

Report No.:

Test Time: 2025/6/19 16:51:22

LUMINAIRE PHOTOMETRIC TEST REPORT

Luminaire Property

Manufacturer: InBright
Luminaire Type: IBSP221CT042.(C)-50°-7W
Lamp Type:
Luminous Width: 32 mm
Luminous Length: 32 mm
Luminous Height: 46 mm

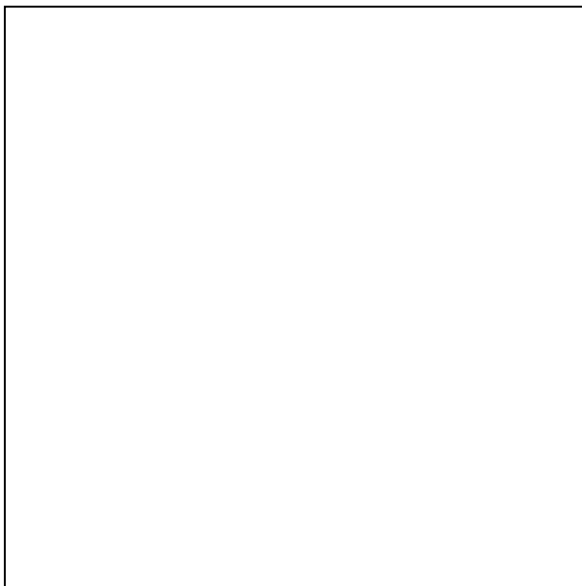
Voltage(V): 219.80 V
Current(A): 0.0370 A
Power(W): 7.41 W
Power Factor: 0.9090
Lamp Luminous Flux: 457.24

Photometric Results

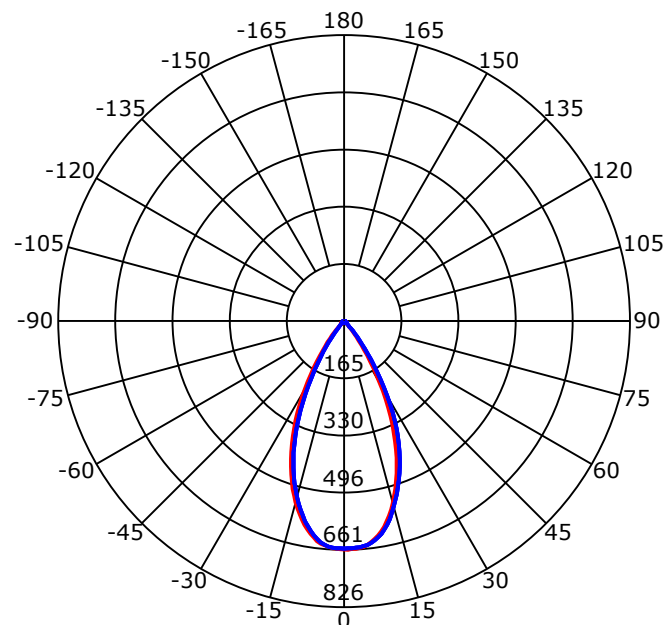
CIE Class: Direct
Luminaire Luminous Flux: 457.2423 lm
Downward Ratio: 100.00%
Luminaire Efficacy Rating(LER): 61.74 lm/W
Beam Angle(50%) C0-180,C90-270: 50.5,51.0
Field Angle(10%) C0-180,C90-270: 76.2,76.1
S/MH C0-180,C90-270: 0.808,0.808

Max. Intensity: 660.90 cd
Max.Intensity Angle: C=0 Gamma=1
Upward Ratio: 0.00%
Efficacy: 100.00%
Center Intensity: 659.77 cd
Effective Luminous Flux: 427.57 lm
ERP(ϕ use)(120deg): 453.78 lm

Picture of Luminaire



Luminous Intensity Distribution Curve



Beam Angle(50%) C0-180,C90-270: 50.5 deg,51.0 deg

C0-180 — C90-270

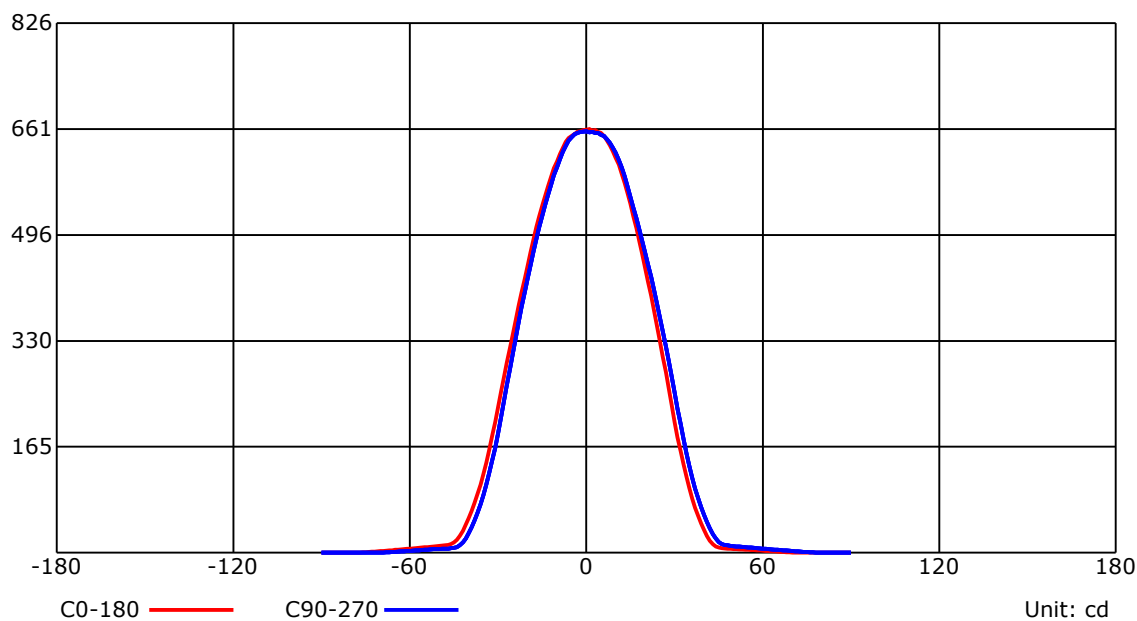
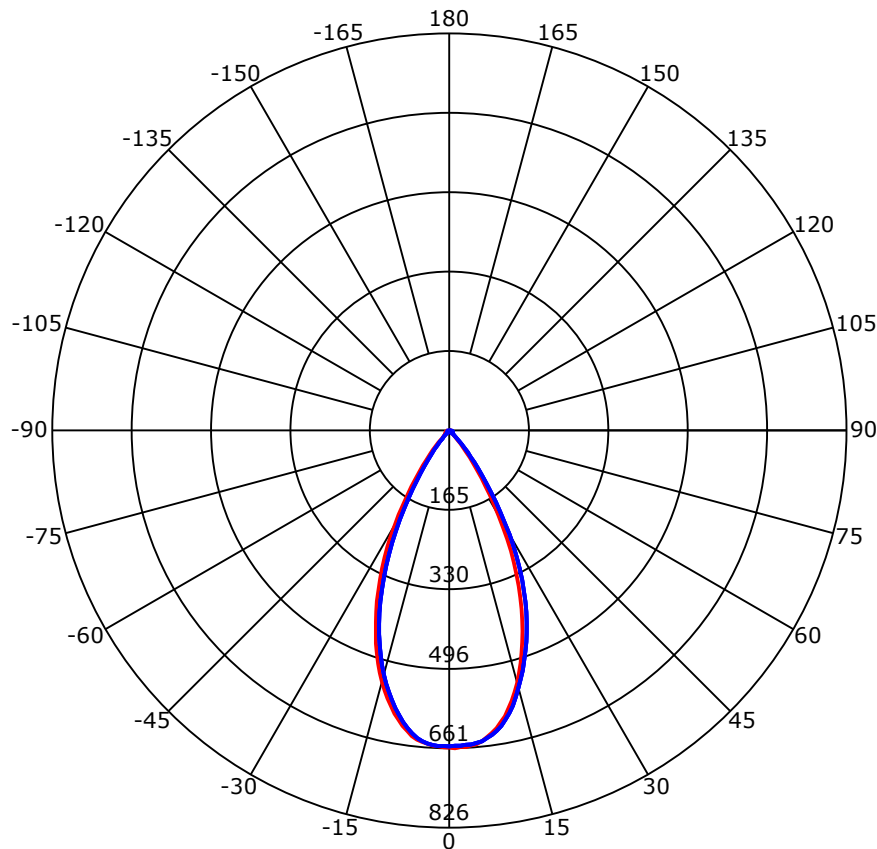
C Range: 0 - 360 Deg
C Interval: 45.0 Deg
Test Speed: High
Temperature: 25
Operators: QC01
Test Date: 2025/6/19 16:51:22

G Range: 0 - 90 Deg
G Interval: 1.0 Deg
Test System: Huipu CPM-1600B Goniophotometer
Humidity: 60
Test Distance: 6.87 m
Remarks:

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Luminous Intensity Distribution Curve



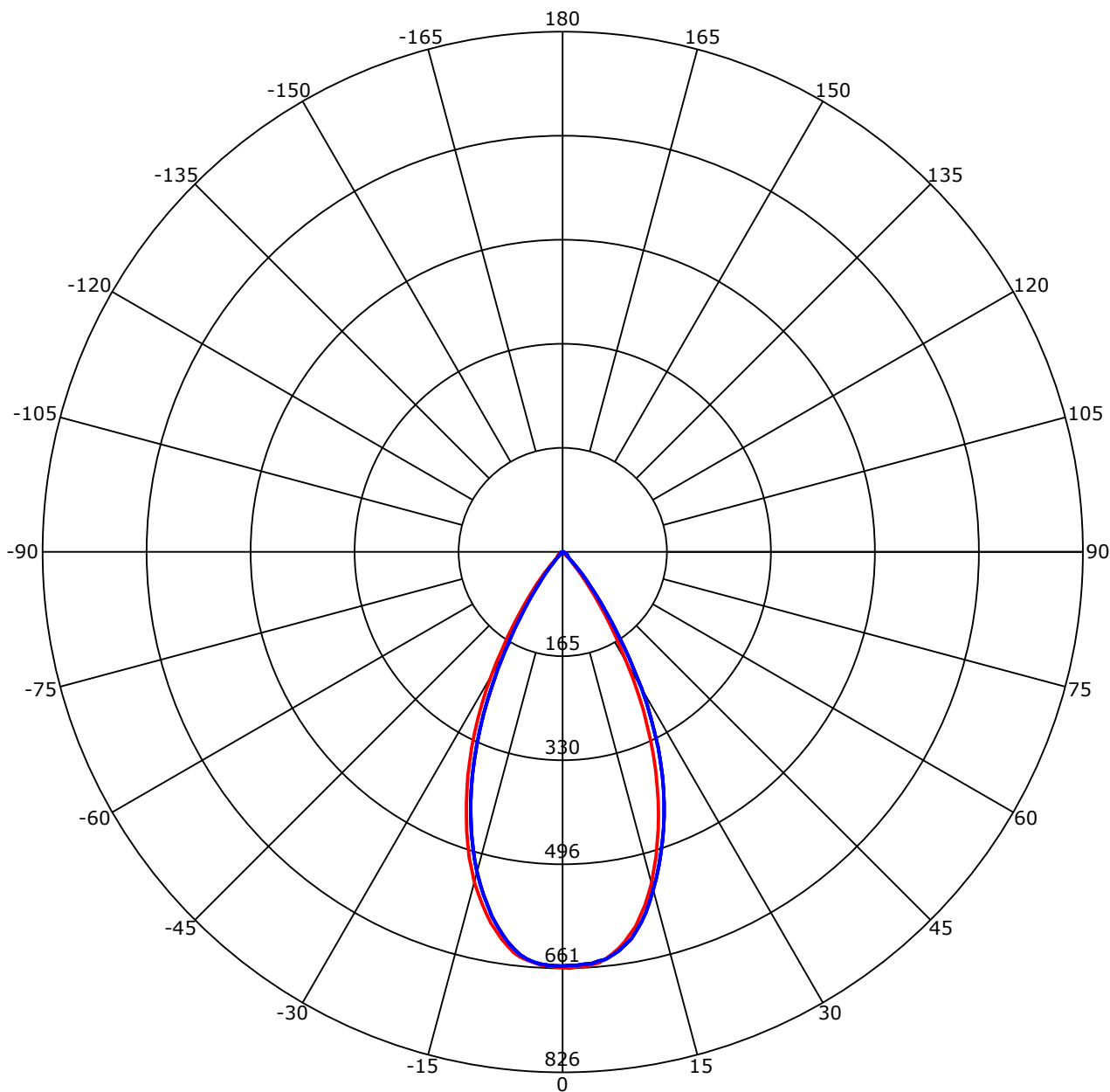
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Luminous Intensity Distribution Curve



C0-180 — C90-270

Unit: cd/klm

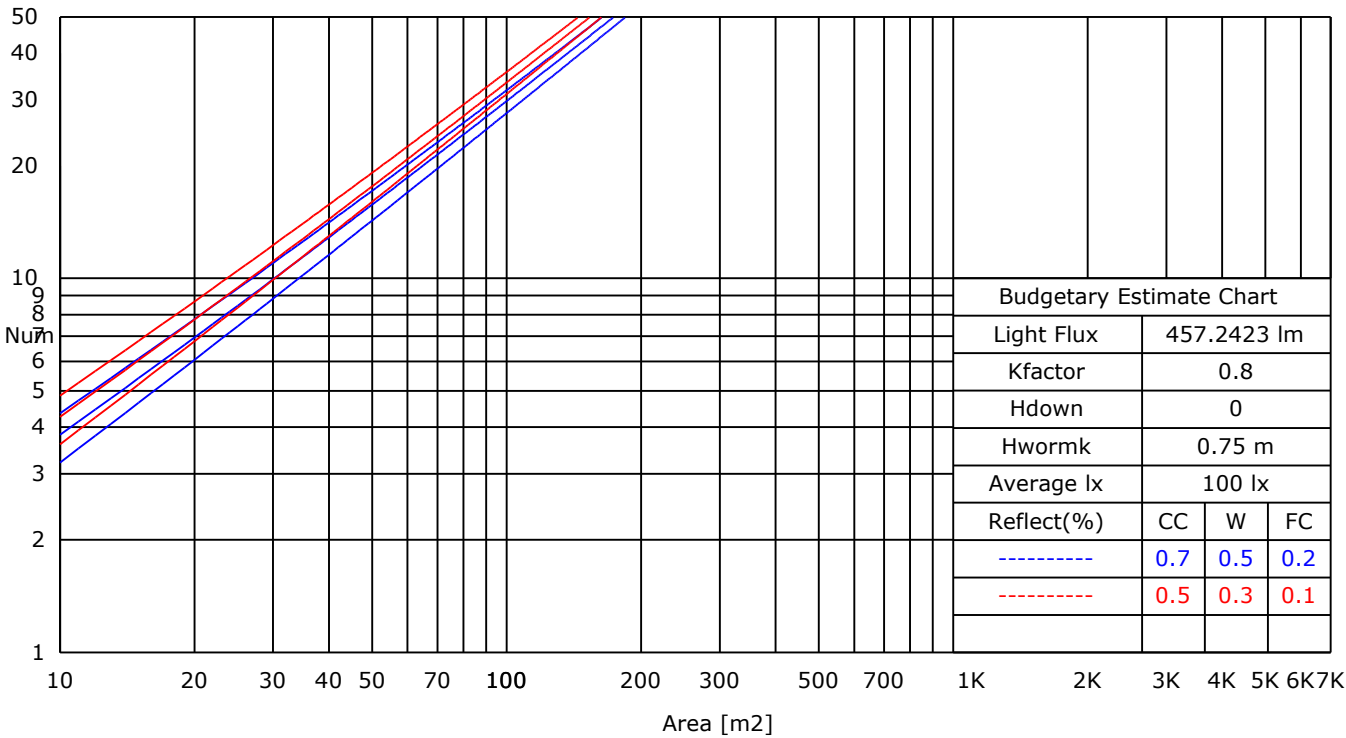
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G Range: 0 - 90 Deg
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Test System: Huipu CPM-1600B Goniophotometer
Humidity: 60
Test Distance: 6.87 m
Remarks:

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	COEFFCIENTS 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	1.04	1.03	1.01	1.03	1.01	0.99	0.99	0.97	0.95	0.95	0.92	0.90	0.88	0.86	0.84	0.79
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	0.80	0.76
3	0.96	0.95	0.93	0.95	0.93	0.91	0.92	0.90	0.87	0.88	0.85	0.83	0.84	0.80	0.78	0.73
4	0.93	0.91	0.90	0.92	0.90	0.88	0.89	0.86	0.84	0.86	0.82	0.80	0.81	0.78	0.75	0.71
5	0.90	0.88	0.87	0.89	0.87	0.85	0.86	0.83	0.81	0.83	0.80	0.77	0.79	0.76	0.72	0.69
6	0.87	0.85	0.85	0.86	0.84	0.83	0.83	0.81	0.79	0.81	0.77	0.75	0.77	0.73	0.70	0.66
7	0.84	0.83	0.82	0.83	0.81	0.80	0.81	0.78	0.76	0.78	0.75	0.72	0.75	0.71	0.68	0.65
8	0.82	0.81	0.80	0.81	0.79	0.78	0.79	0.76	0.74	0.76	0.73	0.70	0.73	0.69	0.66	0.63
9	0.80	0.78	0.78	0.79	0.77	0.76	0.76	0.74	0.72	0.74	0.71	0.68	0.71	0.67	0.64	0.61
10	0.77	0.76	0.76	0.76	0.75	0.74	0.74	0.72	0.70	0.72	0.69	0.66	0.70	0.66	0.63	0.59

LUMINAIRE BUDGETARY ESTIMATE DIAGRAM



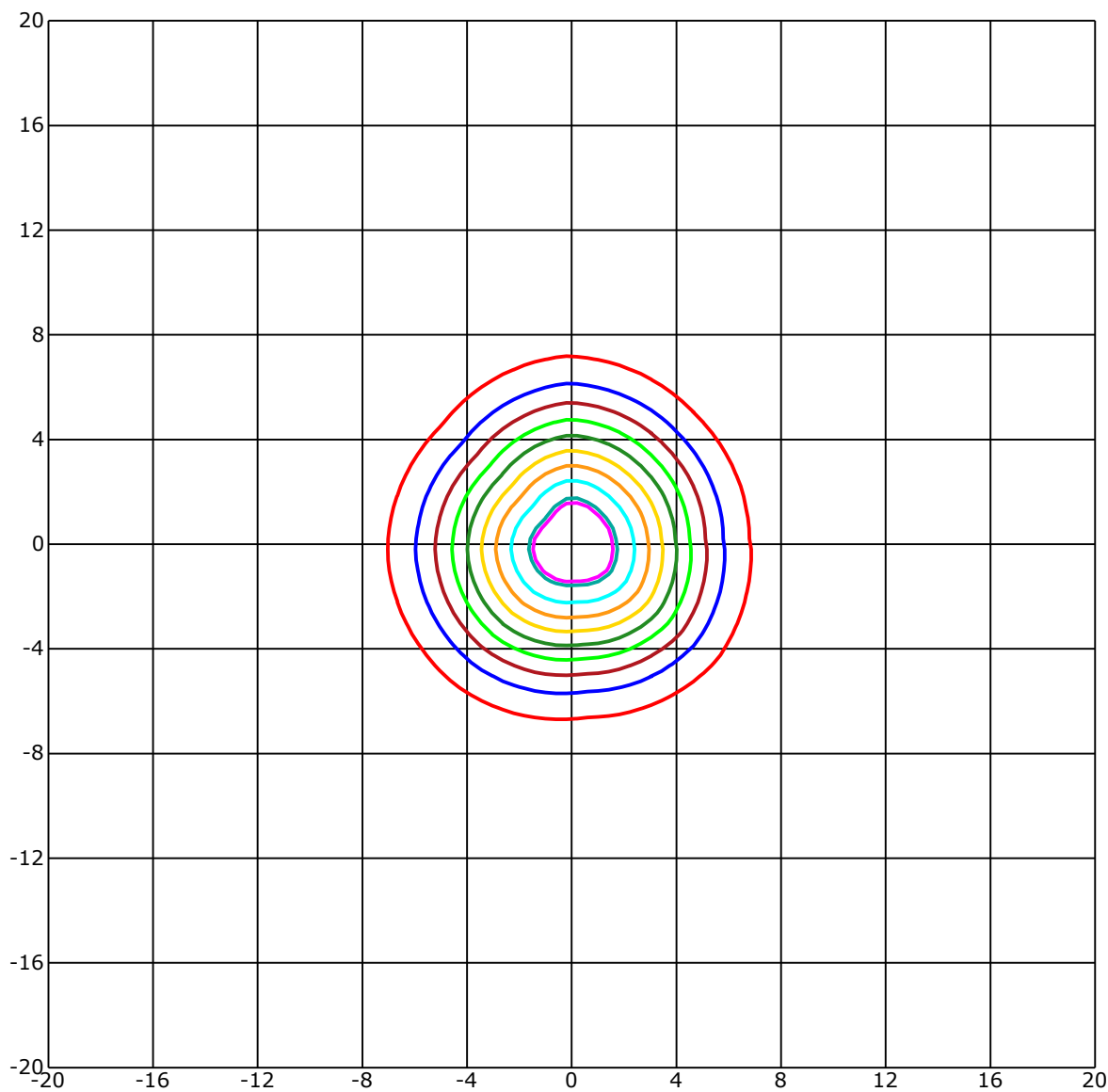
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Test Speed: High
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Test Date: 2025/6/19 16:51:22

G Range: 0 - 90 Deg
G Interval: 1.0 Deg
Test System: Huipu CPM-1600B Goniophotometer
Humidity: 60
Test Distance: 6.87 m
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ISOLX DIAGRAM



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

6.077(92%Emax)	3.303(50%Emax)
5.945(90%Emax)	2.642(40%Emax)
5.285(80%Emax)	1.982(30%Emax)
4.624(70%Emax)	1.321(20%Emax)
3.964(60%Emax)	0.661(10%Emax)

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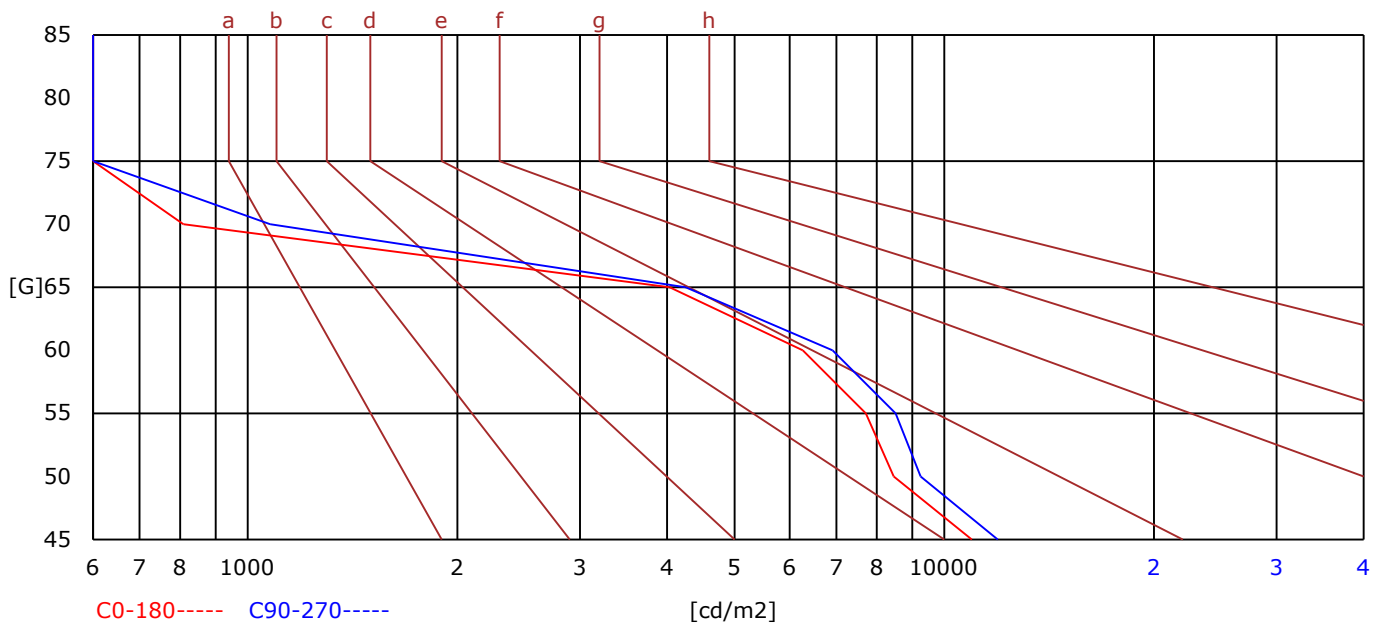
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BRIGHT LIMIT DIAGRAM

C/G	45	50	55	60	65	70	75	80	85
C0	10951	8461	7714	6268	4035	809	0	0	0
C90	11928	9250	8518	6914	4253	1078	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



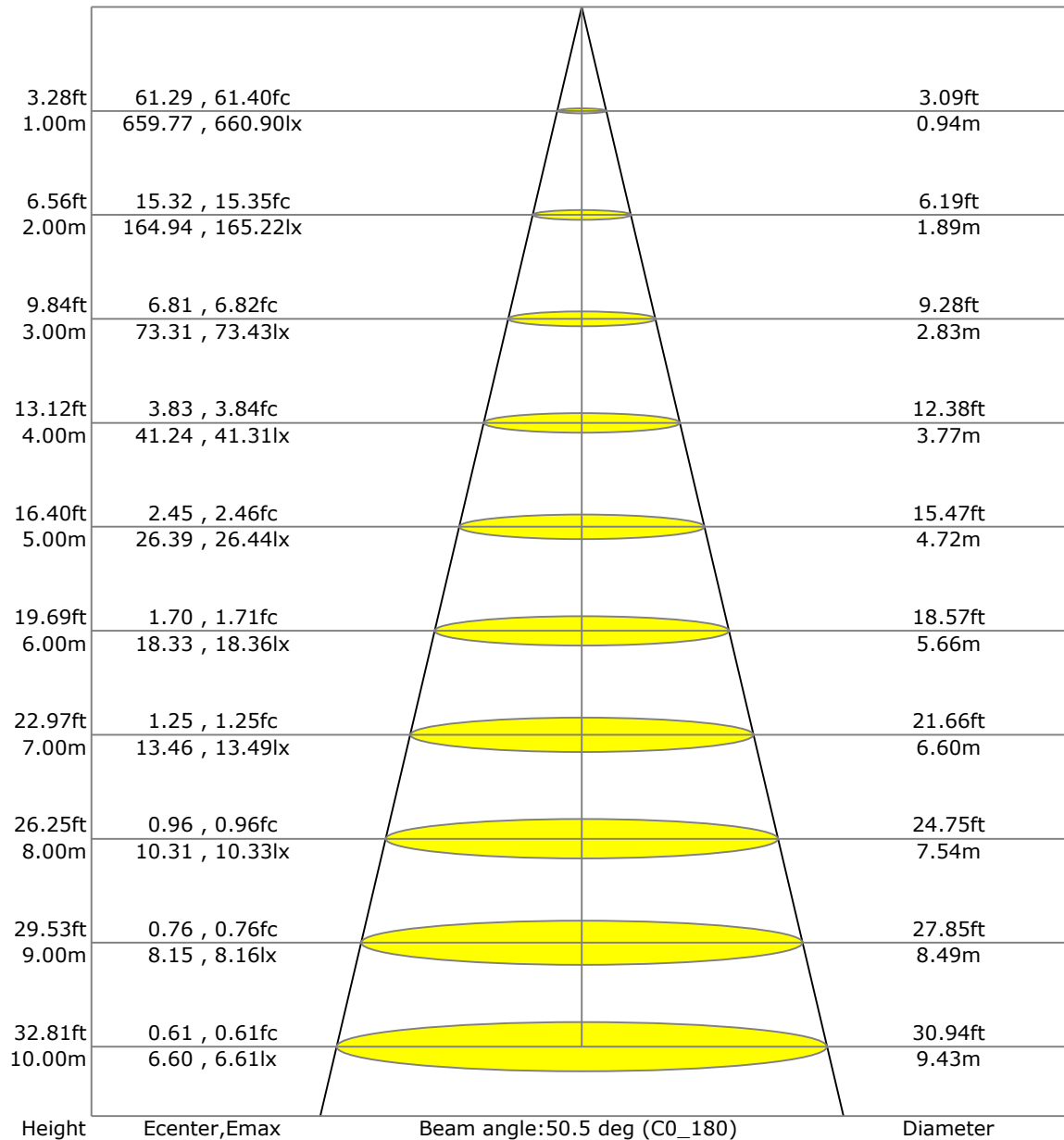
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LX-DISTANCE DIAGRAM



C Range: 0 - 360 Deg
 C Interval: 45.0 Deg
 Test Speed: High
 Temperature: 25
 Operators: QC01
 Test Date: 2025/6/19 16:51:22

G Range: 0 - 90 Deg
 G Interval: 1.0 Deg
 Test System: Huipu CPM-1600B Goniophotometer
 Humidity: 60
 Test Distance: 6.87 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 Y	Viewed Endwise					Viewed Crosswise				
2H 2H	18.11	18.16	18.31	18.35	18.59	18.21	18.26	18.41	18.44	18.69
3H	18.09	18.14	18.29	18.33	18.58	18.18	18.23	18.39	18.43	18.67
4H	18.07	18.12	18.28	18.32	18.57	18.17	18.22	18.38	18.41	18.66
6H	18.06	18.11	18.27	18.31	18.56	18.15	18.20	18.37	18.40	18.65
8H	18.05	18.10	18.27	18.30	18.55	18.14	18.19	18.36	18.40	18.65
12H	18.04	18.09	18.26	18.29	18.55	18.13	18.18	18.35	18.39	18.64
4H 2H	18.09	18.14	18.30	18.34	18.59	18.29	18.34	18.50	18.53	18.78
3H	18.06	18.11	18.28	18.32	18.57	18.26	18.31	18.48	18.51	18.77
4H	18.04	18.09	18.27	18.30	18.56	18.24	18.28	18.46	18.50	18.76
6H	18.02	18.07	18.26	18.29	18.55	18.21	18.26	18.45	18.48	18.74
8H	18.01	18.05	18.25	18.28	18.55	18.20	18.25	18.44	18.47	18.74
12H	17.99	18.04	18.24	18.27	18.54	18.19	18.23	18.44	18.46	18.73
8H 4H	18.06	18.12	18.28	18.32	18.57	18.27	18.32	18.48	18.52	18.77
6H	17.98	18.02	18.23	18.26	18.53	18.18	18.22	18.43	18.46	18.73
8H	17.96	18.01	18.23	18.25	18.53	18.16	18.20	18.42	18.45	18.72
12H	17.95	17.99	18.22	18.24	18.52	18.14	18.18	18.41	18.44	18.72
12H 4H	17.99	18.04	18.24	18.27	18.54	18.19	18.24	18.44	18.47	18.74
6H	17.96	18.01	18.23	18.25	18.53	18.16	18.20	18.42	18.45	18.72

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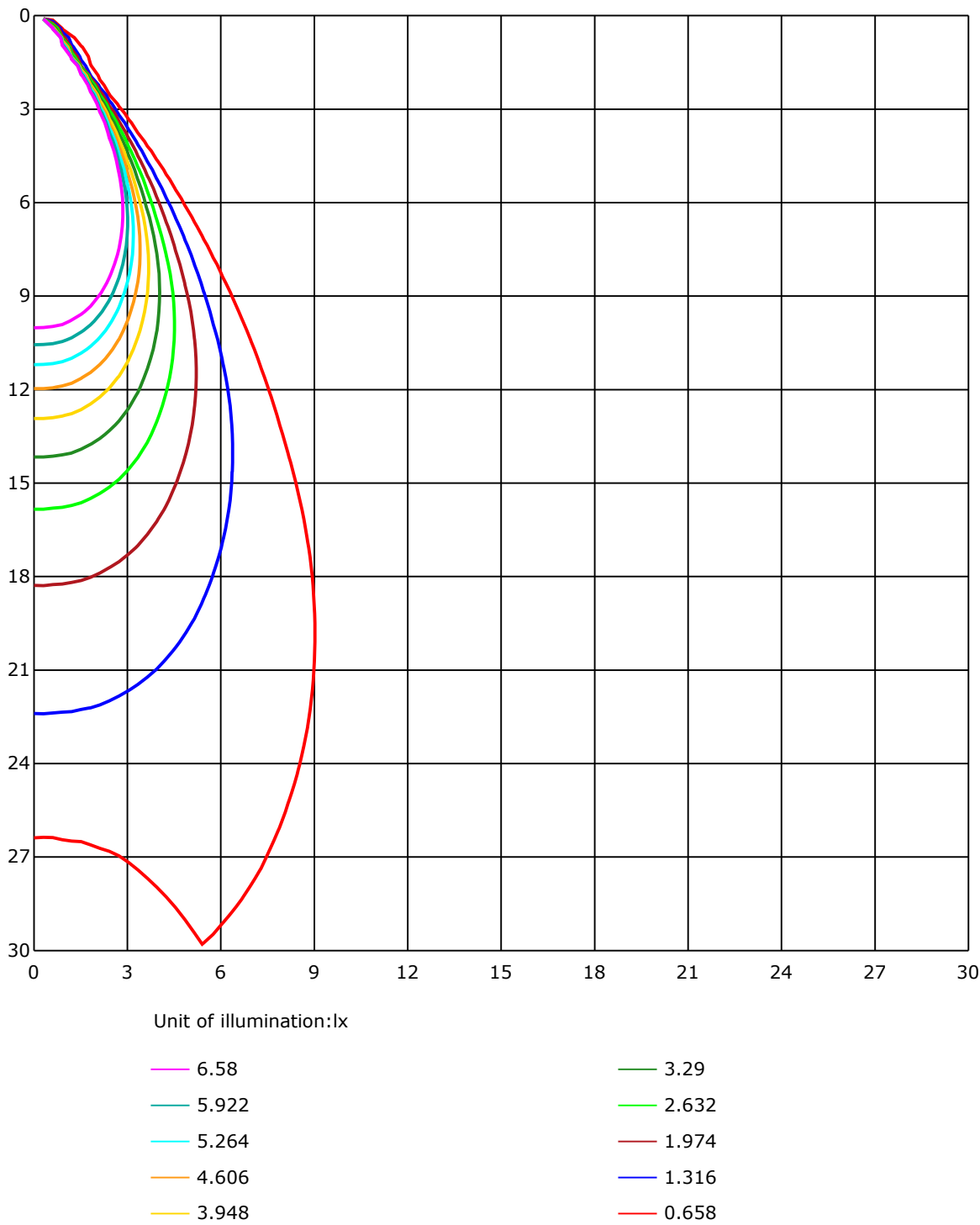
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Test System: Huipu CPM-1600B Goniophotometer
Humidity: 60
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SPACE ISOLX DIAGRAM



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LUMINOUS DISTRIBUTION INTENSITY DATA

Gamma\C	C0	C45	C90	C135	C180	C225	C270	C315	C360	
G0	659.77	655.9	657.22	656.56	659.77	655.9	657.22	656.56	659.77	
G1	660.9	656.84	656.18	654.9	659.29	659.15	656.79	657.69	660.9	
G2	658.63	655.52	656.51	651.41	657.41	656.37	656.56	659.95	658.63	
G3	659.29	654.86	655.0	647.97	656.93	656.04	655.14	658.49	659.29	
G4	656.56	653.87	654.95	642.07	653.68	654.9	652.83	658.73	656.56	
G5	655.09	651.18	651.98	635.6	650.56	651.22	648.63	656.46	655.09	
G6	649.71	645.84	650.18	628.71	646.83	645.8	643.01	656.08	649.71	
G7	642.82	639.85	644.95	618.8	640.84	640.41	634.42	648.86	642.82	
G8	635.32	631.31	639.61	609.69	631.31	631.54	625.26	644.24	635.32	
G9	626.68	621.68	632.01	596.66	621.96	621.54	613.98	636.17	626.68	
G10	616.16	608.79	624.08	583.78	610.68	610.4	601.43	628.24	616.16	
G11	605.44	596.76	612.52	570.47	599.97	598.5	588.97	617.57	605.44	
G12	591.0	582.36	600.77	555.79	585.86	585.19	573.35	606.76	591.0	
G13	577.27	567.59	587.27	540.22	572.07	573.35	558.62	593.74	577.27	
G14	561.03	552.06	571.37	523.98	556.88	557.68	542.81	580.76	561.03	
G15	544.51	535.92	555.04	506.47	542.01	542.53	526.1	567.59	544.51	
G16	524.97	520.63	538.61	489.38	524.5	527.05	507.56	552.44	524.97	
G17	506.19	502.08	521.71	470.65	507.7	509.21	488.77	535.12	506.19	
G18	485.51	483.06	504.06	451.49	487.92	491.08	469.28	518.55	485.51	
G19	465.5	464.32	485.89	430.81	468.67	472.44	448.32	498.59	465.5	
G20	444.08	444.83	468.1	411.79	447.47	451.72	427.51	480.28	444.08	
G21	422.88	425.24	449.69	390.79	427.04	431.62	406.27	459.46	422.88	
G22	400.61	403.11	430.15	369.98	406.32	410.47	383.43	437.66	400.61	
G23	377.29	381.59	409.86	349.35	385.69	389.04	359.55	415.1	377.29	
G24	353.74	359.88	388.86	328.63	363.42	366.15	335.48	392.96	353.74	
G25	330.24	337.79	367.14	306.83	341.47	343.22	311.12	368.61	330.24	
G26	305.88	314.71	345.76	284.83	319.66	320.18	286.77	345.1	305.88	
G27	281.86	290.5	321.69	262.89	296.82	296.73	261.52	321.08	281.86	
G28	255.71	266.19	298.8	240.37	273.93	272.8	236.22	296.35	255.71	
G29	230.18	240.52	275.06	217.2	251.47	247.97	211.58	270.53	230.18	
G30	203.99	214.84	250.57	193.74	227.68	223.19	186.99	243.96	203.99	
G31	180.1	190.39	224.85	171.47	204.5	199.69	164.2	217.01	180.1	
G32	158.49	166.98	200.82	150.23	181.71	176.37	143.43	192.14	158.49	
G33	137.96	145.51	177.51	131.4	160.71	155.89	124.46	169.34	137.96	
G34	119.17	124.79	155.42	114.55	140.51	135.22	106.67	147.35	119.17	
G35	100.91	106.19	135.36	98.78	122.95	116.91	90.05	127.48	100.91	
G36	84.67	89.39	117.1	84.86	106.0	100.1	75.33	109.12	84.67	

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature: 25

Operators: QC01

Test Date: 2025/6/19 16:51:22

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1600B Goniophotometer

Humidity: 60

Test Distance: 6.87 m

Remarks:

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LUMINOUS DISTRIBUTION INTENSITY DATA(Continue 1)

Gamma\C	C0	C45	C90	C135	C180	C225	C270	C315	C360	
G37	69.99	74.57	99.87	71.79	91.04	85.38	61.73	92.74	69.99	
G38	56.83	60.36	84.67	59.7	77.5	71.6	49.98	77.69	56.83	
G39	45.36	48.14	70.89	48.42	65.13	59.52	39.65	64.0	45.36	
G40	35.68	37.95	59.09	39.08	53.99	48.57	30.54	52.67	35.68	
G41	26.34	28.74	48.14	29.73	43.99	38.51	22.28	42.01	26.34	
G42	18.64	20.29	38.23	21.38	34.12	29.5	16.0	32.28	18.64	
G43	13.36	14.3	28.74	15.15	26.1	22.56	11.42	24.16	13.36	
G44	9.86	10.29	21.9	11.09	20.01	17.51	8.73	18.69	9.86	
G45	7.98	7.93	16.8	8.64	16.05	14.4	7.41	15.06	7.98	
G46	7.13	6.84	13.78	7.46	13.55	12.55	6.89	13.03	7.13	
G47	6.42	6.56	12.18	6.8	12.22	11.61	6.32	12.08	6.42	
G48	6.09	5.99	11.42	6.42	11.47	11.09	6.14	11.42	6.09	
G49	5.95	5.81	10.57	6.18	10.9	10.62	6.14	10.67	5.95	
G50	5.71	5.57	10.19	6.09	10.57	10.05	5.76	10.52	5.71	
G51	5.62	5.38	9.82	5.99	10.05	9.91	5.62	10.1	5.62	
G52	5.29	5.19	9.58	5.76	9.63	9.58	5.38	9.82	5.29	
G53	5.1	5.0	9.11	5.33	9.25	9.16	5.05	9.3	5.1	
G54	4.86	4.72	8.73	5.29	8.73	8.64	4.77	8.97	4.86	
G55	4.67	4.53	8.26	5.0	8.45	8.26	4.39	8.35	4.67	
G56	4.34	4.34	7.88	4.67	8.02	7.79	4.15	8.12	4.34	
G57	4.06	4.06	7.55	4.34	7.65	7.32	3.87	7.46	4.06	
G58	3.73	3.68	7.03	4.01	7.13	6.84	3.54	7.13	3.73	
G59	3.45	3.49	6.61	3.78	6.84	6.47	3.16	6.61	3.45	
G60	3.16	3.21	6.23	3.54	6.28	6.09	2.88	6.23	3.16	
G61	2.83	2.97	5.95	3.26	5.95	5.62	2.6	5.9	2.83	
G62	2.55	2.74	5.43	2.97	5.47	5.19	2.36	5.52	2.55	
G63	2.36	2.36	5.1	2.45	5.14	4.91	2.08	5.05	2.36	
G64	1.98	1.98	4.81	2.17	4.77	4.48	1.65	4.58	1.98	
G65	1.7	1.75	4.44	1.84	4.44	4.01	1.37	4.2	1.7	
G66	1.27	1.42	4.01	1.56	3.82	3.63	1.13	3.82	1.27	
G67	1.13	1.09	3.73	1.27	3.54	3.21	0.8	3.54	1.13	
G68	0.76	0.99	3.63	1.09	3.11	2.93	0.57	3.21	0.76	
G69	0.52	0.57	3.02	0.71	2.88	2.64	0.28	2.88	0.52	
G70	0.28	0.28	2.78	0.38	2.6	2.17	0.0	2.41	0.28	
G71	0.19	0.0	2.31	0.19	2.22	1.89	0.0	2.08	0.19	
G72	0.0	0.0	2.12	0.0	1.79	1.51	0.0	1.84	0.0	
G73	0.0	0.0	1.65	0.0	1.56	1.09	0.0	1.51	0.0	

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

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: 6.87 m

Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA(Continue 2)

[illegible]

C Range: 0 - 360 Deg
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