

Report No.:

Test Time: 2025/6/19 16:17:01

LUMINAIRE PHOTOMETRIC TEST REPORT

Luminaire Property

Manufacturer: InBright
Luminaire Type: IBSP221CT042.(A)-24°-7W
Lamp Type:
Luminous Width: 38 mm
Luminous Length: 38 mm
Luminous Height: 34 mm

Voltage(V): 219.80 V
Current(A): 0.0370 A
Power(W): 7.54 W
Power Factor: 0.9100
Lamp Luminous Flux: 515.23

Photometric Results

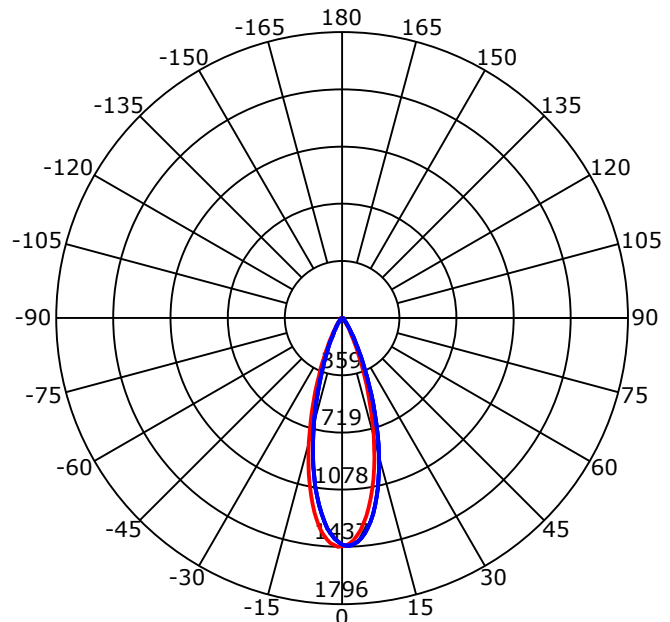
CIE Class: Direct
Luminaire Luminous Flux: 515.2327 lm
Downward Ratio: 100.00%
Luminaire Efficacy Rating(LER): 68.33 lm/W
Beam Angle(50%) C0-180,C90-270: 32.1,32.2
Field Angle(10%) C0-180,C90-270: 57.6,58.0
S/MH C0-180,C90-270: 0.536,0.536

Max. Intensity: 1437.19 cd
Max.Intensity Angle: C=180 Gamma=1
Upward Ratio: 0.00%
Efficacy: 100.00%
Center Intensity: 1434.13 cd
Effective Luminous Flux: 443.99 lm
ERP(ϕ use)(120deg): 514.01 lm

Picture of Luminaire



Luminous Intensity Distribution Curve



Beam Angle(50%) C0-180,C90-270: 32.1 deg,32.2 deg

C0-180 — C90-270 —

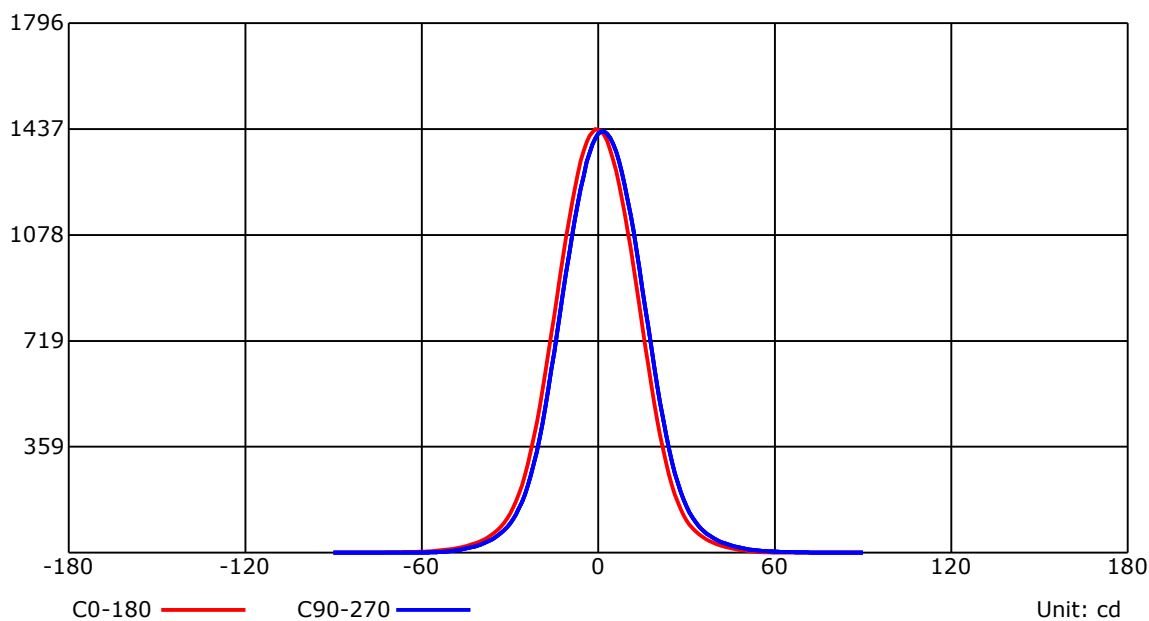
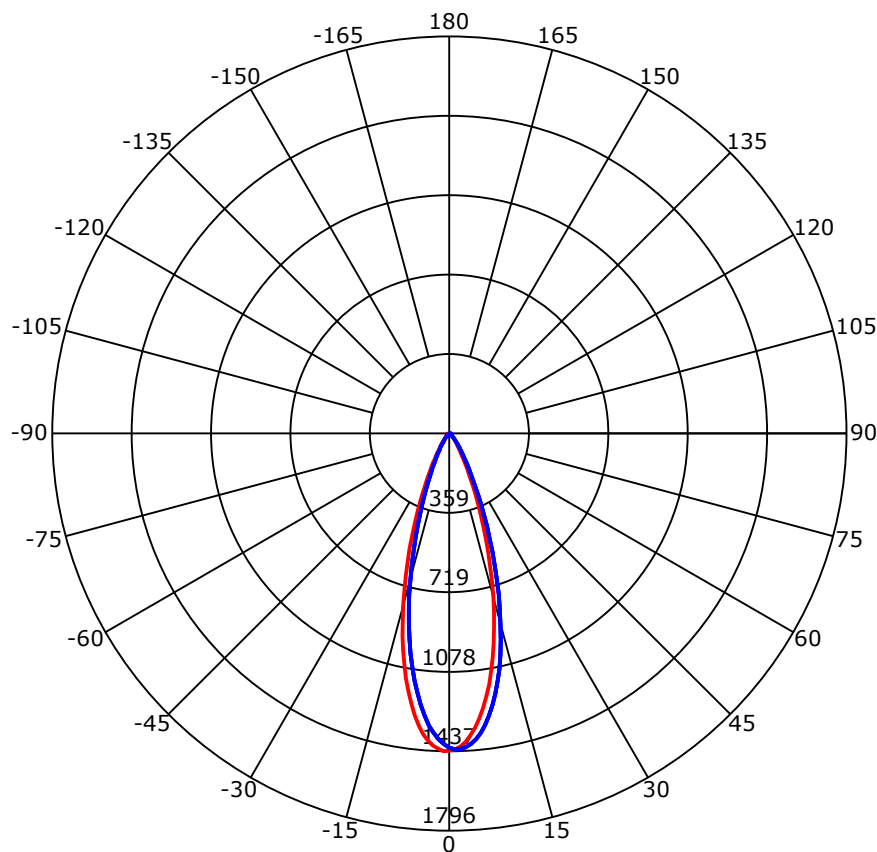
C Range: 0 - 360 Deg
C Interval: 45.0 Deg
Test Speed: High
Temperature: 25
Operators: QC01
Test Date: 2025/6/19 16:17:01

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.:

Test Time: 2025/6/19 16:17:01

Luminous Intensity Distribution Curve



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

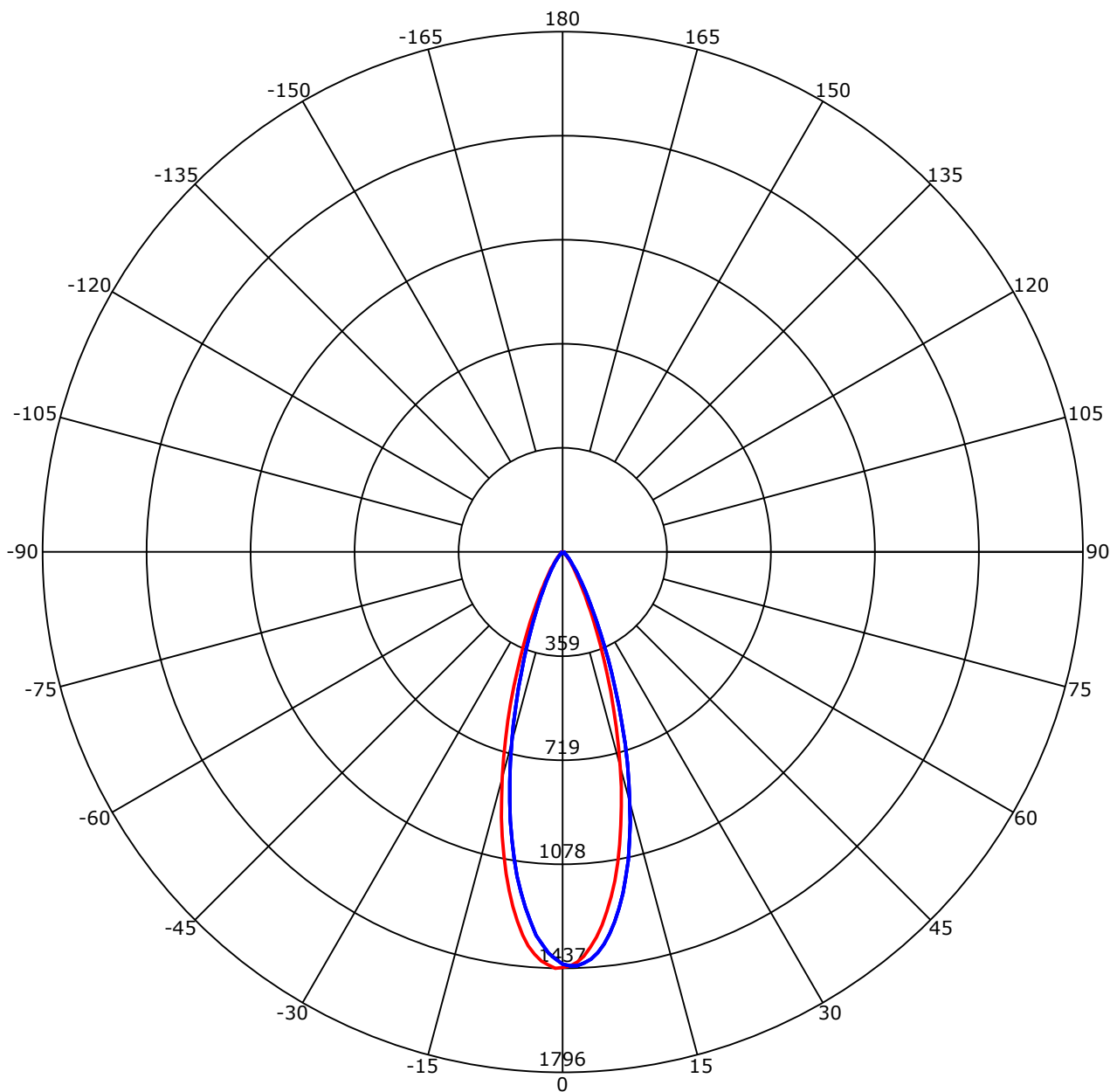
Test Distance: 6.87 m

Remarks:

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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 16:17:01

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

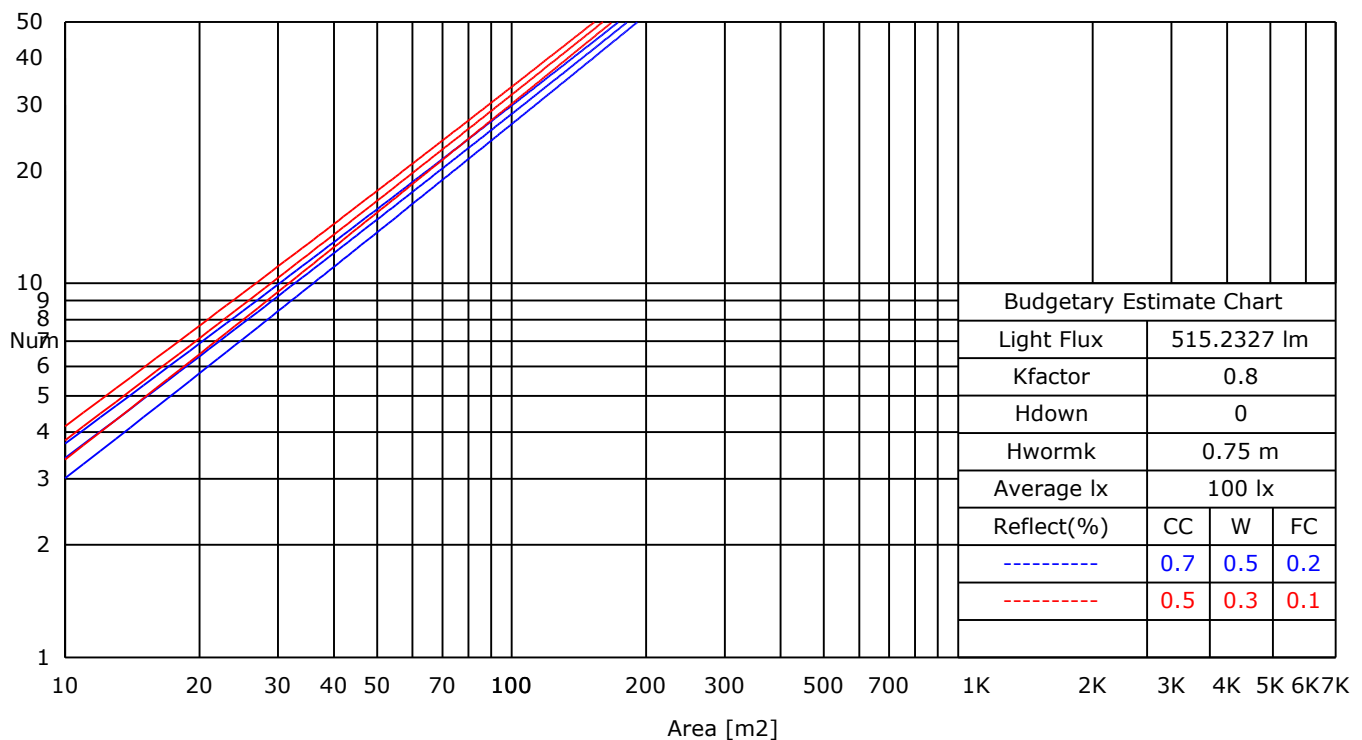
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UTILIZATION FACTORS TABLE

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

LUMINAIRE BUDGETARY ESTIMATE DIAGRAM



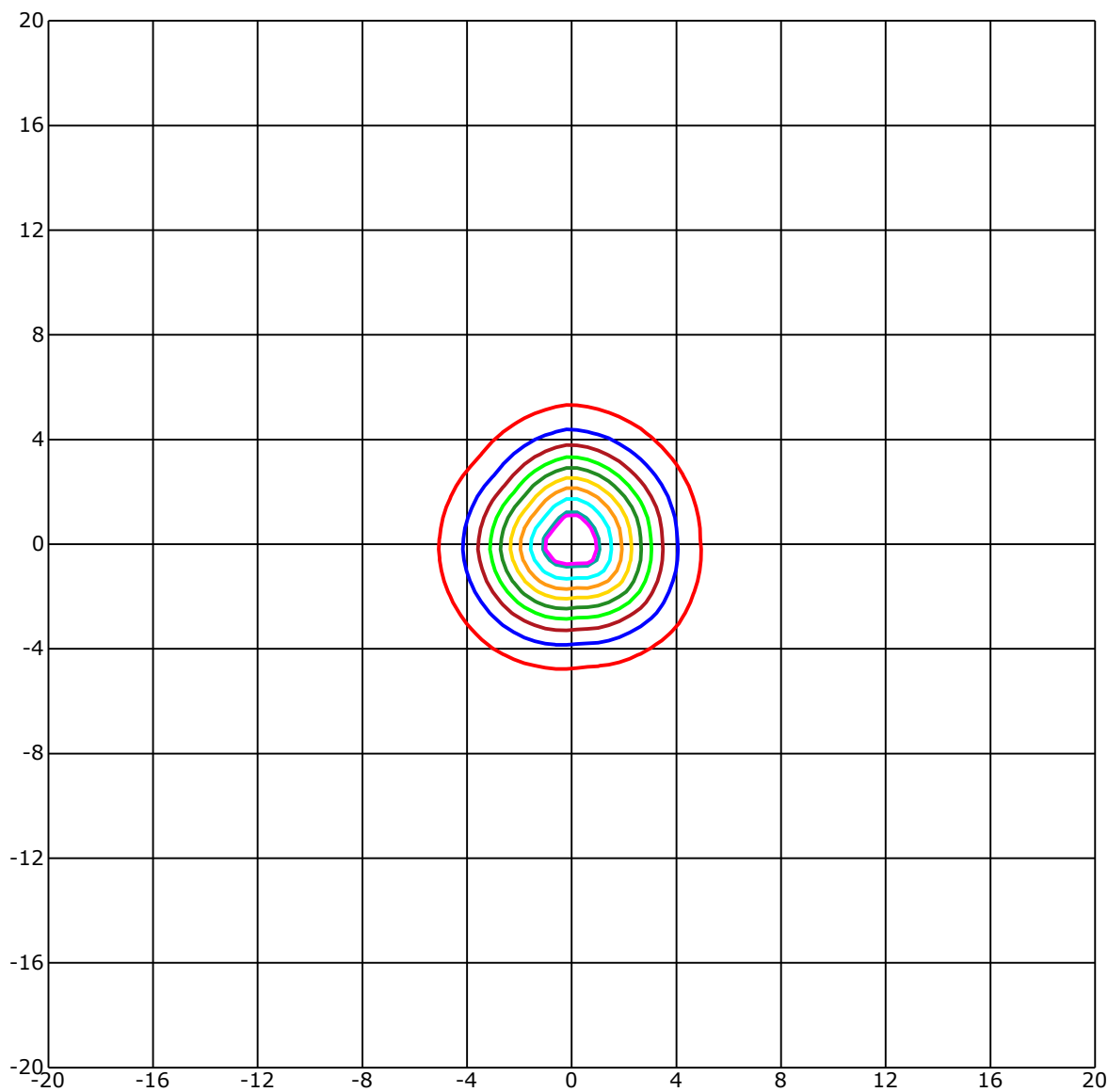
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Operators: QC01
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G Range: 0 - 90 Deg
G Interval: 1.0 Deg
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Humidity: 60
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ISOLX DIAGRAM



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

13.216(92%Emax)	7.183(50%Emax)
12.929(90%Emax)	5.746(40%Emax)
11.492(80%Emax)	4.31(30%Emax)
10.056(70%Emax)	2.873(20%Emax)
8.619(60%Emax)	1.437(10%Emax)

C Range: 0 - 360 Deg
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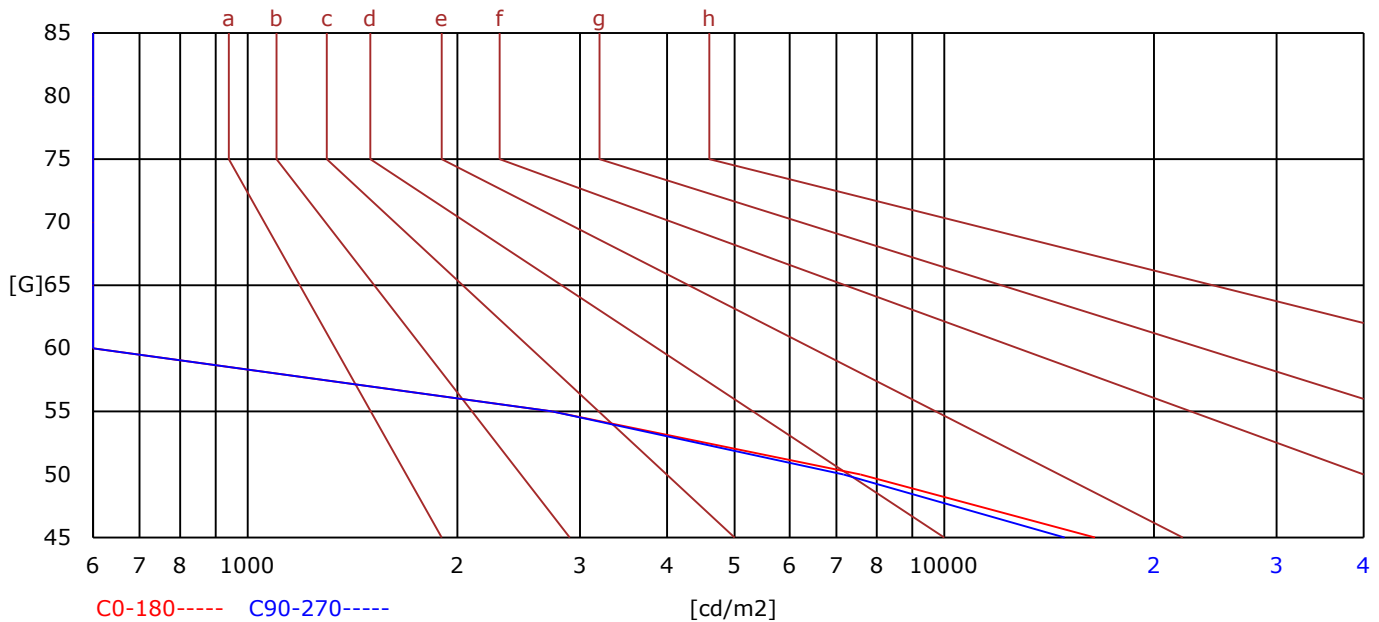
G Range: 0 - 90 Deg
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BRIGHT LIMIT DIAGRAM

C/G	45	50	55	60	65	70	75	80	85
C0	16456	7576	2735	65	0	0	0	0	0
C90	14884	7170	2735	327	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



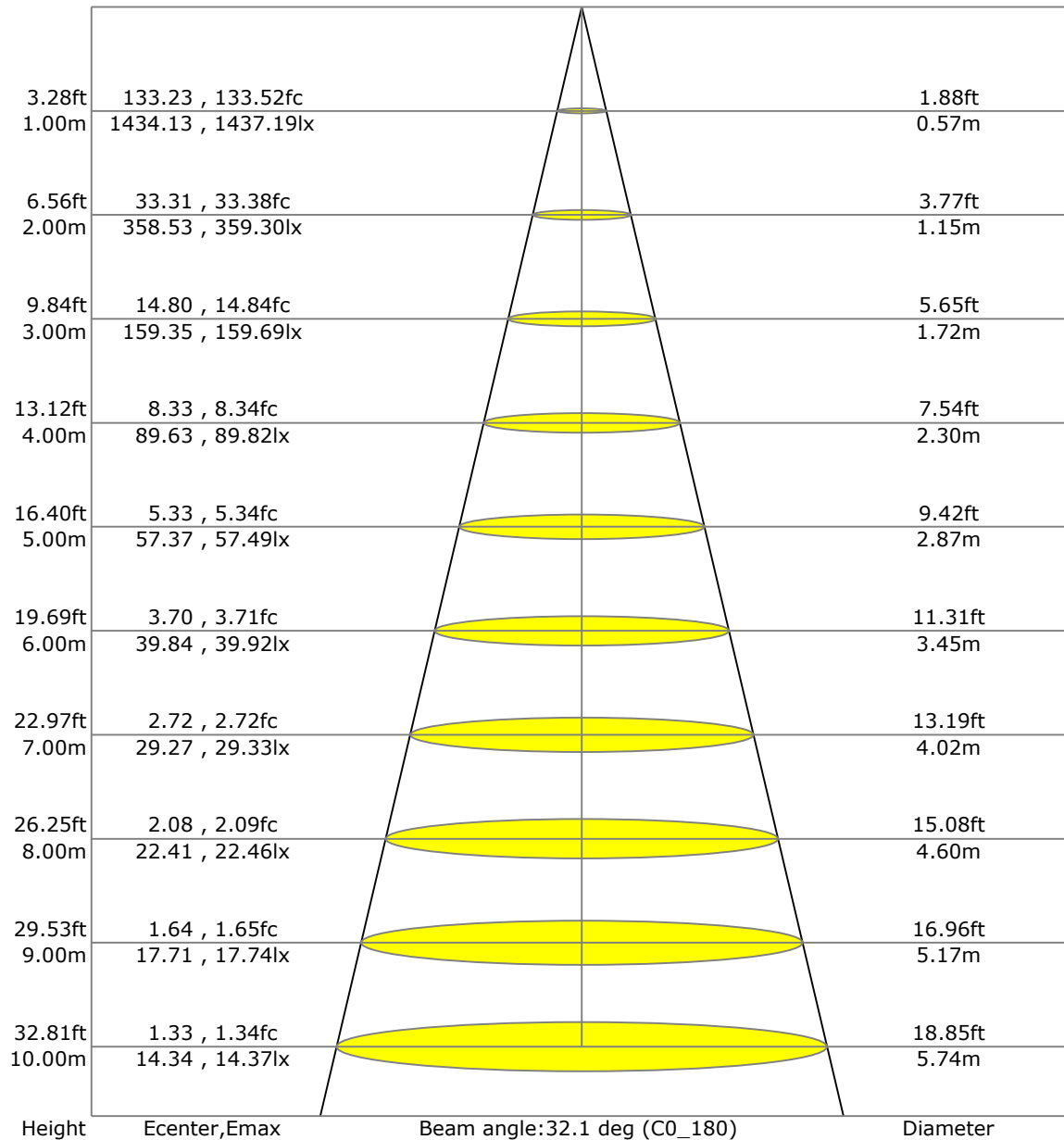
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Test Speed: High
Temperature: 25
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Test Date: 2025/6/19 16:17:01

G Range: 0 - 90 Deg
G Interval: 1.0 Deg
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Test Distance: 6.87 m
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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 16:17:01

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	13.01	13.06	13.21	13.25	13.49	13.30	13.35	13.50	13.54	13.78
3H	12.99	13.04	13.19	13.23	13.48	13.28	13.33	13.48	13.52	13.77
4H	12.97	13.03	13.18	13.22	13.47	13.26	13.32	13.47	13.51	13.76
6H	12.96	13.01	13.17	13.21	13.47	13.25	13.30	13.46	13.50	13.75
8H	12.95	13.01	13.17	13.21	13.46	13.24	13.29	13.46	13.50	13.75
12H	12.94	13.00	13.16	13.20	13.46	13.23	13.29	13.45	13.49	13.75
4H 2H	12.97	13.03	13.18	13.22	13.47	13.30	13.36	13.52	13.56	13.80
3H	12.94	13.00	13.16	13.20	13.46	13.27	13.33	13.49	13.53	13.79
4H	12.92	12.98	13.15	13.19	13.45	13.25	13.31	13.48	13.52	13.78
6H	12.90	12.96	13.14	13.18	13.44	13.23	13.29	13.47	13.51	13.77
8H	12.89	12.94	13.13	13.17	13.44	13.22	13.27	13.46	13.50	13.77
12H	12.88	12.93	13.13	13.16	13.43	13.21	13.26	13.46	13.49	13.76
8H 4H	12.95	13.00	13.17	13.21	13.46	13.28	13.34	13.50	13.54	13.79
6H	12.86	12.92	13.12	13.15	13.43	13.19	13.25	13.45	13.48	13.76
8H	12.85	12.90	13.11	13.14	13.42	13.18	13.23	13.44	13.48	13.75
12H	12.83	12.88	13.10	13.13	13.42	13.16	13.21	13.43	13.47	13.75
12H 4H	12.88	12.93	13.13	13.16	13.43	13.21	13.26	13.46	13.49	13.76
6H	12.85	12.90	13.11	13.14	13.42	13.18	13.23	13.44	13.48	13.75

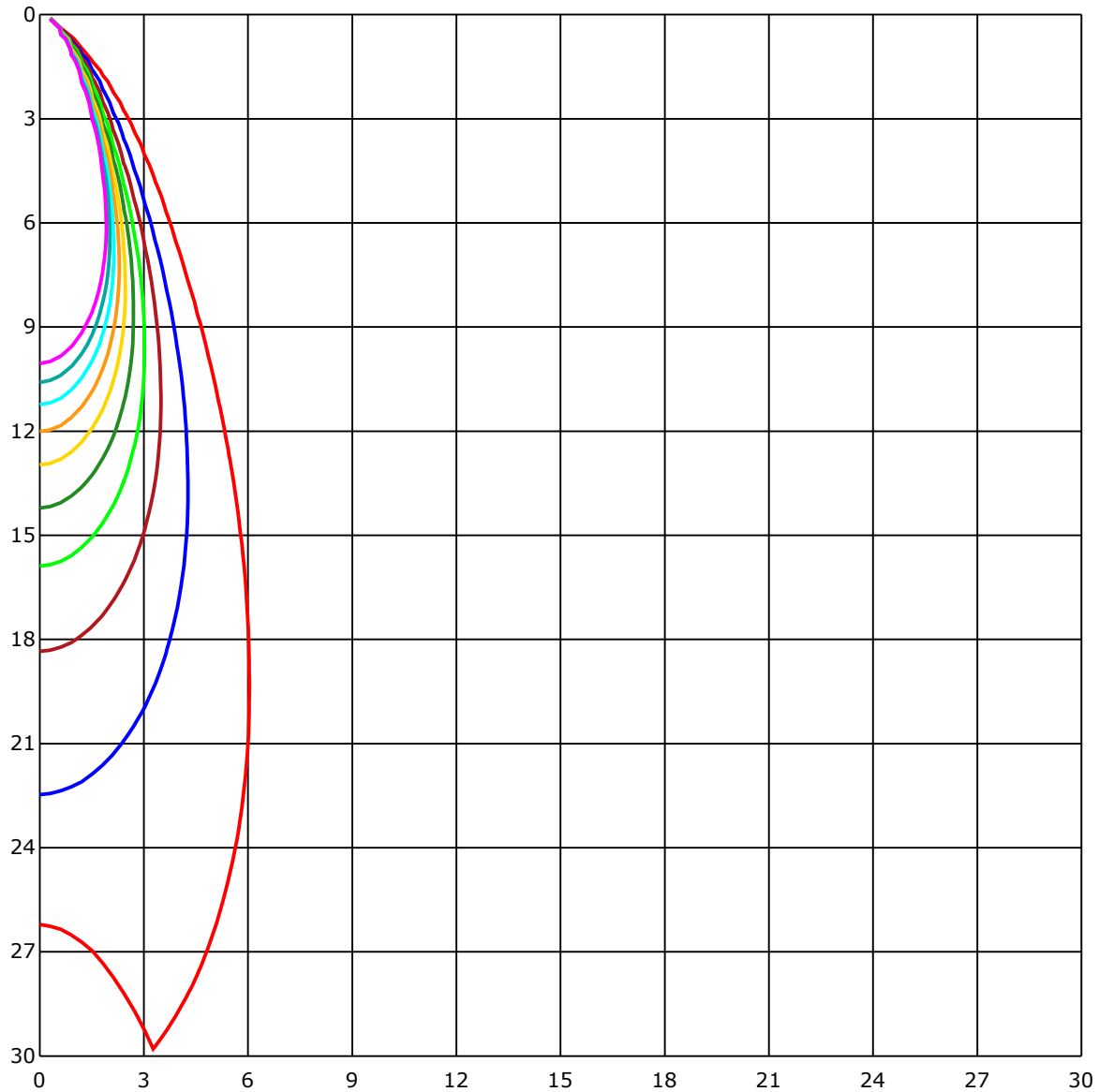
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SPACE ISOLX DIAGRAM



Unit of illumination:lx

14.207	7.103
12.786	5.683
11.366	4.262
9.945	2.841
8.524	1.421

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LUMINOUS DISTRIBUTION INTENSITY DATA

Gamma\C	C0	C45	C90	C135	C180	C225	C270	C315	C360	
G0	1434.13	1424.36	1422.33	1432.28	1434.13	1424.36	1422.33	1432.28	1434.13	
G1	1429.41	1427.52	1429.08	1423.32	1437.19	1423.36	1405.52	1430.16	1429.41	
G2	1416.33	1411.28	1429.03	1410.34	1426.62	1407.41	1385.47	1425.21	1416.33	
G3	1397.41	1397.03	1420.91	1389.15	1414.02	1390.52	1355.68	1410.67	1397.41	
G4	1368.1	1373.71	1408.45	1364.27	1392.31	1362.48	1326.09	1392.4	1368.1	
G5	1334.92	1344.78	1388.58	1326.23	1364.75	1330.1	1279.89	1364.51	1334.92	
G6	1295.89	1309.81	1361.11	1285.55	1329.07	1290.13	1234.39	1330.76	1295.89	
G7	1250.62	1269.6	1328.45	1236.65	1283.71	1246.85	1183.18	1289.14	1250.62	
G8	1200.97	1223.11	1289.89	1187.62	1235.66	1197.34	1130.93	1244.54	1200.97	
G9	1149.53	1173.36	1245.1	1129.8	1184.12	1145.04	1072.69	1193.14	1149.53	
G10	1090.82	1119.51	1195.73	1071.32	1127.72	1086.1	1010.58	1139.71	1090.82	
G11	1029.79	1062.17	1142.73	1007.32	1066.7	1027.9	946.06	1083.55	1029.79	
G12	965.32	1003.78	1088.08	943.75	1003.93	962.2	881.92	1022.95	965.32	
G13	900.42	940.82	1024.79	877.2	940.4	899.53	814.48	959.23	900.42	
G14	835.01	873.28	962.63	809.9	872.91	833.97	748.68	896.32	835.01	
G15	767.0	805.65	893.34	742.69	806.45	769.22	681.71	829.53	767.0	
G16	700.17	740.33	830.15	676.52	739.25	703.85	618.56	764.07	700.17	
G17	632.96	675.34	763.13	610.92	676.0	639.42	554.09	694.79	632.96	
G18	567.92	609.22	697.38	548.1	612.66	577.45	493.96	629.09	567.92	
G19	507.84	547.44	631.35	488.39	551.59	519.26	438.18	563.2	507.84	
G20	451.34	489.86	568.49	433.22	492.12	462.06	387.63	502.79	451.34	
G21	398.67	436.0	509.16	382.91	438.74	411.46	341.14	446.95	398.67	
G22	349.63	384.42	452.81	335.85	388.52	362.52	298.76	393.01	349.63	
G23	305.32	338.73	401.55	293.71	342.98	318.67	261.05	344.21	305.32	
G24	264.44	296.16	353.74	256.14	300.31	279.41	226.88	301.12	264.44	
G25	229.05	257.79	310.04	221.64	262.65	244.72	197.09	262.37	229.05	
G26	197.99	222.77	270.72	191.24	228.76	214.32	171.75	228.95	197.99	
G27	170.71	192.94	235.7	164.72	199.36	187.61	149.66	199.55	170.71	
G28	146.83	167.27	205.59	142.63	174.11	163.96	130.03	173.87	146.83	
G29	126.82	144.56	180.01	123.0	152.3	143.76	113.46	150.61	126.82	
G30	109.26	124.88	156.69	106.48	132.81	125.54	98.74	131.54	109.26	
G31	94.91	108.08	136.16	92.74	116.53	110.35	86.7	115.3	94.91	
G32	83.07	93.87	118.7	81.27	101.61	97.08	76.6	101.24	83.07	
G33	73.16	82.26	104.26	71.5	89.82	86.42	67.59	89.53	73.16	
G34	64.33	72.54	92.03	63.01	79.62	76.51	59.66	79.9	64.33	
G35	56.59	63.72	81.18	55.41	70.65	67.96	52.67	70.7	56.59	
G36	49.89	55.88	72.26	48.75	62.96	60.6	46.25	63.43	49.89	

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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	43.52	48.71	63.57	42.67	55.93	53.85	40.35	56.35	43.52	
G38	38.23	42.62	56.45	37.57	49.27	47.62	35.68	50.5	38.23	
G39	33.89	37.62	50.12	32.99	43.89	42.67	31.43	44.51	33.89	
G40	29.73	33.09	44.65	29.36	39.36	38.04	27.75	40.02	29.73	
G41	26.38	29.17	39.79	26.05	35.4	34.08	24.4	35.59	26.38	
G42	23.08	25.39	35.54	22.94	31.62	30.44	21.38	31.86	23.08	
G43	20.25	22.32	31.72	20.01	28.22	27.09	18.6	28.46	20.25	
G44	17.37	19.4	28.46	17.6	25.25	24.16	16.19	25.44	17.37	
G45	15.1	16.8	25.11	15.2	22.47	21.62	13.92	22.65	15.1	
G46	12.93	14.4	22.14	13.17	20.01	19.02	11.89	20.06	12.93	
G47	11.19	12.46	19.54	11.09	17.98	16.71	10.05	17.75	11.19	
G48	9.2	10.38	17.32	9.44	15.81	14.68	8.5	15.76	9.2	
G49	7.74	8.54	15.24	8.02	13.83	13.03	6.99	13.69	7.74	
G50	6.42	7.03	13.36	6.65	12.18	11.47	5.76	12.27	6.42	
G51	5.24	5.62	11.52	5.47	10.95	10.01	4.81	10.71	5.24	
G52	4.34	4.63	10.29	4.39	9.53	8.97	3.96	9.39	4.34	
G53	3.35	3.82	8.92	3.54	8.5	7.83	2.93	8.26	3.35	
G54	2.6	2.83	7.79	2.93	7.46	6.94	2.41	7.32	2.6	
G55	2.17	2.27	6.89	2.27	6.56	6.09	1.75	6.51	2.17	
G56	1.6	1.56	6.04	1.6	5.66	5.29	1.32	5.66	1.6	
G57	1.18	1.13	5.33	1.09	4.96	4.67	0.85	4.86	1.18	
G58	0.85	0.66	4.72	0.9	4.39	4.11	0.52	4.34	0.85	
G59	0.52	0.42	4.11	0.33	3.96	3.73	0.33	3.73	0.52	
G60	0.33	0.05	3.68	0.24	3.54	3.45	0.24	3.45	0.33	
G61	0.05	0.0	3.26	0.05	3.11	2.97	0.0	3.11	0.05	
G62	0.0	0.0	2.97	0.0	2.74	2.74	0.0	2.69	0.0	
G63	0.0	0.0	2.64	0.0	2.6	2.5	0.0	2.55	0.0	
G64	0.0	0.0	2.5	0.0	2.31	2.27	0.0	2.36	0.0	
G65	0.0	0.0	2.22	0.0	2.17	2.08	0.0	2.03	0.0	
G66	0.0	0.0	1.98	0.0	1.98	1.75	0.0	1.94	0.0	
G67	0.0	0.0	1.7	0.0	1.84	1.51	0.0	1.65	0.0	
G68	0.0	0.0	1.51	0.0	1.51	1.46	0.0	1.46	0.0	
G69	0.0	0.0	1.23	0.0	1.23	1.23	0.0	1.13	0.0	
G70	0.0	0.0	1.13	0.0	1.04	0.85	0.0	0.94	0.0	
G71	0.0	0.0	0.94	0.0	0.9	0.76	0.0	0.71	0.0	
G72	0.0	0.0	0.71	0.0	0.85	0.61	0.0	0.61	0.0	
G73	0.0	0.0	0.52	0.0	0.52	0.42	0.0	0.42	0.0	

C Range: 0 - 360 Deg

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Test System: Huipu CPM-1600B Goniophotometer

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Test Distance: 6.87 m

Remarks:

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