ACOLYTE
www.GENLEDBrands.com/Acolyte
Tel: +1 212 629 6830 **(USA)**
Email: sales-us@genledbrands.com

Report No.: 01 **Test Time: 2016/10/20 18:33**

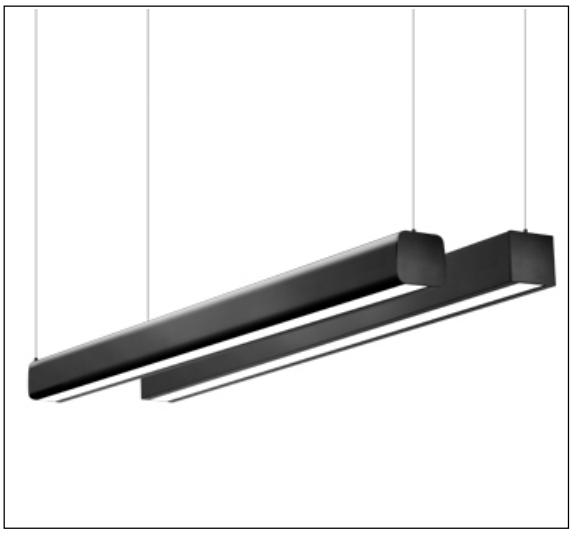
Luminaire Property

Luminaire Manufacturer:
Luminaire Category: Synthesis LED Linear
Luminaire Description: Synthesis Direct HO 28CM 307 mA 2700K 40 degree
Luminous Length (mm): 304 **Luminous Width (mm): 50**
Luminous Height (mm): 2 **Voltage: 119.9 V**
Current: 0.094 A **Power: 10.82 W**
Power Factor: 0.962

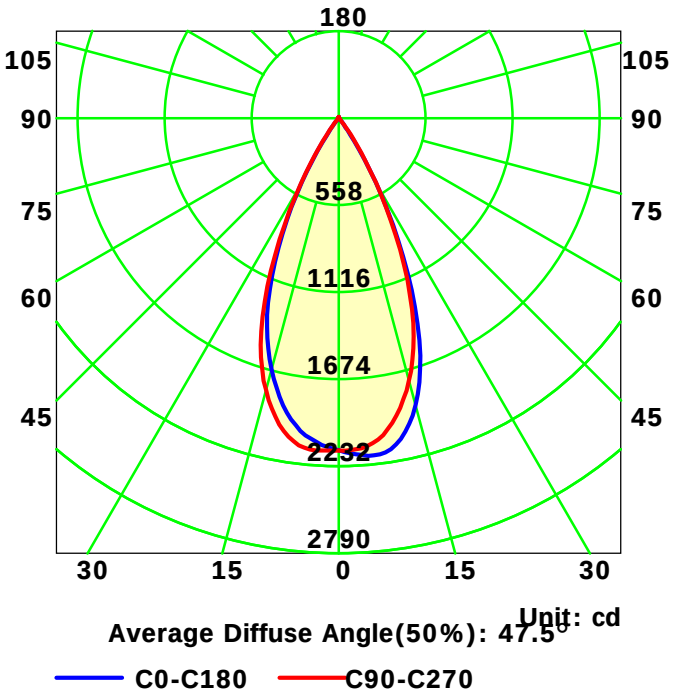
Photometric Results

CIE Class: Direct **Total Rated Lamp Lumens: 1296.6 lm**
Measurement Flux: 1296.6 lm **Efficiency: 100%**
Downward Ratio: 99% **Upward Ratio: 1%**
Horizontal Diffuse Angle(50%): H47.3
Vertical Diffuse Angle(50%): V47.7
Luminaire Efficacy Rating (LER): 120 **Central Intensity: 2129.03 cd**
Max. Intensity: 2179.54 cd **Pos of Max. Intensity: H330 V6**

Picture Of Luminaire

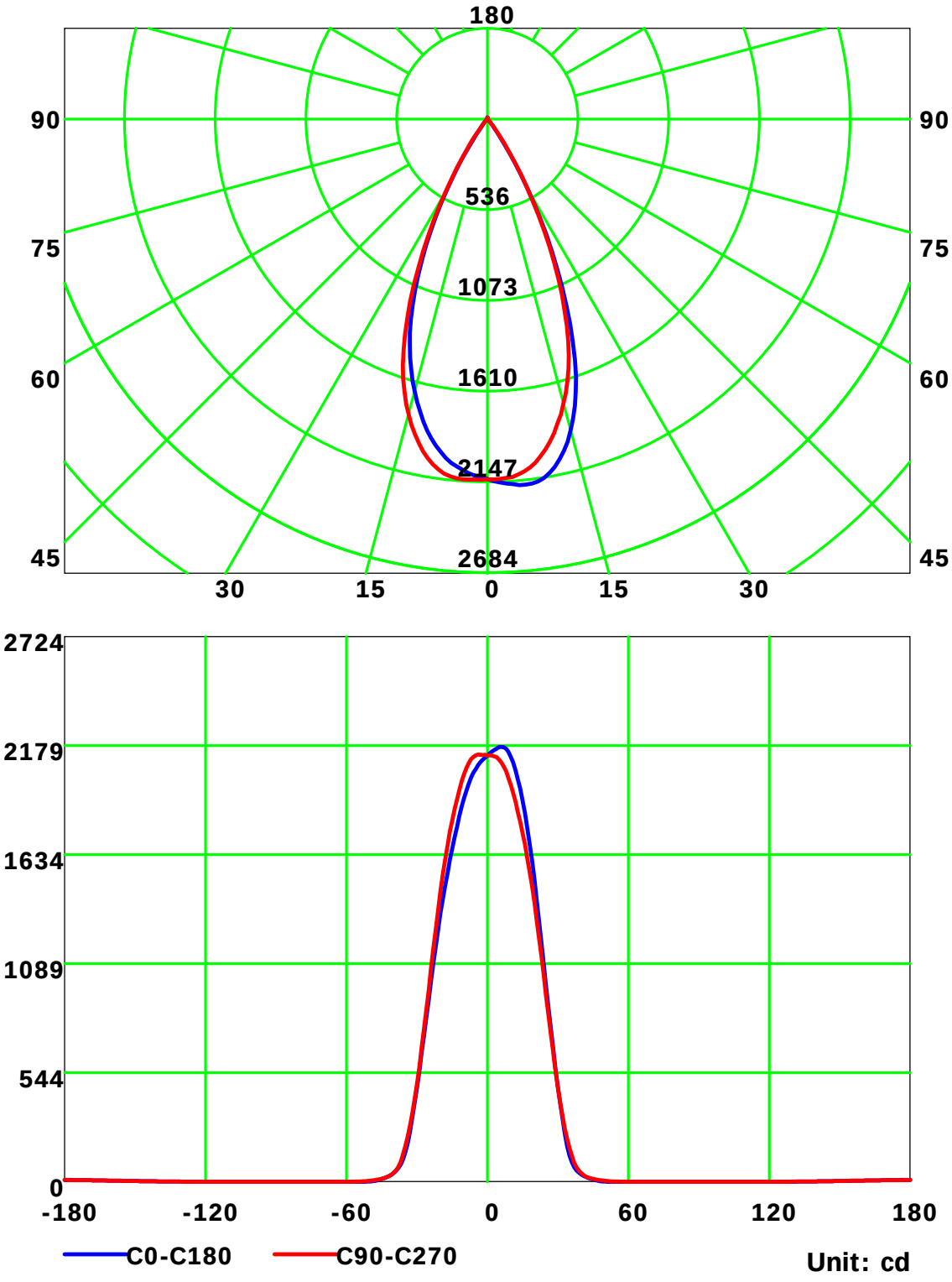


Luminous Intensity Distribution Curve



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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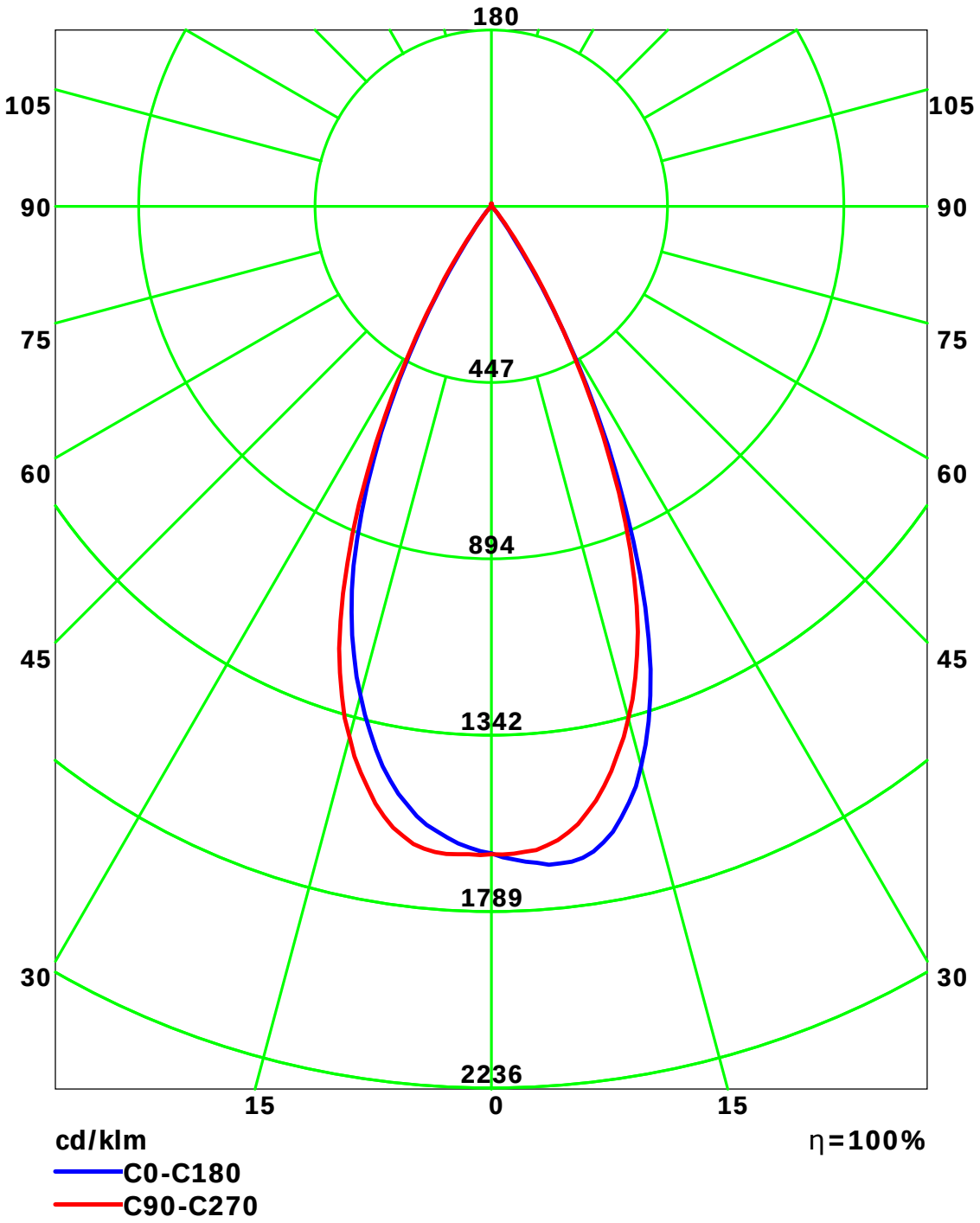
Luminous Intensity Distribution Curve(cd/klm)



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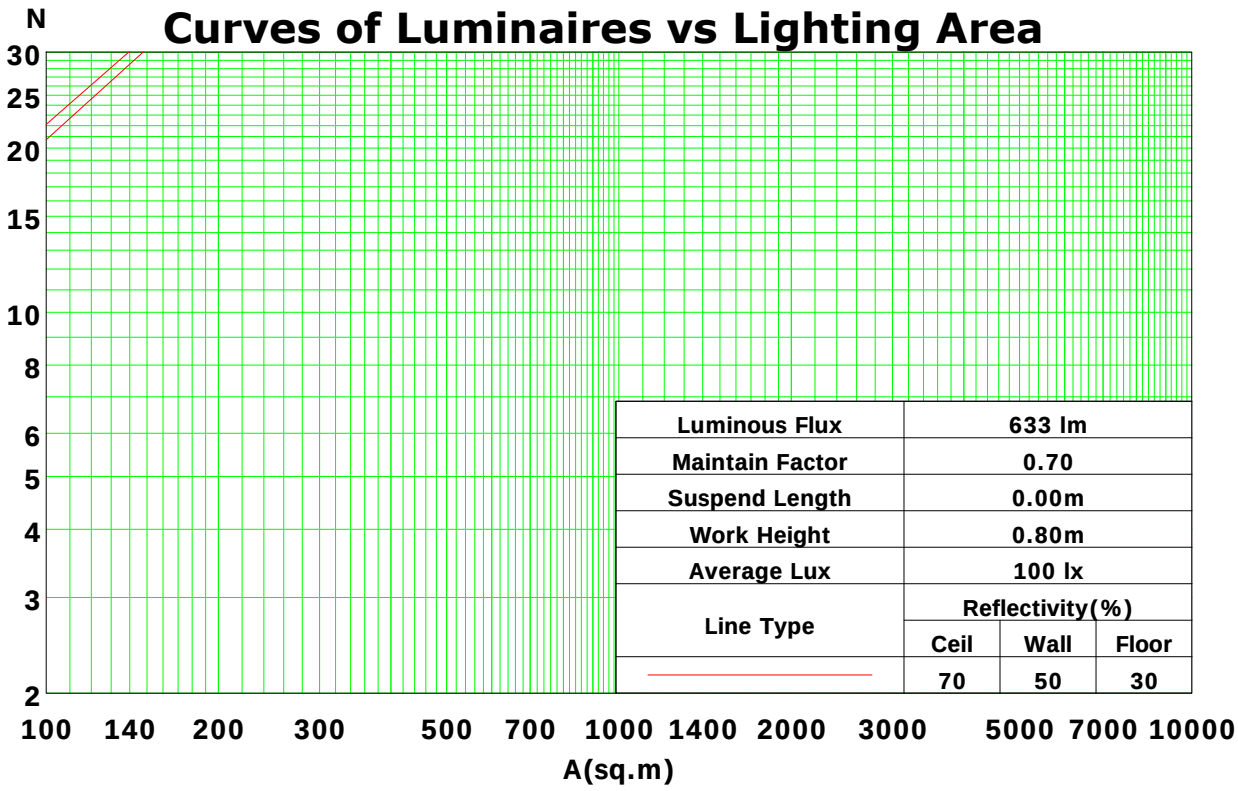
Coefficients Of Utilization - Zonal Cavity Method

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	111	111	111	106	106	106	101	101	101	99
1	114	111	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96	94
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	92	91	89
3	105	99	95	91	103	97	93	90	95	91	89	92	90	87	90	88	86	84
4	100	94	89	85	98	92	88	84	90	86	83	88	85	82	86	84	81	80
5	96	89	84	80	94	88	83	79	86	82	79	84	81	78	83	80	77	76
6	92	84	79	75	91	83	79	75	82	78	74	80	77	74	79	76	73	72
7	88	80	75	71	87	79	75	71	78	74	71	77	73	70	76	72	70	69
8	85	76	71	68	84	76	71	67	75	70	67	74	70	67	73	69	66	65
9	81	73	68	64	80	72	68	64	71	67	64	71	67	64	70	66	63	62
10	78	70	65	61	77	69	64	61	68	64	61	68	64	61	67	63	61	59

Spacing Criteria (0-180): 0.78
Spacing Criteria (90-270): 0.78
Spacing Criteria (Diagonal): 0.73

Curves of Luminaires vs Lighting Area



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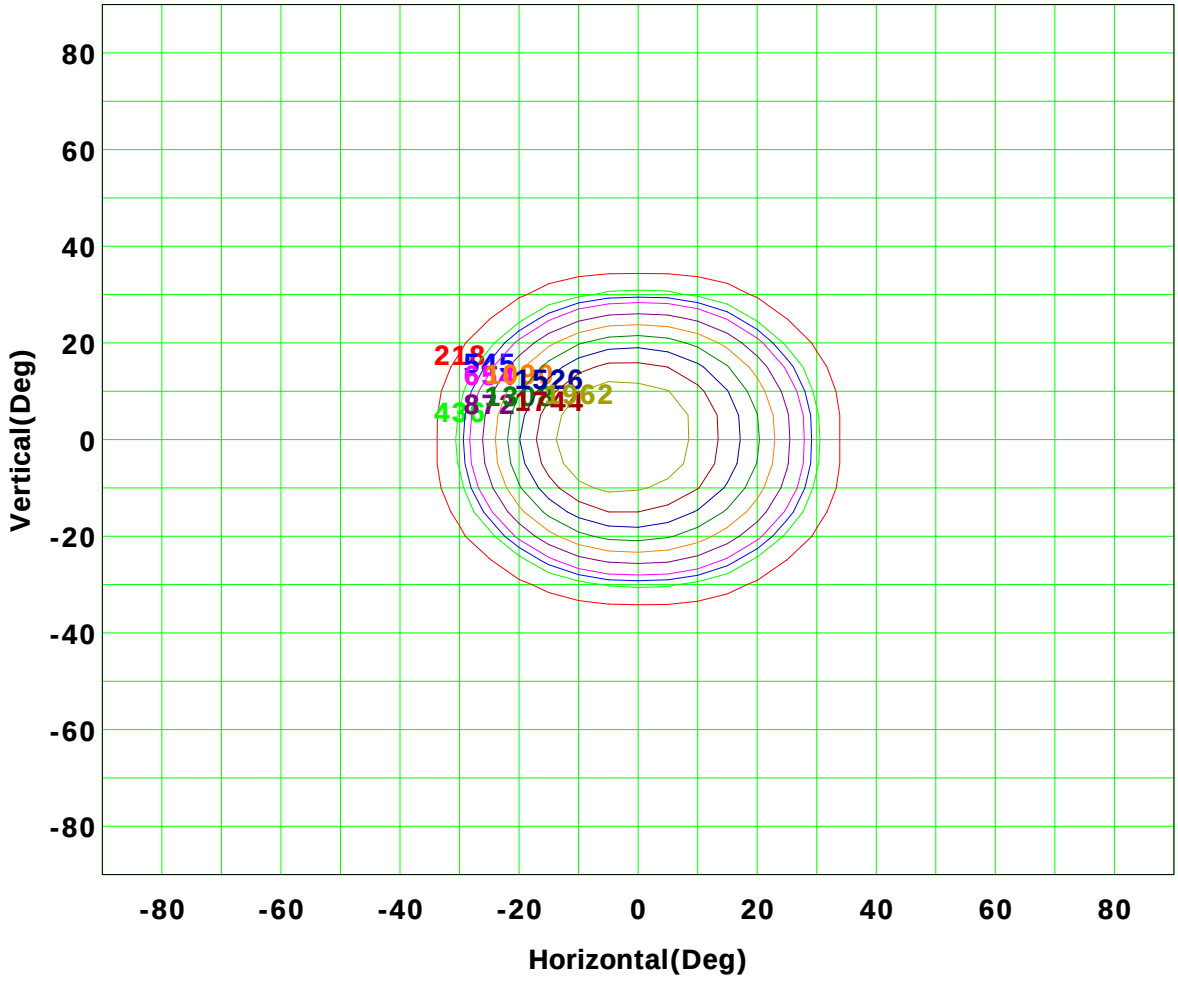
Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 9.028 m
Humidity: 60%
Inspector:

Isocandela (rectangle)



Imax (100%): 2180 cd

(10%): 218 cd	(20%): 436 cd
(25%): 545 cd	(30%): 654 cd
(40%): 872 cd	(50%): 1090 cd
(60%): 1308 cd	(70%): 1526 cd
(80%): 1744 cd	(90%): 1962 cd

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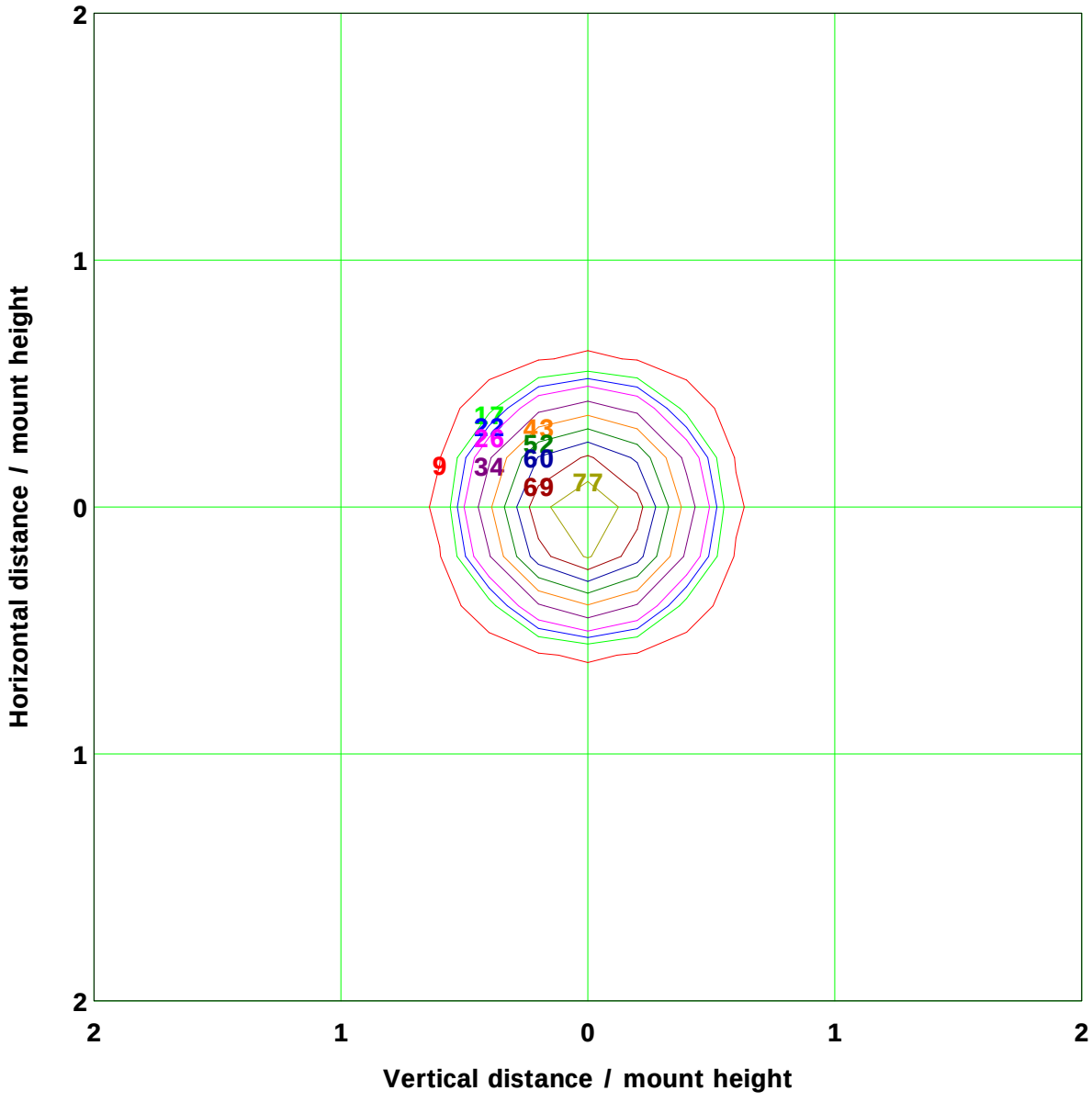
Test Device: GPM-1800B
Distance: 9.028 m
Humidity: 60%
Inspector:

IsoLux Plot



Mounting Height: 5.0m **Max Lux(100%): 86.1 lx**

(10%): 8.6 lx	**(20%): 17.2 lx**
(25%): 21.5 lx	**(30%): 25.8 lx**
(40%): 34.4 lx	**(50%): 43.0 lx**
(60%): 51.7 lx	**(70%): 60.3 lx**
(80%): 68.9 lx	**(90%): 77.5 lx**

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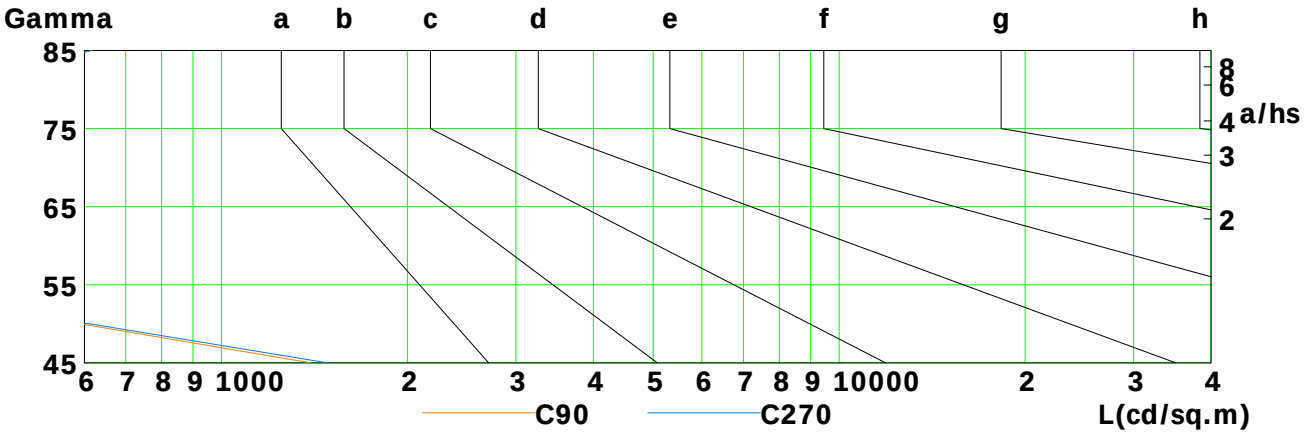
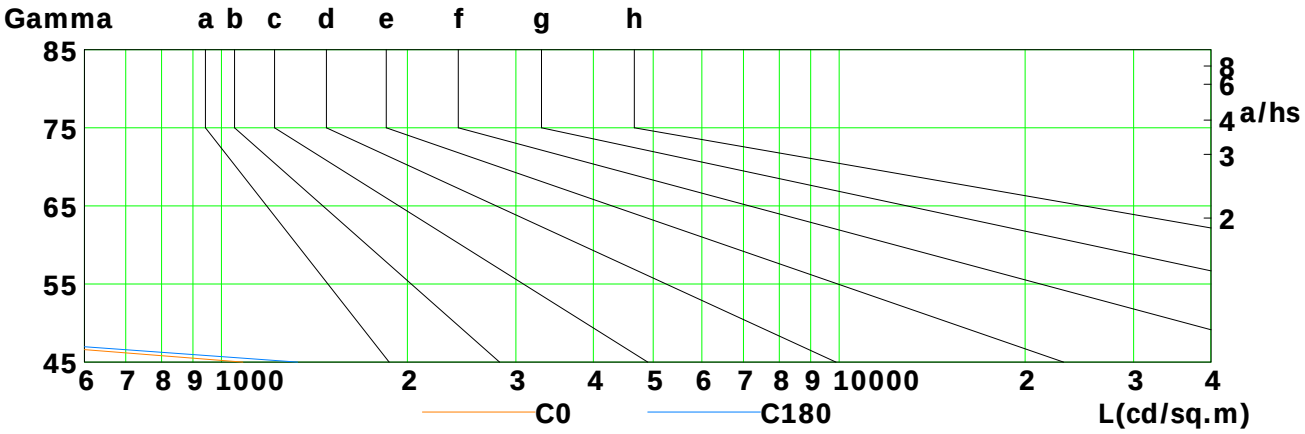
Distance: 9.028 m
Humidity: 60%
Inspector:

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	1083	172	89	108	118	153	168	272	425
C90	1396	594	180	114	126	178	218	321	618
C180	1329	177	89	101	109	142	168	235	394
C270	1487	612	200	122	144	166	218	278	618

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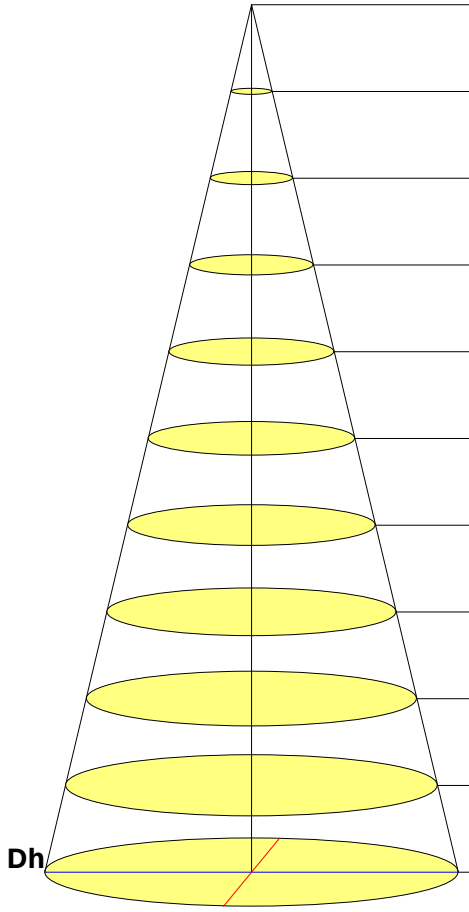
Operator: leo

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

Illuminance at a Distance



Dist(m)	Enadir(lx)	Dh/Dv_B(m)	S_B(sq.m)	Eav_B(lx)
1.0	2129.03	0.88/0.88	0.6	913.25
2.0	532.26	1.75/1.77	2.5	228.31
3.0	236.56	2.63/2.65	5.6	101.47
4.0	133.06	3.51/3.54	10.0	57.08
5.0	85.16	4.38/4.42	15.6	36.53
6.0	59.14	5.26/5.30	22.5	25.37
7.0	43.45	6.14/6.19	30.6	18.64
8.0	33.27	7.01/7.07	39.9	14.27
9.0	26.28	7.89/7.95	50.5	11.27
10.0	21.29	8.77/8.84	62.4	9.13

Beam Angle(B): H47.3 V47.7 Field Angle(F): H67.1 V68.3

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Operator: leo

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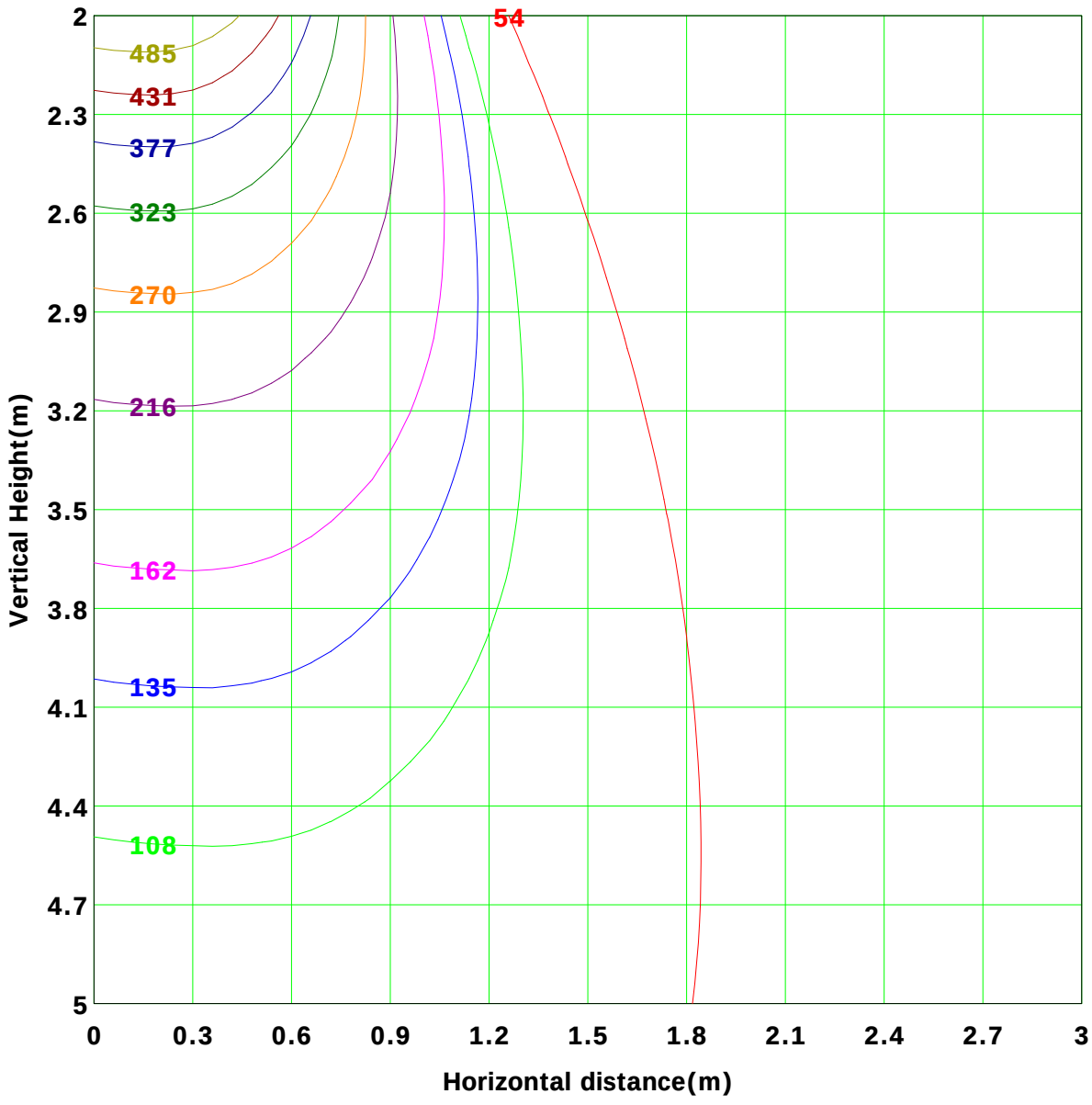
Test Device: GPM-1800B
Distance: 9.028 m
Humidity: 60%
Inspector:

Vertical IsoLux Plot



Lowest(m): 2.0m Highest(m): 5.0m Max Lux: 539.1 lx

(10%): 53.9 lx	**(20%): 107.8 lx**
(25%): 134.8 lx	**(30%): 161.7 lx**
(40%): 215.6 lx	**(50%): 269.5 lx**
(60%): 323.4 lx	**(70%): 377.3 lx**
(80%): 431.2 lx	**(90%): 485.2 lx**

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Area Flux Table

Unit: lm

Vertical plane (rows) / Horizontal plane (columns)

	-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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	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	0.3	0.0
-70	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0
-60	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	0.5	0.0
-50	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.5	0.6	0.6	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	2.9	0.0
-40	0.0	0.0	0.0	0.0	0.0	0.3	1.5	4.0	6.1	6.1	4.0	1.4	0.3	0.0	0.0	0.0	0.0	0.0	23.9	10.6
-30	0.0	0.0	0.0	0.0	0.1	1.1	6.7	18.8	28.0	28.1	18.5	6.4	1.0	0.1	0.0	0.0	0.0	0.0	109.0	102.3
-20	0.0	0.0	0.0	0.0	0.3	3.0	17.2	38.1	51.7	53.4	40.2	17.0	2.7	0.2	0.0	0.0	0.0	0.0	223.8	219.1
-10	0.0	0.0	0.0	0.0	0.4	4.6	24.4	47.8	61.6	64.6	53.2	25.8	4.4	0.3	0.0	0.0	0.0	0.0	287.0	282.8
0	0.0	0.0	0.0	0.0	0.4	4.6	24.3	47.2	60.9	63.9	52.8	25.8	4.4	0.3	0.0	0.0	0.0	0.0	284.7	280.5
10	0.0	0.0	0.0	0.0	0.3	3.0	17.1	36.9	49.8	51.7	39.6	17.2	2.8	0.2	0.0	0.0	0.0	0.0	218.6	213.8
20	0.0	0.0	0.0	0.0	0.1	1.1	6.6	18.2	27.0	27.2	18.0	6.3	1.0	0.1	0.0	0.0	0.0	0.0	105.8	98.9
30	0.0	0.0	0.0	0.0	0.0	0.3	1.4	3.8	5.8	5.7	3.7	1.3	0.3	0.0	0.0	0.0	0.0	0.0	22.5	9.4
40	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.5	0.6	0.6	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	2.7	0.0
50	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	0.5	0.0
60	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0
70	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	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	0.3	0.0
Flux(T)	0.0	0.1	0.2	0.3	1.9	18.4	99.9	216.1	292.4	302.1	231.2	101.9	17.1	1.5	0.3	0.2	0.1	0.0	1284	
Flux(E)	0.0	0.0	0.0	0.0	0.0	7.7	91.9	209.4	286.6	296.3	224.5	94.1	6.7	0.0	0.0	0.0	0.0	0.0		1217

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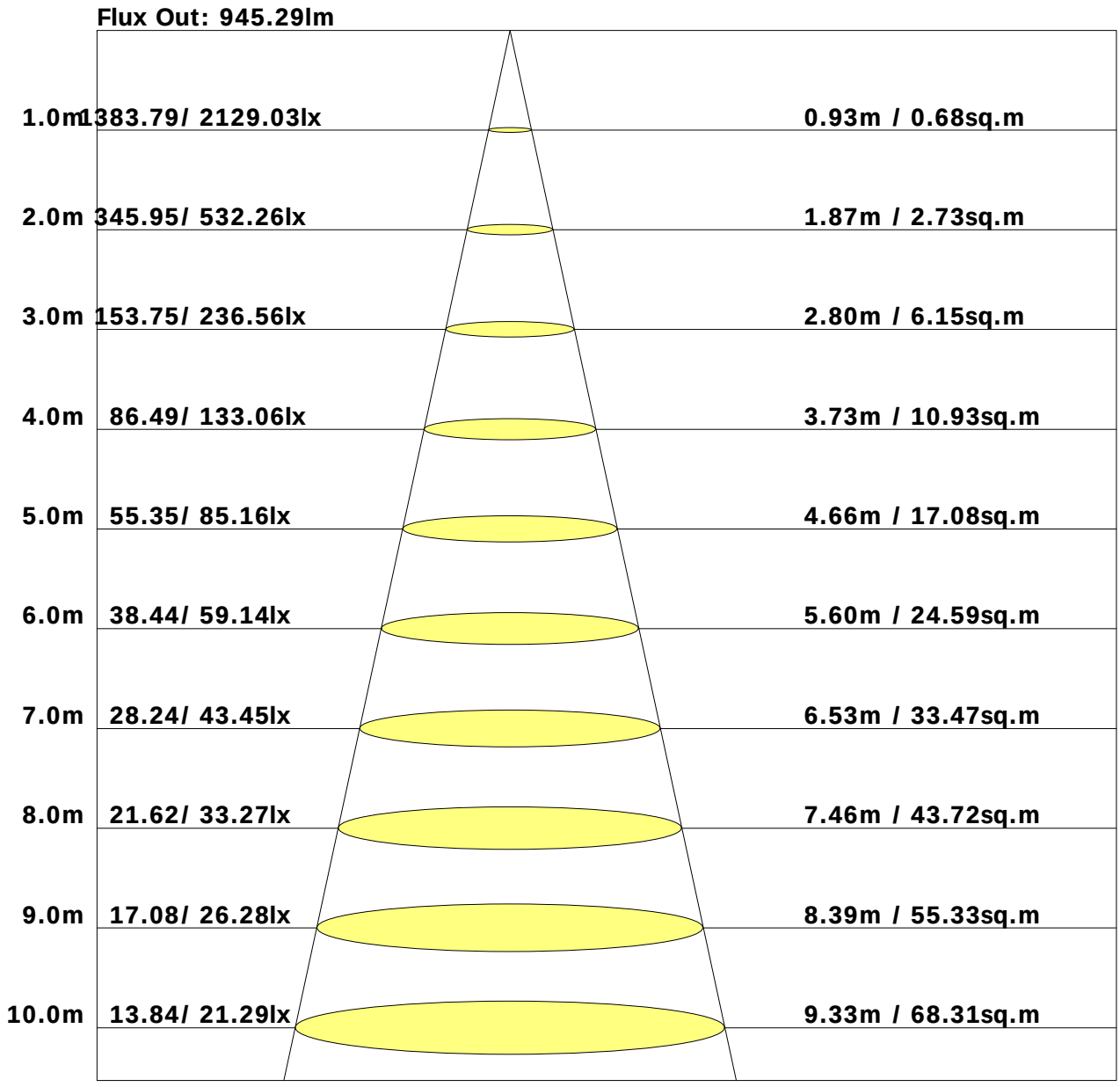
Inspector:

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	-14.7	-13.8	-14.3	-13.5	-13.1	-11.7	-10.8	-11.3	-10.5	-10.2
3H	-11.7	-10.9	-11.3	-10.6	-10.2	-10.1	-9.3	-9.7	-9.0	-8.6
4H	-10.0	-9.3	-9.5	-8.9	-8.5	-8.8	-8.1	-8.3	-7.7	-7.3
6H	-7.7	-7.1	-7.3	-6.7	-6.3	-7.2	-6.6	-6.8	-6.2	-5.8
8H	-6.7	-6.0	-6.2	-5.6	-5.2	-6.4	-5.8	-5.9	-5.4	-4.9
12H	-5.4	-4.8	-5.0	-4.4	-4.0	-5.4	-4.8	-4.9	-4.4	-4.0
X=4H Y=2H	-13.8	-13.1	-13.4	-12.8	-12.3	-11.5	-10.8	-11.1	-10.4	-10.0
3H	-10.4	-9.8	-10.0	-9.4	-9.0	-9.4	-8.9	-9.0	-8.4	-8.0
4H	-8.5	-8.0	-8.1	-7.6	-7.1	-7.9	-7.4	-7.4	-6.9	-6.4
6H	-6.2	-5.7	-5.7	-5.3	-4.8	-6.1	-5.6	-5.6	-5.1	-4.6
8H	-5.0	-4.6	-4.5	-4.2	-3.7	-5.0	-4.6	-4.6	-4.2	-3.7
12H	-3.7	-3.4	-3.2	-2.9	-2.4	-3.9	-3.6	-3.4	-3.0	-2.5
X=8H Y=4H	-7.8	-7.4	-7.3	-6.9	-6.4	-7.3	-6.9	-6.8	-6.4	-5.9
6H	-5.2	-4.9	-4.7	-4.4	-3.9	-5.2	-4.9	-4.7	-4.4	-3.8
8H	-3.9	-3.6	-3.4	-3.1	-2.6	-4.0	-3.7	-3.4	-3.2	-2.6
12H	-2.4	-2.2	-1.9	-1.6	-1.0	-2.6	-2.4	-2.1	-1.9	-1.2
X=12H Y=4H	-7.6	-7.2	-7.1	-6.7	-6.2	-7.1	-6.8	-6.6	-6.3	-5.8
6H	-5.0	-4.7	-4.4	-4.2	-3.6	-4.9	-4.6	-4.4	-4.1	-3.6
8H	-3.5	-3.3	-3.0	-2.8	-2.2	-3.6	-3.3	-3.0	-2.8	-2.2

Calculate in accordance with CIE 190:2010

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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	0.90	0.96	0.99	1.02	1.05	1.07	1.09	1.11	1.12
	0.30		0.86	0.92	0.95	0.98	1.02	1.04	1.06	1.09	1.10
	0.20		0.83	0.89	0.93	0.96	1.00	1.02	1.04	1.07	1.09
0.50	0.50	0.20	0.89	0.94	0.97	0.99	1.02	1.04	1.05	1.07	1.08
	0.30		0.85	0.91	0.94	0.96	1.00	1.02	1.03	1.05	1.06
	0.20		0.83	0.88	0.92	0.94	0.98	1.00	1.01	1.04	1.05
0.30	0.50	0.20	0.88	0.92	0.95	0.97	0.99	1.01	1.02	1.03	1.04
	0.30		0.85	0.89	0.93	0.95	0.97	0.99	1.00	1.02	1.03
	0.20		0.82	0.87	0.90	0.93	0.96	0.98	0.99	1.01	1.02
0.00	0.00	0.00	0.81	0.85	0.88	0.90	0.93	0.94	0.95	0.96	0.97

Rating:11W 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	0.50	0.40	0.34	0.29	0.23	0.19	0.16	0.13	0.10
	0.30		0.42	0.35	0.30	0.26	0.21	0.18	0.15	0.12	0.10
	0.20		0.36	0.30	0.26	0.23	0.19	0.16	0.14	0.11	0.09
0.50	0.50	0.20	0.47	0.38	0.32	0.27	0.21	0.22	0.15	0.11	0.09
	0.30		0.40	0.33	0.28	0.24	0.19	0.16	0.14	0.11	0.09
	0.20		0.35	0.29	0.25	0.22	0.18	0.15	0.13	0.10	0.09
0.30	0.50	0.20	0.45	0.35	0.29	0.25	0.19	0.16	0.13	0.10	0.08
	0.30		0.38	0.31	0.26	0.23	0.18	0.15	0.13	0.10	0.08
	0.20		0.34	0.28	0.24	0.21	0.17	0.14	0.12	0.09	0.08
0.00	0.00	0.00	0.19	0.15	0.12	0.10	0.08	0.06	0.05	0.04	0.03

Rating:11W 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	0.13	0.15	0.16	0.17	0.18	0.19	0.20	0.21	0.22
	0.30		0.10	0.12	0.13	0.14	0.16	0.17	0.18	0.20	0.20
	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	0.13	0.14	0.15	0.16	0.18	0.19	0.19	0.20	0.21
	0.30		0.10	0.11	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	0.12	0.14	0.15	0.16	0.17	0.18	0.19	0.19	0.20
	0.30		0.09	0.11	0.13	0.14	0.15	0.16	0.17	0.18	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:11W 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: