AFX

Client:
LumCAT: ELZP42LAJD4BK
Luminaire: LED Lamp
Report No:
Ballast type:

Test No: LCZP25070007	Voltage(V): 119.990
LampCAT:	Current(A): 0.202
Lamp flux(lm): 1945.4	Power (W): 23.910
Number of Lamps: 1	PF: 0.986
Length(mm): 1040	Width(mm): 15
Phm Type: C	Height(mm): 10

Photometric Results

Lumens(lm): 1945.36, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 81.36
Central intensity(cd): 521.465, Maximum intensity(cd): 528.773
Angle of maximum intensity: C=90.0 γ=10.0
Beam Angle(50%Imax): [C0/180]Total=109.2
[C90/270]Total=137.5
Field angle(10%Imax): [C0/180]Total=159.0
[C90/270]Total=237.8
Maximum s/h(1/2): C0_180=1.24 C90_270=1.41
Maximum s/h(1/4): C0_180=1.36 C90_270=1.55
Up flux rate of lamp(%): 10.65%
Down flux rate of lamp(%): 89.35%
Up flux rate of LUM(%): 10.65%
Down flux rate of LUM(%): 89.35%
CIE Type : Semidirect lighting
Output flux ratio in π solid angle : 62.184%

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Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	521.465	0.000	0	0.00%	0.00%
5.0	518.798	12.436	12.436	0.64%	0.64%
10.0	511.991	36.875	49.311	1.90%	2.53%
15.0	500.857	60.081	109.392	3.09%	5.62%
20.0	485.686	81.305	190.697	4.18%	9.80%
25.0	466.170	99.832	290.529	5.13%	14.93%
30.0	443.620	115.135	405.664	5.92%	20.85%
35.0	417.922	126.868	532.532	6.52%	27.37%
40.0	390.756	134.922	667.454	6.94%	34.31%
45.0	359.563	138.928	806.381	7.14%	41.45%
50.0	328.017	138.936	945.317	7.14%	48.59%
55.0	295.005	135.466	1080.783	6.96%	55.56%
60.0	262.710	128.914	1209.697	6.63%	62.18%
65.0	229.103	119.561	1329.258	6.15%	68.33%
70.0	196.655	107.805	1437.063	5.54%	73.87%
75.0	166.200	94.845	1531.907	4.88%	78.75%
80.0	138.458	81.518	1613.425	4.19%	82.94%
85.0	113.115	68.358	1681.783	3.51%	86.45%
90.0	92.709	56.356	1738.14	2.90%	89.35%
95.0	76.341	46.287	1784.427	2.38%	91.73%
100.0	63.135	37.899	1822.326	1.95%	93.68%
105.0	51.039	30.550	1852.876	1.57%	95.25%
110.0	41.189	24.107	1876.983	1.24%	96.49%
115.0	32.705	18.710	1895.693	0.96%	97.45%
120.0	25.782	14.218	1909.911	0.73%	98.18%
125.0	19.844	10.546	1920.458	0.54%	98.72%
130.0	15.181	7.616	1928.073	0.39%	99.11%
135.0	11.534	5.398	1933.471	0.28%	99.39%
140.0	8.863	3.777	1937.248	0.19%	99.58%
145.0	7.062	2.657	1939.905	0.14%	99.72%
150.0	5.736	1.885	1941.79	0.10%	99.82%
155.0	4.772	1.330	1943.12	0.07%	99.89%
160.0	3.932	0.913	1944.032	0.05%	99.93%
165.0	3.600	0.621	1944.653	0.03%	99.96%
170.0	3.305	0.410	1945.063	0.02%	99.98%
175.0	3.252	0.235	1945.297	0.01%	100.00%
180.0	1.634	0.058	1945.356	0.00%	100.00%

Zonal flux distribution table

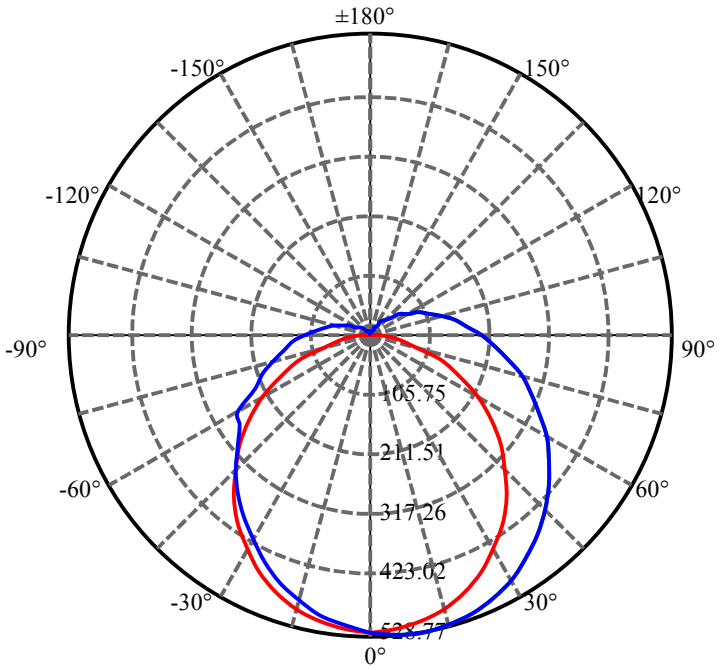
ZONAL LUMEN SUMMARY

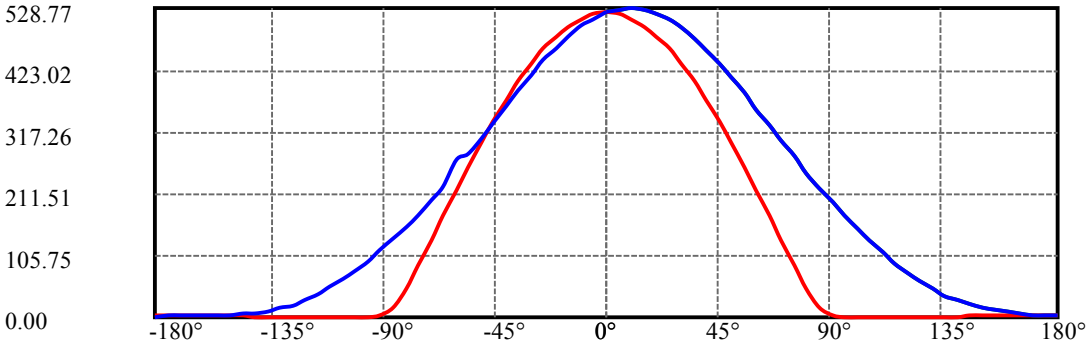
Zone	Lumens	%Lamp	%Fixt
0-30	405.66	20.85%	20.85%
0-40	667.45	34.31%	34.31%
0-60	1209.70	62.18%	62.18%
0-90	1738.14	89.35%	89.35%
0-120	1909.91	98.18%	98.18%
0-180	1945.36	100.00%	100.00%
60-90	528.44	27.16%	27.16%
90-120	171.77	8.83%	8.83%
90-130	189.93	9.76%	9.76%
90-150	203.65	10.47%	10.47%
90-180	207.16	10.65%	10.65%
0-76.50	1556.29	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	49.31
10-20	141.39
20-30	214.97
30-40	261.79
40-50	277.86
50-60	264.38
60-70	227.37
70-80	176.36
80-90	124.71
90-100	84.19
100-110	54.66
110-120	32.93
120-130	18.16
130-140	9.17
140-150	4.54
150-160	2.24
160-170	1.03
170-180	0.23

Light Distribution Curve [Unit:cd]





C90(Max):

C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:79.5 Right:79.5
:C90/270Left:119.6 Right:118.2

Beam Angle(50%Imax):C0/180Left:54.6 Right:54.6
:C90/270Left:70.6 Right:66.9

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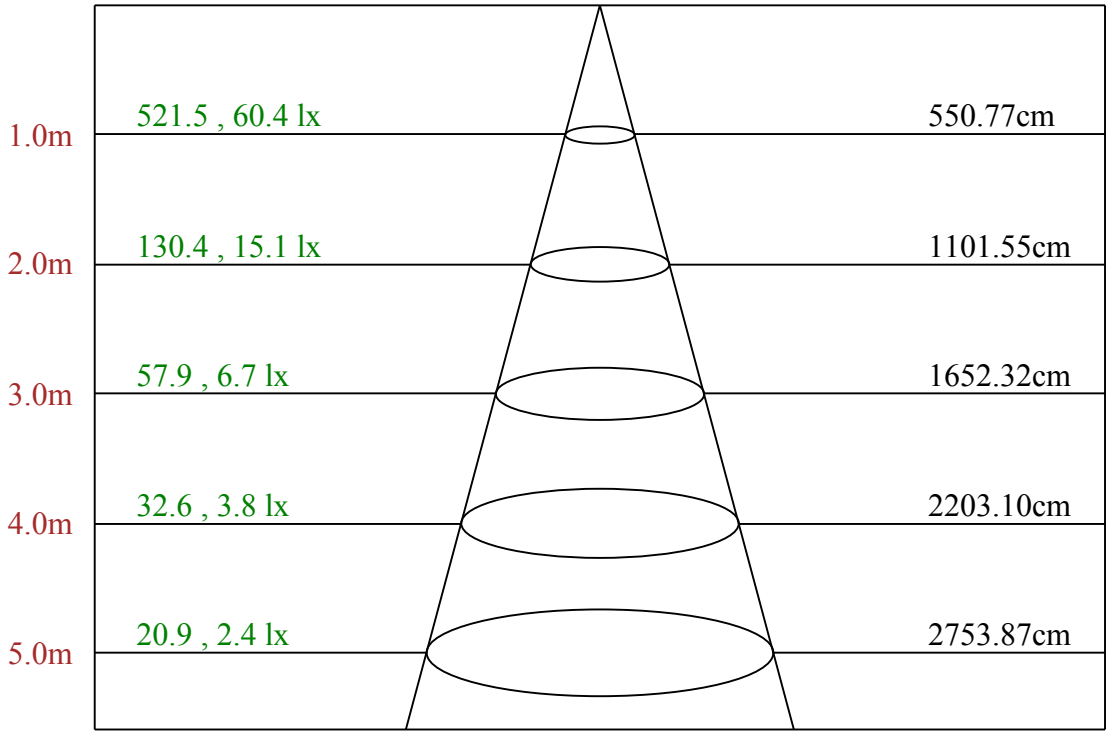
Lux distance Curve



Max , Ave

Beam angle of C90 plane 140.09

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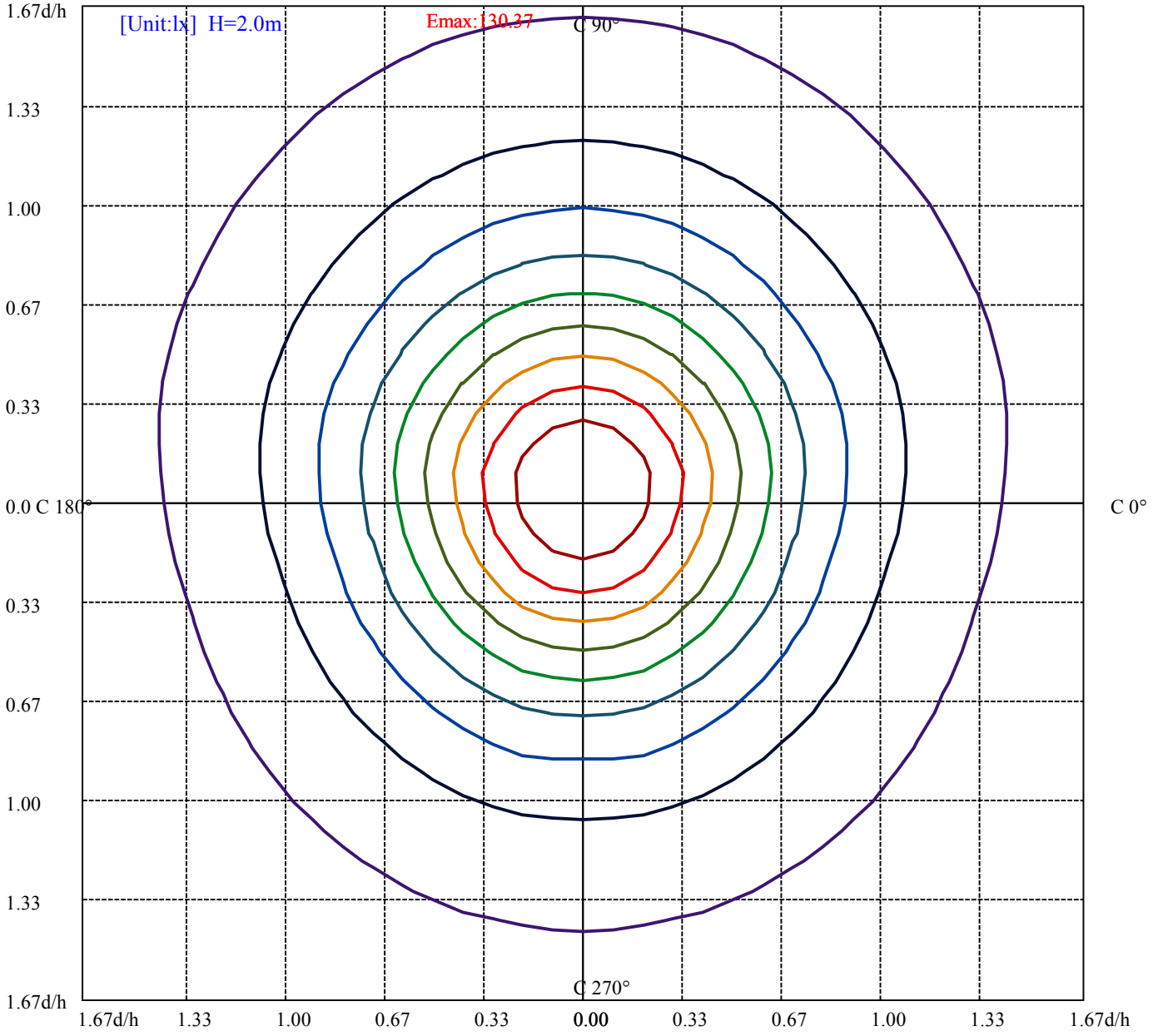
ISO illuminance diagram

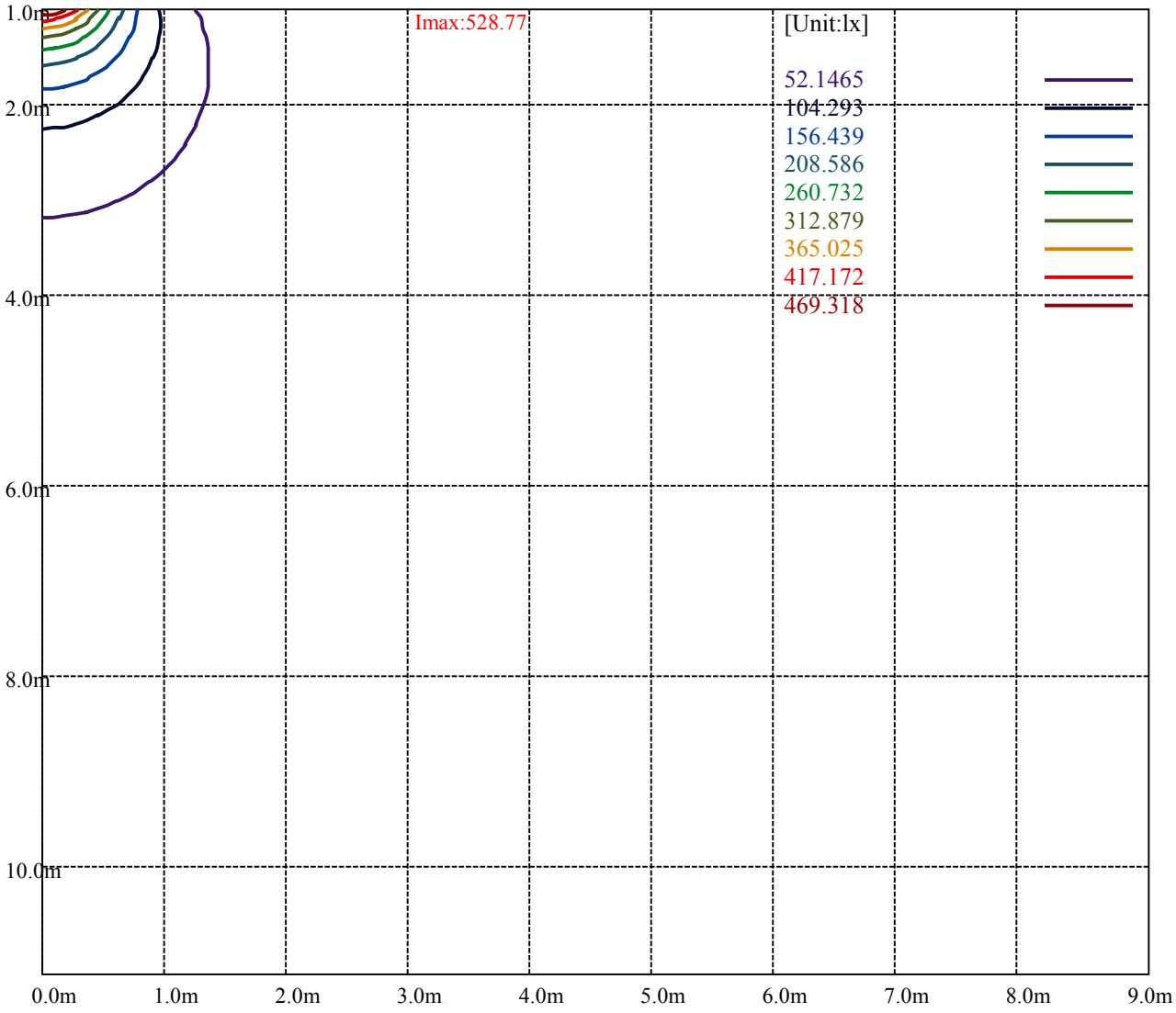


Equipment: LC-I-902 GMS-2000
Temperature(°C): 25.1

Date: 2025/8/2
Humidity(%): 59.9%

Operator: JUN WANG
Distance(m): 29.95

Space ISO Lux diagram



Equipment: LC-I-902 GMS-2000 Date: 2025/8/2 Operator: JUN WANG
Temperature(°C): 25.1 Humidity(%): 59.9% Distance(m): 29.95

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Luminance Limitting Curve(no luminous side)

Luminance Table

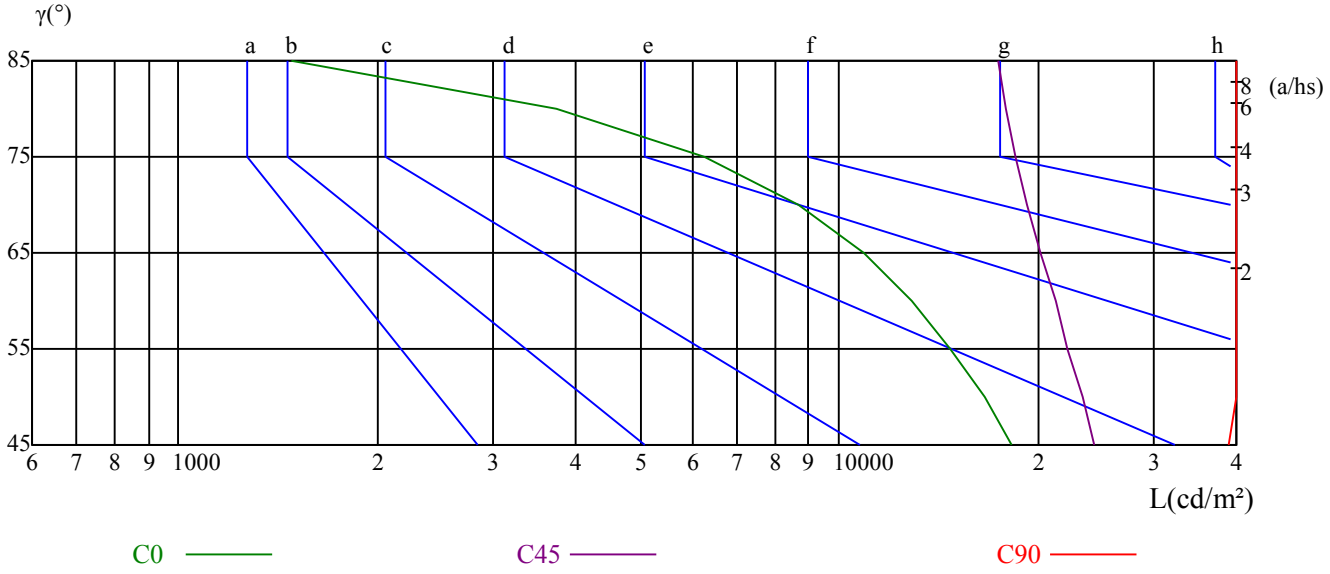
γ	45	50	55	60	65	70	75	80	85
C0	18247	16612	14749	12913	10919	8686	6256	3740	1478
C45	24401	23374	22255	21284	20228	19297	18473	17858	17457
C90	38892	40360	42289	44933	48822	55169	65632	86640	146585

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
26529	41859	35114	21820	55714	42874	12736	130511	90760

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 Date: 2025/8/2 Operator: JUN WANG
Temperature(°C): 25.1 Humidity(%): 59.9% 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	1.17	1.17	1.17	1.13	1.13	1.13	1.05	1.05	1.05	0.98	0.98	0.98	0.92	0.92	0.92	0.89
1	0.98	0.93	0.88	0.95	0.90	0.86	0.89	0.85	0.81	0.83	0.80	0.77	0.77	0.75	0.73	0.70
2	0.84	0.77	0.70	0.82	0.75	0.69	0.76	0.70	0.65	0.71	0.67	0.62	0.67	0.63	0.59	0.56
3	0.74	0.65	0.58	0.71	0.63	0.56	0.67	0.60	0.54	0.62	0.57	0.52	0.58	0.54	0.49	0.47
4	0.65	0.55	0.48	0.63	0.54	0.47	0.59	0.51	0.46	0.55	0.49	0.44	0.52	0.46	0.42	0.39
5	0.58	0.48	0.41	0.56	0.47	0.41	0.52	0.45	0.39	0.49	0.43	0.38	0.46	0.41	0.36	0.34
6	0.52	0.42	0.36	0.50	0.41	0.35	0.47	0.40	0.34	0.45	0.38	0.33	0.42	0.36	0.32	0.29
7	0.47	0.38	0.31	0.45	0.37	0.31	0.43	0.35	0.30	0.41	0.34	0.29	0.38	0.32	0.28	0.26
8	0.43	0.34	0.28	0.41	0.33	0.27	0.39	0.32	0.27	0.37	0.31	0.26	0.35	0.29	0.25	0.23
9	0.39	0.31	0.25	0.38	0.30	0.25	0.36	0.29	0.24	0.34	0.28	0.23	0.32	0.27	0.23	0.21
10	0.36	0.28	0.23	0.35	0.27	0.22	0.33	0.26	0.22	0.32	0.25	0.21	0.30	0.24	0.20	0.19

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	521.46	519.95	513.99	502.32	486.83	466.62	443.21	413.56	383.82
15.0	521.46	523.08	518.50	508.54	496.33	477.49	454.24	427.85	397.43
30.0	521.46	524.43	522.00	515.35	502.49	486.67	465.27	442.35	414.12
45.0	521.46	525.15	524.07	518.95	508.16	494.14	475.53	452.25	426.27
60.0	521.46	525.06	525.87	522.27	513.10	501.04	484.66	464.14	442.82
75.0	521.46	527.14	528.31	524.80	517.68	507.05	493.00	474.81	454.01
90.0	521.46	526.72	528.77	526.37	519.41	508.72	495.26	476.99	457.56
105.0	521.46	526.75	528.73	525.86	519.40	506.94	492.59	475.65	453.95
120.0	521.46	526.75	526.93	523.35	515.46	502.73	485.52	466.61	442.59
135.0	521.46	522.00	520.57	515.31	504.69	491.30	473.28	451.42	425.54
150.0	521.46	524.07	521.64	514.65	490.07	485.77	464.69	439.85	412.13
165.0	521.46	522.82	519.20	510.31	496.08	476.76	454.73	427.35	395.97
180.0	521.46	516.48	507.40	491.99	473.39	450.33	422.46	391.74	358.00
195.0	521.46	516.08	505.13	489.33	469.23	445.00	418.52	387.64	353.36
210.0	521.46	514.81	502.94	487.03	467.43	441.90	413.67	383.64	352.35
225.0	521.46	513.46	500.97	484.16	463.30	439.03	412.70	384.56	352.47
240.0	521.46	511.12	498.79	483.13	462.43	438.77	413.30	385.86	357.42
255.0	521.46	511.83	498.77	481.75	461.93	439.33	416.09	387.99	361.15
270.0	521.46	510.68	497.85	481.00	461.13	439.03	413.89	387.60	360.42
285.0	521.46	512.14	497.97	481.75	462.65	437.99	414.32	387.42	381.59
300.0	521.46	512.23	498.52	482.30	477.01	438.56	411.22	385.05	356.01
315.0	521.46	508.88	495.77	479.08	458.11	434.20	406.62	377.09	346.93
330.0	521.46	513.84	500.93	484.15	463.43	437.78	409.26	377.51	343.43
345.0	521.46	515.66	504.15	486.83	466.70	440.95	412.84	381.19	348.82
360.0	521.46	519.95	513.99	502.32	486.83	466.62	443.21	413.56	383.82

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	349.10	312.59	272.71	231.57	190.62	146.64	102.65	60.99	25.37
15.0	364.40	328.23	290.89	249.33	208.50	166.94	128.44	89.48	60.76
30.0	382.56	348.84	312.97	275.21	237.54	202.02	168.31	136.84	109.15
45.0	398.13	368.92	335.84	304.29	271.20	239.47	209.09	181.67	154.52
60.0	416.81	389.28	360.84	331.42	301.18	271.94	244.94	217.94	192.57
75.0	429.33	404.38	377.45	351.97	324.23	296.31	268.57	243.17	214.71
90.0	433.14	409.35	383.59	356.32	328.51	302.13	274.50	247.50	221.21
105.0	430.55	404.01	378.90	349.94	322.96	293.91	267.37	239.66	215.54
120.0	418.12	390.34	361.30	331.45	301.33	272.56	244.06	215.65	190.01
135.0	397.61	367.01	334.44	302.76	269.03	237.00	206.30	177.48	152.41
150.0	379.39	345.49	309.70	272.57	237.41	199.20	166.20	134.36	107.09
165.0	365.14	329.87	290.97	253.07	212.81	170.01	128.67	90.49	58.76
180.0	321.85	285.26	242.53	202.46	159.19	115.83	73.54	35.88	9.26
195.0	317.46	278.86	238.56	200.06	159.94	121.88	86.61	57.89	34.47
210.0	319.53	282.04	246.62	210.20	176.67	145.02	115.71	89.46	66.98
225.0	320.92	289.54	257.54	225.90	195.97	167.29	142.48	117.49	96.72
240.0	327.10	298.66	267.53	240.08	212.73	186.27	162.06	139.30	119.05
255.0	333.32	305.40	276.49	249.47	223.99	197.15	174.45	167.79	132.57
270.0	332.43	305.34	277.53	269.51	223.43	199.55	175.40	154.27	133.69
285.0	330.49	303.14	274.90	246.75	220.56	194.65	170.80	148.30	128.04
300.0	326.07	295.60	265.66	235.99	207.85	182.67	158.02	135.25	113.92
315.0	316.59	282.24	251.81	219.78	189.79	161.15	134.56	111.45	89.94
330.0	309.17	273.65	236.87	201.36	169.07	135.16	107.27	81.71	60.09
345.0	310.29	274.38	234.48	193.59	153.96	114.97	78.80	48.96	27.93
360.0	349.10	312.59	272.71	231.57	190.62	146.64	102.65	60.99	25.37

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	3.92	0.80	0.62	0.45	0.45	0.45	0.45	0.62	0.80
15.0	38.06	23.61	14.81	9.42	6.55	4.94	3.86	3.23	2.78
30.0	85.95	66.71	52.24	39.74	29.94	22.21	17.35	13.22	10.34
45.0	131.42	110.66	91.33	74.88	60.59	48.72	37.93	29.21	22.92
60.0	166.83	146.68	123.73	105.46	88.10	72.44	58.40	46.61	36.17
75.0	190.39	168.24	145.99	124.74	106.36	88.44	72.86	58.36	45.30
90.0	196.25	173.17	149.91	129.85	110.25	92.33	76.02	61.94	47.95
105.0	189.72	165.15	144.17	123.64	105.35	86.97	72.00	57.29	44.65
120.0	166.08	142.78	122.97	103.34	85.69	70.63	56.83	44.73	35.22
135.0	129.56	107.79	88.43	72.10	58.00	46.40	36.32	28.11	21.68
150.0	83.77	64.04	48.70	37.40	28.07	20.81	15.97	12.20	9.69
165.0	36.45	20.85	12.88	8.07	5.53	3.99	3.08	2.72	2.36
180.0	1.96	1.69	1.51	1.34	1.34	1.25	1.16	0.98	0.89
195.0	19.12	10.50	5.92	3.95	3.05	2.42	1.80	1.35	0.90
210.0	49.63	34.61	24.54	16.54	10.88	7.82	5.66	4.23	3.06
225.0	77.40	61.31	46.92	35.51	26.34	18.43	16.63	9.08	6.56
240.0	98.26	81.89	77.12	51.92	40.76	29.16	21.42	15.39	10.80
255.0	110.96	93.40	77.54	62.77	49.80	38.55	27.74	19.63	14.14
270.0	114.35	96.43	79.94	65.86	51.87	40.91	29.32	21.03	15.06
285.0	110.28	90.83	75.58	60.88	48.15	37.03	26.54	19.10	13.63
300.0	95.55	77.44	62.20	48.76	38.00	26.71	19.54	14.25	9.86
315.0	72.28	56.13	42.74	32.03	21.77	15.70	11.42	8.21	5.89
330.0	42.96	29.87	20.99	13.18	9.15	6.64	4.93	3.68	2.78
345.0	13.87	7.62	4.44	3.08	2.54	1.99	1.54	1.09	0.91
360.0	3.92	0.80	0.62	0.45	0.45	0.45	0.45	0.62	0.80

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	0.89	1.34	2.14	2.58	3.12	3.29	3.38	3.29	3.29
15.0	2.33	2.24	2.69	2.96	3.32	3.32	3.41	3.23	3.32
30.0	8.09	6.65	5.84	5.30	4.68	4.05	3.69	3.33	3.24
45.0	17.71	13.48	10.88	8.63	7.10	5.48	4.40	3.51	3.24
60.0	27.81	21.24	16.29	12.60	9.54	7.11	5.31	3.87	3.33
75.0	34.94	26.75	20.62	15.31	11.35	8.20	6.12	4.32	3.33
90.0	37.43	28.61	21.84	16.22	12.03	8.65	6.24	4.37	3.30
105.0	34.52	26.54	20.17	15.15	11.21	8.16	5.92	4.39	3.41
120.0	26.98	20.53	15.77	12.01	9.23	6.99	5.20	3.94	3.32
135.0	16.51	12.85	10.26	8.30	6.69	5.35	4.37	3.57	3.30
150.0	7.44	6.10	5.38	5.02	4.39	3.95	3.68	3.32	3.23
165.0	1.99	2.09	2.63	2.81	3.17	3.26	3.45	3.26	3.35
180.0	0.89	0.98	1.16	1.60	2.05	2.14	2.58	2.85	3.29
195.0	0.81	0.90	1.26	1.53	2.06	1.97	2.60	2.96	3.23
210.0	2.34	2.16	1.44	1.53	1.98	2.25	2.61	2.88	3.24
225.0	4.76	3.60	2.79	2.43	1.98	2.07	2.61	2.97	3.33
240.0	7.47	5.40	4.23	3.33	2.61	2.25	2.61	2.88	3.15
255.0	9.82	6.84	5.04	3.96	3.06	2.34	2.61	2.88	3.15
270.0	10.43	7.22	5.26	4.10	3.30	2.41	2.58	2.85	3.12
285.0	9.41	6.55	4.84	3.86	3.05	2.42	2.60	2.96	3.14
300.0	6.99	5.02	3.85	3.14	2.60	2.24	2.60	2.87	3.14
315.0	4.28	3.21	2.59	2.14	2.05	2.14	2.59	2.86	3.21
330.0	2.06	1.52	1.35	1.61	1.97	2.15	2.60	2.96	3.23
345.0	0.91	0.91	1.18	1.54	1.99	2.18	2.63	2.99	3.17
360.0	0.89	1.34	2.14	2.58	3.12	3.29	3.38	3.29	3.29

Intensity data(cd)

C/γ(°)	180.0
0.0	3.29
15.0	3.32
30.0	3.33
45.0	3.24
60.0	3.33
75.0	3.24
90.0	3.30
105.0	3.14
120.0	3.23
135.0	3.21
150.0	3.23
165.0	3.35
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	3.29