

Report No.:

Test Time: 2019/11/28 15:19:43

LUMINAIRE PHOTOMETRIC TEST REPORT

Luminaire Property

Manufacturer:
Luminaire Type: 12V-2835-420L-4000K
Lamp Type:
Luminous Width: 0 mm
Luminous Length: 0 mm
Luminous Height: 0 mm

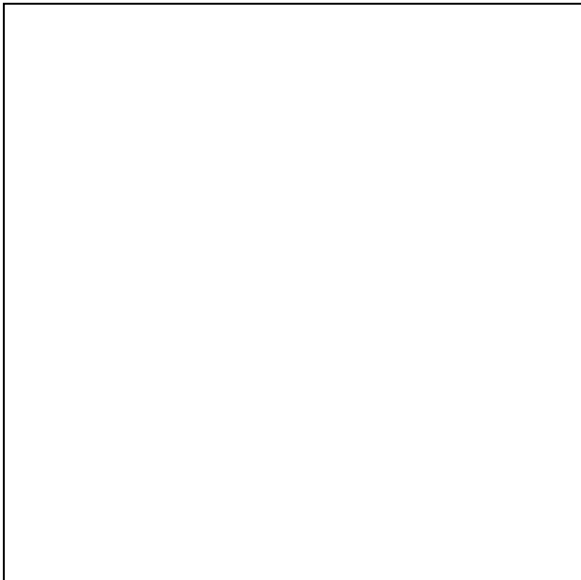
Voltage(V): 12.00 V
Current(A): 2.7670 A
Power(W): 33.20 W
Power Factor: 1.0000
Lamp Luminous Flux: 3337.01

Photometric Results

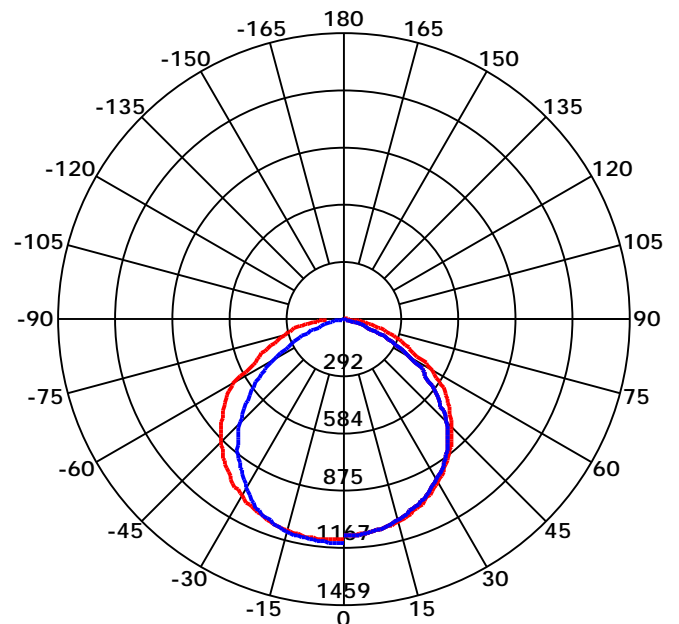
CIE Class: Direct
Luminaire Luminous Flux: 3336.994
Downward Ratio: 100.00%
Luminaire Efficacy Rating(LER): 100.50 lm/W
Beam Angle(50%Imax): L=-66.47 R=57.27
Field Angle(10%Imax): L=-92.12 R=80.02

Max. Intensity: 1167.22 cd
Max.Intensity Angle: C=315 Gamma=5
Upward Ratio: 0.00%
Efficacy: 100.00%
Center Intensity: 1103.85 cd

Picture of Luminaire



Luminous Intensity Distribution Curve



Beam Angle(50%Imax): 123.74 deg

C0-180 — C90-270 —

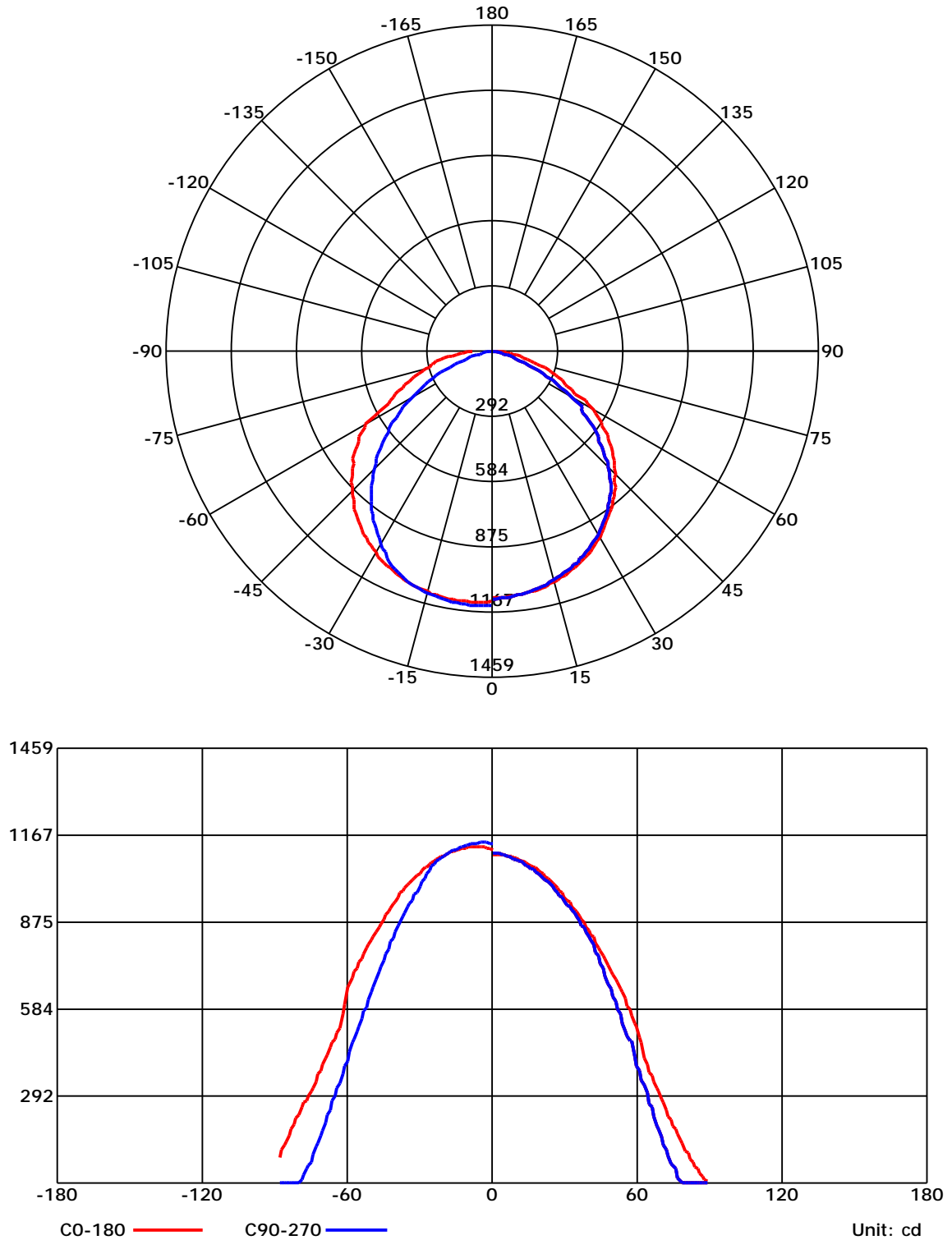
C Range: 0 - 360 Deg
C Interval: 45.0 Deg
Test Speed: High
Temperature:
Operators:
Test Date: 2019/11/28 15:19:43

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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Luminous Intensity Distribution Curve



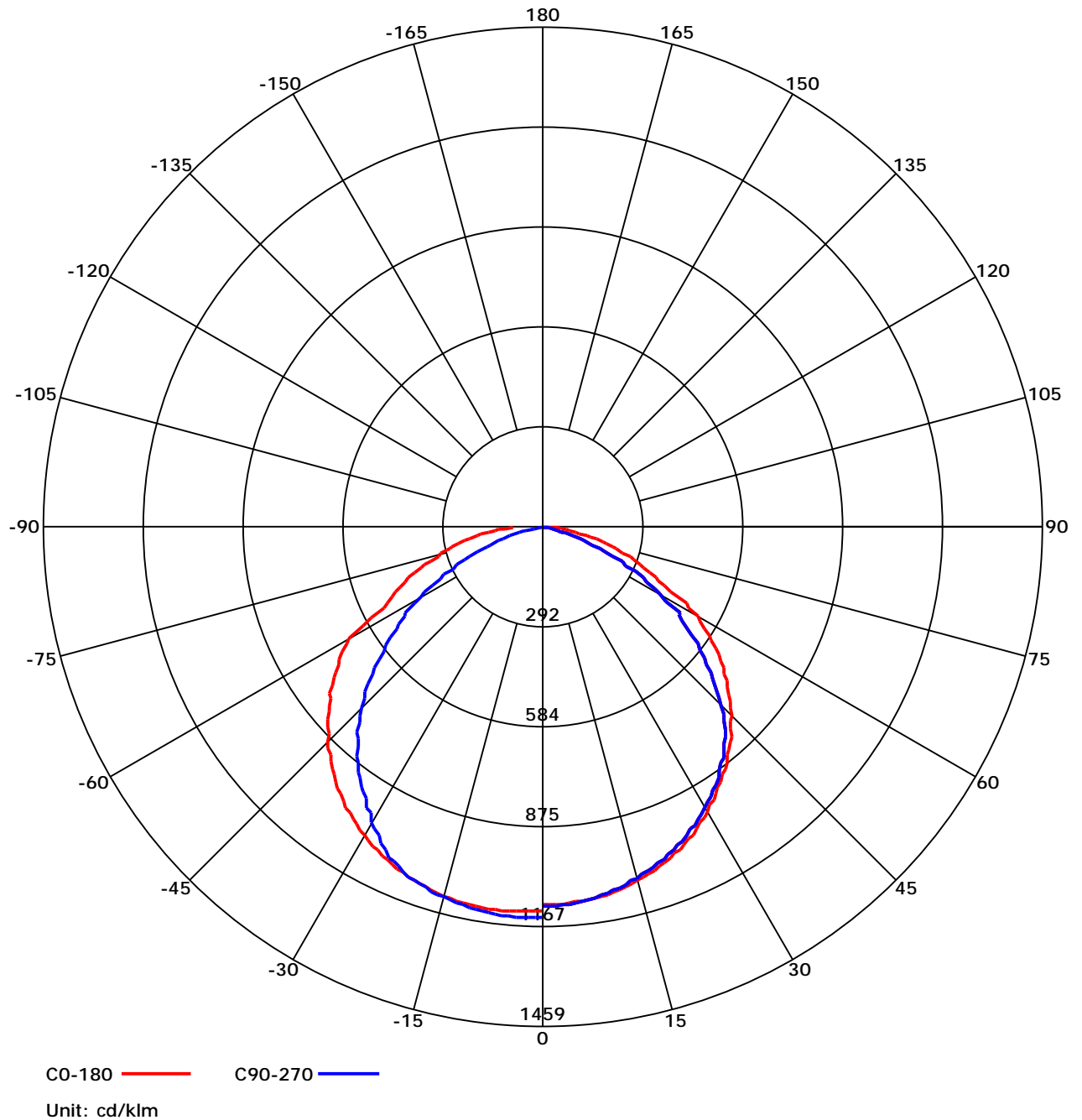
C Range: 0 - 360 Deg
C Interval: 45.0 Deg
Test Speed: High
Temperature:
Operators:
Test Date: 2019/11/28 15:19:43

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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Luminous Intensity Distribution Curve



C Range: 0 - 360 Deg
C Interval: 45.0 Deg
Test Speed: High
Temperature:
Operators:
Test Date: 2019/11/28 15:19:43

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

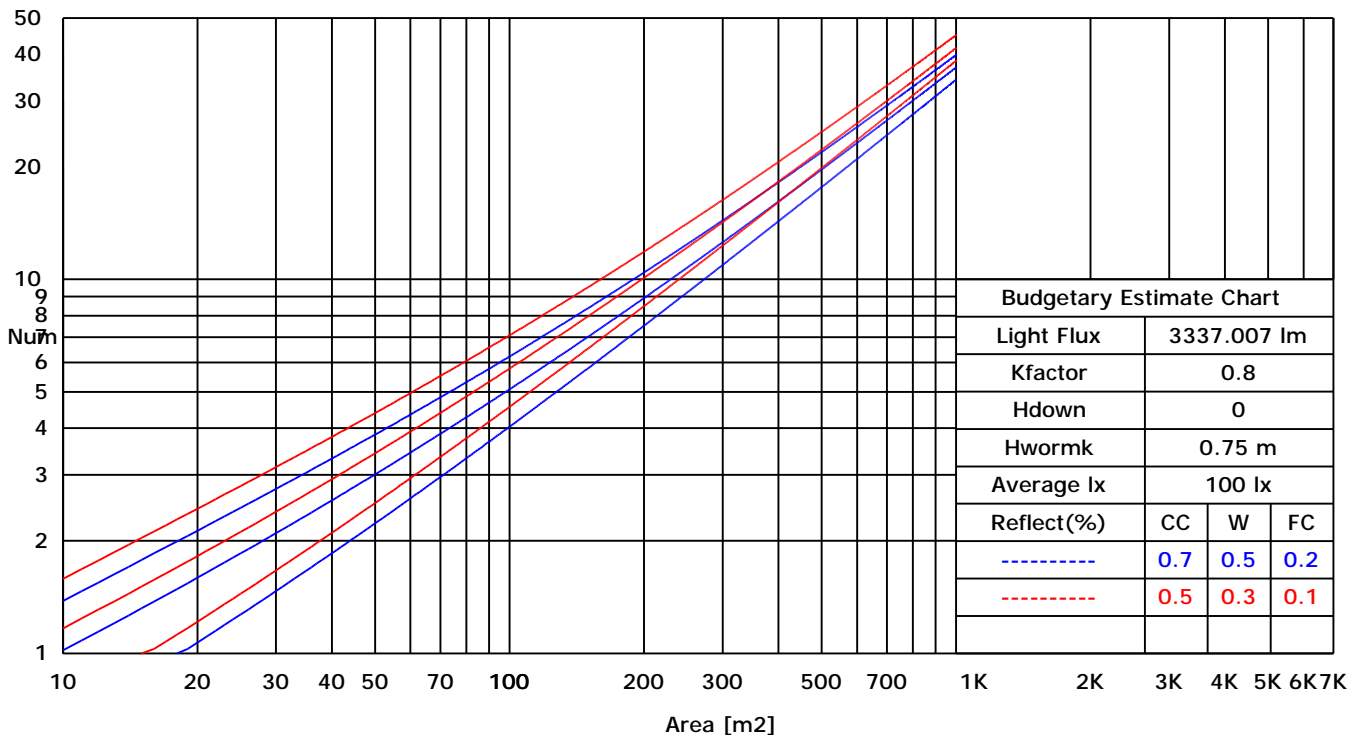
Report No.:

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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	1.04	1.02	1.02	1.00	0.98	0.97	0.95	0.93	0.90	0.88	0.86	0.81
2	0.95	0.93	0.91	0.94	0.92	0.90	0.91	0.88	0.86	0.87	0.84	0.81	0.82	0.79	0.76	0.71
3	0.85	0.82	0.81	0.84	0.81	0.79	0.82	0.79	0.76	0.79	0.75	0.72	0.76	0.71	0.67	0.63
4	0.76	0.73	0.72	0.76	0.72	0.70	0.74	0.70	0.67	0.72	0.68	0.64	0.69	0.64	0.60	0.56
5	0.68	0.66	0.64	0.68	0.65	0.63	0.68	0.63	0.60	0.66	0.61	0.57	0.64	0.59	0.54	0.50
6	0.62	0.60	0.58	0.62	0.59	0.57	0.62	0.58	0.55	0.61	0.56	0.52	0.59	0.54	0.49	0.45
7	0.57	0.54	0.53	0.57	0.54	0.52	0.57	0.53	0.50	0.56	0.51	0.47	0.55	0.49	0.45	0.41
8	0.52	0.50	0.49	0.53	0.50	0.48	0.53	0.49	0.46	0.52	0.47	0.43	0.52	0.46	0.41	0.38
9	0.48	0.46	0.45	0.49	0.46	0.44	0.49	0.45	0.42	0.49	0.44	0.40	0.49	0.43	0.38	0.35
10	0.45	0.43	0.42	0.45	0.43	0.41	0.46	0.42	0.39	0.46	0.41	0.37	0.46	0.40	0.35	0.33

LUMINAIRE BUDGETARY ESTIMATE DIAGRAM



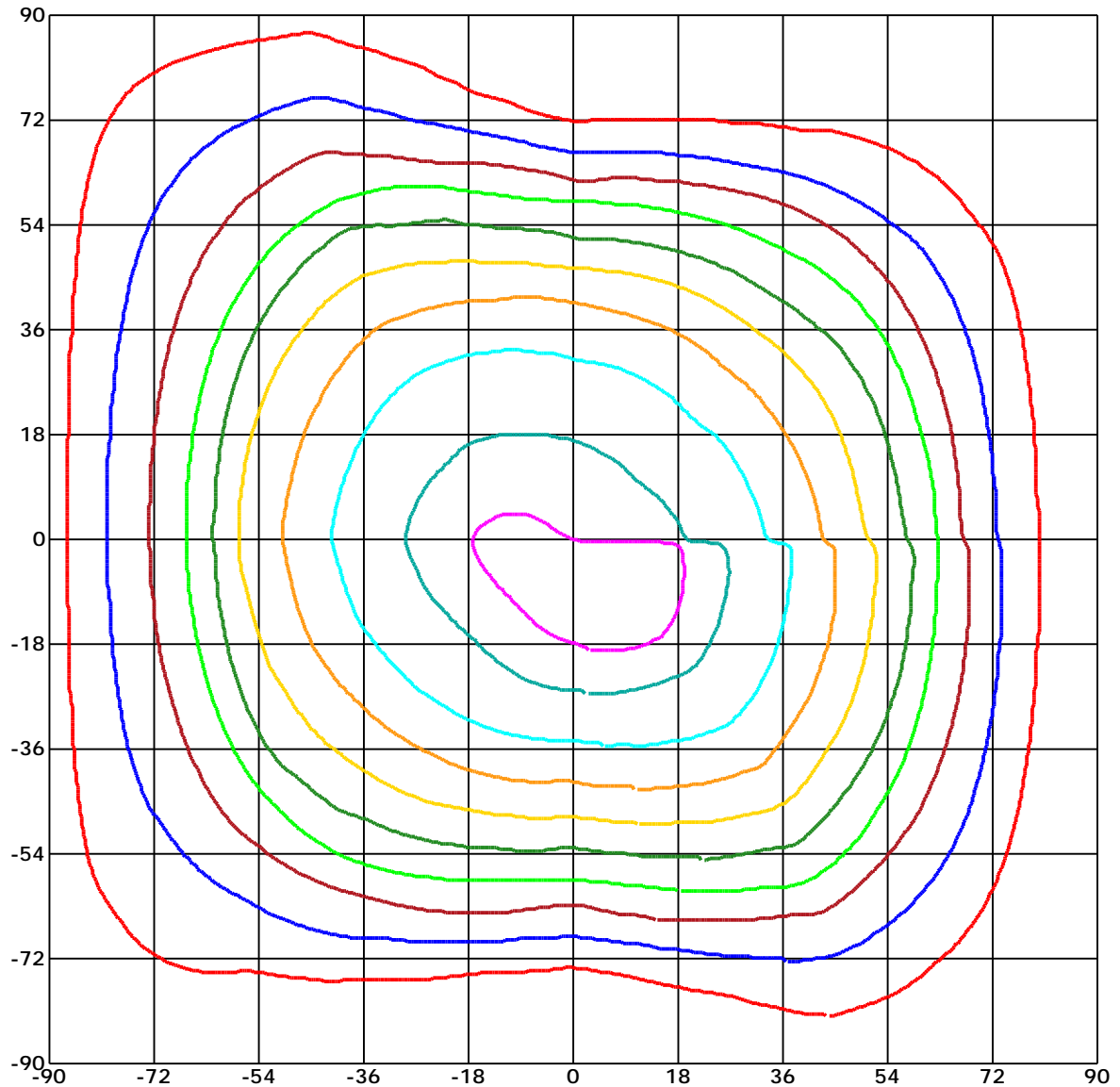
C Range: 0 - 360 Deg
 C Interval: 45.0 Deg
 Test Speed: High
 Temperature:
 Operators:
 Test Date: 2019/11/28 15:19:43

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: 2019/11/28 15:19:43

ISOCANDELA DIAGRAM (RECTANGULAR)



1108.859(95%Imax)

1050.498(90%Imax)

933.776(80%Imax)

817.054(70%Imax)

700.332(60%Imax)

583.61(50%Imax)

466.888(40%Imax)

350.166(30%Imax)

233.444(20%Imax)

116.722(10%Imax)

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature:

Operators:

Test Date: 2019/11/28 15:19:43

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity:

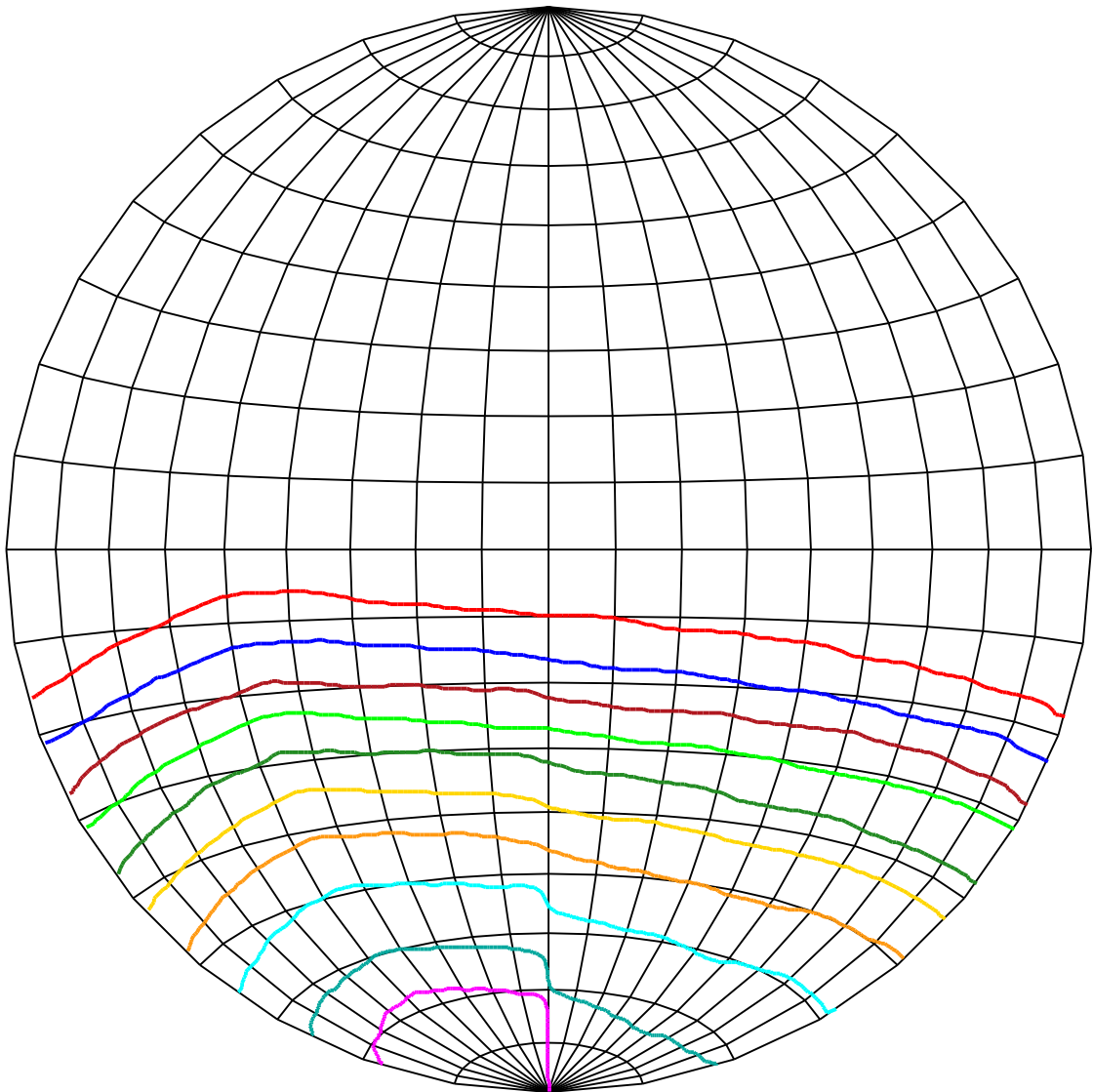
Test Distance: 5.95 m

Remarks:

Report No.:

Test Time: 2019/11/28 15:19:43

ISOCANDELA DIAGRAM (SPHERE)



Unit of intensity:cd Imax(100%): 1167.22 cd

1108.859(95%Imax)	583.61(50%Imax)
1050.498(90%Imax)	466.888(40%Imax)
933.776(80%Imax)	350.166(30%Imax)
817.054(70%Imax)	233.444(20%Imax)
700.332(60%Imax)	116.722(10%Imax)

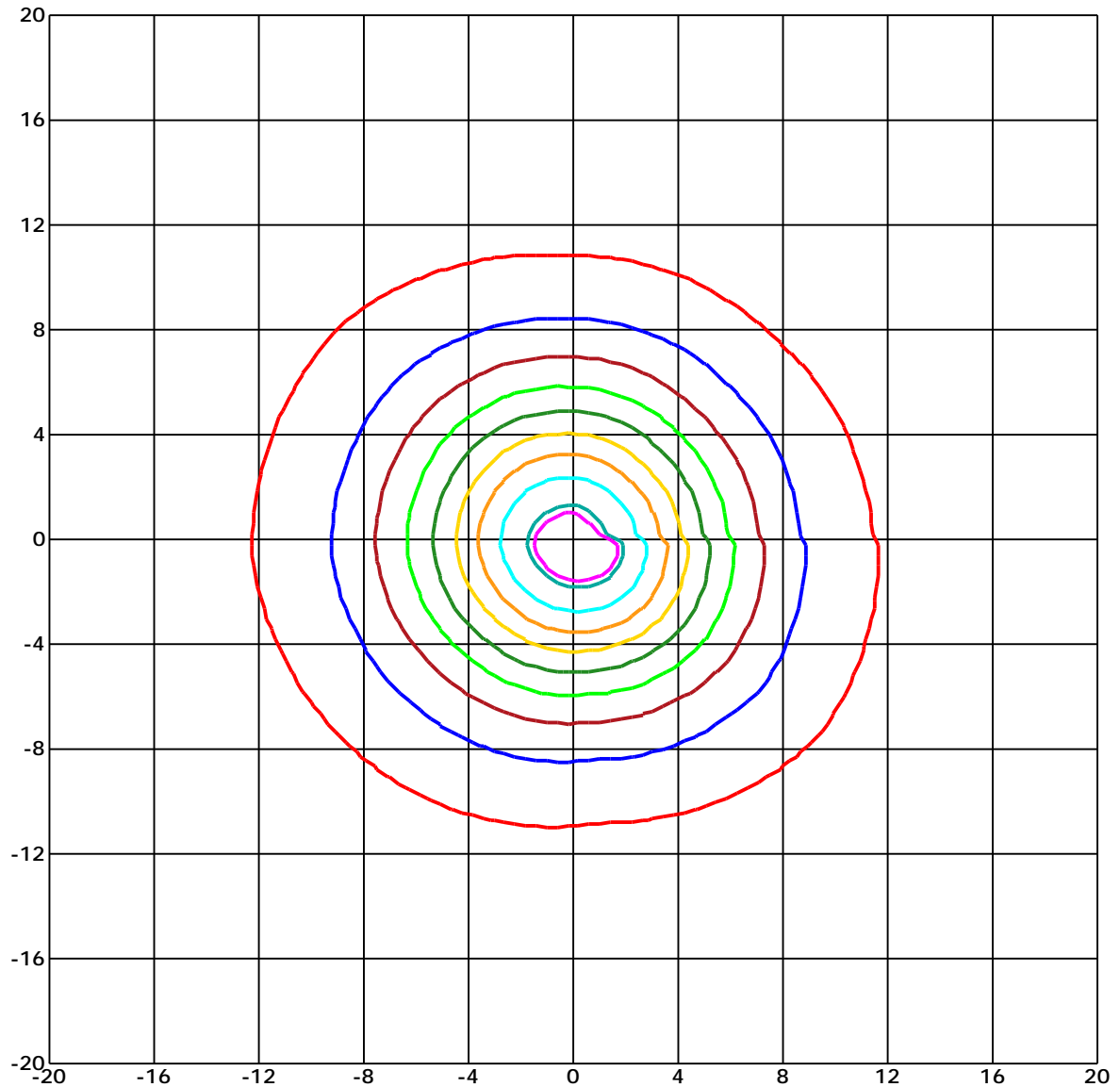
C Range: 0 - 360 Deg
C Interval: 45.0 Deg
Test Speed: High
Temperature:
Operators:
Test Date: 2019/11/28 15:19:43

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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ISOLX DIAGRAM



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

16.743(1%Emax)	9.1(1%Emax)
16.379(1%Emax)	7.28(1%Emax)
14.559(1%Emax)	5.46(0%Emax)
12.739(1%Emax)	3.64(0%Emax)
10.919(1%Emax)	1.82(0%Emax)

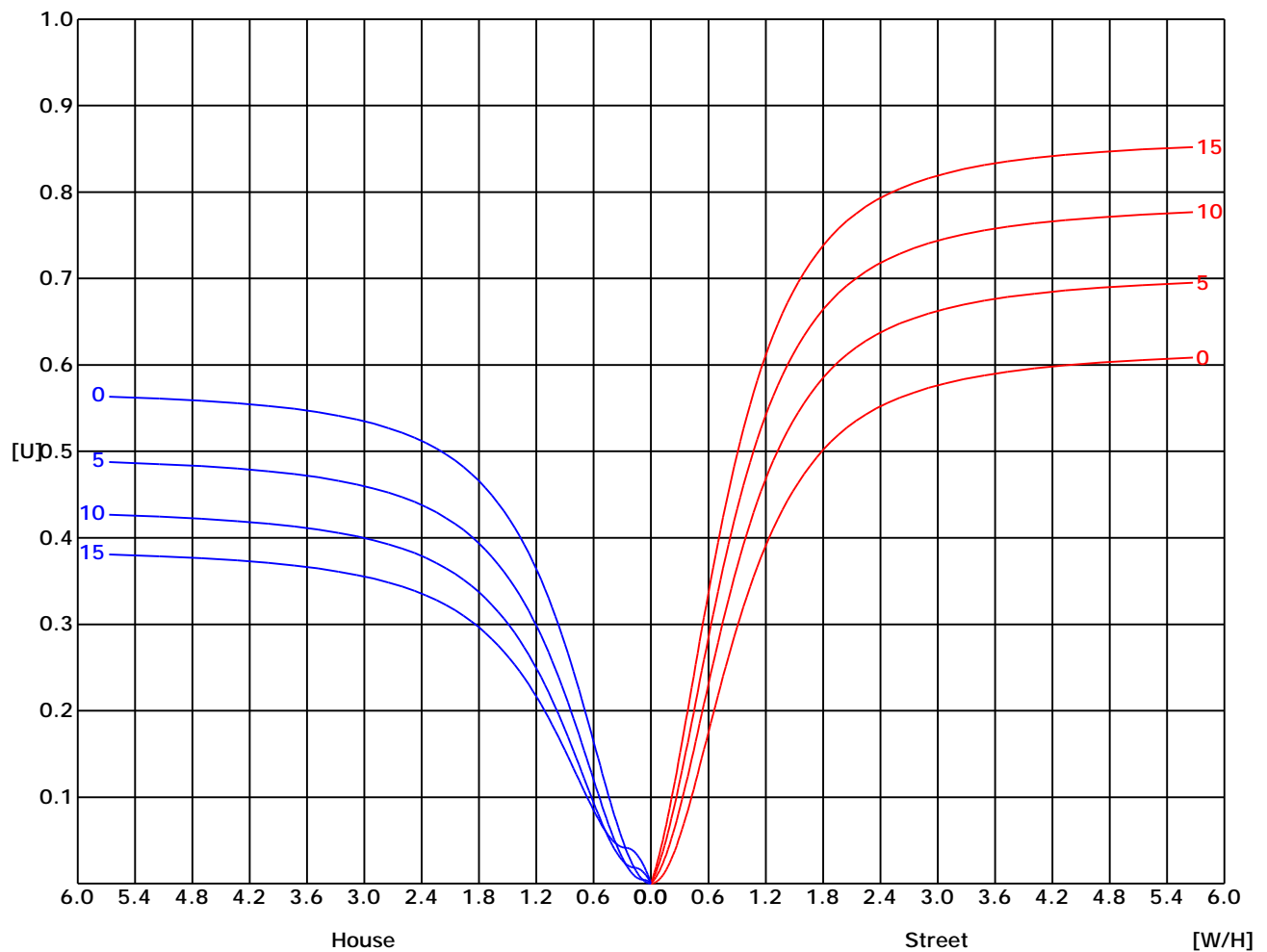
C Range: 0 - 360 Deg
C Interval: 45.0 Deg
Test Speed: High
Temperature:
Operators:
Test Date: 2019/11/28 15:19:43

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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UTILIZATION FACTOR DIAGRAM (ROAD)



C Range: 0 - 360 Deg
C Interval: 45.0 Deg
Test Speed: High
Temperature:
Operators:
Test Date: 2019/11/28 15:19:43

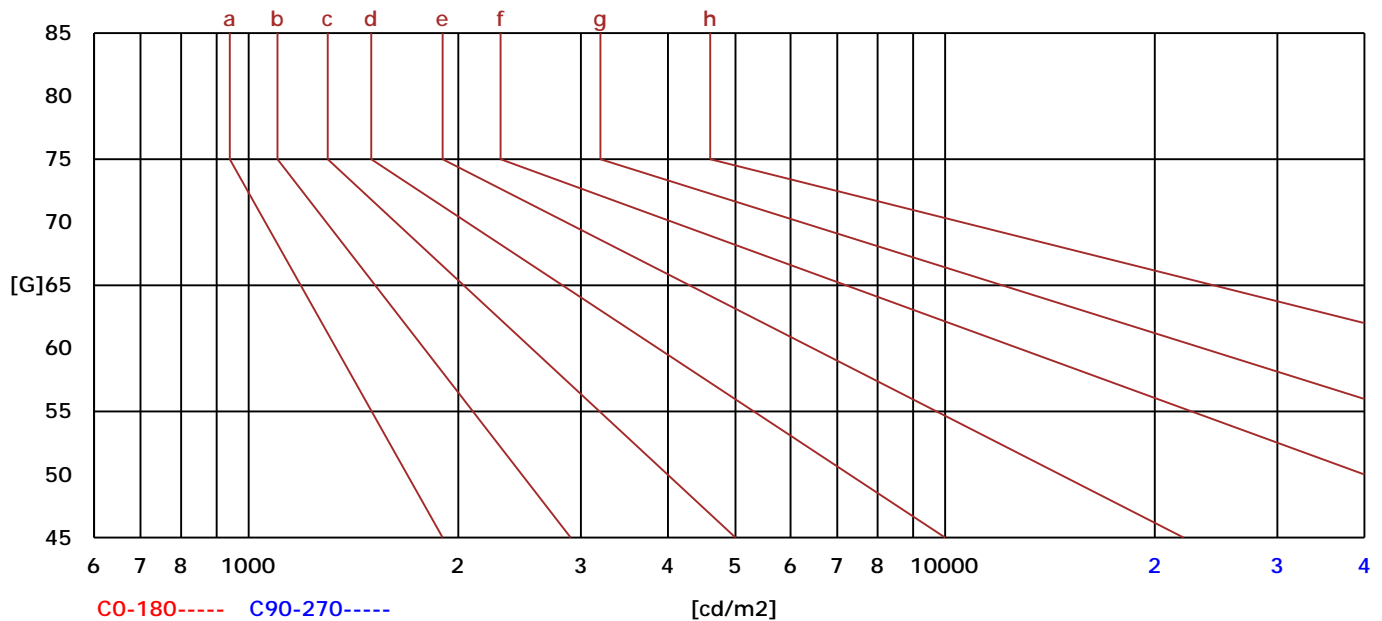
G Range: 0 - 90 Deg
G Interval: 1.0 Deg
Test System: Huipu CPM-1800B Goniophotometer
Humidity:
Test Distance: 5.95 m
Remarks:

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



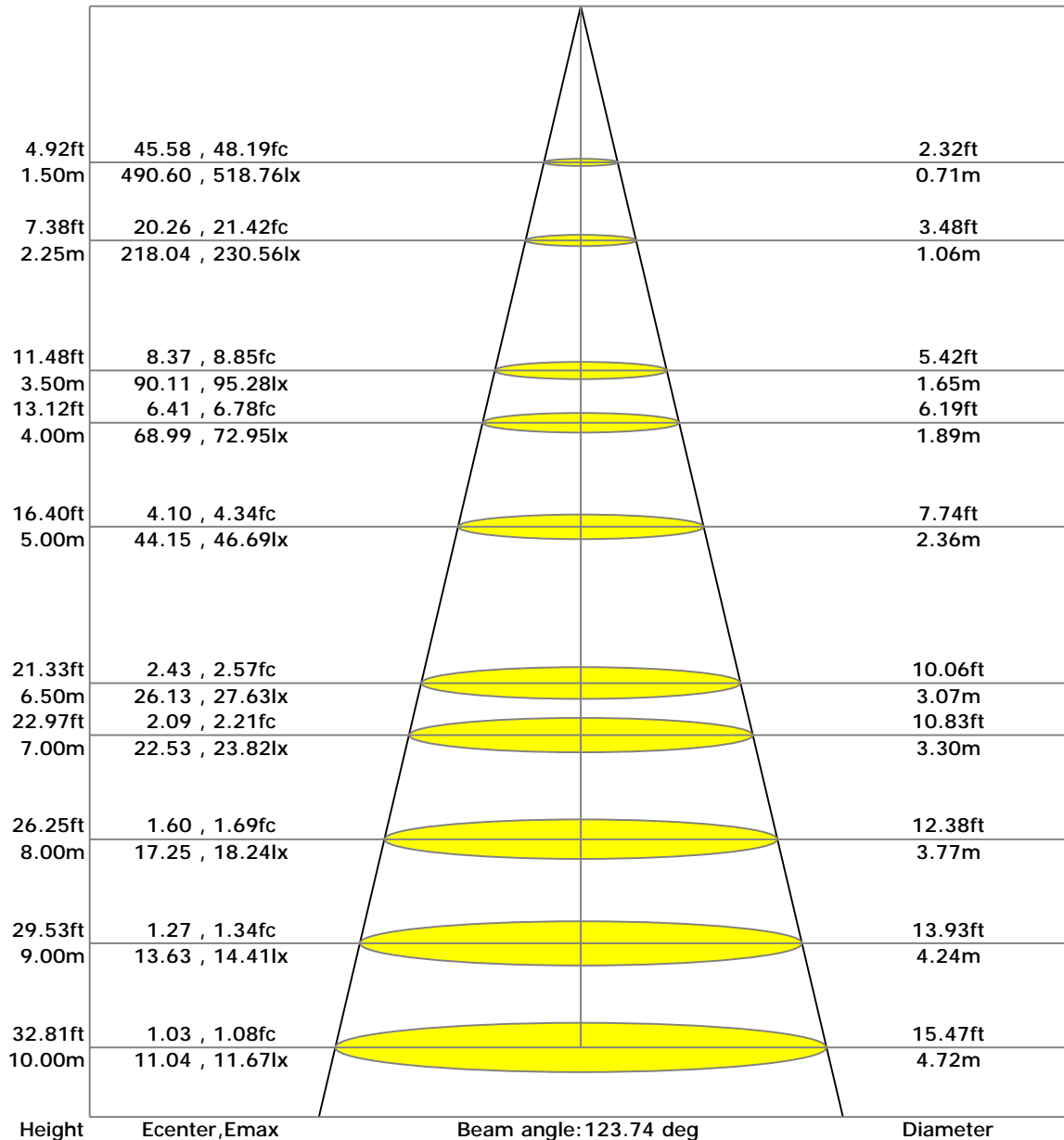
C Range: 0 - 360 Deg
 C Interval: 45.0 Deg
 Test Speed: High
 Temperature:
 Operators:
 Test Date: 2019/11/28 15:19:43

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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LX-DISTANCE DIAGRAM



C Range: 0 - 360 Deg
 C Interval: 45.0 Deg
 Test Speed: High
 Temperature:
 Operators:
 Test Date: 2019/11/28 15:19:43

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: 2019/11/28 15:19:43

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	19.25	18.97	18.74	18.99	18.67	18.41	18.31	17.96	17.65	17.41
3H	17.10	16.72	16.45	16.94	16.48	16.13	16.44	15.90	15.45	15.75
4H	15.23	14.80	14.51	15.14	14.61	14.22	14.79	14.13	13.61	14.28
6H	13.63	13.20	12.91	13.60	13.04	12.65	13.38	12.65	12.10	13.01
8H	12.29	11.86	11.58	12.30	11.73	11.34	12.18	11.41	10.85	11.92
12H	11.16	10.74	10.47	11.20	10.63	10.26	11.15	10.37	9.81	10.98
4H 2H	10.21	9.80	9.54	10.26	9.70	9.34	10.27	9.48	8.94	10.16
3H	9.39	9.00	8.76	9.46	8.92	8.57	9.50	8.73	8.20	9.45
4H	8.69	8.31	8.08	8.77	8.24	7.92	8.84	8.08	7.58	8.82
6H	8.08	7.72	7.51	8.17	7.66	7.35	8.26	7.52	7.04	8.28
8H	7.55	7.21	7.01	7.64	7.16	6.86	7.75	7.04	6.57	7.79
12H	7.09	6.76	6.57	7.18	6.72	6.43	7.30	6.61	6.16	7.36
8H 4H	6.69	6.37	6.19	6.78	6.33	6.06	6.90	6.23	5.80	6.97
6H	6.33	6.03	5.85	6.41	5.99	5.73	6.54	5.90	5.49	6.62
8H	6.01	5.72	5.55	6.09	5.68	5.44	6.22	5.60	5.21	6.31
12H	5.72	5.44	5.28	5.81	5.41	5.17	5.94	5.33	4.96	6.02
12H 4H	5.46	5.20	5.05	5.55	5.17	4.94	5.68	5.09	4.73	5.76
6H	5.23	4.98	4.83	5.31	4.95	4.73	5.44	4.88	4.53	5.53

C Range: 0 - 360 Deg
 C Interval: 45.0 Deg
 Test Speed: High
 Temperature:
 Operators:
 Test Date: 2019/11/28 15:19:43

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: 2019/11/28 15:19:43

ZONAL LUMINOUS FLUX TABLE

[illegible]

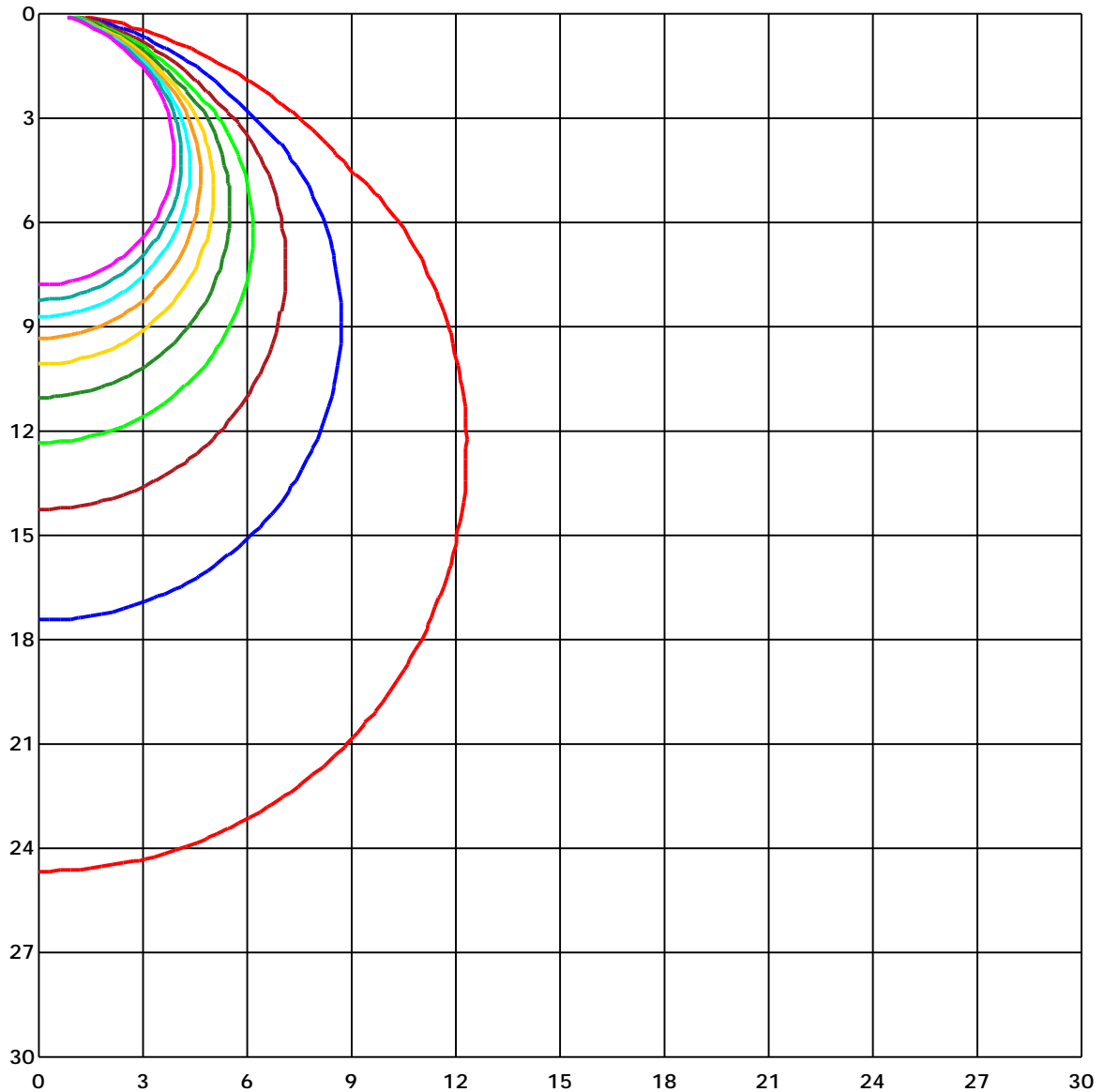
C Range: 0 - 360 Deg
C Interval: 45.0 Deg
Test Speed: High
Temperature:
Operators:
Test Date: 2019/11/28 15:19:43

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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SPACE ISOLX DIAGRAM



Unit of illumination:lx

18.14
16.326
14.512
12.698
10.884

9.07
7.256
5.442
3.628
1.814

C Range: 0 - 360 Deg
C Interval: 45.0 Deg
Test Speed: High
Temperature:
Operators:
Test Date: 2019/11/28 15:19:43

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: 2019/11/28 15:19:43

LUMINOUS DISTRIBUTION INTENSITY DATA

GammaC	C0	C45	C90	C135	C180	C225	C270	C315	C360	
G0	1103.85	1094.29	1108.45	1094.29	1119.78	1140.31	1140.31	1164.74	1162.97	
G1	1103.5	1094.29	1107.74	1096.06	1122.26	1141.38	1140.31	1165.1	1162.62	
G2	1103.14	1095.71	1106.68	1097.83	1123.68	1141.73	1141.73	1166.51	1162.62	
G3	1102.43	1093.94	1105.27	1098.54	1125.45	1141.02	1142.08	1166.51	1161.91	
G4	1101.73	1092.88	1103.85	1099.6	1125.8	1139.96	1142.44	1167.22	1161.2	
G5	1100.31	1089.34	1101.37	1099.96	1126.86	1139.25	1141.38	1167.22	1159.43	
G6	1098.89	1087.92	1098.89	1101.02	1127.22	1137.13	1141.02	1166.87	1159.08	
G7	1097.12	1084.03	1096.42	1100.66	1127.57	1135.36	1139.61	1165.45	1156.25	
G8	1095.71	1080.13	1092.88	1099.96	1127.22	1133.94	1138.9	1164.74	1153.41	
G9	1092.17	1077.65	1087.92	1098.89	1126.51	1130.05	1137.13	1162.62	1151.64	
G10	1089.34	1072.7	1086.5	1097.83	1126.51	1126.51	1135.71	1161.2	1147.4	
G11	1087.21	1070.57	1080.84	1096.77	1124.74	1124.38	1133.23	1159.08	1143.5	
G12	1082.96	1064.91	1078.36	1095.0	1122.97	1119.78	1130.05	1155.89	1141.02	
G13	1080.48	1058.54	1072.7	1092.17	1121.55	1114.47	1128.63	1154.12	1135.71	
G14	1075.17	1054.64	1066.32	1090.75	1119.43	1111.99	1124.38	1150.23	1130.05	
G15	1069.51	1047.91	1062.08	1087.21	1116.24	1105.62	1119.78	1148.1	1126.86	
G16	1066.32	1040.13	1054.99	1082.96	1114.47	1099.6	1117.3	1143.86	1120.49	
G17	1060.31	1035.88	1051.45	1081.19	1110.93	1096.06	1112.35	1138.54	1117.3	
G18	1056.77	1028.09	1044.37	1076.24	1106.68	1088.98	1106.33	1135.71	1109.51	
G19	1049.68	1019.59	1036.59	1070.93	1103.85	1085.44	1103.85	1130.05	1102.43	
G20	1041.9	1013.93	1032.34	1067.74	1098.89	1077.65	1096.77	1122.97	1098.19	
G21	1037.65	1004.72	1023.49	1062.08	1096.06	1074.11	1093.58	1119.43	1088.98	
G22	1028.44	994.46	1018.88	1058.89	1089.69	1064.2	1086.15	1111.64	1084.38	
G23	1024.19	989.15	1009.33	1052.87	1087.21	1054.64	1078.01	1104.2	1075.17	
G24	1014.99	977.46	1004.72	1049.33	1080.13	1048.98	1069.51	1099.96	1064.91	
G25	1004.72	972.86	994.46	1041.9	1072.7	1037.29	1064.55	1091.46	1059.6	
G26	1000.12	961.18	983.48	1034.11	1068.8	1031.28	1047.91	1082.61	1048.62	
G27	989.85	948.79	977.11	1029.86	1061.01	1022.42	1038.0	1076.94	1042.96	
G28	978.53	942.41	965.78	1021.72	1056.77	1011.45	1021.01	1067.39	1031.28	
G29	972.86	929.67	959.76	1017.11	1048.27	1004.37	1010.03	1056.41	1025.26	
G30	960.82	923.3	947.72	1007.56	1039.06	993.39	997.64	1050.75	1012.87	
G31	948.43	909.84	934.27	996.93	1034.46	986.31	976.75	1039.06	999.77	
G32	942.41	896.39	927.9	991.98	1024.19	973.92	968.61	1033.05	992.69	
G33	929.32	888.6	914.45	981.71	1018.88	967.2	947.72	1020.3	978.53	
G34	915.51	873.03	908.07	976.05	1008.26	954.1	934.98	1013.93	971.8	
G35	908.78	865.24	894.27	964.72	1002.25	940.64	925.42	1000.48	957.28	
G36	894.62	849.66	879.75	958.7	990.21	932.15	905.24	986.67	941.71	

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature:

Operators:

Test Date: 2019/11/28 15:19:43

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: 2019/11/28 15:19:43

LUMINOUS DISTRIBUTION INTENSITY DATA(Continue 1)

Gamma/C	C0	C45	C90	C135	C180	C225	C270	C315	C360	
G37	1103.85	1094.29	1108.45	1094.29	1119.78	1140.31	1140.31	1164.74	1162.97	
G38	1103.5	1094.29	1107.74	1096.06	1122.26	1141.38	1140.31	1165.1	1162.62	
G39	1103.14	1095.71	1106.68	1097.83	1123.68	1141.73	1141.73	1166.51	1162.62	
G40	1102.43	1093.94	1105.27	1098.54	1125.45	1141.02	1142.08	1166.51	1161.91	
G41	1101.73	1092.88	1103.85	1099.6	1125.8	1139.96	1142.44	1167.22	1161.2	
G42	1100.31	1089.34	1101.37	1099.96	1126.86	1139.25	1141.38	1167.22	1159.43	
G43	1098.89	1087.92	1098.89	1101.02	1127.22	1137.13	1141.02	1166.87	1159.08	
G44	1097.12	1084.03	1096.42	1100.66	1127.57	1135.36	1139.61	1165.45	1156.25	
G45	1095.71	1080.13	1092.88	1099.96	1127.22	1133.94	1138.9	1164.74	1153.41	
G46	1092.17	1077.65	1087.92	1098.89	1126.51	1130.05	1137.13	1162.62	1151.64	
G47	1089.34	1072.7	1086.5	1097.83	1126.51	1126.51	1135.71	1161.2	1147.4	
G48	1087.21	1070.57	1080.84	1096.77	1124.74	1124.38	1133.23	1159.08	1143.5	
G49	1082.96	1064.91	1078.36	1095.0	1122.97	1119.78	1130.05	1155.89	1141.02	
G50	1080.48	1058.54	1072.7	1092.17	1121.55	1114.47	1128.63	1154.12	1135.71	
G51	1075.17	1054.64	1066.32	1090.75	1119.43	1111.99	1124.38	1150.23	1130.05	
G52	1069.51	1047.91	1062.08	1087.21	1116.24	1105.62	1119.78	1148.1	1126.86	
G53	1066.32	1040.13	1054.99	1082.96	1114.47	1099.6	1117.3	1143.86	1120.49	
G54	1060.31	1035.88	1051.45	1081.19	1110.93	1096.06	1112.35	1138.54	1117.3	
G55	1056.77	1028.09	1044.37	1076.24	1106.68	1088.98	1106.33	1135.71	1109.51	
G56	1049.68	1019.59	1036.59	1070.93	1103.85	1085.44	1103.85	1130.05	1102.43	
G57	1041.9	1013.93	1032.34	1067.74	1098.89	1077.65	1096.77	1122.97	1098.19	
G58	1037.65	1004.72	1023.49	1062.08	1096.06	1074.11	1093.58	1119.43	1088.98	
G59	1028.44	994.46	1018.88	1058.89	1089.69	1064.2	1086.15	1111.64	1084.38	
G60	1024.19	989.15	1009.33	1052.87	1087.21	1054.64	1078.01	1104.2	1075.17	
G61	1014.99	977.46	1004.72	1049.33	1080.13	1048.98	1069.51	1099.96	1064.91	
G62	1004.72	972.86	994.46	1041.9	1072.7	1037.29	1064.55	1091.46	1059.6	
G63	1000.12	961.18	983.48	1034.11	1068.8	1031.28	1047.91	1082.61	1048.62	
G64	989.85	948.79	977.11	1029.86	1061.01	1022.42	1038.0	1076.94	1042.96	
G65	978.53	942.41	965.78	1021.72	1056.77	1011.45	1021.01	1067.39	1031.28	
G66	972.86	929.67	959.76	1017.11	1048.27	1004.37	1010.03	1056.41	1025.26	
G67	960.82	923.3	947.72	1007.56	1039.06	993.39	997.64	1050.75	1012.87	
G68	948.43	909.84	934.27	996.93	1034.46	986.31	976.75	1039.06	999.77	
G69	942.41	896.39	927.9	991.98	1024.19	973.92	968.61	1033.05	992.69	
G70	929.32	888.6	914.45	981.71	1018.88	967.2	947.72	1020.3	978.53	
G71	915.51	873.03	908.07	976.05	1008.26	954.1	934.98	1013.93	971.8	
G72	908.78	865.24	894.27	964.72	1002.25	940.64	925.42	1000.48	957.28	
G73	894.62	849.66	879.75	958.7	990.21	932.15	905.24	986.67	941.71	

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature:

Operators:

Test Date: 2019/11/28 15:19:43

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity:

Test Distance: 5.95 m

Remarks:

Test Time: 2019/11/28 15:19:43

[illegible]

Remarks: