ACOLYTE
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Tel: +1 212 629 6830 **(USA)**
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Report No.: 01 **Test Time: 2016/10/13 16:35**

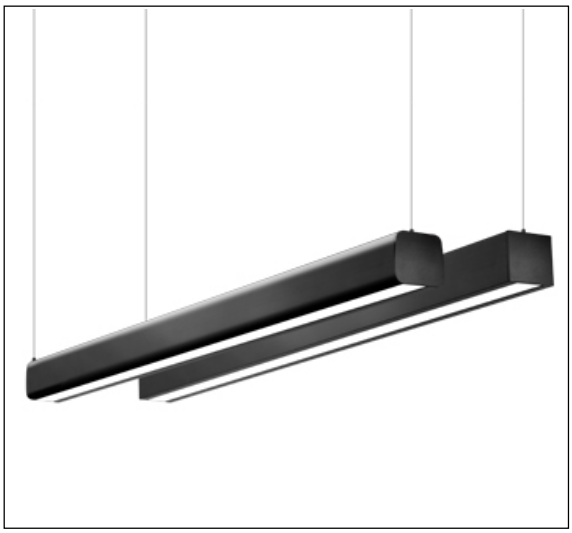
Luminaire Property

Luminaire Manufacturer:
Luminaire Category: Synthesis LED Linear
Luminaire Description: Synthesis Indirect HO 28CM 307 mA 3500K 92x33degree
Luminous Length (mm): 304 **Luminous Width (mm): 50**
Luminous Height (mm): 2 **Voltage: 219.7 V**
Current: 0.056 A **Power: 10.28 W**
Power Factor: 0.839

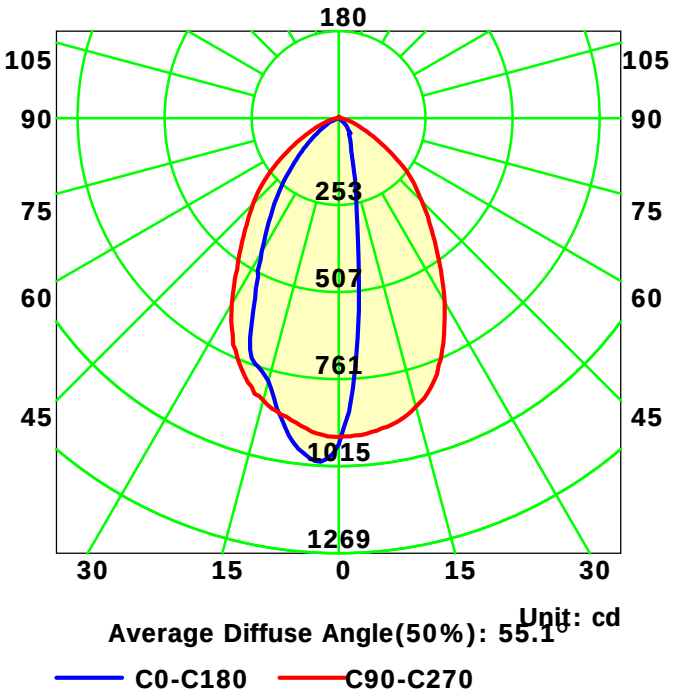
Photometric Results

CIE Class: Direct **Total Rated Lamp Lumens: 993.2 lm**
Measurement Flux: 993.2 lm **Efficiency: 100%**
Downward Ratio: 99% **Upward Ratio: 1%**
Horizontal Diffuse Angle(50%): H35.2
Vertical Diffuse Angle(50%): V75
Luminaire Efficacy Rating (LER): 97 **Central Intensity: 952.14 cd**
Max. Intensity: 1003.64 cd **Pos of Max. Intensity: H180 V3**

Picture Of Luminaire



Luminous Intensity Distribution Curve



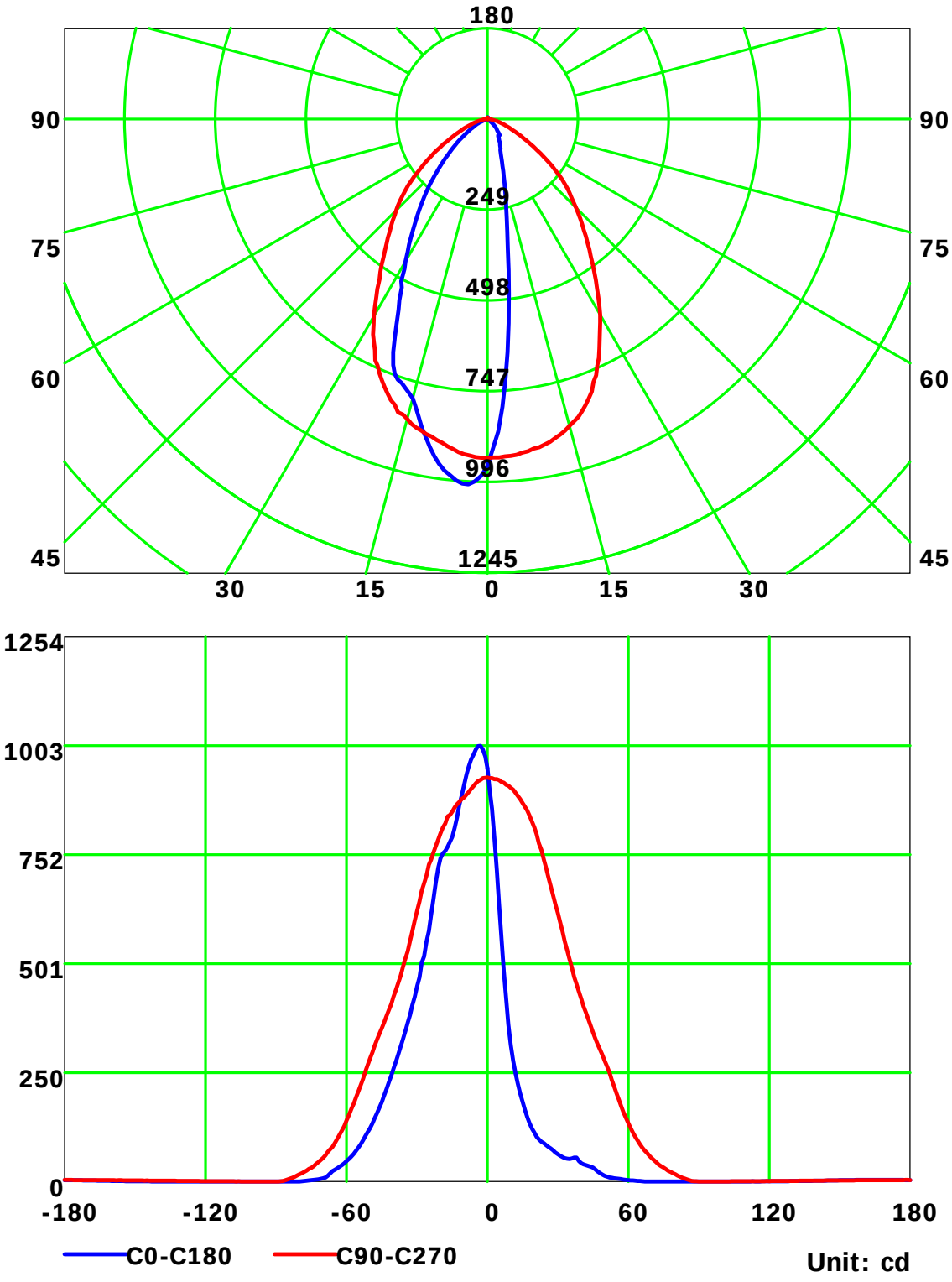
Unit: cd

Average Diffuse Angle(50%): 55.1°

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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Distance: 9.028 m
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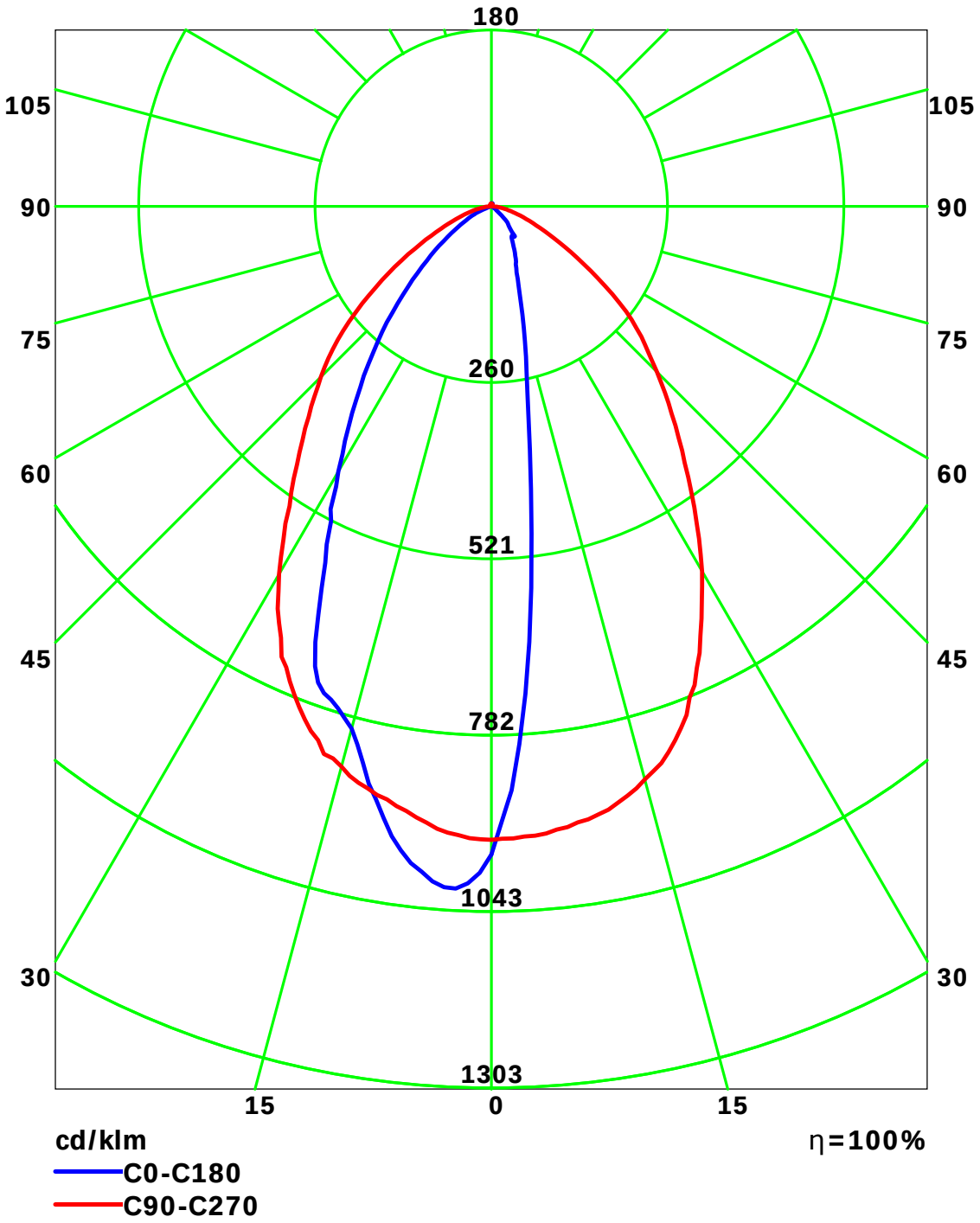
Inspector:

Luminous Intensity Distribution Curve(cd/klm)



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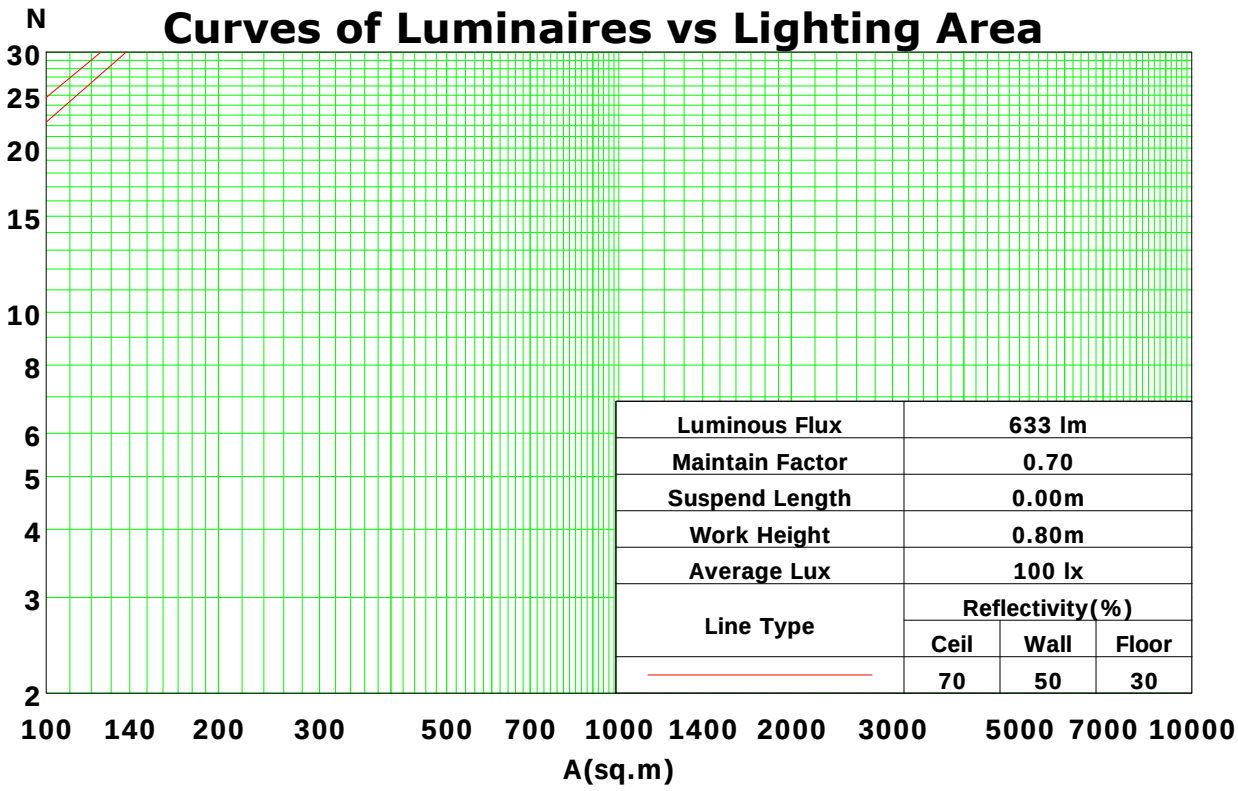
Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 9.028 m
Humidity: 60%
Inspector:

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	108	105	102	109	106	103	100	101	99	97	97	95	94	94	92	91	89
2	104	98	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	72	68	65	63
5	84	74	67	61	82	73	66	61	71	65	60	69	63	59	67	62	59	57
6	79	68	61	55	77	67	60	55	65	59	54	64	58	54	62	57	53	52
7	74	63	55	50	73	62	55	50	61	54	50	59	54	49	58	53	49	47
8	70	58	51	46	68	58	51	46	56	50	46	55	49	45	54	49	45	43
9	66	54	47	43	65	54	47	42	53	47	42	52	46	42	51	45	42	40
10	62	51	44	39	61	50	44	39	49	43	39	48	43	39	48	42	39	37

Spacing Criteria (0-180): 0.48
Spacing Criteria (90-270): 1.05
Spacing Criteria (Diagonal): 0.81

Curves of Luminaires vs Lighting Area



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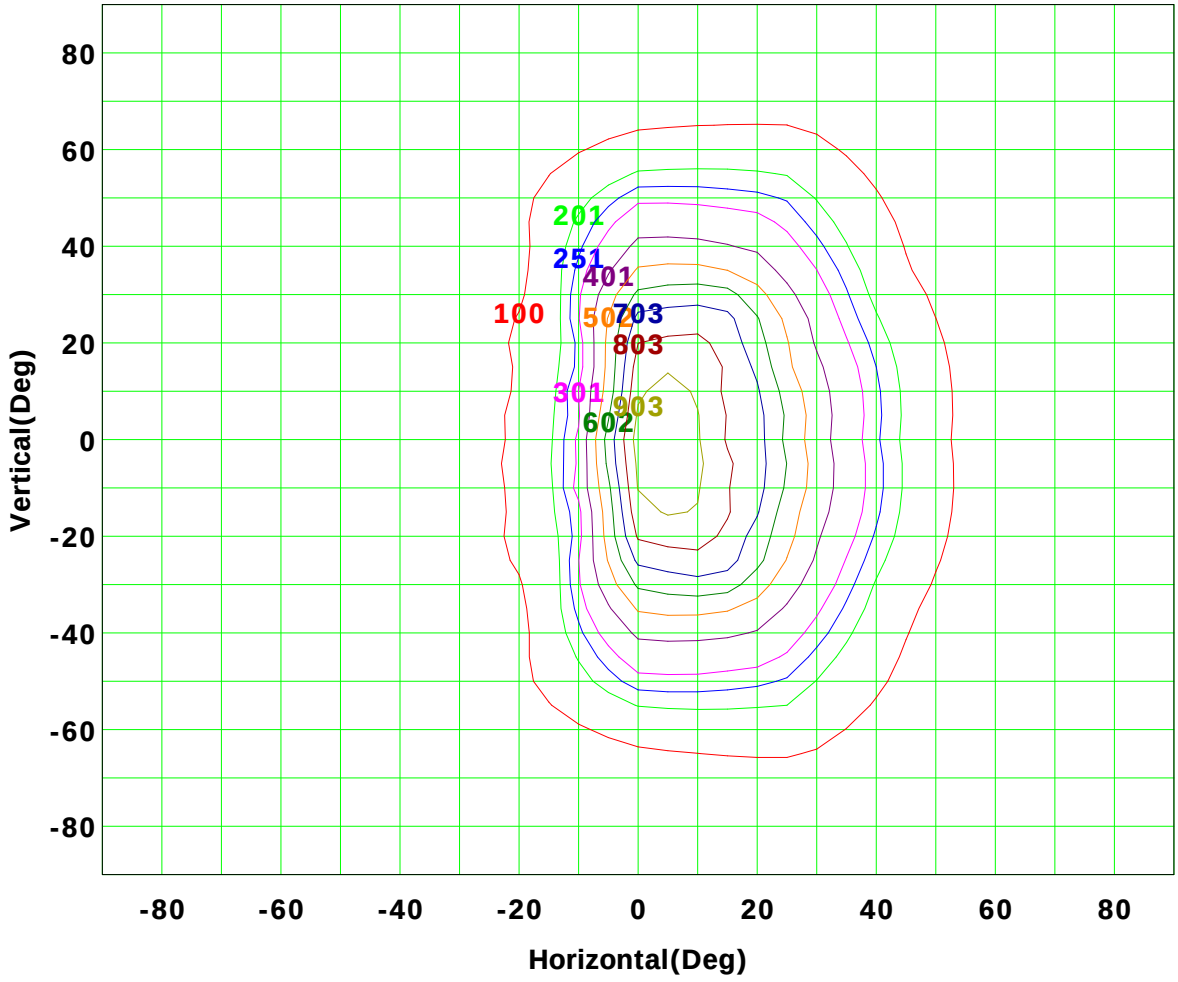
Test Lab: ACOLYTE
Test Type: TYPE C
Temperature: 25℃
Operator: leo

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

Isocandela (rectangle)



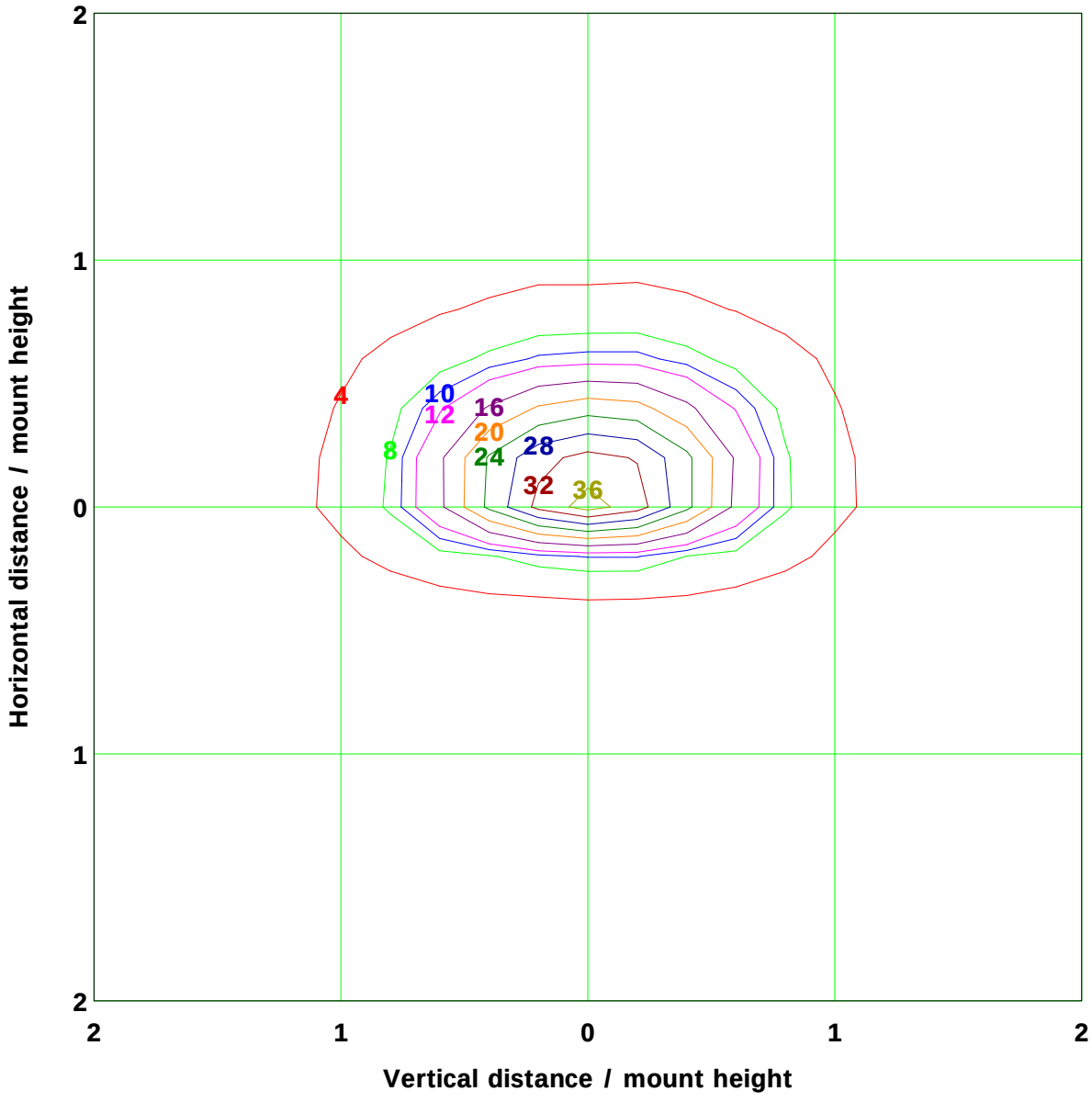
Imax (100%): 1004 cd

(10%): 100 cd	(20%): 201 cd
(25%): 251 cd	(30%): 301 cd
(40%): 401 cd	(50%): 502 cd
(60%): 602 cd	(70%): 703 cd
(80%): 803 cd	(90%): 903 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%): 40.0 lx**

(10%): 4.0 lx	**(20%): 8.0 lx**
(25%): 10.0 lx	**(30%): 12.0 lx**
(40%): 16.0 lx	**(50%): 20.0 lx**
(60%): 24.0 lx	**(70%): 28.0 lx**
(80%): 32.0 lx	**(90%): 36.0 lx**

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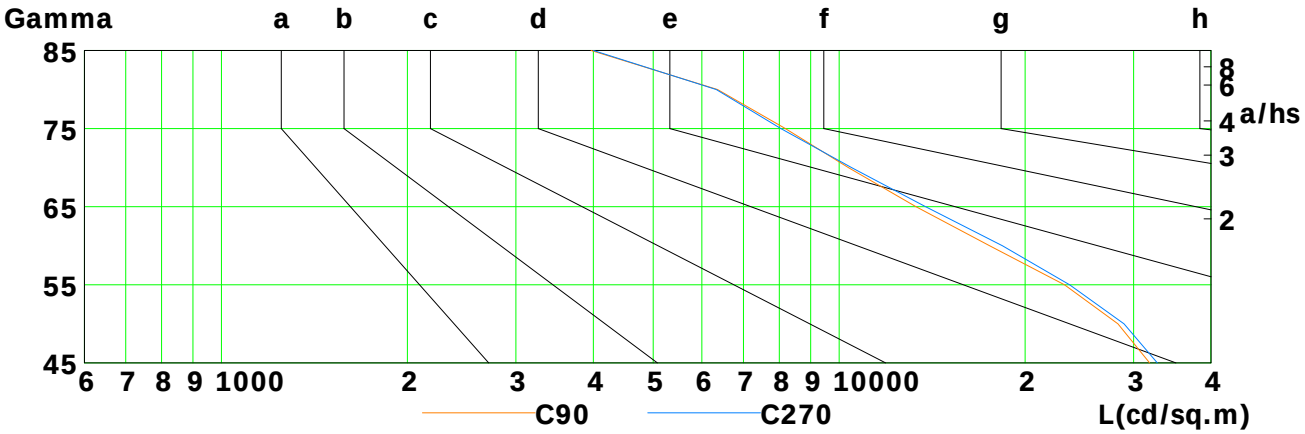
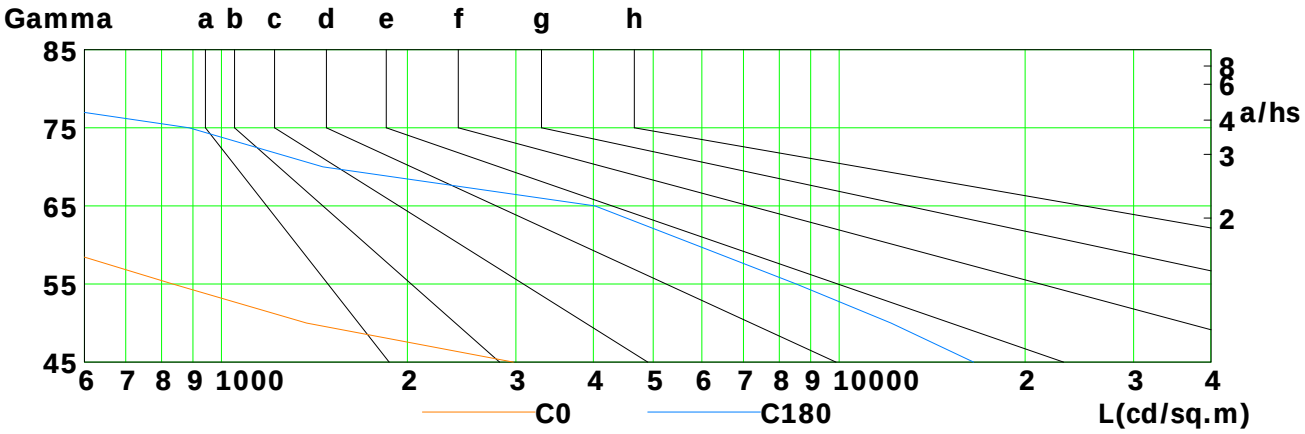
Test Lab: ACOLYTE
Test Type: TYPE C
Temperature: 25℃
Operator: leo

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

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



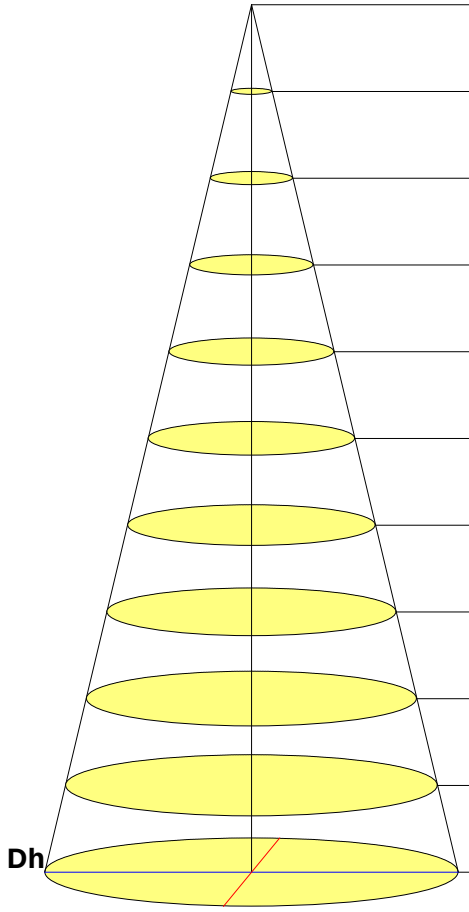


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	2971	1375	834	518	272	172	232	272	471
C90	31824	28297	23162	17534	13320	10354	8187	6359	3967
C180	16513	12133	8526	5861	4027	1461	887	334	559
C270	32759	28924	23617	18392	13805	10481	8051	6326	4002

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	952.14	0.63/1.53	0.9	339.71
2.0	238.04	1.27/3.07	3.6	84.93
3.0	105.79	1.90/4.60	8.0	37.75
4.0	59.51	2.54/6.14	14.2	21.23
5.0	38.09	3.17/7.67	22.2	13.59
6.0	26.45	3.81/9.20	32.0	9.44
7.0	19.43	4.44/10.74	43.5	6.93
8.0	14.88	5.07/12.27	56.9	5.31
9.0	11.75	5.71/13.81	72.0	4.19
10.0	9.52	6.34/15.34	88.8	3.40

Beam Angle(B): H35.2 V75.0 Field Angle(F): H75.0 V128.9

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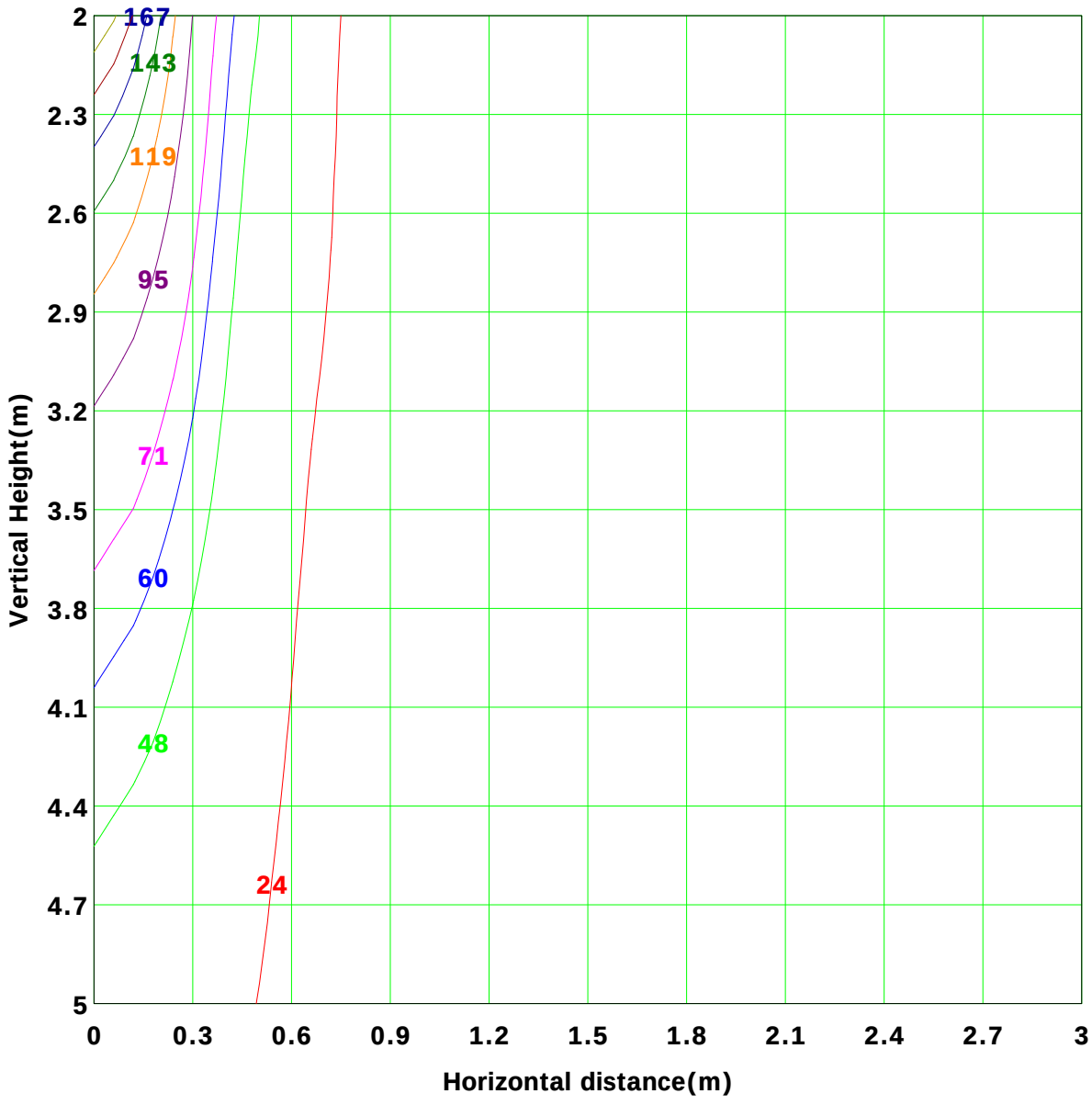
Test Type: TYPE C
Temperature: 25℃
Operator: leo

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: 238.0 lx

(10%): 23.8 lx	**(20%): 47.6 lx**
(25%): 59.5 lx	**(30%): 71.4 lx**
(40%): 95.2 lx	**(50%): 119.0 lx**
(60%): 142.8 lx	**(70%): 166.6 lx**
(80%): 190.4 lx	**(90%): 214.2 lx**

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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:

Area Flux Table

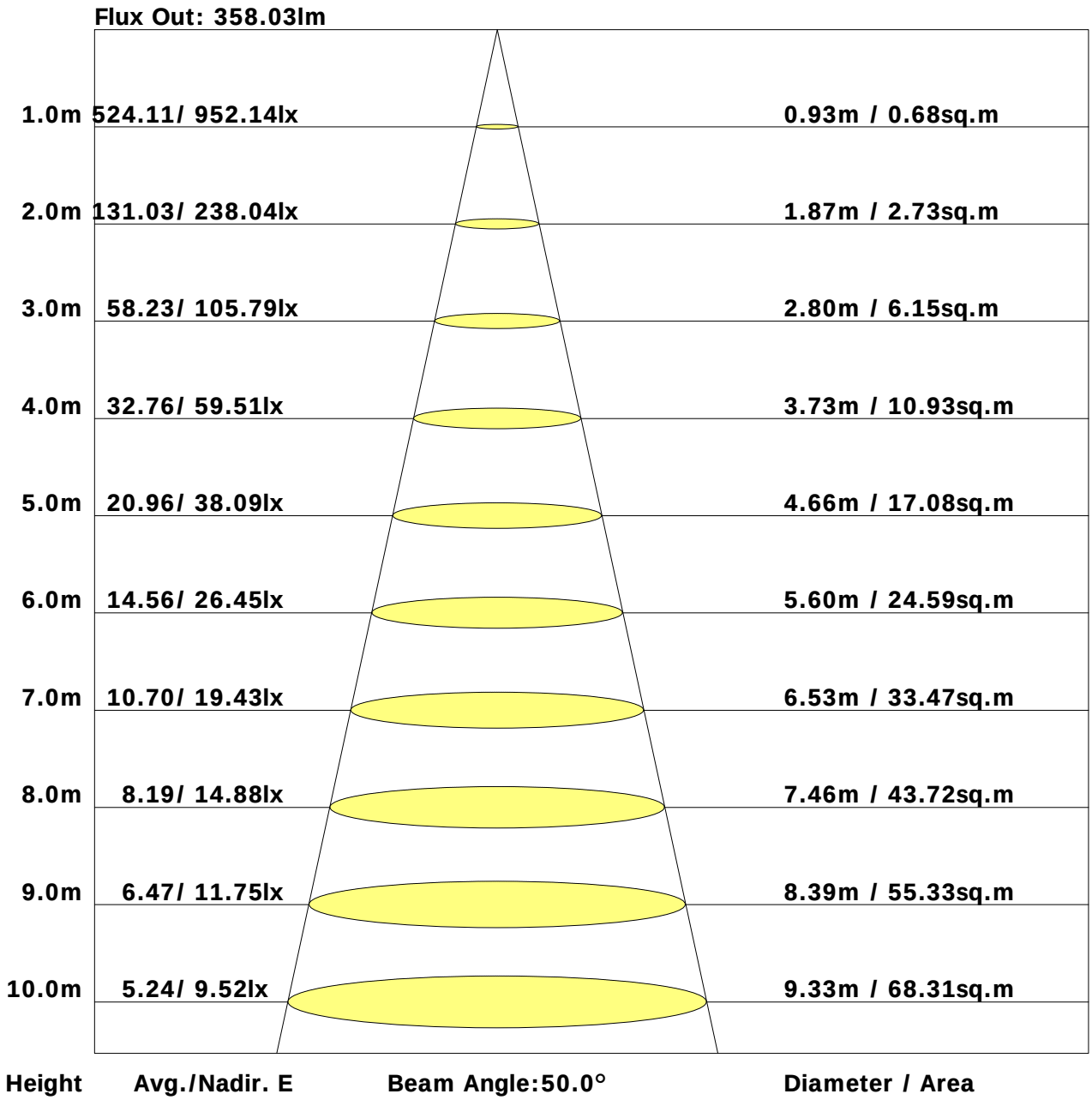
Unit: lm

Vertical plane \ Horizontal plane	-90 – -80	-80 – -70	-70 – -60	-60 – -50	-50 – -40	-40 – -30	-30 – -20	-20 – -10	-10 – 0	0 – 10	10 – 20	20 – 30	30 – 40	40 – 50	50 – 60	60 – 70	70 – 80	80 – 90	Flux(T)	Flux(E)
-90 – -80	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0
-80 – -70	0.0	0.0	0.0	0.1	0.3	0.7	1.1	1.1	1.1	0.9	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	6.0	0.0
-70 – -60	0.0	0.0	0.0	0.2	0.7	1.7	2.8	3.0	3.0	2.4	1.4	0.6	0.2	0.1	0.0	0.0	0.0	0.0	16.2	5.9
-60 – -50	0.0	0.0	0.1	0.3	1.3	3.0	5.2	6.2	6.5	5.3	2.9	1.1	0.5	0.2	0.0	0.0	0.0	0.0	32.6	27.3
-50 – -40	0.0	0.0	0.1	0.6	1.9	4.5	7.8	10.0	10.7	8.6	4.2	1.4	0.7	0.2	0.0	0.0	0.0	0.0	50.8	46.1
-40 – -30	0.0	0.0	0.2	0.9	2.5	5.8	10.4	14.8	16.0	11.9	4.6	1.8	0.9	0.3	0.1	0.0	0.0	0.0	70.2	64.7
-30 – -20	0.0	0.0	0.3	1.2	3.3	7.1	13.2	20.7	22.5	15.2	4.8	2.1	1.1	0.5	0.1	0.0	0.0	0.0	92.2	86.9
-20 – -10	0.0	0.0	0.4	1.4	3.9	8.3	14.8	23.0	26.6	16.3	5.1	2.2	1.3	0.6	0.1	0.0	0.0	0.0	104.2	98.8
-10 – 0	0.0	0.0	0.4	1.5	4.1	8.8	16.3	23.7	28.9	18.0	5.5	2.4	1.4	0.7	0.1	0.0	0.0	0.0	112.0	106.7
0 – 10	0.0	0.0	0.4	1.5	4.2	9.0	16.6	24.1	29.3	18.8	5.8	2.4	1.4	0.7	0.2	0.0	0.0	0.0	114.4	109.1
10 – 20	0.0	0.0	0.4	1.5	4.1	8.7	15.6	23.8	27.3	17.0	5.5	2.3	1.3	0.6	0.1	0.0	0.0	0.0	108.2	102.9
20 – 30	0.0	0.0	0.3	1.3	3.4	7.5	13.8	21.1	22.6	15.3	4.9	2.2	1.2	0.5	0.1	0.0	0.0	0.0	94.4	89.2
30 – 40	0.0	0.0	0.2	1.0	2.6	6.1	10.8	15.1	16.1	11.9	4.7	1.8	1.0	0.3	0.1	0.0	0.0	0.0	71.7	66.2
40 – 50	0.0	0.0	0.1	0.7	2.0	4.6	8.0	10.0	10.6	8.4	4.1	1.5	0.7	0.3	0.1	0.0	0.0	0.0	51.1	46.3
50 – 60	0.0	0.0	0.1	0.4	1.4	3.2	5.3	6.2	6.4	5.1	2.9	1.1	0.5	0.2	0.0	0.0	0.0	0.0	32.9	27.5
60 – 70	0.0	0.0	0.0	0.2	0.8	1.8	2.9	3.1	2.9	2.3	1.4	0.6	0.2	0.1	0.0	0.0	0.0	0.0	16.5	6.2
70 – 80	0.0	0.0	0.0	0.1	0.3	0.7	1.2	1.2	1.1	0.9	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	6.3	0.0
80 – 90	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
Flux(T)	0.0	0.4	3.1	12.6	36.8	81.7	145.9	207.5	232.1	158.6	59.1	24.1	12.7	5.3	1.3	0.3	0.1	0.0	982	
Flux(E)	0.0	0.0	0.0	2.5	28.9	76.2	141.3	202.6	226.9	152.9	49.9	2.5	0.0	0.0	0.0	0.0	0.0	0.0		884

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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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	1.5	2.8	1.9	3.1	3.5	22.1	23.4	22.5	23.8	24.1
3H	1.5	2.6	1.9	3.0	3.4	23.0	24.1	23.4	24.5	24.9
4H	1.5	2.6	2.0	3.0	3.4	23.2	24.2	23.6	24.6	25.0
6H	1.7	2.7	2.1	3.0	3.5	23.3	24.3	23.7	24.7	25.1
8H	1.8	2.7	2.2	3.1	3.6	23.3	24.2	23.7	24.6	25.1
12H	2.0	2.9	2.4	3.3	3.7	23.3	24.1	23.7	24.6	25.0
X=4H Y=2H	4.1	5.2	4.5	5.5	5.9	22.2	23.3	22.6	23.6	24.0
3H	4.1	4.9	4.5	5.4	5.8	23.3	24.2	23.7	24.6	25.0
4H	4.1	4.9	4.5	5.3	5.8	23.6	24.4	24.1	24.9	25.3
6H	4.2	4.8	4.6	5.3	5.8	23.8	24.5	24.3	24.9	25.4
8H	4.3	4.9	4.7	5.4	5.9	23.8	24.4	24.3	24.9	25.4
12H	4.4	5.0	4.9	5.5	6.0	23.8	24.3	24.3	24.8	25.3
X=8H Y=4H	4.8	5.4	5.3	5.9	6.4	23.6	24.2	24.1	24.7	25.2
6H	4.9	5.4	5.4	6.0	6.5	23.8	24.3	24.3	24.8	25.3
8H	5.0	5.5	5.6	6.0	6.6	23.8	24.2	24.3	24.8	25.3
12H	5.3	5.7	5.8	6.2	6.8	23.8	24.2	24.3	24.7	25.3
X=12H Y=4H	5.0	5.5	5.5	6.0	6.5	23.5	24.1	24.0	24.6	25.1
6H	5.1	5.6	5.6	6.0	6.6	23.7	24.2	24.3	24.7	25.2
8H	5.3	5.7	5.8	6.2	6.8	23.7	24.1	24.3	24.7	25.3

Calculate in accordance with CIE 190:2010

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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 = 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	0.68	0.77	0.84	0.88	0.94	0.99	1.01	1.05	1.07
	0.30		0.61	0.71	0.78	0.83	0.90	0.94	0.97	1.02	1.04
	0.20		0.57	0.66	0.73	0.78	0.86	0.91	0.94	0.99	1.02
0.50	0.50	0.20	0.66	0.75	0.81	0.86	0.91	0.95	0.97	1.01	1.03
	0.30		0.60	0.70	0.76	0.81	0.87	0.91	0.94	0.98	1.01
	0.20		0.56	0.65	0.72	0.77	0.84	0.88	0.92	0.96	0.99
0.30	0.50	0.20	0.65	0.73	0.79	0.83	0.88	0.92	0.94	0.97	0.99
	0.30		0.60	0.69	0.75	0.79	0.85	0.89	0.91	0.95	0.97
	0.20		0.56	0.65	0.71	0.76	0.82	0.86	0.89	0.93	0.95
0.00	0.00	0.00	0.54	0.62	0.68	0.73	0.79	0.82	0.85	0.88	0.91

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 = 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	0.83	0.67	0.56	0.48	0.38	0.31	0.26	0.20	0.16
	0.30		0.69	0.57	0.49	0.43	0.34	0.29	0.24	0.19	0.16
	0.20		0.59	0.50	0.43	0.38	0.31	0.26	0.23	0.18	0.15
0.50	0.50	0.20	0.79	0.64	0.53	0.46	0.36	0.33	0.25	0.19	0.15
	0.30		0.67	0.56	0.47	0.41	0.33	0.27	0.23	0.18	0.15
	0.20		0.58	0.49	0.42	0.37	0.30	0.25	0.22	0.17	0.14
0.30	0.50	0.20	0.77	0.61	0.51	0.43	0.34	0.27	0.23	0.18	0.14
	0.30		0.65	0.54	0.46	0.39	0.31	0.26	0.22	0.17	0.14
	0.20		0.57	0.48	0.41	0.36	0.29	0.24	0.21	0.16	0.13
0.00	0.00	0.00	0.46	0.37	0.31	0.27	0.21	0.17	0.14	0.11	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 = 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	0.13	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	0.18	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	0.14	0.15	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	0.16	0.17	0.18	0.19
	0.20		0.06	0.08	0.09	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: