

Report No.:

Test Time: 2021/11/17 10:55

## Luminaire Property

Luminaire Manufacturer:

Luminaire Category: COB RIBBONLYTE

Lamp Catalog: FCOB-24V-D480-2700-10W-8MM-IP67 RA>90

Lamp Description: 2700K

Luminous Length (mm): 500

Luminous Height (mm): 1.5

Current: 0.231 A

Power Factor: 1.000

Luminaire Description: RB90LINEA673.027

Number of Lamps: 480/M

Luminous Width (mm): 8

Voltage: 24.0 V

Power: 5.53 W

## Photometric Results

CIE Class: Direct

Measurement Flux: 329.6 lm

Downward Ratio: 95%

Horizontal Diffuse Angle(10%,50%): H155.2,H109.6

Vertical Diffuse Angle(10%,50%): V205.4,V126

Luminaire Efficacy Rating (LER): 60

Max. Intensity: 102.42 cd

Total Rated Lamp Lumens: 329.6 lm

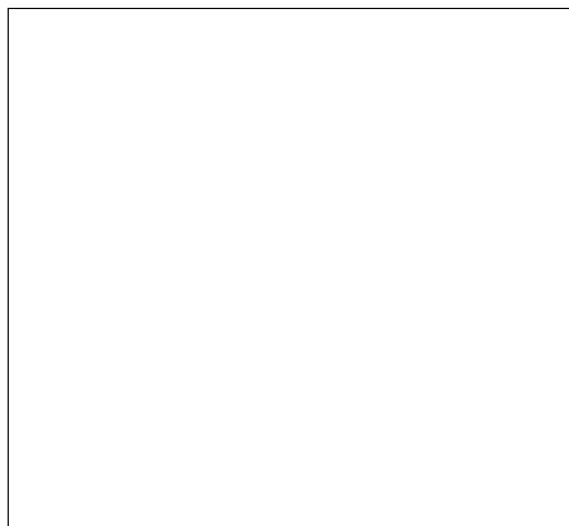
Efficiency: 100%

Upward Ratio: 5%

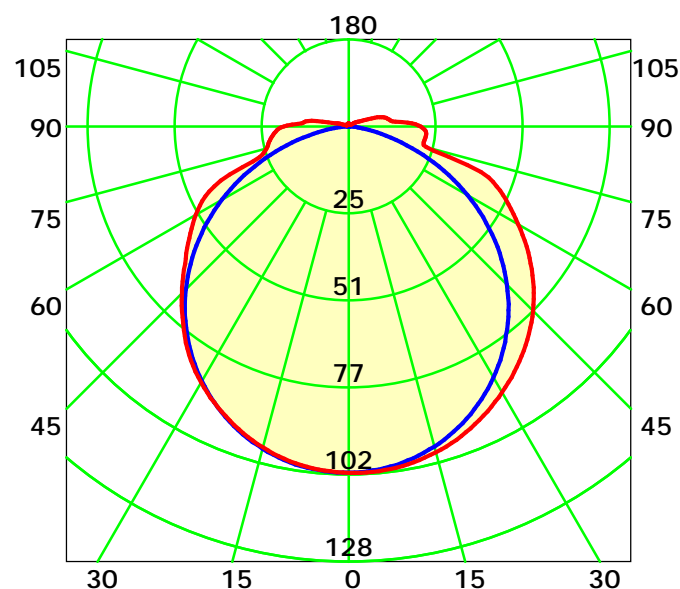
Central Intensity: 102.26 cd

Pos of Max. Intensity: H60 V1

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 117.8° Unit: cd

— C0-C180 — C90-C270

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator: Kerr

Gamma Plane (°):0.0-180.0: 1.0

Test Device: GPM-1800B

Distance: 9.028 m

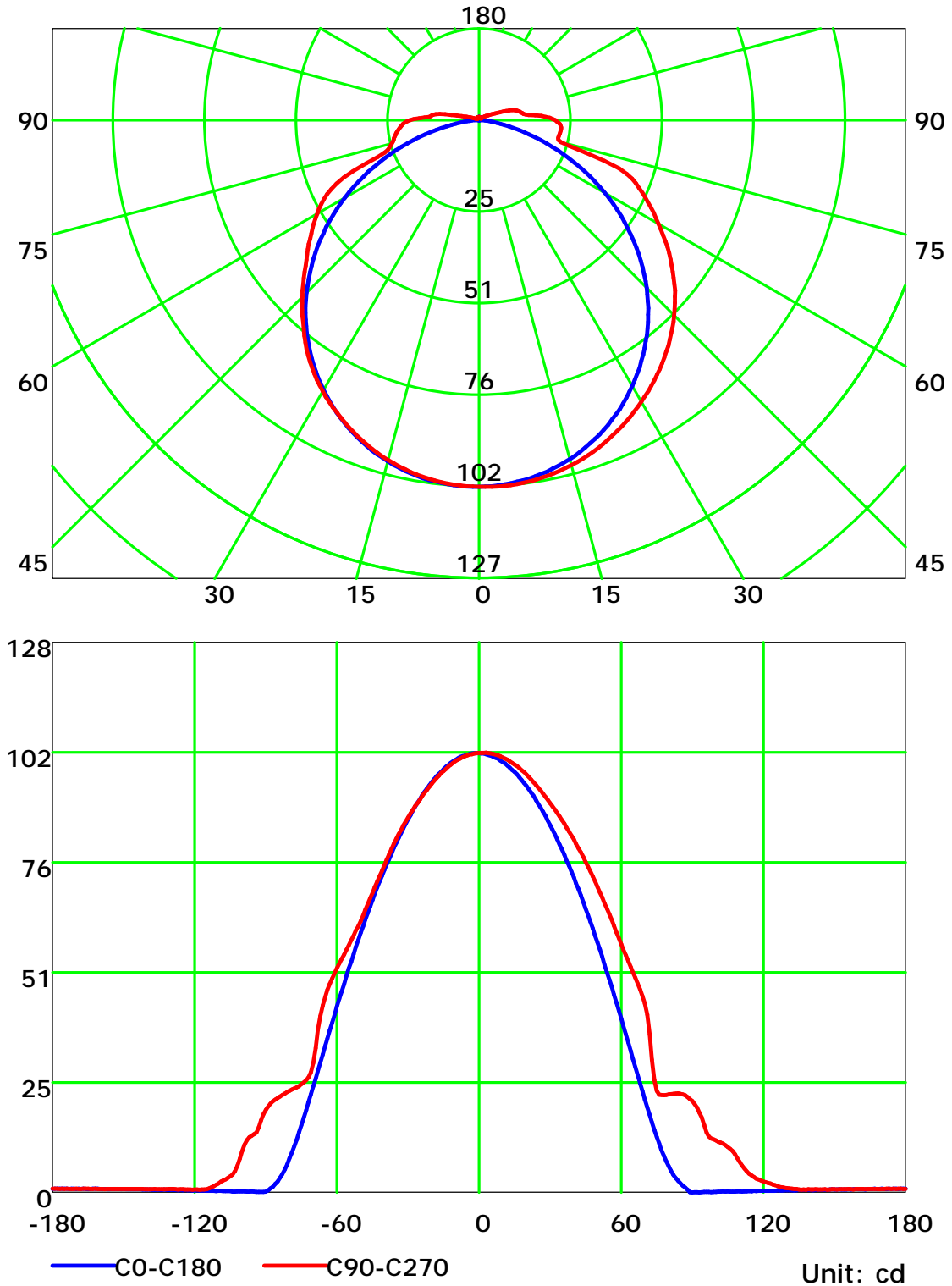
Humidity: 60%

Inspector:





## Luminous Intensity Distribution Curve

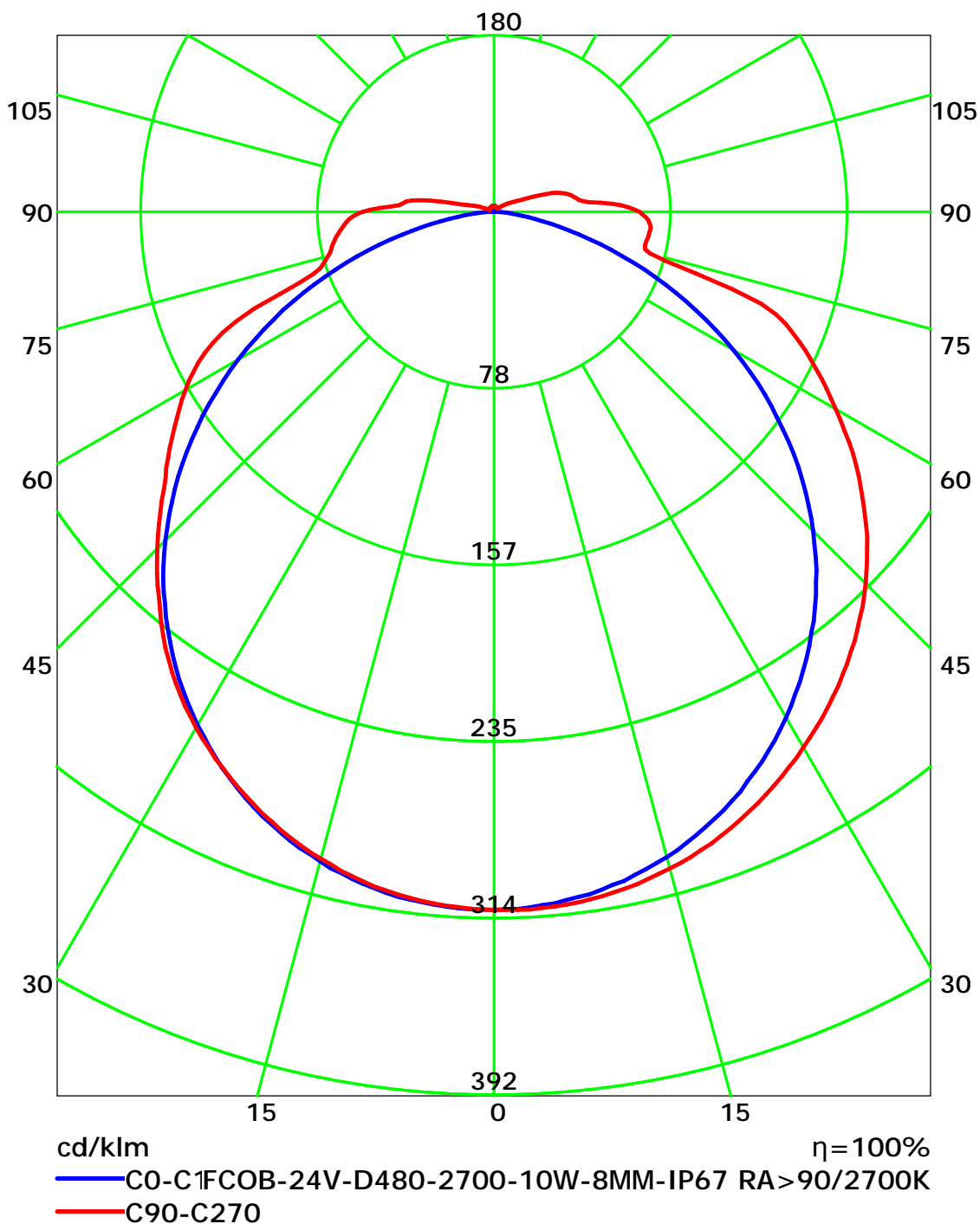


C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Kerr

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: Kerr

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



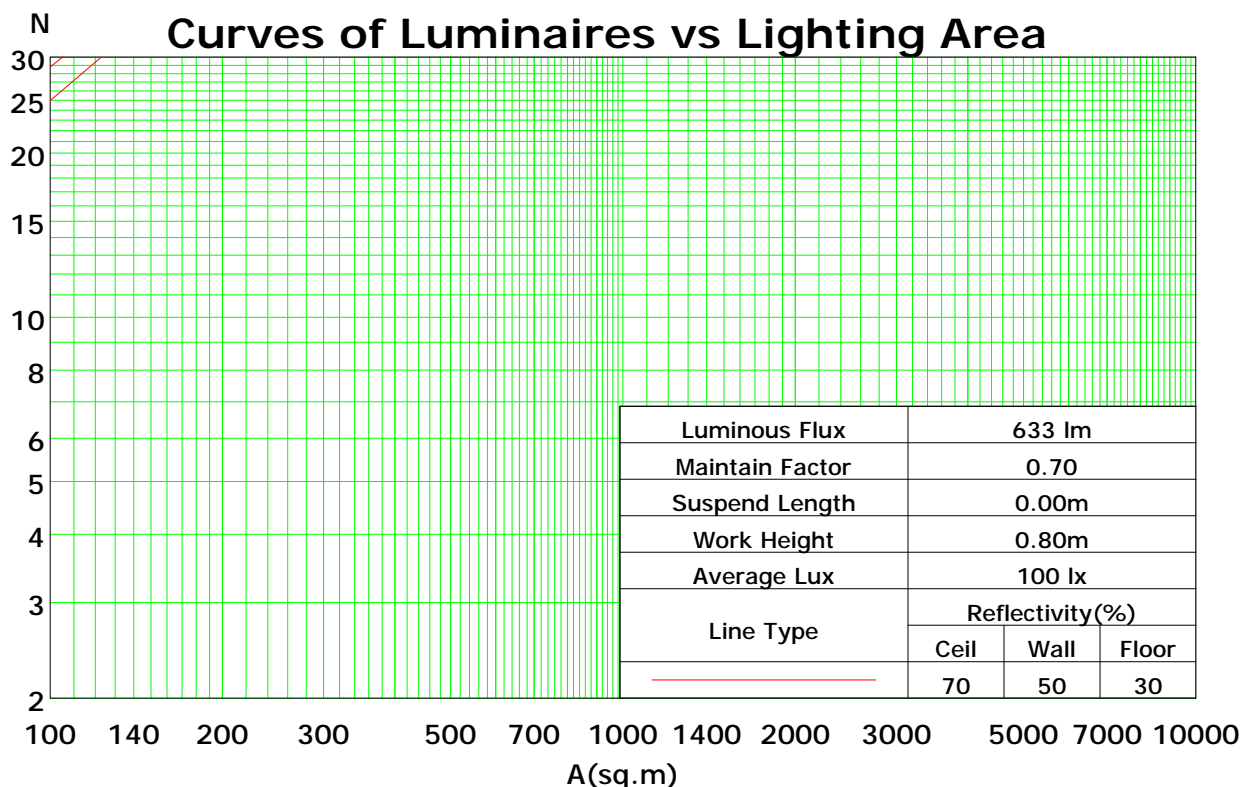
## Coefficients Of Utilization - Zonal Cavity Method

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	108	108	108	103	103	103	98	98	98	95
1	106	101	97	92	103	98	94	90	93	90	87	88	86	83	84	82	80	77
2	96	88	81	74	93	85	79	73	81	75	71	77	72	68	73	69	66	64
3	88	77	68	62	85	75	67	61	71	64	59	68	62	57	64	60	56	53
4	80	68	59	52	77	66	58	51	63	56	50	60	54	49	57	52	48	45
5	74	60	51	44	71	59	50	44	56	49	43	54	47	42	51	46	41	39
6	68	54	45	39	66	53	45	38	51	43	38	49	42	37	47	41	36	34
7	63	49	40	34	61	48	40	34	46	39	33	44	38	33	43	37	32	30
8	59	45	36	30	57	44	36	30	42	35	30	41	34	29	39	33	29	27
9	55	41	33	27	53	40	32	27	39	32	27	37	31	26	36	30	26	24
10	51	38	30	25	50	37	30	24	36	29	24	35	28	24	33	28	23	22

Spacing Criteria (0-180): 1.25

Spacing Criteria (90-270): 1.29

Spacing Criteria (Diagonal): 1.39

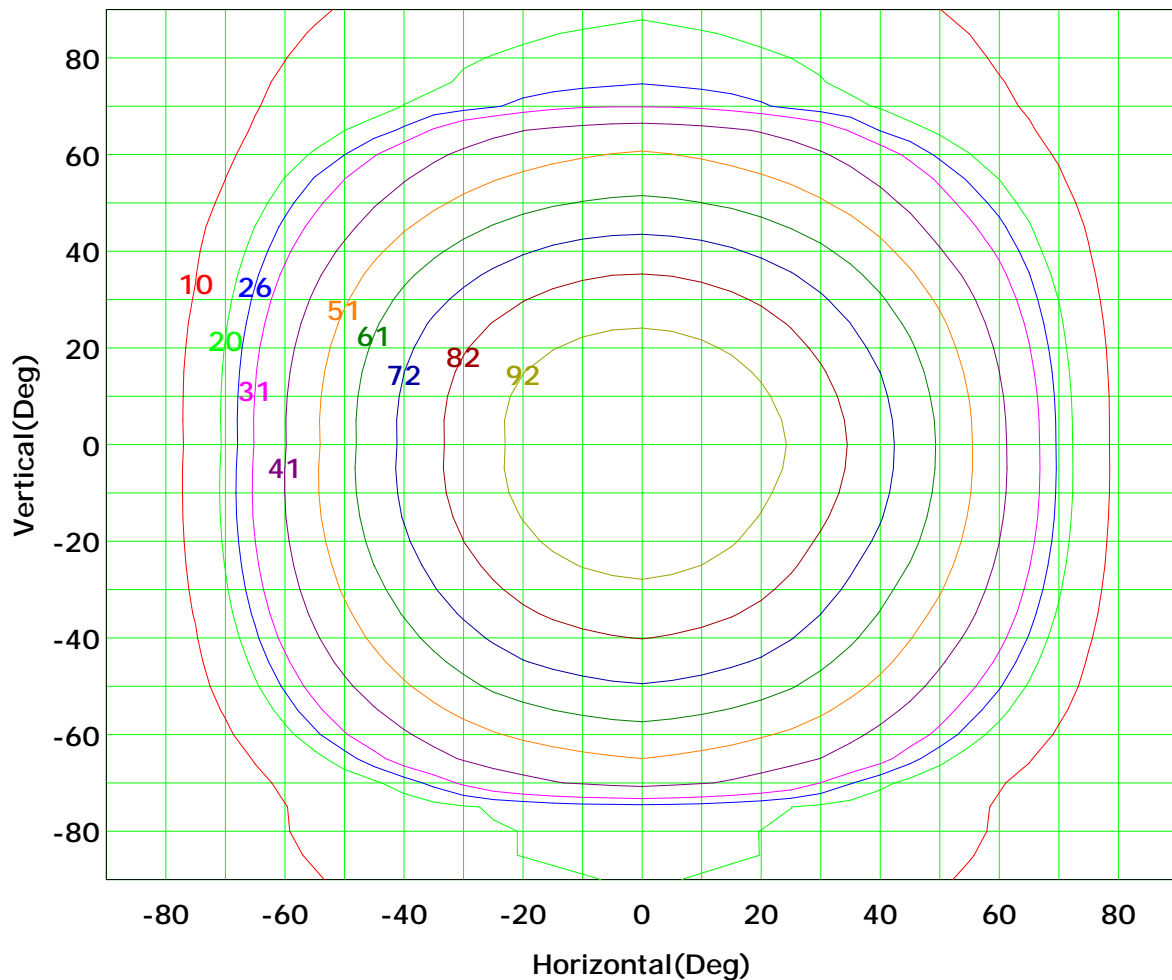


C Plane (°): 0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Kerr

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%): 102 cd

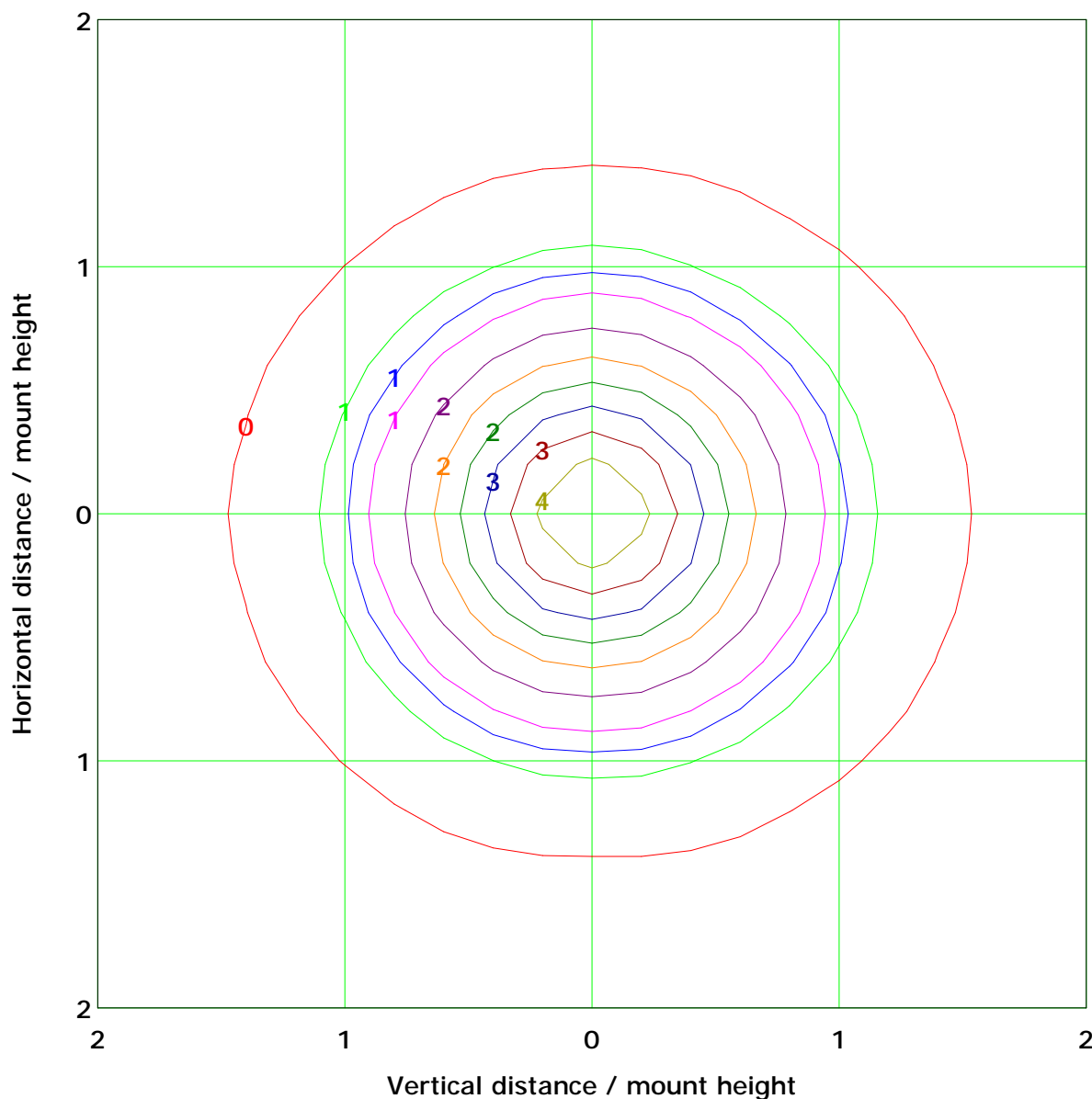
( 10%):	10 cd	( 20%):	20 cd
( 25%):	26 cd	( 30%):	31 cd
( 40%):	41 cd	( 50%):	51 cd
( 60%):	61 cd	( 70%):	72 cd
( 80%):	82 cd	( 90%):	92 cd

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

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%): 4.1 lx

( 10%): 0.4 lx	( 20%): 0.8 lx
( 25%): 1.0 lx	( 30%): 1.2 lx
( 40%): 1.6 lx	( 50%): 2.0 lx
( 60%): 2.5 lx	( 70%): 2.9 lx
( 80%): 3.3 lx	( 90%): 3.7 lx

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

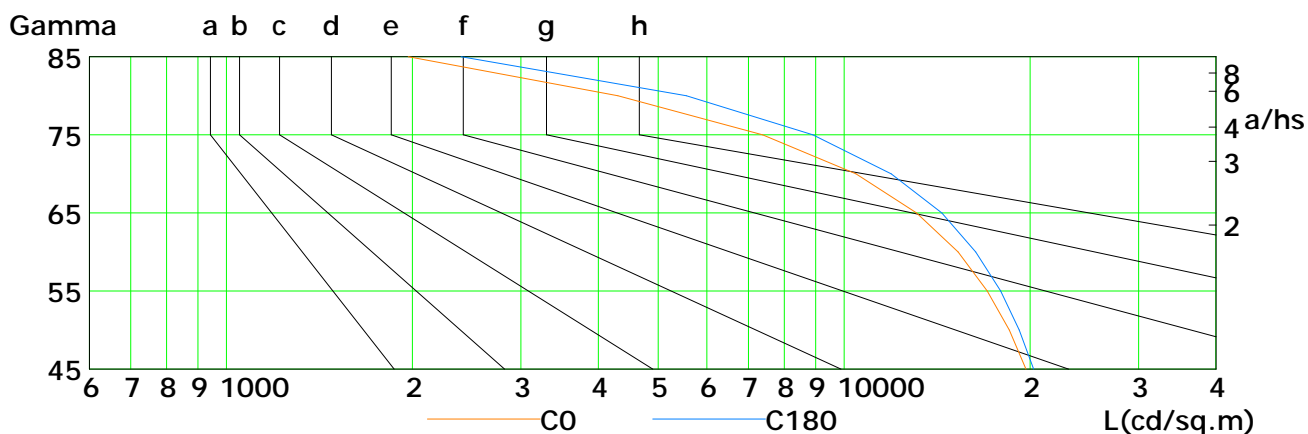
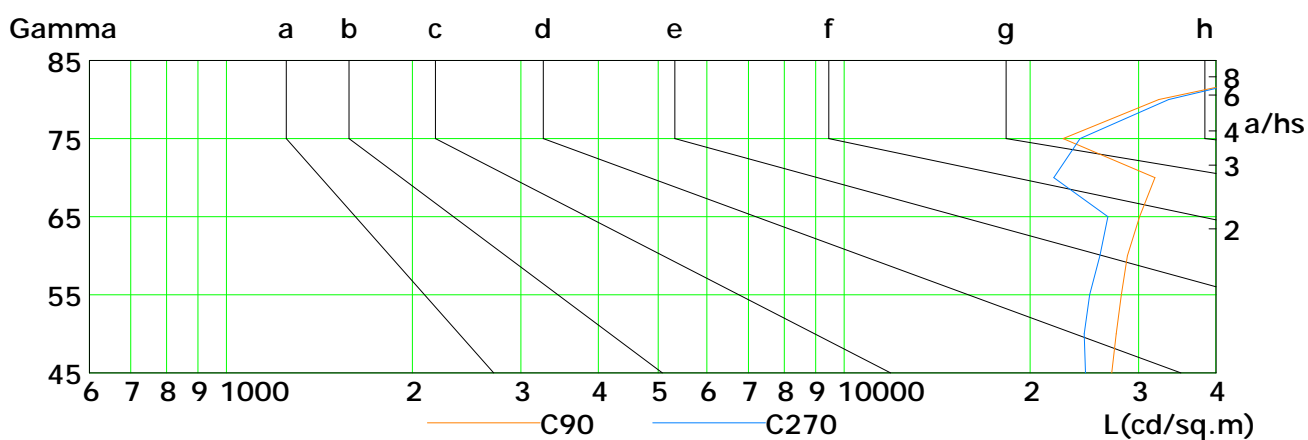
Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 9.028 m  
Humidity: 60%  
Inspector:



## 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



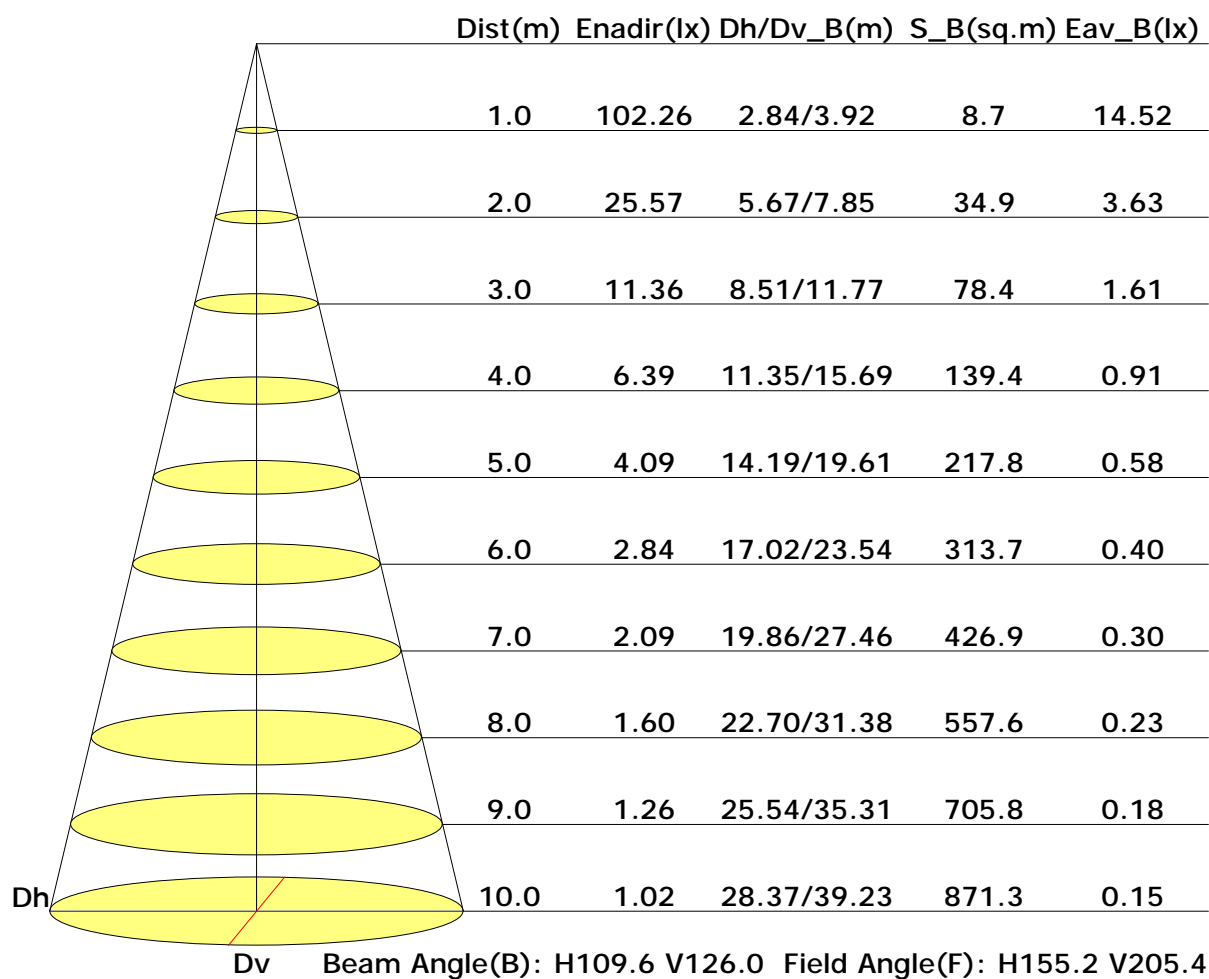
L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	19695	18514	17056	15293	13096	10459	7382	4305	1971
C90	27139	27570	28128	28756	30100	31877	22629	32332	63814
C180	20278	19207	17933	16331	14395	11926	8899	5554	2400
C270	24590	24473	24977	25950	26738	21858	24100	33550	61180

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

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

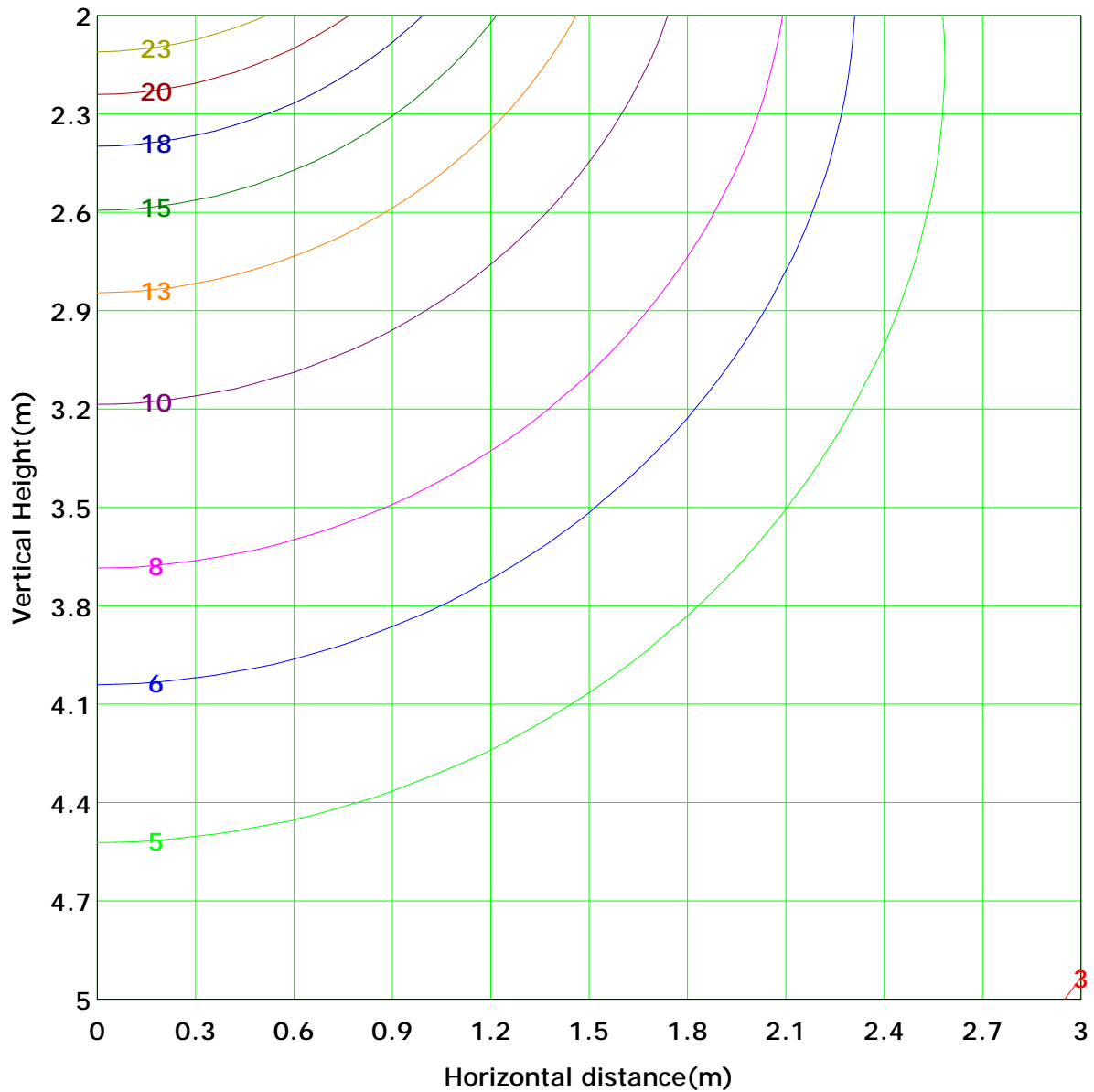


## Illuminance at a Distance





## Vertical IsoLux Plot



Lowest(m): 2.0m	Highest(m): 5.0m	Max Lux: 25.6 lx
( 10%): 2.6 lx	( 20%): 5.1 lx	
( 25%): 6.4 lx	( 30%): 7.7 lx	
( 40%): 10.2 lx	( 50%): 12.8 lx	
( 60%): 15.3 lx	( 70%): 17.9 lx	
( 80%): 20.5 lx	( 90%): 23.0 lx	

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

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		-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90	Flux(T)	Flux(E)
Horizontal plane	-90	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.6	0.6	0.6	0.6	0.5	0.4	0.3	0.2	0.1	0.0	0.0	0.2	0.0
	-80	0.0	0.0	0.1	0.2	0.3	0.5	0.6	0.7	0.8	0.8	0.8	0.7	0.6	0.5	0.3	0.2	0.1	0.0	0.0	1.5	1.0
	-70	0.0	0.1	0.1	0.3	0.5	0.7	1.0	1.2	1.3	1.3	1.2	1.0	0.8	0.6	0.5	0.3	0.1	0.0	0.0	4.9	4.4
	-60	0.0	0.1	0.2	0.4	0.7	1.1	1.4	1.6	1.7	1.7	1.6	1.4	1.2	0.9	0.8	0.6	0.3	0.0	0.0	10.1	9.9
	-50	0.0	0.1	0.3	0.6	0.9	1.3	1.7	1.9	2.1	2.1	2.0	1.7	1.4	1.2	0.9	0.6	0.3	0.0	0.0	16.5	16.5
	-40	0.0	0.1	0.3	0.6	0.9	1.3	1.7	2.0	2.3	2.5	2.5	2.3	2.0	1.7	1.5	1.2	0.8	0.1	0.0	23.3	23.3
	-30	0.0	0.1	0.4	0.8	1.3	1.8	2.2	2.6	2.9	3.1	3.1	2.9	2.5	2.1	1.8	1.5	0.9	0.1	0.0	29.4	29.4
	-20	0.0	0.1	0.4	0.9	1.4	1.9	2.4	2.8	3.0	3.0	2.9	2.6	2.3	2.0	1.7	1.4	0.9	0.1	0.0	33.9	33.9
	-10	0.0	0.1	0.4	0.9	1.5	2.0	2.5	2.9	3.1	3.1	2.9	2.6	2.3	2.0	1.7	1.4	0.9	0.1	0.0	36.5	36.5
	0	0.0	0.1	0.4	0.9	1.5	2.0	2.5	2.9	3.1	3.1	2.9	2.6	2.3	2.0	1.7	1.4	0.9	0.1	0.0	36.6	36.6
	10	0.0	0.1	0.4	0.9	1.5	2.0	2.5	2.9	3.1	3.1	2.9	2.6	2.3	2.0	1.7	1.4	0.9	0.1	0.0	34.1	34.1
	20	0.0	0.1	0.4	0.9	1.4	1.9	2.4	2.8	3.0	3.0	2.9	2.6	2.3	2.0	1.7	1.4	0.9	0.1	0.0	29.7	29.7
	30	0.0	0.1	0.4	0.8	1.3	1.8	2.3	2.6	2.8	2.8	2.6	2.3	2.0	1.7	1.5	1.2	0.9	0.1	0.0	23.6	23.6
	40	0.0	0.1	0.4	0.7	1.2	1.7	2.1	2.4	2.6	2.6	2.4	2.1	1.7	1.4	1.2	0.9	0.6	0.1	0.0	16.7	16.7
	50	0.0	0.1	0.3	0.6	1.0	1.5	1.9	2.1	2.3	2.3	2.2	1.9	1.5	1.1	0.9	0.6	0.3	0.1	0.0	10.0	10.0
	60	0.0	0.1	0.2	0.5	0.8	1.2	1.5	1.8	1.9	1.9	1.8	1.6	1.2	0.9	0.5	0.3	0.1	0.0	0.0	4.2	4.2
	70	0.0	0.1	0.1	0.3	0.6	0.9	1.2	1.4	1.5	1.5	1.4	1.2	0.9	0.6	0.3	0.1	0.0	0.0	0.0	1.4	1.4
	80	0.0	0.0	0.1	0.2	0.3	0.5	0.6	0.8	0.8	0.8	0.8	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.1	0.1
	90	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.7	0.6	0.5	0.4	0.3	0.2	0.1	0.0	0.0	0.0	313	311
	Flux(E)	0.0	1.0	4.4	9.9	16.5	23.3	29.4	33.9	36.5	36.6	34.1	29.7	23.6	16.7	10.0	4.2	0.8	0.0	0.0		311

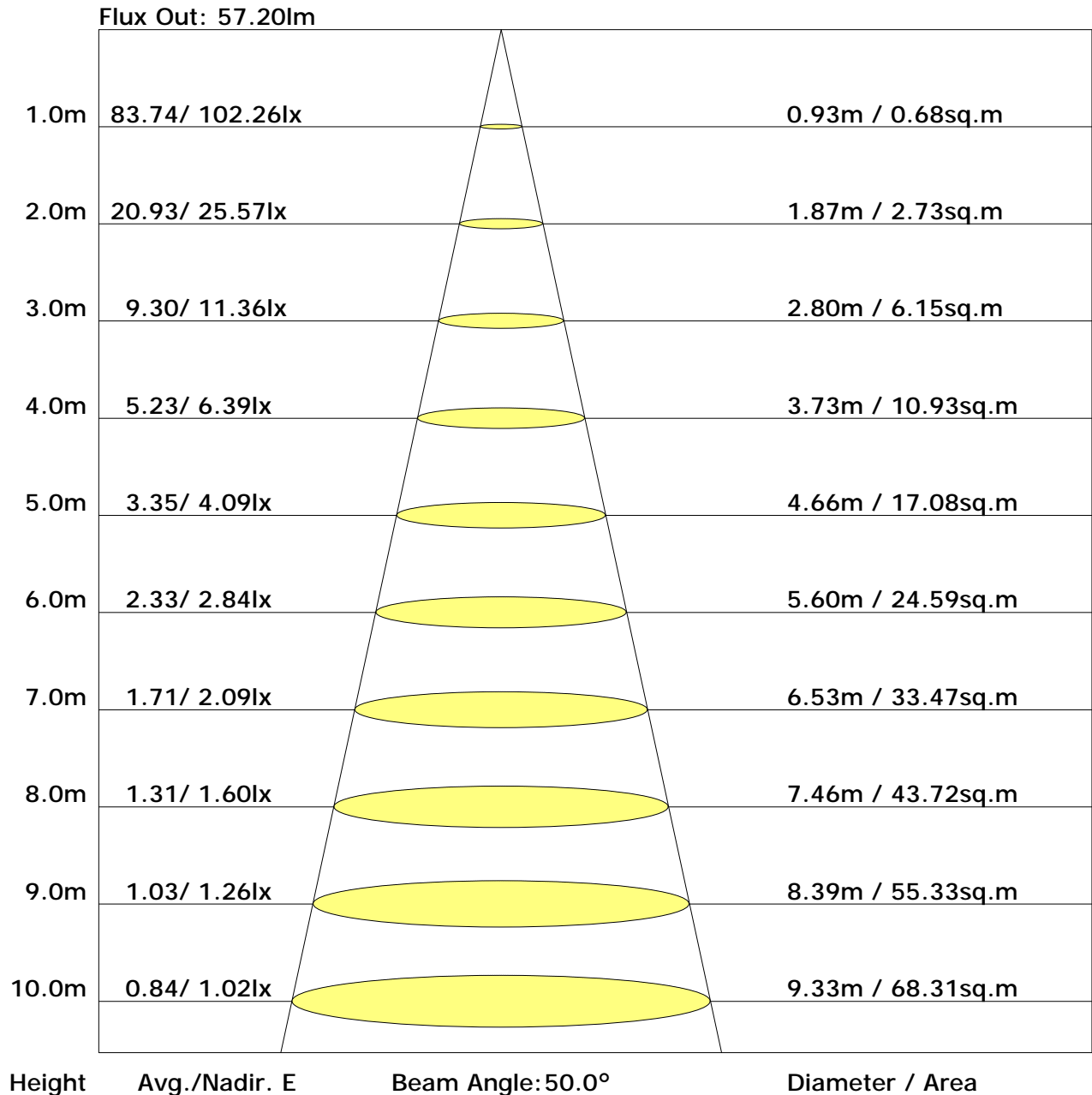
C Plane (°): 0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Kerr

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: Kerr

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	25.9	27.4	26.3	27.9	28.3	26.8	28.4	27.2	28.8	29.2
3H	27.4	28.8	27.8	29.2	29.7	29.0	30.4	29.5	30.9	31.3
4H	27.8	29.2	28.3	29.6	30.1	29.5	30.8	29.9	31.3	31.7
6H	28.0	29.3	28.5	29.8	30.3	30.0	31.2	30.5	31.7	32.2
8H	28.1	29.3	28.6	29.8	30.3	30.4	31.5	30.9	32.0	32.5
12H	28.1	29.3	28.6	29.7	30.3	30.8	31.9	31.3	32.4	33.0
X=4H Y=2H	26.6	27.9	27.1	28.4	28.9	27.4	28.7	27.9	29.2	29.7
3H	28.3	29.5	28.8	30.0	30.5	29.8	31.0	30.3	31.4	32.0
4H	28.9	29.9	29.4	30.4	31.0	30.4	31.4	30.9	31.9	32.5
6H	29.2	30.1	29.7	30.6	31.2	31.0	31.9	31.6	32.5	33.0
8H	29.3	30.1	29.8	30.7	31.2	31.5	32.3	32.0	32.9	33.4
12H	29.4	30.1	29.9	30.7	31.3	32.1	32.8	32.6	33.4	34.0
X=8H Y=4H	29.2	30.1	29.7	30.6	31.2	30.6	31.4	31.1	31.9	32.5
6H	29.6	30.4	30.2	31.0	31.5	31.4	32.1	32.0	32.7	33.3
8H	29.8	30.5	30.4	31.1	31.7	32.0	32.7	32.6	33.3	33.8
12H	30.0	30.6	30.6	31.2	31.8	32.8	33.4	33.4	33.9	34.6
X=12H Y=4H	29.3	30.1	29.8	30.6	31.2	30.6	31.3	31.1	31.9	32.5
6H	29.8	30.5	30.4	31.0	31.7	31.5	32.1	32.0	32.7	33.3
8H	30.1	30.7	30.7	31.2	31.9	32.2	32.7	32.7	33.3	34.0

Calculate in accordance with CIE 190:2010

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

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	0.53	0.64	0.71	0.76	0.83	0.88	0.92	0.97	1.00
	0.30		0.45	0.56	0.63	0.69	0.77	0.82	0.86	0.92	0.96
	0.20		0.40	0.50	0.57	0.63	0.71	0.77	0.82	0.88	0.92
0.50	0.50	0.20	0.51	0.61	0.68	0.73	0.79	0.84	0.87	0.92	0.94
	0.30		0.44	0.54	0.61	0.66	0.74	0.79	0.83	0.88	0.91
	0.20		0.39	0.49	0.56	0.61	0.69	0.75	0.79	0.85	0.88
0.30	0.50	0.20	0.49	0.58	0.65	0.69	0.76	0.80	0.83	0.87	0.90
	0.30		0.43	0.52	0.59	0.64	0.71	0.76	0.79	0.84	0.87
	0.20		0.38	0.48	0.55	0.60	0.67	0.72	0.76	0.81	0.85
0.00	0.00	0.00	0.36	0.45	0.51	0.56	0.63	0.68	0.71	0.76	0.79
Rating: 6W 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	1.02	0.85	0.73	0.64	0.51	0.43	0.37	0.29	0.24
	0.30		0.85	0.72	0.63	0.56	0.46	0.40	0.35	0.28	0.23
	0.20		0.73	0.63	0.56	0.51	0.42	0.37	0.32	0.26	0.22
0.50	0.50	0.20	0.97	0.81	0.69	0.60	0.49	0.44	0.35	0.28	0.23
	0.30		0.82	0.70	0.61	0.54	0.45	0.38	0.33	0.26	0.22
	0.20		0.71	0.62	0.55	0.49	0.41	0.35	0.31	0.25	0.21
0.30	0.50	0.20	0.93	0.77	0.66	0.58	0.46	0.39	0.34	0.26	0.22
	0.30		0.80	0.68	0.59	0.52	0.43	0.36	0.32	0.25	0.21
	0.20		0.70	0.60	0.53	0.48	0.40	0.34	0.30	0.24	0.20
0.00	0.00	0.00	0.59	0.50	0.44	0.39	0.32	0.27	0.24	0.19	0.16
Rating: 6W 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	0.21	0.22	0.23	0.24	0.25	0.25	0.26	0.26	0.26
	0.30		0.14	0.16	0.17	0.18	0.20	0.21	0.22	0.23	0.24
	0.20		0.09	0.11	0.12	0.13	0.15	0.17	0.18	0.20	0.21
0.50	0.50	0.20	0.20	0.22	0.22	0.23	0.24	0.24	0.25	0.25	0.25
	0.30		0.14	0.15	0.17	0.18	0.19	0.20	0.21	0.22	0.23
	0.20		0.09	0.11	0.12	0.13	0.15	0.16	0.18	0.19	0.20
0.30	0.50	0.20	0.20	0.21	0.22	0.22	0.23	0.23	0.24	0.24	0.24
	0.30		0.14	0.15	0.16	0.17	0.18	0.19	0.20	0.21	0.22
	0.20		0.09	0.10	0.12	0.13	0.15	0.16	0.17	0.19	0.20
0.00	0.00	0.00	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Rating: 6W 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	102.3	0.1	0.1	0.03	0.03
1.0-2.0	102.3	0.3	0.4	0.09	0.12
2.0-3.0	102.2	0.5	0.9	0.15	0.27
3.0-4.0	102.1	0.7	1.6	0.21	0.47
4.0-5.0	102.0	0.9	2.4	0.27	0.74
5.0-6.0	101.8	1.1	3.5	0.32	1.07
6.0-7.0	101.6	1.3	4.8	0.38	1.45
7.0-8.0	101.4	1.5	6.2	0.44	1.89
8.0-9.0	101.1	1.6	7.9	0.50	2.39
9.0-10.0	100.8	1.8	9.7	0.55	2.94
10.0-11.0	100.5	2.0	11.7	0.61	3.55
11.0-12.0	100.1	2.2	13.9	0.66	4.21
12.0-13.0	99.7	2.4	16.3	0.72	4.93
13.0-14.0	99.3	2.5	18.8	0.77	5.70
14.0-15.0	98.8	2.7	21.5	0.82	6.53
15.0-16.0	98.3	2.9	24.4	0.87	7.40
16.0-17.0	97.8	3.0	27.4	0.92	8.32
17.0-18.0	97.2	3.2	30.6	0.97	9.30
18.0-19.0	96.6	3.4	34.0	1.02	10.32
19.0-20.0	96.0	3.5	37.5	1.07	11.38
20.0-21.0	95.4	3.7	41.2	1.11	12.49
21.0-22.0	94.7	3.8	45.0	1.15	13.65
22.0-23.0	93.9	3.9	48.9	1.20	14.84
23.0-24.0	93.2	4.1	53.0	1.24	16.08
24.0-25.0	92.4	4.2	57.2	1.27	17.35
25.0-26.0	91.6	4.3	61.5	1.31	18.67
26.0-27.0	90.7	4.4	66.0	1.35	20.01
27.0-28.0	89.9	4.6	70.5	1.38	21.39
28.0-29.0	89.0	4.7	75.2	1.41	22.81
29.0-30.0	88.1	4.8	79.9	1.44	24.25
30.0-31.0	87.1	4.8	84.8	1.47	25.72
31.0-32.0	86.1	4.9	89.7	1.50	27.22
32.0-33.0	85.1	5.0	94.7	1.52	28.74
33.0-34.0	84.1	5.1	99.8	1.54	30.29
34.0-35.0	83.1	5.2	105.0	1.57	31.85
35.0-36.0	82.0	5.2	110.2	1.58	33.44

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

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	80.9	5.3	115.5	1.60	35.04
37.0-38.0	79.7	5.3	120.8	1.61	36.65
38.0-39.0	78.6	5.4	126.2	1.63	38.28
39.0-40.0	77.4	5.4	131.6	1.64	39.92
40.0-41.0	76.1	5.4	137.0	1.64	41.56
41.0-42.0	74.9	5.4	142.4	1.65	43.21
42.0-43.0	73.6	5.5	147.9	1.65	44.86
43.0-44.0	72.3	5.5	153.3	1.66	46.52
44.0-45.0	70.9	5.5	158.8	1.65	48.17
45.0-46.0	69.6	5.4	164.2	1.65	49.83
46.0-47.0	68.2	5.4	169.7	1.65	51.47
47.0-48.0	66.9	5.4	175.1	1.64	53.11
48.0-49.0	65.5	5.4	180.4	1.63	54.74
49.0-50.0	64.0	5.3	185.8	1.62	56.36
50.0-51.0	62.6	5.3	191.1	1.61	57.97
51.0-52.0	61.1	5.2	196.3	1.59	59.56
52.0-53.0	59.7	5.2	201.5	1.58	61.14
53.0-54.0	58.2	5.1	206.6	1.56	62.70
54.0-55.0	56.7	5.1	211.7	1.54	64.23
55.0-56.0	55.3	5.0	216.7	1.52	65.75
56.0-57.0	53.8	4.9	221.6	1.49	67.24
57.0-58.0	52.3	4.8	226.5	1.47	68.71
58.0-59.0	50.8	4.7	231.2	1.44	70.15
59.0-60.0	49.2	4.7	235.9	1.41	71.56
60.0-61.0	47.7	4.6	240.4	1.38	72.94
61.0-62.0	46.1	4.4	244.9	1.35	74.29
62.0-63.0	44.6	4.3	249.2	1.32	75.60
63.0-64.0	43.0	4.2	253.4	1.28	76.88
64.0-65.0	41.4	4.1	257.5	1.24	78.13
65.0-66.0	39.8	4.0	261.5	1.21	79.33
66.0-67.0	38.1	3.8	265.3	1.16	80.50
67.0-68.0	36.4	3.7	269.0	1.12	81.61
68.0-69.0	34.5	3.5	272.5	1.07	82.68
69.0-70.0	32.4	3.3	275.8	1.01	83.69
70.0-71.0	30.2	3.1	279.0	0.95	84.64
71.0-72.0	27.9	2.9	281.9	0.88	85.51

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

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	25.5	2.7	284.5	0.81	86.32
73.0-74.0	23.2	2.4	287.0	0.74	87.07
74.0-75.0	21.2	2.2	289.2	0.68	87.75
75.0-76.0	19.4	2.1	291.3	0.62	88.37
76.0-77.0	18.0	1.9	293.2	0.58	88.95
77.0-78.0	17.0	1.8	295.0	0.55	89.50
78.0-79.0	16.3	1.8	296.8	0.53	90.04
79.0-80.0	15.7	1.7	298.5	0.51	90.55
80.0-81.0	15.2	1.6	300.1	0.50	91.05
81.0-82.0	14.9	1.6	301.7	0.49	91.54
82.0-83.0	14.6	1.6	303.3	0.48	92.02
83.0-84.0	14.3	1.6	304.9	0.47	92.49
84.0-85.0	14.0	1.5	306.4	0.46	92.96
85.0-86.0	13.6	1.5	307.9	0.45	93.41
86.0-87.0	13.2	1.4	309.3	0.44	93.85
87.0-88.0	12.8	1.4	310.7	0.43	94.27
88.0-89.0	12.4	1.4	312.1	0.41	94.68
89.0-90.0	11.9	1.3	313.4	0.39	95.08
90.0-91.0	11.3	1.2	314.6	0.38	95.45
91.0-92.0	10.6	1.2	315.8	0.35	95.81
92.0-93.0	9.7	1.1	316.8	0.32	96.13
93.0-94.0	8.8	1.0	317.8	0.29	96.42
94.0-95.0	8.0	0.9	318.7	0.27	96.69
95.0-96.0	7.4	0.8	319.5	0.25	96.93
96.0-97.0	7.0	0.8	320.2	0.23	97.16
97.0-98.0	6.6	0.7	321.0	0.22	97.38
98.0-99.0	6.1	0.7	321.6	0.20	97.58
99.0-100.0	5.6	0.6	322.2	0.18	97.76
100.0-101.0	5.0	0.5	322.8	0.16	97.93
101.0-102.0	4.5	0.5	323.3	0.15	98.07
102.0-103.0	4.1	0.4	323.7	0.13	98.21
103.0-104.0	3.8	0.4	324.1	0.12	98.33
104.0-105.0	3.6	0.4	324.5	0.11	98.45
105.0-106.0	3.3	0.3	324.8	0.11	98.55
106.0-107.0	3.0	0.3	325.1	0.10	98.65
107.0-108.0	2.7	0.3	325.4	0.09	98.73

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

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	2.4	0.3	325.7	0.08	98.81
109.0-110.0	2.1	0.2	325.9	0.07	98.88
110.0-111.0	1.9	0.2	326.1	0.06	98.94
111.0-112.0	1.6	0.2	326.3	0.05	98.99
112.0-113.0	1.5	0.2	326.4	0.05	99.03
113.0-114.0	1.4	0.1	326.5	0.04	99.07
114.0-115.0	1.2	0.1	326.7	0.04	99.11
115.0-116.0	1.2	0.1	326.8	0.04	99.15
116.0-117.0	1.1	0.1	326.9	0.03	99.18
117.0-118.0	1.1	0.1	327.0	0.03	99.21
118.0-119.0	1.0	0.1	327.1	0.03	99.24
119.0-120.0	1.0	0.1	327.2	0.03	99.27
120.0-121.0	0.9	0.1	327.3	0.03	99.29
121.0-122.0	0.9	0.1	327.4	0.02	99.32
122.0-123.0	0.9	0.1	327.4	0.02	99.34
123.0-124.0	0.8	0.1	327.5	0.02	99.37
124.0-125.0	0.8	0.1	327.6	0.02	99.39
125.0-126.0	0.8	0.1	327.6	0.02	99.41
126.0-127.0	0.7	0.1	327.7	0.02	99.43
127.0-128.0	0.7	0.1	327.8	0.02	99.45
128.0-129.0	0.7	0.1	327.8	0.02	99.46
129.0-130.0	0.7	0.1	327.9	0.02	99.48
130.0-131.0	0.7	0.1	328.0	0.02	99.50
131.0-132.0	0.7	0.1	328.0	0.02	99.52
132.0-133.0	0.7	0.1	328.1	0.02	99.53
133.0-134.0	0.7	0.1	328.1	0.02	99.55
134.0-135.0	0.7	0.1	328.2	0.02	99.57
135.0-136.0	0.7	0.1	328.2	0.02	99.58
136.0-137.0	0.7	0.1	328.3	0.02	99.60
137.0-138.0	0.7	0.1	328.3	0.02	99.61
138.0-139.0	0.7	0.1	328.4	0.02	99.63
139.0-140.0	0.7	0.1	328.4	0.02	99.65
140.0-141.0	0.7	0.1	328.5	0.02	99.66
141.0-142.0	0.7	0.0	328.5	0.01	99.68
142.0-143.0	0.7	0.0	328.6	0.01	99.69
143.0-144.0	0.7	0.0	328.6	0.01	99.71

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

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	0.7	0.0	328.7	0.01	99.72
145.0-146.0	0.8	0.0	328.7	0.01	99.73
146.0-147.0	0.8	0.0	328.8	0.01	99.75
147.0-148.0	0.8	0.0	328.8	0.01	99.76
148.0-149.0	0.8	0.0	328.9	0.01	99.78
149.0-150.0	0.8	0.0	328.9	0.01	99.79
150.0-151.0	0.8	0.0	328.9	0.01	99.80
151.0-152.0	0.8	0.0	329.0	0.01	99.81
152.0-153.0	0.8	0.0	329.0	0.01	99.83
153.0-154.0	0.8	0.0	329.1	0.01	99.84
154.0-155.0	0.8	0.0	329.1	0.01	99.85
155.0-156.0	0.8	0.0	329.1	0.01	99.86
156.0-157.0	0.8	0.0	329.2	0.01	99.87
157.0-158.0	0.8	0.0	329.2	0.01	99.88
158.0-159.0	0.8	0.0	329.2	0.01	99.89
159.0-160.0	0.8	0.0	329.3	0.01	99.90
160.0-161.0	0.8	0.0	329.3	0.01	99.91
161.0-162.0	0.8	0.0	329.3	0.01	99.92
162.0-163.0	0.8	0.0	329.4	0.01	99.93
163.0-164.0	0.8	0.0	329.4	0.01	99.94
164.0-165.0	0.9	0.0	329.4	0.01	99.94
165.0-166.0	0.9	0.0	329.4	0.01	99.95
166.0-167.0	0.9	0.0	329.5	0.01	99.96
167.0-168.0	0.9	0.0	329.5	0.01	99.96
168.0-169.0	0.9	0.0	329.5	0.01	99.97
169.0-170.0	0.9	0.0	329.5	0.01	99.97
170.0-171.0	0.9	0.0	329.5	0.00	99.98
171.0-172.0	0.9	0.0	329.5	0.00	99.98
172.0-173.0	0.9	0.0	329.6	0.00	99.99
173.0-174.0	0.9	0.0	329.6	0.00	99.99
174.0-175.0	0.9	0.0	329.6	0.00	99.99
175.0-176.0	0.9	0.0	329.6	0.00	100.00
176.0-177.0	0.9	0.0	329.6	0.00	100.00
177.0-178.0	0.9	0.0	329.6	0.00	100.00
178.0-179.0	0.9	0.0	329.6	0.00	100.00
179.0-180.0	0.9	0.0	329.6	0.00	100.00

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

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