NATA LIGHTING CO.,LTD.
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Address:380JinOu Road,GaoXin Zone,Jiang Men City,Guangdong,China

LumCAT: 3-1882-L
Luminaire: 92.70.131.00
Report No: NATA0100
Test No: GC2019120412
LampCAT: TRIDONIC SLE G7 15MM
Lamp flux(lm): 2031.0
Number of Lamps: 1
Length(mm): 0
Phm Type: C

Voltage(V): 33.9600
Current(A): 0.4470
Power (W): 15.0000
PF: 0.0000
Ballast type: DC
Width(mm): 0
Height(mm): 0

Photometric Results

Lumens(lm): 1912.36
Efficiency(%): 94.16%
Lumens(lm)/Power(W): 127.49
Central intensity(cd): 8360.438
Maximum intensity(cd): 8360.438
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=23.5
[C90/270]Total=23.5
Field angle(10%Imax): [C0/180]Total=43.2
[C90/270]Total=43.2
Maximum s/h(1/2): C0_180=0.40 C90_270=0.40
Maximum s/h(1/4): C0_180=0.37 C90_270=0.37
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 94.16%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.253%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	8360.438	0.000	0	.000%	.000%
1.0	8348.484	7.995	7.995	.394%	.418%
2.0	8299.758	23.895	31.89	1.177%	1.668%
3.0	8206.453	39.477	71.367	1.944%	3.732%
4.0	8068.992	54.479	125.847	2.682%	6.581%
5.0	7883.719	68.628	194.474	3.379%	10.169%
6.0	7592.977	81.334	275.808	4.005%	14.422%
7.0	7239.305	92.064	367.872	4.533%	19.237%
8.0	6776.156	100.306	468.178	4.939%	24.482%
9.0	6140.391	104.682	572.86	5.154%	29.956%
10.0	5439.375	104.793	677.652	5.160%	35.435%
11.0	4739.063	101.704	779.356	5.008%	40.754%
12.0	4009.992	95.640	874.996	4.709%	45.755%
13.0	3316.219	86.944	961.939	4.281%	50.301%
14.0	2727.492	77.359	1039.298	3.809%	54.346%
15.0	2194.453	67.571	1106.869	3.327%	57.880%
16.0	1783.406	58.287	1165.156	2.870%	60.928%
17.0	1418.520	49.863	1215.018	2.455%	63.535%
18.0	1185.736	42.939	1257.957	2.114%	65.780%
19.0	1056.361	39.008	1296.965	1.921%	67.820%
20.0	948.115	36.687	1333.652	1.806%	69.738%
21.0	867.741	34.868	1368.52	1.717%	71.562%
22.0	814.472	33.805	1402.325	1.664%	73.329%
23.0	771.785	33.284	1435.609	1.639%	75.070%
24.0	734.034	32.923	1468.532	1.621%	76.791%
25.0	708.623	32.803	1501.334	1.615%	78.507%
26.0	689.084	32.993	1534.328	1.624%	80.232%
27.0	671.013	33.275	1567.603	1.638%	81.972%
28.0	655.523	33.585	1601.188	1.654%	83.728%
29.0	637.861	33.839	1635.026	1.666%	85.498%
30.0	609.694	33.684	1668.71	1.658%	87.259%
31.0	561.748	32.600	1701.31	1.605%	88.964%
32.0	497.468	30.345	1731.655	1.494%	90.551%
33.0	429.919	27.321	1758.976	1.345%	91.979%
34.0	362.327	23.976	1782.952	1.180%	93.233%
35.0	287.353	20.177	1803.128	.993%	94.288%
36.0	227.018	16.378	1819.506	.806%	95.144%
37.0	153.330	12.405	1831.911	.611%	95.793%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	97.038	8.357	1840.268	.411%	96.230%
39.0	52.952	5.120	1845.387	.252%	96.498%
40.0	35.515	3.085	1848.473	.152%	96.659%
41.0	30.164	2.339	1850.812	.115%	96.781%
42.0	26.719	2.067	1852.878	.102%	96.890%
43.0	24.370	1.892	1854.771	.093%	96.988%
44.0	22.683	1.776	1856.547	.087%	97.081%
45.0	21.424	1.695	1858.242	.083%	97.170%
46.0	20.243	1.630	1859.871	.080%	97.255%
47.0	19.069	1.564	1861.435	.077%	97.337%
48.0	18.204	1.507	1862.942	.074%	97.416%
49.0	17.445	1.464	1864.406	.072%	97.492%
50.0	16.812	1.428	1865.834	.070%	97.567%
51.0	16.228	1.398	1867.232	.069%	97.640%
52.0	15.736	1.372	1868.603	.068%	97.712%
53.0	15.293	1.350	1869.953	.066%	97.782%
54.0	14.857	1.329	1871.282	.065%	97.852%
55.0	14.541	1.312	1872.594	.065%	97.920%
56.0	14.175	1.298	1873.892	.064%	97.988%
57.0	13.845	1.281	1875.173	.063%	98.055%
58.0	13.521	1.265	1876.438	.062%	98.121%
59.0	13.409	1.259	1877.697	.062%	98.187%
60.0	13.226	1.258	1878.956	.062%	98.253%
61.0	13.113	1.257	1880.213	.062%	98.319%
62.0	12.994	1.258	1881.471	.062%	98.385%
63.0	12.881	1.258	1882.729	.062%	98.450%
64.0	12.790	1.260	1883.989	.062%	98.516%
65.0	12.635	1.258	1885.247	.062%	98.582%
66.0	12.452	1.252	1886.499	.062%	98.648%
67.0	12.192	1.239	1887.738	.061%	98.712%
68.0	11.848	1.218	1888.956	.060%	98.776%
69.0	11.552	1.194	1890.149	.059%	98.838%
70.0	11.250	1.171	1891.32	.058%	98.900%
71.0	10.969	1.148	1892.469	.057%	98.960%
72.0	10.702	1.127	1893.596	.055%	99.019%
73.0	10.505	1.109	1894.705	.055%	99.077%
74.0	10.336	1.096	1895.8	.054%	99.134%
75.0	10.104	1.080	1896.88	.053%	99.190%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	9.963	1.065	1897.945	.052%	99.246%
77.0	9.872	1.058	1899.003	.052%	99.301%
78.0	9.802	1.053	1900.056	.052%	99.356%
79.0	9.731	1.049	1901.106	.052%	99.411%
80.0	9.654	1.045	1902.151	.051%	99.466%
81.0	9.591	1.041	1903.191	.051%	99.520%
82.0	9.534	1.037	1904.228	.051%	99.575%
83.0	9.464	1.033	1905.261	.051%	99.629%
84.0	9.422	1.029	1906.29	.051%	99.682%
85.0	9.366	1.025	1907.316	.050%	99.736%
86.0	9.302	1.020	1908.336	.050%	99.789%
87.0	9.260	1.016	1909.352	.050%	99.843%
88.0	9.197	1.011	1910.363	.050%	99.895%
89.0	9.127	1.004	1911.367	.049%	99.948%
90.0	9.021	0.995	1912.362	.049%	100.000%

Zonal flux distribution table

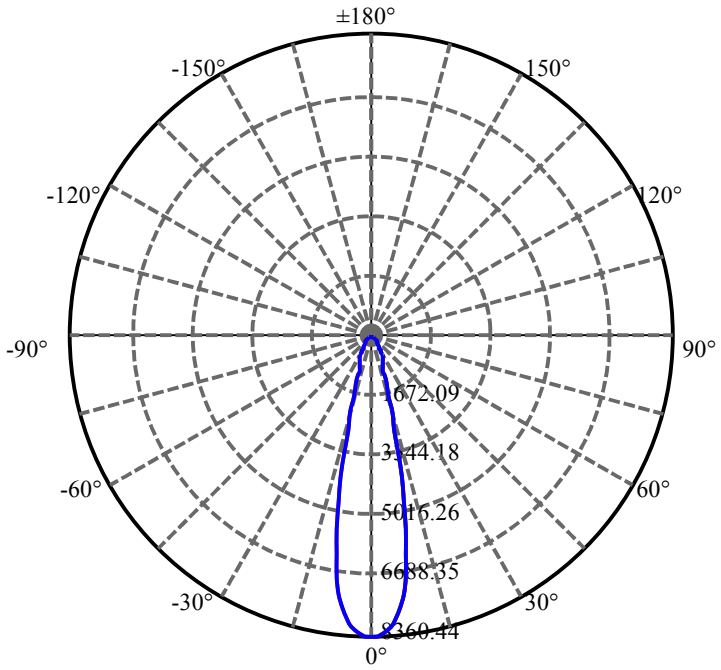
ZONAL LUMEN SUMMARY

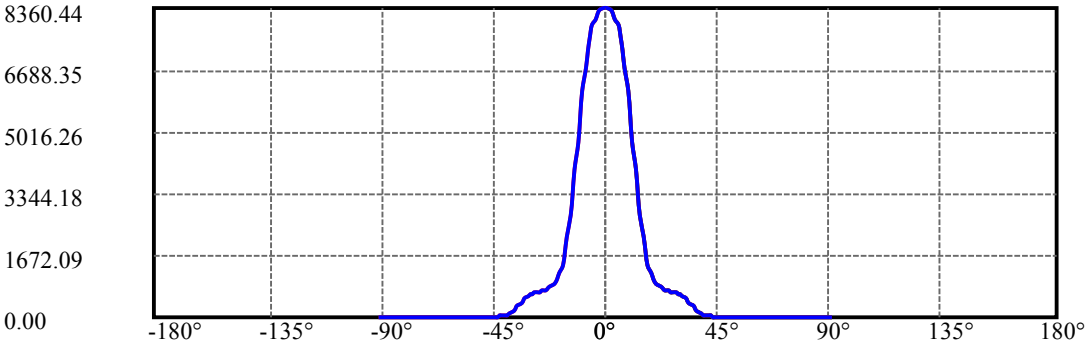
Zone	Lumens	%Lamp	%Fixt
0-30	1668.71	82.16%	87.26%
0-40	1848.47	91.01%	96.66%
0-60	1878.96	92.51%	98.25%
0-90	1911.37	94.11%	99.95%
0-120	1911.37	94.11%	99.95%
0-180	1912.36	94.16%	100.00%
60-90	33.67	1.66%	1.76%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-25.87	1529.89	75.33%	80.00%

ZONAL LUMEN SUMMARY

0-10	677.65
10-20	656.00
20-30	335.06
30-40	179.76
40-50	17.36
50-60	13.12
60-70	12.36
70-80	10.83
80-90	9.22
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):

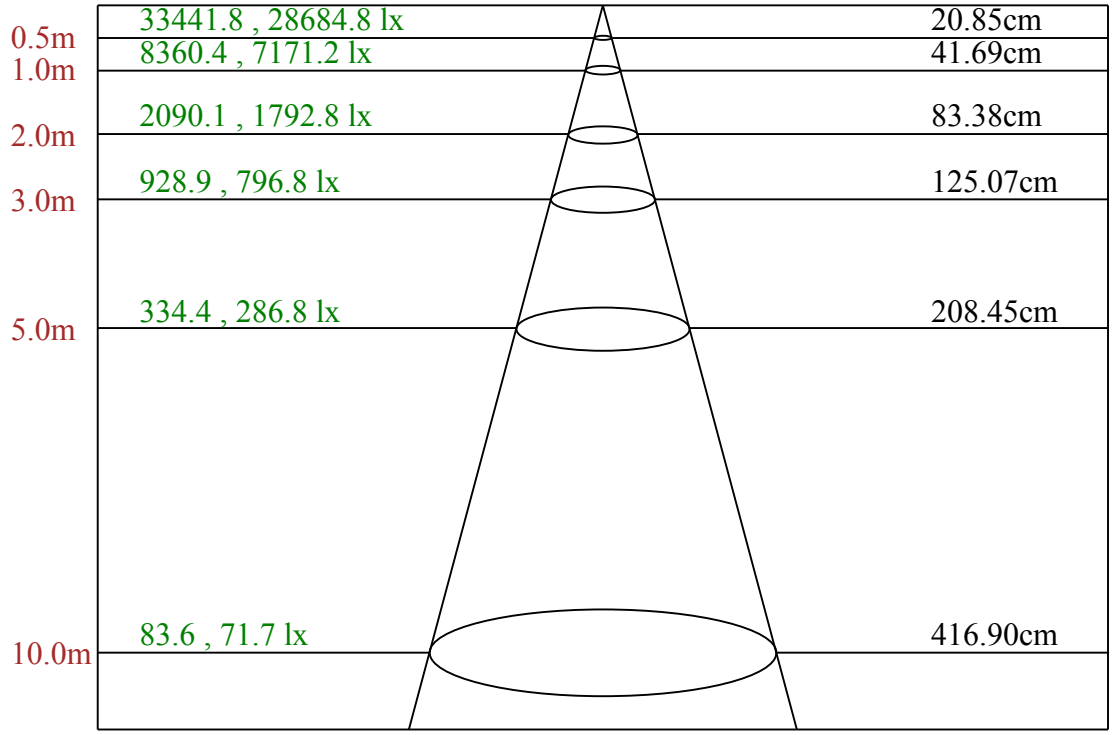
C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:21.6 Right:21.6
:C90/270Left:21.6 Right:21.6

Beam Angle(50%Imax):C0/180Left:11.8 Right:11.8
:C90/270Left:11.8 Right:11.8

Lux distance Curve



Max , Ave

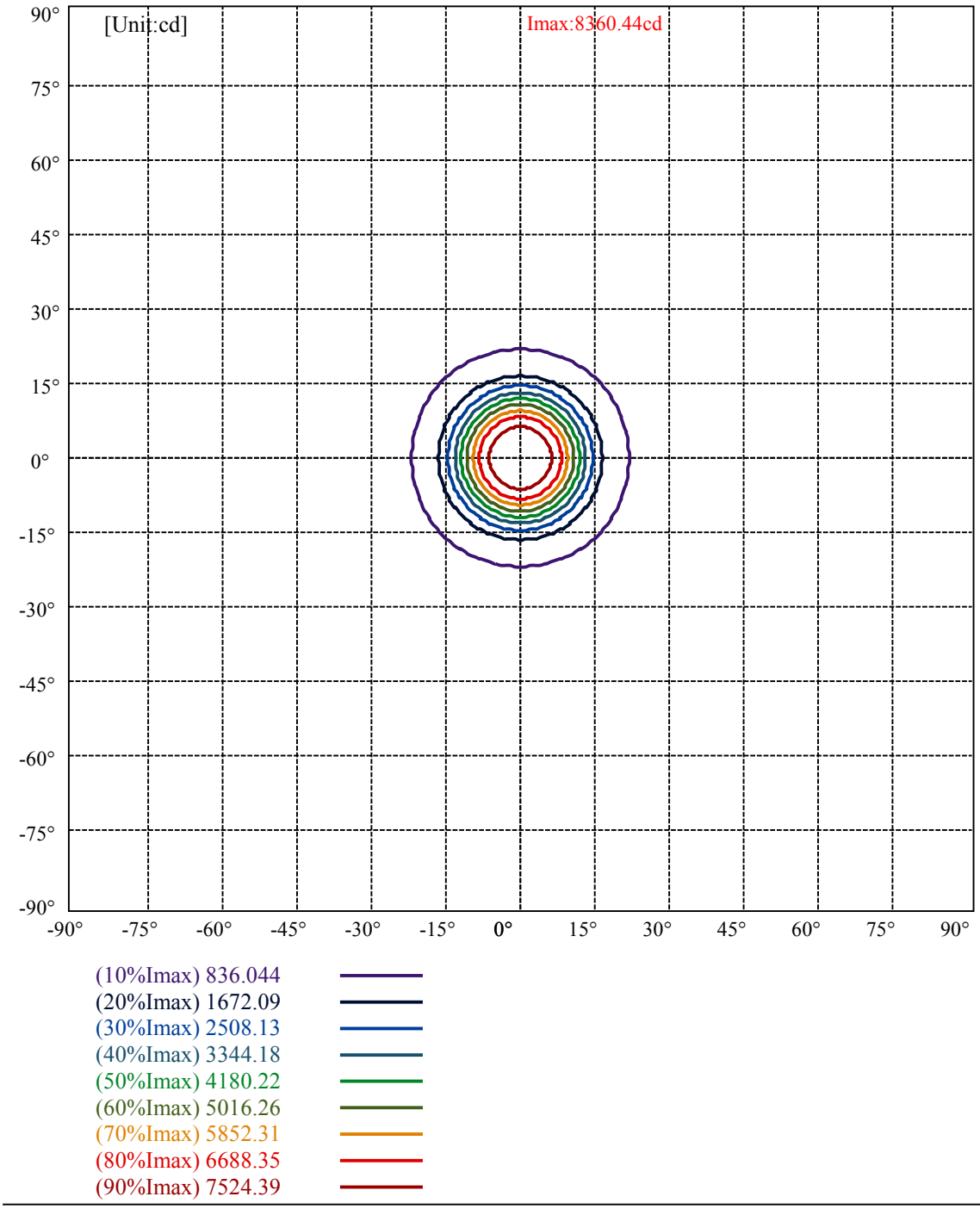
Beam angle of C0 plane 23.55

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2019/12/4
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

ISO-Intensity(V-H)

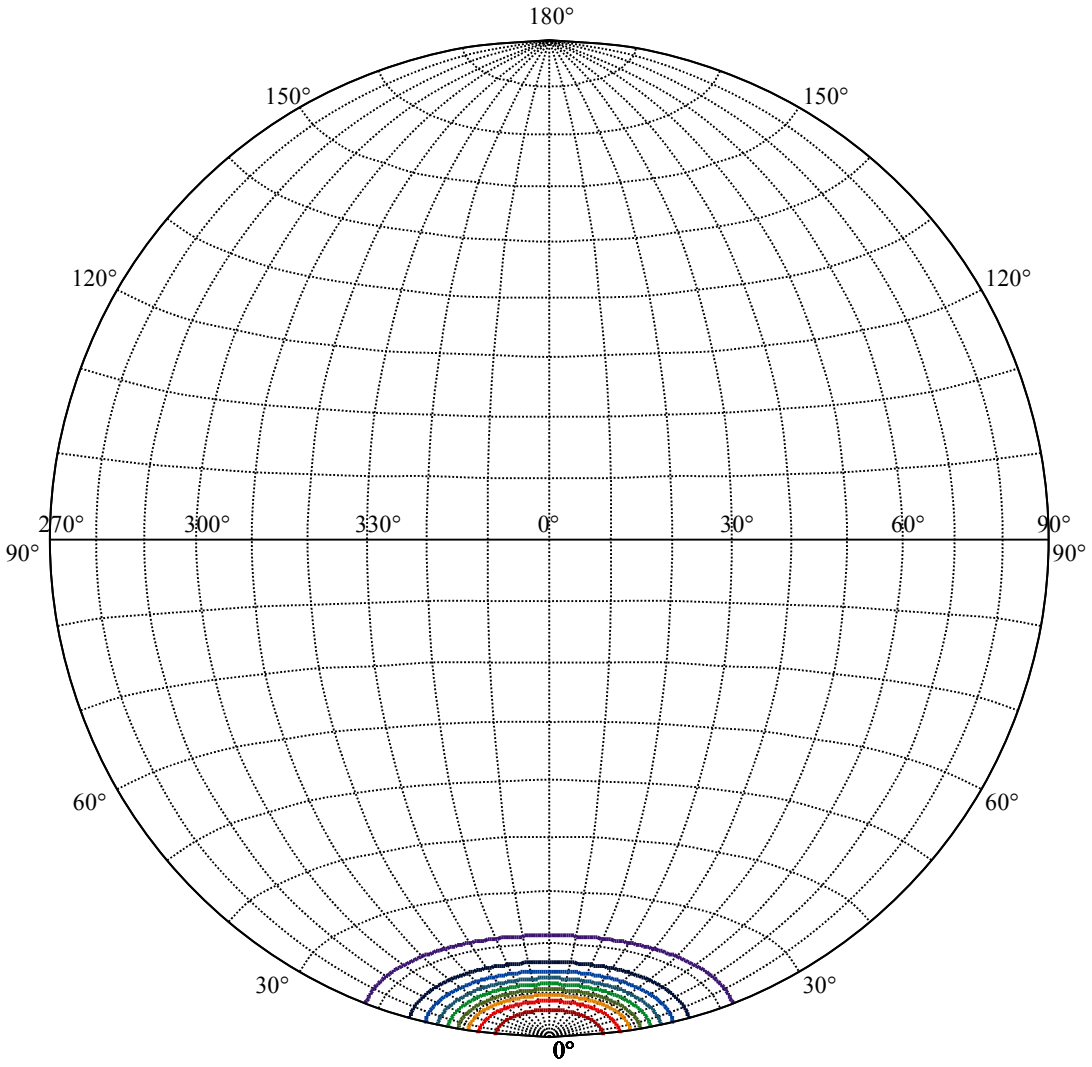


Equipment: GMS1980
Temperature(°C): 25.0

Date: 2019/12/4
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

ISO candela diagram on circular web



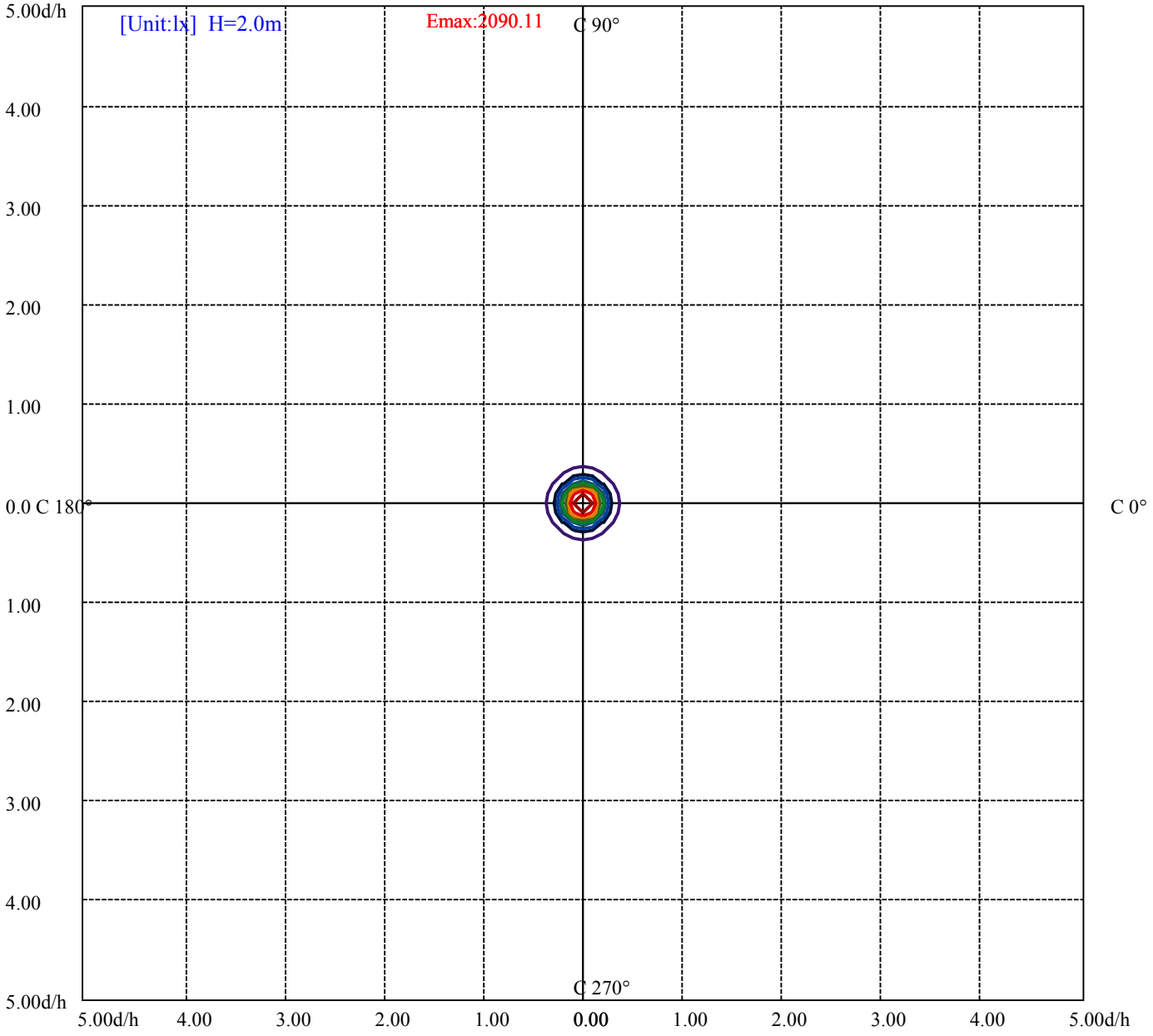
House [Unit:cd] Road

Imax:8360.44

(10%Imax) 836.044
(20%Imax) 1672.09
(30%Imax) 2508.13
(40%Imax) 3344.18
(50%Imax) 4180.22
(60%Imax) 5016.26
(70%Imax) 5852.31
(80%Imax) 6688.35
(90%Imax) 7524.39

Equipment: GMS1980 Date: 2019/12/4 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 65.0% Distance(m): 7.50

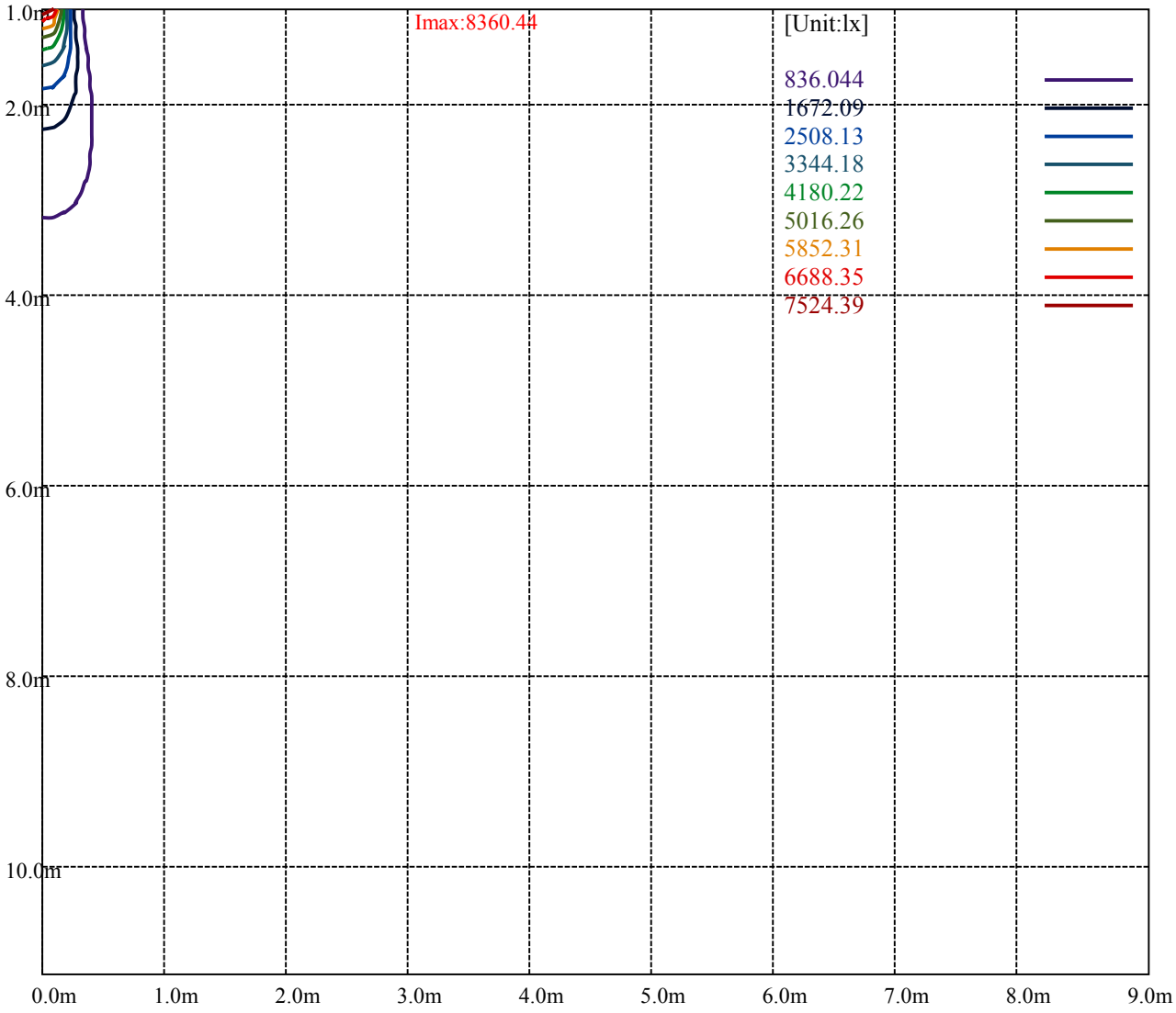
ISO illuminance diagram



(10%Emax) 209.011
(20%Emax) 418.0225
(30%Emax) 627.0325
(40%Emax) 836.0425
(50%Emax) 1045.055
(60%Emax) 1254.065
(70%Emax) 1463.075
(80%Emax) 1672.088
(90%Emax) 1881.098

Equipment: GMS1980
Temperature(°C): 25.0
Date: 2019/12/4
Humidity(%): 65.0%
Operator: NT07
Distance(m): 7.50

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 25.0

Date: 2019/12/4
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

3-1882-L

Luminance Limitting Curve(no luminous side)

Luminance Table

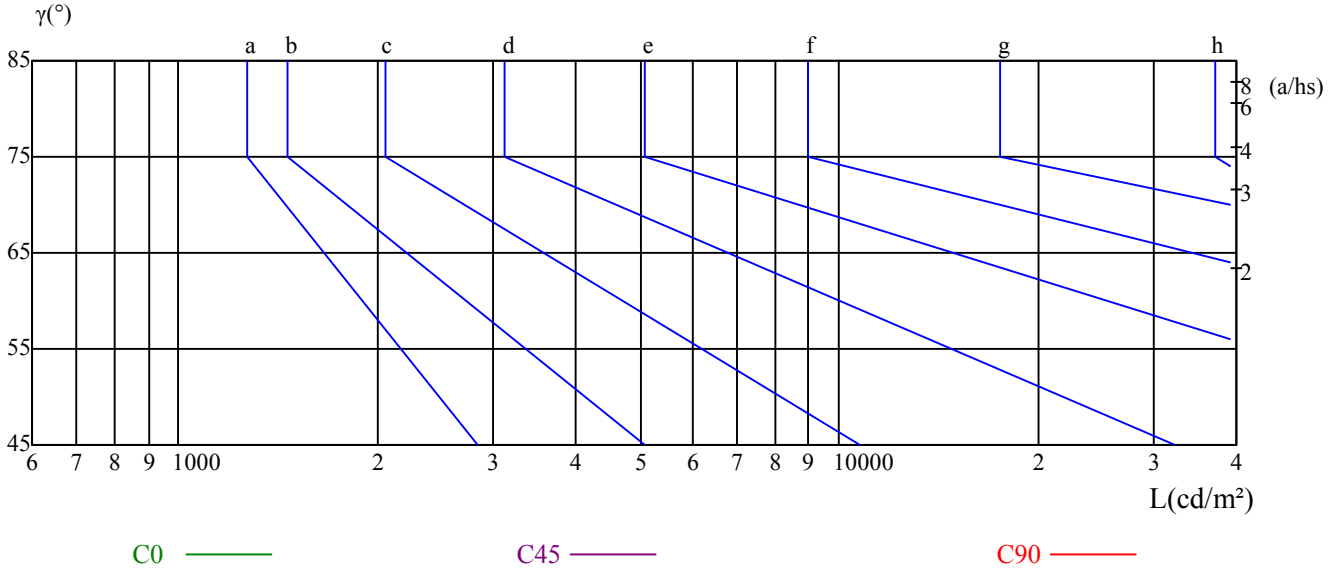
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

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

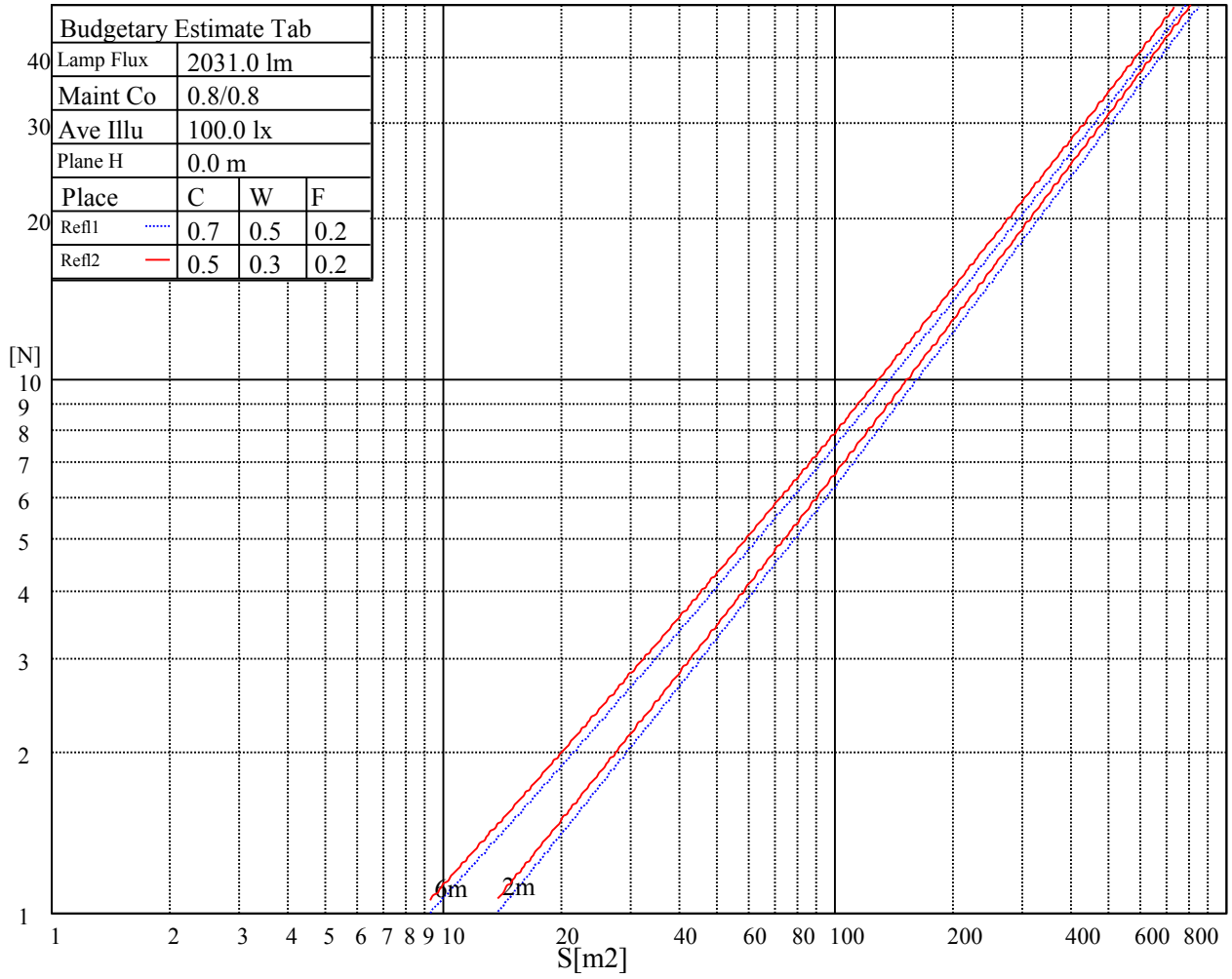
Glare Table

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 Limitting Curve



Budgetary Estimate Table

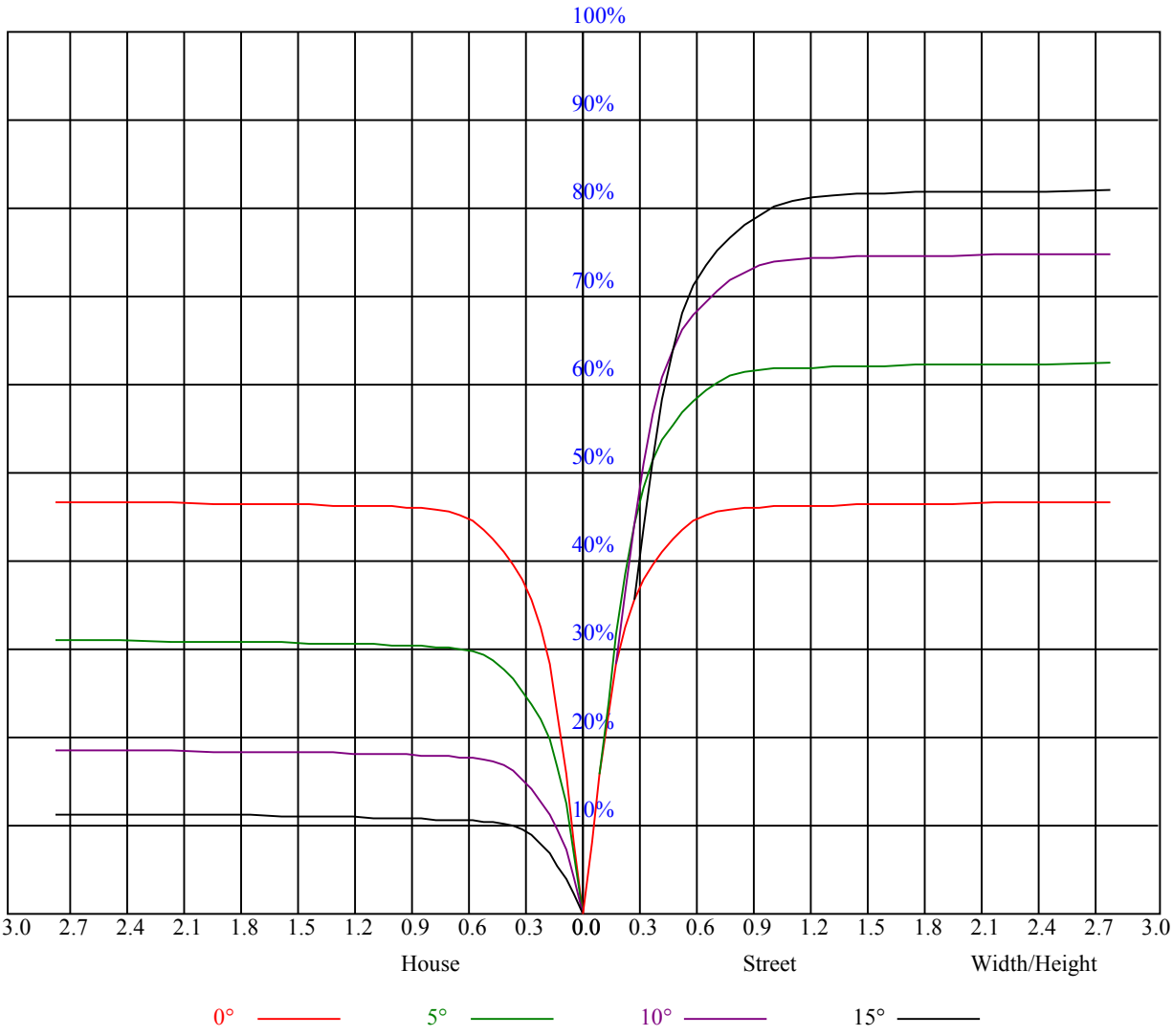


Equipment: GMS1980 Date: 2019/12/4 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 65.0% Distance(m): 7.50

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	1.12	1.12	1.12	1.09	1.09	1.09	1.05	1.05	1.05	1.00	1.00	1.00	0.96	0.96	0.96	0.94
1	1.06	1.04	1.02	1.03	1.02	1.00	1.00	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.90
2	1.00	0.97	0.94	0.98	0.96	0.93	0.95	0.93	0.91	0.93	0.91	0.89	0.90	0.89	0.87	0.86
3	0.95	0.91	0.89	0.94	0.91	0.88	0.92	0.89	0.86	0.89	0.87	0.85	0.87	0.85	0.84	0.83
4	0.91	0.87	0.84	0.90	0.86	0.83	0.88	0.85	0.82	0.86	0.84	0.82	0.85	0.82	0.81	0.79
5	0.87	0.83	0.80	0.87	0.83	0.80	0.85	0.82	0.79	0.84	0.81	0.78	0.82	0.80	0.78	0.77
6	0.84	0.80	0.77	0.83	0.79	0.76	0.82	0.79	0.76	0.81	0.78	0.75	0.80	0.77	0.75	0.74
7	0.81	0.77	0.74	0.80	0.76	0.74	0.79	0.76	0.73	0.78	0.75	0.73	0.77	0.75	0.72	0.71
8	0.78	0.74	0.71	0.78	0.74	0.71	0.77	0.73	0.71	0.76	0.73	0.70	0.75	0.72	0.70	0.69
9	0.76	0.72	0.69	0.75	0.71	0.69	0.75	0.71	0.69	0.74	0.71	0.68	0.73	0.70	0.68	0.67
10	0.73	0.69	0.67	0.73	0.69	0.67	0.72	0.69	0.66	0.72	0.69	0.66	0.71	0.68	0.66	0.65

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2019/12/4	Operator: NT07
Temperature(°C): 25.0	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	8488.13	8497.69	8456.06	8398.69	8280.00	8110.13	7899.19	7647.19	7300.13
45.0	8305.31	8292.38	8291.81	8195.06	8060.63	7911.56	7665.75	7416.00	7108.31
90.0	8312.63	8325.00	8263.13	8141.06	7972.88	7813.69	7572.94	7192.69	6714.56
135.0	8335.69	8316.56	8274.94	8186.63	8083.69	7935.75	7625.81	7295.06	6860.25
180.0	8488.13	8451.56	8370.56	8260.88	8093.81	7823.81	7422.75	6945.19	6252.75
225.0	8305.31	8266.50	8233.31	8114.63	7935.19	7702.88	7337.25	6854.63	6276.94
270.0	8312.63	8319.94	8242.88	8184.38	8064.00	7908.19	7617.94	7299.00	6921.56
315.0	8335.69	8318.25	8265.38	8170.31	8061.75	7863.75	7602.19	7264.69	6774.75
360.0	8488.13	8497.69	8456.06	8398.69	8280.00	8110.13	7899.19	7647.19	7300.13

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	6750.56	6202.13	5575.50	4807.13	4043.81	3428.44	2802.94	2299.50	1812.38
45.0	6503.06	5928.19	5269.50	4410.56	3695.06	3100.50	2511.00	2070.00	1620.56
90.0	6167.25	5392.69	4592.25	3912.19	3285.00	2615.06	2142.00	1710.56	1339.88
135.0	6156.00	5452.31	4698.00	3869.44	3247.31	2700.00	2111.06	1707.75	1374.19
180.0	5554.13	4755.38	4001.63	3372.75	2700.00	2119.50	1736.44	1466.44	1193.06
225.0	5620.50	4768.31	4083.75	3451.50	2693.25	2173.50	1763.44	1466.44	1120.22
270.0	6152.63	5499.56	4918.50	4114.13	3418.88	2880.56	2206.69	1714.50	1465.88
315.0	6219.00	5516.44	4773.38	4142.25	3446.44	2802.38	2282.06	1832.06	1422.00
360.0	6750.56	6202.13	5575.50	4807.13	4043.81	3428.44	2802.94	2299.50	1812.38

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1427.63	1207.13	1045.69	937.13	871.31	827.44	774.00	744.19	724.50
45.0	1269.56	1051.31	924.75	834.19	774.00	731.25	696.94	673.88	659.25
90.0	1114.65	992.98	890.94	820.01	771.36	732.54	709.76	690.86	677.42
135.0	1164.38	1045.69	945.56	873.00	824.63	787.50	743.06	716.63	699.19
180.0	1109.93	1014.86	931.73	865.86	816.19	774.96	741.88	718.48	697.16
225.0	1074.15	972.79	890.33	826.76	778.73	736.09	702.17	676.41	654.36
270.0	1214.44	1086.19	990.56	901.69	850.50	804.94	762.75	733.50	709.31
315.0	1111.16	1079.94	965.36	883.29	829.07	779.57	741.71	715.05	691.48
360.0	1427.63	1207.13	1045.69	937.13	871.31	827.44	774.00	744.19	724.50

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	699.75	680.63	668.25	652.50	618.19	574.88	501.19	437.06	367.88
45.0	650.81	643.50	632.25	615.38	570.94	514.69	448.88	381.38	309.94
90.0	667.63	655.14	632.76	592.14	539.16	465.36	402.58	337.11	262.29
135.0	678.94	658.69	644.63	602.44	547.31	494.44	413.44	346.50	286.31
180.0	677.53	660.49	625.50	584.78	527.40	435.94	374.51	305.21	214.99
225.0	635.91	621.11	604.80	569.31	519.81	449.04	387.17	323.38	245.53
270.0	684.56	668.81	654.75	636.75	591.19	535.50	465.75	390.38	320.06
315.0	672.98	655.82	639.96	624.26	579.99	509.91	445.84	377.61	291.83
360.0	699.75	680.63	668.25	652.50	618.19	574.88	501.19	437.06	367.88

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	289.13	207.68	146.98	81.28	46.35	33.69	29.87	26.72	24.13
45.0	286.31	173.36	117.84	62.78	39.09	34.54	30.26	27.56	25.71
90.0	189.39	131.57	75.71	42.13	32.23	28.35	25.26	23.29	21.94
135.0	192.43	133.43	83.53	40.61	30.99	27.90	24.36	22.73	21.43
180.0	161.44	106.76	59.46	35.21	32.40	28.63	26.27	24.53	23.12
225.0	185.91	129.71	77.40	40.89	32.96	29.48	25.99	24.30	22.33
270.0	286.31	179.10	116.49	64.74	37.01	31.44	27.39	24.58	23.29
315.0	225.23	165.04	98.89	55.97	33.08	27.28	24.36	21.26	19.52
360.0	289.13	207.68	146.98	81.28	46.35	33.69	29.87	26.72	24.13

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	22.33	20.93	19.69	18.62	17.66	16.88	16.26	15.75	15.19
45.0	23.74	22.78	21.32	20.36	19.69	19.01	18.34	17.66	17.10
90.0	21.38	20.25	19.24	18.39	17.66	17.04	16.48	16.03	15.53
135.0	20.14	18.84	17.94	17.10	16.31	15.75	15.24	14.85	14.40
180.0	21.83	20.59	19.46	18.62	17.94	17.27	16.76	16.26	15.92
225.0	21.54	20.19	18.90	18.45	17.66	17.16	16.71	15.86	15.69
270.0	21.83	20.87	19.58	18.28	17.38	16.82	15.75	15.47	14.85
315.0	18.62	17.49	16.43	15.81	15.24	14.57	14.29	14.01	13.67
360.0	22.33	20.93	19.69	18.62	17.66	16.88	16.26	15.75	15.19

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	14.85	14.51	14.18	13.95	13.56	13.39	13.11	13.11	13.05
45.0	16.43	15.98	15.47	14.91	14.51	14.34	14.06	13.89	13.61
90.0	15.08	14.79	14.40	14.06	13.78	13.73	13.56	13.44	13.22
135.0	14.01	13.73	13.44	13.05	12.77	12.60	12.49	12.49	12.32
180.0	15.47	15.08	14.63	14.23	14.01	13.95	13.73	13.50	13.28
225.0	15.13	14.85	14.29	14.06	13.56	13.50	13.33	13.05	13.16
270.0	14.46	14.23	14.06	13.84	13.61	13.44	13.33	13.28	13.22
315.0	13.44	13.16	12.94	12.66	12.38	12.32	12.21	12.15	12.09
360.0	14.85	14.51	14.18	13.95	13.56	13.39	13.11	13.11	13.05

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	13.11	13.11	12.94	12.77	12.54	12.32	12.09	11.87	11.59
45.0	13.39	13.28	13.28	13.33	12.99	12.43	11.98	11.59	11.19
90.0	13.11	12.94	12.71	12.49	12.09	11.64	11.31	10.97	10.63
135.0	12.26	12.15	12.04	11.76	11.64	11.48	11.19	10.91	10.69
180.0	13.11	12.94	12.71	12.43	12.21	11.87	11.64	11.36	11.19
225.0	12.94	12.88	12.60	12.38	12.04	11.64	11.42	11.19	10.86
270.0	13.11	12.99	12.88	12.66	12.38	12.04	11.59	11.14	10.86
315.0	12.04	12.04	11.93	11.81	11.64	11.36	11.19	10.97	10.74
360.0	13.11	13.11	12.94	12.77	12.54	12.32	12.09	11.87	11.59

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	11.25	11.08	10.86	10.52	10.35	10.18	10.07	9.96	9.90
45.0	10.91	10.69	10.52	10.24	10.07	9.96	9.90	9.84	9.79
90.0	10.46	10.41	10.13	9.90	9.73	9.68	9.62	9.56	9.45
135.0	10.46	10.24	10.13	9.90	9.73	9.68	9.62	9.56	9.51
180.0	10.91	10.69	10.46	10.24	10.13	10.01	9.96	9.84	9.73
225.0	10.69	10.46	10.29	10.07	10.01	9.96	9.90	9.84	9.79
270.0	10.41	10.18	10.18	10.07	9.96	9.84	9.79	9.73	9.68
315.0	10.52	10.29	10.13	9.90	9.73	9.68	9.56	9.51	9.39
360.0	11.25	11.08	10.86	10.52	10.35	10.18	10.07	9.96	9.90

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	9.84	9.73	9.62	9.62	9.56	9.51	9.45	9.39	9.34
45.0	9.73	9.68	9.56	9.45	9.39	9.34	9.28	9.23	9.17
90.0	9.39	9.39	9.34	9.28	9.23	9.23	9.17	9.06	9.06
135.0	9.39	9.34	9.39	9.34	9.28	9.23	9.23	9.17	9.11
180.0	9.68	9.62	9.56	9.51	9.51	9.39	9.34	9.28	9.17
225.0	9.73	9.62	9.56	9.51	9.39	9.28	9.23	9.11	9.06
270.0	9.56	9.56	9.45	9.39	9.34	9.28	9.23	9.17	9.06
315.0	9.39	9.34	9.23	9.28	9.23	9.17	9.17	9.17	9.06
360.0	9.84	9.73	9.62	9.62	9.56	9.51	9.45	9.39	9.34

Intensity data(cd)

C/γ(°)	90.0
0.0	9.23
45.0	9.00
90.0	9.00
135.0	9.00
180.0	8.94
225.0	9.06
270.0	9.00
315.0	8.94
360.0	9.23