

Report No.:

Test Time: 2023/5/17 13:46:46

LUMINAIRE PHOTOMETRIC TEST REPORT

Luminaire Property

Manufacturer: cheehung
 Luminaire Type: QH-F16
 Lamp Type:
 Luminous Width: 0 mm
 Luminous Length: 0 mm
 Luminous Height: 0 mm

Voltage(V): 217.50 V
 Current(A): 1.2350 A
 Power(W): 189.17 W
 Power Factor: 0.7030
 Lamp Luminous Flux: 23250.03

Photometric Results

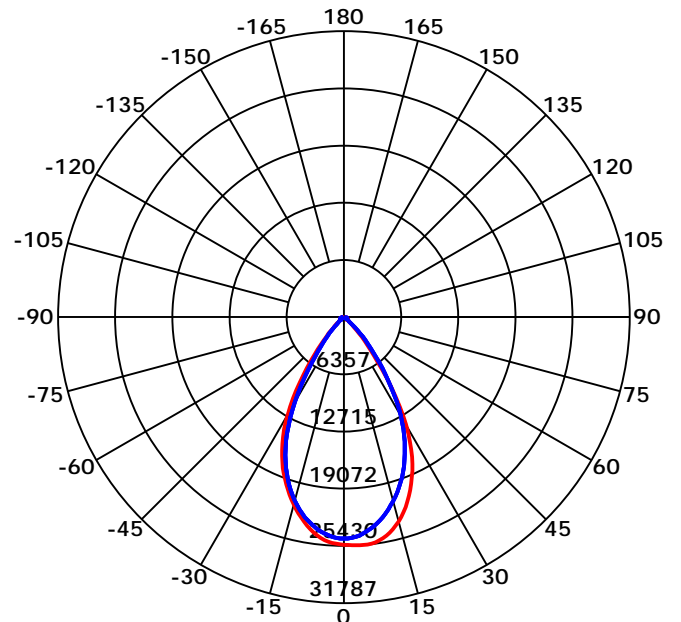
CIE Class: Direct
 Luminaire Luminous Flux: 23250.03 lm
 Downward Ratio: 100.00%
 Luminaire Efficacy Rating(LER): 122.91 lm/W
 Beam Angle(50%) C0-180,C90-270: 60.8,58.9
 Field Angle(10%) C0-180,C90-270: 85.7,87.0
 S/MH C0-180,C90-270: 0.933,0.890

Max. Intensity: 25429.99 cd
 Max.Intensity Angle: C=0 Gamma=5
 Upward Ratio: 0.00%
 Efficacy: 100.00%
 Center Intensity: 25309.02 cd
 Effective Luminous Flux: 21533.80 lm
 ERP(φ use)(120deg): 22705.52 lm

Picture of Luminaire



Luminous Intensity Distribution Curve



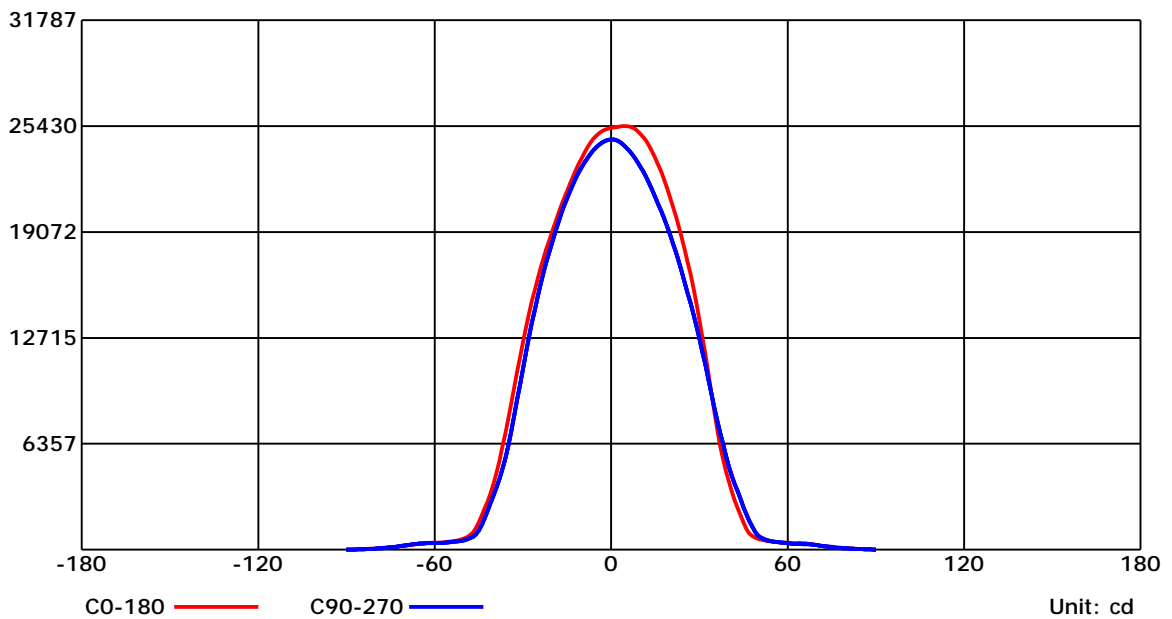
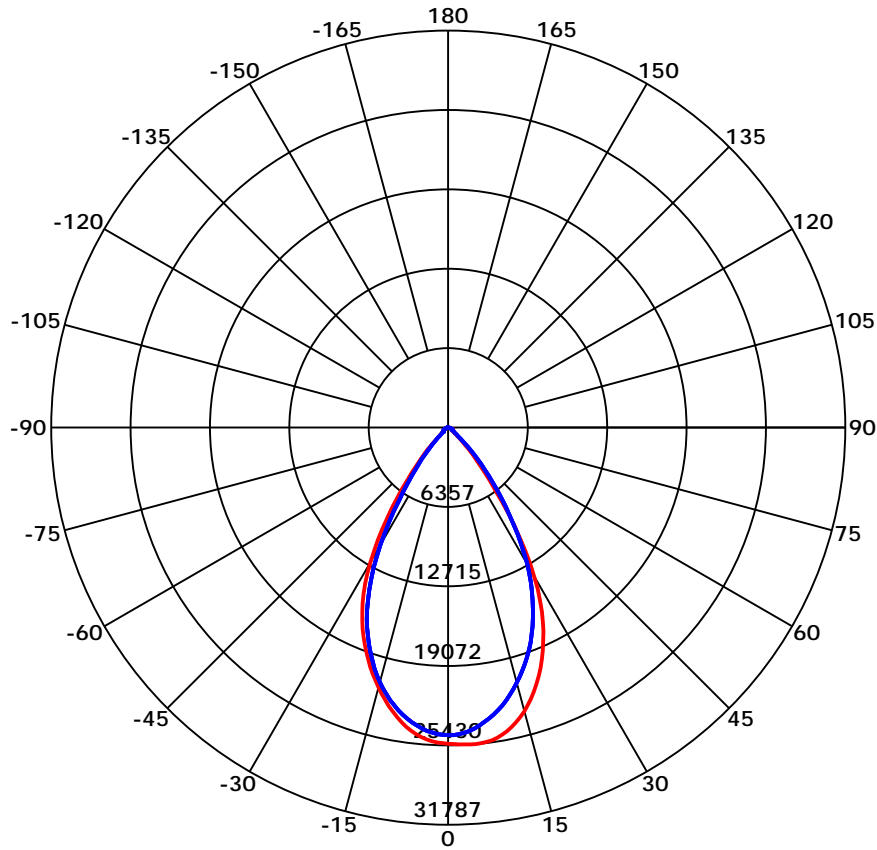
Beam Angle(50%) C0-180,C90-270: 60.8 deg,58.9 deg

C0-180 ——— C90-270 ———

C Range: 0 - 360 Deg
 C Interval: 45.0 Deg
 Test Speed: High
 Temperature:
 Operators: ABUBAKER.LI
 Test Date: 2023/5/17 13:46:46

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

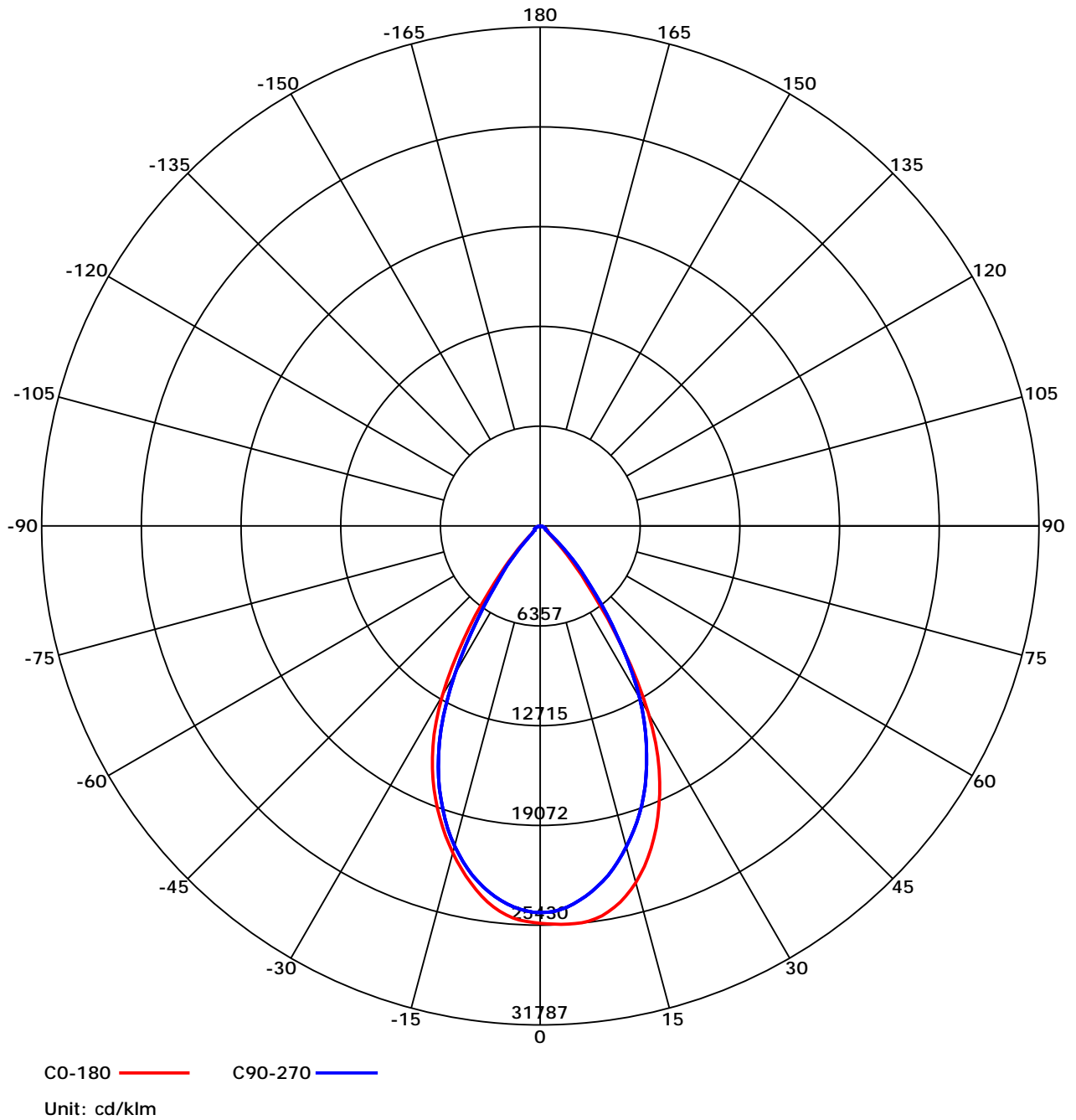
Luminous Intensity Distribution Curve



C Range: 0 - 360 Deg
 C Interval: 45.0 Deg
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 Test System: Huipu CPM-1800B Goniophotometer
 Humidity:
 Test Distance: 6.38 m
 Remarks:

Luminous Intensity Distribution Curve



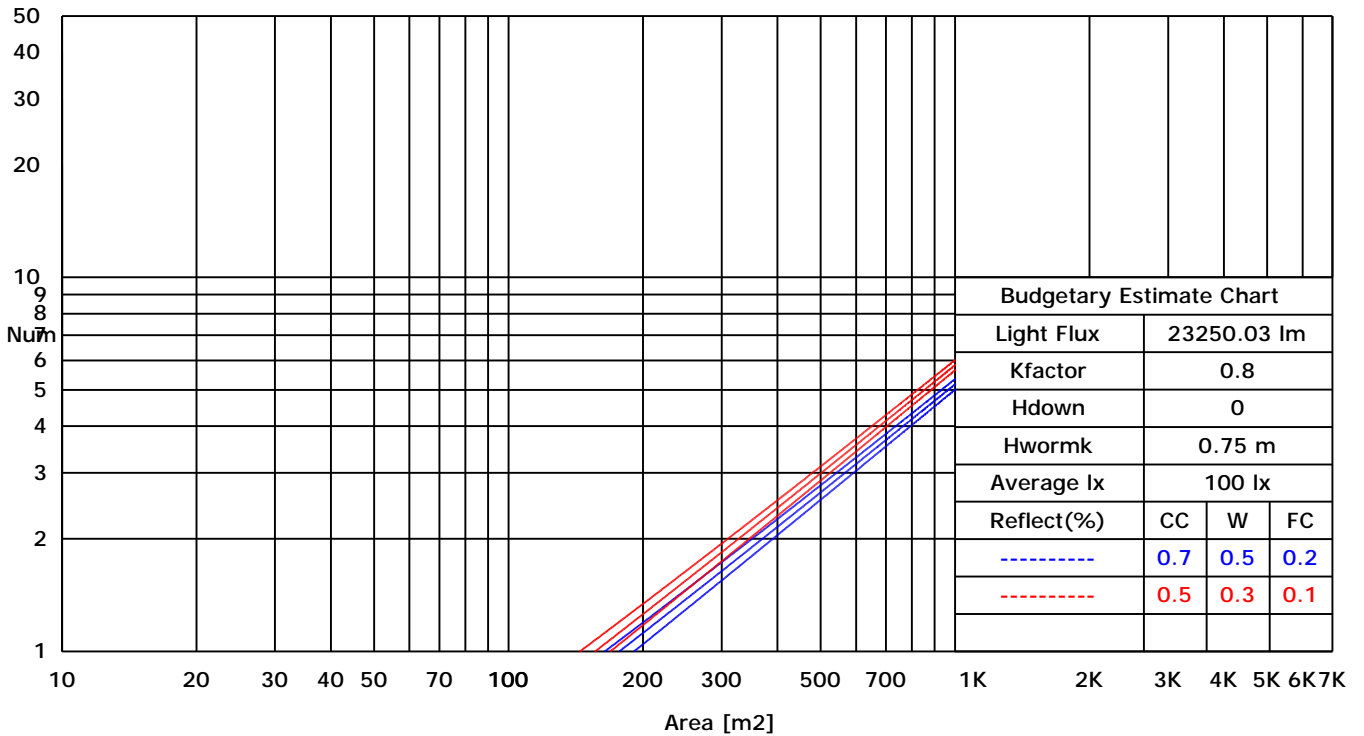
C Range: 0 - 360 Deg
 C Interval: 45.0 Deg
 Test Speed: High
 Temperature:
 Operators: ABUBAKER.LI
 Test Date: 2023/5/17 13:46:46

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

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	1.07	1.05	1.04	1.05	1.03	1.02	1.01	0.99	0.98	0.96	0.94	0.92	0.90	0.88	0.86	0.81
2	1.01	1.00	0.98	1.00	0.98	0.96	0.97	0.94	0.92	0.92	0.90	0.87	0.87	0.84	0.82	0.77
3	0.96	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	0.92	0.90	0.89	0.91	0.89	0.87	0.88	0.86	0.83	0.85	0.82	0.79	0.81	0.77	0.74	0.70
5	0.88	0.87	0.86	0.87	0.85	0.84	0.85	0.82	0.80	0.82	0.78	0.76	0.78	0.74	0.71	0.67
6	0.85	0.83	0.82	0.84	0.82	0.80	0.81	0.78	0.76	0.79	0.75	0.72	0.76	0.71	0.68	0.64
7	0.81	0.80	0.79	0.80	0.78	0.77	0.78	0.75	0.73	0.76	0.72	0.70	0.73	0.69	0.66	0.62
8	0.78	0.77	0.76	0.77	0.76	0.74	0.76	0.73	0.71	0.73	0.70	0.67	0.71	0.66	0.63	0.60
9	0.76	0.74	0.73	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
10	0.73	0.72	0.71	0.72	0.70	0.69	0.70	0.68	0.66	0.69	0.65	0.62	0.66	0.62	0.59	0.56

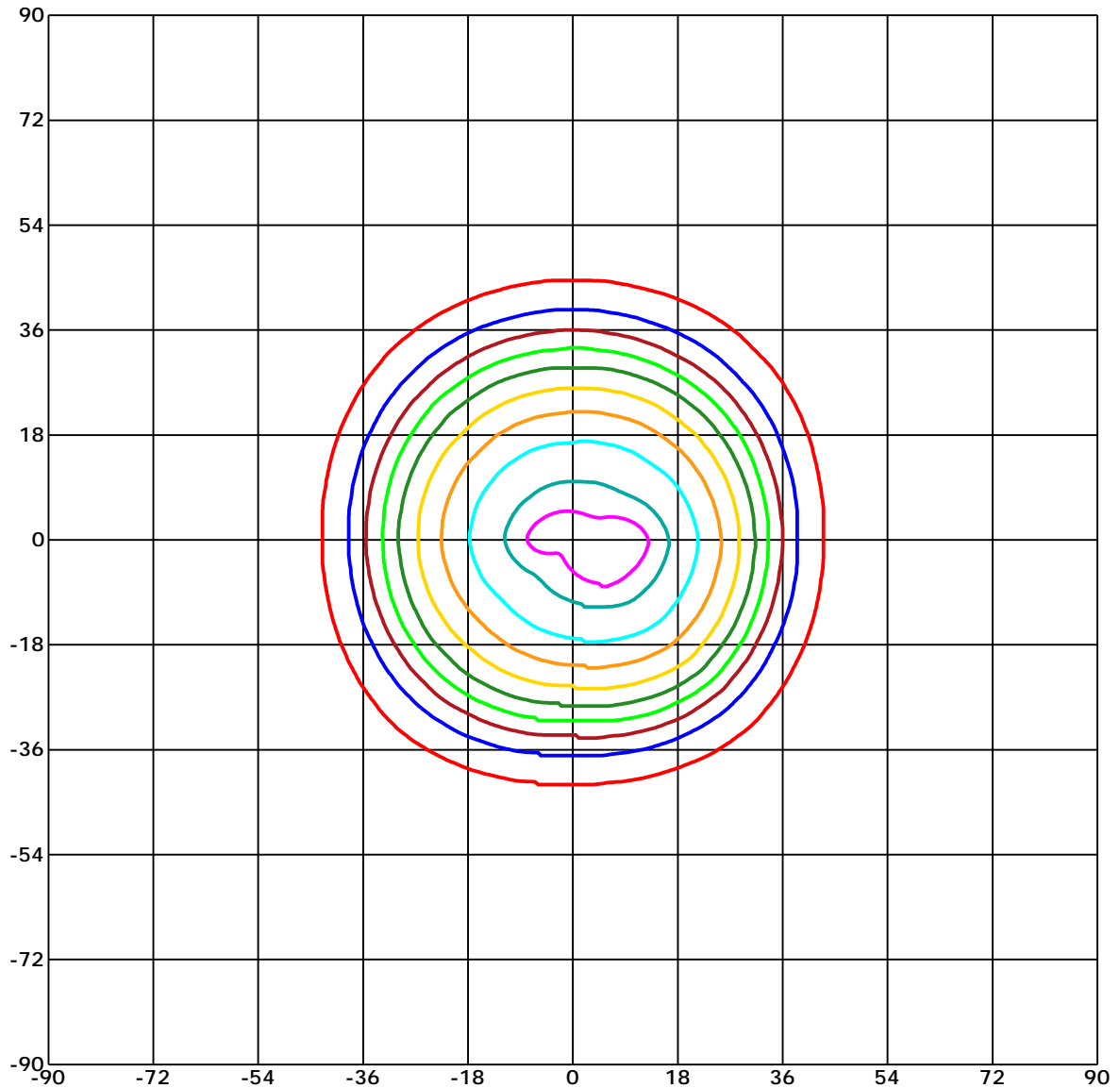
LUMINAIRE BUDGETARY ESTIMATE DIAGRAM



C Range: 0 - 360 Deg
 C Interval: 45.0 Deg
 Test Speed: High
 Temperature:
 Operators: ABUBAKER.LI
 Test Date: 2023/5/17 13:46:46

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

ISOCANDELA DIAGRAM (RECTANGULAR)



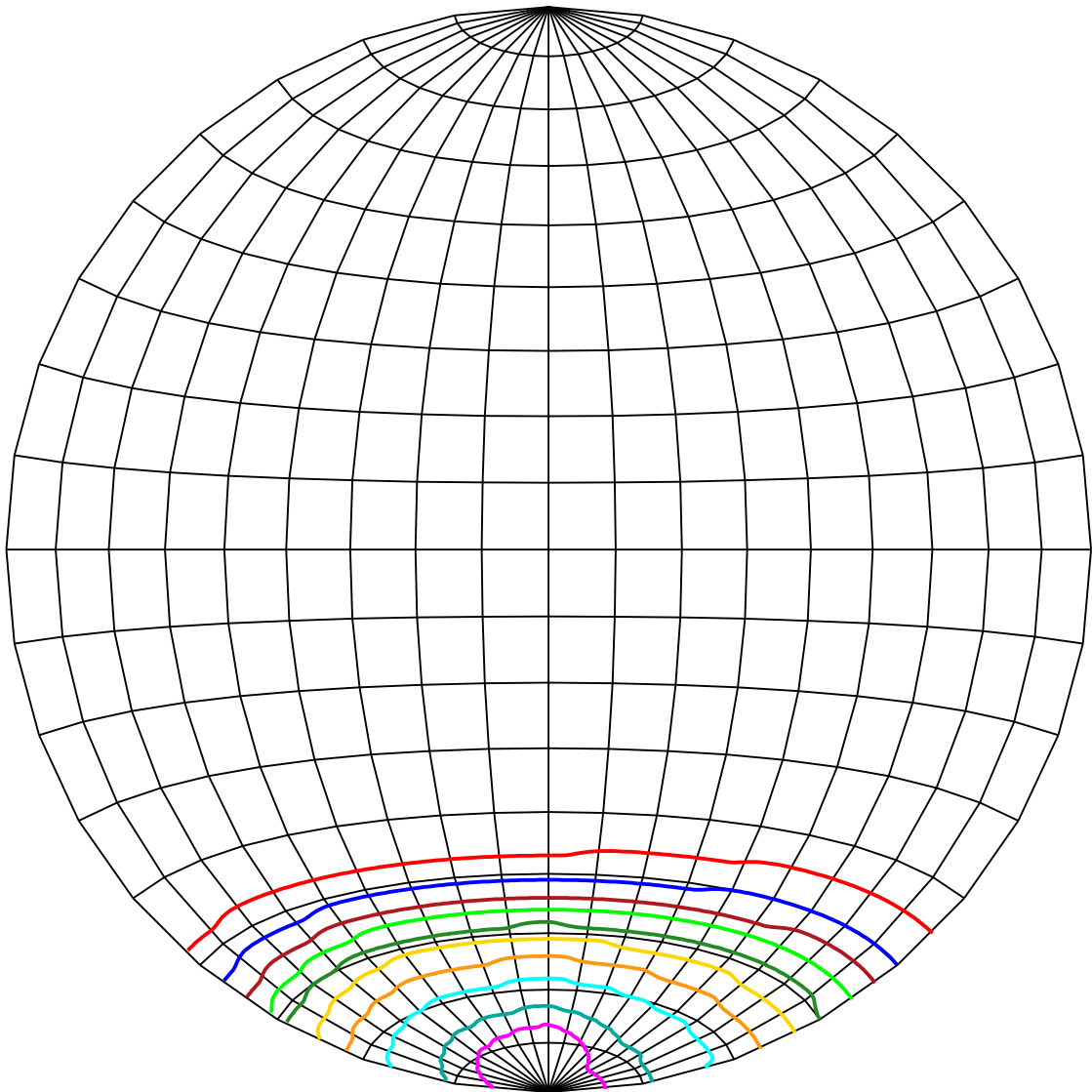
Unit of intensity:cd Imax(100%): 25429.99 cd

- | | |
|---------------------|---------------------|
| — 24158.49(95%Imax) | — 12715.0(50%Imax) |
| — 22886.99(90%Imax) | — 10172.0(40%Imax) |
| — 20343.99(80%Imax) | — 7628.998(30%Imax) |
| — 17800.99(70%Imax) | — 5085.999(20%Imax) |
| — 15258.0(60%Imax) | — 2542.999(10%Imax) |

C Range: 0 - 360 Deg
 C Interval: 45.0 Deg
 Test Speed: High
 Temperature:
 Operators: ABUBAKER.LI
 Test Date: 2023/5/17 13:46:46

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

ISOCANDELA DIAGRAM (SPHERE)



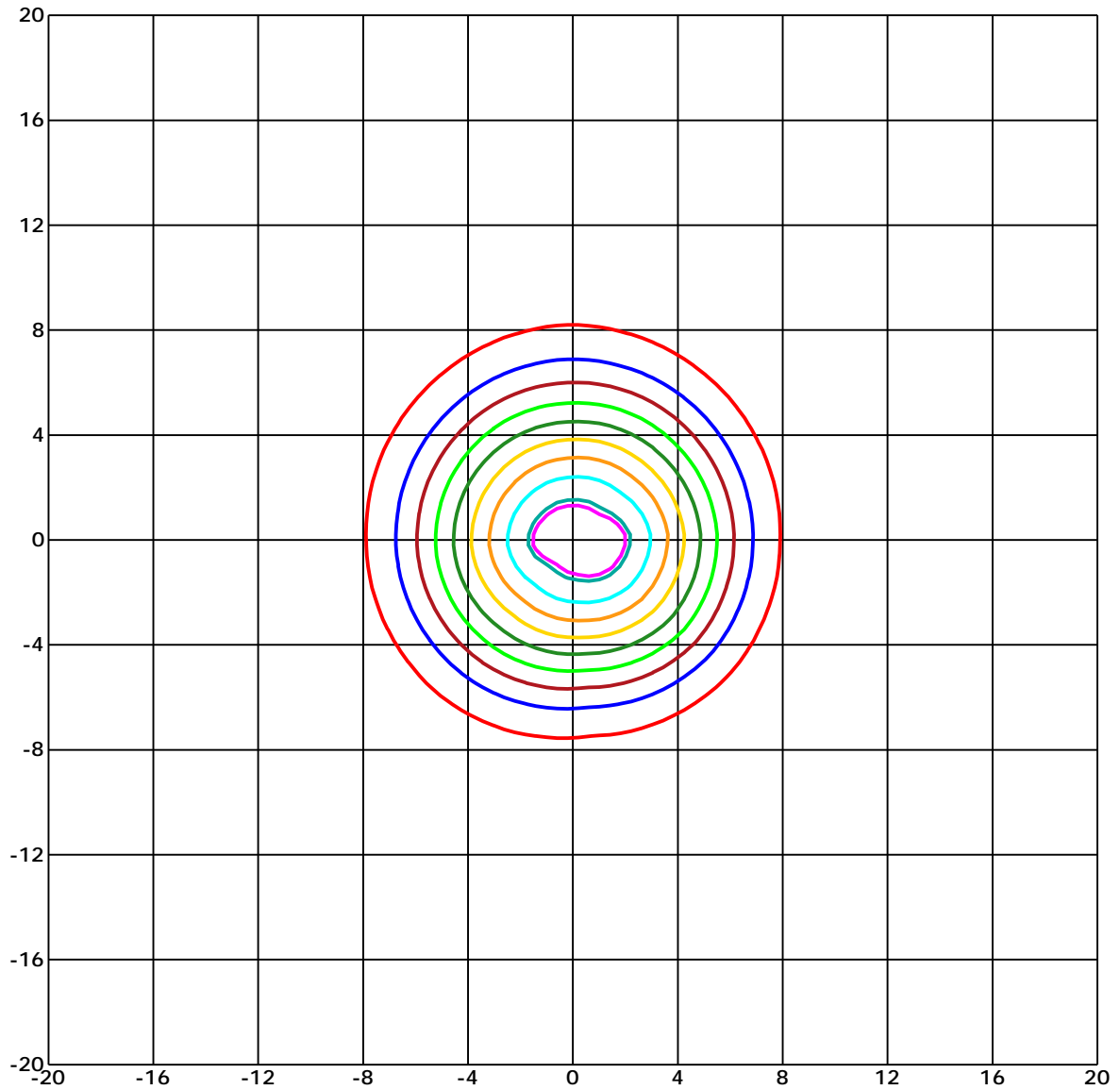
Unit of intensity:cd Imax(100%): 25429.99 cd

- | | |
|---------------------|---------------------|
| — 24158.49(95%Imax) | — 12715.0(50%Imax) |
| — 22886.99(90%Imax) | — 10172.0(40%Imax) |
| — 20343.99(80%Imax) | — 7628.998(30%Imax) |
| — 17800.99(70%Imax) | — 5085.999(20%Imax) |
| — 15258.0(60%Imax) | — 2542.999(10%Imax) |

C Range: 0 - 360 Deg
C Interval: 45.0 Deg
Test Speed: High
Temperature:
Operators:ABUBAKER.LI
Test Date: 2023/5/17 13:46:46

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

ISOLX DIAGRAM



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

- | | |
|--------------------------------|--------------------------------|
| — 233.066(1%E _{max}) | — 126.667(0%E _{max}) |
| — 228.0(1%E _{max}) | — 101.333(0%E _{max}) |
| — 202.666(1%E _{max}) | — 76.0(0%E _{max}) |
| — 177.333(1%E _{max}) | — 50.667(0%E _{max}) |
| — 152.0(1%E _{max}) | — 25.333(0%E _{max}) |

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature:

Operators: ABUBAKER.LI

Test Date: 2023/5/17 13:46:46

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

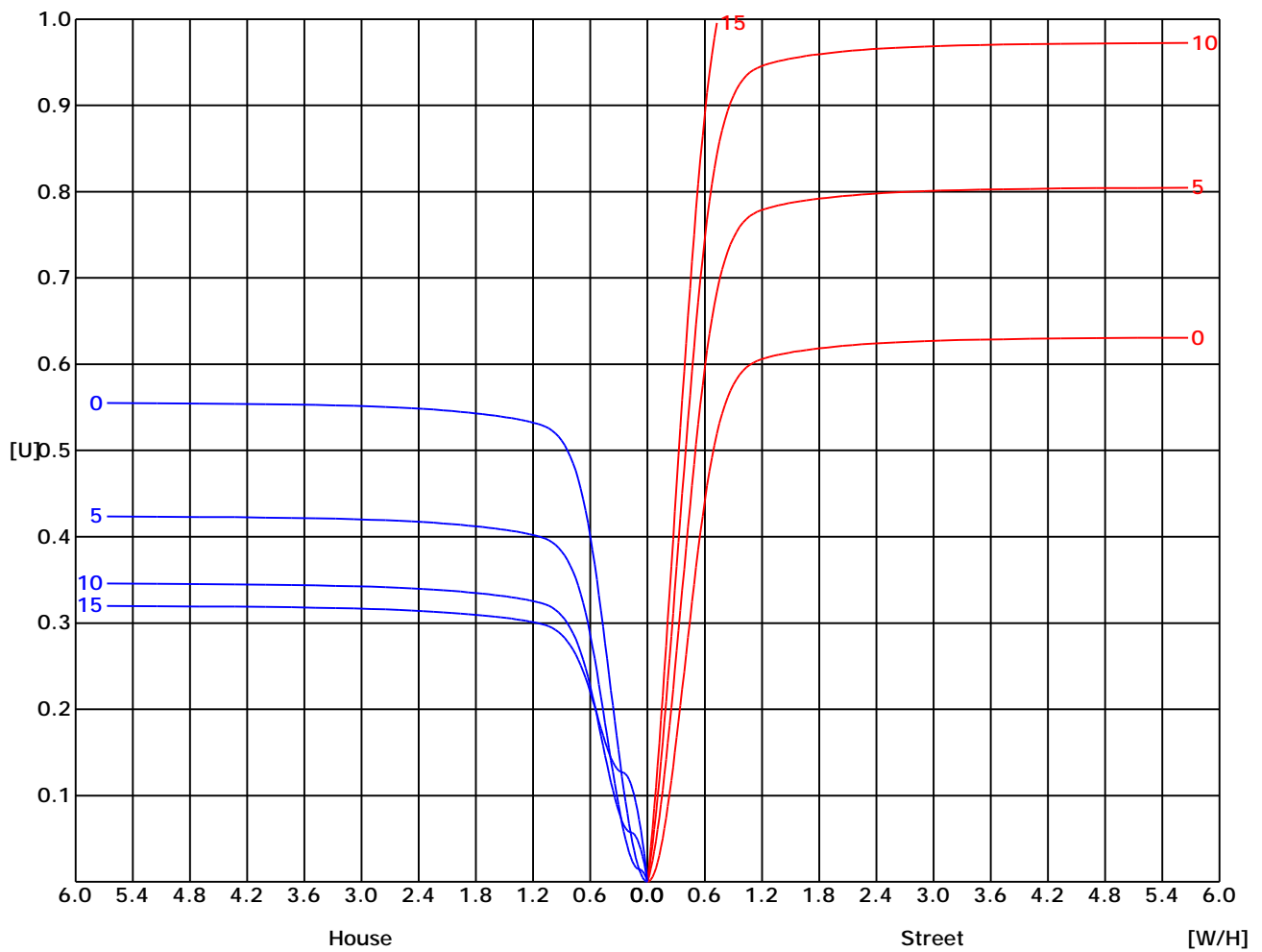
Test System: Huipu CPM-1800B Goniophotometer

Humidity:

Test Distance: 6.38 m

Remarks:

UTILIZATION FACTOR DIAGRAM (ROAD)

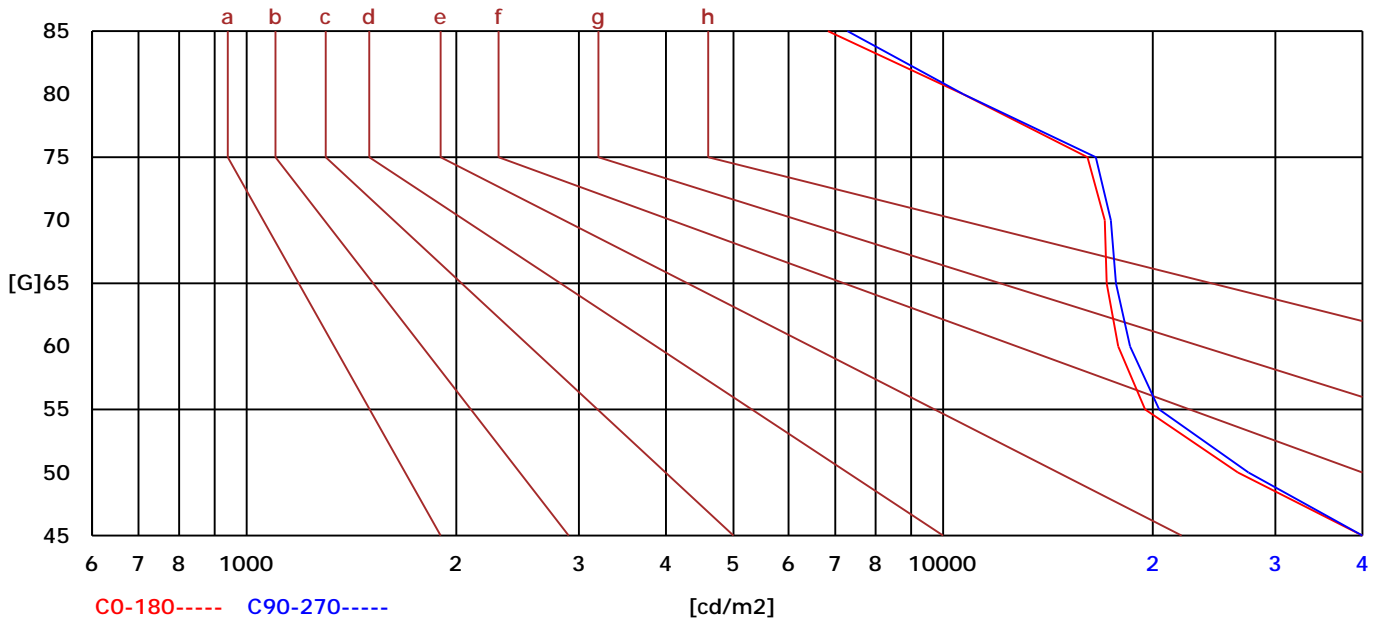


C Range: 0 - 360 Deg
 C Interval: 45.0 Deg
 Test Speed: High
 Temperature:
 Operators: ABUBAKER.LI
 Test Date: 2023/5/17 13:46:46

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

BRIGHT LIMIT DIAGRAM

C/G	45	50	55	60	65	70	75	80	85
C0	77427	26508	19501	17839	17173	17060	16108	10677	6830
C90	72998	27440	20415	18545	17712	17402	16568	10689	7286
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



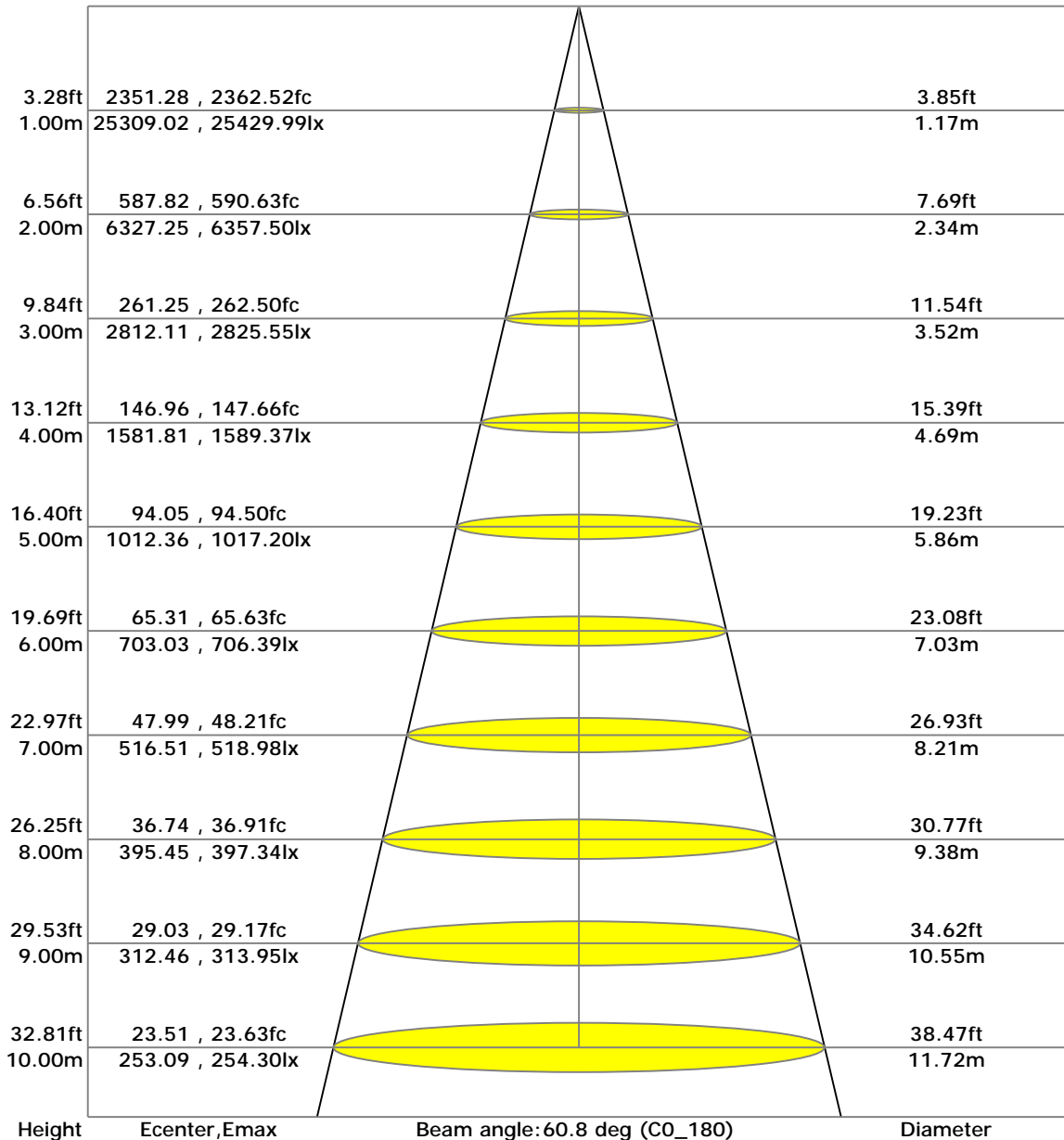
C Range: 0 - 360 Deg
 C Interval: 45.0 Deg
 Test Speed: High
 Temperature:
 Operators: ABUBAKER.LI
 Test Date: 2023/5/17 13:46:46

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: 2023/5/17 13:46:46

LX-DISTANCE DIAGRAM



C Range: 0 - 360 Deg
 C Interval: 45.0 Deg
 Test Speed: High
 Temperature:
 Operators: ABUBAKER.LI
 Test Date: 2023/5/17 13:46:46

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

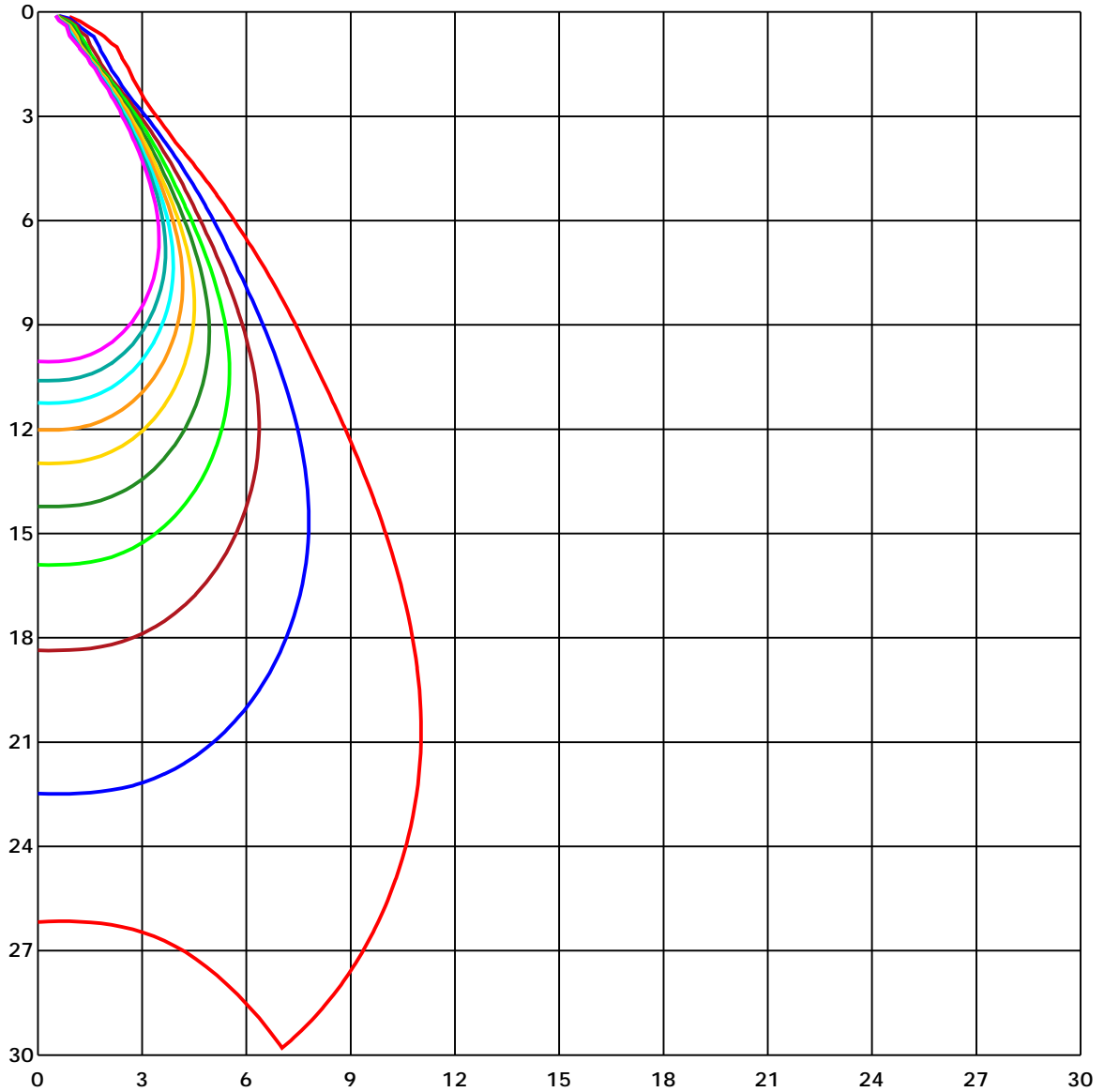
UGR(Unified Glare Rating) TABLE

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	12.85	12.90	13.05	13.09	13.33	13.01	13.06	13.21	13.25	13.49
3H	12.84	12.89	13.05	13.09	13.33	13.00	13.05	13.20	13.24	13.49
4H	12.83	12.88	13.04	13.08	13.32	12.99	13.04	13.20	13.23	13.48
6H	12.81	12.86	13.03	13.06	13.31	12.97	13.02	13.18	13.22	13.47
8H	12.80	12.85	13.02	13.05	13.31	12.96	13.01	13.18	13.21	13.47
12H	12.79	12.84	13.01	13.05	13.30	12.95	13.00	13.17	13.20	13.46
4H 2H	13.21	13.26	13.42	13.46	13.71	13.32	13.37	13.53	13.57	13.82
3H	13.24	13.29	13.46	13.50	13.75	13.34	13.39	13.56	13.60	13.85
4H	13.23	13.28	13.46	13.50	13.75	13.34	13.39	13.57	13.60	13.86
6H	13.22	13.26	13.45	13.48	13.75	13.32	13.37	13.56	13.59	13.85
8H	13.20	13.25	13.45	13.48	13.74	13.31	13.36	13.55	13.58	13.85
12H	13.19	13.23	13.44	13.47	13.74	13.29	13.34	13.54	13.57	13.84
8H 4H	13.30	13.35	13.52	13.55	13.81	13.37	13.42	13.59	13.63	13.88
6H	13.34	13.38	13.59	13.62	13.89	13.40	13.44	13.65	13.68	13.95
8H	13.33	13.37	13.59	13.61	13.89	13.39	13.43	13.65	13.67	13.95
12H	13.31	13.35	13.58	13.60	13.88	13.37	13.41	13.64	13.67	13.95
12H 4H	13.37	13.41	13.62	13.64	13.91	13.42	13.47	13.67	13.70	13.97
6H	13.36	13.40	13.62	13.64	13.92	13.41	13.45	13.67	13.70	13.97

C Range: 0 - 360 Deg
 C Interval: 45.0 Deg
 Test Speed: High
 Temperature:
 Operators: ABUBAKER.LI
 Test Date: 2023/5/17 13:46:46

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

SPACE ISOLX DIAGRAM



Unit of illumination: lx

- | | |
|-----------|-----------|
| — 250.426 | — 125.213 |
| — 225.383 | — 100.17 |
| — 200.341 | — 75.128 |
| — 175.298 | — 50.085 |
| — 150.255 | — 25.043 |

C Range: 0 - 360 Deg
 C Interval: 45.0 Deg
 Test Speed: High
 Temperature:
 Operators: ABUBAKER.LI
 Test Date: 2023/5/17 13:46:46

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: 2023/5/17 13:46:46

LUMINOUS DISTRIBUTION INTENSITY DATA

Gamma\C	C0	C45	C90	C135	C180	C225	C270	C315	C360
G0	25309.02	24343.02	24628.89	24944.1	25309.02	24343.02	24628.89	24944.1	25309.02
G1	25344.88	24380.39	24619.32	24895.1	25269.37	24273.58	24604.51	24980.29	25344.88
G2	25375.21	24381.77	24565.11	24828.63	25212.14	24170.31	24545.16	25006.06	25375.21
G3	25404.92	24346.36	24470.96	24731.51	25135.94	24038.35	24455.9	25024.25	25404.92
G4	25425.23	24276.11	24340.13	24597.1	25022.95	23876.27	24331.99	25025.64	25425.23
G5	25429.99	24177.23	24170.44	24414.87	24867.54	23688.54	24177.11	24994.54	25429.99
G6	25409.36	24047.14	23973.59	24187.86	24682.99	23475.57	23991.21	24931.0	25409.36
G7	25357.13	23888.68	23756.76	23929.55	24445.6	23241.64	23776.74	24819.67	25357.13
G8	25270.39	23712.63	23520.39	23650.36	24178.38	22990.7	23533.98	24662.59	25270.39
G9	25132.36	23507.77	23263.54	23350.41	23874.8	22722.58	23272.01	24470.75	25132.36
G10	24958.55	23288.41	22976.29	23044.31	23537.93	22426.42	22982.64	24245.01	24958.55
G11	24746.65	23040.2	22665.27	22718.59	23179.37	22114.25	22661.24	23986.41	24746.65
G12	24499.7	22764.71	22324.78	22371.22	22797.93	21776.69	22315.42	23699.37	24499.7
G13	24200.92	22470.01	21950.7	22002.68	22396.42	21404.37	21934.05	23378.82	24200.92
G14	23874.03	22156.83	21567.35	21617.09	21985.83	21008.6	21532.63	23035.11	23874.03
G15	23514.08	21811.62	21162.99	21206.06	21548.38	20600.13	21110.52	22677.24	23514.08
G16	23108.5	21443.32	20742.76	20781.31	21095.34	20173.67	20647.79	22289.45	23108.5
G17	22680.62	21048.45	20326.52	20338.89	20643.4	19720.71	20159.26	21863.39	22680.62
G18	22210.68	20625.61	19878.85	19872.7	20161.38	19244.31	19631.61	21395.25	22210.68
G19	21709.29	20177.78	19409.12	19398.25	19665.93	18750.16	19089.22	20890.56	21709.29
G20	21167.88	19698.61	18927.43	18901.41	19162.78	18232.4	18511.87	20354.85	21167.88
G21	20599.68	19190.95	18401.85	18393.91	18630.77	17697.21	17929.8	19800.9	20599.68
G22	19993.23	18648.76	17847.17	17858.73	18087.0	17141.6	17306.78	19223.79	19993.23
G23	19362.88	18086.39	17271.12	17316.79	17517.75	16580.73	16656.24	18635.41	19362.88
G24	18705.63	17473.63	16667.03	16714.0	16916.38	16009.12	15953.76	18022.69	18705.63
G25	18012.51	16832.9	16035.38	16099.57	16281.27	15437.23	15208.67	17406.02	18012.51
G26	17272.67	16138.85	15400.71	15428.47	15612.66	14832.28	14418.64	16764.47	17272.67
G27	16487.72	15440.4	14758.11	14755.71	14905.71	14176.41	13588.72	16068.06	16487.72
G28	15653.08	14702.35	14092.52	14040.33	14139.16	13460.91	12719.07	15296.96	15653.08
G29	14752.33	13930.06	13396.22	13299.55	13326.82	12659.11	11821.9	14421.37	14752.33
G30	13786.38	13112.03	12661.63	12525.64	12471.01	11820.8	10887.21	13458.38	13786.38
G31	12770.36	12261.18	11890.98	11735.08	11585.49	10958.19	9940.22	12448.38	12770.36
G32	11694.42	11375.66	11069.07	10905.69	10654.34	10055.66	8977.36	11413.39	11694.42
G33	10579.44	10427.98	10227.31	10025.82	9716.75	9134.48	8010.67	10354.22	10579.44
G34	9463.2	9468.74	9393.84	9136.88	8793.53	8226.65	7095.39	9251.83	9463.2
G35	8366.22	8500.38	8576.09	8250.38	7882.57	7339.82	6255.58	8129.69	8366.22
G36	7306.48	7565.65	7812.8	7411.34	7009.66	6510.14	5501.85	7046.79	7306.48

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature:

Operators: ABUBAKER.LI

Test Date: 2023/5/17 13:46:46

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: 2023/5/17 13:46:46

LUMINOUS DISTRIBUTION INTENSITY DATA(Continue 1)

Gamma\C	C0	C45	C90	C135	C180	C225	C270	C315	C360	
G37	6297.79	6702.51	7084.48	6609.78	6147.02	5745.39	4817.61	6104.56	6297.79	
G38	5430.54	5922.78	6338.12	5860.78	5318.6	5059.6	4233.1	5315.67	5430.54	
G39	4695.5	5193.27	5631.41	5139.83	4609.16	4422.53	3726.24	4568.38	4695.5	
G40	4100.85	4535.08	4987.59	4499.83	3983.25	3871.27	3270.8	3914.22	4100.85	
G41	3511.85	3968.19	4438.73	3918.65	3427.27	3375.74	2836.73	3354.98	3511.85	
G42	2959.7	3473.35	3950.04	3404.27	2928.23	2921.6	2370.87	2894.41	2959.7	
G43	2455.86	3026.01	3489.63	2933.0	2478.7	2473.85	1891.29	2457.73	2455.86	
G44	2047.64	2592.95	3013.23	2486.8	2063.43	2047.72	1485.26	2020.85	2047.64	
G45	1626.79	2189.98	2530.76	2064.69	1665.79	1621.42	1164.06	1586.86	1626.79	
G46	1225.77	1806.42	2119.64	1646.62	1312.07	1254.59	934.65	1204.89	1225.77	
G47	968.36	1435.89	1709.54	1293.79	1045.25	957.0	780.47	909.25	968.36	
G48	807.7	1085.3	1341.33	1008.9	875.71	763.41	687.95	744.16	807.7	
G49	712.49	835.7	1045.74	822.64	762.03	647.81	622.7	652.17	712.49	
G50	647.0	681.55	839.37	705.53	684.73	579.87	567.87	592.41	647.0	
G51	600.35	597.95	713.26	631.85	620.34	533.88	531.23	549.55	600.35	
G52	563.39	545.07	633.2	577.23	571.41	500.58	502.7	517.64	563.39	
G53	530.26	504.29	569.66	534.65	532.94	473.76	480.19	492.97	530.26	
G54	504.37	472.66	523.21	498.22	501.52	453.28	462.0	472.17	504.37	
G55	483.89	447.42	487.15	468.39	477.95	435.13	444.7	455.03	483.89	
G56	467.41	422.63	460.73	443.76	458.41	420.52	428.66	440.01	467.41	
G57	451.53	403.3	437.74	420.27	441.48	405.74	418.24	427.03	451.53	
G58	436.11	386.53	420.23	401.87	425.28	392.88	407.78	414.57	436.11	
G59	422.1	370.57	402.57	386.04	413.64	381.52	403.1	401.14	422.1	
G60	412.13	356.77	388.04	370.9	401.63	370.33	403.06	389.05	412.13	
G61	400.29	344.85	373.46	356.94	396.83	359.38	404.72	379.41	400.29	
G62	393.08	331.62	360.19	343.1	396.58	350.79	404.15	366.95	393.08	
G63	398.86	319.0	352.91	328.65	394.67	341.96	395.97	357.06	398.86	
G64	404.44	303.82	346.31	315.87	384.37	332.39	379.73	349.49	404.44	
G65	389.3	290.3	339.43	299.42	361.62	321.61	361.05	335.85	389.3	
G66	388.16	280.09	333.53	288.35	338.66	307.6	347.45	324.45	388.16	
G67	357.1	268.57	324.78	276.02	318.72	293.4	328.08	314.89	357.1	
G68	335.81	258.03	309.35	265.88	297.75	283.22	304.18	299.38	335.81	
G69	307.56	248.79	289.49	252.73	275.45	270.81	280.98	287.09	307.56	
G70	273.9	233.4	265.76	238.08	251.55	259.08	256.6	272.8	273.9	
G71	245.61	219.15	240.6	224.16	224.44	250.01	240.07	260.35	245.61	
G72	219.52	206.49	219.32	211.17	201.81	239.71	216.71	250.58	219.52	
G73	197.38	191.64	198.43	195.87	177.84	227.05	185.73	238.93	197.38	

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature:

Operators: ABUBAKER.LI

Test Date: 2023/5/17 13:46:46

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity:

Test Distance: 6.38 m

Remarks:

