

Report No.:

Test Time: 2025/6/19 16:43:14

LUMINAIRE PHOTOMETRIC TEST REPORT

Luminaire Property

Manufacturer: InBright
Luminaire Type: IBSP221CT042.(A)-50°-7W
Lamp Type:
Luminous Width: 38 mm
Luminous Length: 38 mm
Luminous Height: 34 mm

Voltage(V): 219.80 V
Current(A): 0.0360 A
Power(W): 7.38 W
Power Factor: 0.9090
Lamp Luminous Flux: 499.22

Photometric Results

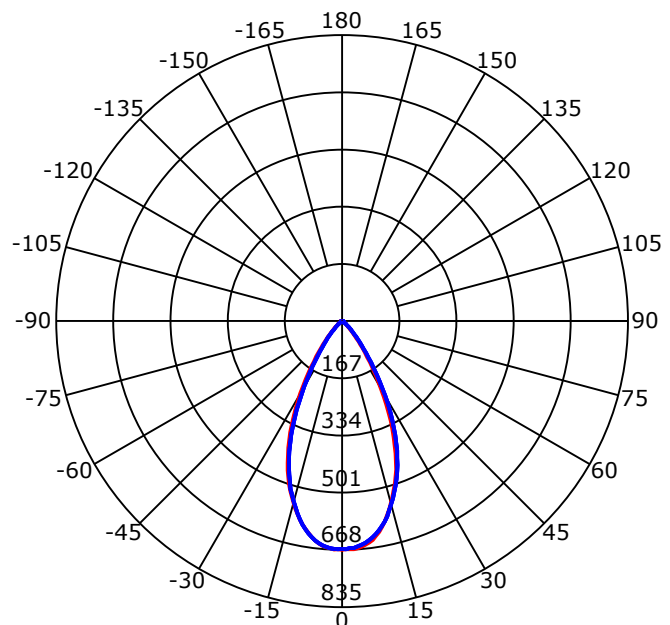
CIE Class: Direct
Luminaire Luminous Flux: 499.2224 lm
Downward Ratio: 100.00%
Luminaire Efficacy Rating(LER): 67.68 lm/W
Beam Angle(50%) C0-180,C90-270: 51.6,51.8
Field Angle(10%) C0-180,C90-270: 81.3,81.2
S/MH C0-180,C90-270: 0.808,0.808

Max. Intensity: 667.79 cd
Max.Intensity Angle: C=180 Gamma=0
Upward Ratio: 0.00%
Efficacy: 100.00%
Center Intensity: 667.79 cd
Effective Luminous Flux: 461.97 lm
ERP(ϕ use)(120deg): 497.60 lm

Picture of Luminaire



Luminous Intensity Distribution Curve



Beam Angle(50%) C0-180,C90-270: 51.6 deg,51.8 deg

C0-180 — C90-270 —

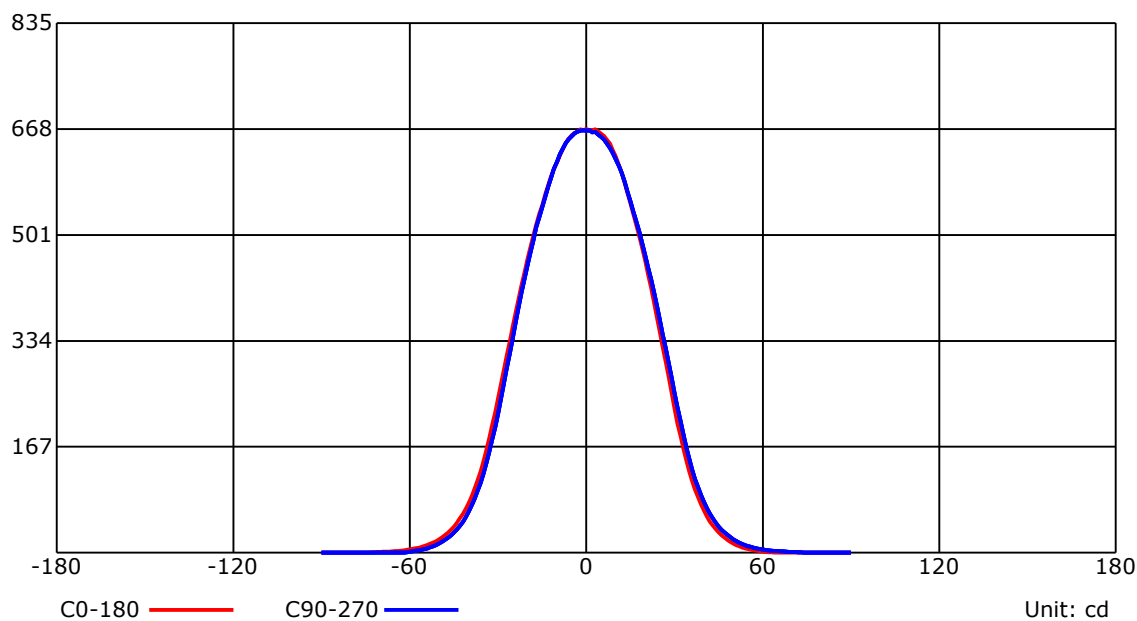
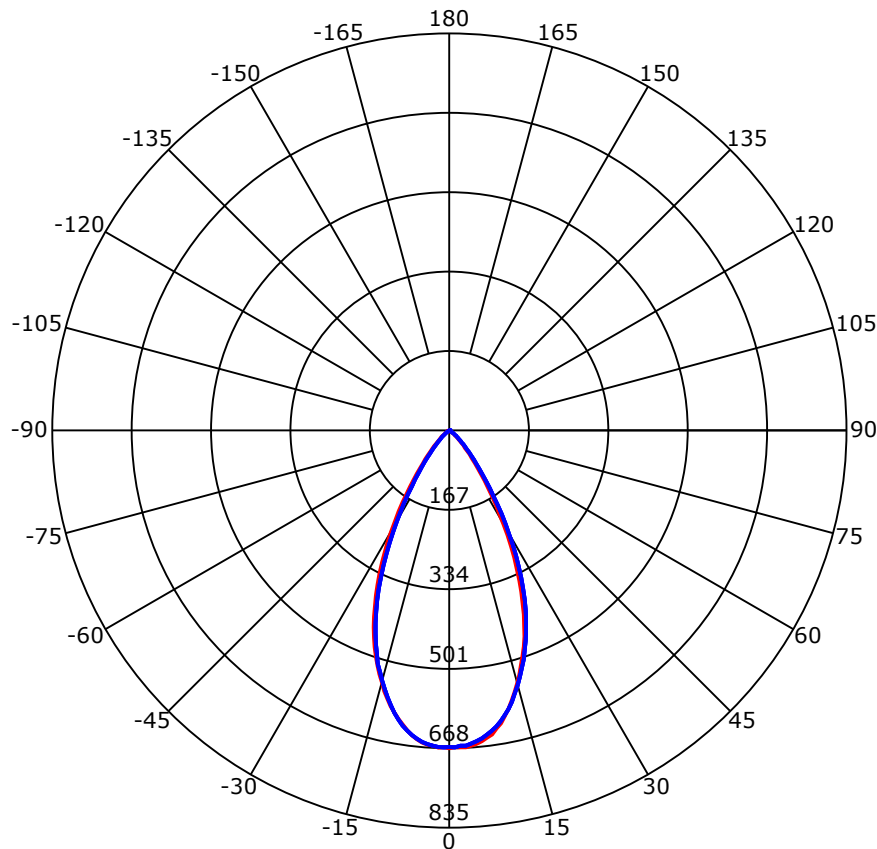
C Range: 0 - 360 Deg
C Interval: 45.0 Deg
Test Speed: High
Temperature: 25
Operators: QC01
Test Date: 2025/6/19 16:43:14

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

Report No.:

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Luminous Intensity Distribution Curve



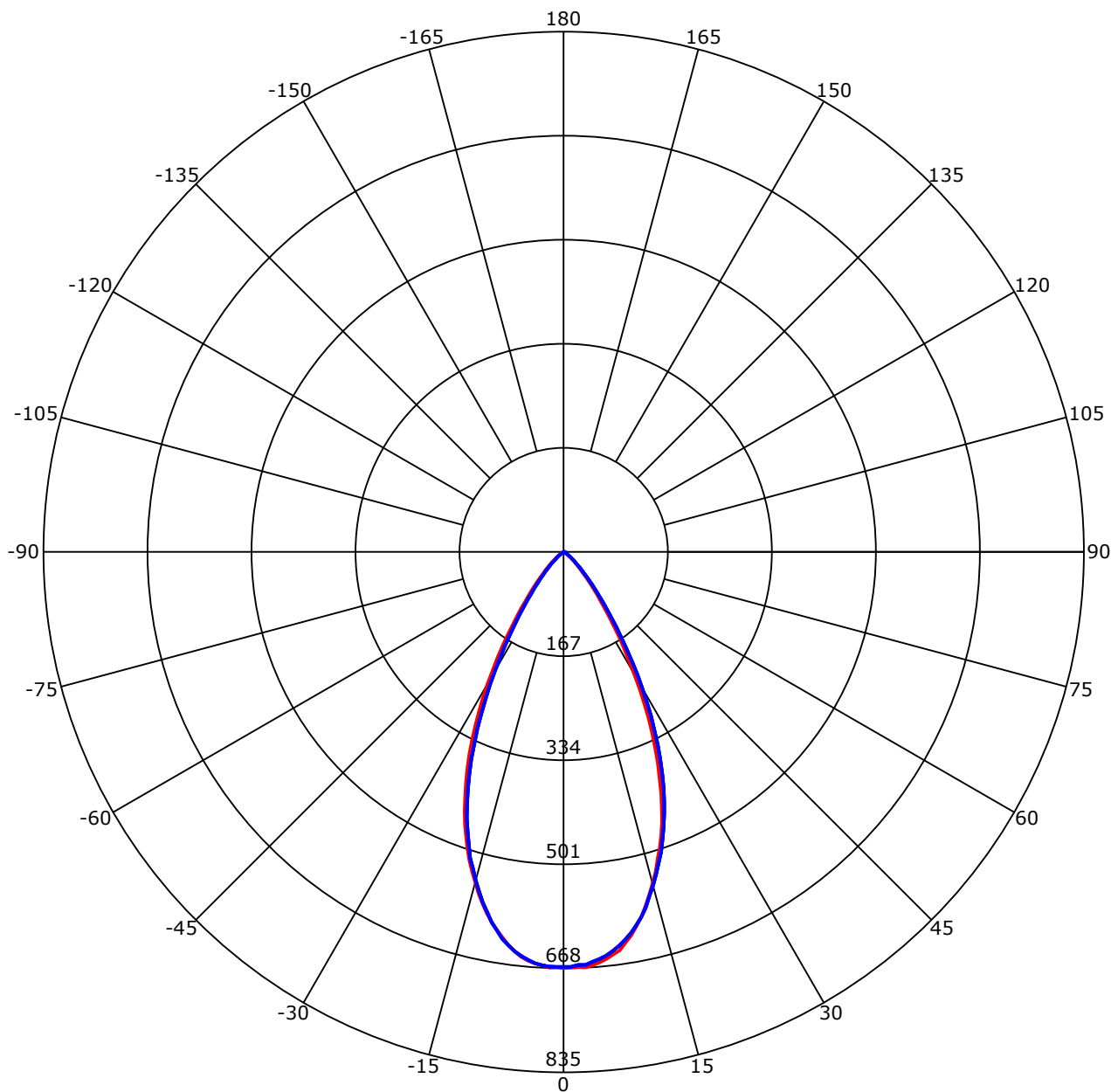
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Test Speed: High
Temperature: 25
Operators: QC01
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G Range: 0 - 90 Deg
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Test System: Huipu CPM-1600B Goniophotometer
Humidity: 60
Test Distance: 6.87 m
Remarks:

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Luminous Intensity Distribution Curve



C0-180 — C90-270

Unit: cd/klm

C Range: 0 - 360 Deg
C Interval: 45.0 Deg
Test Speed: High
Temperature: 25
Operators: QC01
Test Date: 2025/6/19 16:43:14

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

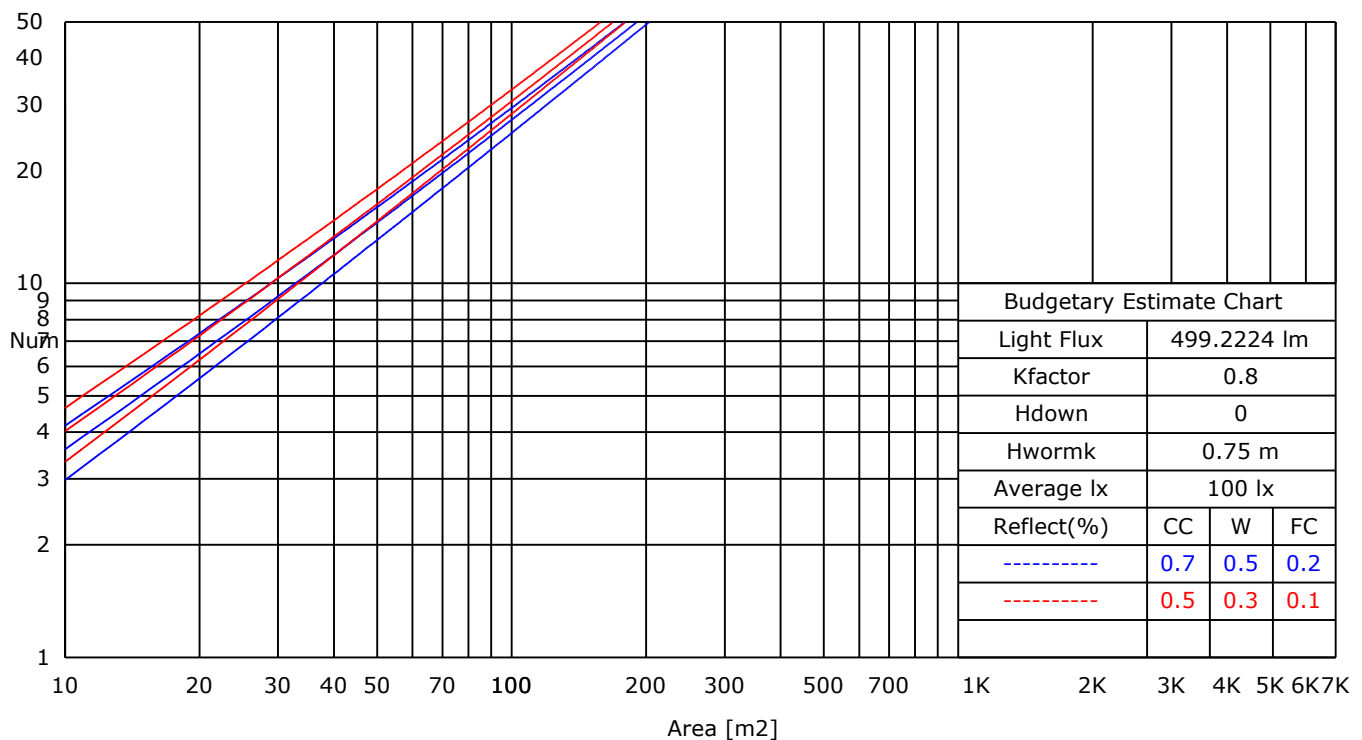
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UTILIZATION FACTORS TABLE

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	1.05	1.03	1.02	1.04	1.02	1.00	1.00	0.98	0.96	0.95	0.93	0.91	0.89	0.87	0.84	0.79
2	1.00	0.99	0.97	0.99	0.97	0.96	0.96	0.94	0.91	0.92	0.89	0.87	0.86	0.83	0.81	0.76
3	0.96	0.95	0.94	0.95	0.93	0.92	0.92	0.90	0.87	0.89	0.85	0.83	0.84	0.80	0.78	0.73
4	0.93	0.91	0.90	0.92	0.89	0.88	0.89	0.86	0.84	0.85	0.82	0.80	0.81	0.78	0.75	0.71
5	0.89	0.88	0.87	0.88	0.86	0.85	0.86	0.83	0.81	0.83	0.79	0.77	0.79	0.75	0.72	0.68
6	0.86	0.85	0.84	0.85	0.83	0.82	0.83	0.80	0.78	0.80	0.76	0.74	0.77	0.73	0.69	0.66
7	0.83	0.82	0.81	0.82	0.80	0.79	0.80	0.77	0.75	0.77	0.74	0.71	0.74	0.70	0.67	0.64
8	0.80	0.79	0.78	0.80	0.78	0.76	0.77	0.75	0.73	0.75	0.71	0.69	0.72	0.68	0.65	0.62
9	0.78	0.77	0.76	0.77	0.75	0.74	0.75	0.72	0.71	0.73	0.69	0.67	0.70	0.66	0.63	0.60
10	0.76	0.74	0.74	0.75	0.73	0.72	0.73	0.70	0.68	0.71	0.67	0.65	0.68	0.64	0.61	0.58

LUMINAIRE BUDGETARY ESTIMATE DIAGRAM



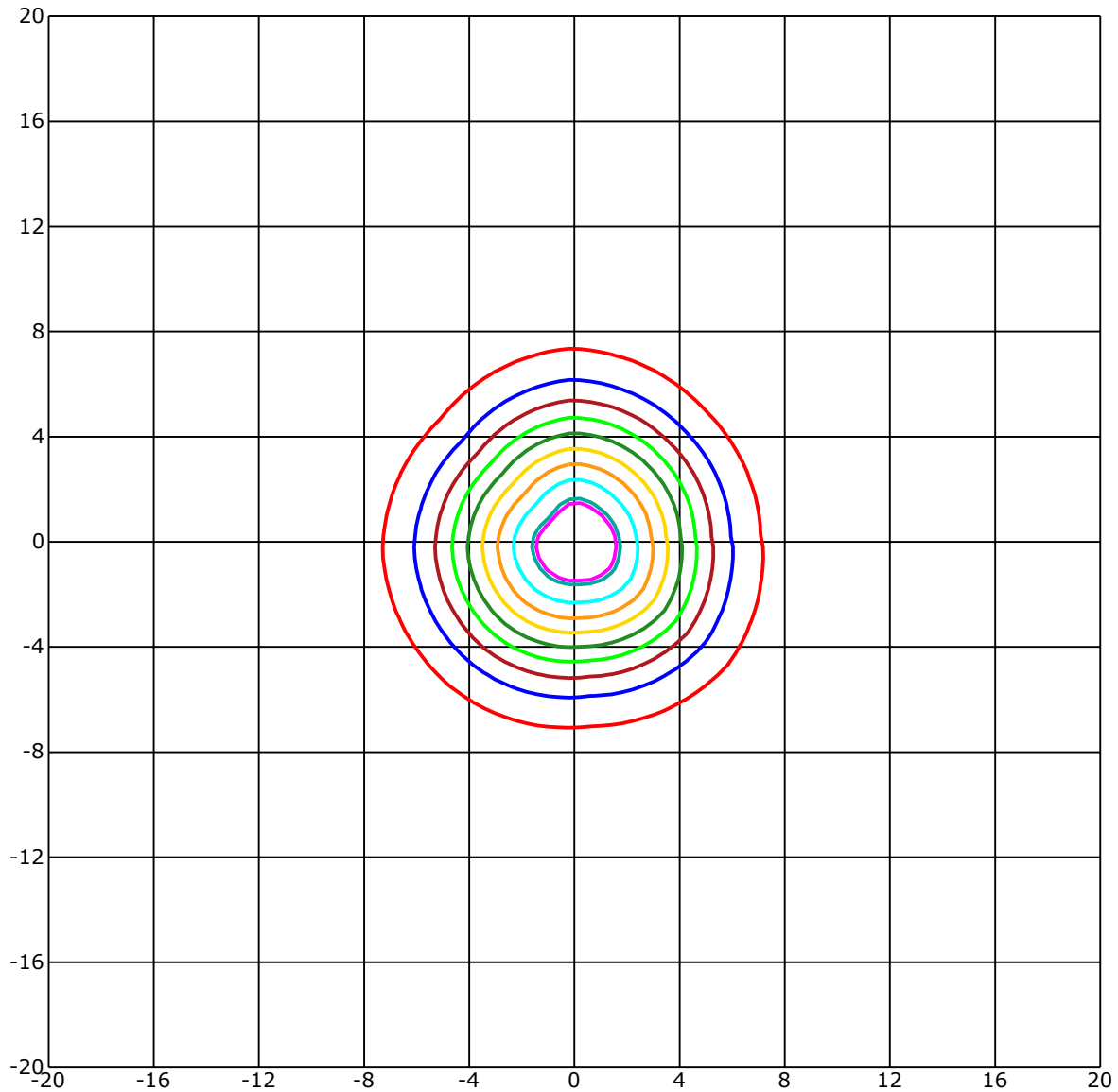
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Temperature: 25
Operators: QC01
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G Range: 0 - 90 Deg
G Interval: 1.0 Deg
Test System: Huipu CPM-1600B Goniophotometer
Humidity: 60
Test Distance: 6.87 m
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ISOLX DIAGRAM



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

6.144(92%Emax)	3.339(50%Emax)
6.01(90%Emax)	2.671(40%Emax)
5.342(80%Emax)	2.003(30%Emax)
4.675(70%Emax)	1.336(20%Emax)
4.007(60%Emax)	0.668(10%Emax)

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Test Speed: High
Temperature: 25
Operators: QC01
Test Date: 2025/6/19 16:43:14

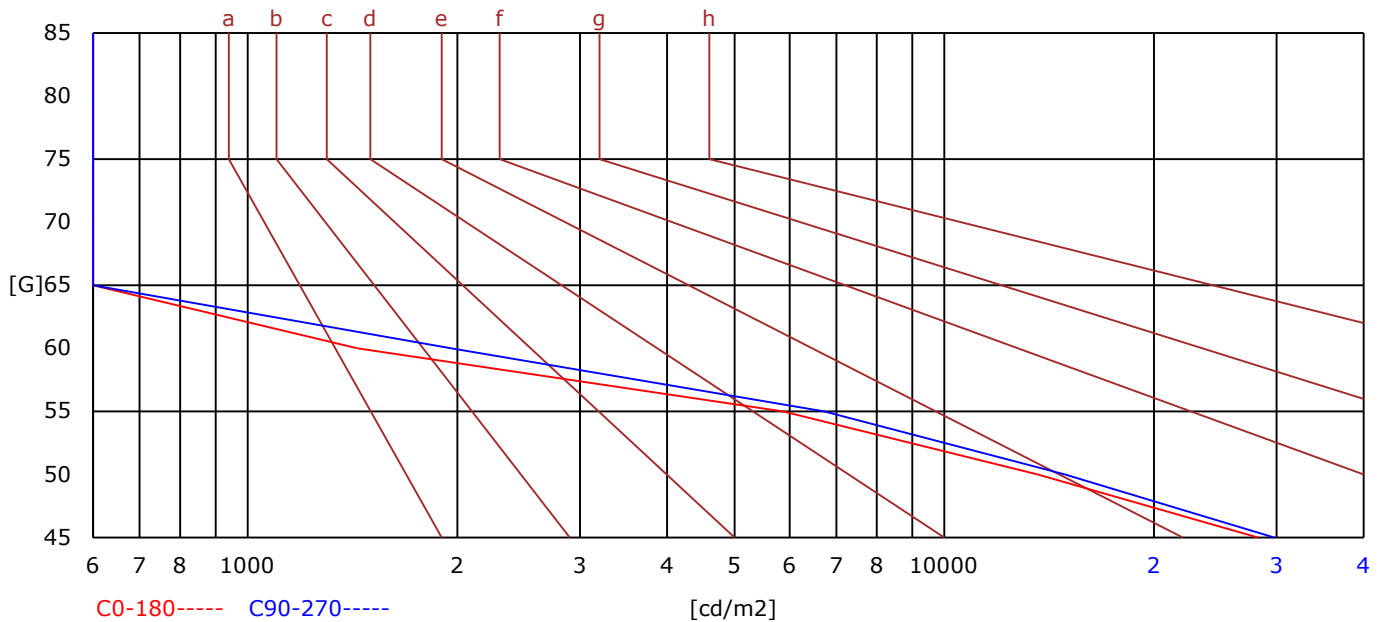
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Humidity: 60
Test Distance: 6.87 m
Remarks:

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BRIGHT LIMIT DIAGRAM

C/G	45	50	55	60	65	70	75	80	85
C0	28196	13627	5869	1438	0	0	0	0	0
C90	29768	14899	6724	1961	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



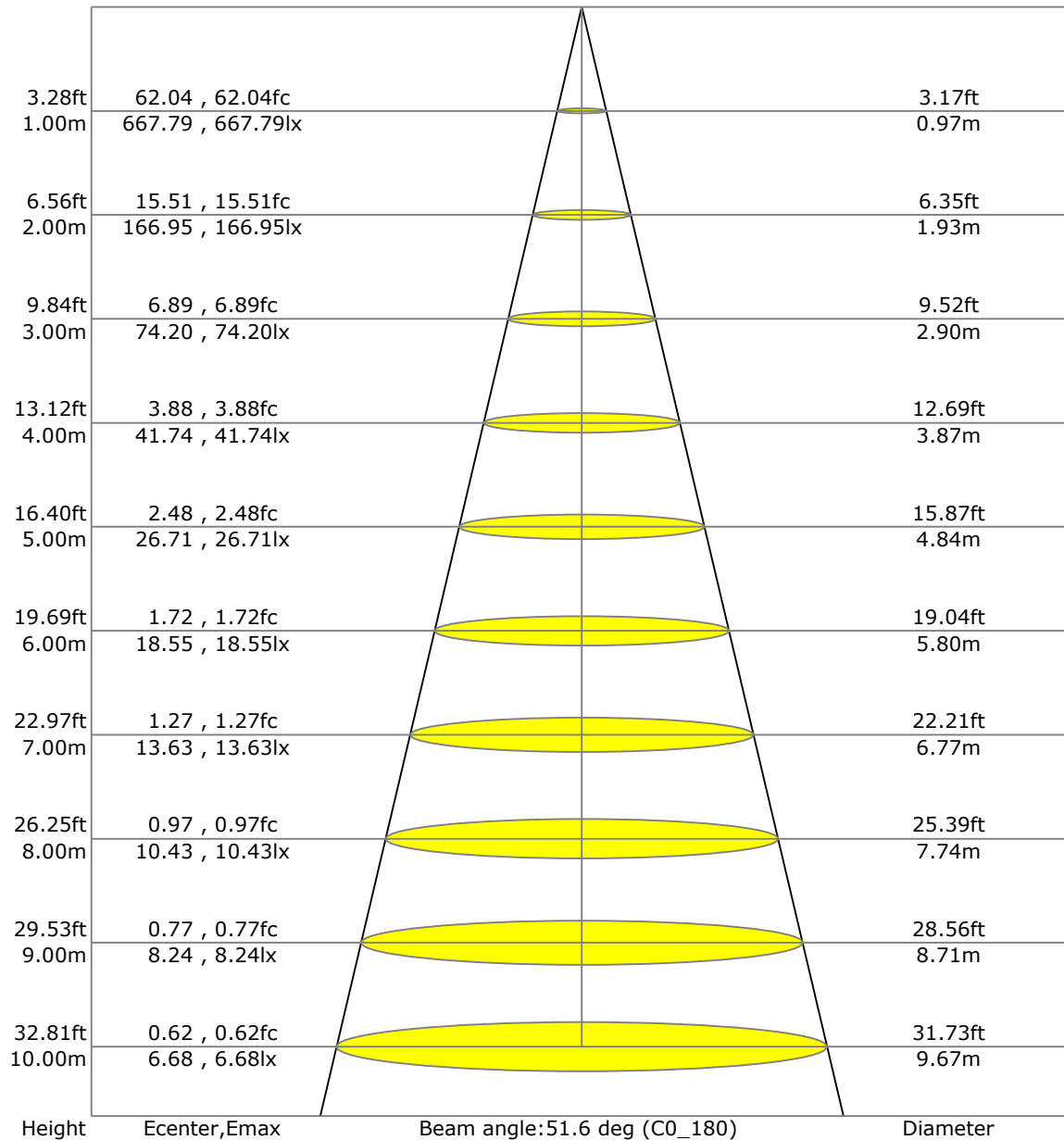
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G Interval: 1.0 Deg
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Test Distance: 6.87 m
Remarks:

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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: 2025/6/19 16:43:14

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	17.86	17.91	18.05	18.09	18.34	17.99	18.04	18.19	18.23	18.47
3H	17.83	17.88	18.03	18.07	18.32	17.96	18.01	18.17	18.21	18.45
4H	17.81	17.86	18.02	18.06	18.31	17.95	18.00	18.16	18.19	18.44
6H	17.79	17.85	18.01	18.05	18.30	17.93	17.98	18.15	18.18	18.43
8H	17.78	17.84	18.00	18.04	18.29	17.92	17.97	18.14	18.17	18.43
12H	17.78	17.83	18.00	18.03	18.29	17.91	17.96	18.13	18.17	18.42
4H 2H	17.81	17.86	18.02	18.06	18.31	17.96	18.01	18.17	18.21	18.46
3H	17.78	17.83	18.00	18.03	18.29	17.92	17.98	18.15	18.18	18.44
4H	17.75	17.80	17.98	18.02	18.28	17.90	17.95	18.13	18.17	18.42
6H	17.73	17.78	17.97	18.00	18.26	17.88	17.93	18.12	18.15	18.41
8H	17.72	17.77	17.96	17.99	18.26	17.87	17.92	18.11	18.14	18.41
12H	17.70	17.75	17.95	17.98	18.25	17.85	17.90	18.10	18.13	18.40
8H 4H	17.78	17.84	18.00	18.04	18.29	17.93	17.99	18.15	18.19	18.44
6H	17.69	17.73	17.94	17.97	18.25	17.84	17.88	18.09	18.12	18.39
8H	17.68	17.72	17.94	17.96	18.24	17.82	17.87	18.09	18.11	18.39
12H	17.66	17.70	17.93	17.95	18.23	17.81	17.85	18.08	18.10	18.38
12H 4H	17.70	17.75	17.95	17.98	18.25	17.85	17.90	18.10	18.13	18.40
6H	17.68	17.72	17.94	17.96	18.24	17.82	17.87	18.09	18.11	18.39

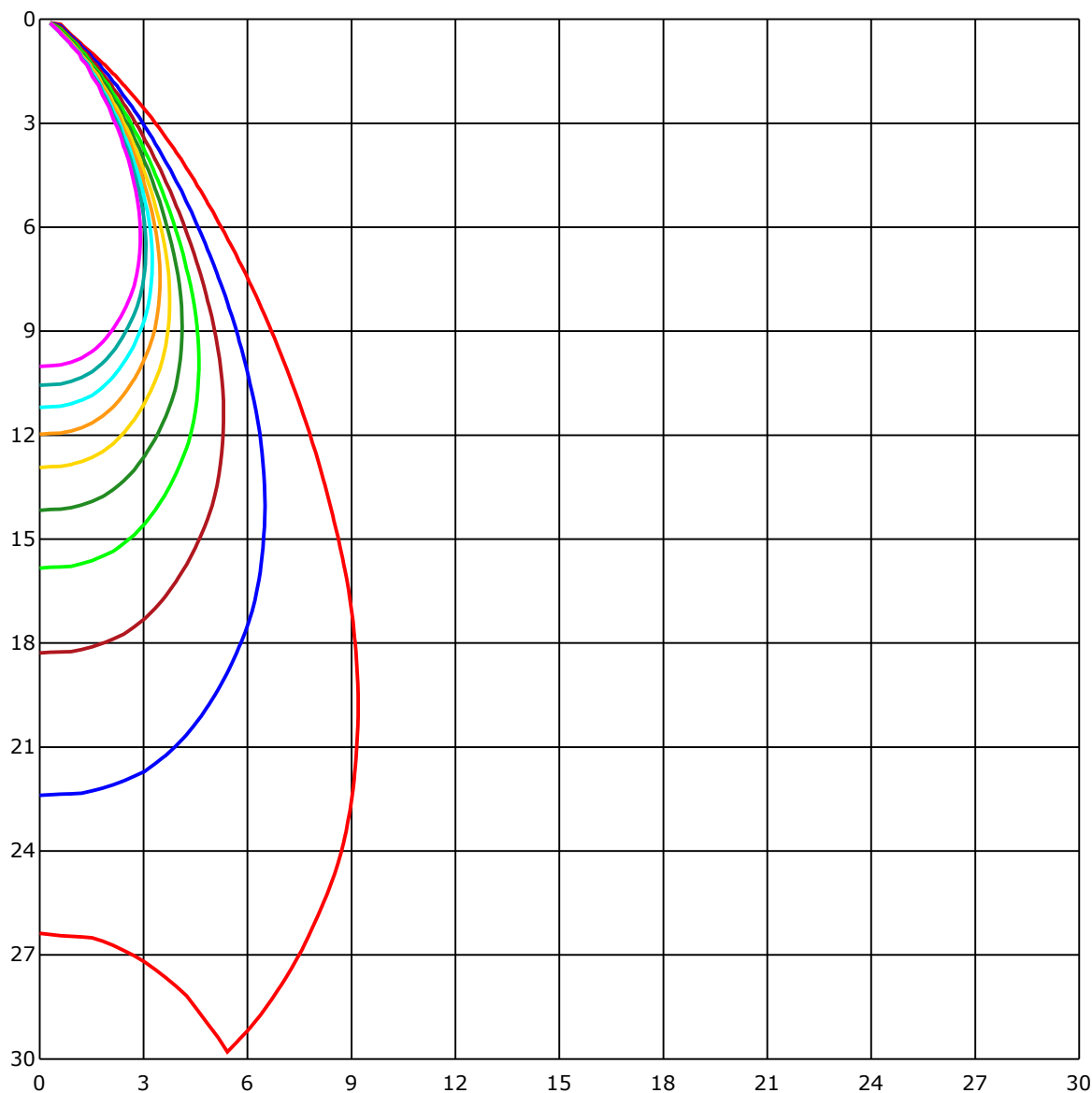
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SPACE ISOLX DIAGRAM



Unit of illumination:lx

6.657	3.329
5.991	2.663
5.326	1.997
4.66	1.331
3.994	0.666

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G Range: 0 - 90 Deg
G Interval: 1.0 Deg
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Humidity: 60
Test Distance: 6.87 m
Remarks:

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LUMINOUS DISTRIBUTION INTENSITY DATA

Gamma\C	C0	C45	C90	C135	C180	C225	C270	C315	C360	
G0	667.79	663.59	665.38	663.35	667.79	663.59	665.38	663.35	667.79	
G1	666.33	662.46	665.81	662.46	666.28	664.34	665.81	666.7	666.33	
G2	666.51	664.25	662.97	657.31	667.08	664.82	665.52	666.66	666.51	
G3	667.22	660.95	663.26	654.05	663.73	663.64	663.78	666.85	667.22	
G4	664.39	658.54	659.2	647.21	661.94	662.97	661.13	666.18	664.39	
G5	660.95	654.39	655.52	639.66	658.3	658.44	656.84	664.2	660.95	
G6	656.56	650.51	650.94	630.83	652.92	655.0	651.65	661.04	656.56	
G7	650.85	641.74	644.71	620.31	645.7	645.98	645.37	656.23	650.85	
G8	645.13	633.95	638.01	610.07	636.73	637.96	637.06	651.18	645.13	
G9	634.33	621.72	629.8	598.69	626.21	628.43	628.24	643.86	634.33	
G10	624.7	611.39	620.54	584.96	615.87	618.99	616.53	635.7	624.7	
G11	611.44	597.61	609.83	573.49	604.59	605.54	605.3	626.92	611.44	
G12	598.36	585.57	598.69	557.63	593.03	594.21	590.72	617.15	598.36	
G13	582.88	571.65	585.19	543.8	578.96	580.85	576.56	606.39	582.88	
G14	567.02	558.95	569.15	526.72	564.85	568.01	560.98	592.98	567.02	
G15	550.79	542.58	554.09	511.43	548.43	552.86	545.41	580.85	550.79	
G16	534.03	527.76	538.09	494.29	533.51	538.71	528.13	566.08	534.03	
G17	515.39	510.25	521.71	476.92	517.33	522.47	513.36	550.79	515.39	
G18	498.16	493.16	506.05	458.14	500.15	505.67	492.26	534.17	498.16	
G19	480.28	476.22	487.59	440.3	481.93	486.08	473.72	517.14	480.28	
G20	461.11	457.43	469.37	418.68	463.8	467.3	453.89	498.45	461.11	
G21	439.21	436.95	450.31	398.25	443.18	448.04	433.08	480.23	439.21	
G22	417.22	416.94	430.67	377.39	422.22	425.81	410.61	457.86	417.22	
G23	393.76	395.13	410.57	357.04	400.8	403.39	387.72	436.76	393.76	
G24	370.68	372.71	389.14	335.05	379.46	381.45	363.98	414.58	370.68	
G25	348.08	348.45	367.1	313.58	357.75	359.12	339.49	392.25	348.08	
G26	323.63	324.9	343.97	290.64	334.91	336.28	315.32	367.33	323.63	
G27	299.46	300.97	320.99	268.6	311.5	312.77	291.11	344.49	299.46	
G28	275.96	277.94	298.19	246.56	288.85	289.55	267.32	319.71	275.96	
G29	251.32	252.65	275.58	224.8	266.57	265.44	243.39	295.41	251.32	
G30	226.88	228.29	251.7	202.85	244.34	242.78	219.89	270.44	226.88	
G31	203.75	204.55	229.19	182.37	221.92	218.8	197.99	245.8	203.75	
G32	183.36	181.9	207.1	162.64	200.87	197.28	177.84	222.34	183.36	
G33	163.16	161.08	185.72	145.27	180.39	177.13	158.82	200.73	163.16	
G34	144.89	142.72	165.8	129.65	161.74	157.78	140.74	178.83	144.89	
G35	127.95	125.17	148.25	114.97	143.86	140.17	124.36	159.53	127.95	
G36	112.61	109.59	131.07	101.76	127.86	124.32	109.5	142.02	112.61	

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Operators: QC01

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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	98.97	95.53	115.92	90.05	113.32	110.06	96.42	126.44	98.97	
G38	86.84	82.83	102.46	79.1	100.39	97.46	84.44	111.9	86.84	
G39	75.75	71.69	90.29	69.71	88.64	86.32	74.19	99.16	75.75	
G40	66.08	61.92	79.67	61.03	78.49	75.99	64.61	87.6	66.08	
G41	57.01	53.33	70.09	53.24	69.52	66.88	56.35	76.98	57.01	
G42	49.13	45.69	61.5	46.16	61.17	59.18	48.42	67.73	49.13	
G43	42.48	39.03	53.85	40.12	53.9	51.68	42.1	59.23	42.48	
G44	36.96	33.65	46.91	34.74	46.91	44.88	36.62	51.92	36.96	
G45	31.95	28.79	41.11	30.39	41.25	39.46	32.0	45.55	31.95	
G46	27.56	24.92	36.11	26.1	36.39	34.6	27.56	39.74	27.56	
G47	23.65	21.05	31.76	22.47	32.0	30.25	23.79	34.97	23.65	
G48	20.01	17.98	27.7	19.26	27.89	26.29	20.29	30.63	20.01	
G49	16.85	14.96	24.12	16.47	24.4	22.89	17.18	26.76	16.85	
G50	14.25	12.65	20.91	13.83	21.1	20.06	14.54	23.36	14.25	
G51	11.89	10.38	18.22	11.8	18.41	17.46	12.27	20.29	11.89	
G52	10.01	8.83	15.86	9.72	16.09	15.01	10.29	17.75	10.01	
G53	8.31	7.08	13.83	8.45	14.06	13.07	8.54	15.43	8.31	
G54	6.84	5.95	11.99	6.75	12.37	11.33	6.94	13.31	6.84	
G55	5.62	4.86	10.43	5.57	10.52	9.82	5.71	11.56	5.62	
G56	4.67	3.82	9.01	4.58	9.25	8.54	4.58	9.91	4.67	
G57	3.73	3.07	7.74	3.73	7.93	7.5	3.68	8.78	3.73	
G58	3.02	2.41	6.8	3.02	7.13	6.51	2.97	7.69	3.02	
G59	2.27	1.65	5.85	2.17	6.14	5.71	2.12	6.65	2.27	
G60	1.79	1.04	5.05	1.42	5.24	4.96	1.42	5.62	1.79	
G61	1.09	0.71	4.34	1.09	4.44	4.15	0.85	4.91	1.09	
G62	0.8	0.38	3.68	0.57	3.73	3.54	0.38	4.11	0.8	
G63	0.42	0.05	3.35	0.14	3.16	2.93	0.19	3.78	0.42	
G64	0.09	0.0	2.83	0.0	2.69	2.64	0.0	3.11	0.09	
G65	0.0	0.0	2.45	0.0	2.41	2.31	0.0	2.74	0.0	
G66	0.0	0.0	2.12	0.0	2.27	1.84	0.0	2.31	0.0	
G67	0.0	0.0	1.94	0.0	1.79	1.65	0.0	2.22	0.0	
G68	0.0	0.0	1.6	0.0	1.65	1.37	0.0	1.84	0.0	
G69	0.0	0.0	1.32	0.0	1.46	1.18	0.0	1.56	0.0	
G70	0.0	0.0	1.04	0.0	1.09	1.09	0.0	1.42	0.0	
G71	0.0	0.0	0.9	0.0	0.94	0.71	0.0	1.23	0.0	
G72	0.0	0.0	0.66	0.0	0.71	0.47	0.0	0.94	0.0	
G73	0.0	0.0	0.61	0.0	0.47	0.33	0.0	0.85	0.0	

C Range: 0 - 360 Deg

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Operators: QC01

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Humidity: 60

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Remarks:

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