AFX

Client:
LumCAT: ELZV2402LAJD4LB
Luminaire: LED Lamp
Report No:
Ballast type:

Test No:	Voltage(V): 119.990
LampCAT:	Current(A): 0.139
Lamp flux(lm): 1546.1	Power (W): 16.400
Number of Lamps: 1	PF: 0.986
Length(mm): 600	Width(mm): 15
Phm Type: C	Height(mm): 10

Photometric Results

Lumens(lm): 1546.12, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 94.28
Central intensity(cd): 376.368, Maximum intensity(cd): 444.223
Angle of maximum intensity: C=90.0 γ=30.0
Beam Angle(50%Imax): [C0/180]Total=108.4
[C90/270]Total=121.5
Field angle(10%Imax): [C0/180]Total=159.6
[C90/270]Total=233.1
Maximum s/h(1/2): C0_180=1.23 C90_270=1.74
Maximum s/h(1/4): C0_180=1.35 C90_270=1.84
Up flux rate of lamp(%): 15.80%
Down flux rate of lamp(%): 84.20%
Up flux rate of LUM(%): 15.80%
Down flux rate of LUM(%): 84.20%
CIE Type : Semidirect lighting
Output flux ratio in π solid angle : 56.428%

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Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	376.368	0.000	0	0.00%	0.00%
5.0	373.986	8.970	8.97	0.58%	0.58%
10.0	367.630	26.530	35.5	1.72%	2.30%
15.0	356.858	42.976	78.476	2.78%	5.08%
20.0	344.340	57.789	136.265	3.74%	8.81%
25.0	329.025	70.624	206.889	4.57%	13.38%
30.0	313.826	81.353	288.242	5.26%	18.64%
35.0	297.091	89.962	378.204	5.82%	24.46%
40.0	280.026	96.288	474.491	6.23%	30.69%
45.0	260.486	100.080	574.571	6.47%	37.16%
50.0	240.391	101.210	675.781	6.55%	43.71%
55.0	219.507	99.997	775.778	6.47%	50.18%
60.0	198.710	96.670	872.448	6.25%	56.43%
65.0	177.042	91.346	963.794	5.91%	62.34%
70.0	156.005	84.330	1048.123	5.45%	67.79%
75.0	135.531	76.203	1124.326	4.93%	72.72%
80.0	116.850	67.530	1191.856	4.37%	77.09%
85.0	100.287	59.001	1250.857	3.82%	80.90%
90.0	85.626	50.904	1301.762	3.29%	84.20%
95.0	73.576	43.591	1345.353	2.82%	87.01%
100.0	63.992	37.381	1382.733	2.42%	89.43%
105.0	55.415	31.950	1414.683	2.07%	91.50%
110.0	48.036	27.041	1441.724	1.75%	93.25%
115.0	41.369	22.638	1464.362	1.46%	94.71%
120.0	35.635	18.720	1483.081	1.21%	95.92%
125.0	30.426	15.270	1498.351	0.99%	96.91%
130.0	25.853	12.237	1510.588	0.79%	97.70%
135.0	21.843	9.638	1520.225	0.62%	98.33%
140.0	18.316	7.436	1527.661	0.48%	98.81%
145.0	15.655	5.668	1533.329	0.37%	99.17%
150.0	13.293	4.263	1537.592	0.28%	99.45%
155.0	11.454	3.132	1540.723	0.20%	99.65%
160.0	9.879	2.237	1542.961	0.14%	99.80%
165.0	8.755	1.536	1544.497	0.10%	99.90%
170.0	7.593	0.970	1545.466	0.06%	99.96%
175.0	7.067	0.524	1545.991	0.03%	99.99%
180.0	3.590	0.127	1546.118	0.01%	100.00%

Zonal flux distribution table

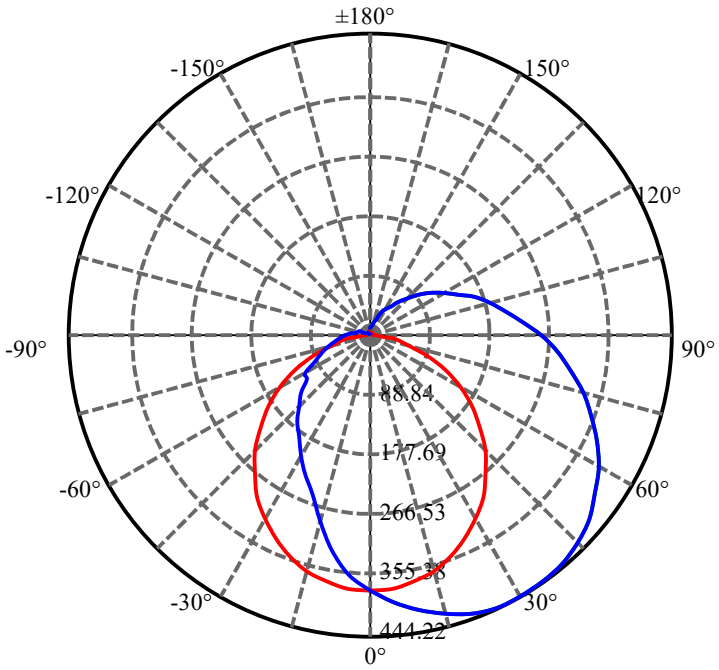
ZONAL LUMEN SUMMARY

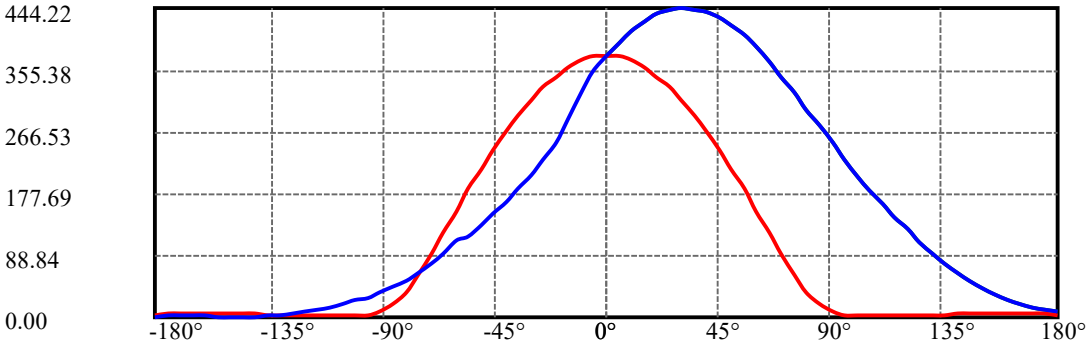
Zone	Lumens	%Lamp	%Fixt
0-30	288.24	18.64%	18.64%
0-40	474.49	30.69%	30.69%
0-60	872.45	56.43%	56.43%
0-90	1301.76	84.20%	84.20%
0-120	1483.08	95.92%	95.92%
0-180	1546.12	100.00%	100.00%
60-90	429.31	27.77%	27.77%
90-120	181.32	11.73%	11.73%
90-130	208.83	13.51%	13.51%
90-150	235.83	15.25%	15.25%
90-180	244.23	15.80%	15.80%
0-83.82	1236.89	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	35.50
10-20	100.76
20-30	151.98
30-40	186.25
40-50	201.29
50-60	196.67
60-70	175.68
70-80	143.73
80-90	109.91
90-100	80.97
100-110	58.99
110-120	41.36
120-130	27.51
130-140	17.07
140-150	9.93
150-160	5.37
160-170	2.51
170-180	0.52

Light Distribution Curve [Unit:cd]





C90(Max):

C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:79.8 Right:79.8
:C90/270Left:114.4 Right:118.7

Beam Angle(50%Imax):C0/180Left:54.2 Right:54.2
:C90/270Left:55.8 Right:65.7

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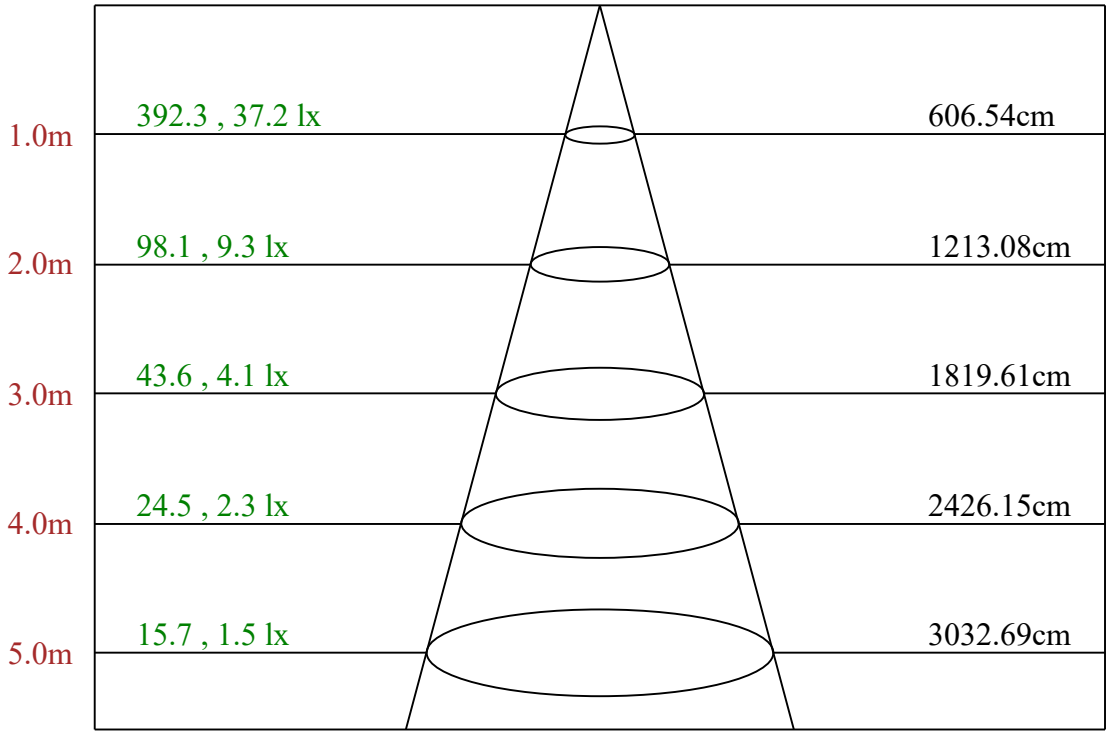
Lux distance Curve



Max , Ave

Beam angle of C90 plane 143.50

Equipment: LC-I-902 GMS-2000
Temperature(°C): 25.2

Date: 2025/8/8
Humidity(%): 60.2%

Operator: JUN WANG
Distance(m): 29.95

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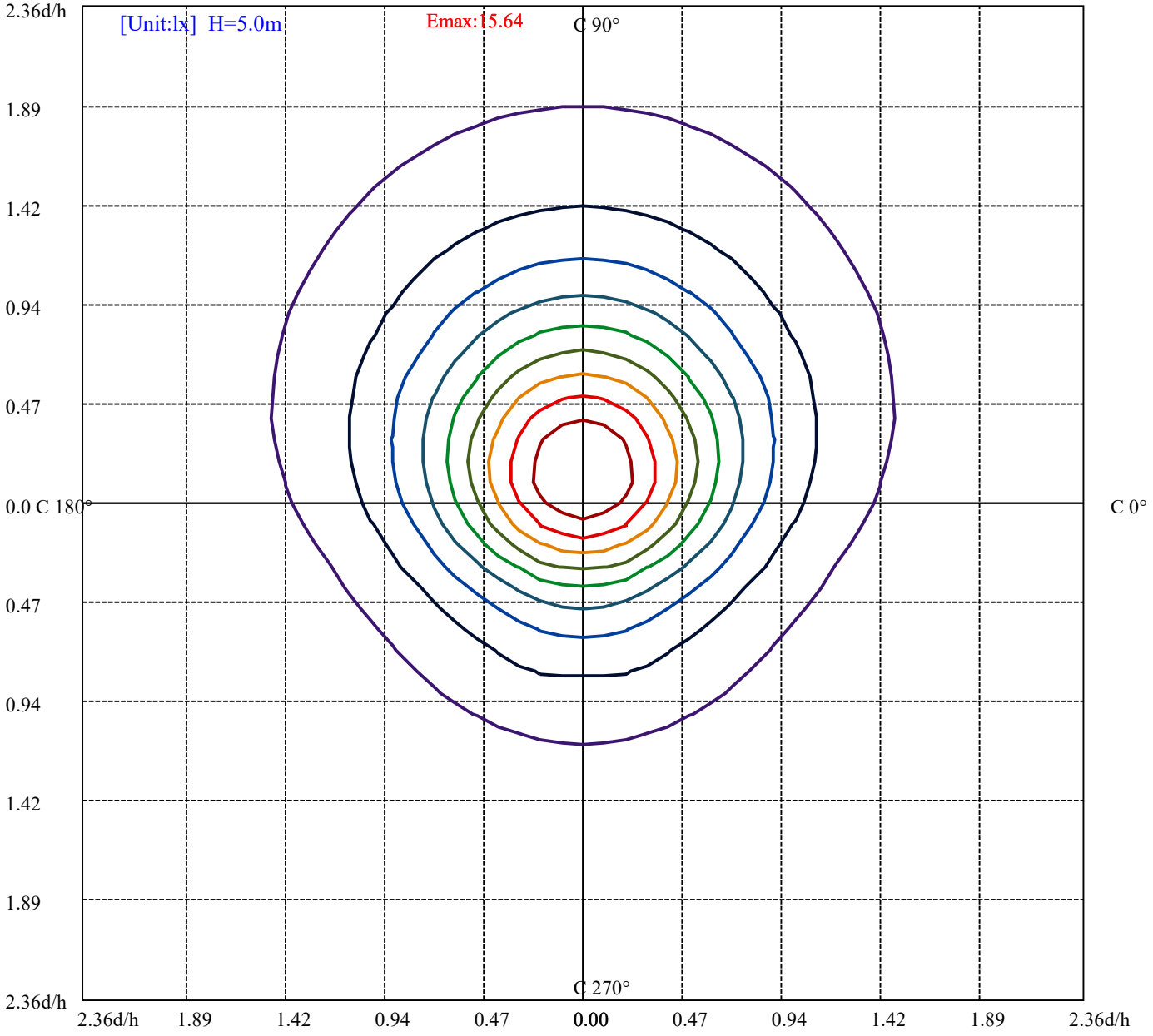
ISO illuminance diagram

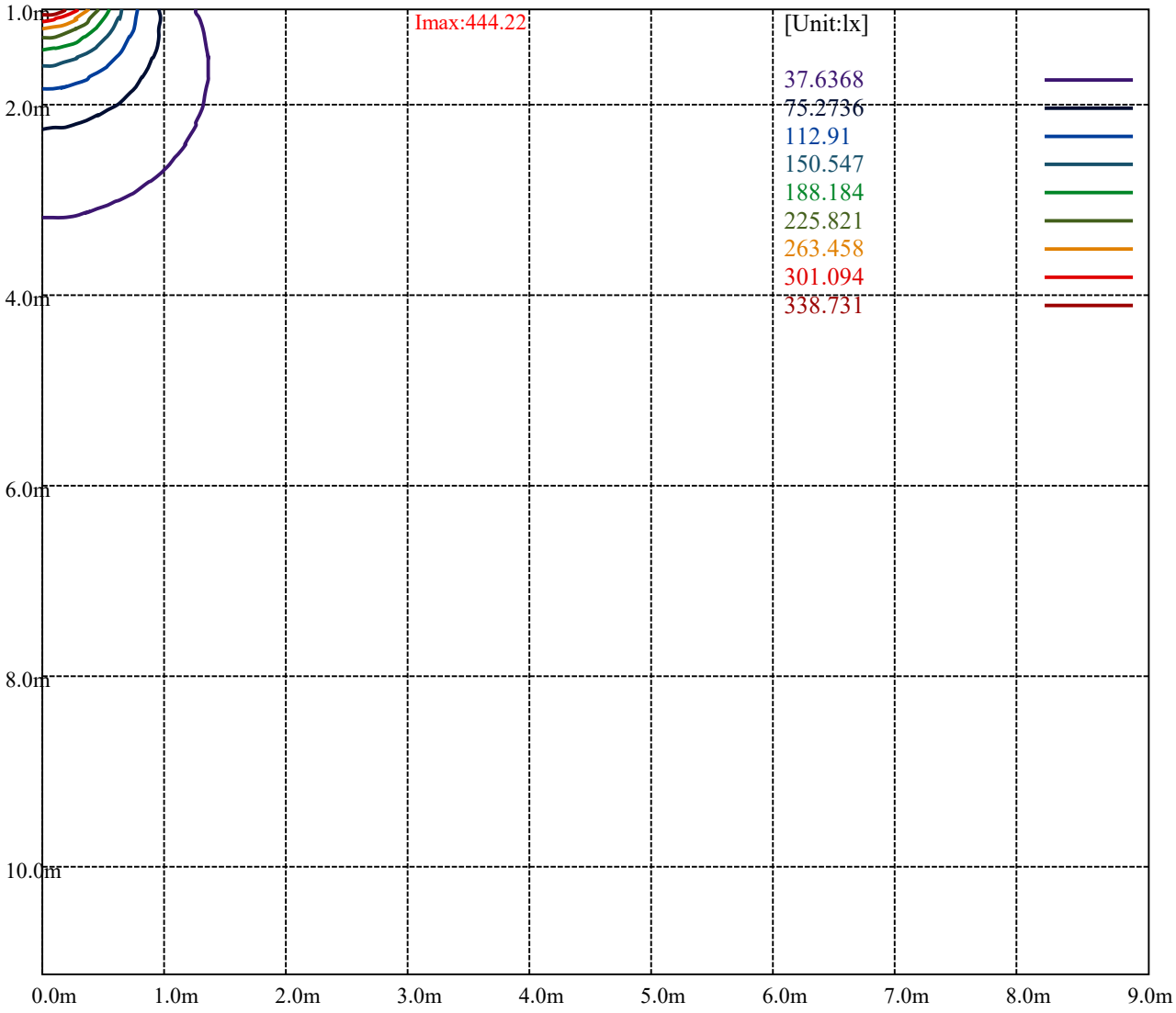


Equipment: LC-I-902 GMS-2000
Temperature(°C): 25.2

Date: 2025/8/8
Humidity(%): 60.2%

Operator: JUN WANG
Distance(m): 29.95

Space ISO Lux diagram



Equipment: LC-I-902 GMS-2000
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Date: 2025/8/8
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Operator: JUN WANG
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Luminance Limitting Curve(no luminous side)

Luminance Table

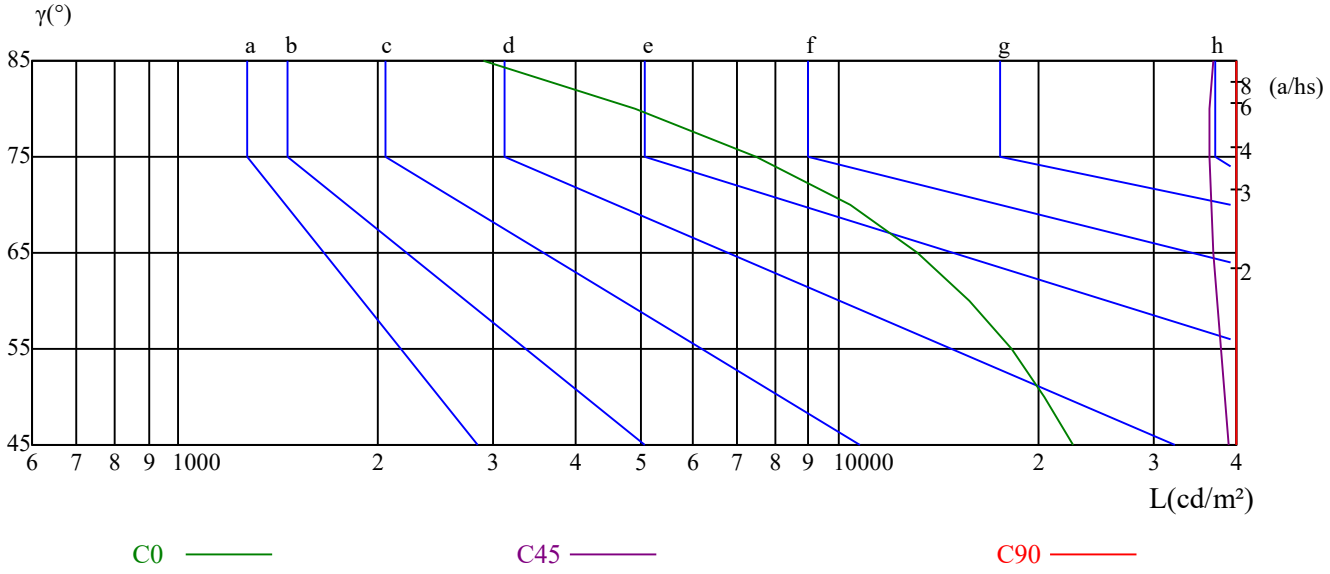
γ	45	50	55	60	65	70	75	80	85
C0	22638	20436	18234	15792	13159	10438	7484	4930	2888
C45	38998	38429	37966	37385	36975	36682	36368	36445	36944
C90	66701	71305	76692	83831	93470	107360	130905	174541	295495

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
31972	60298	46930	26103	83118	60988	24896	203575	137493

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: LC-I-902 GMS-2000
Temperature(°C): 25.2

Date: 2025/8/8
Humidity(%): 60.2%

Operator: JUN WANG
Distance(m): 29.95

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	1.15	1.15	1.15	1.11	1.11	1.11	1.02	1.02	1.02	0.95	0.95	0.95	0.88	0.88	0.88	0.84
1	0.96	0.91	0.86	0.93	0.88	0.84	0.85	0.82	0.78	0.79	0.76	0.73	0.73	0.70	0.68	0.65
2	0.83	0.75	0.68	0.79	0.72	0.66	0.73	0.67	0.62	0.67	0.63	0.59	0.62	0.58	0.55	0.52
3	0.72	0.63	0.56	0.69	0.61	0.54	0.64	0.57	0.51	0.59	0.53	0.48	0.54	0.50	0.46	0.43
4	0.63	0.54	0.47	0.61	0.52	0.45	0.56	0.49	0.43	0.52	0.46	0.41	0.48	0.43	0.39	0.36
5	0.56	0.47	0.40	0.54	0.45	0.39	0.50	0.43	0.37	0.46	0.40	0.35	0.43	0.38	0.33	0.31
6	0.50	0.41	0.34	0.49	0.40	0.34	0.45	0.38	0.32	0.42	0.35	0.30	0.39	0.33	0.29	0.27
7	0.45	0.36	0.30	0.44	0.35	0.29	0.41	0.33	0.28	0.38	0.32	0.27	0.35	0.30	0.26	0.23
8	0.41	0.33	0.27	0.40	0.32	0.26	0.37	0.30	0.25	0.35	0.29	0.24	0.32	0.27	0.23	0.21
9	0.38	0.29	0.24	0.37	0.29	0.23	0.34	0.27	0.22	0.32	0.26	0.21	0.30	0.25	0.21	0.19
10	0.35	0.27	0.21	0.34	0.26	0.21	0.32	0.25	0.20	0.30	0.24	0.19	0.28	0.22	0.19	0.17

Intensity data(cd)

C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	376.37	379.03	377.26	371.04	362.17	349.74	333.76	316.01	293.82
15.0	376.37	384.43	387.12	387.12	383.54	376.37	366.51	351.28	335.15
30.0	376.37	388.05	397.03	403.32	405.11	402.42	397.03	386.25	373.67
45.0	376.37	390.71	403.25	414.00	420.28	421.17	418.49	412.21	402.36
60.0	376.37	393.39	409.52	422.07	431.03	435.51	435.51	431.03	424.76
75.0	376.37	393.52	411.57	425.11	435.03	440.45	443.16	442.25	437.74
90.0	376.37	394.46	410.75	425.22	436.08	442.41	444.22	442.41	438.79
105.0	376.37	392.65	408.94	421.60	429.75	434.27	435.18	432.46	426.13
120.0	376.37	389.87	402.48	411.48	417.79	418.69	416.89	409.68	400.68
135.0	376.37	378.13	386.06	391.35	393.11	389.59	384.30	374.61	363.15
150.0	376.37	382.69	385.39	385.39	376.37	374.56	363.73	350.19	333.95
165.0	376.37	378.16	375.47	369.20	359.34	347.69	331.56	313.64	290.34
180.0	376.37	371.04	360.39	347.08	330.21	310.68	288.49	263.64	238.78
195.0	376.37	366.51	352.17	334.25	311.85	286.76	257.18	226.72	193.56
210.0	376.37	362.00	343.13	316.18	289.24	255.10	220.07	190.43	165.28
225.0	376.37	359.34	333.35	301.09	265.25	231.20	206.11	181.02	159.51
240.0	376.37	354.86	325.29	288.55	250.02	222.24	199.83	178.33	158.61
255.0	376.37	354.71	321.31	283.40	247.30	223.84	201.27	183.22	163.36
270.0	376.37	353.75	322.99	283.18	249.71	225.28	205.37	184.57	165.57
285.0	376.37	356.46	326.61	290.42	254.23	228.90	208.09	188.18	183.66
300.0	376.37	358.36	333.15	300.73	291.73	234.10	211.59	189.98	170.18
315.0	376.37	355.21	334.06	310.26	279.41	246.80	217.71	193.91	171.88
330.0	376.37	366.44	352.90	332.14	311.38	284.31	254.52	222.03	190.44
345.0	376.37	371.89	362.93	350.38	334.25	314.54	291.24	266.15	239.26
360.0	376.37	379.03	377.26	371.04	362.17	349.74	333.76	316.01	293.82

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	270.74	244.99	217.48	188.18	158.00	127.82	96.75	65.69	37.28
15.0	315.43	292.13	267.94	242.85	215.07	184.60	153.24	123.66	96.78
30.0	356.61	336.84	316.18	291.03	265.88	237.14	211.99	184.14	158.09
45.0	389.81	372.78	353.97	333.35	310.95	286.76	260.77	236.57	210.59
60.0	414.90	401.46	384.43	364.72	343.21	321.70	299.30	273.31	248.22
75.0	430.52	417.89	403.44	386.30	365.54	344.78	321.31	296.94	272.57
90.0	431.56	420.70	405.32	388.13	368.23	345.61	323.89	298.56	275.94
105.0	416.18	403.51	387.22	370.03	351.04	329.32	304.89	283.18	257.85
120.0	387.17	372.77	355.66	335.85	313.34	290.83	269.22	244.01	221.50
135.0	346.40	327.89	308.50	284.70	261.78	238.87	214.19	189.51	167.47
150.0	314.09	291.53	267.16	241.89	214.81	187.73	159.75	134.48	110.11
165.0	268.83	244.64	219.55	189.08	160.40	129.04	97.68	68.10	45.70
180.0	209.49	179.31	150.01	118.06	85.22	54.15	24.85	7.99	1.78
195.0	159.51	129.94	103.05	77.96	54.66	35.84	21.51	11.65	7.17
210.0	141.92	116.77	97.01	77.25	59.28	44.91	33.24	25.15	17.97
225.0	138.90	118.29	100.36	83.34	69.00	55.56	45.70	35.84	27.78
240.0	140.69	122.77	105.74	92.30	77.96	66.31	54.66	45.70	36.74
255.0	145.31	129.07	111.92	99.28	85.74	74.01	60.47	57.76	42.42
270.0	149.28	132.09	114.90	111.28	90.47	76.00	63.33	51.57	43.43
285.0	149.28	133.00	113.09	102.23	87.76	72.38	59.71	48.86	41.62
300.0	150.37	131.46	112.55	94.54	82.84	69.33	54.02	43.22	35.12
315.0	150.72	130.45	110.18	90.79	72.28	60.82	47.60	34.38	25.56
330.0	164.27	139.90	116.43	93.87	73.11	53.25	39.71	27.98	17.15
345.0	209.69	179.22	146.07	112.01	82.44	57.35	34.95	16.13	8.07
360.0	270.74	244.99	217.48	188.18	158.00	127.82	96.75	65.69	37.28

Intensity data(cd)

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	14.20	2.66	1.78	1.78	2.66	2.66	3.55	3.55	4.44
15.0	71.69	51.97	38.53	29.57	23.30	19.71	17.03	15.23	14.34
30.0	133.84	111.38	94.32	79.05	66.47	55.69	46.71	39.52	34.13
45.0	185.50	163.09	142.48	124.56	108.43	92.30	78.86	67.21	56.46
60.0	223.13	199.83	178.33	159.51	139.79	121.87	105.74	90.51	76.17
75.0	247.30	222.03	200.37	177.80	158.85	140.80	122.75	105.60	88.45
90.0	250.61	225.28	202.66	182.76	162.85	142.95	125.76	107.66	92.28
105.0	233.42	209.90	189.09	168.28	149.28	132.09	114.90	98.62	84.14
120.0	198.09	177.38	156.67	139.56	122.45	107.15	91.84	79.24	67.53
135.0	147.20	127.81	111.06	96.08	83.74	71.40	61.70	52.89	44.95
150.0	90.26	74.01	62.28	51.45	43.32	37.00	31.59	27.98	24.37
165.0	27.78	18.82	14.34	11.65	10.75	9.86	9.86	9.86	8.96
180.0	1.78	0.89	1.78	1.78	1.78	2.66	2.66	2.66	3.55
195.0	3.58	2.69	1.79	1.79	0.90	0.90	0.90	0.90	0.90
210.0	11.68	8.08	5.39	4.49	2.69	2.69	1.80	0.90	0.90
225.0	20.61	16.13	12.55	8.96	6.27	4.48	4.48	2.69	1.79
240.0	28.68	23.30	21.51	14.34	10.75	7.17	5.38	3.58	2.69
255.0	34.30	27.98	22.56	17.15	12.64	9.93	7.22	4.51	3.61
270.0	36.19	28.95	23.52	18.09	14.48	9.95	7.24	5.43	3.62
285.0	33.48	27.14	21.71	16.29	12.67	9.05	6.33	4.52	2.71
300.0	27.91	22.51	17.11	13.51	9.90	6.30	4.50	3.60	1.80
315.0	19.39	14.98	10.58	7.93	5.29	3.53	2.64	1.76	0.88
330.0	10.83	7.22	4.51	2.71	2.71	1.81	0.90	0.90	0.90
345.0	3.58	1.79	0.90	0.90	0.90	0.90	0.90	0.90	0.90
360.0	14.20	2.66	1.78	1.78	2.66	2.66	3.55	3.55	4.44

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	4.44	5.33	6.21	6.21	7.10	7.10	7.10	6.21	6.21
15.0	12.55	11.65	11.65	10.75	10.75	9.86	8.96	7.17	6.27
30.0	28.74	24.25	21.56	18.86	16.17	14.37	12.58	8.98	7.19
45.0	47.49	39.43	33.16	26.88	22.40	18.82	15.23	11.65	8.07
60.0	63.62	52.87	43.01	34.95	28.68	22.40	17.03	13.44	9.86
75.0	74.91	62.28	50.54	40.62	31.59	24.37	18.95	14.44	10.83
90.0	77.81	63.33	52.47	41.62	33.48	25.33	19.90	14.48	10.86
105.0	71.47	57.90	47.95	38.90	30.76	24.43	19.00	14.48	10.86
120.0	56.73	46.82	38.72	32.41	26.11	20.71	16.21	13.51	9.90
135.0	37.90	32.61	27.32	22.92	19.39	16.75	14.10	11.46	9.70
150.0	21.66	18.95	17.15	15.34	14.44	12.64	11.73	9.93	9.03
165.0	8.96	8.96	8.96	8.96	8.96	8.96	8.96	8.96	8.07
180.0	3.55	4.44	4.44	5.33	5.33	5.33	5.33	5.33	6.21
195.0	0.90	1.79	1.79	2.69	2.69	2.69	3.58	4.48	5.38
210.0	0.90	0.90	0.90	1.80	2.69	2.69	3.59	4.49	5.39
225.0	0.90	0.90	0.90	0.90	1.79	2.69	3.58	3.58	5.38
240.0	1.79	0.90	0.90	0.90	0.90	1.79	2.69	3.58	4.48
255.0	1.81	0.90	0.90	0.90	0.90	1.81	2.71	3.61	3.61
270.0	1.81	0.90	0.90	0.90	0.90	1.81	2.71	2.71	3.62
285.0	1.81	0.90	0.90	0.90	0.90	1.81	2.71	2.71	4.52
300.0	0.90	0.90	0.90	0.90	0.90	1.80	2.70	3.60	5.40
315.0	0.88	0.88	0.88	0.88	1.76	1.76	2.64	3.53	5.29
330.0	0.90	0.00	0.90	1.81	2.71	2.71	3.61	4.51	6.32
345.0	1.79	1.79	2.69	2.69	3.58	4.48	4.48	5.38	7.17
360.0	4.44	5.33	6.21	6.21	7.10	7.10	7.10	6.21	6.21

Intensity data(cd)

C/γ(°)	180.0
0.0	6.21
15.0	6.27
30.0	6.29
45.0	6.27
60.0	5.38
75.0	8.12
90.0	8.14
105.0	8.14
120.0	8.10
135.0	7.93
150.0	8.12
165.0	7.17
180.0	0.00
195.0	0.00
210.0	0.00
225.0	0.00
240.0	0.00
255.0	0.00
270.0	0.00
285.0	0.00
300.0	0.00
315.0	0.00
330.0	0.00
345.0	0.00
360.0	6.21