

Report No.:

Test Time: 2023/2/21 16:04

Luminaire Property

Luminaire Manufacturer:
Luminaire Category: 大炮
Lamp Catalog: W
Luminous Width (mm): 70
Voltage: 219.2 V
Power: 9.58 W

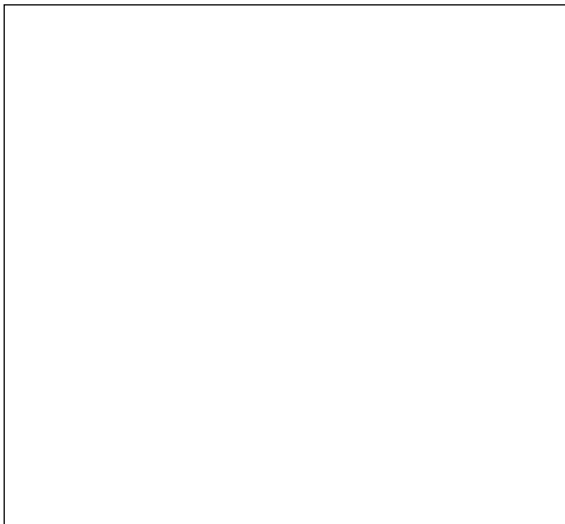
Luminaire Description: 20x45
Luminous Length (mm): 270
Luminous Height (mm): 20
Current: 0.105 A
Power Factor: 0.415

Photometric Results

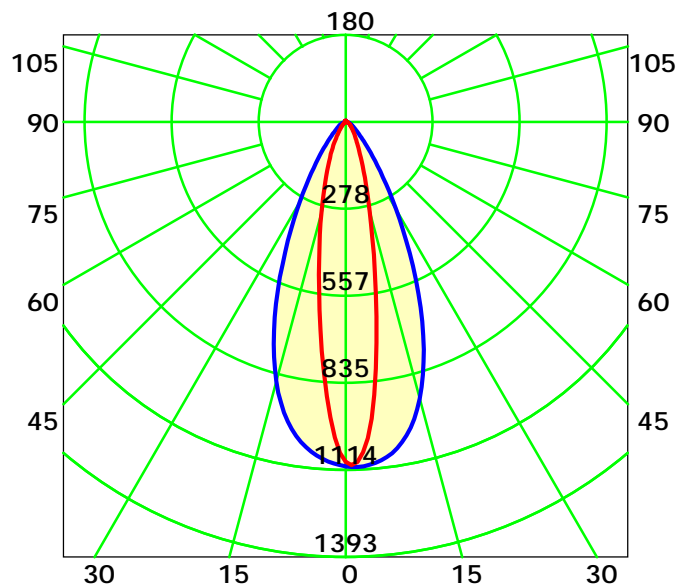
CIE Class: Direct
Measurement Flux: 468.8 lm
Downward Ratio: 97%
Horizontal Diffuse Angle(10%,50%): H80.4,H46.7
Vertical Diffuse Angle(10%,50%): V49.8,V19.2
Luminaire Efficacy Rating (LER): 49
Max. Intensity: 1105.45 cd

Total Rated Lamp Lumens: 468.8 lm
Efficiency: 100%
Upward Ratio: 3%
Central Intensity: 1102.99 cd
Pos of Max. Intensity: H0 V2

Picture Of Luminaire



Luminous Intensity Distribution Curve



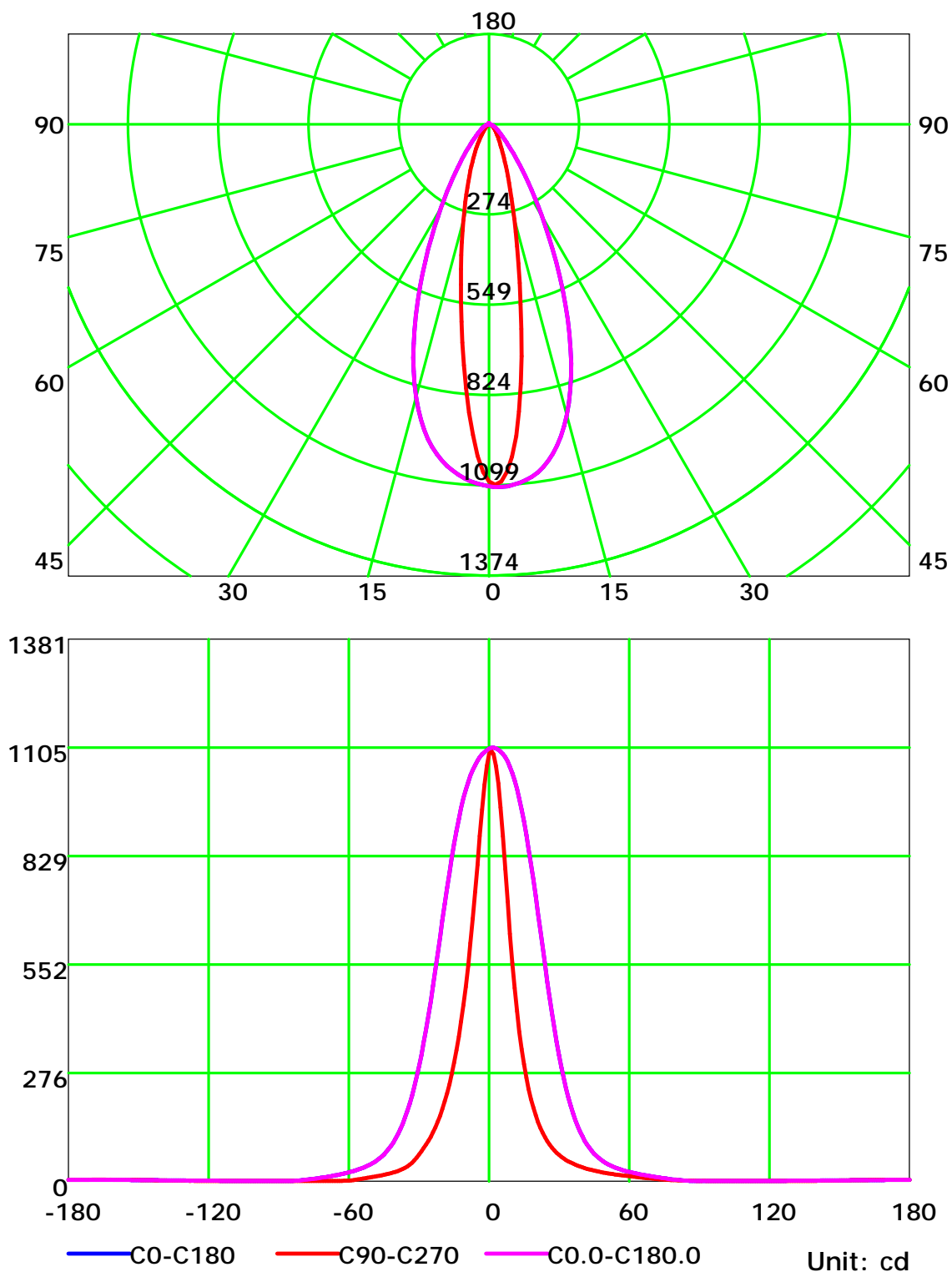
Average Diffuse Angle(50%): 33.0° Unit: cd

— 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:

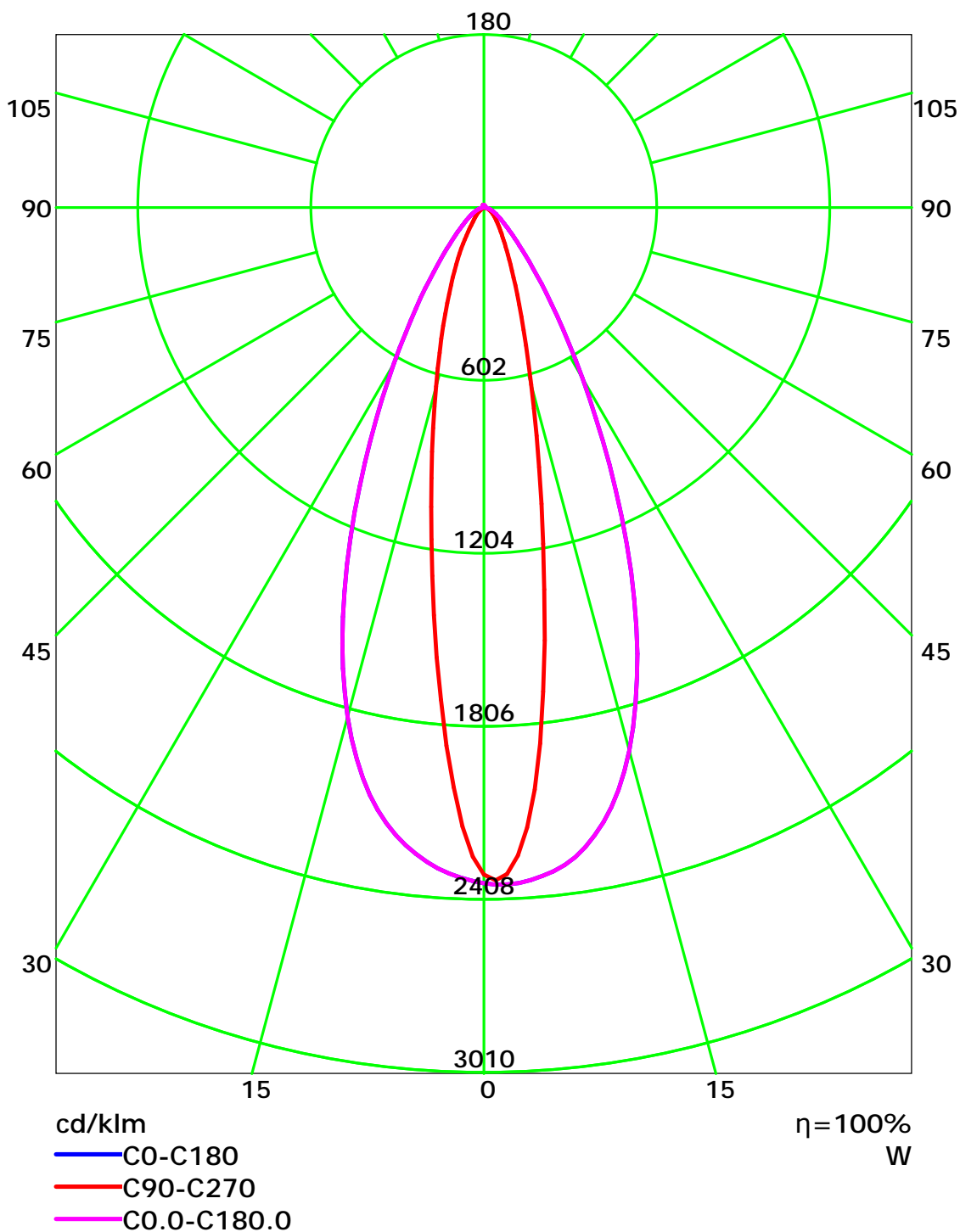
Luminous Intensity Distribution Curve



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:

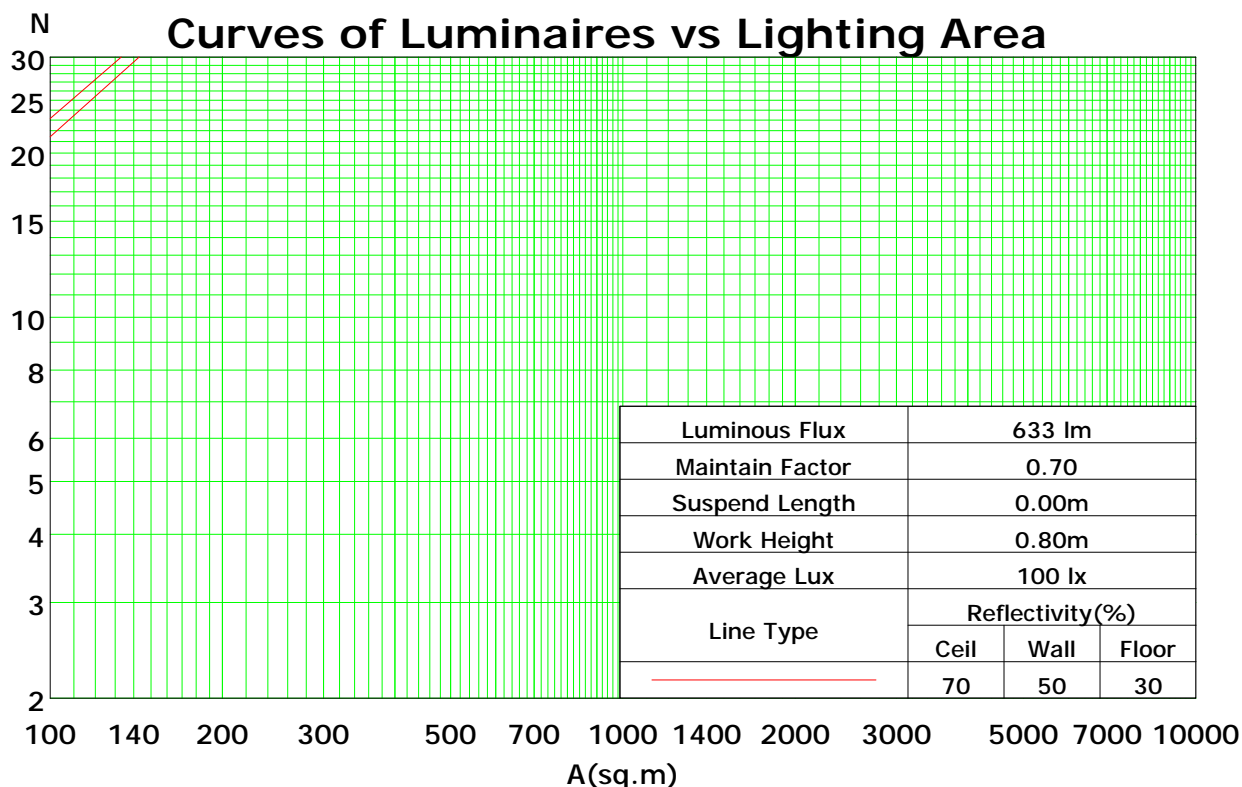
Coefficients Of Utilization - Zonal Cavity Method

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	118	118	118	118	115	115	115	115	109	109	109	104	104	104	99	99	99	97
1	112	109	107	104	110	107	105	102	102	100	99	98	97	95	94	93	92	90
2	107	102	97	94	104	100	96	93	96	93	90	92	90	88	89	87	85	84
3	101	95	90	86	99	93	88	85	90	86	83	87	84	81	84	82	80	78
4	96	89	83	79	94	87	82	78	85	80	77	82	79	76	80	77	75	73
5	92	83	78	73	90	82	77	73	80	75	72	78	74	71	76	73	70	69
6	87	79	73	69	86	78	72	68	76	71	68	74	70	67	73	69	66	65
7	84	75	69	65	82	74	68	64	72	67	64	71	66	63	69	66	63	61
8	80	71	65	61	79	70	65	61	69	64	60	68	63	60	66	62	60	58
9	77	67	62	58	75	67	61	58	66	61	57	65	60	57	64	60	57	55
10	74	64	59	55	73	64	59	55	63	58	55	62	58	55	61	57	54	53

Spacing Criteria (0-180): 0.75

Spacing Criteria (90-270): 0.33

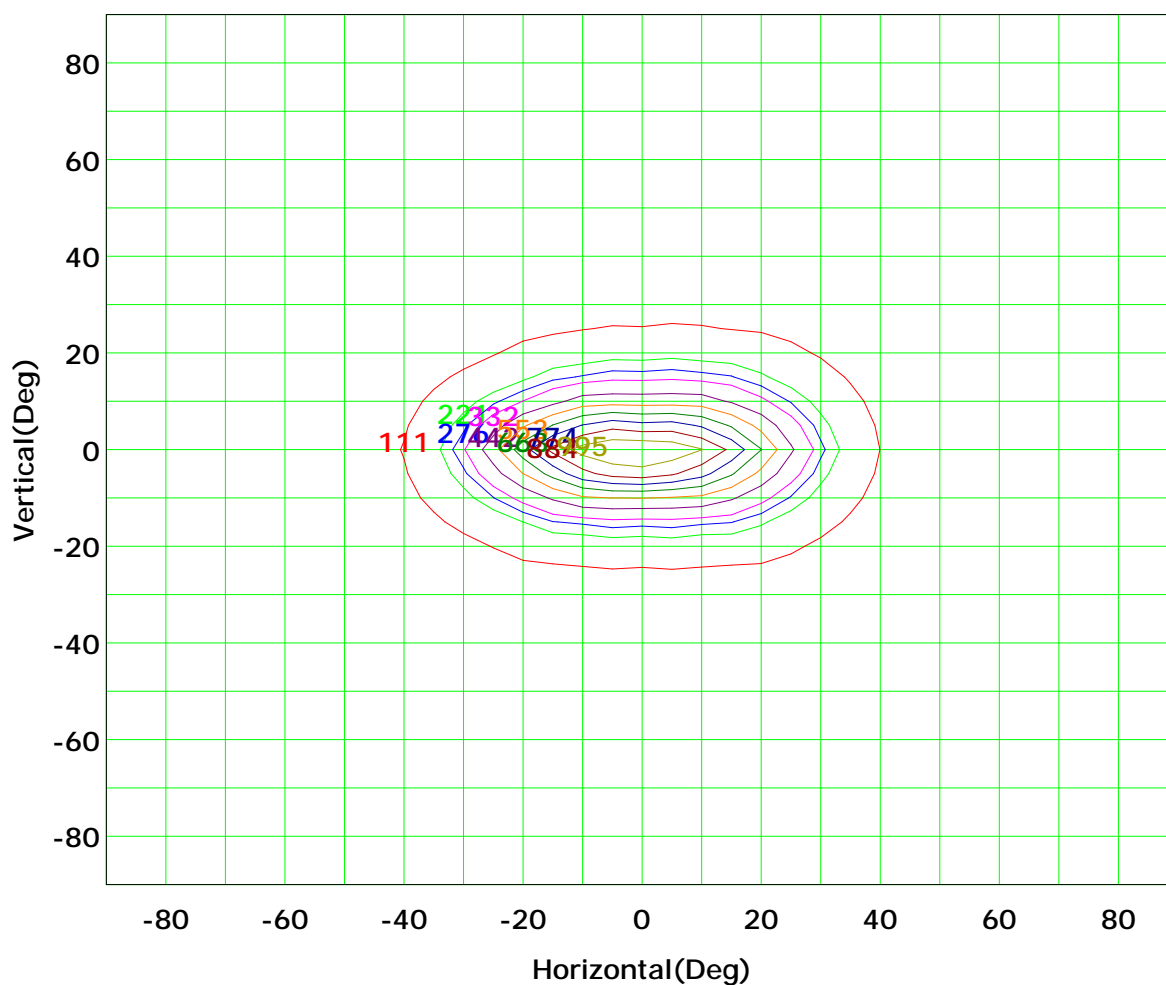
Spacing Criteria (Diagonal): 0.49



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)



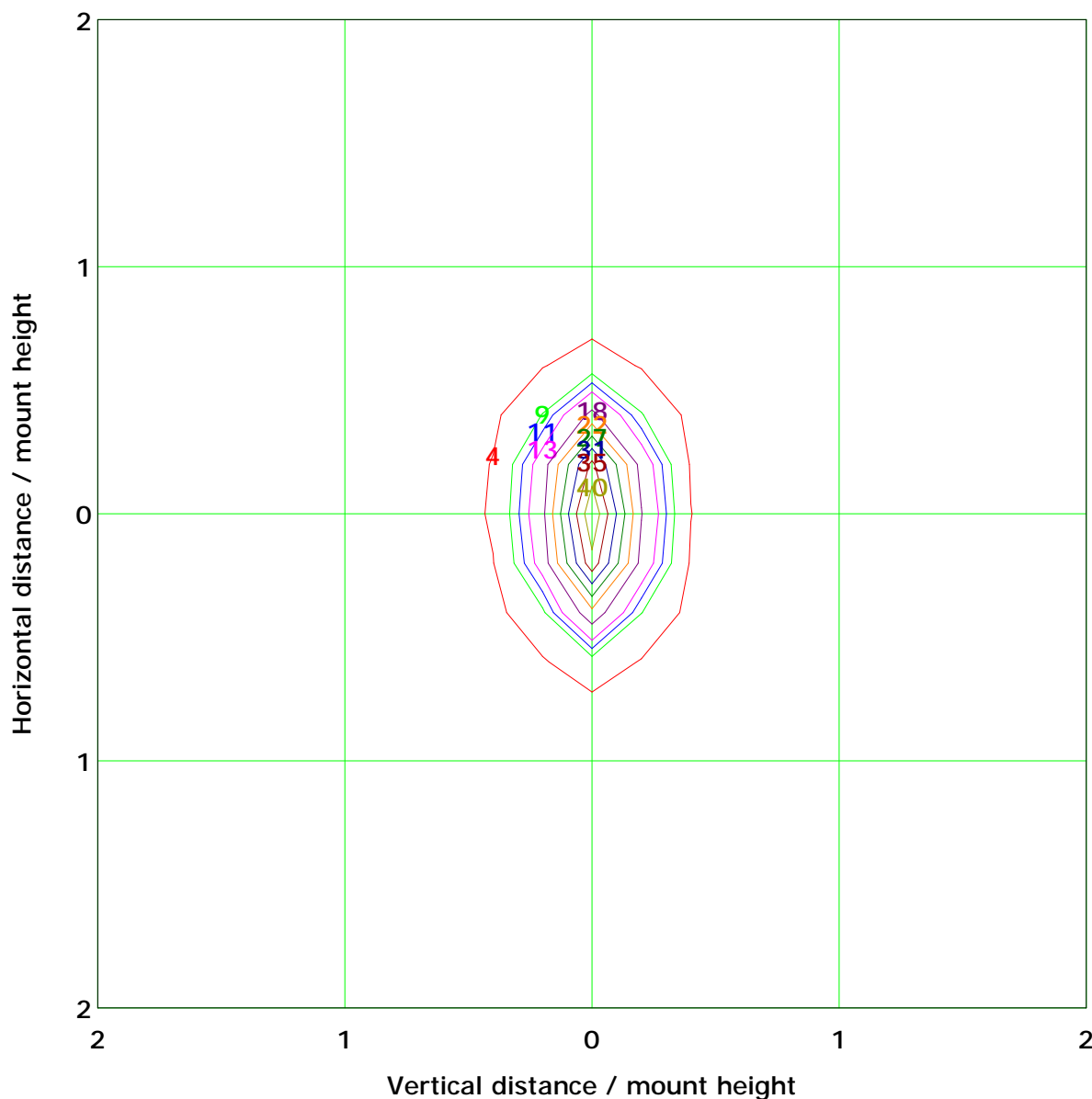
Imax (100%): 1105 cd

(10%): 111 cd	(20%): 221 cd
(25%): 276 cd	(30%): 332 cd
(40%): 442 cd	(50%): 553 cd
(60%): 663 cd	(70%): 774 cd
(80%): 884 cd	(90%): 995 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%): 44.2 lx	
(10%): 4.4 lx	(20%): 8.8 lx
(25%): 11.0 lx	(30%): 13.3 lx
(40%): 17.7 lx	(50%): 22.1 lx
(60%): 26.5 lx	(70%): 30.9 lx
(80%): 35.3 lx	(90%): 39.8 lx

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

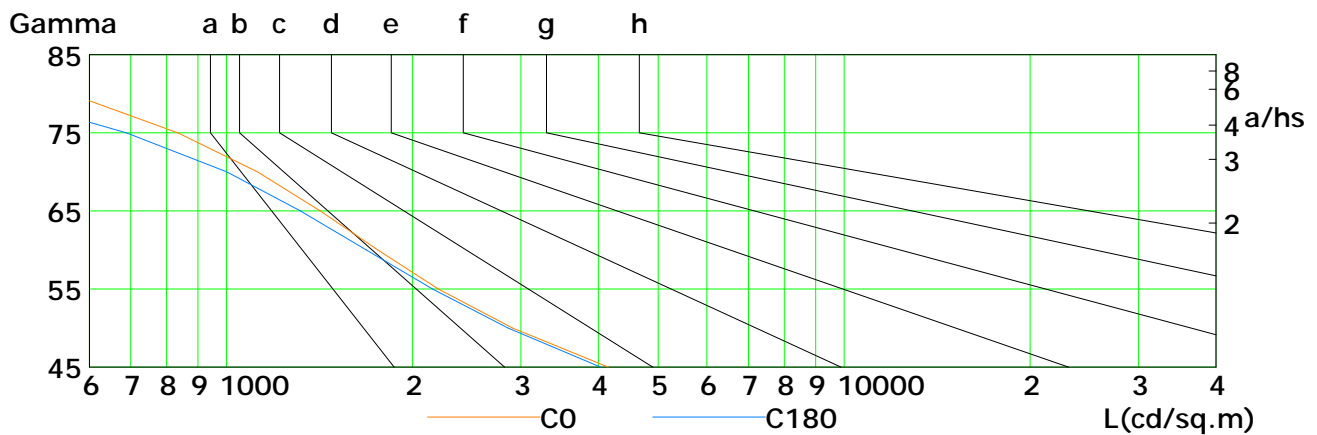
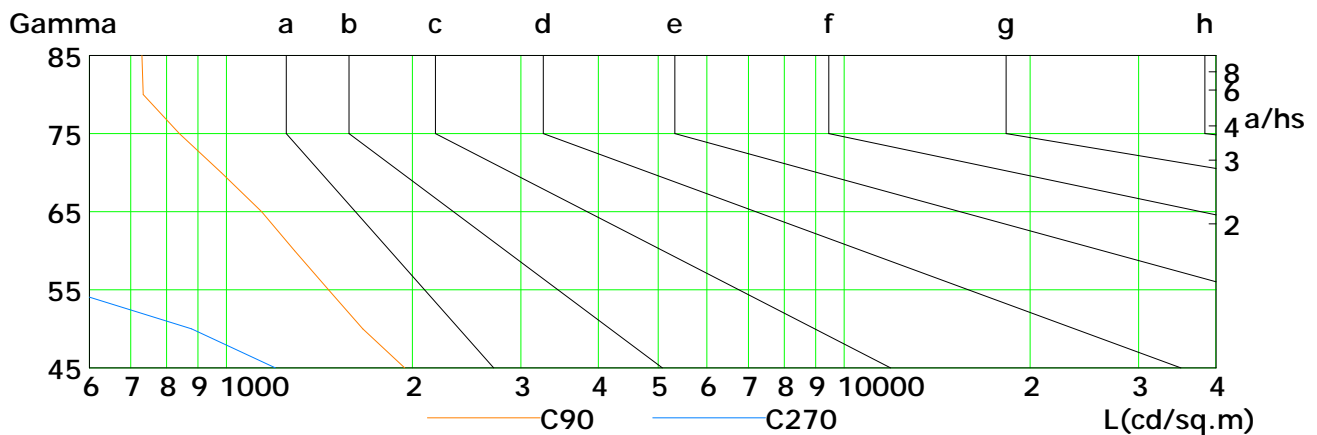
Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 9.028 m
Humidity: 60%
Inspector:



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

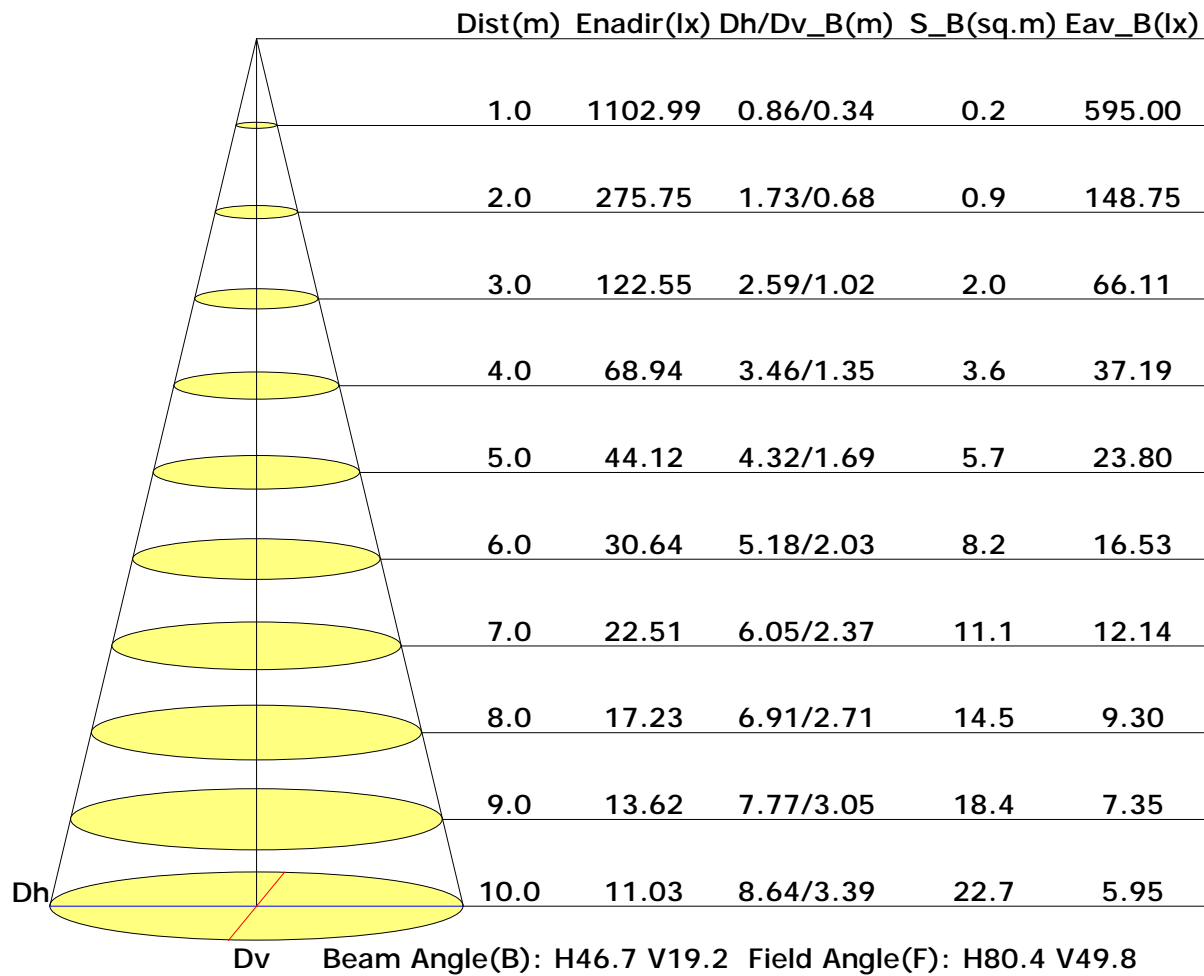


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	4151	2905	2204	1758	1420	1123	834	558	320
C90	1944	1664	1464	1290	1141	982	839	734	730
C180	4035	2858	2156	1684	1317	1002	689	419	253
C270	1200	878	549	252	192	203	248	339	549

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

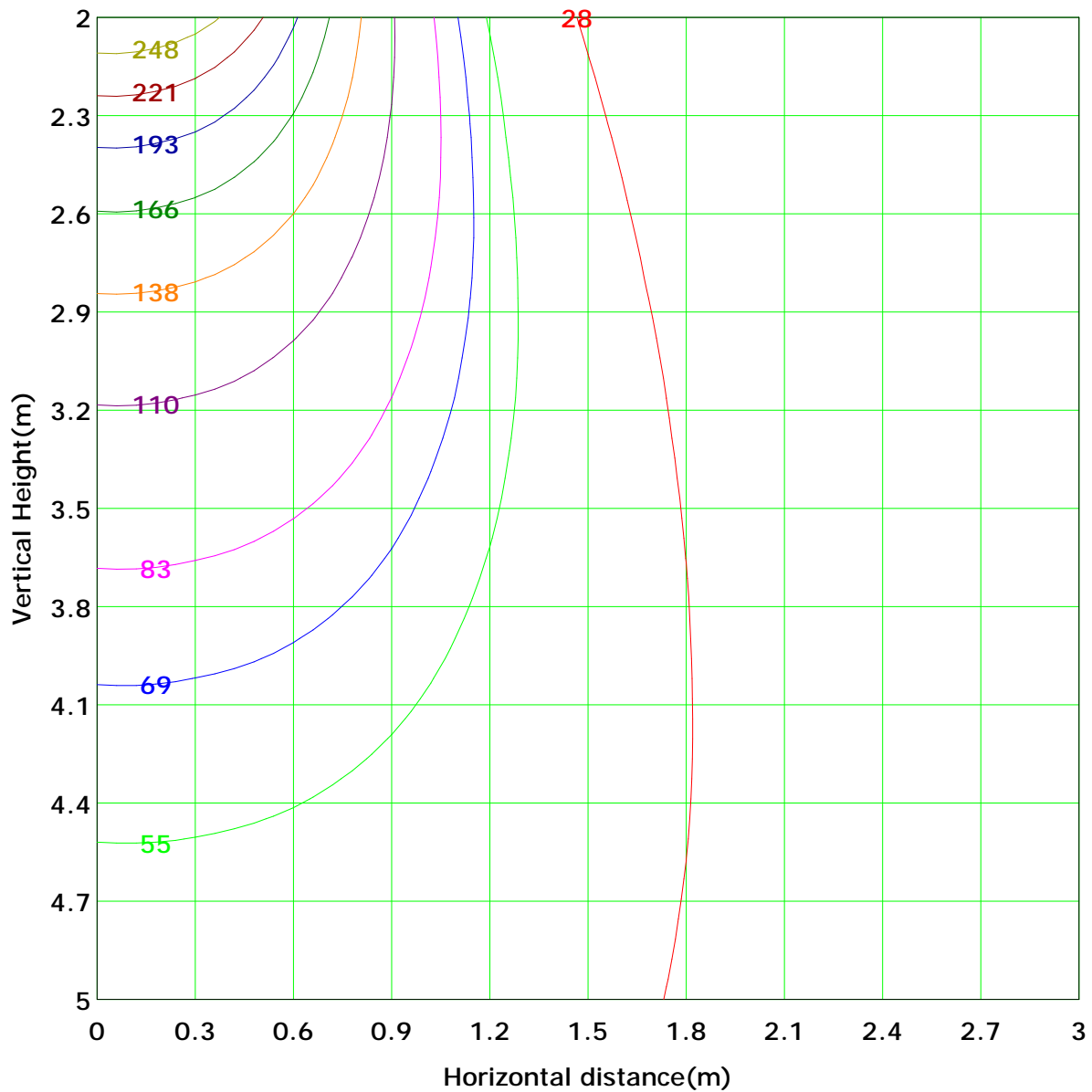


C Plane (°):0.0-360.0: 30.0
Test Lab:
Test Type: TYPE C
Temperature: 25
Operator: Jacky

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



Vertical IsoLux Plot



Lowest(m): 2.0m	Highest(m): 5.0m	Max Lux: 276.1 lx
(10%): 27.6 lx	(20%): 55.2 lx	
(25%): 69.0 lx	(30%): 82.8 lx	
(40%): 110.4 lx	(50%): 138.0 lx	
(60%): 165.7 lx	(70%): 193.3 lx	
(80%): 220.9 lx	(90%): 248.5 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

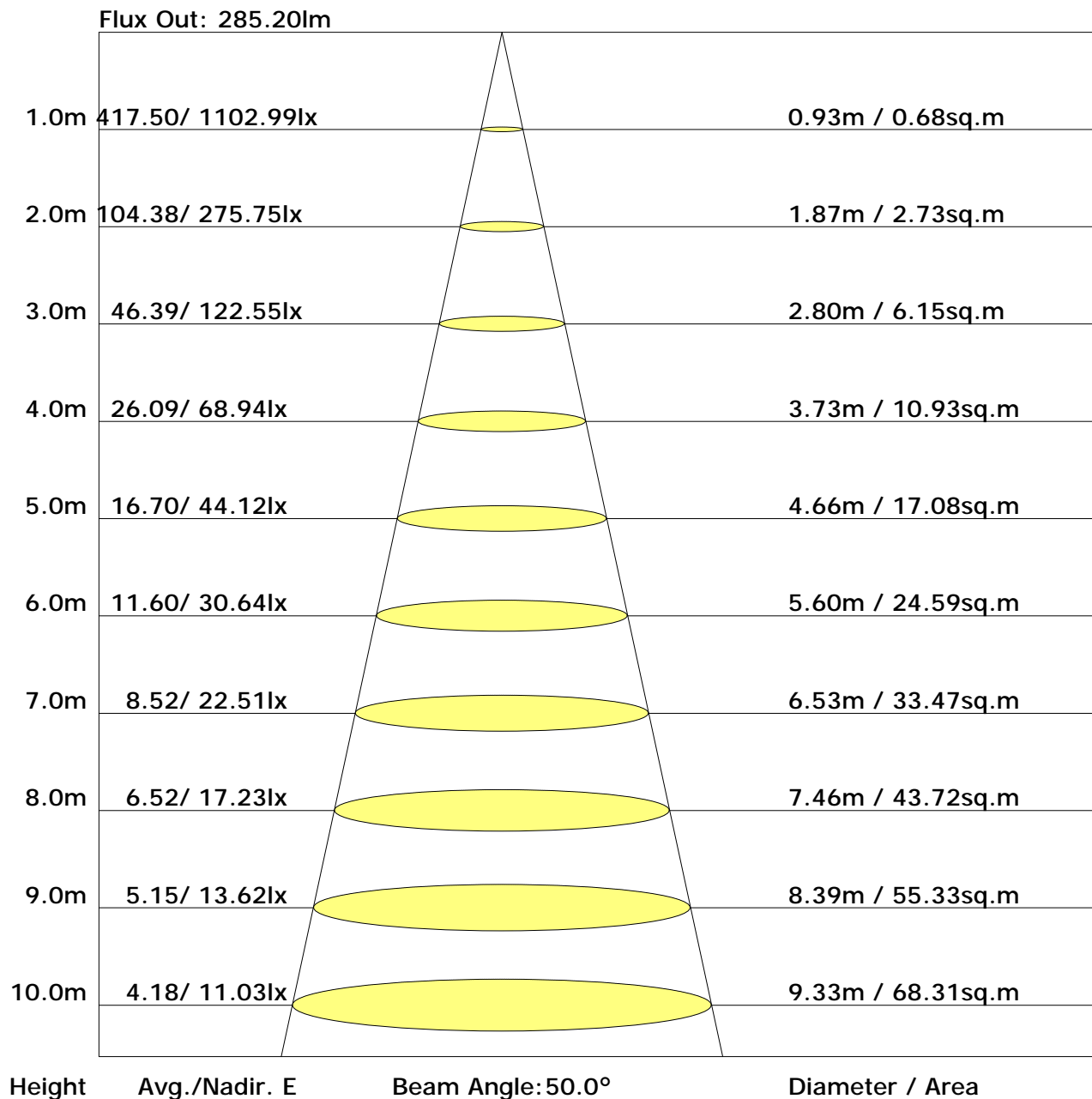
		Vertical plane																		Flux(T)		Flux(E)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
		-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80					90																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
Horizontal plane	-90	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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	13.0	14.0	13.4	14.4	14.8	10.3	11.3	10.7	11.7	12.1
3H	14.3	15.2	14.8	15.6	16.1	11.4	12.3	11.8	12.7	13.2
4H	14.8	15.6	15.2	16.0	16.5	11.7	12.6	12.2	13.0	13.5
6H	15.0	15.8	15.5	16.3	16.7	11.9	12.7	12.4	13.2	13.6
8H	15.1	15.9	15.6	16.3	16.8	12.0	12.8	12.5	13.2	13.7
12H	15.2	15.9	15.7	16.3	16.8	12.1	12.8	12.5	13.2	13.7
X=4H Y=2H	13.0	13.8	13.4	14.2	14.7	10.9	11.8	11.4	12.2	12.7
3H	14.4	15.1	14.9	15.6	16.1	12.2	12.9	12.7	13.4	13.9
4H	14.9	15.6	15.4	16.0	16.6	12.6	13.2	13.1	13.7	14.2
6H	15.3	15.9	15.8	16.4	16.9	12.9	13.4	13.4	14.0	14.5
8H	15.4	15.9	15.9	16.4	17.0	13.0	13.5	13.5	14.0	14.5
12H	15.5	15.9	16.0	16.5	17.0	13.1	13.5	13.6	14.0	14.6
X=8H Y=4H	14.9	15.4	15.4	15.9	16.4	12.9	13.4	13.4	13.9	14.4
6H	15.3	15.7	15.9	16.3	16.8	13.2	13.6	13.8	14.2	14.8
8H	15.4	15.8	16.0	16.4	16.9	13.4	13.7	14.0	14.3	14.9
12H	15.6	15.9	16.2	16.4	17.1	13.5	13.8	14.1	14.4	15.0
X=12H Y=4H	14.8	15.3	15.4	15.8	16.4	12.9	13.3	13.4	13.9	14.4
6H	15.3	15.6	15.8	16.1	16.8	13.3	13.6	13.9	14.2	14.8
8H	15.4	15.7	16.0	16.3	16.9	13.5	13.8	14.0	14.3	15.0

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 = 0.75								
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	0.83	0.90	0.94	0.97	1.01	1.04	1.06	1.08	1.10
	0.30		0.78	0.85	0.89	0.93	0.98	1.01	1.03	1.06	1.08
	0.20		0.75	0.81	0.86	0.90	0.94	0.98	1.00	1.04	1.06
0.50	0.50	0.20	0.82	0.87	0.91	0.94	0.98	1.00	1.02	1.04	1.05
	0.30		0.77	0.83	0.88	0.91	0.95	0.98	1.00	1.02	1.04
	0.20		0.74	0.81	0.85	0.88	0.92	0.95	0.97	1.00	1.02
0.30	0.50	0.20	0.80	0.86	0.89	0.91	0.95	0.97	0.98	1.00	1.01
	0.30		0.77	0.82	0.86	0.89	0.92	0.95	0.96	0.98	1.00
	0.20		0.74	0.79	0.83	0.86	0.90	0.93	0.95	0.97	0.99
0.00	0.00	0.00	0.72	0.77	0.81	0.83	0.87	0.89	0.90	0.92	0.93
Rating: 10W 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 = 0.75								
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	0.61	0.49	0.42	0.36	0.29	0.24	0.20	0.16	0.13
	0.30		0.51	0.42	0.36	0.32	0.26	0.22	0.19	0.15	0.12
	0.20		0.43	0.37	0.32	0.29	0.24	0.20	0.18	0.14	0.12
0.50	0.50	0.20	0.57	0.46	0.39	0.34	0.27	0.26	0.19	0.14	0.12
	0.30		0.48	0.40	0.34	0.30	0.24	0.20	0.17	0.14	0.11
	0.20		0.42	0.35	0.31	0.27	0.22	0.19	0.16	0.13	0.11
0.30	0.50	0.20	0.54	0.43	0.36	0.31	0.24	0.20	0.17	0.13	0.11
	0.30		0.46	0.38	0.32	0.28	0.23	0.19	0.16	0.13	0.10
	0.20		0.41	0.34	0.29	0.26	0.21	0.18	0.15	0.12	0.10
0.00	0.00	0.00	0.27	0.21	0.18	0.15	0.12	0.10	0.08	0.06	0.05
<p>Rating: 10W Photometrically tested without ceiling board.</p> <p>Multiply UF values by service correction factors</p> <p>Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p>											

Utilisation Factor Table(Ceiling cavity)

Utilisation Factors UF(C)			SHR NOM = 0.75									
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	0.16	0.18	0.19	0.20	0.21	0.22	0.23	0.24	0.24	
	0.30		0.12	0.14	0.15	0.17	0.18	0.20	0.20	0.22	0.23	
	0.20		0.09	0.11	0.13	0.14	0.16	0.17	0.19	0.20	0.21	
0.50	0.50	0.20	0.16	0.17	0.18	0.19	0.20	0.21	0.22	0.23	0.23	
	0.30		0.12	0.14	0.15	0.16	0.18	0.19	0.20	0.21	0.22	
	0.20		0.09	0.11	0.12	0.14	0.16	0.17	0.18	0.20	0.20	
0.30	0.50	0.20	0.15	0.17	0.18	0.18	0.20	0.20	0.21	0.22	0.22	
	0.30		0.12	0.13	0.15	0.16	0.17	0.18	0.19	0.20	0.21	
	0.20		0.09	0.11	0.12	0.13	0.15	0.17	0.18	0.19	0.20	
0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	
Rating: 10W 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 _{mean} [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
0.0-1.0	1092.9	1.0	1.0	0.22	0.22
1.0-2.0	1082.3	3.1	4.2	0.66	0.89
2.0-3.0	1061.6	5.1	9.2	1.08	1.97
3.0-4.0	1032.7	6.9	16.1	1.47	3.44
4.0-5.0	996.5	8.6	24.7	1.83	5.27
5.0-6.0	954.3	10.0	34.7	2.14	7.41
6.0-7.0	908.2	11.3	46.0	2.40	9.82
7.0-8.0	859.5	12.3	58.3	2.62	12.44
8.0-9.0	809.3	13.1	71.4	2.80	15.24
9.0-10.0	759.0	13.7	85.2	2.93	18.17
10.0-11.0	709.9	14.2	99.4	3.03	21.20
11.0-12.0	662.6	14.5	113.9	3.09	24.29
12.0-13.0	617.3	14.7	128.5	3.13	27.41
13.0-14.0	574.0	14.7	143.2	3.13	30.54
14.0-15.0	532.6	14.6	157.8	3.12	33.66
15.0-16.0	493.3	14.5	172.3	3.08	36.75
16.0-17.0	456.6	14.2	186.5	3.03	39.78
17.0-18.0	421.8	13.9	200.4	2.97	42.75
18.0-19.0	389.0	13.5	213.9	2.89	45.63
19.0-20.0	358.3	13.1	227.1	2.80	48.43
20.0-21.0	329.5	12.7	239.7	2.70	51.13
21.0-22.0	302.5	12.2	251.9	2.59	53.72
22.0-23.0	277.6	11.6	263.5	2.48	56.21
23.0-24.0	254.2	11.1	274.6	2.37	58.58
24.0-25.0	232.2	10.6	285.2	2.25	60.83
25.0-26.0	212.3	10.0	295.2	2.14	62.97
26.0-27.0	193.9	9.5	304.7	2.02	64.99
27.0-28.0	176.9	9.0	313.7	1.91	66.91
28.0-29.0	161.5	8.4	322.1	1.80	68.71
29.0-30.0	147.3	8.0	330.1	1.70	70.40
30.0-31.0	134.3	7.5	337.6	1.59	72.00
31.0-32.0	122.4	7.0	344.6	1.50	73.49
32.0-33.0	111.7	6.6	351.1	1.40	74.90
33.0-34.0	101.9	6.2	357.3	1.32	76.21
34.0-35.0	93.0	5.8	363.1	1.23	77.45
35.0-36.0	85.0	5.4	368.5	1.15	78.60

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 _{mean} [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
36.0-37.0	77.7	5.1	373.6	1.08	79.68
37.0-38.0	71.3	4.8	378.3	1.01	80.70
38.0-39.0	65.4	4.5	382.8	0.95	81.65
39.0-40.0	60.2	4.2	387.0	0.90	82.54
40.0-41.0	55.4	3.9	390.9	0.84	83.39
41.0-42.0	51.2	3.7	394.7	0.79	84.18
42.0-43.0	47.5	3.5	398.2	0.75	84.93
43.0-44.0	44.0	3.3	401.5	0.71	85.64
44.0-45.0	40.8	3.1	404.6	0.67	86.31
45.0-46.0	38.0	3.0	407.6	0.63	86.94
46.0-47.0	35.4	2.8	410.4	0.60	87.54
47.0-48.0	33.0	2.7	413.1	0.57	88.11
48.0-49.0	30.9	2.5	415.6	0.54	88.65
49.0-50.0	28.9	2.4	418.0	0.51	89.17
50.0-51.0	27.0	2.3	420.3	0.49	89.65
51.0-52.0	25.3	2.2	422.5	0.46	90.12
52.0-53.0	23.7	2.1	424.6	0.44	90.56
53.0-54.0	22.1	2.0	426.5	0.42	90.97
54.0-55.0	20.7	1.9	428.4	0.40	91.37
55.0-56.0	19.4	1.8	430.1	0.37	91.74
56.0-57.0	18.2	1.7	431.8	0.36	92.10
57.0-58.0	17.1	1.6	433.4	0.34	92.43
58.0-59.0	16.0	1.5	434.8	0.32	92.75
59.0-60.0	14.9	1.4	436.3	0.30	93.05
60.0-61.0	14.0	1.3	437.6	0.28	93.34
61.0-62.0	13.1	1.3	438.9	0.27	93.61
62.0-63.0	12.2	1.2	440.0	0.25	93.86
63.0-64.0	11.4	1.1	441.2	0.24	94.10
64.0-65.0	10.7	1.1	442.2	0.23	94.33
65.0-66.0	10.1	1.0	443.2	0.21	94.54
66.0-67.0	9.4	0.9	444.2	0.20	94.74
67.0-68.0	8.8	0.9	445.1	0.19	94.93
68.0-69.0	8.2	0.8	445.9	0.18	95.11
69.0-70.0	7.6	0.8	446.7	0.17	95.28
70.0-71.0	7.1	0.7	447.4	0.16	95.43
71.0-72.0	6.5	0.7	448.1	0.14	95.58

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 _{mean} [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
72.0-73.0	6.0	0.6	448.7	0.13	95.71
73.0-74.0	5.5	0.6	449.3	0.12	95.83
74.0-75.0	5.0	0.5	449.8	0.11	95.95
75.0-76.0	4.6	0.5	450.3	0.10	96.05
76.0-77.0	4.2	0.4	450.8	0.10	96.15
77.0-78.0	3.8	0.4	451.2	0.09	96.24
78.0-79.0	3.5	0.4	451.6	0.08	96.32
79.0-80.0	3.2	0.3	451.9	0.07	96.39
80.0-81.0	2.9	0.3	452.2	0.07	96.46
81.0-82.0	2.6	0.3	452.5	0.06	96.52
82.0-83.0	2.4	0.3	452.8	0.06	96.57
83.0-84.0	2.2	0.2	453.0	0.05	96.62
84.0-85.0	2.1	0.2	453.2	0.05	96.67
85.0-86.0	2.0	0.2	453.4	0.05	96.72
86.0-87.0	1.9	0.2	453.6	0.04	96.76
87.0-88.0	1.8	0.2	453.8	0.04	96.80
88.0-89.0	1.8	0.2	454.0	0.04	96.84
89.0-90.0	1.8	0.2	454.2	0.04	96.89
90.0-91.0	1.7	0.2	454.4	0.04	96.93
91.0-92.0	1.7	0.2	454.6	0.04	96.97
92.0-93.0	1.7	0.2	454.8	0.04	97.01
93.0-94.0	1.7	0.2	455.0	0.04	97.05
94.0-95.0	1.7	0.2	455.2	0.04	97.09
95.0-96.0	1.7	0.2	455.4	0.04	97.13
96.0-97.0	1.7	0.2	455.6	0.04	97.17
97.0-98.0	1.7	0.2	455.7	0.04	97.21
98.0-99.0	1.7	0.2	455.9	0.04	97.25
99.0-100.0	1.7	0.2	456.1	0.04	97.29
100.0-101.0	1.7	0.2	456.3	0.04	97.33
101.0-102.0	1.7	0.2	456.5	0.04	97.36
102.0-103.0	1.7	0.2	456.7	0.04	97.40
103.0-104.0	1.7	0.2	456.8	0.04	97.44
104.0-105.0	1.7	0.2	457.0	0.04	97.48
105.0-106.0	1.7	0.2	457.2	0.04	97.52
106.0-107.0	1.7	0.2	457.4	0.04	97.55
107.0-108.0	1.7	0.2	457.5	0.04	97.59

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 _{mean} [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
108.0-109.0	1.7	0.2	457.7	0.04	97.63
109.0-110.0	1.7	0.2	457.9	0.04	97.67
110.0-111.0	1.7	0.2	458.1	0.04	97.70
111.0-112.0	1.7	0.2	458.2	0.04	97.74
112.0-113.0	1.7	0.2	458.4	0.04	97.78
113.0-114.0	1.8	0.2	458.6	0.04	97.82
114.0-115.0	1.8	0.2	458.8	0.04	97.86
115.0-116.0	1.8	0.2	459.0	0.04	97.89
116.0-117.0	1.8	0.2	459.1	0.04	97.93
117.0-118.0	1.8	0.2	459.3	0.04	97.97
118.0-119.0	1.8	0.2	459.5	0.04	98.01
119.0-120.0	1.8	0.2	459.7	0.04	98.04
120.0-121.0	1.9	0.2	459.8	0.04	98.08
121.0-122.0	1.9	0.2	460.0	0.04	98.12
122.0-123.0	1.9	0.2	460.2	0.04	98.16
123.0-124.0	2.0	0.2	460.4	0.04	98.20
124.0-125.0	2.0	0.2	460.5	0.04	98.23
125.0-126.0	2.0	0.2	460.7	0.04	98.27
126.0-127.0	2.1	0.2	460.9	0.04	98.31
127.0-128.0	2.1	0.2	461.1	0.04	98.35
128.0-129.0	2.1	0.2	461.3	0.04	98.39
129.0-130.0	2.2	0.2	461.5	0.04	98.43
130.0-131.0	2.2	0.2	461.6	0.04	98.47
131.0-132.0	2.3	0.2	461.8	0.04	98.51
132.0-133.0	2.3	0.2	462.0	0.04	98.55
133.0-134.0	2.4	0.2	462.2	0.04	98.59
134.0-135.0	2.4	0.2	462.4	0.04	98.63
135.0-136.0	2.5	0.2	462.6	0.04	98.67
136.0-137.0	2.6	0.2	462.8	0.04	98.71
137.0-138.0	2.6	0.2	463.0	0.04	98.75
138.0-139.0	2.7	0.2	463.2	0.04	98.79
139.0-140.0	2.8	0.2	463.4	0.04	98.84
140.0-141.0	2.8	0.2	463.6	0.04	98.88
141.0-142.0	2.9	0.2	463.8	0.04	98.92
142.0-143.0	3.0	0.2	464.0	0.04	98.96
143.0-144.0	3.1	0.2	464.2	0.04	99.01

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 _{mean} [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
144.0-145.0	3.1	0.2	464.4	0.04	99.05
145.0-146.0	3.2	0.2	464.6	0.04	99.09
146.0-147.0	3.3	0.2	464.8	0.04	99.13
147.0-148.0	3.4	0.2	465.0	0.04	99.18
148.0-149.0	3.5	0.2	465.2	0.04	99.22
149.0-150.0	3.5	0.2	465.4	0.04	99.26
150.0-151.0	3.6	0.2	465.6	0.04	99.30
151.0-152.0	3.7	0.2	465.8	0.04	99.34
152.0-153.0	3.8	0.2	465.9	0.04	99.38
153.0-154.0	3.8	0.2	466.1	0.04	99.42
154.0-155.0	3.9	0.2	466.3	0.04	99.46
155.0-156.0	4.0	0.2	466.5	0.04	99.50
156.0-157.0	4.0	0.2	466.7	0.04	99.54
157.0-158.0	4.1	0.2	466.8	0.04	99.58
158.0-159.0	4.1	0.2	467.0	0.04	99.61
159.0-160.0	4.2	0.2	467.2	0.03	99.65
160.0-161.0	4.3	0.2	467.3	0.03	99.68
161.0-162.0	4.3	0.1	467.5	0.03	99.71
162.0-163.0	4.3	0.1	467.6	0.03	99.74
163.0-164.0	4.3	0.1	467.8	0.03	99.77
164.0-165.0	4.4	0.1	467.9	0.03	99.80
165.0-166.0	4.4	0.1	468.0	0.03	99.82
166.0-167.0	4.4	0.1	468.1	0.02	99.85
167.0-168.0	4.4	0.1	468.2	0.02	99.87
168.0-169.0	4.4	0.1	468.3	0.02	99.89
169.0-170.0	4.4	0.1	468.4	0.02	99.91
170.0-171.0	4.4	0.1	468.5	0.02	99.93
171.0-172.0	4.4	0.1	468.6	0.02	99.94
172.0-173.0	4.4	0.1	468.6	0.01	99.96
173.0-174.0	4.4	0.1	468.7	0.01	99.97
174.0-175.0	4.4	0.0	468.7	0.01	99.98
175.0-176.0	4.4	0.0	468.8	0.01	99.99
176.0-177.0	4.4	0.0	468.8	0.01	99.99
177.0-178.0	4.4	0.0	468.8	0.00	100.00
178.0-179.0	4.4	0.0	468.8	0.00	100.00
179.0-180.0	4.4	0.0	468.8	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: