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NATA

LumCAT: 2-1299-N
Luminaire: 92.70.065.00+92.70.059.00

Report No: NATA0100	Voltage(V): 34.8500
Test No: GC2019011705	Current(A): 0.6000
LampCAT: CITIZEN CLU038	Power (W): 20.9100
Lamp flux(lm): 2971.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 70	Width(mm): 70
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 2224.27
Efficiency(%): 74.87%
Lumens(lm)/Power(W): 106.48
Central intensity(cd): 9363.797
Maximum intensity(cd): 9363.797
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=22.0
[C90/270]Total=22.0
Field angle(10%Imax): [C0/180]Total=45.3
[C90/270]Total=45.3
Maximum s/h(1/2): C0_180=0.37 C90_270=0.37
Maximum s/h(1/4): C0_180=0.39 C90_270=0.39
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 74.94%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.199%

Equipment: GMS1980	Date: 2019/1/17	Operator: NT07
Temperature(°C): 10.0	Humidity(%): 65.0%	Distance(m): 7.50

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	9363.797	2.240	2.24	.075%	.101%
1.0	9297.422	17.794	20.034	.599%	.901%
2.0	9122.766	34.914	54.948	1.175%	2.470%
3.0	8808.750	50.555	105.503	1.702%	4.743%
4.0	8419.922	64.409	169.912	2.168%	7.639%
5.0	7978.781	76.258	246.17	2.567%	11.067%
6.0	7483.219	85.778	331.947	2.887%	14.924%
7.0	6911.086	92.362	424.309	3.109%	19.076%
8.0	6395.836	97.612	521.921	3.286%	23.465%
9.0	5796.000	99.429	621.35	3.347%	27.935%
10.0	5198.273	98.988	720.338	3.332%	32.385%
11.0	4675.781	97.837	818.175	3.293%	36.784%
12.0	4136.766	94.317	912.493	3.175%	41.024%
13.0	3594.234	88.664	1001.156	2.984%	45.011%
14.0	3123.563	82.866	1084.023	2.789%	48.736%
15.0	2702.180	76.694	1160.717	2.581%	52.184%
16.0	2289.305	69.198	1229.915	2.329%	55.295%
17.0	1978.453	63.433	1293.347	2.135%	58.147%
18.0	1689.258	57.244	1350.591	1.927%	60.721%
19.0	1457.648	52.041	1402.632	1.752%	63.060%
20.0	1228.753	46.086	1448.718	1.551%	65.132%
21.0	1104.342	43.399	1492.118	1.461%	67.083%
22.0	994.732	40.863	1532.981	1.375%	68.921%
23.0	904.655	38.763	1571.744	1.305%	70.663%
24.0	823.781	36.743	1608.487	1.237%	72.315%
25.0	752.175	34.859	1643.346	1.173%	73.882%
26.0	695.693	33.443	1676.79	1.126%	75.386%
27.0	639.056	31.815	1708.605	1.071%	76.816%
28.0	588.846	30.315	1738.92	1.020%	78.179%
29.0	541.842	28.807	1767.727	.970%	79.474%
30.0	500.583	27.447	1795.174	.924%	80.708%
31.0	459.478	25.951	1821.126	.873%	81.875%
32.0	423.415	24.605	1845.731	.828%	82.981%
33.0	392.027	23.414	1869.145	.788%	84.034%
34.0	360.443	22.103	1891.248	.744%	85.028%
35.0	334.702	21.052	1912.3	.709%	85.974%
36.0	308.714	19.899	1932.199	.670%	86.869%
37.0	285.870	18.866	1951.065	.635%	87.717%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	268.474	18.126	1969.191	.610%	88.532%
39.0	244.723	16.889	1986.08	.568%	89.291%
40.0	224.325	15.812	2001.892	.532%	90.002%
41.0	204.764	14.732	2016.624	.496%	90.664%
42.0	187.017	13.723	2030.346	.462%	91.281%
43.0	169.931	12.709	2043.055	.428%	91.853%
44.0	156.600	11.929	2054.985	.402%	92.389%
45.0	143.852	11.155	2066.139	.375%	92.891%
46.0	132.075	10.419	2076.558	.351%	93.359%
47.0	120.572	9.670	2086.228	.325%	93.794%
48.0	110.890	9.037	2095.265	.304%	94.200%
49.0	100.997	8.359	2103.623	.281%	94.576%
50.0	92.004	7.729	2111.352	.260%	94.923%
51.0	84.551	7.206	2118.558	.243%	95.247%
52.0	77.295	6.679	2125.237	.225%	95.548%
53.0	70.608	6.184	2131.421	.208%	95.826%
54.0	64.800	5.749	2137.17	.194%	96.084%
55.0	59.372	5.333	2142.503	.180%	96.324%
56.0	54.345	4.941	2147.444	.166%	96.546%
57.0	50.344	4.630	2152.074	.156%	96.754%
58.0	46.005	4.278	2156.352	.144%	96.946%
59.0	42.420	3.987	2160.339	.134%	97.126%
60.0	39.108	3.714	2164.053	.125%	97.293%
61.0	35.852	3.439	2167.492	.116%	97.447%
62.0	33.195	3.214	2170.706	.108%	97.592%
63.0	31.008	3.030	2173.736	.102%	97.728%
64.0	29.039	2.862	2176.598	.096%	97.857%
65.0	27.654	2.748	2179.346	.093%	97.980%
66.0	26.677	2.672	2182.019	.090%	98.100%
67.0	25.685	2.593	2184.612	.087%	98.217%
68.0	24.792	2.521	2187.132	.085%	98.330%
69.0	23.977	2.455	2189.587	.083%	98.441%
70.0	23.196	2.390	2191.977	.080%	98.548%
71.0	22.380	2.321	2194.298	.078%	98.652%
72.0	21.621	2.255	2196.553	.076%	98.754%
73.0	20.855	2.187	2198.74	.074%	98.852%
74.0	20.152	2.124	2200.864	.071%	98.948%
75.0	19.378	2.053	2202.917	.069%	99.040%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	18.598	1.979	2204.896	.067%	99.129%
77.0	17.852	1.908	2206.803	.064%	99.215%
78.0	17.114	1.836	2208.639	.062%	99.297%
79.0	16.369	1.762	2210.401	.059%	99.376%
80.0	15.560	1.680	2212.081	.057%	99.452%
81.0	14.843	1.608	2213.689	.054%	99.524%
82.0	14.070	1.528	2215.217	.051%	99.593%
83.0	13.268	1.444	2216.661	.049%	99.658%
84.0	12.600	1.374	2218.035	.046%	99.720%
85.0	11.862	1.296	2219.331	.044%	99.778%
86.0	11.173	1.222	2220.553	.041%	99.833%
87.0	10.455	1.145	2221.698	.039%	99.884%
88.0	9.837	1.078	2222.776	.036%	99.933%
89.0	9.148	1.003	2223.779	.034%	99.978%
90.0	8.958	0.491	2224.27	.017%	100.000%

Zonal flux distribution table

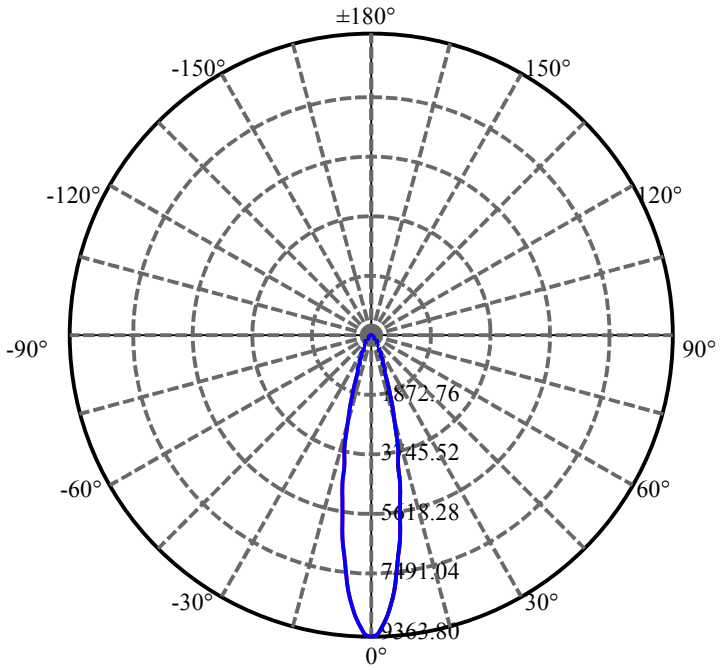
ZONAL LUMEN SUMMARY

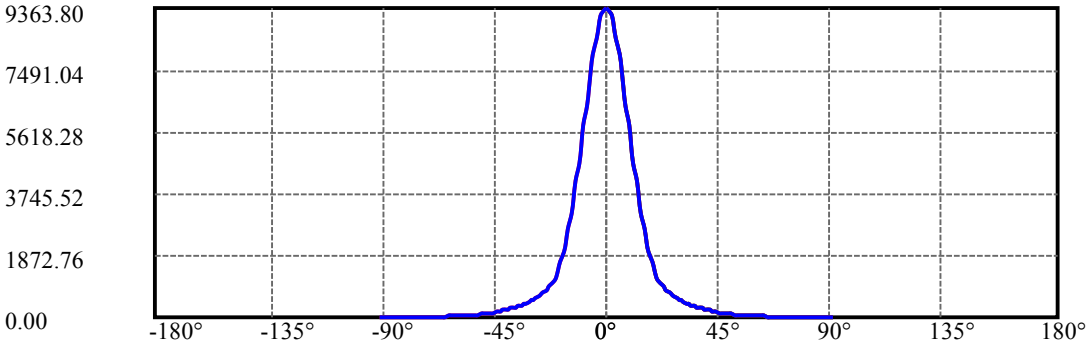
Zone	Lumens	%Lamp	%Fixt
0-30	1795.17	60.42%	80.71%
0-40	2001.89	67.38%	90.00%
0-60	2164.05	72.84%	97.29%
0-90	2223.78	74.85%	99.98%
0-120	2223.78	74.85%	99.98%
0-180	2224.27	74.87%	100.00%
60-90	63.44	2.14%	2.85%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-29.43	1779.42	59.89%	80.00%

ZONAL LUMEN SUMMARY

0-10	720.34
10-20	728.38
20-30	346.46
30-40	206.72
40-50	109.46
50-60	52.70
60-70	27.92
70-80	20.10
80-90	11.70
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:

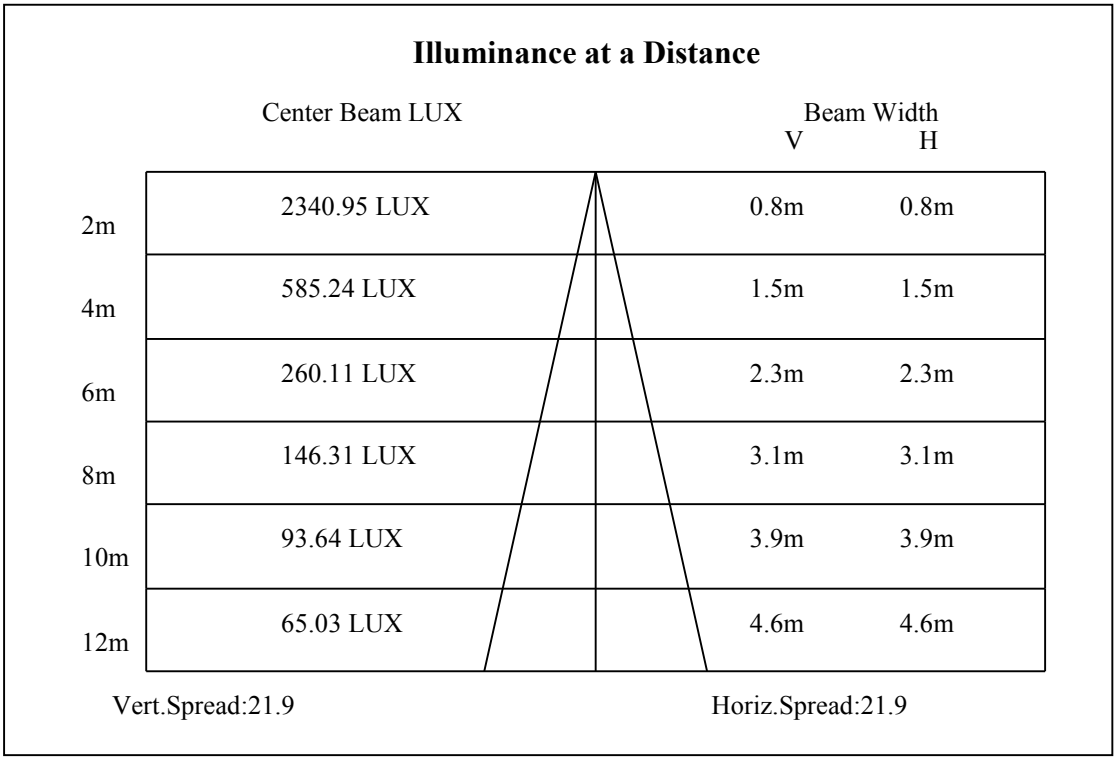
C90/C270:

Field angle(10%Imax):C0/180Left:22.6 Right:22.6
:C90/270Left:22.6 Right:22.6

Beam Angle(50%Imax):C0/180Left:11.0 Right:11.0
:C90/270Left:11.0 Right:11.0

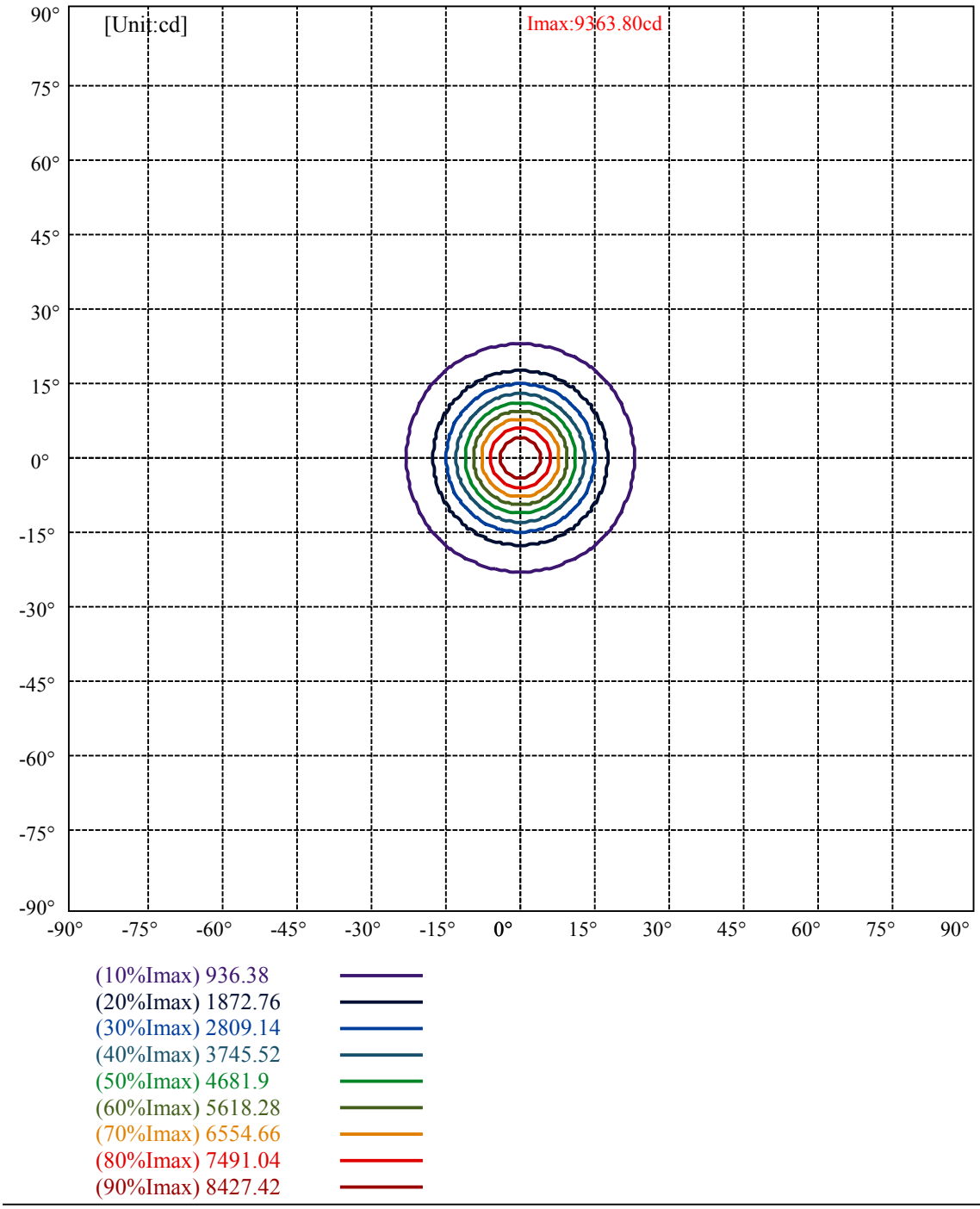
Equipment: GMS1980 Date: 2019/1/17 Operator: NT07
Temperature(°C): 10.0 Humidity(%): 65.0% Distance(m): 7.50

Lux distance Curve



Equipment: GMS1980 Date: 2019/1/17 Operator: NT07
Temperature(°C): 10.0 Humidity(%): 65.0% Distance(m): 7.50

ISO-Intensity(V-H)

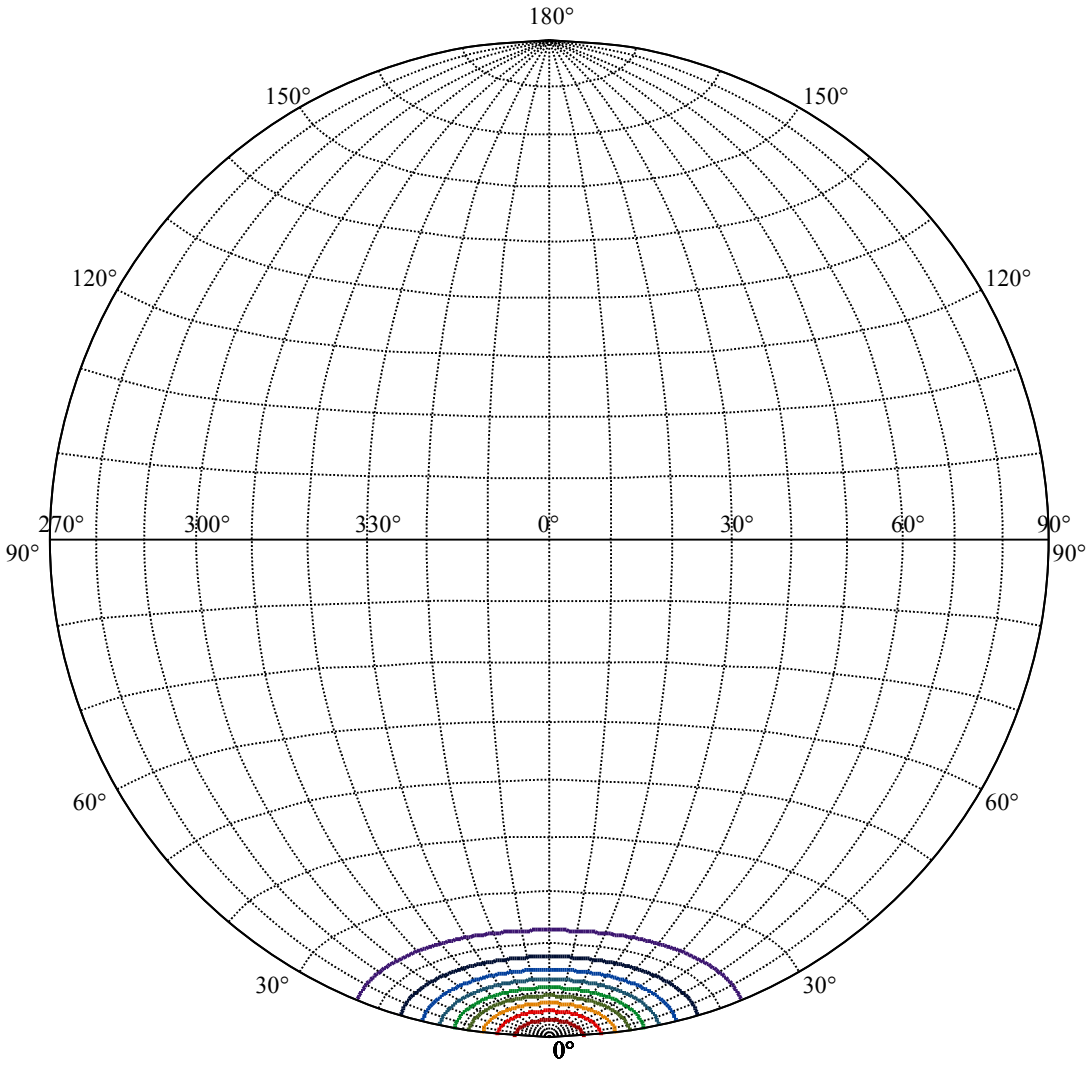


Equipment: GMS1980
Temperature(°C): 10.0

Date: 2019/1/17
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

ISO candela diagram on circular web



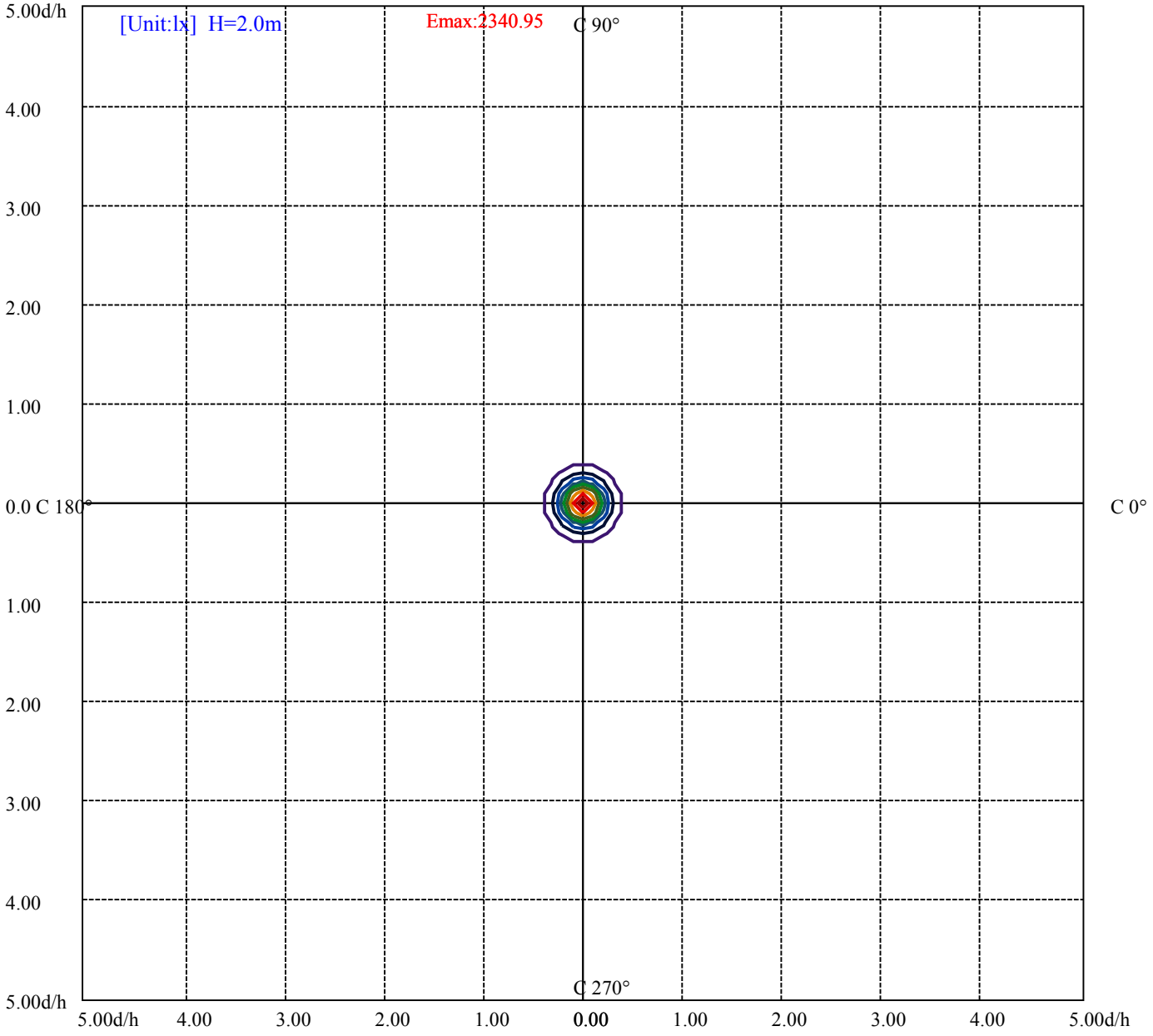
House [Unit:cd] Road

Imax:9363.80

(10%Imax) 936.38
(20%Imax) 1872.76
(30%Imax) 2809.14
(40%Imax) 3745.52
(50%Imax) 4681.9
(60%Imax) 5618.28
(70%Imax) 6554.66
(80%Imax) 7491.04
(90%Imax) 8427.42

Equipment: GMS1980 Date: 2019/1/17 Operator: NT07
Temperature(°C): 10.0 Humidity(%): 65.0% Distance(m): 7.50

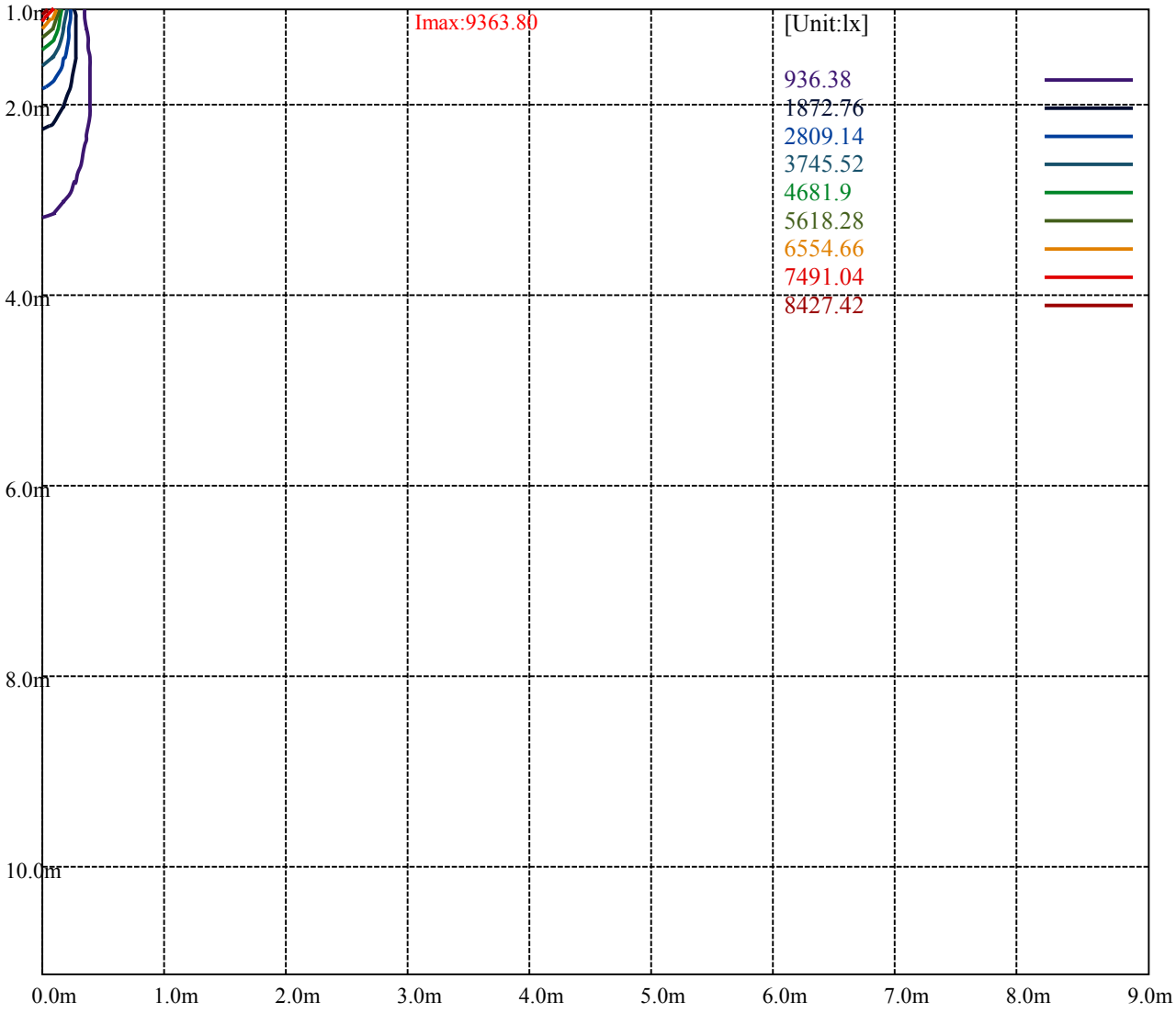
ISO illuminance diagram



(10%Emax) 234.0948
(20%Emax) 468.19
(30%Emax) 702.285
(40%Emax) 936.3775
(50%Emax) 1170.473
(60%Emax) 1404.568
(70%Emax) 1638.662
(80%Emax) 1872.757
(90%Emax) 2106.853

Equipment: GMS1980
Temperature(°C): 10.0
Date: 2019/1/17
Humidity(%): 65.0%
Operator: NT07
Distance(m): 7.50

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 10.0

Date: 2019/1/17
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

NATA 2-1299-N

Luminance Limitting Curve(no luminous side)

Luminance Table

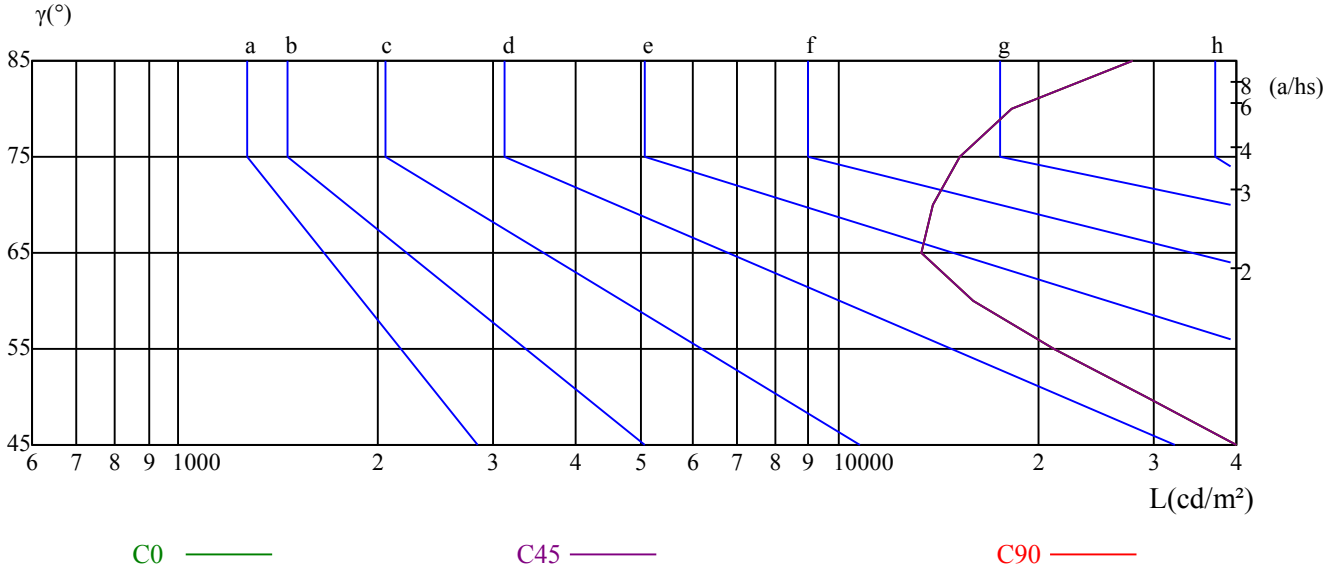
γ	45	50	55	60	65	70	75	80	85
C0	41518	29211	21125	15962	13354	13841	15280	18287	27775
C45	41518	29211	21125	15962	13354	13841	15280	18287	27775
C90	41518	29211	21125	15962	13354	13841	15280	18287	27775

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
13354	13354	13354	15280	15280	15280	27775	27775	27775

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: 2019/1/17
Humidity(%): 65.0%

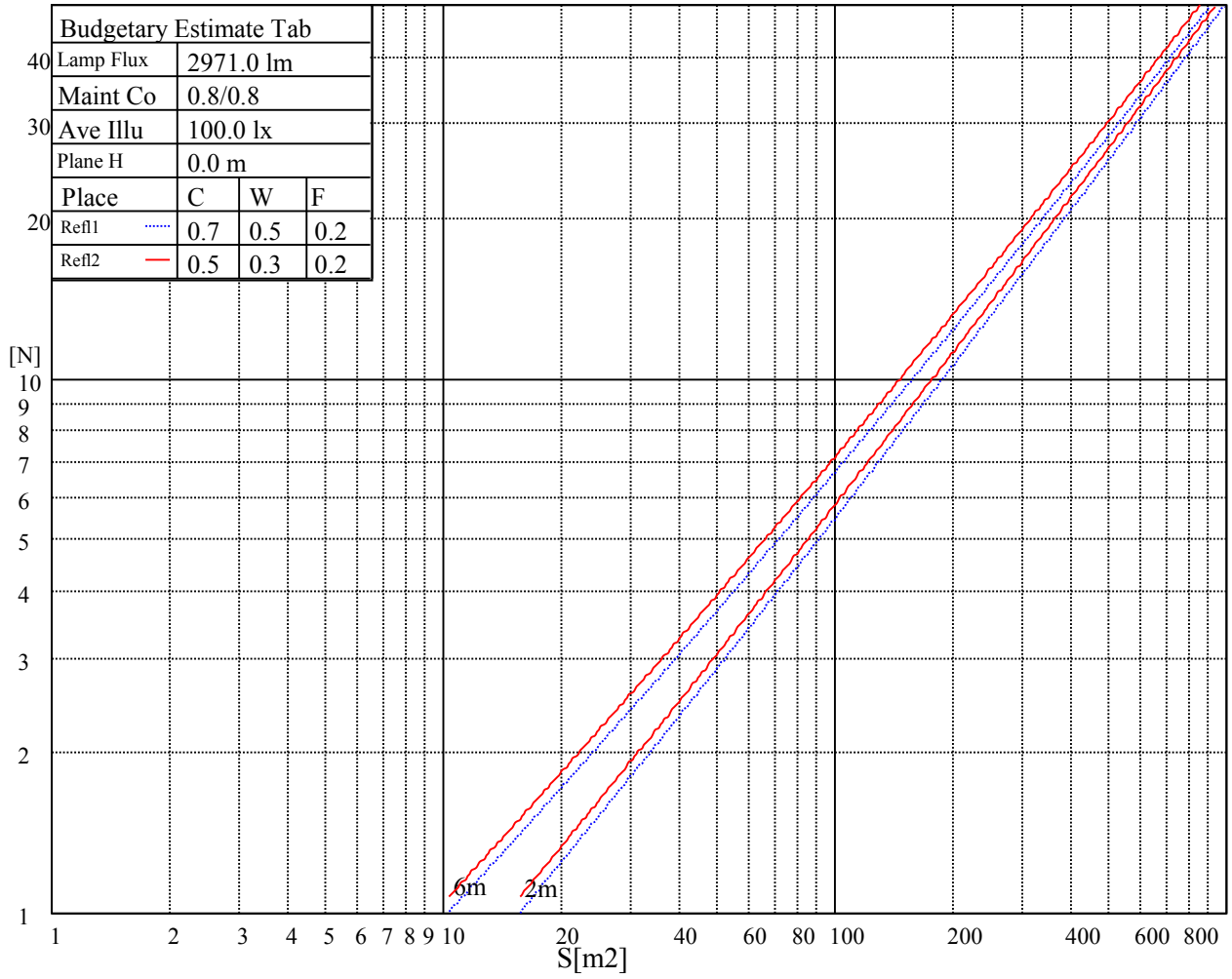
Operator: NT07
Distance(m): 7.50

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	13.30	14.32	13.66	14.63	14.95	13.31	14.33	13.68	14.65	14.96
	3H	14.49	15.40	14.88	15.73	16.10	14.49	15.39	14.87	15.73	16.09
	4H	15.19	16.03	15.60	16.38	16.77	15.18	16.02	15.59	16.37	16.76
	6H	15.96	16.73	16.38	17.10	17.50	15.94	16.71	16.36	17.09	17.48
	8H	16.37	17.09	16.81	17.48	17.89	16.35	17.07	16.79	17.47	17.87
	12H	17.08	17.77	17.52	18.15	18.58	17.06	17.75	17.50	18.14	18.57
4H	2H	13.51	14.35	13.92	14.70	15.09	13.52	14.36	13.93	14.71	15.10
	3H	15.03	15.71	15.44	16.12	16.53	15.02	15.71	15.44	16.12	16.52
	4H	15.93	16.54	16.36	16.96	17.41	15.92	16.53	16.35	16.95	17.40
	6H	16.80	17.32	17.27	17.77	18.25	16.78	17.30	17.25	17.75	18.23
	8H	17.34	17.83	17.82	18.28	18.76	17.32	17.81	17.80	18.26	18.73
	12H	18.11	18.54	18.61	19.03	19.50	18.10	18.52	18.59	19.01	19.49
8H	4H	16.25	16.74	16.72	17.19	17.66	16.24	16.73	16.72	17.18	17.65
	6H	17.38	17.77	17.89	18.27	18.76	17.36	17.75	17.87	18.26	18.74
	8H	18.09	18.44	18.62	18.96	19.45	18.07	18.42	18.60	18.94	19.44
	12H	19.20	19.50	19.72	20.00	20.58	19.18	19.48	19.70	19.98	20.56
12H	4H	16.30	16.73	16.79	17.22	17.69	16.29	16.72	16.78	17.21	17.68
	6H	17.83	17.87	18.06	18.34	18.89	17.81	17.86	18.04	18.33	18.88
	8H	18.33	18.64	18.86	19.14	19.71	18.32	18.62	18.84	19.12	19.70

Variation with the observer position at spacings:		
S = 1.0H	1.5/-1.8	1.5/-1.8
S = 1.5H	2.5/-2.0	2.5/-2.0
S = 2.0H	3.8/-1.9	3.8/-1.9
Standard tables:	BK4	BK4
Uncorrected UGR	4.0	4.0

Budgetary Estimate Table

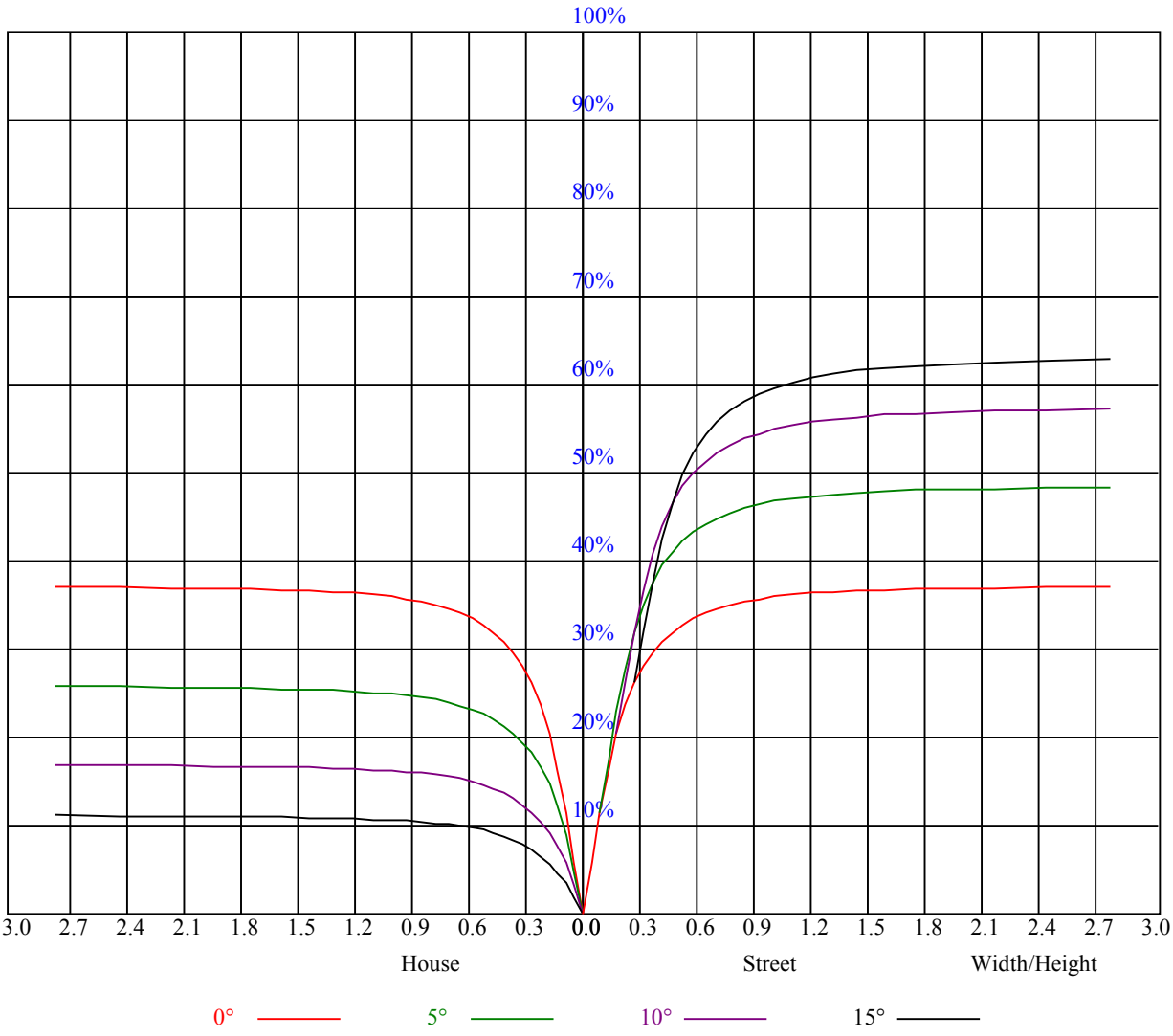


Equipment: GMS1980 Date: 2019/1/17 Operator: NT07
Temperature(°C): 10.0 Humidity(%): 65.0% Distance(m): 7.50

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	0.89	0.89	0.89	0.87	0.87	0.87	0.83	0.83	0.83	0.80	0.80	0.80	0.76	0.76	0.76	0.75
1	0.83	0.82	0.80	0.82	0.80	0.79	0.79	0.78	0.76	0.76	0.75	0.74	0.73	0.73	0.72	0.71
2	0.78	0.76	0.73	0.77	0.75	0.73	0.75	0.73	0.71	0.73	0.71	0.70	0.71	0.69	0.68	0.67
3	0.74	0.71	0.68	0.73	0.70	0.68	0.71	0.69	0.67	0.70	0.67	0.66	0.68	0.66	0.65	0.64
4	0.71	0.67	0.64	0.70	0.66	0.64	0.68	0.65	0.63	0.67	0.64	0.62	0.65	0.63	0.62	0.61
5	0.67	0.64	0.61	0.67	0.63	0.61	0.65	0.62	0.60	0.64	0.62	0.60	0.63	0.61	0.59	0.58
6	0.64	0.61	0.58	0.64	0.60	0.58	0.63	0.60	0.57	0.62	0.59	0.57	0.61	0.59	0.57	0.56
7	0.62	0.58	0.56	0.61	0.58	0.55	0.61	0.57	0.55	0.60	0.57	0.55	0.59	0.56	0.55	0.54
8	0.60	0.56	0.53	0.59	0.56	0.53	0.58	0.55	0.53	0.58	0.55	0.53	0.57	0.55	0.53	0.52
9	0.57	0.54	0.51	0.57	0.54	0.51	0.56	0.53	0.51	0.56	0.53	0.51	0.55	0.53	0.51	0.50
10	0.56	0.52	0.50	0.55	0.52	0.50	0.55	0.52	0.50	0.54	0.51	0.49	0.54	0.51	0.49	0.49

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2019/1/17	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	9366.75	9326.81	9180.00	8850.94	8494.88	8019.56	7497.56	7000.88	6486.19
45.0	9365.63	9270.56	9030.38	8676.00	8286.75	7794.56	7247.81	6735.38	6215.63
90.0	9359.44	9239.63	9029.81	8688.38	8254.13	7804.69	7322.63	6674.63	6137.44
135.0	9363.38	9365.06	9236.25	8982.00	8660.81	8219.81	7715.25	7227.00	6720.19
180.0	9366.75	9267.75	9105.75	8788.50	8335.13	7962.19	7499.25	6798.94	6326.44
225.0	9365.63	9333.56	9193.50	8918.44	8533.13	8130.94	7679.81	7075.13	6552.00
270.0	9359.44	9343.13	9194.06	8907.75	8570.81	8116.31	7600.50	7110.56	6592.50
315.0	9363.38	9232.88	9012.38	8658.00	8223.75	7782.19	7302.94	6666.19	6136.31
360.0	9366.75	9326.81	9180.00	8850.94	8494.88	8019.56	7497.56	7000.88	6486.19

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	5828.63	5305.50	4780.69	4150.69	3666.94	3216.38	2755.69	2340.56	2023.88
45.0	5550.19	5017.50	4495.50	3994.31	3405.94	2971.13	2584.69	2158.31	1875.94
90.0	5592.94	4925.81	4408.88	3921.75	3393.00	2917.13	2535.75	2152.69	1858.50
135.0	6056.44	5511.38	4979.25	4390.88	3827.81	3361.50	2888.44	2453.63	2130.19
180.0	5785.31	5119.31	4602.94	4100.63	3620.25	3075.19	2675.25	2314.13	1958.06
225.0	6021.56	5358.38	4830.75	4317.19	3763.69	3254.06	2840.63	2414.25	2083.50
270.0	5929.88	5406.75	4883.06	4300.88	3744.56	3284.44	2807.44	2375.44	2048.63
315.0	5603.06	4941.56	4425.19	3917.81	3331.69	2908.69	2529.56	2105.44	1848.94
360.0	5828.63	5305.50	4780.69	4150.69	3666.94	3216.38	2755.69	2340.56	2023.88

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1726.88	1510.88	1306.13	1145.81	1033.31	939.94	844.31	776.25	717.19
45.0	1629.00	1397.81	1211.63	1086.75	970.88	890.44	812.81	743.63	690.75
90.0	1585.69	1360.69	1110.21	1052.89	932.18	863.33	794.76	713.64	668.64
135.0	1804.50	1564.88	1337.63	1161.00	1033.88	939.38	842.06	770.63	712.69
180.0	1667.81	1452.38	1121.85	1090.86	984.83	887.63	814.73	743.57	680.85
225.0	1779.19	1526.06	1334.81	1110.83	1028.14	933.92	855.39	773.27	716.46
270.0	1738.13	1510.31	1297.13	1133.44	1020.38	919.69	834.19	771.75	713.81
315.0	1582.88	1338.19	1110.66	1053.17	954.28	862.93	792.00	724.67	665.16
360.0	1726.88	1510.88	1306.13	1145.81	1033.31	939.94	844.31	776.25	717.19

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	648.00	597.94	551.25	505.69	464.63	431.44	397.13	365.06	339.19
45.0	635.06	583.31	540.56	505.69	455.63	422.44	395.44	357.75	333.00
90.0	621.23	570.88	523.35	484.88	449.49	408.54	378.90	349.37	325.29
135.0	646.31	597.94	554.06	506.25	463.50	429.19	394.31	363.38	338.63
180.0	629.94	581.68	524.53	484.03	447.81	407.93	379.07	352.41	324.28
225.0	664.93	605.36	562.50	522.23	475.37	441.68	409.95	373.67	349.88
270.0	649.13	601.88	559.13	514.13	472.50	438.75	403.31	370.69	344.25
315.0	617.85	571.78	519.36	481.78	446.91	407.36	378.11	351.23	323.10
360.0	648.00	597.94	551.25	505.69	464.63	431.44	397.13	365.06	339.19

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	311.63	288.56	272.25	243.51	226.07	206.72	186.24	172.01	158.85
45.0	311.63	285.19	261.06	244.18	221.46	202.39	184.11	168.19	155.14
90.0	300.09	278.27	260.33	242.38	222.69	200.76	184.56	167.12	153.79
135.0	312.19	290.81	285.19	247.84	227.87	208.41	189.11	172.52	159.47
180.0	298.35	277.20	255.15	235.07	217.07	196.76	180.90	164.93	150.92
225.0	321.86	296.38	275.29	256.39	231.24	213.58	194.85	173.36	161.44
270.0	316.69	294.19	284.06	253.91	232.76	213.98	196.09	176.40	162.62
315.0	297.28	276.36	254.48	234.51	215.44	195.53	180.28	164.93	150.58
360.0	311.63	288.56	272.25	243.51	226.07	206.72	186.24	172.01	158.85

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	144.51	133.54	123.24	112.50	102.43	94.16	85.61	78.92	72.11
45.0	142.03	129.71	119.48	109.91	98.83	90.79	83.48	75.77	69.02
90.0	141.81	130.73	117.79	108.34	99.62	89.55	82.18	75.38	68.63
135.0	144.34	133.48	123.13	113.57	102.49	94.39	87.75	78.98	71.94
180.0	139.73	129.21	116.89	107.83	99.45	89.78	82.63	76.11	69.47
225.0	149.06	135.90	123.58	113.68	103.56	94.05	86.29	78.75	72.56
270.0	150.24	135.79	124.82	114.69	103.28	94.78	87.02	79.31	72.45
315.0	139.11	128.25	115.65	106.59	98.33	88.54	81.45	75.15	68.68
360.0	144.51	133.54	123.24	112.50	102.43	94.16	85.61	78.92	72.11

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	65.93	60.86	55.74	51.58	47.14	43.59	39.88	36.56	33.92
45.0	63.56	57.88	52.93	48.83	44.78	41.68	38.08	35.10	32.57
90.0	62.55	57.66	52.82	48.83	44.66	41.12	38.19	35.21	32.57
135.0	66.99	60.47	55.35	51.64	46.91	43.59	40.16	36.62	34.03
180.0	63.51	58.67	53.16	49.67	45.51	41.68	38.59	35.44	32.63
225.0	66.21	60.47	55.86	51.64	47.19	43.14	40.05	36.39	33.69
270.0	66.83	61.03	55.86	51.58	47.14	43.59	39.94	36.62	33.98
315.0	62.83	57.94	53.04	48.99	44.72	40.95	37.97	34.88	32.18
360.0	65.93	60.86	55.74	51.58	47.14	43.59	39.88	36.56	33.92

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	31.56	29.19	27.84	26.89	25.82	24.98	24.08	23.34	22.50
45.0	30.49	28.46	27.45	26.49	25.43	24.58	23.85	23.06	22.28
90.0	30.54	28.91	27.56	26.61	25.71	24.81	23.91	23.18	22.33
135.0	31.73	29.48	28.18	27.17	25.99	25.14	24.36	23.46	22.67
180.0	30.49	28.80	27.28	26.33	25.43	24.53	23.68	22.95	22.16
225.0	31.39	29.48	27.68	26.61	25.71	24.75	23.91	23.18	22.33
270.0	31.67	29.31	27.96	26.94	25.88	25.03	24.36	23.46	22.61
315.0	30.21	28.69	27.28	26.38	25.54	24.53	23.68	22.95	22.16
360.0	31.56	29.19	27.84	26.89	25.82	24.98	24.08	23.34	22.50

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	21.77	20.93	20.25	19.46	18.73	18.06	17.27	16.48	15.81
45.0	21.54	20.76	20.14	19.24	18.51	17.78	16.99	16.20	15.47
90.0	21.54	20.81	20.03	19.24	18.34	17.61	16.93	16.20	15.36
135.0	21.99	21.21	20.53	19.69	18.90	18.17	17.33	16.54	15.75
180.0	21.38	20.70	19.91	19.18	18.39	17.55	16.88	16.14	15.24
225.0	21.54	20.76	20.08	19.41	18.62	17.89	17.21	16.54	15.64
270.0	21.88	21.04	20.36	19.63	18.90	18.17	17.38	16.65	15.92
315.0	21.32	20.64	19.91	19.18	18.39	17.61	16.93	16.20	15.30
360.0	21.77	20.93	20.25	19.46	18.73	18.06	17.27	16.48	15.81

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	15.08	14.23	13.50	12.77	12.09	11.31	10.63	9.90	9.23
45.0	14.68	13.89	13.16	12.60	11.81	11.03	10.29	9.62	9.00
90.0	14.68	13.95	13.16	12.43	11.64	10.97	10.18	9.62	9.00
135.0	15.02	14.18	13.44	12.71	11.98	11.31	10.58	9.90	9.23
180.0	14.57	13.84	12.99	12.32	11.64	10.97	10.24	9.62	8.94
225.0	14.96	14.29	13.39	12.77	12.04	11.42	10.69	10.18	9.34
270.0	15.13	14.29	13.44	12.83	12.04	11.42	10.69	10.18	9.45
315.0	14.63	13.89	13.05	12.38	11.64	10.97	10.35	9.68	9.00
360.0	15.08	14.23	13.50	12.77	12.09	11.31	10.63	9.90	9.23

Intensity data(cd)

C/γ(°)	90.0
0.0	8.89
45.0	9.00
90.0	9.00
135.0	8.94
180.0	8.89
225.0	9.00
270.0	9.00
315.0	8.94
360.0	8.89