ACOLYTE
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Report No.: 01 **Test Time: 2016/10/13 18:08**

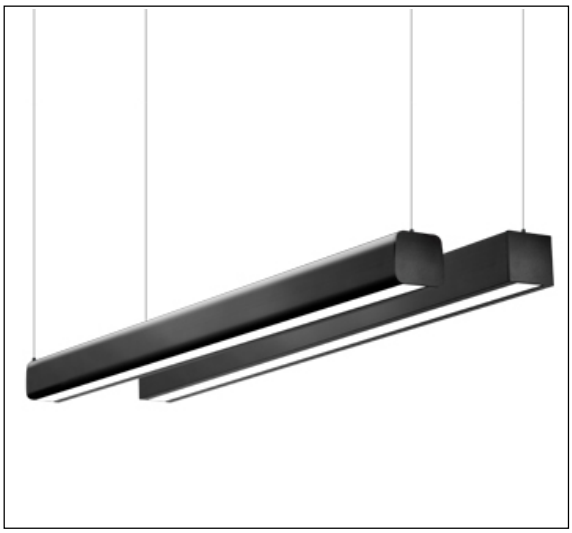
Luminaire Property

Luminaire Manufacturer:
Luminaire Category: Synthesis LED Linear
Luminaire Description: Synthesis Indirect HO 28CM 307 mA 3500K 90x113degree
Luminous Length (mm): 304 **Luminous Width (mm): 50**
Luminous Height (mm): 2 **Voltage: 219.7 V**
Current: 0.056 A **Power: 10.24 W**
Power Factor: 0.837

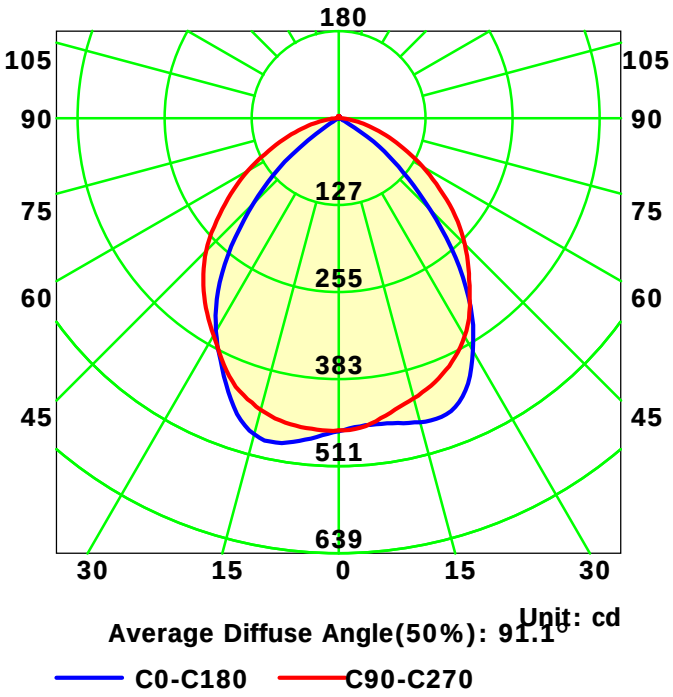
Photometric Results

CIE Class: Direct **Total Rated Lamp Lumens: 957.5 lm**
Measurement Flux: 957.5 lm **Efficiency: 100%**
Downward Ratio: 99% **Upward Ratio: 1%**
Horizontal Diffuse Angle(50%): H82.5
Vertical Diffuse Angle(50%): V99.8
Luminaire Efficacy Rating (LER): 94 **Central Intensity: 460.27 cd**
Max. Intensity: 486.42 cd **Pos of Max. Intensity: H180 V13**

Picture Of Luminaire



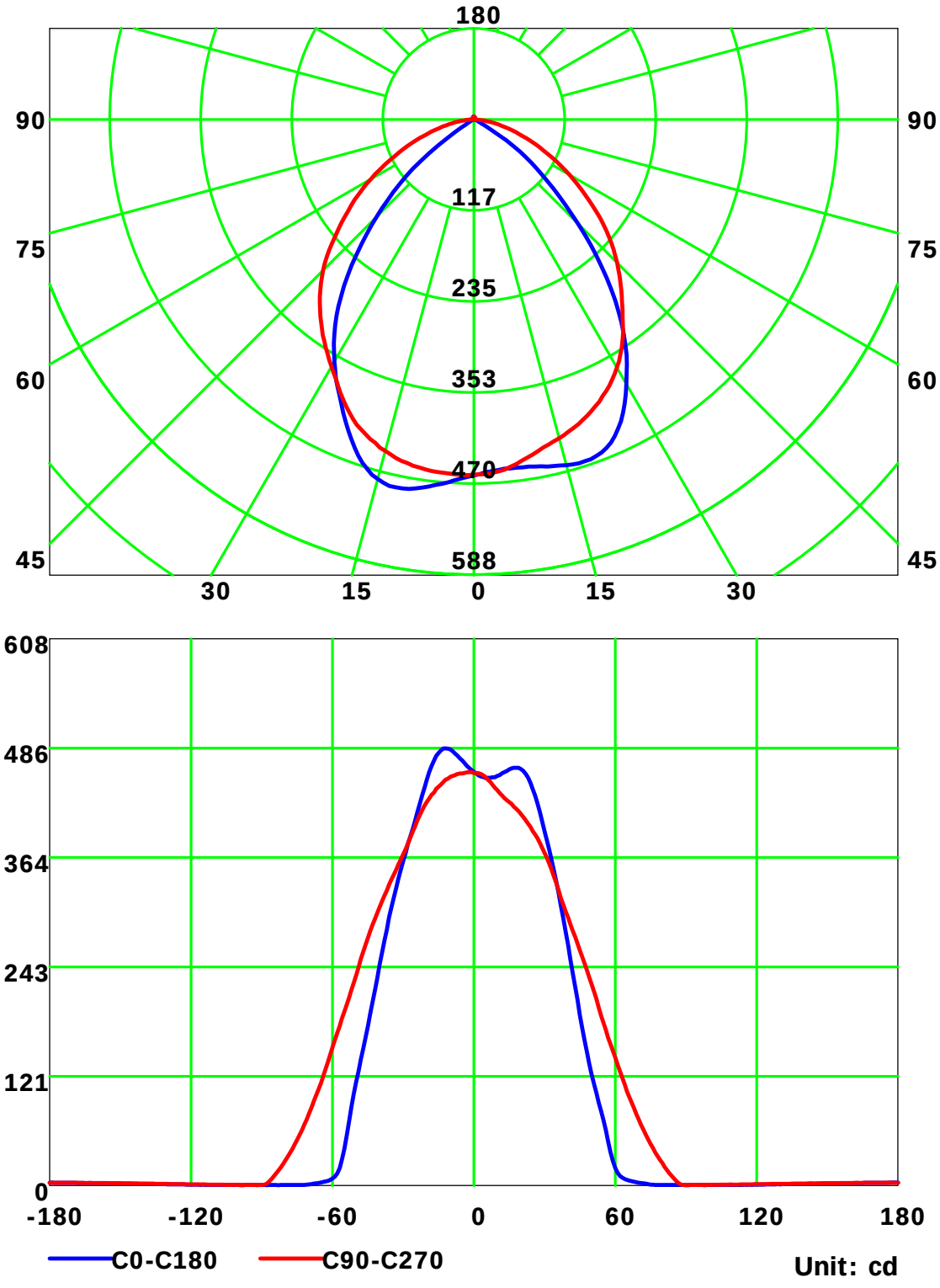
Luminous Intensity Distribution Curve



Unit: cd
Average Diffuse Angle(50%): 91.1°
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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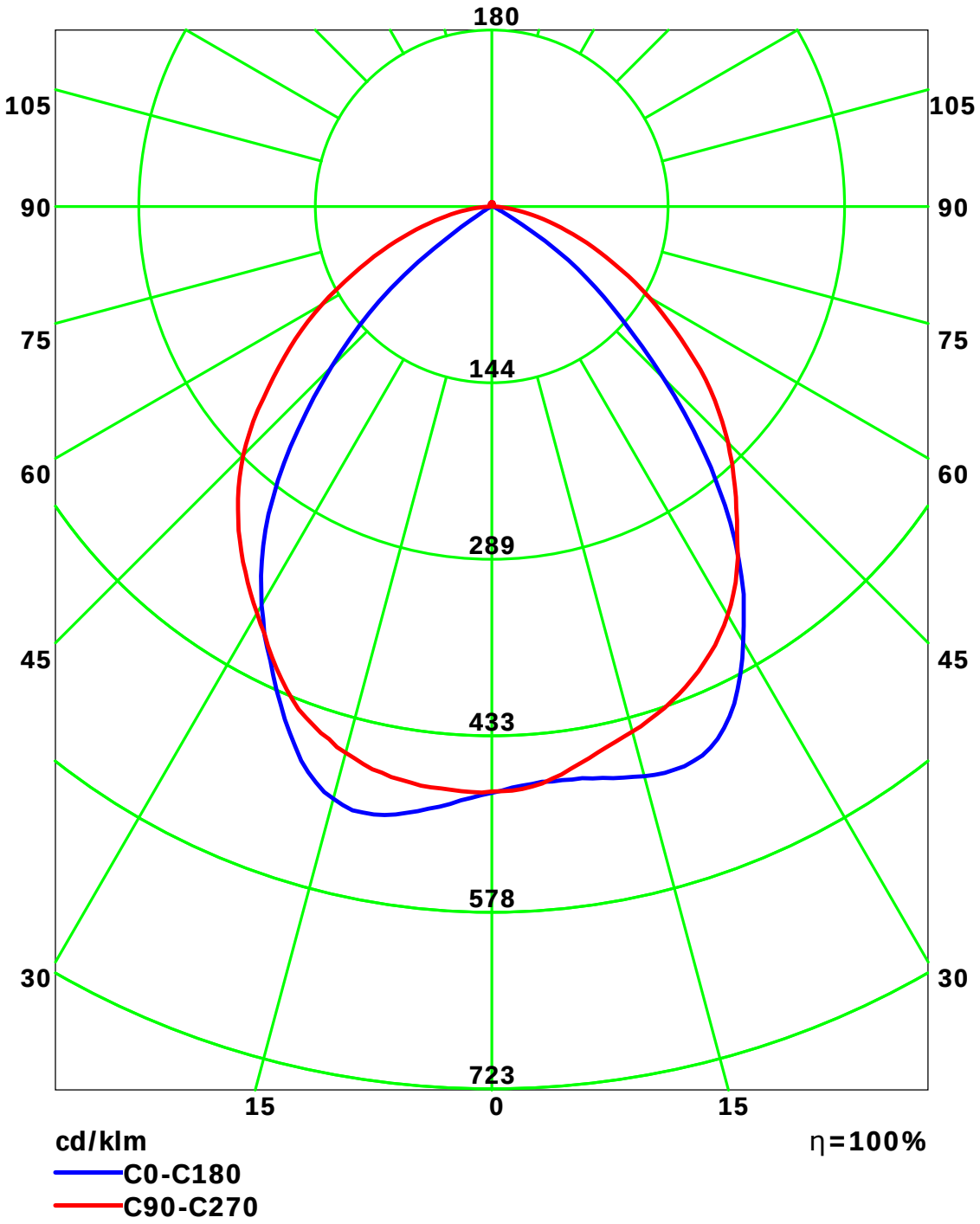
Humidity: 60%
Inspector:

Luminous Intensity Distribution Curve(cd/klm)



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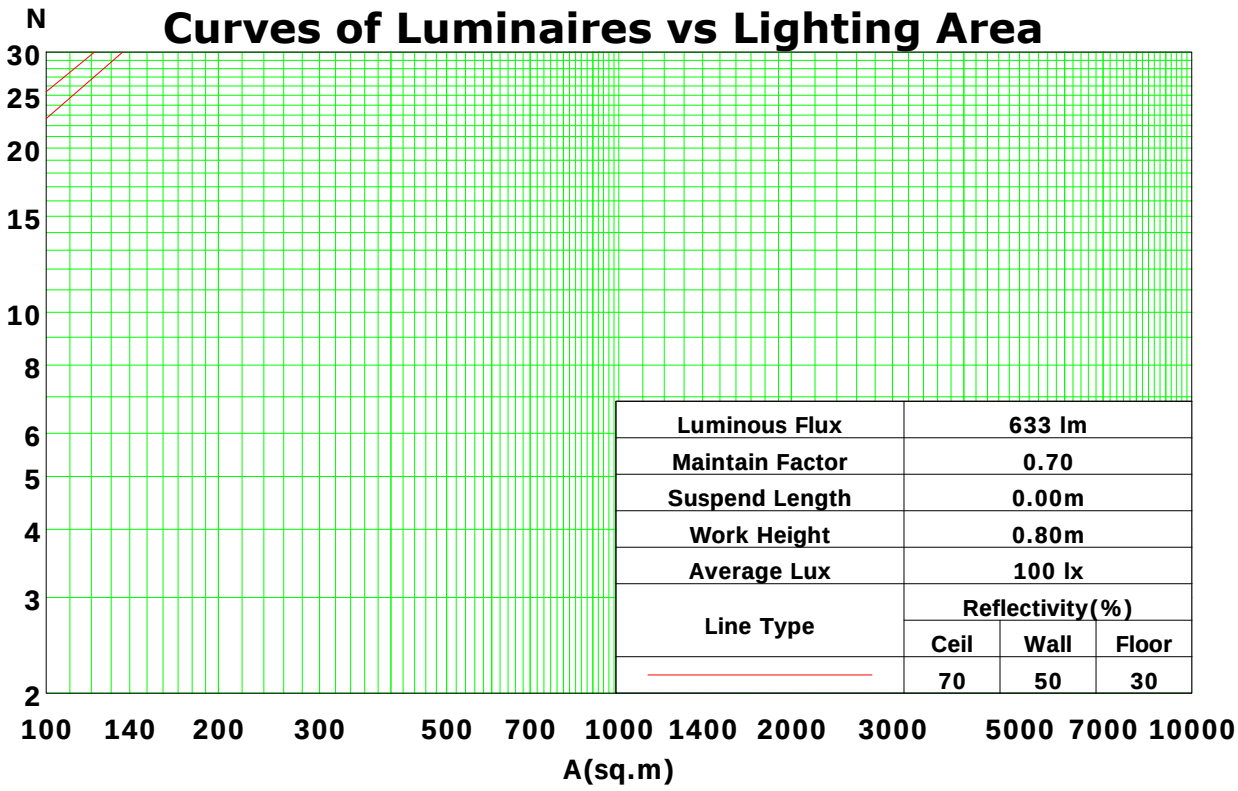
Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 9.028 m
Humidity: 60%
Inspector:

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	106	106	106	101	101	101	99
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	91	90	88
2	103	96	91	86	100	94	89	85	91	86	83	87	84	81	84	81	79	77
3	95	86	80	74	93	85	79	74	82	76	72	79	75	71	76	73	69	68
4	88	78	70	65	86	77	70	64	74	68	63	72	67	62	70	65	62	60
5	82	71	63	57	80	70	62	57	67	61	56	65	60	55	64	59	55	53
6	76	64	56	51	74	63	56	51	62	55	50	60	54	50	58	53	49	47
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	48	44	42
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	50	44	40	38
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	37	34	32

Spacing Criteria (0-180): 1.21
Spacing Criteria (90-270): 1.20
Spacing Criteria (Diagonal): 1.27

Curves of Luminaires vs Lighting Area



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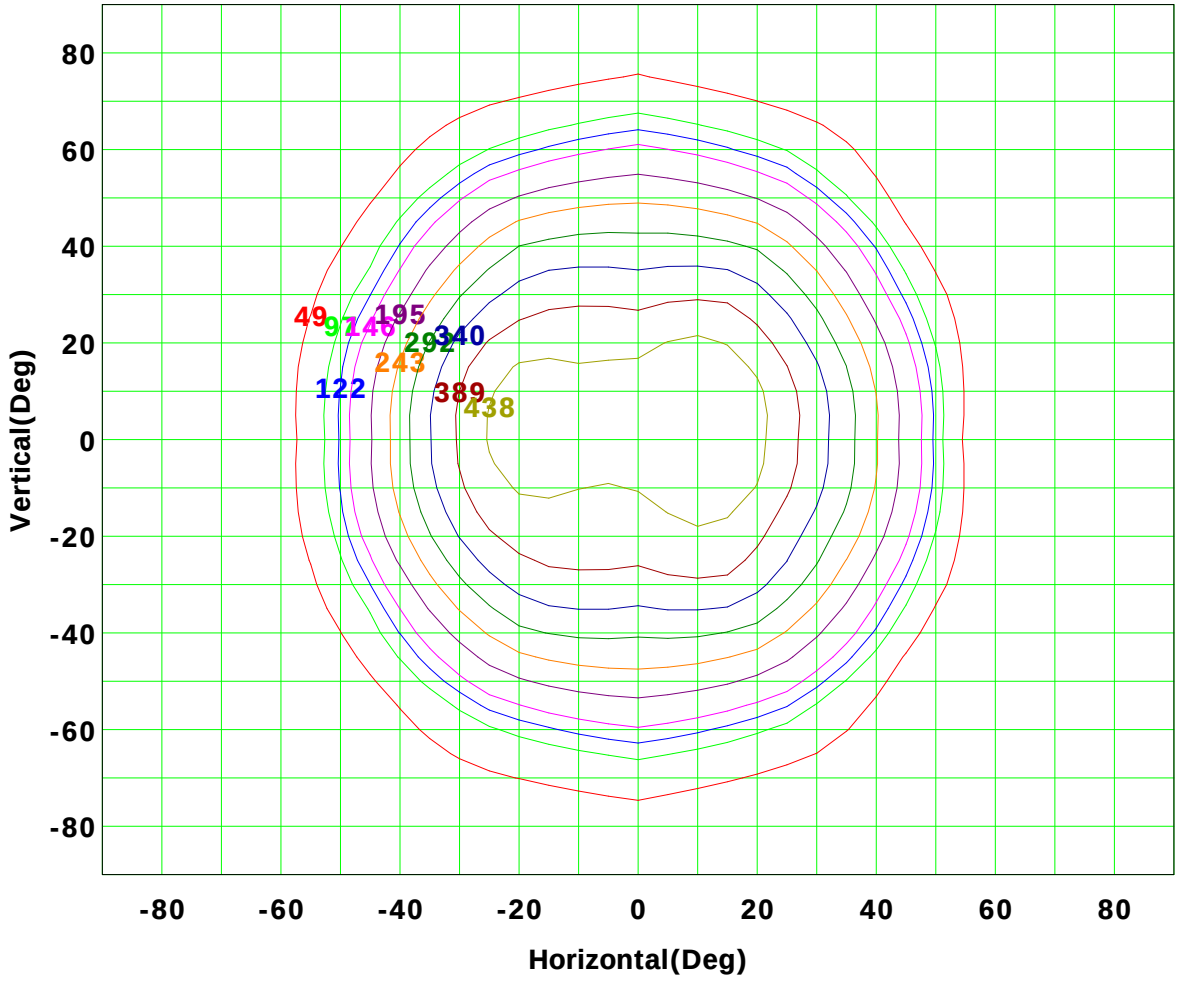
Test Lab: ACOLYTE
Test Type: TYPE C
Temperature: 25℃
Operator: leo

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

Isocandela (rectangle)



Imax (100%): 486 cd

(10%): 49 cd	**(20%): 97 cd**
(25%): 122 cd	**(30%): 146 cd**
(40%): 195 cd	**(50%): 243 cd**
(60%): 292 cd	**(70%): 340 cd**
(80%): 389 cd	**(90%): 438 cd**

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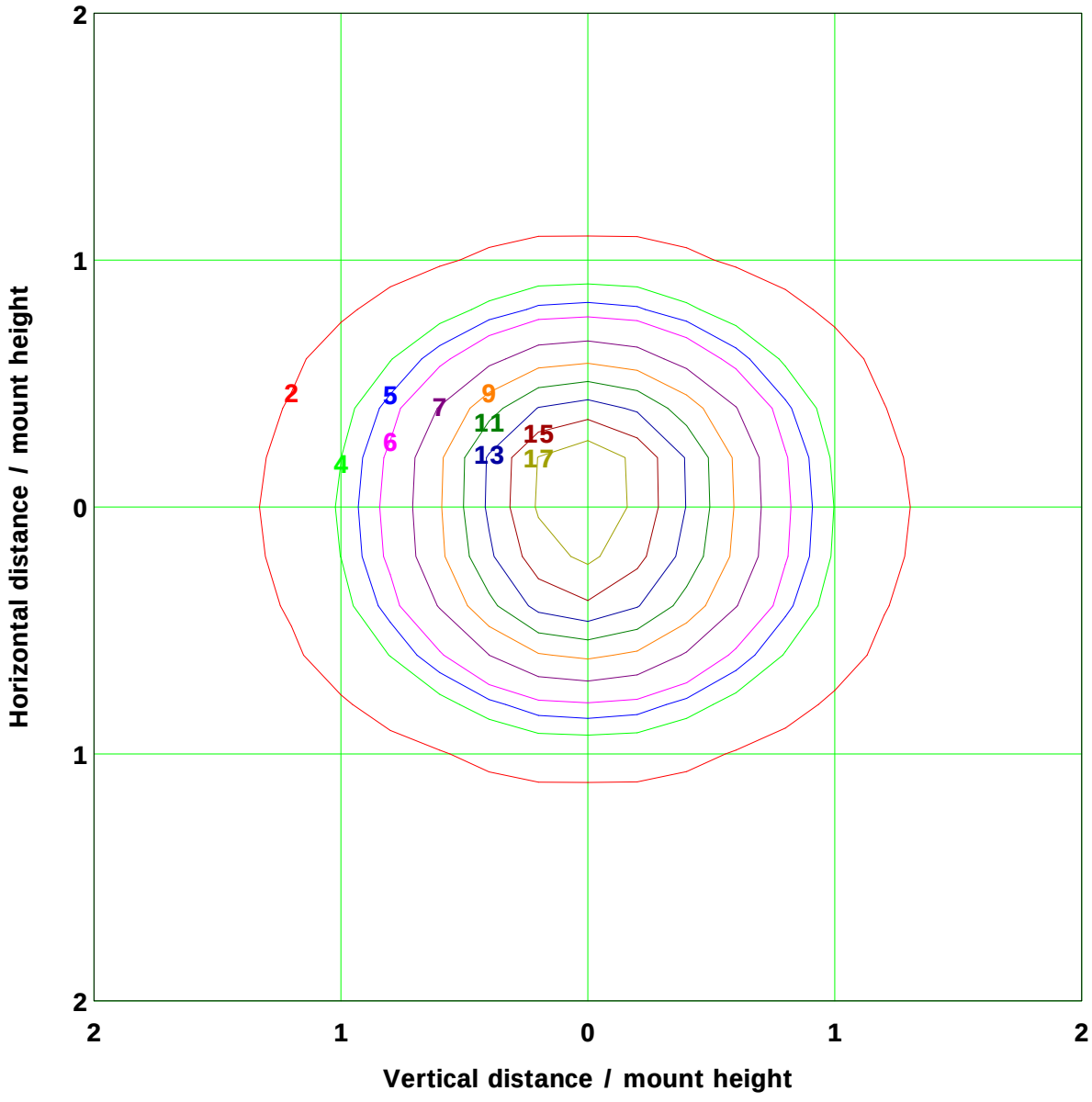
Test Lab: ACOLYTE
Test Type: TYPE C
Temperature: 25℃
Operator: leo

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%): 18.7 lx**

(10%): 1.9 lx	**(20%): 3.7 lx**
(25%): 4.7 lx	**(30%): 5.6 lx**
(40%): 7.5 lx	**(50%): 9.3 lx**
(60%): 11.2 lx	**(70%): 13.1 lx**
(80%): 15.0 lx	**(90%): 16.8 lx**

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Test Type: TYPE C
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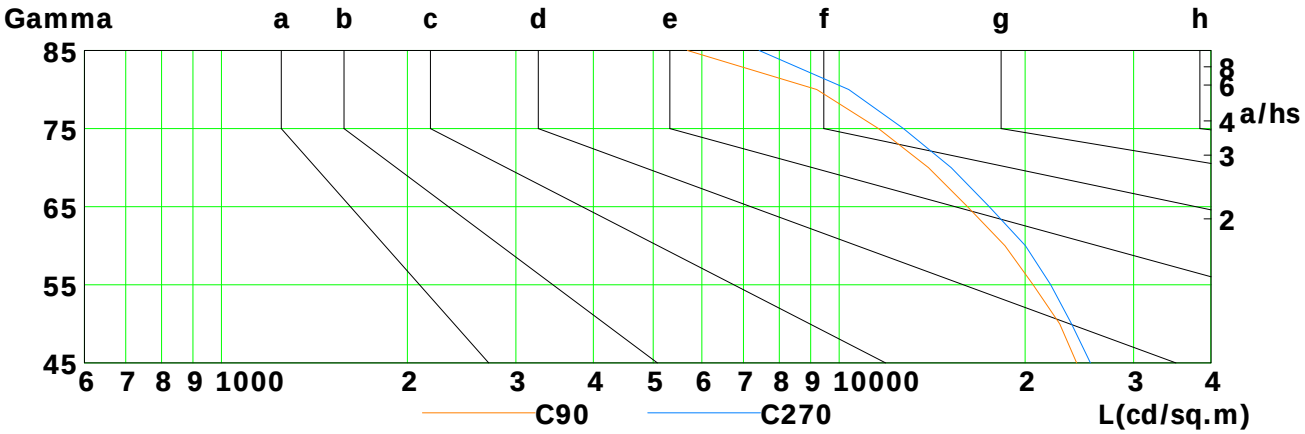
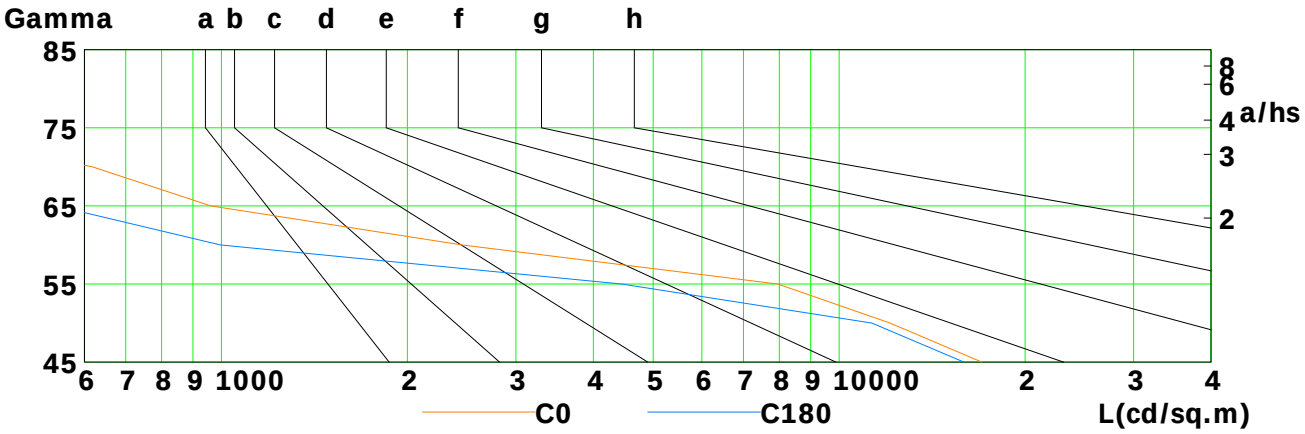
Operator: leo

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



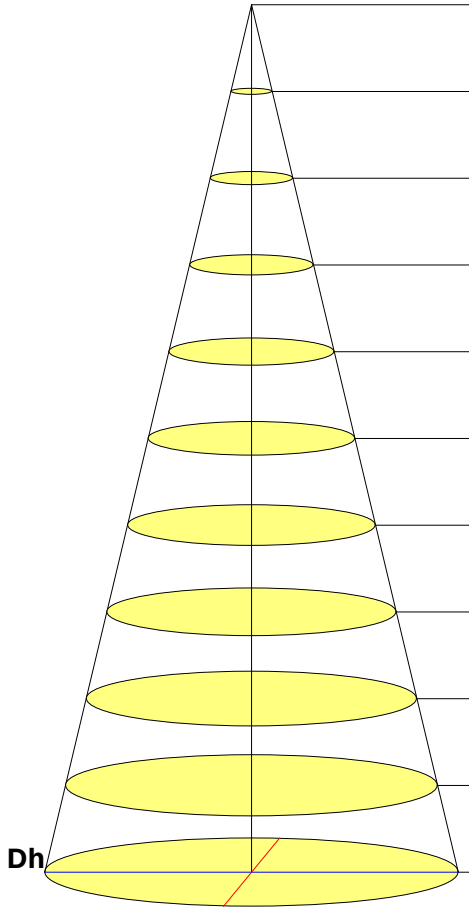


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	17031	12092	7953	2454	962	619	323	340	554
C90	24248	22757	20615	18573	16152	13955	11591	9200	5687
C180	15939	11304	4445	997	541	274	243	290	513
C270	25511	23779	22005	20030	17515	15187	12720	10369	7428

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	460.27	1.75/2.38	3.4	110.29
2.0	115.07	3.51/4.75	13.8	27.57
3.0	51.14	5.26/7.13	30.9	12.25
4.0	28.77	7.01/9.50	55.0	6.89
5.0	18.41	8.77/11.88	85.9	4.41
6.0	12.79	10.52/14.25	123.8	3.06
7.0	9.39	12.27/16.63	168.4	2.25
8.0	7.19	14.03/19.00	220.0	1.72
9.0	5.68	15.78/21.38	278.5	1.36
10.0	4.60	17.53/23.75	343.8	1.10

Beam Angle(B): H82.5 V99.8 Field Angle(F): H111.8 V151.2

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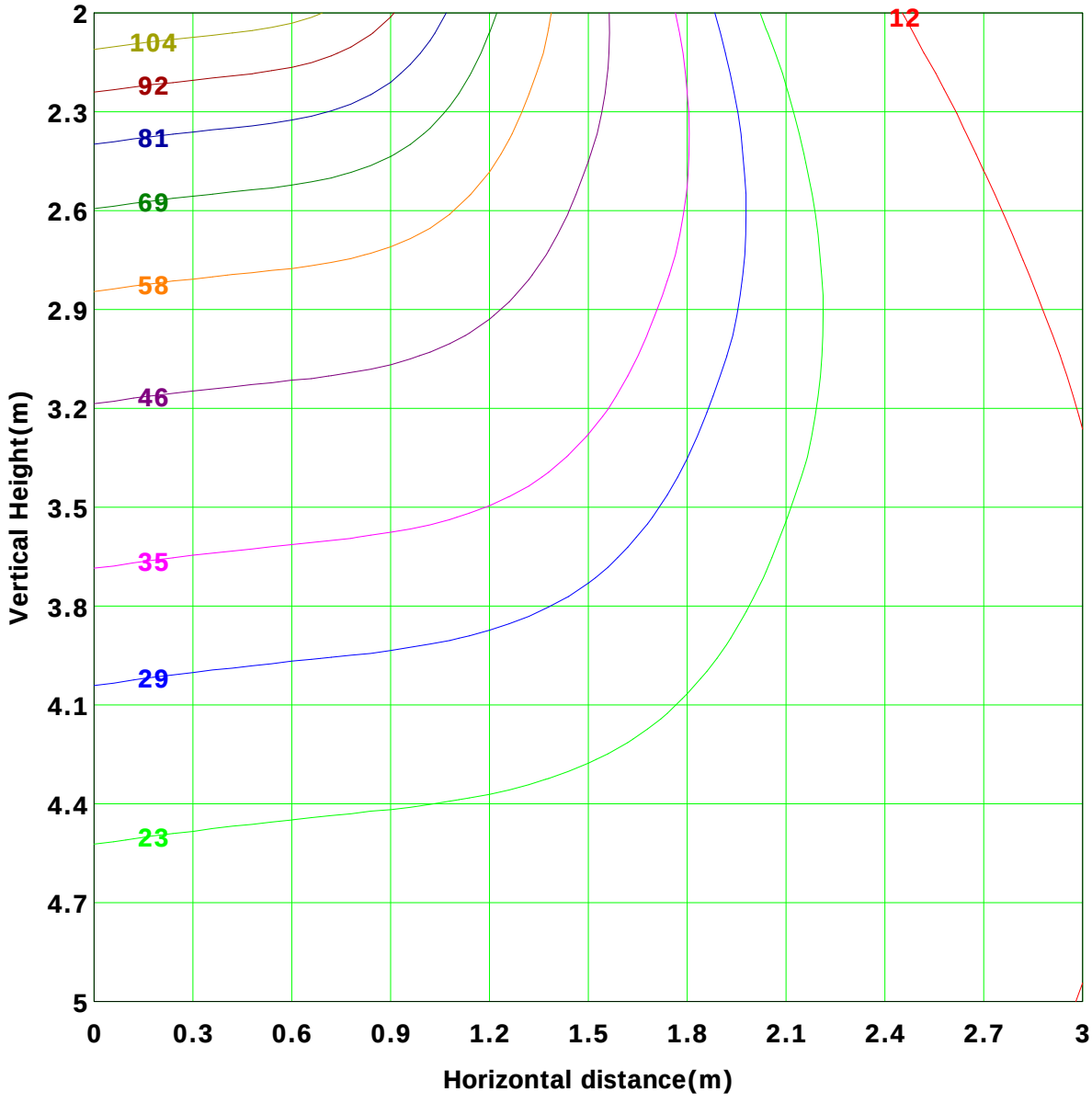
Test Type: TYPE C
Temperature: 25℃
Operator: leo

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: 115.1 lx

(10%): 11.5 lx	**(20%): 23.0 lx**
(25%): 28.8 lx	**(30%): 34.5 lx**
(40%): 46.0 lx	**(50%): 57.5 lx**
(60%): 69.0 lx	**(70%): 80.5 lx**
(80%): 92.1 lx	**(90%): 103.6 lx**

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Area Flux Table

Unit: lm

Vertical plane \ Horizontal plane	-90 to -80	-80 to -70	-70 to -60	-60 to -50	-50 to -40	-40 to -30	-30 to -20	-20 to -10	-10 to 0	0 to 10	10 to 20	20 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 to 90	Flux(T)	Flux(E)
-90 to -80	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0
-80 to -70	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.9	1.4	1.4	1.0	0.6	0.3	0.1	0.0	0.0	0.0	0.0	6.5	2.2
-70 to -60	0.0	0.0	0.0	0.0	0.3	0.9	1.8	2.6	3.3	3.3	2.7	1.9	1.0	0.4	0.1	0.0	0.0	0.0	18.4	16.0
-60 to -50	0.0	0.0	0.0	0.1	0.6	1.9	3.6	4.8	5.7	5.7	4.9	3.7	2.0	0.7	0.1	0.0	0.0	0.0	33.9	32.4
-50 to -40	0.0	0.0	0.0	0.1	1.1	3.3	5.8	7.5	8.3	8.3	7.6	6.0	3.5	1.4	0.2	0.0	0.0	0.0	53.2	52.2
-40 to -30	0.0	0.0	0.0	0.3	2.1	4.8	7.9	10.0	10.4	10.4	9.9	8.1	5.0	2.2	0.6	0.1	0.0	0.0	71.9	71.1
-30 to -20	0.0	0.0	0.1	0.6	2.9	6.2	9.5	11.9	12.4	12.2	11.7	9.9	6.6	3.1	0.9	0.1	0.0	0.0	88.2	87.5
-20 to -10	0.0	0.0	0.1	0.9	3.6	7.2	10.7	13.3	13.8	13.3	13.0	11.4	7.9	3.9	1.2	0.1	0.0	0.0	100.5	99.8
-10 to 0	0.0	0.0	0.1	0.9	3.9	7.7	11.3	14.0	14.3	13.7	13.5	12.0	8.4	4.2	1.3	0.1	0.0	0.0	105.4	104.8
0 to 10	0.0	0.0	0.1	0.9	3.9	7.6	11.1	13.8	14.1	13.6	13.3	11.9	8.3	4.2	1.3	0.1	0.0	0.0	104.3	103.7
10 to 20	0.0	0.0	0.1	0.9	3.6	7.1	10.4	12.9	13.3	12.9	12.6	11.1	7.7	3.9	1.2	0.1	0.0	0.0	97.7	97.1
20 to 30	0.0	0.0	0.1	0.6	2.9	6.1	9.4	11.8	12.2	12.0	11.5	9.7	6.5	3.1	0.9	0.1	0.0	0.0	86.9	86.2
30 to 40	0.0	0.0	0.0	0.3	2.0	4.7	7.7	9.8	10.3	10.3	9.8	7.9	4.9	2.2	0.6	0.1	0.0	0.0	70.7	69.9
40 to 50	0.0	0.0	0.0	0.1	1.1	3.2	5.5	7.2	7.9	7.9	7.3	5.7	3.4	1.4	0.2	0.0	0.0	0.0	51.0	50.0
50 to 60	0.0	0.0	0.0	0.1	0.6	1.7	3.4	4.6	5.3	5.4	4.7	3.5	2.0	0.7	0.1	0.0	0.0	0.0	32.1	30.5
60 to 70	0.0	0.0	0.0	0.0	0.3	0.8	1.7	2.4	3.0	3.1	2.5	1.8	1.0	0.4	0.1	0.0	0.0	0.0	17.1	14.5
70 to 80	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.8	1.3	1.3	1.0	0.6	0.2	0.1	0.0	0.0	0.0	0.0	5.9	1.6
80 to 90	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0
Flux(T)	0.0	0.1	0.6	6.1	29.0	63.7	100.7	128.7	137.4	135.4	127.4	105.9	68.8	32.0	9.0	1.1	0.2	0.0	946	
Flux(E)	0.0	0.0	0.0	3.6	26.4	61.8	99.2	127.0	135.5	133.6	125.7	104.3	66.8	29.6	6.2	0.0	0.0	0.0		920

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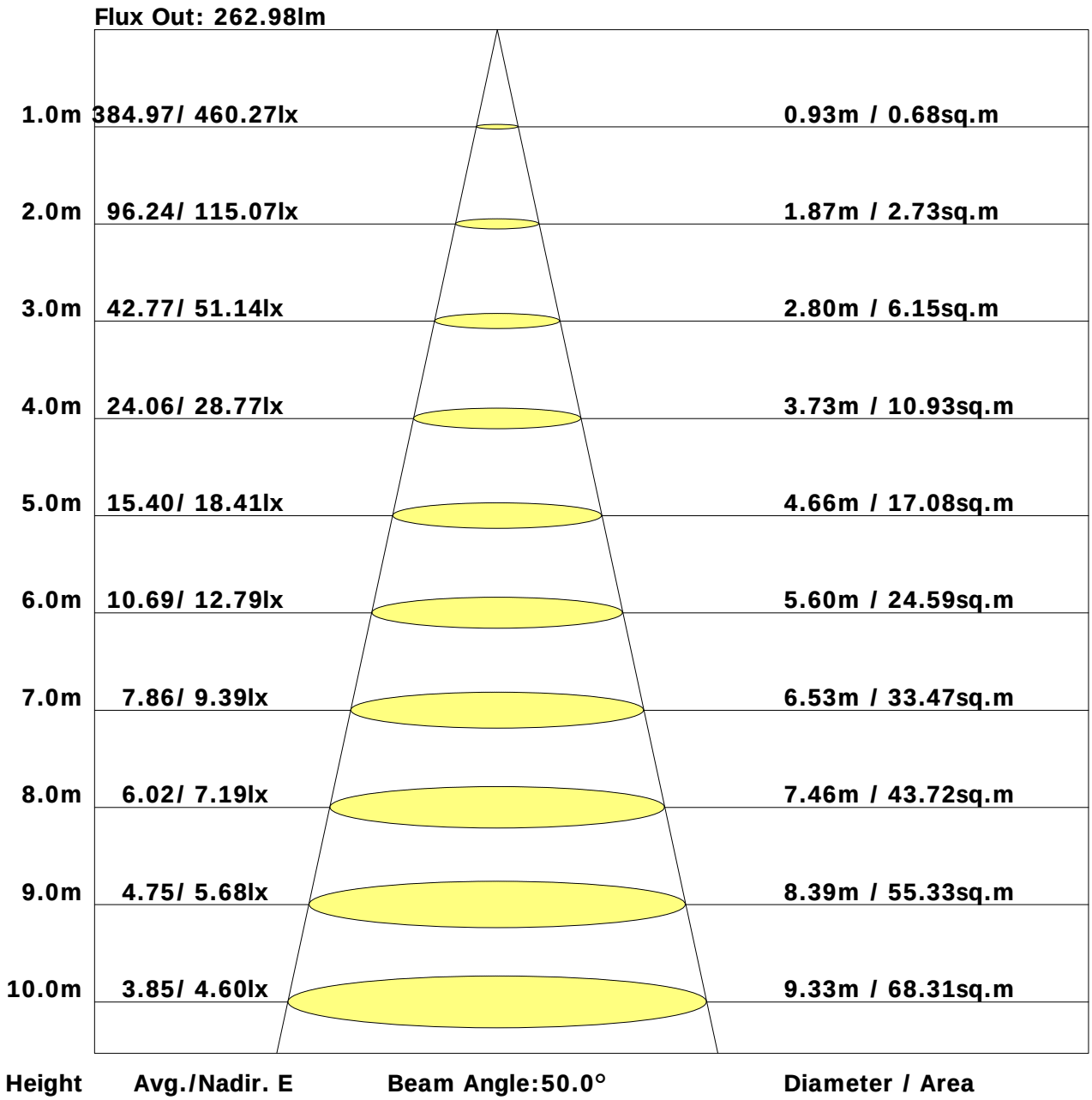
Temperature: 25℃
Operator: leo

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

The Average Illuminance Effective Figure



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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	16.2	17.6	16.6	18.0	18.3	22.1	23.5	22.5	23.8	24.1
3H	16.2	17.4	16.6	17.7	18.1	23.2	24.5	23.6	24.8	25.2
4H	16.1	17.2	16.5	17.6	18.0	23.6	24.7	24.0	25.1	25.5
6H	16.0	17.1	16.5	17.5	17.9	23.8	24.8	24.2	25.2	25.6
8H	16.0	17.0	16.4	17.4	17.8	23.8	24.8	24.3	25.2	25.7
12H	15.9	16.9	16.4	17.3	17.8	23.8	24.8	24.3	25.2	25.6
X=4H Y=2H	16.9	18.0	17.3	18.4	18.8	22.0	23.2	22.4	23.5	23.9
3H	16.8	17.8	17.3	18.2	18.6	23.3	24.3	23.8	24.7	25.1
4H	16.8	17.6	17.2	18.0	18.5	23.7	24.5	24.1	25.0	25.4
6H	16.7	17.4	17.2	17.9	18.4	23.9	24.6	24.4	25.1	25.6
8H	16.6	17.3	17.1	17.8	18.3	24.0	24.6	24.5	25.1	25.6
12H	16.6	17.2	17.1	17.7	18.2	24.0	24.6	24.5	25.1	25.6
X=8H Y=4H	17.0	17.7	17.5	18.2	18.7	23.6	24.2	24.1	24.7	25.2
6H	16.9	17.5	17.5	18.0	18.5	23.8	24.3	24.3	24.9	25.4
8H	16.9	17.4	17.4	17.9	18.4	23.8	24.3	24.4	24.9	25.4
12H	16.9	17.3	17.4	17.8	18.4	23.9	24.3	24.4	24.8	25.4
X=12H Y=4H	17.0	17.6	17.5	18.1	18.6	23.5	24.1	24.0	24.6	25.1
6H	16.9	17.4	17.5	17.9	18.5	23.7	24.2	24.3	24.7	25.3
8H	16.9	17.3	17.4	17.8	18.4	23.8	24.2	24.3	24.8	25.4

Calculate in accordance with CIE 190:2010

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Operator: leo

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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	0.68	0.78	0.84	0.89	0.95	0.99	1.01	1.05	1.07
	0.30		0.61	0.72	0.78	0.83	0.90	0.94	0.97	1.02	1.04
	0.20		0.57	0.67	0.74	0.79	0.86	0.91	0.94	0.99	1.02
0.50	0.50	0.20	0.66	0.76	0.82	0.86	0.92	0.95	0.97	1.01	1.03
	0.30		0.61	0.70	0.77	0.81	0.88	0.92	0.94	0.98	1.00
	0.20		0.56	0.66	0.73	0.78	0.84	0.89	0.92	0.96	0.99
0.30	0.50	0.20	0.65	0.74	0.80	0.84	0.89	0.92	0.94	0.97	0.99
	0.30		0.60	0.69	0.75	0.80	0.85	0.89	0.92	0.95	0.97
	0.20		0.56	0.65	0.72	0.76	0.83	0.87	0.89	0.93	0.95
0.00	0.00	0.00	0.54	0.63	0.69	0.74	0.79	0.83	0.85	0.88	0.90

Rating:10W 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 = 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	0.82	0.66	0.55	0.47	0.37	0.30	0.26	0.20	0.16
	0.30		0.68	0.56	0.48	0.42	0.33	0.28	0.24	0.19	0.15
	0.20		0.59	0.49	0.42	0.37	0.30	0.26	0.22	0.17	0.15
0.50	0.50	0.20	0.79	0.63	0.52	0.45	0.35	0.32	0.24	0.18	0.15
	0.30		0.67	0.54	0.46	0.40	0.32	0.26	0.23	0.17	0.14
	0.20		0.58	0.48	0.41	0.36	0.29	0.24	0.21	0.17	0.14
0.30	0.50	0.20	0.76	0.60	0.49	0.42	0.33	0.27	0.23	0.17	0.14
	0.30		0.65	0.53	0.44	0.38	0.30	0.25	0.21	0.16	0.13
	0.20		0.57	0.47	0.40	0.35	0.28	0.23	0.20	0.16	0.13
0.00	0.00	0.00	0.45	0.36	0.30	0.25	0.20	0.16	0.14	0.10	0.09

Rating:10W 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 = 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	0.16	0.17	0.18	0.19	0.20	0.21	0.21	0.22	0.22
	0.30		0.10	0.12	0.13	0.15	0.16	0.17	0.18	0.20	0.20
	0.20		0.06	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	0.17	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		0.06	0.08	0.10	0.11	0.13	0.14	0.15	0.17	0.18
0.30	0.50	0.20	0.15	0.16	0.17	0.17	0.18	0.19	0.19	0.20	0.20
	0.30		0.10	0.12	0.13	0.14	0.15	0.16	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:10W 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: