

Report No.:

Test Time: 2026/3/20 10:36:43

## LUMINAIRE PHOTOMETRIC TEST REPORT

### Luminaire Property

Manufacturer: AVTECNO  
 Luminaire Type: AV0102SYN-E 4000K  
 Lamp Type:  
 Luminous Width: 50 mm  
 Luminous Length: 50 mm  
 Luminous Height: 40 mm

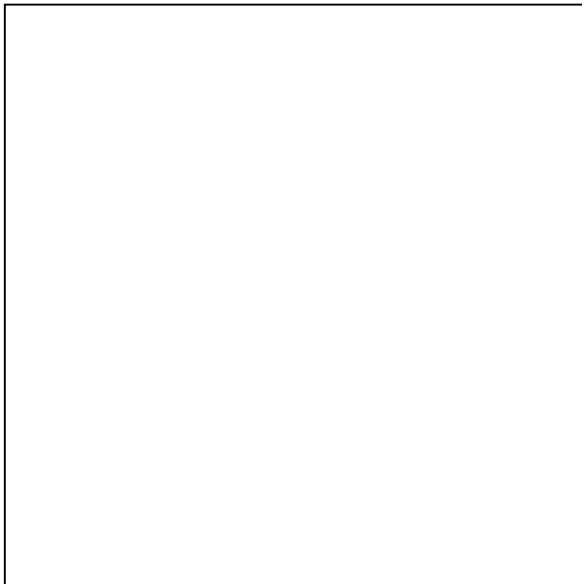
Voltage(V): 219.90 V  
 Current(A): 0.0500 A  
 Power(W): 10.20 W  
 Power Factor: 0.9090  
 Lamp Luminous Flux: 774.11

### Photometric Results

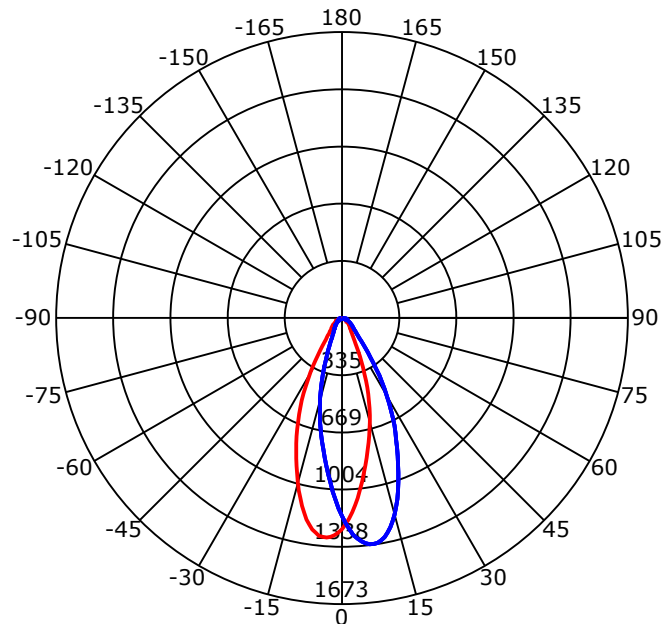
CIE Class: Direct  
 Luminaire Luminous Flux: 774.1092 lm  
 Downward Ratio: 100.00%  
 Luminaire Efficacy Rating(LER): 75.91 lm/W  
 Beam Angle(50%) C0-180,C90-270: 38.0,37.5  
 Field Angle(10%) C0-180,C90-270: 69.6,69.2  
 S/MH C0-180,C90-270: 0.650,0.650

Max. Intensity: 1338.14 cd  
 Max.Intensity Angle: C=135 Gamma=4  
 Upward Ratio: 0.00%  
 Efficacy: 100.00%  
 Center Intensity: 1235.67 cd  
 Effective Luminous Flux: 598.53 lm  
 ERP( $\phi$ use)(120deg): 730.79 lm

Picture of Luminaire



Luminous Intensity Distribution Curve



Beam Angle(50%) C0-180,C90-270: 38.0 deg,37.5 deg

C0-180 — C90-270

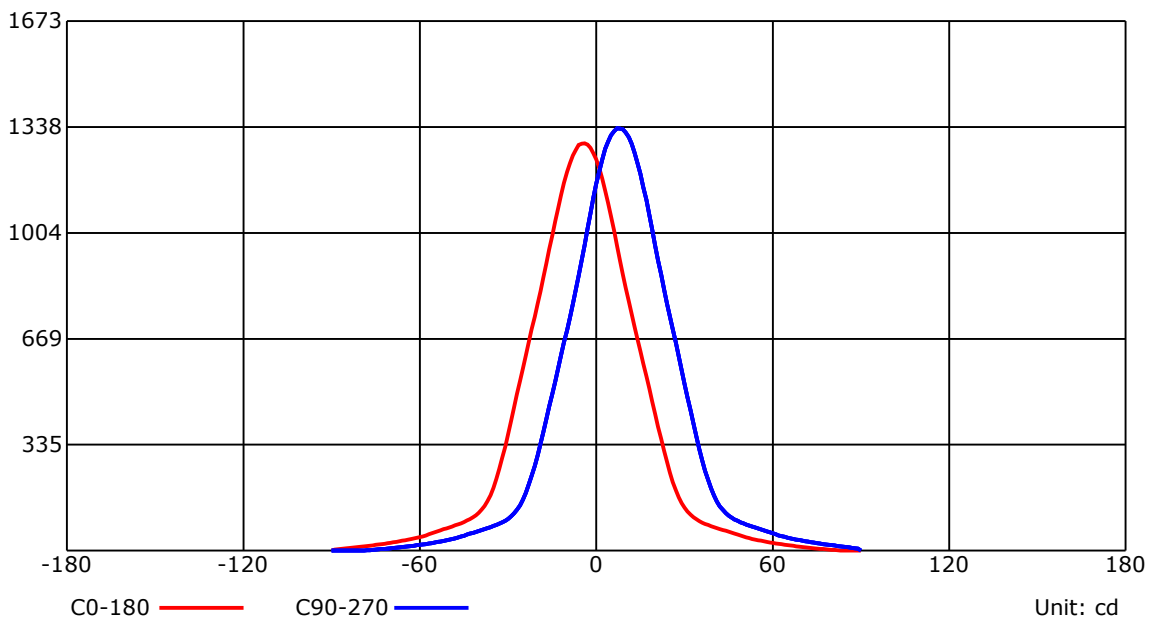
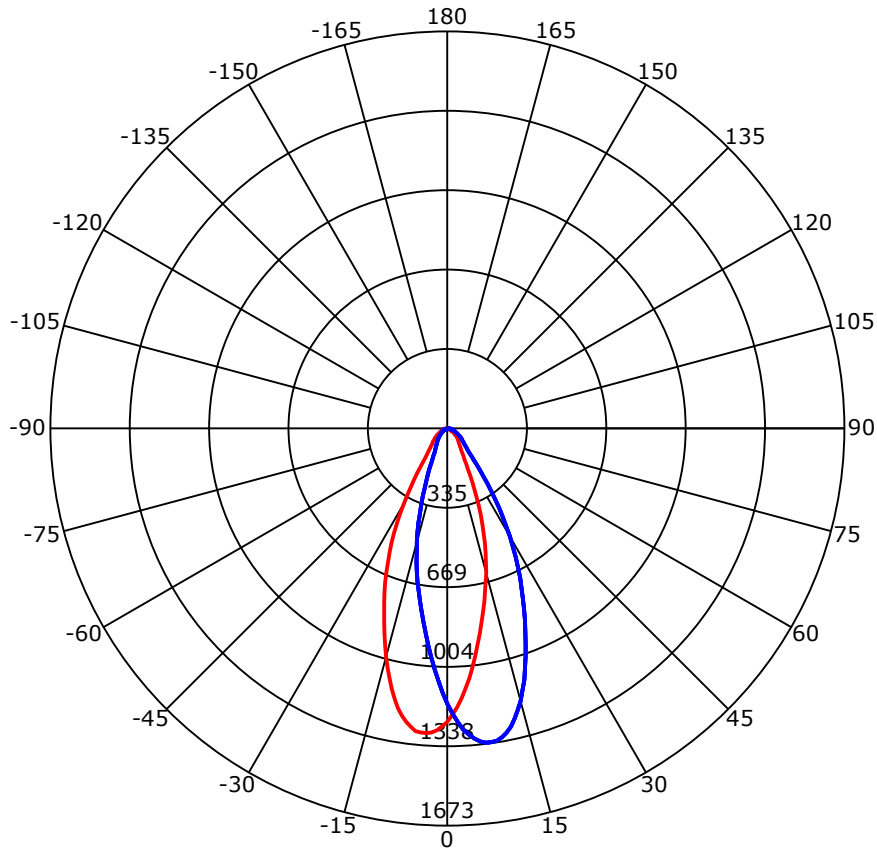
C Range: 0 - 360 Deg  
 C Interval: 45.0 Deg  
 Test Speed: High  
 Temperature: 25  
 Operators:  
 Test Date: 2026/3/20 10:36:43

G Range: 0 - 90 Deg  
 G Interval: 1.0 Deg  
 Test System: Huipu CPM-1600B Goniophotometer  
 Humidity: 65  
 Test Distance: 6.88 m  
 Remarks:

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## Luminous Intensity Distribution Curve



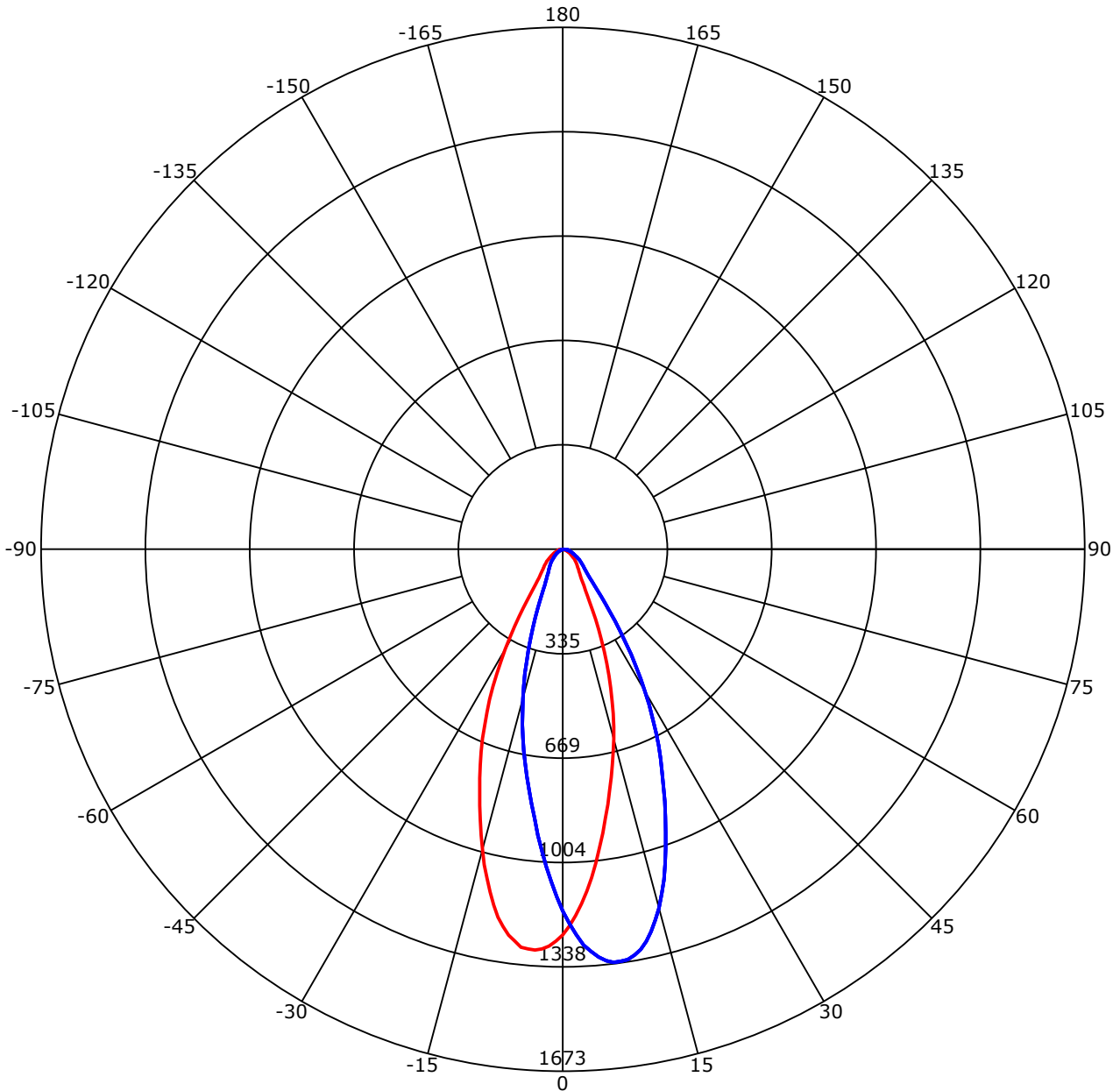
C Range: 0 - 360 Deg  
 C Interval: 45.0 Deg  
 Test Speed: High  
 Temperature: 25  
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G Range: 0 - 90 Deg  
 G Interval: 1.0 Deg  
 Test System: Huipu CPM-1600B Goniophotometer  
 Humidity: 65  
 Test Distance: 6.88 m  
 Remarks:

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## Luminous Intensity Distribution Curve



C0-180 — C90-270 —  
 Unit: cd/klm

C Range: 0 - 360 Deg  
 C Interval: 45.0 Deg  
 Test Speed: High  
 Temperature: 25  
 Operators:  
 Test Date: 2026/3/20 10:36:43

G Range: 0 - 90 Deg  
 G Interval: 1.0 Deg  
 Test System: Huipu CPM-1600B Goniophotometer  
 Humidity: 65  
 Test Distance: 6.88 m  
 Remarks:

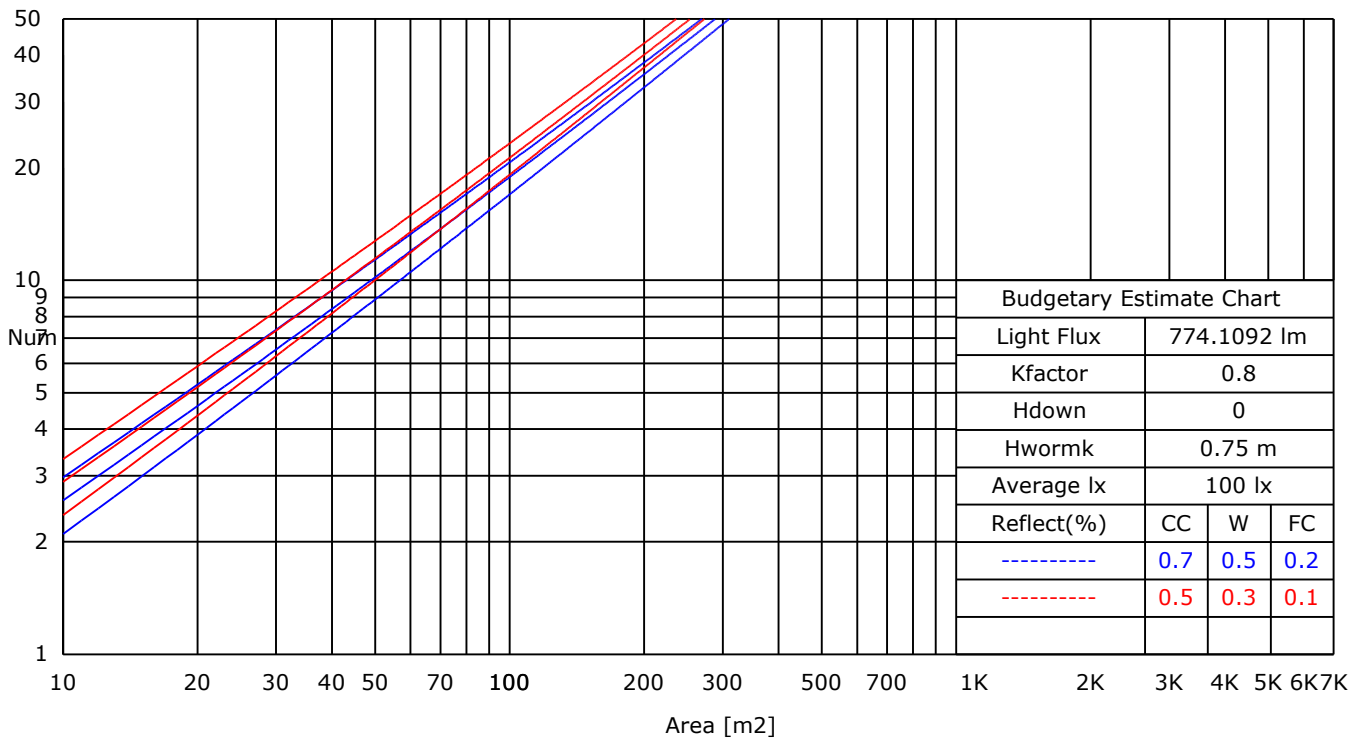
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### UTILIZATION FACTORS TABLE

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	COEFFICIENTS OF UTILIZATION FOR RHOFC=20															
0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1	1.02	1.00	0.99	1.01	0.99	0.97	0.98	0.95	0.93	0.93	0.90	0.88	0.87	0.84	0.82	0.77
2	0.96	0.94	0.93	0.95	0.93	0.91	0.92	0.89	0.87	0.88	0.85	0.82	0.83	0.80	0.77	0.72
3	0.91	0.89	0.88	0.90	0.88	0.86	0.88	0.84	0.82	0.84	0.81	0.78	0.80	0.76	0.73	0.68
4	0.86	0.84	0.83	0.86	0.83	0.81	0.83	0.80	0.78	0.80	0.77	0.74	0.77	0.73	0.69	0.65
5	0.82	0.80	0.79	0.82	0.79	0.78	0.80	0.76	0.74	0.77	0.73	0.70	0.74	0.70	0.66	0.62
6	0.79	0.77	0.76	0.78	0.76	0.74	0.76	0.73	0.71	0.74	0.70	0.67	0.71	0.67	0.63	0.60
7	0.76	0.74	0.73	0.75	0.73	0.71	0.73	0.70	0.68	0.71	0.67	0.64	0.69	0.64	0.61	0.57
8	0.73	0.71	0.70	0.72	0.70	0.69	0.71	0.68	0.65	0.69	0.65	0.62	0.67	0.62	0.59	0.55
9	0.70	0.69	0.68	0.70	0.68	0.66	0.68	0.65	0.63	0.67	0.63	0.60	0.65	0.60	0.57	0.53
10	0.68	0.67	0.66	0.68	0.66	0.64	0.66	0.63	0.61	0.65	0.61	0.58	0.63	0.58	0.55	0.52

### LUMINAIRE BUDGETARY ESTIMATE DIAGRAM



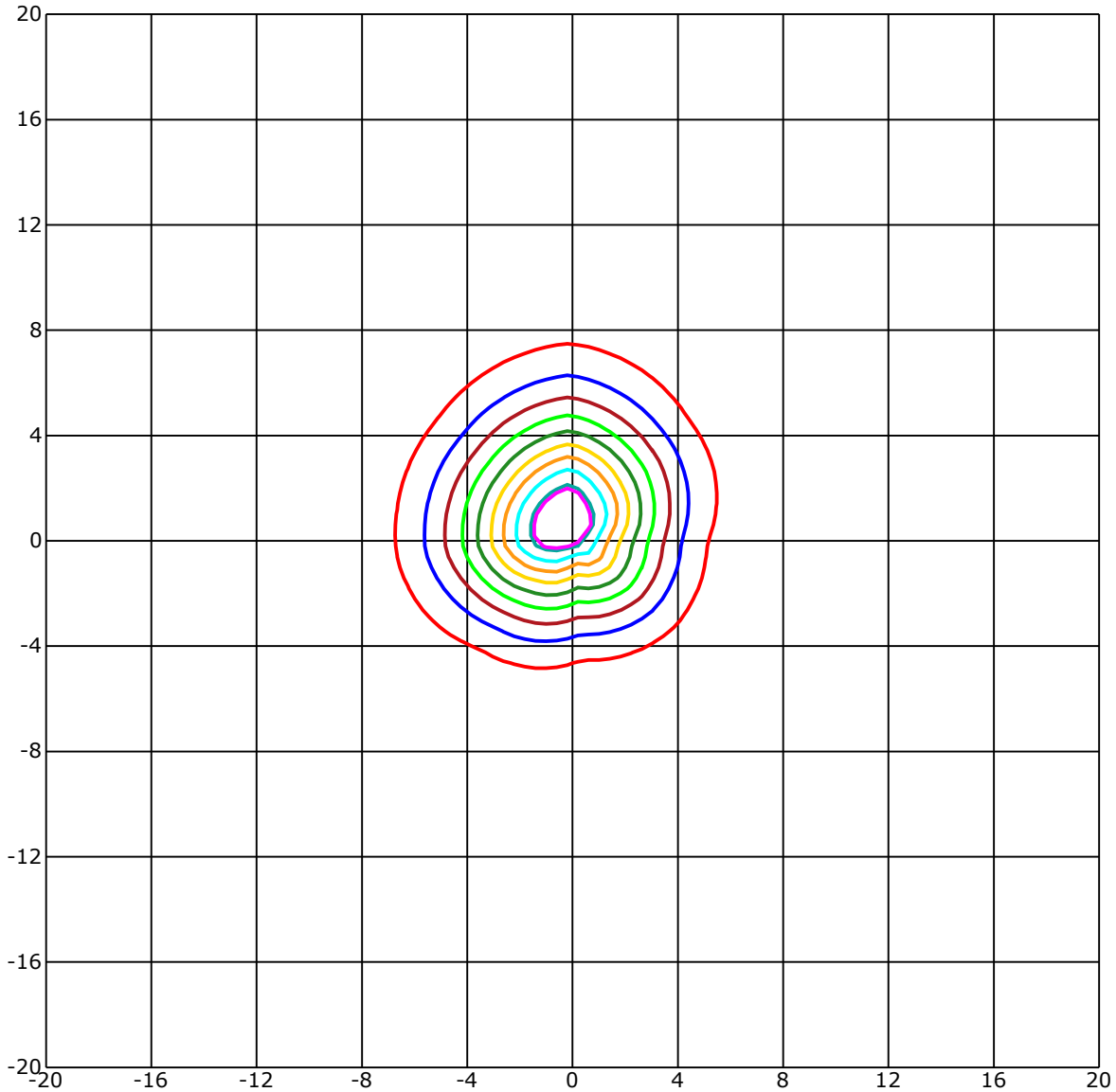
C Range: 0 - 360 Deg  
 C Interval: 45.0 Deg  
 Test Speed: High  
 Temperature: 25  
 Operators:  
 Test Date: 2026/3/20 10:36:43

G Range: 0 - 90 Deg  
 G Interval: 1.0 Deg  
 Test System: Huipu CPM-1600B Goniophotometer  
 Humidity: 65  
 Test Distance: 6.88 m  
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## ISOLX DIAGRAM



Unit of illumination:lx    Height of plane:10.0(m)/32.81(ft)

— 12.221(92%Emax)	— 6.642(50%Emax)
— 11.955(90%Emax)	— 5.314(40%Emax)
— 10.627(80%Emax)	— 3.985(30%Emax)
— 9.299(70%Emax)	— 2.657(20%Emax)
— 7.97(60%Emax)	— 1.328(10%Emax)

C Range: 0 - 360 Deg  
 C Interval: 45.0 Deg  
 Test Speed: High  
 Temperature: 25  
 Operators:  
 Test Date: 2026/3/20 10:36:43

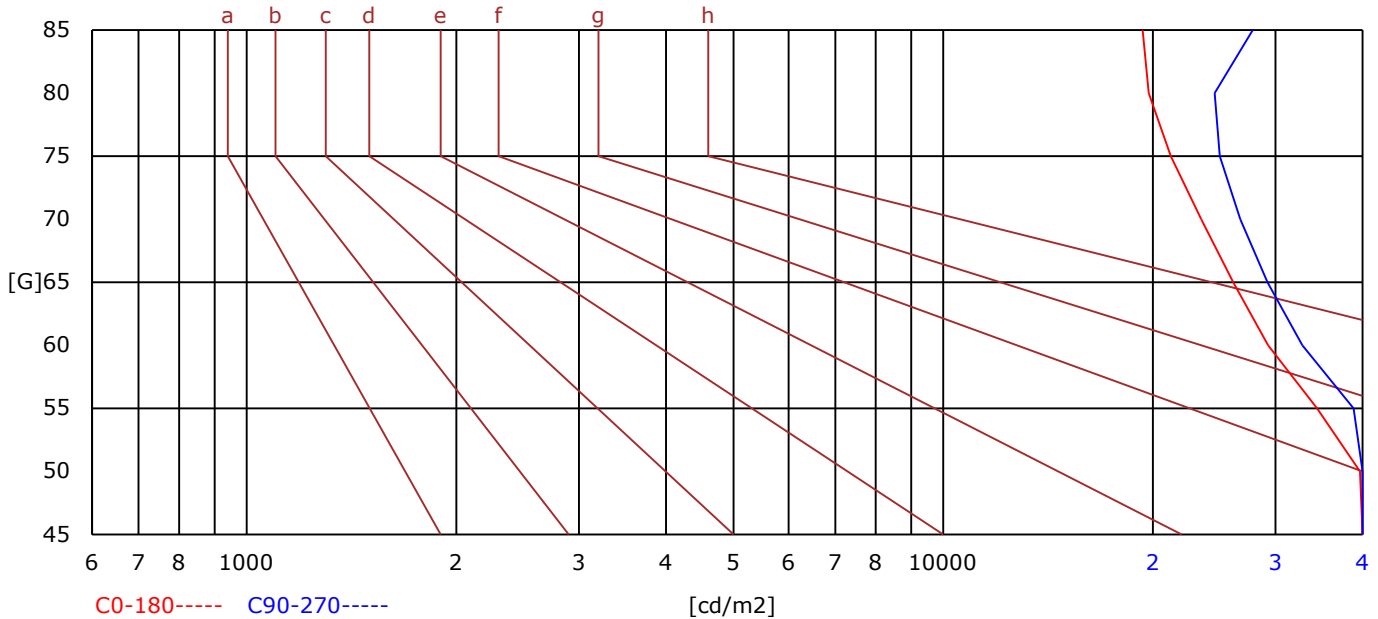
G Range: 0 - 90 Deg  
 G Interval: 1.0 Deg  
 Test System: Huipu CPM-1600B Goniophotometer  
 Humidity: 65  
 Test Distance: 6.88 m  
 Remarks:

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## BRIGHT LIMIT DIAGRAM

C/G	45	50	55	60	65	70	75	80	85
C0	44476	39647	34396	29272	26074	23472	21215	19735	19334
C90	49804	43771	38820	32793	29210	26683	24946	24533	27807
Dazzle	Quality	Illuminance	---	---	---	---	---	---	---
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



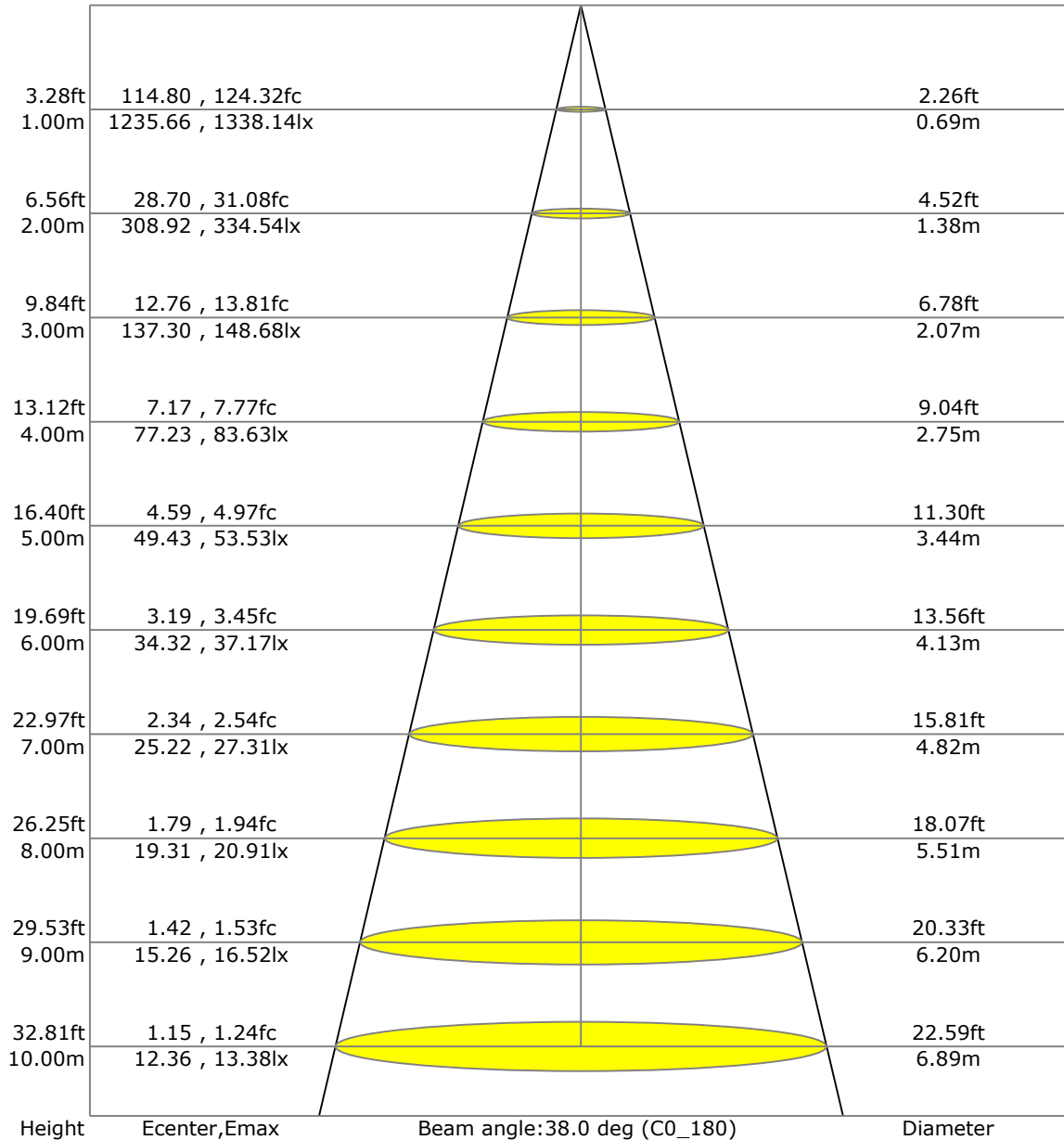
C Range: 0 - 360 Deg  
 C Interval: 45.0 Deg  
 Test Speed: High  
 Temperature: 25  
 Operators:  
 Test Date: 2026/3/20 10:36:43

G Range: 0 - 90 Deg  
 G Interval: 1.0 Deg  
 Test System: Huipu CPM-1600B Goniophotometer  
 Humidity: 65  
 Test Distance: 6.88 m  
 Remarks:

Report No.:

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## LX-DISTANCE DIAGRAM



C Range: 0 - 360 Deg  
 C Interval: 45.0 Deg  
 Test Speed: High  
 Temperature: 25  
 Operators:  
 Test Date: 2026/3/20 10:36:43

G Range: 0 - 90 Deg  
 G Interval: 1.0 Deg  
 Test System: Huipu CPM-1600B Goniophotometer  
 Humidity: 65  
 Test Distance: 6.88 m  
 Remarks:

Report No.:

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## UGR(Unified Glare Rating) TABLE

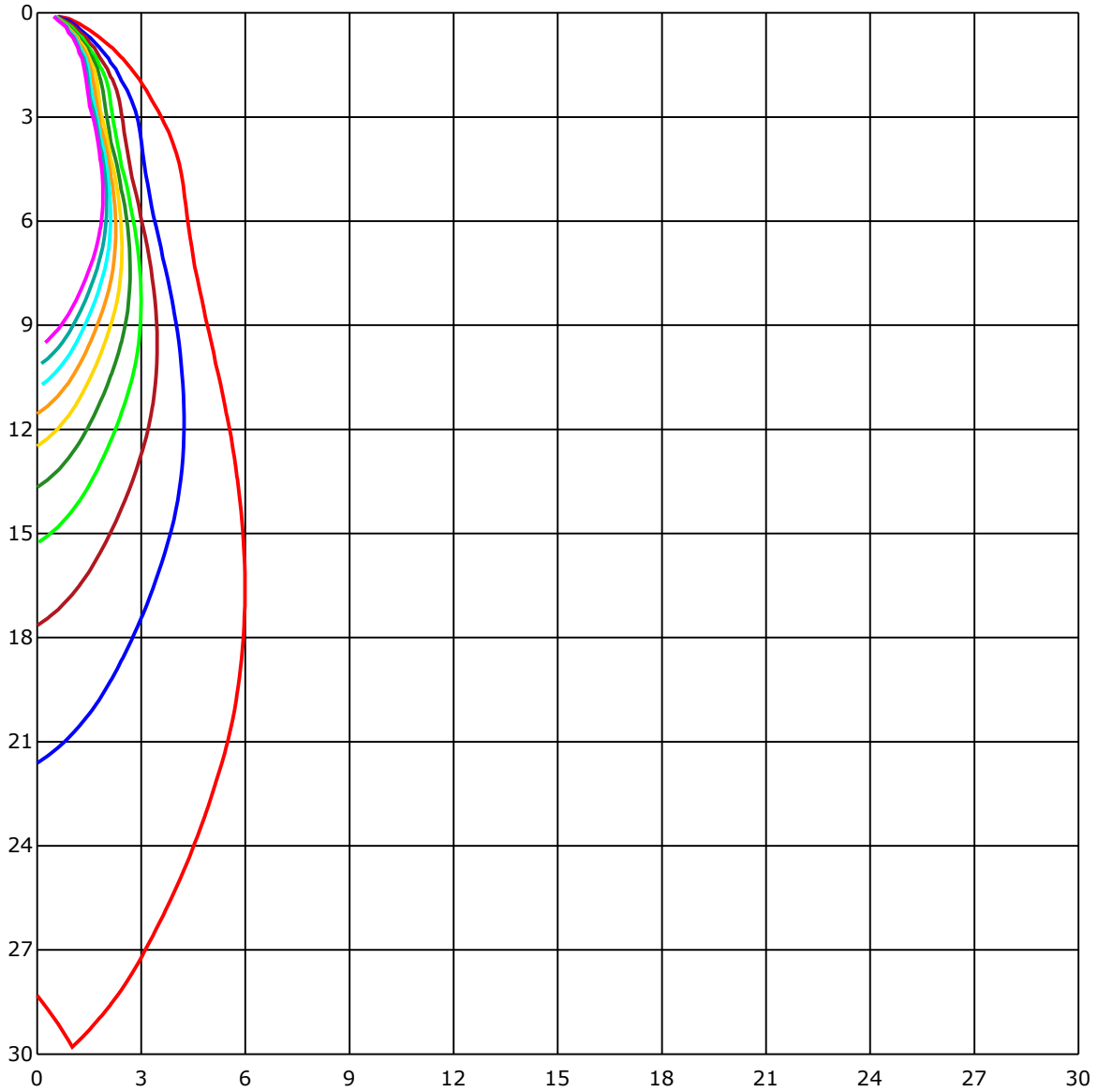
RHOCC	70	70	50	50	30	70	70	50	50	30
RHOW	50	30	50	30	30	50	30	50	30	30
RHOF	20	20	20	20	20	20	20	20	20	20
Room Size X Y	Viewed Endwise					Viewed Crosswise				
2H 2H	18.70	18.75	18.90	18.94	19.18	19.70	19.75	19.90	19.94	20.18
3H	18.82	18.88	19.03	19.07	19.32	19.73	19.79	19.94	19.98	20.23
4H	18.84	18.90	19.05	19.10	19.34	19.72	19.78	19.93	19.98	20.22
6H	18.84	18.89	19.05	19.09	19.35	19.71	19.76	19.92	19.96	20.21
8H	18.83	18.88	19.04	19.09	19.34	19.70	19.75	19.91	19.95	20.21
12H	18.82	18.87	19.04	19.08	19.33	19.68	19.74	19.91	19.95	20.20
4H 2H	19.58	19.64	19.79	19.84	20.08	21.44	21.50	21.65	21.69	21.94
3H	19.85	19.91	20.07	20.11	20.37	21.59	21.65	21.82	21.86	22.11
4H	19.93	19.99	20.16	20.20	20.46	21.61	21.67	21.84	21.88	22.14
6H	19.97	20.02	20.20	20.24	20.50	21.60	21.65	21.84	21.88	22.14
8H	19.97	20.02	20.21	20.25	20.51	21.59	21.64	21.83	21.87	22.13
12H	19.96	20.01	20.21	20.24	20.51	21.57	21.62	21.82	21.86	22.13
8H 4H	19.67	19.73	19.89	19.93	20.18	22.09	22.14	22.30	22.34	22.60
6H	20.20	20.25	20.46	20.49	20.76	22.50	22.55	22.75	22.78	23.06
8H	20.23	20.28	20.50	20.53	20.80	22.49	22.54	22.75	22.78	23.06
12H	20.25	20.30	20.52	20.55	20.83	22.48	22.52	22.75	22.78	23.06
12H 4H	20.11	20.16	20.36	20.39	20.66	22.79	22.84	23.04	23.08	23.35
6H	20.21	20.26	20.47	20.50	20.78	22.88	22.92	23.14	23.17	23.45

C Range: 0 - 360 Deg  
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G Range: 0 - 90 Deg  
 G Interval: 1.0 Deg  
 Test System: Huipu CPM-1600B Goniophotometer  
 Humidity: 65  
 Test Distance: 6.88 m  
 Remarks:



## SPACE ISOLX DIAGRAM



Unit of illumination:lx

- |          |         |
|----------|---------|
| — 13.221 | — 6.611 |
| — 11.899 | — 5.288 |
| — 10.577 | — 3.966 |
| — 9.255  | — 2.644 |
| — 7.933  | — 1.322 |

C Range: 0 - 360 Deg  
 C Interval: 45.0 Deg  
 Test Speed: High  
 Temperature: 25  
 Operators:  
 Test Date: 2026/3/20 10:36:43

G Range: 0 - 90 Deg  
 G Interval: 1.0 Deg  
 Test System: Huipu CPM-1600B Goniophotometer  
 Humidity: 65  
 Test Distance: 6.88 m  
 Remarks:

Report No.:

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## LUMINOUS DISTRIBUTION INTENSITY DATA

Gamma\C	C0	C45	C90	C135	C180	C225	C270	C315	C360	
G0	1235.67	1254.03	1159.22	1262.13	1235.67	1254.03	1159.22	1262.13	1235.67	
G1	1206.65	1268.37	1199.64	1289.63	1255.17	1238.32	1114.35	1228.04	1206.65	
G2	1174.6	1270.46	1235.57	1313.01	1272.21	1214.03	1065.36	1193.58	1174.6	
G3	1137.45	1273.63	1269.7	1324.84	1282.1	1186.01	1017.22	1148.43	1137.45	
G4	1098.16	1265.11	1291.99	1338.14	1287.02	1149.66	966.52	1102.47	1098.16	
G5	1056.65	1255.45	1311.45	1337.95	1285.46	1113.07	919.28	1053.9	1056.65	
G6	1010.73	1238.17	1325.27	1337.81	1281.86	1072.12	868.16	1004.39	1010.73	
G7	963.49	1215.55	1334.03	1327.78	1265.2	1028.53	823.29	954.26	963.49	
G8	917.96	1188.05	1333.46	1316.13	1248.49	984.03	778.65	907.12	917.96	
G9	872.8	1156.24	1331.47	1293.65	1223.83	940.16	736.71	859.97	872.8	
G10	830.1	1119.6	1320.58	1270.27	1196.8	897.03	696.48	816.28	830.1	
G11	786.89	1082.54	1306.15	1239.17	1161.63	851.69	658.04	772.83	786.89	
G12	746.46	1040.22	1284.42	1206.18	1122.82	809.84	617.15	733.4	746.46	
G13	705.9	999.28	1256.73	1164.47	1081.5	769.33	575.73	694.02	705.9	
G14	667.98	951.75	1224.4	1122.91	1041.36	730.37	534.69	655.25	667.98	
G15	630.64	907.12	1190.79	1075.49	996.67	693.02	495.45	616.44	630.64	
G16	591.06	862.91	1148.1	1029.52	952.18	652.13	455.21	575.44	591.06	
G17	550.74	819.93	1107.25	980.77	906.36	612.13	415.26	533.79	550.74	
G18	511.5	777.7	1059.77	934.0	863.81	571.47	375.03	492.85	511.5	
G19	470.46	738.13	1013.38	884.92	819.45	531.52	337.64	452.14	470.46	
G20	432.02	696.19	963.63	837.53	779.93	490.48	300.43	411.86	432.02	
G21	391.64	658.94	917.67	793.09	738.84	450.48	267.01	372.14	391.64	
G22	352.88	617.67	871.62	750.58	699.56	409.77	236.34	334.28	352.88	
G23	315.91	576.72	825.23	707.65	657.95	369.59	208.18	296.88	315.91	
G24	281.12	537.06	780.88	667.27	616.2	331.91	182.81	263.94	281.12	
G25	246.99	497.86	740.31	623.49	575.54	296.83	161.36	233.6	246.99	
G26	217.03	455.17	699.6	581.17	535.92	262.8	142.9	207.09	217.03	
G27	190.09	415.64	656.29	538.1	493.65	231.89	128.56	183.04	190.09	
G28	168.08	375.74	612.74	496.82	451.05	204.25	117.2	163.64	168.08	
G29	150.19	338.11	569.34	454.88	409.63	180.58	108.25	147.4	150.19	
G30	135.47	301.14	526.07	413.13	369.16	160.18	100.63	134.43	135.47	
G31	123.16	266.16	484.23	371.53	328.93	144.18	94.53	123.83	123.16	
G32	113.65	233.45	442.34	331.72	292.2	131.64	89.7	115.45	113.65	
G33	105.37	204.96	401.16	293.52	258.11	121.32	85.01	108.02	105.37	
G34	99.17	180.01	360.07	258.92	226.68	112.7	81.23	102.15	99.17	
G35	93.3	159.56	321.12	227.87	198.57	105.89	77.72	96.85	93.3	
G36	88.52	142.9	284.95	200.56	175.52	100.06	74.27	92.4	88.52	

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature: 25

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G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1600B Goniophotometer

Humidity: 65

Test Distance: 6.88 m

Remarks:

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### LUMINOUS DISTRIBUTION INTENSITY DATA(Continue 1)

Gamma\C	C0	C45	C90	C135	C180	C225	C270	C315	C360	
G37	84.44	129.32	252.2	176.13	156.11	95.33	71.05	88.42	84.44	
G38	80.94	117.63	222.71	155.49	141.25	91.12	67.97	85.06	80.94	
G39	77.16	109.01	196.44	138.64	129.36	87.33	65.13	81.6	77.16	
G40	74.08	101.58	173.86	125.29	119.95	83.73	62.01	78.24	74.08	
G41	71.05	95.47	155.49	114.5	111.71	80.52	59.26	74.84	71.05	
G42	68.16	90.31	140.2	105.89	105.08	76.92	56.28	71.71	68.16	
G43	65.46	86.15	128.32	98.69	99.31	73.61	53.54	68.59	65.46	
G44	62.58	81.89	118.71	93.01	94.86	70.62	50.46	65.42	62.58	
G45	59.59	78.62	110.81	88.04	90.22	67.36	47.19	62.24	59.59	
G46	56.66	75.21	104.14	83.97	86.53	64.33	44.31	59.07	56.66	
G47	53.77	72.23	98.6	79.85	83.12	61.2	41.46	55.85	53.77	
G48	50.93	69.34	93.91	76.54	80.0	58.22	38.67	52.92	50.93	
G49	47.71	66.65	89.75	73.51	76.54	55.1	36.54	49.13	47.71	
G50	44.73	63.71	86.24	70.34	73.32	52.07	34.32	46.25	44.73	
G51	41.46	60.78	82.6	67.31	70.43	48.38	32.42	43.78	41.46	
G52	39.24	58.08	79.52	64.66	67.74	45.54	30.48	41.51	39.24	
G53	36.92	55.29	76.26	61.58	64.19	43.22	28.83	39.33	36.92	
G54	34.89	52.54	72.94	58.65	61.06	40.8	27.08	37.25	34.89	
G55	32.9	49.32	69.91	55.67	57.94	38.72	25.56	35.17	32.9	
G56	31.15	46.62	66.79	52.97	55.0	36.54	23.86	33.47	31.15	
G57	29.3	43.69	63.9	49.99	51.74	34.6	22.58	31.52	29.3	
G58	27.69	41.18	60.59	46.72	47.95	32.85	20.97	30.06	27.69	
G59	25.99	38.81	57.65	43.83	45.06	31.24	19.6	28.16	25.99	
G60	24.52	36.59	54.62	40.99	42.7	29.44	18.46	26.65	24.52	
G61	23.0	34.89	51.97	38.58	40.66	27.79	17.04	25.04	23.0	
G62	21.49	32.8	48.23	36.49	38.44	26.41	15.86	23.76	21.49	
G63	20.12	30.96	45.68	34.36	36.54	24.8	14.72	22.39	20.12	
G64	18.79	29.21	43.31	32.57	34.6	23.38	13.4	20.83	18.79	
G65	17.61	27.55	41.13	30.86	32.71	21.92	12.4	19.41	17.61	
G66	16.47	25.84	39.0	29.35	31.15	20.64	11.22	18.13	16.47	
G67	15.01	24.28	37.11	27.45	29.44	19.31	10.37	16.95	15.01	
G68	13.82	22.77	35.07	25.8	27.88	18.08	9.28	15.76	13.82	
G69	12.73	21.35	33.23	24.24	26.22	16.85	8.43	14.63	12.73	
G70	11.74	20.07	31.38	22.82	24.8	15.53	7.43	13.44	11.74	
G71	10.56	18.7	29.73	21.35	23.24	14.48	6.53	12.31	10.56	
G72	9.61	17.42	28.26	20.02	21.87	13.4	5.63	11.36	9.61	
G73	8.57	16.09	26.6	18.74	20.64	12.35	4.83	10.37	8.57	

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature: 25

Operators:

Test Date: 2026/3/20 10:36:43

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1600B Goniophotometer

Humidity: 65

Test Distance: 6.88 m

Remarks:

