

Report No.:

Test Time: 2023/5/17 11:45:27

LUMINAIRE PHOTOMETRIC TEST REPORT

Luminaire Property

Manufacturer: cheehung	Voltage(V): 216.60 V
Luminaire Type: QH-F16	Current(A): 1.7580 A
Lamp Type:	Power(W): 279.01 W
Luminous Width: 0 mm	Power Factor: 0.7320
Luminous Length: 0 mm	Lamp Luminous Flux: 34125.70
Luminous Height: 0 mm	

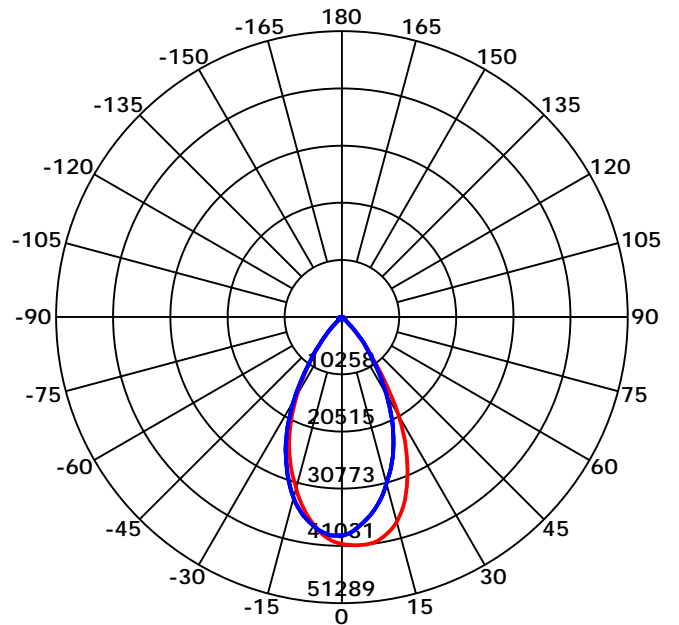
Photometric Results

CIE Class: Direct	Max. Intensity: 41030.85 cd
Luminaire Luminous Flux: 34125.7 lm	Max.Intensity Angle: C=0 Gamma=5
Downward Ratio: 100.00%	Upward Ratio: 0.00%
Luminaire Efficacy Rating(LER): 122.31 lm/W	Efficacy: 100.00%
Beam Angle(50%) C0-180,C90-270: 56.1,55.0	Center Intensity: 40712.50 cd
Field Angle(10%) C0-180,C90-270: 84.7,85.4	Effective Luminous Flux: 31559.60 lm
S/MH C0-180,C90-270: 0.890,0.808	ERP(φuse)(120deg): 33260.32 lm

Picture of Luminaire



Luminous Intensity Distribution Curve



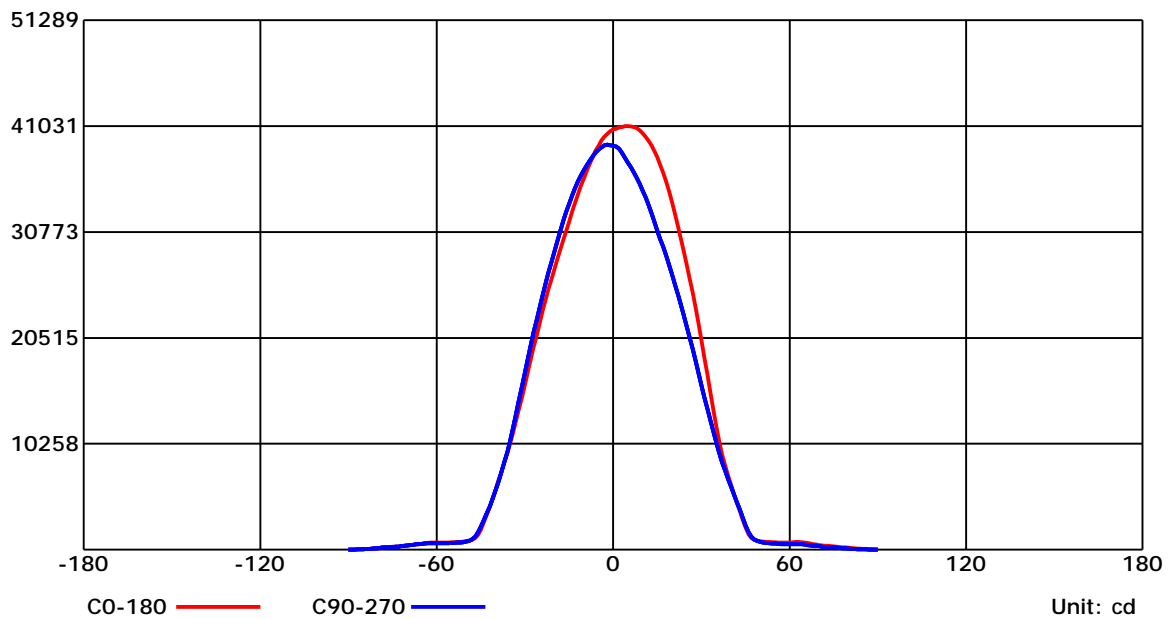
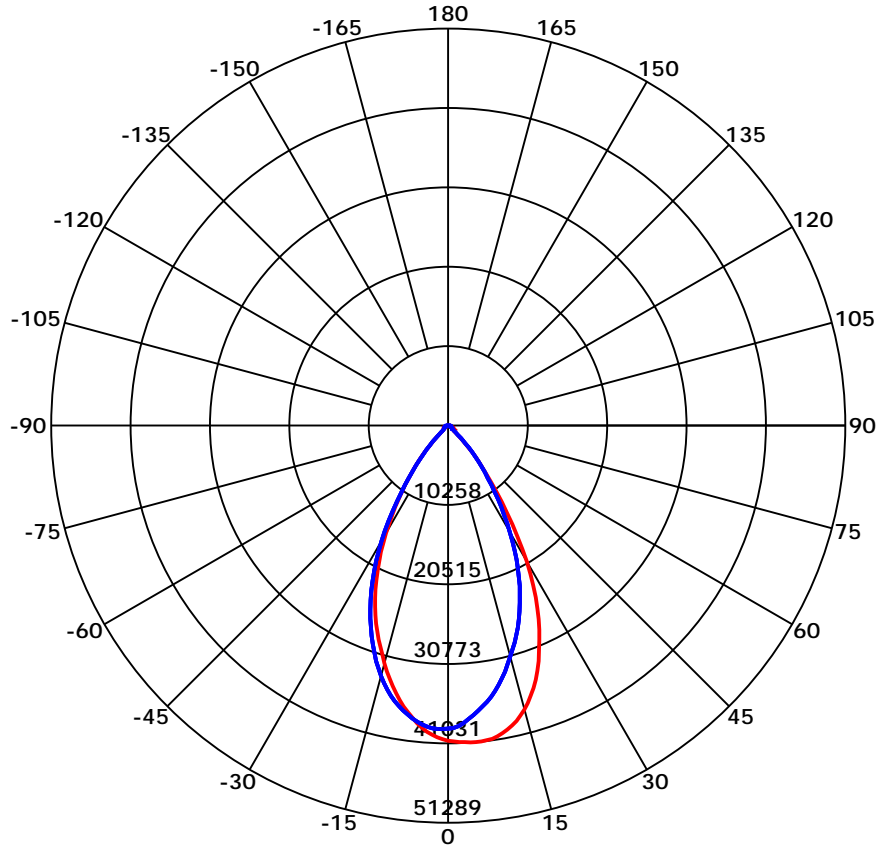
Beam Angle(50%) C0-180,C90-270: 56.1 deg,55.0 deg

C0-180 ——— C90-270 ———

C Range: 0 - 360 Deg
 C Interval: 45.0 Deg
 Test Speed: High
 Temperature: 6.38
 Operators: ABUBAKER.LI
 Test Date: 2023/5/17 11:45:27

G Range: 0 - 90 Deg
 G Interval: 1.0 Deg
 Test System: Huipu CPM-1800B Goniophotometer
 Humidity: 1
 Test Distance: 6.38 m
 Remarks:

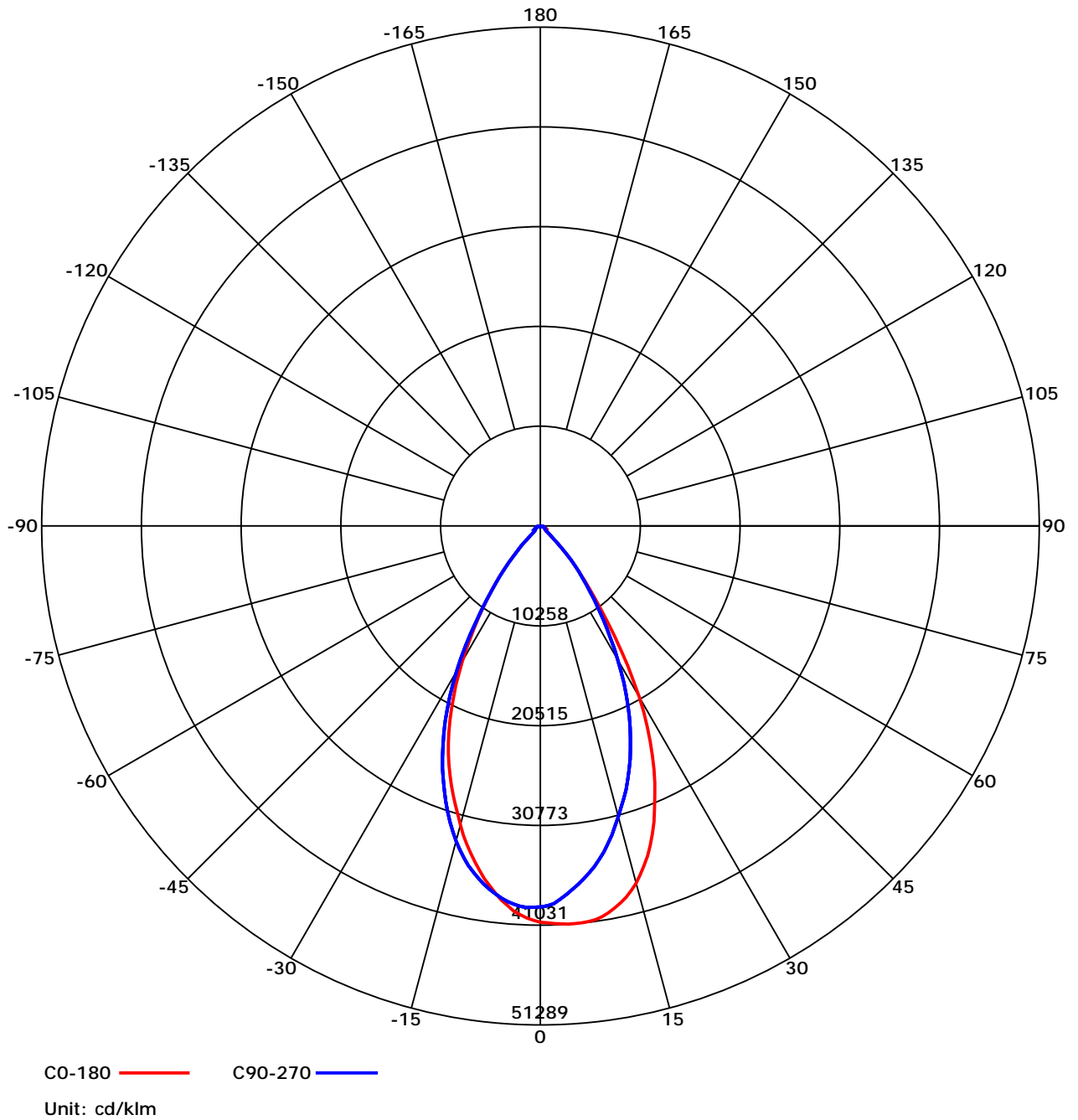
Luminous Intensity Distribution Curve



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 Remarks:

Luminous Intensity Distribution Curve



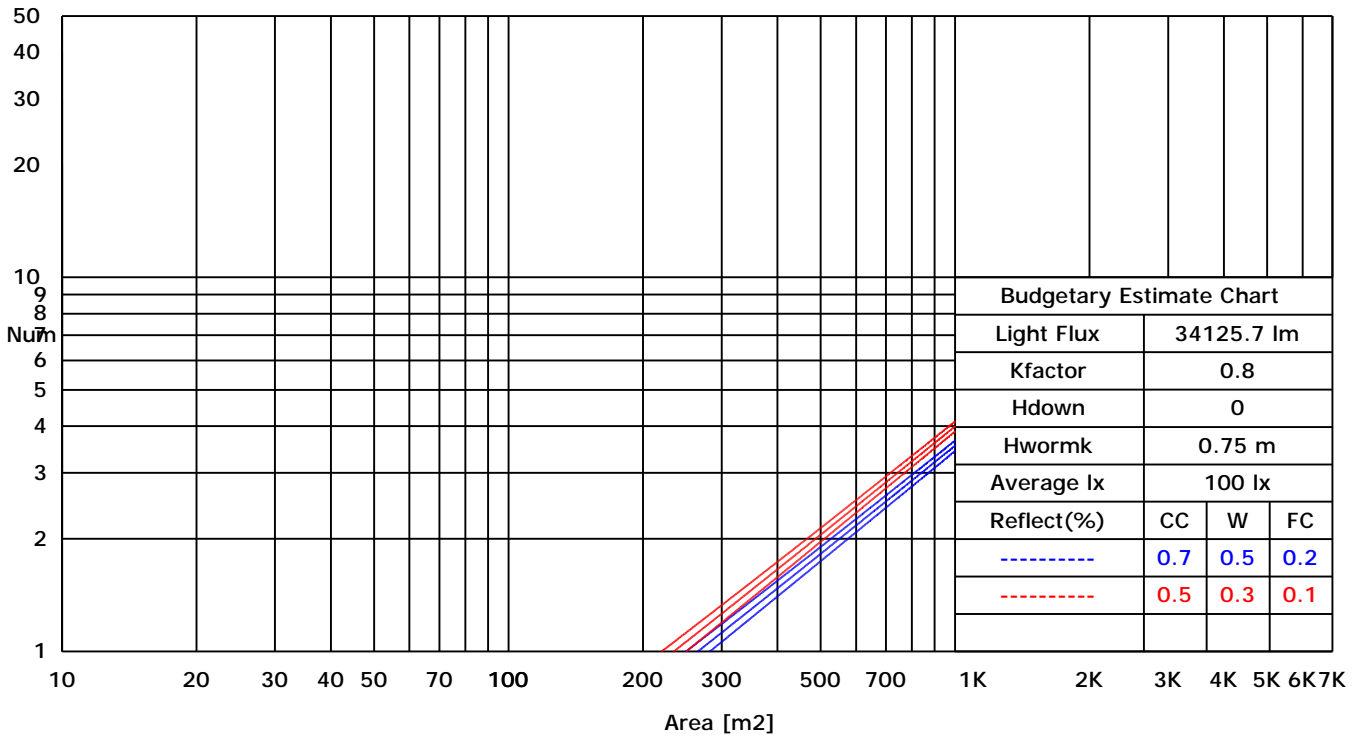
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 Temperature: 6.38
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 Test Date: 2023/5/17 11:45:27

G Range: 0 - 90 Deg
 G Interval: 1.0 Deg
 Test System: Huipu CPM-1800B Goniophotometer
 Humidity: 1
 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	1.06	1.04	1.03	1.05	1.03	1.01	1.01	0.99	0.97	0.96	0.94	0.92	0.89	0.87	0.85	0.80
2	1.01	0.99	0.98	0.99	0.97	0.96	0.96	0.94	0.92	0.92	0.89	0.87	0.86	0.84	0.81	0.76
3	0.96	0.94	0.93	0.95	0.93	0.91	0.92	0.89	0.87	0.88	0.85	0.83	0.84	0.80	0.77	0.73
4	0.92	0.90	0.89	0.91	0.89	0.87	0.88	0.85	0.83	0.85	0.81	0.79	0.81	0.77	0.74	0.70
5	0.88	0.86	0.85	0.87	0.85	0.83	0.85	0.82	0.80	0.82	0.78	0.75	0.78	0.74	0.71	0.67
6	0.84	0.83	0.82	0.84	0.81	0.80	0.81	0.78	0.76	0.79	0.75	0.72	0.75	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	0.78	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	0.74	0.75	0.73	0.72	0.73	0.70	0.68	0.71	0.67	0.65	0.69	0.64	0.61	0.58
10	0.73	0.72	0.71	0.73	0.71	0.70	0.71	0.68	0.66	0.69	0.65	0.63	0.67	0.62	0.59	0.56

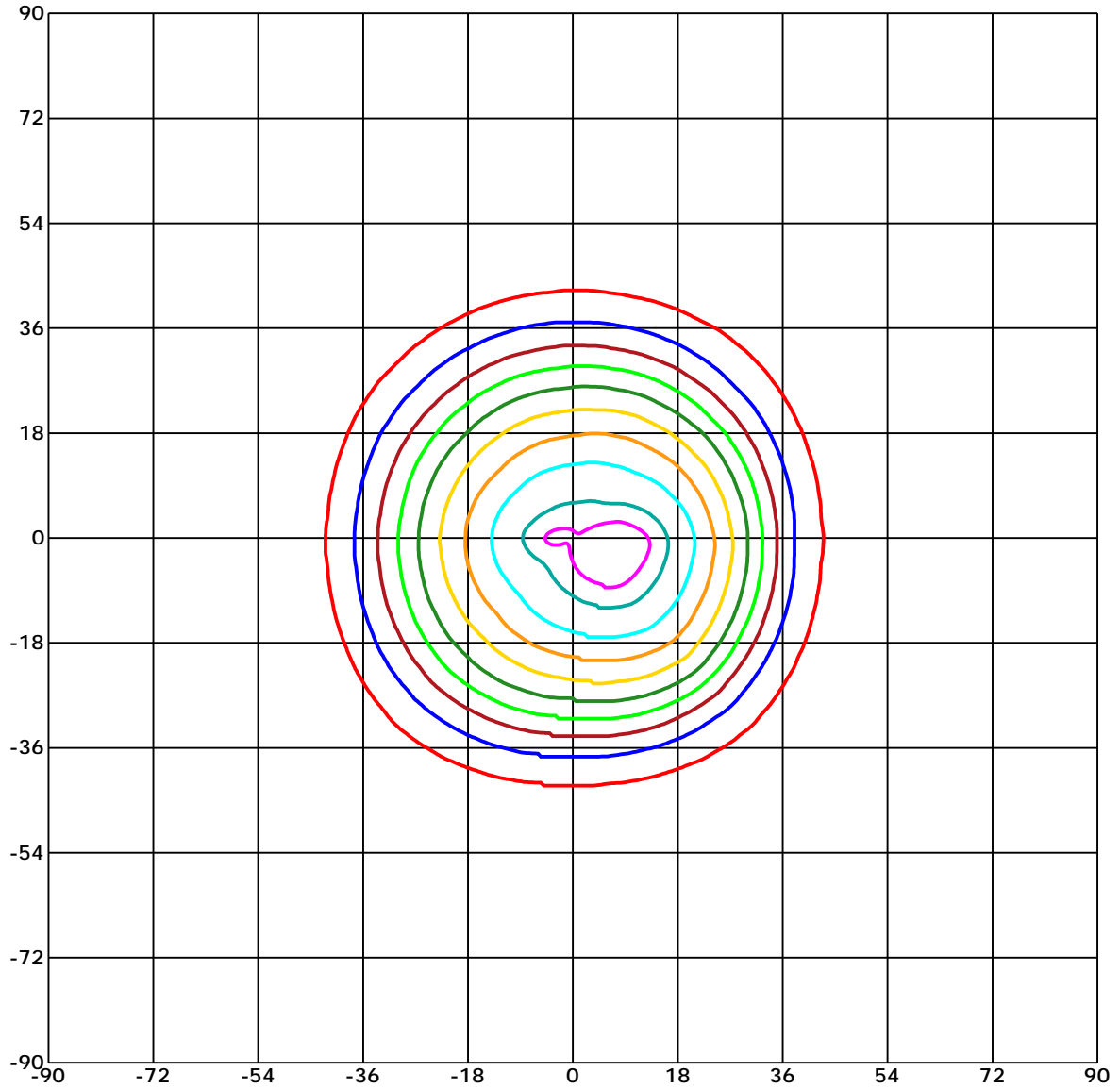
LUMINAIRE BUDGETARY ESTIMATE DIAGRAM



C Range: 0 - 360 Deg
 C Interval: 45.0 Deg
 Test Speed: High
 Temperature: 6.38
 Operators: ABUBAKER.LI
 Test Date: 2023/5/17 11:45:27

G Range: 0 - 90 Deg
 G Interval: 1.0 Deg
 Test System: Huipu CPM-1800B Goniophotometer
 Humidity: 1
 Test Distance: 6.38 m
 Remarks:

ISOCANDELA DIAGRAM (RECTANGULAR)



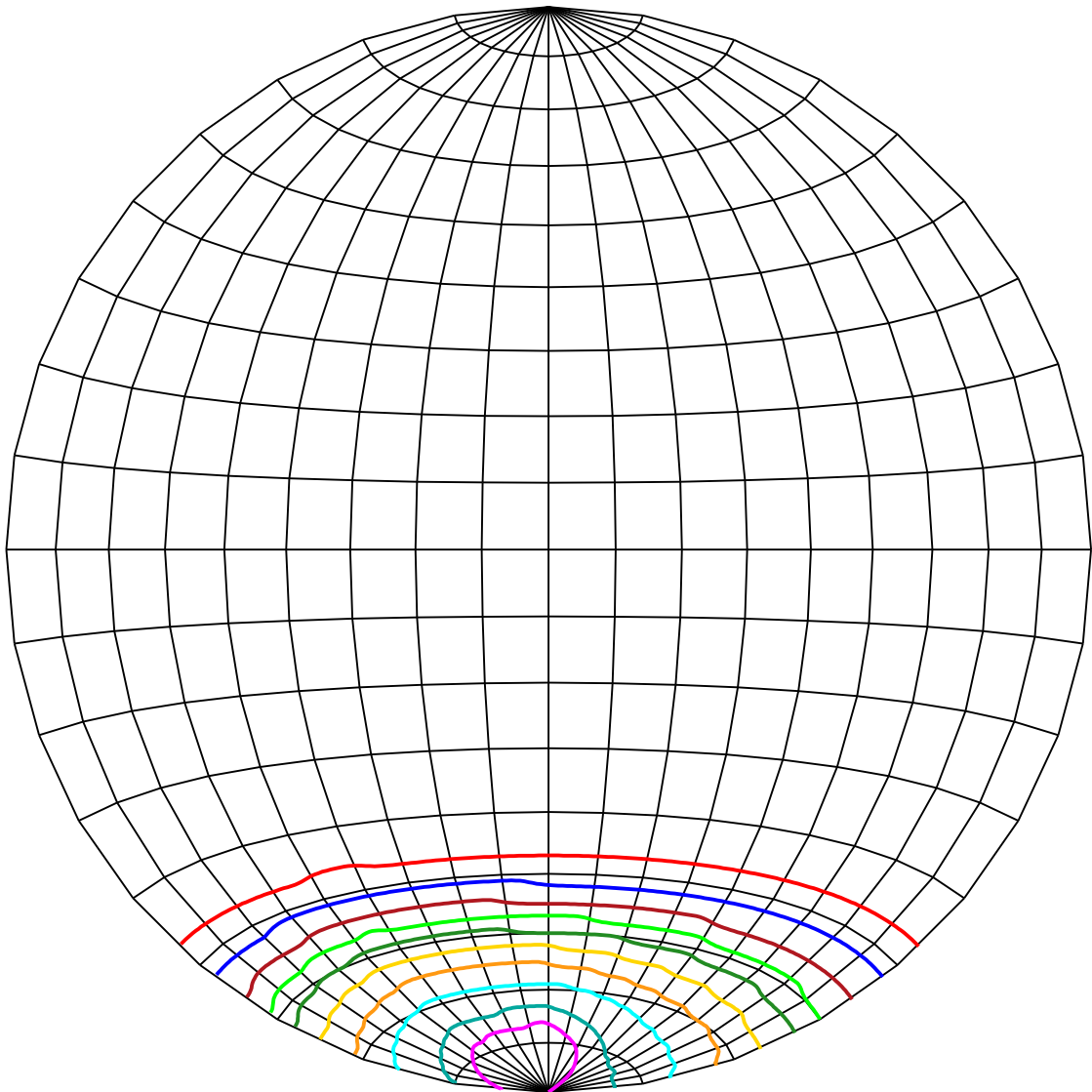
Unit of intensity:cd Imax(100%): 41030.85 cd

- | | |
|---------------------|---------------------|
| — 38979.31(95%Imax) | — 20515.43(50%Imax) |
| — 36927.77(90%Imax) | — 16412.34(40%Imax) |
| — 32824.68(80%Imax) | — 12309.26(30%Imax) |
| — 28721.6(70%Imax) | — 8206.171(20%Imax) |
| — 24618.51(60%Imax) | — 4103.085(10%Imax) |

C Range: 0 - 360 Deg
 C Interval: 45.0 Deg
 Test Speed: High
 Temperature: 6.38
 Operators: ABUBAKER.LI
 Test Date: 2023/5/17 11:45:27

G Range: 0 - 90 Deg
 G Interval: 1.0 Deg
 Test System: Huipu CPM-1800B Goniophotometer
 Humidity: 1
 Test Distance: 6.38 m
 Remarks:

ISOCANDELA DIAGRAM (SPHERE)



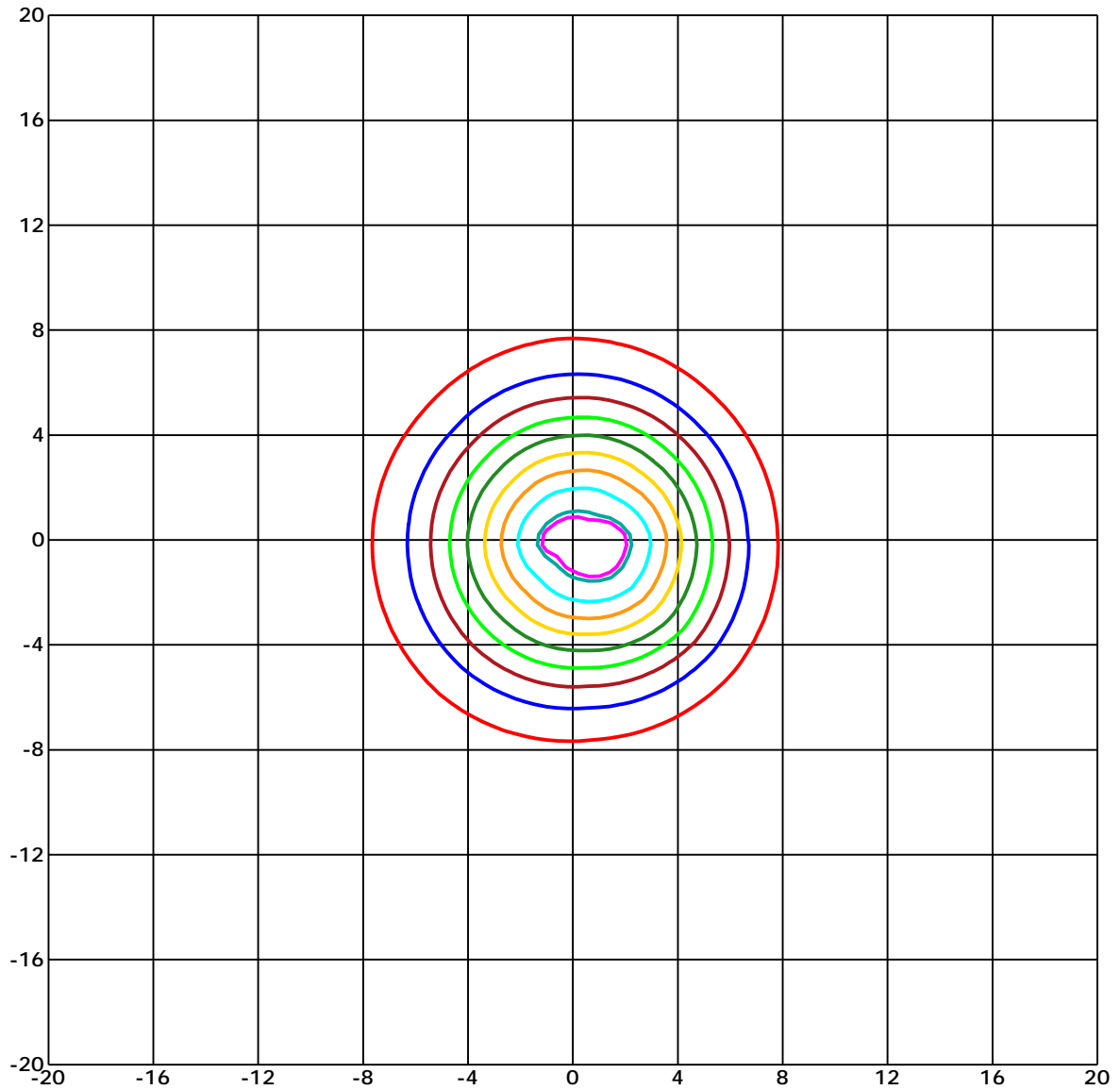
Unit of intensity:cd I_{max}(100%): 41030.85 cd

- | | |
|----------------------------------|----------------------------------|
| — 38979.31(95%I _{max}) | — 20515.43(50%I _{max}) |
| — 36927.77(90%I _{max}) | — 16412.34(40%I _{max}) |
| — 32824.68(80%I _{max}) | — 12309.26(30%I _{max}) |
| — 28721.6(70%I _{max}) | — 8206.171(20%I _{max}) |
| — 24618.51(60%I _{max}) | — 4103.085(10%I _{max}) |

C Range: 0 - 360 Deg
 C Interval: 45.0 Deg
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G Range: 0 - 90 Deg
 G Interval: 1.0 Deg
 Test System: Huipu CPM-1800B Goniophotometer
 Humidity: 1
 Test Distance: 6.38 m
 Remarks:

ISOLX DIAGRAM



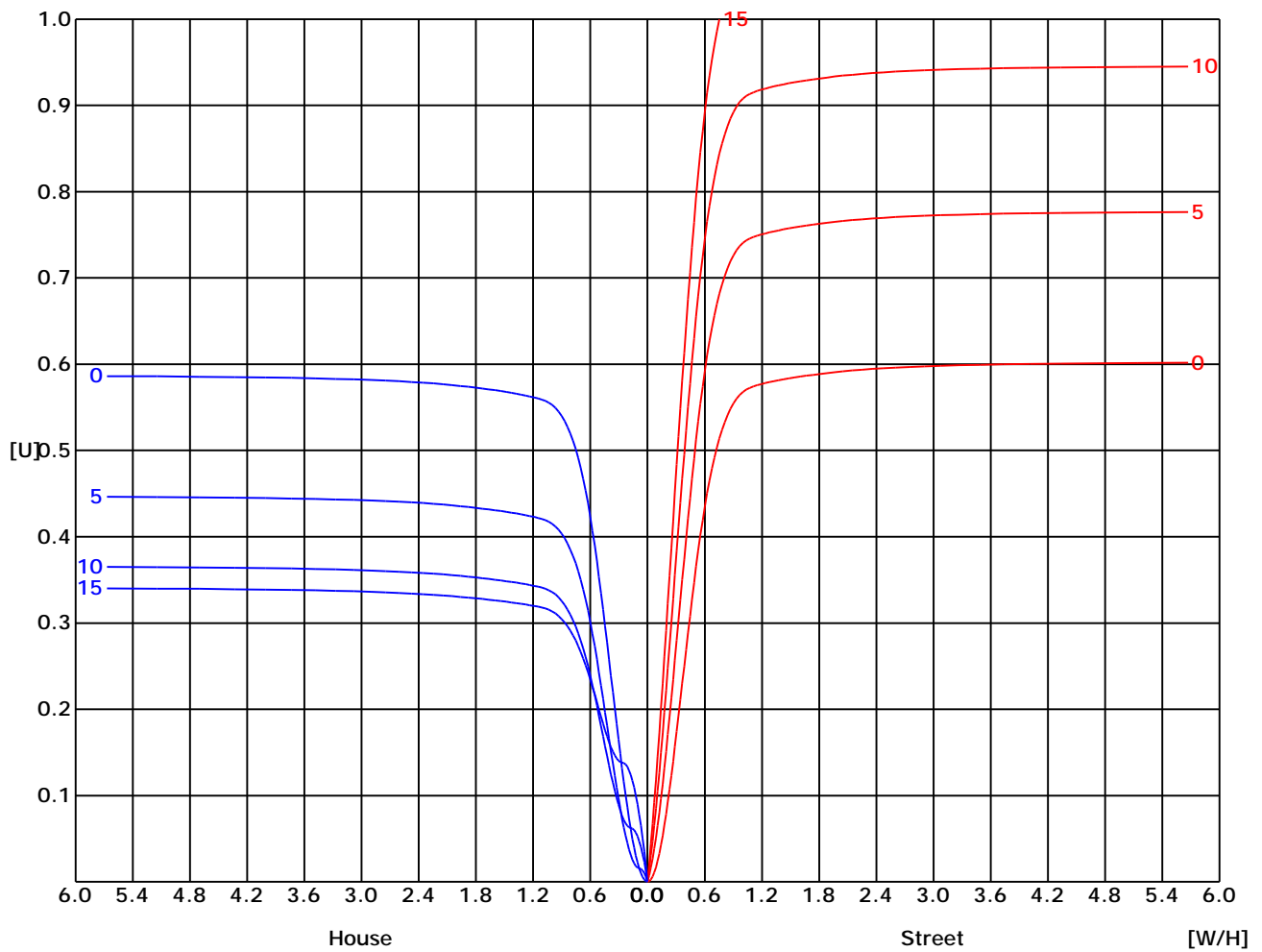
Unit of illumination: lx Height of plane: 10.0(m)/32.81(ft)

- | | |
|-------------------|------------------|
| — 375.544(1%Emax) | — 204.1(0%Emax) |
| — 367.38(1%Emax) | — 163.28(0%Emax) |
| — 326.56(1%Emax) | — 122.46(0%Emax) |
| — 285.74(1%Emax) | — 81.64(0%Emax) |
| — 244.92(1%Emax) | — 40.82(0%Emax) |

C Range: 0 - 360 Deg
 C Interval: 45.0 Deg
 Test Speed: High
 Temperature: 6.38
 Operators: ABUBAKER.LI
 Test Date: 2023/5/17 11:45:27

G Range: 0 - 90 Deg
 G Interval: 1.0 Deg
 Test System: Huipu CPM-1800B Goniophotometer
 Humidity: 1
 Test Distance: 6.38 m
 Remarks:

UTILIZATION FACTOR DIAGRAM (ROAD)

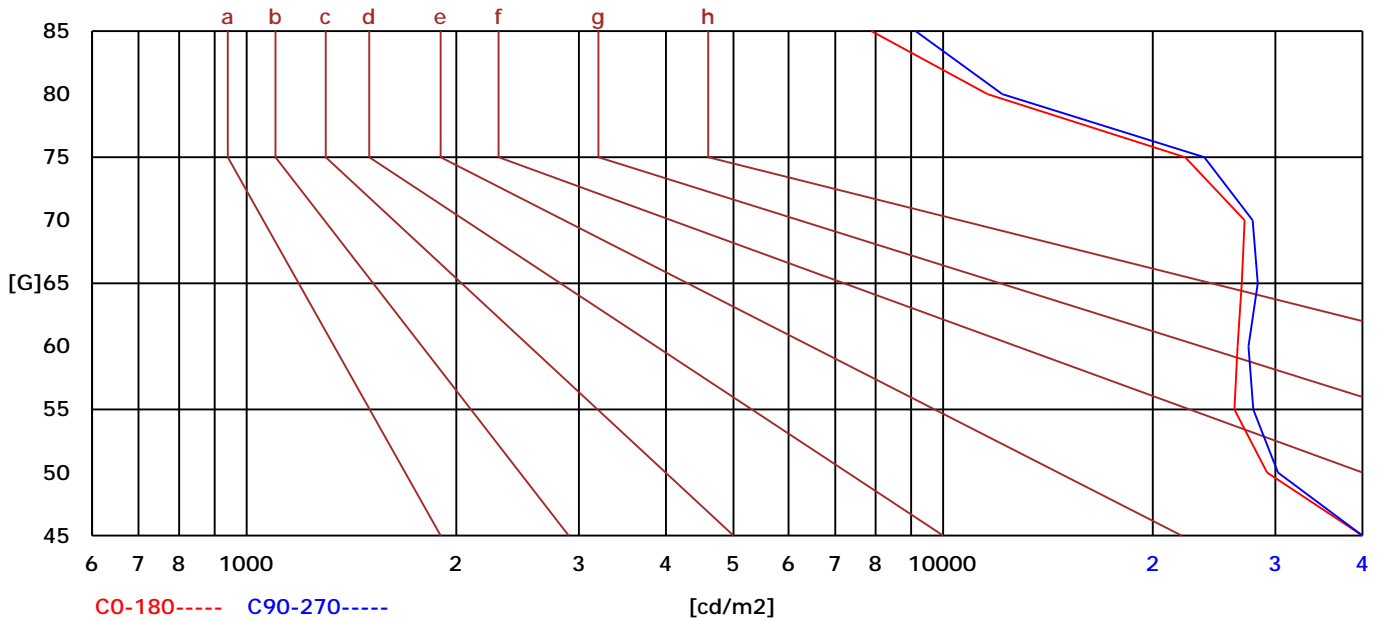


C Range: 0 - 360 Deg
 C Interval: 45.0 Deg
 Test Speed: High
 Temperature: 6.38
 Operators: ABUBAKER.LI
 Test Date: 2023/5/17 11:45:27

G Range: 0 - 90 Deg
 G Interval: 1.0 Deg
 Test System: Huipu CPM-1800B Goniophotometer
 Humidity: 1
 Test Distance: 6.38 m
 Remarks:

BRIGHT LIMIT DIAGRAM

C/G	45	50	55	60	65	70	75	80	85
C0	82427	29169	26194	26474	26843	27096	22246	11580	7893
C90	62658	30252	27875	27445	28305	27813	23724	12160	9130
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



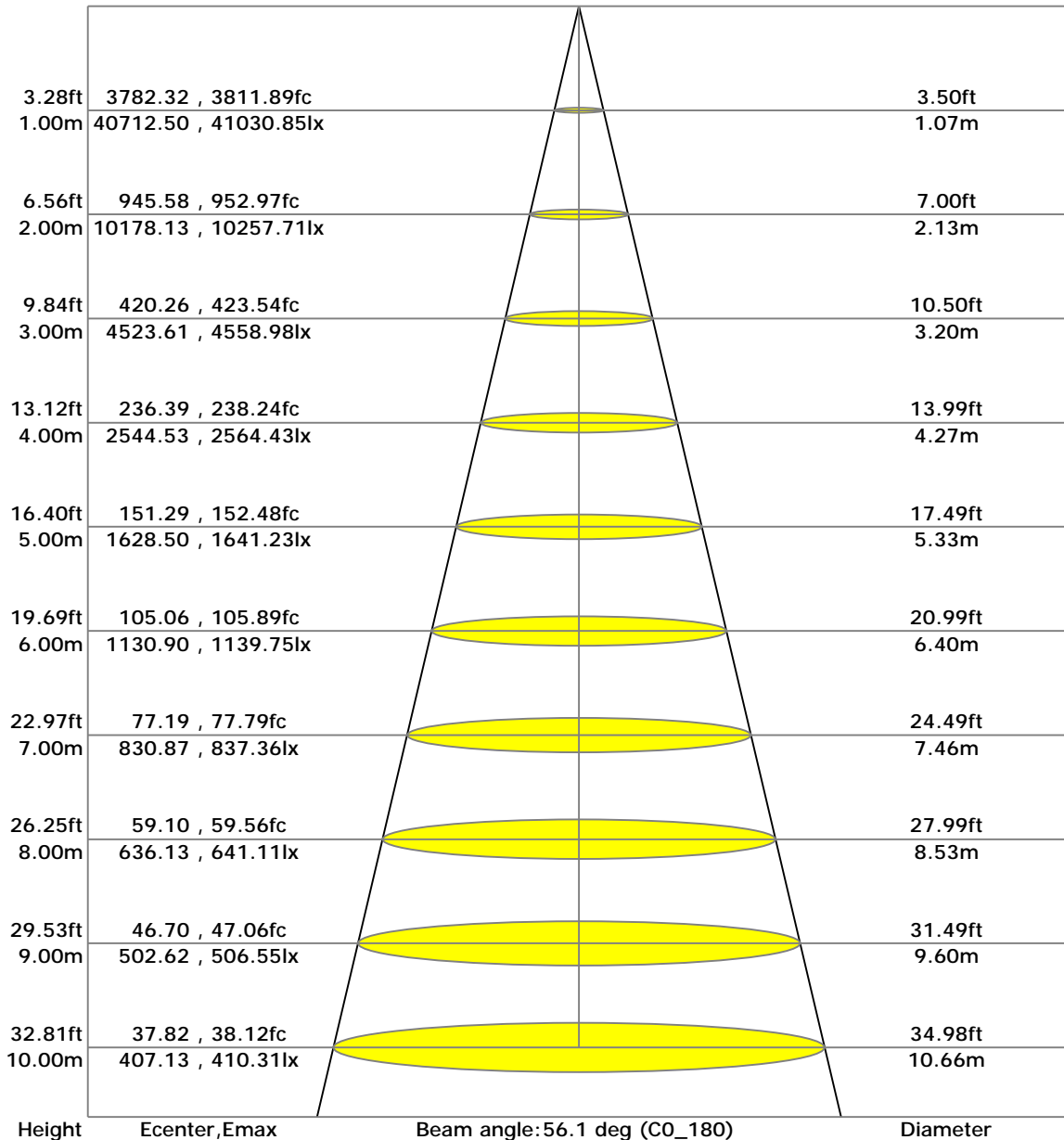
C Range: 0 - 360 Deg
 C Interval: 45.0 Deg
 Test Speed: High
 Temperature: 6.38
 Operators: ABUBAKER.LI
 Test Date: 2023/5/17 11:45:27

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 Humidity: 1
 Test Distance: 6.38 m
 Remarks:

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LX-DISTANCE DIAGRAM



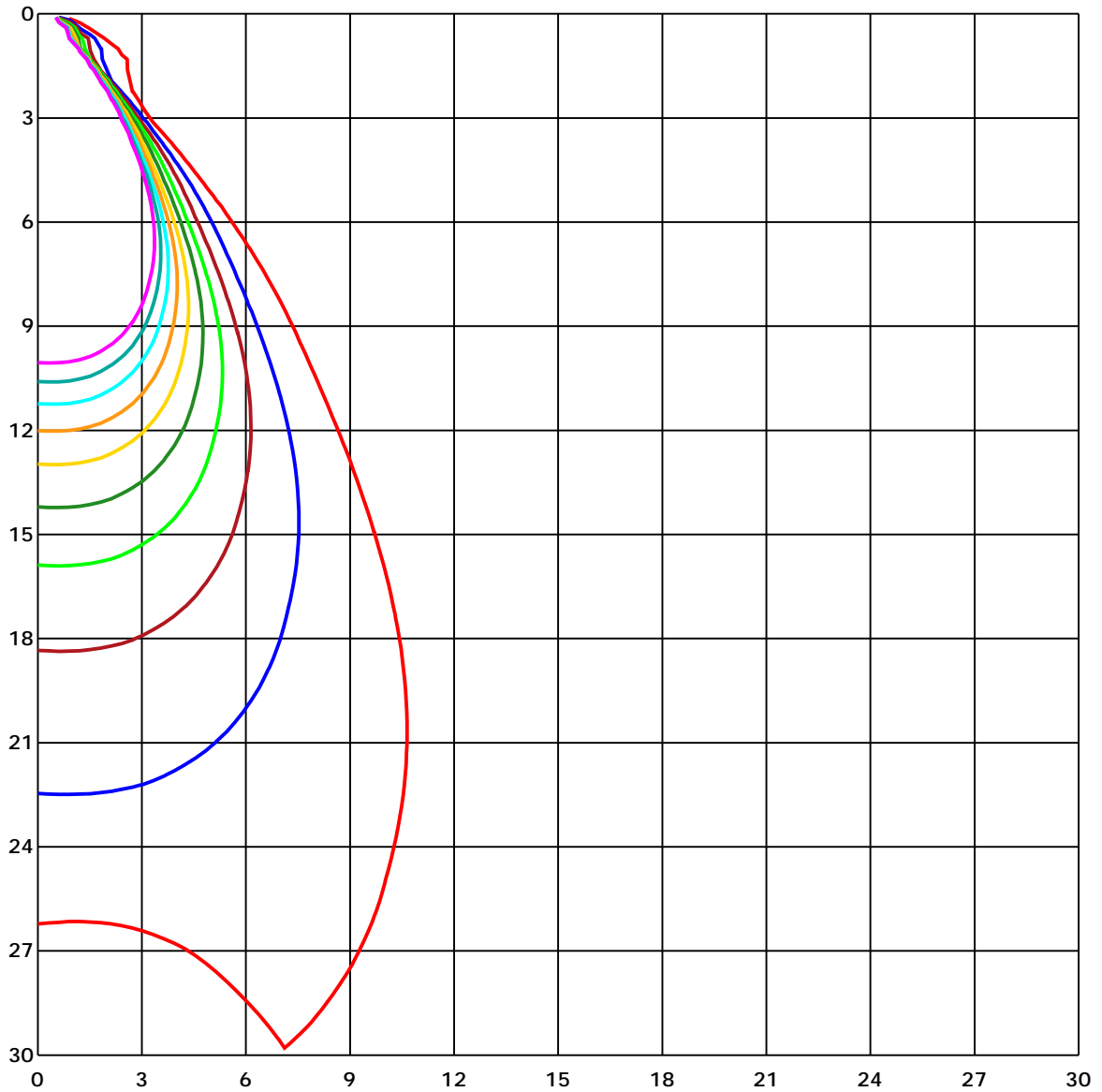
C Range: 0 - 360 Deg
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 Test Speed: High
 Temperature: 6.38
 Operators: ABUBAKER.LI
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G Range: 0 - 90 Deg
 G Interval: 1.0 Deg
 Test System: Huipu CPM-1800B Goniophotometer
 Humidity: 1
 Test Distance: 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	12.56	12.61	12.76	12.80	13.04	12.16	12.21	12.36	12.40	12.64
3H	12.55	12.60	12.76	12.79	13.04	12.16	12.21	12.37	12.41	12.65
4H	12.54	12.59	12.75	12.79	13.03	12.15	12.20	12.36	12.40	12.65
6H	12.52	12.57	12.73	12.77	13.02	12.13	12.19	12.35	12.39	12.64
8H	12.51	12.56	12.73	12.76	13.02	12.12	12.18	12.34	12.38	12.63
12H	12.50	12.55	12.72	12.76	13.01	12.11	12.17	12.34	12.37	12.63
4H 2H	13.09	13.15	13.31	13.34	13.59	12.54	12.59	12.75	12.79	13.03
3H	13.13	13.18	13.35	13.39	13.64	12.58	12.63	12.80	12.84	13.09
4H	13.12	13.17	13.35	13.38	13.64	12.58	12.63	12.81	12.84	13.10
6H	13.10	13.15	13.34	13.37	13.63	12.56	12.61	12.80	12.83	13.10
8H	13.09	13.14	13.33	13.36	13.63	12.55	12.60	12.80	12.83	13.09
12H	13.08	13.12	13.32	13.35	13.62	12.54	12.59	12.79	12.82	13.09
8H 4H	13.25	13.31	13.47	13.51	13.76	12.59	12.65	12.81	12.85	13.10
6H	13.30	13.35	13.56	13.58	13.86	12.64	12.69	12.90	12.92	13.20
8H	13.29	13.33	13.55	13.58	13.85	12.63	12.67	12.89	12.92	13.19
12H	13.27	13.31	13.54	13.57	13.85	12.62	12.66	12.89	12.91	13.19
12H 4H	13.35	13.40	13.60	13.63	13.90	12.66	12.71	12.91	12.94	13.21
6H	13.34	13.38	13.60	13.63	13.90	12.65	12.69	12.91	12.94	13.22

SPACE ISOLX DIAGRAM



Unit of illumination: lx

- | | |
|-----------|-----------|
| — 403.443 | — 201.721 |
| — 363.099 | — 161.377 |
| — 322.754 | — 121.033 |
| — 282.41 | — 80.689 |
| — 242.066 | — 40.344 |

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature: 6.38

Operators: ABUBAKER.LI

Test Date: 2023/5/17 11:45:27

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity: 1

Test Distance: 6.38 m

Remarks:

Report No.:

Test Time: 2023/5/17 11:45:27

LUMINOUS DISTRIBUTION INTENSITY DATA

Gamma\C	C0	C45	C90	C135	C180	C225	C270	C315	C360
G0	40712.5	38481.9	39151.41	39845.25	40712.5	38481.9	39151.41	39845.25	40712.5
G1	40785.73	38499.45	39046.88	39635.1	40527.3	38437.13	39187.71	39958.17	40785.73
G2	40894.73	38467.13	38836.68	39269.49	40303.42	38300.07	39220.24	40064.04	40894.73
G3	40952.45	38362.07	38437.0	38797.07	39995.74	38084.95	39165.53	40191.2	40952.45
G4	41022.06	38185.82	37966.54	38272.43	39658.42	37770.39	38987.7	40324.91	41022.06
G5	41030.85	37946.15	37502.84	37718.25	39147.95	37395.5	38760.64	40422.48	41030.85
G6	41005.49	37719.79	37028.79	37170.0	38638.25	36990.53	38458.66	40431.32	41005.49
G7	40947.41	37401.77	36524.91	36593.3	37996.05	36507.82	38095.29	40343.8	40947.41
G8	40858.22	37084.72	36010.33	35993.52	37378.08	35992.3	37693.58	40145.49	40858.22
G9	40642.53	36707.27	35438.27	35354.13	36731.86	35420.85	37263.13	39875.62	40642.53
G10	40343.03	36269.09	34790.46	34676.57	35993.36	34799.01	36775.65	39563.21	40343.03
G11	39993.95	35787.43	34118.92	33972.14	35231.98	34161.82	36238.52	39198.79	39993.95
G12	39615.07	35248.22	33375.61	33203.96	34410.93	33520.32	35666.46	38819.18	39615.07
G13	39165.86	34633.99	32598.45	32391.63	33594.24	32841.29	35013.52	38322.75	39165.86
G14	38607.43	33982.72	31749.76	31553.69	32764.03	32100.67	34289.75	37778.65	38607.43
G15	38018.61	33282.04	30905.88	30631.45	31797.18	31349.35	33539.08	37189.13	38018.61
G16	37272.09	32567.51	30090.56	29750.77	30824.14	30562.94	32693.69	36527.76	37272.09
G17	36483.4	31798.64	29304.36	28851.97	29970.08	29767.21	31814.23	35785.93	36483.4
G18	35650.99	31009.38	28461.78	27958.1	29073.93	28919.21	30861.51	34963.17	35650.99
G19	34704.33	30183.54	27562.01	27006.03	28151.24	28065.16	29892.17	34092.18	34704.33
G20	33669.38	29253.48	26661.46	26056.27	27214.35	27135.27	28901.35	33192.24	33669.38
G21	32561.53	28319.6	25714.03	25109.97	26237.49	26199.1	27913.21	32205.4	32561.53
G22	31285.53	27286.68	24699.55	24111.95	25236.56	25256.11	26856.2	31179.69	31285.53
G23	30081.86	26256.54	23703.84	23138.25	24209.39	24317.46	25776.59	30123.62	30081.86
G24	28873.22	25112.01	22677.03	22034.92	23161.21	23418.1	24663.98	29065.02	28873.22
G25	27603.85	23977.62	21605.98	20986.38	22006.67	22496.96	23518.88	27985.95	27603.85
G26	26280.88	22789.99	20554.99	19888.09	20829.13	21499.05	22340.89	26828.07	26280.88
G27	24890.78	21575.0	19423.57	18802.91	19664.42	20407.36	21116.59	25599.61	24890.78
G28	23412.44	20320.17	18282.71	17698.03	18497.06	19320.18	19857.85	24288.76	23412.44
G29	21893.15	19002.56	17098.09	16516.58	17275.68	18169.51	18549.48	22888.13	21893.15
G30	20298.27	17647.19	15929.59	15290.28	16042.13	17021.72	17212.96	21386.26	20298.27
G31	18623.97	16262.38	14781.03	14085.64	14844.0	15797.13	15910.33	19788.36	18623.97
G32	16930.38	14878.56	13627.71	12928.37	13663.86	14584.92	14521.62	18177.37	16930.38
G33	15230.61	13472.55	12528.65	11833.18	12525.92	13351.04	13172.27	16552.0	15230.61
G34	13583.02	12165.49	11471.19	10743.36	11400.2	12189.75	11874.21	14896.59	13583.02
G35	12054.73	10920.87	10420.98	9728.6	10355.81	11061.71	10645.46	13213.54	12054.73
G36	10579.11	9704.74	9437.97	8792.19	9360.91	10023.25	9506.55	11585.41	10579.11

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature: 6.38

Operators: ABUBAKER.LI

Test Date: 2023/5/17 11:45:27

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity: 1

Test Distance: 6.38 m

Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA(Continue 1)

Gamma\C	C0	C45	C90	C135	C180	C225	C270	C315	C360	
G37	9282.76	8584.97	8518.05	7881.47	8432.98	8990.38	8461.88	10116.35	9282.76	
G38	8165.87	7600.65	7663.17	7070.72	7508.9	8046.98	7498.69	8847.22	8165.87	
G39	7195.64	6698.32	6859.22	6169.24	6736.82	7165.69	6591.55	7692.73	7195.64	
G40	6345.57	5888.91	6148.32	5365.37	5814.91	6325.69	5776.04	6664.9	6345.57	
G41	5432.78	5170.97	5398.91	4597.85	4990.97	5485.69	4976.44	5756.7	5432.78	
G42	4590.28	4505.25	4660.21	3829.84	4177.33	4727.57	4200.0	4935.65	4590.28	
G43	3747.74	3813.03	3889.96	3088.85	3372.12	3978.37	3506.28	4191.37	3747.74	
G44	2904.87	3097.52	3124.35	2368.18	2639.68	3267.47	2863.35	3478.31	2904.87	
G45	2147.56	2331.39	2347.26	1772.23	1936.51	2521.68	2253.15	2749.54	2147.56	
G46	1512.25	1676.49	1705.92	1347.89	1429.42	1903.58	1683.49	2095.14	1512.25	
G47	1124.46	1214.54	1252.68	1041.38	1110.74	1409.23	1258.7	1511.27	1124.46	
G48	945.97	944.02	978.33	893.46	950.45	1088.68	994.98	1130.4	945.97	
G49	862.81	819.83	832.57	837.9	868.47	916.09	860.49	934.33	862.81	
G50	825.77	749.98	744.32	777.82	838.75	834.28	781.85	856.79	825.77	
G51	782.42	703.94	699.87	746.56	784.41	772.77	735.0	784.54	782.42	
G52	766.59	688.15	662.46	712.0	767.16	726.86	702.03	755.11	766.59	
G53	748.51	637.76	623.71	697.06	743.26	699.67	696.57	719.08	748.51	
G54	727.84	619.03	606.9	683.06	723.24	690.59	673.5	700.6	727.84	
G55	713.59	600.96	585.09	639.55	707.12	658.43	646.96	697.67	713.59	
G56	703.45	576.7	566.32	621.72	701.21	628.07	628.52	675.29	703.45	
G57	696.53	557.45	548.82	609.47	695.43	617.28	620.21	641.7	696.53	
G58	696.7	543.08	540.11	587.08	698.28	606.5	615.61	626.24	696.7	
G59	697.43	534.45	537.38	563.92	695.56	583.25	616.39	618.5	697.43	
G60	699.38	529.48	534.16	548.9	698.57	565.34	615.74	604.99	699.38	
G61	728.69	514.54	534.77	538.07	698.49	553.62	621.76	589.36	728.69	
G62	765.98	493.54	536.65	534.25	697.63	545.36	624.2	568.84	765.98	
G63	762.11	474.74	535.87	528.42	656.03	537.95	621.35	557.53	762.11	
G64	728.53	462.85	534.08	509.37	620.25	533.43	611.38	544.26	728.53	
G65	698.08	453.77	501.52	478.48	577.47	523.46	580.04	536.0	698.08	
G66	644.72	437.12	457.84	460.98	538.11	479.62	543.77	531.68	644.72	
G67	596.93	414.17	423.29	448.16	519.39	464.36	525.45	509.86	596.93	
G68	539.21	391.9	388.32	422.43	468.83	453.57	473.64	474.04	539.21	
G69	495.66	377.94	371.67	397.72	440.42	440.18	453.57	459.06	495.66	
G70	452.59	370.7	339.27	380.5	390.03	415.47	422.31	446.28	452.59	
G71	407.08	347.13	294.09	367.72	367.4	394.67	384.66	423.24	407.08	
G72	378.47	314.2	261.2	343.18	334.96	379.61	353.68	398.74	378.47	
G73	366.46	299.67	226.11	312.08	311.19	371.96	302.64	380.18	366.46	

C Range: 0 - 360 Deg

C Interval: 45.0 Deg

Test Speed: High

Temperature: 6.38

Operators: ABUBAKER.LI

Test Date: 2023/5/17 11:45:27

G Range: 0 - 90 Deg

G Interval: 1.0 Deg

Test System: Huipu CPM-1800B Goniophotometer

Humidity: 1

Test Distance: 6.38 m

Remarks:

