



Report No.:

Test Time: 2025/3/18 17:01:03

LUMINAIRE PHOTOMETRIC TEST REPORT

Luminaire Property

Manufacturer:
Luminaire Type: RH-LPS16K-30W-4000K
Lamp Type: CXA1820
Luminous Width: 75 mm
Luminous Length: 150 mm
Luminous Height: 150 mm

Voltage(V): 221.00 V
Current(A): 0.1310 A
Power(W): 28.09 W
Power Factor: 0.9640
Lamp Luminous Flux: 2187.14

Photometric Results

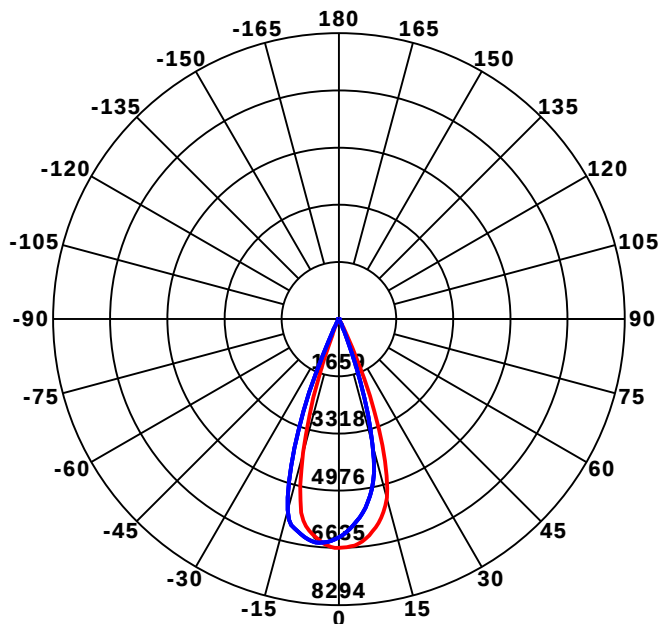
CIE Class: Direct
Luminaire Luminous Flux: 2187.135 lm
Downward Ratio: 100.00%
Luminaire Efficacy Rating(LER): 77.86 lm/W
Beam Angle(50%) C0-180,C90-270: 36.4,36.5
Field Angle(10%) C0-180,C90-270: 47.1,47.2
S/MH C0-180,C90-270: 0.611,0.650

Max. Intensity: 6635.03 cd
Max.Intensity Angle: C=180 Gamma=0
Upward Ratio: 0.00%
Efficacy: 100.00%
Center Intensity: 6635.03 cd
Effective Luminous Flux: 2079.78 lm
ERP(ϕ use)(120deg): 2187.13 lm

Picture of Luminaire



Luminous Intensity Distribution Curve



Beam Angle(50%) C0-180,C90-270: 36.4 deg,36.5 deg

C0-180 — C90-270

C Range: 0 - 360 Deg
C Interval: 45.0 Deg
Test Speed: High
Temperature: 7.8
Operators:
Test Date: 2025/3/18 17:01:03

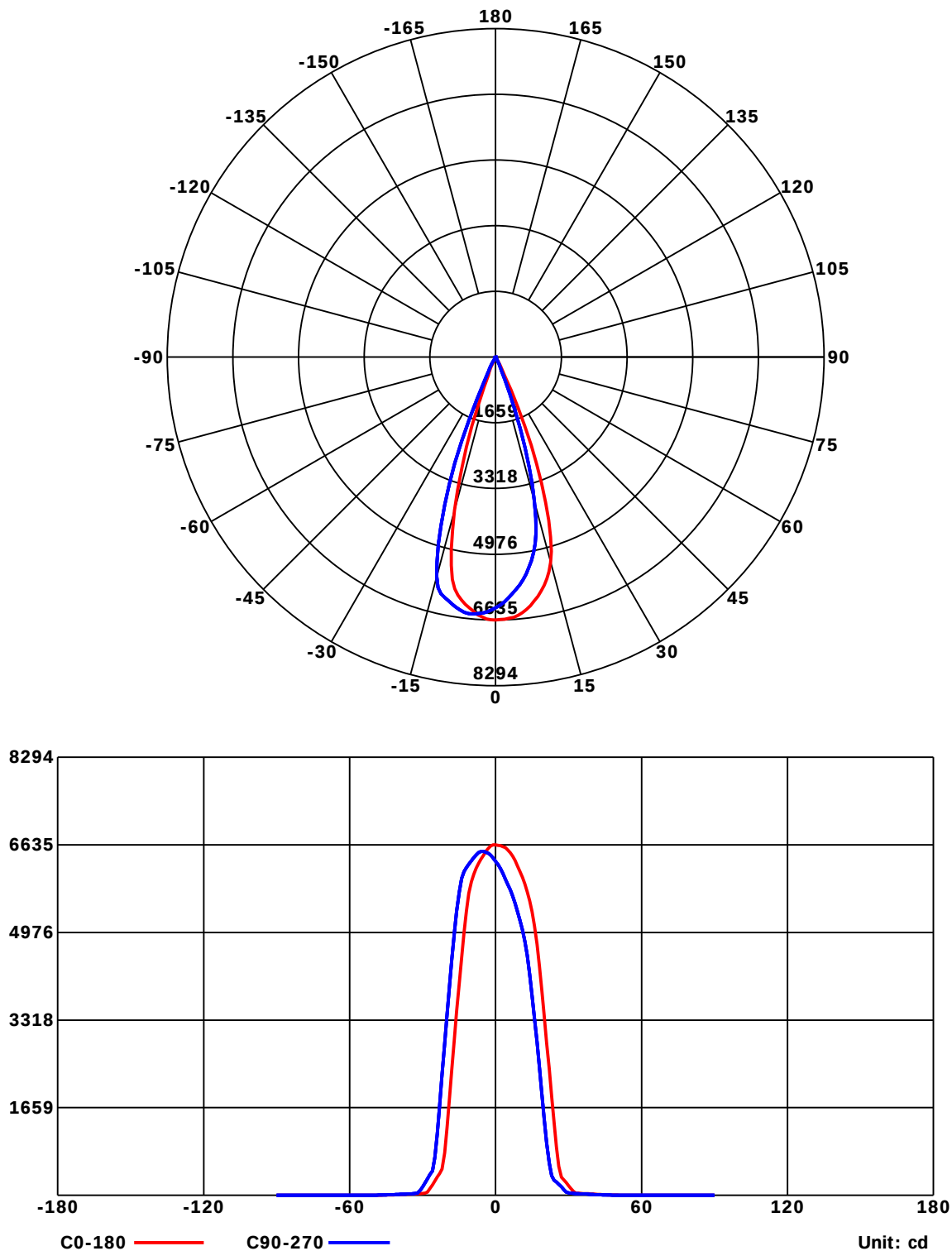
G Range: 0 - 90 Deg
G Interval: 1.0 Deg
Test System: Huipu CPM-1600B Goniophotometer
Humidity: 1
Test Distance: 7.8 m
Remarks:



Report No.:

Test Time: 2025/3/18 17:01:03

Luminous Intensity Distribution Curve



C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature: 7.8

Operators:

Test Date: 2025/3/18 17:01:03

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1600B Goniophotometer

Humidity: 1

Test Distance: 7.8 m

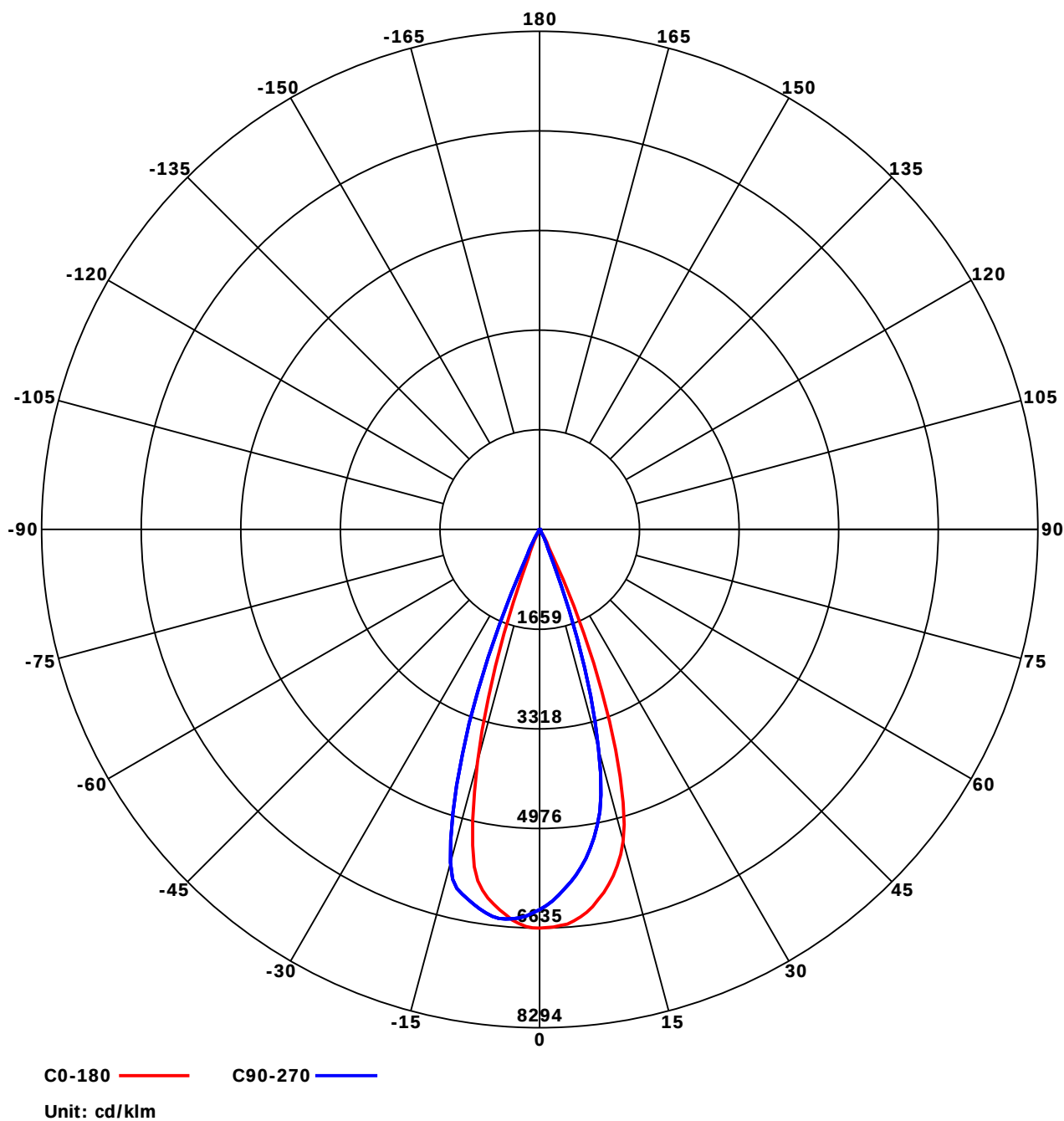
Remarks:



Report No.:

Test Time: 2025/3/18 17:01:03

Luminous Intensity Distribution Curve



C Range: 0 - 360 Deg
C Interval: 45.0 Deg
Test Speed: High
Temperature: 7.8
Operators:
Test Date: 2025/3/18 17:01:03

G Range: 0 - 90 Deg
G Interval: 1.0 Deg
Test System: Huipu CPM-1600B Goniophotometer
Humidity: 1
Test Distance: 7.8 m
Remarks:



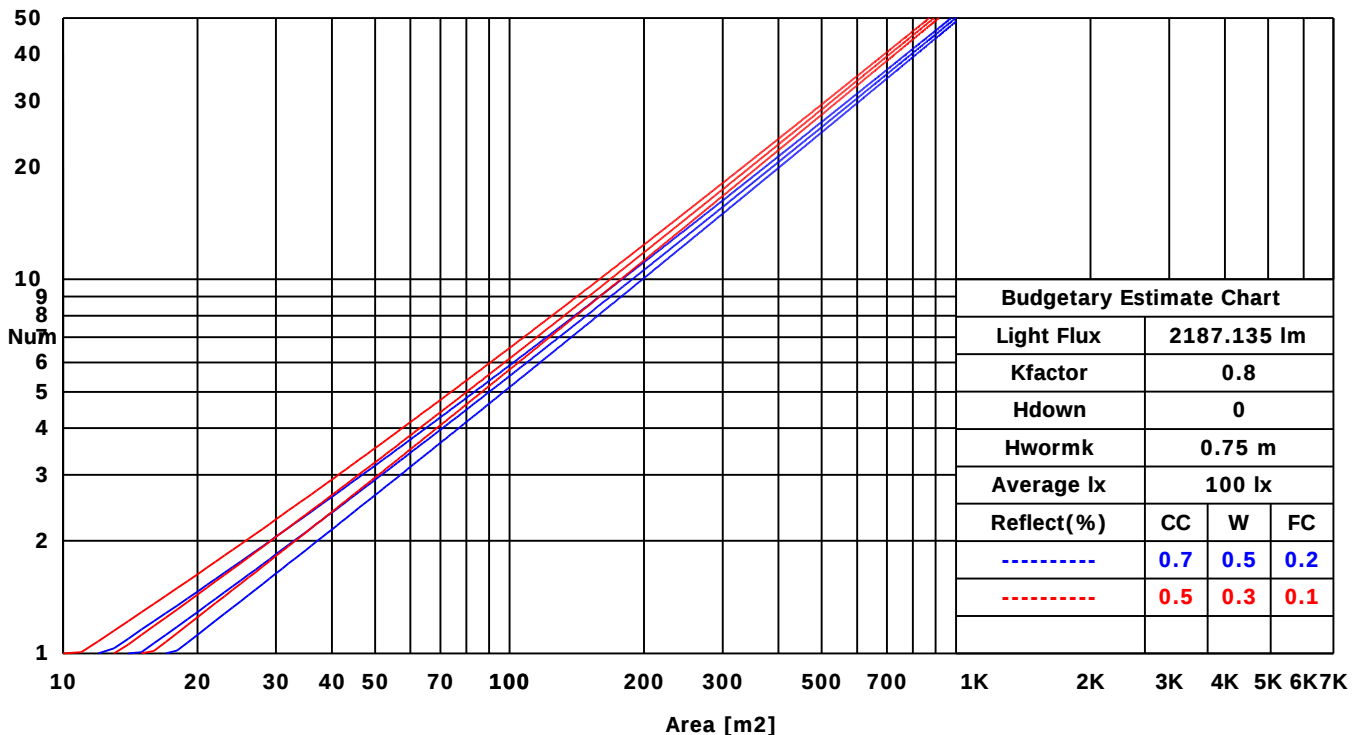
Report No.:

Test Time: 2025/3/18 17:01:03

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	1.17	1.16	1.16	1.15	1.14	1.14	1.11	1.10	1.09	1.05	1.04	1.03	0.97	0.96	0.96	0.90
2	1.13	1.12	1.12	1.11	1.10	1.09	1.07	1.05	1.04	1.02	1.00	0.99	0.95	0.93	0.92	0.87
3	1.09	1.08	1.08	1.07	1.06	1.05	1.03	1.02	1.00	0.98	0.97	0.95	0.93	0.91	0.89	0.84
4	1.05	1.04	1.04	1.04	1.02	1.01	1.00	0.98	0.97	0.95	0.93	0.91	0.90	0.88	0.86	0.82
5	1.02	1.01	1.00	1.00	0.99	0.98	0.97	0.95	0.93	0.93	0.90	0.88	0.88	0.85	0.83	0.79
6	0.99	0.98	0.97	0.97	0.96	0.95	0.94	0.92	0.90	0.90	0.87	0.85	0.86	0.83	0.80	0.76
7	0.96	0.95	0.94	0.94	0.93	0.92	0.91	0.89	0.87	0.87	0.85	0.83	0.83	0.80	0.78	0.74
8	0.93	0.92	0.91	0.91	0.90	0.89	0.88	0.86	0.84	0.85	0.82	0.80	0.81	0.78	0.75	0.72
9	0.90	0.89	0.88	0.89	0.87	0.86	0.85	0.83	0.82	0.82	0.80	0.78	0.79	0.76	0.73	0.70
10	0.87	0.86	0.86	0.86	0.85	0.84	0.83	0.81	0.80	0.80	0.77	0.75	0.77	0.73	0.71	0.68

LUMINAIRE BUDGETARY ESTIMATE DIAGRAM



C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature: 7.8

Operators:

Test Date: 2025/3/18 17:01:03

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1600B Goniophotometer

Humidity: 1

Test Distance: 7.8 m

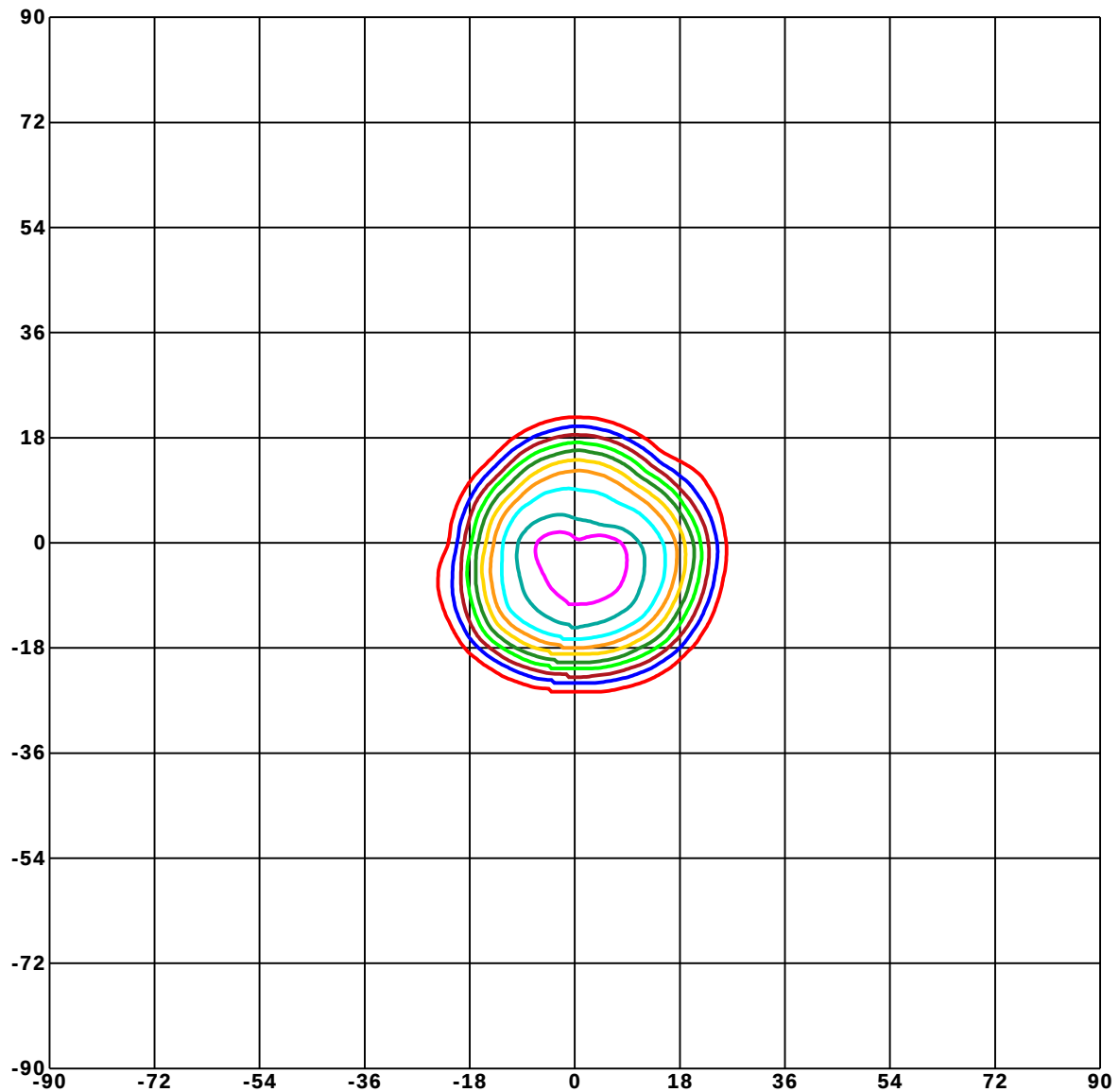
Remarks:



Report No.:

Test Time: 2025/3/18 17:01:03

ISOCANDELA DIAGRAM (RECTANGULAR)



Unit of intensity:cd I_{max}(100%): 6635.028 cd

6303.276(95%I_{max})

3317.514(50%I_{max})

5971.525(90%I_{max})

2654.011(40%I_{max})

5308.022(80%I_{max})

1990.508(30%I_{max})

4644.52(70%I_{max})

1327.006(20%I_{max})

3981.017(60%I_{max})

663.503(10%I_{max})

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature: 7.8

Operators:

Test Date: 2025/3/18 17:01:03

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1600B Goniophotometer

Humidity: 1

Test Distance: 7.8 m

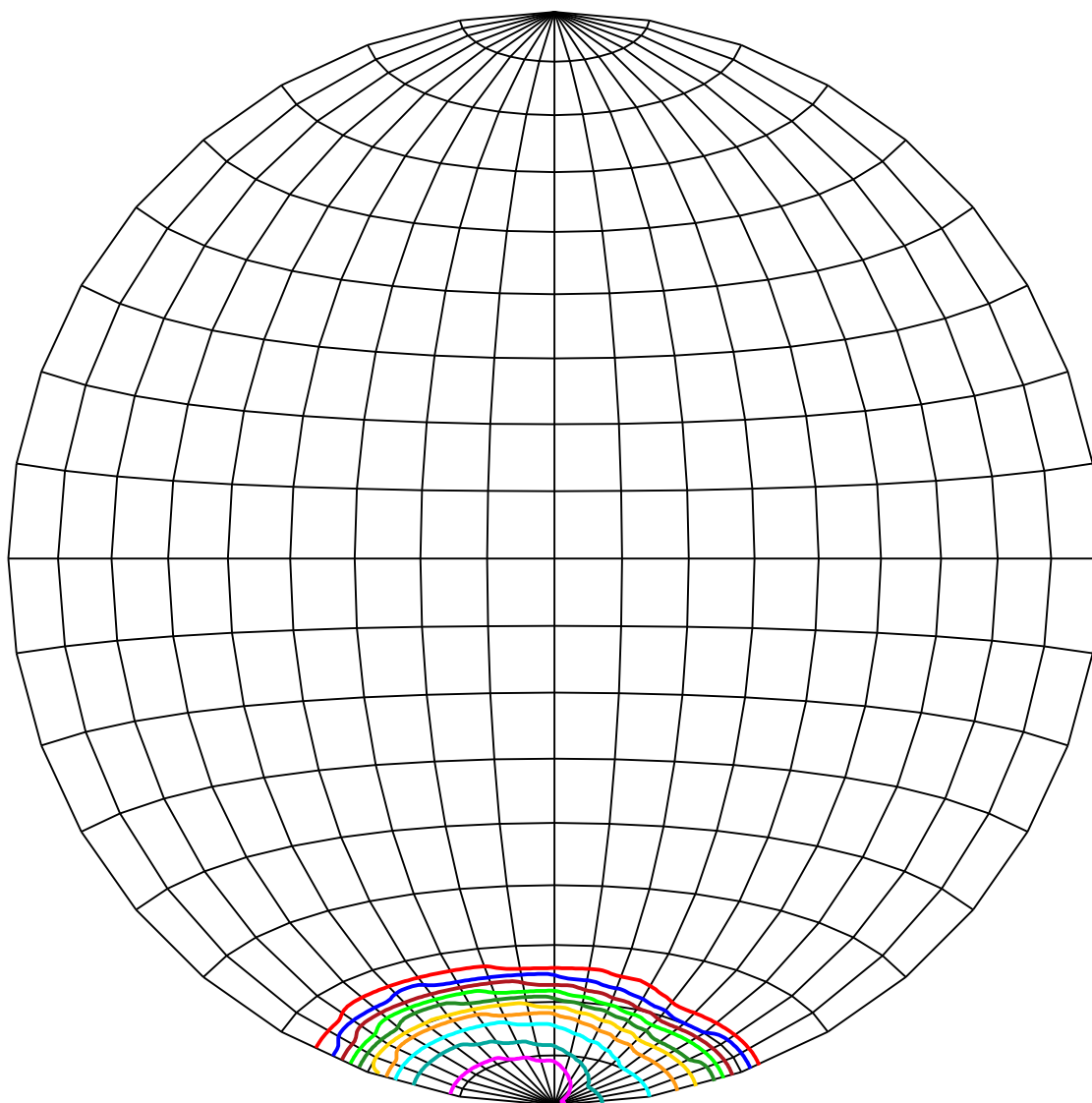
Remarks:



Report No.:

Test Time: 2025/3/18 17:01:03

ISOCANDELA DIAGRAM (SPHERE)



Unit of intensity:cd I_{max}(100%): 6635.028 cd

6303.276(95%I_{max})
5971.525(90%I_{max})
5308.022(80%I_{max})
4644.52(70%I_{max})
3981.017(60%I_{max})

3317.514(50%I_{max})
2654.011(40%I_{max})
1990.508(30%I_{max})
1327.006(20%I_{max})
663.503(10%I_{max})

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature: 7.8

Operators:

Test Date: 2025/3/18 17:01:03

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1600B Goniophotometer

Humidity: 1

Test Distance: 7.8 m

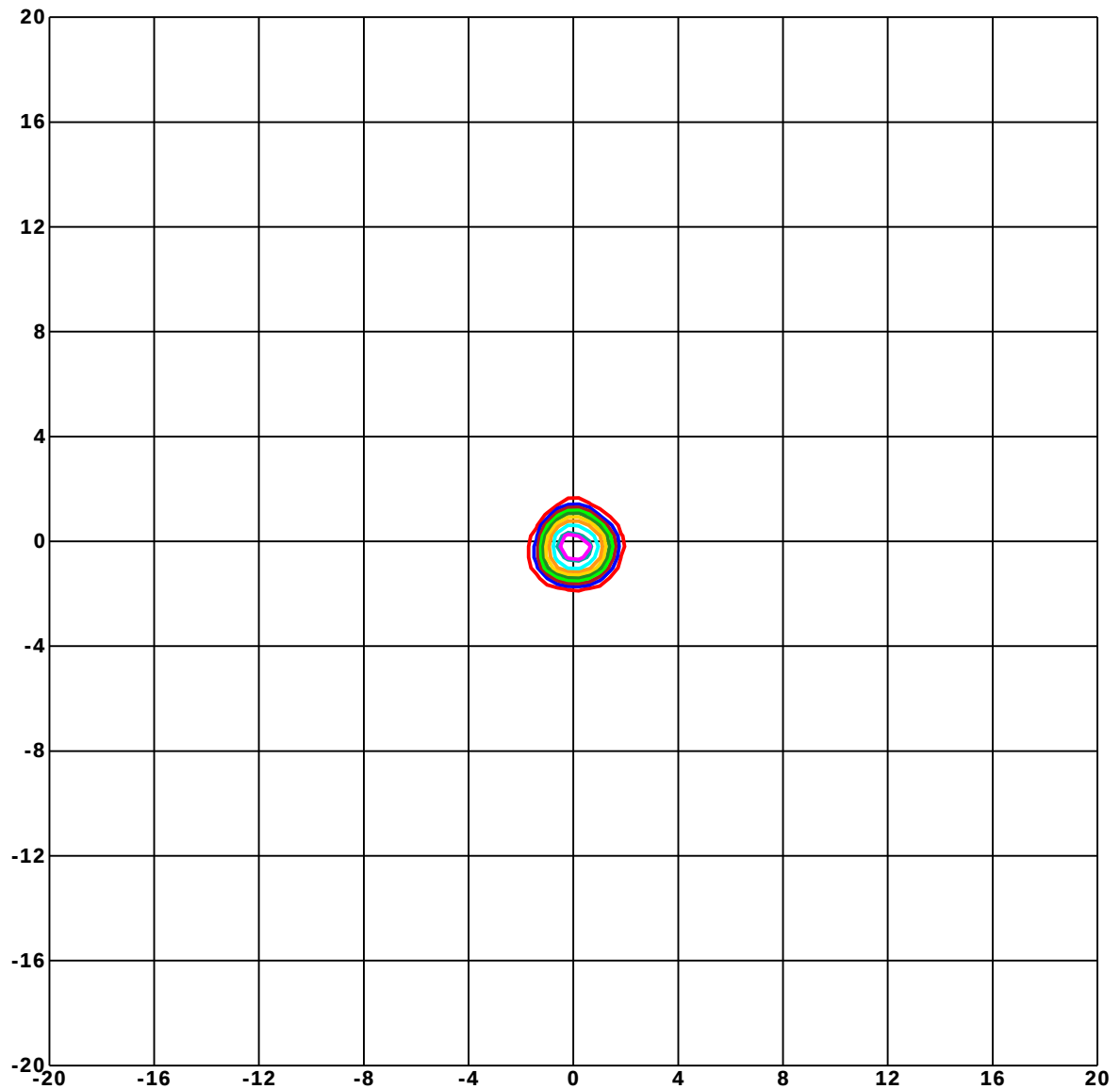
Remarks:



Report No.:

Test Time: 2025/3/18 17:01:03

ISOLX DIAGRAM



Unit of illumination:lx Height of plane:4.0(m)/13.12(ft)

381.514(92%Emax)	207.345(50%Emax)
373.22(90%Emax)	165.876(40%Emax)
331.751(80%Emax)	124.407(30%Emax)
290.283(70%Emax)	82.938(20%Emax)
248.814(60%Emax)	41.469(10%Emax)

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature: 7.8

Operators:

Test Date: 2025/3/18 17:01:03

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1600B Goniophotometer

Humidity: 1

Test Distance: 7.8 m

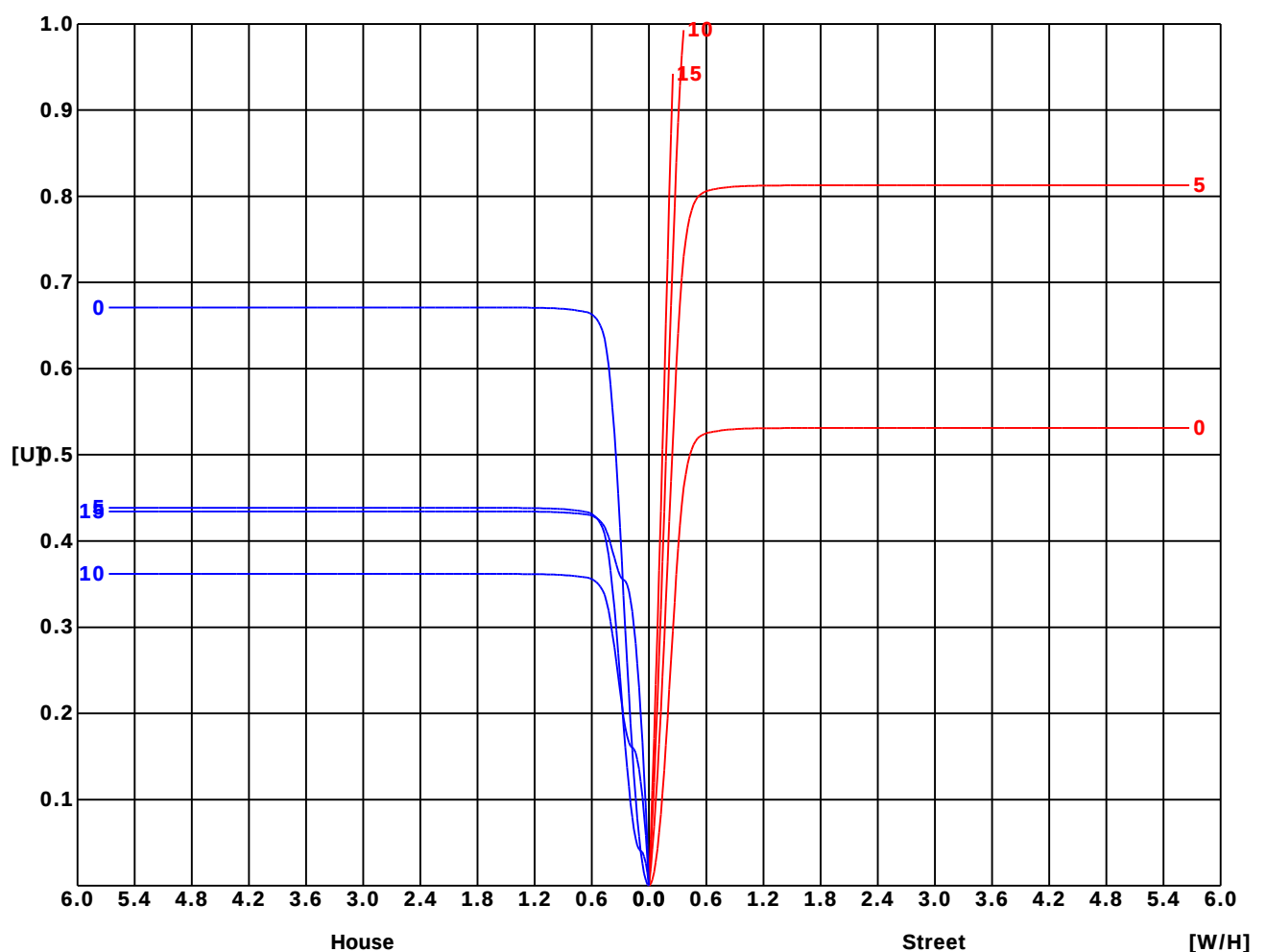
Remarks:



Report No.:

Test Time: 2025/3/18 17:01:03

UTILIZATION FACTOR DIAGRAM (ROAD)



C Range: 0 - 360 Deg
C Interval: 45.0 Deg
Test Speed: High
Temperature: 7.8
Operators:
Test Date: 2025/3/18 17:01:03

G Range: 0 - 90 Deg
G Interval: 1.0 Deg
Test System: Huipu CPM-1600B Goniophotometer
Humidity: 1
Test Distance: 7.8 m
Remarks:

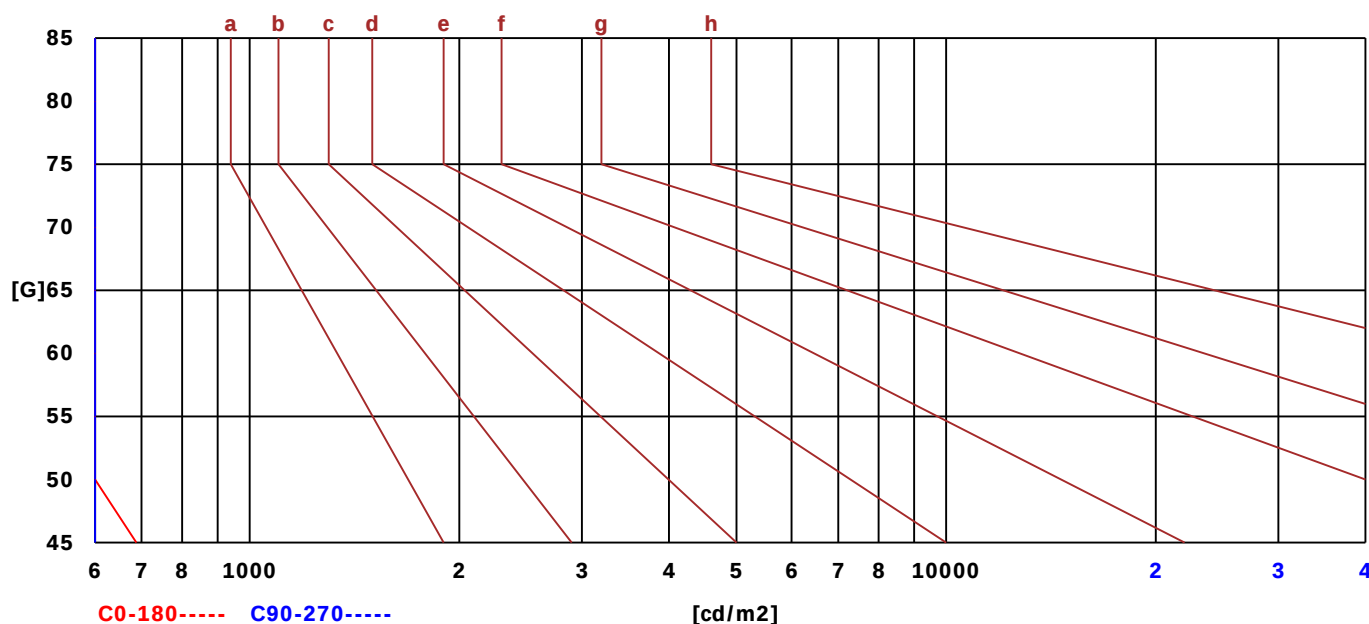


Report No.:

Test Time: 2025/3/18 17:01:03

BRIGHT LIMIT DIAGRAM

C/G	45	50	55	60	65	70	75	80	85
C0	688	320	113	0	0	0	0	0	0
C90	543	278	85	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



C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature: 7.8

Operators:

Test Date: 2025/3/18 17:01:03

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1600B Goniophotometer

Humidity: 1

Test Distance: 7.8 m

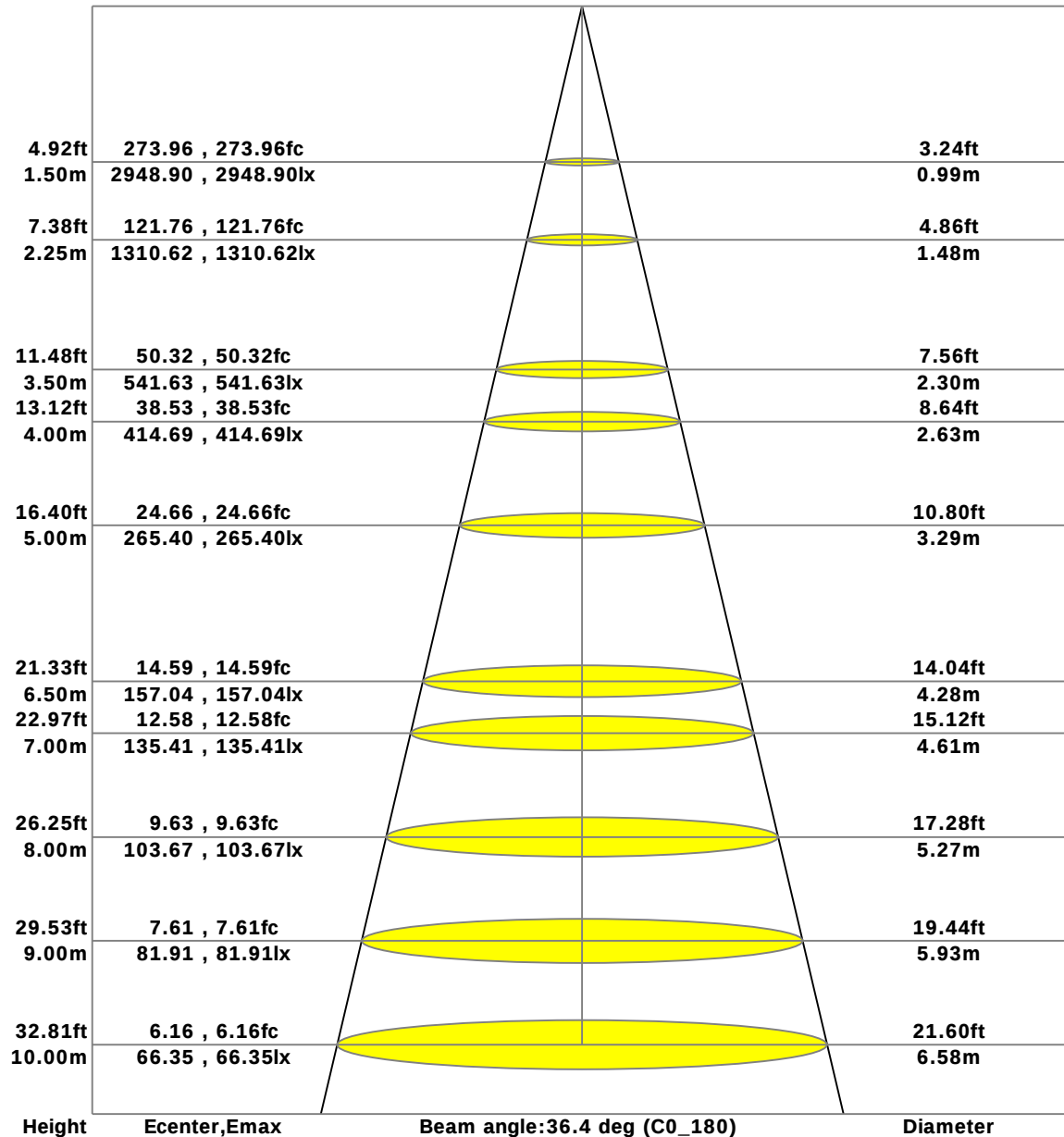
Remarks:



Report No.:

Test Time: 2025/3/18 17:01:03

LX-DISTANCE DIAGRAM



C Range: 0 - 360 Deg
C Interval: 45.0 Deg
Test Speed: High
Temperature: 7.8
Operators:
Test Date: 2025/3/18 17:01:03

G Range: 0 - 90 Deg
G Interval: 1.0 Deg
Test System: Huipu CPM-1600B Goniophotometer
Humidity: 1
Test Distance: 7.8 m
Remarks:



Report No.:

Test Time: 2025/3/18 17:01:03

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	4.28	4.44	4.65	4.92	5.49	4.28	4.44	4.65	4.92	5.49
3H	4.14	4.29	4.51	4.77	5.35	4.14	4.29	4.51	4.77	5.35
4H	4.07	4.21	4.44	4.69	5.27	4.07	4.21	4.44	4.69	5.27
6H	3.99	4.13	4.37	4.61	5.20	3.99	4.13	4.37	4.61	5.20
8H	3.95	4.09	4.34	4.57	5.16	3.95	4.09	4.34	4.57	5.16
12H	3.92	4.05	4.30	4.52	5.12	3.92	4.05	4.30	4.52	5.12
4H 2H	4.07	4.21	4.44	4.69	5.27	4.07	4.21	4.44	4.69	5.27
3H	3.92	4.05	4.30	4.52	5.12	3.92	4.05	4.30	4.52	5.12
4H	3.84	3.97	4.23	4.44	5.04	3.84	3.97	4.23	4.44	5.04
6H	3.76	3.88	4.16	4.35	4.95	3.76	3.88	4.16	4.35	4.95
8H	3.72	3.84	4.12	4.30	4.91	3.72	3.84	4.12	4.30	4.91
12H	3.68	3.79	4.09	4.25	4.86	3.68	3.79	4.09	4.25	4.86
8H 4H	3.95	4.09	4.34	4.57	5.16	3.95	4.09	4.34	4.57	5.16
6H	3.64	3.74	4.05	4.20	4.81	3.64	3.74	4.05	4.20	4.81
8H	3.60	3.69	4.01	4.14	4.77	3.60	3.69	4.01	4.14	4.77
12H	3.55	3.64	3.97	4.09	4.72	3.55	3.64	3.97	4.09	4.72
12H 4H	3.68	3.79	4.09	4.25	4.86	3.68	3.79	4.09	4.25	4.86
6H	3.60	3.69	4.01	4.14	4.77	3.60	3.69	4.01	4.14	4.77

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature: 7.8

Operators:

Test Date: 2025/3/18 17:01:03

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1600B Goniophotometer

Humidity: 1

Test Distance: 7.8 m

Remarks:



Report No.:

Test Time: 2025/3/18 17:01:03

ZONAL LUMINOUS FLUX TABLE-2

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	φ zonal	φ total	%lum	%lamp
10	6135.7	5297.7	5209.9	5384.5	5935.9	6134.4	6333.3	6372.6	10	588.0	588.0	26.9	26.9
20	3394.6	1255.6	1440.6	735.9	1286.9	3533.6	3428.3	3986.7	20	1212.3	1800.3	82.3	82.3
30	183.4	33.1	46.2	38.5	38.0	224.3	163.4	231.7	30	355.7	2156.1	98.6	98.6
40	24.7	13.6	14.7	9.7	12.7	19.8	18.1	22.5	40	23.7	2179.8	99.7	99.7
50	4.2	2.3	2.9	2.0	2.1	4.0	2.9	4.0	50	6.3	2186.1	100.0	100.0
60	0.3	0.0	0.0	0.0	0.0	0.3	0.0	0.2	60	1.1	2187.1	100.0	100.0
70	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	70	0.0	2187.1	100.0	100.0
80	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	80	0.0	2187.1	100.0	100.0
90	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90	0.0	2187.1	100.0	100.0

Conical surface Flux(90deg) : 2184.1 lm

%lum = 99.9%

%lamp = 99.9%

Conical surface Flux(120deg) : 2187.1 lm

%lum = 100.0%

%lamp = 100.0%

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature: 7.8

Operators:

Test Date: 2025/3/18 17:01:03

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1600B Goniophotometer

Humidity: 1

Test Distance: 7.8 m

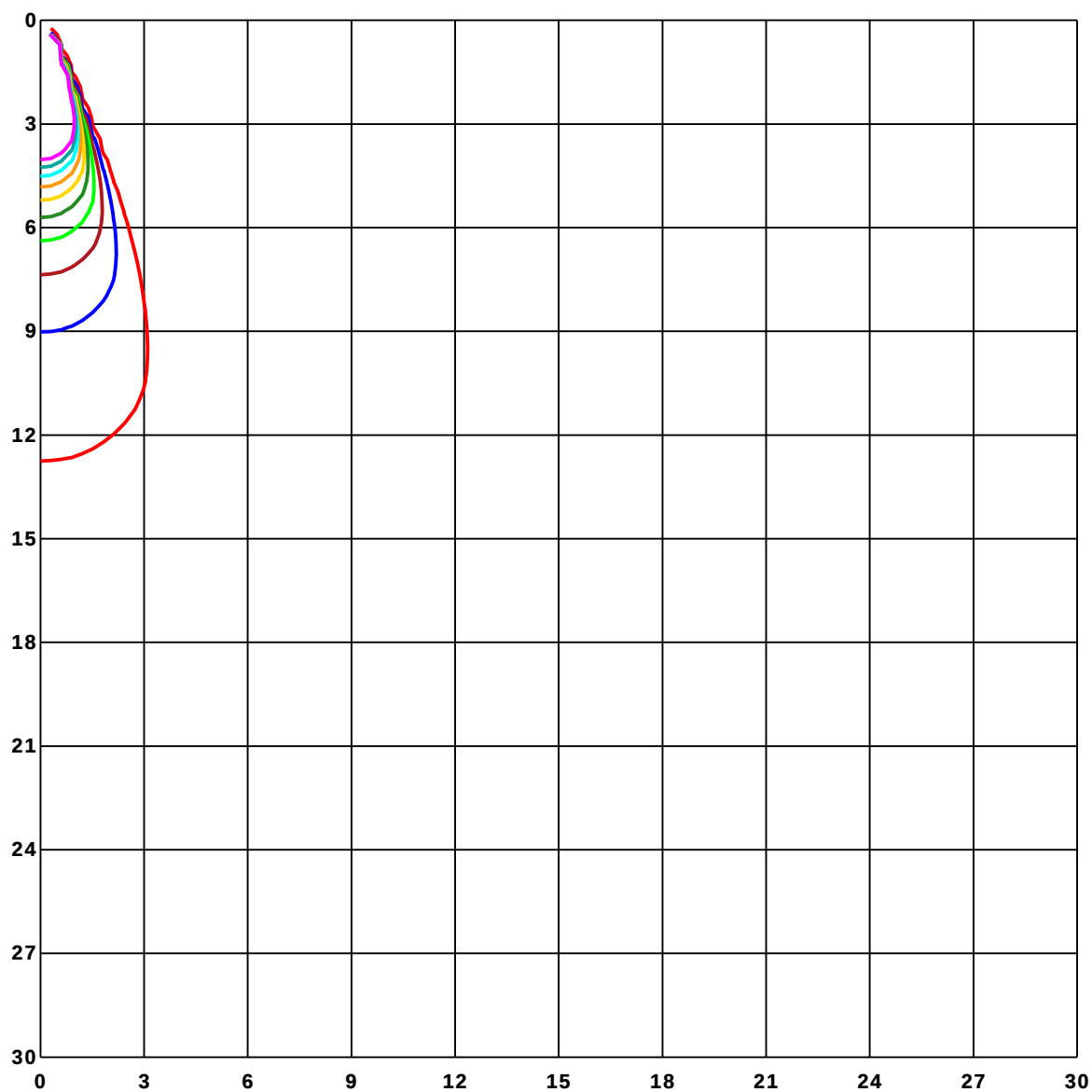
Remarks:



Report No.:

Test Time: 2025/3/18 17:01:03

SPACE ISOLX DIAGRAM



Unit of illumination:lx

408.25	204.125
367.425	163.3
326.6	122.475
285.775	81.65
244.95	40.825

C Range: 0 - 360 Deg
C Interval: 45.0 Deg
Test Speed: High
Temperature: 7.8
Operators:
Test Date: 2025/3/18 17:01:03

G Range: 0 - 90 Deg
G Interval: 1.0 Deg
Test System: Huipu CPM-1600B Goniophotometer
Humidity: 1
Test Distance: 7.8 m
Remarks:



Report No.:

Test Time: 2025/3/18 17:01:03

LUMINOUS DISTRIBUTION INTENSITY DATA

Gamma/C	C0	C45	C90	C135	C180	C225	C270	C315	C360	
G0	6635.03	6314.46	6326.51	6516.57	6635.03	6314.46	6326.51	6516.57	6635.03	
G1	6625.11	6259.22	6260.92	6467.66	6633.33	6341.48	6382.85	6567.07	6625.11	
G2	6622.13	6201.0	6183.41	6397.08	6613.98	6369.77	6438.82	6580.03	6622.13	
G3	6600.11	6127.01	6091.67	6300.29	6568.23	6381.08	6473.74	6574.43	6600.11	
G4	6584.59	6052.06	5987.69	6211.64	6517.0	6385.89	6495.77	6581.0	6584.59	
G5	6540.73	5943.16	5888.77	6141.01	6439.37	6373.36	6509.45	6593.35	6540.73	
G6	6483.48	5833.83	5785.34	6047.62	6364.53	6360.76	6509.82	6586.96	6483.48	
G7	6417.89	5716.34	5662.81	5936.95	6286.42	6322.13	6488.89	6562.14	6417.89	
G8	6337.7	5590.53	5528.65	5805.72	6195.58	6271.51	6445.27	6520.95	6337.7	
G9	6233.24	5454.0	5372.11	5619.55	6080.47	6206.71	6394.47	6452.57	6233.24	
G10	6135.65	5297.7	5209.91	5384.52	5935.92	6134.38	6333.32	6372.63	6135.65	
G11	6018.48	5120.54	5020.4	5094.19	5718.47	6062.16	6267.31	6286.9	6018.48	
G12	5892.17	4892.94	4806.66	4705.73	5375.46	5988.97	6205.25	6204.16	5892.17	
G13	5743.6	4570.67	4537.63	4274.44	4970.63	5889.86	6130.79	6112.84	5743.6	
G14	5576.78	4172.29	4185.55	3792.83	4493.76	5756.19	5999.37	6006.25	5576.78	
G15	5371.14	3731.5	3784.61	3303.31	4007.96	5567.04	5737.64	5859.87	5371.14	
G16	5106.12	3258.96	3353.81	2808.68	3479.44	5280.67	5375.7	5636.16	5106.12	
G17	4749.96	2782.82	2901.28	2269.15	2926.28	4902.73	4940.88	5304.82	4749.96	
G18	4331.99	2269.27	2417.66	1730.23	2390.95	4470.77	4475.94	4921.77	4331.99	
G19	3876.54	1750.85	1923.64	1207.86	1830.01	4015.14	3953.32	4465.66	3876.54	
G20	3394.63	1255.56	1440.57	735.92	1286.89	3533.59	3428.33	3986.72	3394.63	
G21	2882.36	801.38	993.03	435.92	804.61	3019.85	2872.5	3490.94	2882.36	
G22	2397.89	484.29	613.88	329.51	495.85	2481.24	2289.71	2969.72	2397.89	
G23	1876.12	315.46	371.73	292.58	414.87	1942.07	1706.75	2459.28	1876.12	
G24	1394.15	284.31	285.34	238.74	348.92	1402.42	1164.42	1925.34	1394.15	
G25	918.32	246.22	253.52	181.0	271.95	920.27	720.95	1404.13	918.32	
G26	545.8	193.05	208.99	121.5	197.61	577.68	460.92	898.67	545.8	
G27	340.95	135.92	159.64	65.4	127.16	432.63	394.67	515.31	340.95	
G28	293.55	80.07	107.99	46.6	62.48	377.57	314.18	353.18	293.55	
G29	240.87	41.13	62.73	42.04	43.8	300.55	236.79	294.47	240.87	
G30	183.43	33.1	46.24	38.45	37.96	224.32	163.42	231.68	183.43	
G31	125.88	27.44	40.95	35.71	33.16	150.82	97.71	169.74	125.88	
G32	72.89	22.69	36.32	31.82	29.57	83.47	44.29	112.55	72.89	
G33	43.32	21.17	32.12	28.35	27.13	42.28	37.23	60.47	43.32	
G34	39.06	23.3	29.51	25.25	25.31	32.85	32.55	43.68	39.06	
G35	35.35	24.21	28.47	21.78	23.73	26.65	28.53	38.45	35.35	
G36	32.67	24.15	27.26	18.62	22.27	21.9	24.03	35.1	32.67	

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature: 7.8

Operators:

Test Date: 2025/3/18 17:01:03

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1600B Goniophotometer

Humidity: 1

Test Distance: 7.8 m

Remarks:



Report No.:

Test Time: 2025/3/18 17:01:03

LUMINOUS DISTRIBUTION INTENSITY DATA(Continue 1)

Gamma/C	C0	C45	C90	C135	C180	C225	C270	C315	C360	
G37	30.72	22.21	25.07	15.88	20.2	19.29	22.21	30.91	30.72	
G38	29.08	19.23	21.23	13.75	17.83	17.77	21.29	27.74	29.08	
G39	26.89	16.31	17.95	11.62	15.03	19.29	20.08	24.76	26.89	
G40	24.7	13.57	14.72	9.73	12.65	19.77	18.07	22.51	24.7	
G41	20.99	11.38	12.41	8.21	10.65	19.29	15.88	19.59	20.99	
G42	17.58	9.43	10.46	7.0	8.7	17.22	13.2	16.55	17.58	
G43	14.42	7.79	8.88	5.96	7.18	15.03	11.13	13.87	14.42	
G44	12.11	6.51	7.42	5.11	6.27	12.47	9.25	11.56	12.11	
G45	9.92	5.48	6.21	4.32	5.17	10.28	7.54	9.43	9.92	
G46	8.34	4.62	5.23	3.83	4.44	8.4	6.21	7.91	8.34	
G47	6.94	3.83	4.56	3.29	3.65	6.94	5.23	6.57	6.94	
G48	5.84	3.29	3.83	2.68	3.16	5.84	4.32	5.54	5.84	
G49	4.87	2.68	3.35	2.25	2.62	4.93	3.65	4.62	4.87	
G50	4.2	2.31	2.86	2.01	2.13	4.02	2.92	4.02	4.2	
G51	3.41	1.76	2.37	1.64	1.7	3.47	2.49	3.35	3.41	
G52	2.98	1.46	1.95	1.4	1.52	2.86	1.89	2.86	2.98	
G53	2.37	1.1	1.89	1.03	1.22	2.43	1.64	2.31	2.37	
G54	2.13	0.79	1.52	0.85	0.85	2.01	1.16	1.95	2.13	
G55	1.64	0.73	1.16	0.55	0.49	1.58	0.85	1.52	1.64	
G56	1.28	0.3	0.91	0.43	0.43	1.22	0.49	1.22	1.28	
G57	1.03	0.12	0.79	0.06	0.12	0.97	0.3	0.85	1.03	
G58	0.73	0.0	0.37	0.0	0.12	0.79	0.06	0.73	0.73	
G59	0.43	0.0	0.18	0.0	0.0	0.55	0.0	0.49	0.43	
G60	0.3	0.0	0.0	0.0	0.0	0.3	0.0	0.24	0.3	
G61	0.06	0.0	0.0	0.0	0.0	0.06	0.0	0.0	0.06	
G62	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G63	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G64	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G65	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G66	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G67	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G68	0.0	0.0	0.0	0.0	0.0	0.0	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	

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature: 7.8

Operators:

Test Date: 2025/3/18 17:01:03

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1600B Goniophotometer

Humidity: 1

Test Distance: 7.8 m

Remarks:

