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

LumCAT: 1-1007-M
Luminaire: 92.70.277.00
Report No: 221130-B008
Test No: 221130-C008
LampCAT: CREE CXA1512 LES8.5
Lamp flux(lm): 812.3
Number of Lamps: 1
Length(mm): 0
Phm Type: C

Voltage(V): 17.5700
Current(A): 0.3050
Power (W): 5.3580
PF: 0.0000
Ballast type: DC
Width(mm): 0
Height(mm): 0

Photometric Results

Lumens(lm): 623.52
Efficiency(%): 76.76%
Lumens(lm)/Power(W): 116.37
Central intensity(cd): 2048.777
Maximum intensity(cd): 2048.777
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=33.5
[C90/270]Total=33.5
Field angle(10%Imax): [C0/180]Total=49.5
[C90/270]Total=49.5
Maximum s/h(1/2): C0_180=0.56 C90_270=0.56
Maximum s/h(1/4): C0_180=0.53 C90_270=0.53
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 76.76%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.432%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2048.778	0.000	0	.000%	.000%
1.0	2045.043	1.959	1.959	.241%	.314%
2.0	2031.823	5.852	7.81	.720%	1.253%
3.0	2011.133	9.669	17.48	1.190%	2.803%
4.0	1982.601	13.368	30.848	1.646%	4.947%
5.0	1949.289	16.915	47.763	2.082%	7.660%
6.0	1902.308	20.241	68.004	2.492%	10.906%
7.0	1852.639	23.307	91.311	2.869%	14.644%
8.0	1797.143	26.121	117.432	3.216%	18.834%
9.0	1731.863	28.601	146.032	3.521%	23.421%
10.0	1656.350	30.662	176.694	3.775%	28.338%
11.0	1582.705	32.365	209.059	3.985%	33.529%
12.0	1498.379	33.681	242.74	4.147%	38.931%
13.0	1393.766	34.322	277.062	4.226%	44.435%
14.0	1301.433	34.498	311.561	4.247%	49.968%
15.0	1198.800	34.324	345.885	4.226%	55.473%
16.0	1097.377	33.645	379.53	4.142%	60.869%
17.0	998.247	32.634	412.165	4.018%	66.103%
18.0	891.252	31.154	443.319	3.835%	71.099%
19.0	779.170	29.062	472.381	3.578%	75.760%
20.0	674.326	26.603	498.984	3.275%	80.027%
21.0	558.712	23.677	522.66	2.915%	83.824%
22.0	453.069	20.332	542.993	2.503%	87.085%
23.0	361.199	17.086	560.078	2.103%	89.825%
24.0	269.852	13.797	573.875	1.699%	92.038%
25.0	182.948	10.296	584.171	1.268%	93.689%
26.0	128.693	7.356	591.527	.906%	94.869%
27.0	81.675	5.147	596.674	.634%	95.694%
28.0	47.518	3.271	599.945	.403%	96.219%
29.0	29.458	2.014	601.959	.248%	96.542%
30.0	18.688	1.300	603.259	.160%	96.750%
31.0	12.287	0.862	604.121	.106%	96.889%
32.0	9.142	0.614	604.735	.076%	96.987%
33.0	7.447	0.489	605.223	.060%	97.065%
34.0	6.319	0.417	605.64	.051%	97.132%
35.0	5.564	0.369	606.009	.045%	97.191%
36.0	5.146	0.341	606.35	.042%	97.246%
37.0	4.847	0.326	606.676	.040%	97.298%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	4.638	0.317	606.992	.039%	97.349%
39.0	4.459	0.311	607.303	.038%	97.399%
40.0	4.317	0.306	607.609	.038%	97.448%
41.0	4.190	0.303	607.912	.037%	97.497%
42.0	4.093	0.301	608.213	.037%	97.545%
43.0	4.011	0.300	608.513	.037%	97.593%
44.0	3.929	0.300	608.813	.037%	97.641%
45.0	3.862	0.299	609.112	.037%	97.689%
46.0	3.802	0.300	609.412	.037%	97.737%
47.0	3.749	0.300	609.712	.037%	97.785%
48.0	3.712	0.302	610.014	.037%	97.834%
49.0	3.667	0.303	610.317	.037%	97.882%
50.0	3.630	0.304	610.621	.037%	97.931%
51.0	3.608	0.306	610.927	.038%	97.980%
52.0	3.548	0.307	611.234	.038%	98.029%
53.0	3.540	0.308	611.543	.038%	98.079%
54.0	3.510	0.311	611.854	.038%	98.129%
55.0	3.458	0.311	612.165	.038%	98.179%
56.0	3.458	0.313	612.477	.038%	98.229%
57.0	3.436	0.315	612.792	.039%	98.279%
58.0	3.406	0.316	613.109	.039%	98.330%
59.0	3.398	0.318	613.427	.039%	98.381%
60.0	3.376	0.320	613.747	.039%	98.432%
61.0	3.369	0.322	614.069	.040%	98.484%
62.0	3.346	0.324	614.392	.040%	98.536%
63.0	3.331	0.325	614.717	.040%	98.588%
64.0	3.316	0.326	615.043	.040%	98.640%
65.0	3.309	0.328	615.371	.040%	98.693%
66.0	3.294	0.329	615.701	.041%	98.746%
67.0	3.301	0.332	616.032	.041%	98.799%
68.0	3.294	0.334	616.366	.041%	98.853%
69.0	3.271	0.335	616.701	.041%	98.906%
70.0	3.264	0.336	617.037	.041%	98.960%
71.0	3.234	0.336	617.373	.041%	99.014%
72.0	3.227	0.336	617.709	.041%	99.068%
73.0	3.219	0.337	618.046	.041%	99.122%
74.0	3.204	0.338	618.383	.042%	99.176%
75.0	3.182	0.337	618.721	.042%	99.230%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	3.152	0.336	619.057	.041%	99.284%
77.0	3.130	0.335	619.392	.041%	99.338%
78.0	3.085	0.333	619.725	.041%	99.391%
79.0	3.047	0.329	620.054	.041%	99.444%
80.0	2.988	0.325	620.379	.040%	99.496%
81.0	2.958	0.322	620.701	.040%	99.548%
82.0	2.950	0.320	621.021	.039%	99.599%
83.0	2.943	0.320	621.342	.039%	99.650%
84.0	2.950	0.321	621.663	.040%	99.702%
85.0	2.883	0.318	621.981	.039%	99.753%
86.0	2.861	0.314	622.295	.039%	99.803%
87.0	2.793	0.309	622.605	.038%	99.853%
88.0	2.793	0.306	622.911	.038%	99.902%
89.0	2.786	0.306	623.216	.038%	99.951%
90.0	2.771	0.305	623.521	.038%	100.000%

Zonal flux distribution table

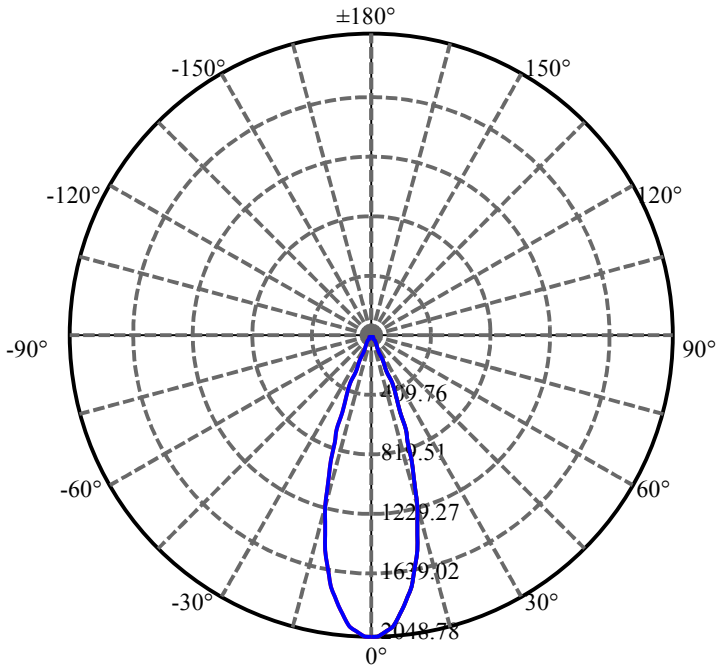
ZONAL LUMEN SUMMARY

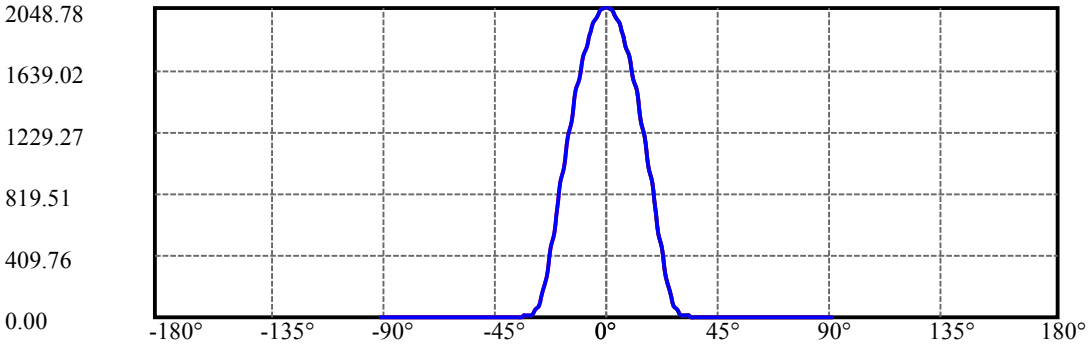
Zone	Lumens	%Lamp	%Fixt
0-30	603.26	74.27%	96.75%
0-40	607.61	74.80%	97.45%
0-60	613.75	75.56%	98.43%
0-90	623.22	76.73%	99.95%
0-120	623.22	76.73%	99.95%
0-180	623.52	76.76%	100.00%
60-90	9.79	1.21%	1.57%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-19.99	498.82	61.41%	80.00%

ZONAL LUMEN SUMMARY

0-10	176.69
10-20	322.29
20-30	104.28
30-40	4.35
40-50	3.01
50-60	3.13
60-70	3.29
70-80	3.34
80-90	2.84
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:24.7 Right:24.7
:C90/270Left:24.7 Right:24.7

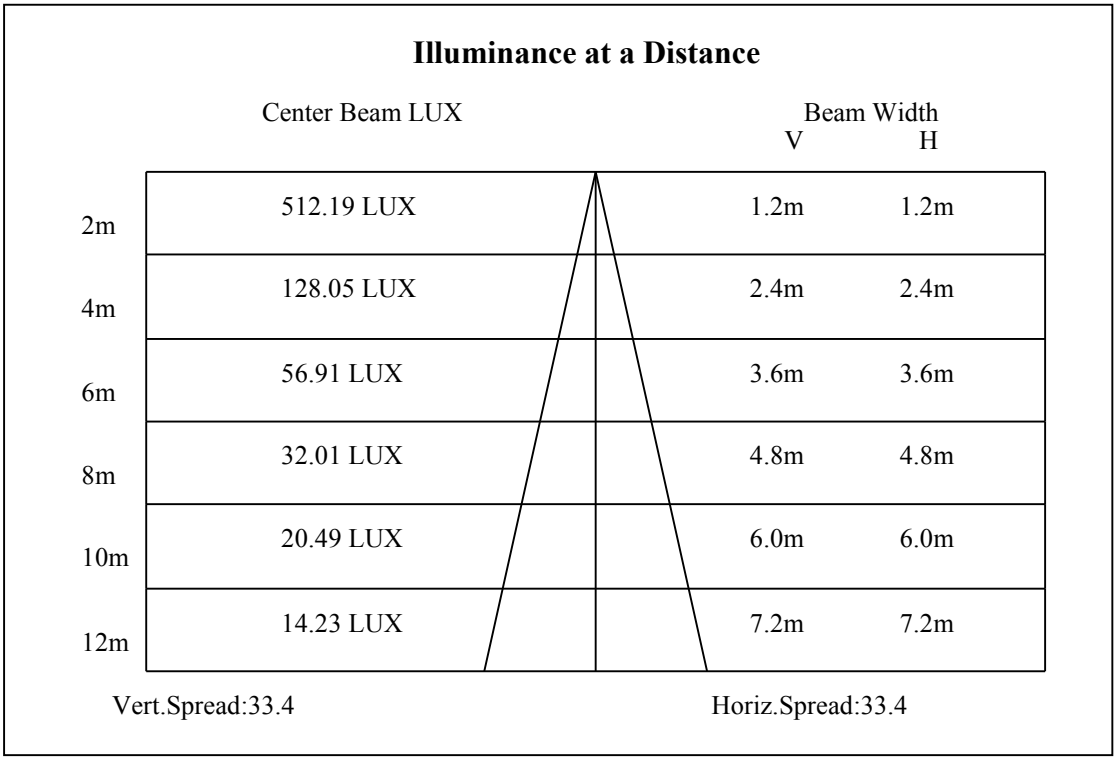
Beam Angle(50%Imax):C0/180Left:16.7 Right:16.7
:C90/270Left:16.7 Right:16.7

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2022/11/30
Humidity(%): 65.0%

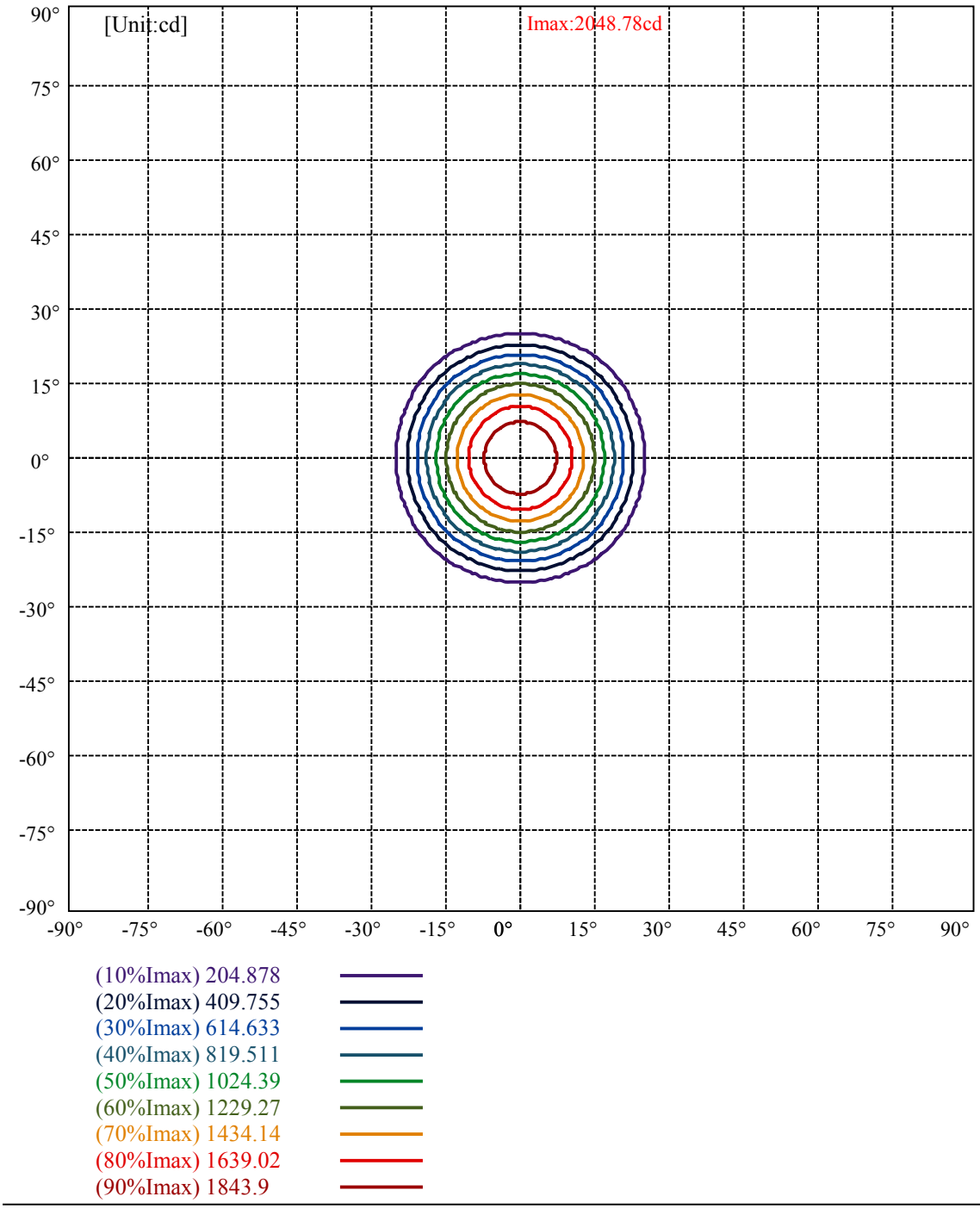
Operator: NT07
Distance(m): 7.73

Lux distance Curve



Equipment: GMS1980 Date: 2022/11/30 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 65.0% Distance(m): 7.73

ISO-Intensity(V-H)

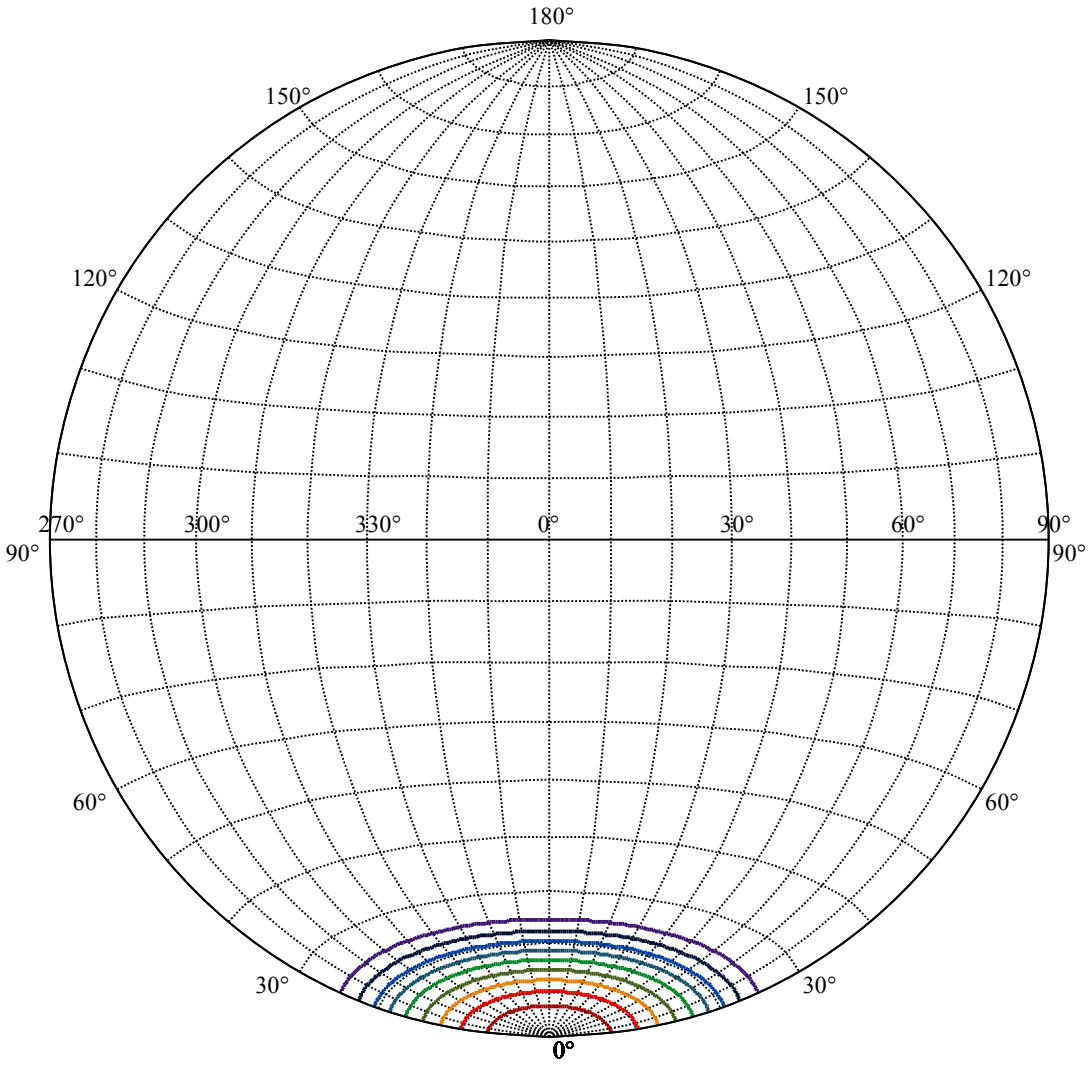


Equipment: GMS1980
Temperature(°C): 25.0

Date: 2022/11/30
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.73

ISO candela diagram on circular web



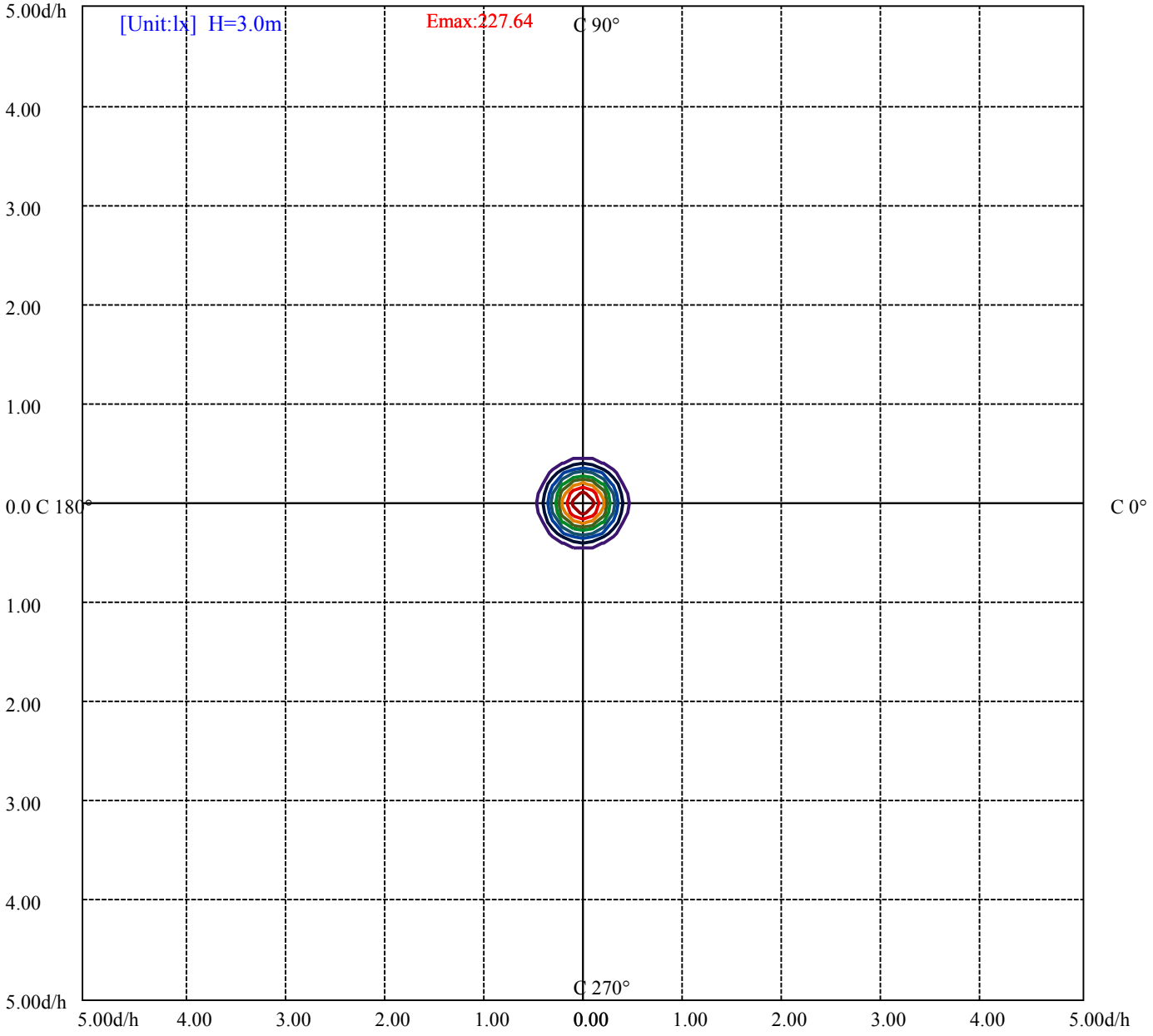
House [Unit:cd] Road

Imax:2048.78

(10%Imax) 204.878
(20%Imax) 409.755
(30%Imax) 614.633
(40%Imax) 819.511
(50%Imax) 1024.39
(60%Imax) 1229.27
(70%Imax) 1434.14
(80%Imax) 1639.02
(90%Imax) 1843.9

Equipment: GMS1980 Date: 2022/11/30 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 65.0% Distance(m): 7.73

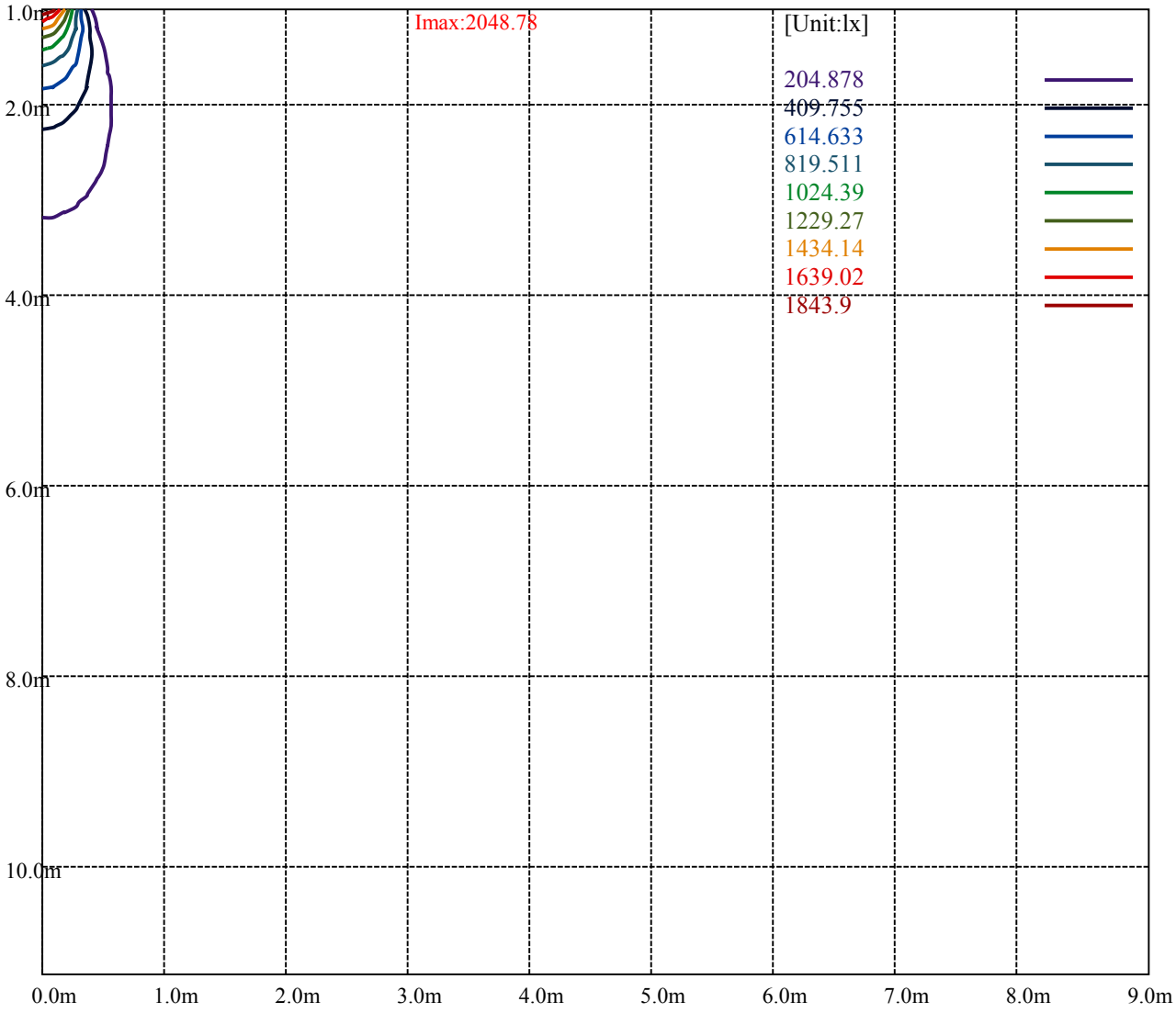
ISO illuminance diagram



(10%Emax) 22.76422
(20%Emax) 45.52834
(30%Emax) 68.29256
(40%Emax) 91.05678
(50%Emax) 113.8211
(60%Emax) 136.5856
(70%Emax) 159.3489
(80%Emax) 182.1133
(90%Emax) 204.8778

Equipment: GMS1980
Temperature(°C): 25.0
Date: 2022/11/30
Humidity(%): 65.0%
Operator: NT07
Distance(m): 7.73

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 25.0

Date: 2022/11/30
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.73

1-1007-M

Luminance Limitting Curve(no luminous side)

Luminance Table

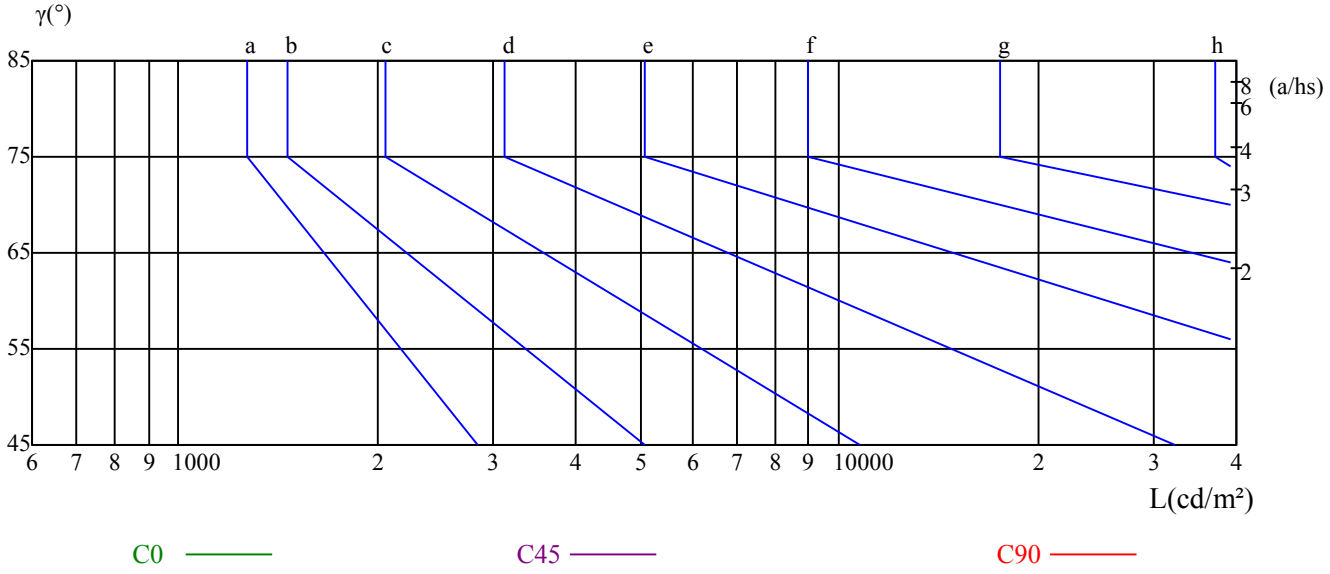
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

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

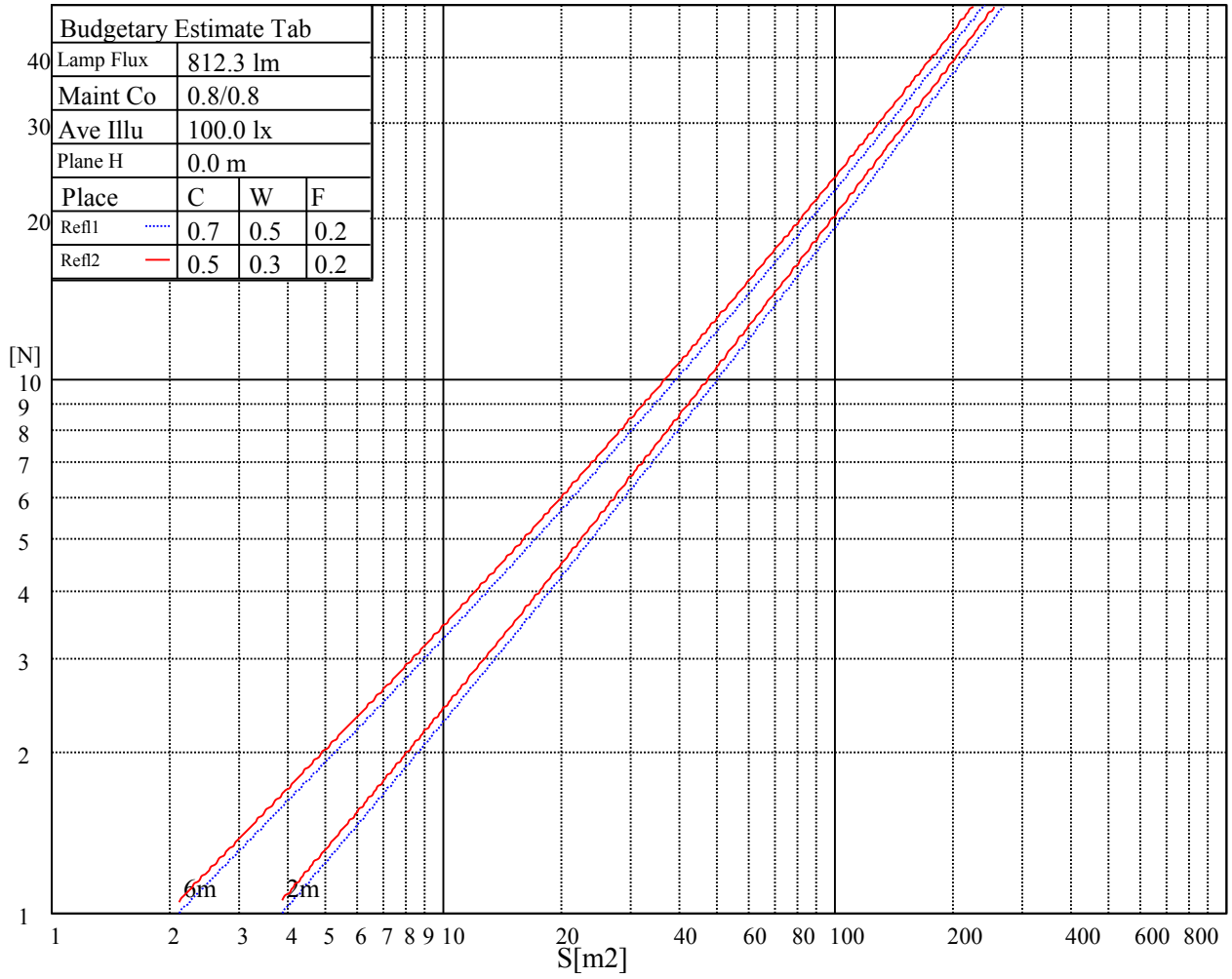
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limitting Curve



Equipment: GMS1980 Date: 2022/11/30 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 65.0% Distance(m): 7.73

Budgetary Estimate Table

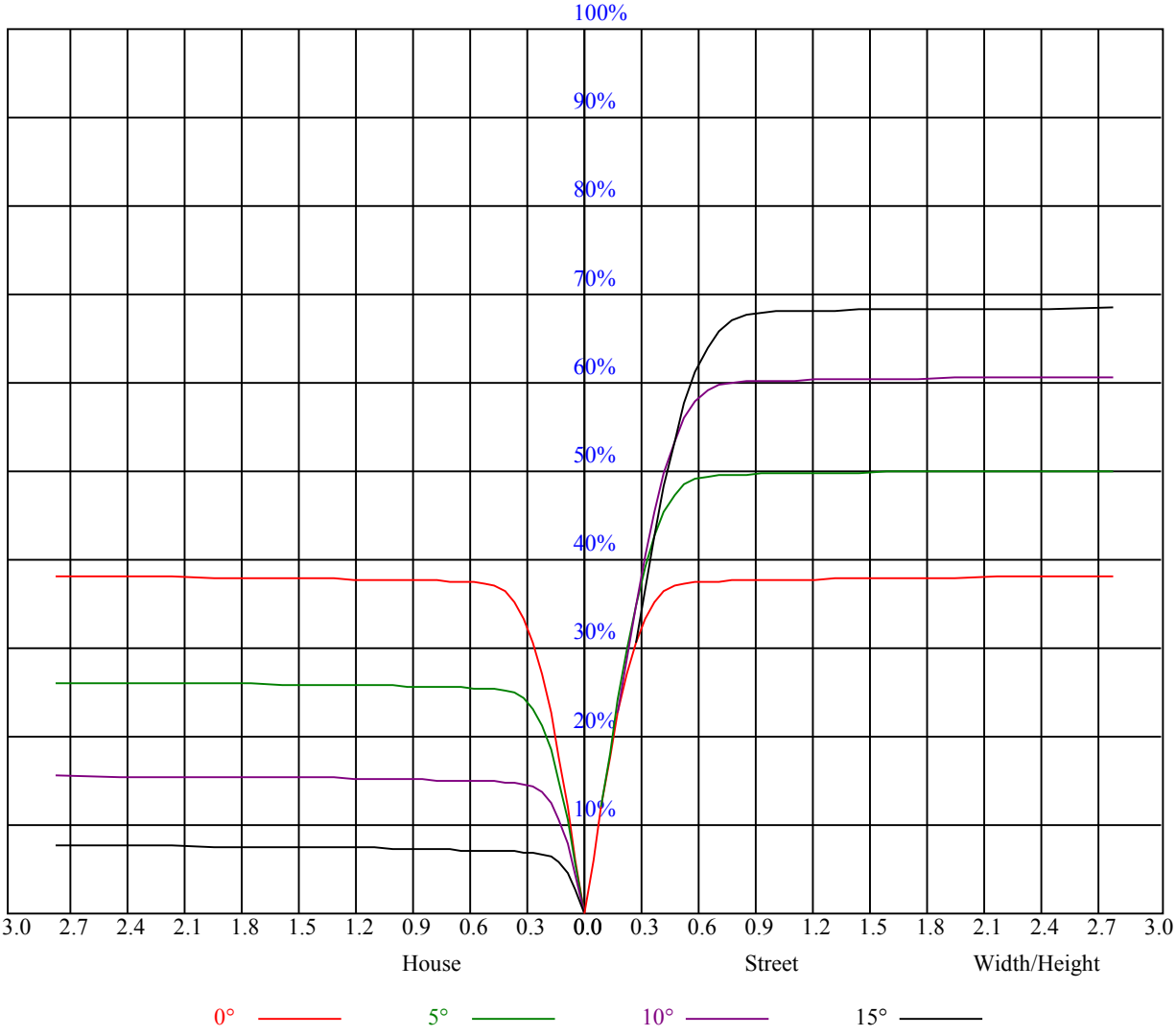


Equipment: GMS1980 Date: 2022/11/30 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 65.0% Distance(m): 7.73

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	0.91	0.91	0.91	0.89	0.89	0.89	0.85	0.85	0.85	0.82	0.82	0.82	0.78	0.78	0.78	0.77
1	0.86	0.85	0.83	0.85	0.83	0.82	0.81	0.80	0.79	0.79	0.78	0.77	0.76	0.75	0.75	0.73
2	0.82	0.79	0.77	0.81	0.78	0.77	0.78	0.76	0.75	0.76	0.75	0.73	0.74	0.73	0.72	0.71
3	0.78	0.75	0.73	0.77	0.75	0.72	0.75	0.73	0.71	0.74	0.72	0.70	0.72	0.70	0.69	0.68
4	0.75	0.72	0.69	0.74	0.71	0.69	0.73	0.70	0.68	0.71	0.69	0.68	0.70	0.68	0.67	0.66
5	0.72	0.69	0.66	0.72	0.68	0.66	0.70	0.68	0.66	0.69	0.67	0.65	0.68	0.66	0.65	0.64
6	0.70	0.66	0.64	0.69	0.66	0.64	0.68	0.65	0.63	0.67	0.65	0.63	0.66	0.64	0.62	0.62
7	0.67	0.64	0.62	0.67	0.64	0.61	0.66	0.63	0.61	0.65	0.63	0.61	0.64	0.62	0.61	0.60
8	0.65	0.62	0.59	0.65	0.62	0.59	0.64	0.61	0.59	0.63	0.61	0.59	0.63	0.60	0.59	0.58
9	0.63	0.60	0.58	0.63	0.60	0.57	0.62	0.59	0.57	0.62	0.59	0.57	0.61	0.59	0.57	0.56
10	0.61	0.58	0.56	0.61	0.58	0.56	0.60	0.58	0.56	0.60	0.57	0.55	0.59	0.57	0.55	0.55

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2022/11/30	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	2051.91	2052.51	2044.74	2026.22	2002.92	1973.04	1928.23	1885.20	1835.01
45.0	2049.52	2035.18	2009.49	1977.22	1941.97	1901.34	1838.60	1781.23	1719.69
90.0	2042.35	2024.43	2001.12	1967.66	1927.03	1883.41	1826.05	1766.89	1692.20
135.0	2051.32	2042.95	2024.43	1998.73	1969.46	1933.01	1877.44	1826.65	1769.28
180.0	2051.91	2042.95	2024.43	2000.53	1967.07	1931.81	1883.41	1826.65	1768.69
225.0	2049.52	2056.10	2053.11	2043.55	2022.64	1996.94	1961.69	1919.86	1876.24
270.0	2042.35	2054.30	2053.71	2047.13	2026.82	2002.32	1972.44	1931.21	1882.81
315.0	2051.32	2051.91	2043.55	2028.01	2002.92	1972.44	1930.62	1883.41	1833.22
360.0	2051.91	2052.51	2044.74	2026.22	2002.92	1973.04	1928.23	1885.20	1835.01

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	1771.08	1698.77	1628.27	1542.22	1449.01	1359.98	1252.42	1153.83	1041.49
45.0	1631.25	1553.58	1471.12	1372.52	1267.96	1172.95	1064.20	970.39	860.44
90.0	1610.94	1533.86	1442.44	1344.44	1188.13	1152.45	1032.41	938.12	837.20
135.0	1696.38	1616.91	1542.22	1452.59	1355.20	1263.18	1156.82	1057.63	947.08
180.0	1705.35	1618.71	1544.61	1466.34	1359.98	1181.02	1169.01	1058.58	946.67
225.0	1828.44	1759.13	1695.79	1625.88	1532.06	1452.00	1365.35	1181.91	1144.81
270.0	1834.41	1773.47	1712.52	1636.03	1552.98	1472.91	1375.51	1268.55	1171.16
315.0	1777.05	1696.38	1624.68	1547.00	1444.83	1356.99	1174.68	1150.00	1037.13
360.0	1771.08	1698.77	1628.27	1542.22	1449.01	1359.98	1252.42	1153.83	1041.49

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	933.94	837.14	733.17	602.31	500.73	401.54	309.52	203.22	136.06
45.0	742.13	638.16	534.19	406.92	311.91	257.53	144.72	87.06	54.20
90.0	717.51	598.90	493.98	385.47	294.64	206.09	134.32	86.70	51.09
135.0	832.36	727.19	622.03	492.36	394.37	304.74	252.70	136.30	90.23
180.0	843.53	725.28	606.31	503.90	395.09	306.53	217.26	145.38	97.76
225.0	1045.97	924.20	821.36	716.20	598.54	495.71	384.69	284.54	208.60
270.0	1071.97	950.07	852.08	747.51	629.80	515.67	416.48	313.11	250.84
315.0	942.60	832.42	731.50	615.04	499.47	401.78	299.12	207.28	140.78
360.0	933.94	837.14	733.17	602.31	500.73	401.54	309.52	203.22	136.06

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	85.33	45.29	26.17	17.87	12.55	9.62	7.89	6.51	5.68
45.0	30.47	17.75	12.61	9.92	7.71	6.39	5.62	5.14	4.84
90.0	28.98	17.99	12.73	9.26	7.59	6.39	5.62	5.26	4.96
135.0	57.36	28.56	18.46	13.09	9.20	7.47	6.33	5.62	5.20
180.0	64.29	31.85	20.08	13.56	9.38	7.53	6.33	5.62	5.14
225.0	145.08	89.63	58.92	33.22	18.34	12.73	9.62	7.71	6.27
270.0	150.16	99.19	58.26	33.58	20.44	13.21	10.16	8.13	6.69
315.0	91.72	49.89	28.44	19.00	13.09	9.80	8.01	6.57	5.74
360.0	85.33	45.29	26.17	17.87	12.55	9.62	7.89	6.51	5.68

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	5.20	4.84	4.66	4.42	4.30	4.18	4.06	4.00	3.88
45.0	4.60	4.42	4.30	4.18	4.12	4.00	3.94	3.82	3.76
90.0	4.78	4.54	4.42	4.30	4.18	4.12	4.06	3.94	3.88
135.0	4.96	4.78	4.60	4.48	4.36	4.24	4.12	4.06	4.00
180.0	4.90	4.72	4.54	4.36	4.24	4.12	4.06	4.00	3.94
225.0	5.62	5.20	4.90	4.66	4.48	4.30	4.18	4.12	4.00
270.0	5.86	5.38	5.02	4.78	4.54	4.36	4.24	4.12	4.06
315.0	5.26	4.90	4.66	4.48	4.30	4.18	4.06	4.00	3.88
360.0	5.20	4.84	4.66	4.42	4.30	4.18	4.06	4.00	3.88

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	3.82	3.76	3.70	3.64	3.64	3.59	3.59	3.47	3.47
45.0	3.70	3.64	3.64	3.59	3.53	3.53	3.47	3.47	3.41
90.0	3.82	3.76	3.70	3.64	3.64	3.59	3.59	3.53	3.53
135.0	3.94	3.88	3.88	3.82	3.76	3.70	3.70	3.64	3.64
180.0	3.88	3.82	3.76	3.76	3.70	3.70	3.64	3.59	3.64
225.0	3.94	3.82	3.76	3.76	3.70	3.64	3.64	3.59	3.53
270.0	3.94	3.94	3.82	3.76	3.70	3.70	3.64	3.59	3.59
315.0	3.82	3.76	3.70	3.70	3.64	3.59	3.59	3.53	3.53
360.0	3.82	3.76	3.70	3.64	3.64	3.59	3.59	3.47	3.47

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	3.47	3.41	3.47	3.41	3.35	3.35	3.35	3.35	3.35
45.0	3.41	3.35	3.35	3.35	3.29	3.29	3.29	3.29	3.23
90.0	3.47	3.41	3.41	3.41	3.41	3.35	3.35	3.35	3.29
135.0	3.59	3.59	3.53	3.53	3.53	3.53	3.53	3.47	3.41
180.0	3.59	3.53	3.53	3.53	3.47	3.47	3.47	3.47	3.47
225.0	3.53	3.47	3.47	3.41	3.41	3.41	3.35	3.35	3.35
270.0	3.53	3.47	3.47	3.47	3.41	3.41	3.35	3.35	3.35
315.0	3.53	3.47	3.47	3.41	3.41	3.41	3.35	3.35	3.35
360.0	3.47	3.41	3.47	3.41	3.35	3.35	3.35	3.35	3.35

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	3.29	3.29	3.29	3.29	3.29	3.23	3.23	3.29	3.23
45.0	3.23	3.23	3.17	3.17	3.17	3.17	3.17	3.11	3.11
90.0	3.29	3.29	3.29	3.23	3.23	3.29	3.23	3.23	3.23
135.0	3.41	3.47	3.47	3.41	3.41	3.41	3.41	3.41	3.35
180.0	3.47	3.41	3.41	3.41	3.41	3.41	3.41	3.35	3.29
225.0	3.35	3.29	3.29	3.29	3.29	3.29	3.23	3.23	3.17
270.0	3.29	3.29	3.29	3.29	3.29	3.29	3.23	3.23	3.23
315.0	3.35	3.29	3.29	3.29	3.35	3.29	3.29	3.29	3.29
360.0	3.29	3.29	3.29	3.29	3.29	3.23	3.23	3.29	3.23

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	3.23	3.17	3.17	3.17	3.11	3.11	3.05	3.05	2.93
45.0	3.11	3.11	3.05	3.05	3.05	3.05	2.99	2.99	2.93
90.0	3.23	3.23	3.23	3.23	3.17	3.17	3.11	3.05	2.99
135.0	3.35	3.35	3.35	3.29	3.29	3.23	3.17	3.11	3.05
180.0	3.23	3.23	3.23	3.17	3.11	3.05	3.05	2.99	2.99
225.0	3.17	3.17	3.17	3.17	3.11	3.11	3.11	3.05	2.99
270.0	3.23	3.23	3.23	3.17	3.17	3.17	3.11	3.11	3.05
315.0	3.29	3.29	3.23	3.23	3.23	3.17	3.11	3.05	2.99
360.0	3.23	3.17	3.17	3.17	3.11	3.11	3.05	3.05	2.93

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	2.93	2.93	2.93	2.93	2.99	2.99	2.81	2.81	2.81
45.0	2.93	2.93	2.93	2.93	2.81	2.81	2.81	2.75	2.75
90.0	2.93	2.93	2.87	2.93	2.81	2.75	2.75	2.81	2.81
135.0	2.99	2.99	2.99	2.93	2.87	2.81	2.81	2.81	2.75
180.0	2.99	3.05	3.05	3.11	2.81	2.75	2.75	2.75	2.75
225.0	2.99	2.99	2.99	3.05	3.05	3.05	2.81	2.81	2.81
270.0	2.99	2.93	2.93	2.87	2.87	2.87	2.81	2.81	2.81
315.0	2.93	2.87	2.87	2.87	2.87	2.87	2.81	2.81	2.81
360.0	2.93	2.93	2.93	2.93	2.99	2.99	2.81	2.81	2.81

Intensity data(cd)

C/γ(°)	90.0
0.0	2.75
45.0	2.75
90.0	2.75
135.0	2.81
180.0	2.75
225.0	2.75
270.0	2.81
315.0	2.81
360.0	2.75