

Report No.:

Test Time: 2024/8/6 9:55:42

LUMINAIRE PHOTOMETRIC TEST REPORT

Luminaire Property

Manufacturer: InBright
 Luminaire Type: IBDL238D090-15W
 Lamp Type:
 Luminous Width: 57 mm
 Luminous Length: 57 mm
 Luminous Height: 50 mm

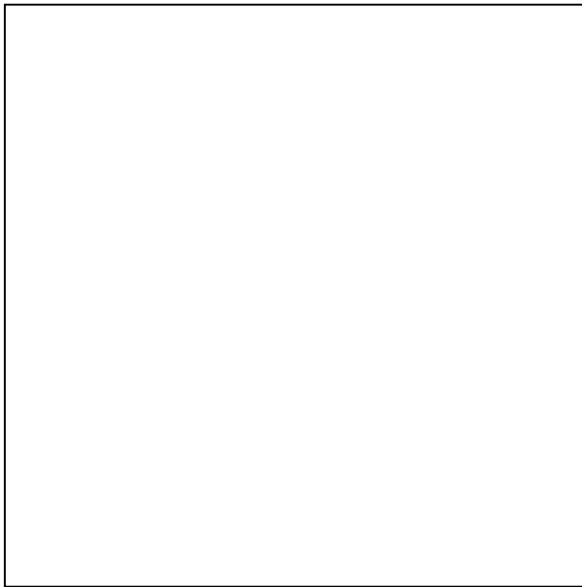
Voltage(V): 220.00 V
 Current(A): 0.0670 A
 Power(W): 14.04 W
 Power Factor: 0.9410
 Lamp Luminous Flux: 1449.82

Photometric Results

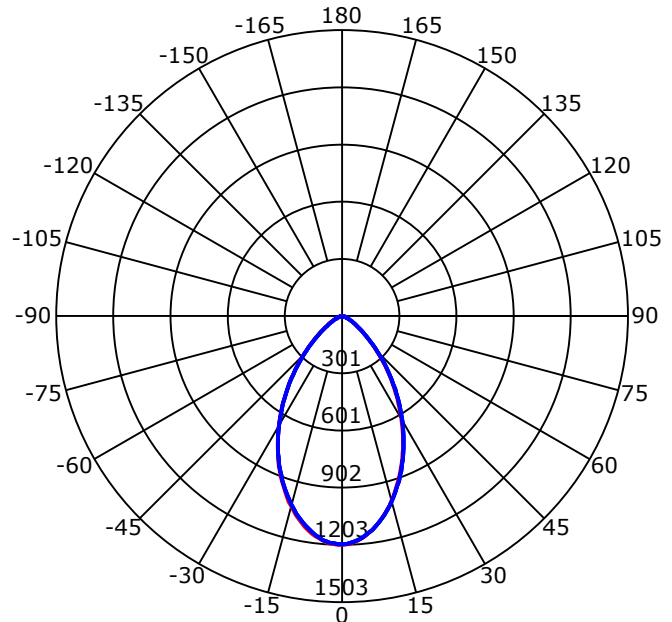
CIE Class: Direct
 Luminaire Luminous Flux: 1449.819 lm
 Downward Ratio: 100.00%
 Luminaire Efficacy Rating(LER): 103.26 lm/W
 Beam Angle(50%) C0-180,C90-270: 63.1,63.5
 Field Angle(10%) C0-180,C90-270: 108.7,108.3
 S/MH C0-180,C90-270: 0.890,0.890

Max. Intensity: 1202.56 cd
 Max.Intensity Angle: C=180 Gamma=1
 Upward Ratio: 0.00%
 Efficacy: 100.00%
 Center Intensity: 1202.29 cd
 Effective Luminous Flux: 1336.18 lm
 ERP(ϕ use)(120deg): 1383.69 lm

Picture of Luminaire



Luminous Intensity Distribution Curve



Beam Angle(50%) C0-180,C90-270: 63.1 deg,63.5 deg

C0-180 — C90-270 —

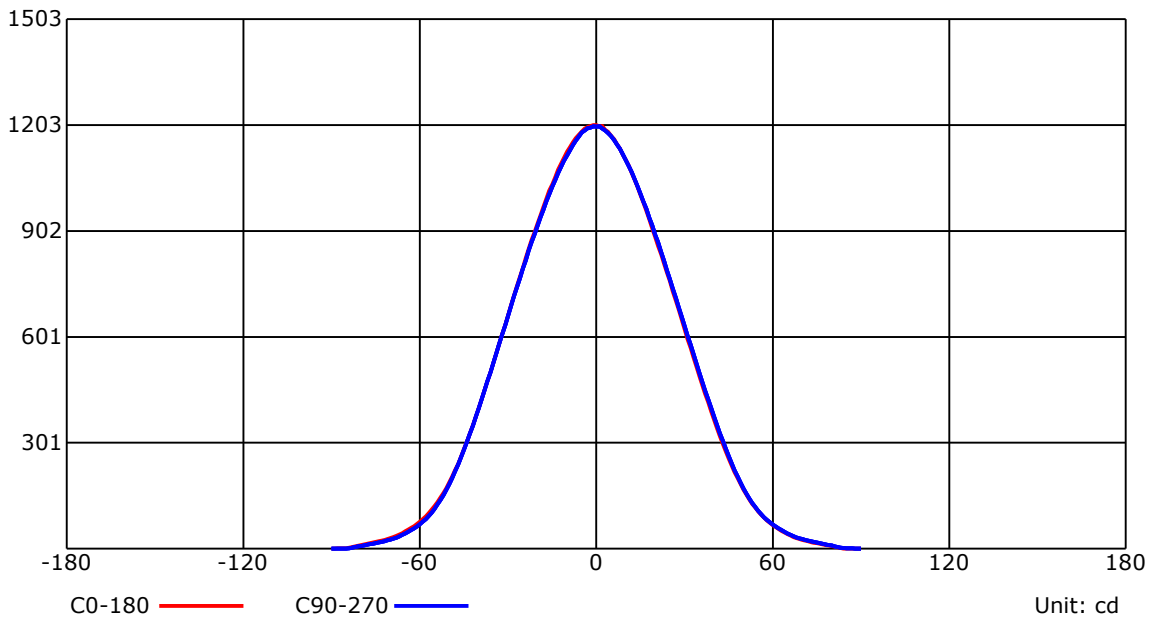
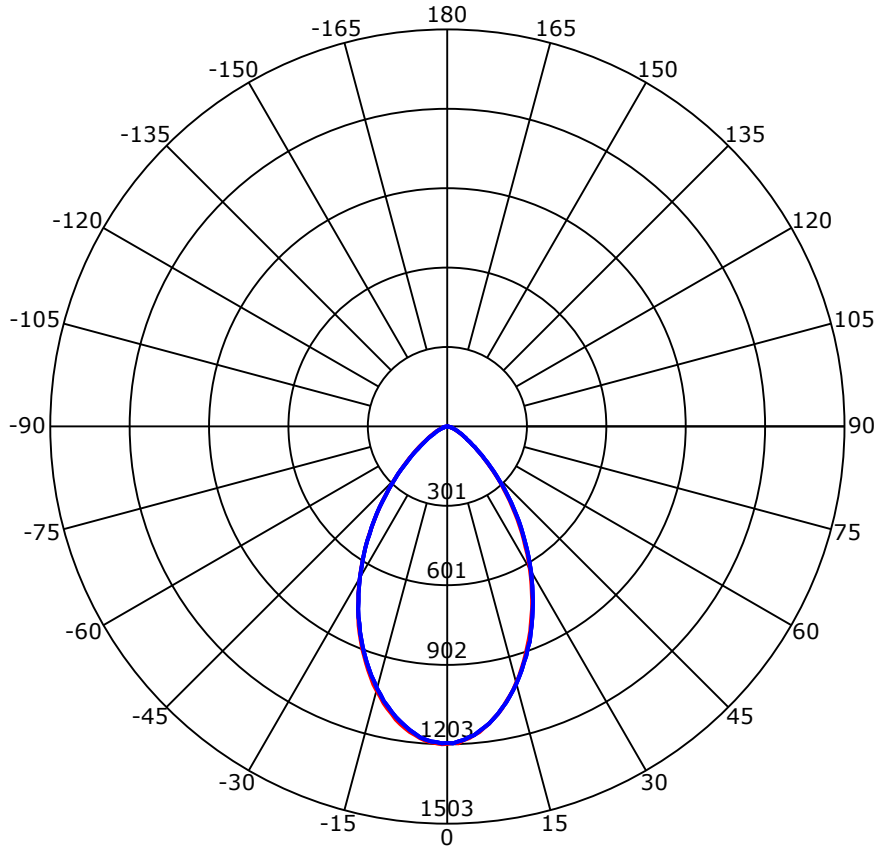
C Range: 0 - 360 Deg
 C Interval: 45.0 Deg
 Test Speed: High
 Temperature: 25
 Operators: QC01
 Test Date: 2024/8/6 9:55:42

G Range: 0 - 90 Deg
 G Interval: 1.0 Deg
 Test System: Huipu CPM-1600B Goniophotometer
 Humidity: 60
 Test Distance: 6.7 m
 Remarks:

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Luminous Intensity Distribution Curve



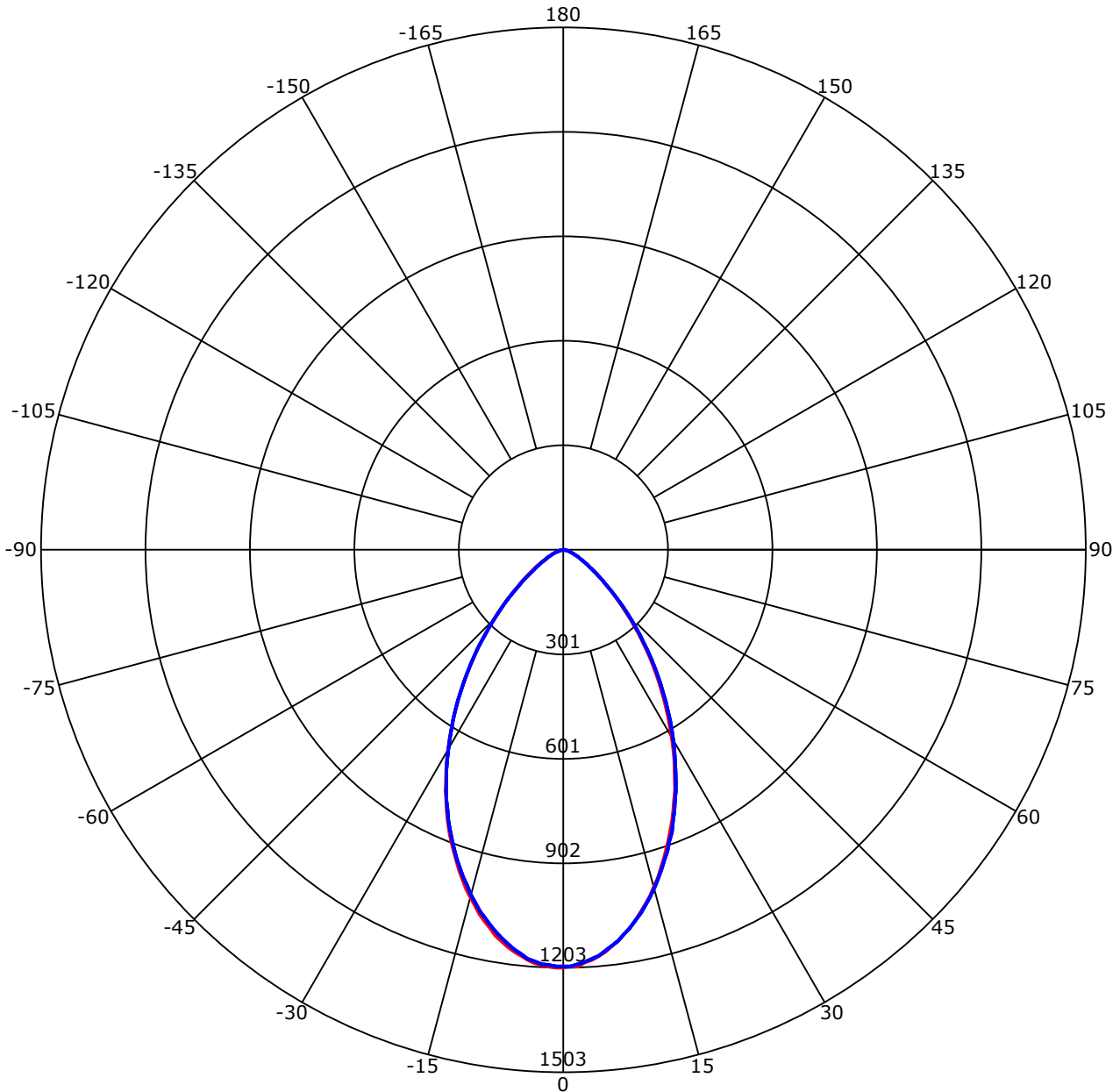
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 Test Distance: 6.7 m
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Luminous Intensity Distribution Curve



C0-180 — C90-270 —
 Unit: cd/klm

C Range: 0 - 360 Deg
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 Operators: QC01
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G Range: 0 - 90 Deg
 G Interval: 1.0 Deg
 Test System: Huipu CPM-1600B Goniophotometer
 Humidity: 60
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 Remarks:

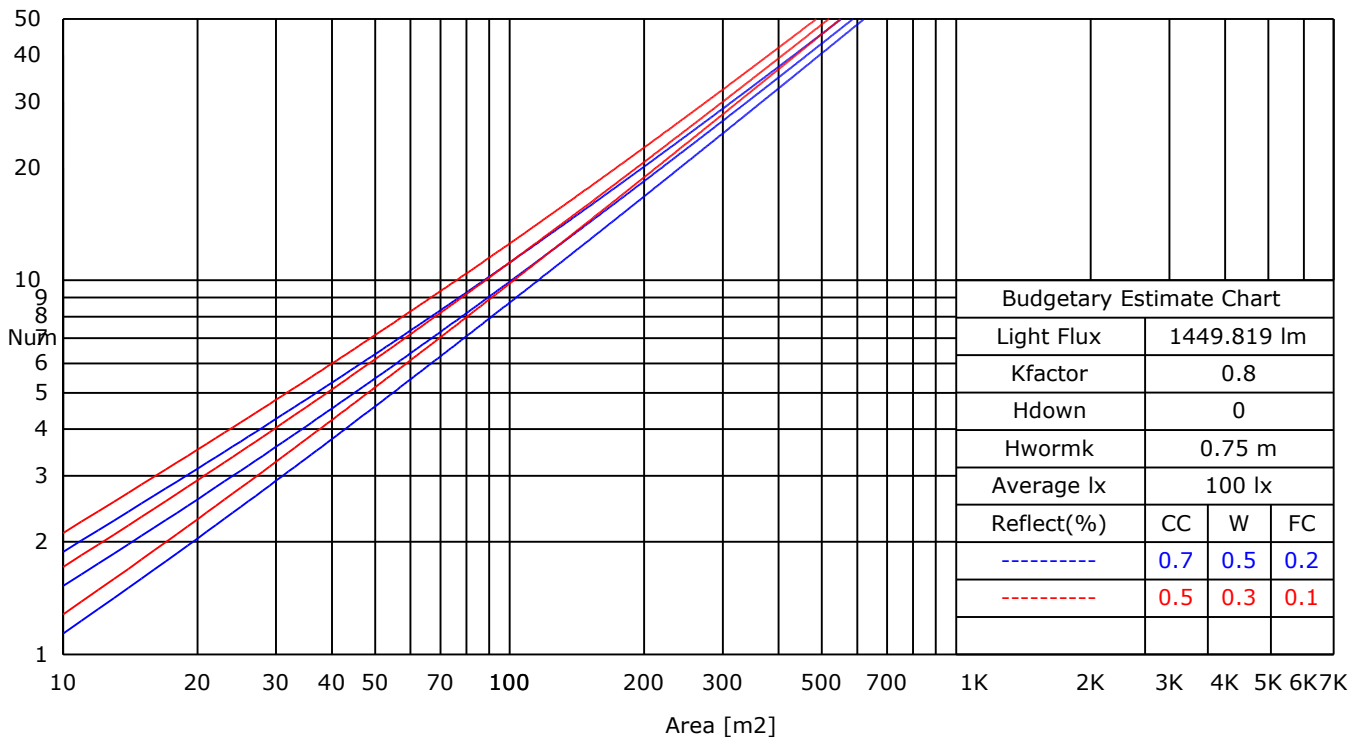
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UTILIZATION FACTORS TABLE

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	1.06	1.04	1.06	1.04	1.03	1.02	1.00	0.98	0.97	0.95	0.93	0.90	0.88	0.86	0.81
2	1.00	0.98	0.97	0.99	0.97	0.95	0.96	0.93	0.91	0.91	0.89	0.86	0.86	0.83	0.81	0.76
3	0.94	0.92	0.91	0.93	0.90	0.89	0.90	0.87	0.85	0.86	0.83	0.80	0.82	0.78	0.75	0.71
4	0.88	0.86	0.85	0.87	0.85	0.83	0.85	0.82	0.79	0.82	0.78	0.75	0.78	0.74	0.70	0.66
5	0.83	0.81	0.80	0.82	0.79	0.78	0.80	0.77	0.74	0.77	0.73	0.70	0.74	0.70	0.66	0.62
6	0.78	0.76	0.75	0.77	0.75	0.73	0.76	0.72	0.70	0.73	0.69	0.66	0.71	0.66	0.63	0.59
7	0.74	0.72	0.71	0.73	0.71	0.69	0.72	0.68	0.66	0.70	0.66	0.63	0.68	0.63	0.59	0.56
8	0.70	0.68	0.67	0.70	0.67	0.66	0.68	0.65	0.63	0.67	0.63	0.60	0.65	0.60	0.56	0.53
9	0.67	0.65	0.64	0.66	0.64	0.63	0.65	0.62	0.60	0.64	0.60	0.57	0.62	0.57	0.54	0.50
10	0.64	0.62	0.61	0.63	0.61	0.60	0.62	0.59	0.57	0.61	0.57	0.54	0.59	0.55	0.51	0.48

LUMINAIRE BUDGETARY ESTIMATE DIAGRAM



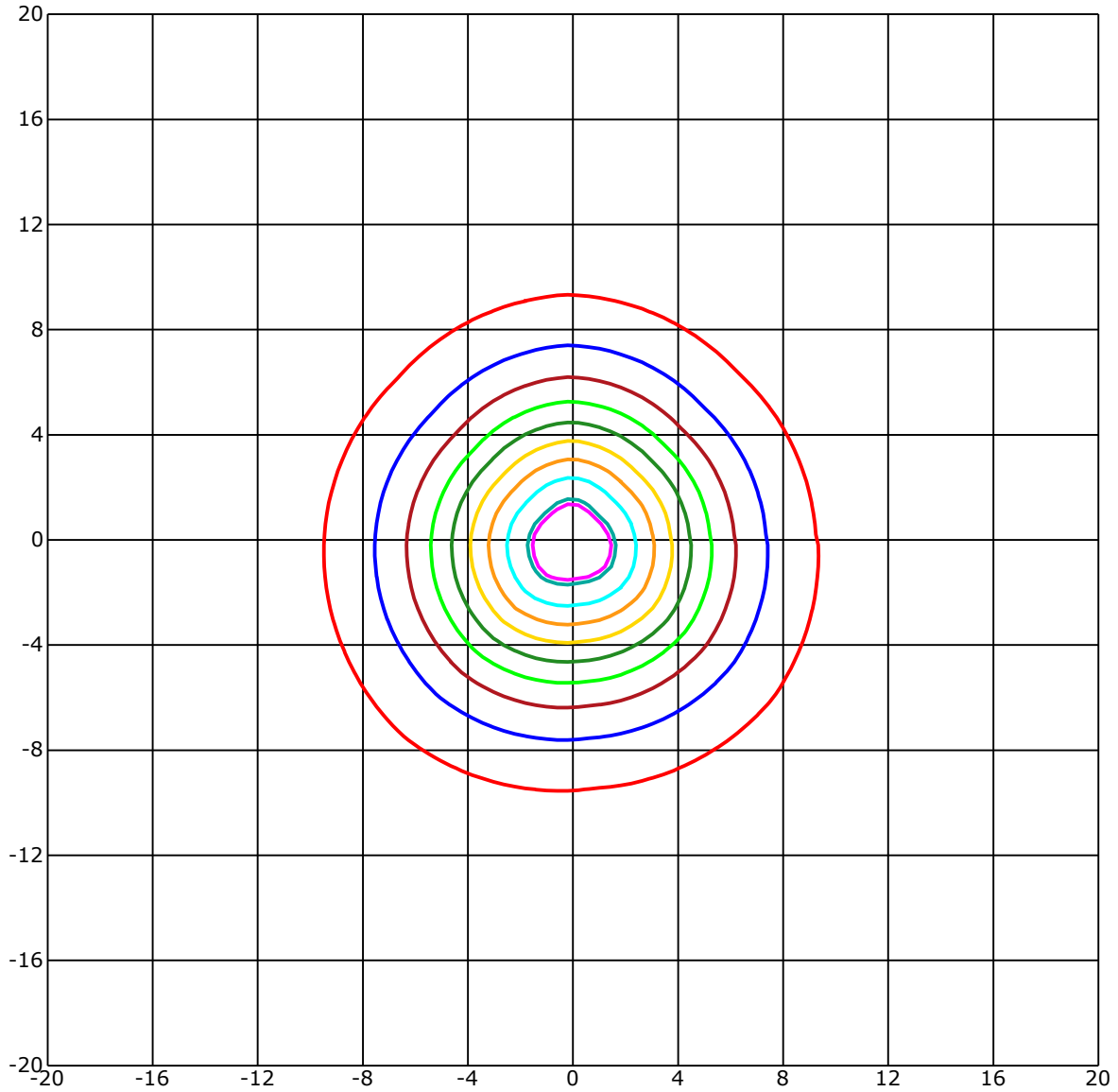
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 Test Speed: High
 Temperature: 25
 Operators: QC01
 Test Date: 2024/8/6 9:55:42

G Range: 0 - 90 Deg
 G Interval: 1.0 Deg
 Test System: Huipu CPM-1600B Goniophotometer
 Humidity: 60
 Test Distance: 6.7 m
 Remarks:

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ISOLX DIAGRAM



Unit of illumination:lx Height of plane:10.0(m)/32.81(ft)

— 11.061(92%Emax)	— 6.011(50%Emax)
— 10.821(90%Emax)	— 4.809(40%Emax)
— 9.618(80%Emax)	— 3.607(30%Emax)
— 8.416(70%Emax)	— 2.405(20%Emax)
— 7.214(60%Emax)	— 1.202(10%Emax)

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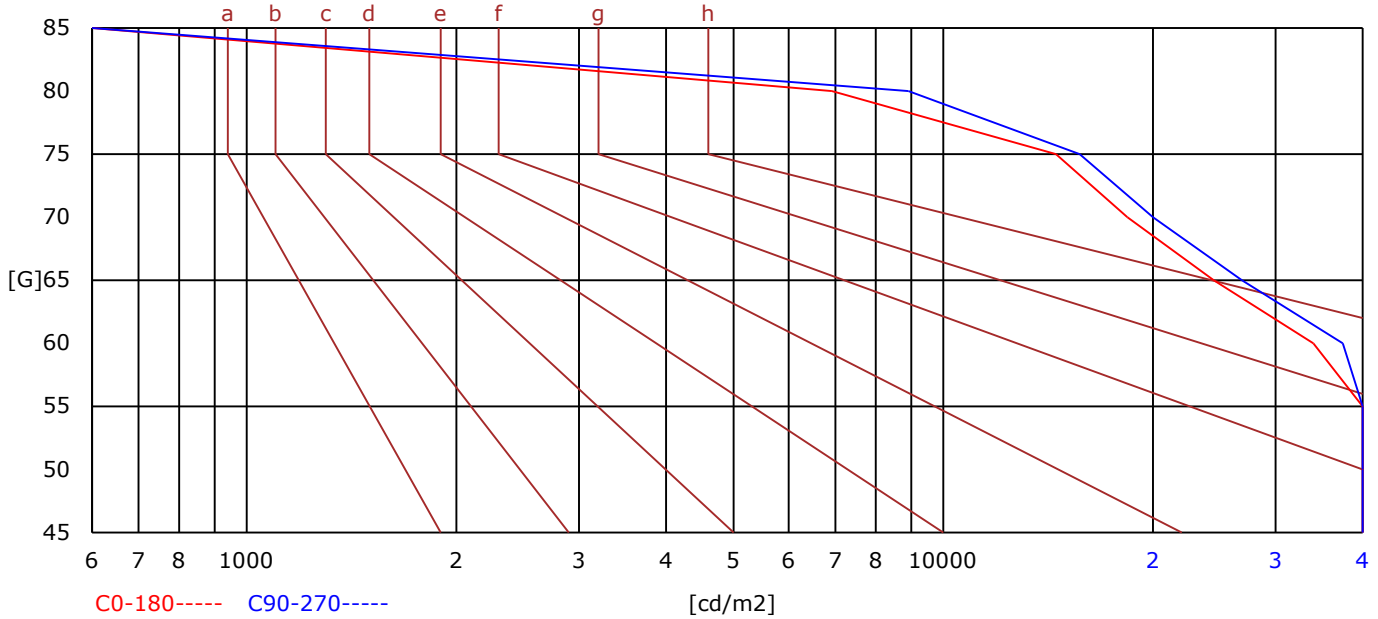
G Range: 0 - 90 Deg
 G Interval: 1.0 Deg
 Test System: Huipu CPM-1600B Goniophotometer
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BRIGHT LIMIT DIAGRAM

C/G	45	50	55	60	65	70	75	80	85
C0	97639	68654	47406	33989	24454	18381	14520	6922	0
C90	103696	74028	51862	37443	26841	19996	15695	8911	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



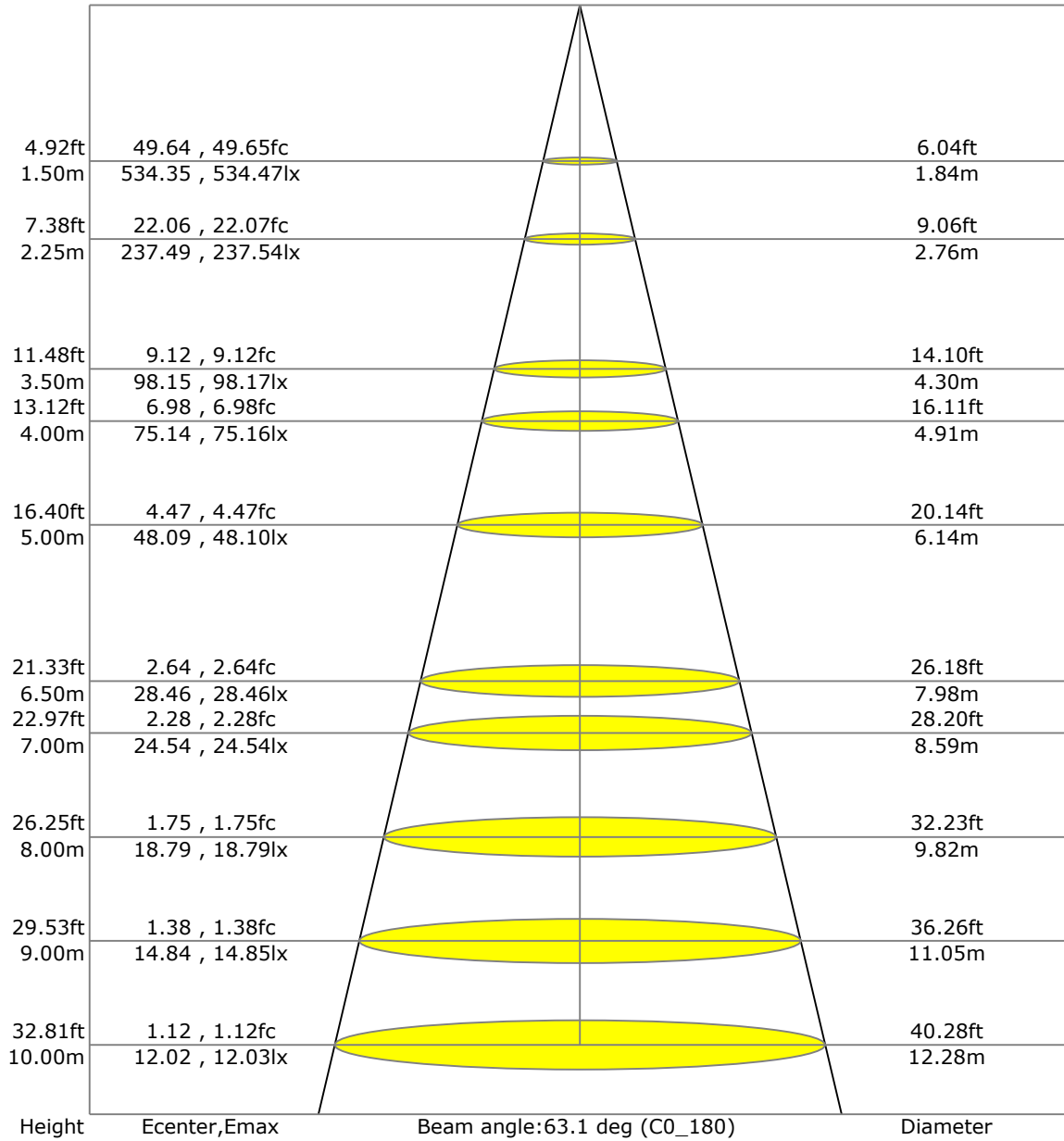
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 Test Speed: High
 Temperature: 25
 Operators: QC01
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G Range: 0 - 90 Deg
 G Interval: 1.0 Deg
 Test System: Huipu CPM-1600B Goniophotometer
 Humidity: 60
 Test Distance: 6.7 m
 Remarks:

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LX-DISTANCE DIAGRAM



C Range: 0 - 360 Deg
 C Interval: 45.0 Deg
 Test Speed: High
 Temperature: 25
 Operators: QC01
 Test Date: 2024/8/6 9:55:42

G Range: 0 - 90 Deg
 G Interval: 1.0 Deg
 Test System: Huipu CPM-1600B Goniophotometer
 Humidity: 60
 Test Distance: 6.7 m
 Remarks:

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UGR(Unified Glare Rating) TABLE

RHOCC	70	70	50	50	30	70	70	50	50	30
RHOW	50	30	50	30	30	50	30	50	30	30
RHOF	20	20	20	20	20	20	20	20	20	20
Room Size X	Viewed Endwise					Viewed Crosswise				
2H 2H	19.95	20.01	20.15	20.20	20.44	19.98	20.04	20.18	20.23	20.47
3H	19.94	20.00	20.15	20.19	20.44	19.97	20.03	20.18	20.22	20.47
4H	19.93	19.98	20.14	20.18	20.43	19.96	20.01	20.17	20.21	20.46
6H	19.91	19.96	20.12	20.16	20.41	19.94	19.99	20.15	20.19	20.44
8H	19.89	19.95	20.11	20.15	20.41	19.92	19.98	20.14	20.18	20.44
12H	19.88	19.94	20.10	20.14	20.40	19.91	19.97	20.13	20.17	20.43
4H 2H	20.32	20.38	20.53	20.57	20.82	20.38	20.44	20.60	20.64	20.89
3H	20.34	20.39	20.56	20.60	20.85	20.40	20.46	20.62	20.66	20.92
4H	20.33	20.38	20.56	20.59	20.85	20.39	20.44	20.62	20.66	20.91
6H	20.30	20.35	20.54	20.57	20.84	20.36	20.42	20.60	20.64	20.90
8H	20.29	20.34	20.53	20.56	20.83	20.35	20.40	20.59	20.62	20.89
12H	20.27	20.32	20.52	20.55	20.82	20.33	20.38	20.58	20.61	20.88
8H 4H	20.35	20.40	20.56	20.60	20.86	20.43	20.48	20.65	20.69	20.94
6H	20.33	20.38	20.59	20.61	20.89	20.42	20.46	20.67	20.70	20.97
8H	20.31	20.36	20.58	20.60	20.88	20.40	20.44	20.66	20.69	20.96
12H	20.30	20.33	20.56	20.59	20.87	20.38	20.42	20.65	20.67	20.95
12H 4H	20.34	20.39	20.59	20.62	20.89	20.43	20.48	20.68	20.71	20.98
6H	20.31	20.36	20.58	20.60	20.88	20.40	20.44	20.66	20.69	20.96

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ZONAL LUMINOUS FLUX TABLE

Gamma [deg]	Imean [cd]	Zonal Flux [lm]	Sum Flux [lm]	Zonal Flux [%]	Sum Flux [%]
0	1198.22	0.00	0.00	0.00	0.00
5	1183.47	28.37	28.37	1.96	1.96
10	1125.43	81.70	110.08	5.64	7.59
15	1037.54	126.08	236.16	8.70	16.29
20	927.20	158.04	394.19	10.90	27.19
25	802.75	176.00	570.19	12.14	39.33
30	671.25	179.54	749.73	12.38	51.71
35	537.89	169.70	919.43	11.70	63.42
40	410.02	149.07	1068.50	10.28	73.70
45	292.92	120.91	1189.41	8.34	82.04
50	195.50	90.03	1279.43	6.21	88.25
55	124.31	62.52	1341.95	4.31	92.56
60	77.99	41.74	1383.69	2.88	95.44
65	49.01	27.63	1411.32	1.91	97.34
70	29.84	17.71	1429.03	1.22	98.57
75	18.67	11.33	1440.36	0.78	99.35
80	10.25	6.82	1447.18	0.47	99.82
85	2.00	2.37	1449.55	0.16	99.98
90	0.22	0.27	1449.82	0.02	100.00

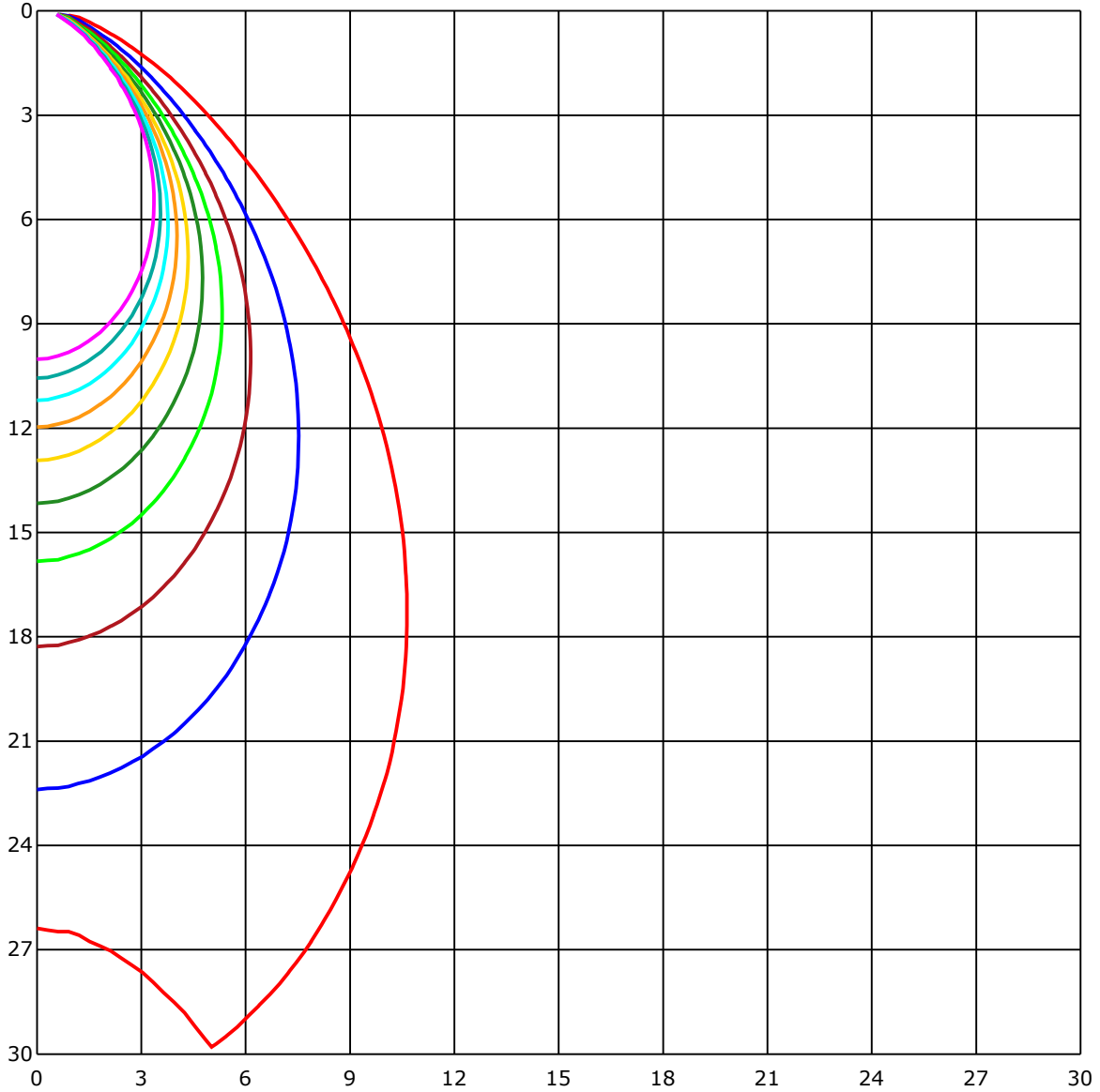
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G Range: 0 - 90 Deg
 G Interval: 1.0 Deg
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 Humidity: 60
 Test Distance: 6.7 m
 Remarks:

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SPACE ISOLX DIAGRAM



Unit of illumination:lx

- | | |
|----------|---------|
| — 11.991 | — 5.996 |
| — 10.792 | — 4.796 |
| — 9.593 | — 3.597 |
| — 8.394 | — 2.398 |
| — 7.195 | — 1.199 |

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LUMINOUS DISTRIBUTION INTENSITY DATA

Gamma\C	C0	C45	C90	C135	C180	C225	C270	C315	C360	
G0	1202.29	1191.79	1198.38	1200.4	1202.29	1191.79	1198.38	1200.4	1202.29	
G1	1198.7	1187.12	1199.01	1193.94	1202.56	1197.93	1198.92	1201.71	1198.7	
G2	1200.09	1182.04	1193.0	1189.32	1199.87	1196.72	1195.06	1200.94	1200.09	
G3	1188.96	1173.07	1187.48	1181.33	1196.81	1198.65	1193.81	1198.16	1188.96	
G4	1183.17	1159.78	1179.75	1174.82	1192.46	1194.34	1187.16	1196.32	1183.17	
G5	1172.8	1149.36	1172.12	1160.45	1184.2	1191.96	1181.37	1187.57	1172.8	
G6	1162.97	1134.86	1159.51	1149.81	1174.05	1184.83	1168.89	1179.44	1162.97	
G7	1148.29	1118.03	1147.43	1134.24	1165.08	1182.94	1158.34	1171.72	1148.29	
G8	1136.57	1103.04	1135.45	1120.5	1153.81	1173.07	1145.37	1160.14	1136.57	
G9	1118.48	1087.37	1119.65	1103.13	1140.34	1156.68	1130.82	1146.98	1118.48	
G10	1104.34	1067.84	1103.4	1086.16	1127.28	1147.7	1116.41	1133.74	1104.34	
G11	1087.15	1047.69	1085.71	1068.74	1108.69	1134.73	1100.61	1115.88	1087.15	
G12	1066.18	1028.07	1069.15	1048.32	1092.53	1117.9	1083.33	1101.96	1066.18	
G13	1046.88	1010.29	1049.3	1027.76	1075.97	1100.16	1066.68	1082.21	1046.88	
G14	1027.44	984.8	1029.33	1008.95	1054.15	1082.7	1046.07	1066.86	1027.44	
G15	1004.37	965.13	1008.5	984.93	1034.76	1065.11	1027.71	1044.82	1004.37	
G16	983.81	939.86	986.01	962.49	1015.91	1047.46	1004.95	1029.06	983.81	
G17	958.13	918.09	964.19	936.5	992.47	1026.86	985.56	1003.7	958.13	
G18	934.7	891.78	938.69	912.21	970.34	1003.2	961.99	987.04	934.7	
G19	909.07	868.08	918.31	888.01	946.46	985.65	940.89	961.09	909.07	
G20	885.54	844.02	891.92	865.3	923.34	959.16	917.33	939.05	885.54	
G21	859.91	818.88	871.31	838.77	900.04	935.33	893.18	914.63	859.91	
G22	835.67	791.64	842.27	813.72	875.98	912.12	869.7	893.0	835.67	
G23	809.37	769.32	817.0	787.95	850.58	888.87	846.09	866.47	809.37	
G24	783.33	740.6	790.47	761.87	825.26	862.79	818.48	839.22	783.33	
G25	759.58	714.51	765.6	733.37	797.38	838.41	795.85	814.48	759.58	
G26	730.67	686.41	738.93	707.56	772.51	813.36	768.65	788.85	730.67	
G27	703.29	660.06	711.82	680.17	744.55	788.81	741.27	764.34	703.29	
G28	678.65	633.98	684.84	653.91	718.28	761.47	716.35	738.89	678.65	
G29	650.73	605.12	659.08	627.16	691.8	736.15	689.38	710.61	650.73	
G30	623.61	578.05	633.04	600.94	663.88	709.49	661.95	684.39	623.61	
G31	595.87	552.33	605.97	573.78	635.91	683.94	634.21	658.22	595.87	
G32	569.97	525.03	579.4	546.67	609.16	655.71	607.14	630.93	569.97	
G33	542.59	500.57	552.55	520.86	582.31	629.54	581.73	603.82	542.59	
G34	517.09	473.81	526.02	495.59	555.15	601.66	555.06	578.77	517.09	
G35	491.41	449.26	499.9	469.82	528.36	576.61	528.62	550.4	491.41	
G36	465.46	424.08	474.26	444.5	501.78	549.63	500.66	524.94	465.46	

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LUMINOUS DISTRIBUTION INTENSITY DATA(Continue 1)

Gamma\C	C0	C45	C90	C135	C180	C225	C270	C315	C360	
G37	439.79	400.69	449.08	419.0	474.85	523.19	476.01	498.23	439.79	
G38	415.28	376.22	423.99	394.31	449.98	496.44	449.62	473.32	415.28	
G39	390.54	353.28	400.1	369.85	423.4	470.81	424.08	448.09	390.54	
G40	366.57	329.76	375.42	346.82	398.89	445.98	398.67	423.36	366.57	
G41	343.0	307.45	352.21	322.94	374.43	420.75	374.61	400.15	343.0	
G42	320.16	284.56	328.64	301.35	351.04	396.11	349.33	374.83	320.16	
G43	296.81	264.0	306.02	278.63	326.8	372.18	325.5	350.14	296.81	
G44	275.71	243.66	284.06	258.57	304.13	347.4	302.6	327.2	275.71	
G45	255.74	224.32	263.1	238.23	283.57	324.46	280.7	304.49	255.74	
G46	236.17	205.55	242.9	219.2	262.16	301.48	259.78	283.21	236.17	
G47	217.04	189.21	223.24	201.56	241.01	279.84	238.9	261.35	217.04	
G48	199.76	172.29	205.01	184.45	222.83	258.75	219.69	241.69	199.76	
G49	183.47	157.25	187.86	168.92	204.88	238.28	200.57	222.74	183.47	
G50	167.66	143.38	171.3	154.6	188.22	218.75	183.11	205.06	167.66	
G51	153.52	130.76	156.67	141.36	172.38	201.42	167.17	188.22	153.52	
G52	140.51	118.73	142.88	128.61	158.55	184.27	151.82	172.69	140.51	
G53	127.76	107.42	130.63	116.76	144.82	168.47	137.86	158.37	127.76	
G54	116.8	97.14	118.11	106.52	132.16	153.88	125.24	144.59	116.8	
G55	105.99	88.34	107.65	96.65	120.8	140.37	112.99	131.84	105.99	
G56	96.51	80.26	98.04	88.16	110.83	127.49	102.12	120.35	96.51	
G57	88.12	73.17	89.51	80.4	100.73	116.35	93.01	109.31	88.12	
G58	80.17	66.44	82.19	73.17	92.43	105.76	84.3	99.84	80.17	
G59	73.04	60.69	74.7	66.75	84.3	96.33	76.72	91.4	73.04	
G60	66.71	55.21	68.01	60.83	76.99	87.8	69.44	83.05	66.71	
G61	60.96	50.64	62.53	55.17	70.25	80.04	63.38	75.68	60.96	
G62	55.57	45.65	57.28	50.5	64.24	72.95	57.55	68.95	55.57	
G63	50.55	41.52	52.61	45.7	58.9	66.71	52.61	63.16	50.55	
G64	45.7	37.17	47.94	41.12	54.0	60.69	47.67	57.82	45.7	
G65	41.12	33.58	43.32	36.85	49.06	55.71	43.23	52.97	41.12	
G66	37.17	30.35	39.23	33.13	44.17	50.55	39.1	48.57	37.17	
G67	33.26	27.47	35.78	29.9	39.86	45.56	35.19	43.63	33.26	
G68	30.12	24.91	32.37	26.98	36.41	41.21	31.56	39.55	30.12	
G69	27.34	22.58	29.58	24.38	32.81	37.62	28.64	35.78	27.34	
G70	24.78	20.42	27.11	22.22	30.21	33.89	25.81	32.55	24.78	
G71	22.58	18.85	24.91	20.07	27.38	30.97	23.61	29.4	22.58	
G72	20.78	17.1	22.76	18.23	25.18	28.01	21.28	26.89	20.78	
G73	18.81	15.53	20.78	16.52	23.03	25.5	19.35	24.69	18.81	

C Range: 0 - 360 Deg
 C Interval: 45.0 Deg
 Test Speed: High
 Temperature: 25
 Operators: QC01
 Test Date: 2024/8/6 9:55:42

G Range: 0 - 90 Deg
 G Interval: 1.0 Deg
 Test System: Huipu CPM-1600B Goniophotometer
 Humidity: 60
 Test Distance: 6.7 m
 Remarks:

Report No.:

Test Time: 2024/8/6 9:55:42

LUMINOUS DISTRIBUTION INTENSITY DATA(Continue 2)

Gamma\C	C0	C45	C90	C135	C180	C225	C270	C315	C360	
G74	17.01	14.05	18.99	14.77	20.96	23.3	17.64	22.67	17.01	
G75	15.49	12.21	17.37	13.2	19.21	21.46	15.8	20.69	15.49	
G76	13.96	10.77	15.76	11.63	17.37	19.35	14.28	18.99	13.96	
G77	12.3	9.11	14.23	9.97	15.67	17.87	12.61	17.37	12.3	
G78	10.5	7.41	12.25	8.39	13.87	16.07	11.04	15.71	10.5	
G79	8.98	5.84	10.64	6.64	12.03	14.54	9.47	13.87	8.98	
G80	7.41	3.91	8.89	5.03	10.19	12.79	7.95	12.17	7.41	
G81	5.52	2.2	6.91	3.1	8.39	11.04	6.33	10.46	5.52	
G82	3.64	0.45	5.16	1.3	6.6	9.16	4.71	8.53	3.64	
G83	1.71	0.0	3.1	0.0	4.4	7.5	3.01	6.6	1.71	
G84	0.22	0.0	1.71	0.0	2.69	5.52	1.3	4.58	0.22	
G85	0.0	0.0	1.17	0.0	1.53	3.68	0.0	2.69	0.0	
G86	0.0	0.0	1.03	0.0	1.12	1.84	0.0	1.57	0.0	
G87	0.0	0.0	0.76	0.0	0.9	1.3	0.0	1.12	0.0	
G88	0.0	0.0	0.4	0.0	0.72	0.99	0.0	0.81	0.0	
G89	0.0	0.0	0.31	0.0	0.27	0.72	0.0	0.49	0.0	
G90	0.0	0.0	0.0	0.0	0.0	0.72	0.0	0.49	0.0	

C Range: 0 - 360 Deg
 C Interval: 45.0 Deg
 Test Speed: High
 Temperature: 25
 Operators: QC01
 Test Date: 2024/8/6 9:55:42

G Range: 0 - 90 Deg
 G Interval: 1.0 Deg
 Test System: Huipu CPM-1600B Goniophotometer
 Humidity: 60
 Test Distance: 6.7 m
 Remarks: