ACOLYTE
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Report No.: 01 **Test Time: 2016/10/17 11:49**

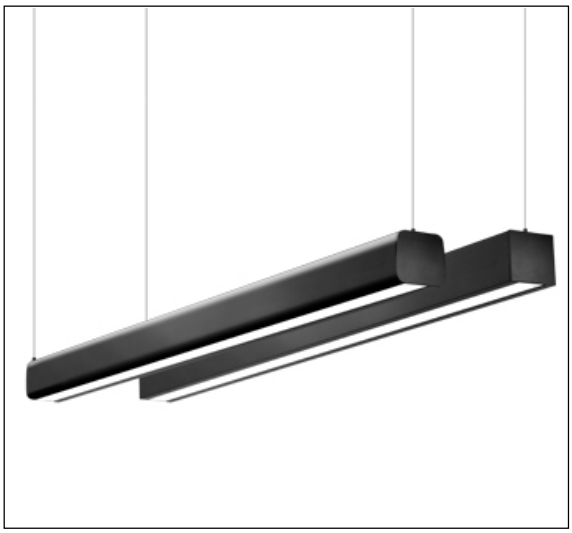
Luminaire Property

Luminaire Manufacturer:
Luminaire Category: Synthesis LED Linear
Luminaire Description: Synthesis Indirect SO 28CM 180 mA 3500K 92x33degree
Luminous Length (mm): 304 **Luminous Width (mm): 50**
Luminous Height (mm): 2 **Voltage: 219.7 V**
Current: 0.031 A **Power: 6.00 W**
Power Factor: 0.871

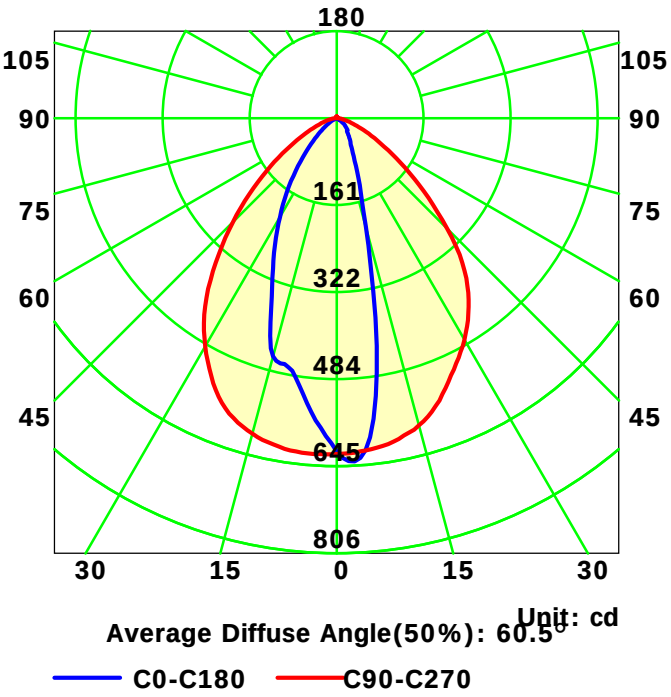
Photometric Results

CIE Class: Direct **Total Rated Lamp Lumens: 619.8 lm**
Measurement Flux: 619.8 lm **Efficiency: 100%**
Downward Ratio: 99% **Upward Ratio: 1%**
Horizontal Diffuse Angle(50%): H34.8
Vertical Diffuse Angle(50%): V86.1
Luminaire Efficacy Rating (LER): 103 **Central Intensity: 618.07 cd**
Max. Intensity: 637.61 cd **Pos of Max. Intensity: H30 V3**

Picture Of Luminaire



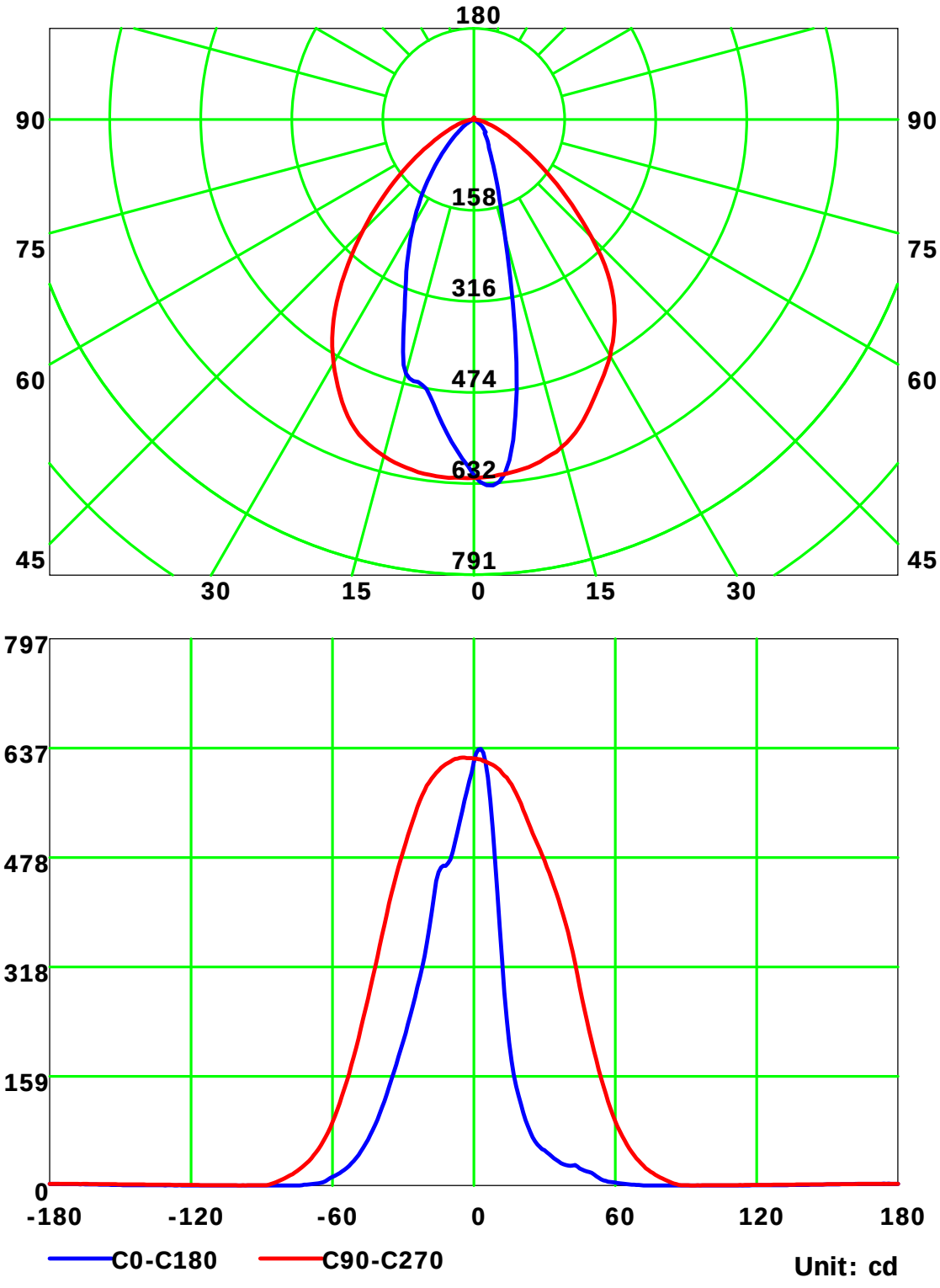
Luminous Intensity Distribution Curve



Unit: cd
Average Diffuse Angle(50%): 60.5°
C0-C180 **C90-C270**

C Plane (°):0.0-360.0: 30.0 **Gamma Plane (°):0.0-180.0:1.0**
Test Lab: ACOLYTE **Test Device: GPM-1800B**
Test Type: TYPE C **Distance: 9.028 m**
Temperature: 25℃ **Humidity: 60%**
Operator: leo **Inspector:**

Luminous Intensity Distribution Curve



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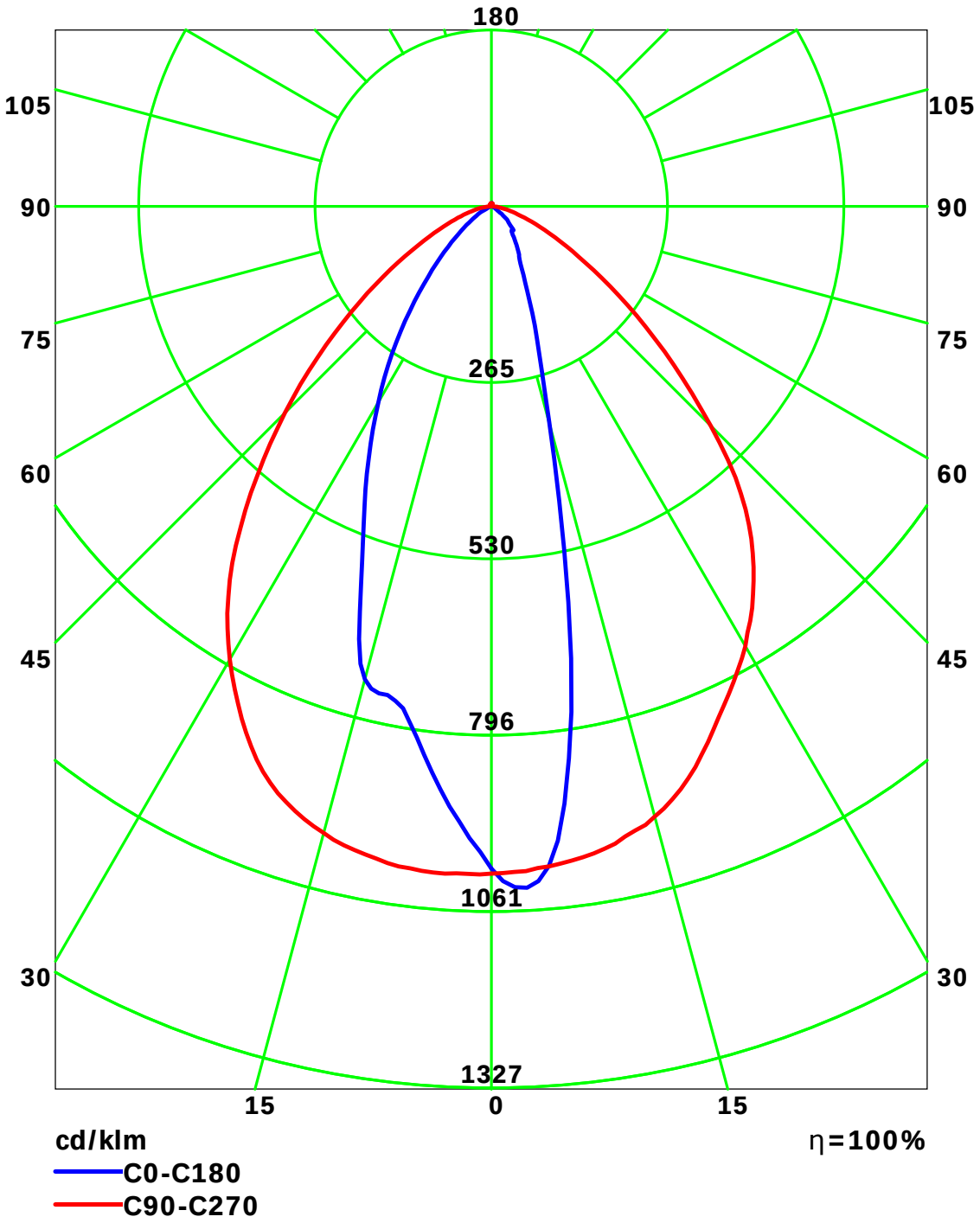
Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 9.028 m
Humidity: 60%
Inspector:

Luminous Intensity Distribution Curve(cd/klm)



C Plane (°):0.0-360.0: 30.0
Test Lab: ACOLYTE
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Temperature: 25℃
Operator: leo

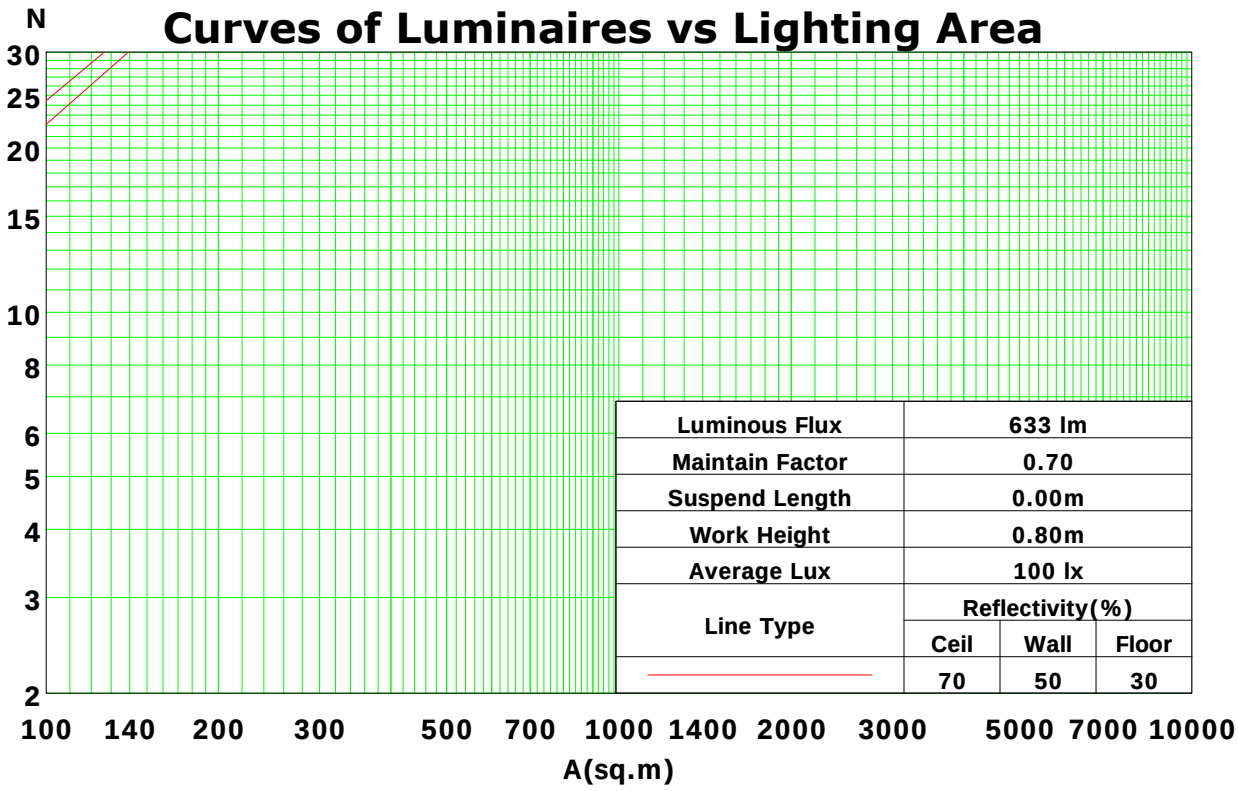
Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 9.028 m
Humidity: 60%
Inspector:

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	110	110	110	105	105	105	101	101	101	99
1	112	108	105	102	109	106	103	101	102	99	97	98	96	94	94	93	91	89
2	104	98	93	89	102	97	92	88	93	89	86	90	87	84	87	84	82	80
3	98	90	84	79	95	88	82	78	85	80	76	82	78	75	80	77	74	72
4	91	82	75	70	89	81	75	70	78	73	69	76	71	68	74	70	67	65
5	86	76	68	63	84	74	68	63	72	67	62	70	65	61	69	64	61	59
6	80	70	63	57	79	69	62	57	67	61	57	65	60	56	64	59	56	54
7	76	65	58	53	74	64	57	52	62	56	52	61	56	52	60	55	51	50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	47	46
9	68	56	50	45	66	56	49	45	55	49	45	54	48	44	53	48	44	43
10	64	53	46	42	63	52	46	42	51	46	42	51	45	41	50	45	41	40

Spacing Criteria (0-180): 0.52
Spacing Criteria (90-270): 1.16
Spacing Criteria (Diagonal): 0.75

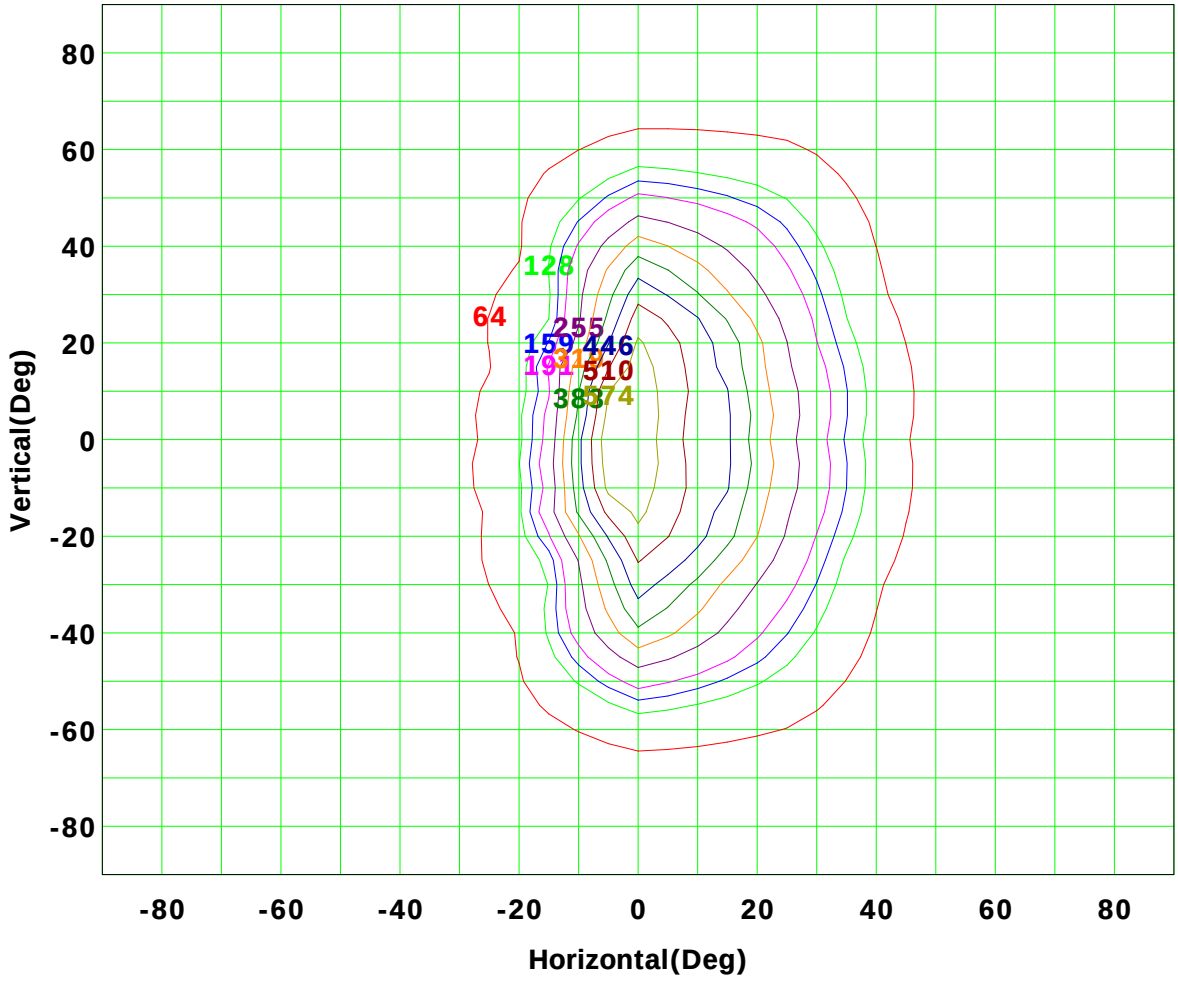
Curves of Luminaires vs Lighting Area



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

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

Isocandela (rectangle)



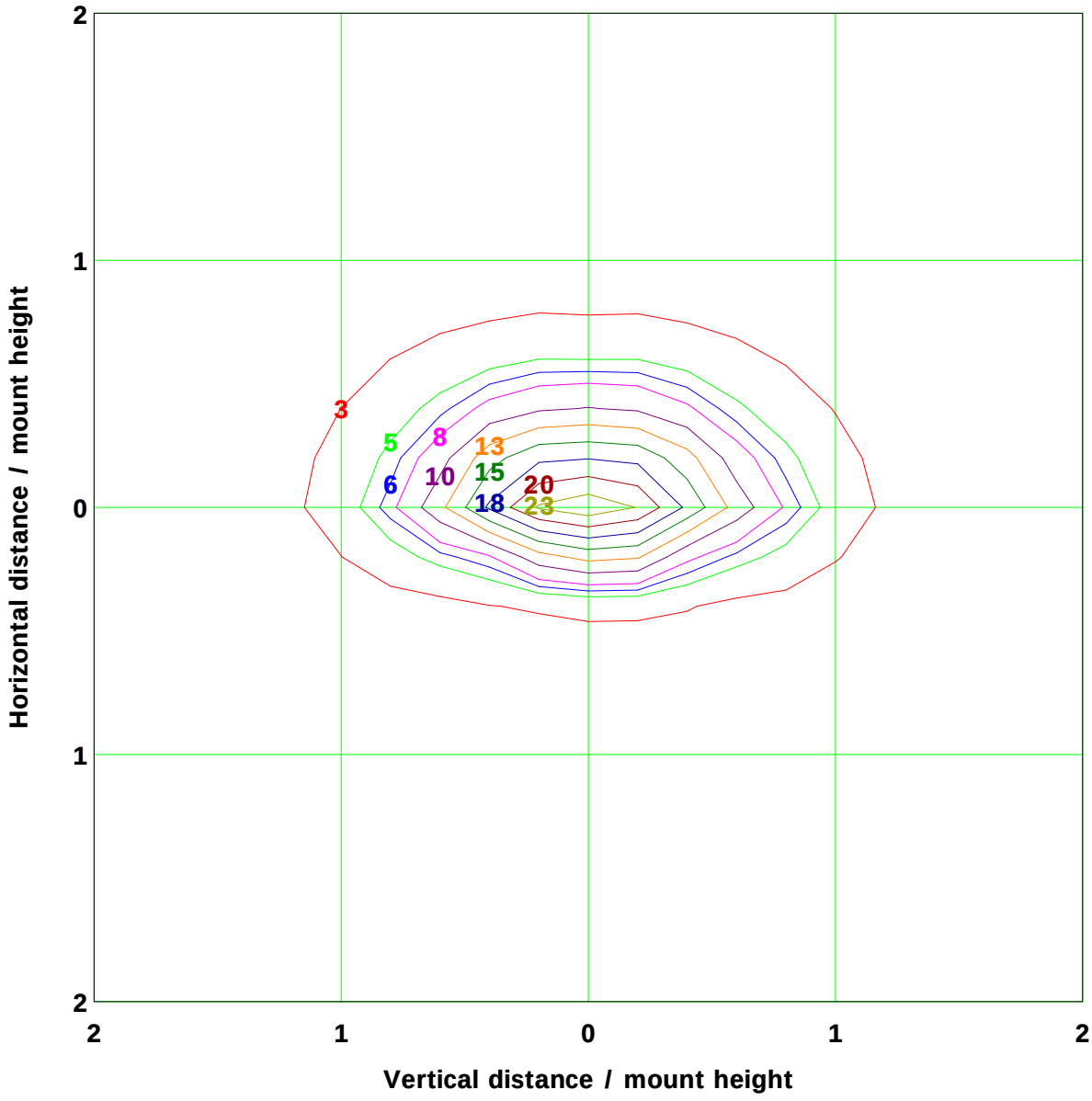
Imax (100%): 638 cd

(10%): 64 cd	(20%): 128 cd
(25%): 159 cd	(30%): 191 cd
(40%): 255 cd	(50%): 319 cd
(60%): 383 cd	(70%): 446 cd
(80%): 510 cd	(90%): 574 cd

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

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%): 25.5 lx**

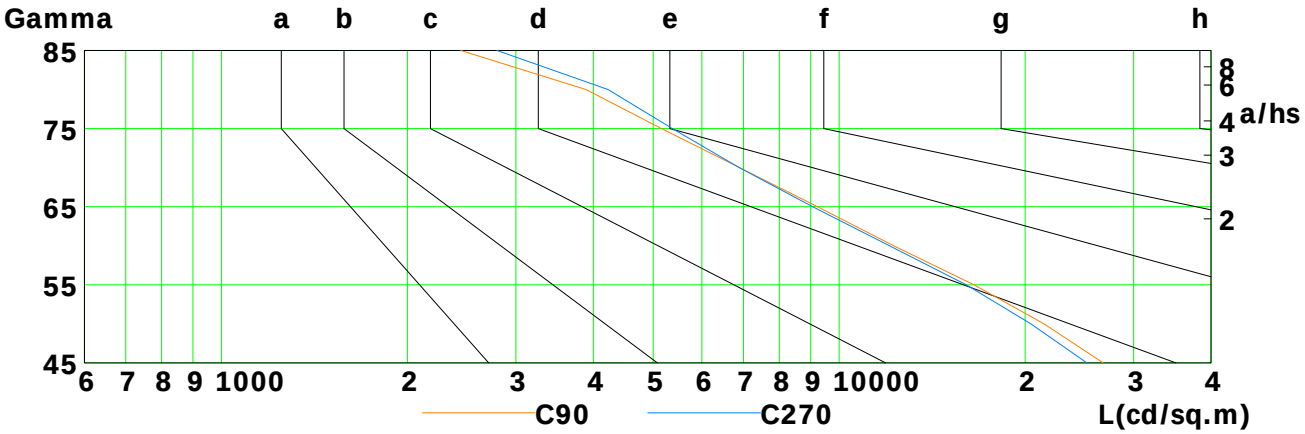
(10%): 2.5 lx	(20%): 5.1 lx
(25%): 6.4 lx	(30%): 7.6 lx
(40%): 10.2 lx	(50%): 12.7 lx
(60%): 15.3 lx	(70%): 17.8 lx
(80%): 20.4 lx	(90%): 22.9 lx

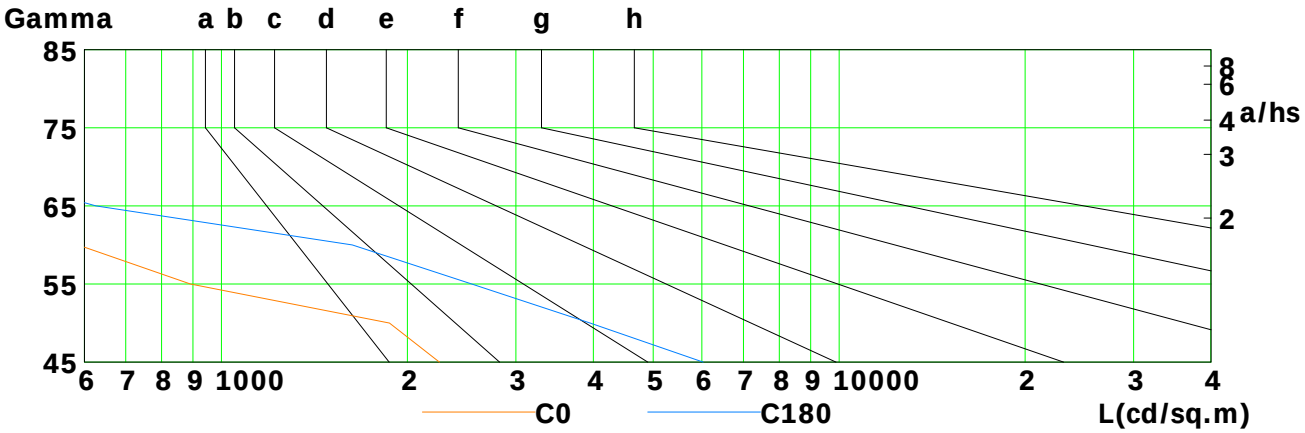
C Plane (°):0.0-360.0: 30.0
Test Lab: ACOLYTE
Test Type: TYPE C
Temperature: 25℃
Operator: leo

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



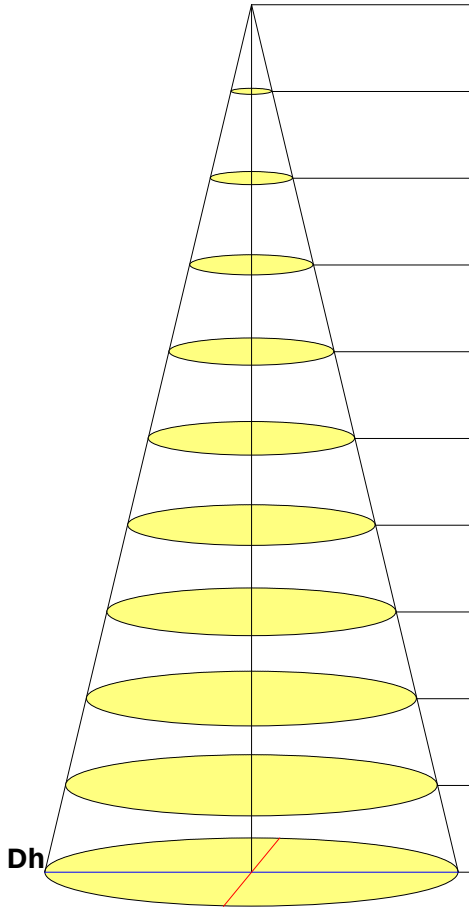


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	2254	1872	891	587	376	224	153	232	363
C90	26765	21461	16537	12255	9223	6904	5158	3893	2443
C180	6029	3953	2542	1630	627	374	168	213	295
C270	25194	20447	16068	12073	9063	6896	5371	4226	2794

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

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

Illuminance at a Distance



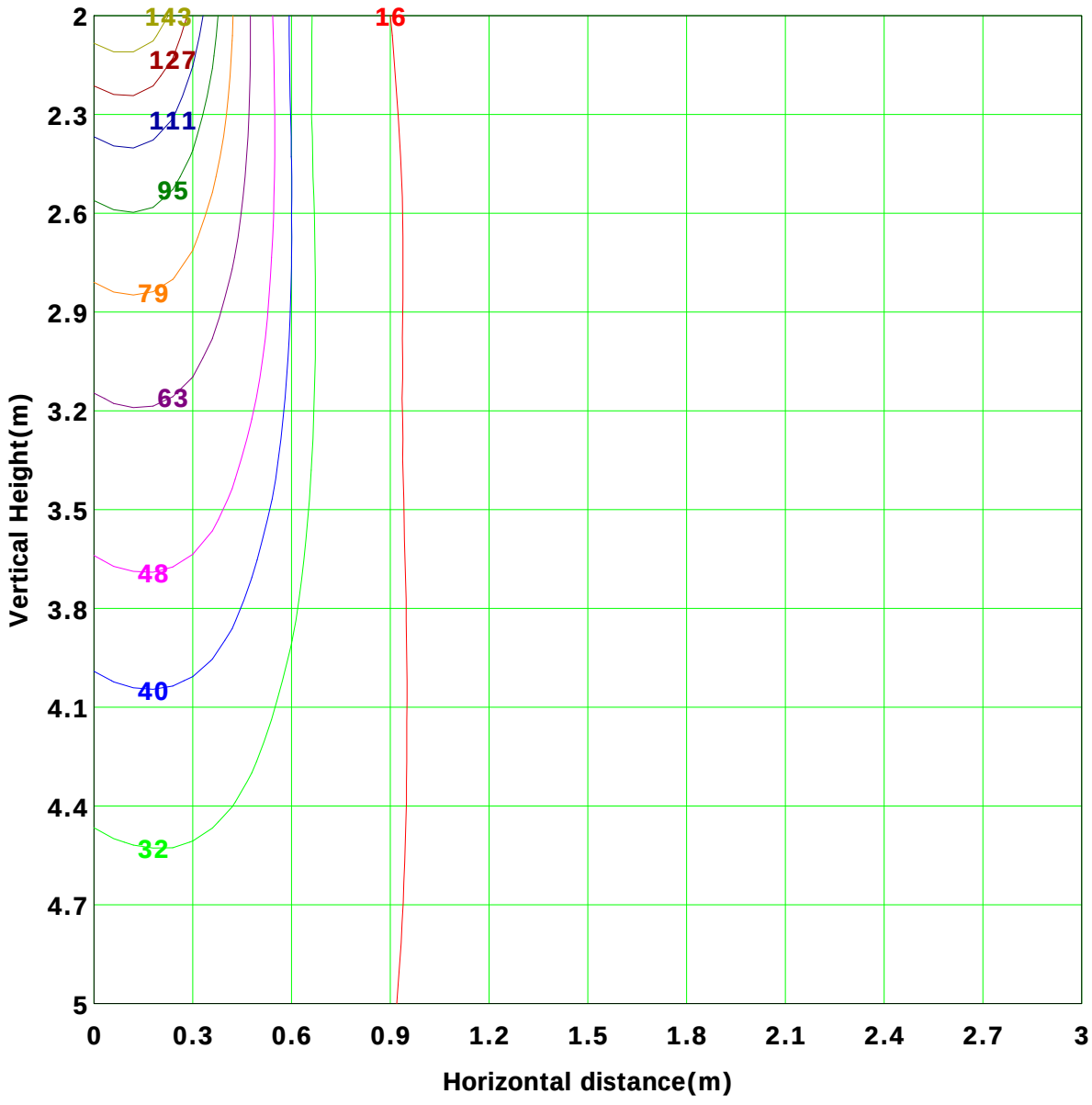
Dist(m)	Enadir(lx)	Dh/Dv_B(m)	S_B(sq.m)	Eav_B(lx)
1.0	618.07	0.63/1.87	0.9	224.05
2.0	154.52	1.25/3.74	3.6	56.01
3.0	68.67	1.88/5.61	8.0	24.89
4.0	38.63	2.51/7.48	14.3	14.00
5.0	24.72	3.13/9.34	22.3	8.96
6.0	17.17	3.76/11.21	32.1	6.22
7.0	12.61	4.39/13.08	43.7	4.57
8.0	9.66	5.02/14.95	57.1	3.50
9.0	7.63	5.64/16.82	72.3	2.77
10.0	6.18	6.27/18.69	89.3	2.24

Beam Angle(B): H34.8 V86.1 Field Angle(F): H72.2 V129.0

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

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: 158.4 lx

(10%): 15.8 lx	(20%): 31.7 lx
(25%): 39.6 lx	(30%): 47.5 lx
(40%): 63.3 lx	(50%): 79.2 lx
(60%): 95.0 lx	(70%): 110.9 lx
(80%): 126.7 lx	(90%): 142.5 lx

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

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Area Flux Table

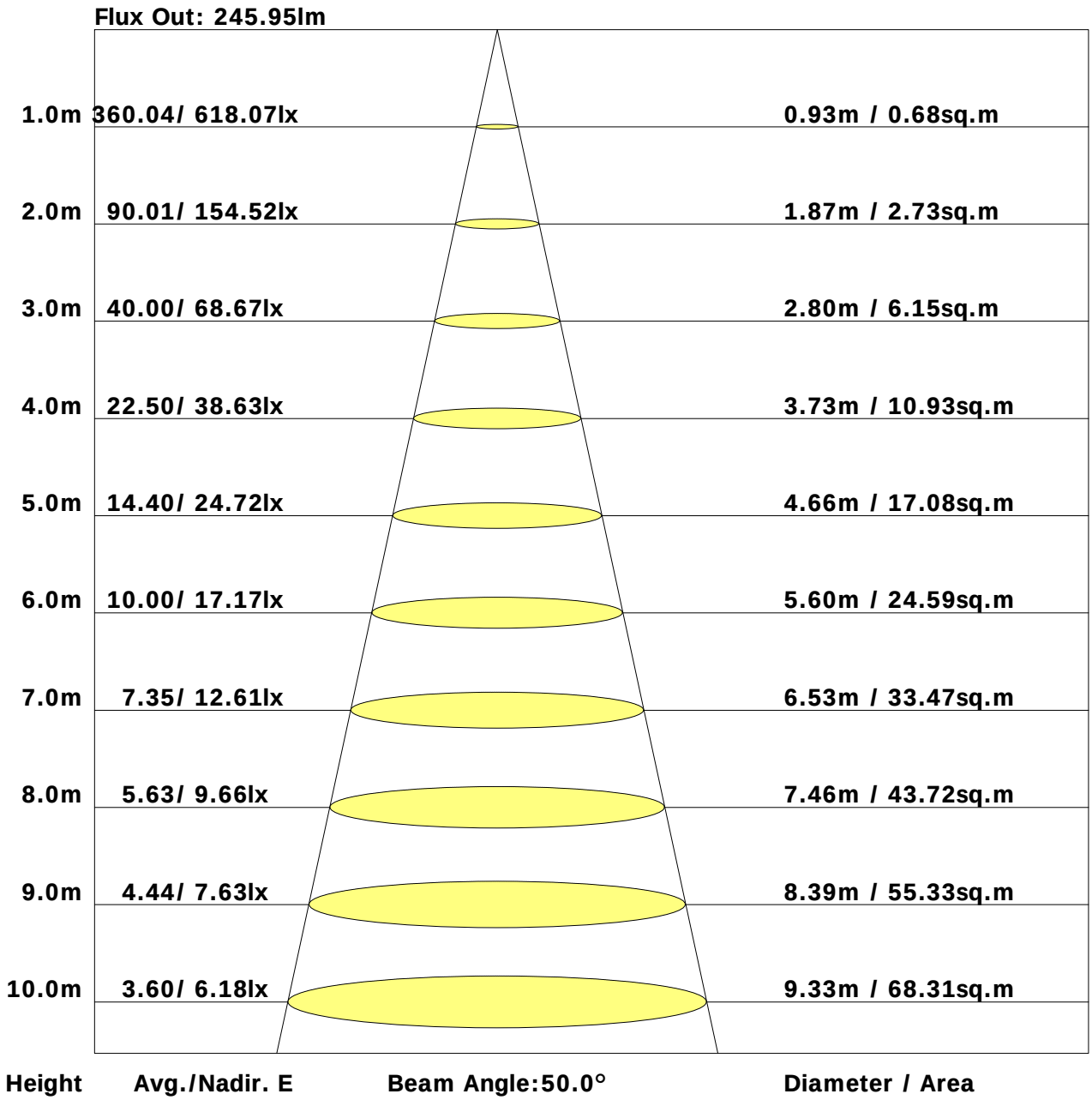
Unit: lm

Vertical plane \ Horizontal plane	-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	Flux(T)	Flux(E)
-90	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0
-80	0.0	0.0	0.0	0.0	0.1	0.2	0.4	0.6	0.7	0.6	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	3.3	0.0
-70	0.0	0.0	0.0	0.1	0.3	0.8	1.4	1.7	1.8	1.6	1.0	0.5	0.2	0.1	0.0	0.0	0.0	0.0	9.4	2.5
-60	0.0	0.0	0.0	0.1	0.5	1.5	2.7	3.6	4.2	3.6	2.0	0.8	0.4	0.2	0.0	0.0	0.0	0.0	19.5	15.9
-50	0.0	0.0	0.0	0.2	0.8	2.1	4.2	6.1	7.7	6.6	3.2	1.1	0.6	0.2	0.1	0.0	0.0	0.0	32.8	29.6
-40	0.0	0.0	0.1	0.3	0.9	2.8	5.4	8.5	11.6	9.8	3.9	1.4	0.7	0.3	0.1	0.0	0.0	0.0	45.8	42.3
-30	0.0	0.0	0.1	0.4	1.3	3.3	6.6	11.0	15.0	12.1	4.3	1.8	0.8	0.4	0.1	0.0	0.0	0.0	57.2	53.9
-20	0.0	0.0	0.1	0.5	1.5	3.9	7.4	12.4	16.5	15.0	5.9	1.9	0.9	0.5	0.2	0.0	0.0	0.0	66.7	63.3
-10	0.0	0.0	0.1	0.5	1.6	4.0	7.8	12.9	16.7	17.1	6.6	2.1	1.0	0.5	0.2	0.0	0.0	0.0	71.2	67.9
0	0.0	0.0	0.1	0.5	1.6	4.0	7.8	13.0	16.7	17.5	7.0	2.2	1.0	0.6	0.2	0.0	0.0	0.0	72.1	68.9
10	0.0	0.0	0.1	0.4	1.5	3.8	7.3	12.3	16.1	15.5	6.7	2.1	1.0	0.5	0.2	0.0	0.0	0.0	67.5	64.3
20	0.0	0.0	0.1	0.4	1.2	3.1	6.3	10.4	14.3	11.9	4.7	1.9	0.9	0.4	0.1	0.0	0.0	0.0	55.9	52.6
30	0.0	0.0	0.0	0.3	0.9	2.5	5.1	8.1	11.5	9.9	4.1	1.6	0.8	0.3	0.1	0.0	0.0	0.0	45.3	41.8
40	0.0	0.0	0.0	0.2	0.7	1.9	3.8	5.8	7.9	7.0	3.4	1.2	0.6	0.2	0.1	0.0	0.0	0.0	33.0	29.6
50	0.0	0.0	0.0	0.1	0.5	1.3	2.4	3.3	4.2	3.7	2.1	0.9	0.4	0.2	0.0	0.0	0.0	0.0	19.1	15.2
60	0.0	0.0	0.0	0.0	0.2	0.6	1.2	1.5	1.8	1.6	1.0	0.5	0.3	0.1	0.0	0.0	0.0	0.0	9.0	2.1
70	0.0	0.0	0.0	0.0	0.1	0.2	0.4	0.5	0.6	0.6	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	3.0	0.0
80	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0
Flux(T)	0.0	0.1	0.7	3.8	13.6	36.1	70.3	111.8	147.4	134.3	56.9	20.4	9.8	4.7	1.4	0.4	0.1	0.0	612	
Flux(E)	0.0	0.0	0.0	0.0	5.6	31.9	67.1	108.6	144.1	130.8	52.4	9.2	0.0	0.0	0.0	0.0	0.0	0.0		550

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

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

The Average Illuminance Effective Figure



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Test Type: TYPE C
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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	5.3	6.6	5.7	6.9	7.3	21.5	22.8	21.9	23.1	23.5
3H	5.5	6.6	5.9	7.0	7.4	22.4	23.5	22.8	23.8	24.2
4H	5.5	6.5	5.9	6.9	7.3	22.6	23.6	23.0	24.0	24.4
6H	5.5	6.5	5.9	6.9	7.3	22.7	23.6	23.1	24.0	24.4
8H	5.5	6.4	6.0	6.9	7.3	22.7	23.6	23.1	24.0	24.4
12H	5.6	6.5	6.1	6.9	7.4	22.6	23.5	23.1	23.9	24.4
X=4H Y=2H	7.2	8.2	7.6	8.6	9.0	21.4	22.4	21.8	22.8	23.2
3H	7.4	8.2	7.8	8.6	9.1	22.4	23.2	22.8	23.7	24.1
4H	7.3	8.1	7.8	8.5	9.0	22.7	23.4	23.1	23.9	24.3
6H	7.3	8.0	7.8	8.5	9.0	22.8	23.4	23.3	23.9	24.4
8H	7.4	8.0	7.9	8.4	8.9	22.8	23.4	23.3	23.9	24.4
12H	7.5	8.0	8.0	8.5	9.0	22.8	23.3	23.3	23.8	24.3
X=8H Y=4H	8.1	8.7	8.6	9.1	9.6	22.5	23.1	23.0	23.6	24.1
6H	8.1	8.6	8.6	9.1	9.6	22.6	23.1	23.2	23.7	24.2
8H	8.1	8.6	8.7	9.1	9.6	22.6	23.1	23.2	23.6	24.1
12H	8.3	8.7	8.8	9.2	9.8	22.6	23.0	23.2	23.6	24.2
X=12H Y=4H	8.1	8.7	8.7	9.2	9.7	22.5	23.0	23.0	23.5	24.0
6H	8.2	8.6	8.7	9.1	9.7	22.6	23.0	23.1	23.5	24.1
8H	8.3	8.6	8.8	9.2	9.8	22.6	23.0	23.1	23.5	24.1

Calculate in accordance with CIE 190:2010

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

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	0.70	0.79	0.86	0.90	0.96	1.00	1.02	1.06	1.08
	0.30		0.64	0.73	0.80	0.85	0.91	0.95	0.98	1.03	1.05
	0.20		0.60	0.69	0.75	0.80	0.87	0.92	0.95	1.00	1.03
0.50	0.50	0.20	0.69	0.77	0.83	0.87	0.93	0.96	0.98	1.01	1.03
	0.30		0.63	0.72	0.78	0.83	0.89	0.93	0.95	0.99	1.01
	0.20		0.59	0.68	0.74	0.79	0.85	0.90	0.93	0.97	0.99
0.30	0.50	0.20	0.67	0.75	0.81	0.85	0.90	0.93	0.95	0.98	0.99
	0.30		0.62	0.71	0.77	0.81	0.86	0.90	0.92	0.96	0.98
	0.20		0.59	0.67	0.73	0.78	0.84	0.88	0.90	0.94	0.96
0.00	0.00	0.00	0.57	0.65	0.71	0.75	0.80	0.84	0.86	0.89	0.91

Rating:6W 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: ACOLYTE
Test Type: TYPE C
Temperature: 25℃
Operator: leo

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

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	0.79	0.64	0.54	0.46	0.36	0.30	0.25	0.19	0.16
	0.30		0.66	0.55	0.47	0.41	0.33	0.27	0.23	0.18	0.15
	0.20		0.57	0.48	0.42	0.37	0.30	0.25	0.22	0.17	0.14
0.50	0.50	0.20	0.76	0.61	0.51	0.44	0.34	0.32	0.24	0.18	0.15
	0.30		0.64	0.53	0.45	0.39	0.31	0.26	0.22	0.17	0.14
	0.20		0.56	0.47	0.40	0.35	0.29	0.24	0.21	0.16	0.13
0.30	0.50	0.20	0.73	0.58	0.48	0.41	0.32	0.26	0.22	0.17	0.14
	0.30		0.62	0.51	0.43	0.37	0.30	0.24	0.21	0.16	0.13
	0.20		0.55	0.46	0.39	0.34	0.28	0.23	0.20	0.15	0.13
0.00	0.00	0.00	0.43	0.34	0.29	0.25	0.19	0.16	0.13	0.10	0.08

Rating:6W 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: ACOLYTE
Test Type: TYPE C
Temperature: 25℃
Operator: leo

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 9.028 m
Humidity: 60%
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	0.16	0.17	0.18	0.19	0.20	0.21	0.21	0.22	0.22
	0.30		0.10	0.12	0.14	0.15	0.16	0.18	0.19	0.20	0.21
	0.20		0.07	0.08	0.10	0.11	0.13	0.15	0.16	0.18	0.19
0.50	0.50	0.20	0.15	0.17	0.18	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		0.06	0.08	0.10	0.11	0.13	0.15	0.16	0.17	0.18
0.30	0.50	0.20	0.15	0.16	0.17	0.18	0.19	0.19	0.20	0.20	0.21
	0.30		0.10	0.12	0.13	0.14	0.15	0.17	0.17	0.18	0.19
	0.20		0.06	0.08	0.10	0.11	0.13	0.14	0.15	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:6W 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: ACOLYTE
Test Type: TYPE C
Temperature: 25℃
Operator: leo

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