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

Nata

LumCAT: 1-0936-N
Luminaire: 92.361.000
Report No: 220518-B008
Test No: 220518-C008
LampCAT: CREE CXA1520
Lamp flux(lm): 1029.7
Number of Lamps: 1
Length(mm): 43
Phm Type: C

Voltage(V): 36.3200
Current(A): 0.3610
Power (W): 13.1110
PF: 0.0000
Ballast type: DC
Width(mm): 43
Height(mm): 0

Photometric Results

Lumens(lm): 849.23
Efficiency(%): 82.47%
Lumens(lm)/Power(W): 64.77
Central intensity(cd): 4035.710
Maximum intensity(cd): 4035.710
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=21.8
[C90/270]Total=21.8
Field angle(10%Imax): [C0/180]Total=48.2
[C90/270]Total=48.2
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(%): 82.47%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.086%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4035.711	0.000	0	.000%	.000%
1.0	4010.988	3.850	3.85	.374%	.453%
2.0	3926.587	11.393	15.243	1.106%	1.795%
3.0	3800.359	18.480	33.723	1.795%	3.971%
4.0	3646.645	24.928	58.651	2.421%	6.906%
5.0	3439.825	30.486	89.136	2.961%	10.496%
6.0	3226.059	35.031	124.167	3.402%	14.621%
7.0	2988.018	38.571	162.738	3.746%	19.163%
8.0	2737.728	40.978	203.716	3.980%	23.988%
9.0	2485.347	42.330	246.046	4.111%	28.973%
10.0	2234.086	42.709	288.755	4.148%	34.002%
11.0	1989.473	42.202	330.958	4.098%	38.971%
12.0	1768.238	41.077	372.035	3.989%	43.808%
13.0	1554.024	39.427	411.462	3.829%	48.451%
14.0	1342.909	37.080	448.542	3.601%	52.817%
15.0	1174.854	34.565	483.107	3.357%	56.888%
16.0	1043.465	32.505	515.612	3.157%	60.715%
17.0	918.977	30.560	546.172	2.968%	64.314%
18.0	810.055	28.508	574.68	2.769%	67.671%
19.0	727.021	26.742	601.422	2.597%	70.820%
20.0	645.033	25.112	626.534	2.439%	73.777%
21.0	575.831	23.443	649.978	2.277%	76.537%
22.0	522.158	22.065	672.042	2.143%	79.135%
23.0	467.275	20.761	692.803	2.016%	81.580%
24.0	410.428	19.190	711.993	1.864%	83.840%
25.0	353.648	17.373	729.366	1.687%	85.886%
26.0	301.640	15.468	744.834	1.502%	87.707%
27.0	238.250	13.209	758.043	1.283%	89.262%
28.0	187.557	10.781	768.823	1.047%	90.532%
29.0	141.039	8.597	777.42	.835%	91.544%
30.0	103.335	6.598	784.018	.641%	92.321%
31.0	74.900	4.960	788.978	.482%	92.905%
32.0	54.084	3.695	792.674	.359%	93.340%
33.0	43.455	2.874	795.547	.279%	93.679%
34.0	38.152	2.470	798.017	.240%	93.969%
35.0	35.344	2.283	800.299	.222%	94.238%
36.0	33.238	2.184	802.483	.212%	94.495%
37.0	31.370	2.107	804.59	.205%	94.743%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	29.376	2.028	806.618	.197%	94.982%
39.0	27.598	1.945	808.563	.189%	95.211%
40.0	25.776	1.862	810.424	.181%	95.430%
41.0	24.043	1.774	812.198	.172%	95.639%
42.0	22.400	1.687	813.885	.164%	95.838%
43.0	20.816	1.601	815.486	.155%	96.027%
44.0	19.465	1.520	817.007	.148%	96.206%
45.0	18.068	1.442	818.449	.140%	96.375%
46.0	16.813	1.364	819.813	.132%	96.536%
47.0	15.521	1.286	821.099	.125%	96.687%
48.0	14.512	1.214	822.313	.118%	96.830%
49.0	13.452	1.148	823.462	.112%	96.966%
50.0	12.496	1.082	824.543	.105%	97.093%
51.0	11.659	1.022	825.565	.099%	97.213%
52.0	10.868	0.967	826.532	.094%	97.327%
53.0	10.173	0.915	827.447	.089%	97.435%
54.0	9.613	0.872	828.319	.085%	97.538%
55.0	9.172	0.839	829.158	.081%	97.636%
56.0	8.754	0.810	829.968	.079%	97.732%
57.0	8.388	0.784	830.752	.076%	97.824%
58.0	8.082	0.762	831.513	.074%	97.914%
59.0	7.790	0.742	832.255	.072%	98.001%
60.0	7.529	0.724	832.979	.070%	98.086%
61.0	7.297	0.708	833.687	.069%	98.170%
62.0	7.103	0.694	834.38	.067%	98.251%
63.0	6.916	0.682	835.062	.066%	98.332%
64.0	6.730	0.670	835.732	.065%	98.411%
65.0	6.565	0.658	836.39	.064%	98.488%
66.0	6.401	0.647	837.037	.063%	98.564%
67.0	6.222	0.635	837.672	.062%	98.639%
68.0	6.072	0.623	838.294	.060%	98.712%
69.0	5.893	0.610	838.905	.059%	98.784%
70.0	5.774	0.599	839.504	.058%	98.855%
71.0	5.617	0.589	840.093	.057%	98.924%
72.0	5.438	0.575	840.667	.056%	98.992%
73.0	5.311	0.562	841.229	.055%	99.058%
74.0	5.184	0.552	841.781	.054%	99.123%
75.0	5.057	0.541	842.322	.053%	99.187%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	4.915	0.529	842.852	.051%	99.249%
77.0	4.795	0.518	843.369	.050%	99.310%
78.0	4.661	0.506	843.875	.049%	99.369%
79.0	4.541	0.494	844.37	.048%	99.428%
80.0	4.444	0.484	844.854	.047%	99.485%
81.0	4.354	0.476	845.33	.046%	99.541%
82.0	4.257	0.467	845.797	.045%	99.596%
83.0	4.190	0.459	846.256	.045%	99.650%
84.0	4.108	0.452	846.708	.044%	99.703%
85.0	4.041	0.445	847.153	.043%	99.755%
86.0	3.929	0.436	847.589	.042%	99.807%
87.0	3.832	0.425	848.013	.041%	99.857%
88.0	3.735	0.414	848.428	.040%	99.906%
89.0	3.637	0.404	848.832	.039%	99.953%
90.0	3.623	0.398	849.23	.039%	100.000%

Zonal flux distribution table

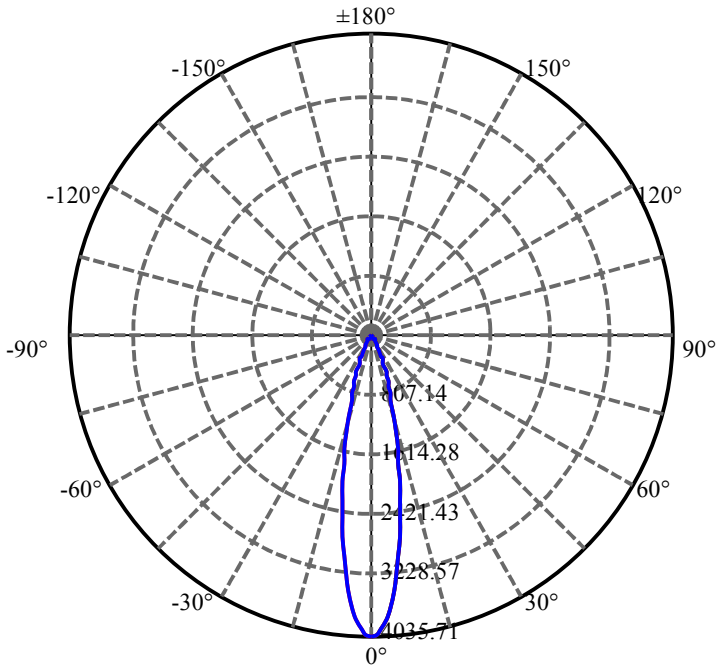
ZONAL LUMEN SUMMARY

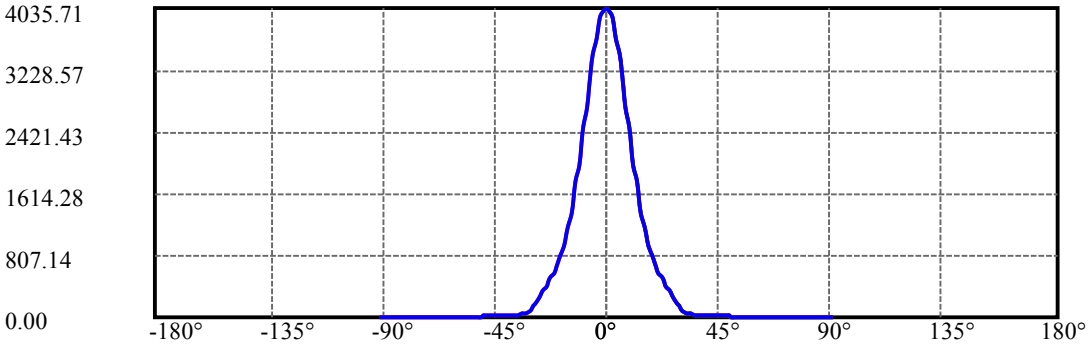
Zone	Lumens	%Lamp	%Fixt
0-30	784.02	76.14%	92.32%
0-40	810.42	78.70%	95.43%
0-60	832.98	80.89%	98.09%
0-90	848.83	82.43%	99.95%
0-120	848.83	82.43%	99.95%
0-180	849.23	82.47%	100.00%
60-90	16.58	1.61%	1.95%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-22.35	679.38	65.98%	80.00%

ZONAL LUMEN SUMMARY

0-10	288.76
10-20	337.78
20-30	157.48
30-40	26.41
40-50	14.12
50-60	8.44
60-70	6.52
70-80	5.35
80-90	3.98
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):

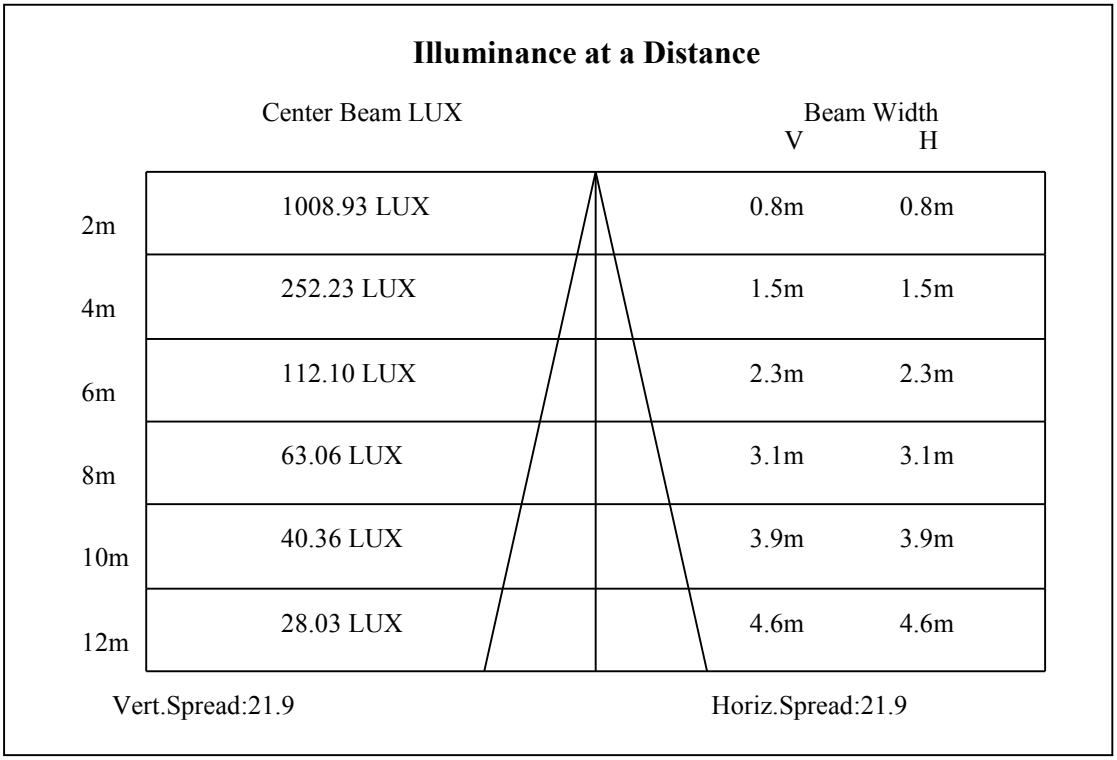
C0/C180:

C90/C270:

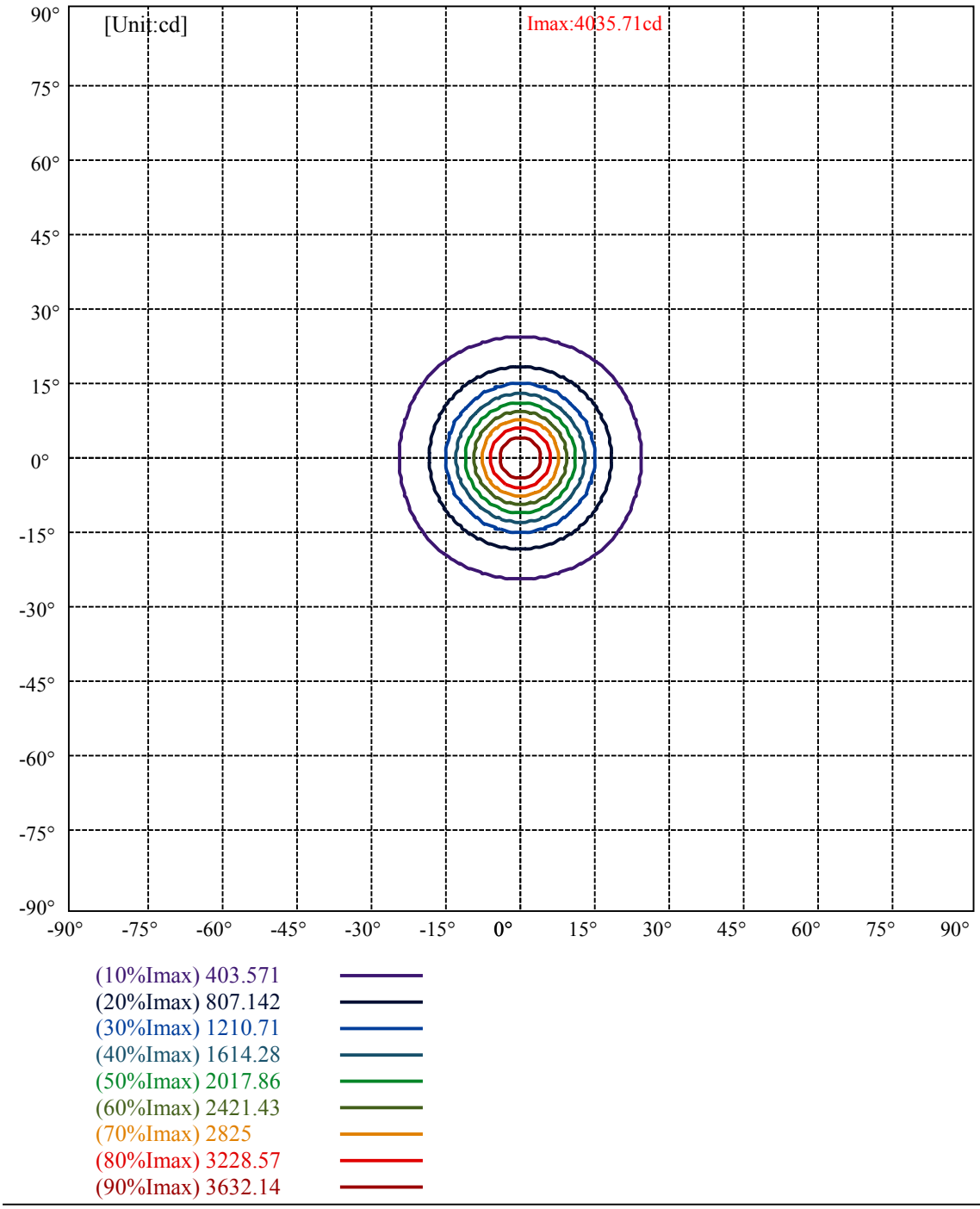
Field angle(10%Imax):C0/180Left:24.1 Right:24.1
:C90/270Left:24.1 Right:24.1

Beam Angle(50%Imax):C0/180Left:10.9 Right:10.9
:C90/270Left:10.9 Right:10.9

Lux distance Curve



ISO-Intensity(V-H)

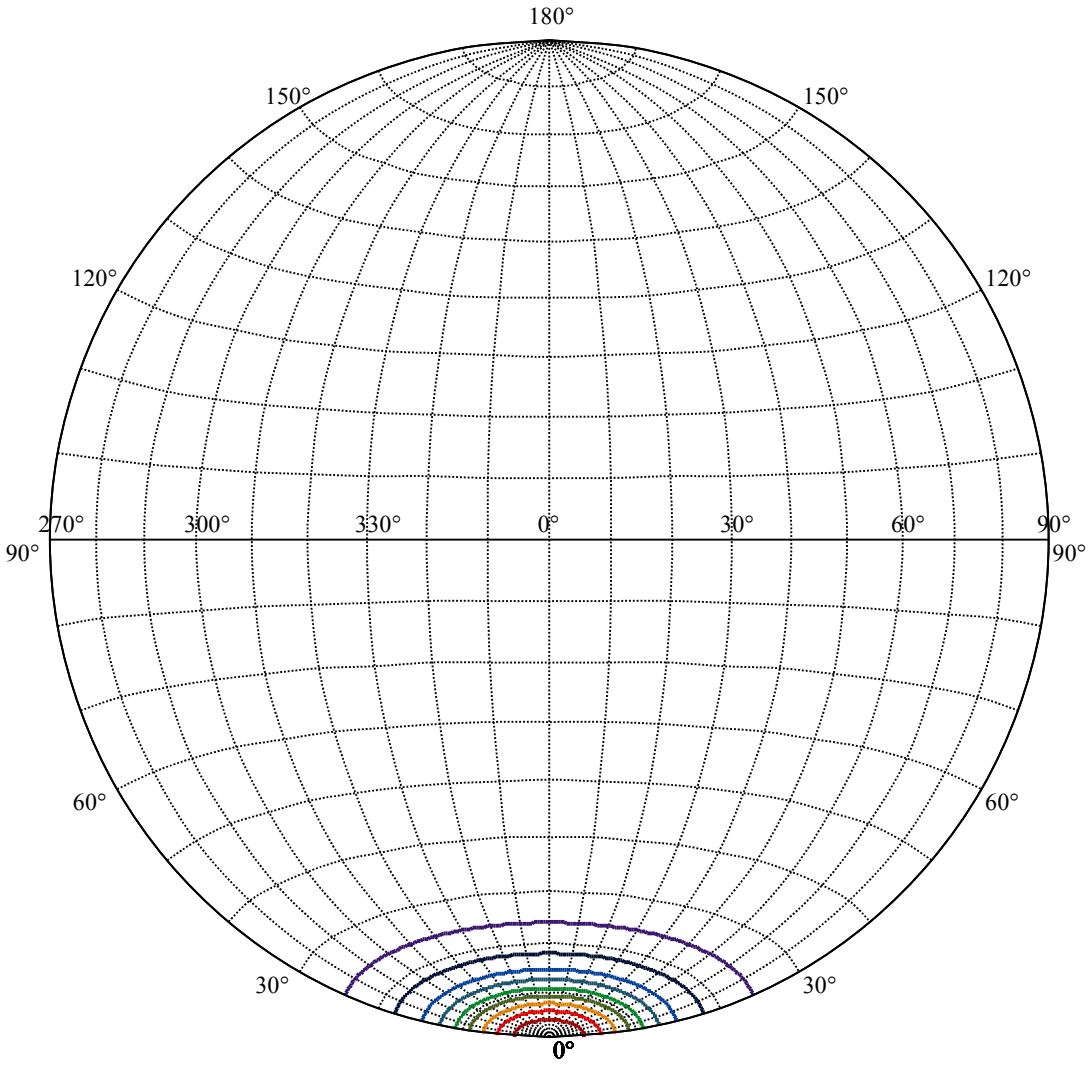


Equipment: GMS1980
Temperature(°C): 25.0

Date: 2022/5/18
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.73

ISO candela diagram on circular web



House [Unit:cd] Road

Imax:4035.71

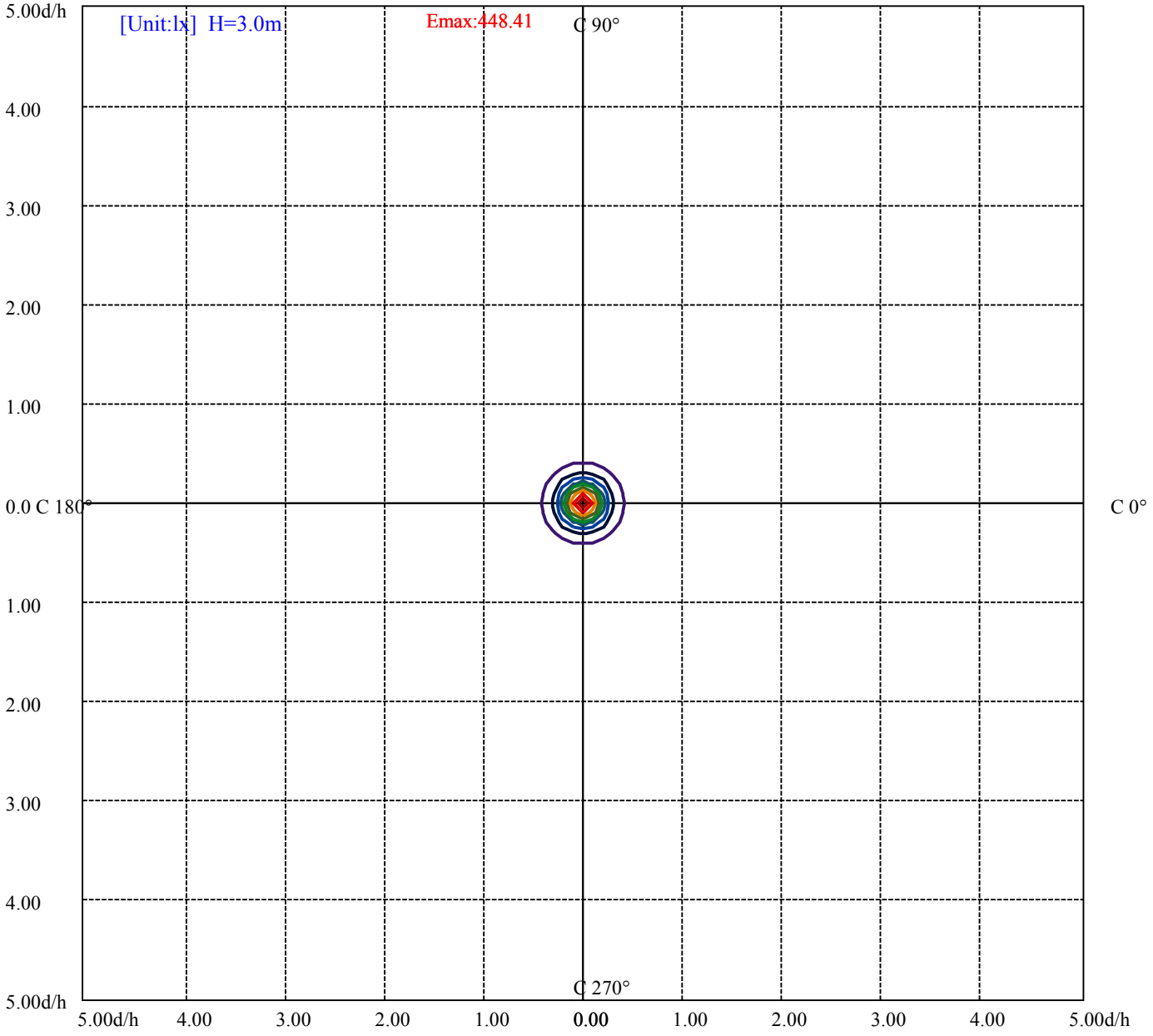
(10%Imax) 403.571
(20%Imax) 807.142
(30%Imax) 1210.71
(40%Imax) 1614.28
(50%Imax) 2017.86
(60%Imax) 2421.43
(70%Imax) 2825
(80%Imax) 3228.57
(90%Imax) 3632.14

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2022/5/18
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.73

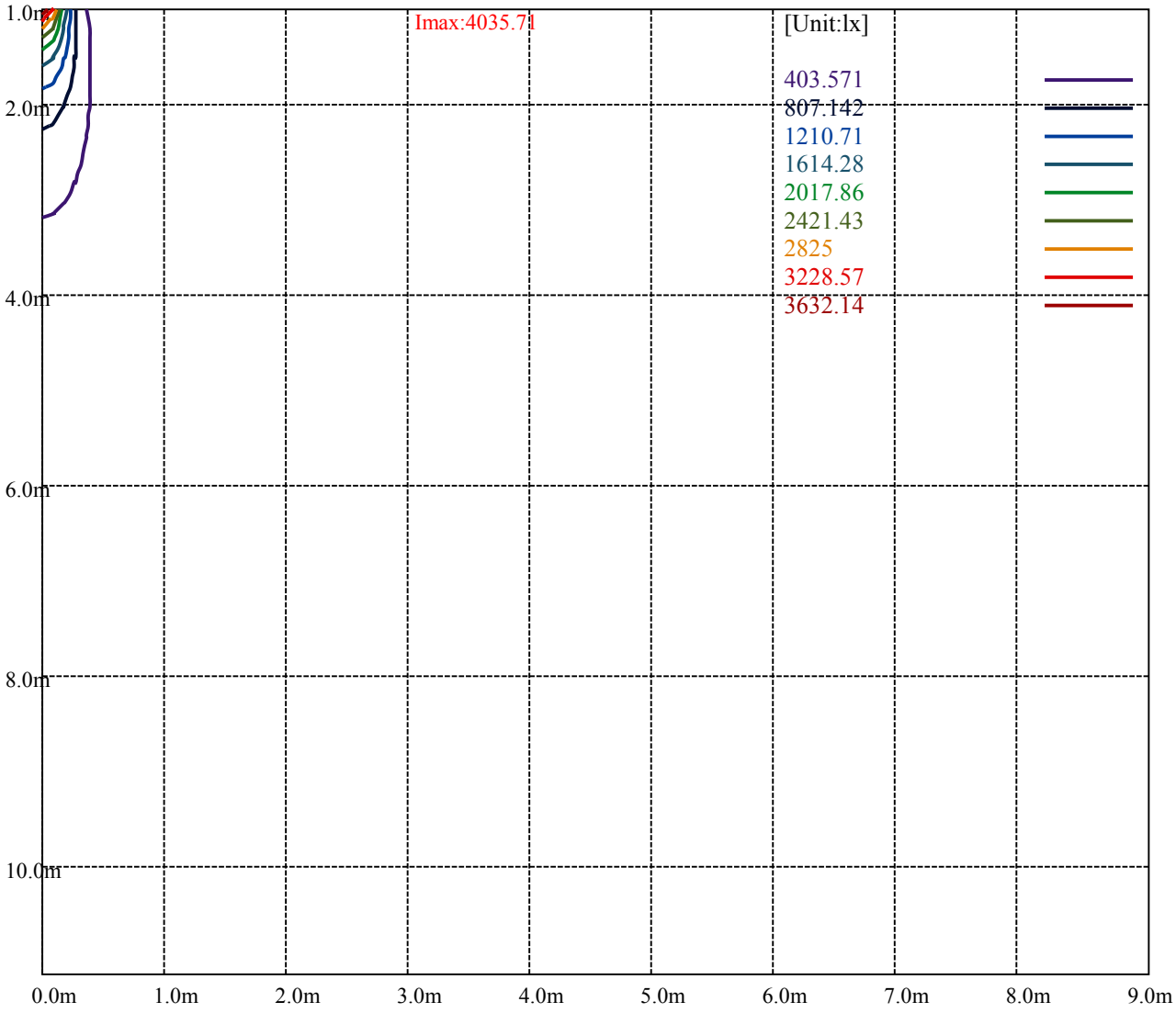
ISO illuminance diagram



(10%Emax) 44.84122
(20%Emax) 89.68233
(30%Emax) 134.5233
(40%Emax) 179.3644
(50%Emax) 224.2056
(60%Emax) 269.0467
(70%Emax) 313.8878
(80%Emax) 358.73
(90%Emax) 403.5711

Equipment: GMS1980
Temperature(°C): 25.0
Date: 2022/5/18
Humidity(%): 65.0%
Operator: NT07
Distance(m): 7.73

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 25.0

Date: 2022/5/18
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.73

Luminance Limitting Curve(no luminous side)

Luminance Table

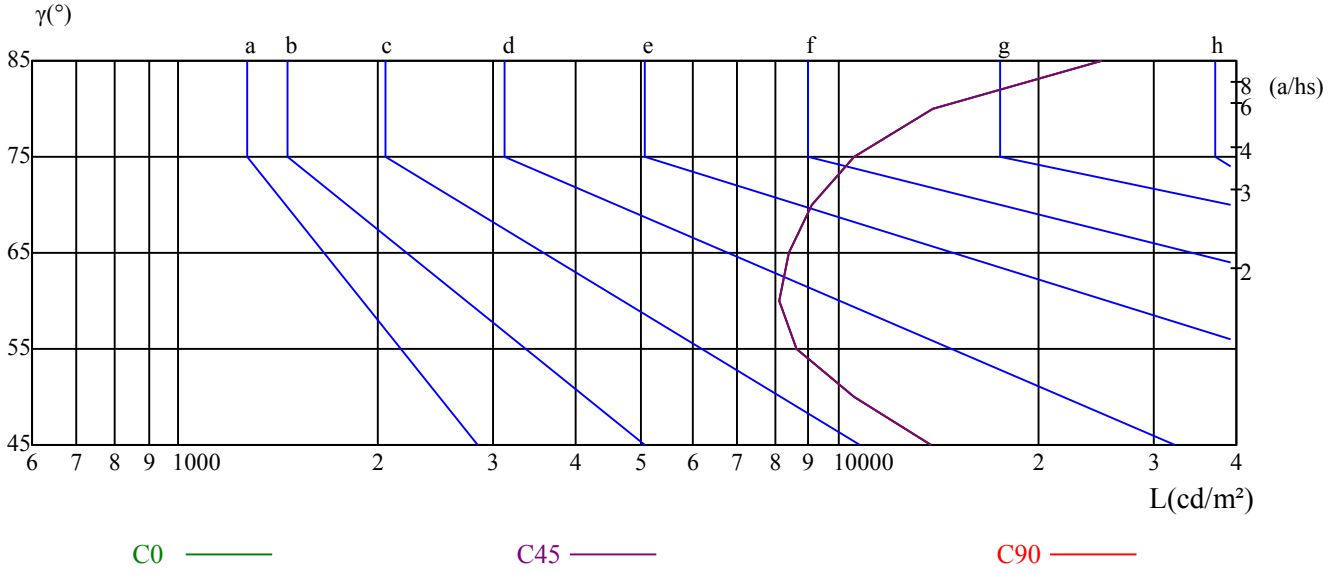
γ	45	50	55	60	65	70	75	80	85
C0	13819	10514	8648	8144	8402	9130	10566	13841	25075
C45	13819	10514	8648	8144	8402	9130	10566	13841	25075
C90	13819	10514	8648	8144	8402	9130	10566	13841	25075

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
8402	8402	8402	10566	10566	10566	25075	25075	25075

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

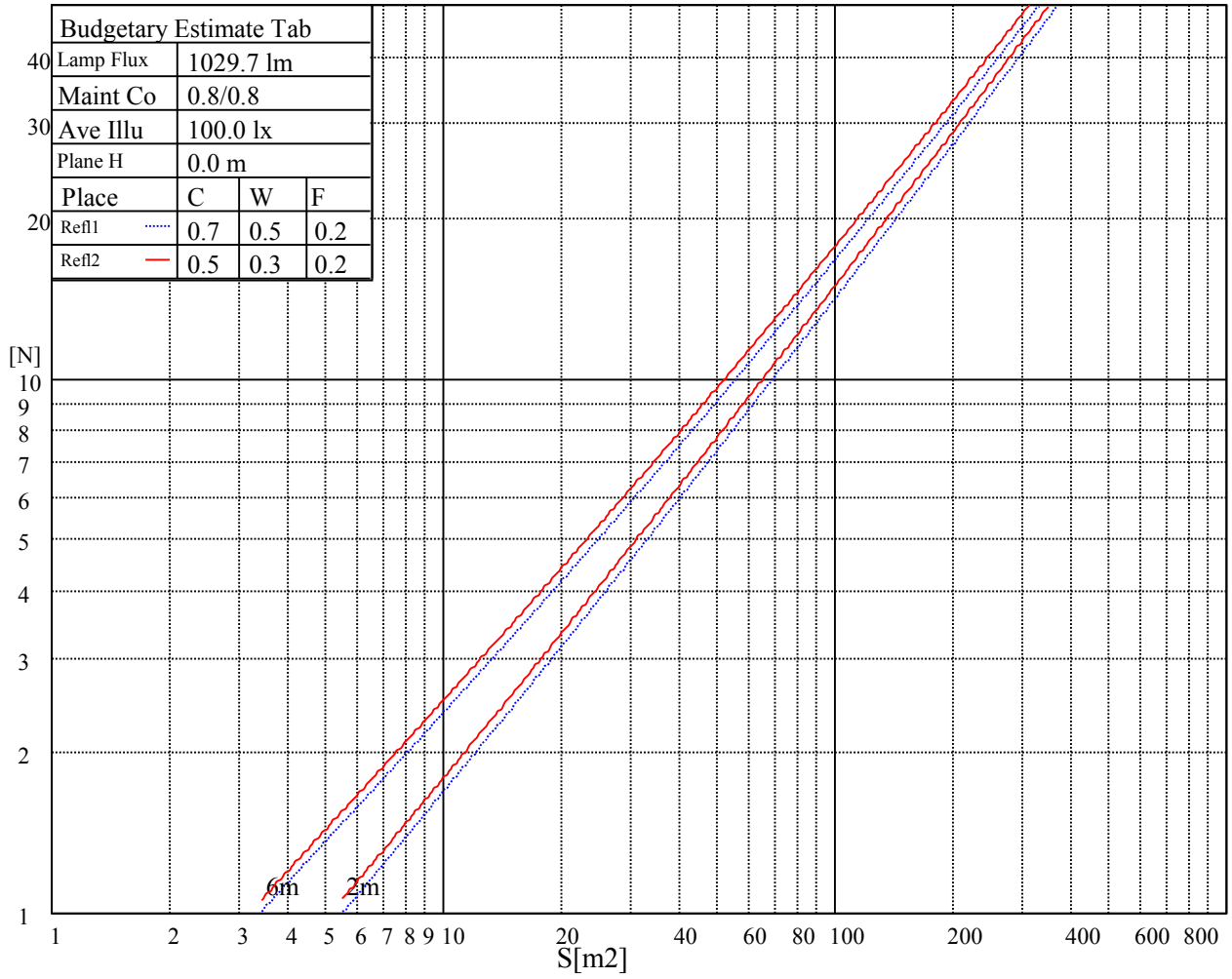


Equipment: GMS1980
Temperature(°C): 25.0

Date: 2022/5/18
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.73

Budgetary Estimate Table

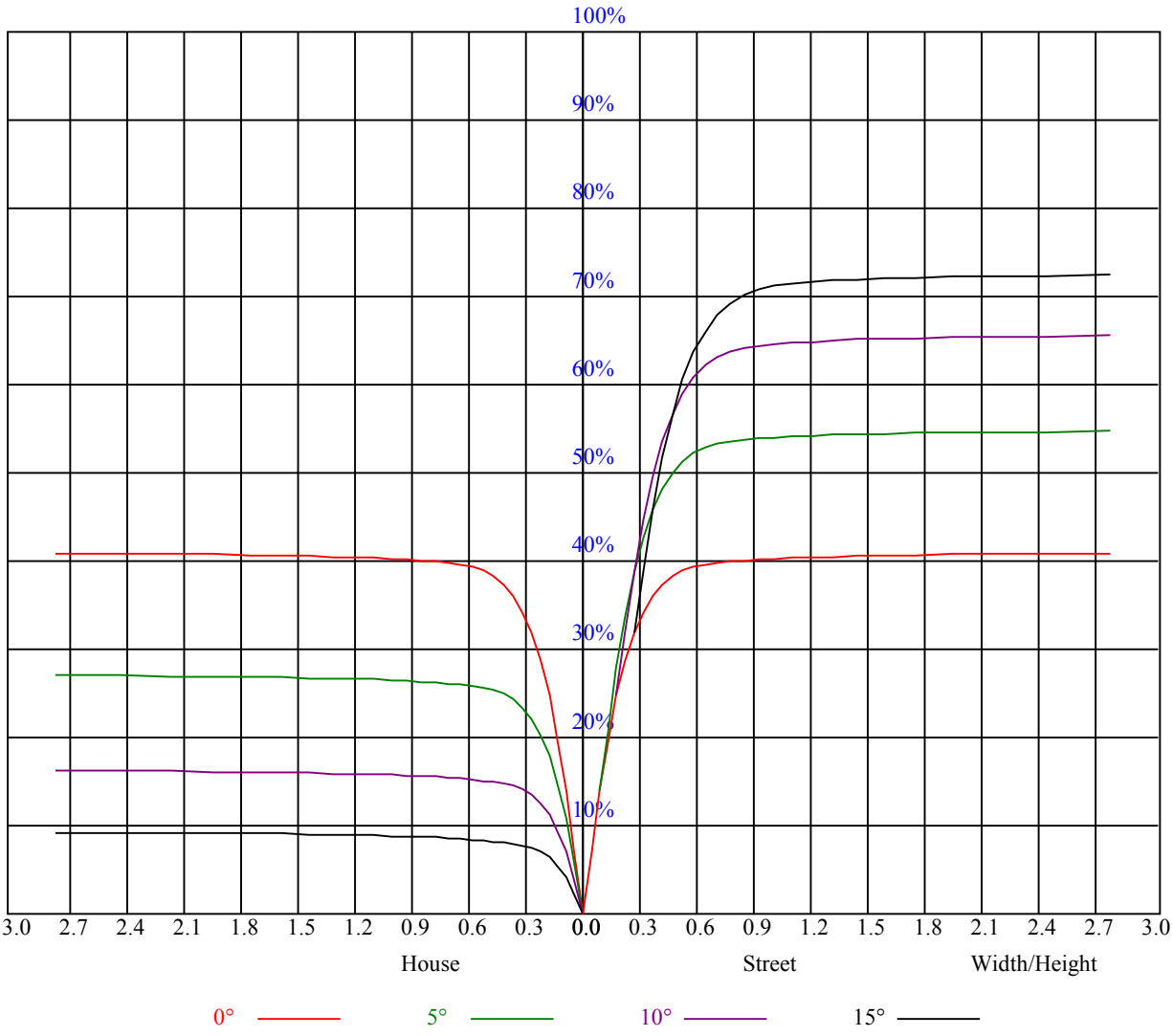


Equipment: GMS1980 Date: 2022/5/18 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 65.0% Distance(m): 7.73

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	0.92	0.92	0.92	0.88	0.88	0.88	0.84	0.84	0.84	0.82
1	0.92	0.91	0.89	0.91	0.89	0.88	0.87	0.86	0.85	0.84	0.83	0.83	0.82	0.81	0.80	0.79
2	0.88	0.85	0.83	0.86	0.84	0.82	0.84	0.82	0.80	0.81	0.80	0.78	0.79	0.78	0.77	0.76
3	0.84	0.80	0.78	0.83	0.80	0.77	0.81	0.78	0.76	0.79	0.77	0.75	0.77	0.75	0.74	0.73
4	0.80	0.77	0.74	0.79	0.76	0.74	0.78	0.75	0.73	0.76	0.74	0.72	0.75	0.73	0.71	0.70
5	0.77	0.73	0.71	0.76	0.73	0.70	0.75	0.72	0.70	0.74	0.71	0.69	0.72	0.70	0.69	0.68
6	0.74	0.70	0.68	0.74	0.70	0.68	0.72	0.69	0.67	0.71	0.69	0.67	0.70	0.68	0.66	0.65
7	0.72	0.68	0.65	0.71	0.68	0.65	0.70	0.67	0.65	0.69	0.67	0.65	0.69	0.66	0.64	0.63
8	0.69	0.66	0.63	0.69	0.65	0.63	0.68	0.65	0.63	0.67	0.65	0.63	0.67	0.64	0.62	0.61
9	0.67	0.64	0.61	0.67	0.63	0.61	0.66	0.63	0.61	0.66	0.63	0.61	0.65	0.62	0.61	0.60
10	0.65	0.62	0.59	0.65	0.62	0.59	0.64	0.61	0.59	0.64	0.61	0.59	0.63	0.61	0.59	0.58

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2022/5/18	Operator: NT07
Temperature(°C): 25.0	Humidity(%): 65.0%	Distance(m): 7.73

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	4048.86	4017.78	3926.36	3780.57	3619.23	3407.11	3170.49	2951.20	2725.93
45.0	3998.66	3939.51	3808.65	3667.04	3497.34	3254.74	3039.03	2815.56	2559.22
90.0	4045.87	4020.77	3941.90	3817.02	3665.84	3460.29	3250.56	2997.80	2733.70
135.0	4049.45	4085.90	4060.21	3989.70	3883.34	3696.31	3509.29	3301.35	3051.58
180.0	4048.86	4024.96	3957.43	3835.54	3667.04	3484.79	3276.85	2993.02	2755.21
225.0	3998.66	4010.61	3965.20	3866.01	3739.34	3558.29	3367.08	3129.26	2877.10
270.0	4045.87	4022.57	3930.55	3809.84	3651.50	3414.88	3205.15	2982.27	2725.93
315.0	4049.45	3965.80	3822.39	3637.16	3449.53	3242.19	2990.04	2733.70	2473.17
360.0	4048.86	4017.78	3926.36	3780.57	3619.23	3407.11	3170.49	2951.20	2725.93

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	2440.31	2212.05	1984.39	1743.59	1523.70	1347.43	1172.35	1021.77	908.24
45.0	2296.30	2065.66	1814.70	1609.15	1401.80	1219.56	1082.72	948.88	832.36
90.0	2494.09	2232.97	1980.81	1765.70	1562.54	1284.09	1179.40	1043.29	923.12
135.0	2784.49	2538.30	2266.43	2035.18	1788.40	1560.15	1377.90	1199.84	1042.09
180.0	2515.00	2220.42	1994.55	1781.23	1555.37	1352.21	1176.77	1042.03	923.84
225.0	2644.66	2380.56	2122.42	1899.54	1690.41	1450.20	1185.86	1132.50	988.55
270.0	2466.60	2239.54	1986.19	1771.67	1547.00	1348.03	1191.47	1039.70	911.83
315.0	2241.33	1983.20	1766.30	1539.83	1362.96	1181.61	1032.35	919.72	821.78
360.0	2440.31	2212.05	1984.39	1743.59	1523.70	1347.43	1172.35	1021.77	908.24

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	800.09	718.23	638.16	569.45	516.27	457.71	396.16	342.38	306.53
45.0	743.33	668.04	586.77	530.61	478.02	426.64	359.71	304.74	268.41
90.0	797.22	713.69	641.87	564.55	514.59	466.49	408.35	348.66	295.06
135.0	924.38	833.55	718.83	641.15	586.77	523.44	473.24	425.44	359.11
180.0	811.92	719.66	647.90	577.99	522.06	474.74	425.56	360.13	305.46
225.0	870.66	782.11	697.67	623.88	565.74	508.26	456.99	398.91	337.78
270.0	815.03	734.36	647.12	583.79	530.61	470.26	416.48	363.30	307.13
315.0	717.81	646.53	581.93	515.25	463.20	410.68	346.93	285.62	233.63
360.0	800.09	718.23	638.16	569.45	516.27	457.71	396.16	342.38	306.53

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	218.93	171.19	130.44	92.80	66.33	51.45	43.20	39.38	36.93
45.0	190.07	148.07	109.83	77.08	54.67	45.95	40.81	37.35	35.25
90.0	236.32	187.44	138.63	98.17	71.34	51.03	41.17	37.47	34.90
135.0	304.74	242.84	188.04	140.78	101.82	69.55	50.43	39.08	35.07
180.0	252.58	196.35	145.44	107.97	78.16	51.99	40.45	35.49	32.92
225.0	283.17	225.39	172.81	130.80	96.08	64.47	47.98	39.80	35.73
270.0	238.35	189.83	142.21	106.54	76.24	54.20	43.62	39.26	36.45
315.0	181.83	139.34	100.92	72.54	54.55	44.04	39.97	37.41	35.49
360.0	218.93	171.19	130.44	92.80	66.33	51.45	43.20	39.38	36.93

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	35.02	32.57	30.23	28.56	26.17	24.56	22.89	21.15	19.84
45.0	33.10	30.95	29.10	27.07	25.10	23.60	21.63	20.14	19.00
90.0	32.80	31.13	29.34	27.61	25.75	23.90	22.23	20.61	19.18
135.0	32.68	31.19	29.28	27.61	26.35	24.56	22.95	21.45	19.96
180.0	31.07	29.46	27.73	26.17	24.44	22.83	21.45	19.84	18.70
225.0	33.76	32.09	29.70	28.20	26.59	24.32	23.18	21.63	19.96
270.0	34.60	32.68	30.29	28.62	26.71	24.98	23.12	21.45	20.08
315.0	32.86	30.89	29.34	26.95	25.10	23.60	21.75	20.26	19.00
360.0	35.02	32.57	30.23	28.56	26.17	24.56	22.89	21.15	19.84

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	18.22	16.79	15.72	14.76	13.38	12.49	11.71	10.76	10.04
45.0	17.33	16.07	15.12	13.92	12.91	12.07	11.11	10.40	9.80
90.0	17.99	16.55	15.24	14.34	13.32	12.43	11.53	10.64	10.04
135.0	18.64	17.57	16.01	15.00	14.04	12.91	12.13	11.35	10.46
180.0	17.51	16.31	15.00	14.10	13.09	12.19	11.47	10.70	9.98
225.0	18.94	17.81	15.95	15.18	14.16	12.97	12.25	11.53	10.76
270.0	18.52	17.21	16.01	14.94	13.80	12.85	11.95	11.11	10.34
315.0	17.39	16.19	15.12	13.86	12.91	12.07	11.11	10.46	9.98
360.0	18.22	16.79	15.72	14.76	13.38	12.49	11.71	10.76	10.04

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	9.62	9.08	8.66	8.31	8.01	7.77	7.47	7.23	7.05
45.0	9.26	8.84	8.48	8.13	7.89	7.65	7.41	7.17	6.99
90.0	9.38	8.96	8.60	8.25	7.89	7.59	7.41	7.17	6.99
135.0	9.86	9.38	8.90	8.54	8.19	7.89	7.53	7.35	7.11
180.0	9.50	9.14	8.66	8.31	8.01	7.71	7.47	7.23	7.05
225.0	10.10	9.62	9.20	8.78	8.48	8.13	7.89	7.65	7.41
270.0	9.80	9.38	8.90	8.54	8.25	7.95	7.65	7.41	7.23
315.0	9.38	8.96	8.60	8.25	7.95	7.65	7.41	7.17	6.99
360.0	9.62	9.08	8.66	8.31	8.01	7.77	7.47	7.23	7.05

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	6.87	6.69	6.51	6.39	6.15	5.98	5.86	5.74	5.56
45.0	6.81	6.63	6.45	6.27	6.15	6.04	5.86	5.68	5.50
90.0	6.81	6.63	6.45	6.27	6.09	5.98	5.80	5.68	5.56
135.0	6.93	6.75	6.63	6.51	6.33	6.15	5.98	5.86	5.68
180.0	6.87	6.69	6.51	6.39	6.21	6.04	5.80	5.74	5.62
225.0	7.23	7.05	6.87	6.69	6.51	6.33	6.15	6.04	5.92
270.0	6.99	6.81	6.69	6.45	6.27	6.15	5.98	5.86	5.68
315.0	6.81	6.57	6.39	6.21	6.04	5.92	5.74	5.62	5.44
360.0	6.87	6.69	6.51	6.39	6.15	5.98	5.86	5.74	5.56

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	5.44	5.26	5.14	5.02	4.90	4.72	4.60	4.54	4.42
45.0	5.38	5.26	5.14	5.02	4.90	4.78	4.60	4.54	4.42
90.0	5.38	5.26	5.20	5.02	4.84	4.78	4.66	4.54	4.42
135.0	5.50	5.38	5.26	5.14	5.02	4.84	4.72	4.60	4.54
180.0	5.44	5.26	5.08	4.96	4.78	4.72	4.60	4.48	4.36
225.0	5.62	5.56	5.38	5.26	5.14	5.02	4.84	4.66	4.60
270.0	5.50	5.38	5.26	5.14	4.96	4.84	4.72	4.60	4.48
315.0	5.26	5.14	5.02	4.90	4.78	4.66	4.54	4.36	4.30
360.0	5.44	5.26	5.14	5.02	4.90	4.72	4.60	4.54	4.42

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	4.30	4.18	4.06	4.00	3.94	3.88	3.76	3.64	3.59
45.0	4.36	4.24	4.18	4.12	4.06	3.88	3.82	3.76	3.70
90.0	4.36	4.30	4.18	4.12	4.00	3.94	3.82	3.76	3.64
135.0	4.42	4.30	4.24	4.18	4.12	4.00	3.88	3.76	3.64
180.0	4.30	4.18	4.12	4.06	3.94	3.82	3.76	3.64	3.53
225.0	4.48	4.42	4.30	4.18	4.18	4.06	3.94	3.88	3.76
270.0	4.42	4.30	4.30	4.18	4.12	4.00	3.88	3.76	3.64
315.0	4.18	4.12	4.12	4.00	3.94	3.82	3.76	3.64	3.59
360.0	4.30	4.18	4.06	4.00	3.94	3.88	3.76	3.64	3.59

Intensity data(cd)

C/γ(°)	90.0
0.0	3.53
45.0	3.70
90.0	3.64
135.0	3.59
180.0	3.59
225.0	3.70
270.0	3.64
315.0	3.59
360.0	3.53