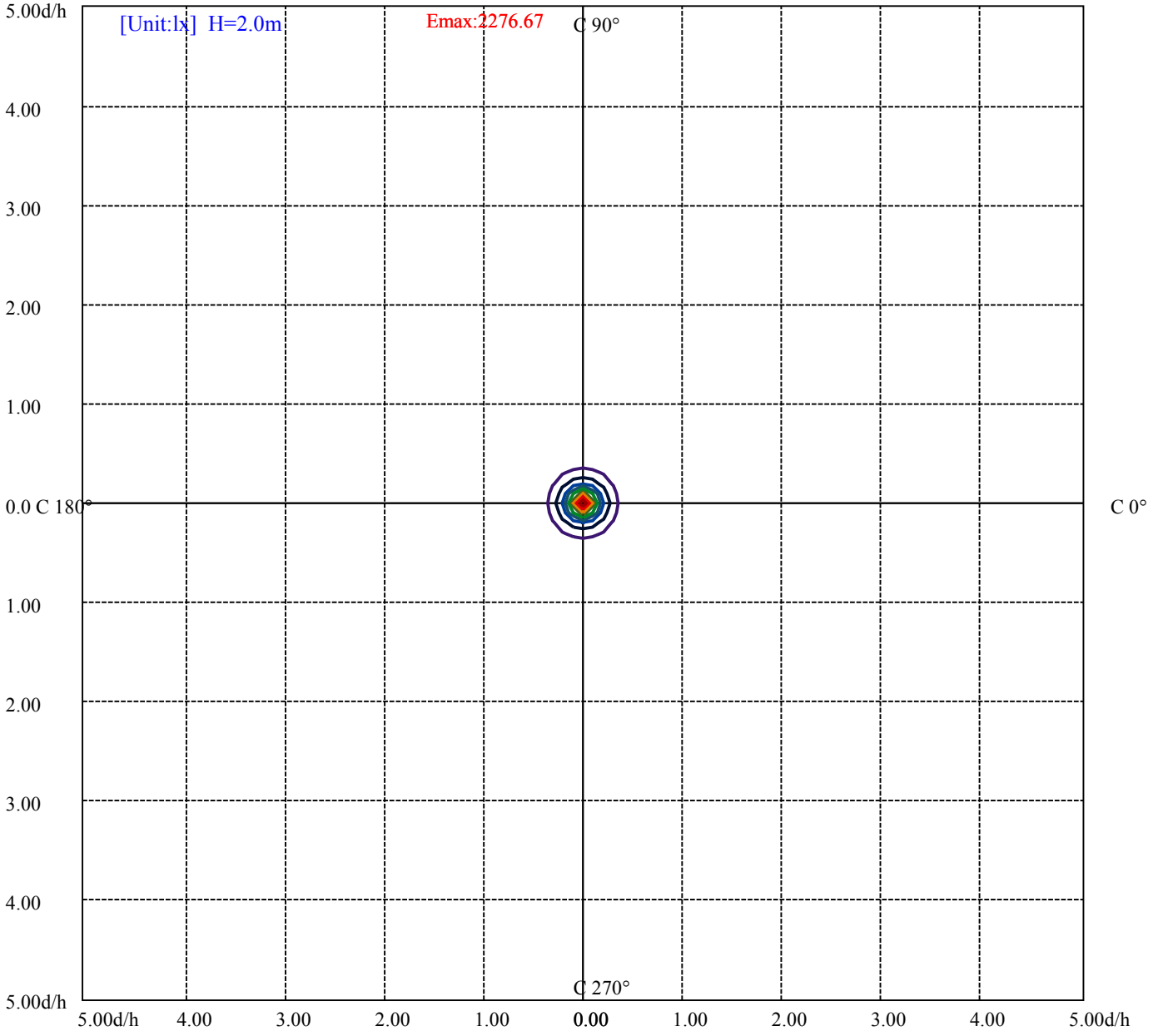
House [Unit:cd] Road

Imax:9106.66

(10%Imax) 910.666
(20%Imax) 1821.33
(30%Imax) 2732
(40%Imax) 3642.67
(50%Imax) 4553.33
(60%Imax) 5464
(70%Imax) 6374.67
(80%Imax) 7285.33
(90%Imax) 8196

Equipment: GMS1980 Date: 2019/1/2 Operator: NT07
Temperature(°C): 10.0 Humidity(%): 65.0% Distance(m): 7.50

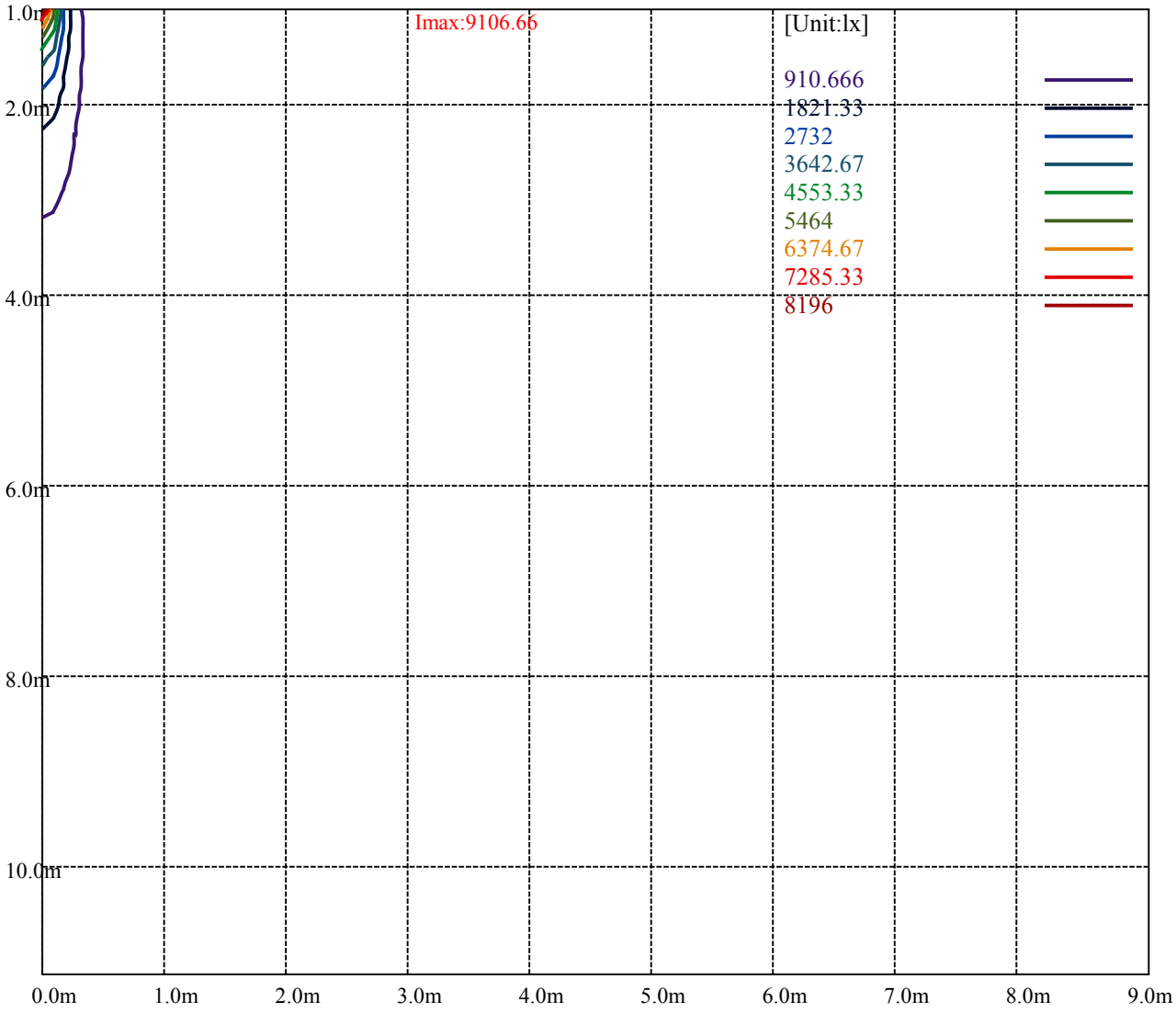
ISO illuminance diagram



(10%Emax) 227.6662
(20%Emax) 455.3325
(30%Emax) 683
(40%Emax) 910.665
(50%Emax) 1138.333
(60%Emax) 1365.998
(70%Emax) 1593.665
(80%Emax) 1821.33
(90%Emax) 2048.998

Equipment: GMS1980
Temperature(°C): 10.0
Date: 2019/1/2
Humidity(%): 65.0%
Operator: NT07
Distance(m): 7.50

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 10.0

Date: 2019/1/2
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

NATA 1560-E

Luminance Limitting Curve(no luminous side)

Luminance Table

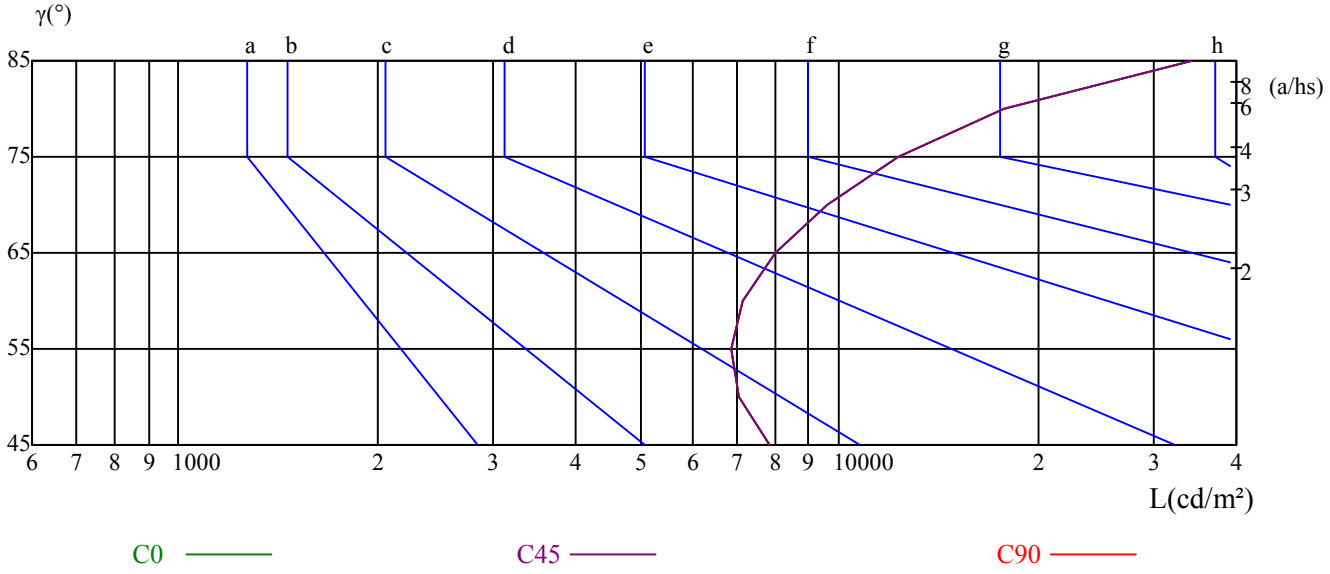
γ	45	50	55	60	65	70	75	80	85
C0	7867	7071	6877	7174	8035	9594	12289	17776	34262
C45	7867	7071	6877	7174	8035	9594	12289	17776	34262
C90	7867	7071	6877	7174	8035	9594	12289	17776	34262

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
8035	8035	8035	12289	12289	12289	34262	34262	34262

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



Equipment: GMS1980
Temperature(°C): 10.0

Date: 2019/1/2
Humidity(%): 65.0%

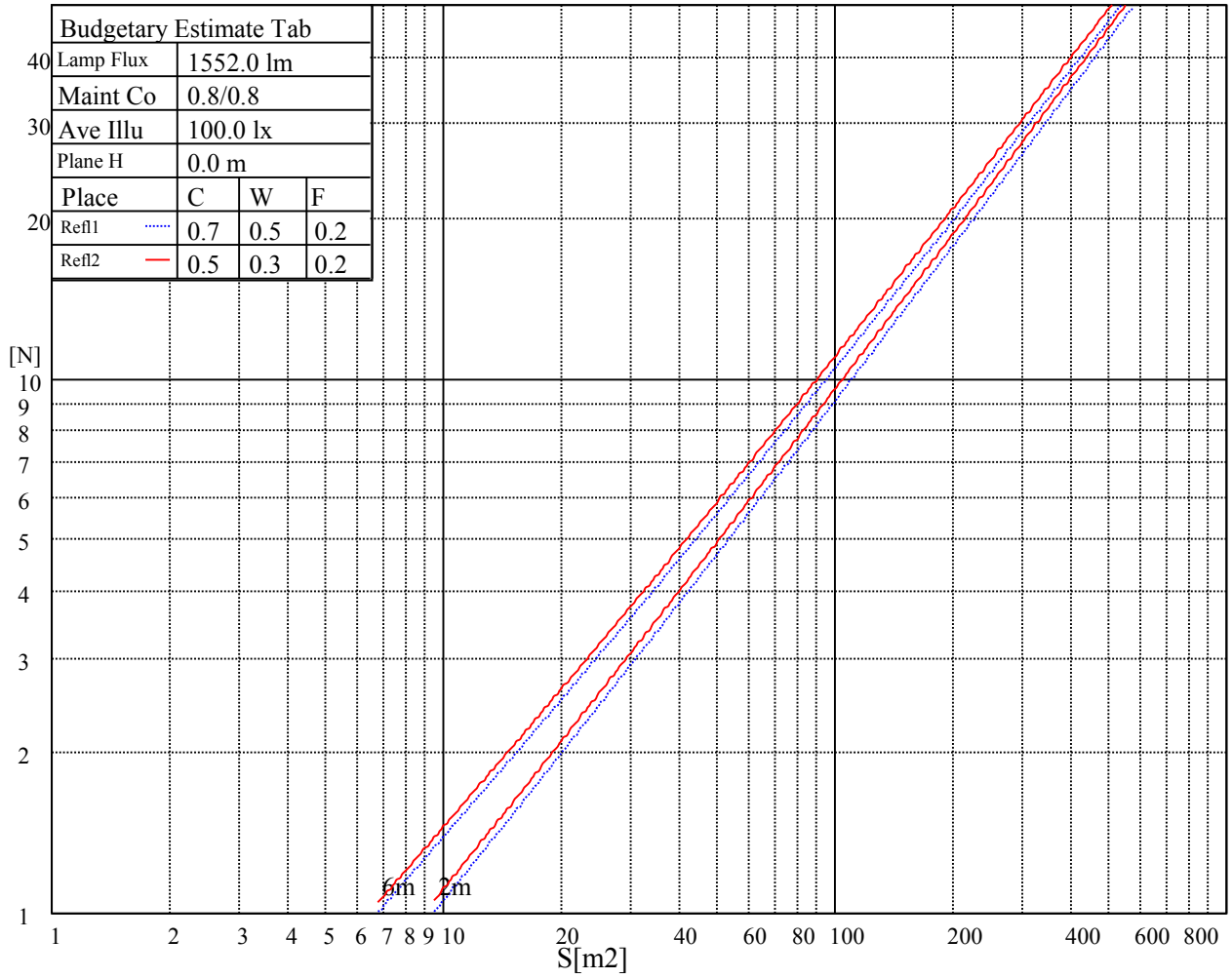
Operator: NT07
Distance(m): 7.50

UGR Glare

Illumination assessment according UGR											
Rf of Ceiling		70	70	50	50	30	70	70	50	50	30
Rf of Wall		50	30	50	30	30	50	30	50	30	30
Rf of Floor		20	20	20	20	20	20	20	20	20	20
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	7.22	8.14	7.59	8.45	8.77	7.45	8.37	7.82	8.68	9.00
	3H	10.26	11.07	10.65	11.41	11.77	10.37	11.18	10.75	11.51	11.88
	4H	11.91	12.66	12.32	13.02	13.41	11.99	12.74	12.40	13.09	13.48
	6H	13.78	14.47	14.20	14.85	15.24	13.81	14.50	14.23	14.87	15.27
	8H	14.82	15.46	15.25	15.85	16.26	14.82	15.46	15.26	15.86	16.27
	12H	16.49	17.10	16.92	17.49	17.92	16.48	17.10	16.92	17.48	17.91
4H	2H	8.06	8.81	8.47	9.16	9.55	8.22	8.97	8.63	9.33	9.72
	3H	11.36	11.98	11.78	12.39	12.80	11.44	12.05	11.85	12.46	12.87
	4H	13.19	13.74	13.63	14.16	14.61	13.25	13.80	13.69	14.22	14.67
	6H	15.15	15.62	15.63	16.08	16.55	15.18	15.65	15.66	16.11	16.58
	8H	16.31	16.75	16.79	17.20	17.68	16.32	16.75	16.79	17.20	17.68
	12H	17.91	18.29	18.40	18.78	19.25	17.90	18.28	18.40	18.77	19.25
8H	4H	13.88	14.32	14.36	14.77	15.25	13.93	14.37	14.41	14.82	15.29
	6H	16.14	16.48	16.65	16.99	17.47	16.16	16.51	16.67	17.01	17.50
	8H	17.48	17.78	18.01	18.31	18.81	17.48	17.79	18.02	18.31	18.81
	12H	19.23	19.49	19.75	19.99	20.57	19.22	19.48	19.74	19.98	20.56
12H	4H	14.07	14.45	14.57	14.94	15.42	14.12	14.49	14.61	14.98	15.46
	6H	16.65	16.75	16.98	17.22	17.77	16.67	16.77	17.00	17.24	17.79
	8H	17.91	18.17	18.44	18.67	19.25	17.91	18.18	18.44	18.68	19.26

Variation with the observer position at spacings:		
S = 1.0H	0.4/-1.2	0.4/-1.2
S = 1.5H	0.3/-1.2	0.3/-1.2
S = 2.0H	0.1/-1.0	0.1/-1.0
Standard tables:	BKBF	BKBF
Uncorrected UGR	0.4	0.4

Budgetary Estimate Table

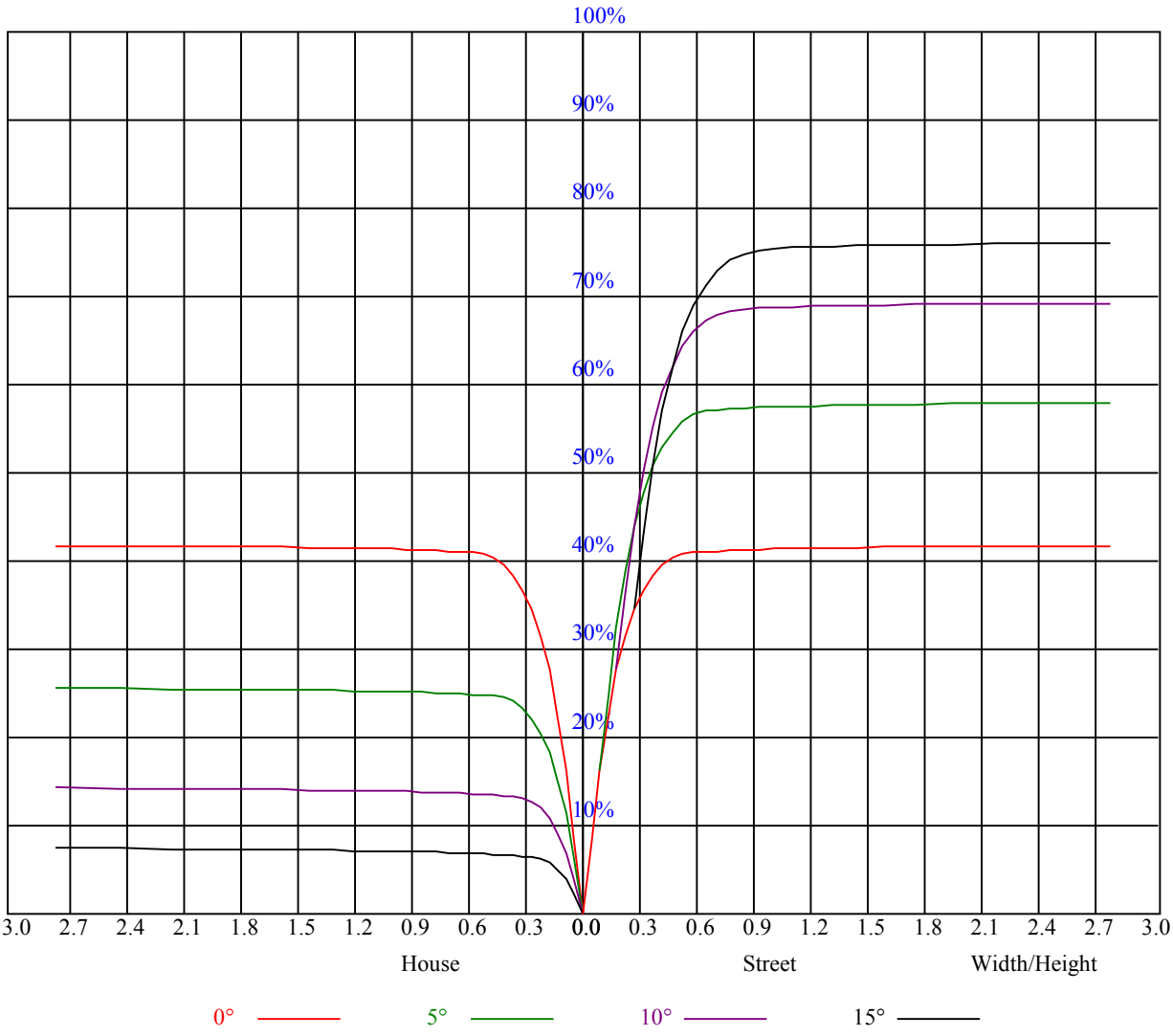


Equipment: GMS1980 Date: 2019/1/2 Operator: NT07
Temperature(°C): 10.0 Humidity(%): 65.0% Distance(m): 7.50

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	1.00	1.00	1.00	0.98	0.98	0.98	0.94	0.94	0.94	0.90	0.90	0.90	0.86	0.86	0.86	0.84
1	0.95	0.93	0.92	0.93	0.91	0.90	0.90	0.88	0.87	0.87	0.86	0.85	0.84	0.83	0.82	0.81
2	0.90	0.88	0.86	0.89	0.87	0.85	0.86	0.85	0.83	0.84	0.83	0.81	0.82	0.81	0.80	0.78
3	0.87	0.84	0.81	0.86	0.83	0.81	0.84	0.81	0.79	0.82	0.80	0.78	0.80	0.78	0.77	0.76
4	0.84	0.80	0.78	0.83	0.80	0.77	0.81	0.79	0.77	0.80	0.77	0.76	0.78	0.76	0.75	0.74
5	0.81	0.77	0.75	0.80	0.77	0.75	0.79	0.76	0.74	0.78	0.75	0.73	0.76	0.74	0.73	0.72
6	0.78	0.75	0.73	0.78	0.75	0.72	0.77	0.74	0.72	0.76	0.73	0.71	0.75	0.73	0.71	0.70
7	0.76	0.73	0.70	0.76	0.72	0.70	0.75	0.72	0.70	0.74	0.71	0.70	0.73	0.71	0.69	0.68
8	0.74	0.71	0.68	0.74	0.71	0.68	0.73	0.70	0.68	0.72	0.70	0.68	0.72	0.69	0.68	0.67
9	0.72	0.69	0.67	0.72	0.69	0.67	0.71	0.68	0.66	0.71	0.68	0.66	0.70	0.68	0.66	0.65
10	0.70	0.67	0.65	0.70	0.67	0.65	0.70	0.67	0.65	0.69	0.67	0.65	0.69	0.66	0.65	0.64

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2019/1/2	Operator: NT07
Temperature(°C): 10.0	Humidity(%): 65.0%	Distance(m): 7.50

Intensity data(cd)

C/γ(°)	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
0.0	9056.25	9346.50	9410.06	9253.69	8884.13	8143.31	7401.38	6621.75	5767.31
45.0	9052.88	9234.56	9188.44	8960.06	8487.56	7809.75	7084.69	6217.31	5488.88
90.0	9132.19	8949.94	8609.06	7962.19	7310.25	6585.75	5841.56	4963.50	4355.44
135.0	9191.81	8909.44	8453.81	7693.88	6989.63	6254.44	5433.19	4677.19	4107.38
180.0	9056.25	8613.56	7924.50	7106.06	6344.44	5508.00	4812.75	4136.63	3580.88
225.0	9052.88	8688.94	8139.38	7281.00	6518.81	5739.19	4856.63	4249.69	3737.81
270.0	9119.25	9108.56	8838.56	8456.06	7658.44	6806.81	6027.19	5209.88	4565.25
315.0	9191.81	9285.19	9137.25	8769.38	8035.88	7293.38	6512.63	5655.38	4959.56
360.0	9056.25	9346.50	9410.06	9253.69	8884.13	8143.31	7401.38	6621.75	5767.31

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	4990.50	4380.75	3787.31	3339.56	2910.94	2538.56	2248.88	1964.81	1725.75
45.0	4755.94	4107.38	3606.75	3182.63	2722.50	2401.31	2112.75	1831.50	1636.31
90.0	3828.38	3276.56	2909.25	2580.75	2259.56	1979.44	1762.31	1554.19	1389.94
135.0	3578.06	3168.56	2780.44	2448.00	2187.56	1953.56	1699.88	1536.19	1378.69
180.0	3171.94	2779.88	2445.75	2188.69	1959.75	1710.56	1535.06	1375.88	1115.33
225.0	3198.38	2842.31	2519.44	2167.88	1967.63	1725.75	1504.69	1361.81	1110.54
270.0	3950.44	3426.75	3029.63	2680.88	2306.81	2041.88	1809.56	1558.69	1384.31
315.0	4279.50	3690.00	3253.50	2842.88	2485.13	2207.81	1963.69	1702.13	1514.81
360.0	4990.50	4380.75	3787.31	3339.56	2910.94	2538.56	2248.88	1964.81	1725.75

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1539.00	1368.00	1181.25	1064.81	961.88	860.63	722.25	605.25	491.63
45.0	1451.25	1263.94	1120.50	1019.25	915.19	818.44	704.25	585.00	475.31
90.0	1113.53	1073.03	968.96	869.63	767.19	666.11	562.44	436.50	339.64
135.0	1194.19	1077.75	982.69	880.31	764.44	647.44	522.00	404.44	300.38
180.0	1072.18	970.65	848.98	742.61	629.38	489.77	397.07	287.61	181.41
225.0	1067.96	956.48	867.99	755.49	632.70	522.79	416.59	294.08	207.96
270.0	1225.69	1066.50	942.75	847.69	741.38	640.13	524.25	411.75	316.13
315.0	1344.38	1116.28	1028.36	929.19	806.29	713.98	587.98	453.99	365.96
360.0	1539.00	1368.00	1181.25	1064.81	961.88	860.63	722.25	605.25	491.63

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	357.75	284.63	185.34	107.94	69.92	55.29	43.09	33.69	28.41
45.0	357.75	288.00	172.52	112.95	67.56	52.09	41.68	32.06	25.93
90.0	252.79	158.63	101.25	64.91	46.69	34.88	28.07	23.57	20.76
135.0	235.91	129.32	76.78	49.73	39.43	30.94	24.53	21.71	19.35
180.0	122.40	78.75	50.12	40.89	33.13	25.48	23.01	20.42	18.39
225.0	135.90	79.82	52.93	42.69	33.24	27.23	23.74	20.64	18.68
270.0	293.06	136.97	86.85	57.60	43.76	34.65	29.14	24.64	21.26
315.0	261.68	170.83	110.70	72.56	51.47	41.29	33.08	27.84	22.89
360.0	357.75	284.63	185.34	107.94	69.92	55.29	43.09	33.69	28.41

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	23.79	20.87	18.62	16.82	15.86	15.08	14.18	13.61	13.05
45.0	22.84	19.91	17.89	16.76	15.81	14.96	14.06	13.33	12.66
90.0	18.39	16.93	15.92	14.91	14.12	13.39	12.71	11.93	11.31
135.0	17.38	16.26	15.30	14.46	13.61	12.99	12.32	11.76	11.19
180.0	17.04	16.14	15.24	14.46	13.78	13.11	12.54	11.98	11.48
225.0	17.16	16.20	15.36	14.57	13.78	13.16	12.60	11.87	11.31
270.0	18.90	17.21	16.09	15.19	14.40	13.61	12.99	12.32	11.76
315.0	19.97	17.61	16.14	15.24	14.29	13.61	12.88	12.21	11.70
360.0	23.79	20.87	18.62	16.82	15.86	15.08	14.18	13.61	13.05

Intensity data(cd)

C/γ(°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0
0.0	12.38	11.93	11.48	10.97	10.58	10.29	9.90	9.62	9.34
45.0	11.98	11.42	10.86	10.41	9.84	9.45	9.11	8.78	8.38
90.0	10.80	10.24	9.73	9.28	8.89	8.49	8.27	8.04	7.76
135.0	10.69	10.29	9.90	9.56	9.23	8.94	8.66	8.38	8.27
180.0	11.03	10.69	10.29	10.01	9.73	9.39	9.17	8.89	8.61
225.0	10.80	10.29	9.79	9.45	9.06	8.78	8.49	8.27	8.04
270.0	11.19	10.63	10.18	9.79	9.34	9.00	8.72	8.44	8.21
315.0	11.25	10.63	10.29	9.96	9.56	9.28	9.00	8.83	8.61
360.0	12.38	11.93	11.48	10.97	10.58	10.29	9.90	9.62	9.34

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	9.11	8.83	8.55	8.27	8.04	7.82	7.59	7.43	7.31
45.0	8.16	7.99	7.71	7.59	7.43	7.31	7.20	7.14	7.09
90.0	7.59	7.43	7.31	7.20	7.14	7.09	7.03	6.92	6.86
135.0	7.99	7.76	7.59	7.43	7.26	7.14	6.98	6.86	6.75
180.0	8.33	8.10	7.76	7.59	7.37	7.20	7.09	6.98	6.92
225.0	7.82	7.71	7.59	7.43	7.37	7.26	7.26	7.20	7.14
270.0	8.04	7.88	7.76	7.65	7.59	7.48	7.48	7.43	7.31
315.0	8.44	8.21	8.10	7.93	7.76	7.65	7.48	7.37	7.20
360.0	9.11	8.83	8.55	8.27	8.04	7.82	7.59	7.43	7.31

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	7.14	7.09	7.03	6.98	6.98	6.86	6.86	6.81	6.75
45.0	7.03	6.98	6.98	6.92	6.86	6.81	6.75	6.69	6.64
90.0	6.86	6.75	6.69	6.69	6.64	6.53	6.47	6.41	6.30
135.0	6.64	6.64	6.53	6.47	6.47	6.41	6.36	6.30	6.30
180.0	6.86	6.81	6.75	6.69	6.69	6.64	6.58	6.58	6.53
225.0	7.03	6.98	6.92	6.92	6.86	6.86	6.75	6.69	6.69
270.0	7.31	7.20	7.14	7.09	7.03	6.98	6.98	6.92	6.86
315.0	7.14	7.03	6.98	6.92	6.92	6.81	6.81	6.75	6.75
360.0	7.14	7.09	7.03	6.98	6.98	6.86	6.86	6.81	6.75

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	6.69	6.69	6.64	6.58	6.53	6.47	6.47	6.41	6.36
45.0	6.53	6.53	6.47	6.41	6.36	6.30	6.19	6.19	6.13
90.0	6.30	6.24	6.24	6.13	6.08	6.02	6.02	5.96	5.91
135.0	6.24	6.19	6.19	6.13	6.02	6.02	5.96	5.96	5.91
180.0	6.47	6.41	6.36	6.36	6.30	6.24	6.24	6.19	6.13
225.0	6.64	6.64	6.58	6.53	6.53	6.53	6.47	6.47	6.47
270.0	6.81	6.81	6.81	6.75	6.75	6.69	6.64	6.58	6.69
315.0	6.69	6.69	6.64	6.64	6.58	6.53	6.47	6.41	6.41
360.0	6.69	6.69	6.64	6.58	6.53	6.47	6.47	6.41	6.36

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	6.24	6.30	6.24	6.19	6.13	6.08	6.13	5.74	5.68
45.0	6.08	5.96	5.96	5.91	5.85	5.79	5.63	5.57	5.57
90.0	5.91	5.85	5.79	5.74	5.74	5.57	5.51	5.51	5.40
135.0	5.79	5.68	5.63	5.63	5.63	5.63	5.57	5.57	5.51
180.0	6.08	6.08	6.02	6.08	6.02	5.79	5.68	5.63	5.63
225.0	6.41	6.36	6.36	6.30	6.30	6.30	5.57	5.57	5.46
270.0	6.92	6.92	6.58	6.41	6.41	6.41	6.36	5.51	5.46
315.0	6.36	6.30	6.30	6.30	6.30	6.30	6.41	5.63	5.57
360.0	6.24	6.30	6.24	6.19	6.13	6.08	6.13	5.74	5.68

Intensity data(cd)

C/γ(°)	90.0
0.0	5.74
45.0	5.57
90.0	5.40
135.0	5.46
180.0	5.51
225.0	5.46
270.0	5.46
315.0	5.51
360.0	5.74