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

Nata

Client: NT
LumCAT: 66-0025
Luminaire: 7-0941-S3
Report No: 20261027-B013
Ballast type: DC

Test No: 20261027-C013	Voltage(V): 34.630
LampCAT: LUMILEDS 2835x2	Current(A): 0.106
Lamp flux(lm): 539.0	Power (W): 3.670
Number of Lamps: 1	PF: 0.000
Length(mm): 30	Width(mm): 180
Phm Type: C	Height(mm): 16

Photometric Results

Lumens(lm): 484.05, Efficiency(%): 89.81% , Luminous Efficacy(lm/W): 131.89
Central intensity(cd): 387.567, Maximum intensity(cd): 398.316
Angle of maximum intensity: C=0.0 γ=5.0
Beam Angle(50%Imax): [C0/180]Total=66.6
[C90/270]Total=69.0
Field angle(10%Imax): [C0/180]Total=95.8
[C90/270]Total=94.4
Maximum s/h(1/2): C0_180=0.84 C90_270=0.98
Maximum s/h(1/4): C0_180=0.90 C90_270=1.00
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 89.63%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 94.996%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	388.053	0.000	0	0.00%	0.00%
1.0	387.958	0.371	0.371	0.07%	0.08%
2.0	387.429	1.113	1.484	0.21%	0.31%
3.0	386.424	1.851	3.335	0.34%	0.69%
4.0	384.731	2.581	5.916	0.48%	1.22%
5.0	382.880	3.302	9.219	0.61%	1.90%
6.0	380.340	4.011	13.229	0.74%	2.73%
7.0	376.997	4.701	17.93	0.87%	3.70%
8.0	373.463	5.371	23.301	1.00%	4.81%
9.0	369.570	6.022	29.323	1.12%	6.06%
10.0	364.714	6.645	35.968	1.23%	7.43%
11.0	359.974	7.241	43.209	1.34%	8.93%
12.0	354.980	7.815	51.025	1.45%	10.54%
13.0	349.553	8.361	59.386	1.55%	12.27%
14.0	344.040	8.878	68.264	1.65%	14.10%
15.0	338.063	9.364	77.628	1.74%	16.04%
16.0	331.366	9.809	87.437	1.82%	18.06%
17.0	325.335	10.227	97.663	1.90%	20.18%
18.0	318.775	10.620	108.283	1.97%	22.37%
19.0	311.983	10.974	119.257	2.04%	24.64%
20.0	305.275	11.298	130.555	2.10%	26.97%
21.0	298.451	11.593	142.148	2.15%	29.37%
22.0	292.262	11.871	154.018	2.20%	31.82%
23.0	285.522	12.123	166.142	2.25%	34.32%
24.0	278.148	12.324	178.466	2.29%	36.87%
25.0	271.546	12.499	190.964	2.32%	39.45%
26.0	264.532	12.654	203.619	2.35%	42.07%
27.0	256.967	12.759	216.377	2.37%	44.70%
28.0	249.625	12.826	229.203	2.38%	47.35%
29.0	241.859	12.859	242.062	2.39%	50.01%
30.0	234.453	12.860	254.922	2.39%	52.66%
31.0	226.200	12.819	267.741	2.38%	55.31%
32.0	217.736	12.718	280.459	2.36%	57.94%
33.0	209.389	12.583	293.043	2.33%	60.54%
34.0	200.819	12.414	305.457	2.30%	63.10%
35.0	191.318	12.178	317.635	2.26%	65.62%
36.0	181.521	11.871	329.506	2.20%	68.07%
37.0	170.952	11.496	341.002	2.13%	70.45%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	159.832	11.041	352.043	2.05%	72.73%
39.0	148.586	10.527	362.57	1.95%	74.90%
40.0	135.953	9.924	372.494	1.84%	76.95%
41.0	124.505	9.275	381.769	1.72%	78.87%
42.0	113.894	8.661	390.43	1.61%	80.66%
43.0	101.748	7.988	398.418	1.48%	82.31%
44.0	91.422	7.291	405.709	1.35%	83.82%
45.0	80.704	6.615	412.324	1.23%	85.18%
46.0	71.531	5.954	418.278	1.10%	86.41%
47.0	62.866	5.345	423.623	0.99%	87.52%
48.0	54.529	4.746	428.369	0.88%	88.50%
49.0	47.462	4.188	432.557	0.78%	89.36%
50.0	41.770	3.720	436.277	0.69%	90.13%
51.0	36.311	3.303	439.581	0.61%	90.81%
52.0	32.089	2.935	442.516	0.54%	91.42%
53.0	28.735	2.646	445.162	0.49%	91.97%
54.0	25.953	2.410	447.572	0.45%	92.46%
55.0	23.826	2.222	449.794	0.41%	92.92%
56.0	21.879	2.065	451.86	0.38%	93.35%
57.0	20.134	1.921	453.781	0.36%	93.75%
58.0	18.864	1.803	455.584	0.33%	94.12%
59.0	17.679	1.708	457.292	0.32%	94.47%
60.0	16.589	1.619	458.911	0.30%	94.81%
61.0	15.595	1.536	460.447	0.28%	95.12%
62.0	14.749	1.462	461.909	0.27%	95.43%
63.0	14.008	1.399	463.308	0.26%	95.71%
64.0	13.288	1.339	464.647	0.25%	95.99%
65.0	12.558	1.279	465.927	0.24%	96.26%
66.0	11.998	1.225	467.152	0.23%	96.51%
67.0	11.416	1.177	468.329	0.22%	96.75%
68.0	10.897	1.130	469.459	0.21%	96.99%
69.0	10.421	1.088	470.547	0.20%	97.21%
70.0	9.977	1.048	471.595	0.19%	97.43%
71.0	9.596	1.012	472.606	0.19%	97.64%
72.0	9.215	0.978	473.584	0.18%	97.84%
73.0	8.824	0.943	474.528	0.18%	98.03%
74.0	8.464	0.909	475.436	0.17%	98.22%
75.0	8.168	0.879	476.315	0.16%	98.40%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	7.882	0.852	477.167	0.16%	98.58%
77.0	7.618	0.826	477.994	0.15%	98.75%
78.0	7.364	0.802	478.796	0.15%	98.91%
79.0	7.057	0.775	479.57	0.14%	99.07%
80.0	6.697	0.742	480.312	0.14%	99.23%
81.0	6.158	0.695	481.007	0.13%	99.37%
82.0	5.734	0.645	481.652	0.12%	99.50%
83.0	5.174	0.593	482.245	0.11%	99.63%
84.0	4.528	0.529	482.773	0.10%	99.74%
85.0	3.534	0.440	483.213	0.08%	99.83%
86.0	2.666	0.339	483.552	0.06%	99.90%
87.0	1.703	0.239	483.791	0.04%	99.95%
88.0	0.889	0.142	483.933	0.03%	99.98%
89.0	0.455	0.074	484.007	0.01%	99.99%
90.0	0.339	0.044	484.051	0.01%	100.00%

Zonal flux distribution table

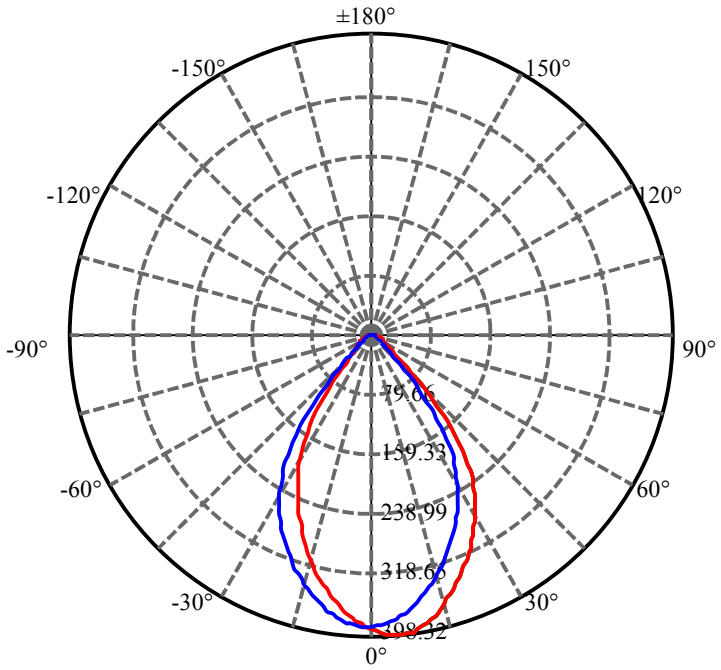
ZONAL LUMEN SUMMARY

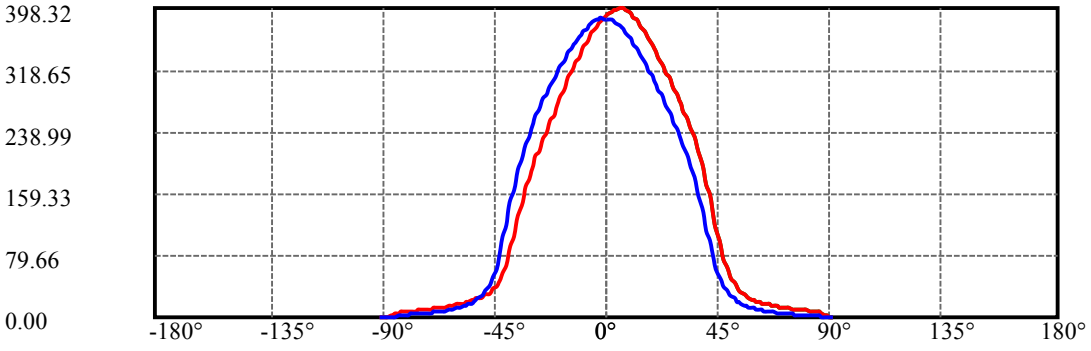
Zone	Lumens	%Lamp	%Fixt
0-30	254.92	47.30%	52.66%
0-40	372.49	69.11%	76.95%
0-60	458.91	85.14%	94.81%
0-90	484.01	89.80%	99.99%
0-120	484.01	89.80%	99.99%
0-180	484.05	89.81%	100.00%
60-90	25.10	4.66%	5.18%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-41.63	387.24	71.84%	80.00%

ZONAL LUMEN SUMMARY

0-10	35.97
10-20	94.59
20-30	124.37
30-40	117.57
40-50	63.78
50-60	22.63
60-70	12.68
70-80	8.72
80-90	3.70
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):

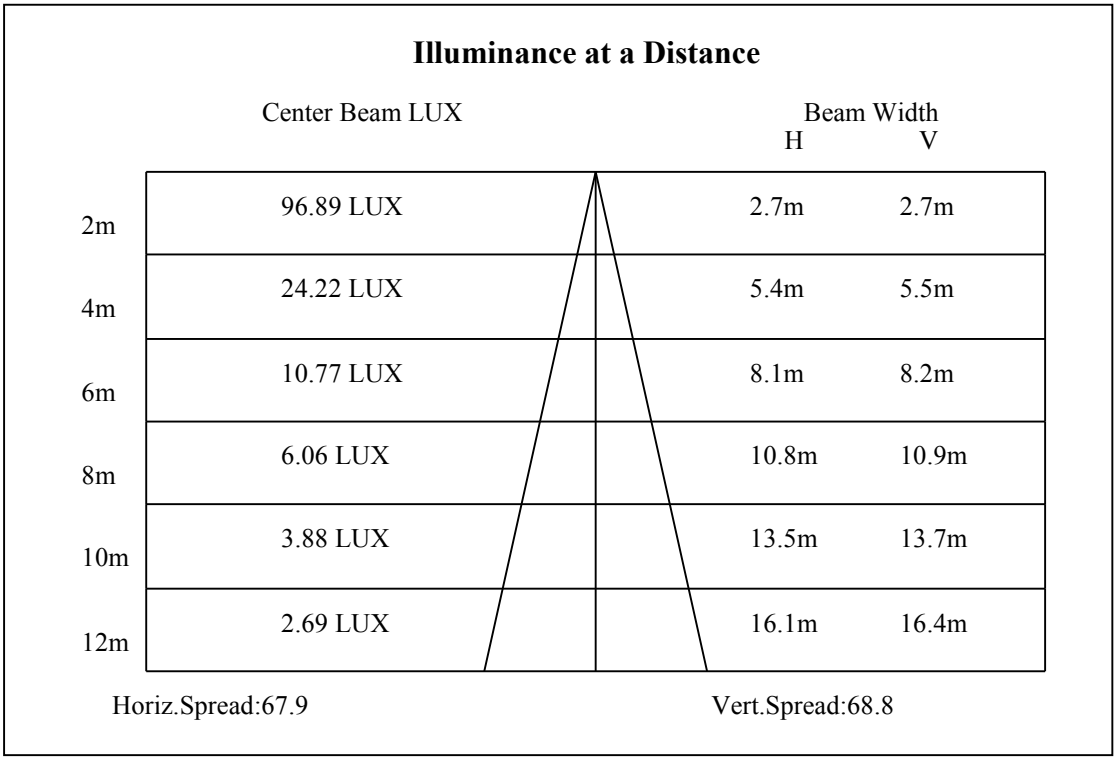
C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:53.3 Right:43.3
:C90/270Left:51.5 Right:43.5

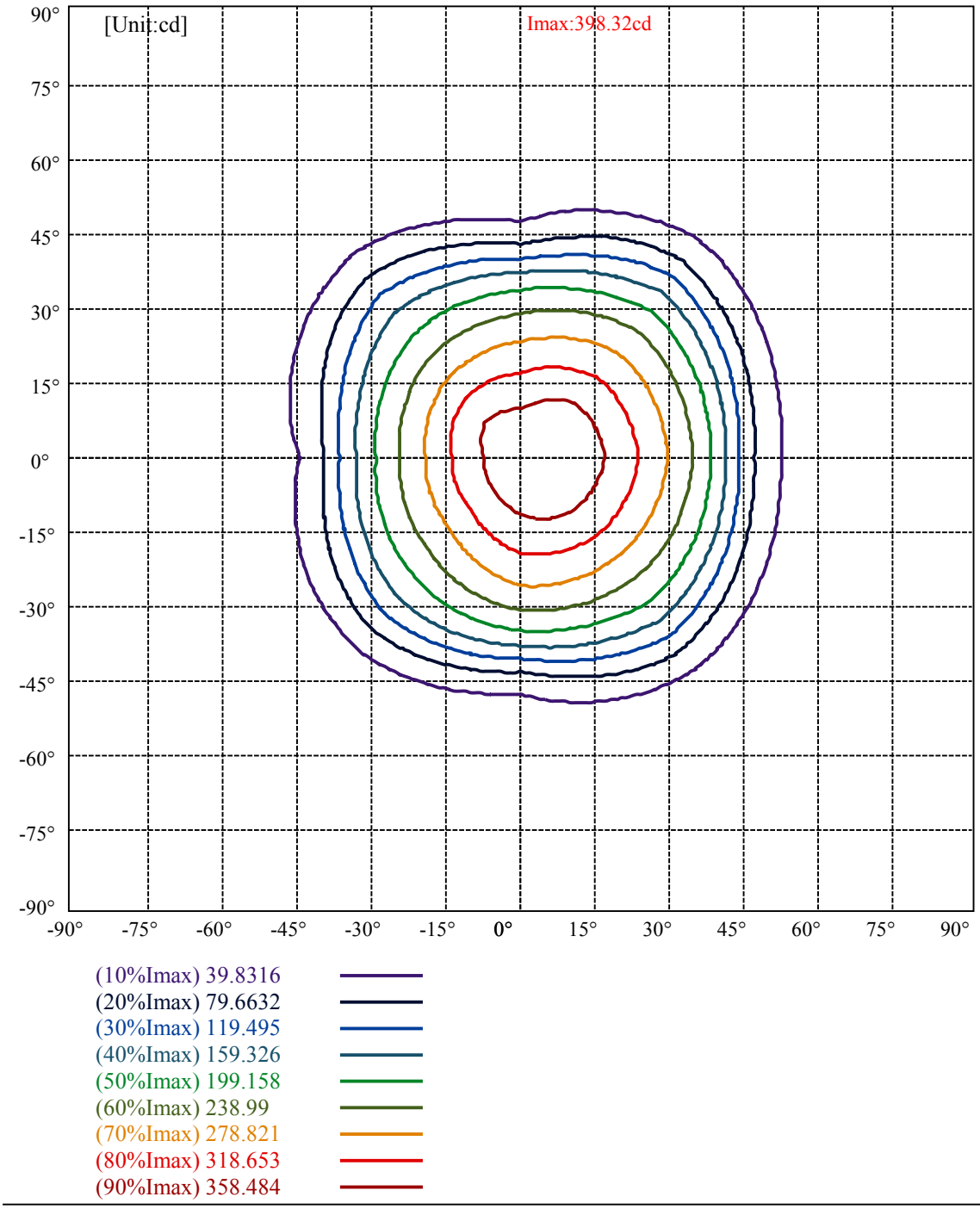
Beam Angle(50%Imax):C0/180Left:37.5 Right:28.8
:C90/270Left:39.3 Right:30.3

Lux distance Curve



Equipment: GMS1980 Date: 2026/10/27 Operator: Z J W
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 9.20

ISO-Intensity(V-H)



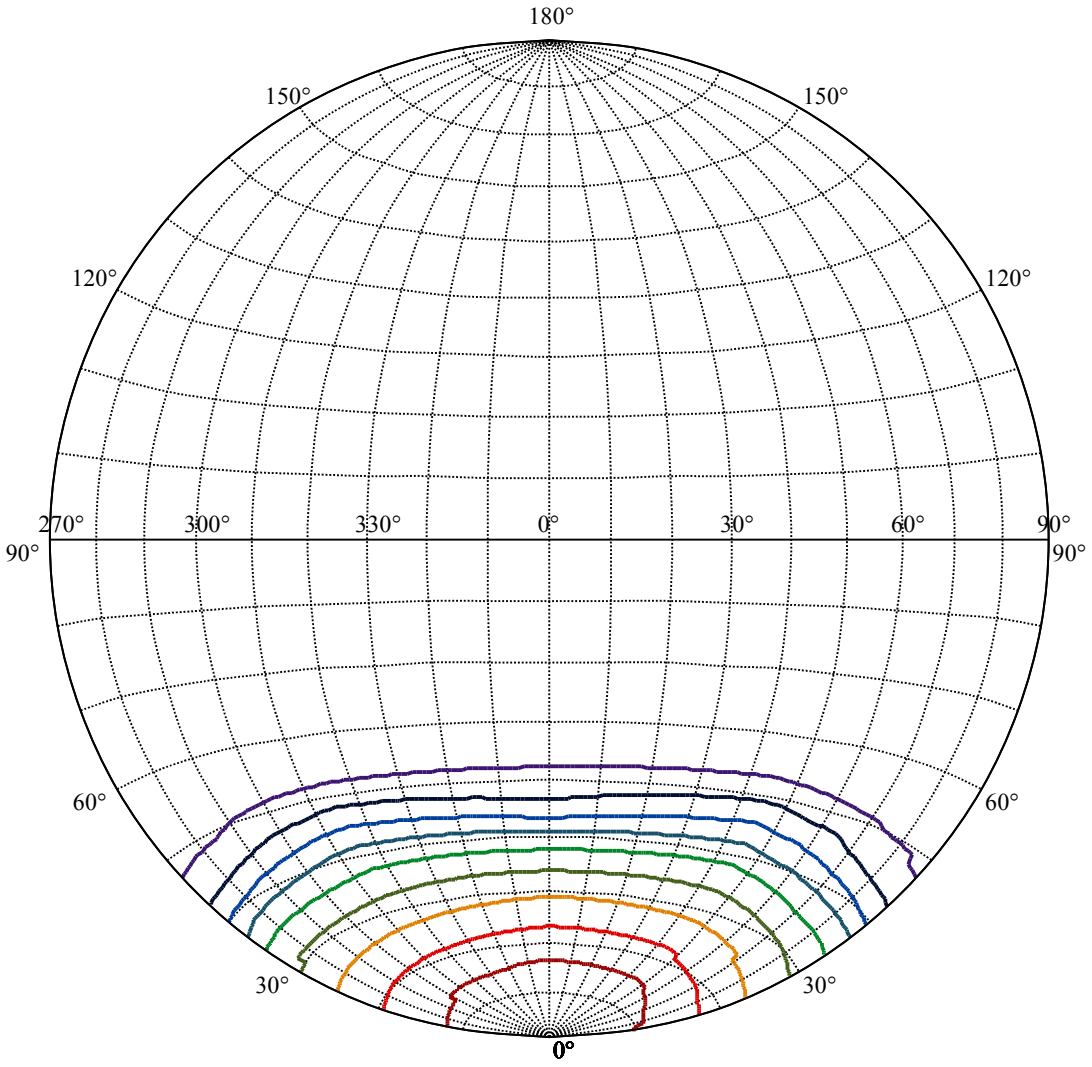
(10%Imax) 39.8316
(20%Imax) 79.6632
(30%Imax) 119.495
(40%Imax) 159.326
(50%Imax) 199.158
(60%Imax) 238.99
(70%Imax) 278.821
(80%Imax) 318.653
(90%Imax) 358.484

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2026/10/27
Humidity(%): 60.0%

Operator: Z J W
Distance(m): 9.20

ISO candela diagram on circular web



House [Unit:cd] Road

Imax:398.32

(10%Imax) 39.7808
(20%Imax) 79.5616
(30%Imax) 119.342
(40%Imax) 159.123
(50%Imax) 198.904
(60%Imax) 238.685
(70%Imax) 278.466
(80%Imax) 318.246
(90%Imax) 358.027

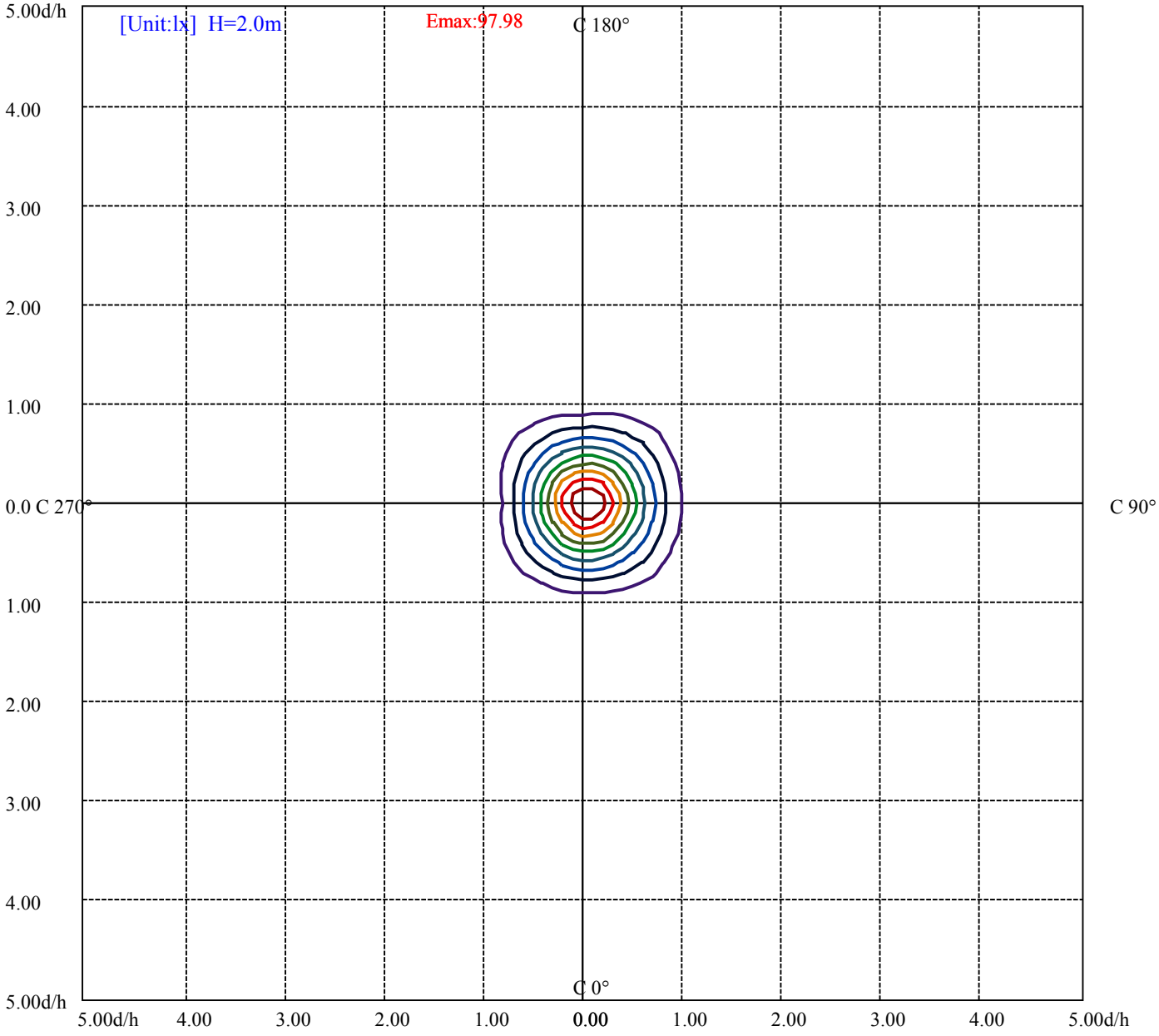
Equipment: GMS1980
Temperature(°C): 25.0

Date: 2026/10/27
Humidity(%): 60.0%

Operator: Z J W
Distance(m): 9.20

NT Nata 66-0025

ISO illuminance diagram

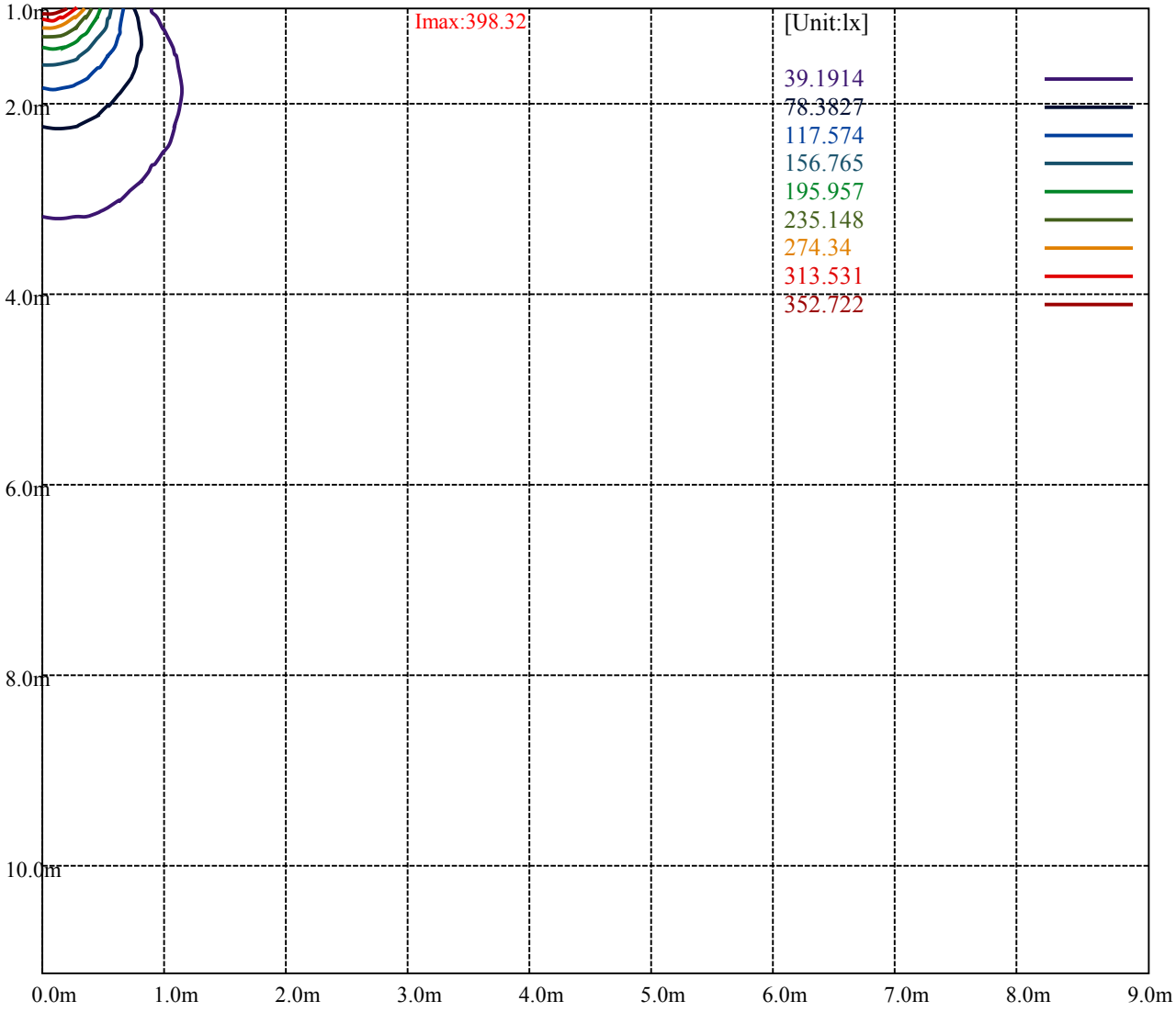


Equipment: GMS1980
Temperature(°C): 25.0

Date: 2026/10/27
Humidity(%): 60.0%

Operator: Z J W
Distance(m): 9.20

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 25.0

Date: 2026/10/27
Humidity(%): 60.0%

Operator: Z J W
Distance(m): 9.20

Luminance Limitting Curve(no luminous side)

Luminance Table

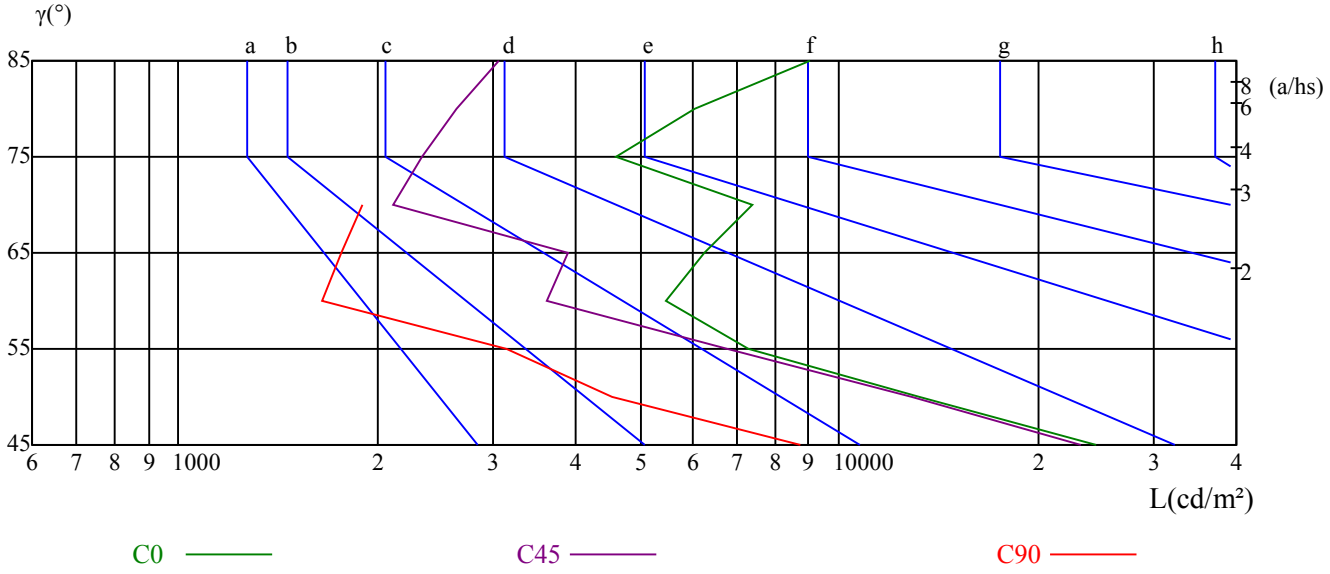
γ	45	50	55	60	65	70	75	80	85
C0	24491	13269	7300	5456	6261	7412	4583	6065	9063
C45	23313	12936	6795	3607	3875	2111	2338	2641	3063
C90	8769	4528	3145	1654	1759	1894	0	0	0

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
7418	3709	6490	6056	3028	6056	8992	0	8992

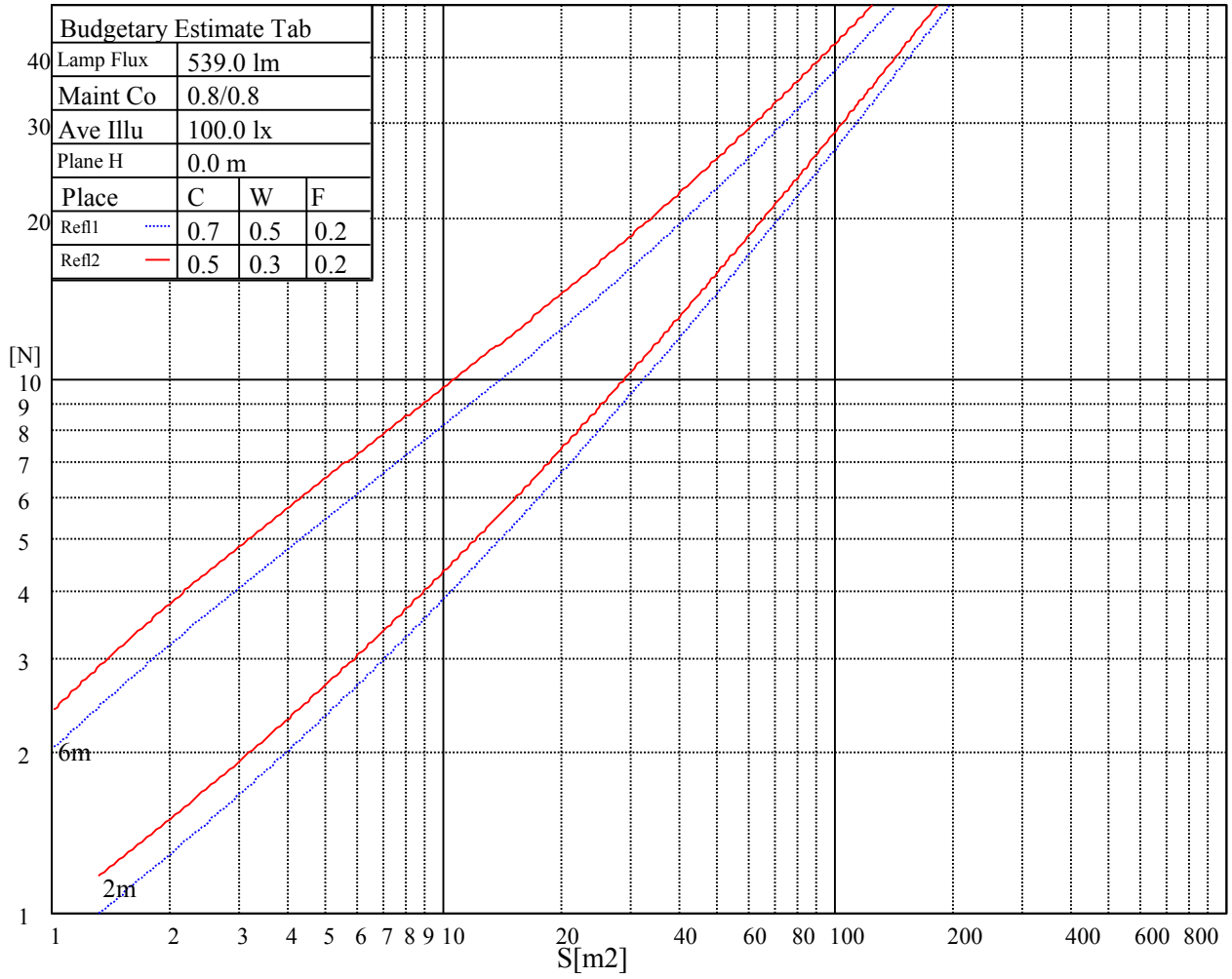
Glare Table

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
Temperature(°C): 25.0

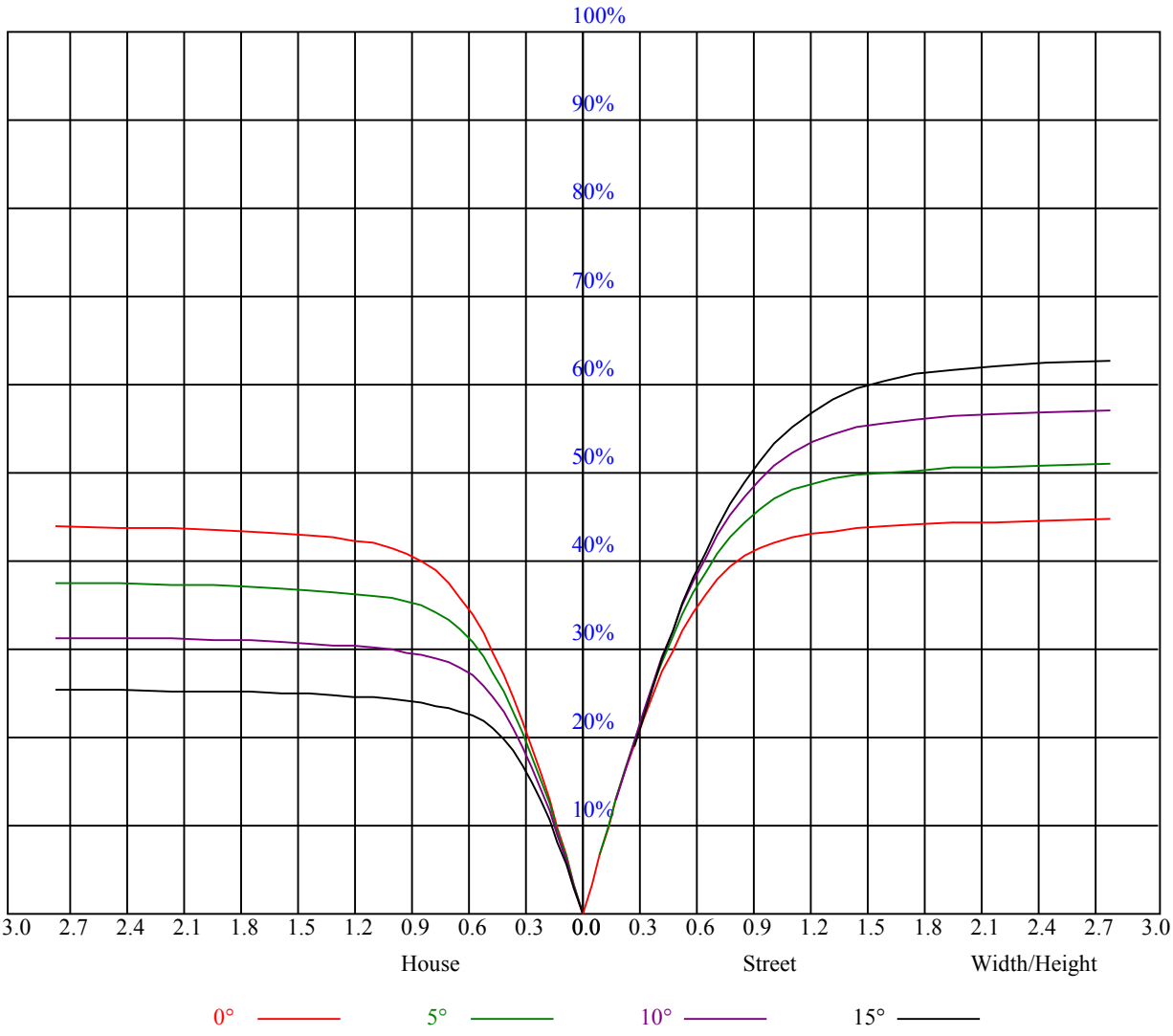
Date: 2026/10/27
Humidity(%): 60.0%

Operator: Z J W
Distance(m): 9.20

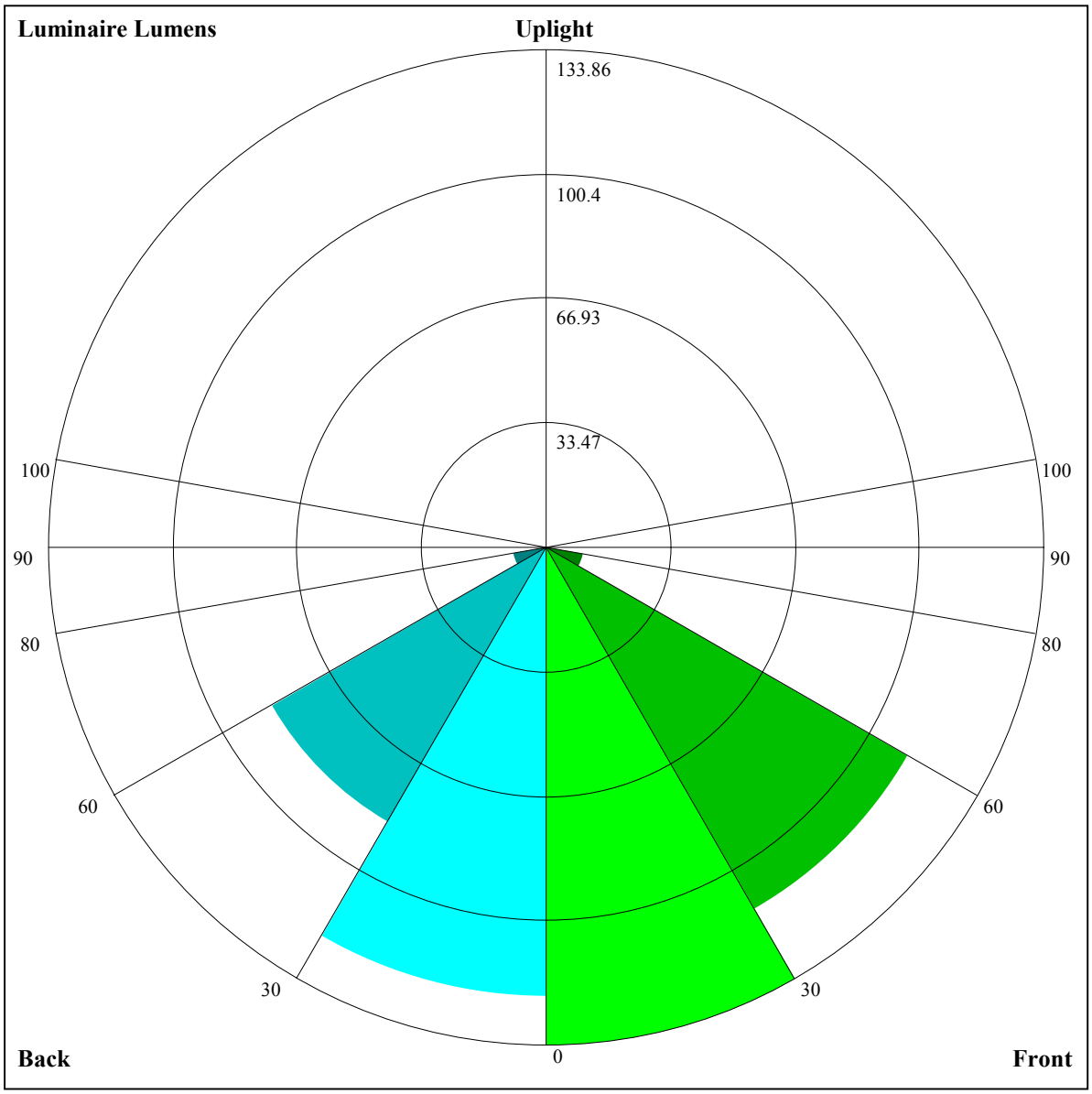
Utilization factor table for indoor luminaire

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	1.07	1.07	1.07	1.04	1.04	1.04	1.00	1.00	1.00	0.95	0.95	0.95	0.91	0.91	0.91	0.90
1	0.97	0.95	0.92	0.95	0.93	0.91	0.92	0.90	0.88	0.88	0.87	0.85	0.85	0.84	0.83	0.81
2	0.89	0.85	0.81	0.87	0.83	0.80	0.84	0.81	0.78	0.82	0.79	0.77	0.79	0.77	0.75	0.73
3	0.81	0.76	0.72	0.80	0.75	0.71	0.78	0.74	0.70	0.75	0.72	0.69	0.73	0.70	0.68	0.66
4	0.75	0.69	0.64	0.74	0.68	0.64	0.72	0.67	0.63	0.70	0.66	0.63	0.68	0.65	0.62	0.60
5	0.69	0.63	0.58	0.68	0.62	0.58	0.66	0.61	0.57	0.65	0.60	0.57	0.63	0.60	0.56	0.55
6	0.64	0.58	0.53	0.63	0.57	0.53	0.62	0.56	0.53	0.60	0.56	0.52	0.59	0.55	0.52	0.50
7	0.59	0.53	0.49	0.59	0.53	0.49	0.57	0.52	0.48	0.56	0.51	0.48	0.55	0.51	0.48	0.46
8	0.55	0.49	0.45	0.55	0.49	0.45	0.54	0.48	0.44	0.53	0.48	0.44	0.52	0.47	0.44	0.43
9	0.52	0.46	0.41	0.51	0.45	0.41	0.50	0.45	0.41	0.49	0.44	0.41	0.48	0.44	0.41	0.39
10	0.48	0.42	0.38	0.48	0.42	0.38	0.47	0.42	0.38	0.46	0.42	0.38	0.46	0.41	0.38	0.37

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2026/10/27	Operator: Z J W
Temperature(°C): 25.0	Humidity(%): 60.0%	Distance(m): 9.20



Luminaire Lumens:
FL=133.86,FM=112.52,FH=10.34,FVH=1.8
BL=120.86,BM=85.42,BH=9.23,BVH=1.45
UL=0,UH=0

BUG Rating:B1-U0-G0

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	387.57	391.21	393.75	395.86	397.05	398.32	398.23	397.38	396.03
45.0	387.99	389.51	390.61	390.95	390.70	389.94	388.75	387.14	385.03
90.0	384.52	383.84	382.32	381.05	379.02	376.06	373.26	370.13	365.64
135.0	392.14	389.94	388.16	385.79	382.74	379.44	375.97	371.57	367.42
180.0	387.57	384.94	381.90	378.51	373.52	369.37	365.39	359.04	353.63
225.0	387.99	386.21	383.59	380.63	377.41	374.28	368.78	363.70	358.62
270.0	384.52	384.69	384.77	383.84	382.66	380.96	378.76	375.29	372.16
315.0	392.14	393.32	394.34	394.76	394.76	394.68	393.58	391.71	389.17
360.0	387.57	391.21	393.75	395.86	397.05	398.32	398.23	397.38	396.03

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	393.58	390.02	386.47	382.66	378.93	372.67	367.93	362.60	357.52
45.0	383.17	380.54	376.48	373.09	369.71	365.48	360.65	354.56	349.06
90.0	361.67	357.52	351.76	346.77	341.10	336.27	329.33	323.75	317.57
135.0	363.19	358.54	353.46	346.18	340.08	333.74	325.69	318.92	311.64
180.0	348.12	340.59	334.92	329.16	322.22	315.62	308.77	300.22	292.85
225.0	352.53	345.42	339.74	334.07	326.29	320.02	313.59	305.30	298.78
270.0	368.78	364.21	359.97	354.98	350.66	346.01	341.27	335.01	329.84
315.0	385.54	380.88	376.99	372.92	367.42	362.51	357.27	350.58	345.42
360.0	393.58	390.02	386.47	382.66	378.93	372.67	367.93	362.60	357.52

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	351.43	346.09	340.68	333.31	327.73	321.80	315.11	309.36	301.57
45.0	342.28	336.53	330.94	323.66	318.08	312.15	304.70	298.86	293.36
90.0	311.90	305.13	299.46	292.18	286.25	280.07	272.12	265.43	258.83
135.0	302.67	295.56	286.76	279.65	272.54	265.68	257.31	249.52	242.24
180.0	285.58	277.62	268.56	260.95	254.00	246.47	237.75	230.22	221.42
225.0	292.01	283.71	277.37	270.93	264.50	256.54	249.86	243.17	236.40
270.0	324.51	318.75	311.73	305.89	300.22	294.72	287.61	281.51	274.74
315.0	339.83	332.47	326.71	321.04	314.78	306.74	300.73	294.29	287.69
360.0	351.43	346.09	340.68	333.31	327.73	321.80	315.11	309.36	301.57

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	295.14	287.78	280.75	274.06	264.92	257.90	250.37	241.22	232.93
45.0	287.27	279.48	273.05	266.70	259.93	251.80	244.69	237.33	227.85
90.0	250.62	243.34	236.06	228.78	219.05	210.92	202.20	193.06	180.11
135.0	235.21	226.75	219.73	212.87	204.32	197.80	191.29	183.25	177.15
180.0	213.63	206.61	196.45	187.56	177.83	167.84	154.13	143.21	130.85
225.0	228.10	221.33	213.55	206.94	200.34	191.54	184.43	177.24	170.38
270.0	266.19	259.17	249.52	241.22	232.84	222.10	212.87	202.71	191.54
315.0	279.57	272.54	265.77	257.47	250.37	241.99	235.13	228.53	219.73
360.0	295.14	287.78	280.75	274.06	264.92	257.90	250.37	241.22	232.93

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	223.11	212.36	197.63	185.19	170.21	157.52	144.40	126.96	112.74
45.0	220.40	210.58	202.37	193.83	184.77	173.09	163.69	153.71	142.96
90.0	168.86	157.09	142.11	128.57	111.64	98.44	85.82	74.23	61.79
135.0	171.14	163.02	155.48	146.94	138.30	127.55	118.67	109.69	99.79
180.0	119.26	103.51	90.56	79.65	66.27	57.64	50.70	43.67	39.36
225.0	160.90	152.44	143.72	132.12	122.22	112.15	102.50	90.06	80.15
270.0	176.14	164.03	150.66	137.37	118.16	103.18	88.96	73.30	62.80
315.0	212.36	204.57	196.11	185.02	176.05	166.49	156.41	142.36	131.78
360.0	223.11	212.36	197.63	185.19	170.21	157.52	144.40	126.96	112.74

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	99.20	86.93	73.47	64.50	56.88	50.53	43.76	39.61	35.13
45.0	129.25	118.33	106.39	92.00	80.49	70.08	58.40	50.61	44.27
90.0	53.15	45.87	39.78	33.77	29.79	26.49	23.70	20.99	19.13
135.0	87.43	77.95	68.14	57.39	49.51	43.17	36.73	32.92	29.29
180.0	36.14	33.01	30.72	29.12	27.51	25.90	24.71	23.61	22.60
225.0	67.54	58.49	50.28	41.81	36.48	32.25	28.78	25.65	23.70
270.0	52.14	45.20	39.44	34.53	29.62	26.32	23.61	21.33	19.04
315.0	120.78	106.48	94.71	83.12	69.40	59.42	50.78	41.98	36.73
360.0	99.20	86.93	73.47	64.50	56.88	50.53	43.76	39.61	35.13

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	32.16	29.62	26.92	24.97	23.28	21.75	20.31	19.38	18.54
45.0	37.58	33.43	29.96	26.32	24.21	22.26	20.74	19.04	17.86
90.0	17.18	15.83	14.64	13.29	12.44	11.51	10.75	9.82	9.14
135.0	27.00	25.14	23.61	21.92	20.74	19.72	18.71	17.52	16.67
180.0	21.33	20.31	19.38	18.37	17.61	16.67	16.08	15.40	14.64
225.0	22.18	20.74	19.30	18.20	17.27	16.42	15.32	14.56	13.80
270.0	17.52	16.17	14.98	13.71	12.78	11.85	11.17	10.50	9.73
315.0	32.67	29.37	26.24	24.29	22.60	21.24	19.64	18.54	17.61
360.0	32.16	29.62	26.92	24.97	23.28	21.75	20.31	19.38	18.54

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	17.77	16.84	16.17	15.49	14.90	14.22	13.54	13.03	12.53
45.0	16.84	15.91	14.81	14.13	13.20	12.61	12.02	11.34	10.92
90.0	8.55	7.96	7.28	6.77	6.35	5.84	5.50	5.16	4.82
135.0	15.91	15.15	14.30	13.71	13.03	12.44	11.93	11.43	11.00
180.0	14.13	13.54	13.03	12.53	12.02	11.60	11.17	10.75	10.41
225.0	13.20	12.61	11.93	11.51	11.00	10.58	10.16	9.82	9.48
270.0	9.14	8.55	7.96	7.45	7.03	6.69	6.26	5.92	5.67
315.0	16.50	15.74	14.98	14.39	13.80	13.20	12.78	12.36	11.93
360.0	17.77	16.84	16.17	15.49	14.90	14.22	13.54	13.03	12.53

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	12.02	11.51	11.09	10.75	10.33	9.99	9.73	9.40	8.97
45.0	10.50	10.07	9.56	9.23	8.97	8.63	8.29	8.04	7.79
90.0	4.49	4.15	3.89	3.64	3.47	3.22	3.05	2.79	2.62
135.0	10.58	10.24	9.73	9.48	9.23	8.97	8.63	8.38	8.21
180.0	10.07	9.65	9.31	8.97	8.55	8.29	7.96	7.62	7.36
225.0	9.14	8.80	8.55	8.29	8.04	7.79	7.62	7.19	6.52
270.0	5.42	5.08	4.82	4.49	4.32	4.15	3.98	3.64	3.13
315.0	11.51	11.09	10.75	10.50	10.16	9.90	9.65	9.40	8.97
360.0	12.02	11.51	11.09	10.75	10.33	9.99	9.73	9.40	8.97

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	8.63	8.21	7.87	7.53	7.03	4.49	2.29	1.44	0.85
45.0	7.45	7.28	7.03	6.77	6.35	5.76	4.57	2.20	1.18
90.0	2.37	2.20	1.86	1.44	1.27	1.02	0.68	0.42	0.17
135.0	8.04	7.87	7.53	7.36	6.86	5.92	3.89	1.86	1.02
180.0	7.11	6.69	6.01	4.66	2.20	1.27	0.76	0.59	0.17
225.0	5.50	4.91	3.98	3.05	1.44	0.85	0.34	0.08	0.08
270.0	1.86	1.61	1.27	1.02	0.76	0.59	0.34	0.17	0.08
315.0	8.29	7.11	5.84	4.40	2.37	1.44	0.76	0.34	0.08
360.0	8.63	8.21	7.87	7.53	7.03	4.49	2.29	1.44	0.85

Intensity data(cd)

C/γ(°)	90.0
0.0	1.10
45.0	0.59
90.0	0.08
135.0	0.51
180.0	0.17
225.0	0.08
270.0	0.08
315.0	0.08
360.0	1.10