

Report No.: 01

Test Time: 2016/10/14 16:31

Luminaire Property

Luminaire Manufacturer:

Luminaire Category: Synthesis LED Linear

Luminaire Description: Synthesis Indirect LO 28CM 135 mA 3500K 75degree

Luminous Length (mm): 304

Luminous Width (mm): 50

Luminous Height (mm): 2

Voltage: 219.8 V

Current: 0.024 A

Power: 4.54 W

Power Factor: 0.846

Photometric Results

CIE Class: Direct

Measurement Flux: 418.9 lm

Downward Ratio: 99%

Horizontal Diffuse Angle(50%): H81.7

Vertical Diffuse Angle(50%): V100.4

Luminaire Efficacy Rating (LER): 92

Max. Intensity: 264.18 cd

Total Rated Lamp Lumens: 418.9 lm

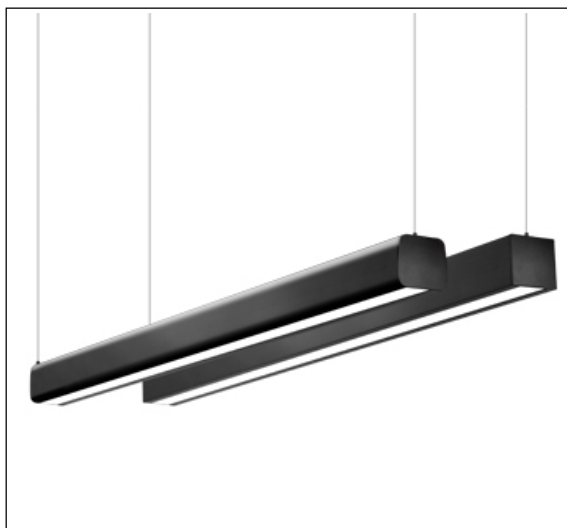
Efficiency: 100%

Upward Ratio: 1%

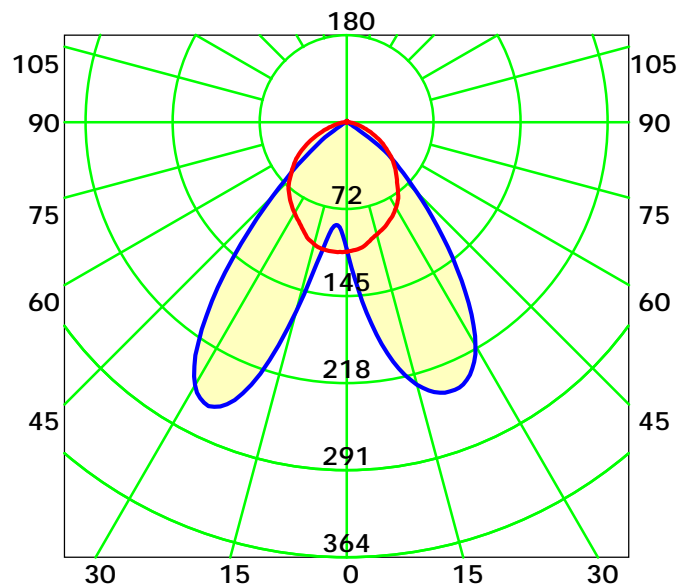
Central Intensity: 106.42 cd

Pos of Max. Intensity: H180 V26

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 91.0° Unit: cd

— 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

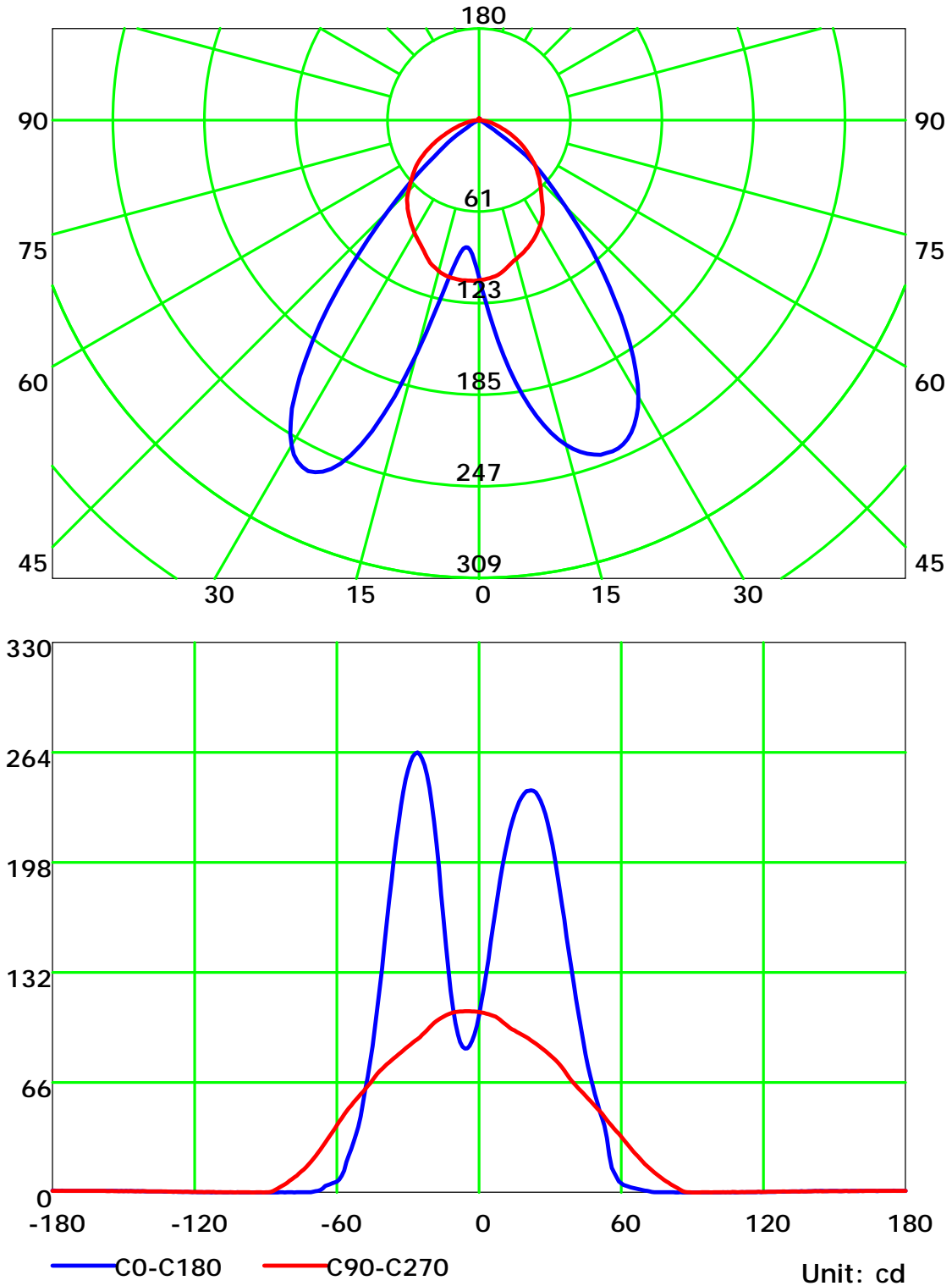
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

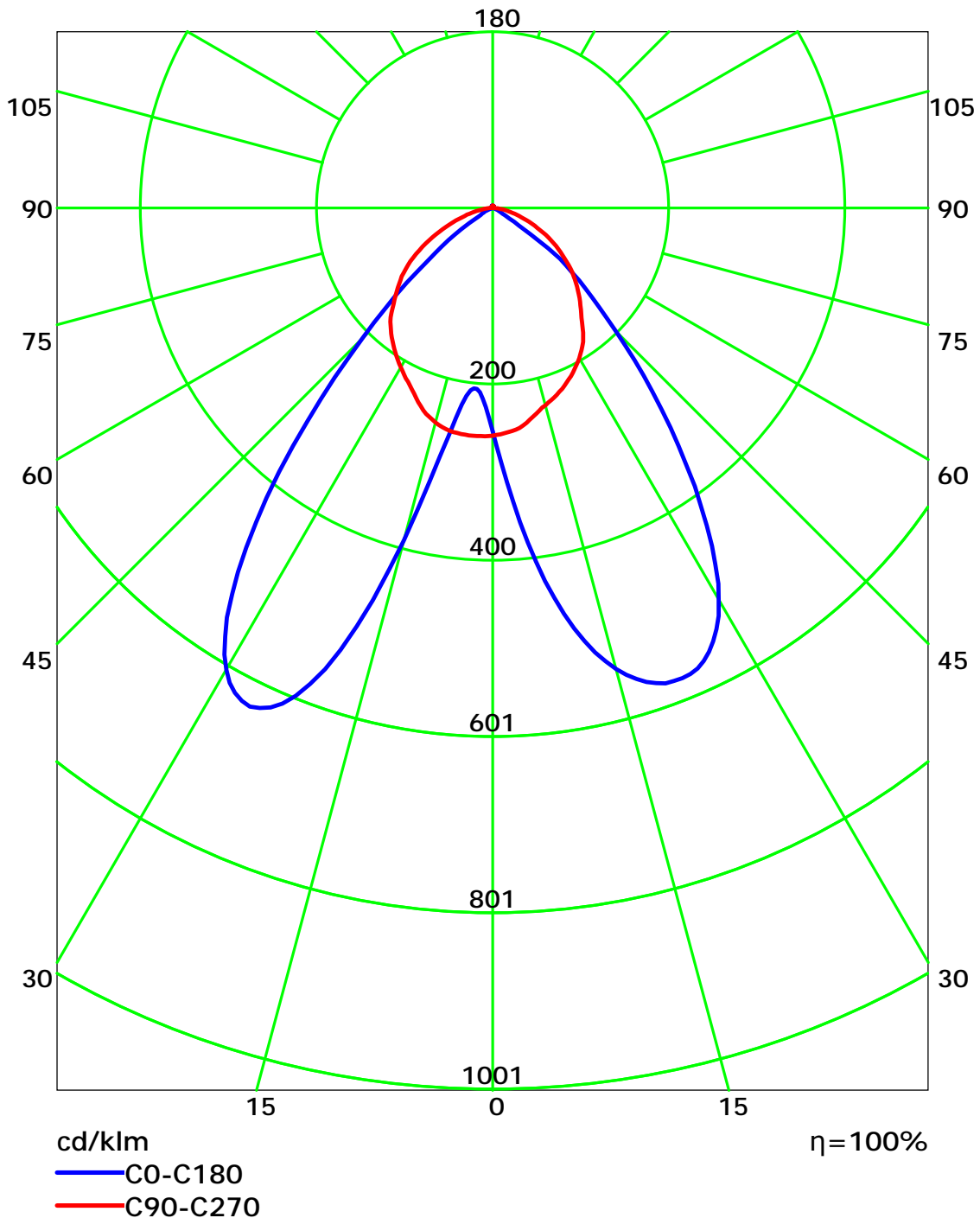
Luminous Intensity Distribution Curve



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:

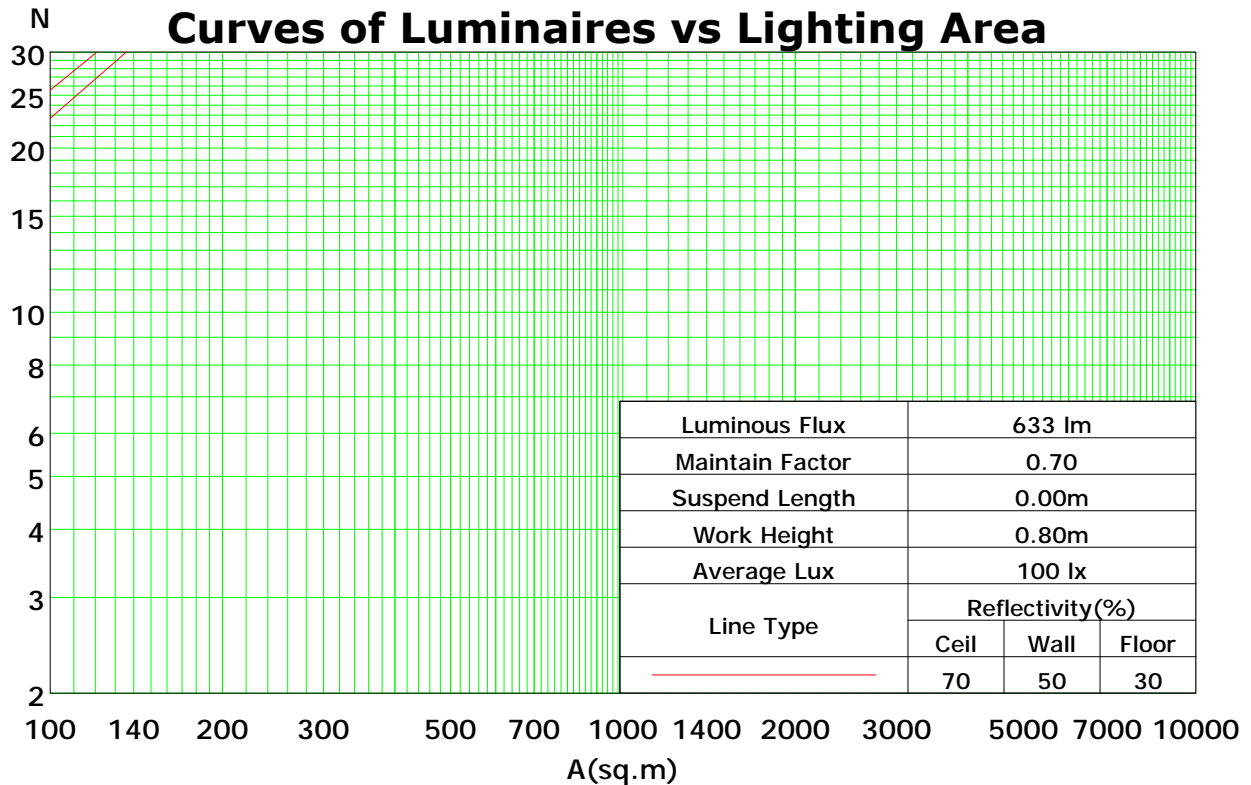
Coefficients Of Utilization - Zonal Cavity Method

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	111	111	111	106	106	106	101	101	101	99
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	90	86	100	94	89	85	91	86	83	87	84	81	84	81	79	77
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67
4	88	77	69	64	85	76	69	63	73	67	62	71	66	61	69	64	61	59
5	81	69	61	56	79	68	61	55	66	60	55	64	59	54	62	57	53	51
6	75	63	55	49	73	62	54	49	60	53	48	58	52	48	57	52	47	45
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	46	42	40
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38	36
9	60	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	32
10	57	44	37	32	55	43	36	31	42	36	31	42	35	31	41	35	31	29

Spacing Criteria (0-180): 1.75

Spacing Criteria (90-270): 1.18

Spacing Criteria (Diagonal): 1.69



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

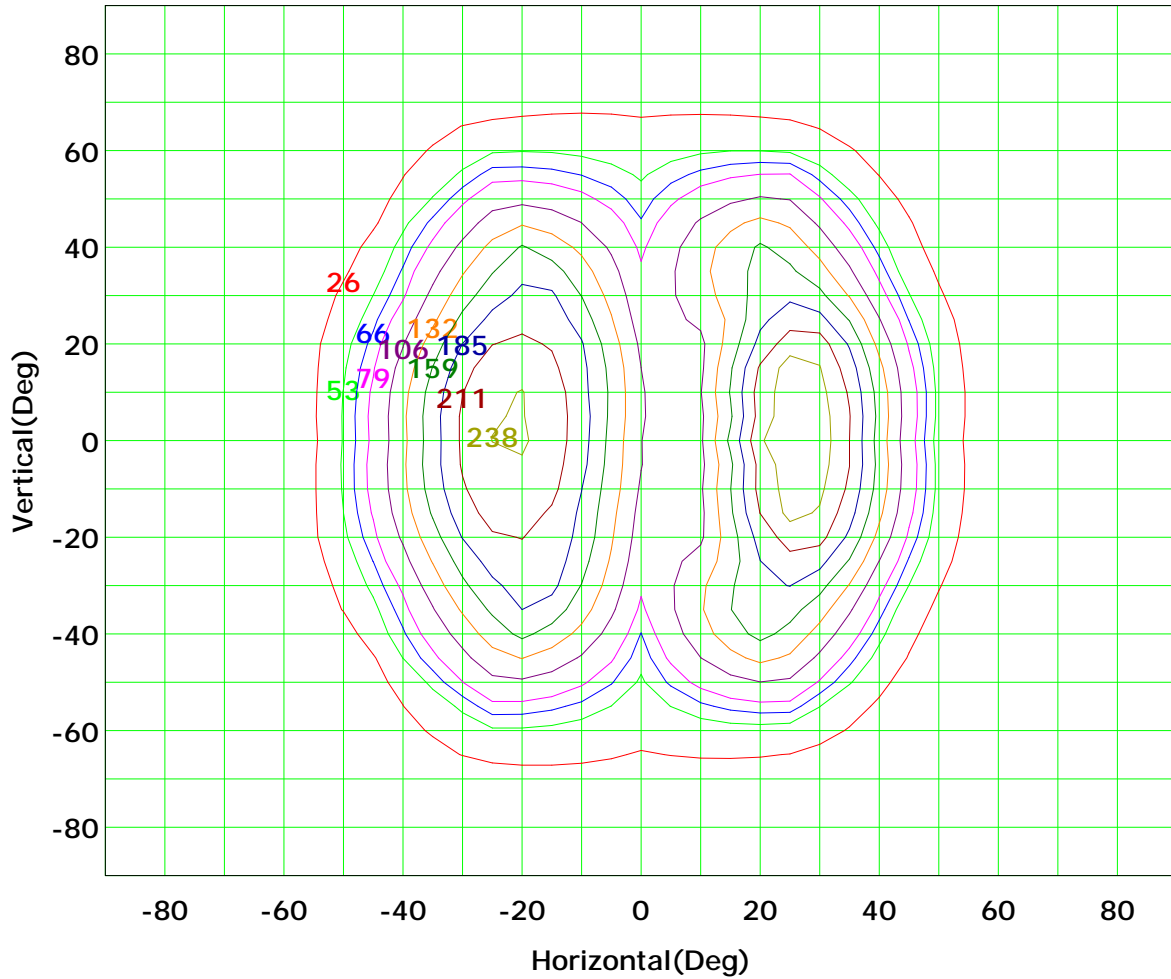
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

Isocandela (rectangle)



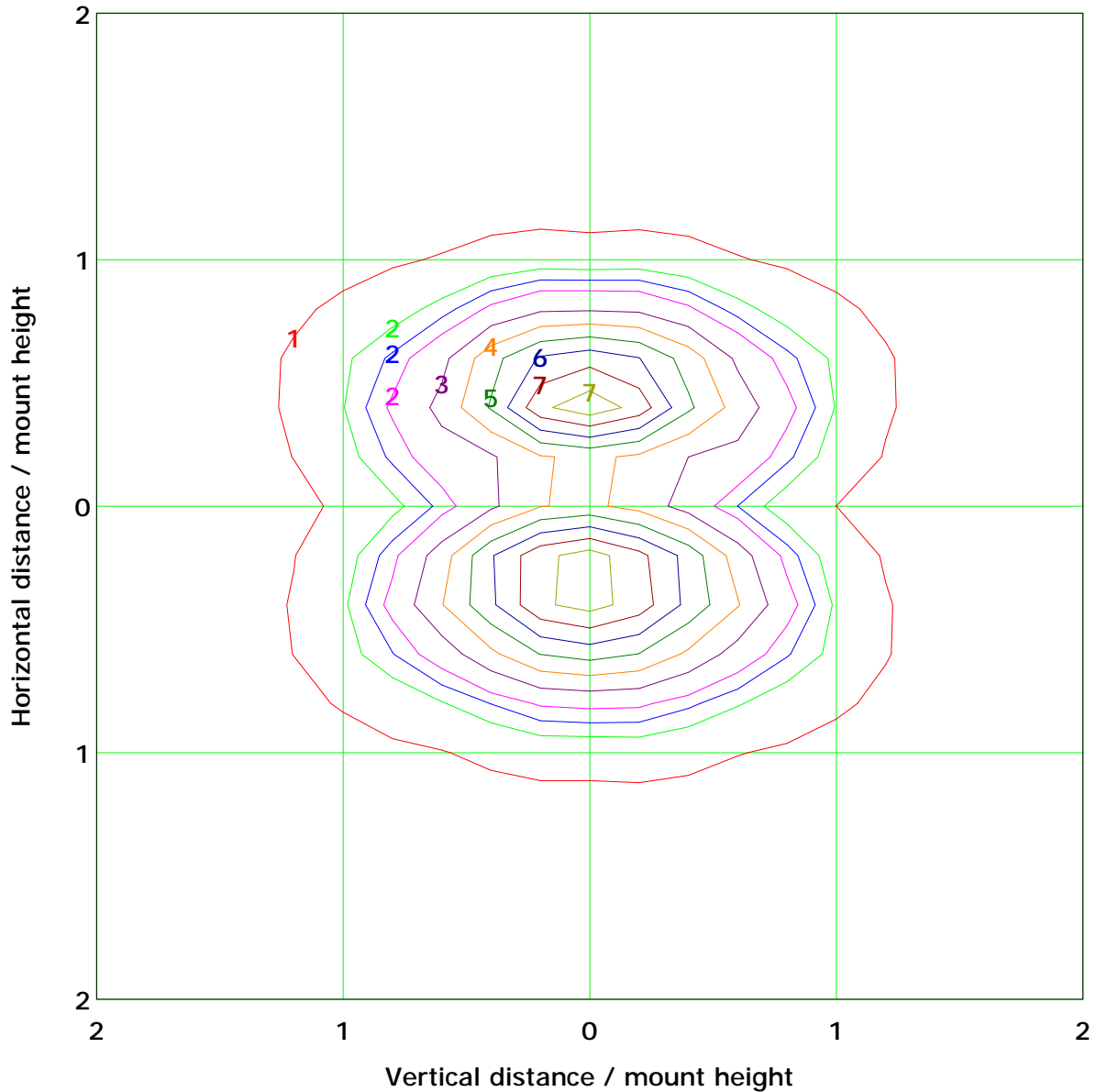
Imax (100%): 264 cd

(10%): 26 cd	(20%): 53 cd
(25%): 66 cd	(30%): 79 cd
(40%): 106 cd	(50%): 132 cd
(60%): 159 cd	(70%): 185 cd
(80%): 211 cd	(90%): 238 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%): 8.2 lx

(10%): 0.8 lx	(20%): 1.6 lx
(25%): 2.1 lx	(30%): 2.5 lx
(40%): 3.3 lx	(50%): 4.1 lx
(60%): 4.9 lx	(70%): 5.8 lx
(80%): 6.6 lx	(90%): 7.4 lx

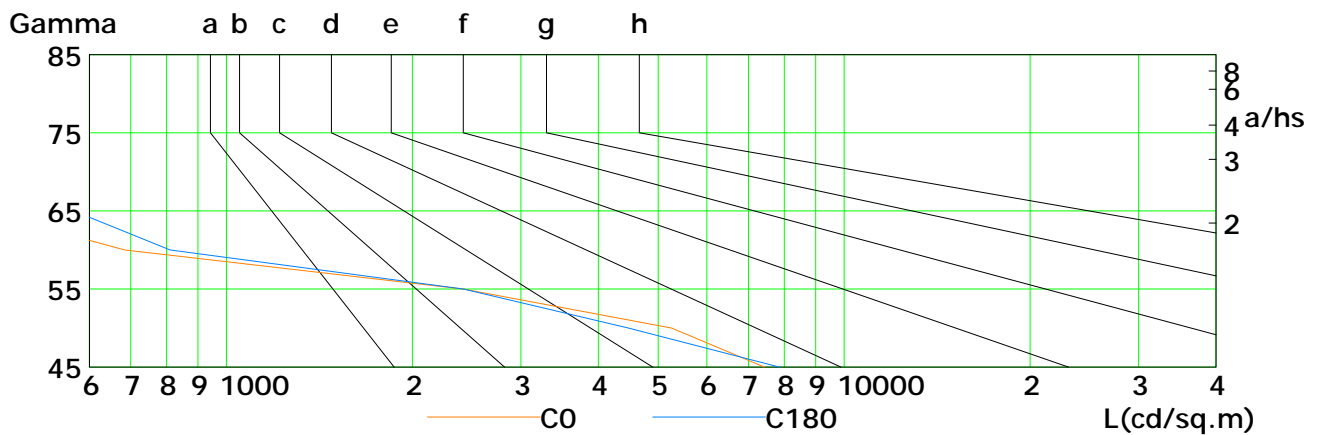
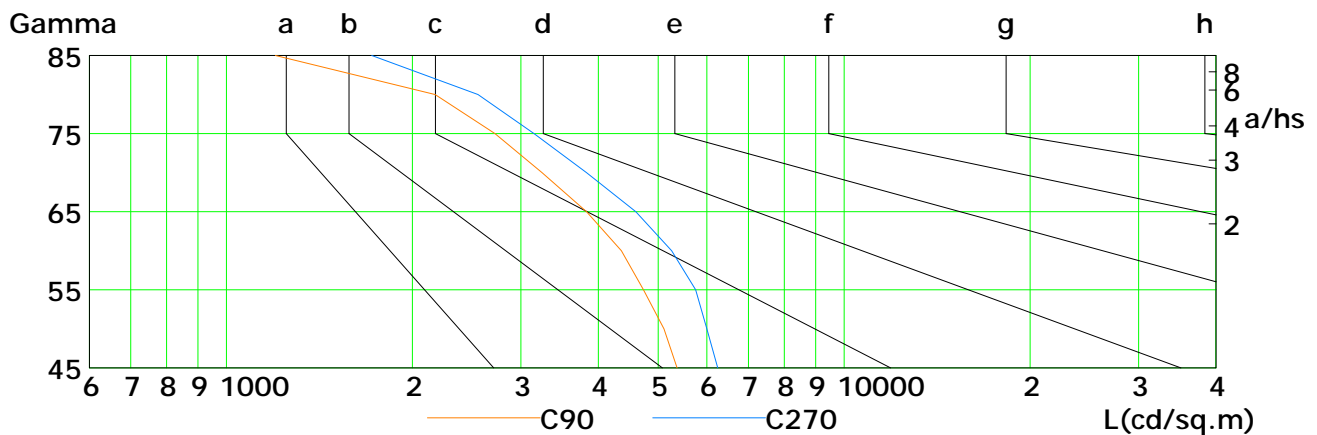
C Plane (°):0.0-360.0: 30.0
Test Lab: ACOLYTE
Test Type: TYPE C
Temperature: 25°C
Operator: leo

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	7432	5262	2415	684	401	213	40	62	88
C90	5369	5113	4735	4361	3830	3242	2722	2177	1201
C180	7862	4478	2419	811	566	87	51	83	36
C270	6243	5997	5749	5259	4604	3830	3148	2557	1720

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

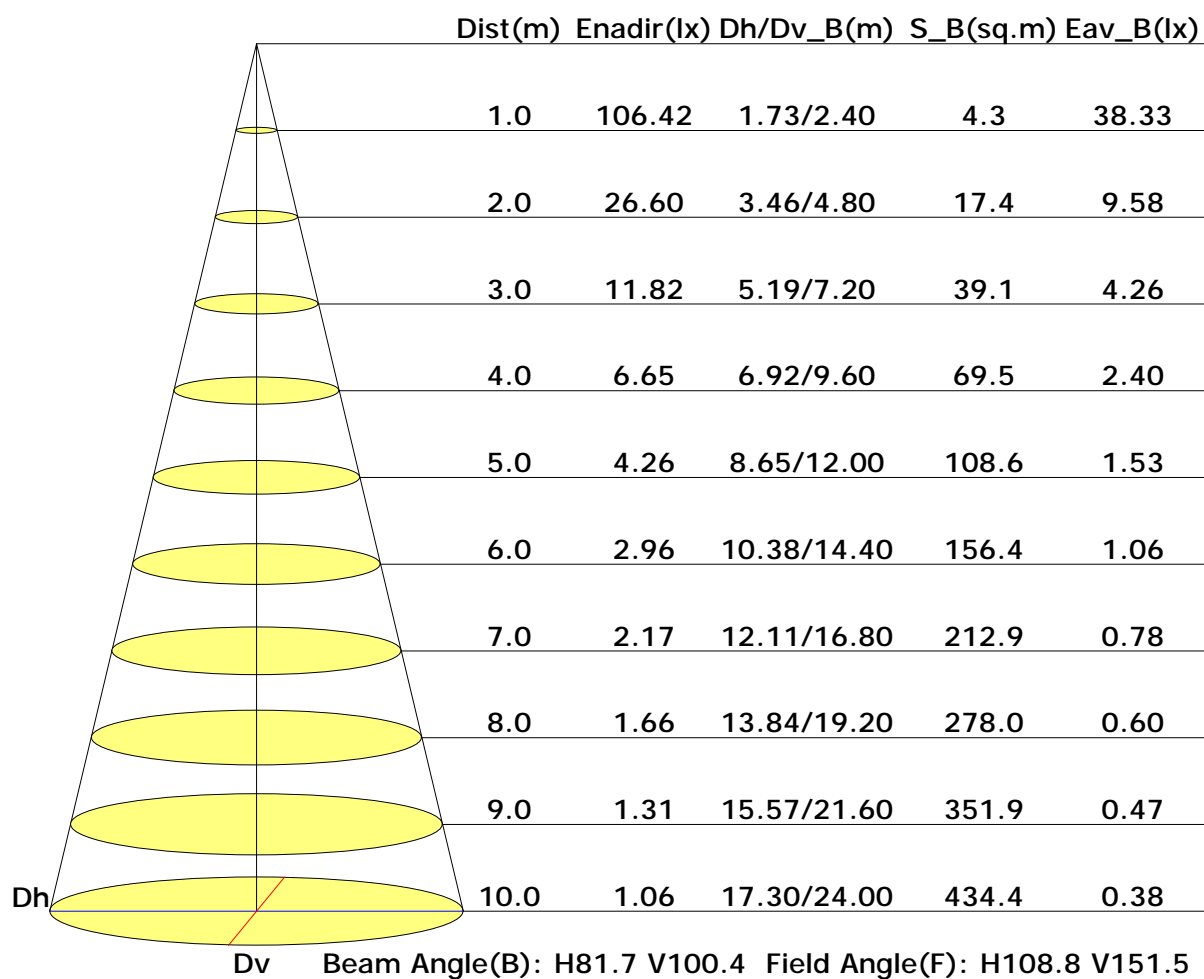
Test Device: GPM-1800B

Distance: 9.028 m

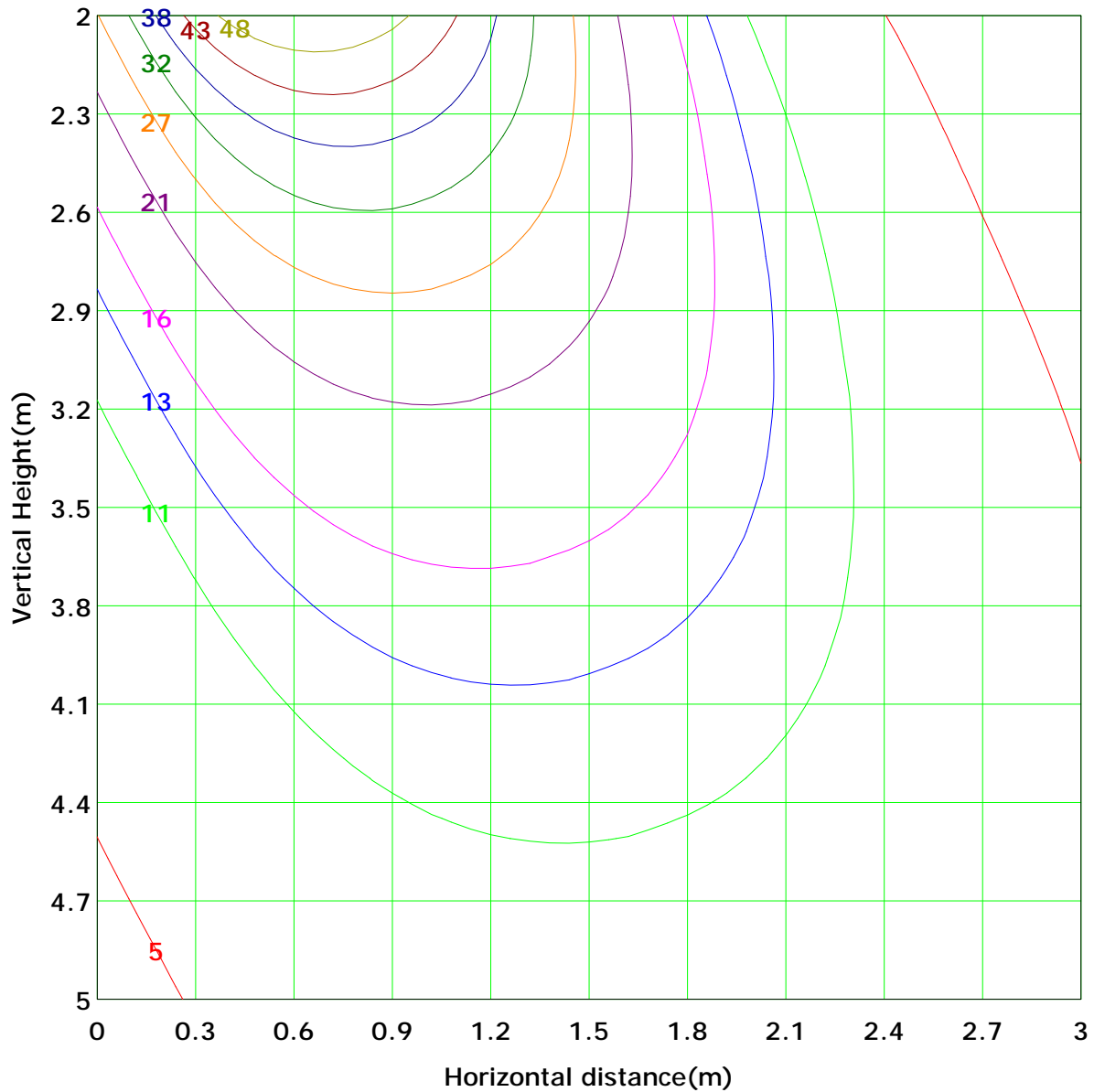
Humidity: 60%

Inspector:

Illuminance at a Distance



Vertical IsoLux Plot



Lowest(m): 2.0m	Highest(m): 5.0m	Max Lux: 53.6 lx
(10%): 5.4 lx	(20%): 10.7 lx	
(25%): 13.4 lx	(30%): 16.1 lx	
(40%): 21.5 lx	(50%): 26.8 lx	
(60%): 32.2 lx	(70%): 37.5 lx	
(80%): 42.9 lx	(90%): 48.3 lx	

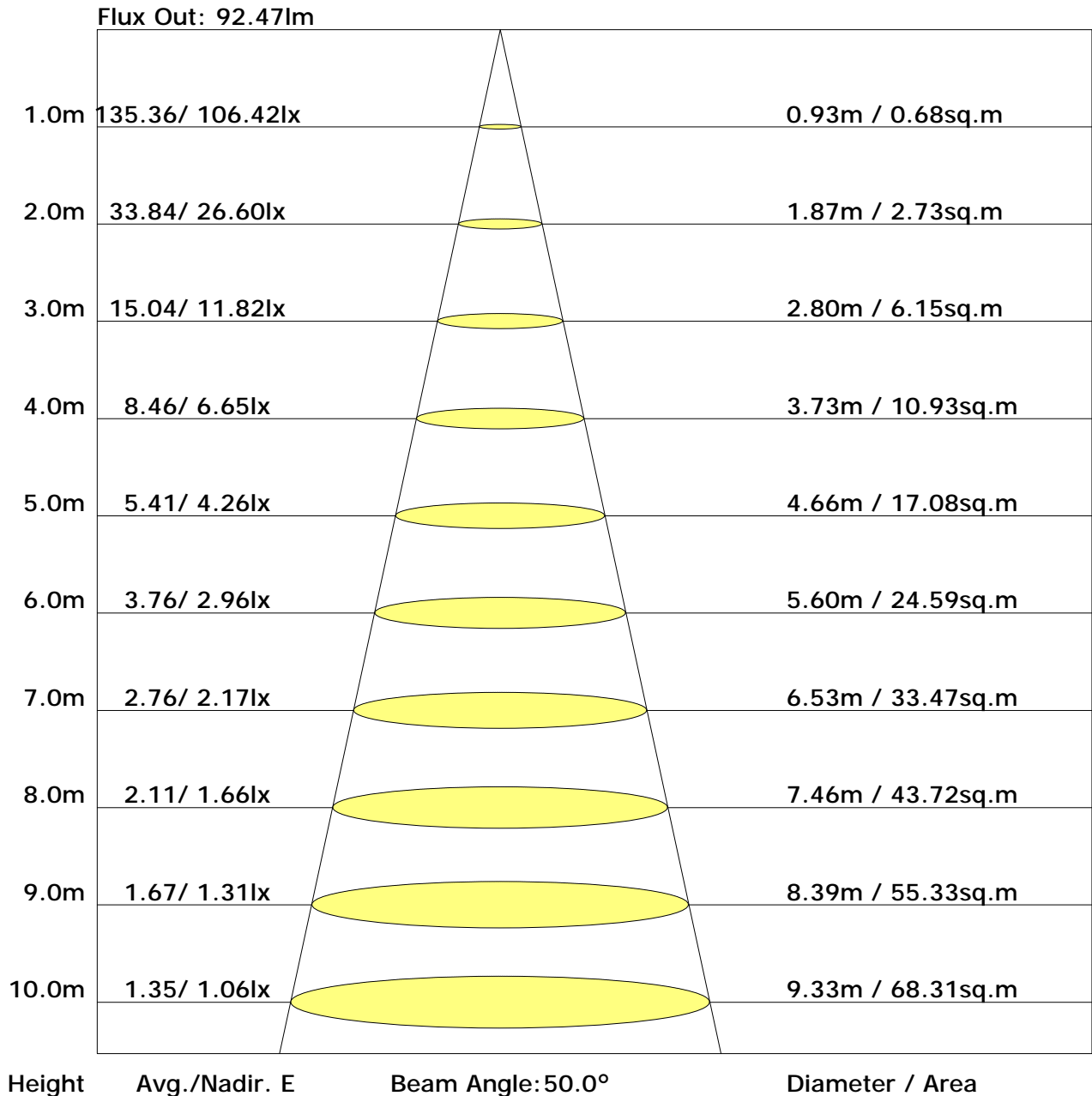
C Plane (°):0.0-360.0: 30.0
Test Lab: ACOLYTE
Test Type: TYPE C
Temperature: 25°C
Operator: leo

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



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:

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	15.4	16.8	15.7	17.1	17.4	22.2	23.6	22.5	23.9	24.2
3H	15.3	16.5	15.7	16.9	17.3	22.7	23.9	23.1	24.3	24.7
4H	15.2	16.4	15.6	16.7	17.1	22.8	23.9	23.2	24.3	24.7
6H	15.2	16.2	15.6	16.6	17.0	22.8	23.9	23.3	24.3	24.7
8H	15.1	16.1	15.6	16.5	16.9	22.8	23.8	23.3	24.2	24.6
12H	15.1	16.0	15.5	16.4	16.9	22.8	23.8	23.2	24.1	24.6
X=4H Y=2H	16.5	17.7	16.9	18.1	18.5	22.2	23.3	22.6	23.7	24.1
3H	16.5	17.4	16.9	17.8	18.2	22.9	23.8	23.3	24.2	24.7
4H	16.4	17.2	16.8	17.7	18.1	23.0	23.8	23.4	24.3	24.7
6H	16.3	17.0	16.8	17.5	18.0	23.0	23.8	23.5	24.2	24.7
8H	16.3	16.9	16.8	17.4	17.9	23.0	23.7	23.5	24.2	24.6
12H	16.2	16.8	16.7	17.3	17.8	23.0	23.6	23.5	24.1	24.6
X=8H Y=4H	16.6	17.3	17.1	17.8	18.2	22.9	23.5	23.4	24.0	24.5
6H	16.5	17.1	17.0	17.6	18.1	22.9	23.5	23.4	24.0	24.5
8H	16.5	17.0	17.0	17.5	18.0	22.9	23.4	23.4	23.9	24.4
12H	16.4	16.9	16.9	17.4	18.0	22.9	23.3	23.4	23.8	24.4
X=12H Y=4H	16.6	17.2	17.1	17.7	18.2	22.8	23.4	23.3	23.9	24.4
6H	16.5	17.0	17.0	17.5	18.0	22.9	23.3	23.4	23.8	24.4
8H	16.4	16.9	17.0	17.4	18.0	22.8	23.3	23.4	23.8	24.4

Calculate in accordance with CIE 190:2010

C Plane (°): 0.0-360.0: 30.0
 Test Lab: ACOLYTE
 Test Type: TYPE C
 Temperature: 25°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 = 1.50								
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	0.71	0.80	0.86	0.90	0.96	1.00	1.02	1.05	1.08
	0.30		0.65	0.74	0.81	0.85	0.92	0.96	0.99	1.03	1.05
	0.20		0.61	0.69	0.76	0.81	0.88	0.93	0.96	1.00	1.03
0.50	0.50	0.20	0.70	0.78	0.84	0.88	0.93	0.96	0.99	1.01	1.03
	0.30		0.65	0.73	0.79	0.84	0.89	0.93	0.96	0.99	1.01
	0.20		0.61	0.69	0.75	0.80	0.86	0.90	0.93	0.97	1.00
0.30	0.50	0.20	0.69	0.76	0.82	0.85	0.90	0.93	0.95	0.98	0.99
	0.30		0.64	0.72	0.78	0.82	0.87	0.91	0.93	0.96	0.98
	0.20		0.60	0.68	0.74	0.79	0.85	0.88	0.91	0.94	0.96
0.00	0.00	0.00	0.58	0.66	0.72	0.76	0.81	0.85	0.87	0.90	0.92
Rating:5W 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(Wall)

Utilisation Factors UF(W)			SHR NOM = 1.50									
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	0.77	0.62	0.52	0.44	0.34	0.28	0.24	0.18	0.15	
	0.30		0.64	0.53	0.45	0.39	0.31	0.26	0.22	0.17	0.14	
	0.20		0.55	0.47	0.40	0.35	0.28	0.24	0.21	0.16	0.13	
0.50	0.50	0.20	0.73	0.60	0.49	0.42	0.32	0.30	0.22	0.17	0.14	
	0.30		0.62	0.52	0.43	0.37	0.30	0.25	0.21	0.16	0.13	
	0.20		0.54	0.46	0.39	0.34	0.27	0.23	0.20	0.15	0.13	
0.30	0.50	0.20	0.71	0.57	0.47	0.40	0.30	0.25	0.21	0.16	0.13	
	0.30		0.60	0.50	0.42	0.36	0.28	0.23	0.20	0.15	0.12	
	0.20		0.53	0.45	0.38	0.33	0.26	0.22	0.19	0.15	0.12	
0.00	0.00	0.00	0.41	0.33	0.27	0.23	0.18	0.15	0.12	0.09	0.08	
Rating:5W 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 = 1.50								
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	0.15	0.17	0.17	0.18	0.19	0.20	0.20	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		0.06	0.08	0.10	0.11	0.13	0.14	0.16	0.17	0.18
0.50	0.50	0.20	0.15	0.16	0.17	0.17	0.19	0.19	0.20	0.20	0.21
	0.30		0.10	0.11	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
0.30	0.50	0.20	0.14	0.15	0.16	0.17	0.18	0.18	0.19	0.20	0.20
	0.30		0.09	0.11	0.12	0.13	0.15	0.16	0.17	0.18	0.19
	0.20		0.06	0.08	0.09	0.11	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
Rating:5W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980											