

Report No.:

Test Time: 2023/1/12 10:48:31

LUMINAIRE PHOTOMETRIC TEST REPORT

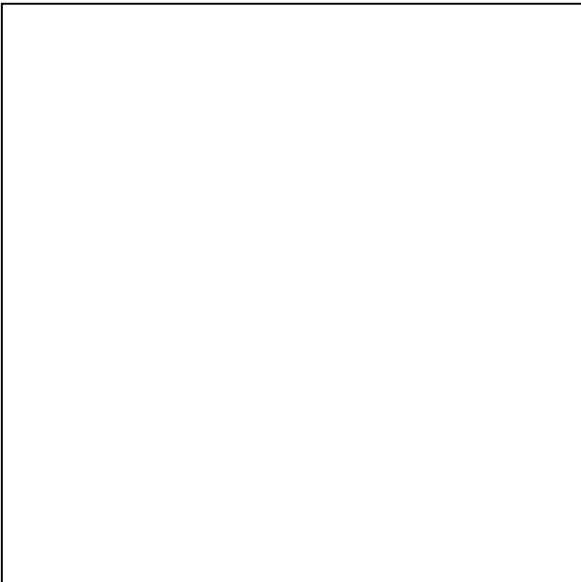
Luminaire Property

Manufacturer: 0	Voltage(V): 219.80 V
Luminaire Type: 18W	Current(A): 0.1490 A
Lamp Type:	Power(W): 18.27 W
Luminous Width: 0 mm	Power Factor: 0.5560
Luminous Length: 0 mm	Lamp Luminous Flux: 1161.80
Luminous Height: 0 mm	

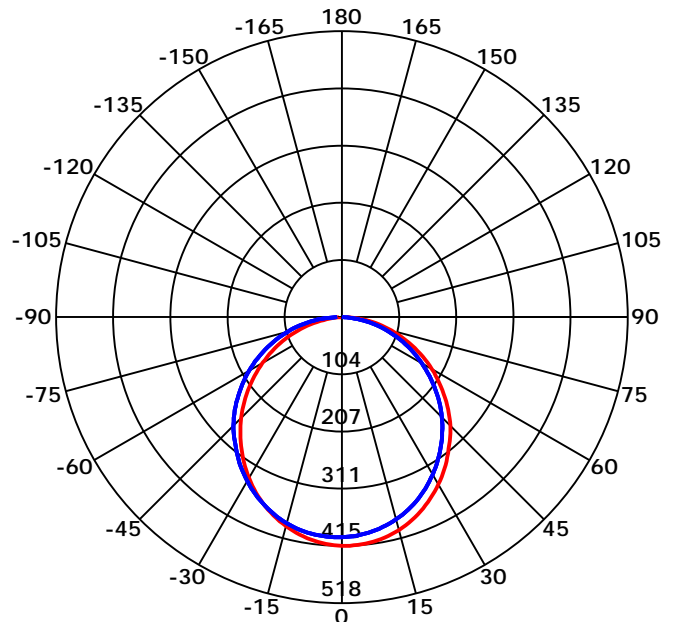
Photometric Results

CIE Class: Direct	Max. Intensity: 414.70 cd
Luminaire Luminous Flux: 1161.795 lm	Max. Intensity Angle: C=0 Gamma=2
Downward Ratio: 100.00%	Upward Ratio: 0.00%
Luminaire Efficacy Rating(LER): 63.59 lm/W	Efficacy: 100.00%
Beam Angle(50%) C0-180,C90-270: 110.4,113.8	Center Intensity: 414.45 cd
Field Angle(10%) C0-180,C90-270: 163.4,165.6	Effective Luminous Flux: 1144.41 lm
S/MH C0-180,C90-270: 1.202,1.202	ERP(φuse)(120deg): 898.22 lm

Picture of Luminaire



Luminous Intensity Distribution Curve



Beam Angle(50%) C0-180,C90-270: 110.4 deg,113.8 deg

C0-180 ——— C90-270 ———

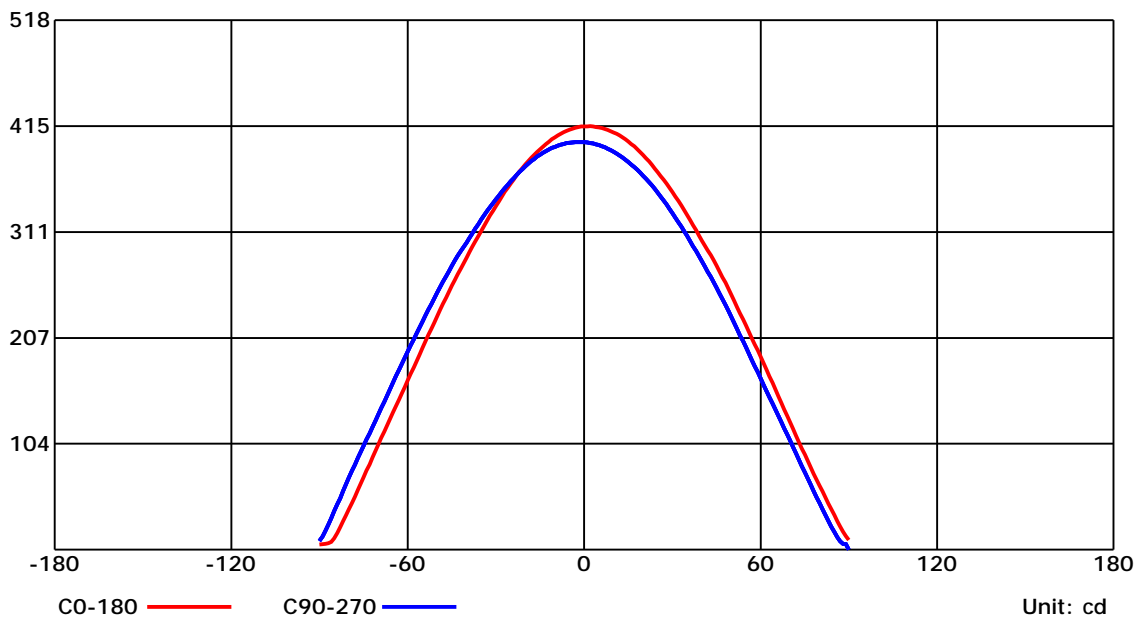
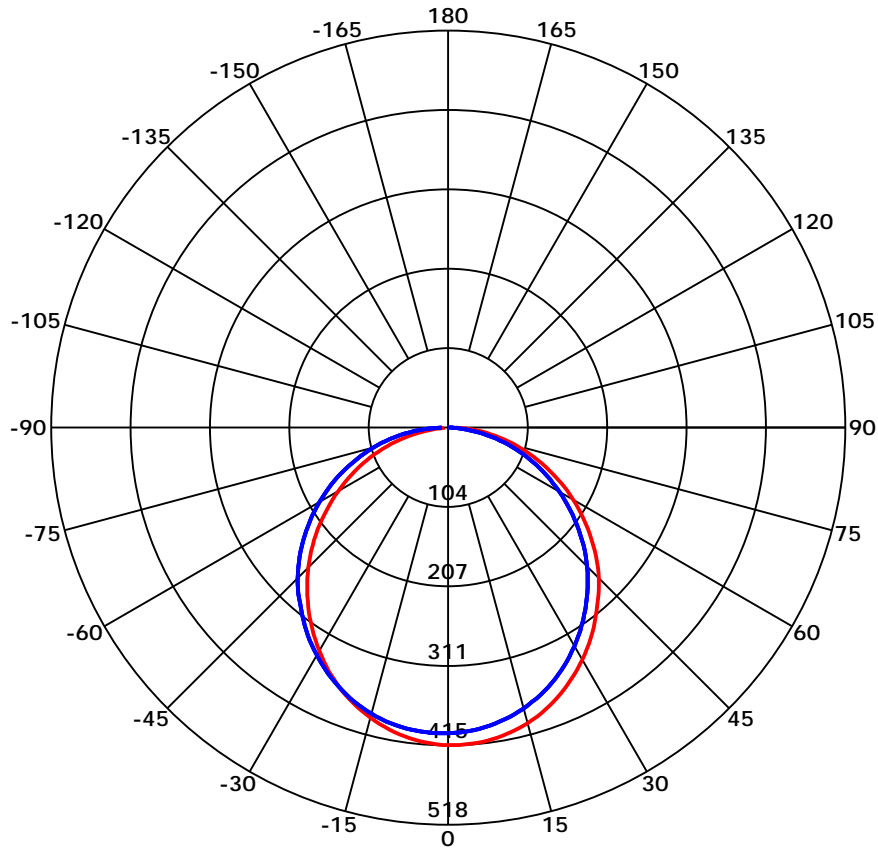
C Range: 0 - 360 Deg
 C Interval: 45.0 Deg
 Test Speed: High
 Temperature:
 Operators:
 Test Date: 2023/1/12 10:48:31

G Range: 0 - 90 Deg
 G Interval: 1.0 Deg
 Test System: Huipu CPM-1800B Goniophotometer
 Humidity:
 Test Distance: 6.38 m
 Remarks:

Report No.:

Test Time: 2023/1/12 10:48:31

Luminous Intensity Distribution Curve



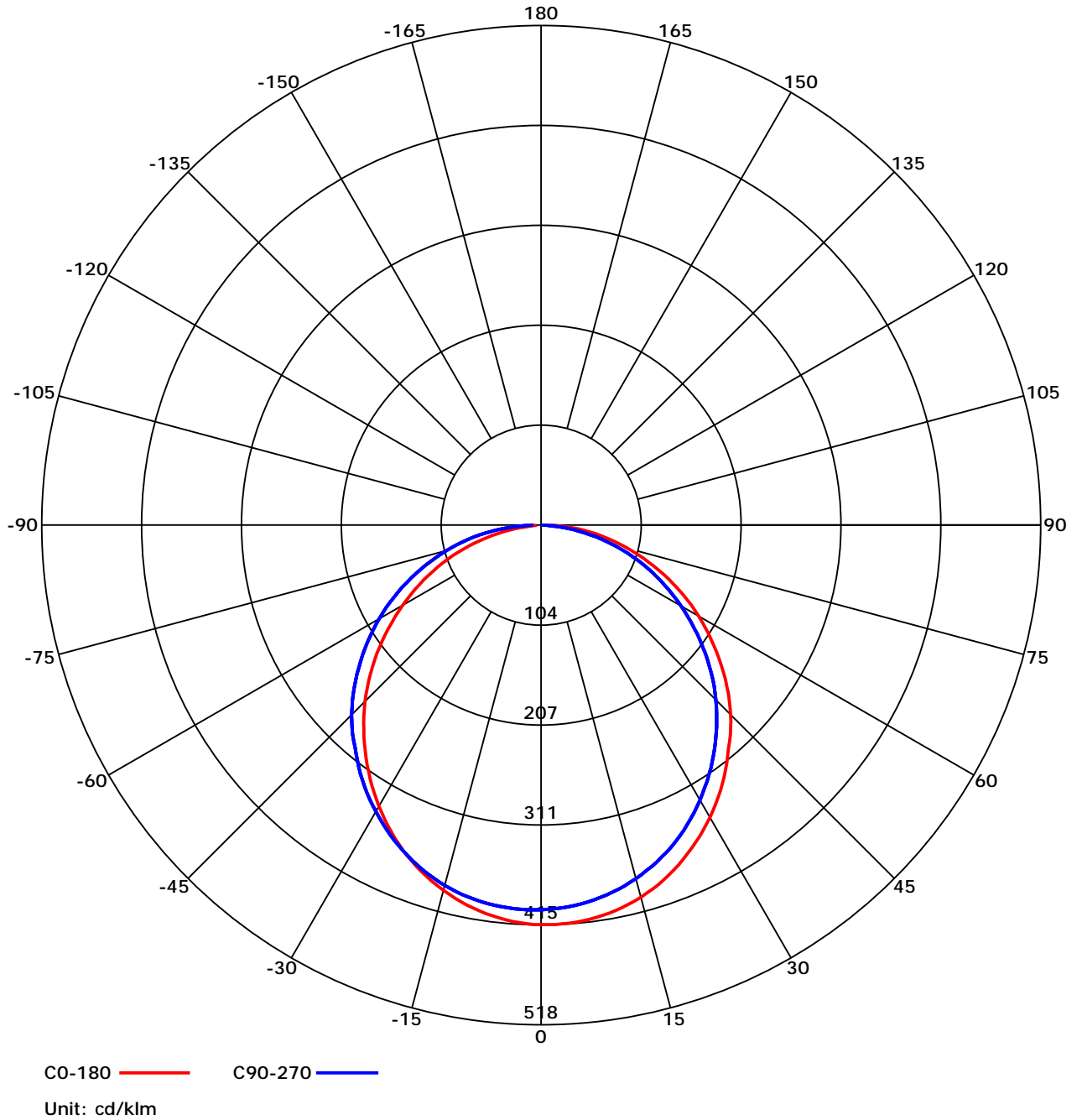
C Range: 0 - 360 Deg
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Luminous Intensity Distribution Curve



C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature:

Operators:

Test Date: 2023/1/12 10:48:31

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity:

Test Distance: 6.38 m

Remarks:

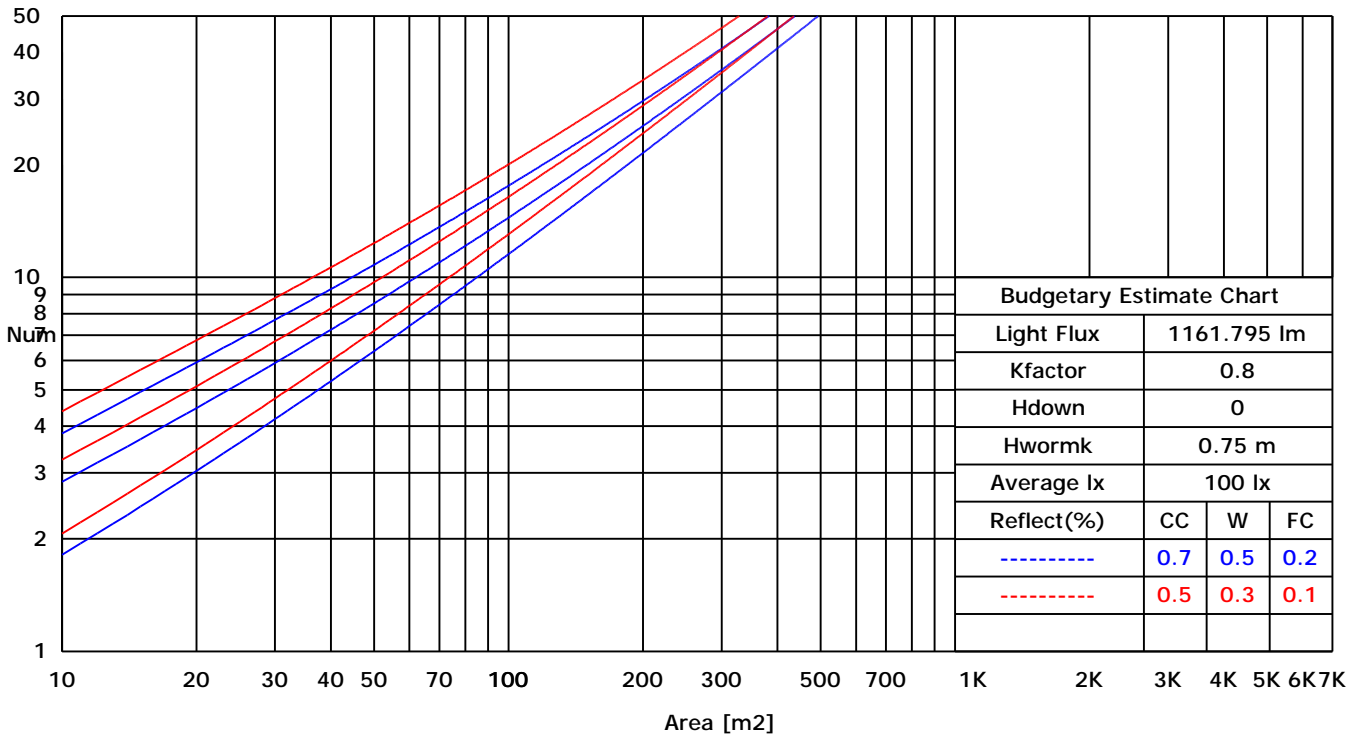
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UTILIZATION FACTORS TABLE

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	1.06	1.05	1.04	1.05	1.03	1.02	1.01	0.99	0.97	0.96	0.94	0.92	0.90	0.88	0.86	0.80
2	0.94	0.92	0.90	0.93	0.91	0.89	0.91	0.87	0.85	0.87	0.83	0.81	0.82	0.78	0.75	0.70
3	0.83	0.81	0.79	0.83	0.80	0.78	0.81	0.77	0.75	0.78	0.74	0.71	0.75	0.70	0.66	0.62
4	0.75	0.72	0.70	0.74	0.71	0.69	0.73	0.69	0.66	0.71	0.67	0.63	0.69	0.63	0.59	0.55
5	0.67	0.65	0.63	0.67	0.64	0.62	0.67	0.62	0.59	0.65	0.60	0.56	0.63	0.58	0.53	0.49
6	0.61	0.59	0.57	0.61	0.58	0.56	0.61	0.57	0.53	0.60	0.55	0.51	0.59	0.53	0.48	0.45
7	0.56	0.53	0.52	0.56	0.53	0.51	0.56	0.52	0.49	0.56	0.50	0.46	0.55	0.49	0.44	0.41
8	0.51	0.49	0.48	0.52	0.49	0.47	0.52	0.48	0.45	0.52	0.46	0.43	0.51	0.45	0.40	0.37
9	0.47	0.45	0.44	0.48	0.45	0.43	0.48	0.44	0.41	0.48	0.43	0.39	0.48	0.42	0.37	0.34
10	0.44	0.42	0.41	0.45	0.42	0.40	0.45	0.41	0.38	0.45	0.40	0.37	0.45	0.39	0.35	0.32

LUMINAIRE BUDGETARY ESTIMATE DIAGRAM



C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature:

Operators:

Test Date: 2023/1/12 10:48:31

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity:

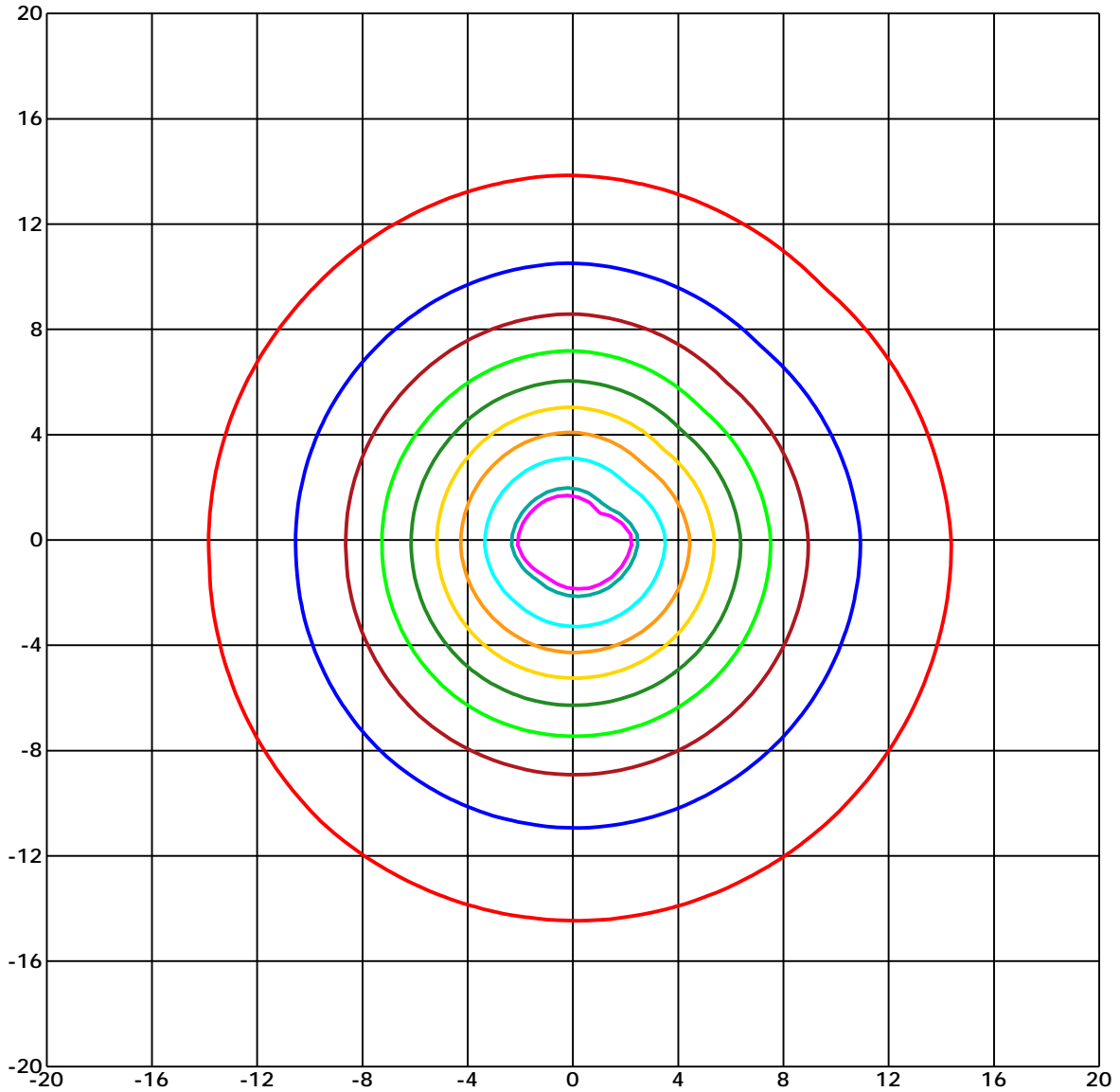
Test Distance: 6.38 m

Remarks:

Report No.:

Test Time: 2023/1/12 10:48:31

ISOLX DIAGRAM



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

- | | |
|------------------------------|------------------------------|
| — 3.813(1%E _{max}) | — 2.072(0%E _{max}) |
| — 3.73(1%E _{max}) | — 1.658(0%E _{max}) |
| — 3.316(1%E _{max}) | — 1.243(0%E _{max}) |
| — 2.901(1%E _{max}) | — 0.829(0%E _{max}) |
| — 2.487(1%E _{max}) | — 0.414(0%E _{max}) |

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature:

Operators:

Test Date: 2023/1/12 10:48:31

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity:

Test Distance: 6.38 m

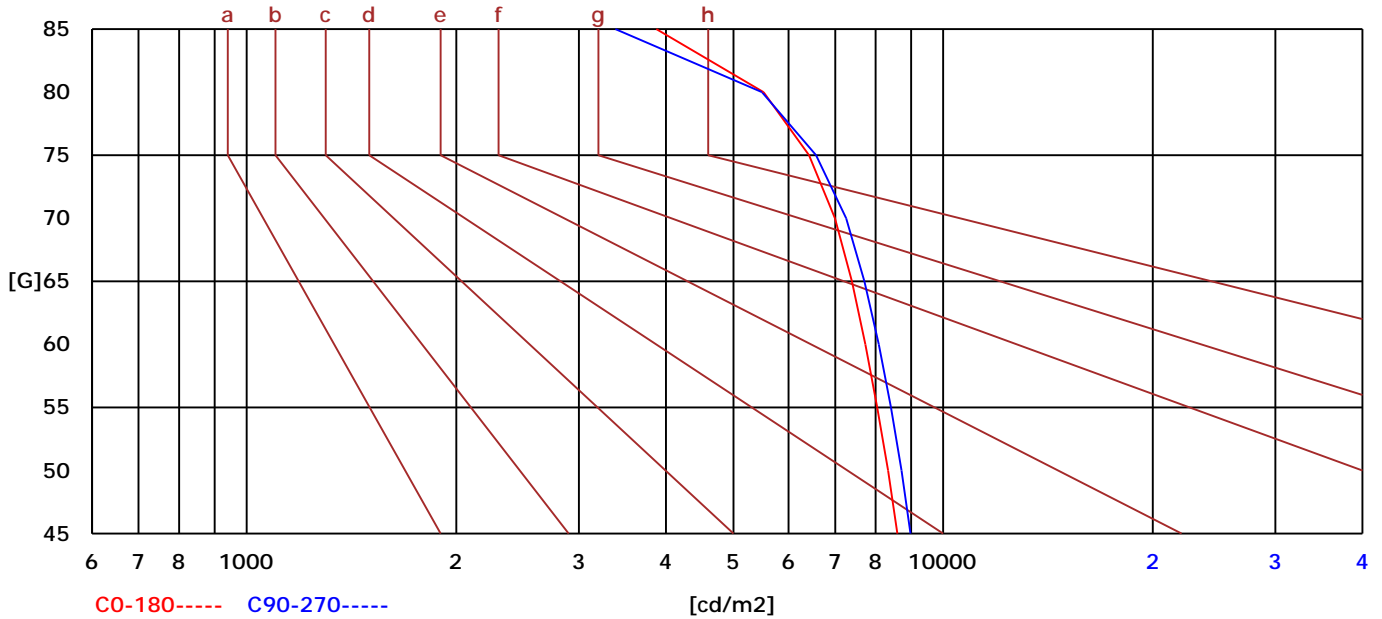
Remarks:

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BRIGHT LIMIT DIAGRAM

C/G	45	50	55	60	65	70	75	80	85
C0	8593	8337	8046	7734	7397	6995	6417	5526	3876
C90	8982	8718	8418	8082	7712	7257	6574	5497	3386
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:

Operators:

Test Date: 2023/1/12 10:48:31

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity:

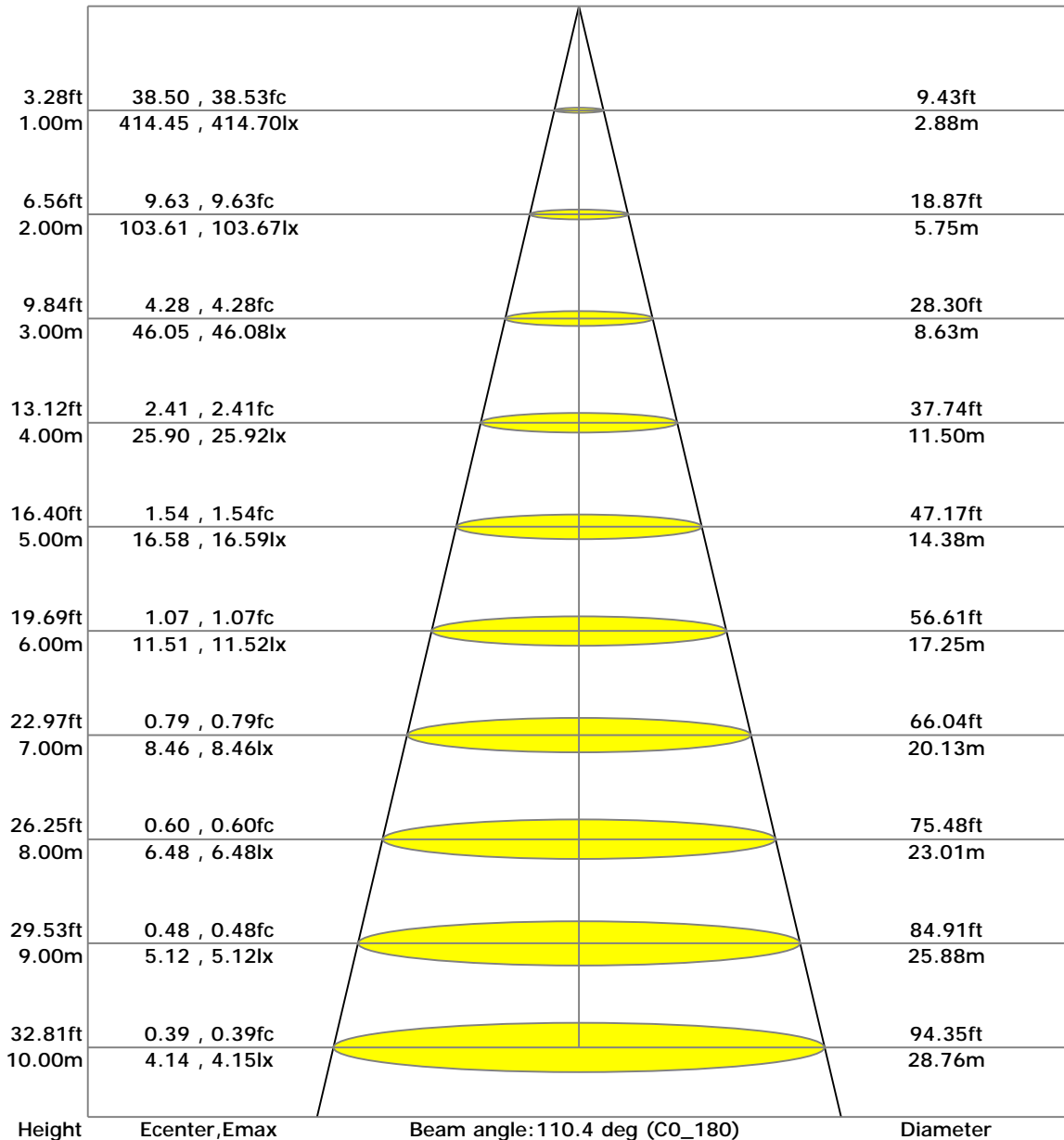
Test Distance: 6.38 m

Remarks:

Report No.:

Test Time: 2023/1/12 10:48:31

LX-DISTANCE DIAGRAM



C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature:

Operators:

Test Date: 2023/1/12 10:48:31

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity:

Test Distance: 6.38 m

Remarks:

Report No.:

Test Time: 2023/1/12 10:48:31

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	18.66	18.74	18.86	18.93	19.17	18.37	18.45	18.57	18.63	18.88
	3H	18.78	18.85	18.98	19.05	19.29	18.52	18.59	18.72	18.79	19.03
	4H	18.79	18.86	19.00	19.06	19.31	18.54	18.61	18.75	18.81	19.06
	6H	18.77	18.84	18.99	19.04	19.30	18.53	18.60	18.75	18.80	19.05
	8H	18.75	18.82	18.97	19.03	19.28	18.51	18.58	18.73	18.79	19.04
	12H	18.74	18.81	18.96	19.01	19.27	18.50	18.56	18.72	18.77	19.03
4H	2H	21.53	21.60	21.74	21.80	22.05	20.98	21.05	21.19	21.25	21.50
	3H	21.76	21.83	21.98	22.04	22.29	21.25	21.32	21.47	21.52	21.78
	4H	21.81	21.87	22.04	22.09	22.35	21.31	21.38	21.54	21.59	21.85
	6H	21.81	21.87	22.05	22.09	22.36	21.34	21.40	21.57	21.62	21.88
	8H	21.80	21.86	22.04	22.08	22.35	21.33	21.39	21.57	21.61	21.88
	12H	21.78	21.83	22.03	22.07	22.34	21.31	21.37	21.56	21.60	21.87
8H	4H	22.48	22.55	22.70	22.75	23.01	21.66	21.73	21.88	21.93	22.18
	6H	23.01	23.06	23.26	23.30	23.57	22.24	22.29	22.49	22.53	22.80
	8H	23.01	23.05	23.27	23.30	23.58	22.25	22.30	22.51	22.54	22.82
	12H	22.99	23.03	23.26	23.29	23.57	22.25	22.29	22.52	22.54	22.82
12H	4H	23.25	23.30	23.50	23.54	23.81	22.30	22.36	22.55	22.59	22.86
	6H	23.34	23.38	23.60	23.63	23.91	22.40	22.44	22.66	22.69	22.97

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature:

Operators:

Test Date: 2023/1/12 10:48:31

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity:

Test Distance: 6.38 m

Remarks:

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ZONAL LUMINOUS FLUX TABLE

Gamma [deg]	I _{mean} [cd]	Zonal Flux [lm]	Sum Flux [lm]	Zonal Flux [%]	Sum Flux [%]
0	403.18	0.00	0.00	0.00	0.00
5	401.96	9.62	9.62	0.83	0.83
10	397.01	28.51	38.12	2.45	3.28
15	388.29	46.37	84.49	3.99	7.27
20	376.06	62.57	147.07	5.39	12.66
25	360.47	76.59	223.65	6.59	19.25
30	341.49	87.86	311.52	7.56	26.81
35	319.87	96.09	407.61	8.27	35.08
40	295.90	101.13	508.73	8.70	43.79
45	270.50	102.96	611.69	8.86	52.65
50	242.63	101.41	713.10	8.73	61.38
55	213.04	96.45	809.56	8.30	69.68
60	182.86	88.66	898.22	7.63	77.31
65	152.17	78.42	976.64	6.75	84.06
70	121.15	66.03	1042.67	5.68	89.75
75	90.22	51.96	1094.63	4.47	94.22
80	60.12	36.92	1131.55	3.18	97.40
85	31.19	21.61	1153.16	1.86	99.26
90	10.44	8.64	1161.80	0.74	100.00

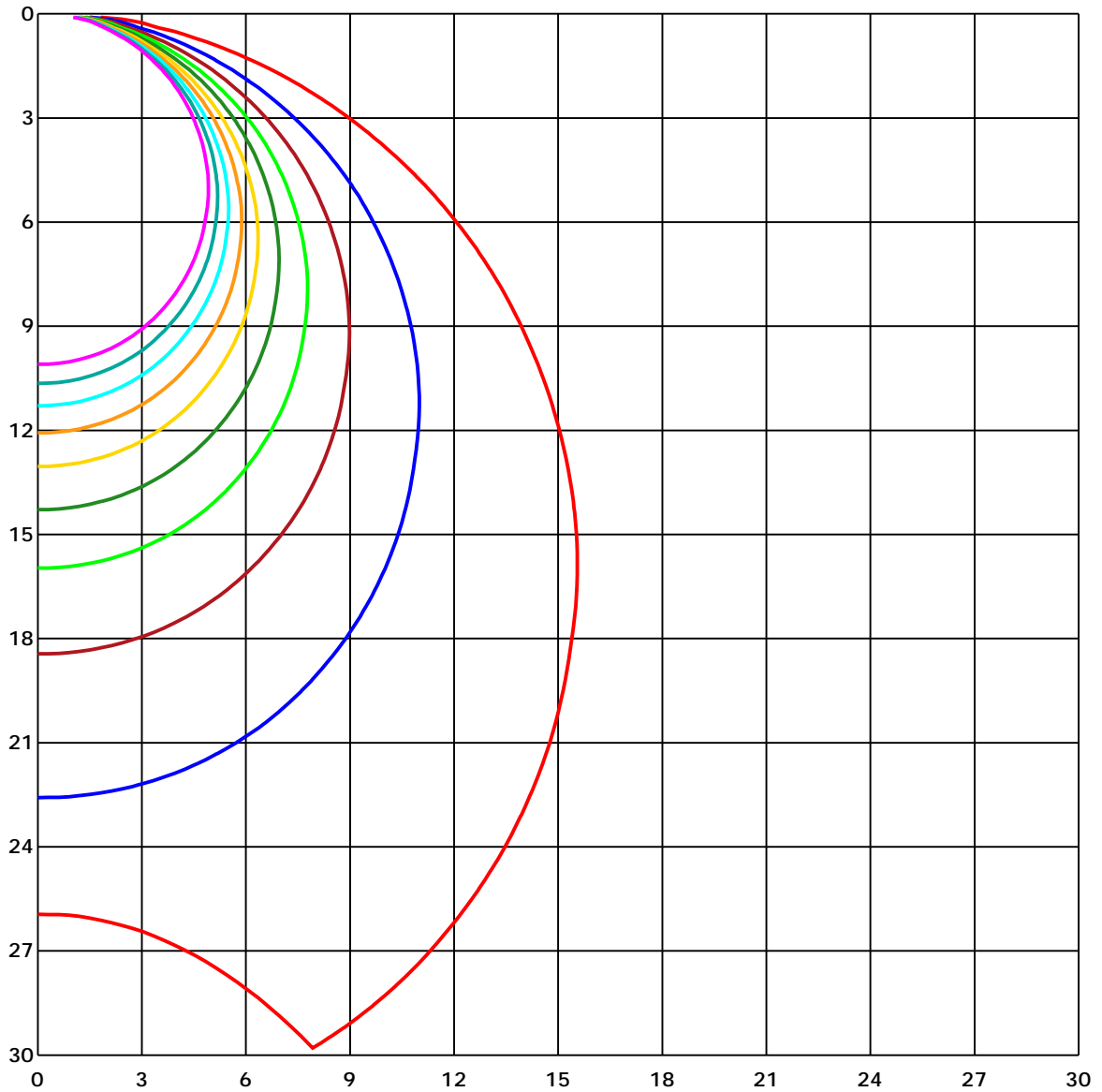
C Range: 0 - 360 Deg
 C Interval: 45.0 Deg
 Test Speed: High
 Temperature:
 Operators:
 Test Date: 2023/1/12 10:48:31

G Range: 0 - 90 Deg
 G Interval: 1.0 Deg
 Test System: Huipu CPM-1800B Goniophotometer
 Humidity:
 Test Distance: 6.38 m
 Remarks:

Report No.:

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SPACE ISOLX DIAGRAM



Unit of illumination: lx

- | | |
|---------|---------|
| — 4.065 | — 2.032 |
| — 3.658 | — 1.626 |
| — 3.252 | — 1.219 |
| — 2.845 | — 0.813 |
| — 2.439 | — 0.406 |

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature:

Operators:

Test Date: 2023/1/12 10:48:31

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity:

Test Distance: 6.38 m

Remarks:

Report No.:

Test Time: 2023/1/12 10:48:31

LUMINOUS DISTRIBUTION INTENSITY DATA

Gamma/C	C0	C45	C90	C135	C180	C225	C270	C315	C360
G0	414.45	393.98	399.03	405.25	414.45	393.98	399.03	405.25	414.45
G1	414.53	393.49	398.7	404.97	414.37	394.26	399.15	405.42	414.53
G2	414.7	393.08	398.25	404.48	413.68	394.38	399.19	405.42	414.7
G3	414.25	392.11	397.72	403.87	413.03	394.67	399.11	405.25	414.25
G4	413.88	391.17	396.95	403.06	412.21	394.51	398.86	405.01	413.88
G5	413.39	390.23	396.09	402.32	411.2	394.14	398.5	404.56	413.39
G6	412.86	388.89	395.08	401.02	409.97	393.61	397.97	404.03	412.86
G7	411.89	387.51	393.94	399.76	408.63	393.16	397.32	403.3	411.89
G8	410.91	386.04	392.59	398.33	407.17	392.35	396.46	402.4	410.91
G9	409.81	384.29	391.17	396.75	405.5	391.49	395.65	401.43	409.81
G10	408.55	382.58	389.58	395.16	403.67	390.44	394.47	400.25	408.55
G11	407.04	380.67	387.87	393.25	401.71	389.26	393.29	398.94	407.04
G12	405.5	378.59	386.0	391.13	399.51	387.91	391.94	397.48	405.5
G13	403.62	376.15	384.01	388.97	397.23	386.45	390.36	395.81	403.62
G14	401.75	373.99	381.69	386.65	394.75	384.74	388.73	394.06	401.75
G15	399.64	371.51	379.61	384.25	392.19	382.95	386.85	392.15	399.64
G16	397.19	368.9	377.21	381.69	389.42	381.07	384.9	390.11	397.19
G17	394.95	365.97	374.48	379.0	386.65	378.71	382.58	387.87	394.95
G18	392.27	363.33	372.04	376.11	383.68	376.76	380.5	385.63	392.27
G19	389.46	360.36	369.19	373.14	380.55	374.44	378.06	383.31	389.46
G20	386.49	357.18	366.1	370.04	377.29	372.12	375.46	380.95	386.49
G21	383.44	354.05	363.16	366.67	373.87	369.68	372.73	378.55	383.44
G22	380.1	350.51	359.99	363.29	370.37	367.19	369.84	376.03	380.1
G23	376.76	346.96	356.61	359.62	366.62	364.71	366.87	373.3	376.76
G24	373.02	343.22	353.15	356.0	362.47	362.03	363.73	370.13	373.02
G25	369.64	339.39	349.53	352.17	358.69	358.97	360.68	366.95	369.64
G26	365.89	335.24	345.66	348.06	354.58	355.68	357.47	363.49	365.89
G27	362.11	331.25	341.75	344.03	350.34	352.42	353.97	360.07	362.11
G28	358.16	326.98	337.85	339.72	345.91	348.96	350.46	356.49	358.16
G29	354.09	322.62	333.53	335.36	341.14	345.5	346.84	352.87	354.09
G30	350.02	318.15	329.34	330.85	336.75	341.71	343.14	349.04	350.02
G31	345.7	313.63	325.07	326.29	331.99	337.97	339.35	344.89	345.7
G32	341.39	309.07	320.51	321.65	327.14	334.14	335.53	341.18	341.39
G33	336.87	304.35	316.27	316.64	322.26	330.15	331.54	336.83	336.87
G34	332.35	299.67	311.47	311.88	317.33	326.12	327.55	332.6	332.35
G35	327.67	294.78	307.11	307.24	312.28	322.18	323.4	328.53	327.67
G36	322.91	289.82	302.15	302.19	307.2	317.66	318.96	324.09	322.91

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature:

Operators:

Test Date: 2023/1/12 10:48:31

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity:

Test Distance: 6.38 m

Remarks:

Report No.:

Test Time: 2023/1/12 10:48:31

LUMINOUS DISTRIBUTION INTENSITY DATA(Continue 1)

GammaC	C0	C45	C90	C135	C180	C225	C270	C315	C360	
G37	317.82	285.01	297.3	297.1	302.03	313.26	314.44	319.53	317.82	
G38	312.85	279.84	292.42	291.93	296.74	308.82	309.84	314.93	312.85	
G39	307.6	274.84	287.41	286.48	291.4	304.14	305.24	310.05	307.6	
G40	302.52	269.67	282.41	281.43	286.03	299.63	300.64	305.12	302.52	
G41	297.83	264.54	277.32	276.22	280.66	294.46	296.61	300.03	297.83	
G42	293.19	259.25	272.27	270.73	275.24	289.49	292.34	294.86	293.19	
G43	288.35	254.0	266.98	265.31	269.71	284.36	287.78	289.53	288.35	
G44	283.26	248.58	261.73	259.73	264.05	279.27	283.1	284.24	283.26	
G45	277.97	243.05	256.32	254.04	258.64	273.98	278.17	278.78	277.97	
G46	272.52	237.55	250.74	248.38	252.57	268.73	272.84	273.37	272.52	
G47	266.94	231.77	245.33	242.56	246.79	263.4	267.88	267.79	266.94	
G48	261.32	226.15	239.67	236.49	240.81	257.94	262.5	262.18	261.32	
G49	255.42	220.41	233.81	230.47	234.7	252.53	257.17	256.52	255.42	
G50	249.52	214.35	227.99	224.16	228.56	247.04	251.63	250.82	249.52	
G51	243.49	208.45	222.04	218.26	222.41	241.42	246.02	245.08	243.49	
G52	237.47	202.46	216.1	211.91	216.38	235.84	240.36	239.26	237.47	
G53	231.49	196.72	209.87	205.68	209.91	230.18	234.7	233.52	231.49	
G54	225.42	190.58	203.97	199.41	203.81	224.53	229.04	227.54	225.42	
G55	219.32	184.59	198.03	193.14	197.38	218.83	223.3	221.72	219.32	
G56	213.05	178.61	191.84	186.83	190.99	213.01	217.52	215.77	213.05	
G57	207.06	172.63	185.73	180.52	184.68	207.27	211.83	209.87	207.06	
G58	200.92	166.6	179.63	174.26	178.41	201.57	205.92	203.93	200.92	
G59	194.89	160.7	173.65	167.95	172.18	195.58	200.06	197.86	194.89	
G60	188.62	154.68	167.5	161.64	165.87	189.72	194.2	191.96	188.62	
G61	182.4	148.65	161.27	155.29	159.4	183.78	188.22	185.86	182.4	
G62	176.13	142.83	155.21	149.06	153.21	177.8	182.11	179.75	176.13	
G63	169.49	136.81	149.22	142.87	147.02	171.69	176.21	173.85	169.49	
G64	163.22	131.07	143.12	136.56	140.63	165.59	169.82	167.34	163.22	
G65	156.75	125.04	137.01	130.38	134.45	159.36	163.75	160.99	156.75	
G66	150.32	119.14	130.99	124.11	128.22	153.25	157.36	154.8	150.32	
G67	143.85	113.28	125.13	118.0	121.95	147.02	151.18	148.45	143.85	
G68	137.34	107.5	118.86	112.02	115.68	140.84	144.95	142.18	137.34	
G69	130.74	101.56	112.71	105.47	109.33	134.65	138.64	136.12	130.74	
G70	124.39	95.7	106.52	99.28	102.9	128.3	132.29	129.44	124.39	
G71	118.12	89.83	100.42	93.09	96.71	122.24	126.22	123.42	118.12	
G72	111.65	83.93	94.35	86.86	90.36	116.13	120.04	117.19	111.65	
G73	105.42	78.07	88.04	80.51	83.57	110.06	113.89	110.92	105.42	

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature:

Operators:

Test Date: 2023/1/12 10:48:31

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity:

Test Distance: 6.38 m

Remarks:

Report No.:

Test Time: 2023/1/12 10:48:31

LUMINOUS DISTRIBUTION INTENSITY DATA(Continue 2)

Gamma\C	C0	C45	C90	C135	C180	C225	C270	C315	C360	
G74	99.16	72.21	81.86	74.29	77.42	103.96	107.74	105.1	99.16	
G75	93.05	66.43	75.75	68.06	70.78	97.98	101.56	98.91	93.05	
G76	86.74	60.77	69.6	62.24	64.68	91.95	95.74	92.81	86.74	
G77	80.72	54.91	63.58	55.68	58.37	86.05	89.59	86.9	80.72	
G78	74.45	49.29	57.56	49.99	51.94	80.31	83.2	80.84	74.45	
G79	68.79	44.0	51.33	44.2	45.87	74.29	77.5	74.98	68.79	
G80	62.52	38.38	45.47	38.18	39.61	68.63	70.54	69.28	62.52	
G81	56.99	32.81	39.48	32.77	33.54	62.85	64.11	63.46	56.99	
G82	51.12	28.53	33.78	28.13	27.84	57.27	57.47	57.84	51.12	
G83	45.1	23.45	28.41	21.86	22.1	51.53	50.31	52.06	45.1	
G84	39.77	17.87	22.79	16.24	16.49	45.59	44.57	46.24	39.77	
G85	33.83	13.51	17.46	11.8	11.15	39.81	37.57	40.75	33.83	
G86	28.09	10.54	12.41	8.59	7.69	33.99	30.65	34.88	28.09	
G87	22.63	8.67	8.1	6.76	6.43	27.96	24.46	28.82	22.63	
G88	17.75	7.33	5.7	6.06	5.82	22.47	18.68	23.08	17.75	
G89	13.15	6.72	5.33	5.45	5.29	17.1	12.98	17.5	13.15	
G90	9.59	6.39	0.0	4.97	5.25	17.1	8.48	17.5	9.59	

C Range: 0 - 360 Deg
 C Interval: 45.0 Deg
 Test Speed: High
 Temperature:
 Operators:
 Test Date: 2023/1/12 10:48:31

G Range: 0 - 90 Deg
 G Interval: 1.0 Deg
 Test System: Huipu CPM-1800B Goniophotometer
 Humidity:
 Test Distance: 6.38 m
 Remarks: