

Report No.:

Test Time: 2025/6/19 17:55:20

LUMINAIRE PHOTOMETRIC TEST REPORT

Luminaire Property

Manufacturer: InBright
Luminaire Type: IBSP221CT042.(B)-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): 7.35 W
Power Factor: 0.9090
Lamp Luminous Flux: 496.68

Photometric Results

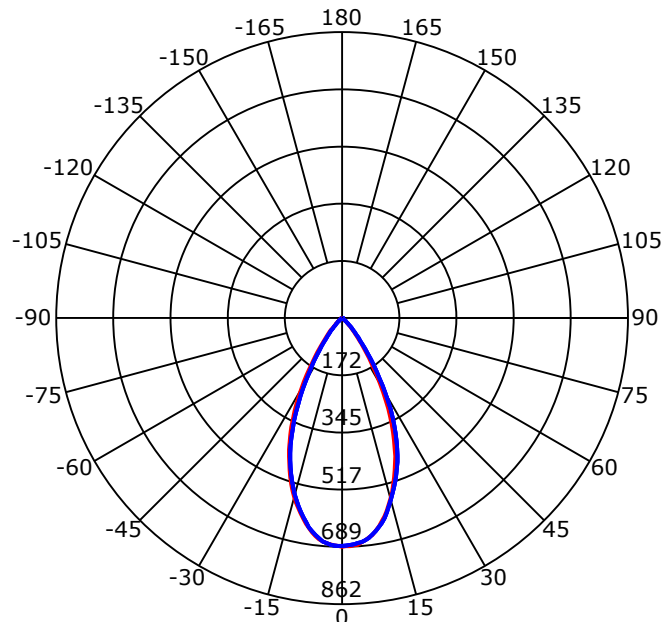
CIE Class: Direct
Luminaire Luminous Flux: 496.6845 lm
Downward Ratio: 100.00%
Luminaire Efficacy Rating(LER): 67.55 lm/W
Beam Angle(50%) C0-180,C90-270: 51.2,51.6
Field Angle(10%) C0-180,C90-270: 80.0,79.8
S/MH C0-180,C90-270: 0.808,0.808

Max. Intensity: 689.45 cd
Max.Intensity Angle: C=180 Gamma=0
Upward Ratio: 0.00%
Efficacy: 100.00%
Center Intensity: 689.45 cd
Effective Luminous Flux: 467.28 lm
ERP(ϕ use)(120deg): 496.34 lm

Picture of Luminaire



Luminous Intensity Distribution Curve



Beam Angle(50%) C0-180,C90-270: 51.2 deg,51.6 deg

C0-180 — C90-270 —

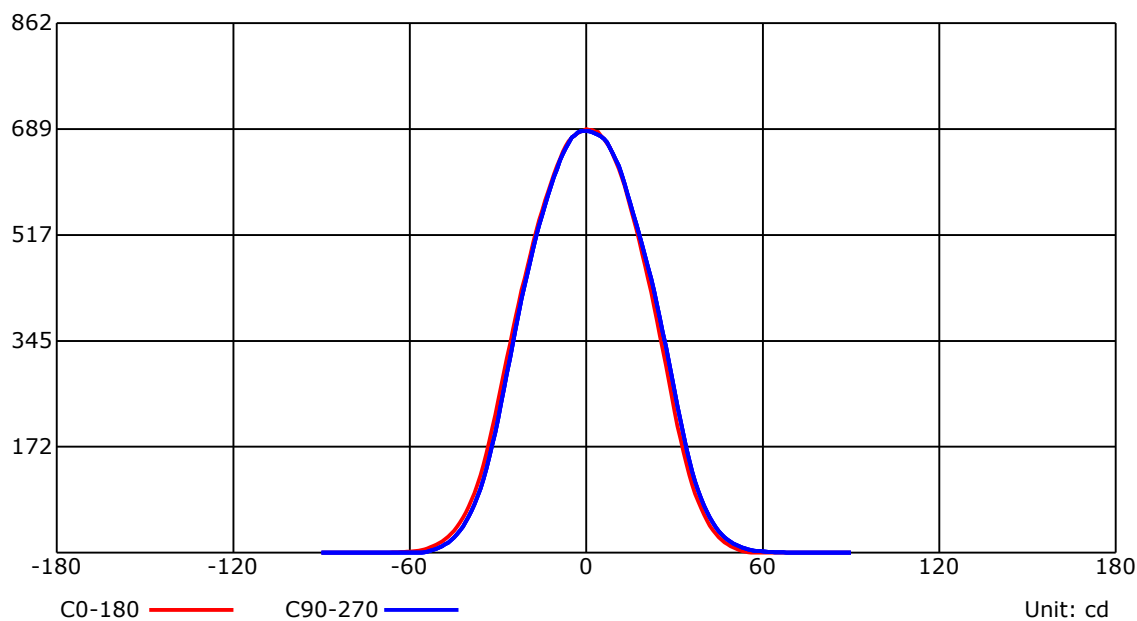
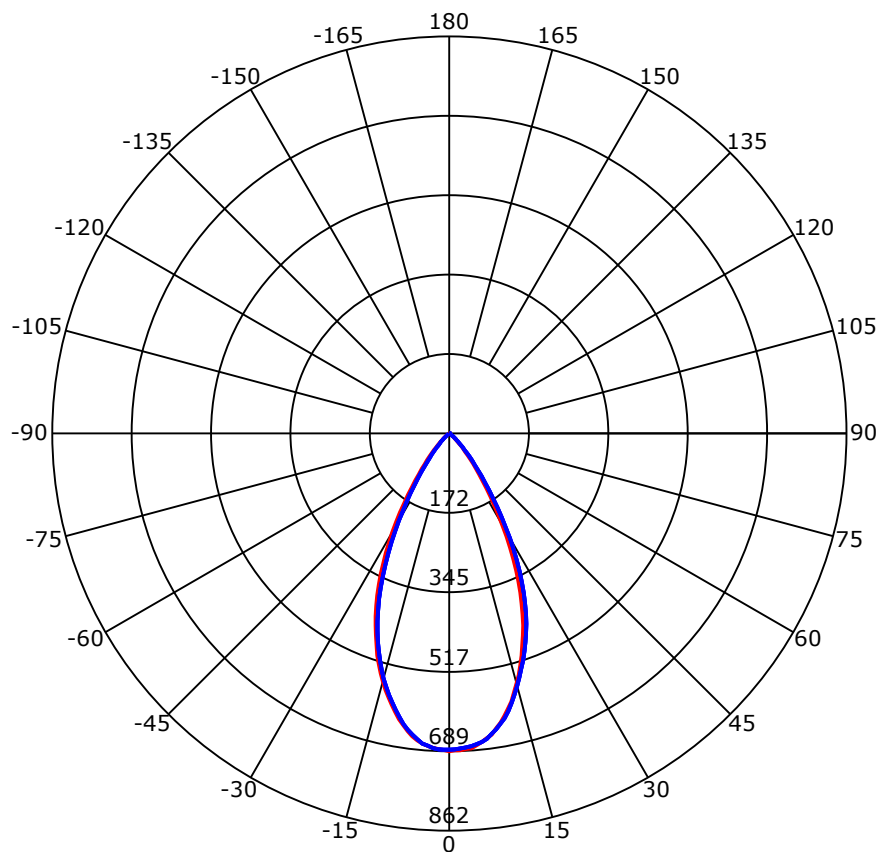
C Range: 0 - 360 Deg
C Interval: 45.0 Deg
Test Speed: High
Temperature: 25
Operators: QC01
Test Date: 2025/6/19 17:55:20

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



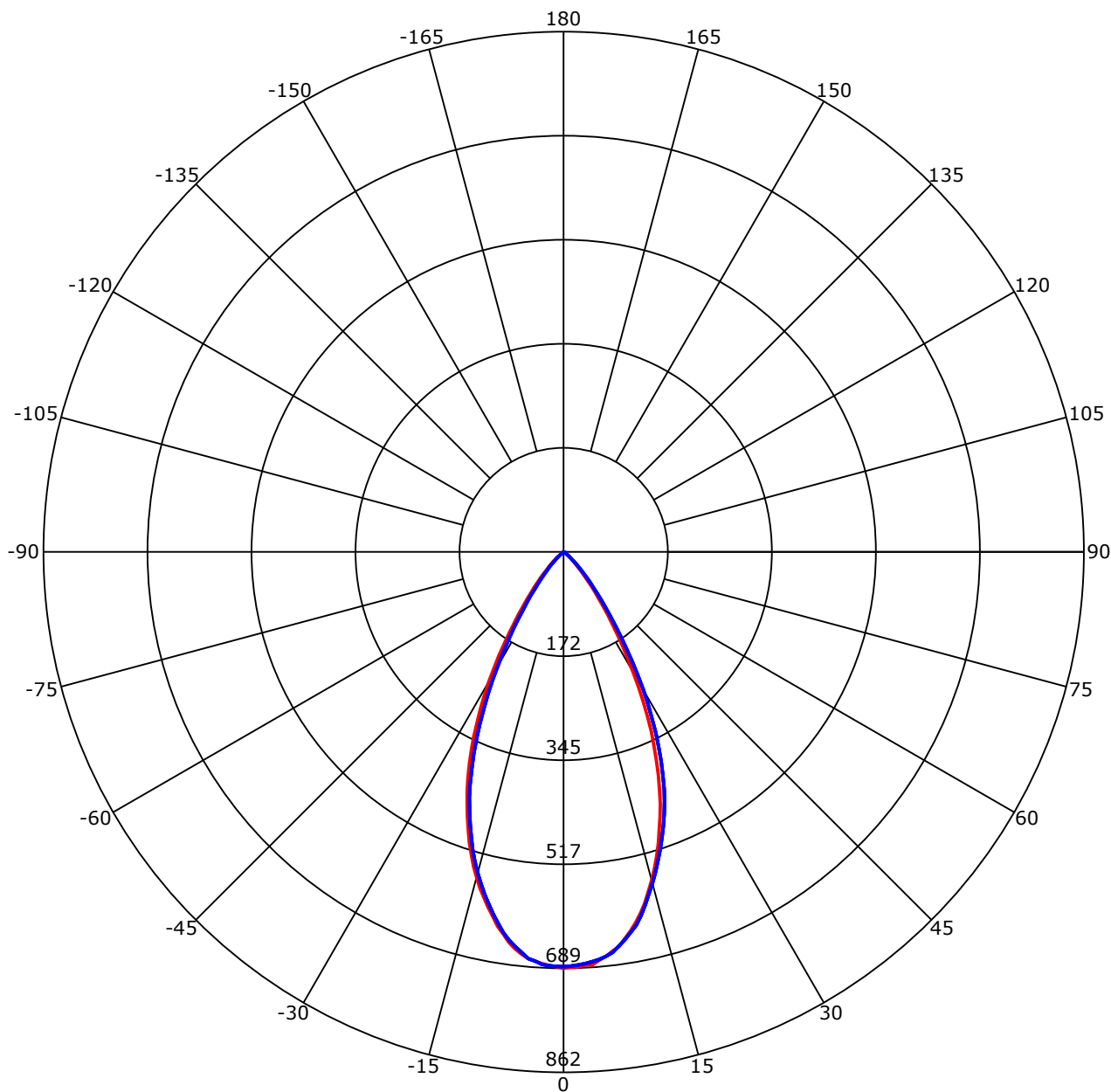
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Temperature: 25
Operators: QC01
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Luminous Intensity Distribution Curve



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 17:55:20

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

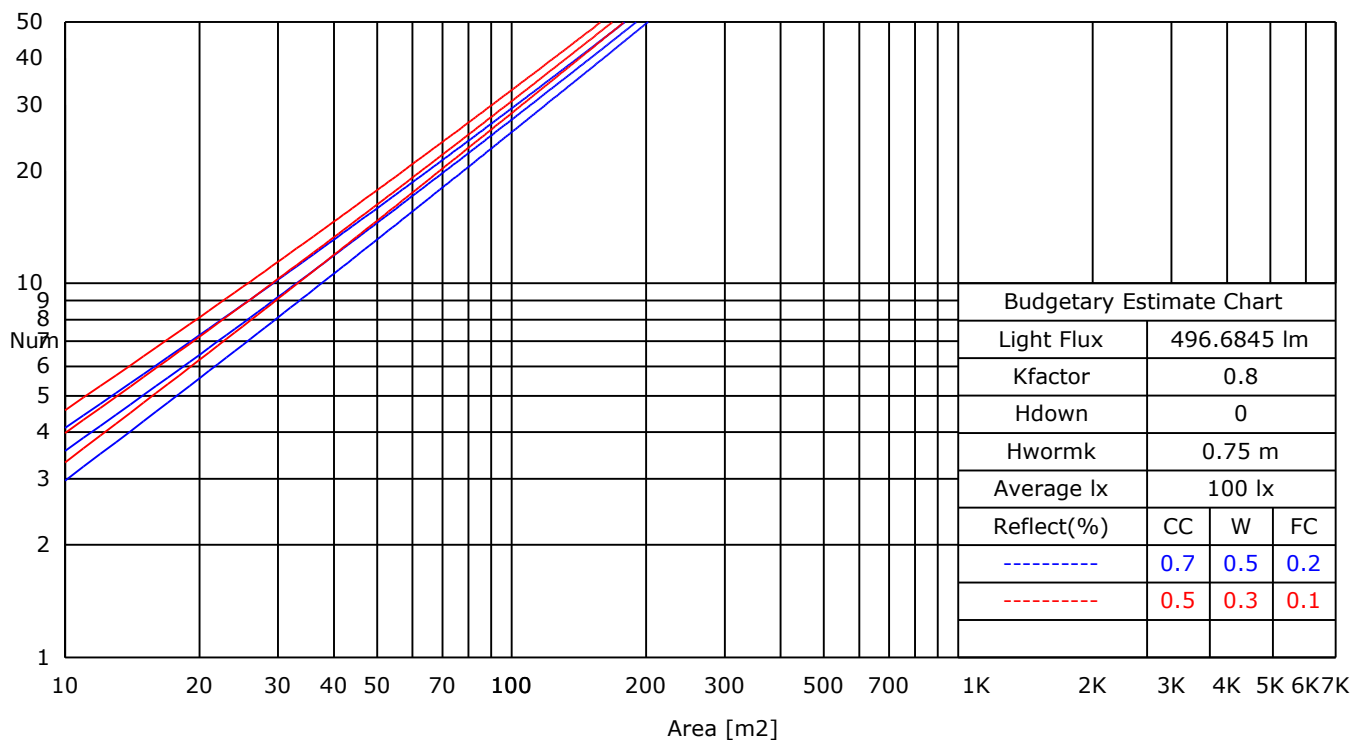
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UTILIZATION FACTORS TABLE

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	0.86	0.84	0.79
2	1.00	0.99	0.98	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	0.97	0.95	0.94	0.95	0.93	0.92	0.92	0.90	0.88	0.89	0.86	0.83	0.84	0.81	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	0.83	0.80	0.82	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	0.84	0.86	0.84	0.82	0.83	0.80	0.79	0.80	0.77	0.74	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	0.64
8	0.81	0.80	0.79	0.80	0.79	0.77	0.78	0.75	0.74	0.76	0.72	0.70	0.73	0.69	0.66	0.62
9	0.79	0.78	0.77	0.78	0.76	0.75	0.76	0.73	0.71	0.74	0.70	0.68	0.71	0.67	0.64	0.61
10	0.77	0.76	0.75	0.76	0.74	0.73	0.74	0.71	0.69	0.72	0.68	0.66	0.69	0.65	0.62	0.59

LUMINAIRE BUDGETARY ESTIMATE DIAGRAM



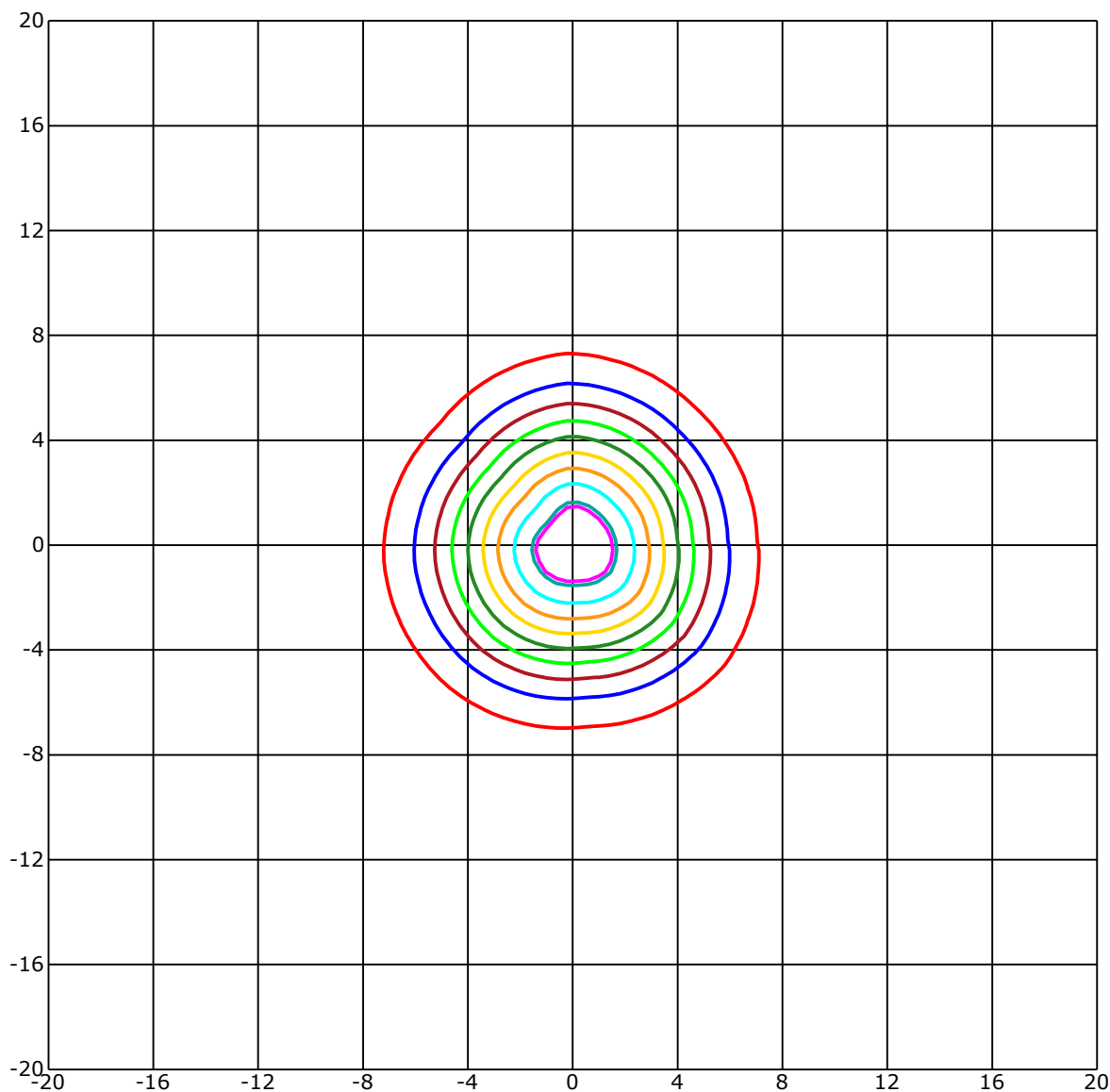
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G Range: 0 - 90 Deg
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ISOLX DIAGRAM



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

6.343(92%Emax)	3.447(50%Emax)
6.205(90%Emax)	2.758(40%Emax)
5.516(80%Emax)	2.068(30%Emax)
4.826(70%Emax)	1.379(20%Emax)
4.137(60%Emax)	0.689(10%Emax)

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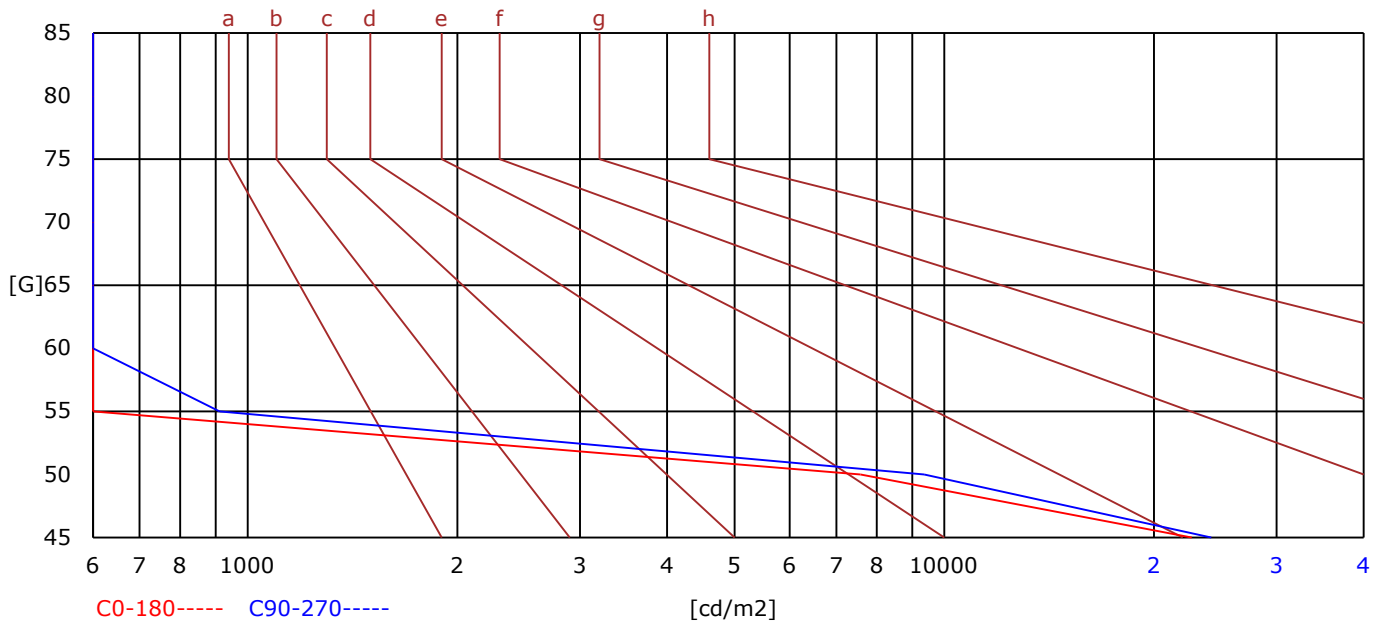
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BRIGHT LIMIT DIAGRAM

C/G	45	50	55	60	65	70	75	80	85
C0	22649	7576	456	0	0	0	0	0	0
C90	24175	9356	912	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



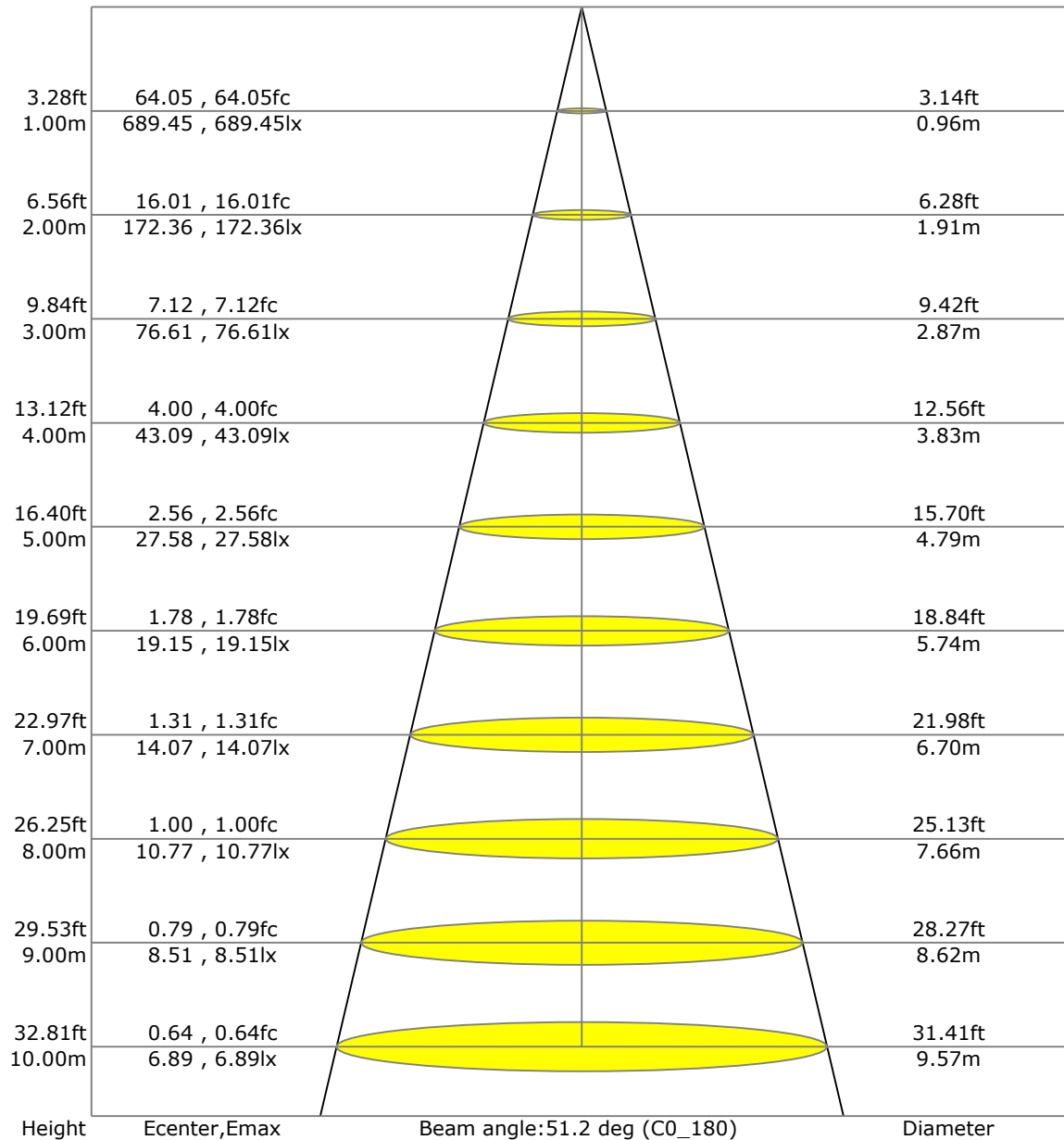
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LX-DISTANCE DIAGRAM



C Range: 0 - 360 Deg
C Interval: 45.0 Deg
Test Speed: High
Temperature: 25
Operators: QC01
Test Date: 2025/6/19 17:55:20

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	17.59	17.64	17.79	17.83	18.07	17.67	17.72	17.87	17.91	18.15
3H	17.56	17.61	17.77	17.81	18.05	17.64	17.69	17.85	17.89	18.13
4H	17.55	17.60	17.76	17.79	18.04	17.63	17.68	17.84	17.87	18.12
6H	17.53	17.58	17.75	17.78	18.03	17.61	17.66	17.83	17.86	18.11
8H	17.52	17.57	17.74	17.77	18.03	17.60	17.65	17.82	17.85	18.11
12H	17.51	17.56	17.73	17.77	18.02	17.59	17.64	17.81	17.85	18.10
4H 2H	17.55	17.60	17.76	17.79	18.04	17.63	17.68	17.84	17.87	18.12
3H	17.51	17.56	17.73	17.77	18.02	17.59	17.64	17.81	17.85	18.10
4H	17.49	17.54	17.72	17.75	18.01	17.57	17.62	17.80	17.83	18.09
6H	17.47	17.52	17.71	17.74	18.00	17.55	17.60	17.79	17.82	18.08
8H	17.46	17.50	17.70	17.73	17.99	17.54	17.58	17.78	17.81	18.08
12H	17.44	17.49	17.69	17.72	17.99	17.52	17.57	17.77	17.80	18.07
8H 4H	17.52	17.57	17.74	17.77	18.03	17.60	17.65	17.82	17.86	18.11
6H	17.43	17.47	17.68	17.71	17.98	17.51	17.55	17.76	17.79	18.06
8H	17.41	17.46	17.67	17.70	17.98	17.49	17.54	17.76	17.78	18.06
12H	17.40	17.44	17.67	17.69	17.97	17.48	17.52	17.75	17.77	18.05
12H 4H	17.44	17.49	17.69	17.72	17.99	17.52	17.57	17.77	17.80	18.07
6H	17.41	17.46	17.67	17.70	17.98	17.49	17.54	17.76	17.78	18.06

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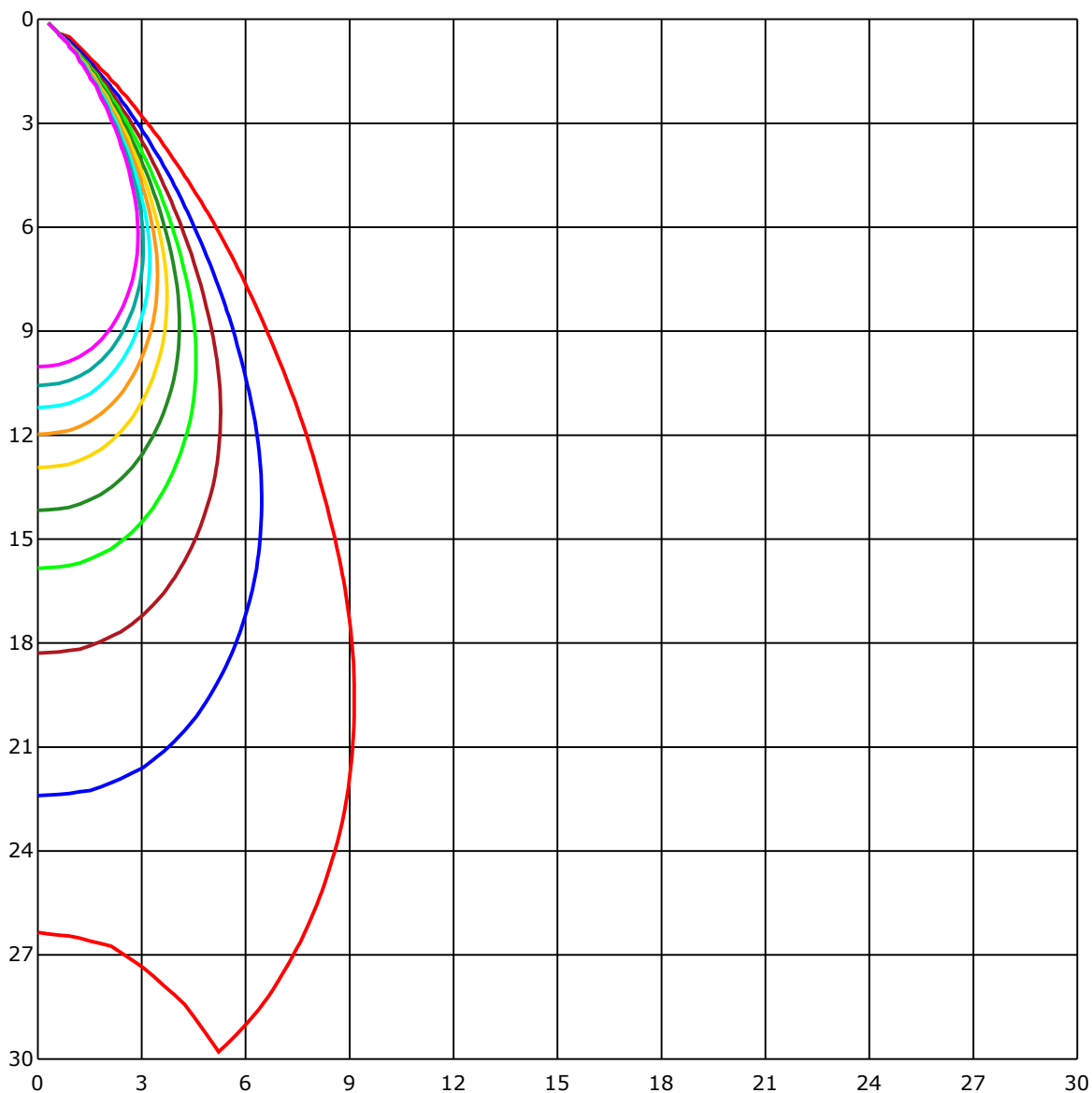
G Range: 0 - 90 Deg
G Interval: 1.0 Deg
Test System: Huipu CPM-1600B Goniophotometer
Humidity: 60
Test Distance: 6.87 m
Remarks:

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SPACE ISOLX DIAGRAM



Unit of illumination:lx

6.868	3.434
6.181	2.747
5.494	2.06
4.807	1.374
4.121	0.687

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LUMINOUS DISTRIBUTION INTENSITY DATA

Gamma\C	C0	C45	C90	C135	C180	C225	C270	C315	C360	
G0	689.45	685.25	686.43	684.21	689.45	685.25	686.43	684.21	689.45	
G1	687.89	684.21	685.68	681.71	687.14	685.72	686.24	687.0	687.89	
G2	687.75	683.18	684.12	678.22	685.39	685.82	685.68	688.37	687.75	
G3	685.44	681.33	682.28	672.56	682.7	683.36	683.69	687.14	685.44	
G4	684.87	679.68	679.92	666.7	679.49	683.32	679.07	686.48	684.87	
G5	678.79	675.01	677.28	658.07	675.58	677.94	675.77	682.7	678.79	
G6	673.31	669.77	673.26	647.78	669.58	672.37	666.75	679.16	673.31	
G7	665.85	660.05	667.88	636.78	661.7	663.73	658.35	674.82	665.85	
G8	659.72	650.94	658.68	625.26	652.5	654.95	648.91	667.22	659.72	
G9	648.44	638.76	649.9	611.62	640.32	643.77	638.29	659.86	648.44	
G10	637.54	627.86	639.8	599.45	629.56	631.73	624.37	649.62	637.54	
G11	624.75	612.71	629.8	584.25	615.26	618.56	611.34	638.57	624.75	
G12	611.34	598.88	615.73	568.96	601.67	605.54	596.62	627.25	611.34	
G13	597.04	583.26	600.34	554.8	587.46	591.09	582.13	615.49	597.04	
G14	579.91	569.05	583.92	537.57	573.96	576.98	566.32	601.52	579.91	
G15	562.59	552.49	567.92	522.42	557.91	561.55	550.41	588.45	562.59	
G16	545.27	536.91	551.31	504.58	541.73	546.59	533.28	574.06	545.27	
G17	526.1	519.21	534.13	487.26	523.84	529.31	515.2	558.67	526.1	
G18	506.99	501.28	517.66	467.44	506.0	511.24	495.99	541.49	506.99	
G19	486.51	482.73	500.38	449.31	485.94	492.41	476.03	523.08	486.51	
G20	466.97	463.8	482.82	428.78	466.31	474.56	455.69	504.53	466.97	
G21	446.29	444.08	464.84	408.77	446.58	455.26	435.91	486.13	446.29	
G22	424.02	423.17	445.92	388.19	427.75	433.13	413.35	464.42	424.02	
G23	401.03	401.79	426.19	367.05	405.7	411.79	389.52	443.13	401.03	
G24	378.0	379.94	404.01	345.67	384.7	389.94	366.01	420.29	378.0	
G25	353.6	357.42	382.01	324.62	362.66	366.72	341.14	397.07	353.6	
G26	330.85	334.11	358.84	301.49	339.35	343.78	315.98	372.9	330.85	
G27	305.65	308.9	336.09	278.84	316.17	320.09	291.39	349.12	305.65	
G28	280.68	284.83	311.74	256.04	293.47	296.59	266.47	324.71	280.68	
G29	255.38	258.5	287.71	233.11	270.72	271.57	242.73	299.37	255.38	
G30	230.04	233.53	263.12	210.12	247.55	247.78	218.14	273.84	230.04	
G31	205.78	208.99	238.67	187.99	224.33	223.48	195.35	248.77	205.78	
G32	184.63	185.63	214.18	166.79	201.91	200.82	174.72	223.34	184.63	
G33	164.01	163.82	191.76	148.2	181.0	179.35	154.95	200.21	164.01	
G34	144.85	143.95	170.19	131.02	160.99	159.01	136.16	178.36	144.85	
G35	126.91	125.02	150.84	115.49	142.72	140.32	119.41	157.73	126.91	
G36	110.54	108.98	132.15	101.28	126.3	123.56	104.45	139.23	110.54	

C Range: 0 - 360 Deg

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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

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LUMINOUS DISTRIBUTION INTENSITY DATA(Continue 1)

Gamma\C	C0	C45	C90	C135	C180	C225	C270	C315	C360	
G37	96.05	94.06	115.63	88.87	110.72	108.51	90.95	123.04	96.05	
G38	83.68	81.13	100.95	77.36	97.23	95.62	78.91	108.03	83.68	
G39	72.35	69.43	88.21	67.44	86.04	83.92	68.39	95.01	72.35	
G40	61.97	59.52	76.84	58.29	75.18	73.39	59.04	82.92	61.97	
G41	52.86	49.98	66.88	50.08	65.46	63.48	50.6	72.07	52.86	
G42	43.99	41.53	57.67	42.01	56.87	54.8	42.15	62.3	43.99	
G43	36.77	34.45	48.71	35.59	48.66	46.58	35.4	53.33	36.77	
G44	30.68	28.32	41.53	29.59	41.96	39.83	29.59	45.17	30.68	
G45	25.3	23.13	35.16	24.68	35.73	33.93	24.54	38.7	25.3	
G46	20.77	18.93	29.73	20.48	30.63	28.74	20.29	32.57	20.77	
G47	16.85	15.06	25.11	16.75	26.01	24.21	16.52	27.61	16.85	
G48	13.55	11.89	21.05	13.69	22.14	20.44	13.45	23.13	13.55	
G49	10.76	9.2	17.79	10.95	18.6	17.27	10.81	19.54	10.76	
G50	8.35	7.03	14.87	8.68	15.72	14.73	8.31	16.42	8.35	
G51	6.32	5.14	12.6	6.65	13.22	12.18	6.37	13.69	6.32	
G52	4.48	3.78	10.34	4.86	11.09	10.15	4.58	11.19	4.48	
G53	2.78	2.27	8.45	3.35	9.01	8.17	3.02	8.87	2.78	
G54	1.46	1.18	6.8	1.79	7.17	6.42	1.7	7.03	1.46	
G55	0.61	0.38	5.47	0.76	5.57	5.05	0.71	5.52	0.61	
G56	0.05	0.0	4.25	0.0	4.34	4.06	0.05	4.2	0.05	
G57	0.0	0.0	3.4	0.0	3.4	3.16	0.0	3.45	0.0	
G58	0.0	0.0	2.74	0.0	2.64	2.6	0.0	2.83	0.0	
G59	0.0	0.0	2.5	0.0	2.03	2.03	0.0	2.22	0.0	
G60	0.0	0.0	1.98	0.0	1.89	1.7	0.0	1.89	0.0	
G61	0.0	0.0	1.56	0.0	1.56	1.46	0.0	1.6	0.0	
G62	0.0	0.0	1.27	0.0	1.23	1.32	0.0	1.32	0.0	
G63	0.0	0.0	1.18	0.0	1.09	0.94	0.0	1.13	0.0	
G64	0.0	0.0	0.85	0.0	0.76	0.76	0.0	0.9	0.0	
G65	0.0	0.0	0.76	0.0	0.47	0.66	0.0	0.61	0.0	
G66	0.0	0.0	0.47	0.0	0.42	0.52	0.0	0.42	0.0	
G67	0.0	0.0	0.42	0.0	0.31	0.19	0.0	0.19	0.0	
G68	0.0	0.0	0.14	0.0	0.19	0.05	0.0	0.0	0.0	
G69	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G70	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G71	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G72	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G73	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

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