

Report No.:

Test Time: 2016-12-29 15:09:59

## Luminaire Property

Luminaire Manufacturer:

Luminaire Category: Armor Series Exterior Linear

Number of Lamps: 1

Luminous Length (mm): 500 mm

Luminous Height (mm): 0 mm

Current: 0.3250

Lamp Description: NANO-35° 500-2700K

Lumens per Lamp: 582.3 lm

Luminous Width (mm): 0 mm

Voltage: 24

Power: 7.80 W

## Photometric Results

CIE Class: Direct

Measurement Flux: 582.3 lm

Downward Ratio: 98.61%

Horizontal Diffuse Angle(50%): H34.5

Vertical Diffuse Angle(50%): V34.5

Luminaire Efficacy Rating (LER): 75

Max. Intensity: 1132.5 cd

Total Rated Lamp Lumens: 582.3 lm

Efficiency: 100.00%

Upward Ratio: 1.39%

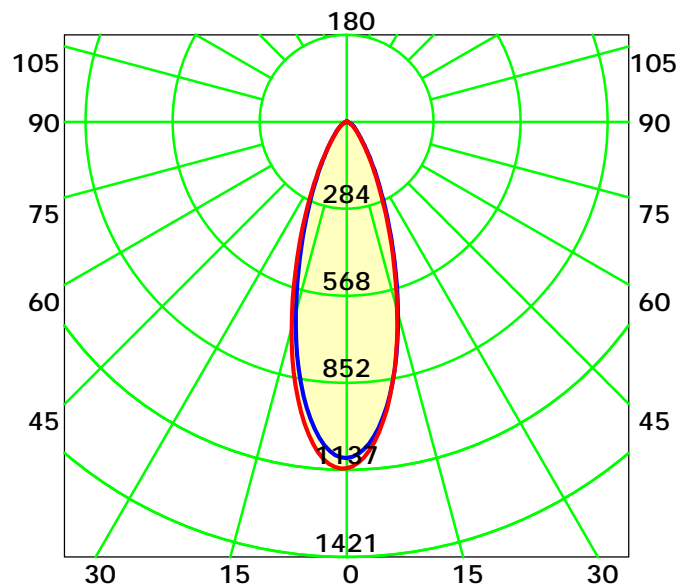
Central Intensity: 1098.07 cd

Pos of Max. Intensity: H270 V1

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 34.5° Unit: cd

— C0-C180 — C90-C270

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0: 1.0

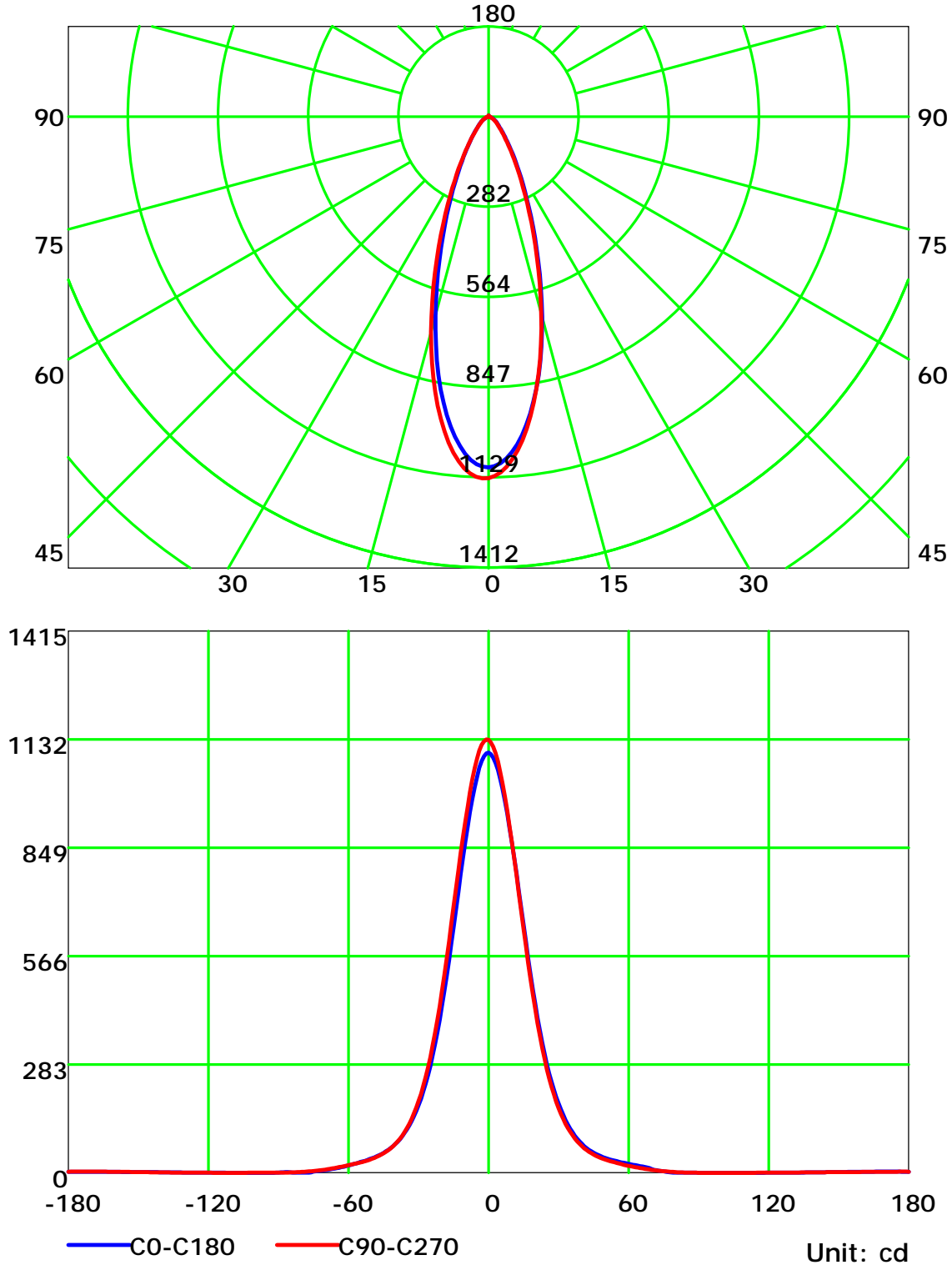
Test Device:

Distance:

Humidity:

Inspector:

## Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

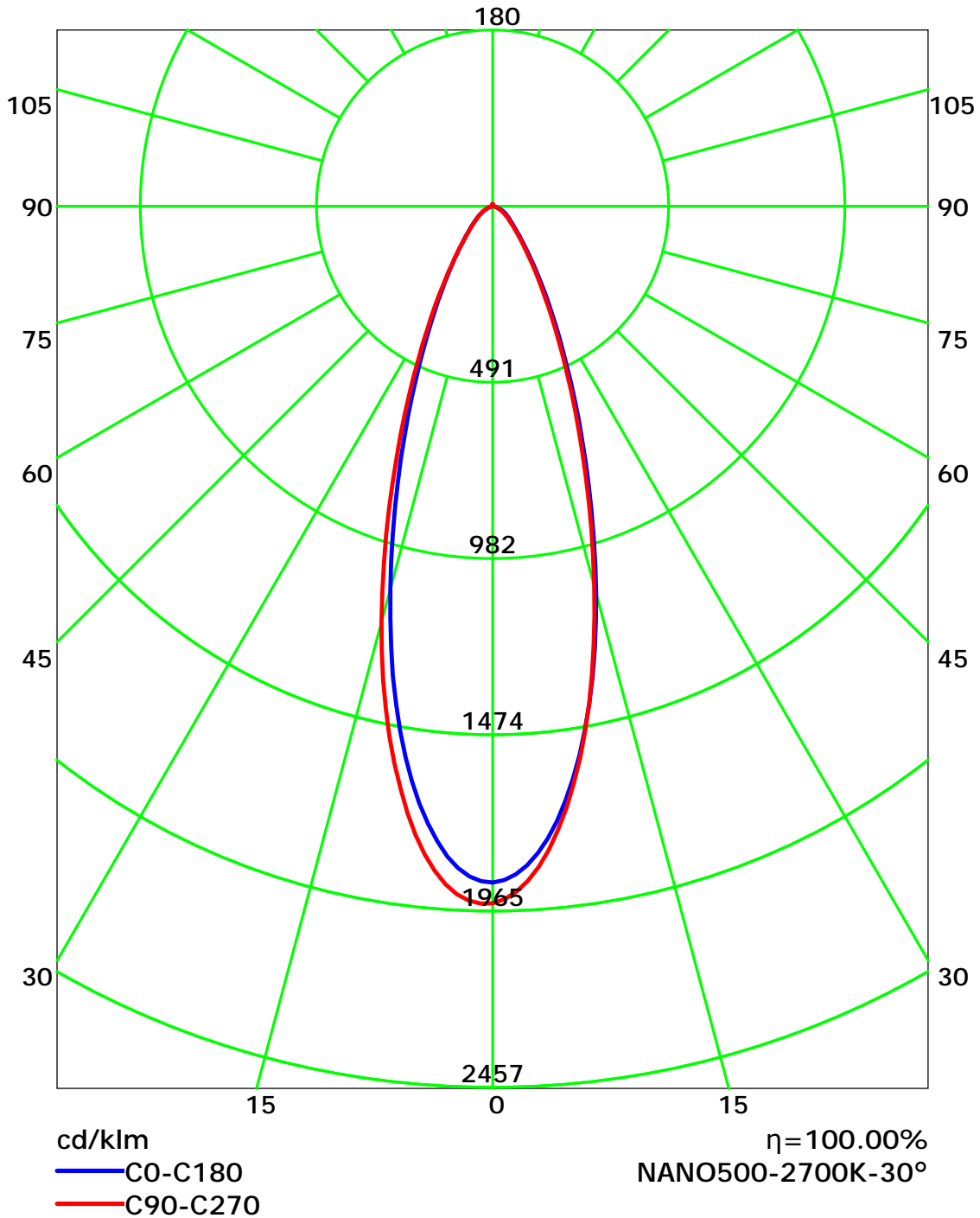
Test Device:

Distance:

Humidity:

Inspector:

## Luminous Intensity Distribution Curve(cd/klm)



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

Gamma Plane (°):0.0-180.0:1.0  
Test Device:  
Distance:  
Humidity:  
Inspector:

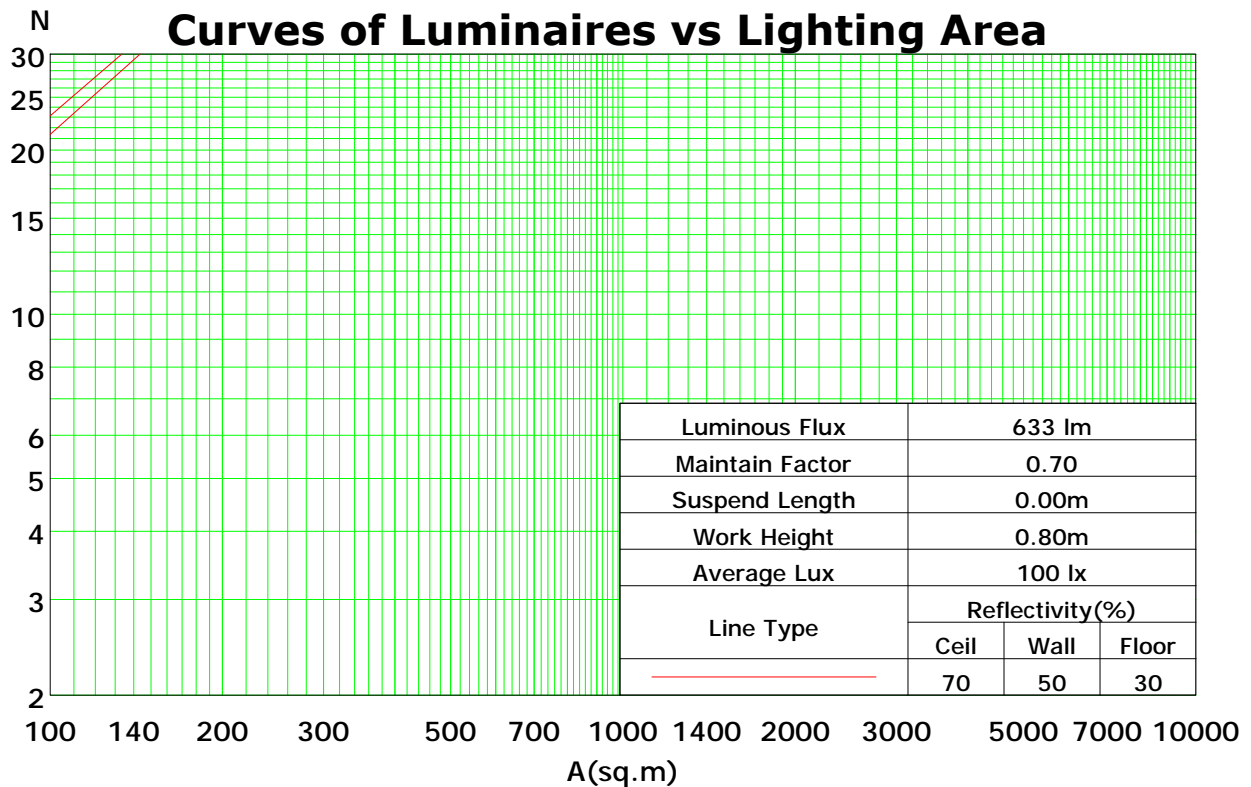
## Coefficients Of Utilization - Zonal Cavity Method

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	110	110	110	105	105	105	101	101	101	99
1	113	110	107	105	110	107	105	103	103	101	100	99	98	96	96	94	93	91
2	107	102	97	94	104	100	96	93	96	93	90	93	91	88	90	88	86	85
3	101	95	89	85	99	93	88	85	90	86	83	88	84	82	85	82	80	78
4	96	88	83	78	94	87	82	78	85	80	77	83	79	76	81	77	75	73
5	92	83	77	73	90	82	77	72	80	75	72	78	74	71	77	73	70	69
6	87	78	72	68	86	77	72	68	76	71	67	74	70	67	73	69	66	65
7	83	74	68	64	82	73	68	64	72	67	63	71	66	63	69	65	62	61
8	80	70	64	60	78	70	64	60	68	63	60	67	63	59	66	62	59	58
9	76	67	61	57	75	66	61	57	65	60	57	64	60	56	63	59	56	55
10	73	64	58	54	72	63	58	54	62	57	54	61	57	54	61	56	53	52

Spacing Criteria (0-180): 0.56

Spacing Criteria (90-270): 0.56

Spacing Criteria (Diagonal): 0.60



C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0: 1.0

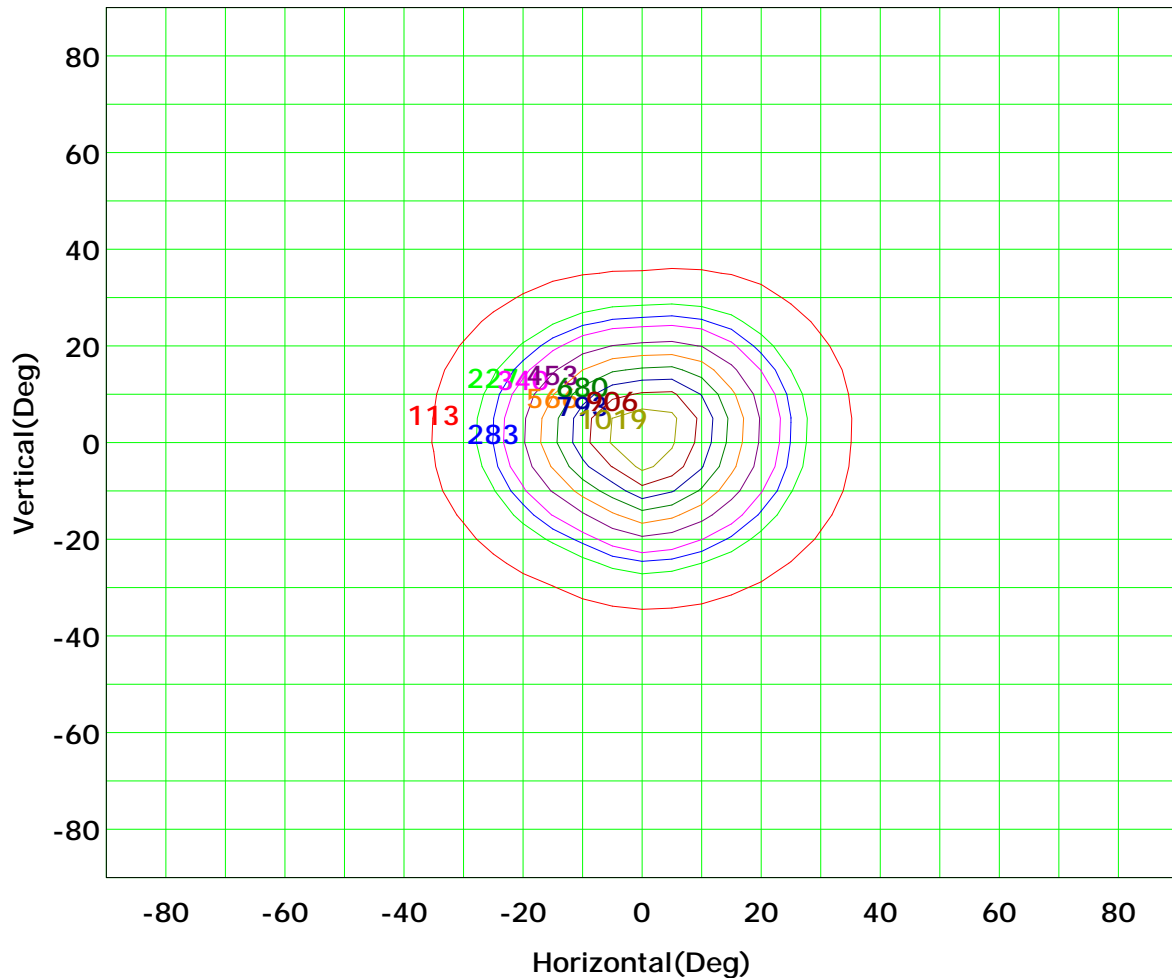
Test Device:

Distance:

Humidity:

Inspector:

## Isocandela (rectangle)



Imax (100%): 1133 cd

( 10%): 113 cd	( 20%): 227 cd
( 25%): 283 cd	( 30%): 340 cd
( 40%): 453 cd	( 50%): 566 cd
( 60%): 680 cd	( 70%): 793 cd
( 80%): 906 cd	( 90%): 1019 cd

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0: 1.0

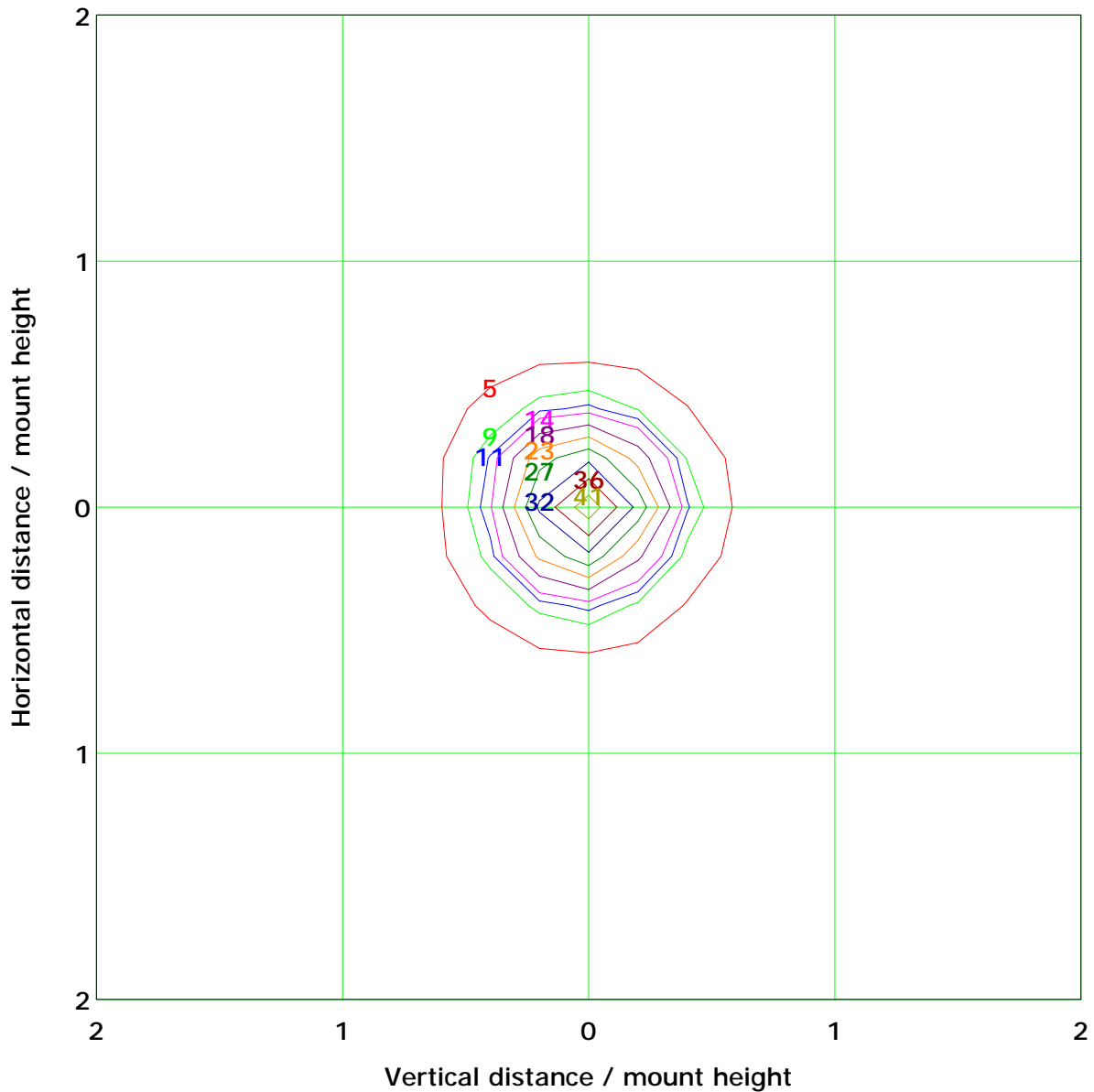
Test Device:

Distance:

Humidity:

Inspector:

## IsoLux Plot



Mounting Height: 5.0m Max Lux(100%): 45.3 lx

( 10%): 4.5 lx	( 20%): 9.1 lx
( 25%): 11.3 lx	( 30%): 13.6 lx
( 40%): 18.1 lx	( 50%): 22.6 lx
( 60%): 27.2 lx	( 70%): 31.7 lx
( 80%): 36.2 lx	( 90%): 40.8 lx

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device:

Distance:

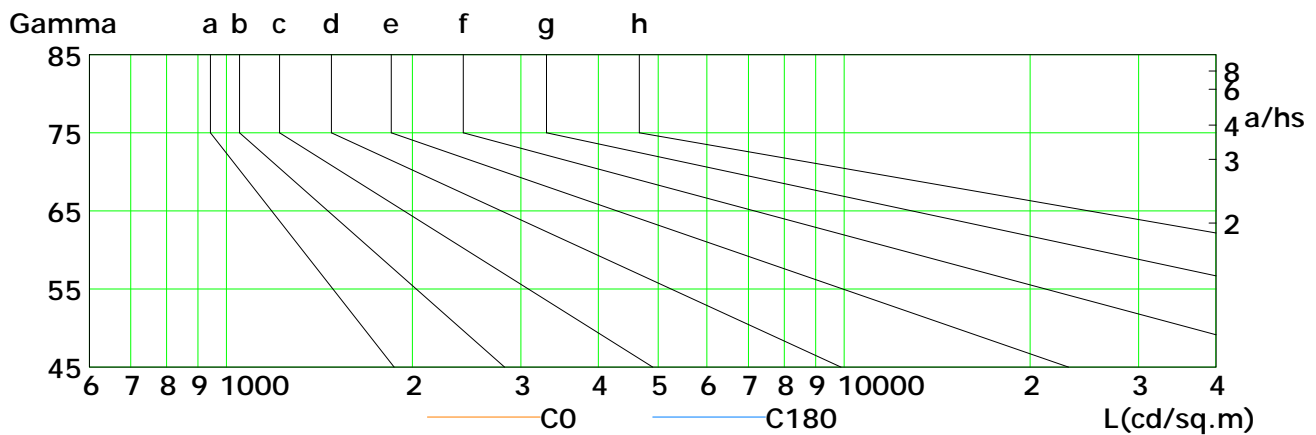
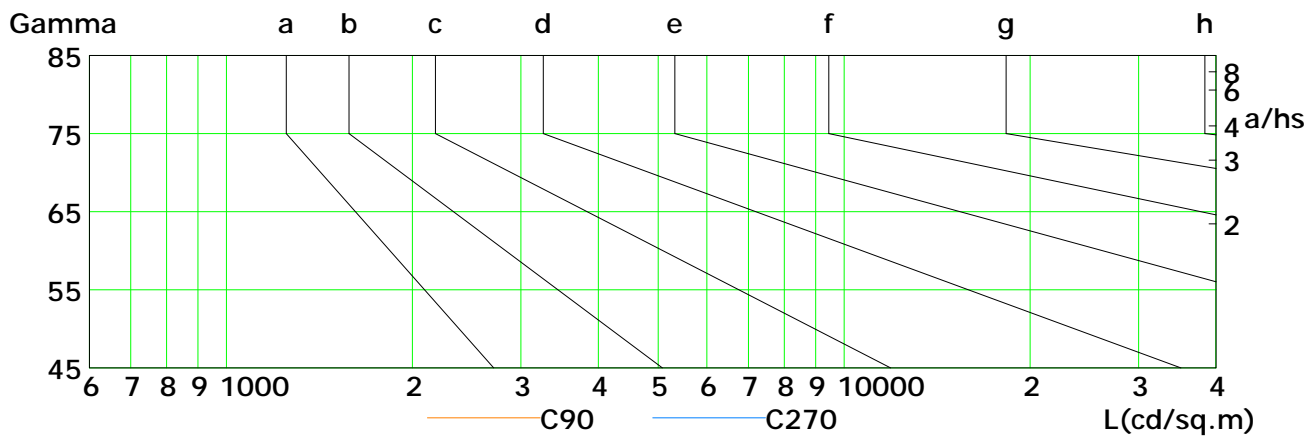
Humidity:

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	53	39	31	24	18	10	4	1	1
C90	48	35	26	19	13	8	5	2	1
C180	53	39	29	20	13	7	4	1	2
C270	52	37	28	21	14	9	5	3	1

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

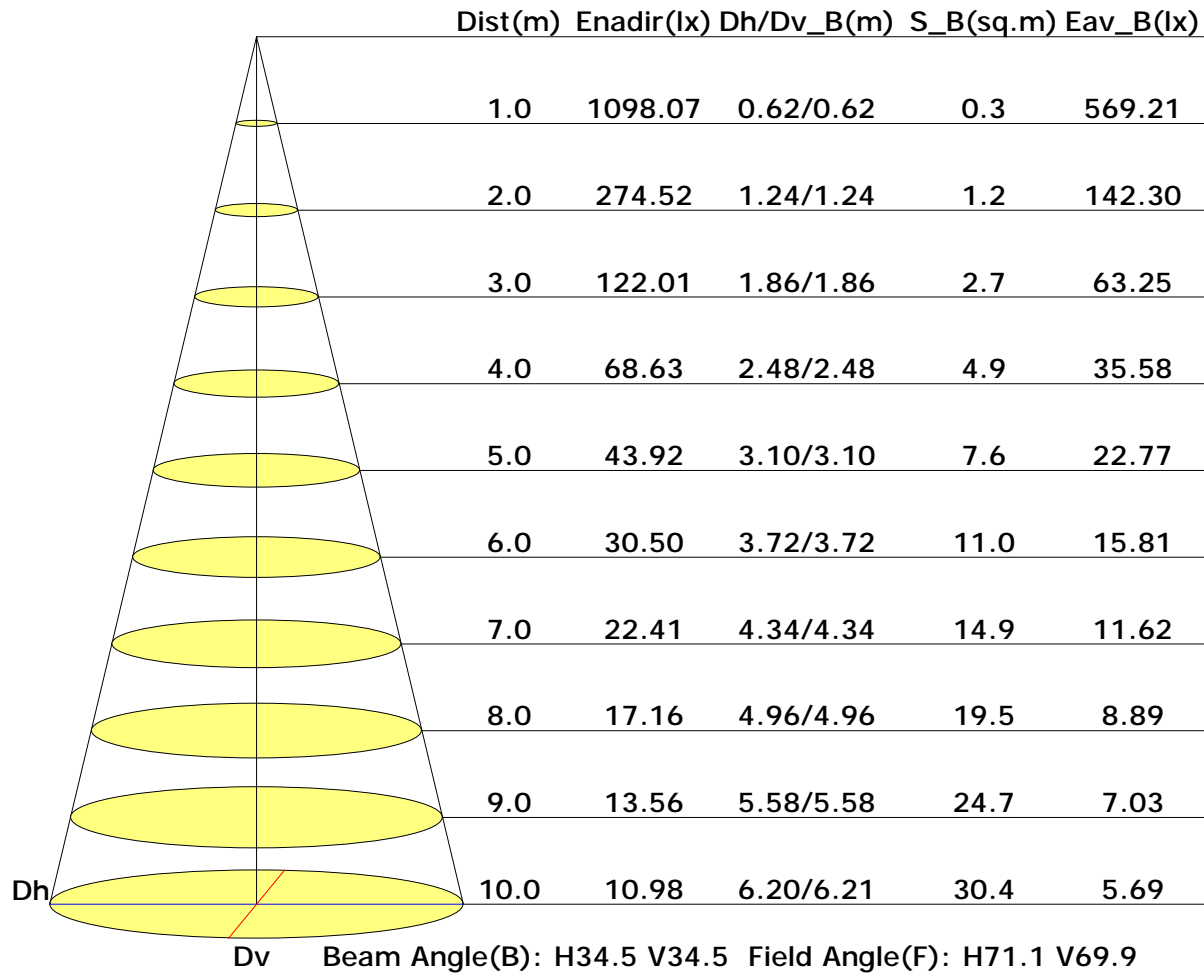
Test Device:

Distance:

Humidity:

Inspector:

## Illuminance at a Distance



C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device:

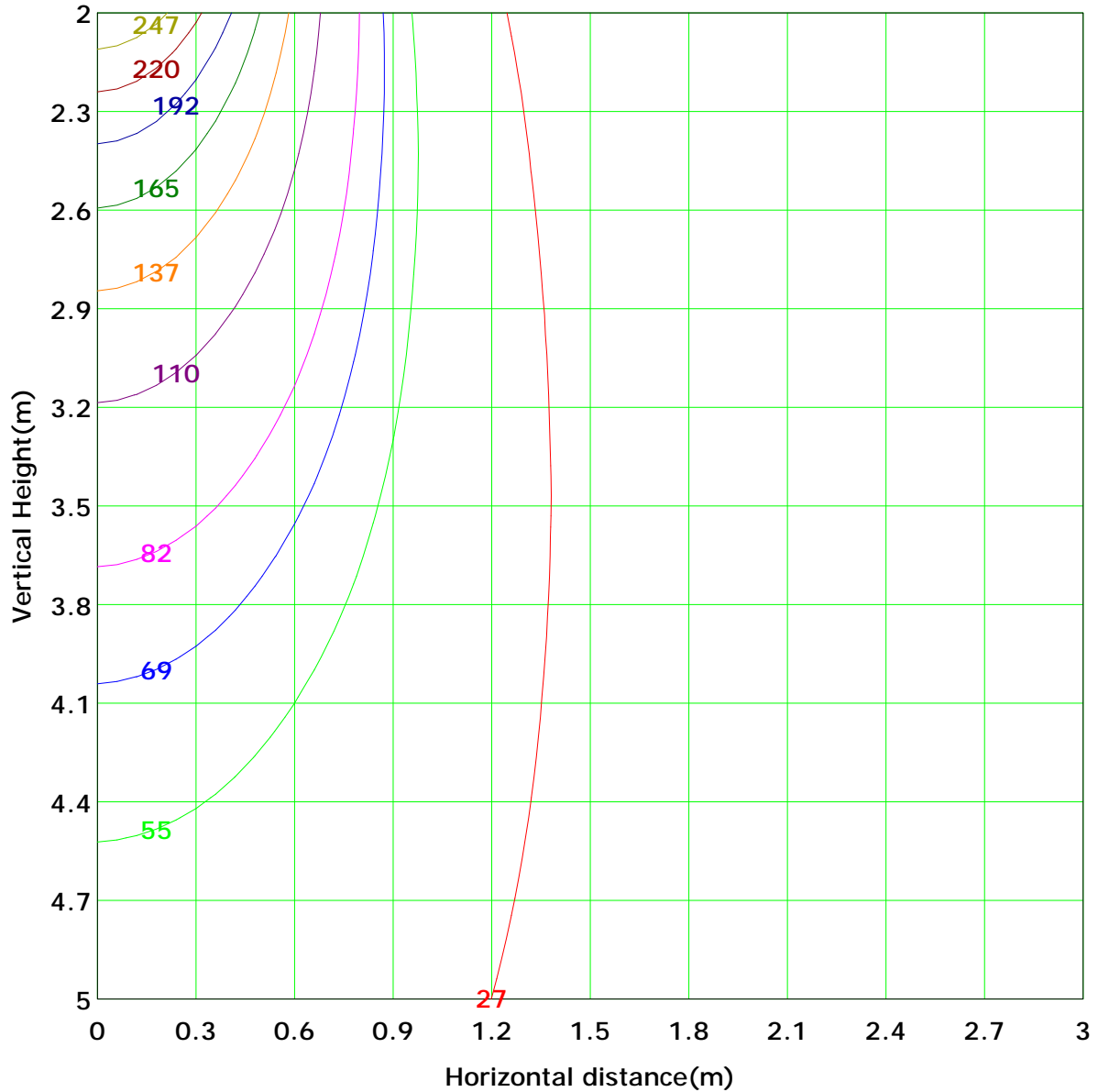
Distance:

Humidity:

Inspector:



## Vertical IsoLux Plot



Lowest(m): 2.0m	Highest(m): 5.0m	Max Lux: 274.5 lx
( 10%): 27.5 lx	( 20%): 54.9 lx	( 30%): 82.4 lx
( 25%): 68.6 lx	( 40%): 109.8 lx	( 50%): 137.3 lx
( 60%): 164.7 lx	( 70%): 192.2 lx	( 80%): 219.6 lx
( 90%): 247.1 lx		

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device:

Distance:

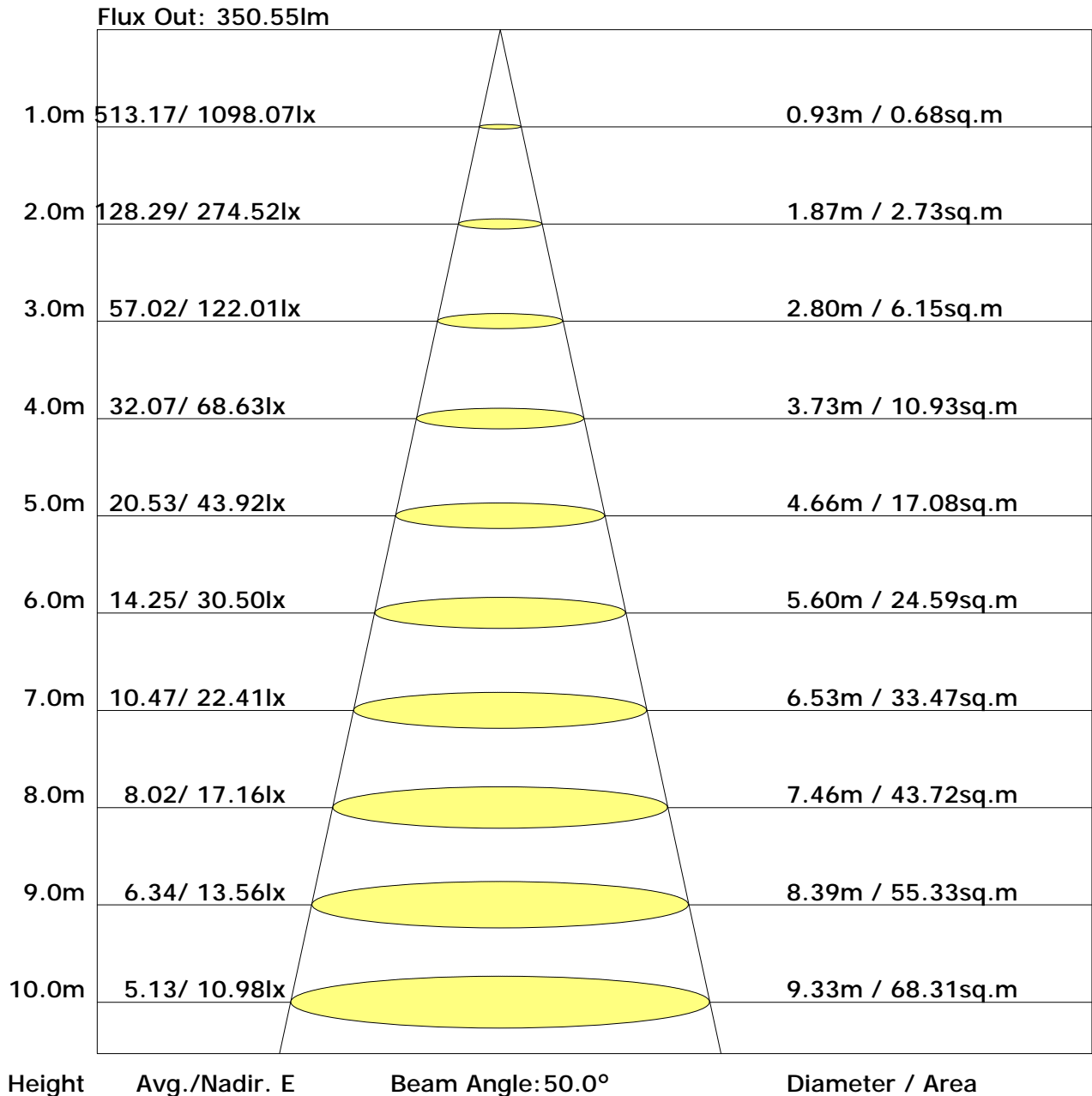
Humidity:

Inspector:

## Unit: 1m

Gamma Plane (°):0.0-180.0:1.0  
Test Device:  
Distance:  
Humidity:  
Inspector:

## The Average Illuminance Effective Figure



C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0: 1.0

Test Device:

Distance:

Humidity:

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	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$
3H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$
4H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$
6H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$
8H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$
12H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$
X=4H Y=2H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$
3H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$
4H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$
6H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$
8H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$
12H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$
X=8H Y=4H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$
6H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$
8H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$
12H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$
X=12H Y=4H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$
6H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$
8H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$

Calculate in accordance with CIE 190:2010

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device:

Distance:

Humidity:

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	0.82	0.89	0.94	0.97	1.01	1.04	1.06	1.09	1.10
	0.30		0.78	0.84	0.89	0.92	0.97	1.01	1.03	1.06	1.08
	0.20		0.74	0.81	0.85	0.89	0.94	0.98	1.00	1.04	1.06
0.50	0.50	0.20	0.81	0.87	0.91	0.94	0.98	1.01	1.02	1.04	1.06
	0.30		0.77	0.83	0.87	0.91	0.95	0.98	1.00	1.02	1.04
	0.20		0.74	0.80	0.84	0.88	0.92	0.95	0.98	1.01	1.03
0.30	0.50	0.20	0.80	0.85	0.89	0.92	0.95	0.97	0.99	1.01	1.02
	0.30		0.76	0.82	0.86	0.89	0.93	0.95	0.97	0.99	1.01
	0.20		0.73	0.79	0.83	0.86	0.91	0.93	0.95	0.98	0.99
0.00	0.00	0.00	0.71	0.77	0.81	0.84	0.87	0.89	0.91	0.93	0.94
<p>Rating:8W 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(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	0.62	0.51	0.43	0.37	0.29	0.24	0.21	0.16	0.13
	0.30		0.52	0.43	0.37	0.33	0.26	0.22	0.19	0.15	0.12
	0.20		0.44	0.38	0.33	0.29	0.24	0.20	0.18	0.14	0.12
0.50	0.50	0.20	0.59	0.48	0.40	0.34	0.27	0.26	0.19	0.15	0.12
	0.30		0.50	0.41	0.35	0.31	0.25	0.21	0.18	0.14	0.11
	0.20		0.43	0.37	0.32	0.28	0.23	0.19	0.17	0.13	0.11
0.30	0.50	0.20	0.56	0.45	0.38	0.32	0.25	0.21	0.18	0.13	0.11
	0.30		0.48	0.40	0.34	0.29	0.23	0.19	0.16	0.13	0.11
	0.20		0.42	0.35	0.30	0.27	0.22	0.18	0.16	0.12	0.10
0.00	0.00	0.00	0.29	0.23	0.19	0.16	0.13	0.11	0.09	0.07	0.06
Rating:8W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980											

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device:

Distance:

Humidity:

Inspector:

## 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	0.15	0.16	0.17	0.18	0.20	0.20	0.21	0.22	0.22
	0.30		0.10	0.12	0.14	0.15	0.17	0.18	0.19	0.20	0.21
	0.20		0.07	0.09	0.11	0.12	0.14	0.16	0.17	0.18	0.19
0.50	0.50	0.20	0.14	0.16	0.17	0.18	0.19	0.20	0.20	0.21	0.21
	0.30		0.10	0.12	0.13	0.14	0.16	0.17	0.18	0.19	0.20
	0.20		0.07	0.09	0.11	0.12	0.14	0.15	0.16	0.18	0.19
0.30	0.50	0.20	0.14	0.15	0.16	0.17	0.18	0.19	0.19	0.20	0.21
	0.30		0.10	0.12	0.13	0.14	0.16	0.17	0.18	0.19	0.19
	0.20		0.07	0.09	0.11	0.12	0.14	0.15	0.16	0.17	0.18
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:8W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980											

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device:

Distance:

Humidity:

Inspector: