

Report No.:

Test Time: 2021/3/20 9:53:35

## LUMINAIRE PHOTOMETRIC TEST REPORT

### Luminaire Property

Manufacturer: 中山市诺邦照明有限公司  
Luminaire Type: HB.T130S 24°  
Lamp Type: CLM-9  
Luminous Width: 54 mm  
Luminous Length: 54 mm  
Luminous Height: 122 mm

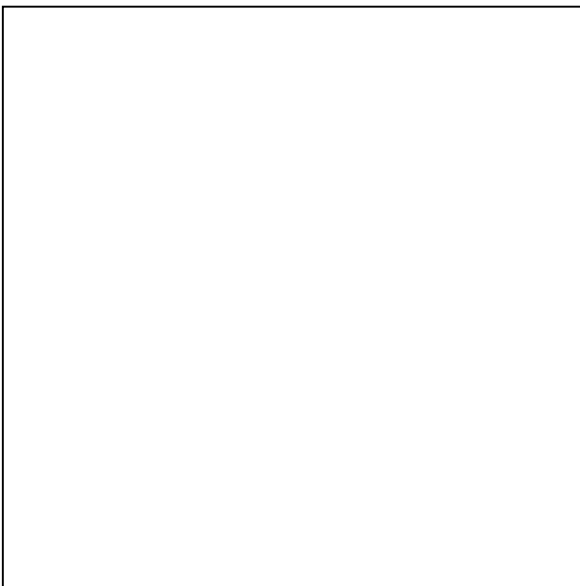
Voltage(V): 220.00 V  
Current(A): 1.1050 A  
Power(W): 29.50 W  
Power Factor: 0.6510  
Lamp Luminous Flux: 2208.00

### Photometric Results

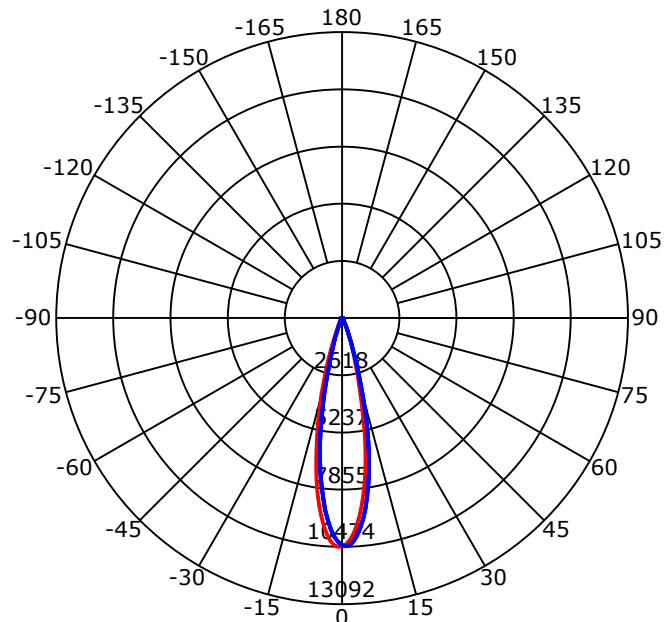
CIE Class: Direct  
Luminaire Luminous Flux: 2032.932  
Downward Ratio: 0.00%  
Luminaire Efficacy Rating(LER): 68.91 lm/W  
Beam Angle(50%) C0-180,C90-270: 23.7,23.7  
Field Angle(10%) C0-180,C90-270: 41.5,39.7

Max. Intensity: 10473.74 cd  
Max.Intensity Angle: C=180 Gamma=1  
Upward Ratio: 92.07%  
Efficacy: 92.07%  
Center Intensity: 10460.04 cd

Picture of Luminaire



Luminous Intensity Distribution Curve



Beam Angle(50%) C0-180,C90-270: 23.7 deg,23.7 deg

C0-180 — C90-270

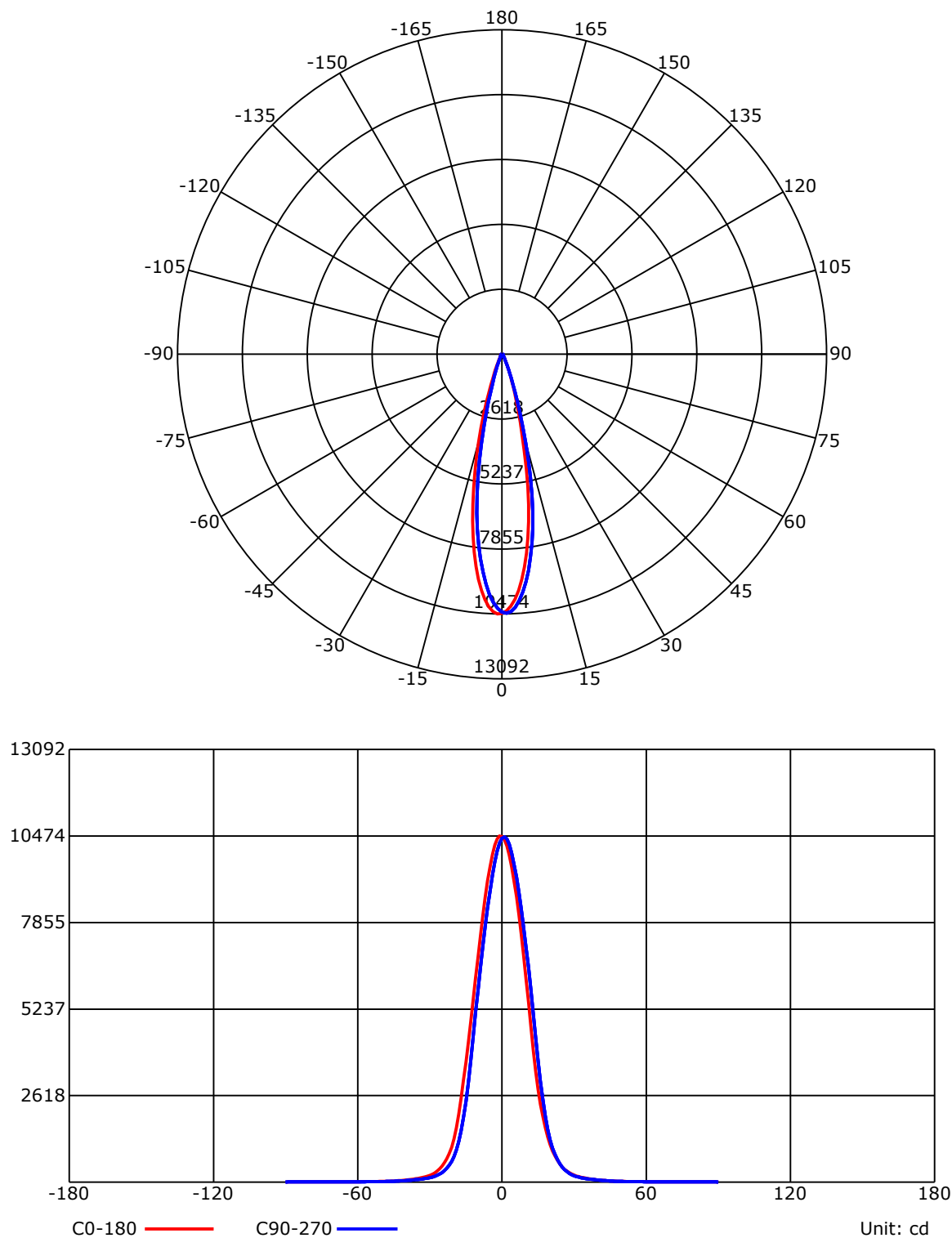
C Range: 0 - 360 Deg  
C Interval: 45.0 Deg  
Test Speed: High  
Temperature: 7.76  
Operators: 周奇  
Test Date: 2021/3/20 9:53:35

G Range: 0 - 90 Deg  
G Interval: 1.0 Deg  
Test System: Huipu CPM-1800B Goniophotometer  
Humidity: 1  
Test Distance: 7.76 m  
Remarks:

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## Luminous Intensity Distribution Curve



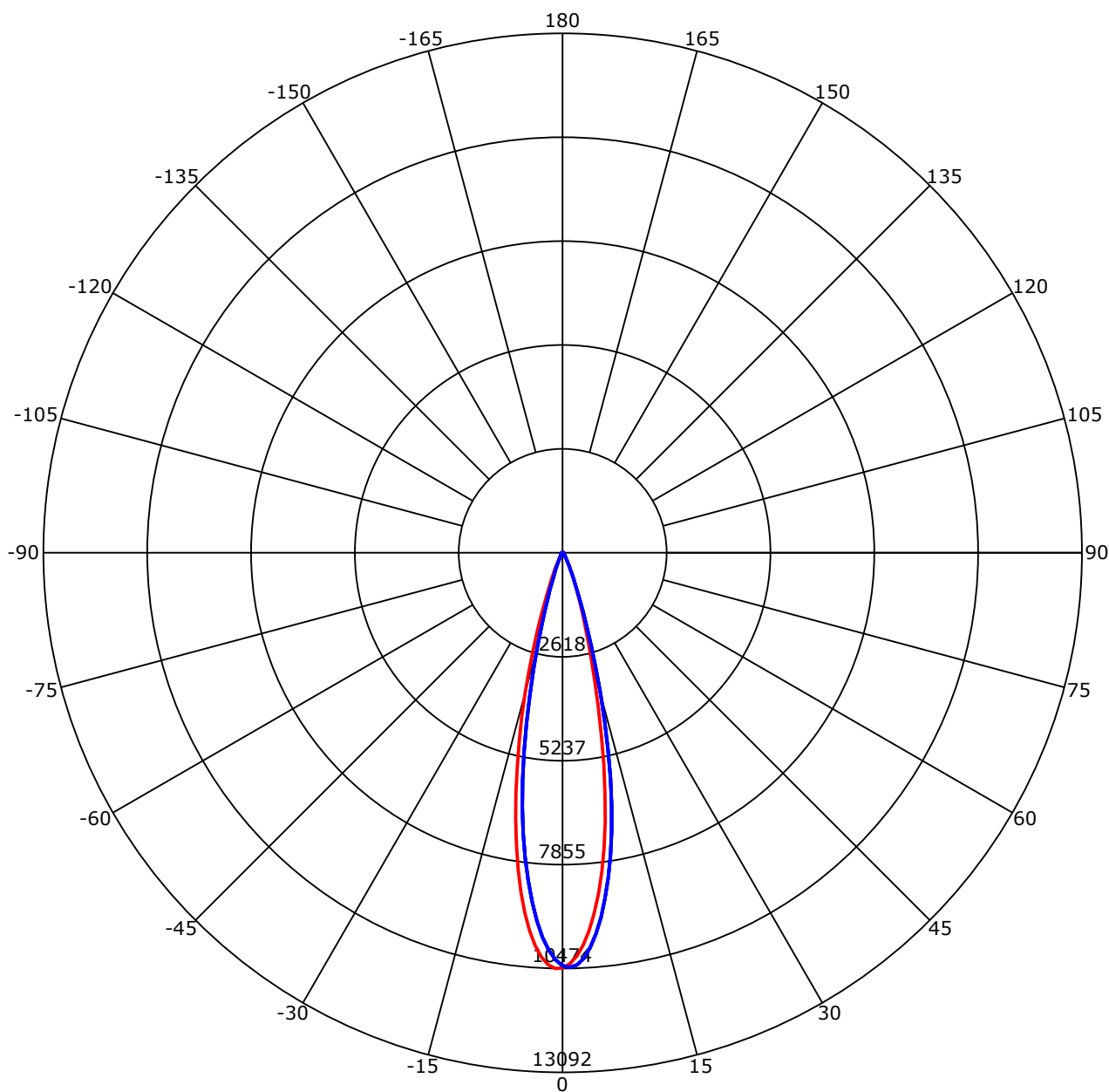
C Range: 0 - 360 Deg  
C Interval: 45.0 Deg  
Test Speed: High  
Temperature: 7.76  
Operators: 周奇  
Test Date: 2021/3/20 9:53:35

G Range: 0 - 90 Deg  
G Interval: 1.0 Deg  
Test System: Huipu CPM-1800B Goniophotometer  
Humidity: 1  
Test Distance: 7.76 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: 7.76  
Operators: 周奇  
Test Date: 2021/3/20 9:53:35

G Range: 0 - 90 Deg  
G Interval: 1.0 Deg  
Test System: Huipu CPM-1800B Goniophotometer  
Humidity: 1  
Test Distance: 7.76 m  
Remarks:

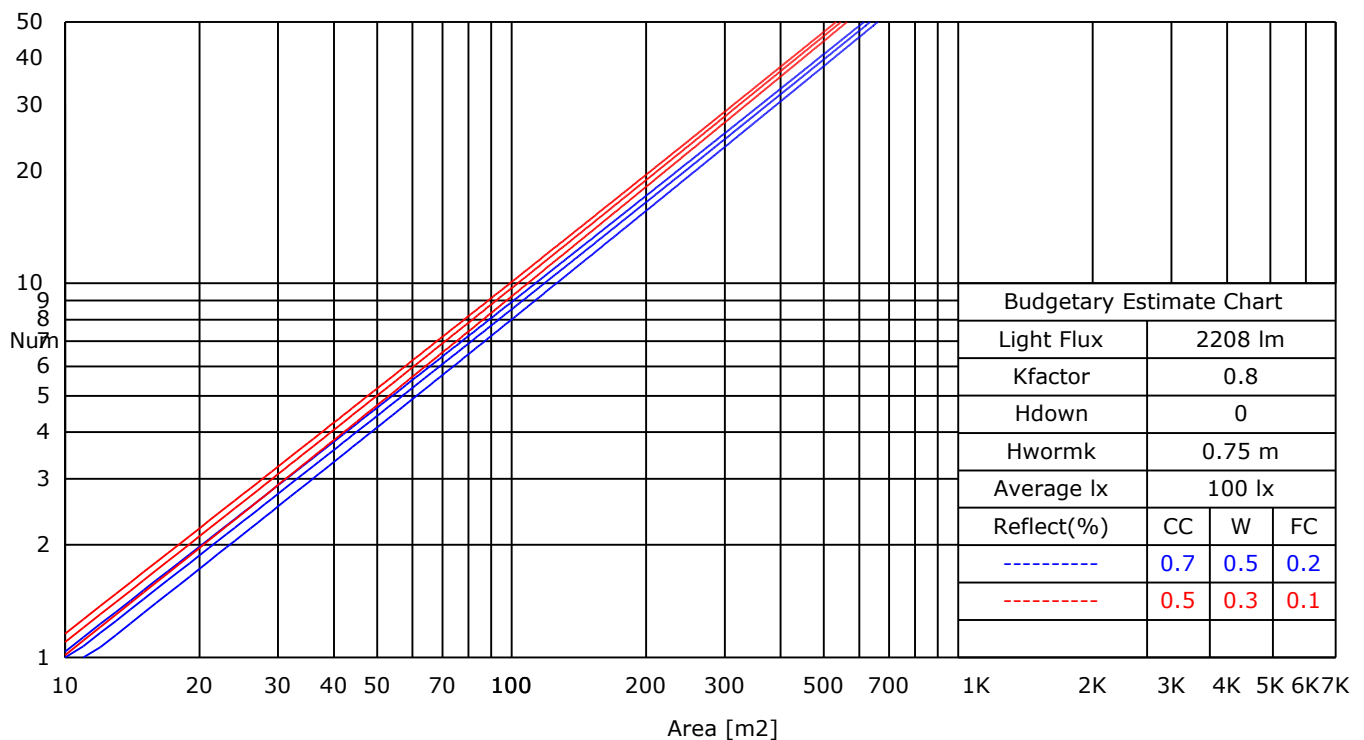
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## UTILIZATION FACTORS TABLE

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	1.10	1.10	1.10	1.07	1.07	1.07	1.02	1.02	1.02	0.98	0.98	0.98	0.94	0.94	0.94	0.92
1	0.74	0.70	0.67	0.74	0.70	0.66	0.72	0.68	0.64	0.69	0.65	0.61	0.66	0.61	0.56	0.51
2	0.71	0.67	0.65	0.71	0.67	0.64	0.70	0.65	0.62	0.67	0.63	0.59	0.64	0.59	0.55	0.50
3	0.68	0.66	0.64	0.68	0.65	0.62	0.67	0.63	0.60	0.66	0.61	0.57	0.63	0.58	0.54	0.50
4	0.66	0.64	0.62	0.66	0.63	0.61	0.66	0.62	0.59	0.64	0.59	0.56	0.62	0.57	0.52	0.49
5	0.65	0.63	0.61	0.65	0.62	0.60	0.64	0.60	0.57	0.63	0.58	0.55	0.60	0.56	0.52	0.48
6	0.64	0.62	0.61	0.64	0.61	0.59	0.63	0.59	0.57	0.61	0.57	0.54	0.59	0.55	0.51	0.47
7	0.63	0.61	0.60	0.62	0.60	0.58	0.61	0.58	0.56	0.60	0.56	0.53	0.58	0.54	0.50	0.47
8	0.62	0.60	0.59	0.61	0.59	0.58	0.60	0.57	0.55	0.59	0.55	0.52	0.57	0.53	0.49	0.46
9	0.61	0.59	0.58	0.60	0.58	0.57	0.59	0.56	0.54	0.58	0.54	0.52	0.57	0.52	0.49	0.46
10	0.60	0.59	0.58	0.60	0.58	0.56	0.59	0.56	0.54	0.57	0.54	0.51	0.56	0.51	0.48	0.45

## LUMINAIRE BUDGETARY ESTIMATE DIAGRAM



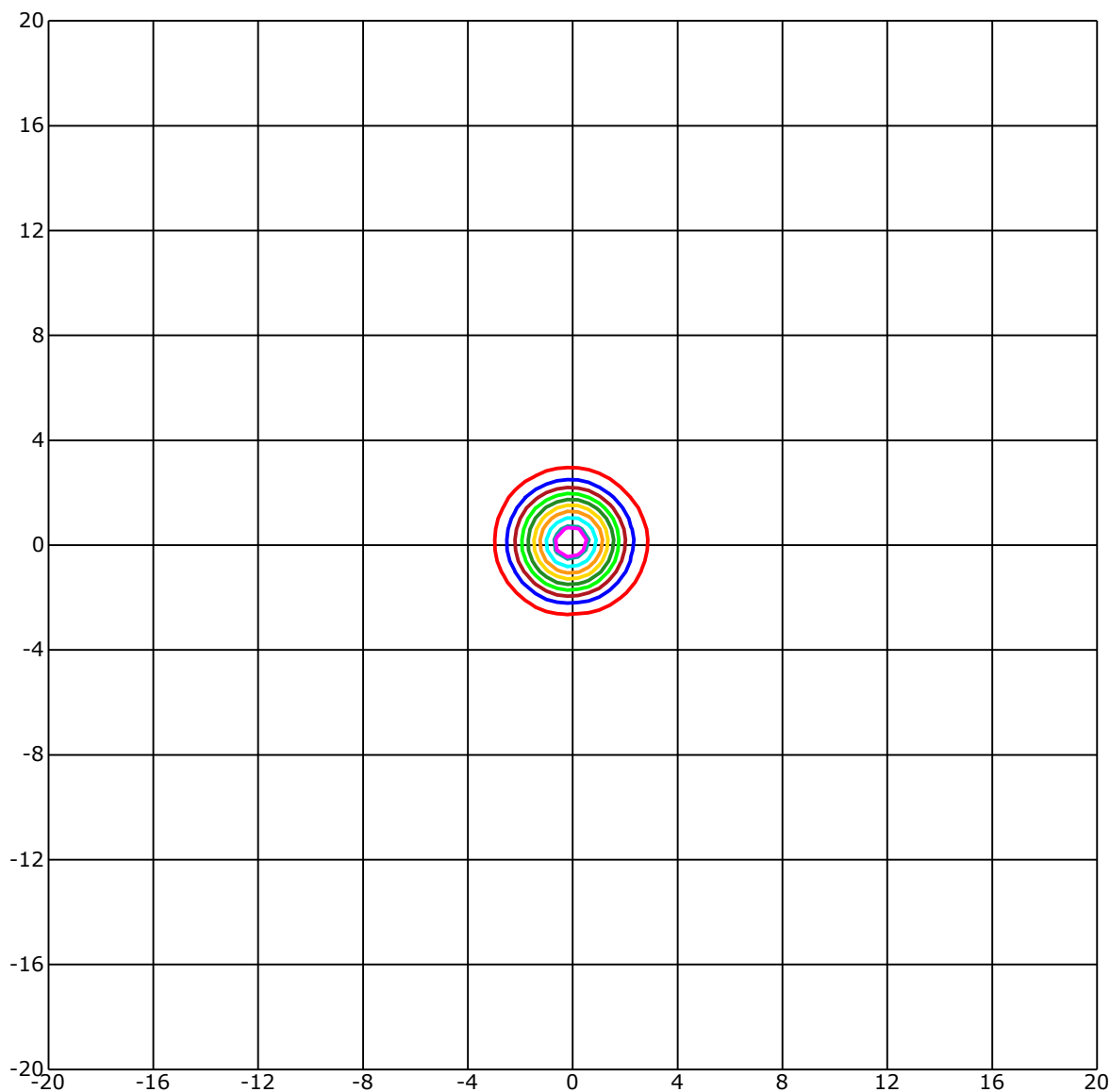
C Range: 0 - 360 Deg  
C Interval: 45.0 Deg  
Test Speed: High  
Temperature: 7.76  
Operators: 周奇  
Test Date: 2021/3/20 9:53:35

G Range: 0 - 90 Deg  
G Interval: 1.0 Deg  
Test System: Huipu CPM-1800B Goniophotometer  
Humidity: 1  
Test Distance: 7.76 m  
Remarks:

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## ISOLX DIAGRAM



Unit of illumination:lx      Height of plane:8.0(m)/26.25(ft)

150.491(1%Emax)	81.789(1%Emax)
147.22(1%Emax)	65.431(1%Emax)
130.862(1%Emax)	49.073(0%Emax)
114.504(1%Emax)	32.715(0%Emax)
98.146(1%Emax)	16.358(0%Emax)

C Range: 0 - 360 Deg  
C Interval: 45.0 Deg  
Test Speed: High  
Temperature: 7.76  
Operators: 周奇  
Test Date: 2021/3/20 9:53:35

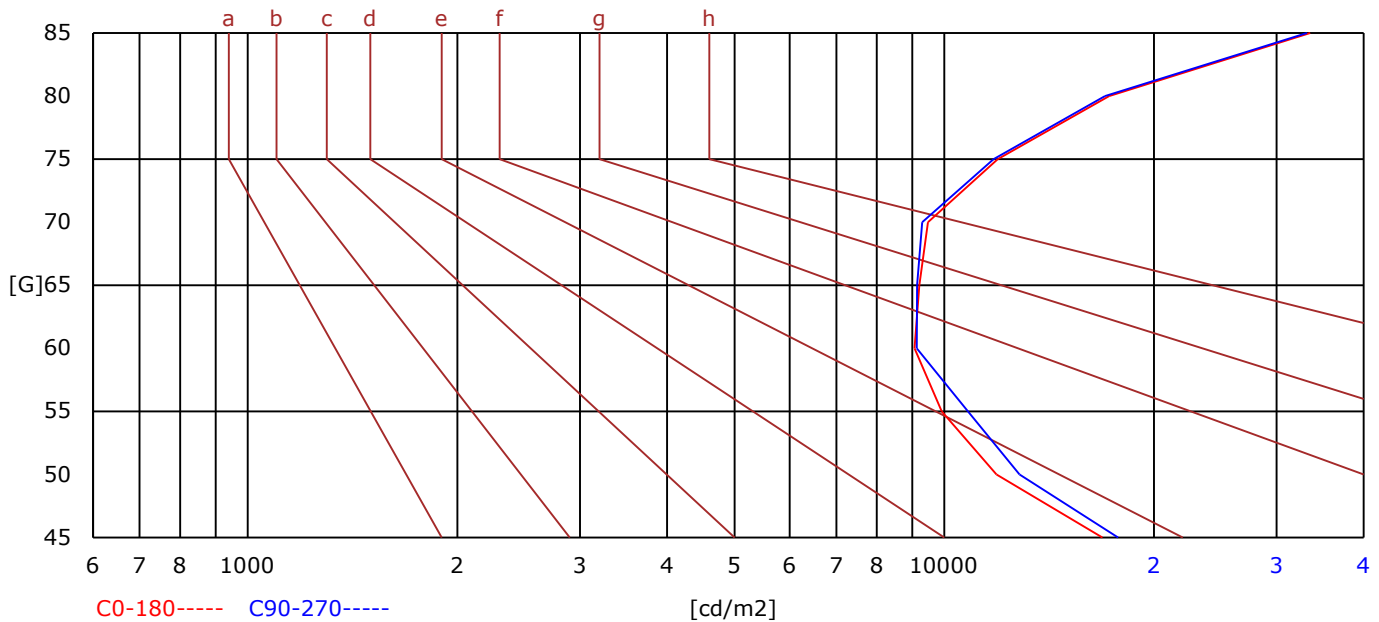
G Range: 0 - 90 Deg  
G Interval: 1.0 Deg  
Test System: Huipu CPM-1800B Goniophotometer  
Humidity: 1  
Test Distance: 7.76 m  
Remarks:

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## BRIGHT LIMIT DIAGRAM

C/G	45	50	55	60	65	70	75	80	85
C0	16866	11887	9919	9066	9211	9479	11928	17244	33527
C90	17771	12819	10819	9128	9138	9298	11769	17006	33172
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



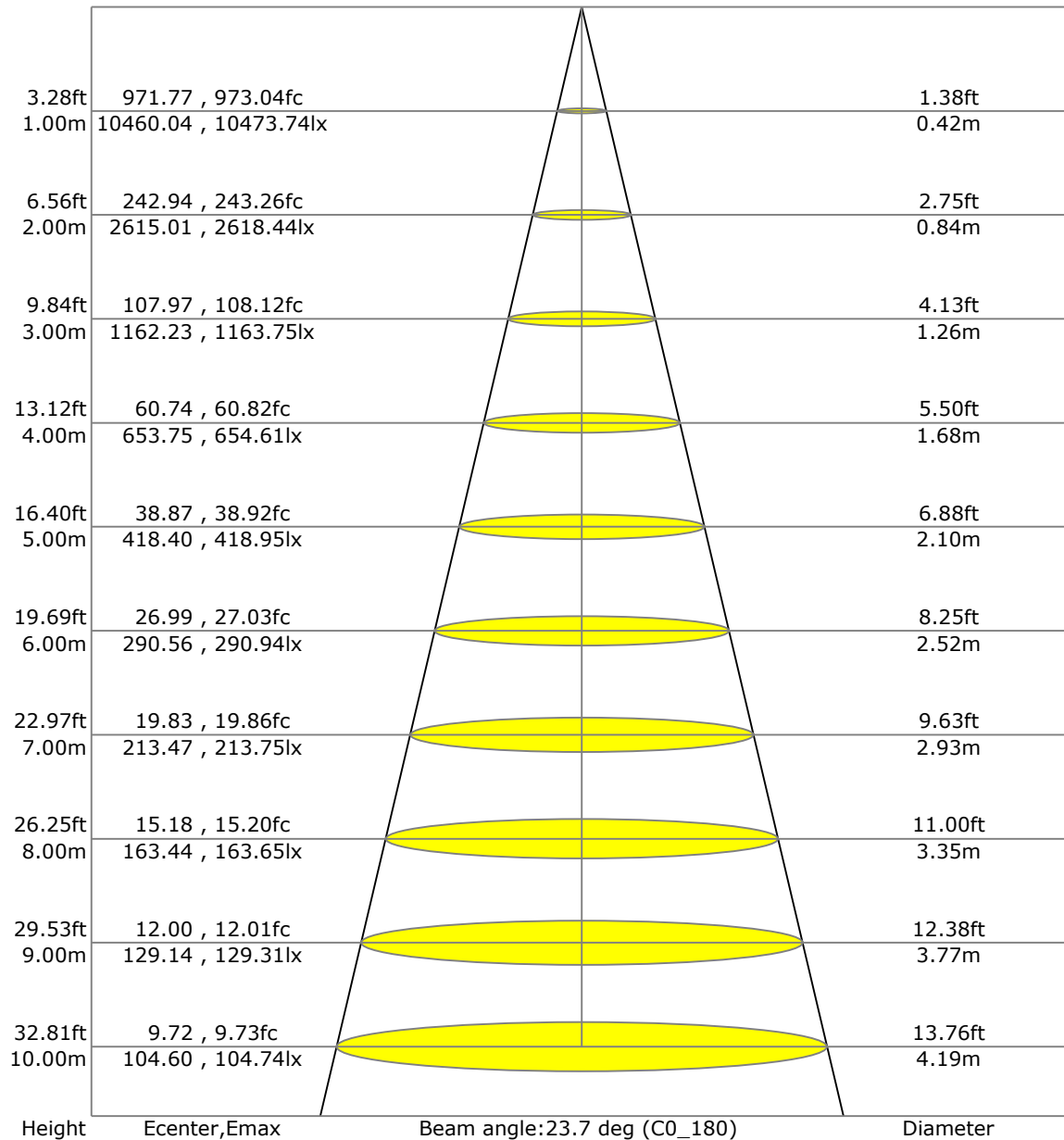
C Range: 0 - 360 Deg  
C Interval: 45.0 Deg  
Test Speed: High  
Temperature: 7.76  
Operators: 周奇  
Test Date: 2021/3/20 9:53:35

G Range: 0 - 90 Deg  
G Interval: 1.0 Deg  
Test System: Huipu CPM-1800B Goniophotometer  
Humidity: 1  
Test Distance: 7.76 m  
Remarks:

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## LX-DISTANCE DIAGRAM



C Range: 0 - 360 Deg  
C Interval: 45.0 Deg  
Test Speed: High  
Temperature: 7.76  
Operators: 周奇  
Test Date: 2021/3/20 9:53:35

G Range: 0 - 90 Deg  
G Interval: 1.0 Deg  
Test System: Huipu CPM-1800B Goniophotometer  
Humidity: 1  
Test Distance: 7.76 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	70	70	50	50	30	70	70	50	50	30
RHOF	20	20	20	20	20	20	20	20	20	20
Room Size X Y	Viewed Endwise					Viewed Crosswise				
2H 2H	9.99	10.05	10.19	10.24	10.48	9.81	9.88	10.01	10.07	10.31
3H	10.06	10.12	10.26	10.31	10.56	9.89	9.95	10.09	10.14	10.39
4H	10.08	10.15	10.29	10.34	10.59	9.91	9.98	10.12	10.17	10.42
6H	10.08	10.15	10.30	10.35	10.61	9.92	9.98	10.13	10.19	10.44
8H	10.08	10.15	10.30	10.35	10.60	9.91	9.98	10.13	10.18	10.43
12H	10.07	10.14	10.29	10.34	10.60	9.90	9.97	10.12	10.18	10.43
4H 2H	11.64	11.70	11.85	11.90	12.15	11.54	11.61	11.75	11.80	12.05
3H	11.96	12.03	12.18	12.24	12.49	11.87	11.94	12.10	12.15	12.40
4H	12.10	12.17	12.34	12.39	12.65	12.02	12.09	12.25	12.30	12.56
6H	12.22	12.29	12.46	12.51	12.78	12.14	12.21	12.38	12.43	12.70
8H	12.26	12.33	12.51	12.56	12.83	12.18	12.25	12.43	12.48	12.75
12H	12.28	12.35	12.53	12.58	12.85	12.20	12.27	12.45	12.50	12.77
8H 4H	13.30	13.37	13.52	13.57	13.82	13.23	13.30	13.45	13.50	13.76
6H	14.71	14.77	14.96	15.01	15.29	14.66	14.73	14.92	14.97	15.24
8H	14.87	14.94	15.14	15.18	15.46	14.83	14.90	15.09	15.14	15.42
12H	15.01	15.07	15.28	15.33	15.61	14.97	15.03	15.24	15.29	15.57
12H 4H	15.40	15.47	15.65	15.70	15.97	15.36	15.43	15.62	15.67	15.94
6H	15.94	16.01	16.20	16.25	16.53	15.91	15.98	16.17	16.22	16.50

C Range: 0 - 360 Deg  
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G Range: 0 - 90 Deg  
G Interval: 1.0 Deg  
Test System: Huipu CPM-1800B Goniophotometer  
Humidity: 1  
Test Distance: 7.76 m  
Remarks:

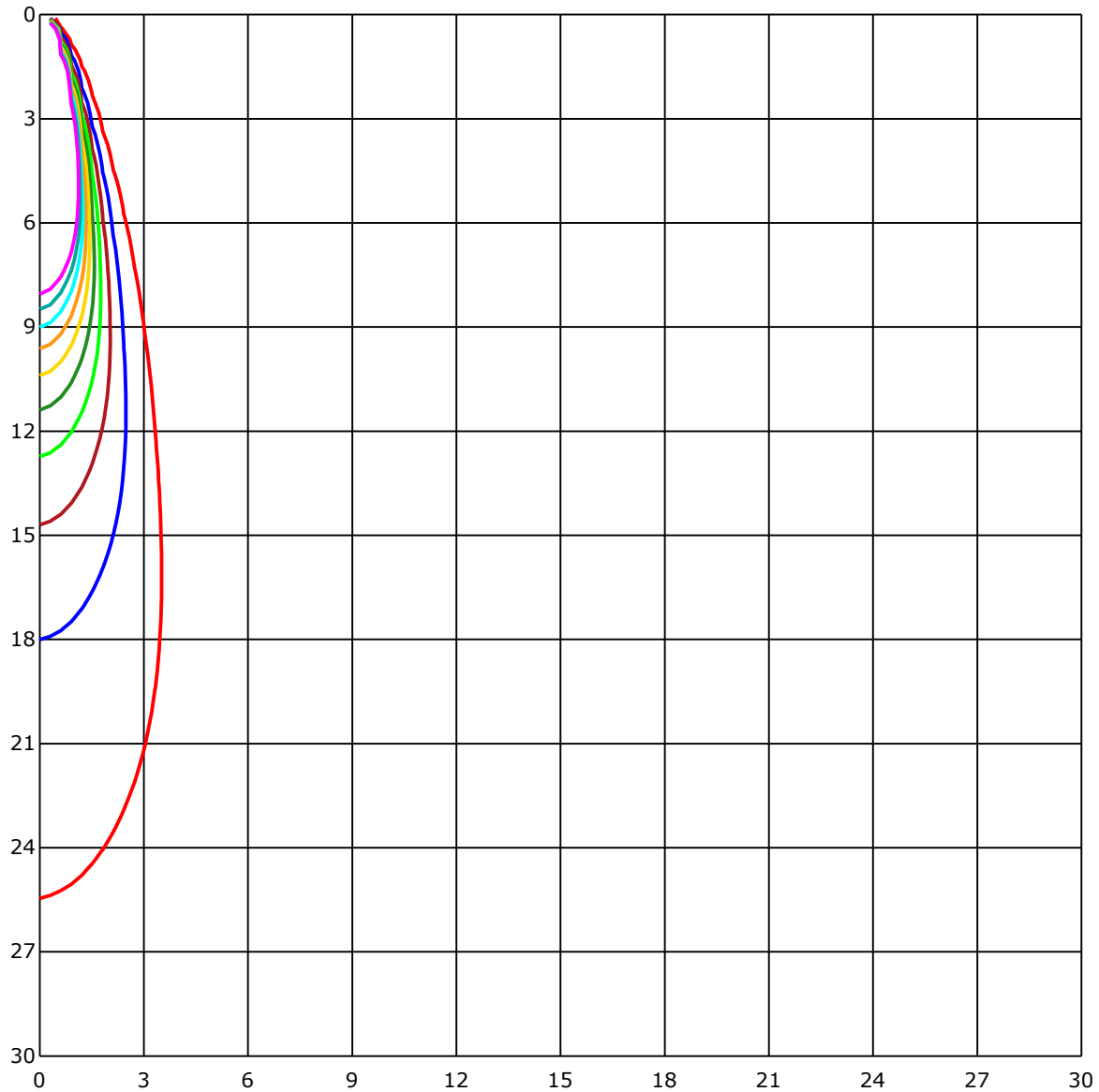


G Range: 0 - 90 Deg  
G Interval: 1.0 Deg  
Test System: Huipu CPM-1800B Goniophotometer  
Humidity: 1  
Test Distance: 7.76 m  
Remarks:

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## SPACE ISOLX DIAGRAM



Unit of illumination:lx

161.37	80.685
145.233	64.548
129.096	48.411
112.959	32.274
96.822	16.137

C Range: 0 - 360 Deg  
C Interval: 45.0 Deg  
Test Speed: High  
Temperature: 7.76  
Operators: 周奇  
Test Date: 2021/3/20 9:53:35

G Range: 0 - 90 Deg  
G Interval: 1.0 Deg  
Test System: Huipu CPM-1800B Goniophotometer  
Humidity: 1  
Test Distance: 7.76 m  
Remarks:

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## LUMINOUS DISTRIBUTION INTENSITY DATA

Gamma\C	C0	C45	C90	C135	C180	C225	C270	C315	C360	
G0	10460.04	10400.94	10402.62	10344.57	10460.04	10400.94	10402.62	10344.57	10460.04	
G1	10356.43	10377.57	10443.87	10397.74	10473.74	10323.62	10257.86	10187.83	10356.43	
G2	10169.79	10266.68	10387.99	10352.43	10391.06	10155.16	10023.7	9948.07	10169.79	
G3	9896.67	10068.17	10225.34	10208.18	10202.94	9895.35	9699.61	9624.52	9896.67	
G4	9547.29	9783.52	9967.01	9962.19	9923.14	9559.09	9290.98	9223.92	9547.29	
G5	9122.48	9423.36	9631.23	9631.08	9559.79	9144.38	8818.54	8763.23	9122.48	
G6	8636.47	8987.03	9234.16	9226.84	9123.99	8662.0	8297.44	8248.97	8636.47	
G7	8093.01	8482.46	8775.39	8759.73	8619.52	8131.09	7737.48	7686.84	8093.01	
G8	7495.68	7928.46	8262.85	8240.72	8056.75	7556.59	7131.54	7082.58	7495.68	
G9	6847.01	7318.49	7707.46	7679.34	7451.78	6933.21	6492.54	6428.65	6847.01	
G10	6156.86	6663.32	7121.6	7082.67	6821.57	6279.37	5821.36	5736.72	6156.86	
G11	5428.83	5969.82	6490.31	6462.7	6168.06	5612.46	5120.45	5033.86	5428.83	
G12	4690.92	5245.22	5808.14	5834.63	5510.09	4938.57	4390.89	4333.77	4690.92	
G13	3984.45	4523.82	5092.36	5203.55	4860.19	4268.83	3679.39	3671.86	3984.45	
G14	3357.13	3827.88	4382.76	4579.28	4246.24	3621.7	3026.87	3072.6	3357.13	
G15	2818.55	3184.37	3701.79	3963.67	3655.03	3019.61	2453.99	2551.81	2818.55	
G16	2359.3	2619.29	3056.74	3371.49	3085.31	2465.1	1957.61	2106.74	2359.3	
G17	1971.49	2141.94	2481.15	2810.21	2546.15	1977.13	1549.85	1737.43	1971.49	
G18	1645.96	1743.81	1995.64	2293.81	2062.84	1565.93	1225.67	1428.12	1645.96	
G19	1372.51	1420.26	1600.8	1852.5	1647.89	1236.15	974.74	1178.82	1372.51	
G20	1142.06	1152.9	1283.0	1484.51	1312.96	975.53	778.85	971.7	1142.06	
G21	950.53	935.36	1036.5	1196.31	1054.02	772.86	627.23	803.94	950.53	
G22	794.18	758.32	843.8	977.12	860.9	617.59	510.04	665.68	794.18	
G23	664.26	617.41	690.49	805.53	707.86	498.36	420.35	553.04	664.26	
G24	554.54	504.98	564.3	667.48	584.77	405.29	347.52	459.64	554.54	
G25	463.25	415.41	461.66	554.12	484.36	334.09	289.26	383.8	463.25	
G26	391.08	344.6	380.27	460.0	404.12	278.39	243.91	321.65	391.08	
G27	331.98	288.05	315.99	382.92	337.16	237.47	207.9	272.3	331.98	
G28	283.32	243.79	264.08	320.0	282.66	204.14	178.79	232.53	283.32	
G29	243.73	208.29	223.74	270.17	239.76	178.42	156.08	200.04	243.73	
G30	212.45	181.01	193.3	229.4	207.15	157.02	138.08	174.27	212.45	
G31	187.16	159.28	168.58	196.64	181.29	140.52	123.69	153.31	187.16	
G32	166.2	141.72	149.37	169.78	160.33	124.89	110.62	136.66	166.2	
G33	148.2	127.21	132.54	148.86	142.38	113.84	99.66	121.49	148.2	
G34	133.5	114.84	118.72	130.46	128.26	103.03	90.33	109.23	133.5	
G35	120.13	104.48	107.31	116.16	113.72	92.46	82.53	98.43	120.13	
G36	107.94	94.84	97.46	103.36	101.56	83.79	77.41	87.98	107.94	

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature: 7.76

Operators: 周奇

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G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity: 1

Test Distance: 7.76 m

Remarks:

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## LUMINOUS DISTRIBUTION INTENSITY DATA(Continue 1)

Gamma\C	C0	C45	C90	C135	C180	C225	C270	C315	C360	
G37	96.5	85.42	87.59	92.8	90.75	75.45	67.53	80.3	96.5	
G38	85.99	78.01	80.18	83.13	83.49	70.51	61.03	70.88	85.99	
G39	76.9	70.3	71.33	74.49	76.08	61.9	55.37	63.65	76.9	
G40	68.86	61.99	64.01	66.84	65.79	56.27	49.77	57.36	68.86	
G41	60.97	56.03	57.36	60.01	58.17	50.22	44.83	51.46	60.97	
G42	54.74	49.95	51.25	53.11	51.91	44.59	39.86	46.25	54.74	
G43	48.96	44.35	46.88	46.46	46.13	39.68	36.01	41.37	48.96	
G44	42.39	39.23	39.8	41.22	40.68	35.14	31.83	37.0	42.39	
G45	38.3	34.78	34.63	36.64	35.74	31.64	28.09	33.27	38.3	
G46	33.72	31.07	30.95	32.85	32.97	29.36	26.59	30.29	33.72	
G47	31.22	28.09	28.42	30.44	29.75	26.65	24.15	27.4	31.22	
G48	28.54	25.89	27.52	27.52	27.88	25.29	22.94	25.44	28.54	
G49	27.1	24.9	24.51	25.56	25.74	22.91	21.44	24.18	27.1	
G50	24.51	22.28	23.0	24.03	23.64	21.11	19.51	21.89	24.51	
G51	23.0	20.81	21.44	21.83	22.73	20.26	18.43	20.59	23.0	
G52	21.47	19.81	19.54	20.56	20.32	18.94	17.79	19.33	21.47	
G53	19.51	18.7	18.43	19.3	18.97	18.79	18.1	18.7	19.51	
G54	18.46	18.58	17.85	18.64	17.91	16.65	16.68	18.37	18.46	
G55	17.79	16.59	18.07	18.1	17.64	15.87	16.41	16.23	17.79	
G56	18.04	16.05	16.86	16.23	18.22	15.66	14.9	15.72	18.04	
G57	16.35	15.93	16.35	15.63	16.8	15.02	13.64	15.87	16.35	
G58	16.26	14.96	14.54	15.54	14.69	13.64	13.16	14.24	16.26	
G59	14.42	13.73	13.7	13.88	13.64	13.16	12.89	13.37	14.42	
G60	13.4	13.22	13.16	13.31	12.98	12.71	12.59	12.98	13.4	
G61	12.95	12.95	12.8	12.86	12.68	12.07	12.28	12.4	12.95	
G62	12.71	12.43	12.56	12.34	12.53	11.59	11.59	11.77	12.71	
G63	12.01	11.89	12.28	11.71	12.34	11.32	11.41	11.47	12.01	
G64	11.59	11.53	11.77	11.44	11.77	11.08	11.11	11.29	11.59	
G65	11.35	11.35	11.47	11.26	11.47	10.75	10.63	10.99	11.35	
G66	10.93	11.02	11.05	10.75	10.63	10.03	9.94	10.36	10.93	
G67	10.21	10.57	10.33	10.27	10.12	9.63	9.66	9.88	10.21	
G68	9.76	9.85	9.88	9.85	9.73	9.42	9.36	9.42	9.76	
G69	9.48	9.6	9.54	9.45	9.63	9.36	9.21	9.27	9.48	
G70	9.33	9.45	9.36	9.27	9.45	9.24	9.21	9.18	9.33	
G71	9.27	9.3	9.24	9.21	9.39	9.15	9.09	9.06	9.27	
G72	9.15	9.18	9.12	9.12	9.3	9.06	9.06	9.03	9.15	
G73	9.18	9.18	9.15	9.0	9.21	8.94	9.0	8.97	9.18	

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature: 7.76

Operators: 周奇

Test Date: 2021/3/20 9:53:35

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity: 1

Test Distance: 7.76 m

Remarks:

G Range: 0 - 90 Deg  
G Interval: 1.0 Deg  
Test System: Huipu CPM-1800B Goniophotometer  
Humidity: 1  
Test Distance: 7.76 m  
Remarks: