NATA LIGHTING CO.,LTD.
www.nata.cn
Email:info@nata.com
Tel:+86-750-3770000 Fax:+86-750-3771111
Address:380JinOu Road,GaoXin Zone,Jiang Men City,Guangdong,China

Nata

LumCAT: 3-2115-N
Luminaire: 92.70.131.00

Report No: NATA0100	Voltage(V): 34.5000
Test No: GC2018091012	Current(A): 0.5000
LampCAT: LUMINUS CXM-11-AC30	Power (W): 17.2500
Lamp flux(lm): 2547.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 81	Width(mm): 81
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 2148.29
Efficiency(%): 84.35%
Lumens(lm)/Power(W): 124.76
Central intensity(cd): 16444.690
Maximum intensity(cd): 16444.690
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=14.0
[C90/270]Total=14.0
Field angle(10%Imax): [C0/180]Total=35.9
[C90/270]Total=35.9
Maximum s/h(1/2): C0_180=0.24 C90_270=0.24
Maximum s/h(1/4): C0_180=0.27 C90_270=0.27
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 84.50%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.832%

Equipment: GMS1980	Date: 2018/9/10	Operator: NT07
Temperature(°C): 25.0	Humidity(%): 60.0%	Distance(m): 7.50

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	16444.688	3.934	3.934	.154%	.183%
1.0	16299.844	31.195	35.13	1.225%	1.635%
2.0	15680.391	60.011	95.14	2.356%	4.429%
3.0	14603.203	83.811	178.951	3.291%	8.330%
4.0	13050.773	99.833	278.784	3.920%	12.977%
5.0	11122.102	106.300	385.084	4.174%	17.925%
6.0	9729.352	111.524	496.608	4.379%	23.116%
7.0	8244.492	110.182	606.79	4.326%	28.245%
8.0	6915.516	105.544	712.334	4.144%	33.158%
9.0	5902.102	101.249	813.583	3.975%	37.871%
10.0	5045.555	96.080	909.662	3.772%	42.344%
11.0	4272.398	89.397	999.059	3.510%	46.505%
12.0	3708.422	84.551	1083.611	3.320%	50.441%
13.0	3195.914	78.838	1162.448	3.095%	54.110%
14.0	2778.328	73.707	1236.156	2.894%	57.541%
15.0	2451.797	69.588	1305.743	2.732%	60.781%
16.0	2102.203	63.543	1369.286	2.495%	63.738%
17.0	1845.633	59.174	1428.46	2.323%	66.493%
18.0	1629.422	55.216	1483.676	2.168%	69.063%
19.0	1461.234	52.169	1535.846	2.048%	71.492%
20.0	1297.420	48.661	1584.507	1.911%	73.757%
21.0	1166.421	45.839	1630.346	1.800%	75.890%
22.0	1080.113	44.371	1674.717	1.742%	77.956%
23.0	1001.784	42.924	1717.641	1.685%	79.954%
24.0	931.331	41.540	1759.181	1.631%	81.888%
25.0	878.885	40.732	1799.913	1.599%	83.784%
26.0	837.907	40.280	1840.193	1.581%	85.659%
27.0	791.965	39.428	1879.621	1.548%	87.494%
28.0	738.295	38.009	1917.63	1.492%	89.263%
29.0	654.054	34.773	1952.403	1.365%	90.882%
30.0	539.121	29.560	1981.963	1.161%	92.258%
31.0	424.230	23.960	2005.923	.941%	93.373%
32.0	311.133	18.080	2024.004	.710%	94.215%
33.0	209.285	12.500	2036.504	.491%	94.796%
34.0	116.606	7.150	2043.654	.281%	95.129%
35.0	80.009	5.032	2048.686	.198%	95.364%
36.0	64.744	4.173	2052.86	.164%	95.558%
37.0	57.136	3.771	2056.63	.148%	95.733%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	50.709	3.424	2060.054	.134%	95.893%
39.0	44.852	3.095	2063.149	.122%	96.037%
40.0	40.289	2.840	2065.989	.112%	96.169%
41.0	36.499	2.626	2068.615	.103%	96.291%
42.0	32.991	2.421	2071.036	.095%	96.404%
43.0	30.466	2.279	2073.314	.089%	96.510%
44.0	28.688	2.185	2075.5	.086%	96.612%
45.0	26.902	2.086	2077.586	.082%	96.709%
46.0	25.580	2.018	2079.604	.079%	96.803%
47.0	24.574	1.971	2081.574	.077%	96.894%
48.0	23.590	1.922	2083.497	.075%	96.984%
49.0	22.809	1.888	2085.385	.074%	97.072%
50.0	22.141	1.860	2087.245	.073%	97.158%
51.0	21.516	1.834	2089.078	.072%	97.244%
52.0	21.087	1.822	2090.9	.072%	97.329%
53.0	20.679	1.811	2092.711	.071%	97.413%
54.0	20.363	1.807	2094.518	.071%	97.497%
55.0	20.173	1.812	2096.33	.071%	97.581%
56.0	19.983	1.817	2098.147	.071%	97.666%
57.0	19.807	1.822	2099.968	.072%	97.751%
58.0	19.695	1.832	2101.8	.072%	97.836%
59.0	19.575	1.840	2103.64	.072%	97.922%
60.0	19.491	1.851	2105.491	.073%	98.008%
61.0	19.371	1.858	2107.349	.073%	98.094%
62.0	19.202	1.859	2109.208	.073%	98.181%
63.0	19.041	1.860	2111.069	.073%	98.267%
64.0	18.837	1.857	2112.925	.073%	98.354%
65.0	18.260	1.815	2114.74	.071%	98.438%
66.0	17.613	1.765	2116.504	.069%	98.520%
67.0	16.784	1.694	2118.199	.067%	98.599%
68.0	16.207	1.648	2119.847	.065%	98.676%
69.0	15.518	1.589	2121.435	.062%	98.750%
70.0	15.054	1.551	2122.986	.061%	98.822%
71.0	14.576	1.511	2124.498	.059%	98.893%
72.0	14.189	1.480	2125.978	.058%	98.961%
73.0	13.922	1.460	2127.438	.057%	99.029%
74.0	13.655	1.439	2128.877	.057%	99.096%
75.0	13.373	1.417	2130.294	.056%	99.162%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	13.127	1.397	2131.69	.055%	99.227%
77.0	12.888	1.377	2133.067	.054%	99.291%
78.0	12.600	1.352	2134.419	.053%	99.354%
79.0	12.368	1.331	2135.75	.052%	99.416%
80.0	12.101	1.307	2137.057	.051%	99.477%
81.0	11.827	1.281	2138.338	.050%	99.537%
82.0	11.588	1.258	2139.596	.049%	99.595%
83.0	11.334	1.234	2140.83	.048%	99.653%
84.0	11.102	1.211	2142.041	.048%	99.709%
85.0	10.877	1.188	2143.229	.047%	99.764%
86.0	10.638	1.164	2144.393	.046%	99.819%
87.0	10.406	1.140	2145.533	.045%	99.872%
88.0	10.202	1.118	2146.651	.044%	99.924%
89.0	9.998	1.096	2147.747	.043%	99.975%
90.0	9.900	0.543	2148.29	.021%	100.000%

Zonal flux distribution table

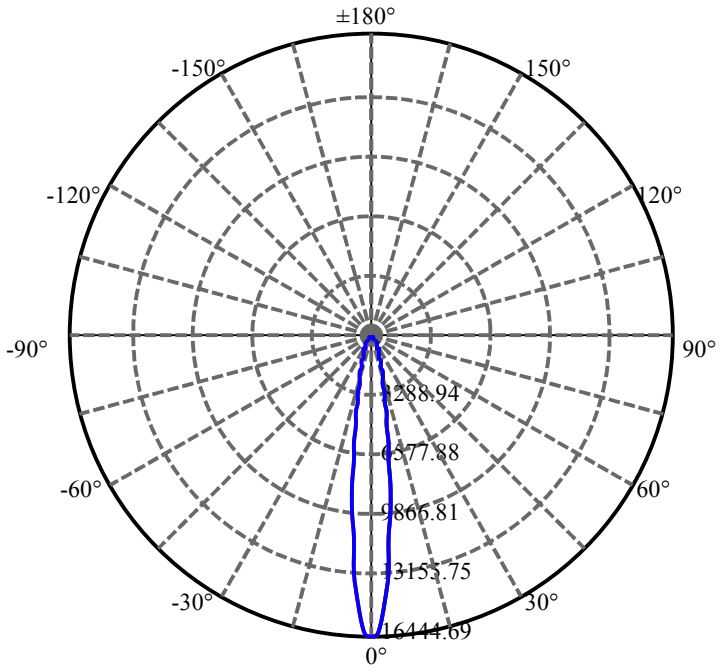
ZONAL LUMEN SUMMARY

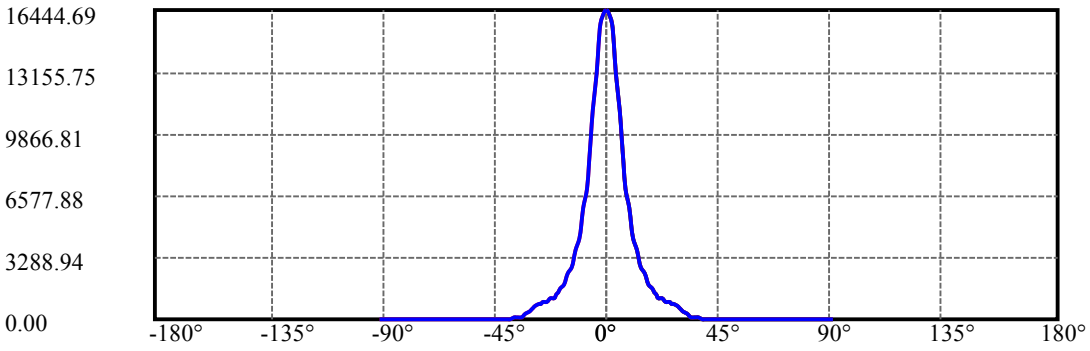
Zone	Lumens	%Lamp	%Fixt
0-30	1981.96	77.82%	92.26%
0-40	2065.99	81.11%	96.17%
0-60	2105.49	82.67%	98.01%
0-90	2147.75	84.32%	99.97%
0-120	2147.75	84.32%	99.97%
0-180	2148.29	84.35%	100.00%
60-90	44.11	1.73%	2.05%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-23.02	1718.63	67.48%	80.00%

ZONAL LUMEN SUMMARY

0-10	909.66
10-20	674.84
20-30	397.46
30-40	84.03
40-50	21.26
50-60	18.25
60-70	17.50
70-80	14.07
80-90	10.69
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):

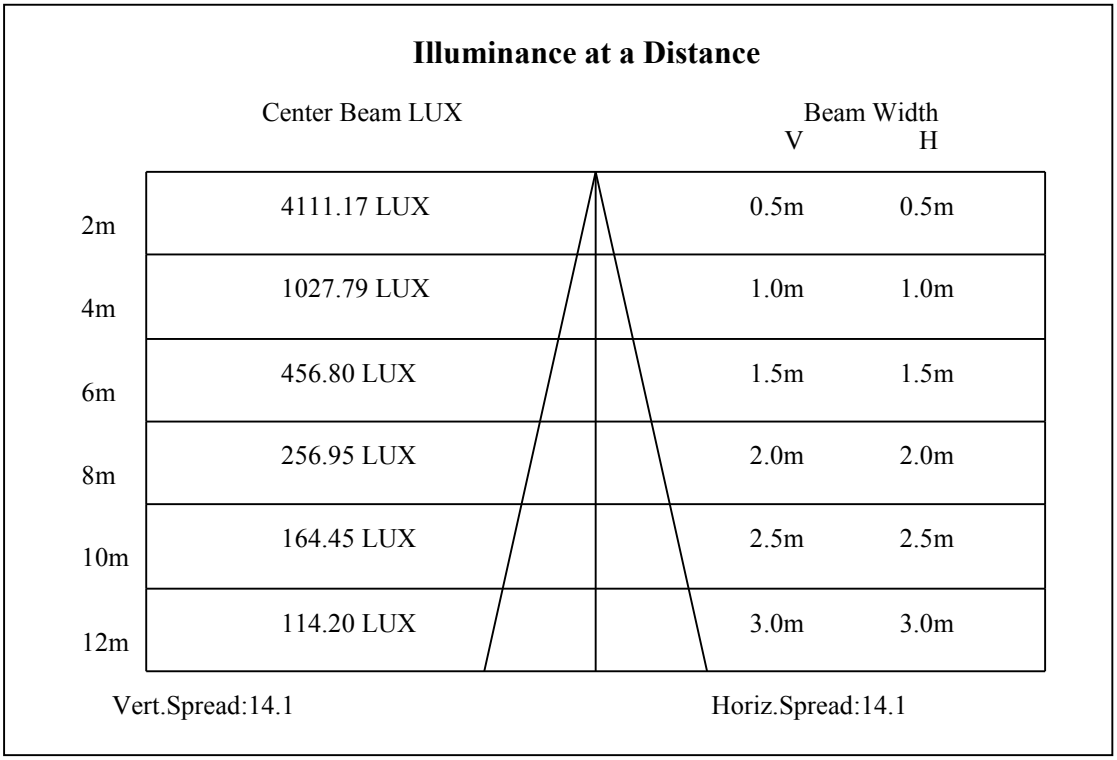
C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:17.9 Right:17.9
:C90/270Left:17.9 Right:17.9

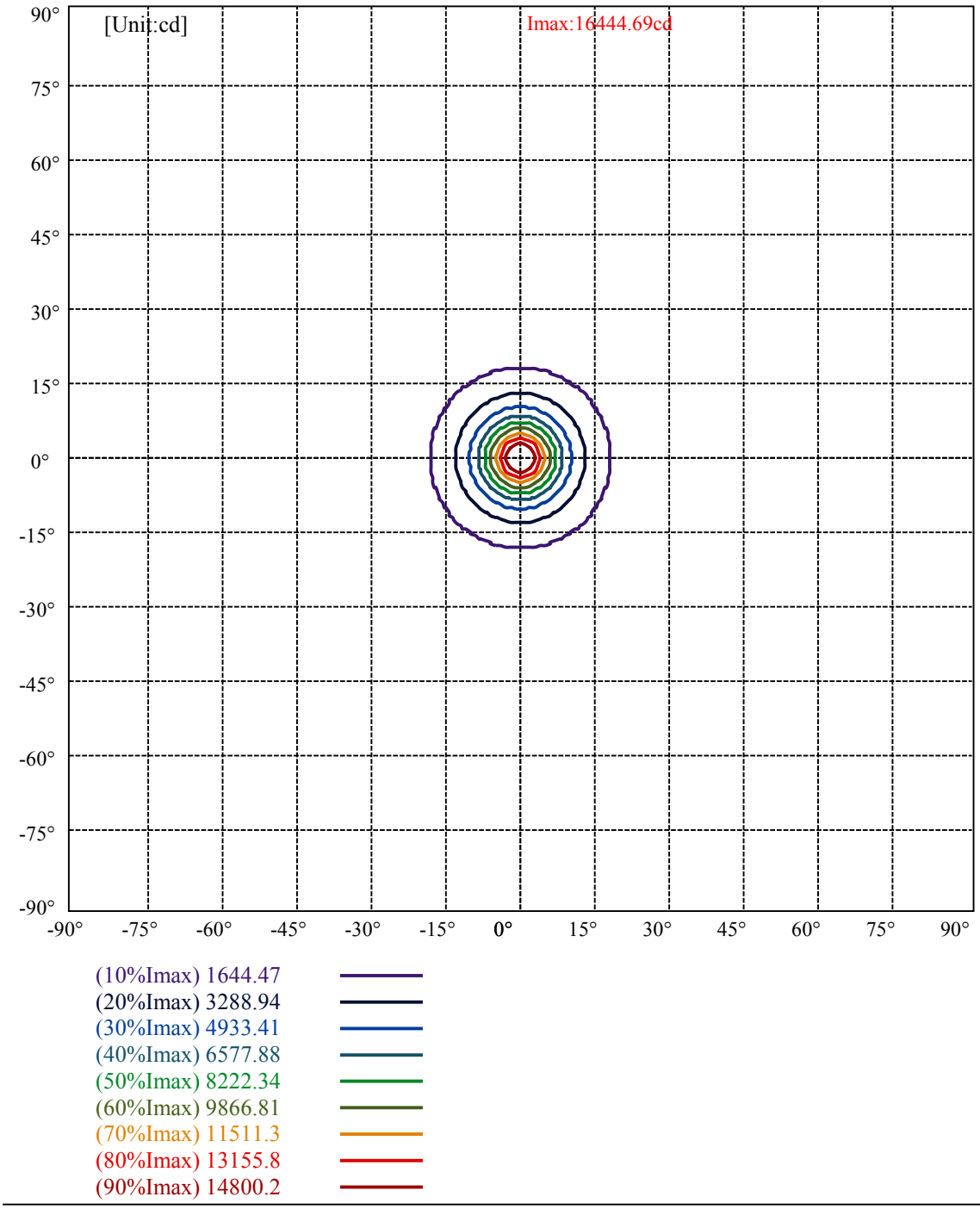
Beam Angle(50%Imax):C0/180Left:7.0 Right:7.0
:C90/270Left:7.0 Right:7.0

Lux distance Curve



Equipment: GMS1980 Date: 2018/9/10 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.50

ISO-Intensity(V-H)



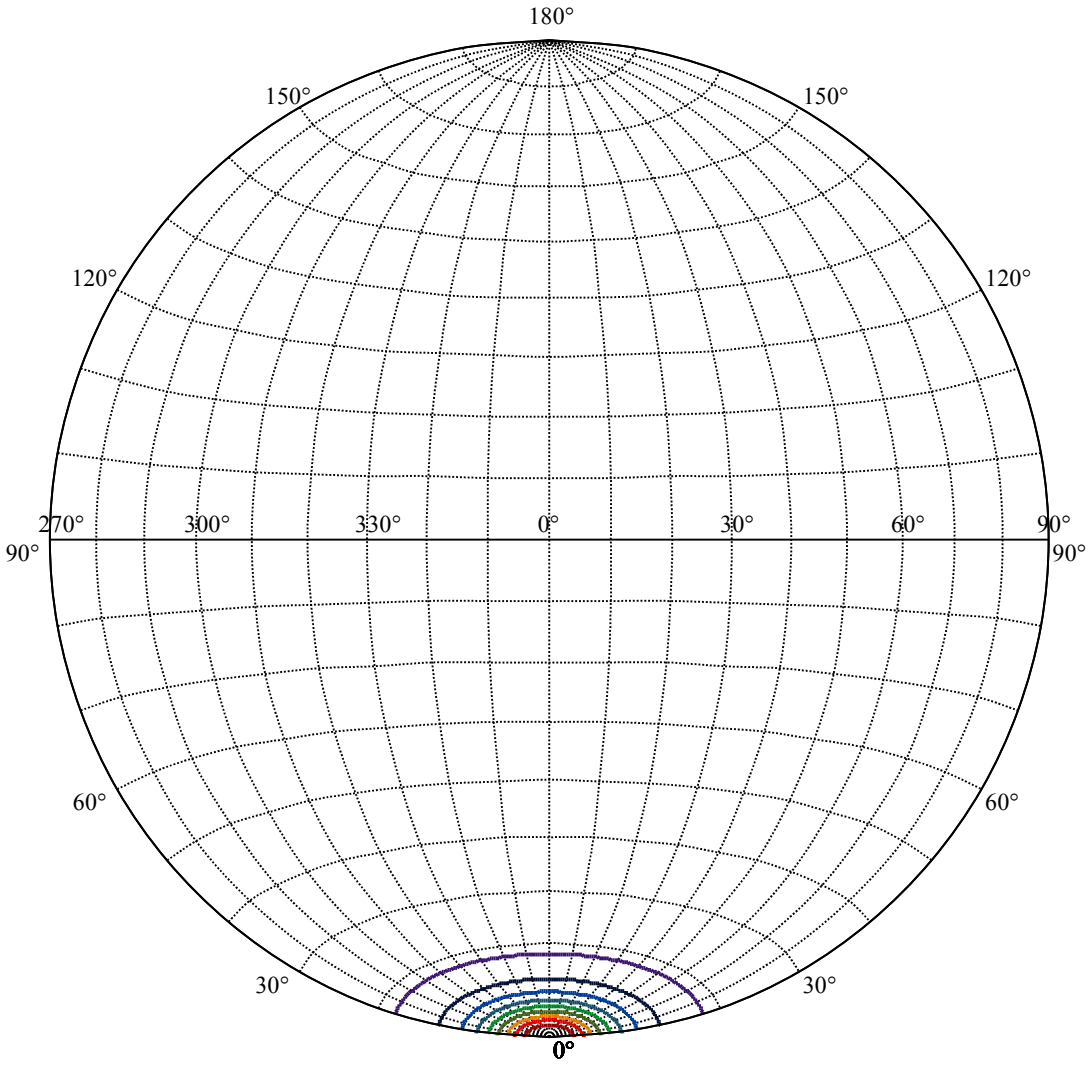
(10%Imax) 1644.47
(20%Imax) 3288.94
(30%Imax) 4933.41
(40%Imax) 6577.88
(50%Imax) 8222.34
(60%Imax) 9866.81
(70%Imax) 11511.3
(80%Imax) 13155.8
(90%Imax) 14800.2

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2018/9/10
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.50

ISO candela diagram on circular web



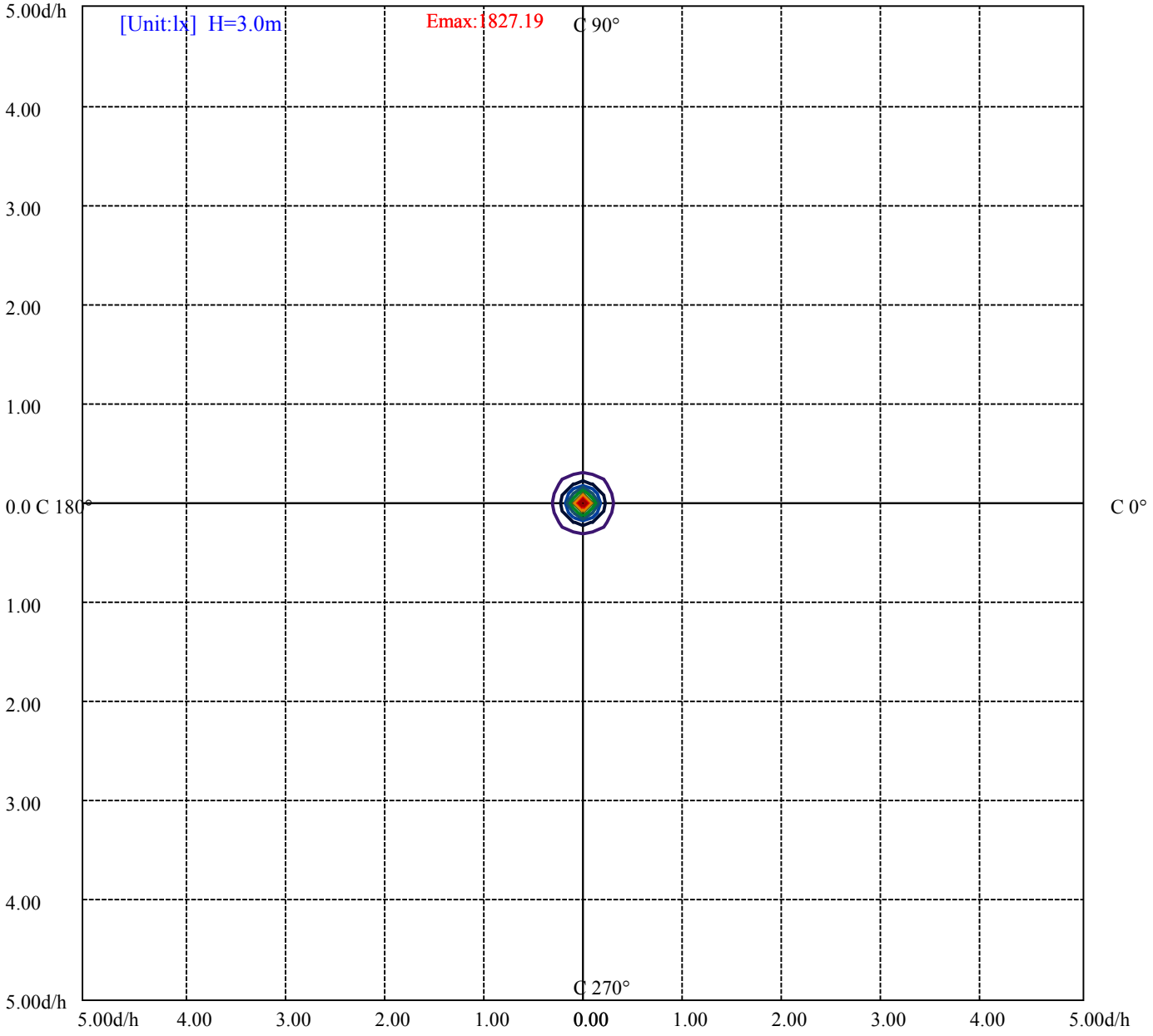
House [Unit:cd] Road

Imax:16444.69

(10%Imax) 1644.47
(20%Imax) 3288.94
(30%Imax) 4933.41
(40%Imax) 6577.88
(50%Imax) 8222.34
(60%Imax) 9866.81
(70%Imax) 11511.3
(80%Imax) 13155.8
(90%Imax) 14800.2

Equipment: GMS1980 Date: 2018/9/10 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.50

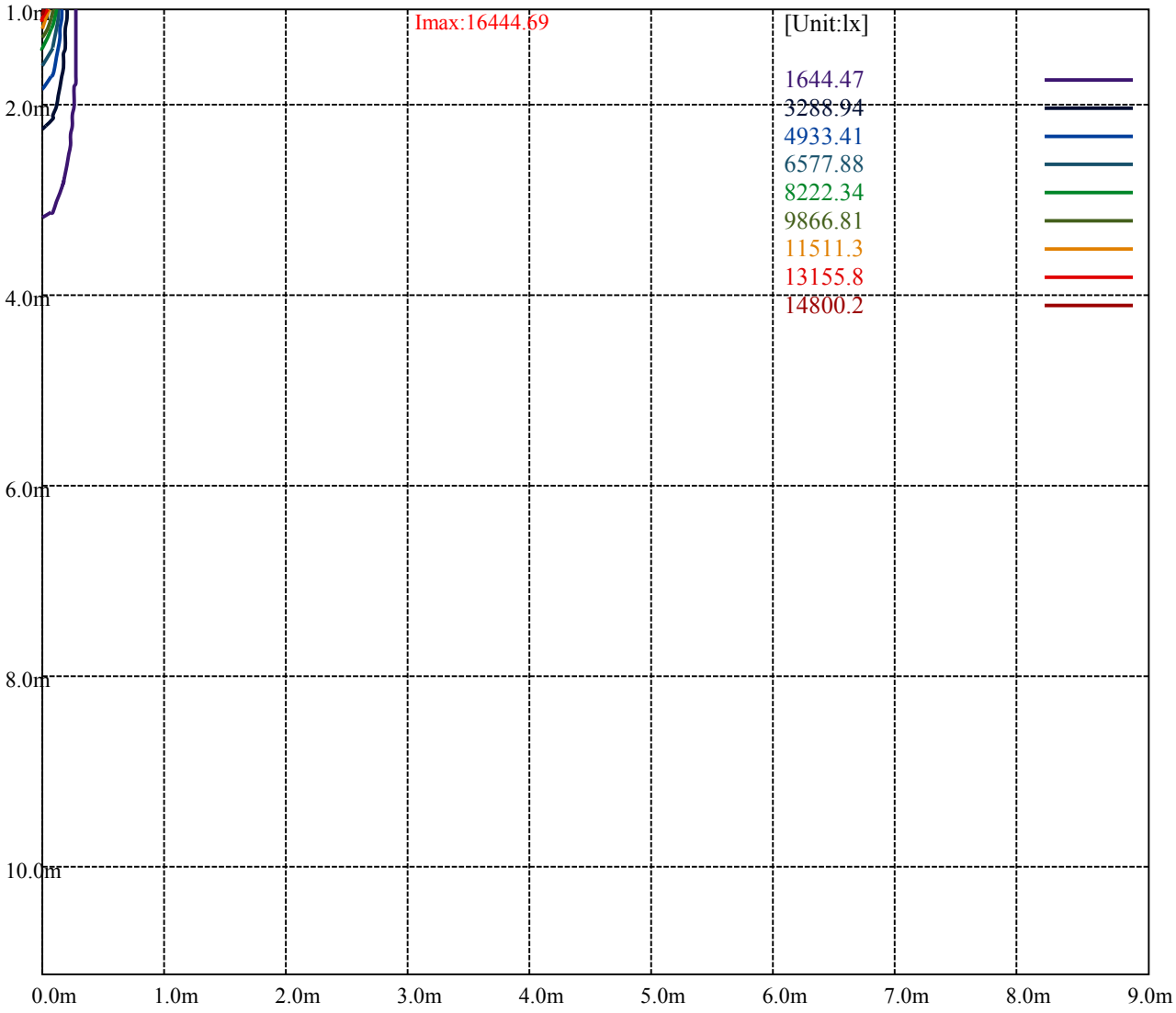
ISO illuminance diagram



(10%Emax) 182.7189
(20%Emax) 365.4366
(30%Emax) 548.1555
(40%Emax) 730.8745
(50%Emax) 913.5922
(60%Emax) 1096.311
(70%Emax) 1279.033
(80%Emax) 1461.745
(90%Emax) 1644.467

Equipment: GMS1980
Temperature(°C): 25.0
Date: 2018/9/10
Humidity(%): 60.0%
Operator: NT07
Distance(m): 7.50

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 25.0

Date: 2018/9/10
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.50

Nata 3-2115-N

Luminance Limitting Curve(no luminous side)

Luminance Table

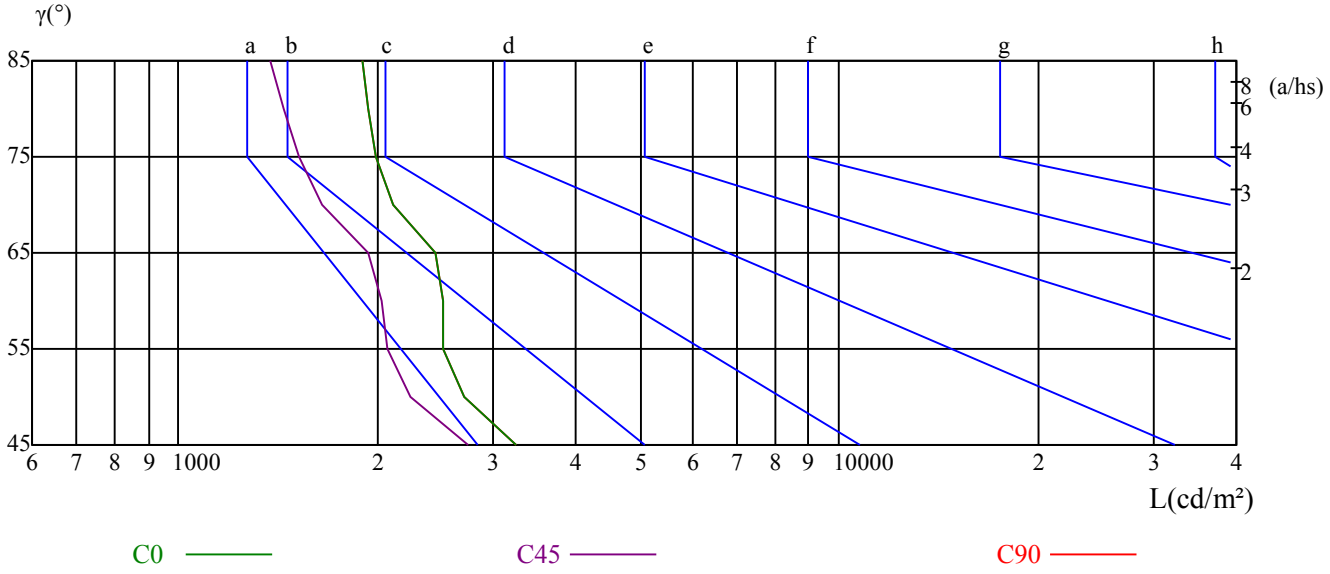
γ	45	50	55	60	65	70	75	80	85
C0	3239	2704	2519	2508	2444	2116	1994	1938	1896
C45	2739	2252	2065	2024	1939	1648	1523	1448	1381
C90	3239	2704	2519	2508	2444	2116	1994	1938	1896

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
6585	6585	6585	7875	7875	7875	19022	19022	19022

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): 25.0

Date: 2018/9/10
Humidity(%): 60.0%

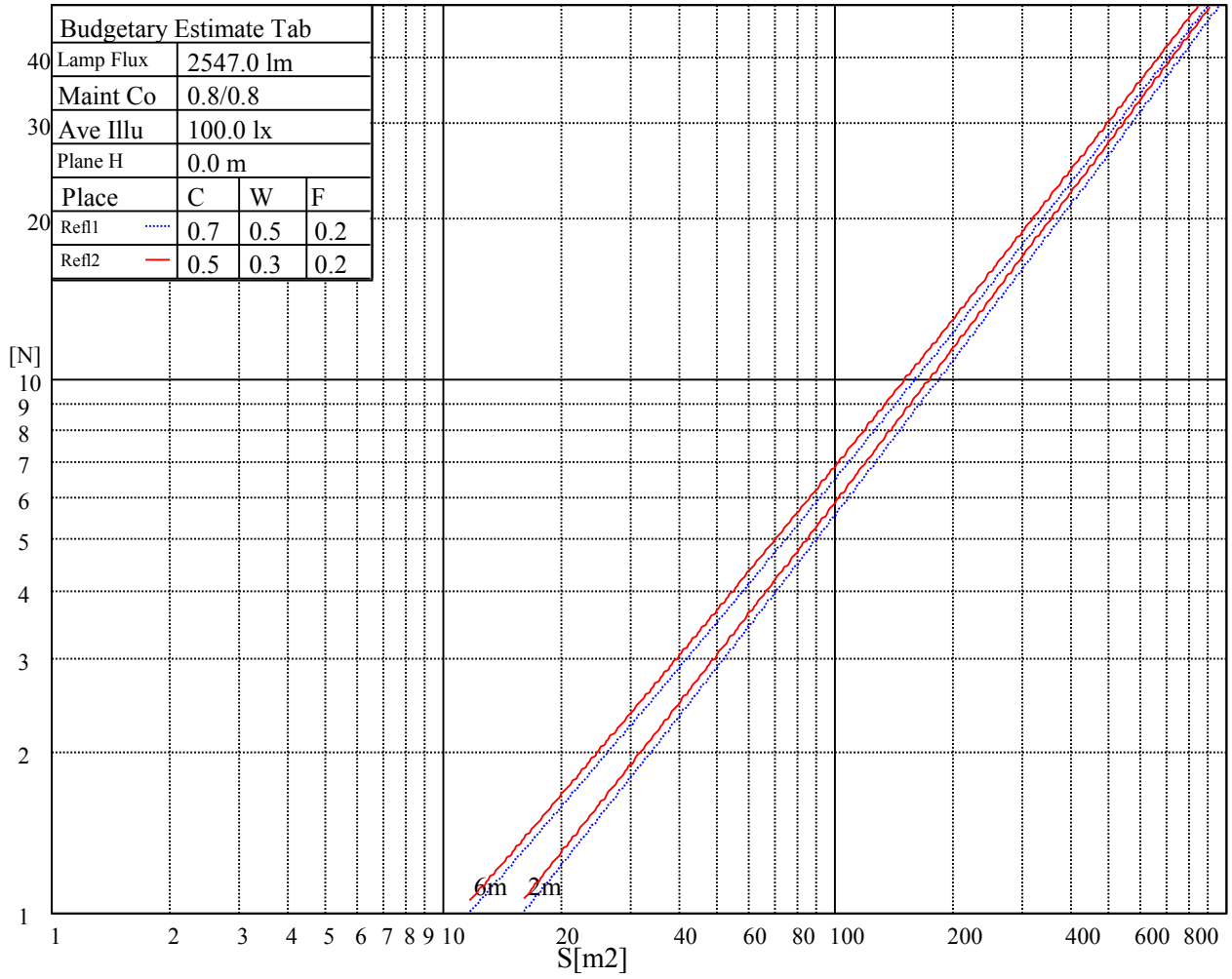
Operator: NT07
Distance(m): 7.50

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	4.14	5.07	4.50	5.39	5.70	3.92	4.86	4.29	5.17	5.48
	3H	5.81	6.64	6.19	6.97	7.34	5.67	6.49	6.05	6.83	7.20
	4H	6.60	7.36	7.01	7.72	8.11	6.45	7.21	6.85	7.57	7.96
	6H	7.40	8.10	7.82	8.47	8.87	7.24	7.94	7.66	8.32	8.72
	8H	7.78	8.44	8.22	8.83	9.24	7.63	8.29	8.07	8.68	9.09
	12H	8.40	9.02	8.83	9.41	9.84	8.25	8.88	8.68	9.26	9.69
4H	2H	4.52	5.29	4.93	5.64	6.03	4.35	5.11	4.76	5.47	5.86
	3H	6.40	7.03	6.82	7.44	7.85	6.29	6.92	6.70	7.33	7.73
	4H	7.34	7.90	7.78	8.33	8.78	7.21	7.77	7.65	8.20	8.65
	6H	8.20	8.68	8.67	9.13	9.61	8.07	8.55	8.54	9.00	9.48
	8H	8.69	9.14	9.17	9.59	10.06	8.56	9.01	9.04	9.46	9.93
	12H	9.34	9.73	9.83	10.22	10.69	9.21	9.60	9.70	10.09	10.56
8H	4H	7.59	8.04	8.07	8.49	8.97	7.48	7.93	7.96	8.38	8.86
	6H	8.67	9.02	9.18	9.52	10.01	8.55	8.91	9.06	9.41	9.90
	8H	9.29	9.60	9.83	10.13	10.63	9.18	9.49	9.71	10.02	10.51
	12H	10.13	10.40	10.65	10.90	11.48	10.02	10.29	10.54	10.79	11.37
12H	4H	7.63	8.01	8.12	8.50	8.98	7.52	7.90	8.01	8.39	8.87
	6H	8.99	9.08	9.30	9.55	10.10	8.88	8.97	9.19	9.44	9.99
	8H	9.47	9.74	10.00	10.24	10.82	9.37	9.64	9.89	10.14	10.72

Variation with the observer position at spacings:		
S = 1.0H	3.4/-1.7	3.4/-1.7
S = 1.5H	4.5/-1.5	4.5/-1.5
S = 2.0H	5.5/-1.1	5.5/-1.1
Standard tables:	BKBF	BKBF
Uncorrected UGR	-2.9	-2.9

Budgetary Estimate Table

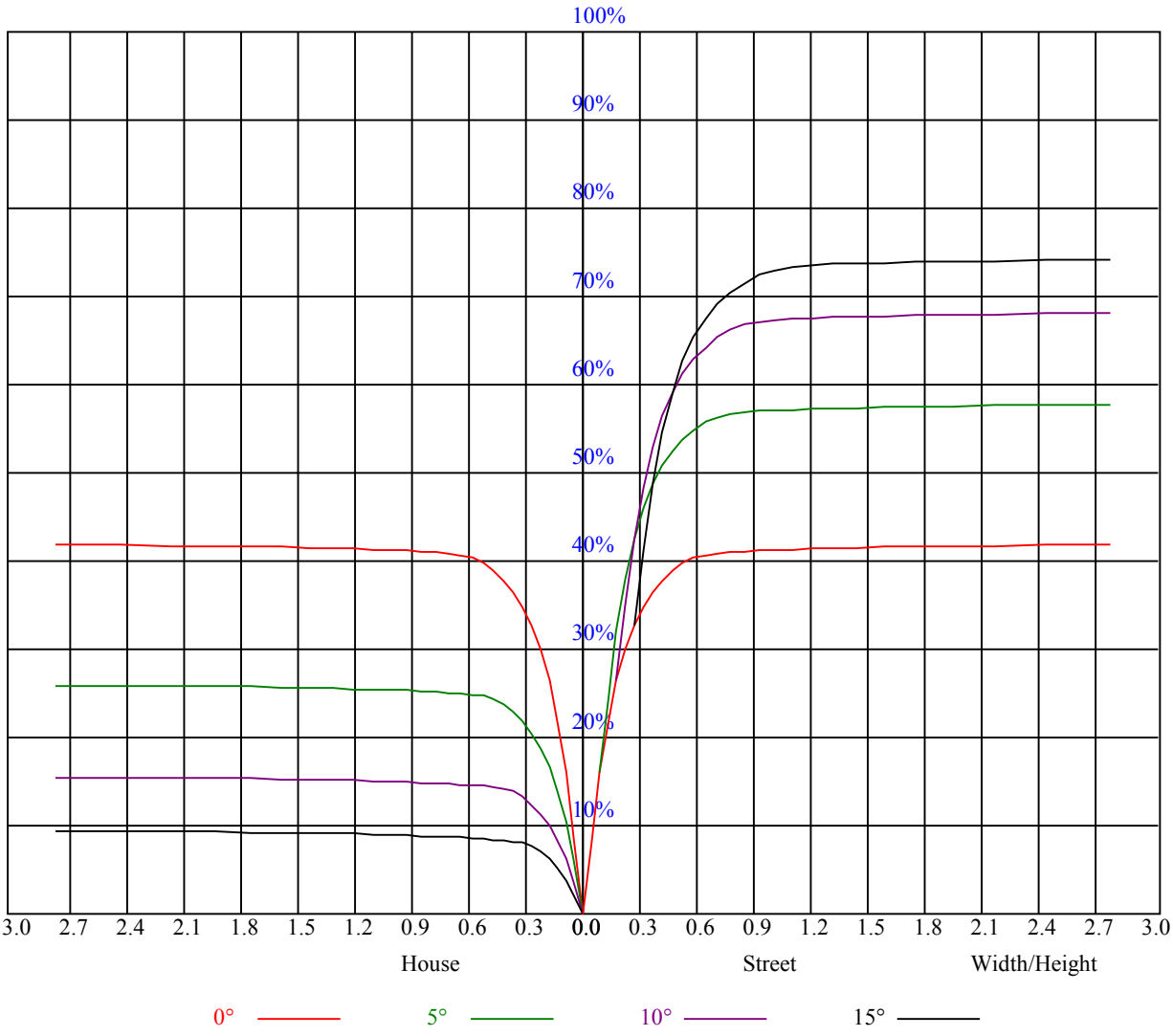


Equipment: GMS1980 Date: 2018/9/10 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.50

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	1.01	1.01	1.01	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	0.91	0.93	0.91	0.90	0.90	0.88	0.87	0.86	0.85	0.85	0.84	0.83	0.82	0.81
2	0.90	0.87	0.85	0.89	0.86	0.84	0.86	0.84	0.82	0.84	0.82	0.81	0.81	0.80	0.79	0.78
3	0.86	0.83	0.80	0.85	0.82	0.80	0.83	0.80	0.78	0.81	0.79	0.77	0.79	0.78	0.76	0.75
4	0.83	0.79	0.77	0.82	0.79	0.76	0.80	0.77	0.75	0.79	0.76	0.74	0.77	0.75	0.74	0.73
5	0.80	0.76	0.73	0.79	0.76	0.73	0.78	0.75	0.73	0.76	0.74	0.72	0.75	0.73	0.71	0.70
6	0.77	0.73	0.71	0.76	0.73	0.71	0.75	0.72	0.70	0.74	0.72	0.70	0.73	0.71	0.69	0.68
7	0.75	0.71	0.68	0.74	0.71	0.68	0.73	0.70	0.68	0.72	0.70	0.68	0.71	0.69	0.67	0.66
8	0.72	0.69	0.66	0.72	0.69	0.66	0.71	0.68	0.66	0.70	0.68	0.66	0.70	0.67	0.66	0.65
9	0.70	0.67	0.65	0.70	0.67	0.64	0.69	0.66	0.64	0.69	0.66	0.64	0.68	0.66	0.64	0.63
10	0.69	0.65	0.63	0.68	0.65	0.63	0.68	0.65	0.63	0.67	0.64	0.63	0.67	0.64	0.62	0.62

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2018/9/10	Operator: NT07
Temperature(°C): 25.0	Humidity(%): 60.0%	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	16526.25	16368.75	15615.00	14450.63	12881.25	10794.38	9241.88	7931.25	6676.88
45.0	16284.38	16492.50	16340.63	15750.00	14754.38	12937.50	11278.13	9646.88	8060.63
90.0	16475.63	16419.38	15958.13	14985.00	13668.75	11224.69	10206.56	8513.44	7117.88
135.0	16492.50	16520.63	16143.75	15423.75	14276.25	12352.50	10698.75	9140.63	7689.38
180.0	16526.25	16385.63	15924.38	14878.13	13545.00	11079.56	10044.56	8383.50	7026.19
225.0	16284.38	15789.38	14664.38	13123.13	11216.25	9398.81	8202.38	6900.75	5740.31
270.0	16475.63	16284.38	15508.13	14349.38	12853.13	10777.50	9213.75	7886.25	6665.63
315.0	16492.50	16138.13	15288.75	13865.63	11211.19	10411.88	8948.81	7553.25	6347.25
360.0	16526.25	16368.75	15615.00	14450.63	12881.25	10794.38	9241.88	7931.25	6676.88

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	5670.00	4888.13	4168.13	3622.50	3105.00	2913.75	2360.25	2049.19	1825.31
45.0	6761.25	5805.00	4893.75	4213.13	3566.25	3048.75	2846.25	2309.06	1999.13
90.0	6092.44	5144.06	4358.81	3777.75	3296.25	2801.81	2468.25	2191.50	1894.50
135.0	6496.88	5636.25	4786.88	4140.00	3521.25	3020.63	2868.75	2299.50	2066.63
180.0	6040.13	5102.44	4326.75	3759.75	3274.31	2781.56	2457.56	2172.38	1877.06
225.0	5028.19	4276.13	3566.81	3154.50	2754.00	2302.88	2061.56	1817.44	1594.69
270.0	5653.13	4899.38	4168.13	3611.25	3105.00	2851.88	2347.88	2035.13	1801.69
315.0	5474.81	4613.06	3909.94	3388.50	2945.25	2505.38	2203.88	1943.44	1706.06
360.0	5670.00	4888.13	4168.13	3622.50	3105.00	2913.75	2360.25	2049.19	1825.31

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1614.94	1452.94	1299.38	1174.50	1089.00	1009.69	948.94	900.56	864.56
45.0	1765.13	1567.13	1365.19	1233.56	1122.19	1030.50	939.38	886.50	843.75
90.0	1695.94	1530.00	1355.06	1239.19	1113.30	1050.69	971.49	911.36	864.34
135.0	1780.31	1583.44	1427.63	1262.81	1154.81	1063.13	956.25	890.44	840.38
180.0	1675.69	1501.31	1317.38	1111.67	1087.59	995.57	934.48	880.93	840.38
225.0	1407.94	1267.88	1118.93	1045.63	973.63	915.13	861.86	815.06	784.52
270.0	1587.94	1426.50	1270.13	1147.50	1058.63	980.44	920.25	879.19	844.31
315.0	1507.50	1360.69	1225.69	1116.51	1041.75	969.13	918.00	867.04	821.03
360.0	1614.94	1452.94	1299.38	1174.50	1089.00	1009.69	948.94	900.56	864.56

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	815.63	758.25	677.25	543.38	415.69	317.25	223.88	100.69	66.09
45.0	784.69	740.25	692.44	606.38	497.25	388.13	293.63	168.64	113.79
90.0	821.36	782.61	692.38	577.24	468.73	343.01	224.38	138.04	85.61
135.0	785.81	750.38	686.81	586.13	478.13	374.63	294.19	149.18	91.07
180.0	808.09	774.62	687.32	567.90	455.29	329.40	208.13	122.06	78.69
225.0	735.24	641.31	540.84	415.01	305.44	195.81	110.48	75.71	66.60
270.0	804.38	747.56	664.88	532.69	405.56	307.69	176.29	93.54	70.37
315.0	780.53	711.39	590.51	484.26	367.76	233.16	143.33	84.99	67.84
360.0	815.63	758.25	677.25	543.38	415.69	317.25	223.88	100.69	66.09

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	57.32	50.18	43.71	38.81	34.48	31.56	28.46	26.61	25.37
45.0	73.24	64.63	57.49	49.84	45.28	40.50	36.39	33.75	31.89
90.0	72.62	64.69	59.01	53.55	48.09	43.99	39.83	36.45	34.09
135.0	72.23	63.62	55.01	49.50	44.38	39.49	34.93	32.12	30.04
180.0	66.83	59.34	52.71	47.08	41.34	37.24	33.36	30.26	28.18
225.0	57.15	50.63	45.79	39.60	36.11	32.96	30.26	28.24	26.55
270.0	61.14	53.66	46.97	41.40	37.35	34.03	30.99	28.69	27.39
315.0	57.43	50.34	45.00	39.04	35.27	32.23	29.70	27.62	25.99
360.0	57.32	50.18	43.71	38.81	34.48	31.56	28.46	26.61	25.37

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	23.74	22.84	21.99	21.26	20.64	20.14	19.74	19.46	19.24
45.0	30.04	28.46	27.56	26.44	25.48	24.53	23.63	22.84	22.11
90.0	31.73	29.70	28.29	26.89	25.82	25.14	24.24	23.96	23.51
135.0	27.96	26.38	25.37	24.13	23.29	22.50	21.77	21.26	20.81
180.0	26.38	24.98	23.85	23.01	22.22	21.54	20.98	20.53	20.14
225.0	25.20	24.13	23.29	22.39	21.77	21.15	20.64	20.25	19.91
270.0	25.48	24.47	23.51	22.67	21.94	21.38	20.87	20.48	20.08
315.0	24.69	23.68	22.73	21.94	21.32	20.76	20.25	19.91	19.63
360.0	23.74	22.84	21.99	21.26	20.64	20.14	19.74	19.46	19.24

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	19.24	19.35	19.35	19.46	19.58	19.69	19.91	20.31	20.42
45.0	21.66	21.49	21.32	21.38	21.43	21.43	21.60	21.32	21.04
90.0	23.12	22.73	22.39	21.77	21.43	21.09	20.76	20.31	19.80
135.0	20.42	20.19	19.97	19.80	19.58	19.41	19.18	18.96	18.90
180.0	19.74	19.52	19.24	19.01	18.90	18.79	18.56	18.45	18.28
225.0	19.63	19.41	19.18	19.01	18.84	18.68	18.68	18.45	18.45
270.0	19.80	19.58	19.46	19.24	19.13	18.96	18.73	18.84	18.39
315.0	19.29	19.13	18.96	18.79	18.68	18.56	18.51	18.34	18.34
360.0	19.24	19.35	19.35	19.46	19.58	19.69	19.91	20.31	20.42

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	20.59	20.53	19.91	19.01	17.61	16.82	15.75	15.02	14.23
45.0	20.36	19.86	19.24	18.34	17.38	16.54	15.92	15.30	14.96
90.0	19.46	19.29	18.51	17.83	17.16	16.65	15.86	15.58	15.08
135.0	18.45	18.62	18.11	17.66	16.82	16.26	15.58	15.19	14.74
180.0	18.23	18.39	17.66	17.21	16.37	15.86	15.13	14.79	14.23
225.0	18.45	17.83	17.38	16.54	16.09	15.41	15.02	14.46	14.23
270.0	18.39	18.23	17.66	17.38	16.37	16.14	15.30	15.08	14.51
315.0	18.39	17.94	17.61	16.93	16.48	15.98	15.58	15.02	14.63
360.0	20.59	20.53	19.91	19.01	17.61	16.82	15.75	15.02	14.23

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	13.89	13.67	13.44	13.11	12.88	12.66	12.38	12.15	11.93
45.0	14.46	14.18	13.95	13.61	13.39	13.16	12.83	12.60	12.32
90.0	14.68	14.40	14.06	13.78	13.50	13.28	12.94	12.71	12.38
135.0	14.34	14.06	13.84	13.56	13.33	13.11	12.83	12.54	12.32
180.0	13.89	13.67	13.39	13.16	12.88	12.66	12.43	12.21	11.98
225.0	13.89	13.67	13.44	13.22	12.94	12.71	12.43	12.21	11.87
270.0	14.18	13.89	13.61	13.33	13.11	12.83	12.54	12.32	12.04
315.0	14.18	13.84	13.50	13.22	12.99	12.71	12.43	12.21	11.98
360.0	13.89	13.67	13.44	13.11	12.88	12.66	12.38	12.15	11.93

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	11.59	11.36	11.14	10.91	10.69	10.46	10.24	10.13	9.96
45.0	12.04	11.81	11.53	11.36	11.14	10.74	10.46	10.24	10.01
90.0	12.15	11.93	11.64	11.36	11.14	10.91	10.63	10.35	10.18
135.0	12.04	11.76	11.53	11.31	11.08	10.86	10.63	10.41	10.18
180.0	11.76	11.53	11.31	11.08	10.86	10.69	10.46	10.18	10.01
225.0	11.64	11.36	11.08	10.80	10.52	10.29	10.07	9.90	9.84
270.0	11.70	11.48	11.25	11.03	10.80	10.58	10.35	10.18	9.90
315.0	11.70	11.48	11.19	10.97	10.80	10.58	10.41	10.24	9.90
360.0	11.59	11.36	11.14	10.91	10.69	10.46	10.24	10.13	9.96

Intensity data(cd)

C/γ(°)	90.0
0.0	9.90
45.0	9.84
90.0	10.01
135.0	10.01
180.0	9.90
225.0	9.79
270.0	9.84
315.0	9.90
360.0	9.90