

Report No.:

Test Time: 2020/3/2 11:46:11

LUMINAIRE PHOTOMETRIC TEST REPORT

Luminaire Property

Manufacturer: 0
Luminaire Type: SP-7'-18W-CCT-4000K
Lamp Type:
Luminous Width: 0 mm
Luminous Length: 0 mm
Luminous Height: 0 mm

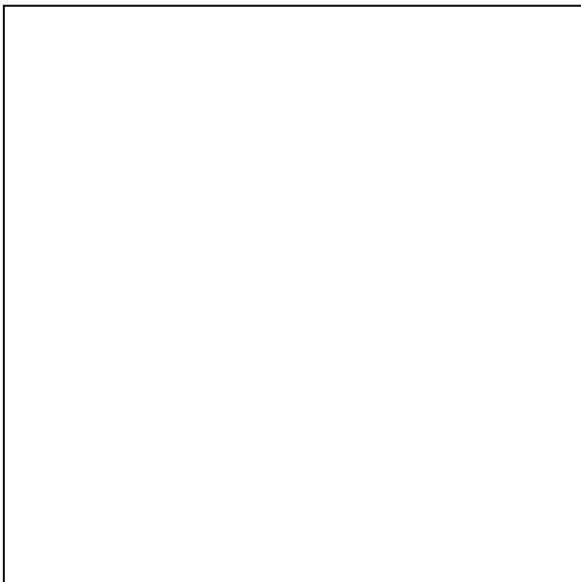
Voltage(V): 229.90 V
Current(A): 0.0710 A
Power(W): 16.21 W
Power Factor: 0.9860
Lamp Luminous Flux: 1714.30

Photometric Results

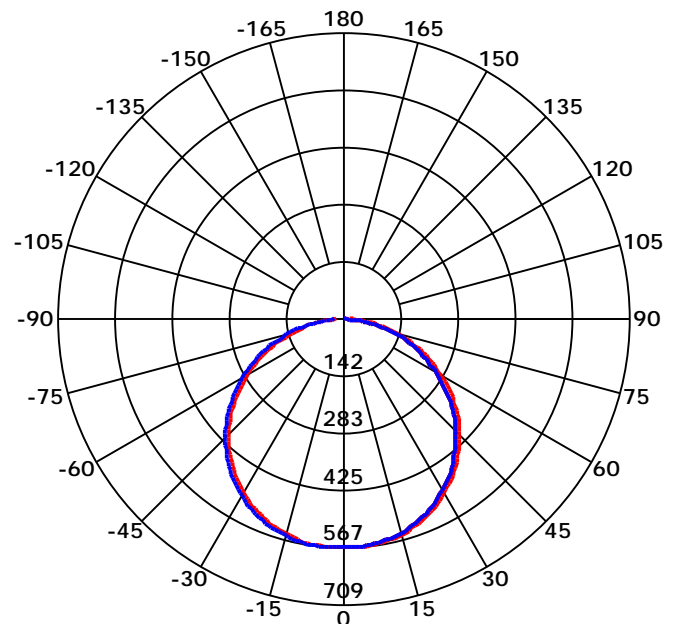
CIE Class: Direct
Luminaire Luminous Flux: 1714.298
Downward Ratio: 0.06%
Luminaire Efficacy Rating(LER): 105.76 lm/W
Beam Angle(50%) C0-180,C90-270: 118.5,118.6
Field Angle(10%) C0-180,C90-270: 167.1,166.4

Max. Intensity: 566.87 cd
Max.Intensity Angle: C=270 Gamma=5
Upward Ratio: 99.94%
Efficacy: 100.00%
Center Intensity: 565.14 cd

Picture of Luminaire



Luminous Intensity Distribution Curve



Beam Angle(50%) C0-180,C90-270: 118.6 deg

C0-180 ——— C90-270 ———

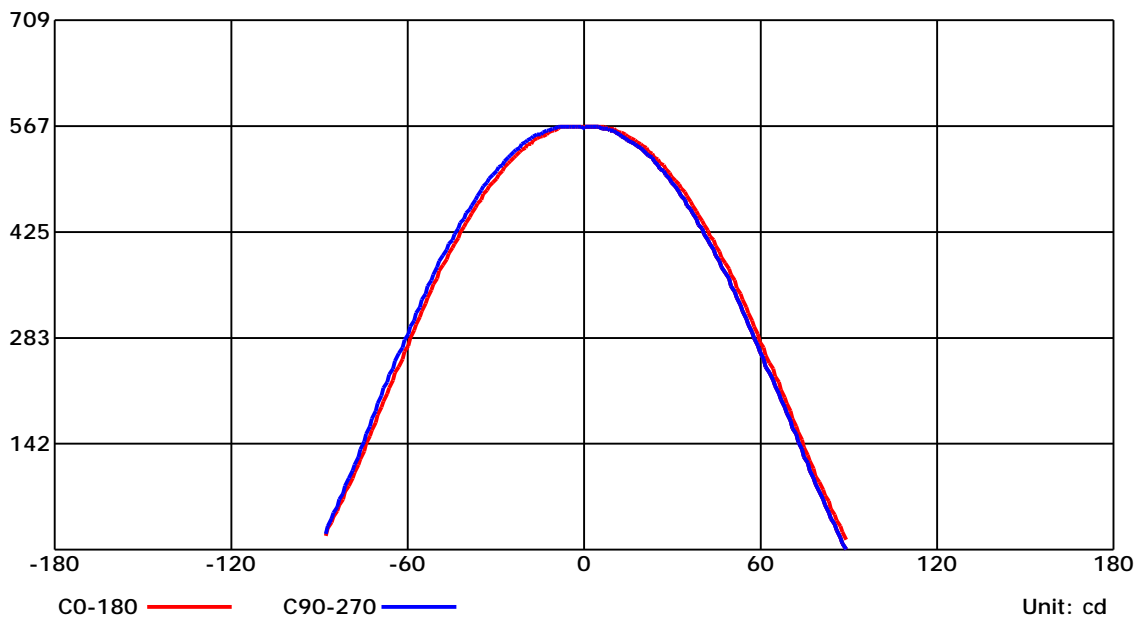
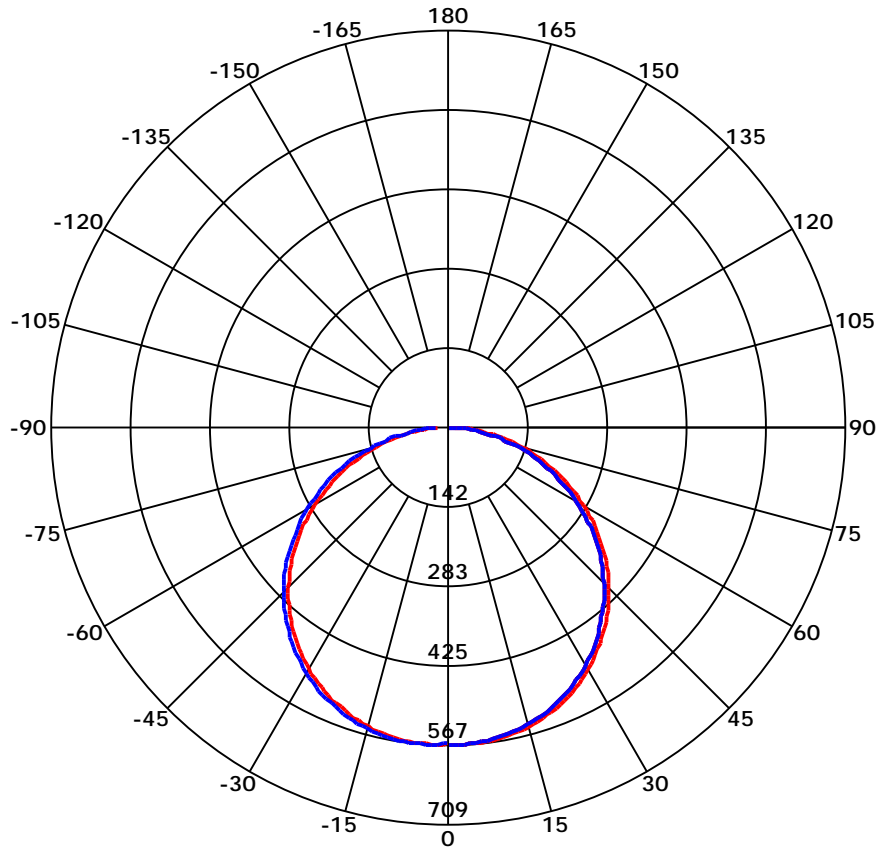
C Range: 0 - 360 Deg
C Interval: 45.0 Deg
Test Speed: High
Temperature:
Operators:
Test Date: 2020/3/2 11:46:11

G Range: 0 - 90 Deg
G Interval: 1.0 Deg
Test System: Huipu CPM-1800B Goniophotometer
Humidity: 25
Test Distance: 6.2 m
Remarks:

Report No.:

Test Time: 2020/3/2 11:46:11

Luminous Intensity Distribution Curve



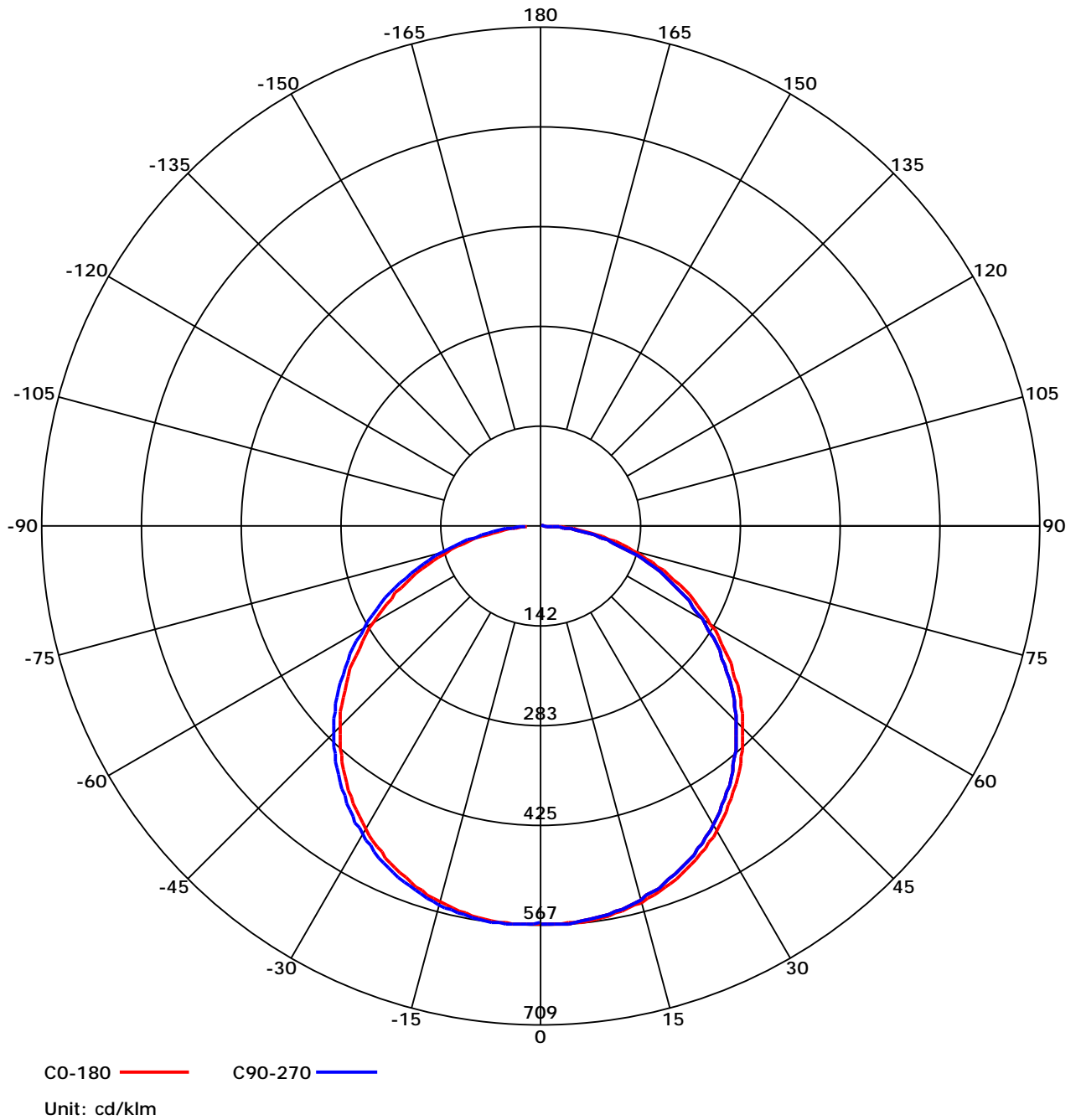
C Range: 0 - 360 Deg
C Interval: 45.0 Deg
Test Speed: High
Temperature:
Operators:
Test Date: 2020/3/2 11:46:11

G Range: 0 - 90 Deg
G Interval: 1.0 Deg
Test System: Huipu CPM-1800B Goniophotometer
Humidity: 25
Test Distance: 6.2 m
Remarks:

Report No.:

Test Time: 2020/3/2 11:46:11

Luminous Intensity Distribution Curve



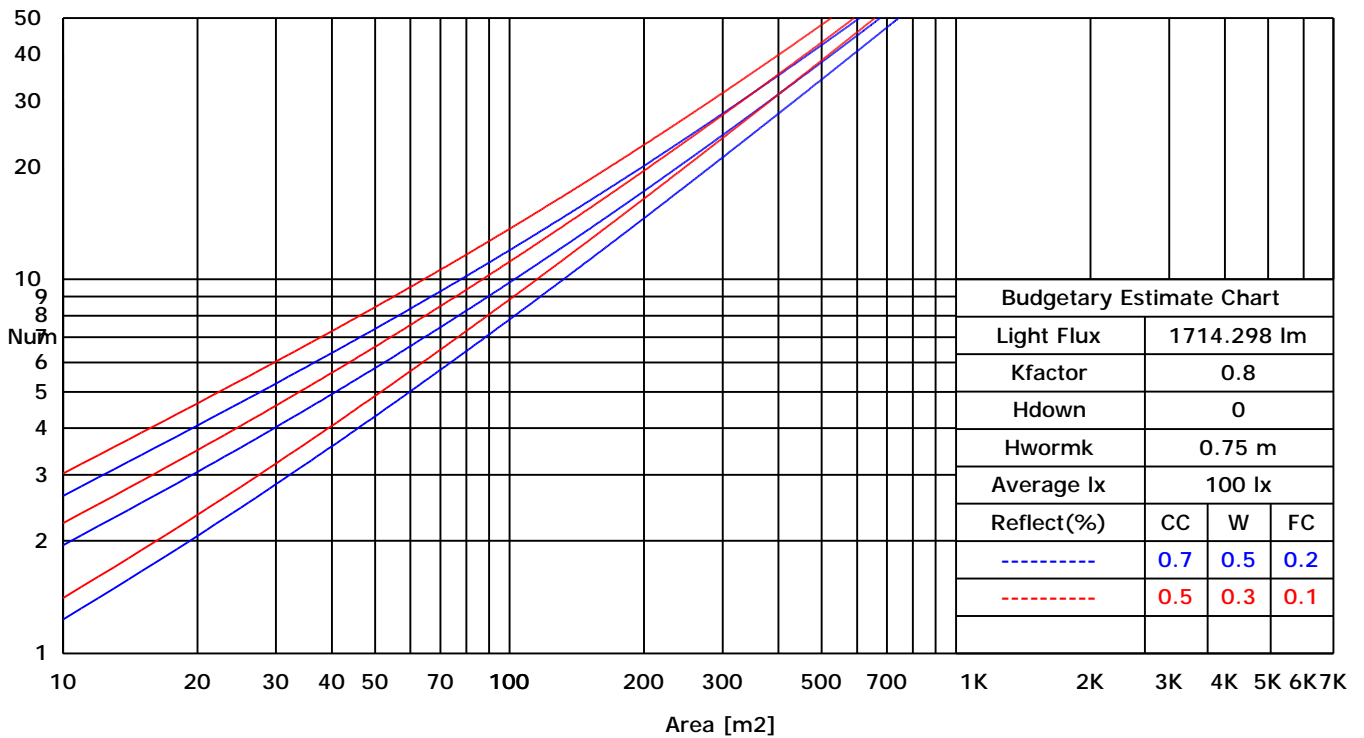
C Range: 0 - 360 Deg
C Interval: 45.0 Deg
Test Speed: High
Temperature:
Operators:
Test Date: 2020/3/2 11:46:11

G Range: 0 - 90 Deg
G Interval: 1.0 Deg
Test System: Huipu CPM-1800B Goniophotometer
Humidity: 25
Test Distance: 6.2 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	1.07	1.05	1.04	1.05	1.03	1.02	1.01	0.99	0.98	0.96	0.94	0.92	0.90	0.88	0.86	0.81
2	0.94	0.92	0.90	0.93	0.91	0.89	0.91	0.88	0.85	0.87	0.83	0.81	0.82	0.78	0.75	0.70
3	0.83	0.81	0.79	0.83	0.80	0.78	0.81	0.77	0.74	0.78	0.74	0.71	0.75	0.70	0.66	0.62
4	0.74	0.72	0.70	0.74	0.71	0.69	0.73	0.69	0.66	0.71	0.66	0.63	0.69	0.63	0.59	0.55
5	0.67	0.64	0.63	0.67	0.64	0.62	0.66	0.62	0.59	0.65	0.60	0.56	0.63	0.58	0.53	0.49
6	0.61	0.58	0.57	0.61	0.58	0.56	0.61	0.56	0.53	0.60	0.55	0.51	0.58	0.53	0.48	0.44
7	0.55	0.53	0.52	0.56	0.53	0.51	0.56	0.51	0.48	0.55	0.50	0.46	0.54	0.48	0.44	0.40
8	0.51	0.49	0.47	0.51	0.48	0.46	0.52	0.47	0.44	0.51	0.46	0.42	0.51	0.45	0.40	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	0.40	0.44	0.41	0.40	0.45	0.41	0.38	0.45	0.40	0.36	0.45	0.39	0.34	0.32

LUMINAIRE BUDGETARY ESTIMATE DIAGRAM



C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature:

Operators:

Test Date: 2020/3/2 11:46:11

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

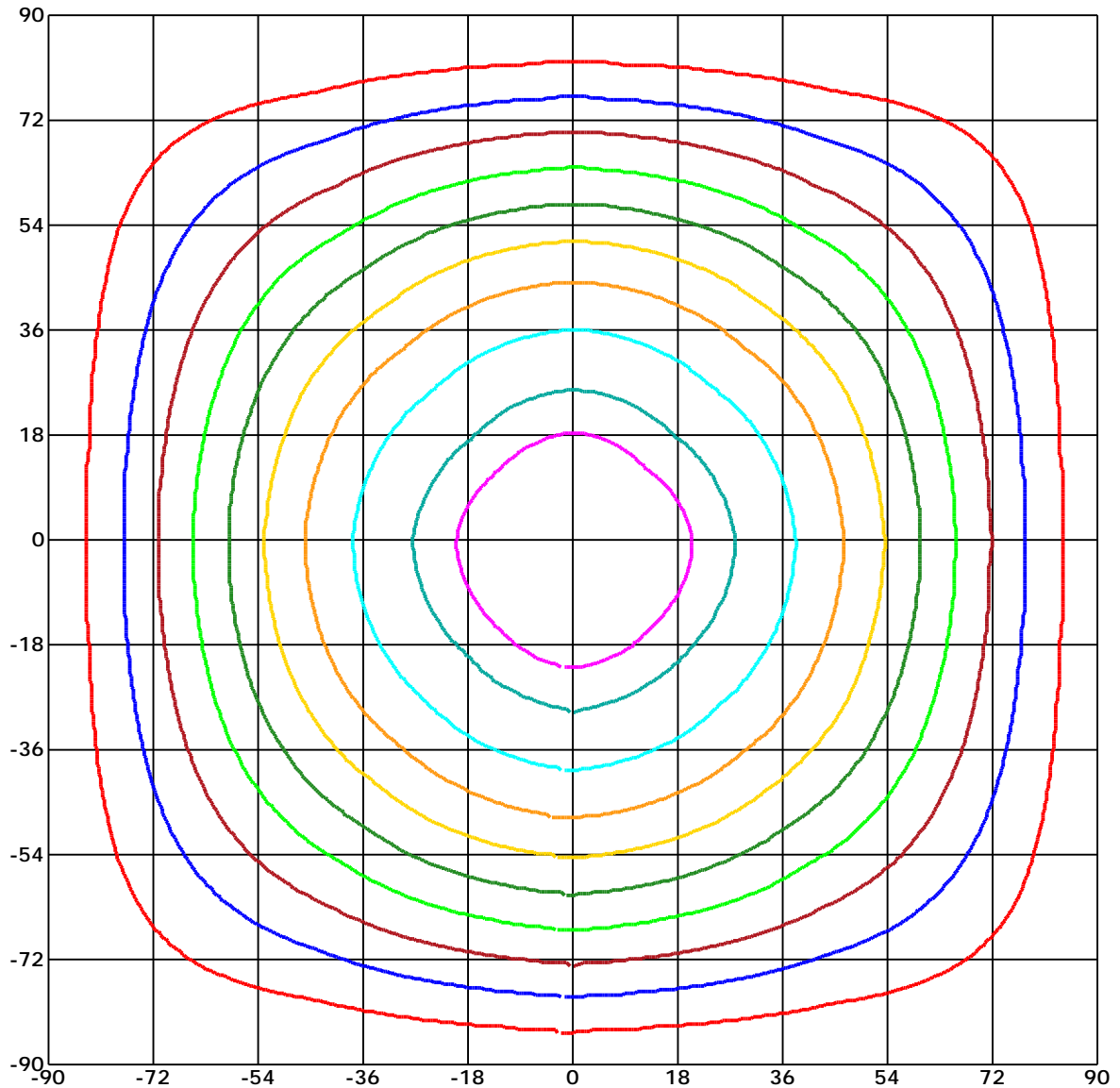
Test System: Huipu CPM-1800B Goniophotometer

Humidity: 25

Test Distance: 6.2 m

Remarks:

ISOCANDELA DIAGRAM (RECTANGULAR)



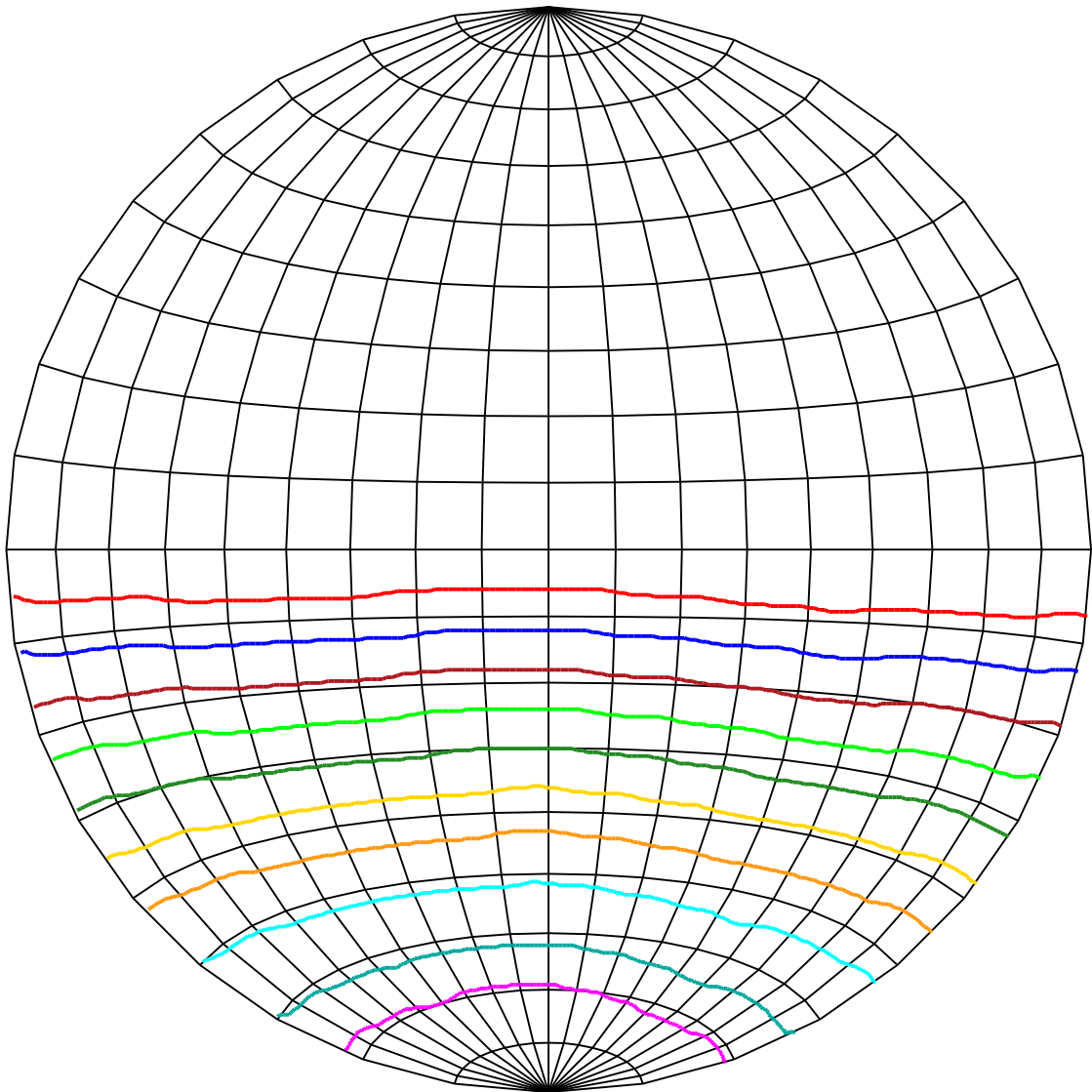
Unit of intensity:cd I_{max}(100%): 566.875 cd

- | | |
|-------------------------------|-------------------------------|
| 538.531(95%I _{max}) | 283.437(50%I _{max}) |
| 510.187(90%I _{max}) | 226.75(40%I _{max}) |
| 453.5(80%I _{max}) | 170.062(30%I _{max}) |
| 396.812(70%I _{max}) | 113.375(20%I _{max}) |
| 340.125(60%I _{max}) | 56.687(10%I _{max}) |

C Range: 0 - 360 Deg
C Interval: 45.0 Deg
Test Speed: High
Temperature:
Operators:
Test Date: 2020/3/2 11:46:11

G Range: 0 - 90 Deg
G Interval: 1.0 Deg
Test System: Huipu CPM-1800B Goniophotometer
Humidity: 25
Test Distance: 6.2 m
Remarks:

ISOCANDELA DIAGRAM (SPHERE)



Unit of intensity:cd I_{max}(100%): 566.875 cd

- | | |
|-------------------------------|-------------------------------|
| 538.531(95%I _{max}) | 283.437(50%I _{max}) |
| 510.187(90%I _{max}) | 226.75(40%I _{max}) |
| 453.5(80%I _{max}) | 170.062(30%I _{max}) |
| 396.812(70%I _{max}) | 113.375(20%I _{max}) |
| 340.125(60%I _{max}) | 56.687(10%I _{max}) |

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature:

Operators:

Test Date: 2020/3/2 11:46:11

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

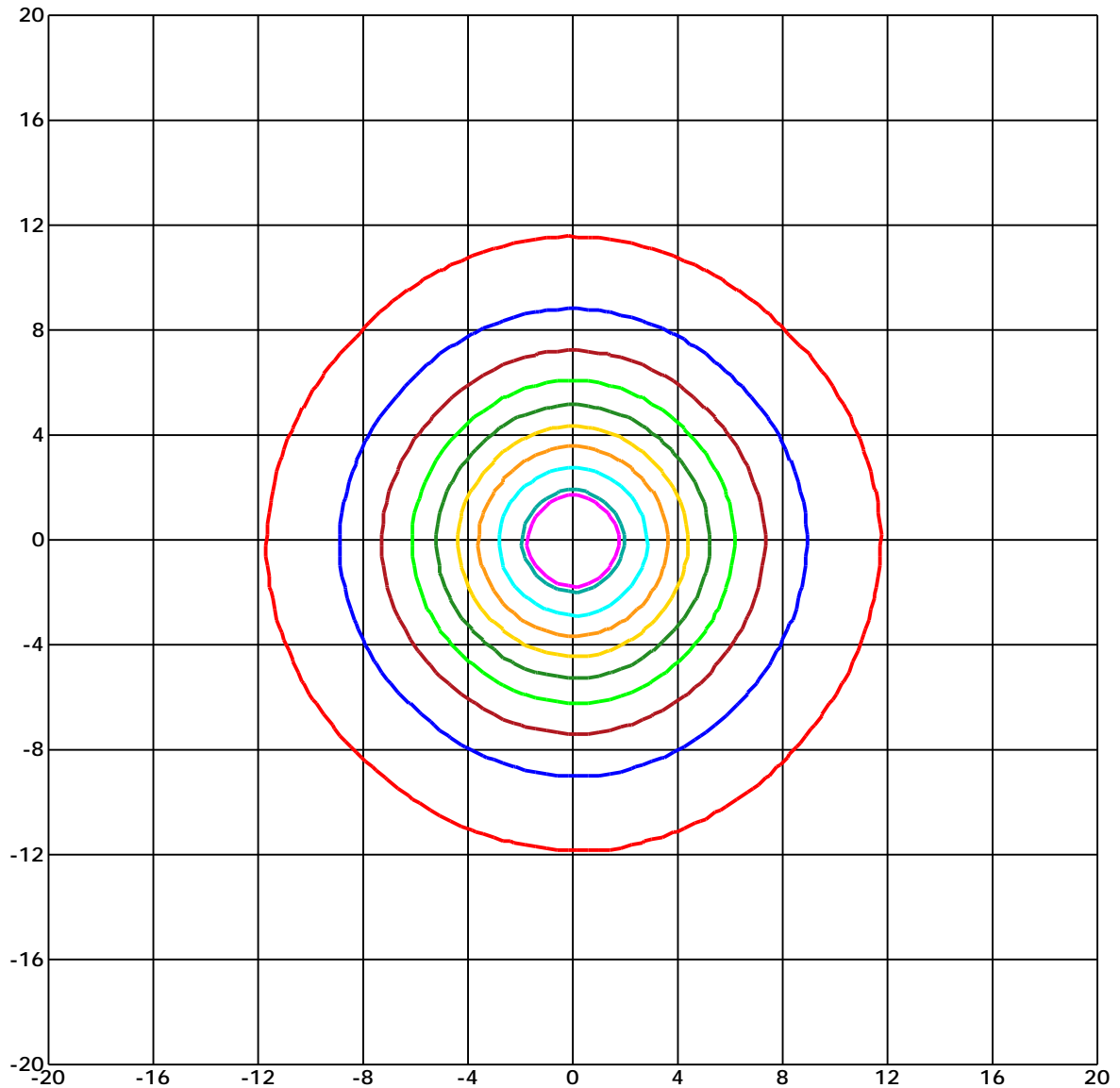
Test System: Huipu CPM-1800B Goniophotometer

Humidity: 25

Test Distance: 6.2 m

Remarks:

ISOLX DIAGRAM



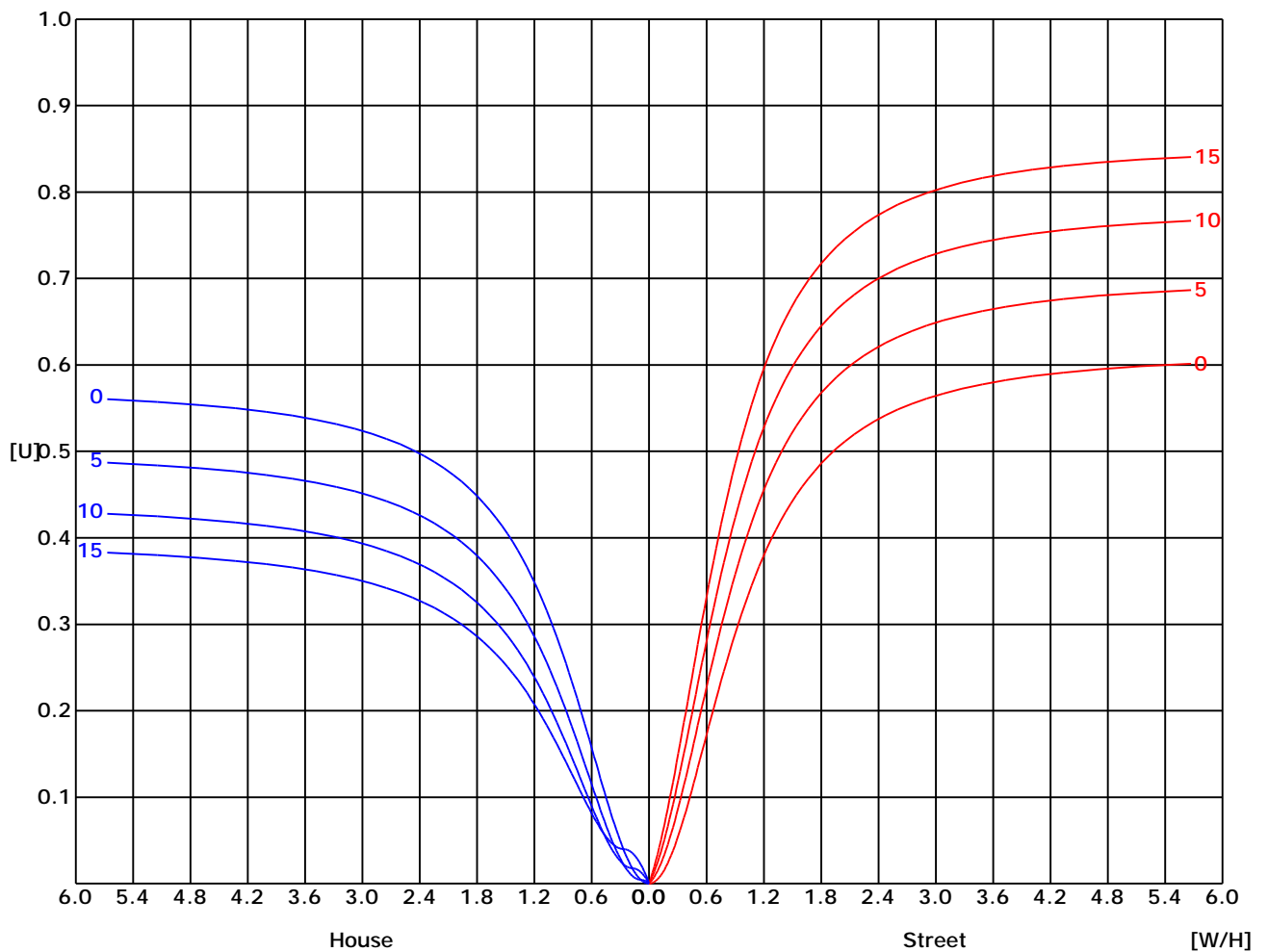
Unit of illumination: lx Height of plane: 8.0(m)/26.25(ft)

- | | |
|---------------|---------------|
| 8.141(1%Emax) | 4.424(1%Emax) |
| 7.964(1%Emax) | 3.539(1%Emax) |
| 7.079(1%Emax) | 2.655(0%Emax) |
| 6.194(1%Emax) | 1.77(0%Emax) |
| 5.309(1%Emax) | 0.885(0%Emax) |

C Range: 0 - 360 Deg
C Interval: 45.0 Deg
Test Speed: High
Temperature:
Operators:
Test Date: 2020/3/2 11:46:11

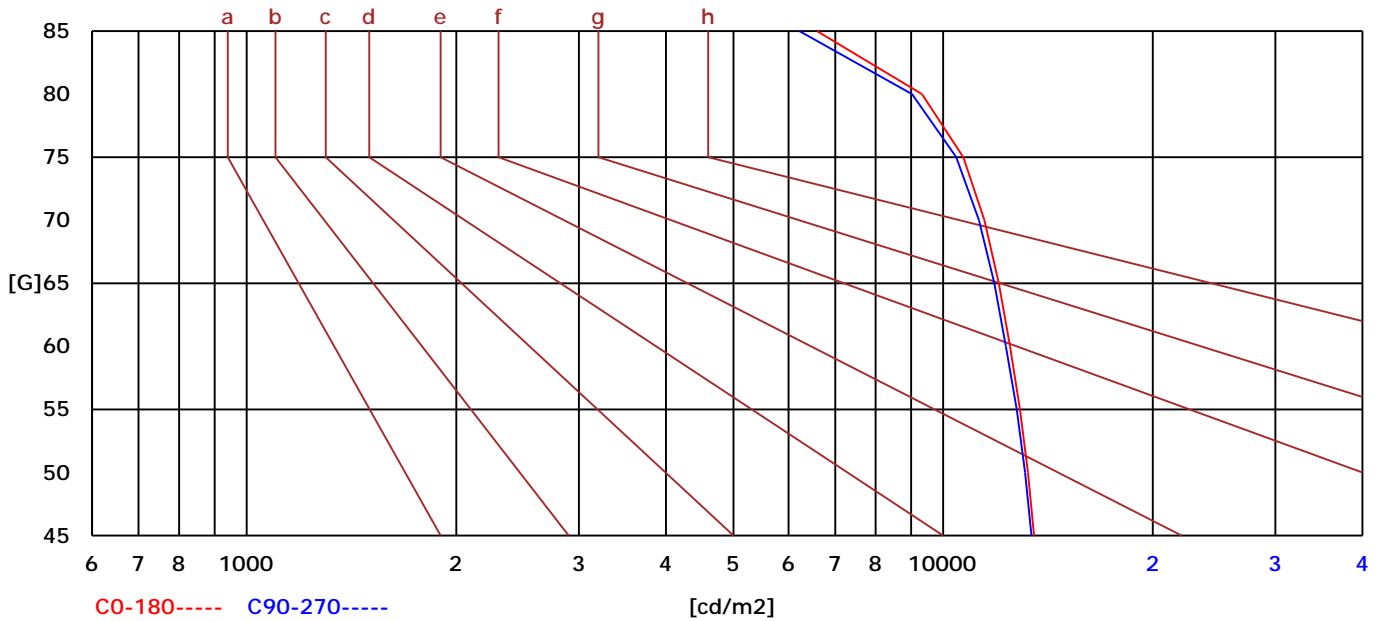
G Range: 0 - 90 Deg
G Interval: 1.0 Deg
Test System: Huipu CPM-1800B Goniophotometer
Humidity: 25
Test Distance: 6.2 m
Remarks:

UTILIZATION FACTOR DIAGRAM (ROAD)



BRIGHT LIMIT DIAGRAM

C/G	45	50	55	60	65	70	75	80	85
C0	13500	13239	12893	12472	12022	11458	10686	9325	6594
C90	13399	13110	12755	12305	11843	11253	10445	9021	6219
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: 2020/3/2 11:46:11

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity: 25

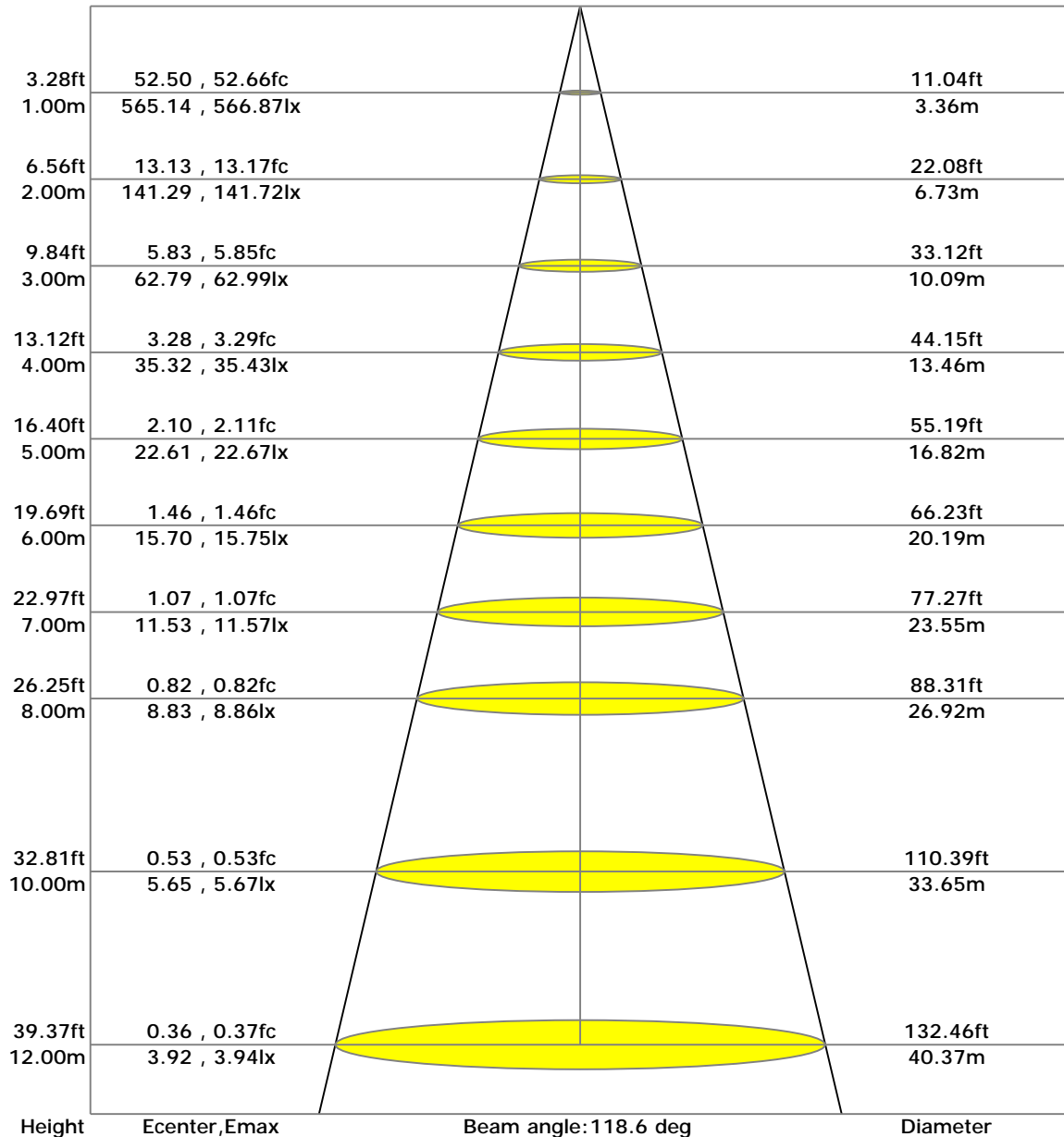
Test Distance: 6.2 m

Remarks:

Report No.:

Test Time: 2020/3/2 11:46:11

LX-DISTANCE DIAGRAM



C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature:

Operators:

Test Date: 2020/3/2 11:46:11

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity: 25

Test Distance: 6.2 m

Remarks:

Report No.:

Test Time: 2020/3/2 11:46:11

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	19.15	19.23	19.35	19.42	19.66	19.03	19.11	19.23	19.29	19.54
3H	19.28	19.36	19.49	19.56	19.80	19.17	19.25	19.38	19.44	19.69
4H	19.30	19.38	19.51	19.57	19.82	19.20	19.27	19.41	19.47	19.72
6H	19.29	19.36	19.50	19.56	19.81	19.18	19.26	19.40	19.46	19.71
8H	19.27	19.34	19.49	19.54	19.80	19.17	19.24	19.39	19.44	19.70
12H	19.25	19.32	19.48	19.53	19.78	19.15	19.22	19.37	19.43	19.68
4H 2H	21.99	22.06	22.20	22.26	22.51	21.74	21.82	21.96	22.02	22.27
3H	22.25	22.32	22.48	22.53	22.78	22.03	22.10	22.25	22.30	22.56
4H	22.31	22.38	22.54	22.59	22.85	22.10	22.16	22.33	22.37	22.63
6H	22.32	22.38	22.56	22.60	22.87	22.12	22.18	22.35	22.40	22.66
8H	22.31	22.37	22.56	22.60	22.86	22.11	22.17	22.35	22.39	22.66
12H	22.29	22.35	22.54	22.58	22.85	22.09	22.14	22.34	22.38	22.65
8H 4H	22.86	22.94	23.08	23.14	23.39	22.49	22.56	22.71	22.76	23.02
6H	23.45	23.50	23.71	23.74	24.02	23.10	23.15	23.36	23.39	23.66
8H	23.46	23.50	23.72	23.75	24.03	23.11	23.16	23.37	23.40	23.68
12H	23.44	23.49	23.71	23.74	24.02	23.11	23.15	23.37	23.40	23.68
12H 4H	23.64	23.70	23.89	23.93	24.20	23.20	23.25	23.45	23.48	23.75
6H	23.74	23.79	24.00	24.03	24.31	23.30	23.35	23.56	23.59	23.87

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature:

Operators:

Test Date: 2020/3/2 11:46:11

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity: 25

Test Distance: 6.2 m

Remarks:

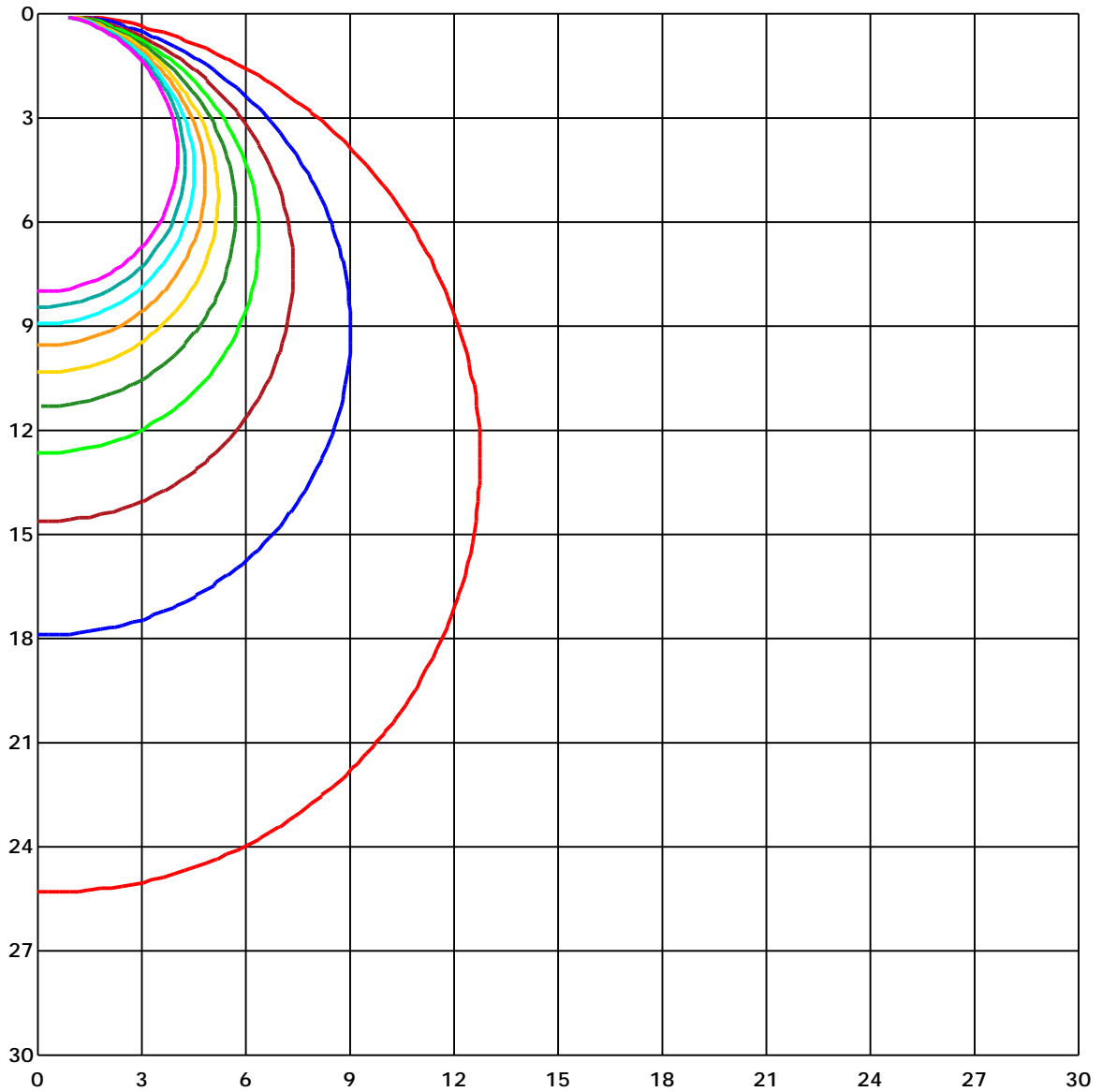
ZONAL LUMINOUS FLUX TABLE

Gamma [deg]	I _{mean} [cd]	Zonal Flux [lm]	Sum Flux [lm]	Zonal Flux [%]	Sum Flux [%]
0	565.51	0.00	0.00	0.00	0.00
5	566.01	13.53	13.53	0.79	0.79
10	562.16	40.30	53.84	2.35	3.14
15	553.05	65.93	119.77	3.85	6.99
20	539.58	89.58	209.35	5.23	12.21
25	521.33	110.49	319.85	6.45	18.66
30	498.15	127.83	447.68	7.46	26.11
35	470.49	140.98	588.66	8.22	34.34
40	438.87	149.59	738.24	8.73	43.06
45	403.96	153.45	891.69	8.95	52.01
50	364.81	152.17	1043.86	8.88	60.89
55	321.41	145.41	1189.27	8.48	69.37
60	275.96	133.83	1323.10	7.81	77.18
65	229.52	118.26	1441.36	6.90	84.08
70	182.95	99.68	1541.03	5.81	89.89
75	135.32	78.20	1619.23	4.56	94.45
80	87.69	54.50	1673.73	3.18	97.63
85	43.55	30.63	1704.36	1.79	99.42
90	7.78	9.94	1714.30	0.58	100.00

C Range: 0 - 360 Deg
C Interval: 45.0 Deg
Test Speed: High
Temperature:
Operators:
Test Date: 2020/3/2 11:46:11

G Range: 0 - 90 Deg
G Interval: 1.0 Deg
Test System: Huipu CPM-1800B Goniophotometer
Humidity: 25
Test Distance: 6.2 m
Remarks:

SPACE ISOLX DIAGRAM



Unit of illumination: lx

- | | |
|---------|---------|
| — 8.832 | — 4.416 |
| — 7.949 | — 3.533 |
| — 7.066 | — 2.65 |
| — 6.183 | — 1.766 |
| — 5.299 | — 0.883 |

C Range: 0 - 360 Deg
C Interval: 45.0 Deg
Test Speed: High
Temperature:
Operators:
Test Date: 2020/3/2 11:46:11

G Range: 0 - 90 Deg
G Interval: 1.0 Deg
Test System: Huipu CPM-1800B Goniophotometer
Humidity: 25
Test Distance: 6.2 m
Remarks:

Report No.:

Test Time: 2020/3/2 11:46:11

LUMINOUS DISTRIBUTION INTENSITY DATA

Gamma\C	C0	C45	C90	C135	C180	C225	C270	C315	C360	
G0	565.14	566.26	566.03	566.3	564.99	565.72	563.91	565.68	564.3	
G1	565.22	566.53	566.37	566.37	565.76	566.07	564.57	566.22	564.84	
G2	565.99	566.26	566.14	565.57	566.03	566.26	565.64	566.45	565.99	
G3	566.14	566.14	566.49	565.84	566.14	566.22	566.3	566.57	565.72	
G4	565.53	565.49	566.11	565.3	566.37	566.14	566.61	566.57	565.76	
G5	565.61	564.15	565.64	564.38	565.91	565.68	566.87	566.34	566.34	
G6	565.72	563.76	564.18	563.49	565.45	565.14	566.84	565.8	565.38	
G7	565.11	562.65	563.88	562.11	564.72	564.34	566.57	564.95	564.95	
G8	564.34	560.95	562.18	560.65	564.65	563.3	566.03	564.22	564.22	
G9	563.3	559.53	561.42	558.84	562.95	562.68	565.22	563.34	563.22	
G10	562.45	557.8	559.76	557.03	561.53	560.88	564.11	561.8	562.18	
G11	560.69	555.69	557.8	554.96	560.19	559.84	562.95	560.19	560.88	
G12	559.11	553.65	556.07	552.88	558.49	558.0	561.84	559.23	559.26	
G13	558.07	551.11	553.88	550.31	556.65	555.53	559.99	556.65	556.77	
G14	555.42	548.62	551.61	547.89	554.23	553.27	558.88	554.46	555.42	
G15	553.81	545.77	549.0	544.96	552.23	551.23	556.46	552.11	553.38	
G16	550.92	542.89	546.35	542.08	549.92	548.77	555.07	549.62	550.46	
G17	549.0	539.81	543.54	539.47	547.35	545.96	552.15	547.0	548.54	
G18	545.89	536.66	540.58	535.74	543.96	542.39	549.73	544.27	545.81	
G19	543.16	533.36	537.54	532.2	541.77	539.97	547.15	541.5	543.08	
G20	539.89	529.63	534.28	528.59	538.01	536.31	544.43	538.08	539.93	
G21	537.01	525.9	530.78	524.74	534.78	533.12	541.5	534.62	536.85	
G22	533.66	521.98	527.09	520.71	531.63	529.43	538.35	531.24	533.32	
G23	530.13	517.83	523.48	515.98	528.24	525.55	534.97	526.82	529.82	
G24	525.71	513.37	519.02	512.02	524.17	521.4	531.55	523.44	525.97	
G25	522.36	508.83	514.98	506.64	520.17	516.9	527.93	519.06	522.63	
G26	518.06	503.95	510.37	502.3	515.86	512.29	523.9	514.52	518.52	
G27	513.71	498.41	505.68	497.41	511.33	507.48	519.71	510.02	513.52	
G28	508.91	493.8	500.8	491.53	506.68	502.76	514.67	505.26	508.98	
G29	504.29	488.34	495.84	486.42	501.95	497.45	510.75	500.14	504.33	
G30	499.3	482.77	490.57	480.81	496.91	492.22	506.06	494.92	499.49	
G31	494.18	476.96	485.11	474.96	491.72	486.84	501.07	489.57	494.11	
G32	488.96	471.27	479.35	469.04	486.3	481.23	495.88	484.04	488.8	
G33	483.42	465.12	473.7	462.82	481.19	475.39	490.46	478.19	483.34	
G34	477.89	458.9	467.7	456.71	475.08	469.97	485.23	472.43	477.73	
G35	472.08	452.55	461.66	450.32	469.35	463.59	479.85	466.39	471.35	
G36	466.2	446.06	455.51	443.75	463.47	457.36	473.77	460.2	466.12	

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature:

Operators:

Test Date: 2020/3/2 11:46:11

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity: 25

Test Distance: 6.2 m

Remarks:

Report No.:

Test Time: 2020/3/2 11:46:11

LUMINOUS DISTRIBUTION INTENSITY DATA(Continue 1)

Gamma\C	C0	C45	C90	C135	C180	C225	C270	C315	C360	
G37	460.13	439.48	448.94	436.99	457.4	450.94	467.78	453.9	460.01	
G38	453.9	432.68	442.52	430.26	450.94	444.48	461.55	447.44	454.09	
G39	447.75	426.34	435.64	423.34	444.56	437.1	455.4	440.83	447.6	
G40	441.1	418.77	429.45	416.23	437.83	430.72	449.86	434.03	441.1	
G41	434.49	411.81	422.03	409.19	431.18	423.99	443.17	427.26	434.33	
G42	427.61	404.5	414.96	401.89	424.3	416.84	436.1	420.26	427.57	
G43	420.38	397.05	408.39	394.28	417.38	409.58	429.49	413.11	420.65	
G44	414.11	389.47	400.74	386.74	410.27	402.12	422.53	405.7	413.58	
G45	406.81	381.82	393.24	378.98	402.81	394.59	415.31	398.28	406.58	
G46	399.31	373.79	385.59	370.95	395.32	386.63	408.0	390.47	398.85	
G47	391.82	366.1	377.9	363.1	387.67	378.98	400.66	382.82	391.86	
G48	383.71	357.61	370.02	354.65	379.71	370.52	392.93	374.67	383.59	
G49	375.94	349.15	362.07	346.08	371.87	362.34	385.25	365.8	375.79	
G50	367.6	340.39	353.53	337.08	363.49	353.57	377.13	357.61	367.6	
G51	358.95	331.93	345.0	328.62	354.96	345.11	368.26	349.27	359.07	
G52	350.73	322.97	336.27	319.74	346.23	336.23	360.22	340.46	350.61	
G53	342.39	314.02	327.32	310.67	337.81	327.28	351.46	331.66	342.19	
G54	333.35	304.79	318.86	301.48	328.89	318.32	342.92	322.67	333.35	
G55	324.55	295.8	309.9	292.64	320.09	309.6	334.27	313.75	324.16	
G56	315.4	286.69	300.68	283.26	310.86	300.29	325.36	304.68	315.21	
G57	306.6	277.42	291.8	274.08	301.87	291.07	316.71	295.45	306.37	
G58	297.3	268.23	282.61	265.24	292.57	281.88	307.33	286.38	297.06	
G59	288.18	259.12	273.65	255.47	283.38	272.58	298.26	277.0	287.95	
G60	278.92	249.44	264.35	246.09	274.08	263.2	289.18	267.77	278.73	
G61	269.54	240.13	255.09	236.87	264.35	253.82	280.23	258.62	269.35	
G62	260.12	230.95	245.75	227.64	255.13	244.48	271.0	249.13	259.97	
G63	250.71	221.68	236.48	218.53	245.63	235.25	261.28	240.21	250.4	
G64	241.52	212.3	227.76	209.31	236.33	225.99	252.17	230.79	241.1	
G65	232.18	203.23	218.3	200.2	226.95	216.72	242.98	221.65	231.95	
G66	222.8	193.93	209.11	190.93	217.53	207.08	233.75	212.23	222.53	
G67	213.5	184.9	200.04	181.94	208.11	197.93	224.49	203.08	213.15	
G68	203.81	175.59	190.93	172.75	198.66	188.66	214.99	193.81	203.73	
G69	194.54	166.06	181.78	163.25	189.39	179.09	205.35	184.09	194.39	
G70	184.9	156.76	172.48	153.95	179.71	169.6	195.39	174.9	184.9	
G71	175.56	147.49	163.1	144.65	170.17	160.1	185.24	165.45	175.25	
G72	165.87	138.46	153.72	135.81	160.64	150.68	175.25	156.07	165.68	
G73	156.49	128.89	144.5	126.51	151.15	141.04	165.6	146.38	156.26	

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature:

Operators:

Test Date: 2020/3/2 11:46:11

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity: 25

Test Distance: 6.2 m

Remarks:

Report No.:

Test Time: 2020/3/2 11:46:11

LUMINOUS DISTRIBUTION INTENSITY DATA(Continue 2)

Gamma\C	C0	C45	C90	C135	C180	C225	C270	C315	C360
G74	146.8	119.51	134.77	116.97	141.69	130.93	155.49	136.39	146.8
G75	137.08	110.63	124.97	108.13	131.96	121.47	145.03	126.74	137.08
G76	127.47	101.44	115.13	99.1	122.39	111.51	134.85	116.93	127.47
G77	118.05	92.49	105.52	90.18	113.13	101.9	125.01	107.29	118.09
G78	108.36	83.22	95.83	80.92	103.56	92.14	114.7	97.48	108.4
G79	99.14	74.0	86.49	71.81	94.49	82.72	104.98	87.91	99.21
G80	89.68	64.77	76.92	62.66	85.07	73.46	95.02	78.49	89.76
G81	80.8	55.93	67.69	53.93	76.23	64.5	85.49	69.31	80.76
G82	71.84	47.4	58.77	45.59	67.42	55.97	76.03	60.39	71.88
G83	63.39	38.86	50.16	37.29	59.2	47.63	66.89	51.7	63.43
G84	55.12	30.71	41.67	29.33	51.09	39.25	57.97	43.25	55.24
G85	47.17	22.99	33.33	21.68	43.17	31.75	49.32	34.87	47.28
G86	39.13	16.11	25.26	15.26	35.33	24.56	40.48	27.48	39.17
G87	31.1	10.99	16.72	10.19	27.41	18.68	31.41	21.33	31.1
G88	22.41	6.77	7.53	5.84	19.1	13.61	21.56	16.53	22.37
G89	13.42	3.42	0.0	2.5	10.23	9.49	10.69	12.53	13.42
G90	5.55	0.28	0.0	0.0	0.0	5.88	0.0	8.77	0.0

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature:

Operators:

Test Date: 2020/3/2 11:46:11

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity: 25

Test Distance: 6.2 m

Remarks: