

Report No.: 01

Test Time: 2016/10/13 17:17

Luminaire Property

Luminaire Manufacturer:

Luminaire Category: Synthesis LED Linear

Luminaire Description: Synthesis Indirect HO 28CM 307 mA 3500K 120degree

Luminous Length (mm): 304

Luminous Width (mm): 50

Luminous Height (mm): 2

Voltage: 219.7 V

Current: 0.056 A

Power: 10.25 W

Power Factor: 0.837

Photometric Results

CIE Class: Direct

Measurement Flux: 905.7 lm

Downward Ratio: 99%

Horizontal Diffuse Angle(50%): H110.2

Vertical Diffuse Angle(50%): V84.6

Luminaire Efficacy Rating (LER): 88

Max. Intensity: 478.93 cd

Total Rated Lamp Lumens: 905.7 lm

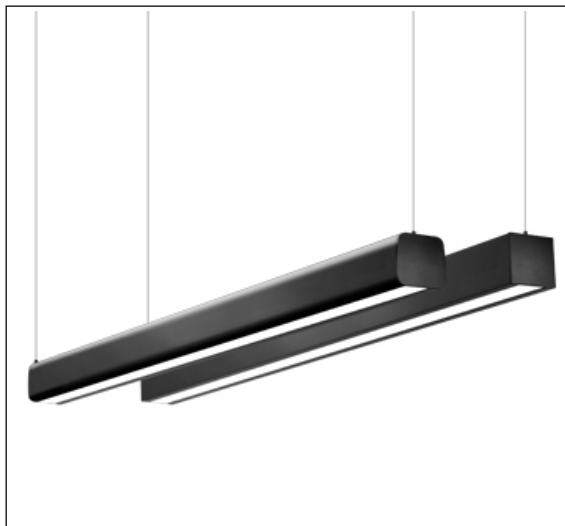
Efficiency: 100%

Upward Ratio: 1%

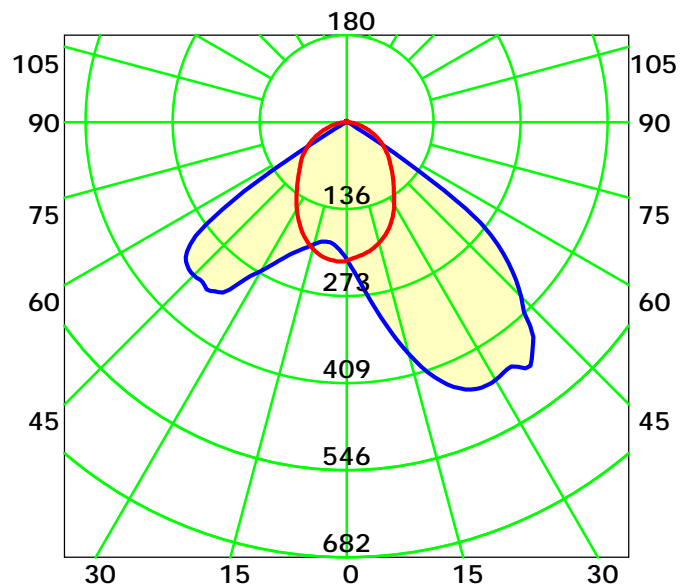
Central Intensity: 215.27 cd

Pos of Max. Intensity: H0 V37

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd
Average Diffuse Angle(50%): 97.4°
— C0-C180 — C90-C270

C Plane (°):0.0-360.0: 30.0

Test Lab: ACOLYTE

Test Type: TYPE C

Temperature: 25°C

Operator: leo

Gamma Plane (°):0.0-180.0: 1.0

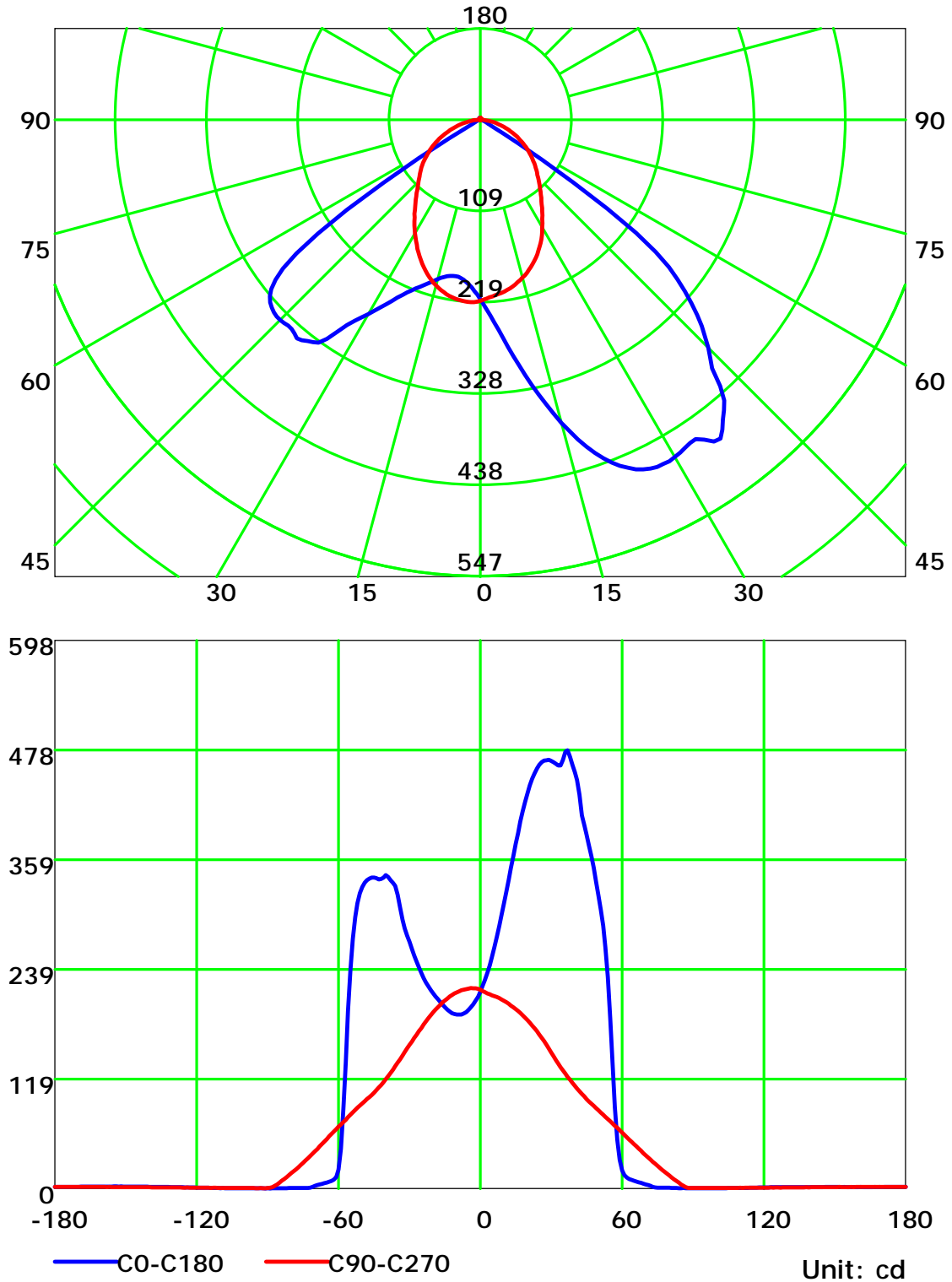
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

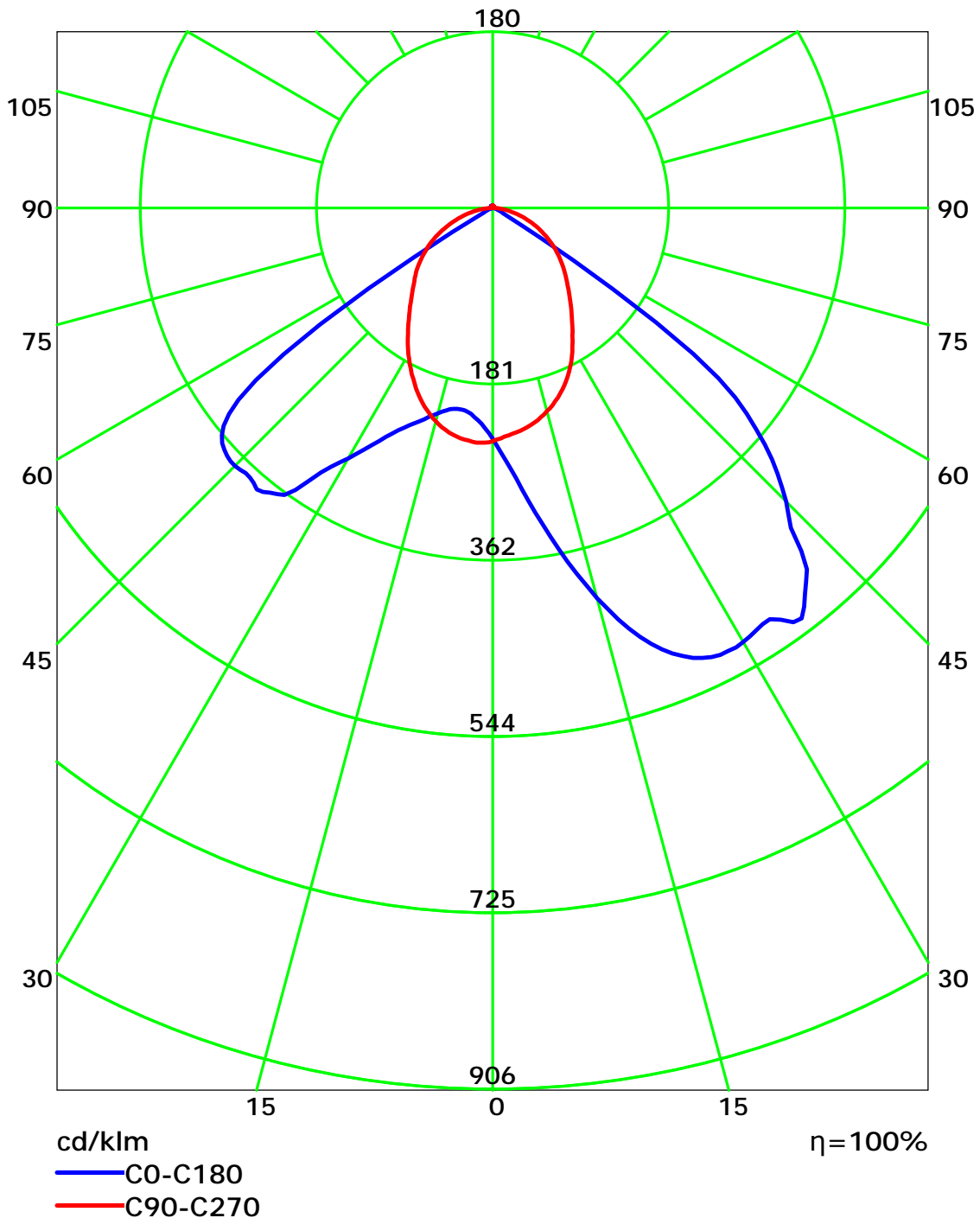
Luminous Intensity Distribution Curve



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

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

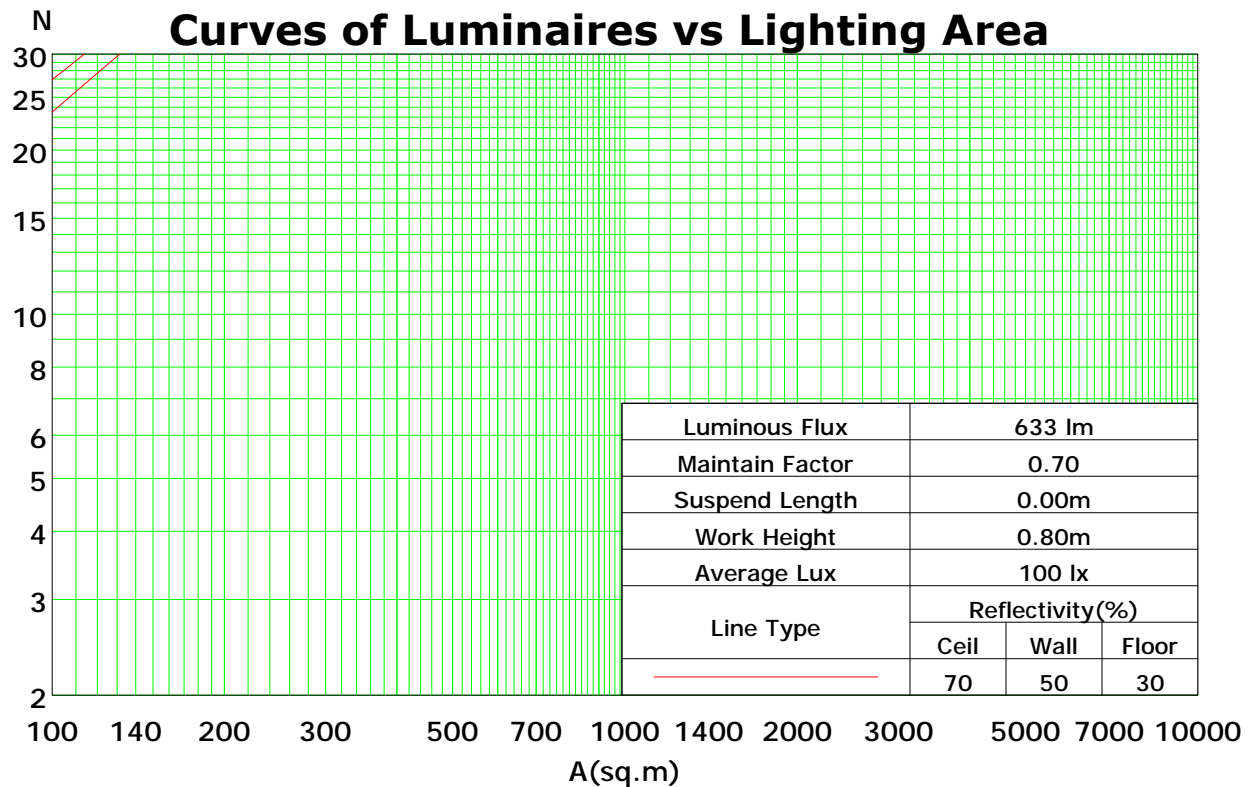
Coefficients Of Utilization - Zonal Cavity Method

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	106	106	106	101	101	101	99
1	110	106	102	98	107	103	100	97	99	96	93	95	93	90	91	89	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	64	71	67	63	61
4	84	72	64	57	81	71	63	57	68	61	56	66	60	55	63	58	54	52
5	77	64	55	49	75	63	55	48	61	53	48	59	52	47	57	51	47	44
6	71	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	38
7	65	52	43	37	63	51	42	37	49	42	36	48	41	36	46	40	36	34
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	29
9	56	43	34	29	55	42	34	29	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	35	29	25	23

Spacing Criteria (0-180): 2.18

Spacing Criteria (90-270): 1.08

Spacing Criteria (Diagonal): 1.92



C Plane (°):0.0-360.0: 30.0

Test Lab: ACOLYTE

Test Type: TYPE C

Temperature: 25°C

Operator: leo

Gamma Plane (°):0.0-180.0:1.0

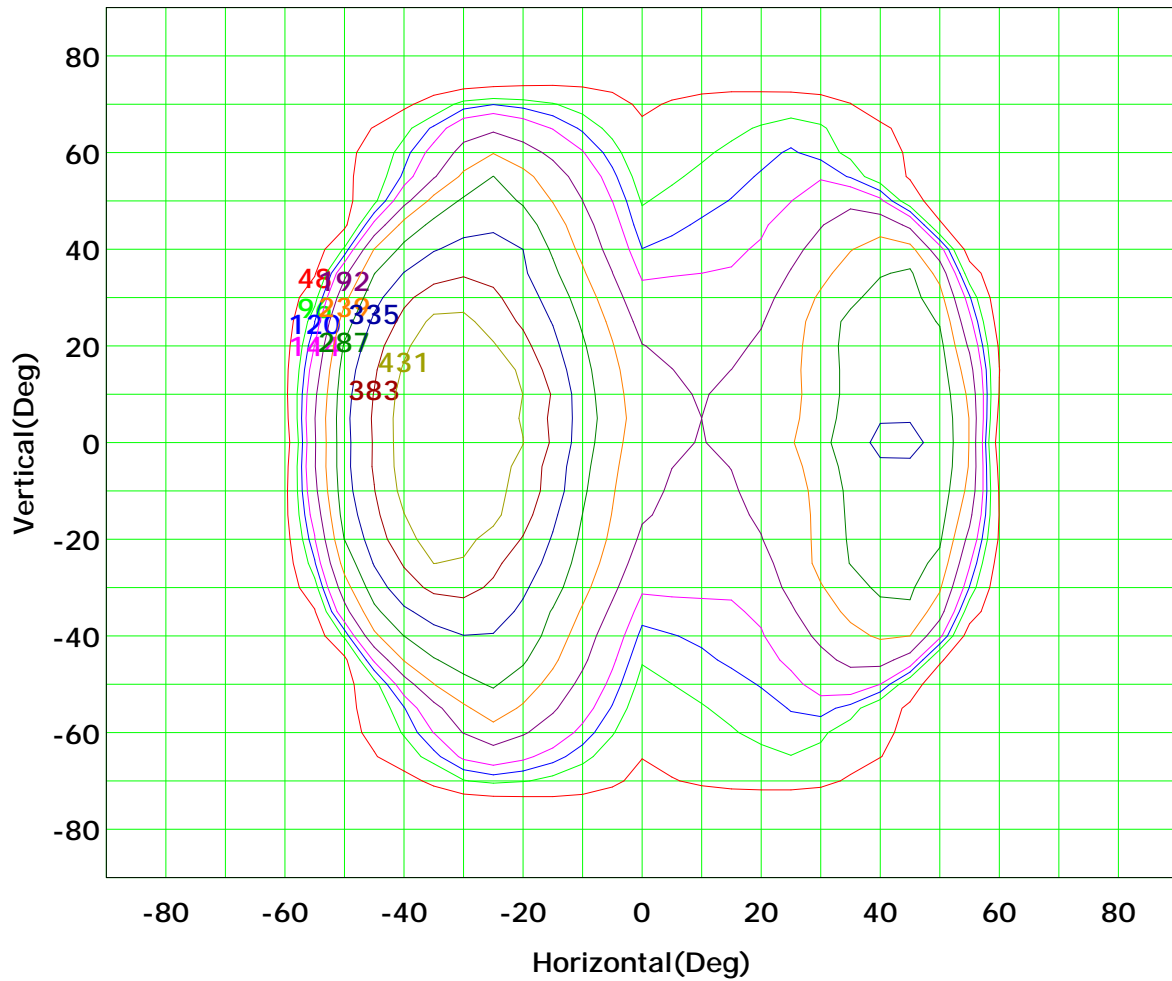
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

Isocandela (rectangle)



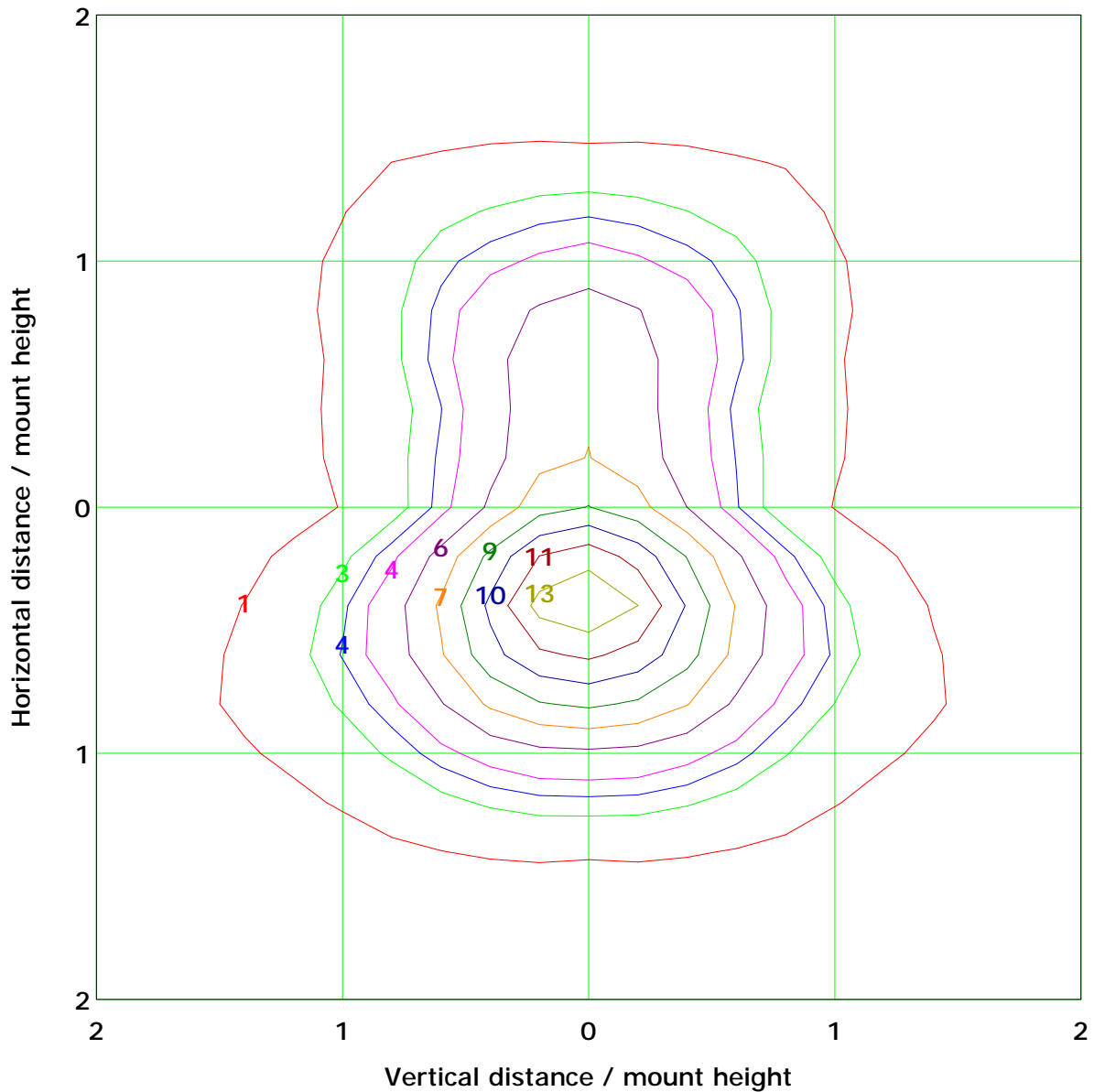
I_{max} (100%): 479 cd

(10%): 48 cd	(20%): 96 cd
(25%): 120 cd	(30%): 144 cd
(40%): 192 cd	(50%): 239 cd
(60%): 287 cd	(70%): 335 cd
(80%): 383 cd	(90%): 431 cd

C Plane (°):0.0-360.0: 30.0
Test Lab: ACOLYTE
Test Type: TYPE C
Temperature: 25°C
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%): 14.3 lx	
(10%): 1.4 lx	(20%): 2.9 lx
(25%): 3.6 lx	(30%): 4.3 lx
(40%): 5.7 lx	(50%): 7.2 lx
(60%): 8.6 lx	(70%): 10.0 lx
(80%): 11.5 lx	(90%): 12.9 lx

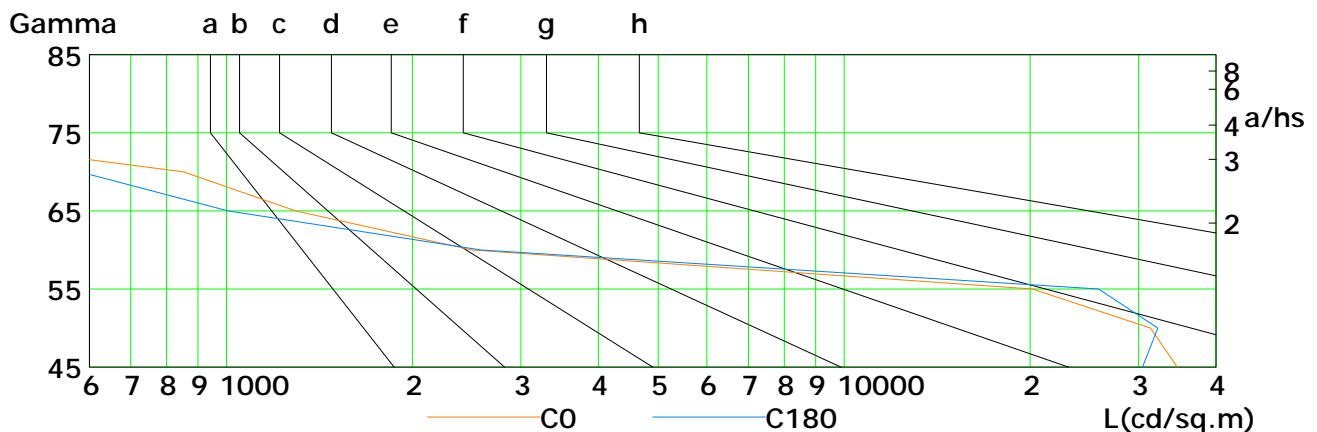
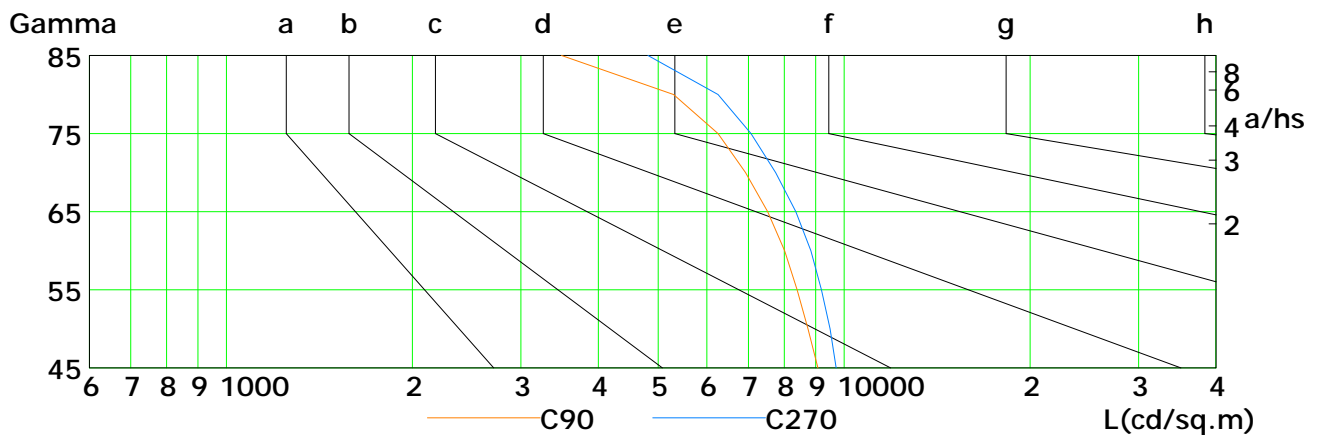
C Plane (°):0.0-360.0: 30.0
Test Lab: ACOLYTE
Test Type: TYPE C
Temperature: 25°C
Operator: leo

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	34624	31329	20181	2497	1295	853	281	389	425
C90	9071	8741	8396	8014	7522	6927	6252	5300	3489
C180	30419	32208	25837	2583	1006	581	239	284	394
C270	9714	9488	9191	8840	8354	7752	7073	6249	4816

C Plane (°):0.0-360.0: 30.0

Test Lab: ACOLYTE

Test Type: TYPE C

Temperature: 25°C

Operator: leo

Gamma Plane (°):0.0-180.0:1.0

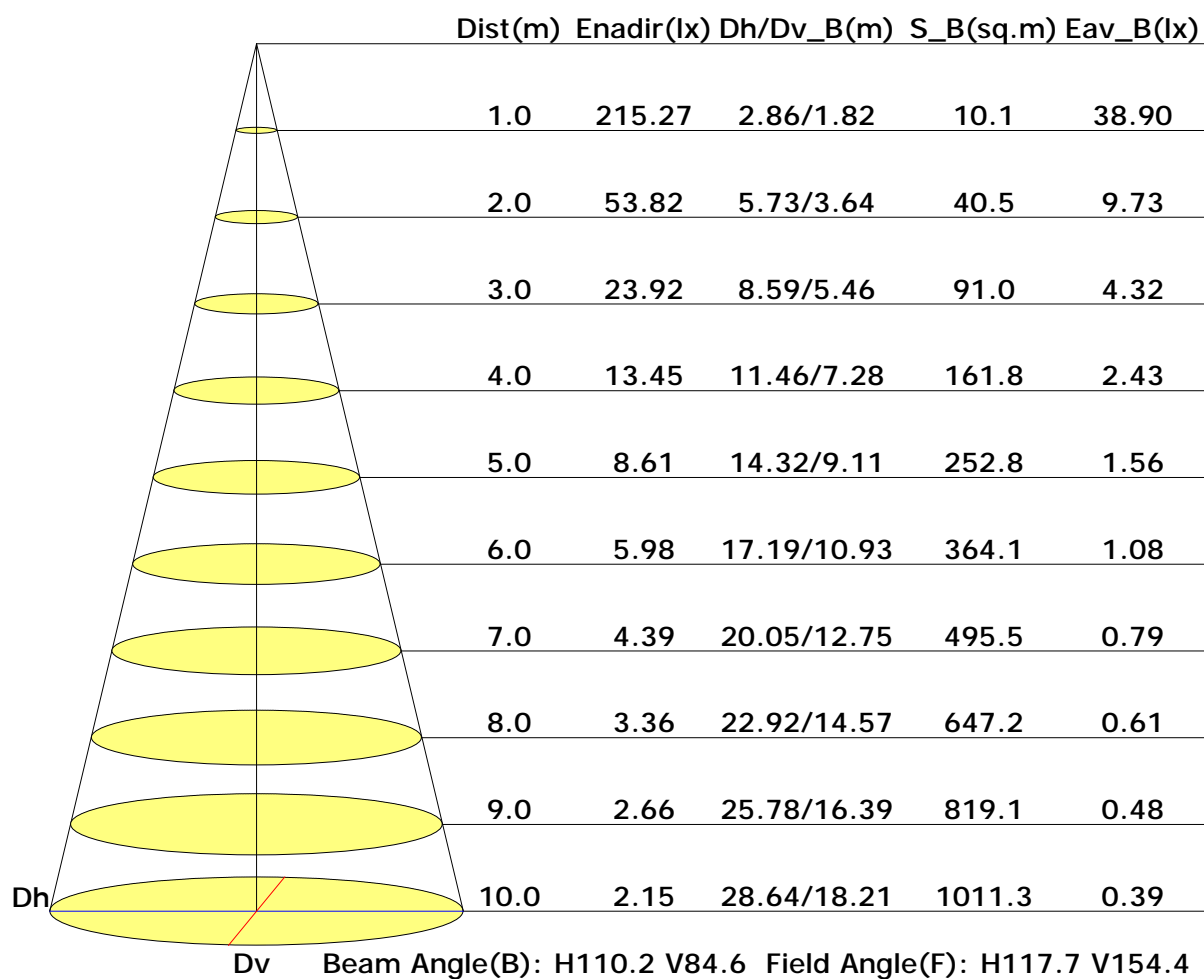
Test Device: GPM-1800B

Distance: 9.028 m

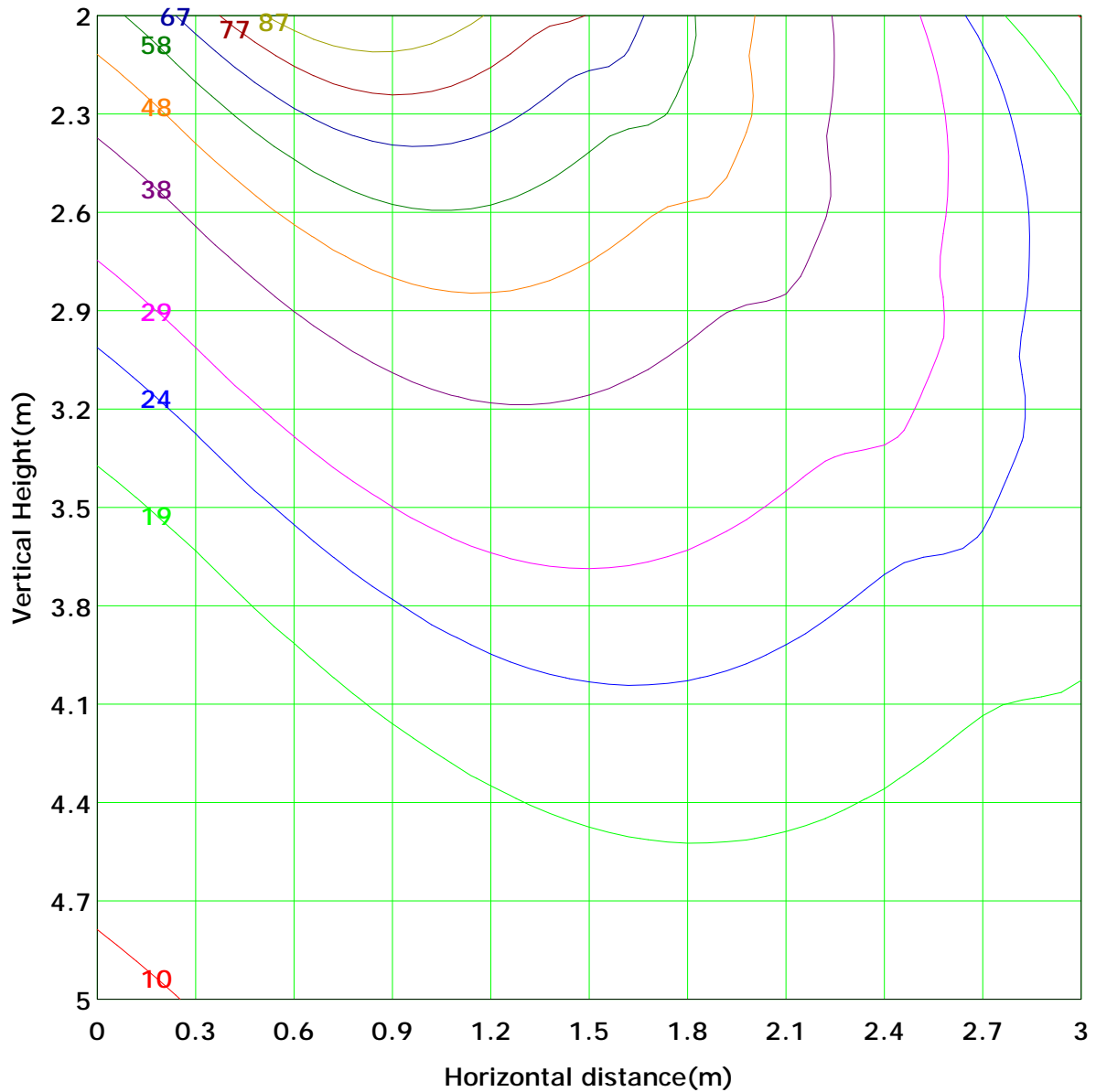
Humidity: 60%

Inspector:

Illuminance at a Distance



Vertical IsoLux Plot



Lowest(m): 2.0m	Highest(m): 5.0m	Max Lux: 96.2 lx
(10%): 9.6 lx	(20%): 19.2 lx	
(25%): 24.0 lx	(30%): 28.8 lx	
(40%): 38.5 lx	(50%): 48.1 lx	
(60%): 57.7 lx	(70%): 67.3 lx	
(80%): 76.9 lx	(90%): 86.5 lx	

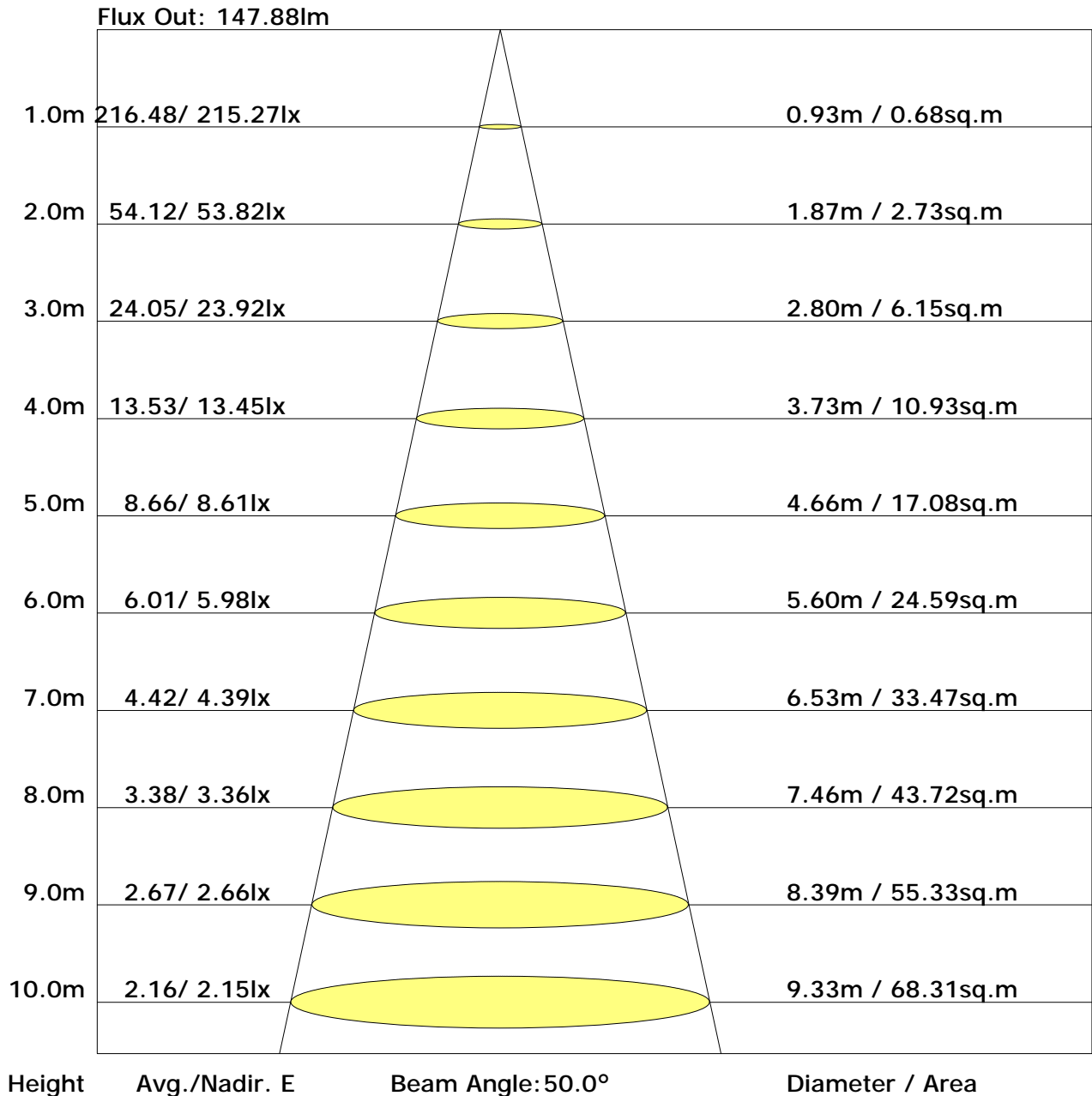
C Plane (°):0.0-360.0: 30.0
Test Lab: ACOLYTE
Test Type: TYPE C
Temperature: 25°C
Operator: leo

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

Unit: 1m

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

The Average Illuminance Effective Figure



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	22.9	24.5	23.3	24.8	25.2	22.7	24.3	23.1	24.6	24.9
3H	22.8	24.2	23.2	24.6	25.0	23.8	25.2	24.2	25.6	26.0
4H	22.8	24.1	23.2	24.5	24.9	24.0	25.3	24.4	25.7	26.1
6H	22.7	23.9	23.2	24.3	24.7	24.0	25.2	24.5	25.6	26.1
8H	22.7	23.8	23.1	24.3	24.7	24.0	25.2	24.5	25.6	26.0
12H	22.7	23.8	23.1	24.2	24.6	24.0	25.1	24.5	25.5	26.0
X=4H Y=2H	23.6	24.9	24.0	25.3	25.7	23.1	24.4	23.5	24.7	25.2
3H	23.5	24.6	23.9	25.0	25.4	25.0	26.1	25.5	26.5	26.9
4H	23.4	24.4	23.9	24.8	25.3	25.2	26.2	25.7	26.6	27.1
6H	23.4	24.2	23.9	24.7	25.2	25.2	26.1	25.7	26.5	27.0
8H	23.3	24.1	23.8	24.6	25.1	25.2	26.0	25.7	26.5	26.9
12H	23.3	24.0	23.8	24.5	25.0	25.2	25.9	25.7	26.4	26.9
X=8H Y=4H	23.8	24.6	24.3	25.0	25.5	25.1	25.9	25.6	26.4	26.9
6H	23.7	24.3	24.2	24.9	25.4	25.1	25.8	25.7	26.3	26.8
8H	23.7	24.2	24.2	24.8	25.3	25.1	25.7	25.6	26.2	26.7
12H	23.6	24.1	24.1	24.6	25.2	25.1	25.6	25.6	26.1	26.7
X=12H Y=4H	23.8	24.4	24.3	24.9	25.4	25.1	25.8	25.6	26.3	26.8
6H	23.7	24.2	24.2	24.7	25.3	25.1	25.7	25.6	26.2	26.7
8H	23.6	24.1	24.1	24.6	25.2	25.1	25.6	25.6	26.1	26.7

Calculate in accordance with CIE 190:2010

C Plane (°):0.0-360.0: 30.0
 Test Lab: ACOLYTE
 Test Type: TYPE C
 Temperature: 25°C
 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 = 1.75								
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	NA	0.73	0.80	0.85	0.92	0.96	0.99	1.03	1.05
	0.30		NA	0.66	0.74	0.79	0.87	0.92	0.95	1.00	1.03
	0.20		NA	0.61	0.69	0.75	0.83	0.88	0.92	0.97	1.00
0.50	0.50	0.20	NA	0.71	0.78	0.83	0.89	0.93	0.96	0.99	1.01
	0.30		NA	0.65	0.72	0.78	0.85	0.89	0.92	0.96	0.99
	0.20		NA	0.60	0.68	0.73	0.81	0.86	0.89	0.94	0.97
0.30	0.50	0.20	NA	0.69	0.75	0.80	0.86	0.90	0.92	0.95	0.97
	0.30		NA	0.64	0.71	0.76	0.82	0.87	0.89	0.93	0.95
	0.20		NA	0.60	0.67	0.72	0.79	0.84	0.87	0.91	0.94
0.00	0.00	0.00	NA	0.57	0.64	0.69	0.76	0.80	0.83	0.87	0.89
<p>Rating: 10W Photometrically tested without ceiling board.</p> <p>Multiply UF values by service correction factors</p> <p>Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p>											

Utilisation Factor Table(Wall)

Utilisation Factors UF(W)			SHR NOM = 1.75								
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	NA	0.72	0.60	0.51	0.40	0.33	0.28	0.21	0.17
	0.30		NA	0.62	0.52	0.45	0.36	0.30	0.26	0.20	0.16
	0.20		NA	0.54	0.46	0.41	0.33	0.28	0.24	0.19	0.16
0.50	0.50	0.20	NA	0.69	0.57	0.49	0.38	0.34	0.26	0.20	0.16
	0.30		NA	0.60	0.51	0.44	0.34	0.29	0.24	0.19	0.15
	0.20		NA	0.53	0.45	0.40	0.32	0.27	0.23	0.18	0.15
0.30	0.50	0.20	NA	0.66	0.55	0.46	0.36	0.29	0.25	0.19	0.15
	0.30		NA	0.58	0.49	0.42	0.33	0.27	0.23	0.18	0.15
	0.20		NA	0.52	0.44	0.38	0.31	0.26	0.22	0.17	0.14
0.00	0.00	0.00	0.99	0.41	0.34	0.29	0.23	0.18	0.16	0.12	0.10
Rating: 10W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980											

Utilisation Factor Table(Ceiling cavity)

Utilisation Factors UF(C)			SHR NOM = 1.75								
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	NA	0.18	0.19	0.19	0.20	0.21	0.21	0.22	0.22
	0.30		NA	0.12	0.13	0.14	0.16	0.17	0.18	0.19	0.20
	0.20		NA	0.08	0.09	0.11	0.13	0.14	0.16	0.17	0.18
0.50	0.50	0.20	NA	0.17	0.18	0.18	0.19	0.20	0.20	0.21	0.21
	0.30		NA	0.12	0.13	0.14	0.16	0.17	0.18	0.19	0.19
	0.20		NA	0.08	0.09	0.11	0.13	0.14	0.15	0.17	0.18
0.30	0.50	0.20	NA	0.16	0.17	0.18	0.19	0.19	0.20	0.20	0.20
	0.30		NA	0.11	0.13	0.14	0.15	0.16	0.17	0.18	0.19
	0.20		NA	0.08	0.09	0.10	0.12	0.14	0.15	0.16	0.17
0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
<p>Rating: 10W Photometrically tested without ceiling board.</p> <p>Multiply UF values by service correction factors</p> <p>Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p>											