

Report No.:

Test Time: 2019/11/29 9:23:17

LUMINAIRE PHOTOMETRIC TEST REPORT

Luminaire Property

Manufacturer:
Luminaire Type: 12V-2835-420L-5000K
Lamp Type:
Luminous Width: 0 mm
Luminous Length: 0 mm
Luminous Height: 0 mm

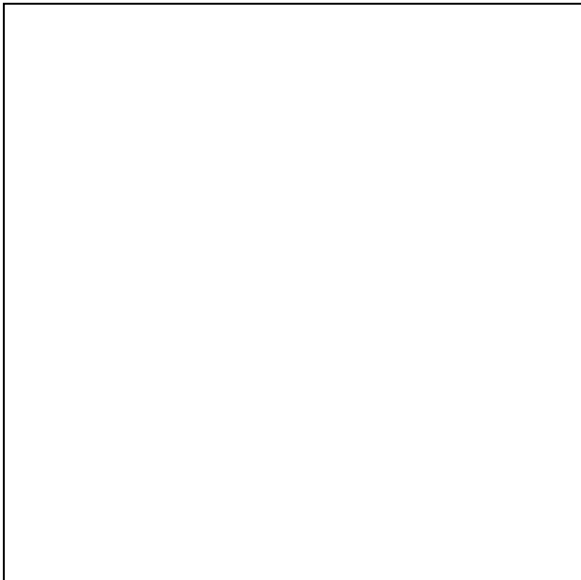
Voltage(V): 12.00 V
Current(A): 2.7600 A
Power(W): 33.12 W
Power Factor: 1.0000
Lamp Luminous Flux: 3304.65

Photometric Results

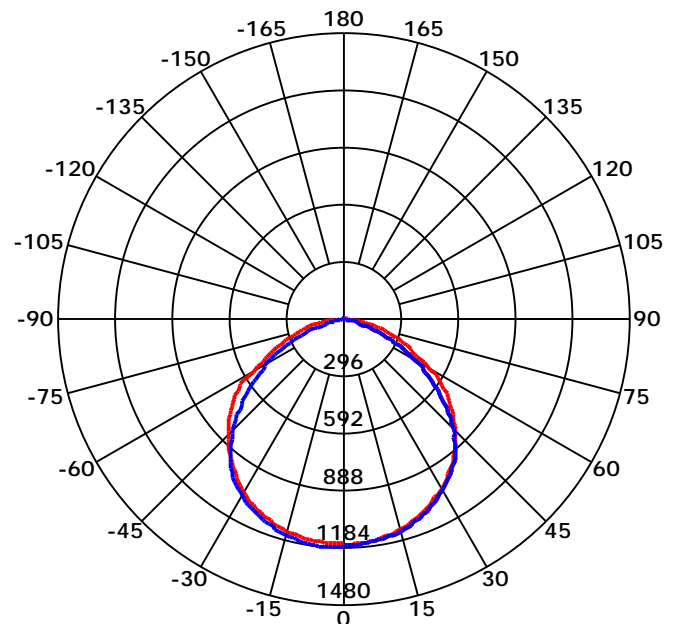
CIE Class: Direct
Luminaire Luminous Flux: 3304.645
Downward Ratio: 100.00%
Luminaire Efficacy Rating(LER): 99.78 lm/W
Beam Angle(50%Imax): L=-54.53 R=53.28
Field Angle(10%Imax): L=-73.41 R=72.89

Max. Intensity: 1184.21 cd
Max.Intensity Angle: C=270 Gamma=2
Upward Ratio: 0.00%
Efficacy: 100.00%
Center Intensity: 1168.28 cd

Picture of Luminaire



Luminous Intensity Distribution Curve



Beam Angle(50%Imax): 107.81 deg

C0-180 — C90-270 —

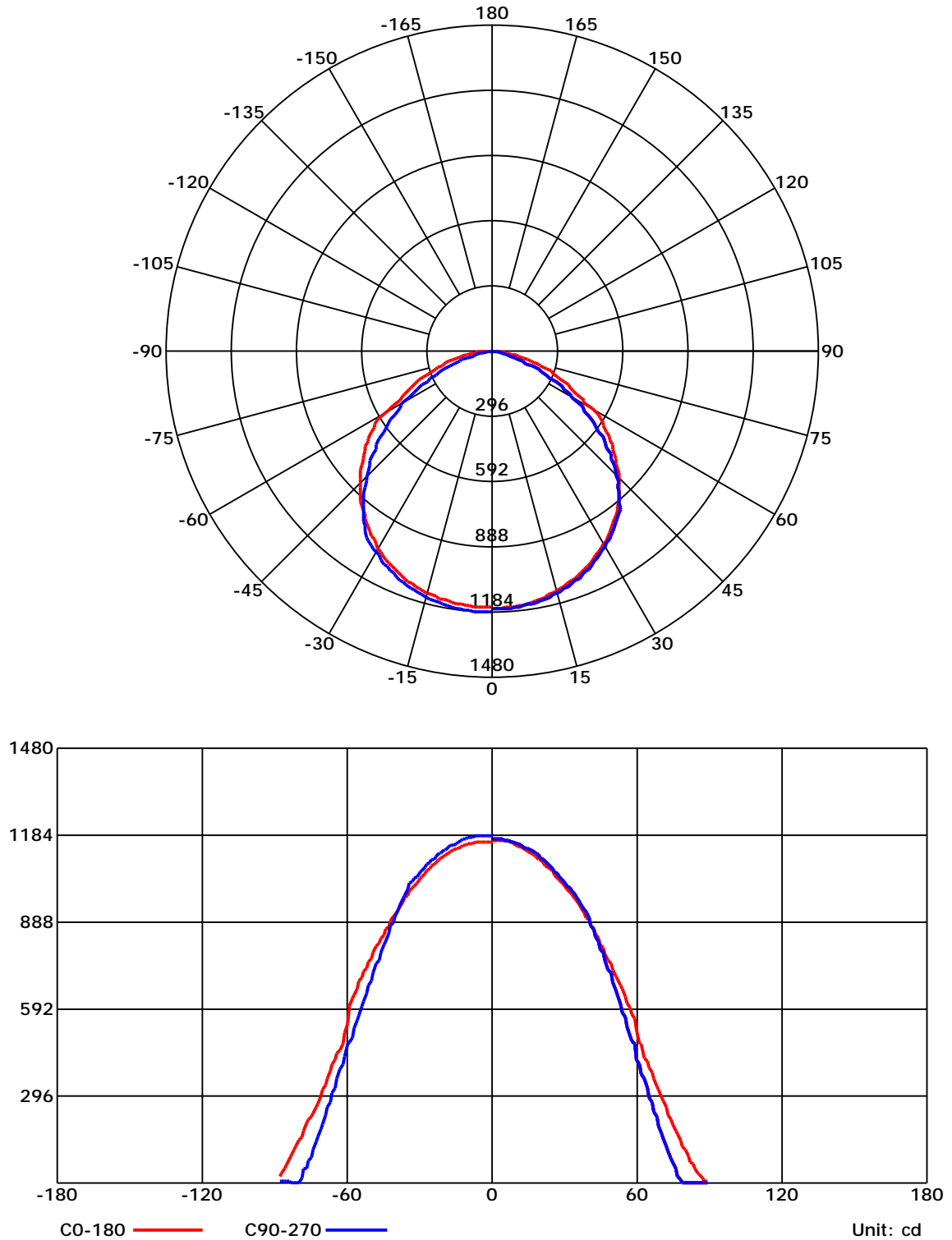
C Range: 0 - 360 Deg
C Interval: 45.0 Deg
Test Speed: High
Temperature:
Operators:
Test Date: 2019/11/29 9:23:17

G Range: 0 - 90 Deg
G Interval: 1.0 Deg
Test System: Huipu CPM-1800B Goniophotometer
Humidity:
Test Distance: 5.95 m
Remarks:

Report No.:

Test Time: 2019/11/29 9:23:17

Luminous Intensity Distribution Curve



C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature:

Operators:

Test Date: 2019/11/29 9:23:17

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity:

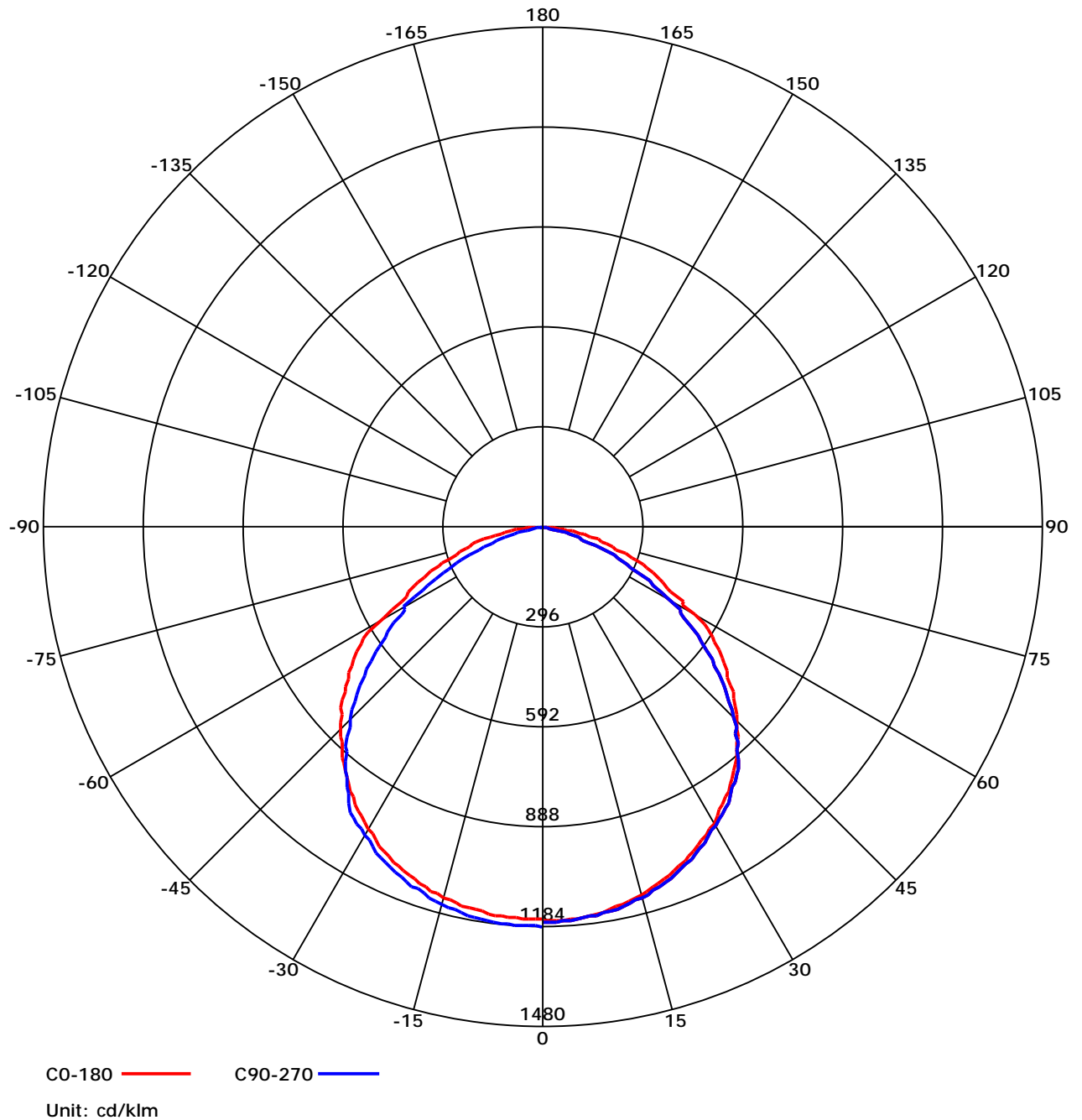
Test Distance: 5.95 m

Remarks:

Report No.:

Test Time: 2019/11/29 9:23:17

Luminous Intensity Distribution Curve



C Range: 0 - 360 Deg
C Interval: 45.0 Deg
Test Speed: High
Temperature:
Operators:
Test Date: 2019/11/29 9:23:17

G Range: 0 - 90 Deg
G Interval: 1.0 Deg
Test System: Huipu CPM-1800B Goniophotometer
Humidity:
Test Distance: 5.95 m
Remarks:

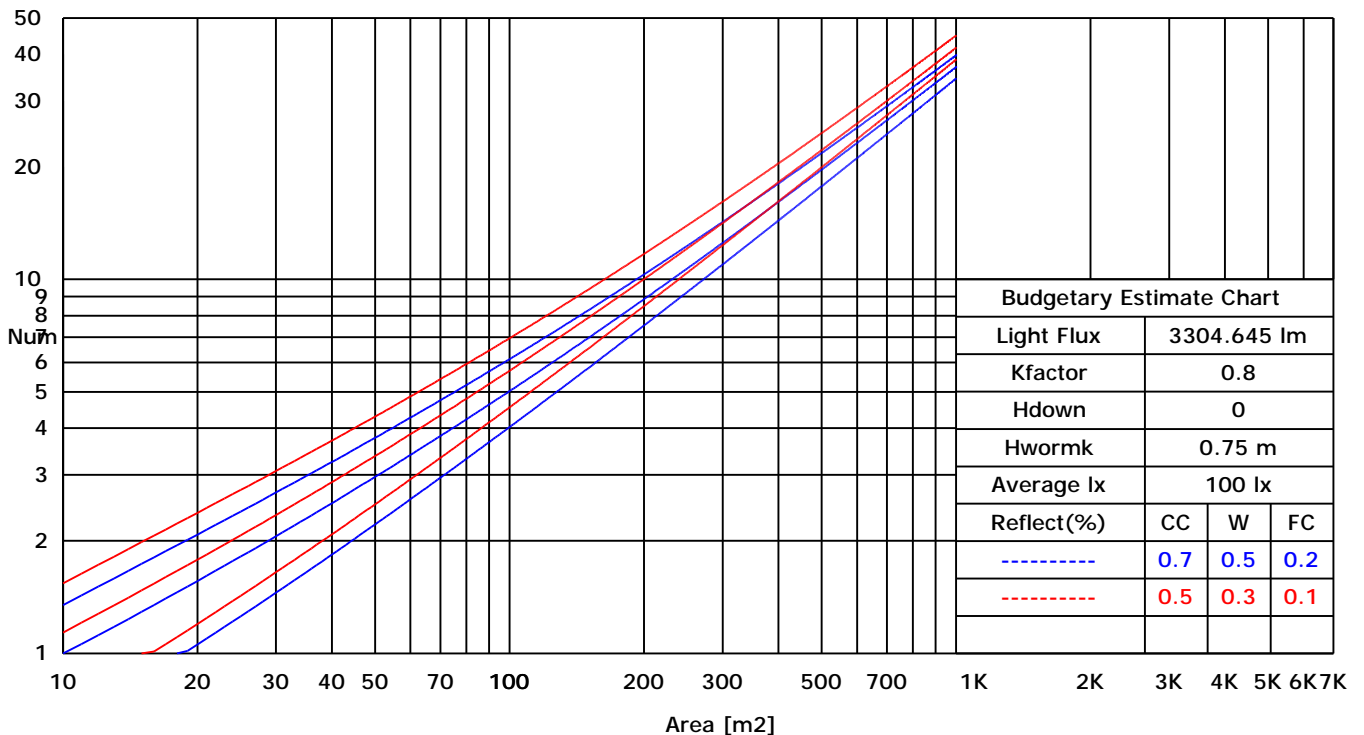
Report No.:

Test Time: 2019/11/29 9:23:17

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	0.93	0.91	0.89	0.87	0.81
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	0.86	0.84	0.82	0.85	0.83	0.81	0.83	0.80	0.77	0.80	0.76	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	0.62	0.57
5	0.70	0.68	0.66	0.70	0.67	0.65	0.69	0.65	0.62	0.68	0.63	0.59	0.65	0.60	0.56	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	0.61	0.55	0.50	0.47
7	0.58	0.56	0.55	0.59	0.56	0.54	0.58	0.54	0.51	0.58	0.53	0.49	0.57	0.51	0.46	0.43
8	0.54	0.52	0.50	0.54	0.51	0.49	0.54	0.50	0.47	0.54	0.49	0.45	0.53	0.47	0.43	0.39
9	0.50	0.48	0.47	0.50	0.47	0.46	0.50	0.46	0.44	0.50	0.45	0.42	0.50	0.44	0.39	0.36
10	0.46	0.44	0.43	0.47	0.44	0.42	0.47	0.43	0.40	0.47	0.42	0.39	0.47	0.41	0.37	0.34

LUMINAIRE BUDGETARY ESTIMATE DIAGRAM



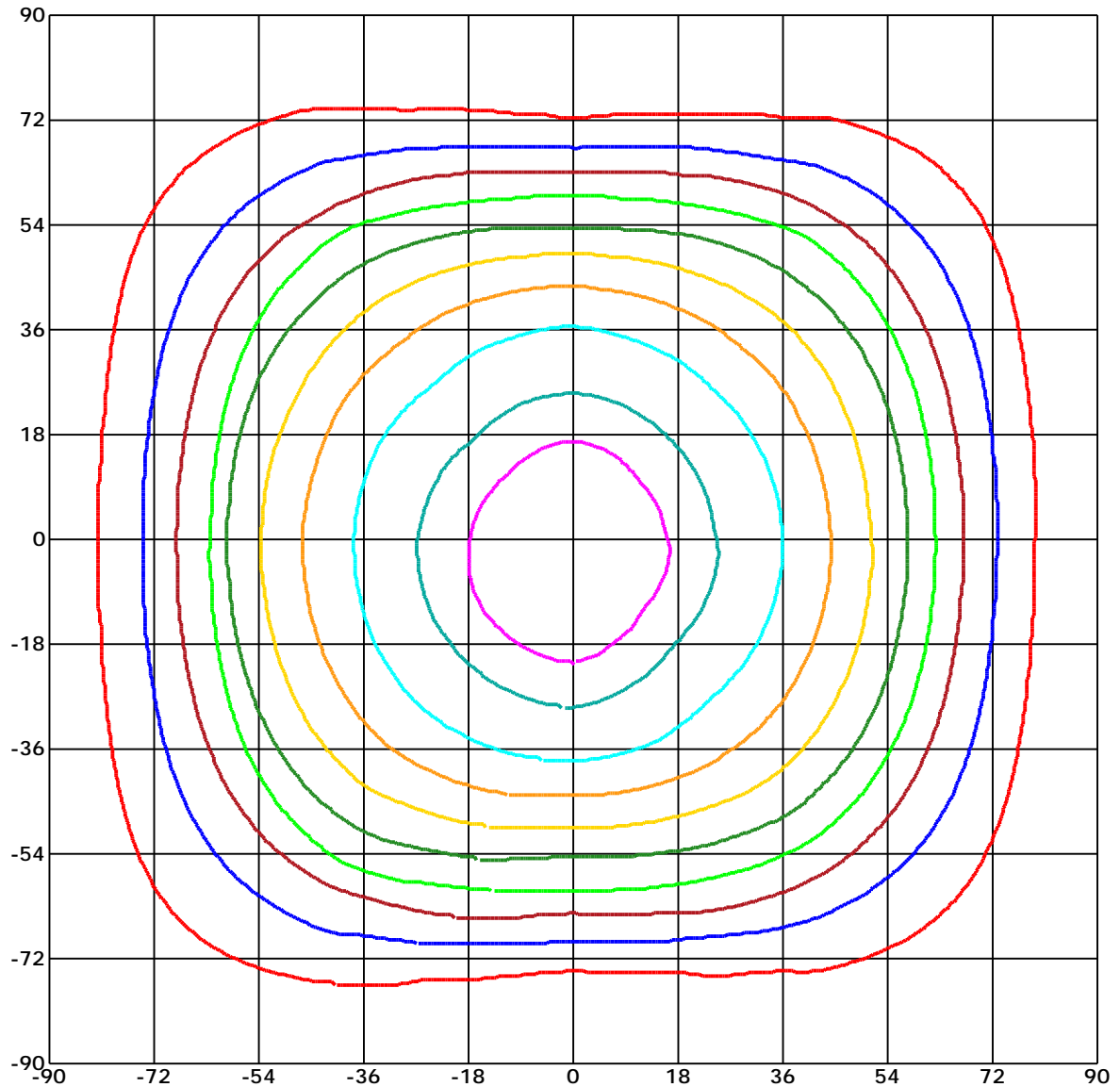
C Range: 0 - 360 Deg
 C Interval: 45.0 Deg
 Test Speed: High
 Temperature:
 Operators:
 Test Date: 2019/11/29 9:23:17

G Range: 0 - 90 Deg
 G Interval: 1.0 Deg
 Test System: Huipu CPM-1800B Goniophotometer
 Humidity:
 Test Distance: 5.95 m
 Remarks:

Report No.:

Test Time: 2019/11/29 9:23:17

ISOCANDELA DIAGRAM (RECTANGULAR)



Unit of intensity:cd Imax(100%): 1184.214 cd

1125.003(95%Imax)

592.107(50%Imax)

1065.793(90%Imax)

473.686(40%Imax)

947.371(80%Imax)

355.264(30%Imax)

828.95(70%Imax)

236.843(20%Imax)

710.528(60%Imax)

118.421(10%Imax)

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature:

Operators:

Test Date: 2019/11/29 9:23:17

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity:

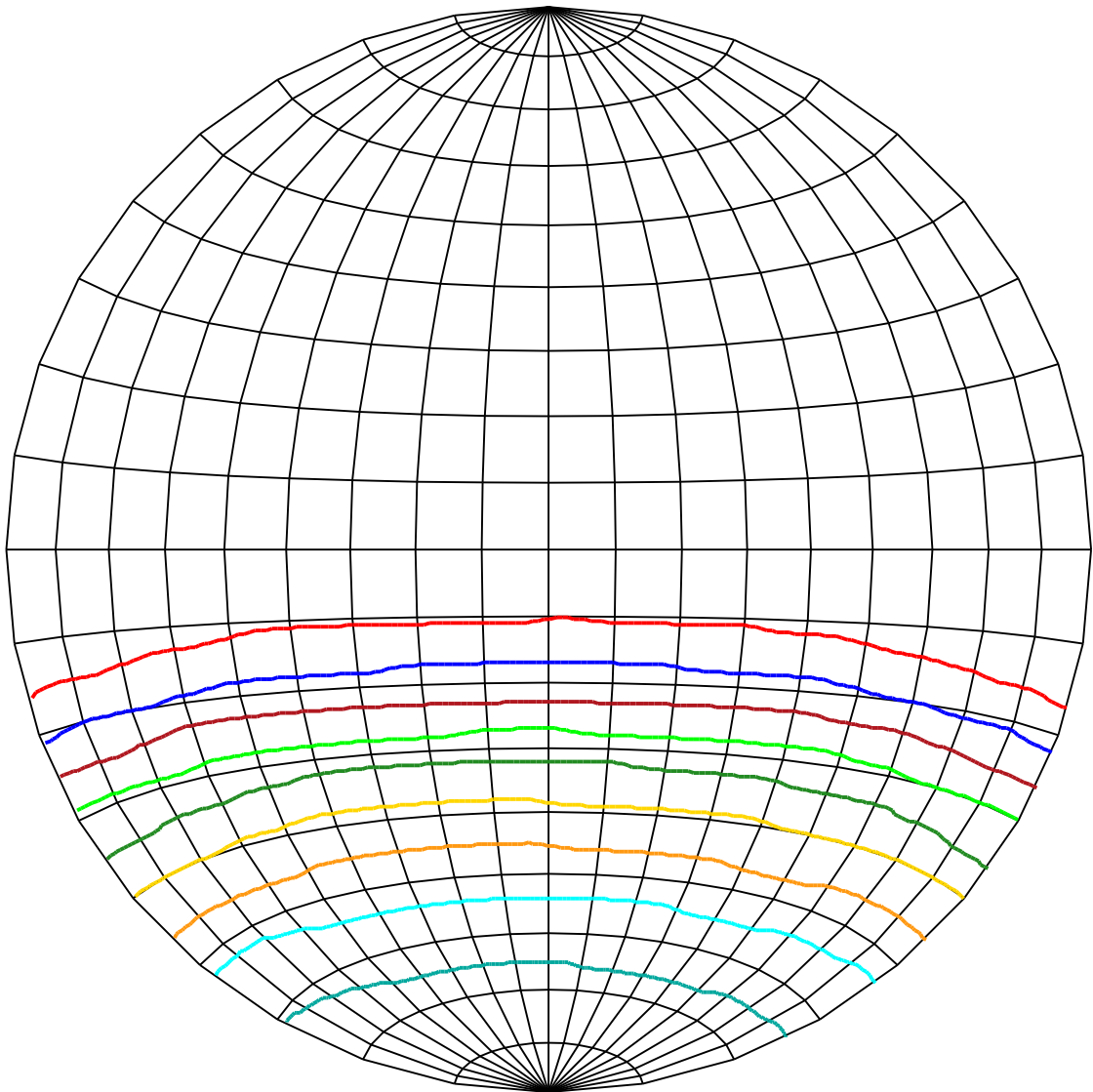
Test Distance: 5.95 m

Remarks:

Report No.:

Test Time: 2019/11/29 9:23:17

ISOCANDELA DIAGRAM (SPHERE)



Unit of intensity:cd Imax(100%): 1184.214 cd

1125.003(95%Imax)	592.107(50%Imax)
1065.793(90%Imax)	473.686(40%Imax)
947.371(80%Imax)	355.264(30%Imax)
828.95(70%Imax)	236.843(20%Imax)
710.528(60%Imax)	118.421(10%Imax)

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature:

Operators:

Test Date: 2019/11/29 9:23:17

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity:

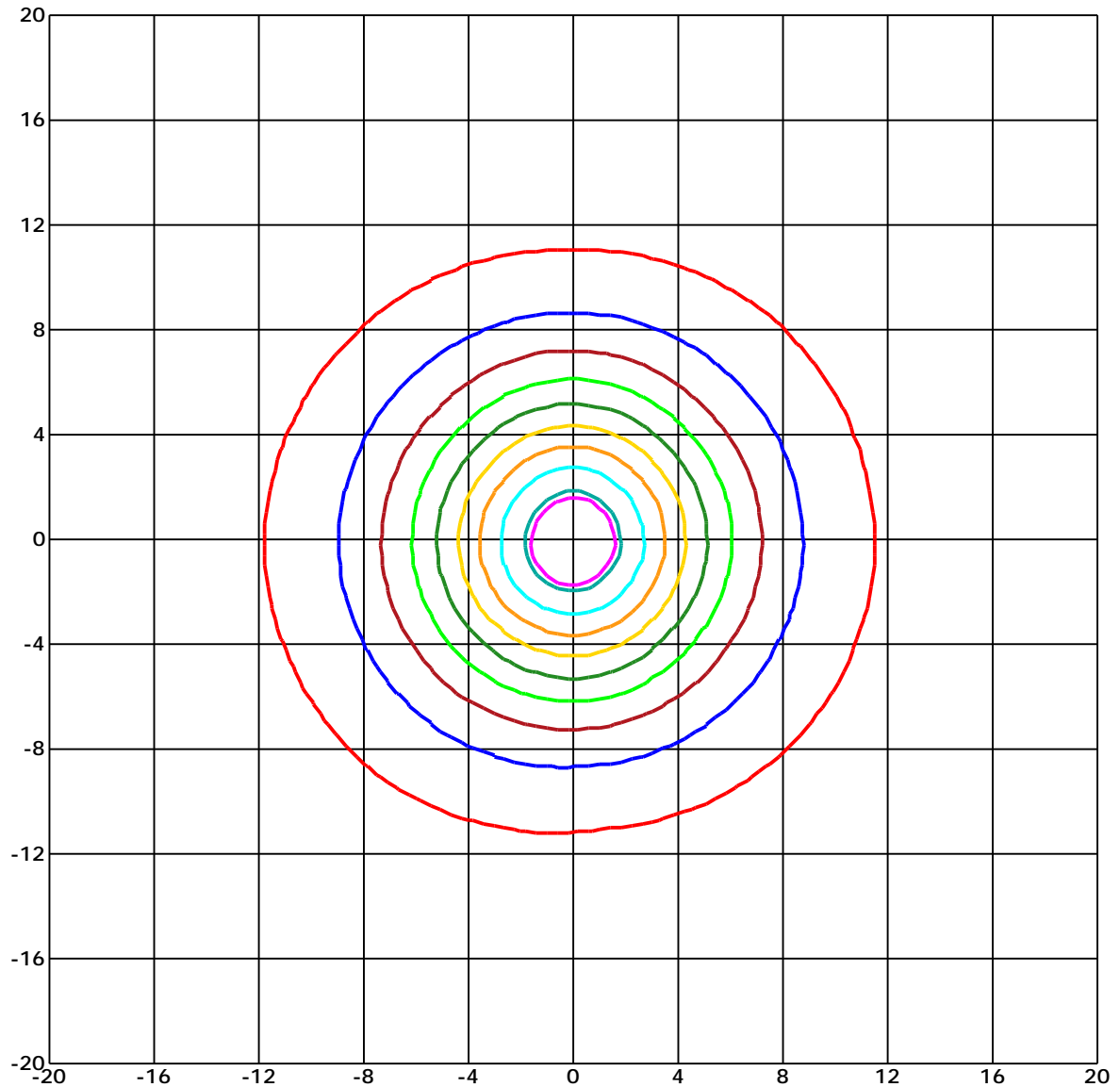
Test Distance: 5.95 m

Remarks:

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Test Time: 2019/11/29 9:23:17

ISOLX DIAGRAM



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

17.018(1%Emax)	9.249(1%Emax)
16.648(1%Emax)	7.399(1%Emax)
14.798(1%Emax)	5.549(0%Emax)
12.948(1%Emax)	3.7(0%Emax)
11.099(1%Emax)	1.85(0%Emax)

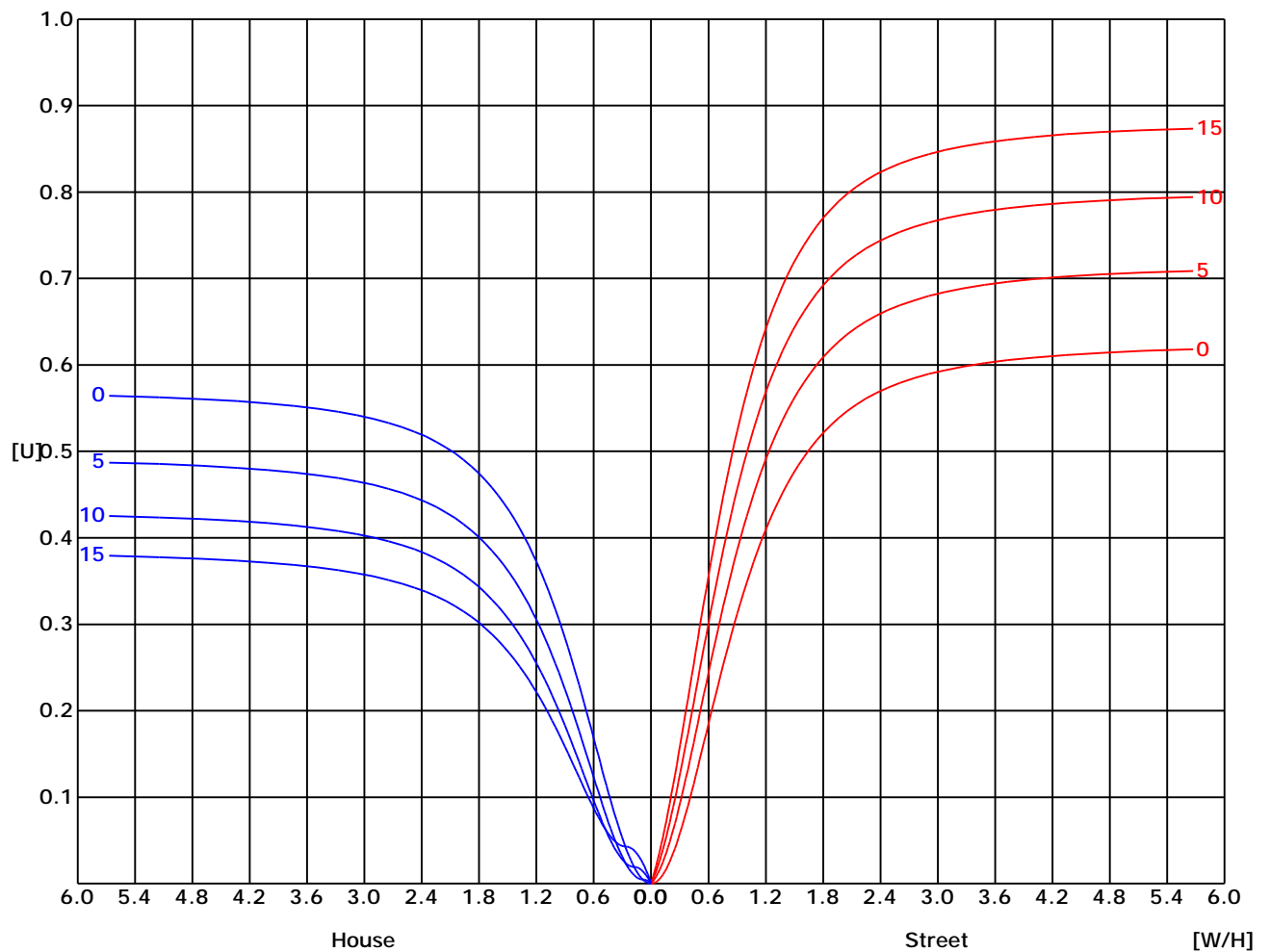
C Range: 0 - 360 Deg
C Interval: 45.0 Deg
Test Speed: High
Temperature:
Operators:
Test Date: 2019/11/29 9:23:17

G Range: 0 - 90 Deg
G Interval: 1.0 Deg
Test System: Huipu CPM-1800B Goniophotometer
Humidity:
Test Distance: 5.95 m
Remarks:

Report No.:

Test Time: 2019/11/29 9:23:17

UTILIZATION FACTOR DIAGRAM (ROAD)



C Range: 0 - 360 Deg
C Interval: 45.0 Deg
Test Speed: High
Temperature:
Operators:
Test Date: 2019/11/29 9:23:17

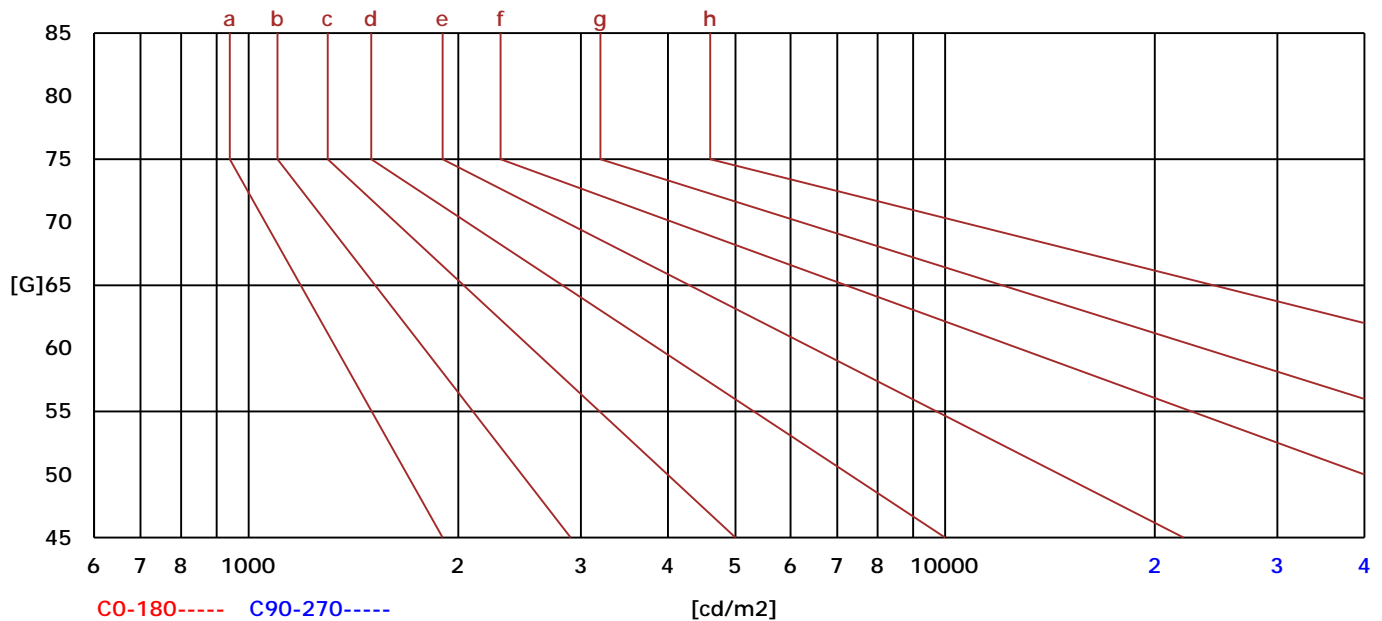
G Range: 0 - 90 Deg
G Interval: 1.0 Deg
Test System: Huipu CPM-1800B Goniophotometer
Humidity:
Test Distance: 5.95 m
Remarks:

Report No.:

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BRIGHT LIMIT DIAGRAM

C/G	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0
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



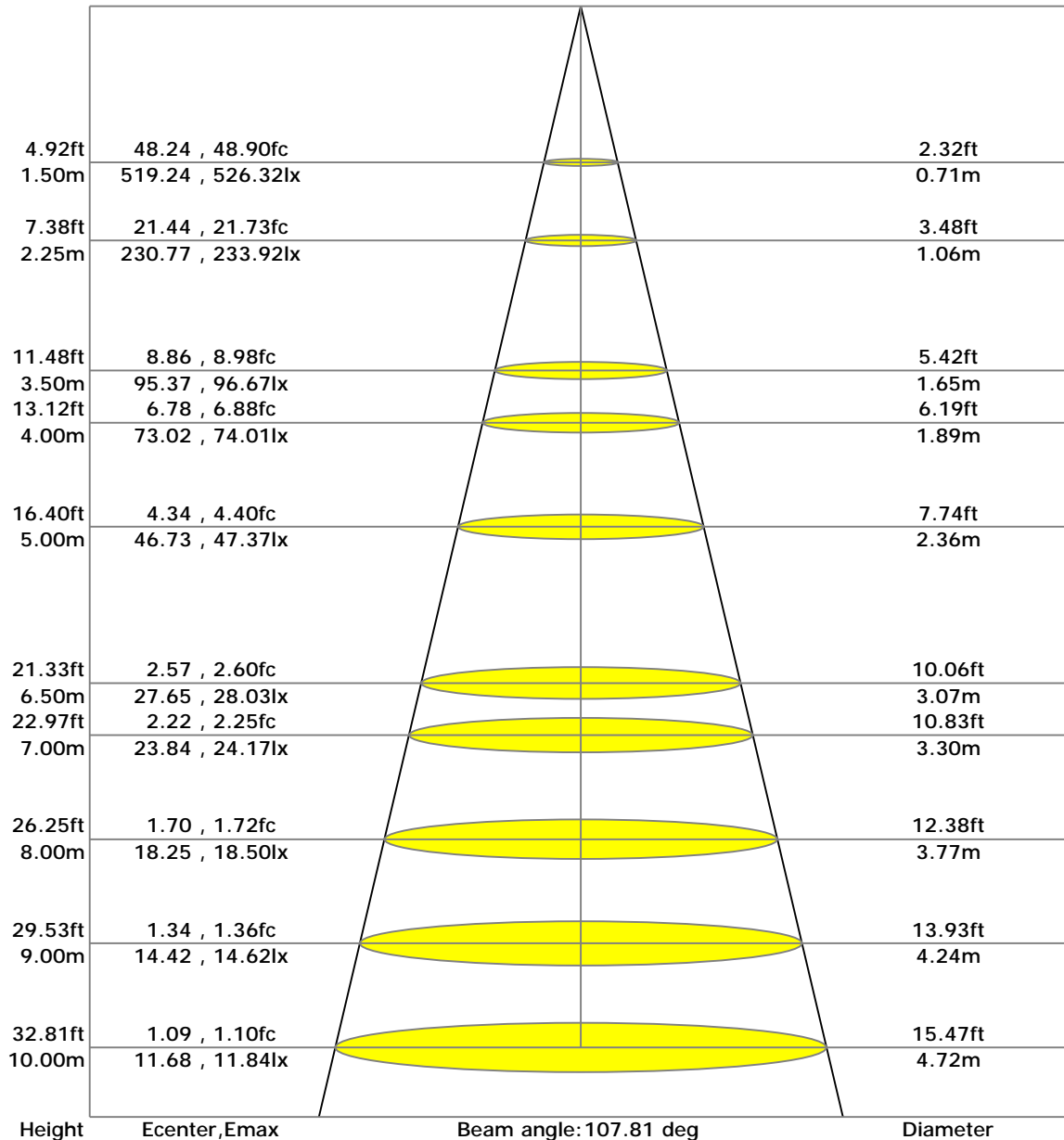
C Range: 0 - 360 Deg
 C Interval: 45.0 Deg
 Test Speed: High
 Temperature:
 Operators:
 Test Date: 2019/11/29 9:23:17

G Range: 0 - 90 Deg
 G Interval: 1.0 Deg
 Test System: Huipu CPM-1800B Goniophotometer
 Humidity:
 Test Distance: 5.95 m
 Remarks:

Report No.:

Test Time: 2019/11/29 9:23:17

LX-DISTANCE DIAGRAM



C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature:

Operators:

Test Date: 2019/11/29 9:23:17

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity:

Test Distance: 5.95 m

Remarks:

Report No.:

Test Time: 2019/11/29 9:23:17

UGR(Unified Glare Rating) TABLE

RHOCC	80	80	70	70	70	50	50	50	30	30
RHOW	50	30	10	50	30	10	50	30	10	50
RHOF	20	20	20	20	20	20	20	20	20	20
Room Size X Y	Weft to light axis direction of observation					Direction of light axis parallel observation				
2H 2H	19.35	19.08	18.86	19.08	18.78	18.52	18.40	18.06	17.75	17.49
3H	17.31	16.94	16.68	17.13	16.69	16.35	16.61	16.09	15.66	15.91
4H	15.49	15.08	14.80	15.39	14.87	14.50	15.02	14.38	13.88	14.49
6H	13.93	13.51	13.23	13.88	13.33	12.95	13.63	12.92	12.39	13.24
8H	12.60	12.18	11.91	12.59	12.03	11.66	12.44	11.69	11.15	12.15
12H	11.47	11.05	10.79	11.49	10.93	10.57	11.41	10.65	10.10	11.21
4H 2H	10.50	10.10	9.85	10.54	10.00	9.65	10.52	9.76	9.23	10.39
3H	9.68	9.29	9.06	9.73	9.20	8.87	9.75	9.00	8.48	9.68
4H	8.96	8.60	8.37	9.03	8.52	8.20	9.08	8.34	7.84	9.05
6H	8.35	7.99	7.78	8.42	7.93	7.62	8.49	7.77	7.29	8.49
8H	7.81	7.47	7.27	7.89	7.41	7.12	7.98	7.27	6.81	7.99
12H	7.34	7.01	6.82	7.42	6.96	6.68	7.52	6.83	6.39	7.55
8H 4H	6.92	6.61	6.43	7.00	6.56	6.29	7.11	6.45	6.02	7.16
6H	6.55	6.26	6.08	6.63	6.21	5.95	6.74	6.10	5.70	6.80
8H	6.22	5.94	5.77	6.30	5.90	5.65	6.42	5.80	5.41	6.48
12H	5.93	5.66	5.50	6.01	5.62	5.38	6.12	5.53	5.15	6.19
12H 4H	5.67	5.40	5.25	5.74	5.37	5.14	5.86	5.28	4.92	5.93
6H	5.43	5.18	5.03	5.50	5.14	4.93	5.61	5.06	4.71	5.69

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature:

Operators:

Test Date: 2019/11/29 9:23:17

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity:

Test Distance: 5.95 m

Remarks:

Report No.:

Test Time: 2019/11/29 9:23:17

ZONAL LUMINOUS FLUX TABLE

[illegible]

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature:

Operators:

Test Date: 2019/11/29 9:23:17

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity:

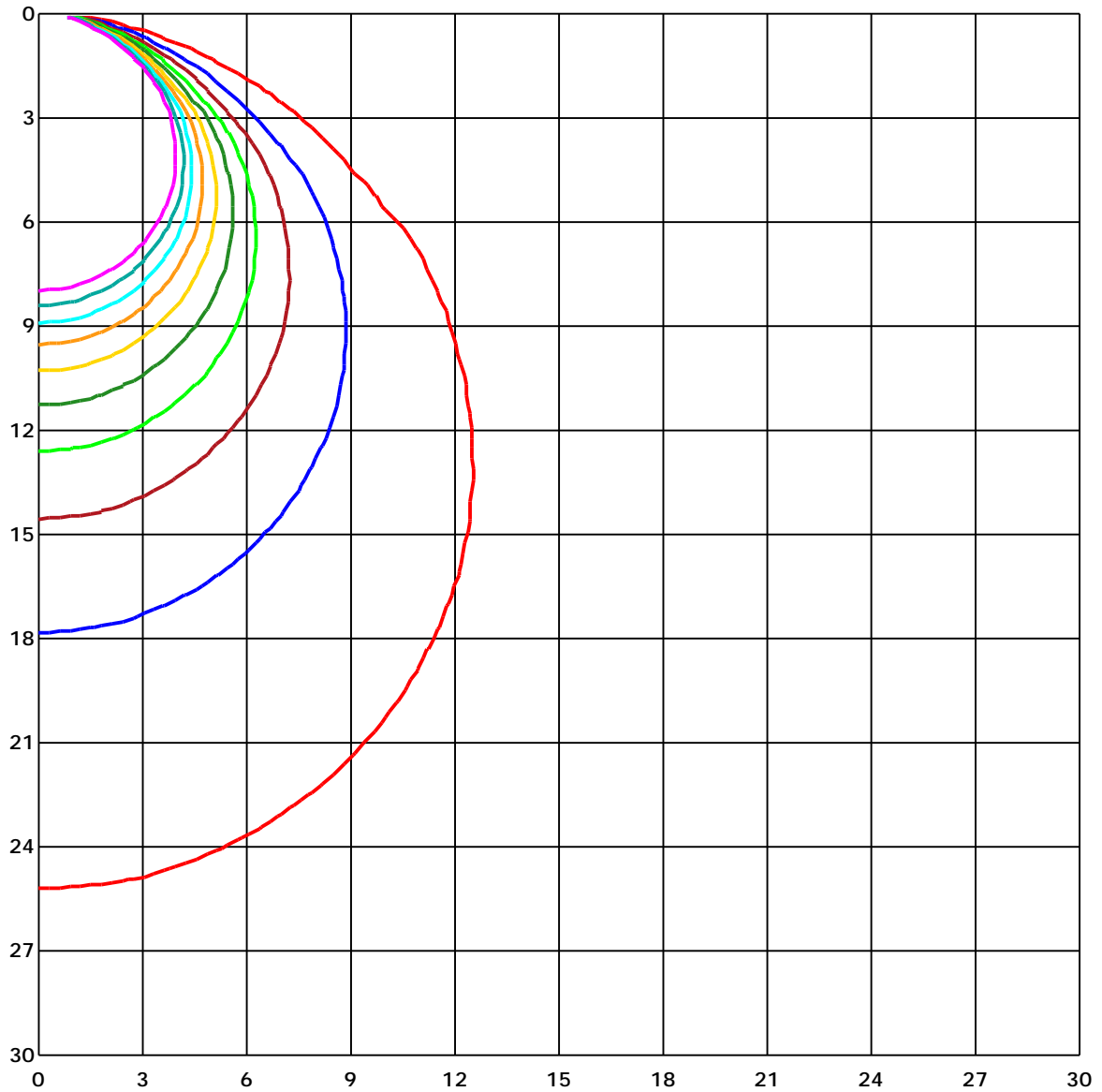
Test Distance: 5.95 m

Remarks:

Report No.:

Test Time: 2019/11/29 9:23:17

SPACE ISOLX DIAGRAM



Unit of illumination: lx

18.403
16.563
14.722
12.882
11.042

9.202
7.361
5.521
3.681
1.84

C Range: 0 - 360 Deg
C Interval: 45.0 Deg
Test Speed: High
Temperature:
Operators:
Test Date: 2019/11/29 9:23:17

G Range: 0 - 90 Deg
G Interval: 1.0 Deg
Test System: Huipu CPM-1800B Goniophotometer
Humidity:
Test Distance: 5.95 m
Remarks:

Report No.:

Test Time: 2019/11/29 9:23:17

LUMINOUS DISTRIBUTION INTENSITY DATA

GammaC	C0	C45	C90	C135	C180	C225	C270	C315	C360	
G0	1168.28	1174.3	1171.12	1164.74	1161.91	1181.38	1183.86	1178.9	1173.59	
G1	1167.93	1173.59	1170.76	1164.39	1162.62	1181.74	1183.86	1178.2	1173.24	
G2	1166.87	1171.47	1170.76	1163.68	1162.97	1181.74	1184.21	1177.49	1172.53	
G3	1166.51	1170.76	1170.05	1162.97	1162.26	1181.38	1183.86	1176.43	1170.76	
G4	1165.8	1168.99	1168.99	1161.91	1161.91	1180.32	1183.51	1174.3	1170.76	
G5	1164.74	1165.8	1167.93	1160.49	1161.56	1179.61	1182.8	1173.59	1168.28	
G6	1164.03	1164.74	1166.16	1158.02	1160.49	1178.55	1182.09	1170.76	1165.8	
G7	1162.97	1161.2	1163.33	1156.6	1159.79	1177.13	1179.97	1167.57	1164.39	
G8	1160.14	1157.31	1162.62	1153.41	1157.66	1175.01	1179.26	1165.8	1161.56	
G9	1157.31	1154.83	1159.08	1152.0	1154.83	1172.18	1177.13	1161.56	1157.66	
G10	1150.94	1150.23	1156.95	1147.75	1153.41	1170.05	1175.72	1159.43	1155.54	
G11	1146.33	1147.75	1153.41	1143.5	1150.23	1166.51	1172.18	1154.83	1150.94	
G12	1143.86	1141.73	1148.81	1140.67	1148.46	1162.62	1169.34	1149.52	1148.46	
G13	1137.84	1135.71	1145.98	1135.71	1144.21	1160.14	1164.74	1146.69	1143.15	
G14	1132.88	1132.88	1141.02	1132.88	1139.61	1155.18	1162.62	1141.02	1139.96	
G15	1128.99	1125.45	1138.19	1127.22	1136.77	1149.87	1157.66	1137.13	1133.59	
G16	1122.61	1121.55	1132.17	1124.03	1131.46	1146.69	1152.35	1130.4	1126.86	
G17	1115.53	1114.12	1125.8	1117.3	1128.28	1140.67	1149.52	1123.32	1123.32	
G18	1111.99	1105.97	1122.61	1109.87	1122.26	1133.59	1142.44	1119.43	1115.89	
G19	1104.2	1101.73	1115.53	1106.33	1119.07	1130.05	1135.71	1111.28	1112.35	
G20	1099.96	1092.52	1107.39	1097.83	1111.99	1121.91	1132.88	1107.04	1103.5	
G21	1091.81	1087.92	1103.5	1089.34	1104.56	1113.76	1125.09	1098.19	1095.0	
G22	1082.25	1078.01	1095.0	1083.67	1100.31	1109.16	1121.2	1087.92	1090.4	
G23	1077.3	1072.34	1085.44	1074.47	1092.17	1100.31	1112.7	1083.32	1080.84	
G24	1066.68	1061.72	1080.84	1064.55	1087.92	1095.71	1103.5	1072.34	1075.88	
G25	1061.37	1050.75	1070.22	1059.24	1078.36	1085.44	1098.89	1061.72	1064.91	
G26	1050.39	1044.73	1059.6	1048.62	1068.8	1075.17	1089.34	1056.06	1059.95	
G27	1039.42	1032.69	1054.29	1036.94	1063.49	1069.86	1084.03	1044.02	1048.62	
G28	1033.05	1026.67	1042.6	1030.92	1052.52	1058.54	1073.76	1031.98	1036.59	
G29	1021.01	1014.28	1030.57	1018.53	1041.54	1052.52	1062.43	1025.61	1030.21	
G30	1014.64	1000.48	1024.55	1005.43	1035.88	1040.48	1056.77	1012.16	1018.18	
G31	1001.54	994.46	1011.8	999.06	1023.49	1028.09	1044.73	999.06	1004.72	
G32	987.38	980.3	1005.08	985.61	1011.45	1021.72	1038.71	991.98	997.64	
G33	981.0	965.07	991.62	978.17	1004.72	1007.91	1025.96	977.46	983.13	
G34	966.84	957.64	984.9	963.66	991.62	1000.83	1019.24	969.67	968.61	
G35	959.41	941.71	970.74	948.43	977.46	985.96	999.06	954.1	961.53	
G36	943.83	925.42	955.16	940.64	970.38	978.88	975.69	938.17	945.95	

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature:

Operators:

Test Date: 2019/11/29 9:23:17

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity:

Test Distance: 5.95 m

Remarks:

Report No.:

Test Time: 2019/11/29 9:23:17

LUMINOUS DISTRIBUTION INTENSITY DATA(Continue 1)

Gamma/C	C0	C45	C90	C135	C180	C225	C270	C315	C360	
G37	1168.28	1174.3	1171.12	1164.74	1161.91	1181.38	1183.86	1178.9	1173.59	
G38	1167.93	1173.59	1170.76	1164.39	1162.62	1181.74	1183.86	1178.2	1173.24	
G39	1166.87	1171.47	1170.76	1163.68	1162.97	1181.74	1184.21	1177.49	1172.53	
G40	1166.51	1170.76	1170.05	1162.97	1162.26	1181.38	1183.86	1176.43	1170.76	
G41	1165.8	1168.99	1168.99	1161.91	1161.91	1180.32	1183.51	1174.3	1170.76	
G42	1164.74	1165.8	1167.93	1160.49	1161.56	1179.61	1182.8	1173.59	1168.28	
G43	1164.03	1164.74	1166.16	1158.02	1160.49	1178.55	1182.09	1170.76	1165.8	
G44	1162.97	1161.2	1163.33	1156.6	1159.79	1177.13	1179.97	1167.57	1164.39	
G45	1160.14	1157.31	1162.62	1153.41	1157.66	1175.01	1179.26	1165.8	1161.56	
G46	1157.31	1154.83	1159.08	1152.0	1154.83	1172.18	1177.13	1161.56	1157.66	
G47	1150.94	1150.23	1156.95	1147.75	1153.41	1170.05	1175.72	1159.43	1155.54	
G48	1146.33	1147.75	1153.41	1143.5	1150.23	1166.51	1172.18	1154.83	1150.94	
G49	1143.86	1141.73	1148.81	1140.67	1148.46	1162.62	1169.34	1149.52	1148.46	
G50	1137.84	1135.71	1145.98	1135.71	1144.21	1160.14	1164.74	1146.69	1143.15	
G51	1132.88	1132.88	1141.02	1132.88	1139.61	1155.18	1162.62	1141.02	1139.96	
G52	1128.99	1125.45	1138.19	1127.22	1136.77	1149.87	1157.66	1137.13	1133.59	
G53	1122.61	1121.55	1132.17	1124.03	1131.46	1146.69	1152.35	1130.4	1126.86	
G54	1115.53	1114.12	1125.8	1117.3	1128.28	1140.67	1149.52	1123.32	1123.32	
G55	1111.99	1105.97	1122.61	1109.87	1122.26	1133.59	1142.44	1119.43	1115.89	
G56	1104.2	1101.73	1115.53	1106.33	1119.07	1130.05	1135.71	1111.28	1112.35	
G57	1099.96	1092.52	1107.39	1097.83	1111.99	1121.91	1132.88	1107.04	1103.5	
G58	1091.81	1087.92	1103.5	1089.34	1104.56	1113.76	1125.09	1098.19	1095.0	
G59	1082.25	1078.01	1095.0	1083.67	1100.31	1109.16	1121.2	1087.92	1090.4	
G60	1077.3	1072.34	1085.44	1074.47	1092.17	1100.31	1112.7	1083.32	1080.84	
G61	1066.68	1061.72	1080.84	1064.55	1087.92	1095.71	1103.5	1072.34	1075.88	
G62	1061.37	1050.75	1070.22	1059.24	1078.36	1085.44	1098.89	1061.72	1064.91	
G63	1050.39	1044.73	1059.6	1048.62	1068.8	1075.17	1089.34	1056.06	1059.95	
G64	1039.42	1032.69	1054.29	1036.94	1063.49	1069.86	1084.03	1044.02	1048.62	
G65	1033.05	1026.67	1042.6	1030.92	1052.52	1058.54	1073.76	1031.98	1036.59	
G66	1021.01	1014.28	1030.57	1018.53	1041.54	1052.52	1062.43	1025.61	1030.21	
G67	1014.64	1000.48	1024.55	1005.43	1035.88	1040.48	1056.77	1012.16	1018.18	
G68	1001.54	994.46	1011.8	999.06	1023.49	1028.09	1044.73	999.06	1004.72	
G69	987.38	980.3	1005.08	985.61	1011.45	1021.72	1038.71	991.98	997.64	
G70	981.0	965.07	991.62	978.17	1004.72	1007.91	1025.96	977.46	983.13	
G71	966.84	957.64	984.9	963.66	991.62	1000.83	1019.24	969.67	968.61	
G72	959.41	941.71	970.74	948.43	977.46	985.96	999.06	954.1	961.53	
G73	943.83	925.42	955.16	940.64	970.38	978.88	975.69	938.17	945.95	

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature:

Operators:

Test Date: 2019/11/29 9:23:17

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity:

Test Distance: 5.95 m

Remarks:

Report No.:

Test Time: 2019/11/29 9:23:17

LUMINOUS DISTRIBUTION INTENSITY DATA(Continue 2)

[illegible]

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature:

Operators:

Test Date: 2019/11/29 9:23:17

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity:

Test Distance: 5.95 m

Remarks: