

Report No.:

Test Time: 2020/3/14 11:57:51

## LUMINAIRE PHOTOMETRIC TEST REPORT

### Luminaire Property

Manufacturer: 0  
Luminaire Type: 24V-2110-700L-5000K  
Lamp Type:  
Luminous Width: 0 mm  
Luminous Length: 0 mm  
Luminous Height: 0 mm

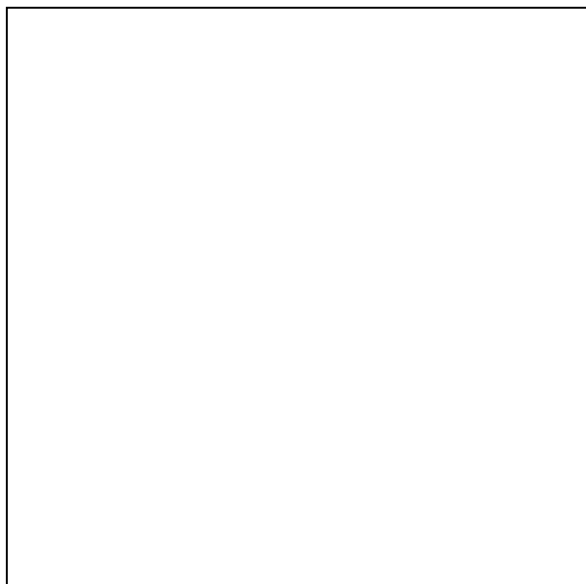
Voltage(V): 24.00 V  
Current(A): 0.9900 A  
Power(W): 23.76 W  
Power Factor: 1.0000  
Lamp Luminous Flux: 2341.37

### Photometric Results

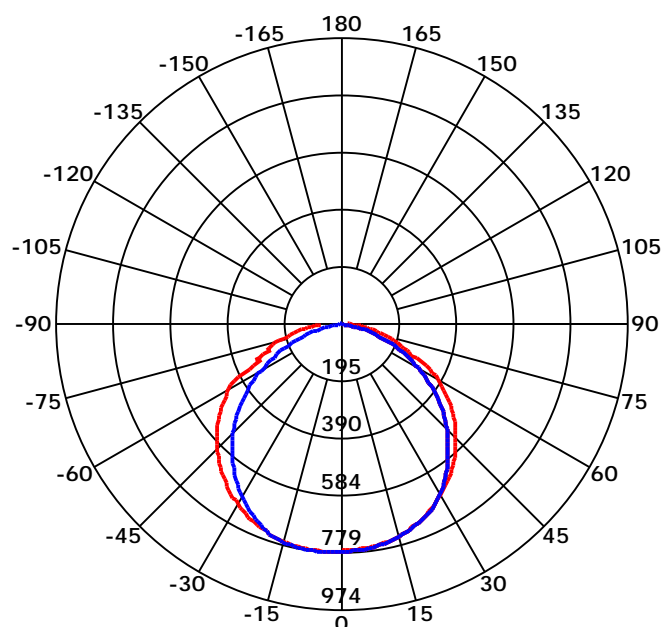
CIE Class: Direct  
Luminaire Luminous Flux: 2341.37  
Downward Ratio: 100.00%  
Luminaire Efficacy Rating(LER): 98.54 lm/W  
Beam Angle(50%) C0-180,C90-270: 122.2,108.9  
Field Angle(10%) C0-180,C90-270: 169.8,152.9

Max. Intensity: 779.25 cd  
Max.Intensity Angle: C=225 Gamma=8  
Upward Ratio: 0.00%  
Efficacy: 100.00%  
Center Intensity: 772.55 cd

Picture of Luminaire



Luminous Intensity Distribution Curve



Beam Angle(50%) C0-180,C90-270: 108.9 deg

C0-180 ——— C90-270 ———

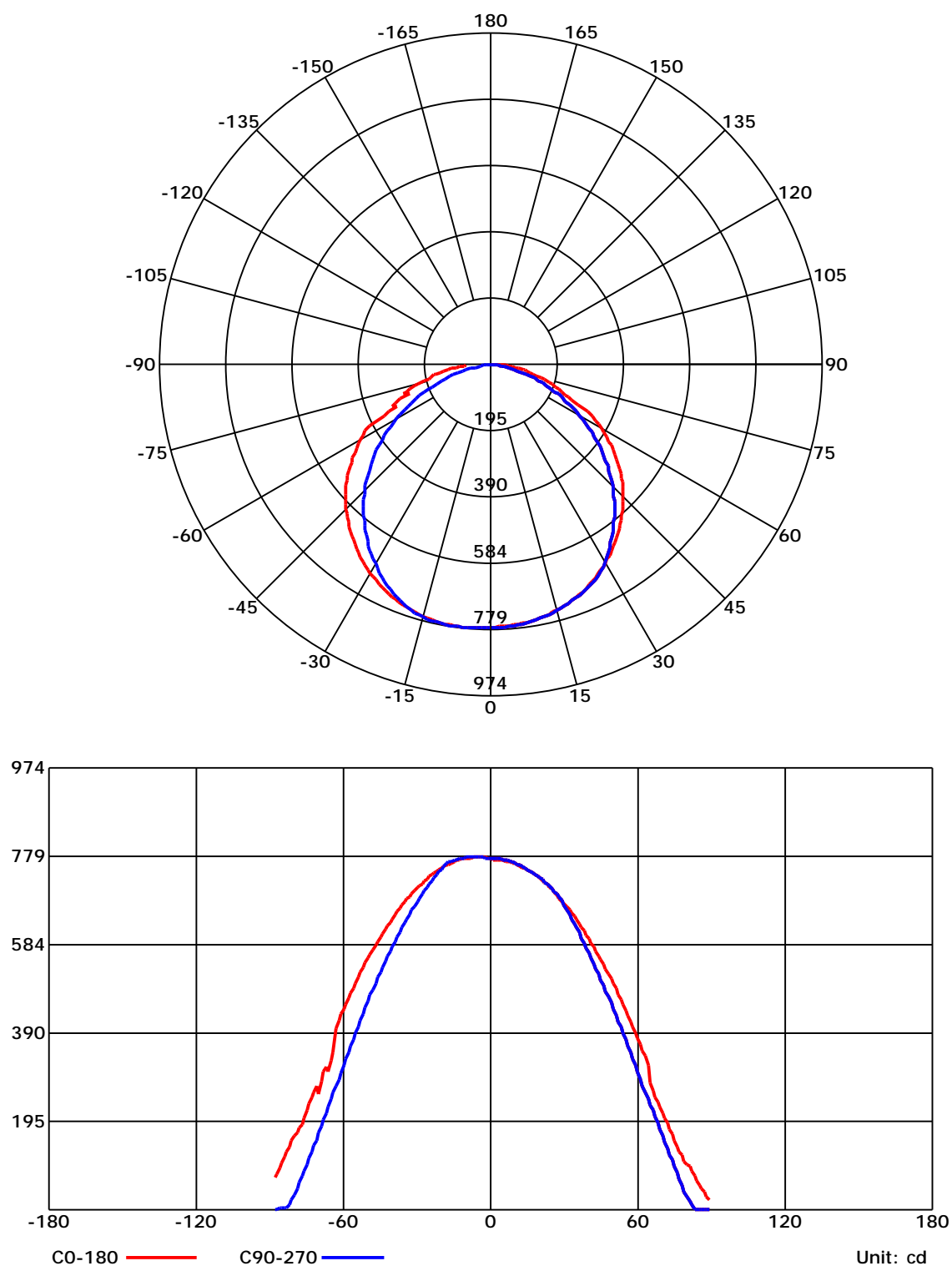
C Range: 0 - 360 Deg  
C Interval: 45.0 Deg  
Test Speed: High  
Temperature: 6.35  
Operators:  
Test Date: 2020/3/14 11:57:51

G Range: 0 - 90 Deg  
G Interval: 1.0 Deg  
Test System: Huipu CPM-1800B Goniophotometer  
Humidity: 1.08  
Test Distance: 6.35 m  
Remarks:

Report No.:

Test Time: 2020/3/14 11:57:51

## Luminous Intensity Distribution Curve



C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature: 6.35

Operators:

Test Date: 2020/3/14 11:57:51

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity: 1.08

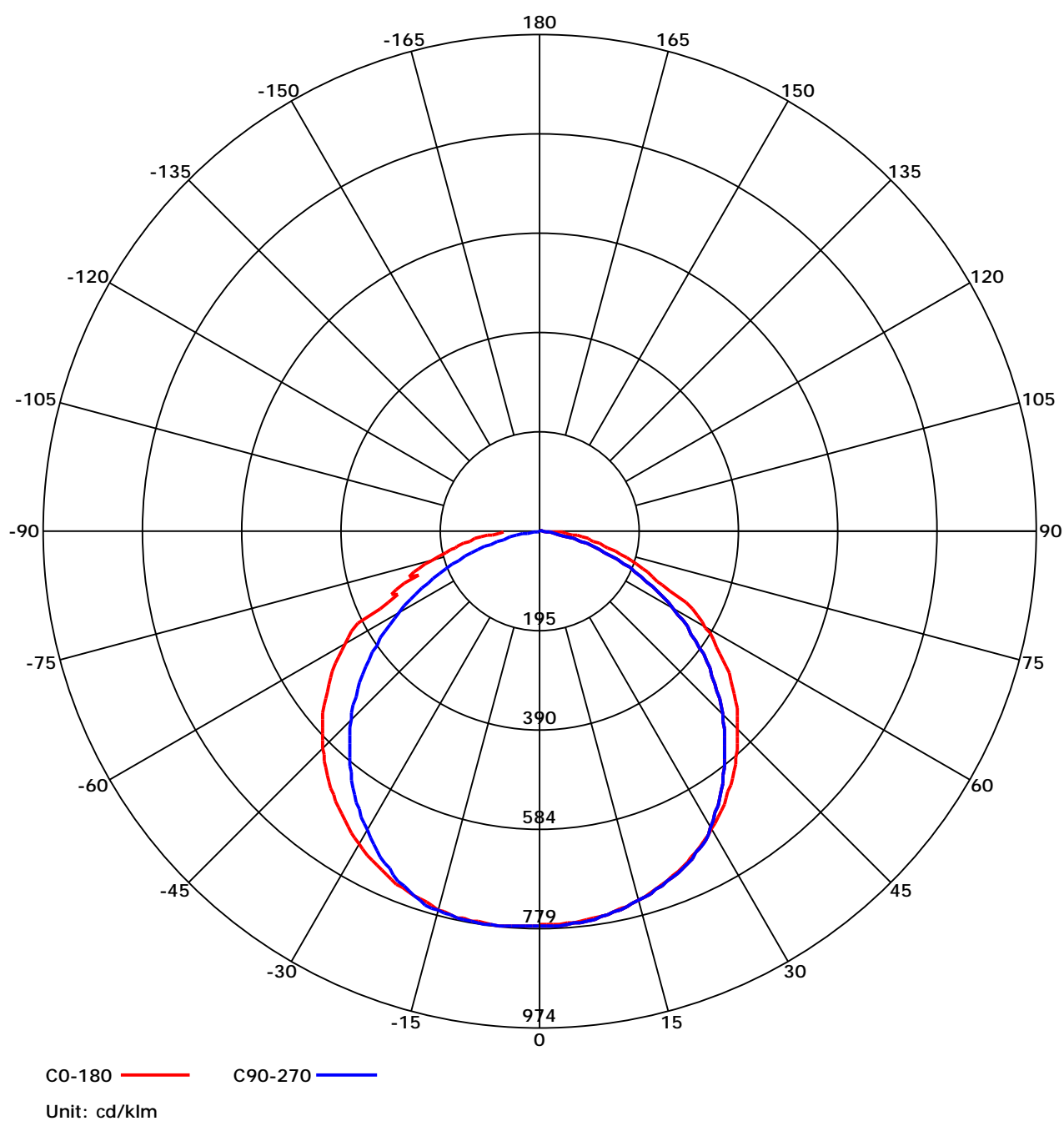
Test Distance: 6.35 m

Remarks:

Report No.:

Test Time: 2020/3/14 11:57:51

## Luminous Intensity Distribution Curve



C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature: 6.35

Operators:

Test Date: 2020/3/14 11:57:51

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity: 1.08

Test Distance: 6.35 m

Remarks:

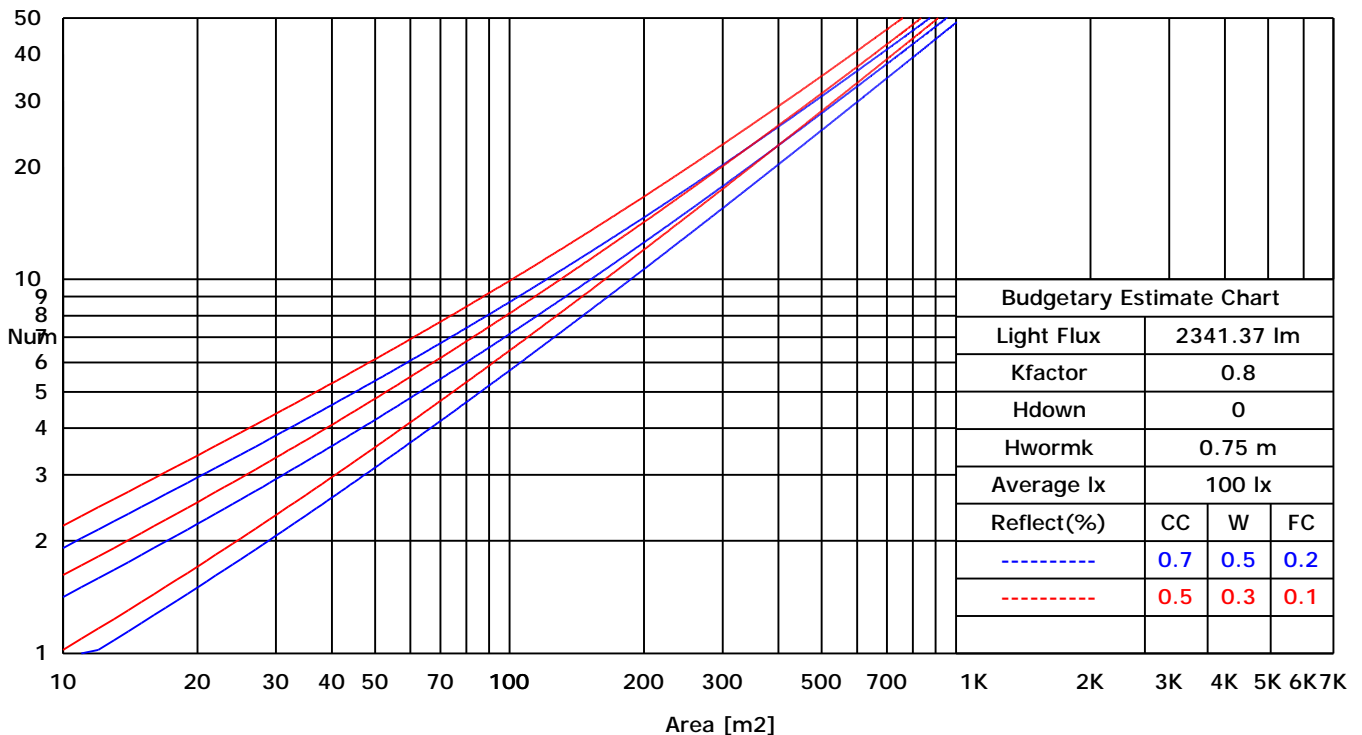
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## UTILIZATION FACTORS TABLE

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	1.07	1.05	1.04	1.05	1.03	1.02	1.01	1.00	0.98	0.97	0.94	0.93	0.90	0.88	0.86	0.81
2	0.94	0.92	0.91	0.94	0.91	0.89	0.91	0.88	0.85	0.87	0.84	0.81	0.82	0.79	0.75	0.71
3	0.84	0.81	0.80	0.83	0.80	0.78	0.82	0.78	0.75	0.79	0.75	0.71	0.75	0.71	0.67	0.62
4	0.75	0.72	0.71	0.75	0.72	0.69	0.74	0.69	0.66	0.72	0.67	0.63	0.69	0.64	0.59	0.55
5	0.67	0.65	0.63	0.68	0.64	0.62	0.67	0.63	0.59	0.66	0.60	0.57	0.63	0.58	0.53	0.50
6	0.61	0.59	0.57	0.61	0.58	0.56	0.61	0.57	0.54	0.60	0.55	0.51	0.59	0.53	0.48	0.45
7	0.56	0.54	0.52	0.56	0.53	0.51	0.56	0.52	0.49	0.56	0.50	0.47	0.55	0.49	0.44	0.41
8	0.51	0.49	0.48	0.52	0.49	0.47	0.52	0.48	0.45	0.52	0.47	0.43	0.51	0.45	0.41	0.37
9	0.47	0.45	0.44	0.48	0.45	0.43	0.48	0.44	0.41	0.48	0.43	0.39	0.48	0.42	0.37	0.34
10	0.44	0.42	0.41	0.45	0.42	0.40	0.45	0.41	0.38	0.45	0.40	0.37	0.45	0.39	0.35	0.32

## LUMINAIRE BUDGETARY ESTIMATE DIAGRAM



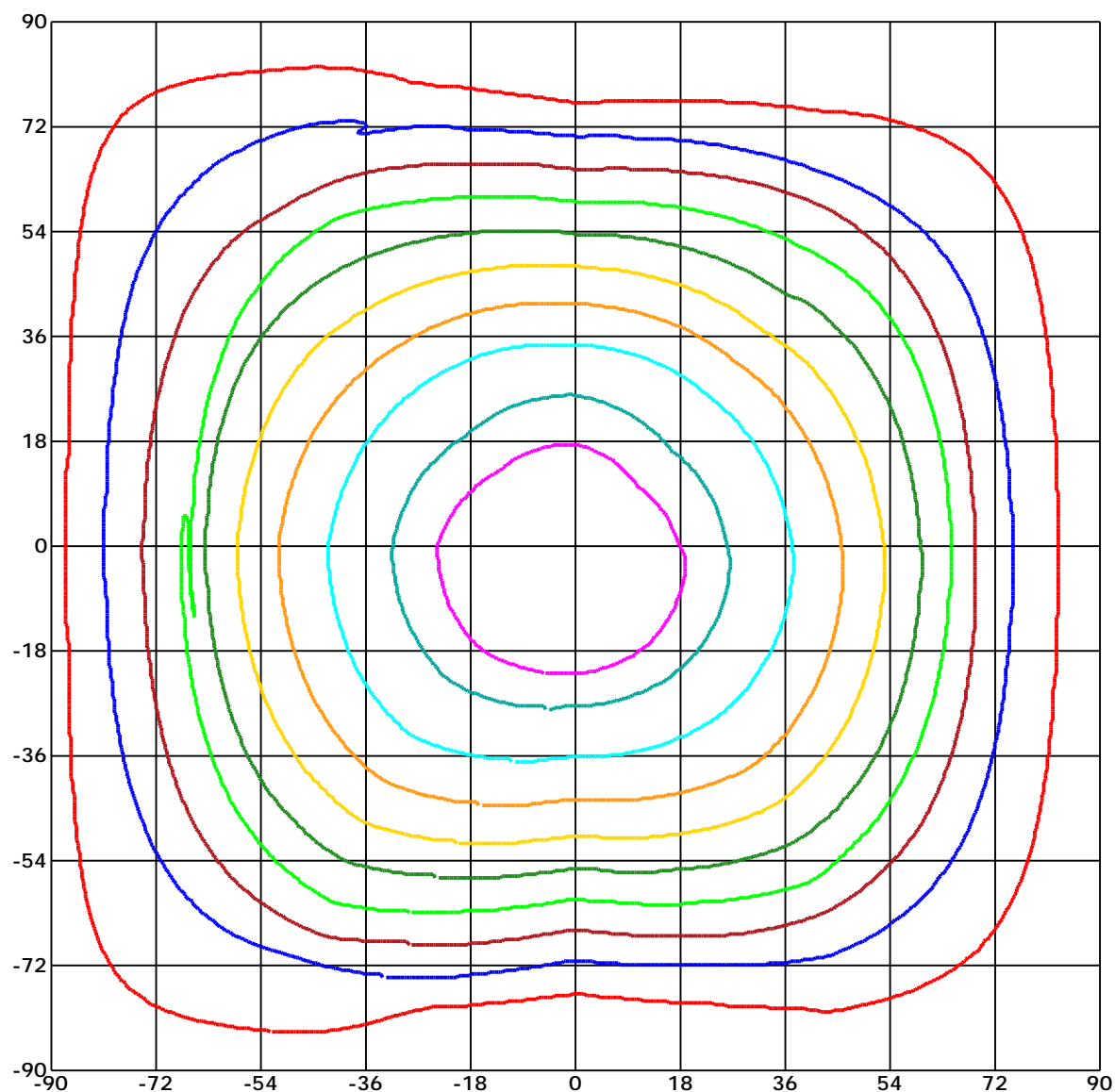
C Range: 0 - 360 Deg  
 C Interval: 45.0 Deg  
 Test Speed: High  
 Temperature: 6.35  
 Operators:  
 Test Date: 2020/3/14 11:57:51

G Range: 0 - 90 Deg  
 G Interval: 1.0 Deg  
 Test System: Huipu CPM-1800B Goniophotometer  
 Humidity: 1.08  
 Test Distance: 6.35 m  
 Remarks:

Report No.:

Test Time: 2020/3/14 11:57:51

## ISOCANDELA DIAGRAM (RECTANGULAR)

Unit of intensity:cd    I<sub>max</sub>(100%): 779.253 cd740.291(95%I<sub>max</sub>)701.328(90%I<sub>max</sub>)623.403(80%I<sub>max</sub>)545.477(70%I<sub>max</sub>)467.552(60%I<sub>max</sub>)389.627(50%I<sub>max</sub>)311.701(40%I<sub>max</sub>)233.776(30%I<sub>max</sub>)155.851(20%I<sub>max</sub>)77.925(10%I<sub>max</sub>)

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature: 6.35

Operators:

Test Date: 2020/3/14 11:57:51

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity: 1.08

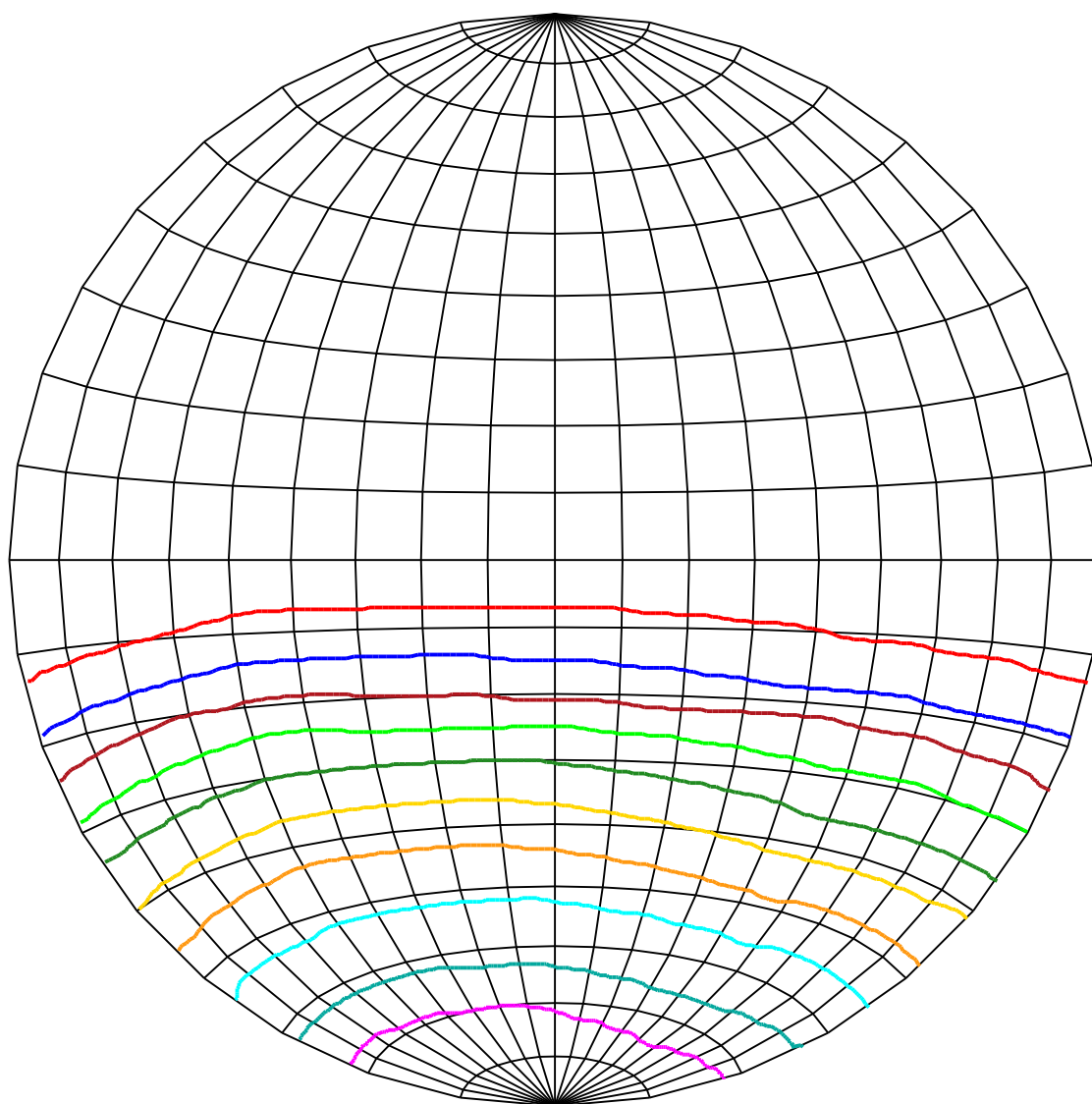
Test Distance: 6.35 m

Remarks:

Report No.:

Test Time: 2020/3/14 11:57:51

## ISOCANDELA DIAGRAM (SPHERE)



Unit of intensity:cd      Imax(100%): 779.253 cd

740.291(95%Imax)

389.627(50%Imax)

701.328(90%Imax)

311.701(40%Imax)

623.403(80%Imax)

233.776(30%Imax)

545.477(70%Imax)

155.851(20%Imax)

467.552(60%Imax)

77.925(10%Imax)

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature: 6.35

Operators:

Test Date: 2020/3/14 11:57:51

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity: 1.08

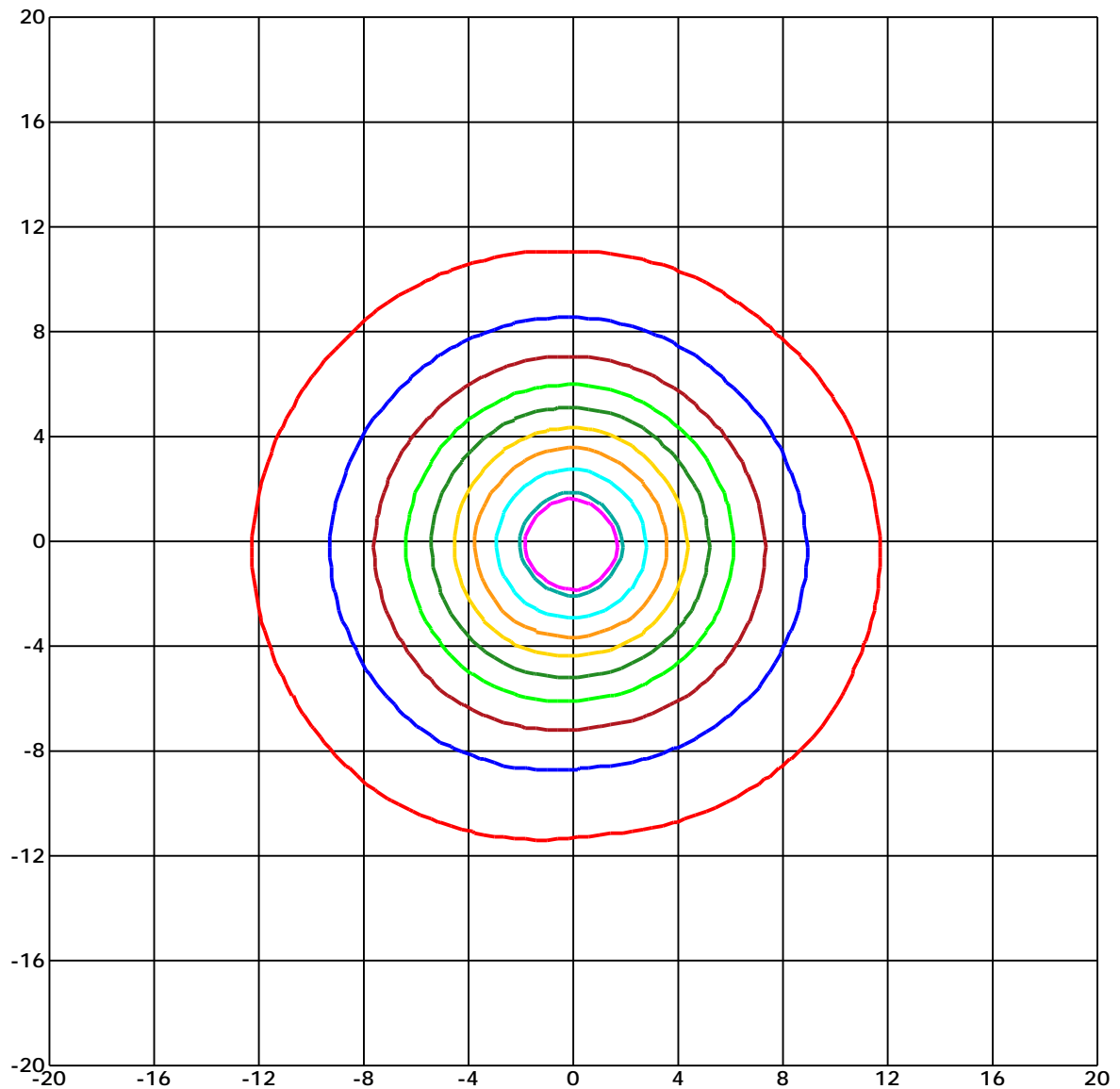
Test Distance: 6.35 m

Remarks:

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## ISOLX DIAGRAM



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

11.164(1%Emax)	6.067(1%Emax)
10.921(1%Emax)	4.854(1%Emax)
9.708(1%Emax)	3.64(0%Emax)
8.494(1%Emax)	2.427(0%Emax)
7.281(1%Emax)	1.213(0%Emax)

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature: 6.35

Operators:

Test Date: 2020/3/14 11:57:51

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity: 1.08

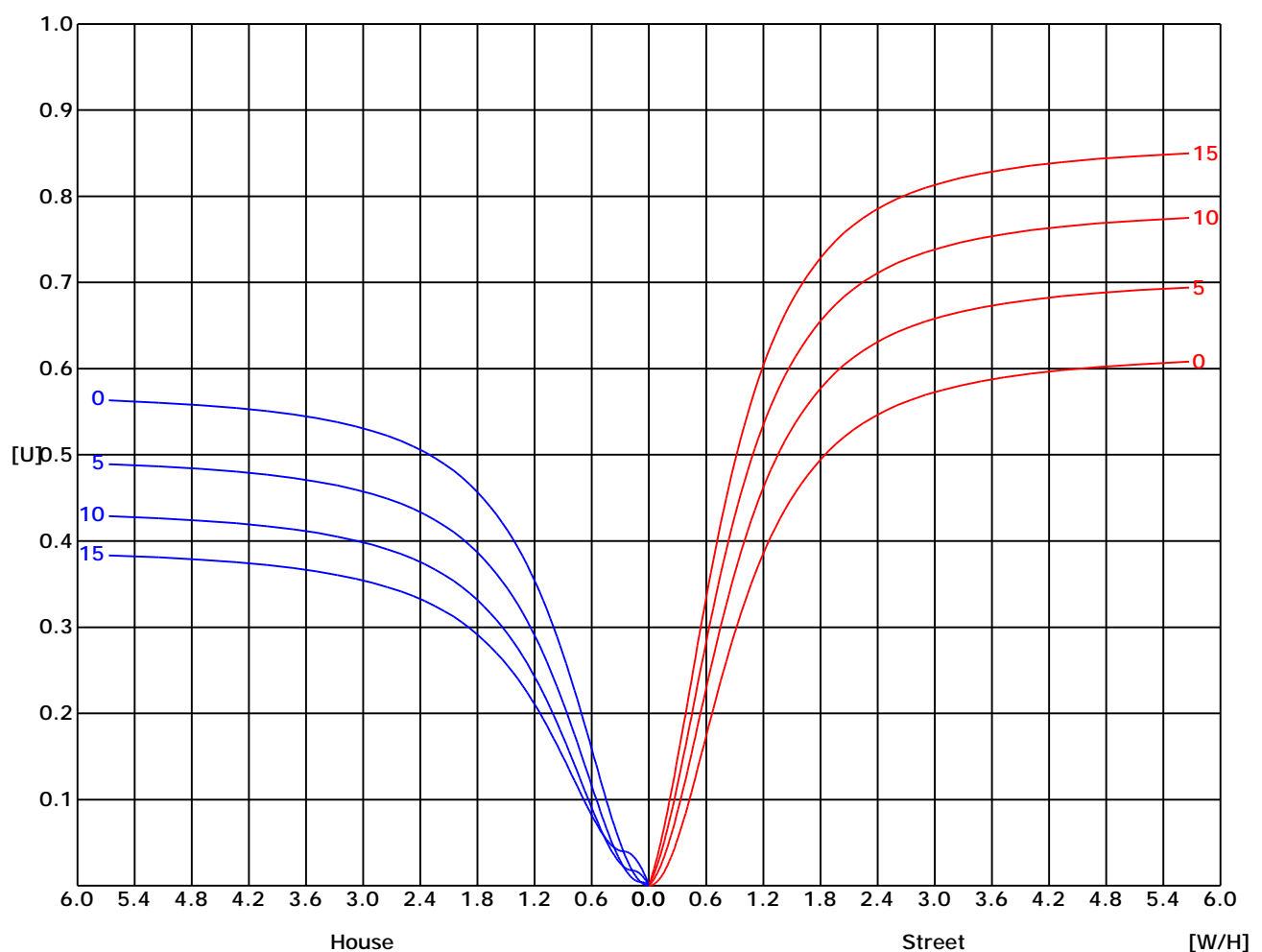
Test Distance: 6.35 m

Remarks:

Report No.:

Test Time: 2020/3/14 11:57:51

## UTILIZATION FACTOR DIAGRAM (ROAD)



C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature: 6.35

Operators:

Test Date: 2020/3/14 11:57:51

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity: 1.08

Test Distance: 6.35 m

Remarks:

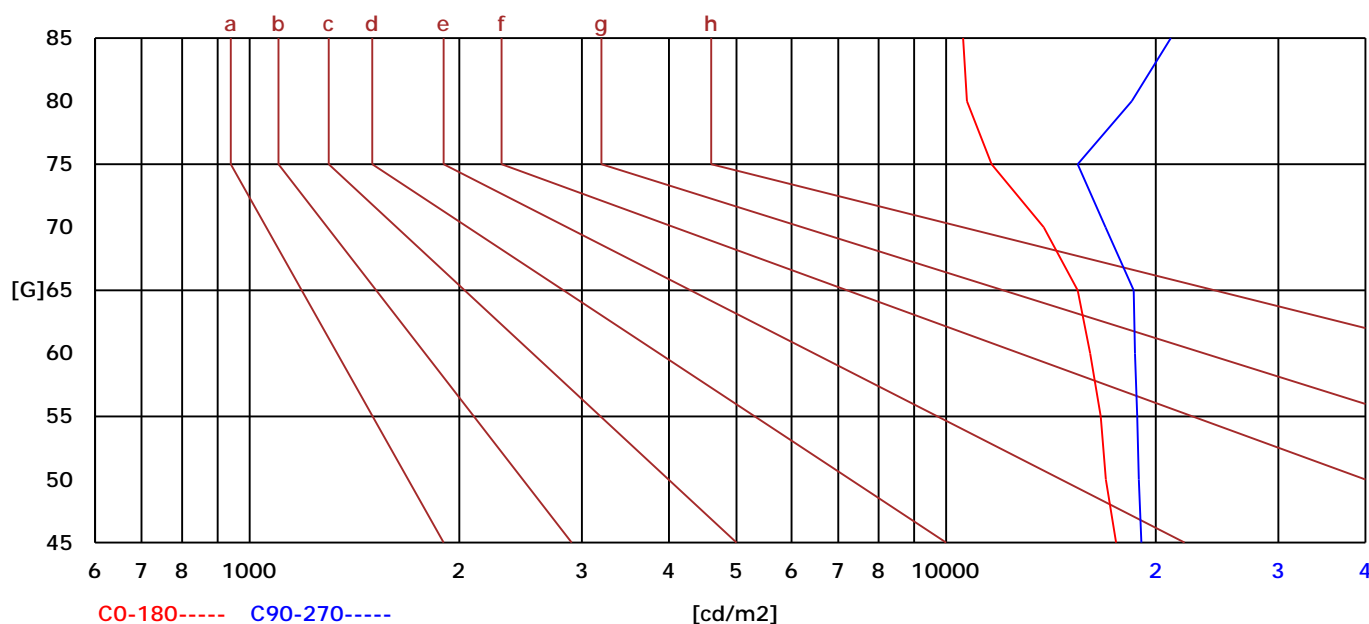


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## BRIGHT LIMIT DIAGRAM

C/G	45	50	55	60	65	70	75	80	85
C0	17538	16949	16665	16104	15441	13809	11622	10715	10580
C90	19078	18914	18806	18669	18599	16941	15442	18470	21023
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



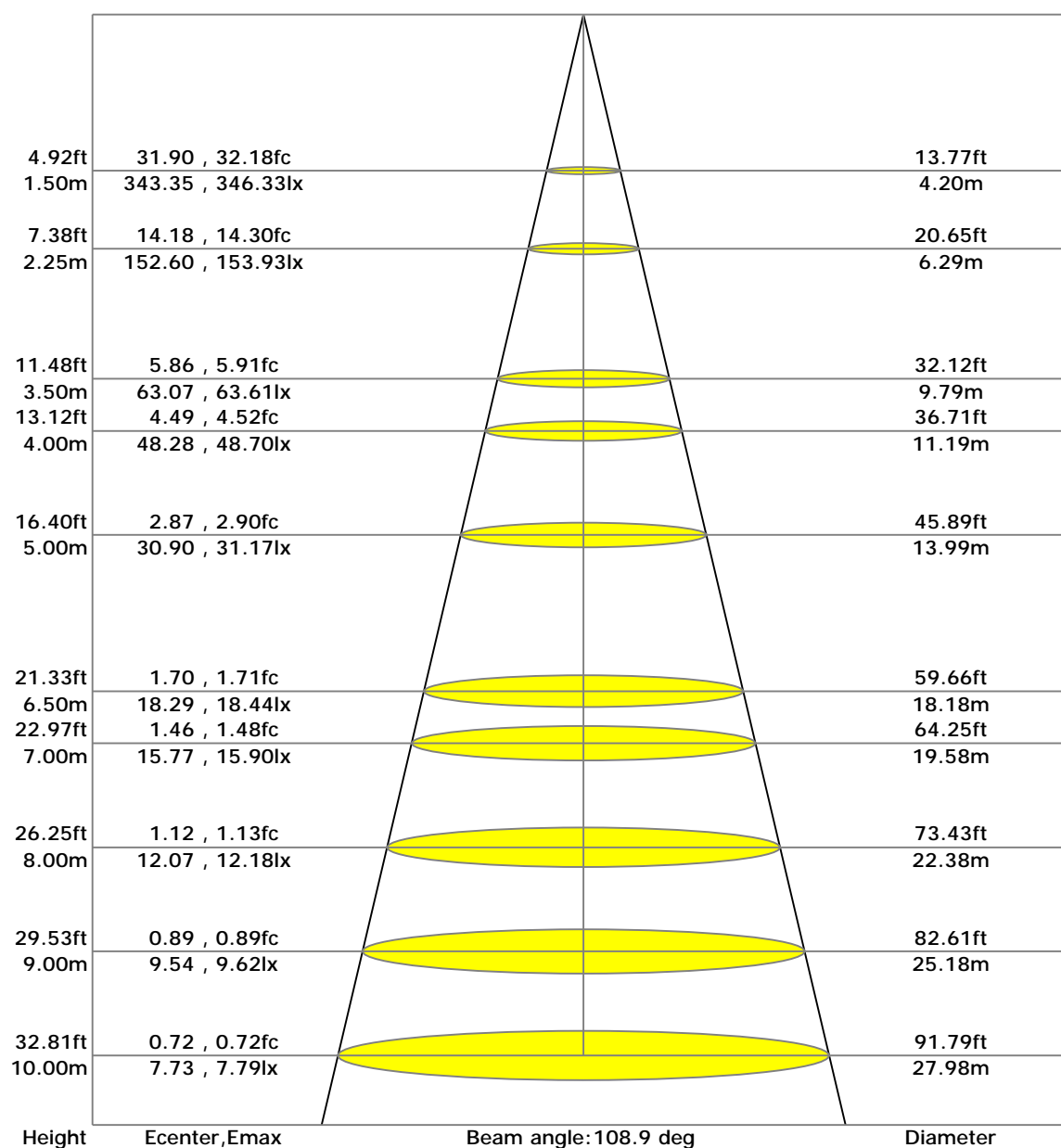
C Range: 0 - 360 Deg  
 C Interval: 45.0 Deg  
 Test Speed: High  
 Temperature: 6.35  
 Operators:  
 Test Date: 2020/3/14 11:57:51

G Range: 0 - 90 Deg  
 G Interval: 1.0 Deg  
 Test System: Huipu CPM-1800B Goniophotometer  
 Humidity: 1.08  
 Test Distance: 6.35 m  
 Remarks:

Report No.:

Test Time: 2020/3/14 11:57:51

## LX-DISTANCE DIAGRAM



C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature: 6.35

Operators:

Test Date: 2020/3/14 11:57:51

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity: 1.08

Test Distance: 6.35 m

Remarks:

Report No.:

Test Time: 2020/3/14 11:57:51

## 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	19.01	19.09	19.21	19.28	19.52	18.56	18.64	18.76	18.82	19.07
3H	19.09	19.17	19.30	19.36	19.61	18.68	18.76	18.89	18.95	19.20
4H	19.09	19.16	19.30	19.36	19.61	18.69	18.77	18.91	18.97	19.22
6H	19.06	19.14	19.28	19.34	19.59	18.68	18.75	18.90	18.95	19.20
8H	19.05	19.12	19.27	19.32	19.58	18.66	18.73	18.88	18.94	19.19
12H	19.03	19.10	19.26	19.31	19.56	18.65	18.72	18.87	18.92	19.18
4H 2H	21.39	21.47	21.61	21.67	21.92	20.54	20.61	20.75	20.81	21.06
3H	21.60	21.66	21.82	21.87	22.13	20.79	20.86	21.01	21.07	21.32
4H	21.63	21.69	21.86	21.91	22.17	20.85	20.92	21.08	21.13	21.39
6H	21.62	21.68	21.86	21.90	22.16	20.87	20.93	21.11	21.16	21.42
8H	21.60	21.66	21.84	21.89	22.15	20.87	20.93	21.11	21.15	21.42
12H	21.58	21.63	21.83	21.87	22.14	20.85	20.91	21.10	21.14	21.41
8H 4H	22.14	22.21	22.36	22.42	22.67	20.74	20.81	20.96	21.01	21.27
6H	22.65	22.70	22.90	22.94	23.21	21.27	21.32	21.52	21.56	21.83
8H	22.65	22.69	22.91	22.94	23.22	21.30	21.35	21.56	21.59	21.87
12H	22.63	22.67	22.90	22.93	23.21	21.31	21.35	21.58	21.60	21.89
12H 4H	22.85	22.90	23.10	23.13	23.40	21.18	21.23	21.43	21.46	21.73
6H	22.95	23.00	23.21	23.24	23.52	21.29	21.33	21.55	21.58	21.86

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature: 6.35

Operators:

Test Date: 2020/3/14 11:57:51

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity: 1.08

Test Distance: 6.35 m

Remarks:

[illegible]

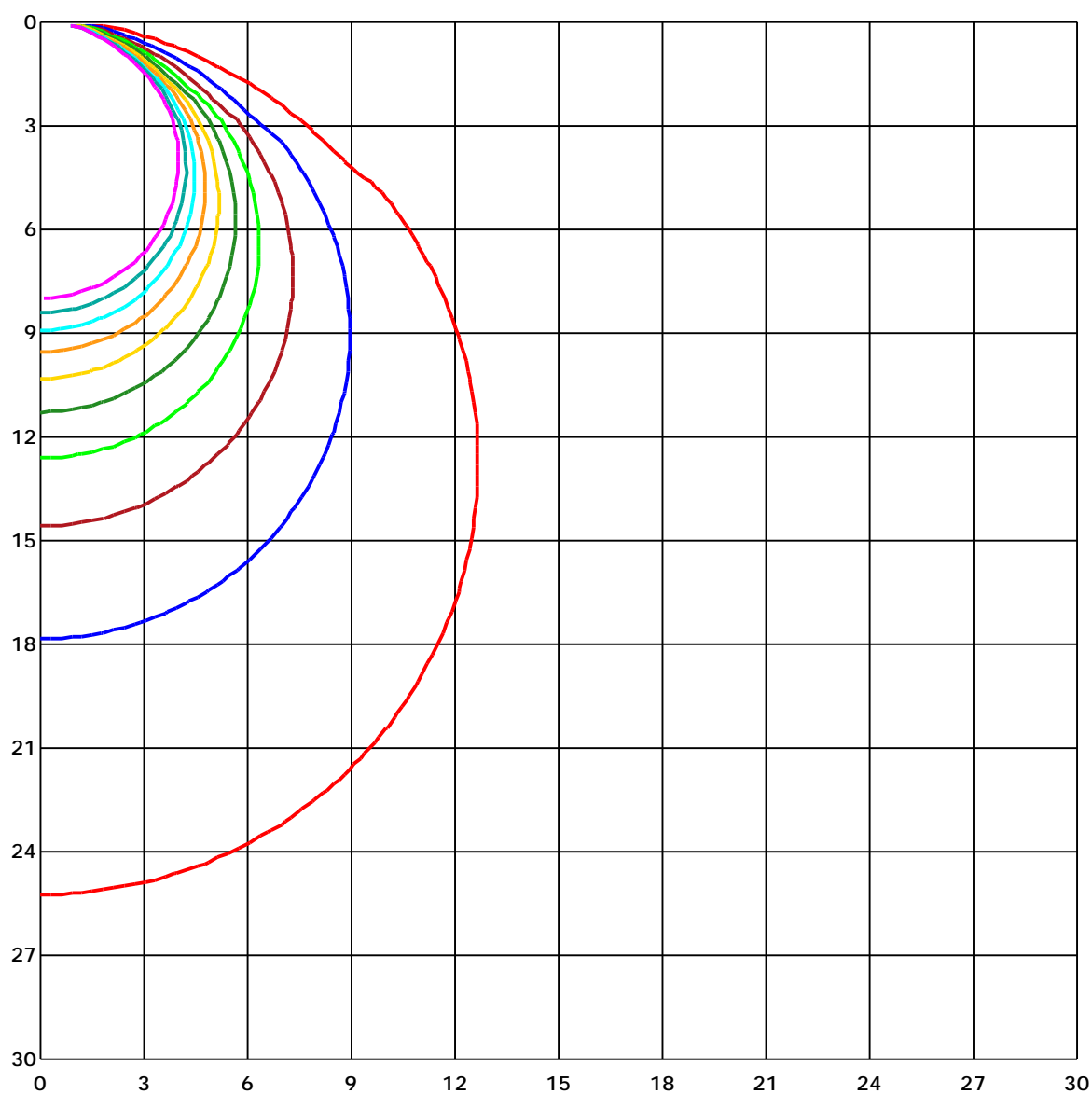
C Range: 0 - 360 Deg  
C Interval: 45.0 Deg  
Test Speed: High  
Temperature: 6.35  
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Test Date: 2020/3/14 11:57:51

G Range: 0 - 90 Deg  
G Interval: 1.0 Deg  
Test System: Huipu CPM-1800B Goniophotometer  
Humidity: 1.08  
Test Distance: 6.35 m  
Remarks:

Report No.:

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## SPACE ISOLX DIAGRAM



Unit of illumination: lx

12.124

10.912

9.7

8.487

7.275

6.062

4.85

3.637

2.425

1.212

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature: 6.35

Operators:

Test Date: 2020/3/14 11:57:51

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity: 1.08

Test Distance: 6.35 m

Remarks:

Report No.:

Test Time: 2020/3/14 11:57:51

## LUMINOUS DISTRIBUTION INTENSITY DATA

Gamma\C	C0	C45	C90	C135	C180	C225	C270	C315	C360	
G0	772.55	773.37	775.29	775.46	774.07	775.86	773.29	743.94	778.08	
G1	772.37	772.68	775.2	775.33	775.03	776.99	774.46	747.81	777.77	
G2	772.02	771.59	774.77	774.99	776.07	777.55	775.42	753.78	777.86	
G3	771.5	770.46	774.2	774.38	776.64	778.08	776.29	759.92	777.08	
G4	770.67	769.15	773.33	773.72	777.16	778.82	777.08	767.76	776.38	
G5	769.46	767.58	772.29	772.76	777.21	778.9	777.51	772.63	775.42	
G6	768.45	765.88	771.02	771.81	777.25	778.9	777.86	774.59	774.03	
G7	767.28	763.84	769.59	770.54	776.73	778.73	777.77	773.77	772.5	
G8	765.84	761.44	767.71	769.19	775.64	779.25	777.47	772.46	770.81	
G9	763.97	758.79	765.8	767.54	775.55	778.34	777.21	770.81	769.02	
G10	762.27	756.17	763.62	765.58	775.16	776.51	776.51	768.89	767.02	
G11	760.05	753.04	761.18	763.4	774.25	775.2	775.64	766.97	764.88	
G12	757.57	749.81	758.66	760.66	774.42	773.59	774.51	765.01	762.71	
G13	754.61	746.46	755.87	758.0	772.24	771.59	773.16	762.84	759.96	
G14	751.47	742.85	752.91	755.21	769.59	769.02	771.68	760.09	757.13	
G15	748.42	739.1	749.68	752.04	768.02	766.89	769.98	757.26	753.91	
G16	745.37	735.23	746.42	748.9	764.23	764.36	768.06	754.43	751.03	
G17	741.98	731.0	742.93	745.24	761.4	762.14	765.84	751.69	746.72	
G18	738.27	726.69	739.06	741.54	758.61	759.66	762.18	748.73	742.63	
G19	734.05	722.12	735.36	737.71	755.78	757.04	756.26	745.37	738.88	
G20	730.31	717.37	731.26	733.53	752.86	754.39	750.86	741.45	734.7	
G21	725.47	712.32	726.91	729.39	749.73	750.56	744.46	737.71	730.39	
G22	721.42	706.96	722.51	724.82	746.24	746.77	738.67	733.61	725.69	
G23	716.02	701.52	717.59	719.94	742.46	743.59	732.09	729.48	720.59	
G24	710.88	695.77	712.62	714.85	738.58	738.93	725.04	723.69	715.5	
G25	705.7	689.63	707.31	709.49	734.09	734.4	718.2	717.85	709.66	
G26	699.3	683.4	701.82	703.83	729.65	730.09	710.75	710.93	703.96	
G27	693.2	676.87	695.95	698.25	724.64	724.95	703.09	703.7	697.91	
G28	686.93	670.16	689.15	692.37	719.42	719.68	694.86	696.6	692.11	
G29	680.53	663.15	680.7	686.19	714.5	714.54	686.67	689.15	685.84	
G30	674.04	656.01	671.08	679.88	708.97	708.71	678.18	681.97	678.66	
G31	667.29	648.65	661.28	673.34	703.13	702.22	669.38	674.74	671.38	
G32	660.8	640.9	651.44	666.55	697.12	695.86	660.28	667.29	664.07	
G33	653.53	632.41	641.21	659.41	690.89	689.24	651.31	659.23	656.62	
G34	646.61	622.04	630.97	652.18	684.62	683.06	641.73	651.7	649.09	
G35	638.55	611.37	620.69	644.6	677.79	676.0	632.06	643.16	641.16	
G36	630.49	600.88	610.02	636.46	671.12	669.12	622.26	635.28	633.89	

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature: 6.35

Operators:

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G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity: 1.08

Test Distance: 6.35 m

Remarks:

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**LUMINOUS DISTRIBUTION INTENSITY DATA(Continue 1)**

Gamma\C	C0	C45	C90	C135	C180	C225	C270	C315	C360	
G37	622.74	589.47	599.05	626.22	663.89	662.28	611.94	626.7	626.53	
G38	614.38	578.67	587.99	616.21	656.49	654.84	601.1	618.08	618.43	
G39	605.58	567.43	576.93	605.67	649.0	647.35	590.56	611.2	610.16	
G40	596.79	555.68	565.78	595.22	641.42	639.46	579.54	606.98	601.27	
G41	587.68	544.62	554.02	584.42	633.63	631.58	569.05	602.8	591.52	
G42	578.63	532.42	542.57	573.66	625.48	622.78	558.03	593.39	582.76	
G43	569.44	520.58	530.77	562.6	617.43	614.16	546.57	583.98	573.23	
G44	559.9	508.73	518.79	551.28	609.07	605.32	534.99	574.88	563.43	
G45	550.28	496.06	506.82	539.61	600.4	596.18	523.32	565.43	553.67	
G46	540.39	483.47	494.19	528.02	591.6	586.94	511.08	555.33	543.53	
G47	530.33	472.28	481.69	517.7	582.68	577.54	498.63	545.57	533.29	
G48	520.01	460.74	468.97	506.29	573.27	567.43	485.65	534.64	522.93	
G49	509.56	449.59	456.17	496.28	563.73	557.37	473.15	523.8	512.17	
G50	498.28	435.79	442.54	486.3	553.59	546.4	459.87	512.52	500.89	
G51	487.04	423.16	429.08	476.03	543.31	535.99	446.2	501.15	489.61	
G52	475.59	410.57	415.23	464.88	532.73	525.15	432.43	489.92	477.72	
G53	464.27	398.47	401.69	453.82	522.41	514.13	418.98	477.81	466.27	
G54	452.07	387.19	387.41	442.54	511.34	502.33	404.48	465.44	454.03	
G55	439.97	382.35	373.56	431.48	500.24	490.35	390.24	453.16	441.93	
G56	427.56	370.07	359.49	420.11	488.74	478.03	375.69	440.27	429.34	
G57	415.41	358.23	345.56	408.83	477.46	465.92	361.32	427.95	417.02	
G58	402.78	346.3	331.32	397.12	465.79	453.47	346.56	415.15	404.52	
G59	389.98	334.28	317.34	385.45	454.03	440.45	331.79	401.82	391.93	
G60	377.17	322.08	302.75	373.38	441.97	427.6	316.77	388.58	378.87	
G61	364.37	310.02	288.38	361.84	430.13	414.75	301.96	375.56	366.02	
G62	351.17	297.91	273.88	349.87	417.63	401.86	286.72	362.8	352.57	
G63	338.02	285.33	259.68	338.07	398.6	388.97	272.0	349.78	339.37	
G64	318.82	273.27	245.79	326.09	346.95	375.69	257.41	336.63	321.3	
G65	281.1	261.03	231.68	314.42	328.92	362.67	242.56	323.0	277.14	
G66	261.77	248.75	218.05	302.09	303.58	349.39	227.67	309.32	262.77	
G67	249.31	236.38	203.98	277.18	316.03	335.93	212.69	295.65	250.62	
G68	237.38	224.06	190.0	263.73	303.84	322.21	197.84	281.8	238.73	
G69	225.89	211.51	176.15	252.67	284.37	308.32	183.03	267.6	226.89	
G70	214.13	188.91	162.65	231.76	253.93	294.3	168.4	242.83	214.74	
G71	201.67	160.39	148.37	216.17	270.91	264.82	154.12	218.53	202.59	
G72	189.65	143.54	134.83	205.55	259.2	250.79	140.36	205.37	190.22	
G73	177.46	134.17	121.76	195.62	247.18	237.25	126.55	192.22	178.11	

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature: 6.35

Operators:

Test Date: 2020/3/14 11:57:51

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity: 1.08

Test Distance: 6.35 m

Remarks:

[illegible]

G Range: 0 - 90 Deg  
G Interval: 1.0 Deg  
Test System: Huipu CPM-1800B Goniophotometer  
Humidity: 1.08  
Test Distance: 6.35 m  
Remarks: