

Report No.:

Test Time: 2016-12-29 21:50:57

Luminaire Property

Luminaire Manufacturer:

Luminaire Category: Armor Series Exterior Linear

Lamp Description: NANO-25x35° 500-2700K

Lumens per Lamp: 577.1 lm

Luminous Width (mm): 0 mm

Voltage: 24

Power: 7.80 W

Number of Lamps: 1

Luminous Length (mm): 500 mm

Luminous Height (mm): 0 mm

Current: 0.3250

Photometric Results

CIE Class: Direct

Measurement Flux: 577.1 lm

Downward Ratio: 98.69%

Horizontal Diffuse Angle(50%): H35.8

Vertical Diffuse Angle(50%): V25.2

Luminaire Efficacy Rating (LER): 74

Max. Intensity: 1371.15 cd

Total Rated Lamp Lumens: 577.1 lm

Efficiency: 100.00%

Upward Ratio: 1.32%

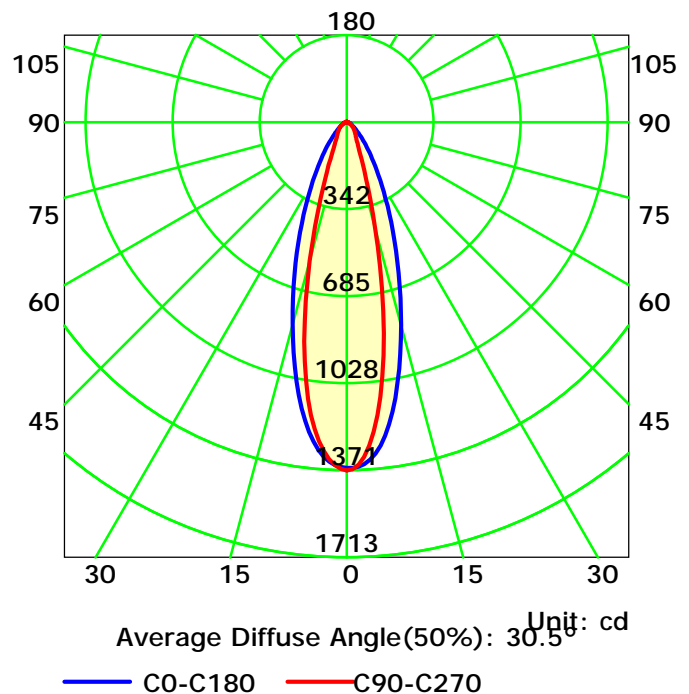
Central Intensity: 1362.31 cd

Pos of Max. Intensity: H90 V0

Picture Of Luminaire



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

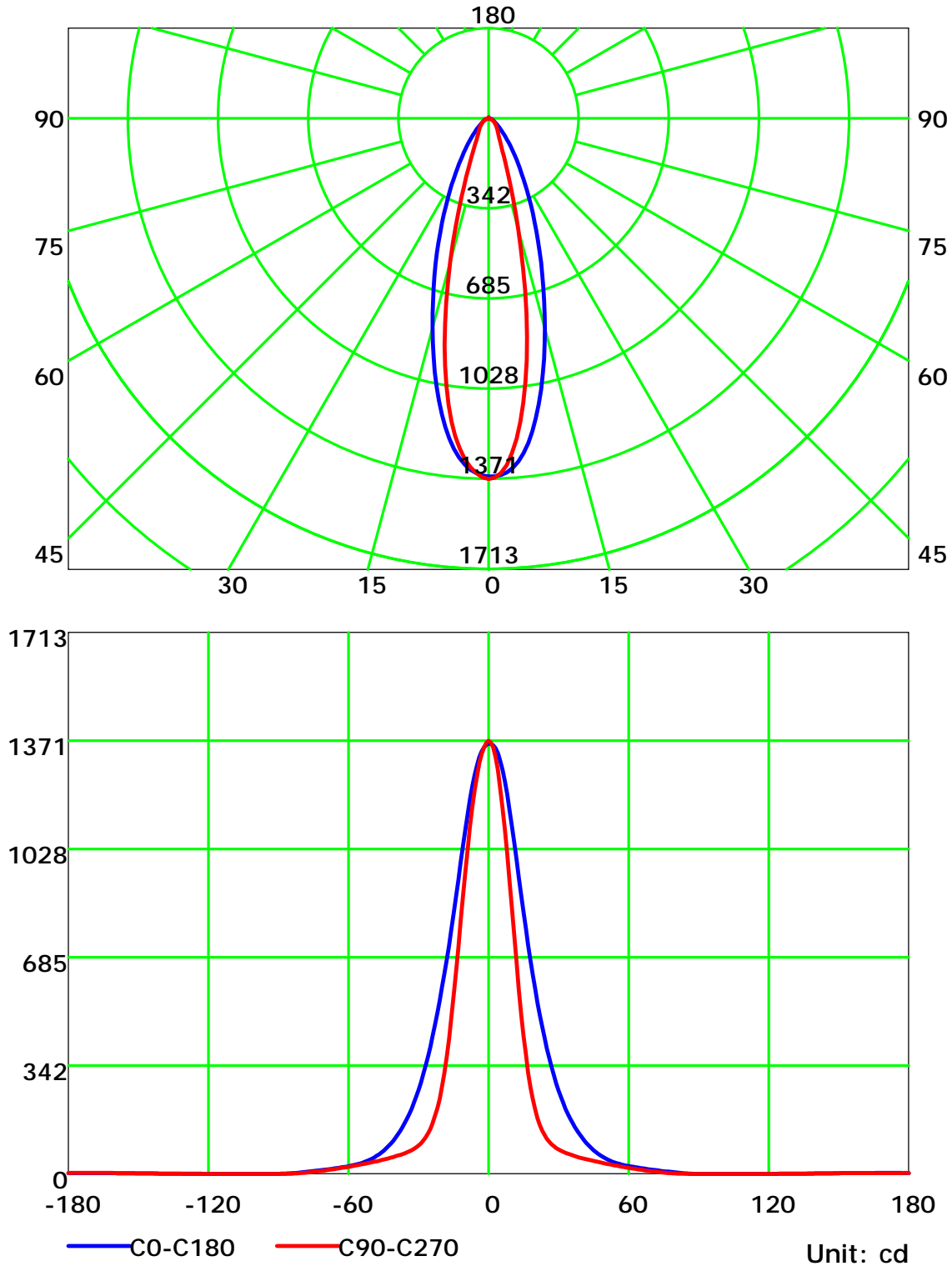
Test Device:

Distance:

Humidity:

Inspector:

Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

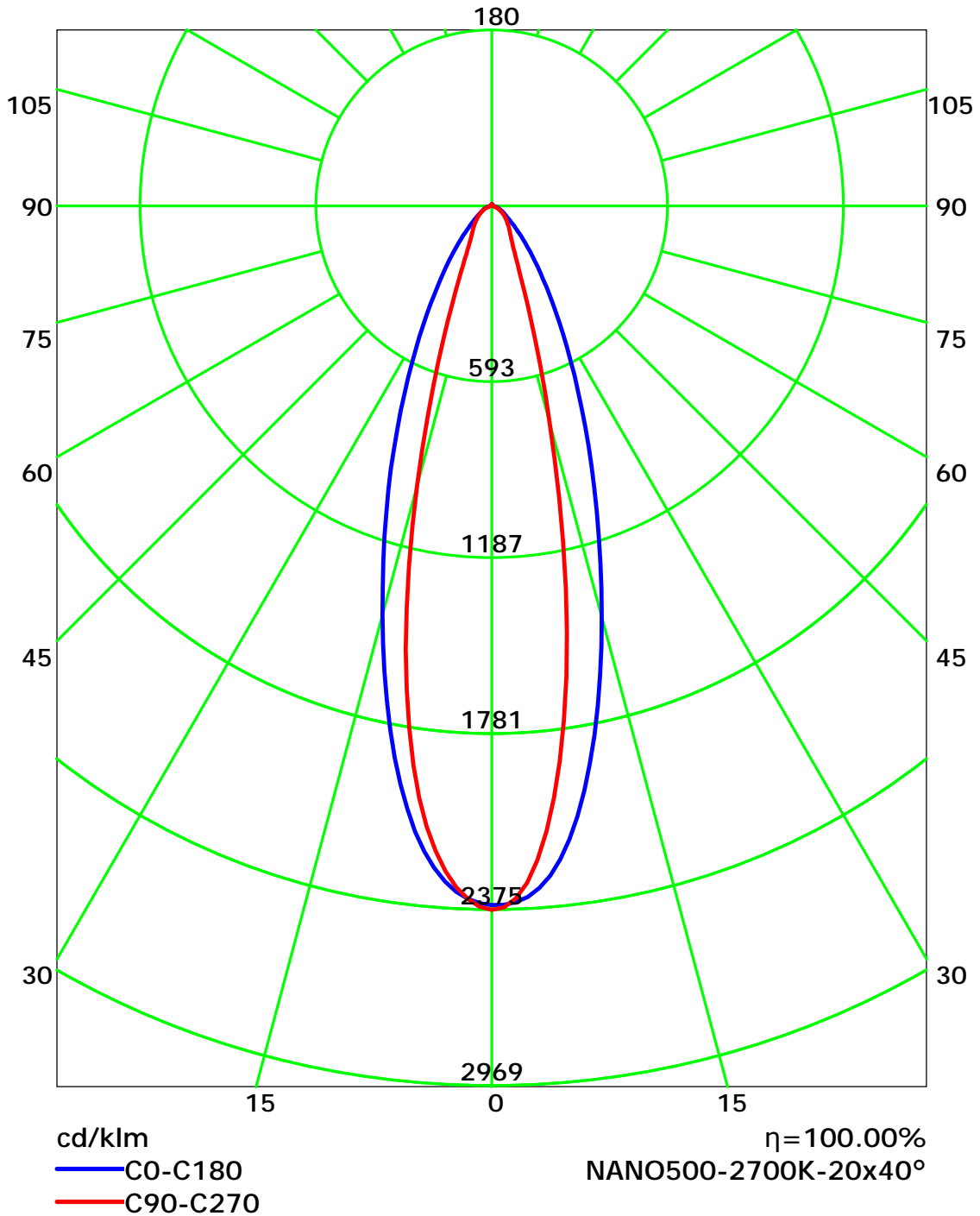
Test Device:

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:

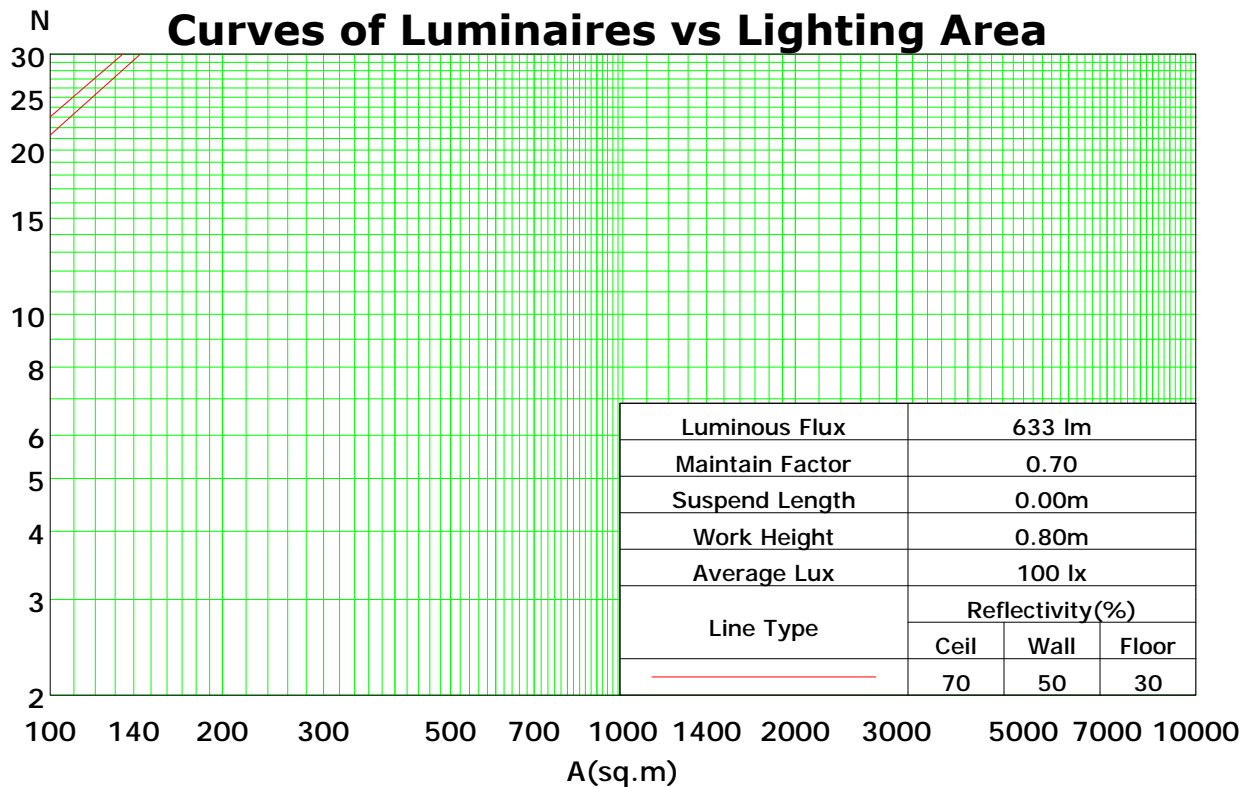
Coefficients Of Utilization - Zonal Cavity Method

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	108	105	103	103	101	100	99	98	96	96	95	93	92
2	107	102	98	94	105	100	96	93	97	93	91	93	91	89	90	88	87	85
3	102	95	90	86	99	93	89	85	91	87	83	88	85	82	86	83	81	79
4	97	89	83	79	95	88	83	79	85	81	77	83	79	76	81	78	75	74
5	92	84	78	74	90	83	77	73	81	76	72	79	75	72	77	74	71	69
6	88	79	73	69	86	78	73	69	77	72	68	75	71	68	74	70	67	66
7	84	75	69	65	83	74	69	65	73	68	64	72	67	64	70	67	64	62
8	81	71	66	62	79	71	65	61	70	65	61	68	64	61	67	63	60	59
9	77	68	62	59	76	68	62	58	67	62	58	66	61	58	65	61	58	56
10	74	65	60	56	73	65	59	56	64	59	56	63	59	55	62	58	55	54

Spacing Criteria (0-180): 0.58

Spacing Criteria (90-270): 0.43

Spacing Criteria (Diagonal): 0.50



C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0: 1.0

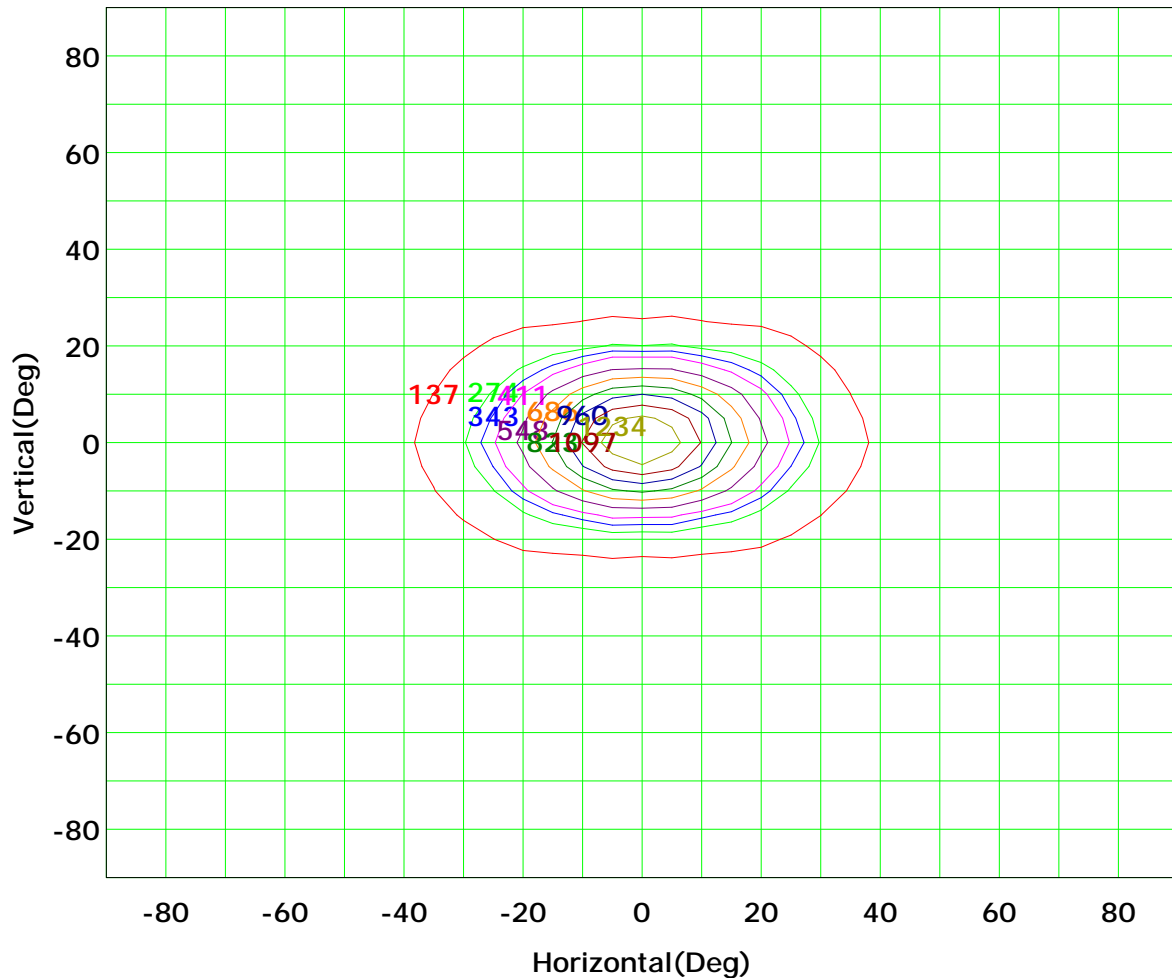
Test Device:

Distance:

Humidity:

Inspector:

Isocandela (rectangle)



Imax (100%): 1371 cd

(10%): 137 cd	(20%): 274 cd
(25%): 343 cd	(30%): 411 cd
(40%): 548 cd	(50%): 686 cd
(60%): 823 cd	(70%): 960 cd
(80%): 1097 cd	(90%): 1234 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

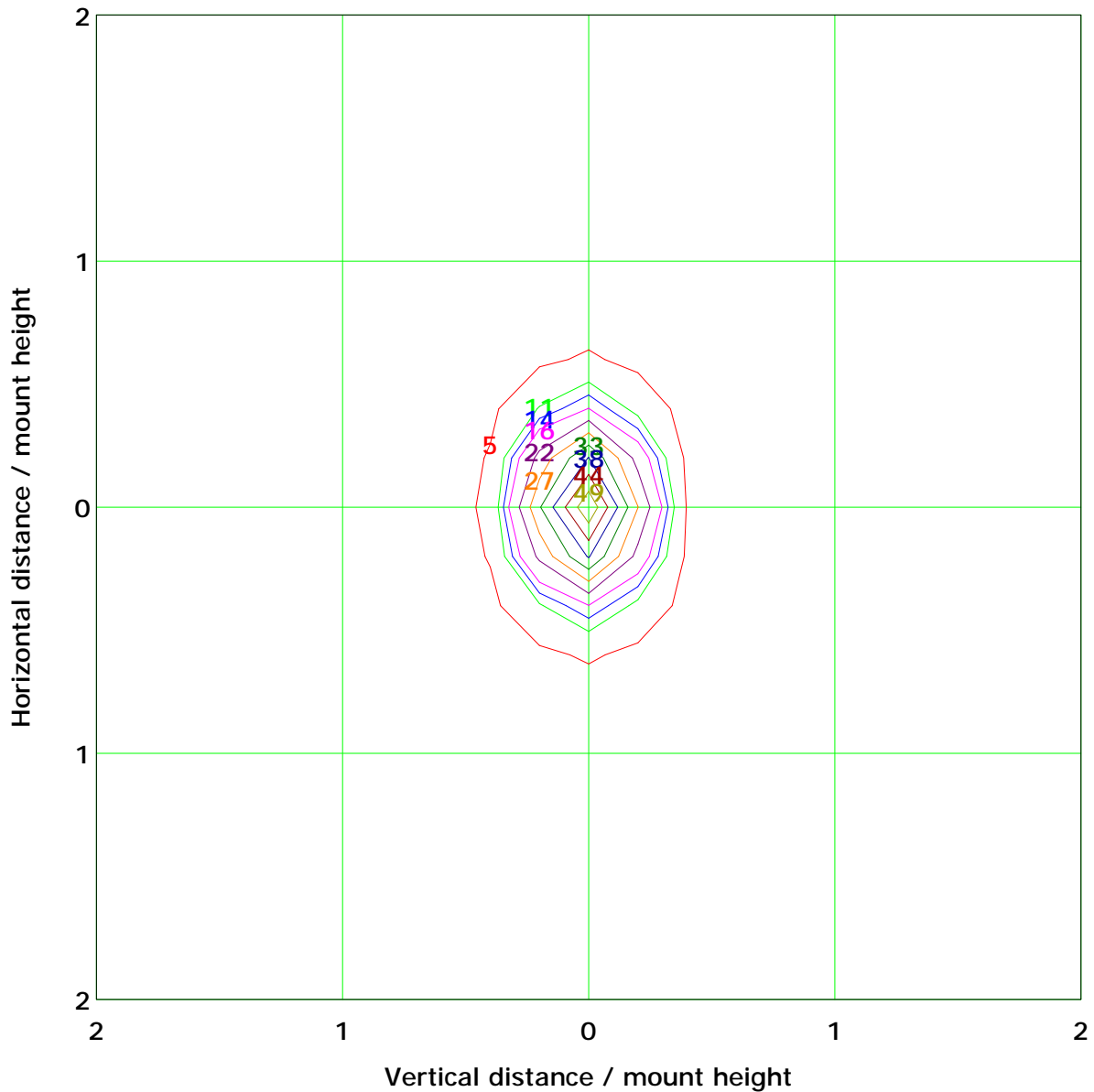
Test Device:

Distance:

Humidity:

Inspector:

IsoLux Plot



Mounting Height: 5.0m Max Lux(100%): 54.8 lx	
(10%): 5.5 lx	(20%): 11.0 lx
(25%): 13.7 lx	(30%): 16.5 lx
(40%): 21.9 lx	(50%): 27.4 lx
(60%): 32.9 lx	(70%): 38.4 lx
(80%): 43.9 lx	(90%): 49.4 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:

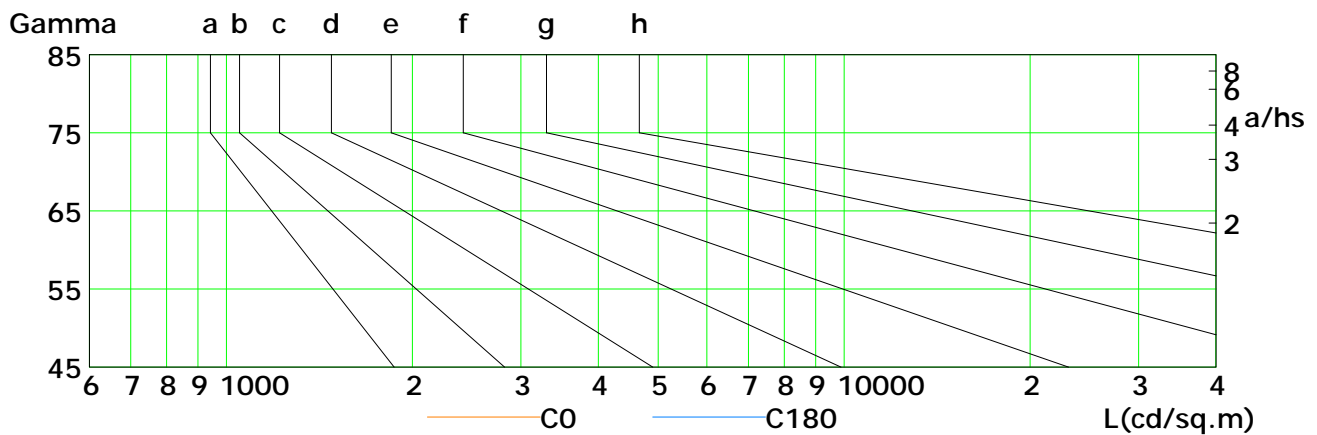
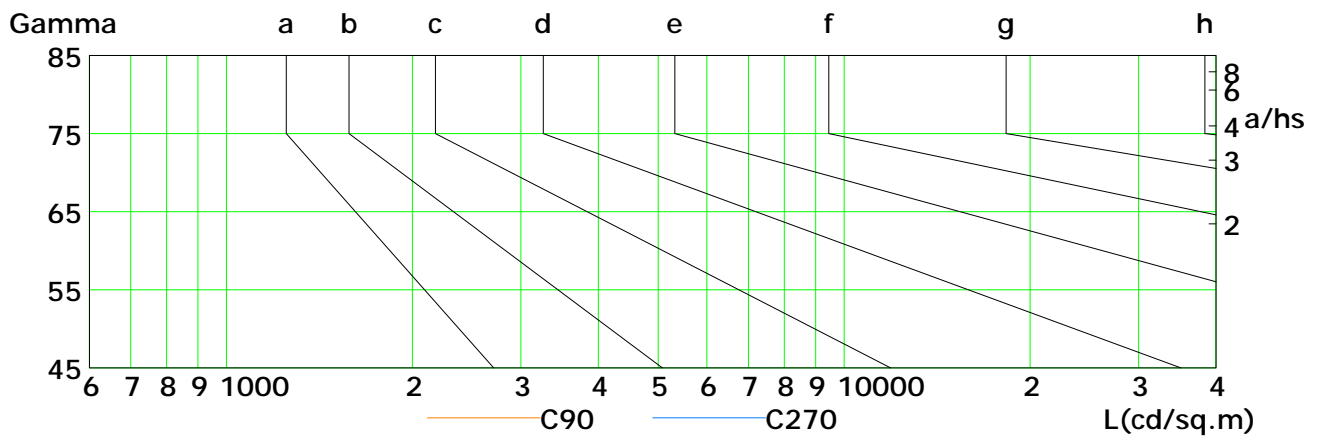
Humidity:

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	75	50	34	26	19	14	9	5	2
C90	41	33	26	20	14	9	5	2	1
C180	74	49	34	25	19	14	9	6	2
C270	46	37	30	23	17	12	7	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

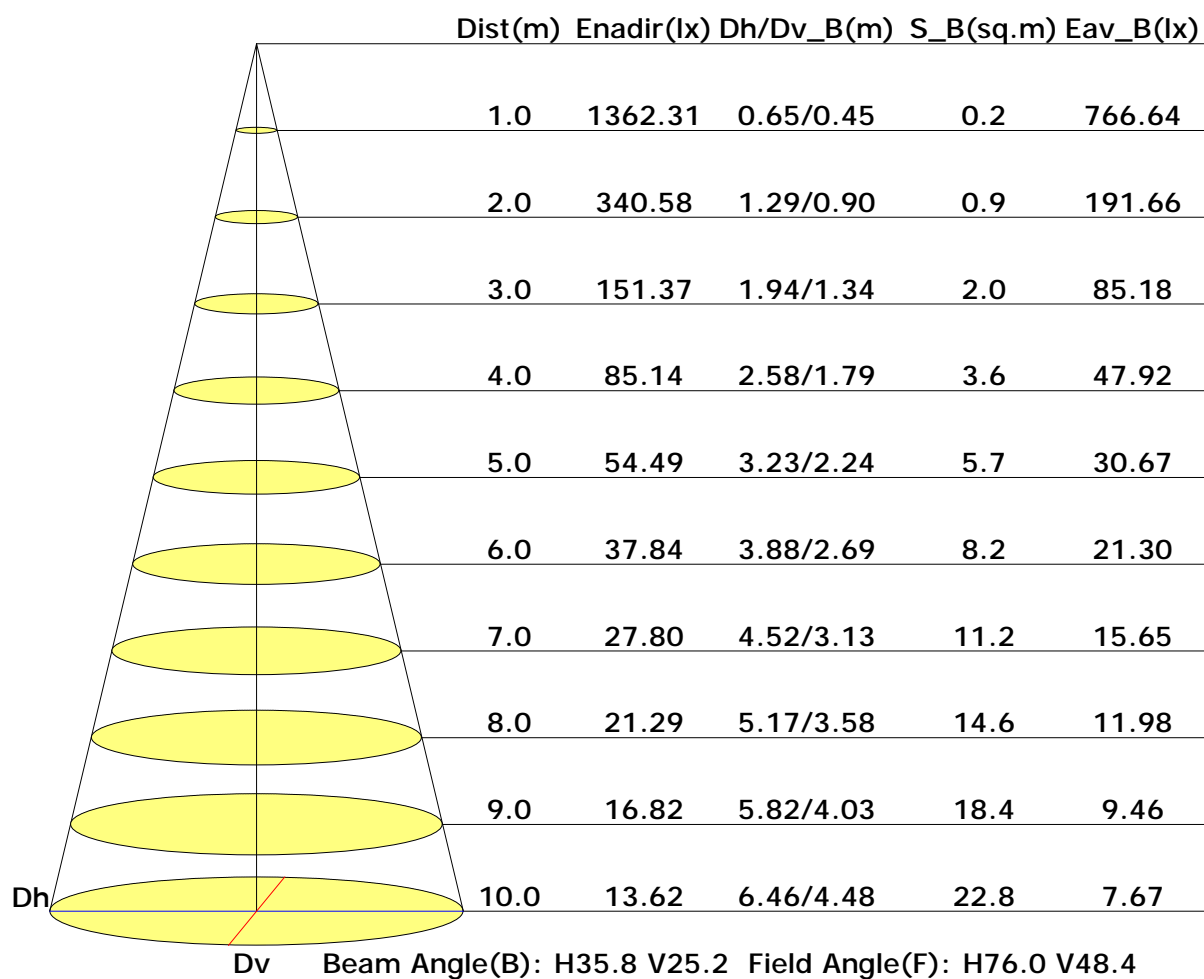
Test Device:

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

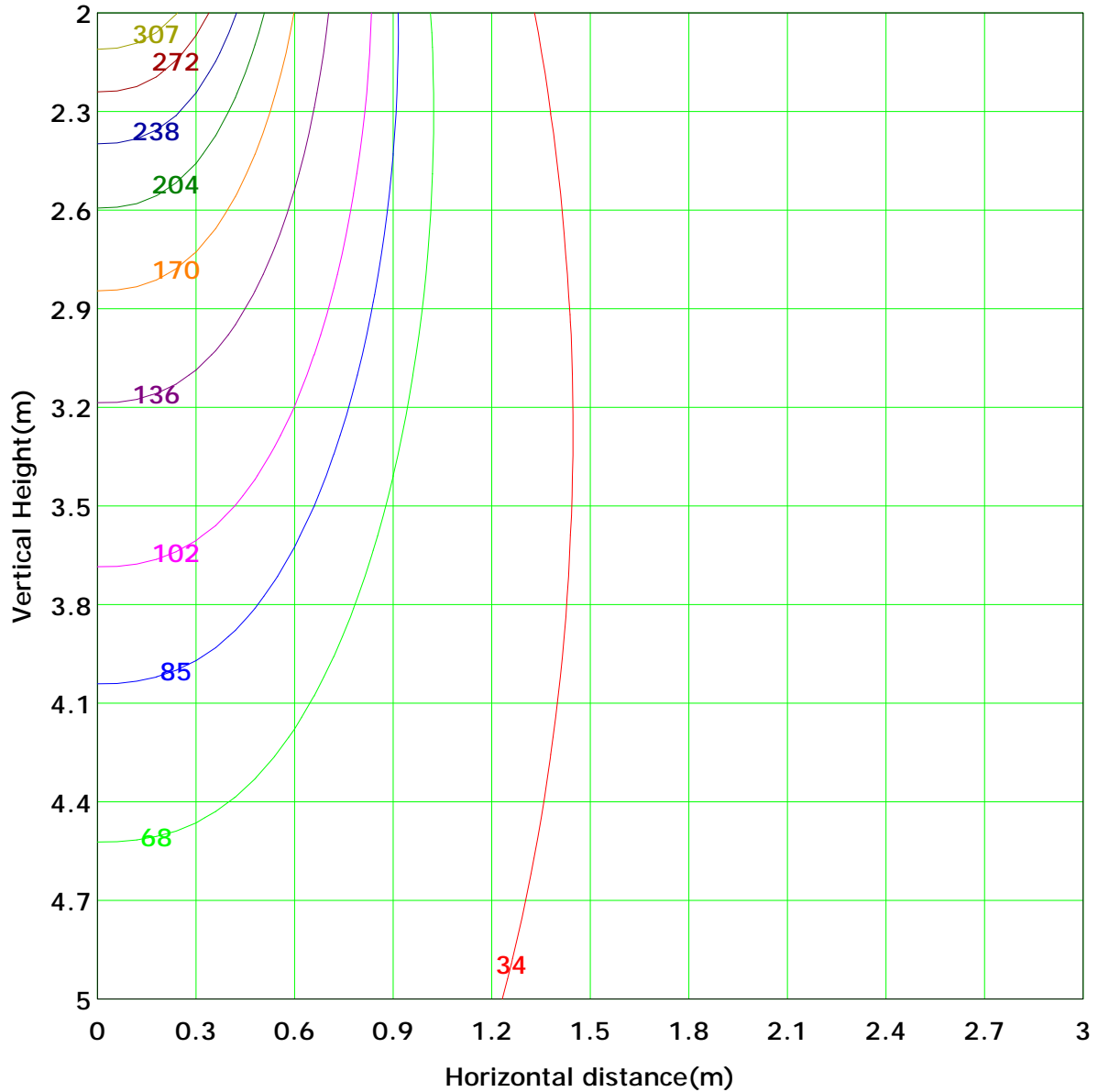
Test Device:

Distance:

Humidity:

Inspector:

Vertical IsoLux Plot



Lowest(m): 2.0m	Highest(m): 5.0m	Max Lux: 340.6 lx
(10%): 34.1 lx	(20%): 68.1 lx	
(25%): 85.1 lx	(30%): 102.2 lx	
(40%): 136.2 lx	(50%): 170.3 lx	
(60%): 204.3 lx	(70%): 238.4 lx	
(80%): 272.5 lx	(90%): 306.5 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:



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	Flux(E)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0
Horizontal plane	Flux(T)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	0.0
Horizontal plane	Flux(E)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	0.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.6	0.0
Horizontal plane	Flux(T)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.8	0.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	80.6	0.0
Horizontal plane	Flux(E)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	103.1	0.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	166.7	0.0
Horizontal plane	Flux(T)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.5	0.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7	0.0
Horizontal plane	Flux(E)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.3	0.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4	0.0
Horizontal plane	Flux(T)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0
Horizontal plane	Flux(E)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	569	0.0
Horizontal plane	Flux(T)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	419	0.0

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

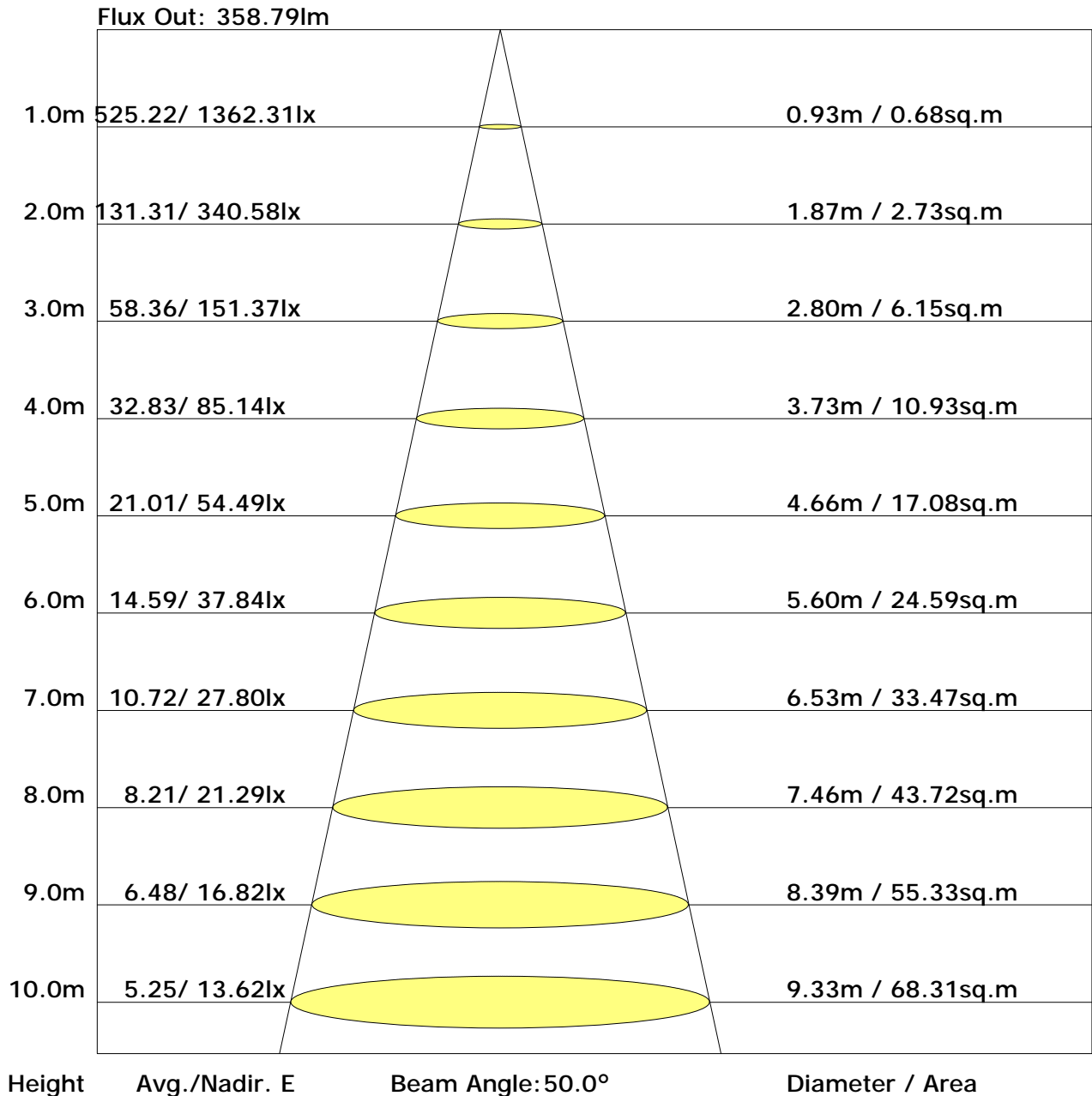
Test Device:

Distance:

Humidity:

Inspector:

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	0.84	0.90	0.94	0.97	1.02	1.04	1.06	1.09	1.11
	0.30		0.79	0.85	0.90	0.93	0.98	1.01	1.03	1.06	1.09
	0.20		0.76	0.82	0.86	0.90	0.95	0.98	1.01	1.04	1.07
0.50	0.50	0.20	0.82	0.88	0.92	0.95	0.99	1.01	1.03	1.05	1.06
	0.30		0.78	0.84	0.88	0.91	0.96	0.98	1.00	1.03	1.05
	0.20		0.75	0.81	0.85	0.88	0.93	0.96	0.98	1.01	1.03
0.30	0.50	0.20	0.81	0.86	0.90	0.92	0.96	0.98	0.99	1.01	1.02
	0.30		0.77	0.83	0.87	0.90	0.93	0.96	0.97	1.00	1.01
	0.20		0.75	0.80	0.84	0.87	0.91	0.94	0.96	0.98	1.00
0.00	0.00	0.00	0.73	0.78	0.82	0.84	0.88	0.90	0.92	0.94	0.95
<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	0.60	0.50	0.42	0.36	0.29	0.24	0.20	0.16	0.13
	0.30		0.50	0.42	0.37	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	0.47	0.39	0.34	0.27	0.26	0.19	0.14	0.12
	0.30		0.49	0.41	0.35	0.30	0.24	0.20	0.18	0.14	0.11
	0.20		0.42	0.36	0.31	0.28	0.23	0.19	0.17	0.13	0.11
0.30	0.50	0.20	0.55	0.44	0.37	0.32	0.25	0.20	0.17	0.13	0.11
	0.30		0.47	0.39	0.33	0.29	0.23	0.19	0.16	0.13	0.10
	0.20		0.41	0.35	0.30	0.26	0.21	0.18	0.15	0.12	0.10
0.00	0.00	0.00	0.27	0.22	0.19	0.16	0.13	0.10	0.09	0.07	0.05
<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(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	0.14	0.16	0.17	0.18	0.19	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	0.15	0.17	0.17	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	0.13	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: