ACOLYTE
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Tel: +1 212 629 6830 (USA)
Email: sales-us@genledbrands.com

Report No.: 01 **Test Time: 2016/10/14 09:25**

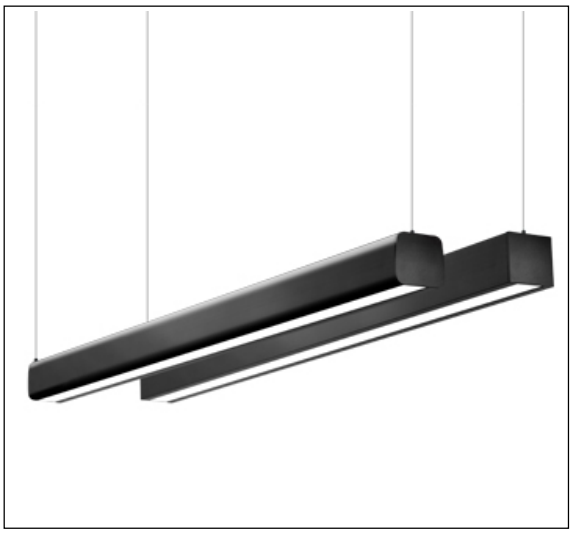
Luminaire Property

Luminaire Manufacturer:
Luminaire Category: Synthesis LED Linear
Luminaire Description: Synthesis Indirect SO 28CM 180 mA 3500K 10degree
Luminous Length (mm): 304 **Luminous Width (mm): 50**
Luminous Height (mm): 2 **Voltage: 219.8 V**
Current: 0.032 A **Power: 6.08 W**
Power Factor: 0.873

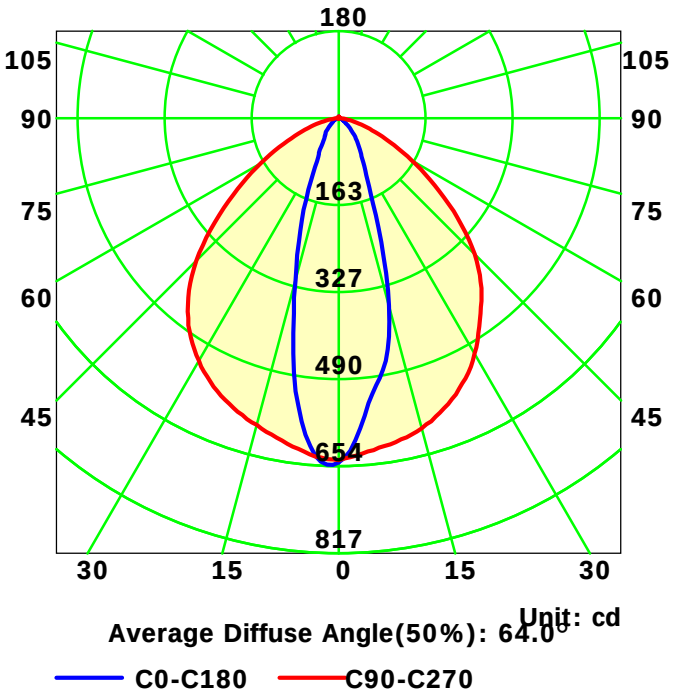
Photometric Results

CIE Class: Direct **Total Rated Lamp Lumens: 627.9 lm**
Measurement Flux: 627.9 lm **Efficiency: 100%**
Downward Ratio: 99% **Upward Ratio: 1%**
Horizontal Diffuse Angle(50%): H31.1
Vertical Diffuse Angle(50%): V96.9
Luminaire Efficacy Rating (LER): 103 **Central Intensity: 646.72 cd**
Max. Intensity: 651.72 cd **Pos of Max. Intensity: H180 V1**

Picture Of Luminaire



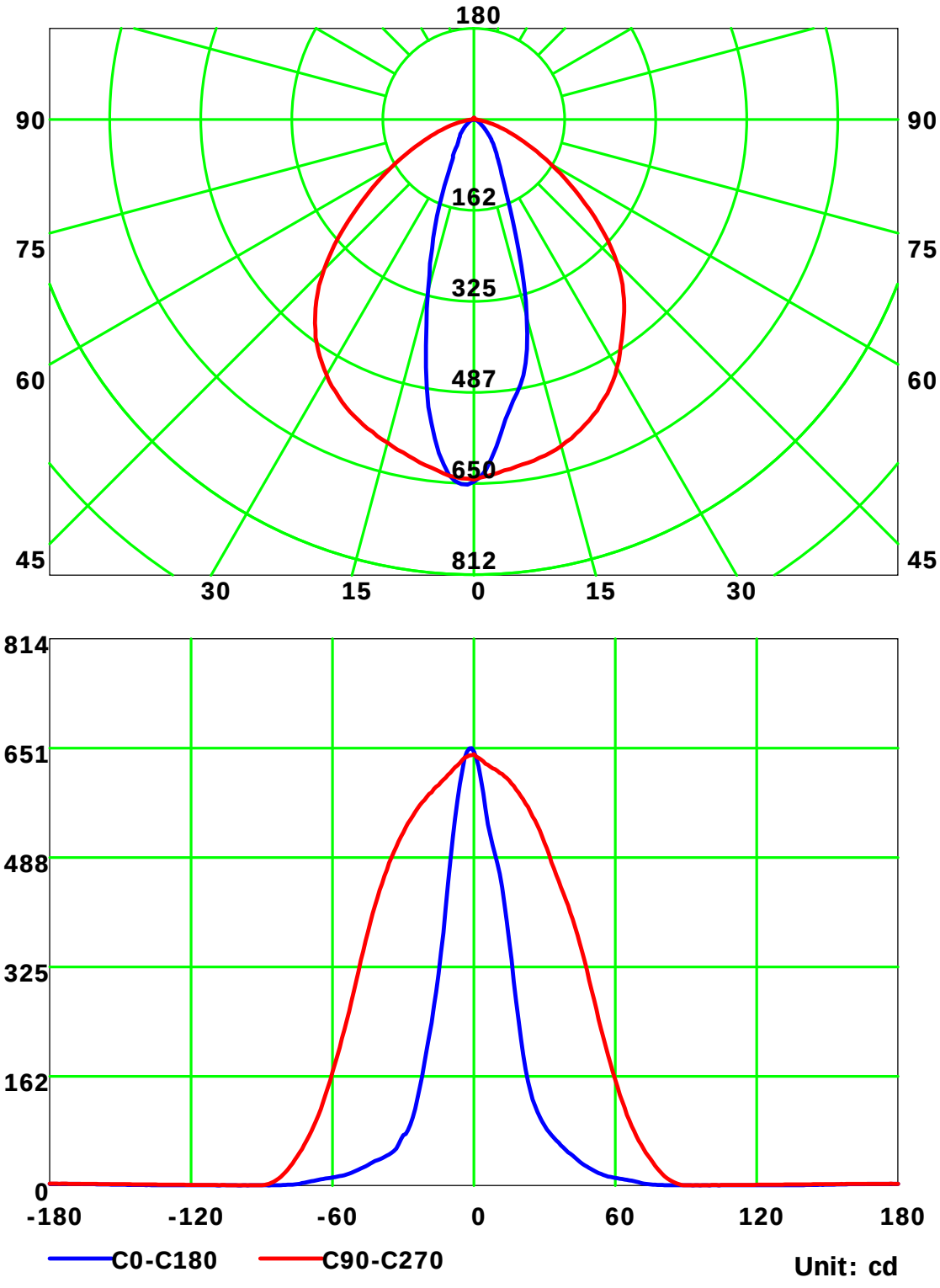
Luminous Intensity Distribution Curve



Unit: cd
Average Diffuse Angle(50%): 64.0°
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:**

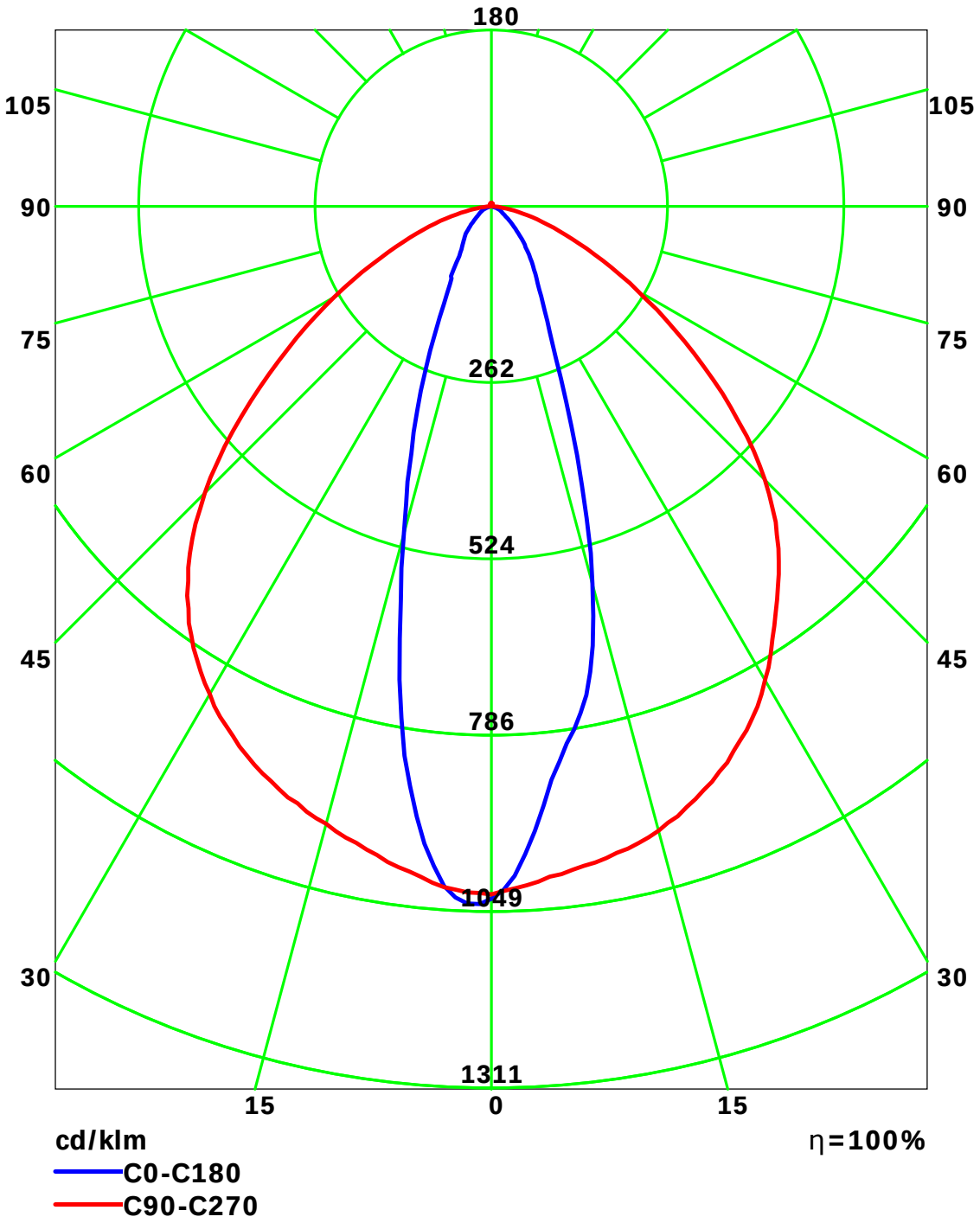
Luminous Intensity Distribution Curve



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:

Luminous Intensity Distribution Curve(cd/klm)



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

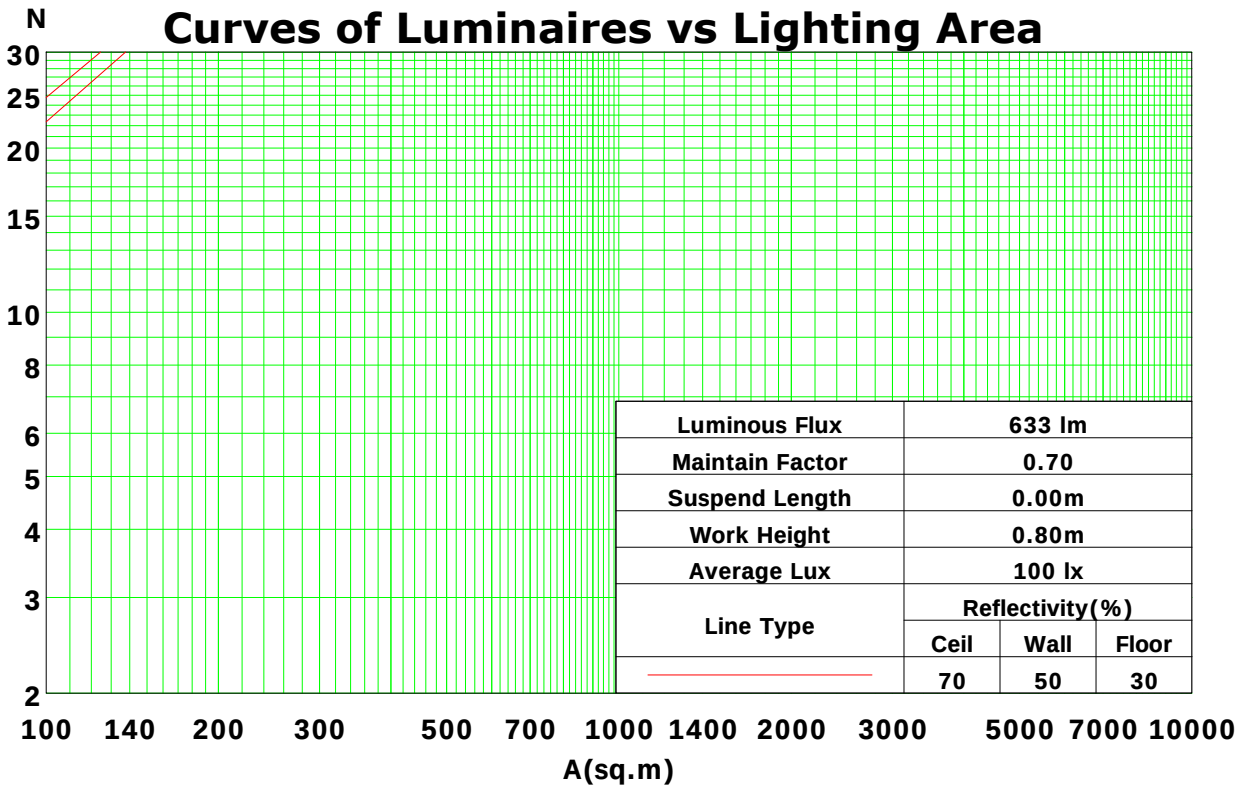
Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 9.028 m
Humidity: 60%
Inspector:

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	111	108	104	102	109	105	102	100	101	99	96	97	95	93	93	92	90	88
2	104	97	92	88	101	95	91	87	92	88	85	89	85	82	86	83	80	79
3	97	89	82	77	94	87	81	76	84	79	75	81	77	74	79	75	72	70
4	90	81	74	69	88	80	73	68	77	72	67	75	70	66	73	69	65	63
5	85	74	67	62	83	73	66	61	71	65	61	69	64	60	67	63	59	57
6	80	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53
7	75	64	56	51	73	63	56	51	61	55	51	60	54	50	59	54	50	48
8	71	59	52	47	69	59	52	47	57	51	47	56	51	47	55	50	46	45
9	67	56	49	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42
10	63	52	45	41	62	52	45	41	51	45	41	50	44	40	49	44	40	39

Spacing Criteria (0-180): 0.52
Spacing Criteria (90-270): 1.20
Spacing Criteria (Diagonal): 0.71

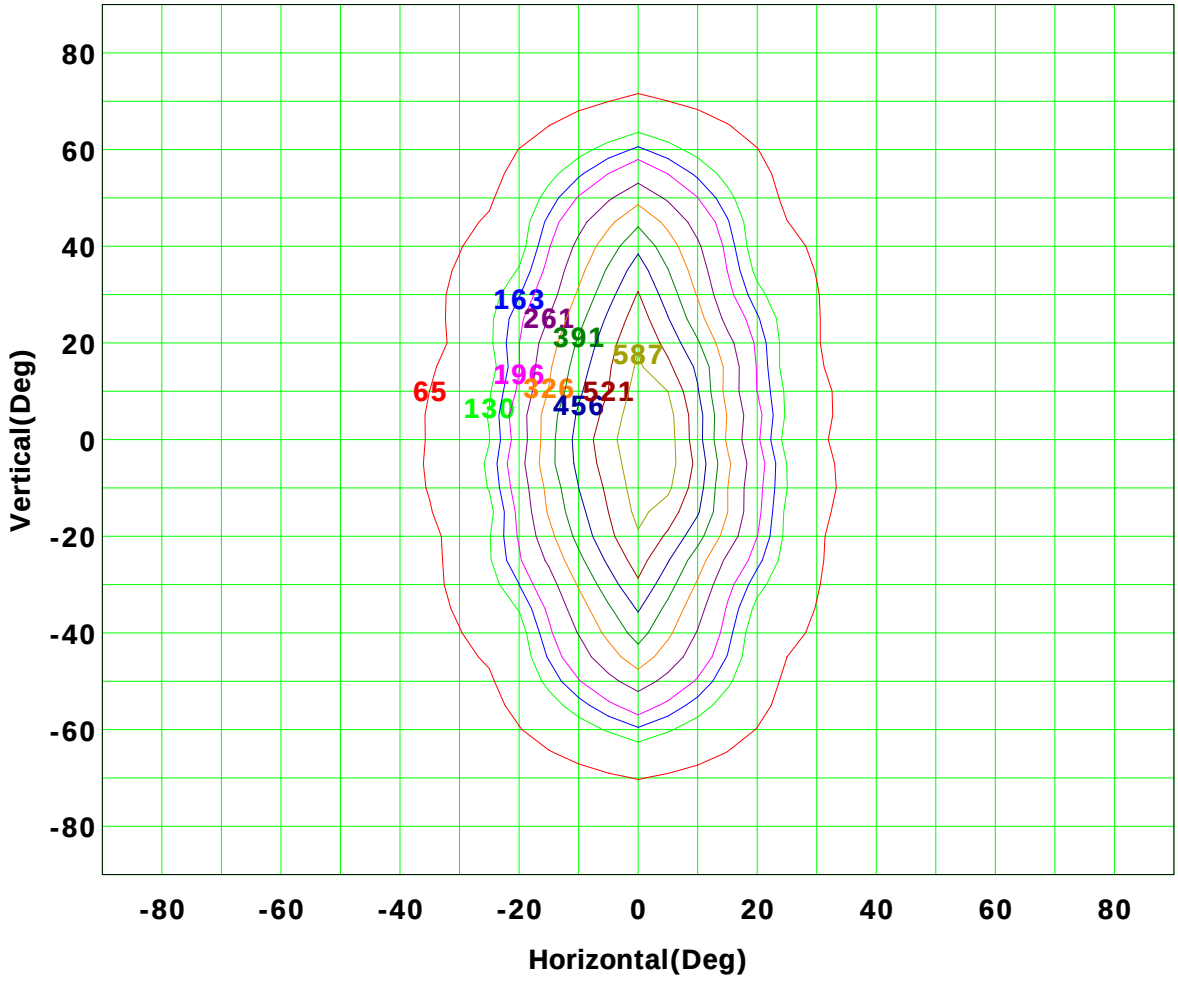
Curves of Luminaires vs Lighting Area



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)



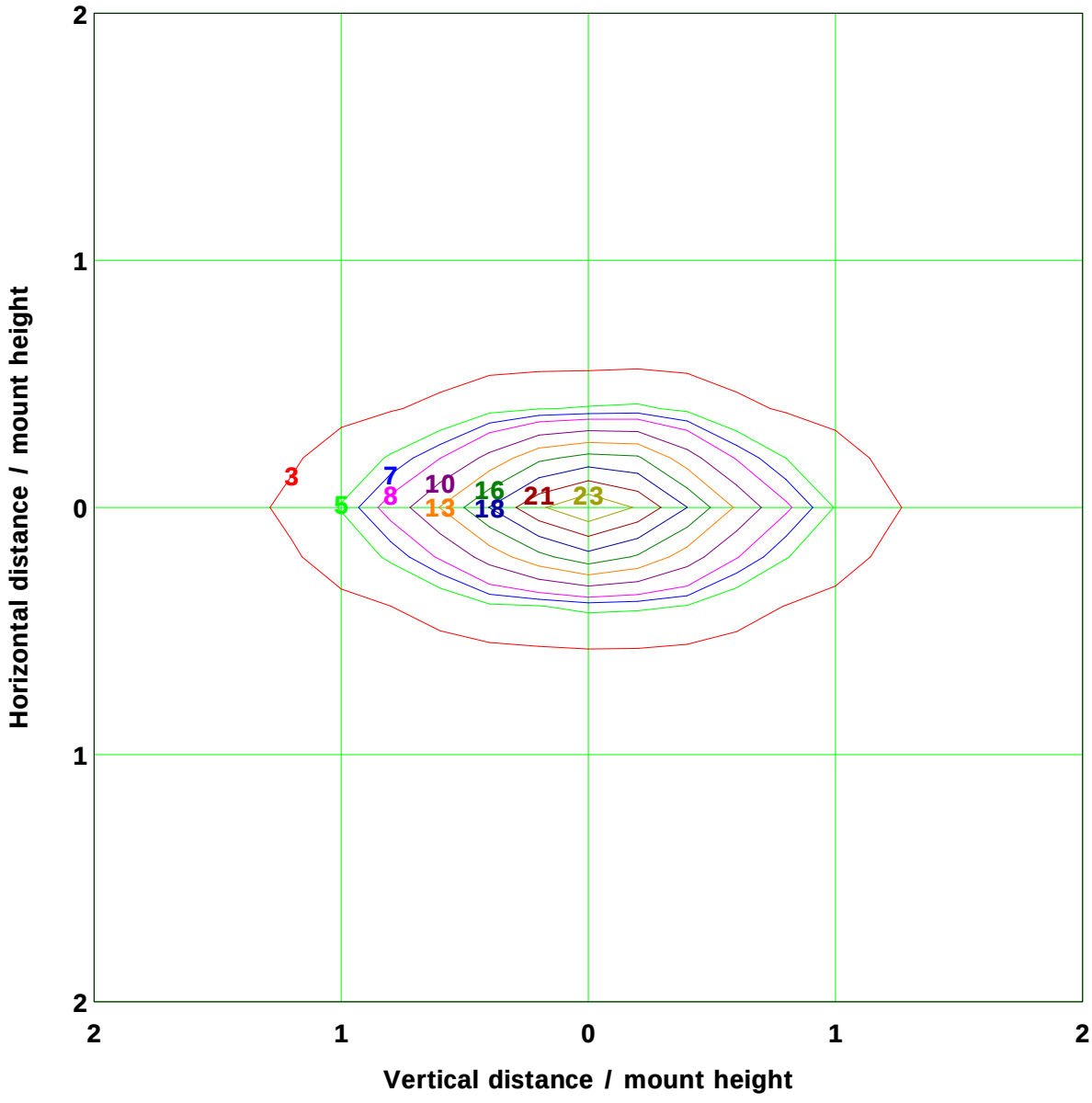
Imax (100%): 652 cd

(10%): 65 cd	(20%): 130 cd
(25%): 163 cd	(30%): 196 cd
(40%): 261 cd	(50%): 326 cd
(60%): 391 cd	(70%): 456 cd
(80%): 521 cd	(90%): 587 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%): 26.1 lx**

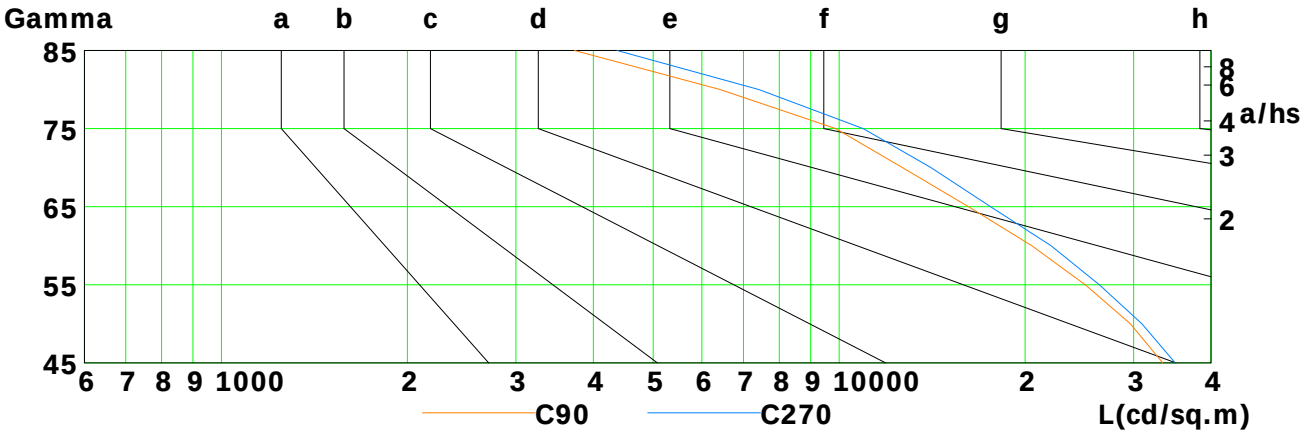
(10%): 2.6 lx	(20%): 5.2 lx
(25%): 6.5 lx	(30%): 7.8 lx
(40%): 10.4 lx	(50%): 13.0 lx
(60%): 15.6 lx	(70%): 18.2 lx
(80%): 20.8 lx	(90%): 23.5 lx

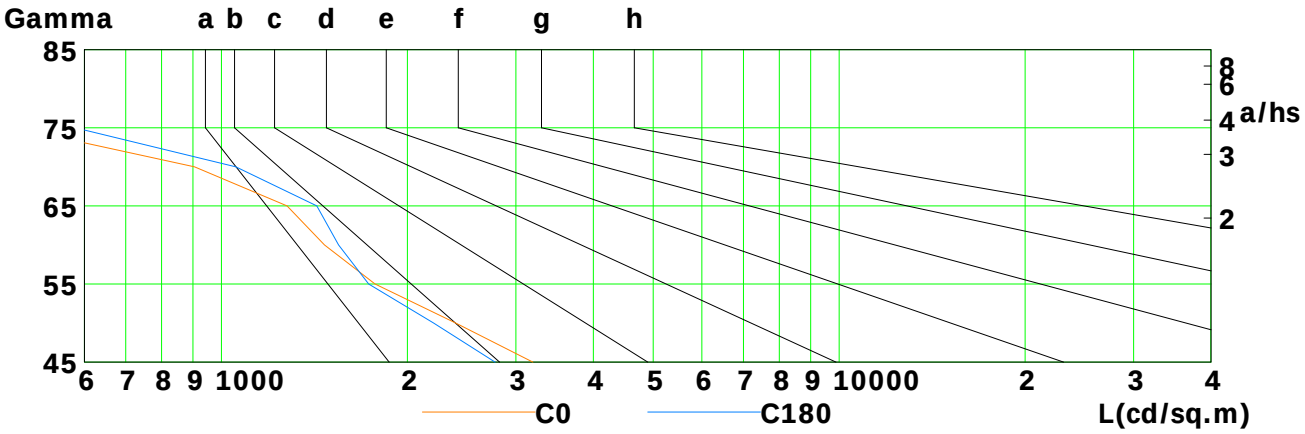
C Plane (°):0.0-360.0: 30.0
Test Lab: ACOLYTE
Test Type: TYPE C
Temperature: 25℃
Operator: leo

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



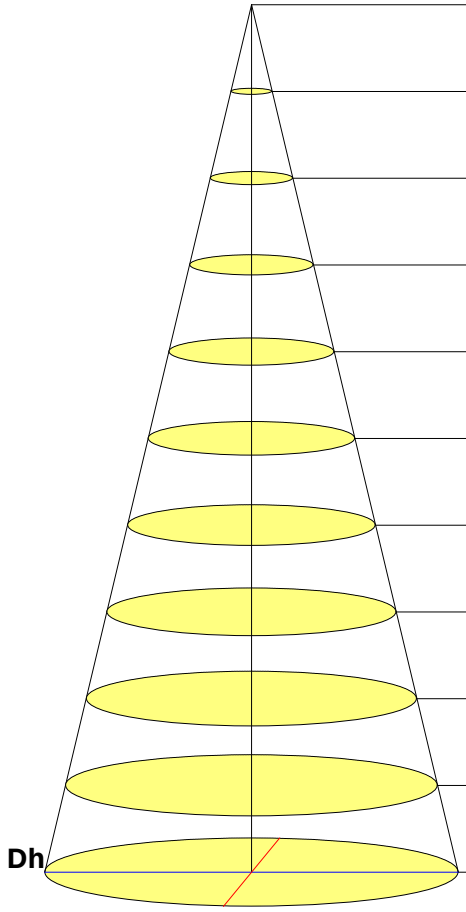


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	3196	2396	1774	1469	1277	905	467	408	430
C90	33416	29614	25040	20528	16204	12665	9879	6421	3728
C180	2773	2208	1732	1548	1428	1055	582	479	440
C270	34997	30935	26392	22037	17601	14084	10941	7414	4374

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



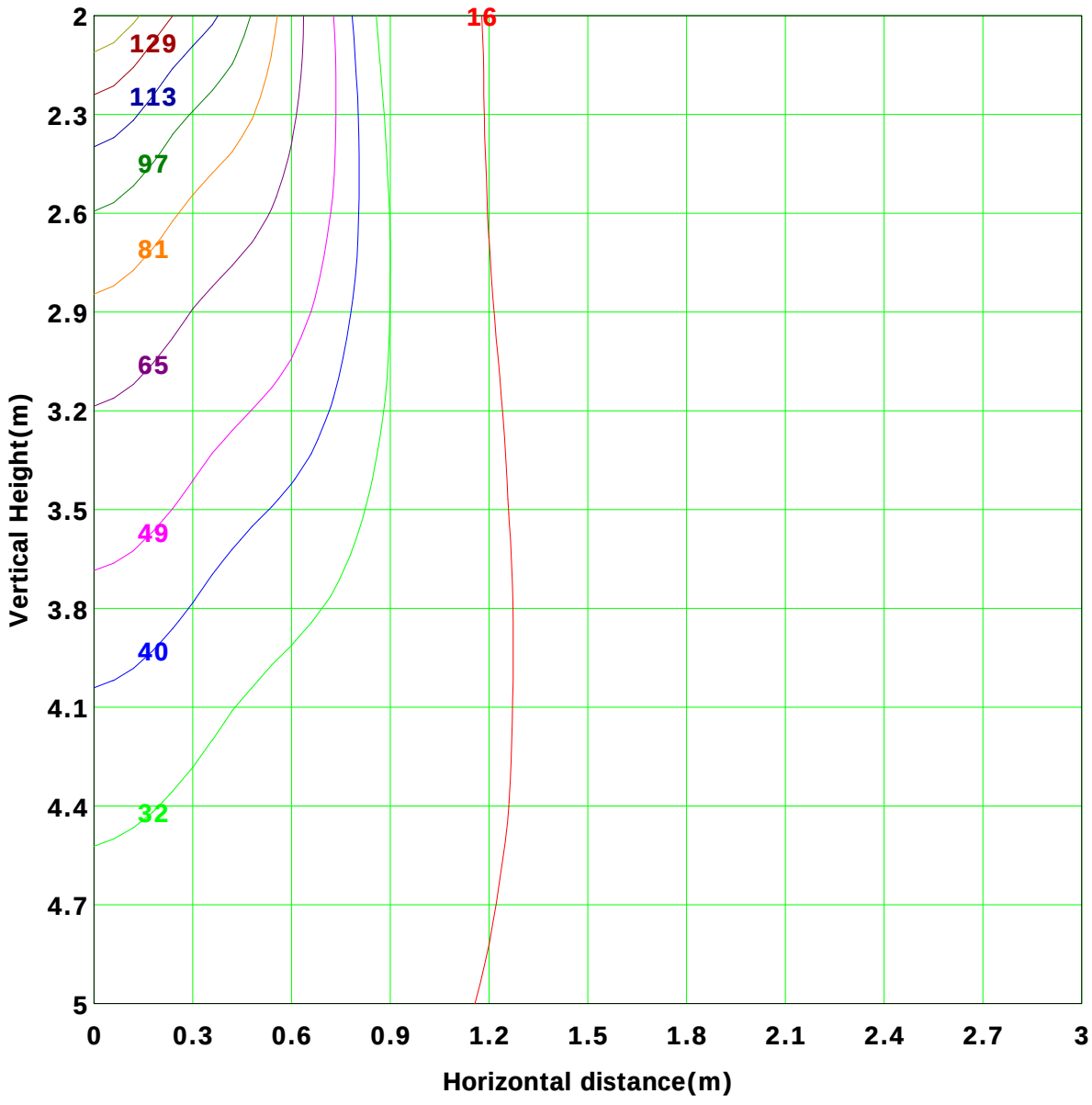
Dist(m)	Enadir(lx)	Dh/Dv_B(m)	S_B(sq.m)	Eav_B(lx)
1.0	646.72	0.56/2.26	0.9	219.04
2.0	161.68	1.11/4.51	3.8	54.76
3.0	71.86	1.67/6.77	8.5	24.34
4.0	40.42	2.23/9.03	15.0	13.69
5.0	25.87	2.78/11.28	23.5	8.76
6.0	17.96	3.34/13.54	33.9	6.08
7.0	13.20	3.90/15.80	46.1	4.47
8.0	10.10	4.45/18.06	60.2	3.42
9.0	7.98	5.01/20.31	76.2	2.70
10.0	6.47	5.57/22.57	94.0	2.19

Beam Angle(B): H31.1 V96.9 Field Angle(F): H67.5 V142.0

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: 161.7 lx

(10%): 16.2 lx	(20%): 32.3 lx
(25%): 40.4 lx	(30%): 48.5 lx
(40%): 64.7 lx	(50%): 80.8 lx
(60%): 97.0 lx	(70%): 113.2 lx
(80%): 129.3 lx	(90%): 145.5 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:

Area Flux Table

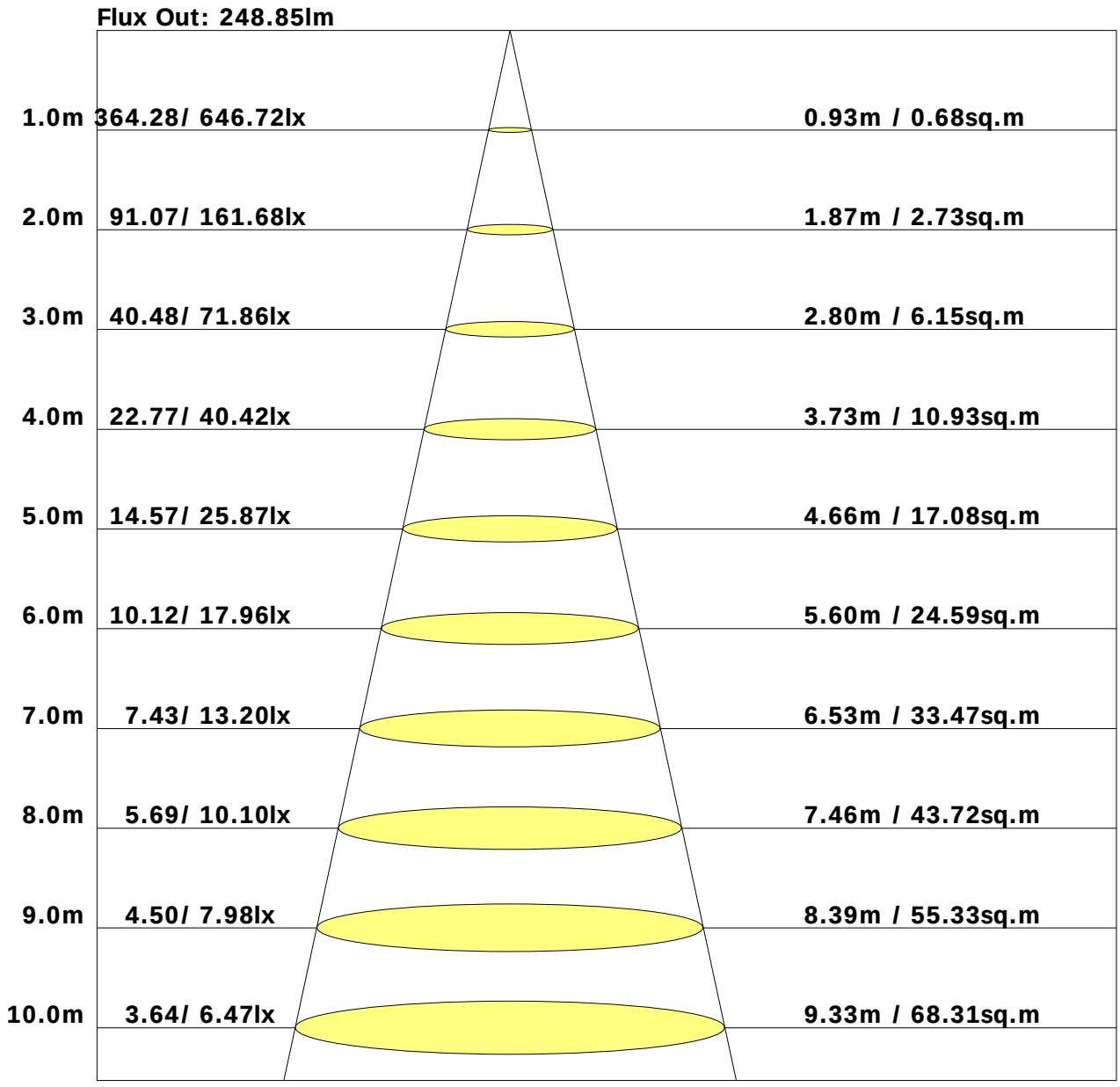
Unit: lm

Horizontal plane \ Vertical plane	Flux(E)	Flux(T)	90	80	70	60	50	40	30	20	10	0	-10	-20	-30	-40	-50	-60	-70	-80	-90
-90	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.3	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	
-70	0.0	1.3	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	
-60	0.0	3.1	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.0	0.0	
-50	0.0	7.2	0.0	0.1	0.3	0.4	0.4	0.5	0.6	0.6	0.7	0.7	0.6	0.5	0.5	0.4	0.4	0.3	0.1	0.0	
-40	1.6	15.3	0.1	0.3	0.5	0.8	1.0	1.2	1.2	1.4	1.4	1.4	1.3	1.1	1.1	1.0	0.8	0.5	0.3	0.1	
-30	28.5	35.4	0.1	0.5	1.0	1.5	1.9	2.5	3.2	3.6	3.7	3.6	3.3	3.1	2.5	1.9	1.5	1.0	0.5	0.1	
-20	83.4	87.1	0.1	0.8	1.9	3.3	4.7	5.7	7.6	9.6	10.1	9.6	9.0	7.4	5.9	4.9	3.4	2.0	0.8	0.2	
-10	155.4	158.3	0.2	1.1	2.9	5.6	8.9	11.4	13.9	16.6	18.1	17.9	16.2	13.9	11.9	9.3	5.9	3.1	1.2	0.2	
0	151.9	154.8	0.2	1.1	2.8	5.7	9.0	11.6	14.1	15.7	16.7	16.5	15.5	14.1	12.1	9.4	5.9	3.1	1.2	0.2	
10	86.8	90.3	0.1	0.7	1.8	3.3	4.9	6.1	8.1	9.6	10.6	10.3	9.2	7.9	6.3	5.0	3.5	1.9	0.8	0.1	
20	31.2	37.3	0.1	0.4	0.9	1.5	2.0	2.8	3.5	3.7	4.0	3.9	3.4	3.4	2.8	2.0	1.5	0.9	0.4	0.1	
30	5.0	16.8	0.0	0.2	0.5	0.8	1.0	1.3	1.4	1.6	1.7	1.7	1.5	1.3	1.2	1.0	0.8	0.5	0.2	0.0	
40	0.0	7.4	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.8	0.7	0.6	0.5	0.4	0.3	0.2	0.1	0.0	
50	0.0	2.9	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.0	0.0	
60	0.0	1.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	
70	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
90																					
Flux(T)		619	1.0	5.4	13.1	23.6	34.8	44.1	54.9	64.0	68.7	67.3	61.7	54.1	45.3	35.9	24.4	13.7	5.7	1.1	
Flux(E)	544		0.0	0.0	7.1	18.8	30.1	40.2	51.0	60.0	64.8	63.4	57.5	50.2	41.4	31.3	19.7	8.3	0.1	0.0	

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:

The Average Illuminance Effective Figure



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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:

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	9.6	10.9	10.0	11.3	11.6	22.7	24.0	23.1	24.4	24.7
3H	10.6	11.8	11.0	12.1	12.5	24.2	25.3	24.6	25.7	26.1
4H	10.7	11.8	11.1	12.2	12.6	24.6	25.7	25.0	26.1	26.5
6H	10.7	11.7	11.2	12.1	12.6	24.8	25.8	25.3	26.2	26.7
8H	10.7	11.7	11.2	12.1	12.5	24.9	25.8	25.3	26.2	26.7
12H	10.8	11.6	11.2	12.1	12.5	24.9	25.7	25.3	26.2	26.6
X=4H Y=2H	11.6	12.7	12.1	13.1	13.5	22.6	23.6	23.0	24.0	24.4
3H	12.4	13.3	12.9	13.7	14.2	24.1	25.0	24.5	25.4	25.9
4H	12.5	13.3	13.0	13.7	14.2	24.6	25.4	25.1	25.8	26.3
6H	12.6	13.2	13.0	13.7	14.2	24.9	25.6	25.4	26.1	26.6
8H	12.5	13.2	13.0	13.7	14.2	25.0	25.6	25.4	26.1	26.6
12H	12.6	13.1	13.1	13.6	14.1	25.0	25.5	25.5	26.0	26.5
X=8H Y=4H	13.4	14.0	13.9	14.5	15.0	24.5	25.1	25.0	25.6	26.1
6H	13.4	14.0	14.0	14.5	15.0	24.8	25.3	25.3	25.9	26.4
8H	13.4	13.9	14.0	14.4	15.0	24.9	25.3	25.4	25.9	26.4
12H	13.5	13.9	14.0	14.4	15.0	24.9	25.3	25.4	25.8	26.4
X=12H Y=4H	13.5	14.1	14.1	14.6	15.1	24.5	25.0	25.0	25.5	26.0
6H	13.6	14.1	14.2	14.6	15.2	24.8	25.2	25.3	25.7	26.3
8H	13.7	14.1	14.2	14.6	15.2	24.8	25.2	25.4	25.8	26.4

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	0.69	0.78	0.84	0.88	0.94	0.98	1.01	1.05	1.07
	0.30		0.63	0.72	0.78	0.83	0.90	0.94	0.97	1.01	1.04
	0.20		0.58	0.67	0.74	0.79	0.86	0.90	0.94	0.99	1.02
0.50	0.50	0.20	0.67	0.76	0.82	0.86	0.91	0.95	0.97	1.00	1.02
	0.30		0.62	0.70	0.77	0.81	0.87	0.91	0.94	0.98	1.00
	0.20		0.58	0.66	0.73	0.77	0.84	0.88	0.91	0.96	0.98
0.30	0.50	0.20	0.66	0.74	0.79	0.83	0.88	0.91	0.94	0.97	0.98
	0.30		0.61	0.69	0.75	0.79	0.85	0.89	0.91	0.95	0.97
	0.20		0.57	0.66	0.72	0.76	0.82	0.86	0.89	0.93	0.95
0.00	0.00	0.00	0.55	0.63	0.69	0.73	0.79	0.82	0.85	0.88	0.90

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	0.81	0.66	0.55	0.48	0.38	0.31	0.26	0.20	0.16
	0.30		0.67	0.56	0.48	0.42	0.34	0.28	0.24	0.19	0.16
	0.20		0.58	0.49	0.43	0.38	0.31	0.26	0.23	0.18	0.15
0.50	0.50	0.20	0.77	0.63	0.53	0.45	0.35	0.33	0.25	0.19	0.15
	0.30		0.65	0.54	0.46	0.41	0.32	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
0.30	0.50	0.20	0.74	0.60	0.50	0.43	0.33	0.27	0.23	0.18	0.14
	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	0.41	0.36	0.29	0.24	0.21	0.16	0.13
0.00	0.00	0.00	0.44	0.36	0.30	0.26	0.20	0.17	0.14	0.11	0.09

Rating:6W Photometrically tested without ceiling board.
Multiply UF values by service correction factors
Calculate in accordance with CIBSE Technical Memorandum NO.5 1980

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Test Type: TYPE C
Temperature: 25℃
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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	0.18	0.18	0.19	0.20	0.21	0.21	0.22	0.23
	0.30		0.11	0.12	0.14	0.15	0.17	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	0.16	0.17	0.18	0.19	0.20	0.20	0.21	0.21	0.22
	0.30		0.10	0.12	0.13	0.14	0.16	0.17	0.18	0.19	0.20
	0.20		0.07	0.08	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	0.16	0.17	0.17	0.19	0.19
	0.20		0.07	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: