

Report No.:

Test Time: 2022/8/29 16:23

## Luminaire Property

Luminaire Manufacturer:

Luminaire Category: PPNP23030MMWH

Lamp Catalog: Upside

Luminous Width (mm): 24

Voltage: 24.0 V

Power: 22.08 W

Luminaire Description: PPNP23030MMWH

Luminous Length (mm): 613

Luminous Height (mm): 100

Current: 0.921 A

Power Factor: 1.000

## Photometric Results

CIE Class: Direct

Measurement Flux: 703 lm

Downward Ratio: 99%

Horizontal Diffuse Angle(10%,50%): H154,H102.6

Vertical Diffuse Angle(10%,50%): V156.3,V104.3

Luminaire Efficacy Rating (LER): 32

Max. Intensity: 276.24 cd

Total Rated Lamp Lumens: 703.0 lm

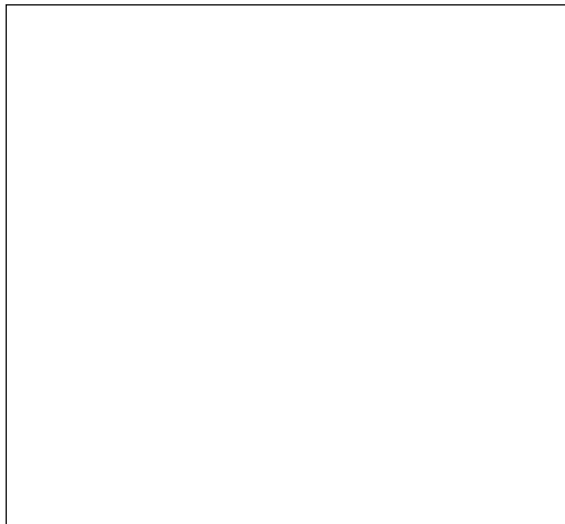
Efficiency: 100%

Upward Ratio: 1%

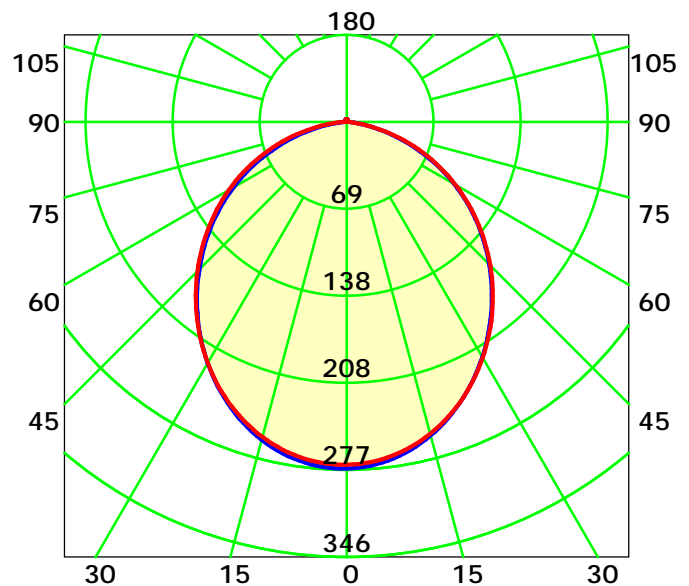
Central Intensity: 276.18 cd

Pos of Max. Intensity: H180 V1

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 103.4° Unit: cd

— C0-C180 — C90-C270

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator: Jacky

Gamma Plane (°):0.0-180.0: 1.0

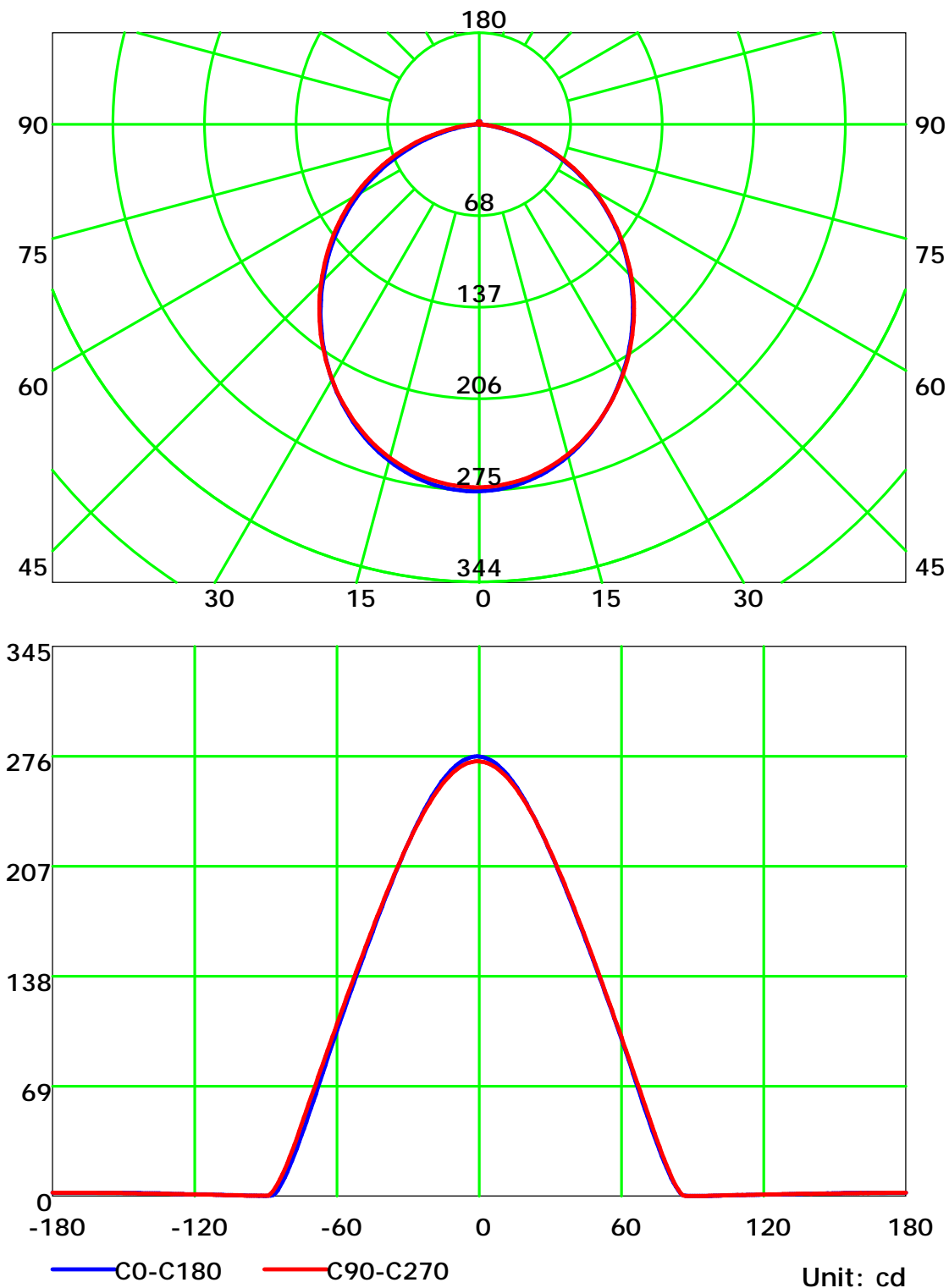
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

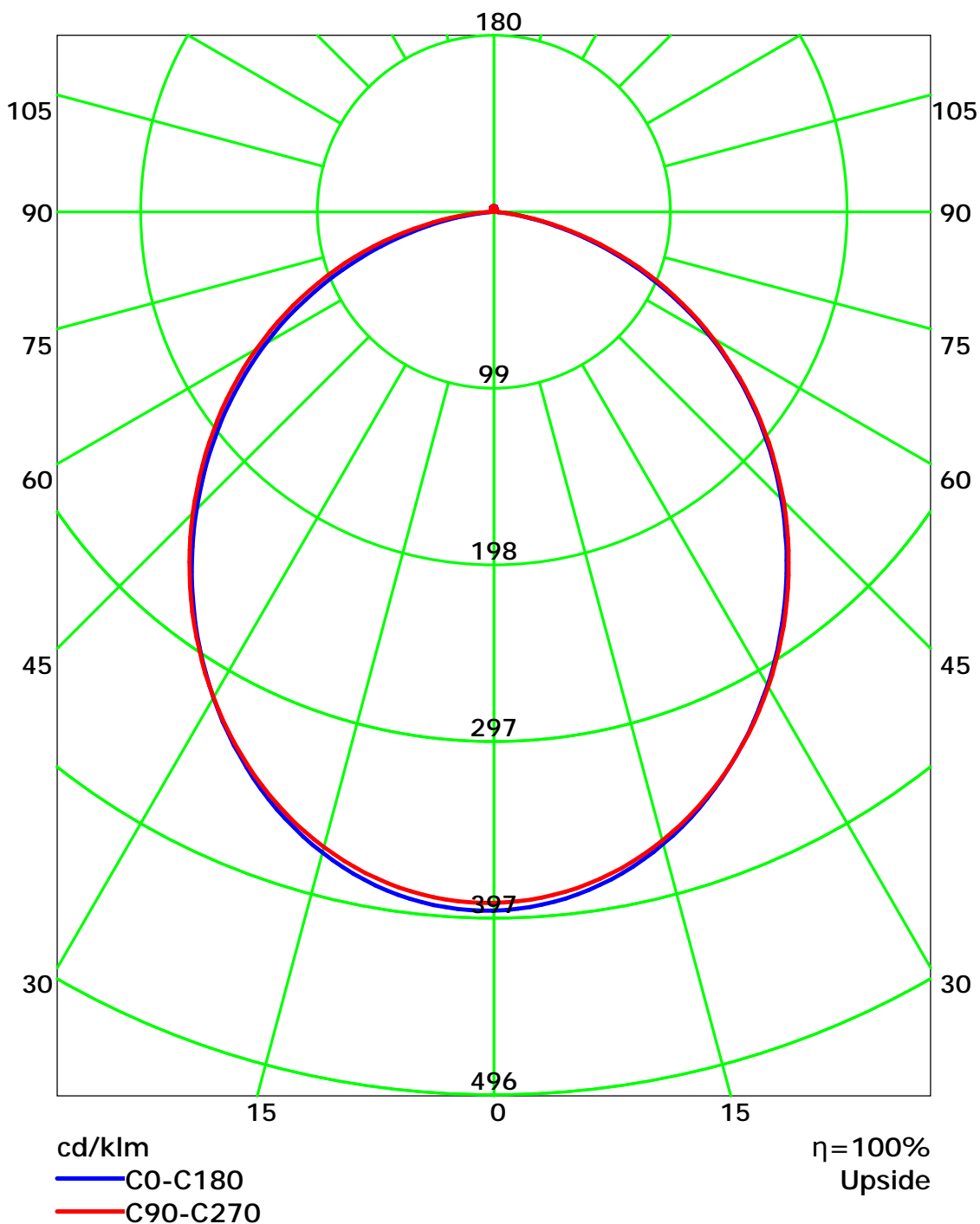
## Luminous Intensity Distribution Curve



C Plane (°): 0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Jacky

Gamma Plane (°): 0.0-180.0: 1.0  
Test Device: GPM-1800B  
Distance: 9.028 m  
Humidity: 60%  
Inspector:

## Luminous Intensity Distribution Curve(cd/klm)



C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Jacky

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 9.028 m  
Humidity: 60%  
Inspector:

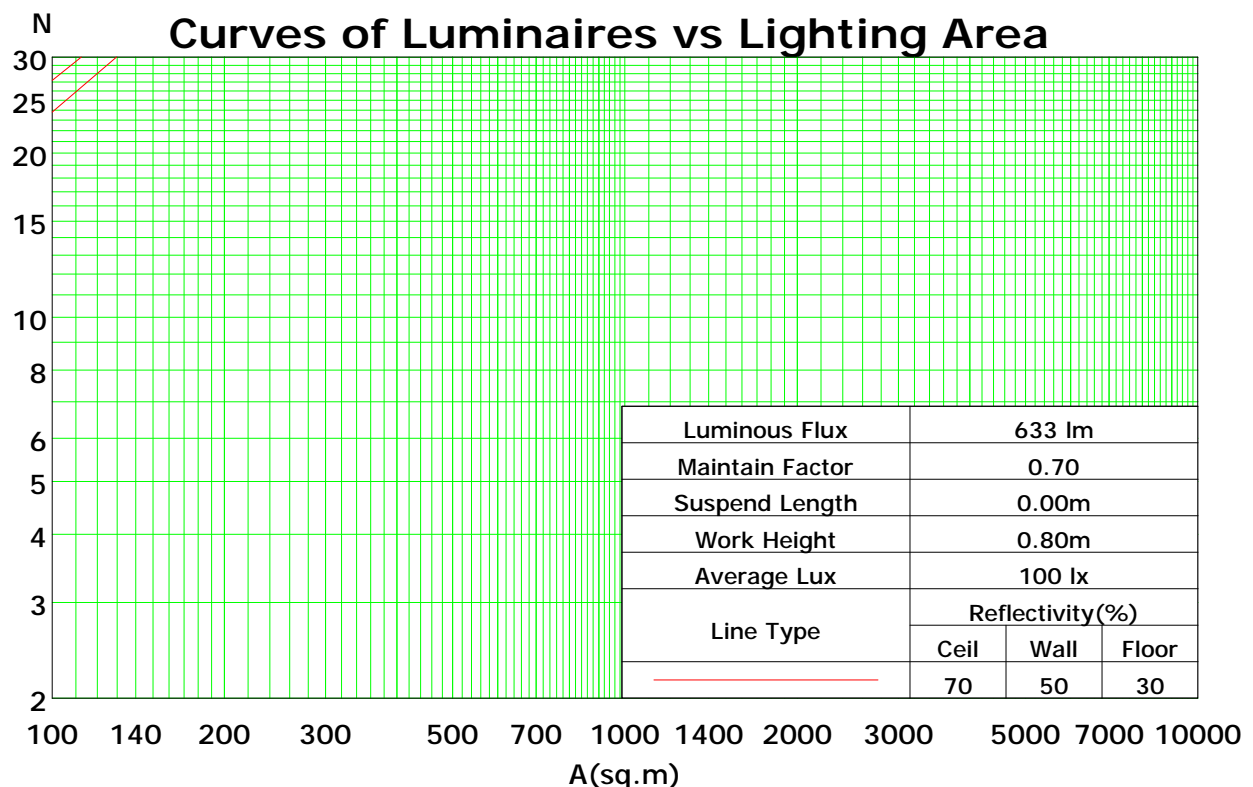
## Coefficients Of Utilization - Zonal Cavity Method

RC	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.5	0.5	0.5	0.3	0.3	0.3	0.1	0.1	0.1	0
RW	0.7	0.5	0.3	0.1	0.7	0.5	0.3	0.1	0.5	0.3	0.1	0.5	0.3	0.1	0.5	0.3	0.1	0
RCR	RF = 0.2																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	101	101	101	99
1	109	105	101	97	106	102	99	95	98	95	92	94	91	89	90	88	86	84
2	100	92	85	80	97	90	84	79	86	81	77	83	78	75	79	76	73	71
3	91	81	73	67	88	79	72	66	76	70	65	73	68	63	71	66	62	60
4	83	72	63	57	81	70	62	56	68	61	55	65	59	55	63	58	54	52
5	77	64	56	49	75	63	55	49	61	54	48	59	53	48	57	51	47	45
6	71	58	49	43	69	57	49	43	55	48	42	53	47	42	52	46	41	39
7	66	53	44	38	64	52	44	38	50	43	38	49	42	37	47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	43	38	33	31
9	57	44	36	31	56	44	36	31	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	28	38	32	27	37	32	27	26

Spacing Criteria (0-180): 1.19

Spacing Criteria (90-270): 1.20

Spacing Criteria (Diagonal): 1.30



C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator: Jacky

Gamma Plane (°):0.0-180.0:1.0

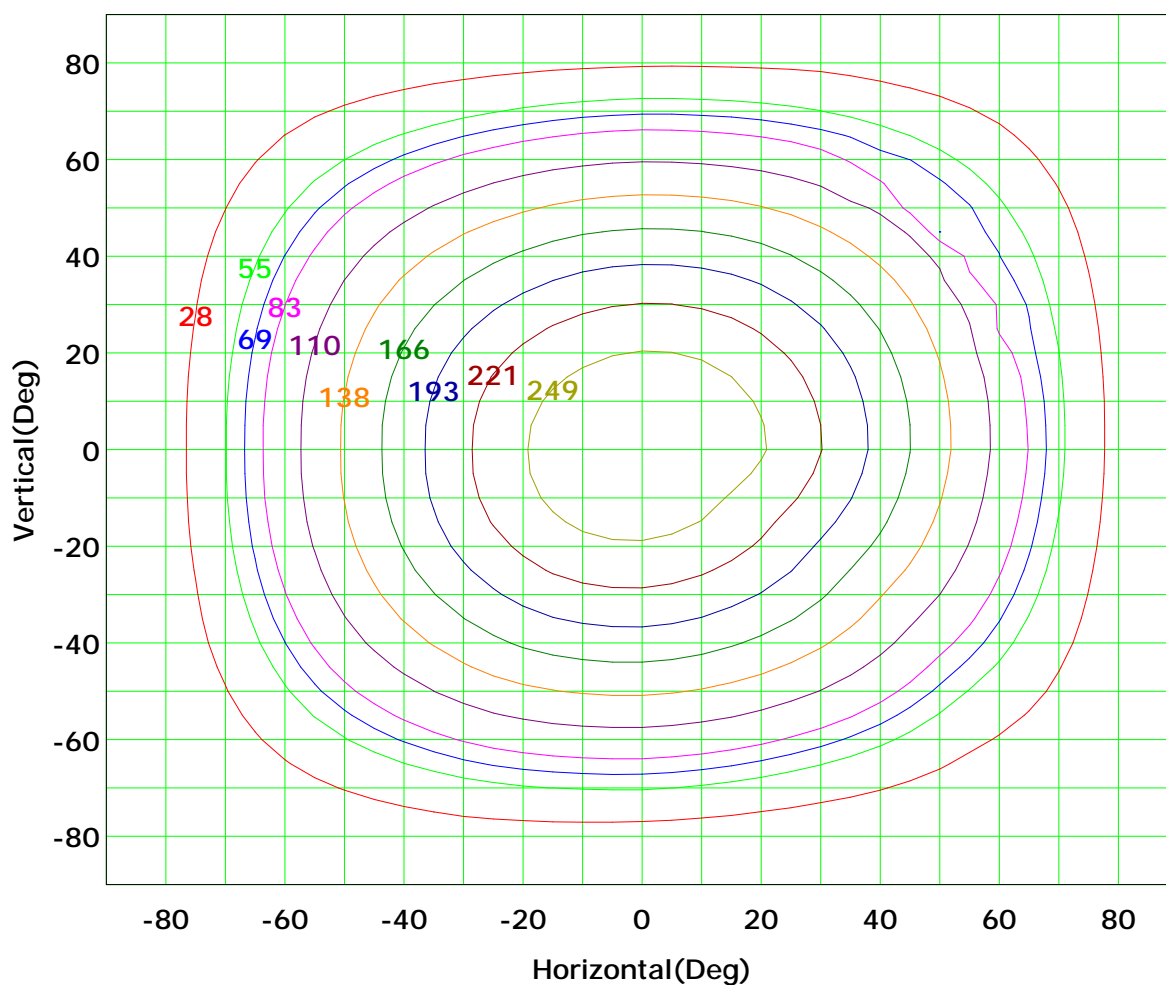
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

## Isocandela (rectangle)



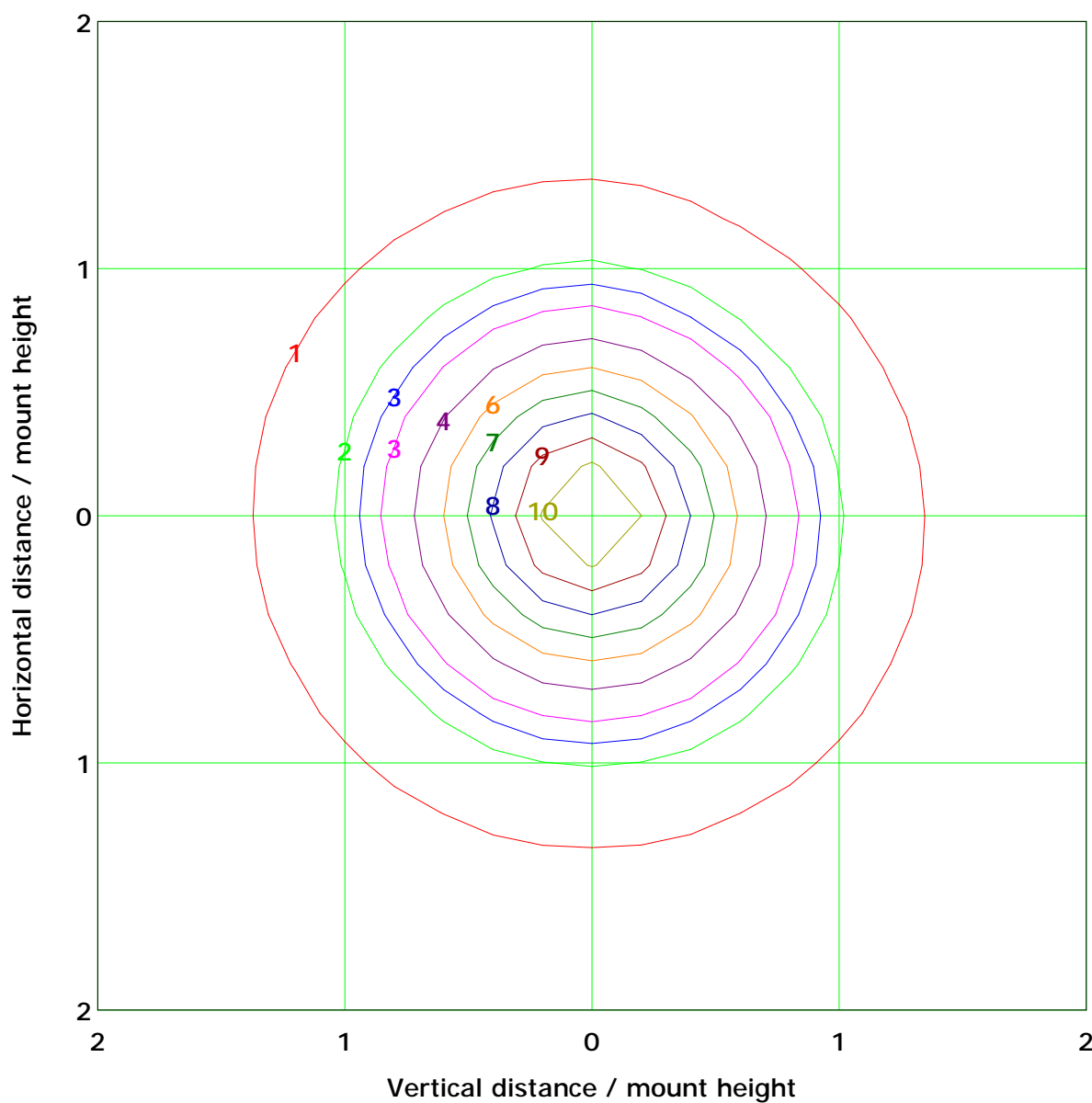
I<sub>max</sub> (100%): 276 cd

( 10%): 28 cd	( 20%): 55 cd
( 25%): 69 cd	( 30%): 83 cd
( 40%): 110 cd	( 50%): 138 cd
( 60%): 166 cd	( 70%): 193 cd
( 80%): 221 cd	( 90%): 249 cd

C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Jacky

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 9.028 m  
Humidity: 60%  
Inspector:

## IsoLux Plot



Mounting Height: 5.0m		Max Lux(100%): 11.0 lx	
( 10%):	1.1 lx	( 20%):	2.2 lx
( 25%):	2.8 lx	( 30%):	3.3 lx
( 40%):	4.4 lx	( 50%):	5.5 lx
( 60%):	6.6 lx	( 70%):	7.7 lx
( 80%):	8.8 lx	( 90%):	9.9 lx

C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Jacky

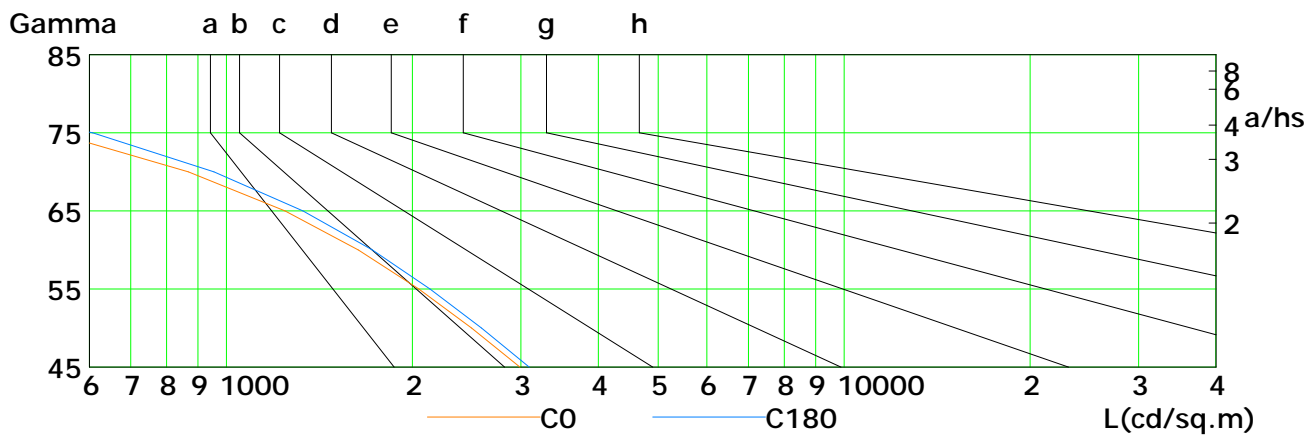
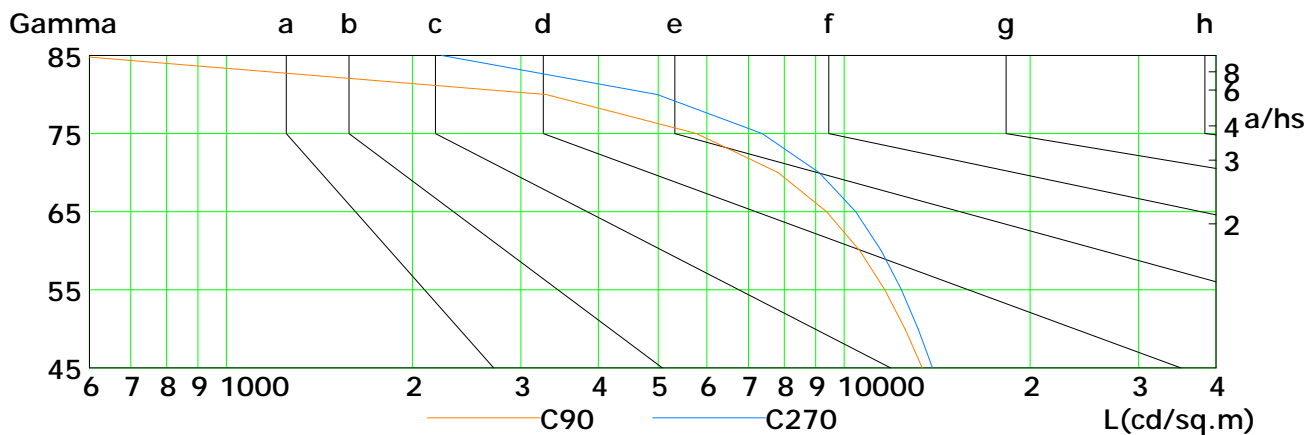
Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 9.028 m  
Humidity: 60%  
Inspector:



## Lum Limit Curve

Dazzle	Quality	Illuminance (lx)							
1.15	A	2000	1000	500	<=300				
1.50	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.20	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300

a b c d e f g h

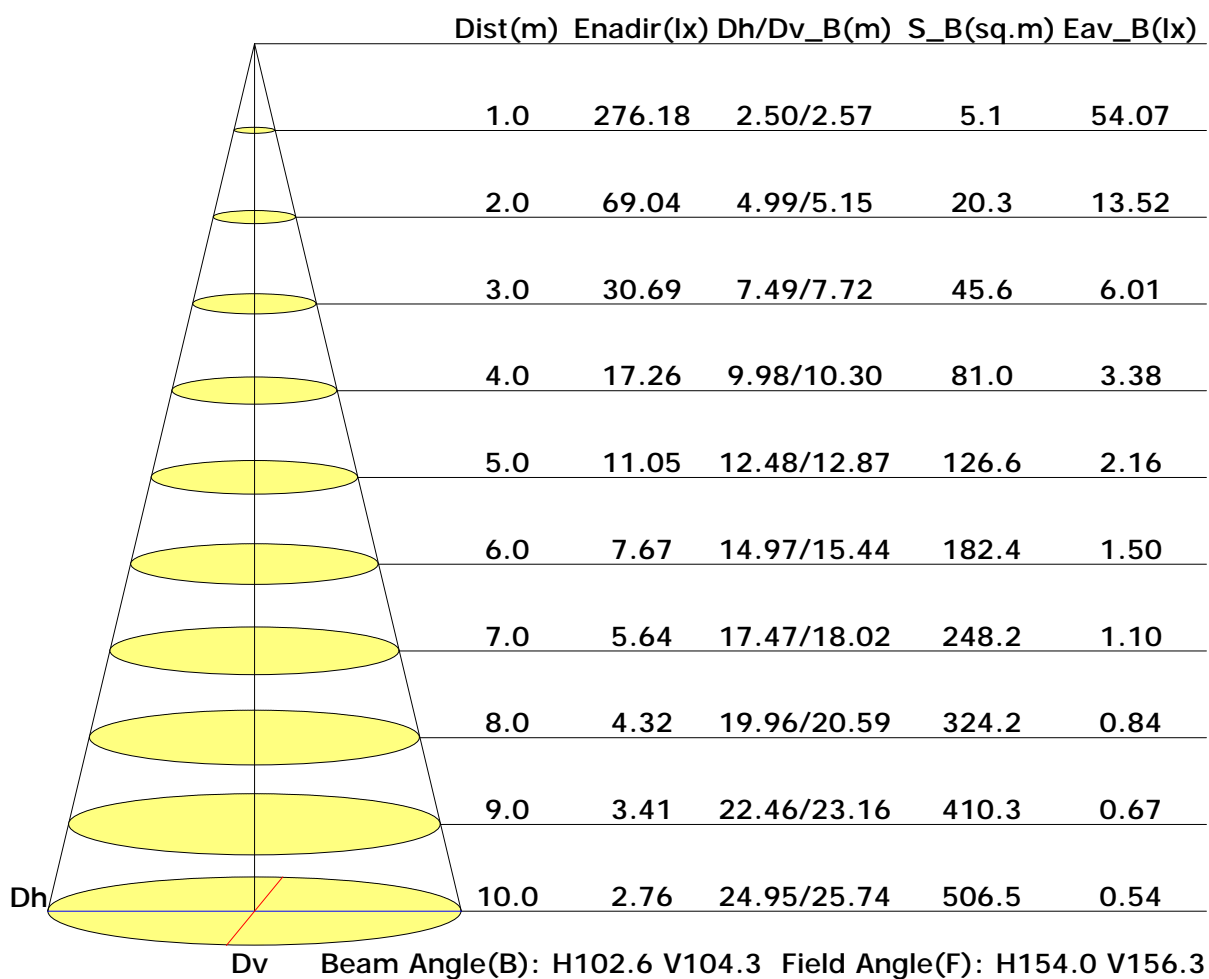


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	2988	2495	2048	1636	1244	868	528	233	30
C90	13387	12555	11639	10603	9365	7826	5772	3294	564
C180	3091	2590	2138	1723	1331	955	607	299	62
C270	13909	13175	12382	11490	10440	9120	7375	4983	2232

C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Jacky

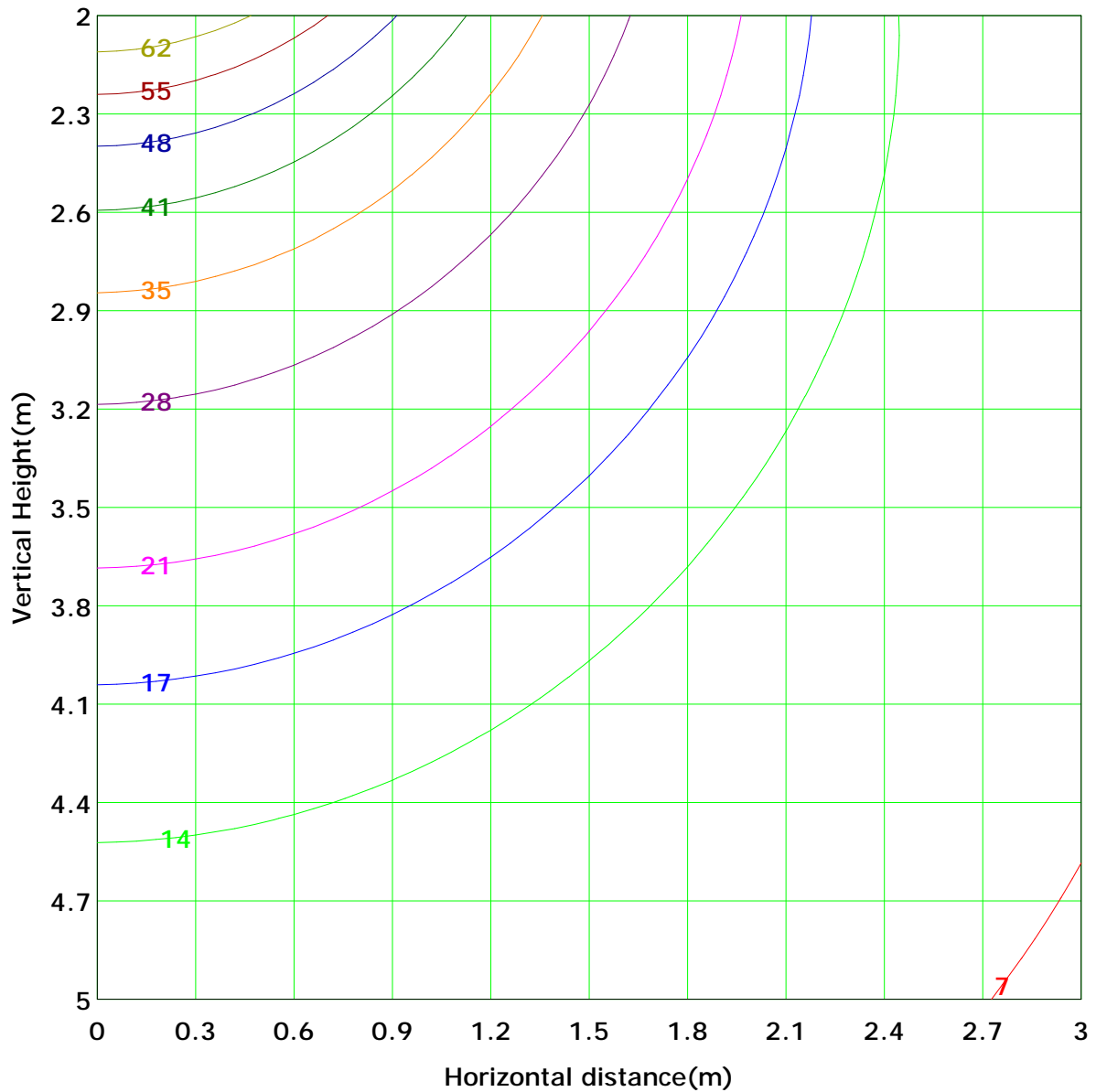
Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 9.028 m  
Humidity: 60%  
Inspector:

## Illuminance at a Distance





## Vertical IsoLux Plot



Lowest(m): 2.0m	Highest(m): 5.0m	Max Lux: 69.0 lx
( 10%): 6.9 lx	( 20%): 13.8 lx	
( 25%): 17.3 lx	( 30%): 20.7 lx	
( 40%): 27.6 lx	( 50%): 34.5 lx	
( 60%): 41.4 lx	( 70%): 48.3 lx	
( 80%): 55.2 lx	( 90%): 62.1 lx	

C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Jacky

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 9.028 m  
Humidity: 60%  
Inspector:

## Area Flux Table

Unit: lm

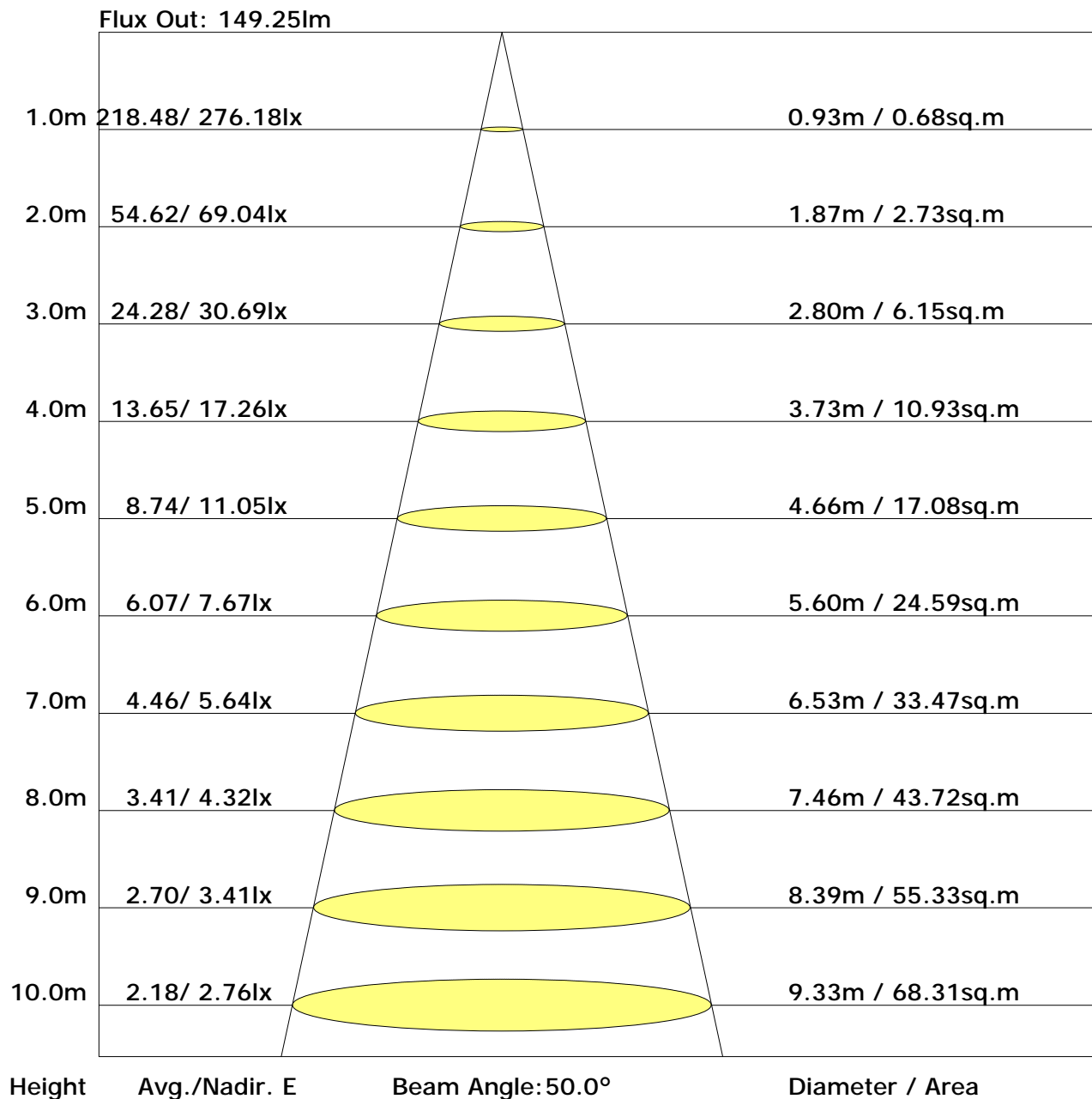
Flux(E)	Vertical plane																	Flux(T)	Flux(E)
	-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90
0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.1	0.0	0.0	0.0
0.0	0.0	0.0	0.1	0.3	0.6	0.9	1.1	1.2	1.3	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.1	0.0	0.0
0.0	0.1	0.3	0.7	1.2	1.7	2.1	2.5	2.6	2.6	2.6	2.4	2.0	1.6	1.1	0.7	0.4	0.2	0.0	0.0
0.0	0.1	0.5	1.1	1.6	2.2	2.4	3.2	3.6	3.9	4.1	4.8	5.1	5.0	4.7	4.0	3.2	2.2	1.7	1.0
0.0	0.2	0.7	1.3	2.2	3.3	4.1	5.0	5.7	6.2	6.5	7.1	7.2	6.1	5.7	4.9	3.8	2.7	1.6	0.9
0.0	0.2	0.8	1.6	2.8	3.9	5.0	6.2	7.3	7.8	7.8	7.2	6.1	4.7	3.3	2.2	1.3	0.6	0.2	0.0
0.0	0.3	0.9	1.9	3.2	4.5	5.7	6.7	7.1	7.1	6.5	5.6	4.4	3.1	1.9	0.9	0.2	0.0	0.0	0.0
0.0	0.3	1.0	2.1	3.4	4.9	6.2	7.3	7.8	7.8	7.2	6.1	4.7	3.3	2.0	1.0	0.3	0.0	0.0	0.0
0.0	0.3	1.1	2.2	3.6	5.1	6.5	7.6	8.2	8.2	7.5	6.4	4.9	3.5	2.1	1.0	0.3	0.0	0.0	0.0
0.0	0.3	1.1	2.2	3.6	5.0	6.4	7.5	8.1	8.2	7.5	6.4	4.9	3.5	2.1	1.0	0.3	0.0	0.0	0.0
0.0	0.3	1.1	2.2	3.5	5.0	6.4	7.5	8.1	8.2	7.5	6.4	4.9	3.5	2.1	1.0	0.3	0.0	0.0	0.0
0.0	0.3	1.0	2.0	3.3	4.6	5.9	7.0	7.7	7.7	7.2	6.1	4.8	3.3	2.0	1.0	0.3	0.0	0.0	0.0
0.0	0.3	0.9	1.8	2.9	4.1	5.3	6.3	6.9	7.0	6.5	5.6	4.4	3.1	1.9	0.9	0.2	0.0	0.0	0.0
0.0	0.2	0.7	1.5	2.5	3.6	4.6	5.4	6.0	6.0	5.6	4.9	3.8	2.7	1.6	0.8	0.2	0.0	0.0	0.0
0.0	0.1	0.5	1.1	2.0	2.9	3.7	4.4	4.8	4.9	4.6	4.0	3.1	2.2	1.3	0.6	0.2	0.0	0.0	0.0
0.0	0.1	0.3	0.8	1.4	2.1	2.8	3.3	3.6	3.7	3.4	3.0	2.4	1.6	1.0	0.4	0.1	0.0	0.0	0.0
0.0	0.0	0.2	0.4	0.8	1.3	1.7	2.1	2.3	2.4	2.2	1.9	1.5	1.0	0.6	0.2	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.1	0.3	0.5	0.7	0.9	1.0	1.1	1.0	0.9	0.7	0.5	0.2	0.1	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
0.2	2.9	10.1	21.2	35.4	50.9	65.5	76.9	83.2	83.4	77.3	66.0	51.5	36.1	21.7	10.0	2.7	0.1	695	
1.9	9.4	20.5	34.7	50.2	64.7	76.1	82.5	82.7	76.6	65.3	50.8	35.4	21.0	9.2	1.6	0.0		683	

C Plane (°): 0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Jacky

Gamma Plane (°): 0.0-180.0: 1.0  
Test Device: GPM-1800B  
Distance: 9.028 m  
Humidity: 60%  
Inspector:



## The Average Illuminance Effective Figure



C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Jacky

Gamma Plane (°):0.0-180.0: 1.0  
Test Device: GPM-1800B  
Distance: 9.028 m  
Humidity: 60%  
Inspector:

## UGR Table

Reflectance:										
Ceiling (cavity)	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
X=2H Y=2H	18.3	19.9	18.7	20.2	20.6	15.4	17.0	15.8	17.3	17.7
3H	19.8	21.2	20.2	21.5	21.9	16.5	17.9	16.9	18.2	18.6
4H	20.2	21.5	20.6	21.9	22.3	16.7	18.0	17.1	18.4	18.8
6H	20.4	21.6	20.8	22.0	22.4	16.8	18.0	17.2	18.4	18.8
8H	20.4	21.6	20.8	22.0	22.4	16.8	17.9	17.2	18.4	18.8
12H	20.4	21.5	20.8	21.9	22.4	16.8	17.9	17.2	18.3	18.7
X=4H Y=2H	18.5	19.8	18.9	20.2	20.6	16.0	17.3	16.4	17.7	18.1
3H	20.1	21.2	20.5	21.6	22.0	17.1	18.2	17.6	18.7	19.1
4H	20.6	21.6	21.0	22.0	22.5	17.4	18.4	17.9	18.9	19.3
6H	20.8	21.7	21.3	22.1	22.6	17.6	18.4	18.0	18.9	19.4
8H	20.8	21.6	21.3	22.1	22.6	17.5	18.4	18.0	18.8	19.3
12H	20.8	21.5	21.3	22.0	22.5	17.5	18.3	18.0	18.7	19.2
X=8H Y=4H	20.6	21.4	21.1	21.9	22.4	17.6	18.4	18.1	18.8	19.3
6H	20.8	21.5	21.4	22.0	22.5	17.7	18.4	18.2	18.9	19.4
8H	20.9	21.5	21.4	22.0	22.5	17.7	18.3	18.2	18.8	19.3
12H	20.9	21.4	21.4	21.9	22.5	17.7	18.2	18.2	18.7	19.3
X=12H Y=4H	20.6	21.3	21.1	21.8	22.3	17.6	18.3	18.1	18.8	19.3
6H	20.8	21.4	21.4	21.9	22.5	17.7	18.3	18.2	18.8	19.3
8H	20.9	21.4	21.4	21.9	22.5	17.7	18.2	18.2	18.7	19.3

Calculate in accordance with CIE 190:2010

C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Jacky

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 9.028 m  
Humidity: 60%  
Inspector:

## Utilisation Factor Table(Floor cavity)

Utilisation Factors UF(F)			SHR NOM = 1.25								
Room Reflectance			Room Index(RI)								
Ceiling	Wall	Floor	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00
0.70	0.50	0.20	0.59	0.69	0.76	0.81	0.89	0.93	0.97	1.01	1.04
	0.30		0.51	0.61	0.69	0.75	0.83	0.88	0.92	0.97	1.01
	0.20		0.45	0.56	0.64	0.69	0.78	0.84	0.88	0.94	0.98
0.50	0.50	0.20	0.57	0.67	0.74	0.79	0.85	0.90	0.93	0.97	1.00
	0.30		0.50	0.60	0.67	0.73	0.80	0.85	0.89	0.94	0.97
	0.20		0.45	0.55	0.63	0.68	0.76	0.82	0.86	0.91	0.94
0.30	0.50	0.20	0.55	0.65	0.71	0.76	0.82	0.86	0.89	0.93	0.96
	0.30		0.49	0.59	0.66	0.71	0.78	0.83	0.86	0.91	0.93
	0.20		0.45	0.55	0.62	0.67	0.75	0.80	0.83	0.88	0.91
0.00	0.00	0.00	0.42	0.52	0.59	0.64	0.71	0.76	0.79	0.84	0.86
Rating: 22W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980											

## Utilisation Factor Table(Wall)

Utilisation Factors UF(W)			SHR NOM = 1.25									
Room Reflectance			Room Index(RI)									
Ceiling	Wall	Floor	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00	
0.70	0.50	0.20	0.96	0.79	0.67	0.58	0.46	0.38	0.32	0.25	0.20	
	0.30		0.80	0.68	0.58	0.51	0.42	0.35	0.30	0.23	0.19	
	0.20		0.69	0.59	0.52	0.46	0.38	0.32	0.28	0.22	0.18	
0.50	0.50	0.20	0.93	0.76	0.64	0.55	0.44	0.39	0.31	0.24	0.19	
	0.30		0.78	0.66	0.57	0.50	0.40	0.33	0.29	0.22	0.18	
	0.20		0.68	0.58	0.51	0.45	0.37	0.31	0.27	0.21	0.18	
0.30	0.50	0.20	0.90	0.73	0.61	0.53	0.42	0.34	0.29	0.22	0.18	
	0.30		0.77	0.64	0.55	0.48	0.39	0.32	0.27	0.21	0.17	
	0.20		0.67	0.57	0.50	0.44	0.36	0.30	0.26	0.20	0.17	
0.00	0.00	0.00	0.57	0.47	0.40	0.35	0.28	0.23	0.20	0.15	0.13	
Rating: 22W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												

## Utilisation Factor Table(Ceiling cavity)

Utilisation Factors UF(C)			SHR NOM = 1.25									
Room Reflectance			Room Index(RI)									
Ceiling	Wall	Floor	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00	
0.70	0.50	0.20	0.17	0.18	0.19	0.20	0.21	0.21	0.22	0.22	0.23	
	0.30		0.10	0.12	0.13	0.14	0.16	0.17	0.18	0.19	0.20	
	0.20		0.06	0.07	0.09	0.10	0.12	0.14	0.15	0.17	0.18	
0.50	0.50	0.20	0.17	0.18	0.19	0.19	0.20	0.20	0.21	0.21	0.22	
	0.30		0.10	0.12	0.13	0.14	0.16	0.17	0.18	0.19	0.20	
	0.20		0.06	0.07	0.09	0.10	0.12	0.14	0.15	0.16	0.17	
0.30	0.50	0.20	0.16	0.17	0.18	0.18	0.19	0.20	0.20	0.20	0.21	
	0.30		0.10	0.12	0.13	0.14	0.15	0.16	0.17	0.18	0.19	
	0.20		0.06	0.07	0.09	0.10	0.12	0.13	0.14	0.16	0.17	
0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
Rating: 22W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												

## Zonal Lumen

Gamma [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
0.0-1.0	273.8	0.3	0.3	0.04	0.04
1.0-2.0	273.6	0.8	1.0	0.11	0.15
2.0-3.0	273.3	1.3	2.4	0.19	0.33
3.0-4.0	272.9	1.8	4.2	0.26	0.59
4.0-5.0	272.4	2.3	6.5	0.33	0.93
5.0-6.0	271.7	2.9	9.4	0.41	1.33
6.0-7.0	270.9	3.4	12.7	0.48	1.81
7.0-8.0	269.9	3.9	16.6	0.55	2.36
8.0-9.0	268.9	4.4	21.0	0.62	2.98
9.0-10.0	267.7	4.8	25.8	0.69	3.67
10.0-11.0	266.3	5.3	31.1	0.76	4.43
11.0-12.0	264.8	5.8	36.9	0.82	5.25
12.0-13.0	263.2	6.2	43.2	0.89	6.14
13.0-14.0	261.5	6.7	49.9	0.95	7.09
14.0-15.0	259.7	7.1	57.0	1.01	8.11
15.0-16.0	257.7	7.6	64.6	1.07	9.18
16.0-17.0	255.7	8.0	72.5	1.13	10.32
17.0-18.0	253.5	8.4	80.9	1.19	11.50
18.0-19.0	251.2	8.7	89.6	1.24	12.75
19.0-20.0	248.9	9.1	98.7	1.30	14.04
20.0-21.0	246.4	9.5	108.2	1.35	15.39
21.0-22.0	243.8	9.8	118.0	1.39	16.78
22.0-23.0	241.2	10.1	128.1	1.44	18.22
23.0-24.0	238.4	10.4	138.5	1.48	19.71
24.0-25.0	235.5	10.7	149.2	1.52	21.23
25.0-26.0	232.6	11.0	160.2	1.56	22.79
26.0-27.0	229.6	11.2	171.5	1.60	24.39
27.0-28.0	226.5	11.5	182.9	1.63	26.02
28.0-29.0	223.4	11.7	194.6	1.66	27.69
29.0-30.0	220.2	11.9	206.5	1.69	29.38
30.0-31.0	216.9	12.1	218.6	1.72	31.09
31.0-32.0	213.5	12.2	230.8	1.74	32.83
32.0-33.0	210.2	12.4	243.2	1.76	34.60
33.0-34.0	206.7	12.5	255.7	1.78	36.38
34.0-35.0	203.2	12.6	268.3	1.80	38.17
35.0-36.0	199.7	12.7	281.0	1.81	39.98

C Plane (°): 0.0-360.0: 30.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature: 25  
 Operator: Jacky

Gamma Plane (°): 0.0-180.0: 1.0  
 Test Device: GPM-1800B  
 Distance: 9.028 m  
 Humidity: 60%  
 Inspector:



## Zonal Lumen (Continue 1)

Gamma [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
36.0-37.0	196.0	12.8	293.8	1.82	41.80
37.0-38.0	192.4	12.8	306.7	1.83	43.63
38.0-39.0	188.7	12.9	319.6	1.83	45.46
39.0-40.0	185.0	12.9	332.5	1.84	47.29
40.0-41.0	181.2	12.9	345.4	1.84	49.13
41.0-42.0	177.4	12.9	358.3	1.83	50.96
42.0-43.0	173.6	12.9	371.1	1.83	52.79
43.0-44.0	169.7	12.8	383.9	1.82	54.61
44.0-45.0	165.8	12.7	396.7	1.81	56.43
45.0-46.0	161.9	12.7	409.3	1.80	58.23
46.0-47.0	157.9	12.6	421.9	1.79	60.02
47.0-48.0	153.9	12.4	434.3	1.77	61.79
48.0-49.0	150.0	12.3	446.7	1.75	63.54
49.0-50.0	146.0	12.2	458.8	1.73	65.27
50.0-51.0	141.9	12.0	470.8	1.71	66.98
51.0-52.0	137.9	11.8	482.7	1.68	68.66
52.0-53.0	133.8	11.6	494.3	1.66	70.32
53.0-54.0	129.6	11.4	505.7	1.63	71.94
54.0-55.0	125.5	11.2	516.9	1.59	73.54
55.0-56.0	121.4	11.0	527.9	1.56	75.10
56.0-57.0	117.2	10.7	538.6	1.52	76.62
57.0-58.0	113.0	10.5	549.1	1.49	78.11
58.0-59.0	108.8	10.2	559.3	1.45	79.55
59.0-60.0	104.5	9.9	569.1	1.41	80.96
60.0-61.0	100.3	9.6	578.7	1.36	82.32
61.0-62.0	95.2	9.2	587.9	1.31	83.63
62.0-63.0	89.7	8.7	596.6	1.24	84.87
63.0-64.0	85.5	8.4	605.0	1.19	86.06
64.0-65.0	81.9	8.1	613.1	1.15	87.22
65.0-66.0	77.7	7.8	620.9	1.10	88.32
66.0-67.0	73.3	7.4	628.2	1.05	89.37
67.0-68.0	69.3	7.0	635.2	1.00	90.36
68.0-69.0	65.4	6.7	641.9	0.95	91.31
69.0-70.0	61.2	6.3	648.2	0.89	92.21
70.0-71.0	56.9	5.9	654.1	0.84	93.04
71.0-72.0	52.6	5.5	659.5	0.78	93.82

C Plane (°): 0.0-360.0: 30.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature: 25  
 Operator: Jacky

Gamma Plane (°): 0.0-180.0: 1.0  
 Test Device: GPM-1800B  
 Distance: 9.028 m  
 Humidity: 60%  
 Inspector:

## Zonal Lumen (Continue 2)

Gamma [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
72.0-73.0	48.3	5.1	664.6	0.72	94.54
73.0-74.0	44.1	4.6	669.2	0.66	95.20
74.0-75.0	40.0	4.2	673.5	0.60	95.80
75.0-76.0	35.8	3.8	677.3	0.54	96.34
76.0-77.0	31.8	3.4	680.7	0.48	96.83
77.0-78.0	27.9	3.0	683.7	0.43	97.25
78.0-79.0	24.1	2.6	686.2	0.37	97.62
79.0-80.0	20.5	2.2	688.5	0.31	97.93
80.0-81.0	17.0	1.8	690.3	0.26	98.20
81.0-82.0	13.8	1.5	691.8	0.21	98.41
82.0-83.0	10.7	1.2	692.9	0.17	98.57
83.0-84.0	8.0	0.9	693.8	0.12	98.70
84.0-85.0	5.6	0.6	694.4	0.09	98.78
85.0-86.0	3.7	0.4	694.8	0.06	98.84
86.0-87.0	2.1	0.2	695.1	0.03	98.87
87.0-88.0	1.1	0.1	695.2	0.02	98.89
88.0-89.0	0.6	0.1	695.3	0.01	98.90
89.0-90.0	0.3	0.0	695.3	0.01	98.91
90.0-91.0	0.3	0.0	695.3	0.00	98.91
91.0-92.0	0.3	0.0	695.4	0.00	98.92
92.0-93.0	0.3	0.0	695.4	0.00	98.92
93.0-94.0	0.3	0.0	695.4	0.01	98.93
94.0-95.0	0.4	0.0	695.5	0.01	98.93
95.0-96.0	0.4	0.0	695.5	0.01	98.94
96.0-97.0	0.4	0.0	695.6	0.01	98.94
97.0-98.0	0.4	0.0	695.6	0.01	98.95
98.0-99.0	0.5	0.0	695.6	0.01	98.96
99.0-100.0	0.5	0.1	695.7	0.01	98.96
100.0-101.0	0.5	0.1	695.8	0.01	98.97
101.0-102.0	0.6	0.1	695.8	0.01	98.98
102.0-103.0	0.6	0.1	695.9	0.01	98.99
103.0-104.0	0.6	0.1	695.9	0.01	99.00
104.0-105.0	0.7	0.1	696.0	0.01	99.01
105.0-106.0	0.7	0.1	696.1	0.01	99.02
106.0-107.0	0.7	0.1	696.2	0.01	99.03
107.0-108.0	0.8	0.1	696.3	0.01	99.04

C Plane (°): 0.0-360.0: 30.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature: 25  
 Operator: Jacky

Gamma Plane (°): 0.0-180.0: 1.0  
 Test Device: GPM-1800B  
 Distance: 9.028 m  
 Humidity: 60%  
 Inspector:

## Zonal Lumen (Continue 3)

Gamma [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
108.0-109.0	0.8	0.1	696.3	0.01	99.05
109.0-110.0	0.8	0.1	696.4	0.01	99.07
110.0-111.0	0.9	0.1	696.5	0.01	99.08
111.0-112.0	0.9	0.1	696.6	0.01	99.09
112.0-113.0	0.9	0.1	696.7	0.01	99.11
113.0-114.0	1.0	0.1	696.8	0.01	99.12
114.0-115.0	1.0	0.1	696.9	0.01	99.14
115.0-116.0	1.1	0.1	697.0	0.01	99.15
116.0-117.0	1.1	0.1	697.1	0.02	99.17
117.0-118.0	1.1	0.1	697.2	0.02	99.18
118.0-119.0	1.2	0.1	697.3	0.02	99.20
119.0-120.0	1.2	0.1	697.5	0.02	99.21
120.0-121.0	1.2	0.1	697.6	0.02	99.23
121.0-122.0	1.3	0.1	697.7	0.02	99.25
122.0-123.0	1.3	0.1	697.8	0.02	99.26
123.0-124.0	1.3	0.1	697.9	0.02	99.28
124.0-125.0	1.4	0.1	698.0	0.02	99.30
125.0-126.0	1.4	0.1	698.2	0.02	99.32
126.0-127.0	1.4	0.1	698.3	0.02	99.33
127.0-128.0	1.4	0.1	698.4	0.02	99.35
128.0-129.0	1.5	0.1	698.5	0.02	99.37
129.0-130.0	1.5	0.1	698.7	0.02	99.39
130.0-131.0	1.5	0.1	698.8	0.02	99.41
131.0-132.0	1.6	0.1	698.9	0.02	99.42
132.0-133.0	1.6	0.1	699.1	0.02	99.44
133.0-134.0	1.6	0.1	699.2	0.02	99.46
134.0-135.0	1.7	0.1	699.3	0.02	99.48
135.0-136.0	1.7	0.1	699.4	0.02	99.50
136.0-137.0	1.7	0.1	699.6	0.02	99.52
137.0-138.0	1.7	0.1	699.7	0.02	99.53
138.0-139.0	1.7	0.1	699.8	0.02	99.55
139.0-140.0	1.8	0.1	700.0	0.02	99.57
140.0-141.0	1.8	0.1	700.1	0.02	99.59
141.0-142.0	1.8	0.1	700.2	0.02	99.61
142.0-143.0	1.9	0.1	700.3	0.02	99.62
143.0-144.0	1.9	0.1	700.5	0.02	99.64

C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Jacky

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 9.028 m  
Humidity: 60%  
Inspector:

## Zonal Lumen (Continue 4)

Gamma [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
144.0-145.0	1.9	0.1	700.6	0.02	99.66
145.0-146.0	1.9	0.1	700.7	0.02	99.67
146.0-147.0	1.9	0.1	700.8	0.02	99.69
147.0-148.0	2.0	0.1	700.9	0.02	99.71
148.0-149.0	2.0	0.1	701.0	0.02	99.72
149.0-150.0	2.0	0.1	701.2	0.02	99.74
150.0-151.0	2.0	0.1	701.3	0.02	99.76
151.0-152.0	2.1	0.1	701.4	0.02	99.77
152.0-153.0	2.1	0.1	701.5	0.01	99.79
153.0-154.0	2.1	0.1	701.6	0.01	99.80
154.0-155.0	2.1	0.1	701.7	0.01	99.81
155.0-156.0	2.1	0.1	701.8	0.01	99.83
156.0-157.0	2.1	0.1	701.9	0.01	99.84
157.0-158.0	2.2	0.1	702.0	0.01	99.85
158.0-159.0	2.2	0.1	702.0	0.01	99.87
159.0-160.0	2.2	0.1	702.1	0.01	99.88
160.0-161.0	2.2	0.1	702.2	0.01	99.89
161.0-162.0	2.2	0.1	702.3	0.01	99.90
162.0-163.0	2.2	0.1	702.4	0.01	99.91
163.0-164.0	2.2	0.1	702.4	0.01	99.92
164.0-165.0	2.3	0.1	702.5	0.01	99.93
165.0-166.0	2.3	0.1	702.6	0.01	99.94
166.0-167.0	2.3	0.1	702.6	0.01	99.95
167.0-168.0	2.3	0.1	702.7	0.01	99.96
168.0-169.0	2.3	0.0	702.7	0.01	99.96
169.0-170.0	2.3	0.0	702.8	0.01	99.97
170.0-171.0	2.3	0.0	702.8	0.01	99.97
171.0-172.0	2.3	0.0	702.8	0.01	99.98
172.0-173.0	2.3	0.0	702.9	0.00	99.98
173.0-174.0	2.3	0.0	702.9	0.00	99.99
174.0-175.0	2.3	0.0	702.9	0.00	99.99
175.0-176.0	2.3	0.0	702.9	0.00	99.99
176.0-177.0	2.3	0.0	703.0	0.00	100.00
177.0-178.0	2.3	0.0	703.0	0.00	100.00
178.0-179.0	2.3	0.0	703.0	0.00	100.00
179.0-180.0	2.3	0.0	703.0	0.00	100.00

C Plane (°): 0.0-360.0: 30.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature: 25  
 Operator: Jacky

Gamma Plane (°): 0.0-180.0: 1.0  
 Test Device: GPM-1800B  
 Distance: 9.028 m  
 Humidity: 60%  
 Inspector: