

# LUMINAIRE PHOTOMETRIC TEST REPORT

## Luminaire Property

Manufacturer: 0  
Luminaire Type: 220V-2835-99L-2700K  
Lamp Type:  
Luminous Width: 0 mm  
Luminous Length: 0 mm  
Luminous Height: 0 mm

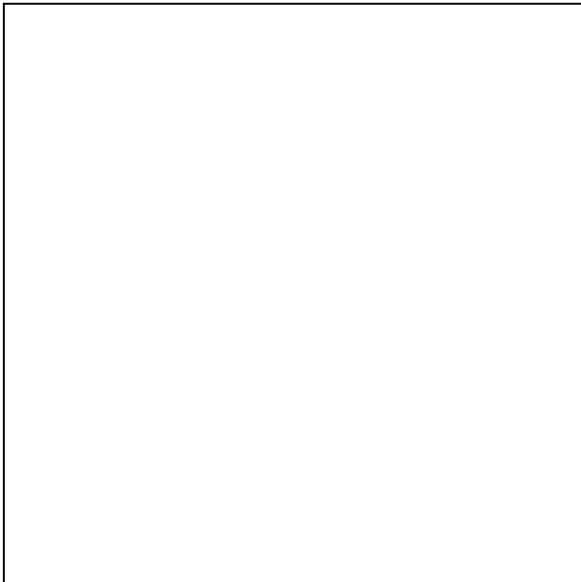
Voltage(V): 219.71 V  
Current(A): 0.0350 A  
Power(W): 7.12 W  
Power Factor: 0.9240  
Lamp Luminous Flux: 630.26

## Photometric Results

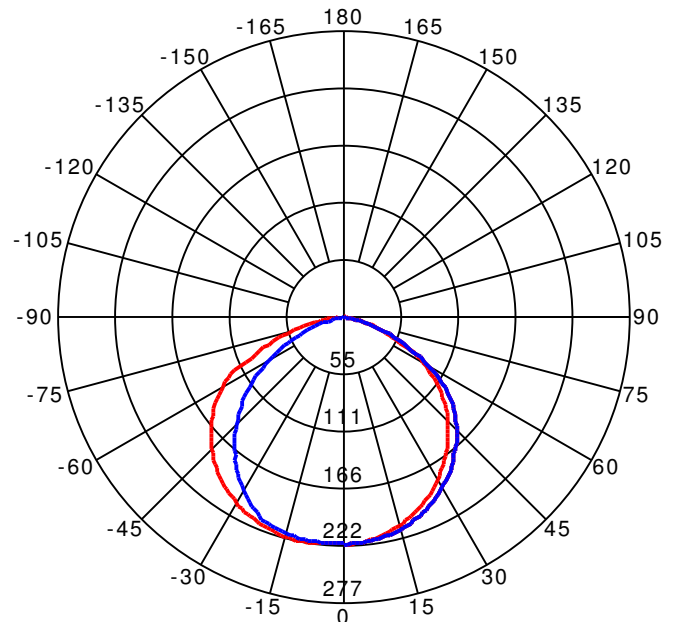
CIE Class: Direct  
Luminaire Luminous Flux: 630.2568  
Downward Ratio: 100.00%  
Luminaire Efficacy Rating(LER): 88.52 lm/W  
Beam Angle(50%) C0-180,C90-270: 118.9,45.9  
Field Angle(10%) C0-180,C90-270: 156.5,148.2

Max. Intensity: 221.61 cd  
Max.Intensity Angle: C= 180 Gamma= 12  
Upward Ratio: 0.00%  
Efficacy: 100.00%  
Center Intensity: 220.93 cd

Picture of Luminaire



Luminous Intensity Distribution Curve



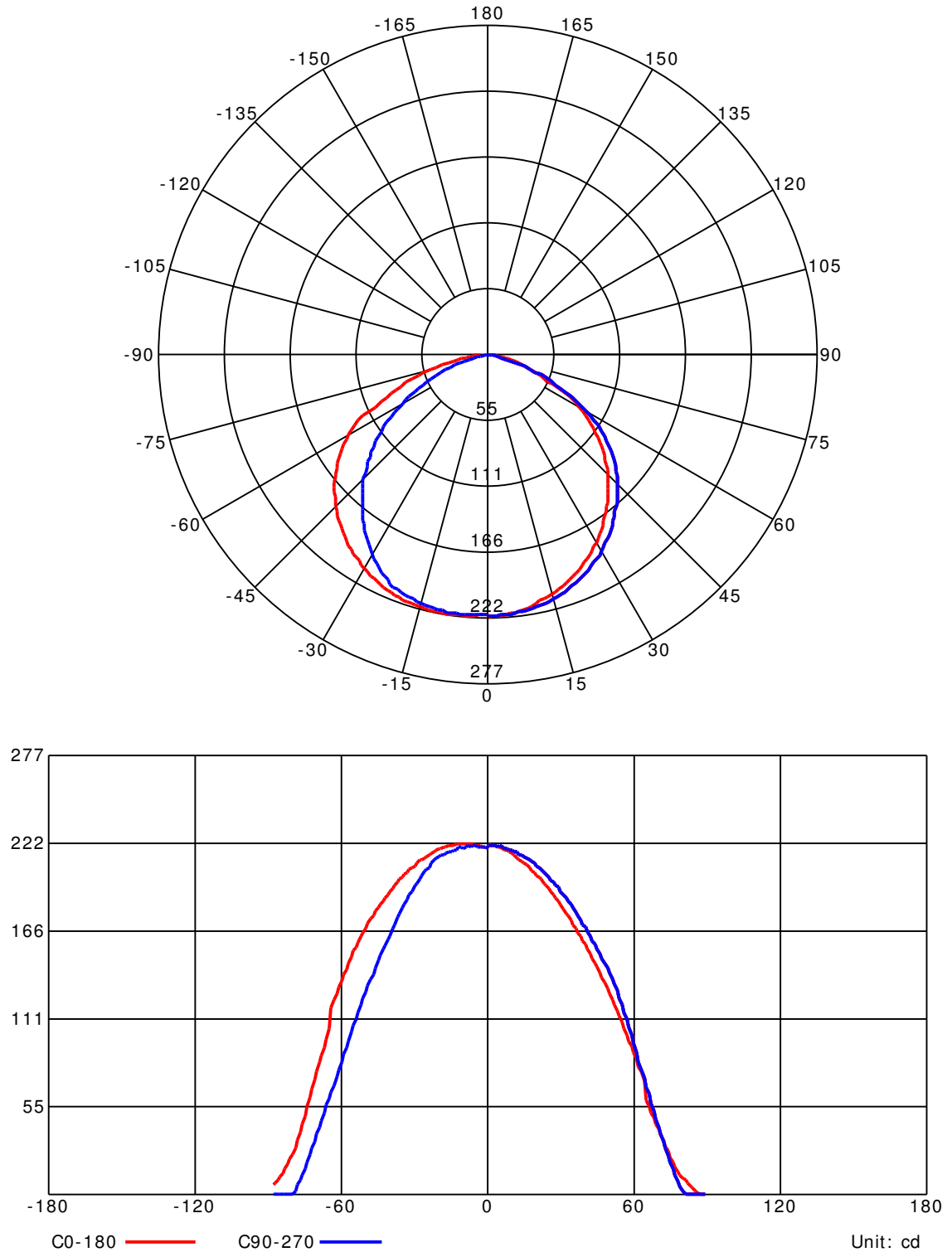
Beam Angle(50%) C0-180,C90-270: 45.9 deg

C0-180 ——— C90-270 ———

C Range: 0 - 360 Deg  
C Interval: 45.0 Deg  
Test Speed: High  
Temperature:  
Operators:  
Test Date: 2020/3/14 9:43:25

G Range: 0 - 90 Deg  
G Interval: 1.0 Deg  
Test System: Huipu CPM-1800B Goniophotometer  
Humidity:  
Test Distance: 6.35 m  
Remarks:

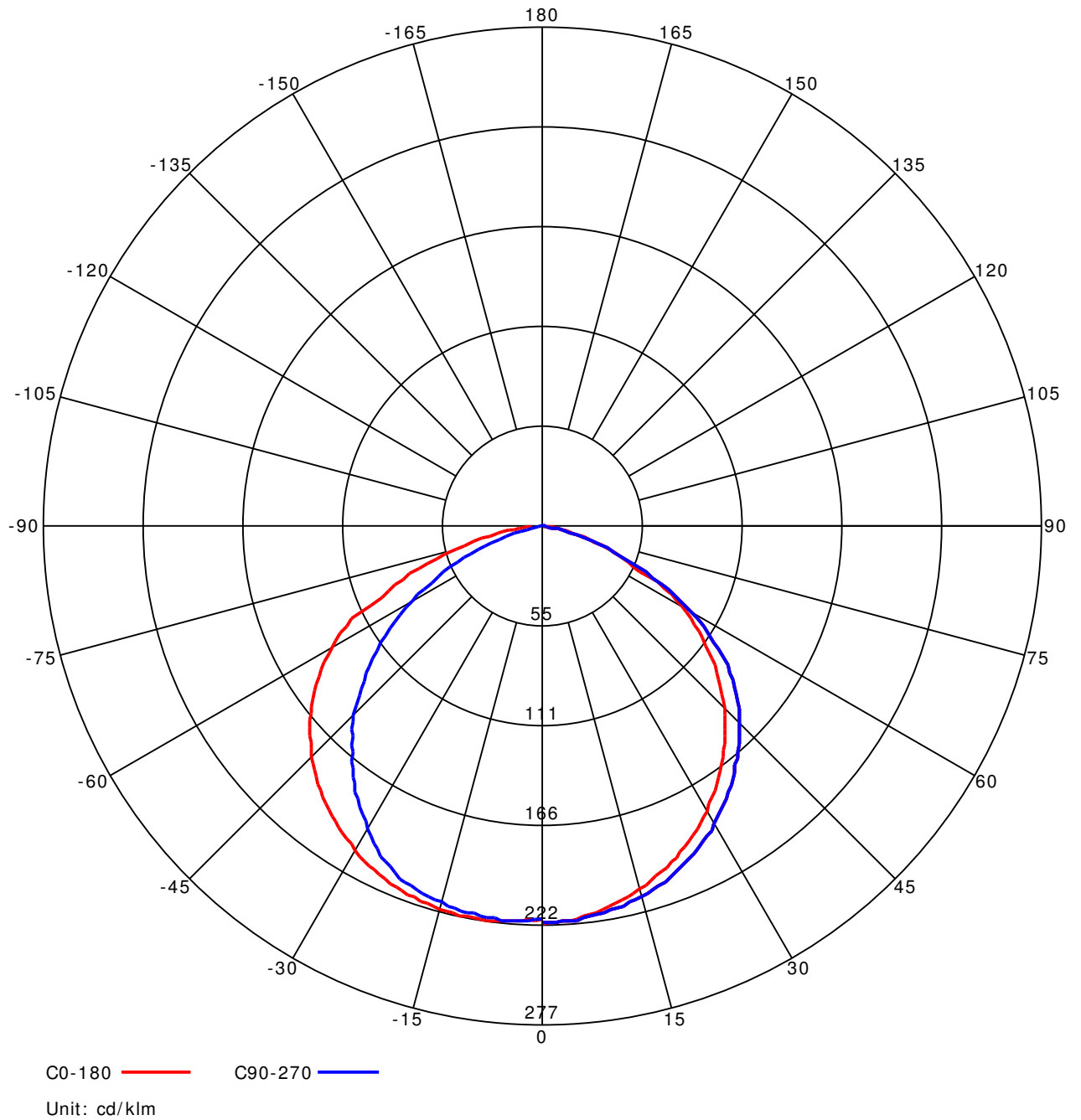
## Luminous Intensity Distribution Curve



C Range: 0 - 360 Deg  
C Interval: 45.0 Deg  
Test Speed: High  
Temperature:  
Operators:  
Test Date: 2020/3/14 9:43:25

G Range: 0 - 90 Deg  
G Interval: 1.0 Deg  
Test System: Huipu CPM-1800B Goniophotometer  
Humidity:  
Test Distance: 6.35 m  
Remarks:

## Luminous Intensity Distribution Curve



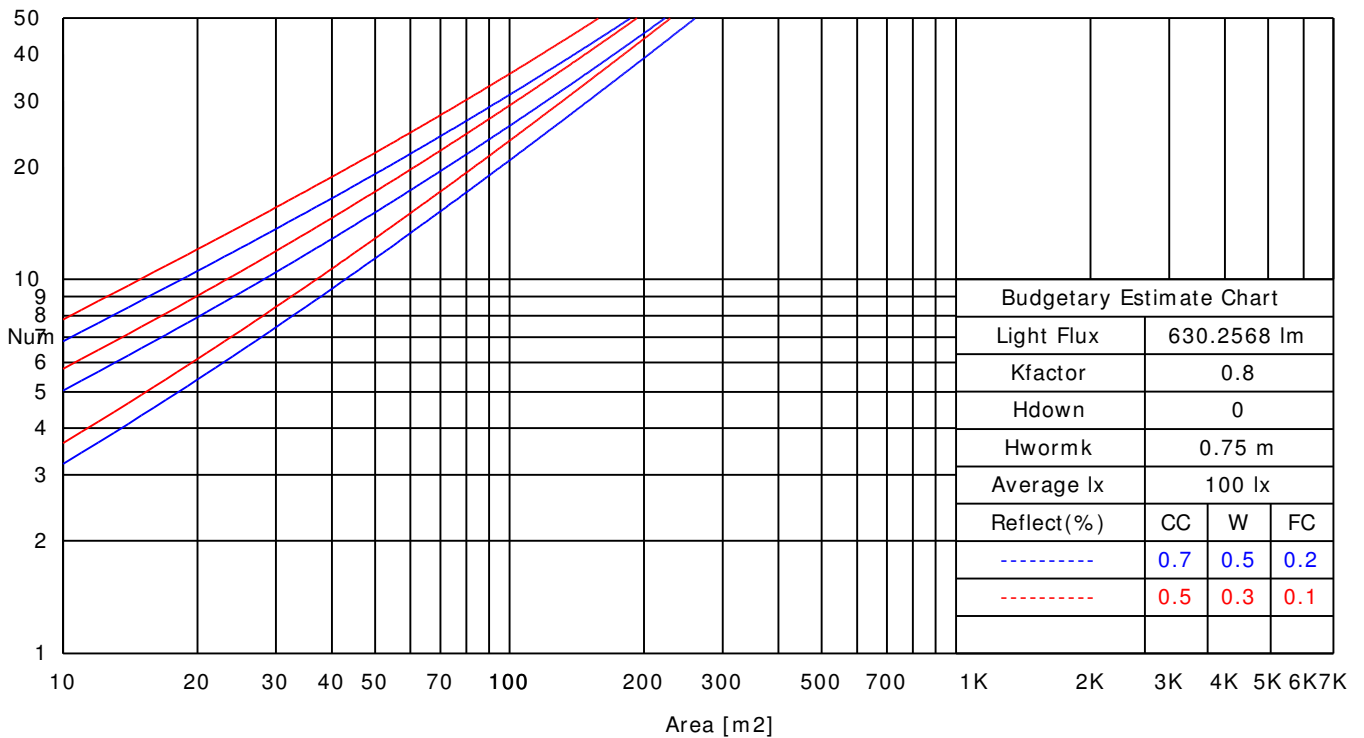
C Range: 0 - 360 Deg  
C Interval: 45.0 Deg  
Test Speed: High  
Temperature:  
Operators:  
Test Date: 2020/3/14 9:43:25

G Range: 0 - 90 Deg  
G Interval: 1.0 Deg  
Test System: Huipu CPM-1800B Goniophotometer  
Humidity:  
Test Distance: 6.35 m  
Remarks:

## 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	1.08	1.06	1.05	1.06	1.04	1.03	1.02	1.00	0.99	0.97	0.95	0.94	0.91	0.89	0.87	0.82
2	0.96	0.94	0.93	0.95	0.93	0.91	0.92	0.90	0.87	0.88	0.85	0.83	0.83	0.80	0.77	0.72
3	0.86	0.84	0.82	0.86	0.83	0.81	0.84	0.80	0.77	0.81	0.77	0.73	0.77	0.72	0.69	0.64
4	0.77	0.75	0.73	0.77	0.74	0.72	0.76	0.72	0.69	0.74	0.69	0.65	0.71	0.66	0.61	0.57
5	0.70	0.68	0.66	0.70	0.67	0.65	0.69	0.65	0.62	0.67	0.63	0.59	0.65	0.60	0.55	0.52
6	0.64	0.61	0.60	0.64	0.61	0.59	0.63	0.59	0.56	0.62	0.57	0.53	0.60	0.55	0.50	0.47
7	0.58	0.56	0.54	0.58	0.55	0.53	0.58	0.54	0.51	0.58	0.52	0.49	0.56	0.51	0.46	0.43
8	0.53	0.51	0.50	0.54	0.51	0.49	0.54	0.50	0.47	0.54	0.48	0.45	0.53	0.47	0.42	0.39
9	0.49	0.47	0.46	0.50	0.47	0.45	0.50	0.46	0.43	0.50	0.45	0.41	0.49	0.44	0.39	0.36
10	0.46	0.44	0.43	0.46	0.44	0.42	0.47	0.43	0.40	0.47	0.42	0.38	0.47	0.41	0.36	0.34

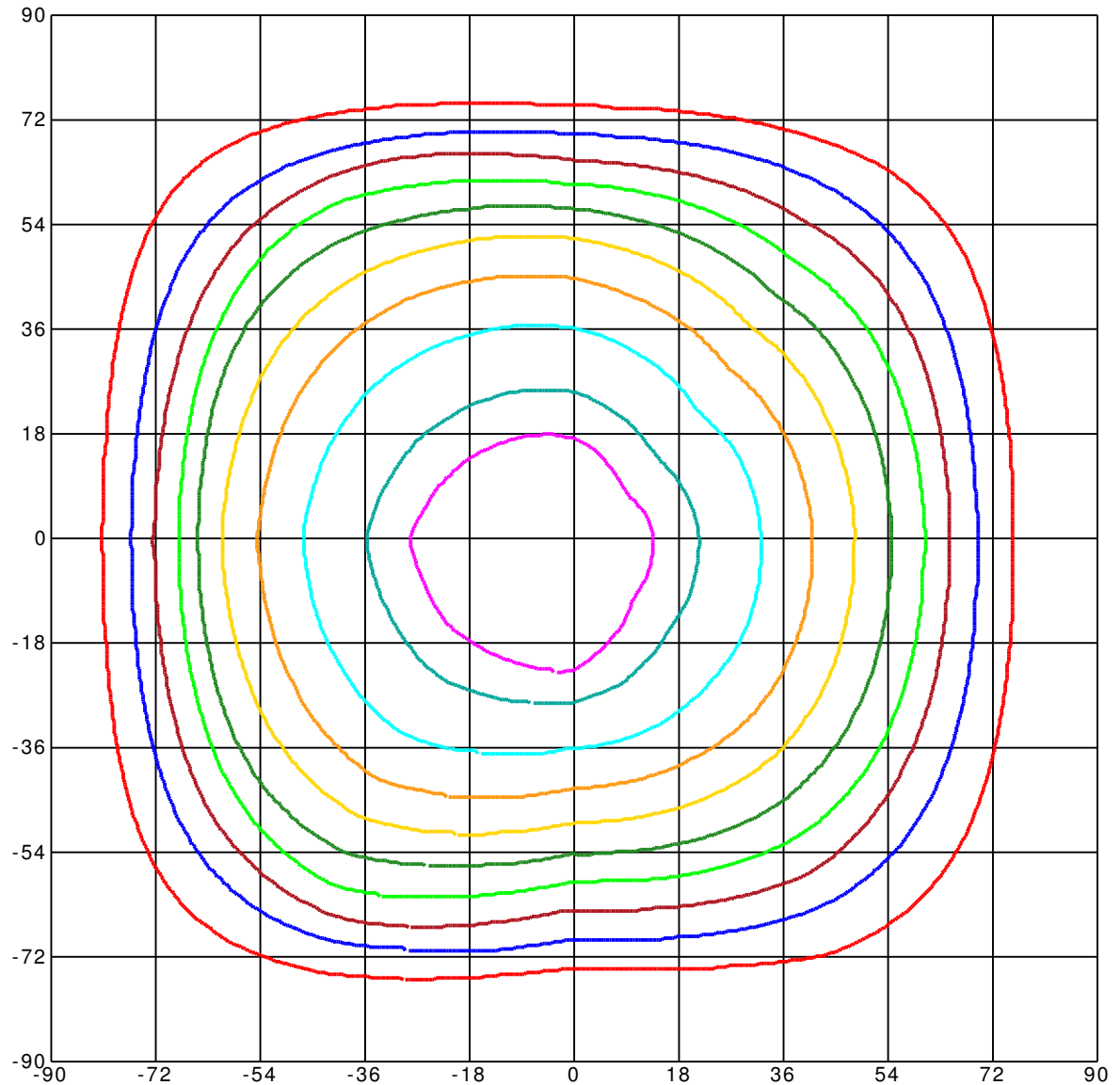
## LUMINAIRE BUDGETARY ESTIMATE DIAGRAM



C Range: 0 - 360 Deg  
 C Interval: 45.0 Deg  
 Test Speed: High  
 Temperature:  
 Operators:  
 Test Date: 2020/3/14 9:43:25

G Range: 0 - 90 Deg  
 G Interval: 1.0 Deg  
 Test System: Huipu CPM-1800B Goniophotometer  
 Humidity:  
 Test Distance: 6.35 m  
 Remarks:

## ISOCANDELA DIAGRAM (RECTANGULAR)



Unit of intensity:cd    Imax(100%): 221.612 cd

— 210.532(95%Imax)

— 199.451(90%Imax)

— 177.29(80%Imax)

— 155.129(70%Imax)

— 132.968(60%Imax)

— 110.806(50%Imax)

— 88.645(40%Imax)

— 66.484(30%Imax)

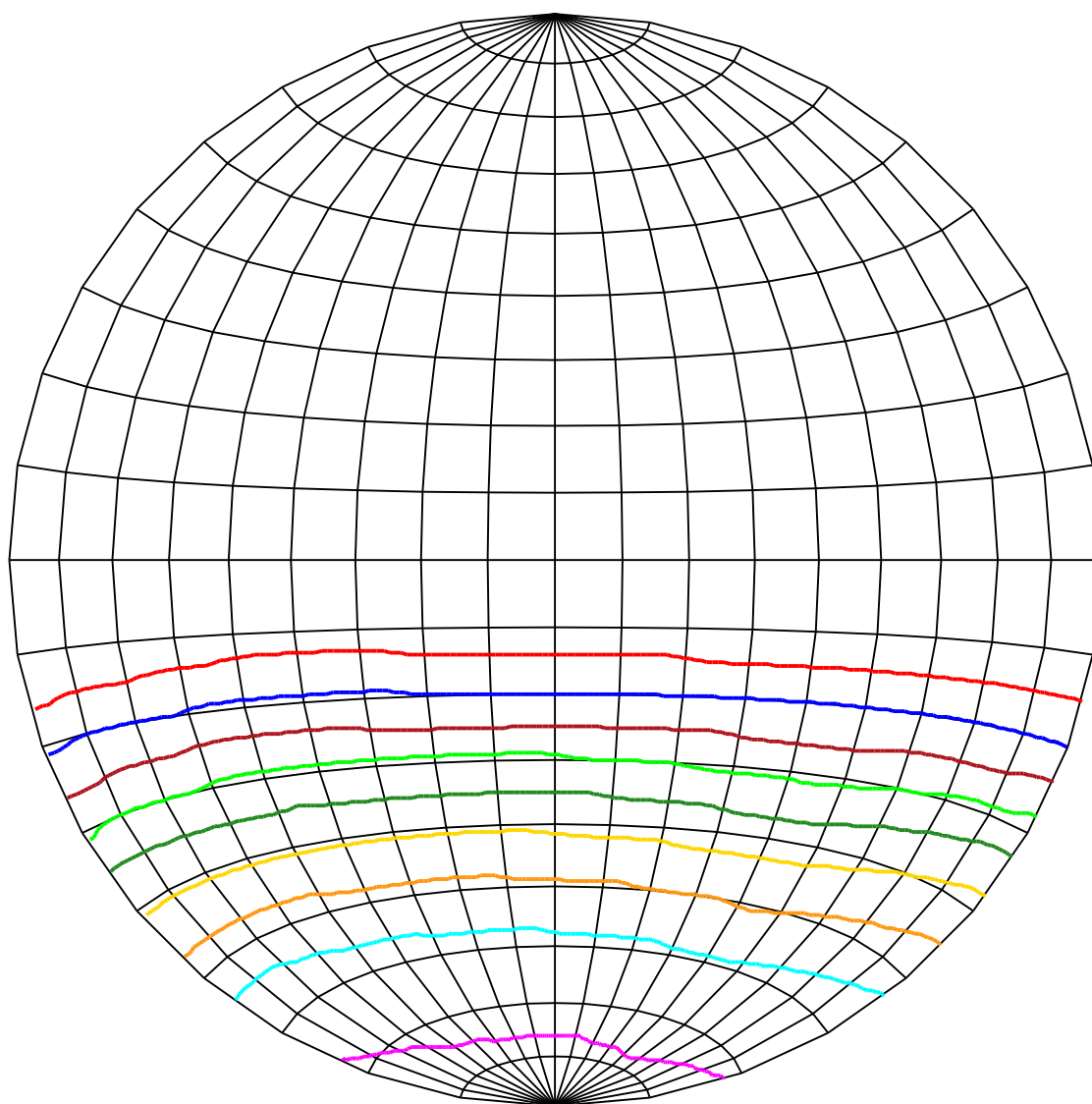
— 44.322(20%Imax)

— 22.161(10%Imax)

C Range: 0 - 360 Deg  
C Interval: 45.0 Deg  
Test Speed: High  
Temperature:  
Operators:  
Test Date: 2020/3/14 9:43:25

G Range: 0 - 90 Deg  
G Interval: 1.0 Deg  
Test System: Huipu CPM-1800B Goniophotometer  
Humidity:  
Test Distance: 6.35 m  
Remarks:

## ISOCANDELA DIAGRAM ( SPHERE)



Unit of intensity:cd      Imax(100%): 221.612 cd

210.532(95%Imax)

199.451(90%Imax)

177.29(80%Imax)

155.129(70%Imax)

132.968(60%Imax)

110.806(50%Imax)

88.645(40%Imax)

66.484(30%Imax)

44.322(20%Imax)

22.161(10%Imax)

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature:

Operators:

Test Date: 2020/3/14 9:43:25

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

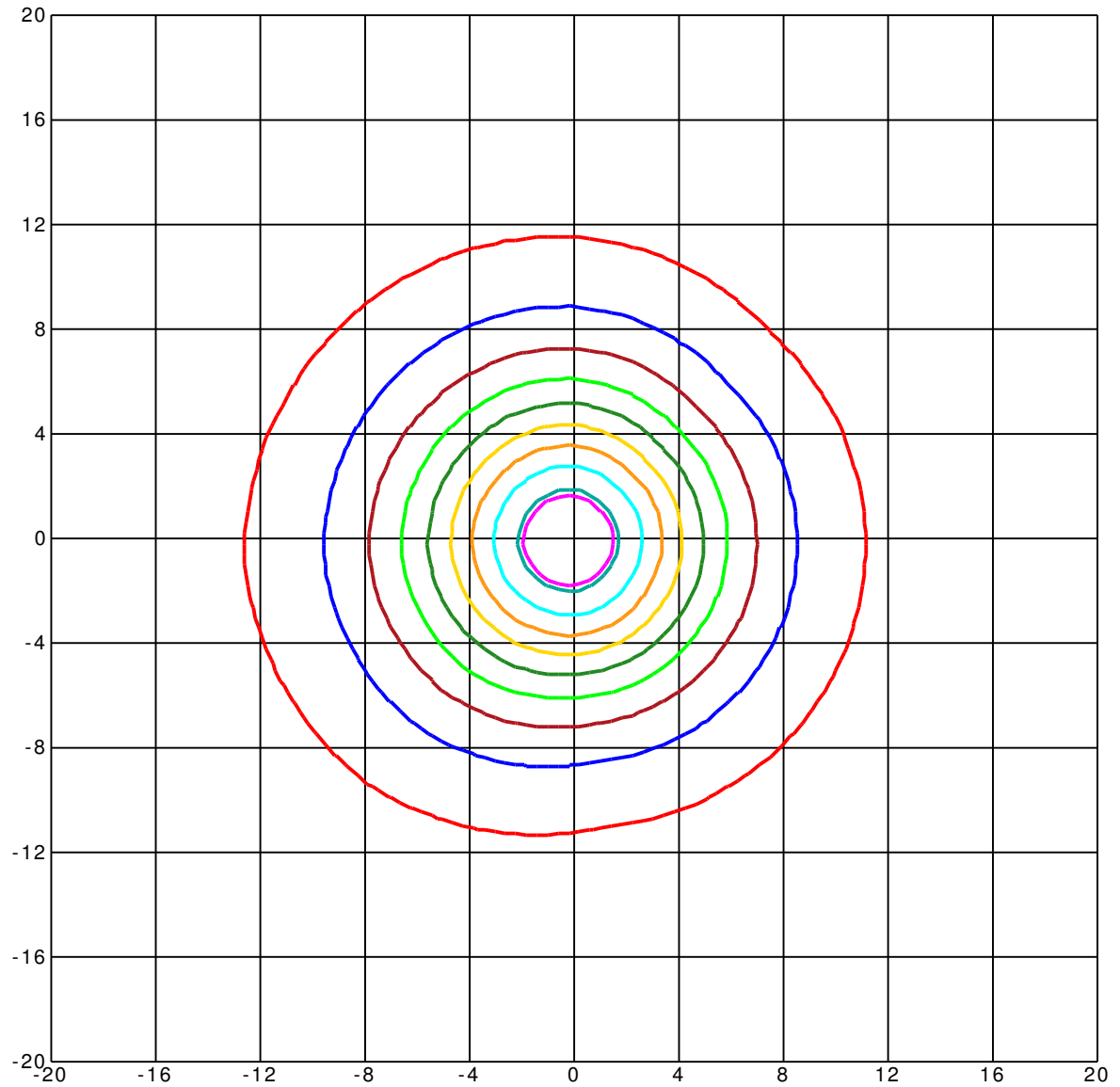
Test System: Huipu CPM-1800B Goniophotometer

Humidity:

Test Distance: 6.35 m

Remarks:

# ISOLX DIAGRAM



Unit of illumination:lx

Height of plane:8.0(m)/26.25(ft)

3.176(1% Emax)

3.107(1% Emax)

2.762(1% Emax)

2.416(1% Emax)

2.071(1% Emax)

1.726(1% Emax)

1.381(1% Emax)

1.036(0% Emax)

0.69(0% Emax)

0.345(0% Emax)

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature:

Operators:

Test Date: 2020/3/14 9:43:25

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

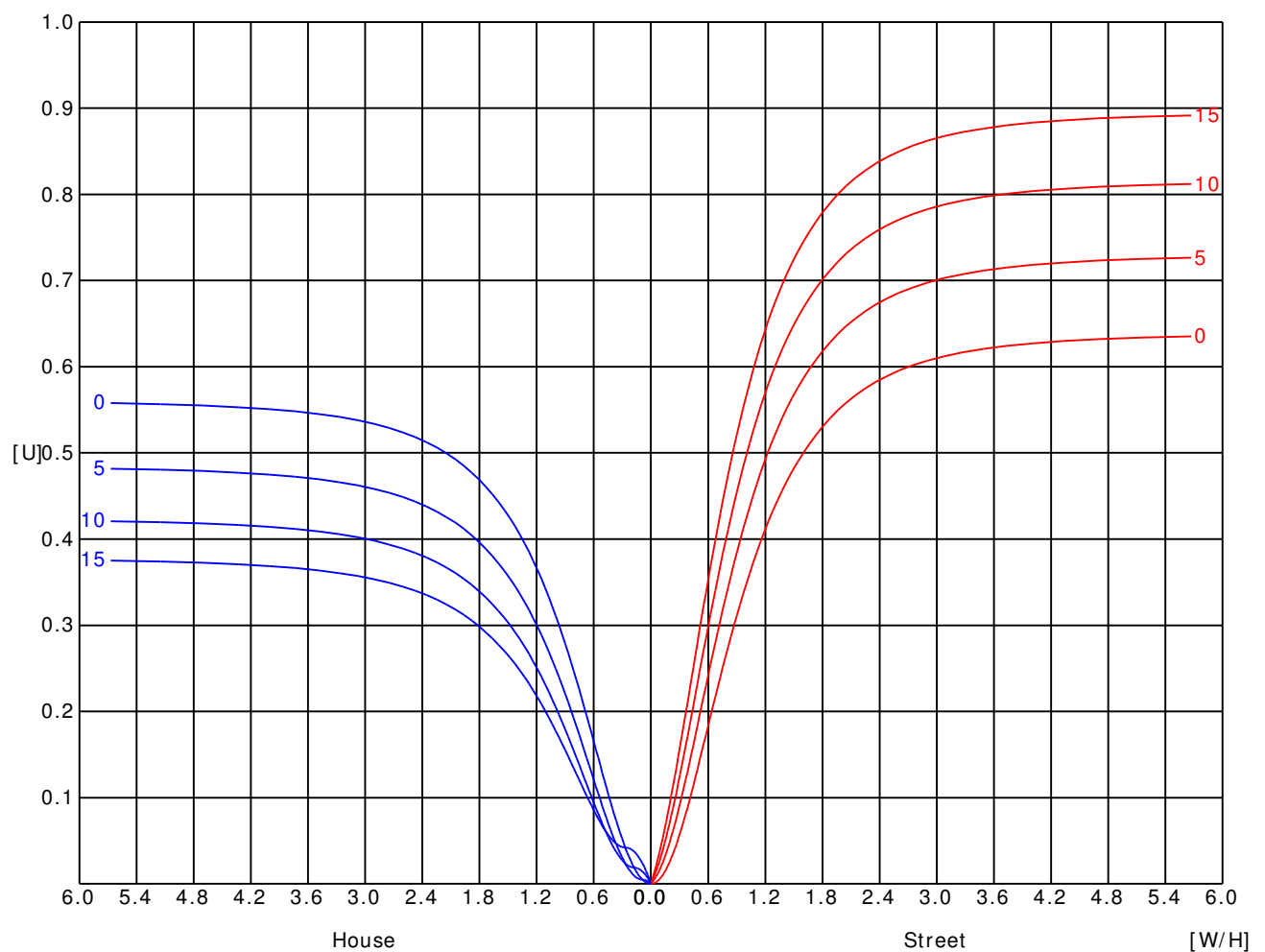
Test System: Huipu CPM-1800B Goniophotometer

Humidity:

Test Distance: 6.35 m

Remarks:

## UTILIZATION FACTOR DIAGRAM (ROAD)



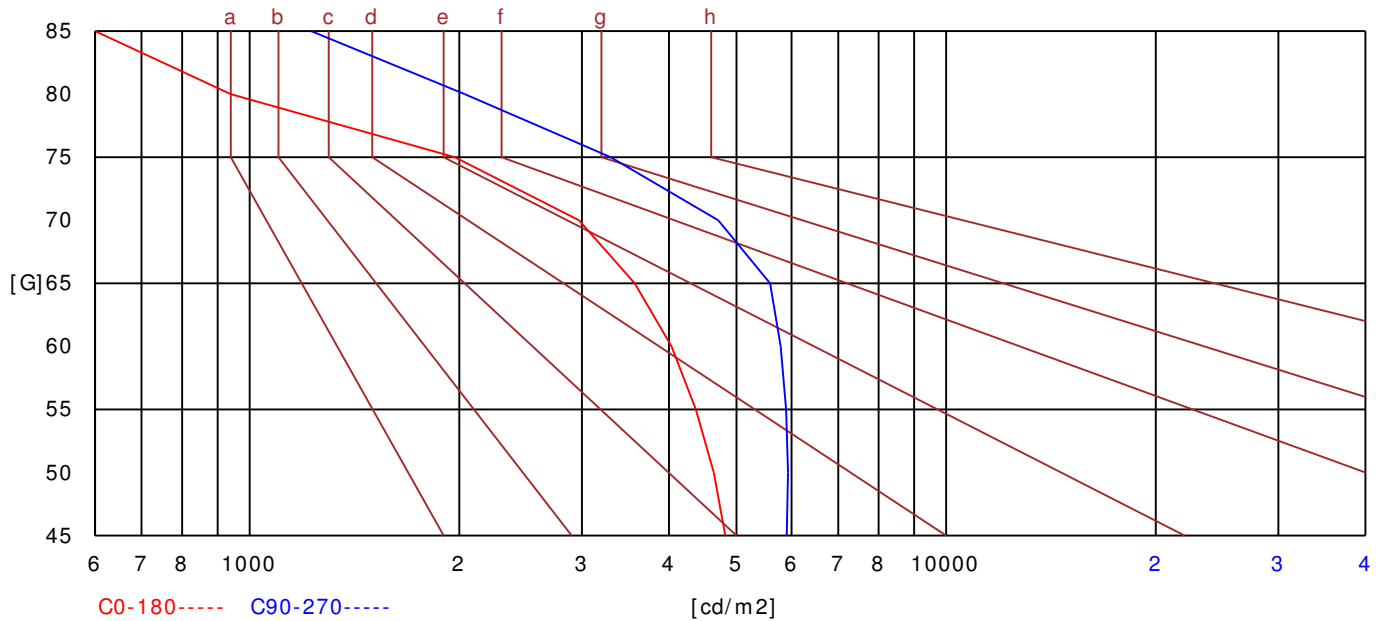
C Range: 0 - 360 Deg  
C Interval: 45.0 Deg  
Test Speed: High  
Temperature:  
Operators:  
Test Date: 2020/3/14 9:43:25

G Range: 0 - 90 Deg  
G Interval: 1.0 Deg  
Test System: Huipu CPM-1800B Goniophotometer  
Humidity:  
Test Distance: 6.35 m  
Remarks:



## B R I G H T L I M I T D I A G R A M

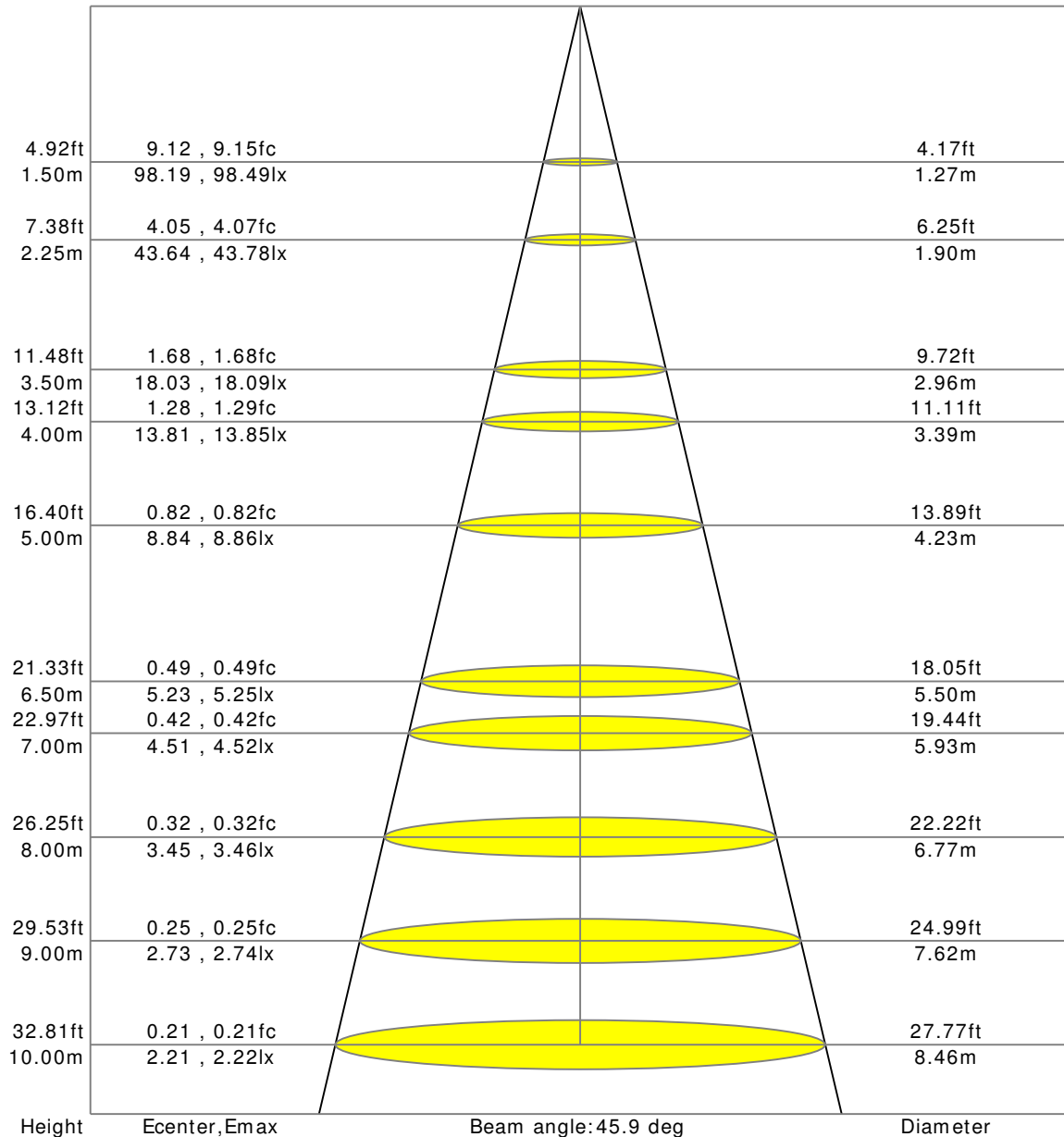
C/G	45	50	55	60	65	70	75	80	85
C0	4820	4641	4374	4034	3571	2971	1971	940	0
C90	5903	5933	5893	5788	5586	4710	3299	2038	1226
Dazzle	Quality	Illuminance	---	---	---	---	---	---	---
1.15	A	2000	1000	500	<= 300				
1.5	B		2000	1000	500	<= 300			
1.85	C			2000	1000	500	<= 300		
2.2	D				2000	1000	500	<= 300	
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:  
 Operators:  
 Test Date: 2020/3/14 9:43:25

G Range: 0 - 90 Deg  
 G Interval: 1.0 Deg  
 Test System: Huipu CPM-1800B Goniophotometer  
 Humidity:  
 Test Distance: 6.35 m  
 Remarks:

## LX-DI STANCE DI AGRAM



C Range: 0 - 360 Deg  
 C Interval: 45.0 Deg  
 Test Speed: High  
 Temperature:  
 Operators:  
 Test Date: 2020/3/14 9:43:25

G Range: 0 - 90 Deg  
 G Interval: 1.0 Deg  
 Test System: Huipu CPM-1800B Goniophotometer  
 Humidity:  
 Test Distance: 6.35 m  
 Remarks:

## 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	17.96	18.04	18.16	18.22	18.47	18.17	18.25	18.37	18.44	18.68
3H	18.02	18.10	18.23	18.29	18.54	18.22	18.30	18.43	18.49	18.74
4H	18.01	18.08	18.22	18.28	18.53	18.21	18.28	18.42	18.48	18.73
6H	17.98	18.05	18.20	18.25	18.50	18.18	18.25	18.40	18.46	18.71
8H	17.96	18.03	18.18	18.24	18.49	18.17	18.24	18.39	18.44	18.69
12H	17.95	18.01	18.17	18.22	18.48	18.15	18.22	18.38	18.43	18.68
4H 2H	19.57	19.64	19.78	19.84	20.09	19.75	19.82	19.96	20.02	20.26
3H	19.69	19.76	19.92	19.97	20.22	19.85	19.92	20.08	20.12	20.38
4H	19.69	19.75	19.92	19.97	20.23	19.85	19.91	20.08	20.13	20.39
6H	19.66	19.72	19.90	19.94	20.20	19.82	19.88	20.06	20.10	20.37
8H	19.64	19.70	19.88	19.92	20.19	19.81	19.86	20.05	20.09	20.35
12H	19.62	19.67	19.87	19.91	20.17	19.78	19.84	20.03	20.07	20.34
8H 4H	19.74	19.81	19.96	20.01	20.26	19.77	19.84	19.99	20.04	20.30
6H	19.87	19.92	20.12	20.16	20.43	19.86	19.91	20.11	20.15	20.42
8H	19.85	19.89	20.11	20.14	20.41	19.84	19.88	20.10	20.13	20.41
12H	19.82	19.86	20.09	20.12	20.40	19.82	19.86	20.09	20.11	20.39
12H 4H	19.90	19.95	20.15	20.18	20.45	19.87	19.92	20.11	20.15	20.42
6H	19.87	19.91	20.13	20.16	20.44	19.84	19.88	20.10	20.13	20.40

C Range: 0 - 360 Deg  
 C Interval: 45.0 Deg  
 Test Speed: High  
 Temperature:  
 Operators:  
 Test Date: 2020/3/14 9:43:25

G Range: 0 - 90 Deg  
 G Interval: 1.0 Deg  
 Test System: Huipu CPM-1800B Goniophotometer  
 Humidity:  
 Test Distance: 6.35 m  
 Remarks:

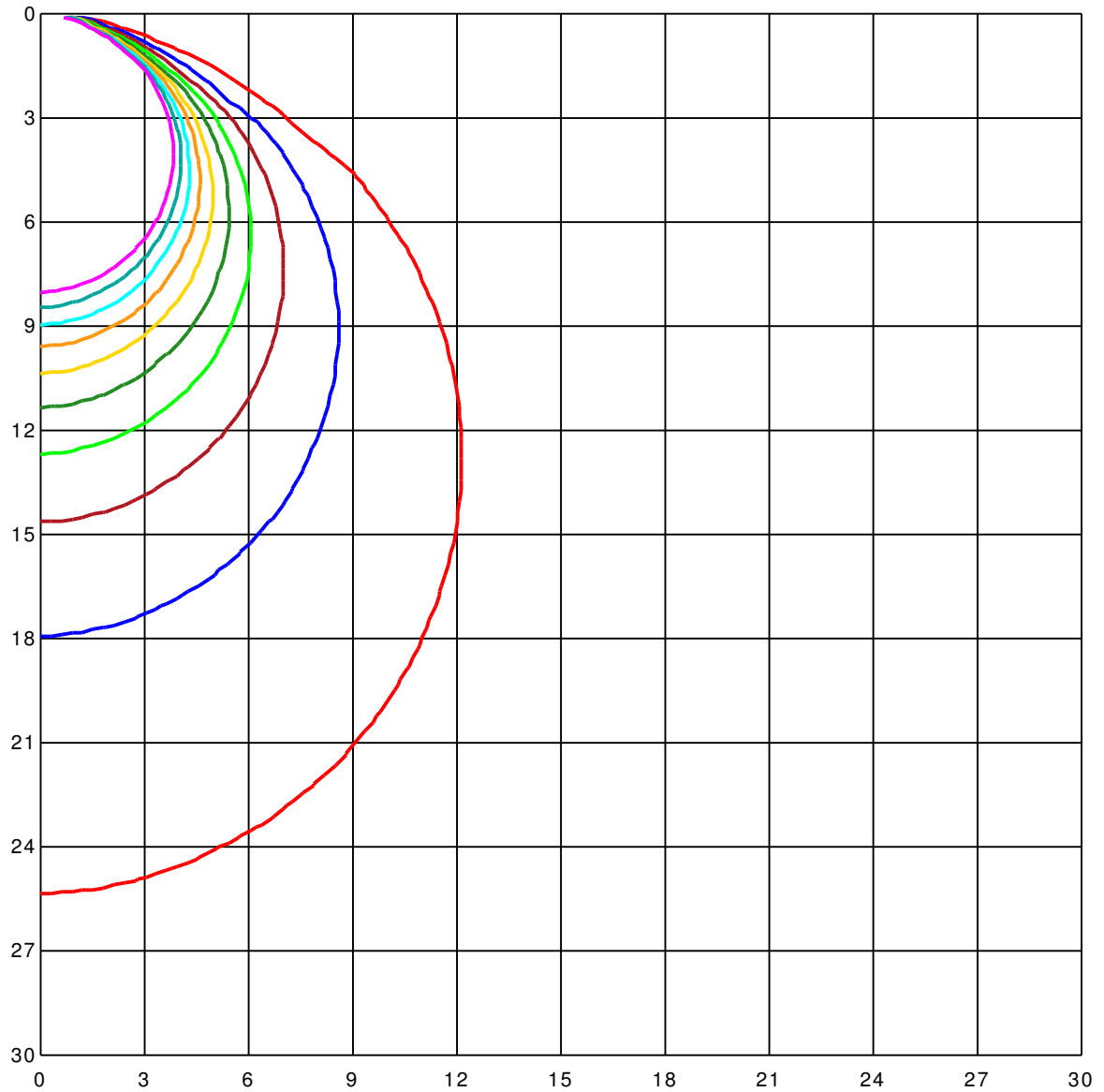
## ZONAL LUMINOUS FLUX TABLE

[illegible]

C Range: 0 - 360 Deg  
C Interval: 45.0 Deg  
Test Speed: High  
Temperature:  
Operators:  
Test Date: 2020/3/14 9:43:25

G Range: 0 - 90 Deg  
G Interval: 1.0 Deg  
Test System: Huipu CPM-1800B Goniophotometer  
Humidity:  
Test Distance: 6.35 m  
Remarks:

## SPACE ISOLX DIAGRAM



Unit of illumination:lx

3.436  
3.092  
2.749  
2.405  
2.061

1.718  
1.374  
1.031  
0.687  
0.344

C Range: 0 - 360 Deg  
C Interval: 45.0 Deg  
Test Speed: High  
Temperature:  
Operators:  
Test Date: 2020/3/14 9:43:25

G Range: 0 - 90 Deg  
G Interval: 1.0 Deg  
Test System: Huipu CPM-1800B Goniophotometer  
Humidity:  
Test Distance: 6.35 m  
Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

Gamma\ C	C0	C45	C90	C135	C180	C225	C270	C315	C360	
G0	220.93	220.16	220.12	219.84	218.27	219.19	218.39	220.08	220.2	
G1	220.6	219.88	220.04	220.12	218.91	220.52	218.83	219.31	220.16	
G2	220.36	219.07	220.0	220.32	218.75	219.88	219.15	219.27	219.84	
G3	220.0	218.91	219.8	220.4	219.96	220.28	219.39	218.55	219.23	
G4	219.52	218.31	219.48	220.44	220.2	221.17	219.68	218.59	219.15	
G5	218.95	217.54	220.04	220.32	220.56	220.97	219.84	217.34	218.95	
G6	218.19	216.77	218.87	220.28	220.77	220.85	220.12	217.78	217.42	
G7	217.58	215.85	218.43	220.04	220.85	221.01	219.52	217.18	217.58	
G8	216.69	214.96	217.9	219.76	221.01	220.97	219.8	216.57	215.81	
G9	215.85	213.75	217.5	219.39	221.01	220.93	219.64	215.77	215.04	
G10	214.8	212.82	216.77	219.03	221.01	220.81	218.55	214.92	214.07	
G11	213.75	211.45	216.17	218.47	220.93	220.6	219.07	213.99	213.14	
G12	211.98	210.28	215.73	218.06	221.61	220.36	218.71	212.9	212.1	
G13	211.41	208.99	214.44	217.34	220.89	219.92	217.34	212.06	210.97	
G14	210.08	207.62	213.91	216.77	220.4	219.56	217.54	210.85	209.76	
G15	208.91	207.02	212.98	216.09	220.12	219.07	216.21	209.8	208.47	
G16	207.9	205.73	212.06	215.4	219.8	218.47	216.29	208.55	207.18	
G17	206.09	204.19	211.01	214.56	219.35	217.9	215.2	207.98	205.85	
G18	204.6	201.77	209.92	213.75	218.87	217.06	214.68	205.97	203.55	
G19	203.1	200.89	208.79	212.9	218.23	216.17	213.91	204.64	202.9	
G20	201.53	198.91	207.46	212.02	217.78	215.52	212.9	203.35	201.33	
G21	199.92	197.14	206.25	210.97	217.06	214.64	211.94	201.69	199.64	
G22	198.95	195.12	204.72	209.92	216.21	213.55	211.53	200.2	197.82	
G23	196.49	193.19	203.27	208.79	215.44	212.62	209.52	198.51	195.73	
G24	194.72	191.21	201.73	207.58	214.19	211.45	206.61	196.98	194.15	
G25	192.82	189.27	200.08	206.29	213.51	210.2	205.32	195.12	192.34	
G26	191.01	187.14	198.35	204.88	212.34	209.8	204.11	193.31	190.24	
G27	188.95	185.04	196.61	203.43	211.53	207.66	201.05	190.73	188.23	
G28	186.77	182.78	194.8	201.13	210.77	206.29	199.6	189.48	186.05	
G29	184.72	179.6	193.83	200.24	209.56	204.88	196.33	187.42	184.72	
G30	182.58	177.34	191.01	198.23	207.62	203.31	194.64	185.28	181.77	
G31	180.24	175.6	188.95	196.85	206.29	201.73	190.73	183.1	179.56	
G32	177.14	173.19	186.89	195.04	204.8	200.2	188.75	180.89	177.22	
G33	175.52	170.56	184.88	193.19	203.39	198.63	186.37	178.47	174.92	
G34	173.02	168.06	182.7	191.33	201.81	196.25	182.78	175.85	172.42	
G35	170.28	165.85	180.52	189.27	200.32	195.04	180.89	173.71	170.04	
G36	168.02	162.74	178.23	187.34	199.03	193.31	176.61	171.17	167.62	

C Range: 0 - 360 Deg  
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 Test Date: 2020/3/14 9:43:25

G Range: 0 - 90 Deg  
 G Interval: 1.0 Deg  
 Test System: Huipu CPM-1800B Goniophotometer  
 Humidity:  
 Test Distance: 6.35 m  
 Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA(Continue 1)

Gamma\ C	C0	C45	C90	C135	C180	C225	C270	C315	C360	
G37	165.4	159.96	175.85	185.28	196.89	191.29	174.52	168.51	165.16	
G38	162.82	157.22	173.47	183.27	195.16	189.31	170.16	165.97	162.54	
G39	160.16	154.35	170.2	181.09	193.47	187.22	167.9	163.43	159.23	
G40	157.42	151.53	168.47	178.83	191.49	185.12	163.43	160.64	156.61	
G41	154.68	149.07	165.89	176.73	189.48	182.94	161.29	157.9	154.44	
G42	151.73	145.69	163.31	174.31	187.5	180.56	157.06	155.04	151.57	
G43	148.95	142.62	160.08	171.89	185.36	178.23	154.64	152.22	148.27	
G44	145.93	139.56	157.54	169.07	183.23	175.69	150.69	149.31	145.64	
G45	143.47	136.33	155.0	166.98	180.97	173.23	147.98	146.21	142.54	
G46	139.72	133.1	152.02	164.35	178.55	170.52	143.02	143.14	139.31	
G47	136.57	129.6	149.07	160.97	175.69	167.82	138.63	139.88	136.17	
G48	133.39	126.37	145.93	158.75	173.55	165.69	135.81	136.57	132.9	
G49	130.04	122.9	142.74	155.77	170.85	162.14	131.37	132.82	129.6	
G50	126.73	119.31	139.35	152.54	168.1	159.03	127.7	129.72	126.09	
G51	123.14	115.2	135.93	149.35	165.24	155.93	124.11	126.17	122.58	
G52	119.68	111.61	132.42	145.97	162.98	152.66	119.23	122.54	119.07	
G53	116.17	108.14	128.87	142.42	159.23	149.35	114.64	118.35	115.56	
G54	112.46	104.19	124.15	138.71	156.05	145.77	110.81	114.92	111.98	
G55	108.27	100.36	119.8	135.2	153.47	142.18	106.81	110.93	108.59	
G56	104.84	96.41	115.08	131.89	149.39	138.35	102.18	107.26	104.4	
G57	101.09	92.5	110.24	127.62	145.97	134.6	97.06	103.27	100.6	
G58	97.1	88.47	105.64	123.79	142.3	130.73	92.86	99.27	96.65	
G59	93.14	84.39	100.44	119.8	138.59	126.73	88.1	95.12	92.78	
G60	89.15	80.69	95.16	115.77	134.68	122.7	83.39	91.29	88.79	
G61	85.08	76.33	89.76	111.69	130.85	118.55	78.95	86.89	84.84	
G62	81.01	72.3	83.71	107.58	126.53	114.39	74.44	82.7	80.69	
G63	77.14	68.35	78.59	103.31	122.26	110.12	68.91	78.59	76.61	
G64	71.01	64.31	73.67	99.07	117.66	105.77	64.23	74.35	70.48	
G65	59.56	60.36	67.66	94.44	104.84	101.25	60.16	70.16	59.44	
G66	55.65	56.45	63.02	89.76	97.34	96.57	56.01	65.97	55.28	
G67	51.73	52.66	57.78	84.96	92.82	91.73	51.09	61.85	51.61	
G68	48.39	48.71	52.5	79.88	87.74	86.73	46.85	57.74	48.15	
G69	44.72	44.96	47.46	74.56	83.15	81.73	42.66	53.59	44.64	
G70	41.25	40.65	42.62	64.44	77.98	75.97	37.94	47.42	41.13	
G71	37.74	33.83	38.23	54.88	72.38	70.32	33.55	42.1	37.54	
G72	34.19	29.07	33.55	49.31	66.85	59.8	29.19	38.39	34.19	
G73	30.69	26.17	29.19	44.15	61.33	53.91	24.96	34.84	30.48	

C Range: 0 - 360 Deg  
 C Interval: 45.0 Deg  
 Test Speed: High  
 Temperature:  
 Operators:  
 Test Date: 2020/3/14 9:43:25

G Range: 0 - 90 Deg  
 G Interval: 1.0 Deg  
 Test System: Huipu CPM-1800B Goniophotometer  
 Humidity:  
 Test Distance: 6.35 m  
 Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA(Continue 2)

[illegible]

C Range: 0 - 360 Deg  
C Interval: 45.0 Deg  
Test Speed: High  
Temperature:  
Operators:  
Test Date: 2020/3/14 9:43:25

G Range: 0 - 90 Deg  
G Interval: 1.0 Deg  
Test System: Huipu CPM-1800B Goniophotometer  
Humidity:  
Test Distance: 6.35 m  
Remarks: