

Report No.:

Test Time: 2025-03-08 09:53

Luminaire Property

Luminaire Manufacturer:

Luminaire Category:

Lamp Catalog: 3000K

Number of Lamps:

Luminous Length (mm): 44

Luminous Height (mm):

Current: 0.0310 A

Power Factor: 0.5230

Luminaire Description:

Lamp Description:

Lumens per Lamp:

Luminous Width (mm): 44

Voltage: 230.50 V

Power: 3.78 W

Photometric Results

CIE Class: Direct

Measurement Flux: 218.8 lm

Downward Ratio: 100%

Horizontal Diffuse Angle(50%): H56.7

Vertical Diffuse Angle(50%): V57.4

Luminous Efficacy (lm/w): 57.89

Max. Intensity: 1002.11 cd/klm

S/MH(C0/C180): 0.88

Total Rated Lamp Lumens: 218.8 lm

Efficiency: 100%

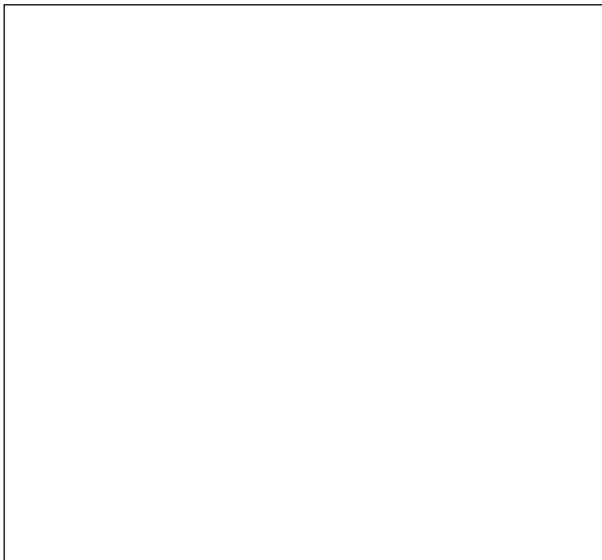
Upward Ratio: 0%

C0r0 Intensity: 999.45 cd/klm

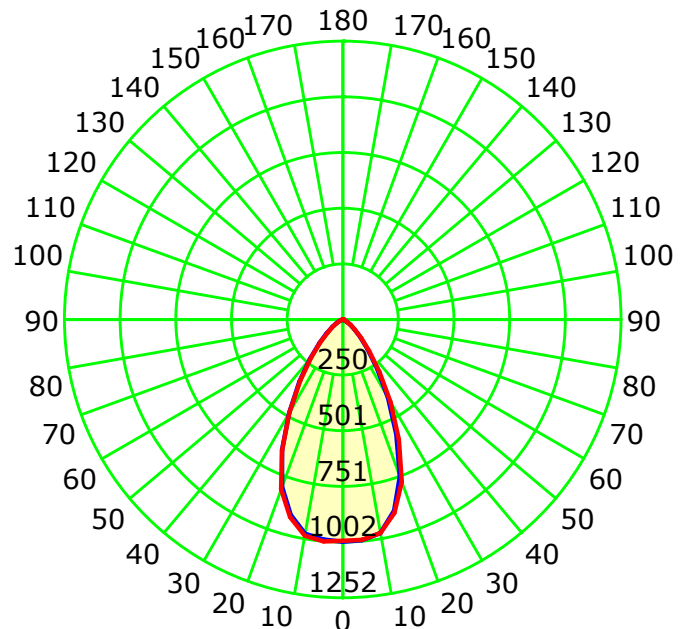
Pos of Max. Intensity: H270 V5

S/MH(C90/C270): 0.89

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd/klm

Average Diffuse Angle(50%): 57.0°

— C0-C180 — C90-C270

C Plane (°):0.0-360.0: 90.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-90.0:5.0

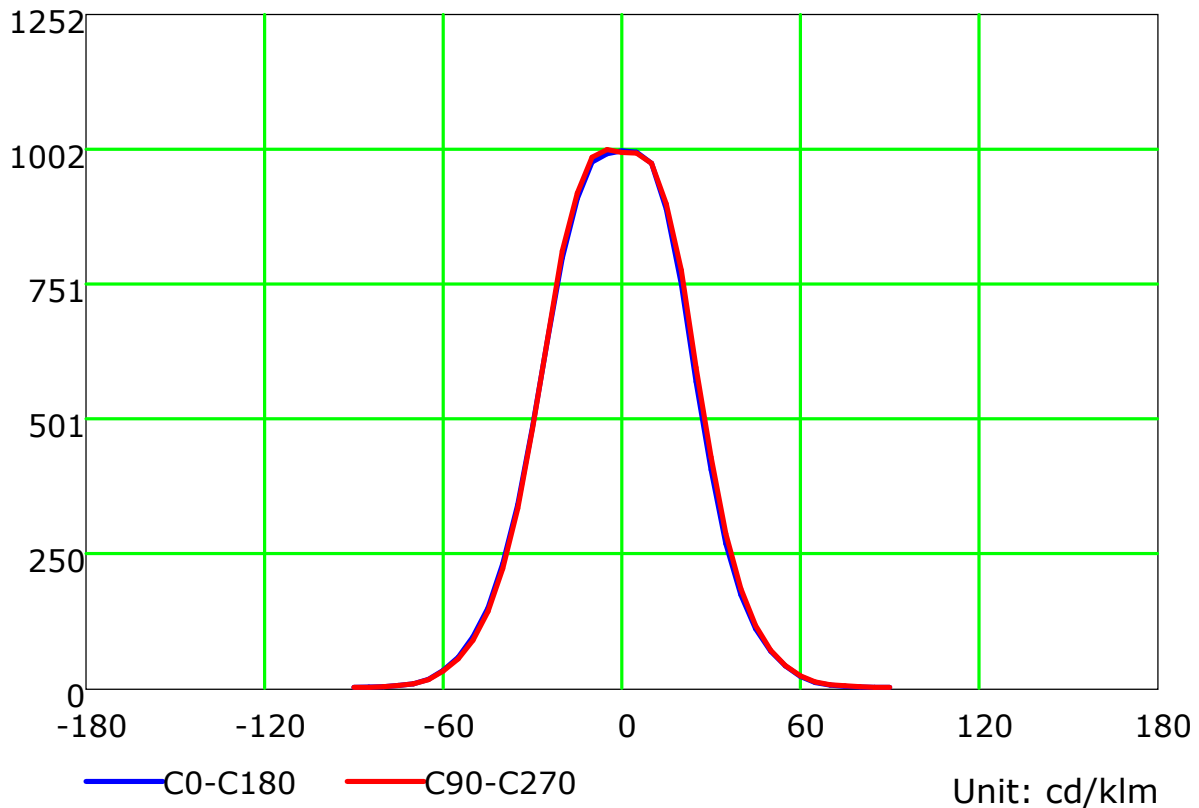
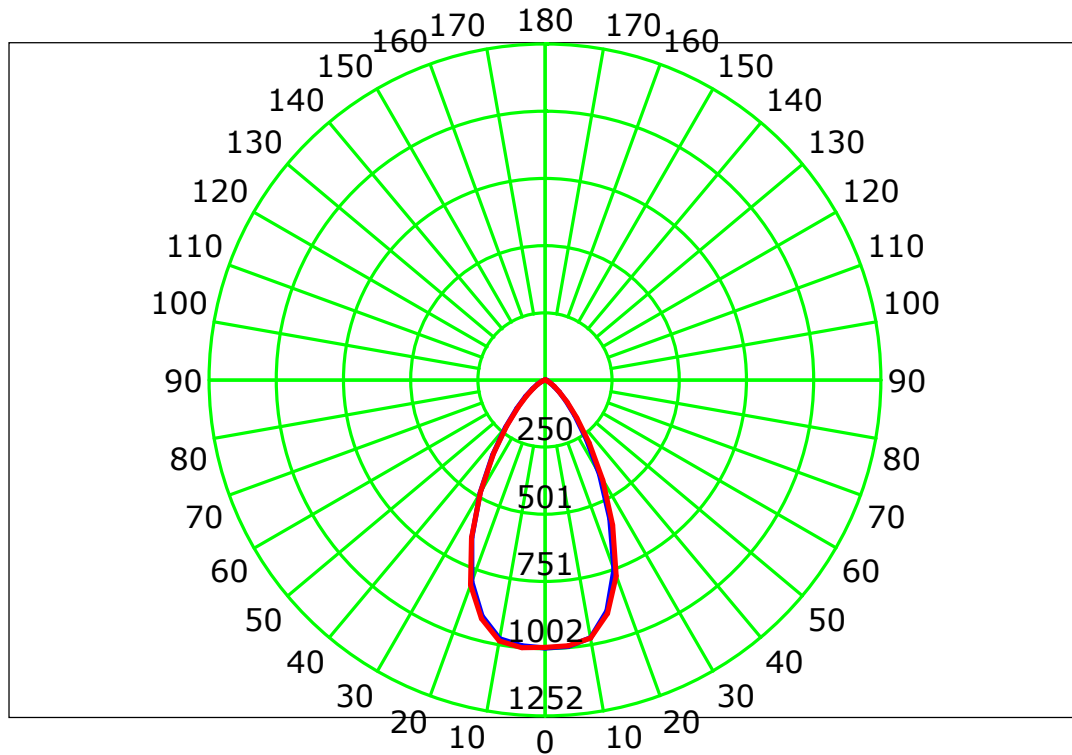
Test Device: GPM-1600L

Distance: 7.172 m [K=1.0000]

Humidity:

Inspector:

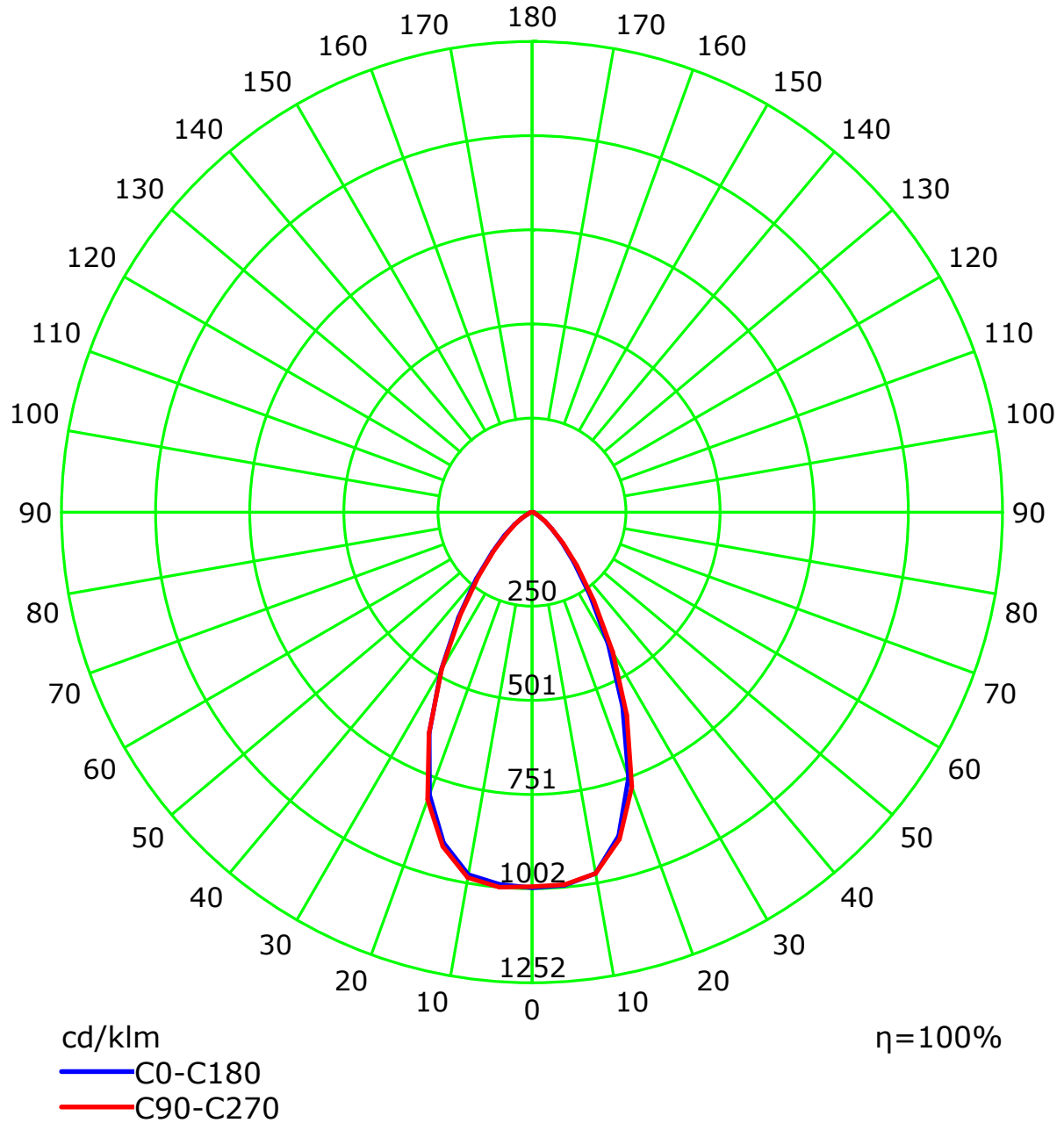
Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 90.0
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

Gamma Plane (°):0.0-90.0:5.0
 Test Device: GPM-1600L
 Distance: 7.172 m [K=1.0000]
 Humidity:
 Inspector:

Luminous Intensity Distribution Curve(cd/klm)



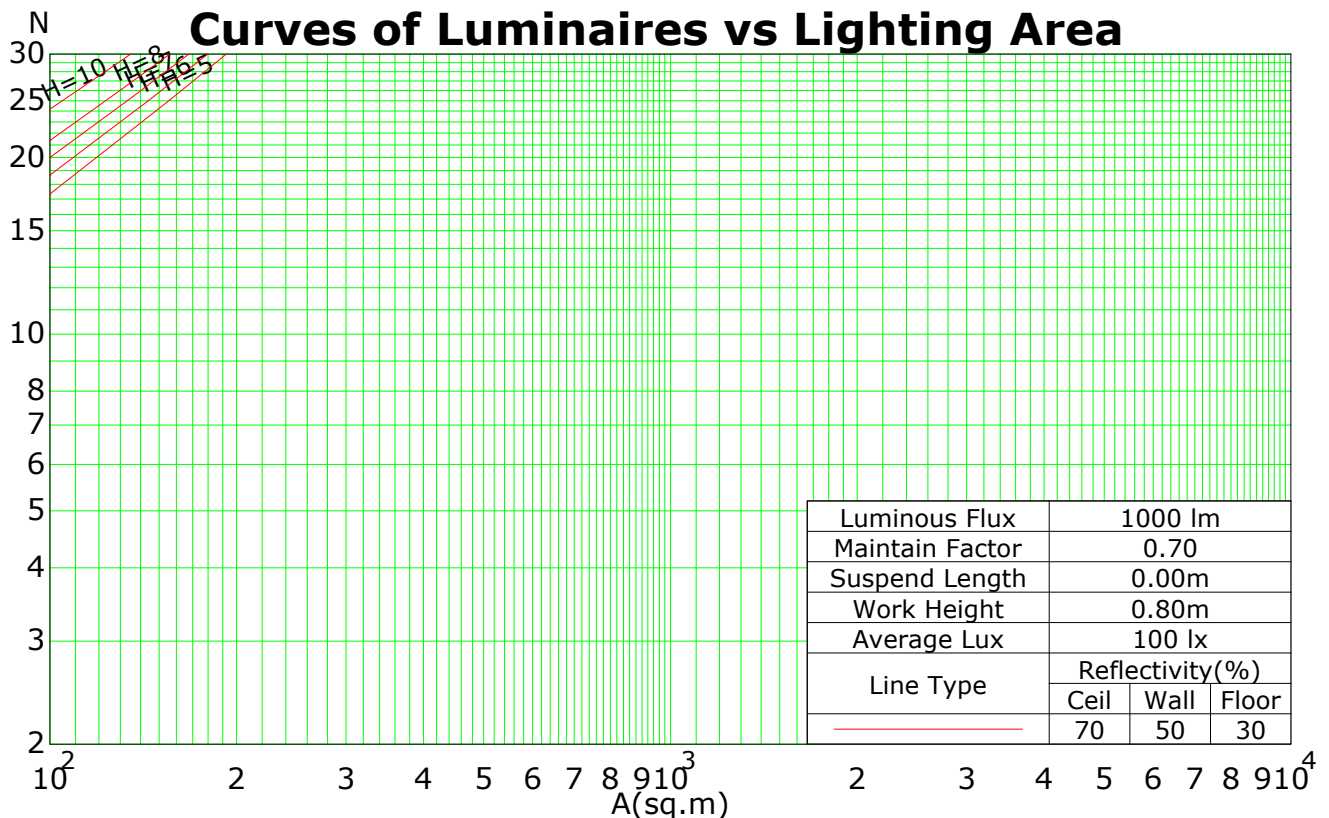
C Plane (°):0.0-360.0: 90.0
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

Gamma Plane (°):0.0-90.0:5.0
 Test Device: GPM-1600L
 Distance: 7.172 m [K=1.0000]
 Humidity:
 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	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1	1.13	1.10	1.07	1.05	1.10	1.08	1.05	1.03	1.04	1.02	1.00	1.00	0.98	0.97	0.96	0.95	0.94	0.92
2	1.07	1.01	0.97	0.93	1.04	0.99	0.95	0.92	0.96	0.93	0.90	0.93	0.90	0.88	0.90	0.88	0.86	0.84
3	1.01	0.94	0.88	0.84	0.98	0.92	0.87	0.83	0.89	0.85	0.82	0.87	0.83	0.80	0.85	0.82	0.79	0.77
4	0.95	0.87	0.81	0.76	0.93	0.85	0.80	0.76	0.83	0.78	0.75	0.81	0.77	0.74	0.79	0.76	0.73	0.71
5	0.90	0.81	0.74	0.70	0.88	0.80	0.74	0.69	0.78	0.73	0.69	0.76	0.71	0.68	0.74	0.70	0.67	0.66
6	0.85	0.75	0.69	0.64	0.83	0.74	0.68	0.64	0.73	0.67	0.63	0.71	0.66	0.63	0.70	0.66	0.62	0.61
7	0.80	0.70	0.64	0.59	0.79	0.70	0.63	0.59	0.68	0.63	0.59	0.67	0.62	0.58	0.66	0.61	0.58	0.57
8	0.76	0.66	0.59	0.55	0.75	0.65	0.59	0.55	0.64	0.59	0.55	0.63	0.58	0.54	0.62	0.58	0.54	0.53
9	0.72	0.62	0.56	0.51	0.71	0.61	0.55	0.51	0.60	0.55	0.51	0.60	0.54	0.51	0.59	0.54	0.51	0.49
10	0.69	0.58	0.52	0.48	0.68	0.58	0.52	0.48	0.57	0.52	0.48	0.56	0.51	0.48	0.56	0.51	0.48	0.46

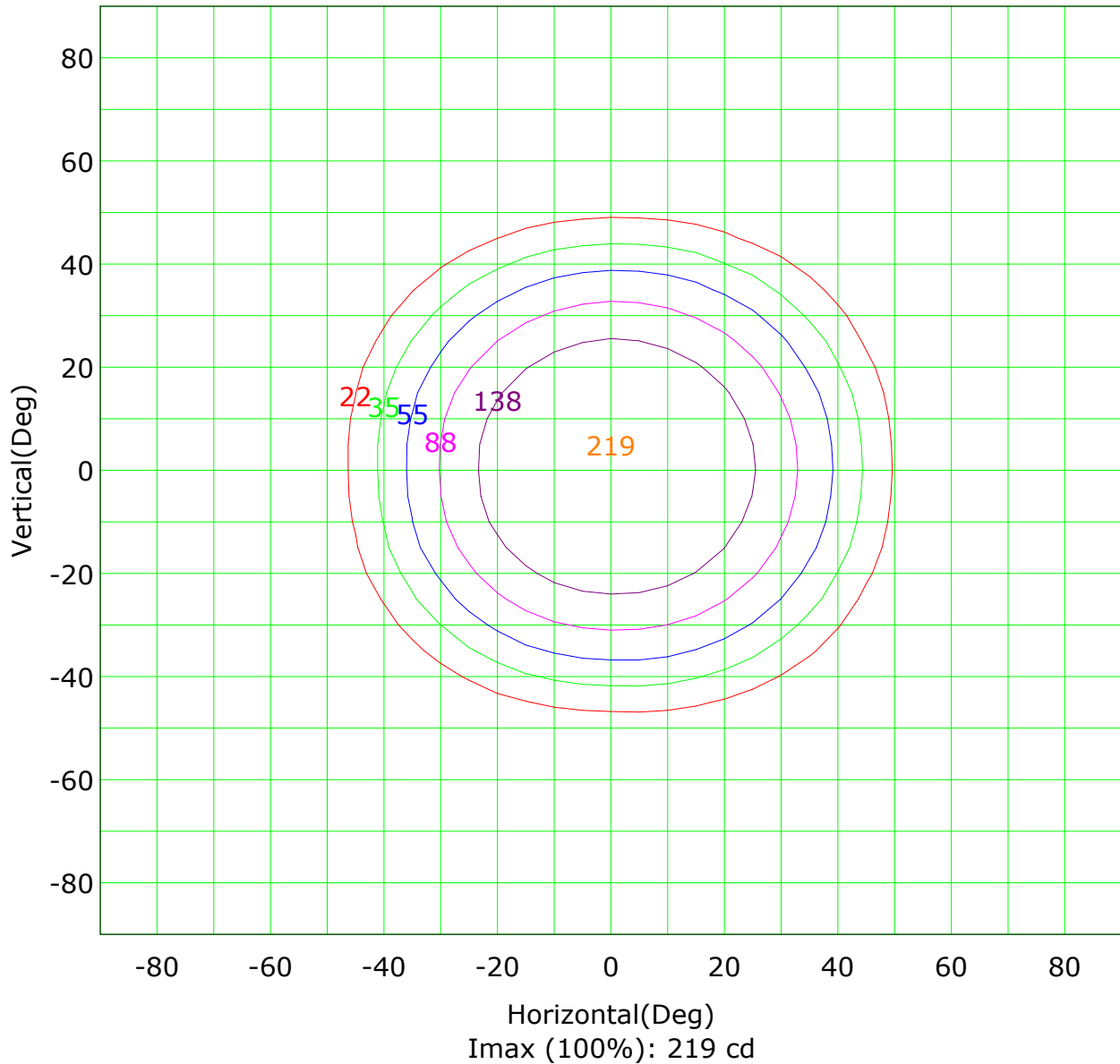
Spacing Criteria (0-180): 0.88
Spacing Criteria (90-270): 0.89
Spacing Criteria (Diagonal): 0.87



C Plane (°):0.0-360.0: 90.0
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

Gamma Plane (°):0.0-90.0:5.0
Test Device: GPM-1600L
Distance: 7.172 m [K=1.0000]
Humidity:
Inspector:

Isocandela (rectangle)

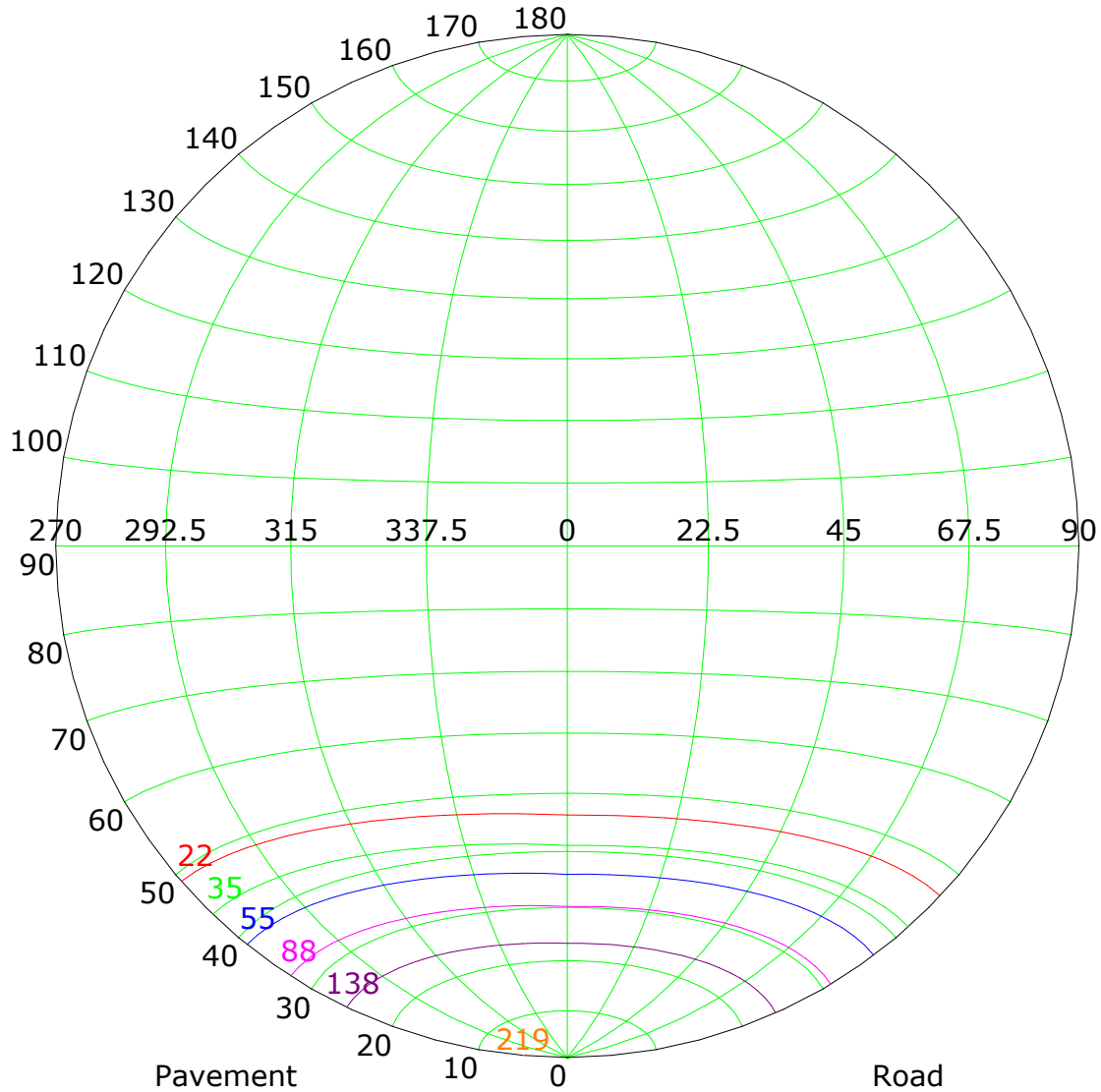


(10%):	22 cd	(16%):	35 cd
(25%):	55 cd	(40%):	88 cd
(63%):	138 cd	(100%):	219 cd

C Plane (°):0.0-360.0: 90.0
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

Gamma Plane (°):0.0-90.0:5.0
 Test Device: GPM-1600L
 Distance: 7.172 m [K=1.0000]
 Humidity:
 Inspector:

Isocandela (sphere)



Imax (100%): 219 cd

(10%): 22 cd
(25%): 55 cd
(63%): 138 cd

(16%): 35 cd
(40%): 88 cd
(100%): 219 cd

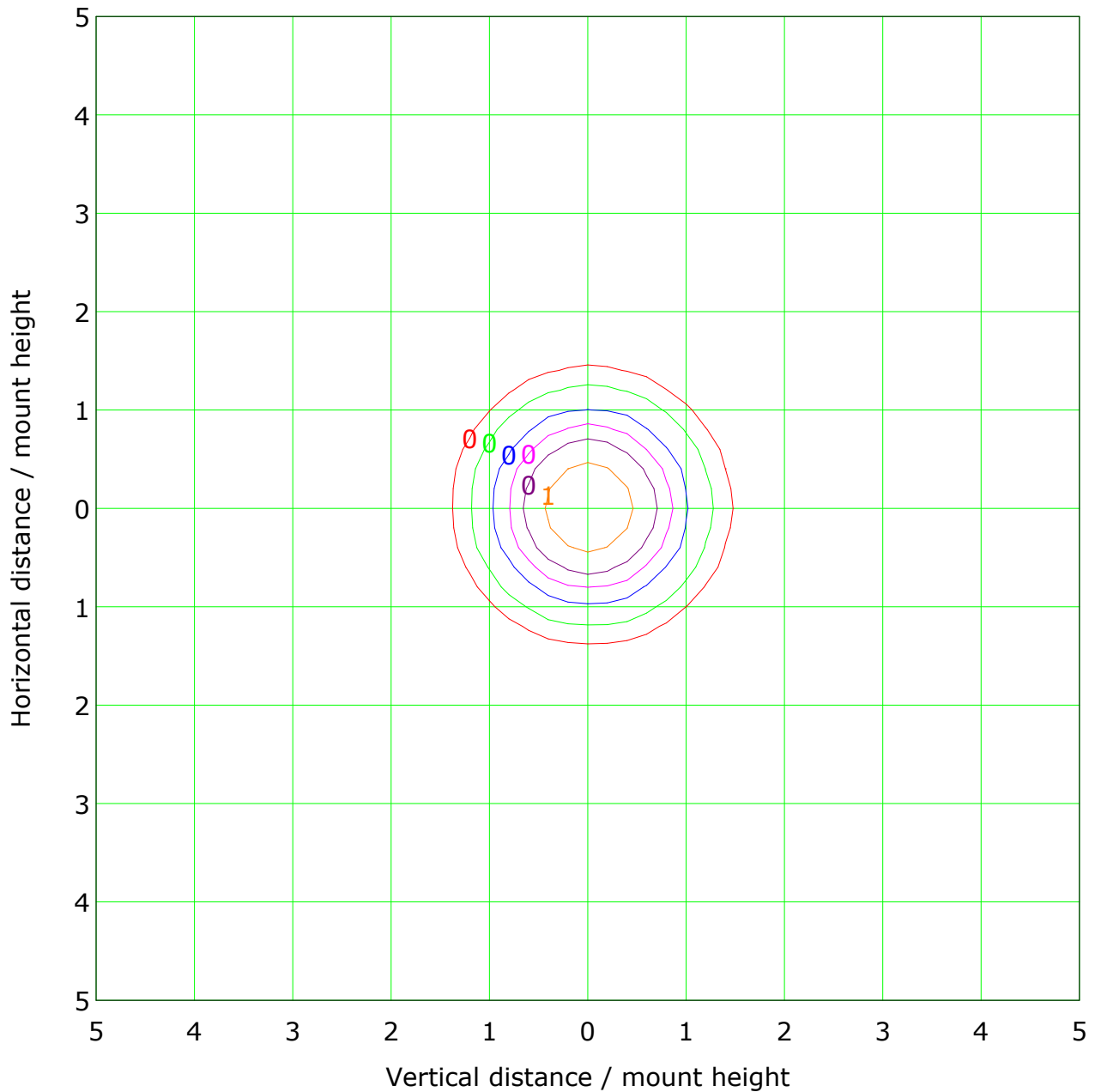
CIE: narrow - short
CIE: Non-cut-off luminaire
Max.At90: 208.842 cd/klm

IES: Non-cut-off
Max.At80: 94724788771541674000000000000000
Max.80-90: 94724789764920979000000000000000

C Plane (°):0.0-360.0: 90.0
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

Gamma Plane (°):0.0-90.0:5.0
Test Device: GPM-1600L
Distance: 7.172 m [K=1.0000]
Humidity:
Inspector:

IsoLux Plot



Mounting Height: 10.0m Max Lux(100%): 2.2 lx

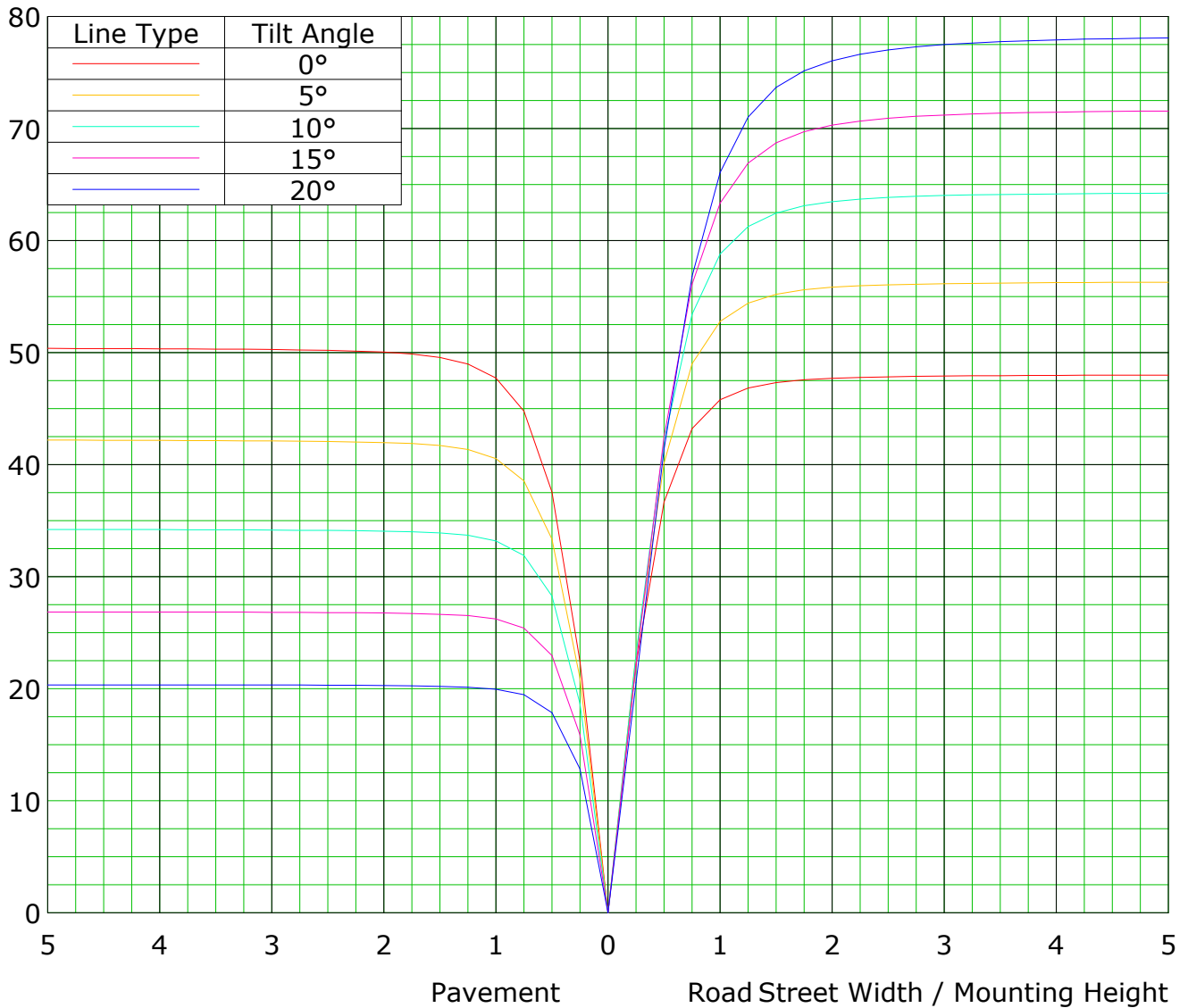
(1%): 0.0 lx	(2%): 0.0 lx
(5%): 0.1 lx	(10%): 0.2 lx
(20%): 0.4 lx	(50%): 1.1 lx
(100%): 2.2 lx	

C Plane (°):0.0-360.0: 90.0
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

Gamma Plane (°):0.0-90.0:5.0
 Test Device: GPM-1600L
 Distance: 7.172 m [K=1.0000]
 Humidity:
 Inspector:

Roadway CU Curve

Efficiency(%)

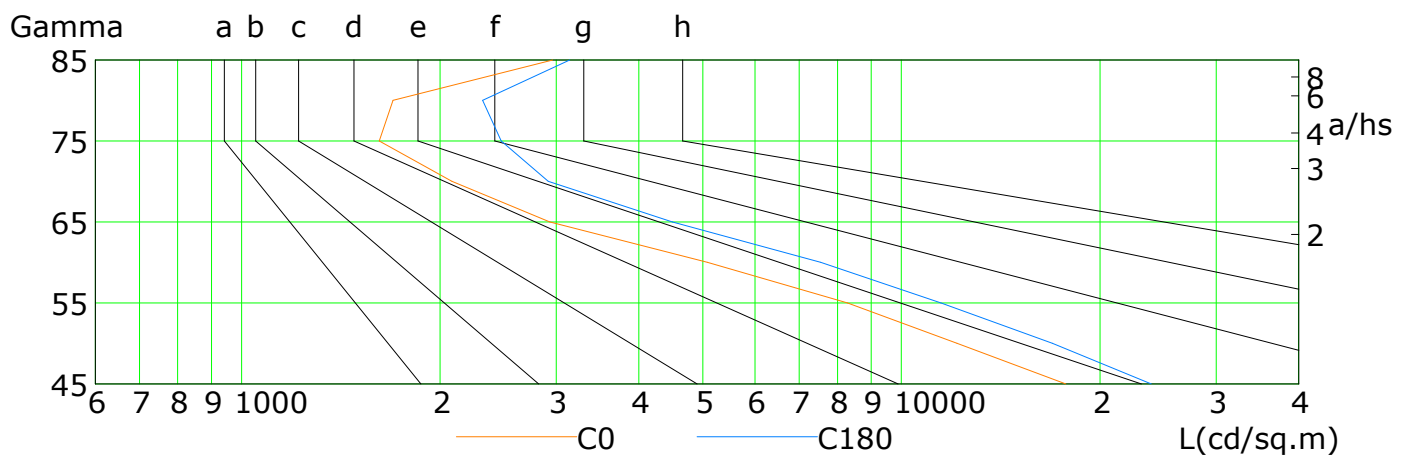
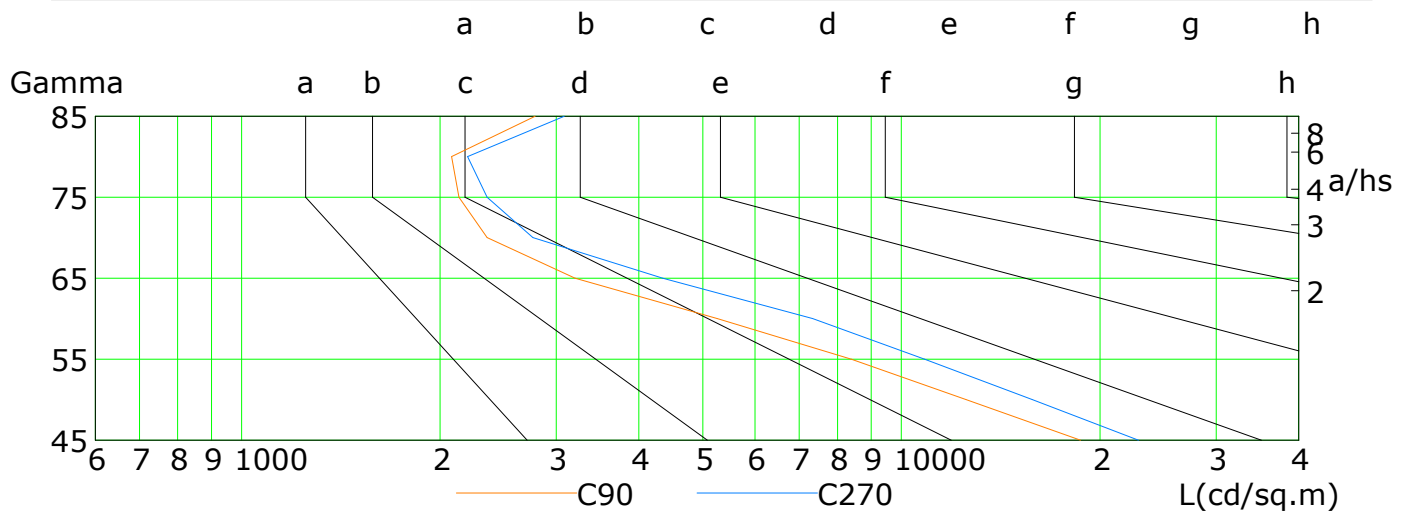


C Plane (°):0.0-360.0: 90.0
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

Gamma Plane (°):0.0-90.0:5.0
 Test Device: GPM-1600L
 Distance: 7.172 m [K=1.0000]
 Humidity:
 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



L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	17758	12142	8285	5083	2933	2084	1617	1696	2963
C90	18686	12520	8402	5258	3202	2356	2135	2082	2785
C180	23916	16939	11482	7541	4498	2915	2475	2320	3141
C270	22871	15790	10843	7335	4351	2764	2355	2201	3082

C Plane (°):0.0-360.0: 90.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-90.0:5.0

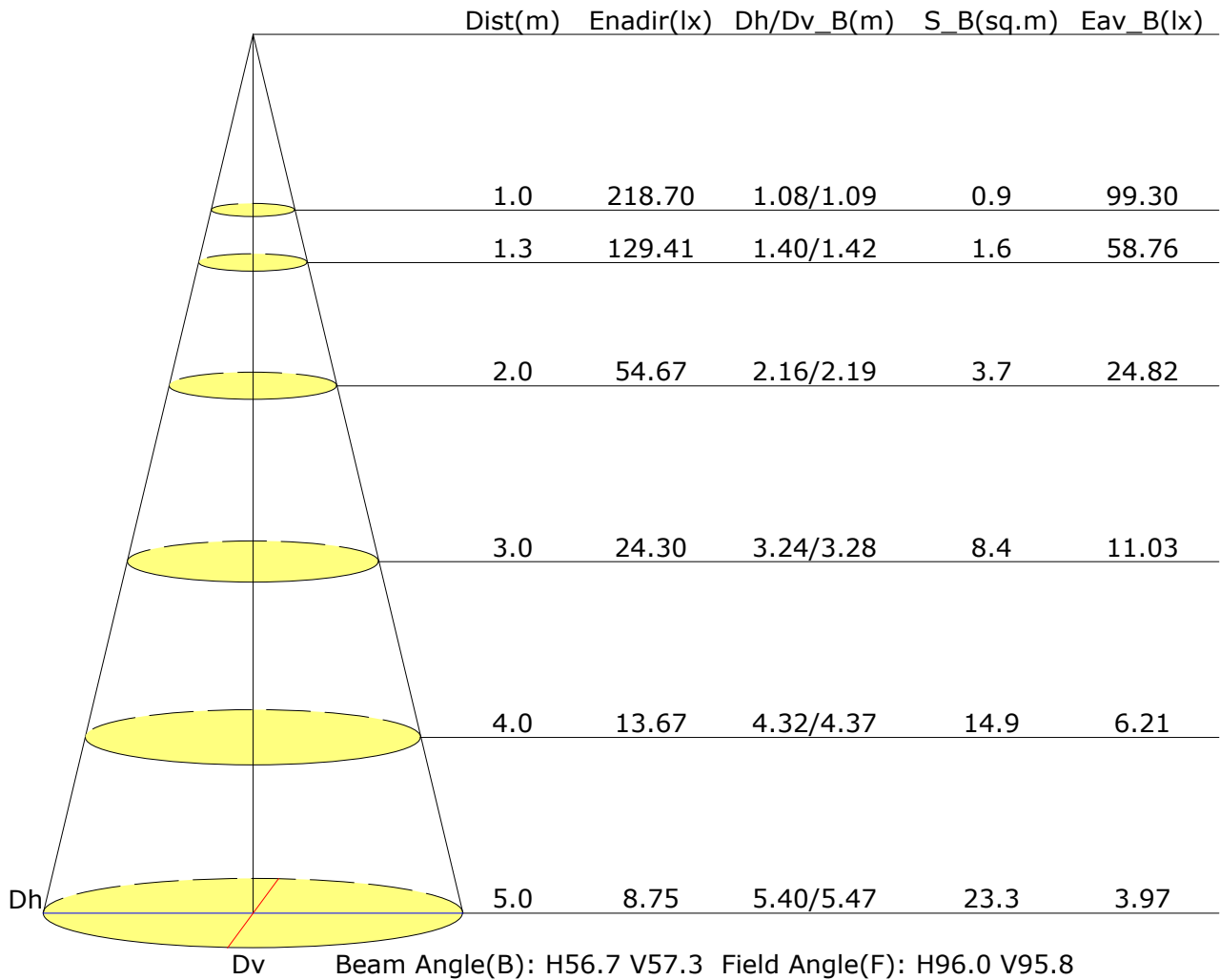
Test Device: GPM-1600L

Distance: 7.172 m [K=1.0000]

Humidity:

Inspector:

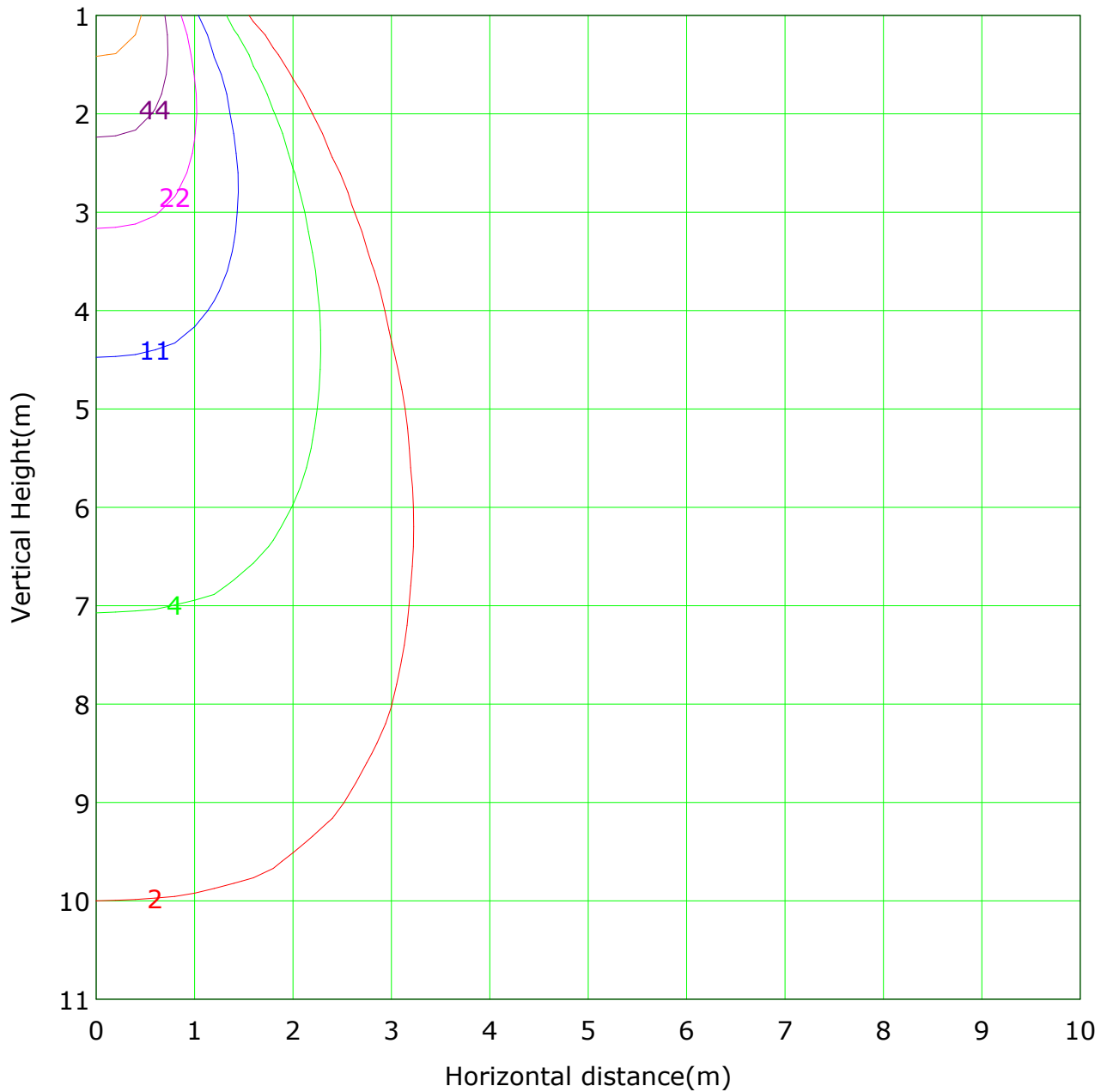
Illuminance at a Distance



C Plane (°):0.0-360.0: 90.0
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

Gamma Plane (°):0.0-90.0:5.0
 Test Device: GPM-1600L
 Distance: 7.172 m [K=1.0000]
 Humidity:
 Inspector:

Vertical IsoLux Plot



Lowest(m): 1.0m Highest(m): 11.0m Max Lux: 218.7 lx

— (1%): 2.2 lx	— (2%): 4.4 lx
— (5%): 10.9 lx	— (10%): 21.9 lx
— (20%): 43.7 lx	— (50%): 109.3 lx
— (100%): 218.7 lx	

C Plane (°):0.0-360.0: 90.0
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

Gamma Plane (°):0.0-90.0:5.0
 Test Device: GPM-1600L
 Distance: 7.172 m [K=1.0000]
 Humidity:
 Inspector:

Area Flux Table

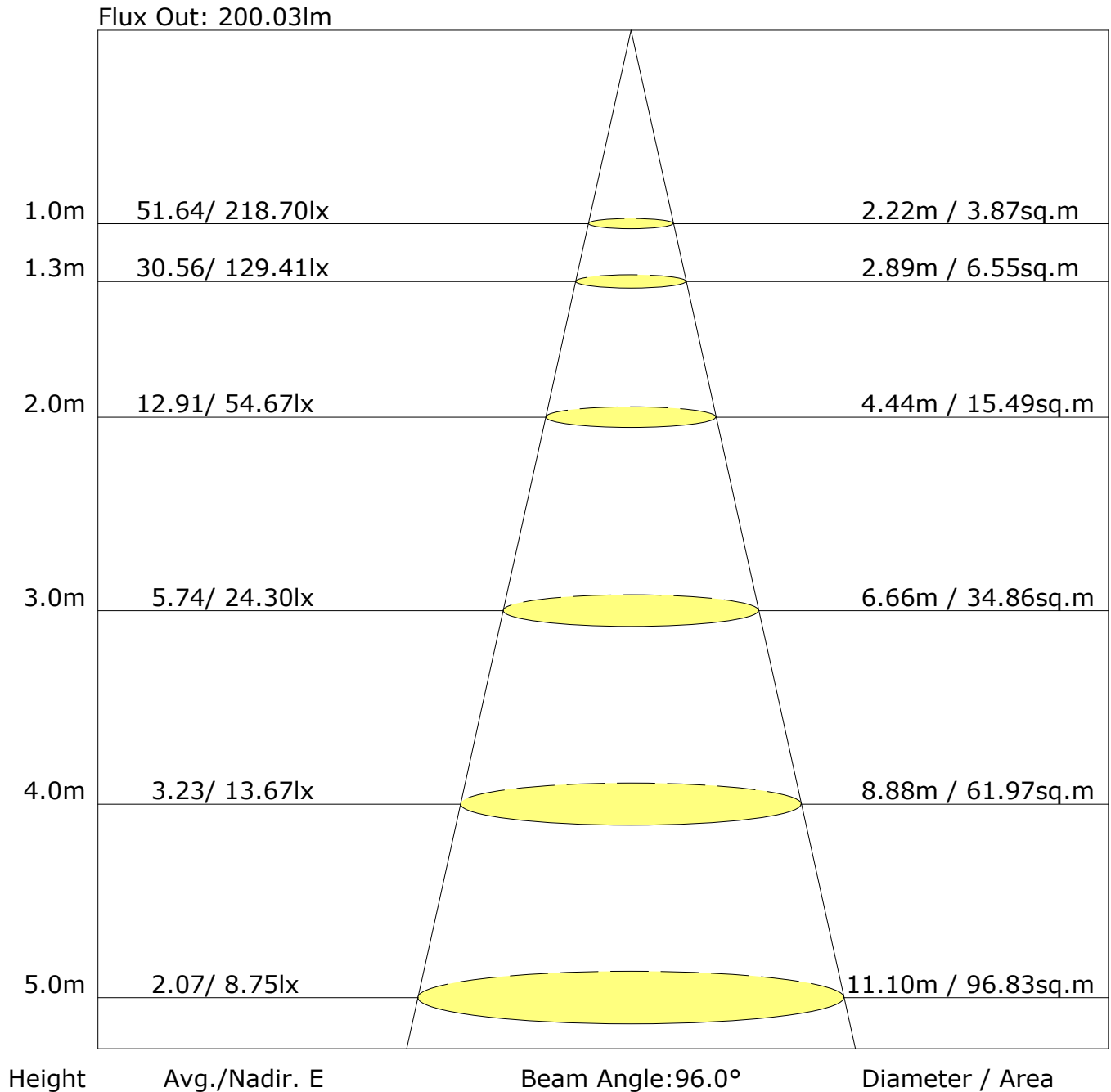
Unit: lm/klm

		Orbit: m/s/km																				
		-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90		
Vertical plane	-90	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	0.0	0.0	0.0	0.0	0.0	0.8	0.0	
	-80	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	1.5	0.0	
	-70	0.0	0.0	0.0	0.1	0.2	0.2	0.4	0.5	0.5	0.5	0.4	0.3	0.2	0.1	0.1	0.0	0.0	0.0	3.7	0.0	
	-60	0.0	0.0	0.1	0.2	0.3	0.7	1.1	1.5	1.7	1.7	1.4	1.0	0.6	0.3	0.1	0.1	0.0	0.0	10.7	0.0	
	-50	0.0	0.0	0.1	0.3	0.7	1.5	2.6	3.7	4.4	4.3	3.5	2.3	1.3	0.6	0.2	0.1	0.0	0.0	25.8	15.8	
	-40	0.0	0.0	0.1	0.5	1.3	2.9	5.4	8.2	10.1	9.9	7.7	4.8	2.5	1.1	0.4	0.1	0.0	0.0	55.1	49.8	
	-30	0.0	0.0	0.2	0.7	2.1	4.9	9.7	15.2	19.0	18.8	14.4	8.6	4.1	1.7	0.5	0.1	0.0	0.0	100.2	96.3	
	-20	0.0	0.0	0.2	0.9	2.8	7.1	14.4	22.3	26.9	26.8	21.5	12.9	5.9	2.2	0.7	0.2	0.0	0.0	144.9	141.5	
	-10	0.0	0.0	0.2	1.1	3.3	8.5	17.3	26.0	29.9	29.9	25.3	15.6	6.9	2.5	0.8	0.2	0.0	0.0	167.5	164.4	
	0	0.0	0.0	0.2	1.1	3.3	8.4	17.2	25.8	29.8	29.7	25.2	15.4	6.8	2.5	0.8	0.2	0.0	0.0	166.4	163.2	
	10	0.0	0.0	0.2	0.9	2.8	6.8	13.9	21.8	26.4	26.2	20.9	12.4	5.6	2.1	0.7	0.2	0.0	0.0	140.9	137.5	
	20	0.0	0.0	0.2	0.7	2.0	4.6	9.1	14.3	17.7	17.4	13.5	8.0	3.8	1.6	0.5	0.1	0.0	0.0	93.6	89.5	
	30	0.0	0.0	0.1	0.5	1.2	2.7	4.9	7.3	8.9	8.7	6.8	4.3	2.3	1.0	0.3	0.1	0.0	0.0	49.1	43.4	
	40	0.0	0.0	0.1	0.3	0.7	1.4	2.3	3.2	3.7	3.6	2.9	2.0	1.1	0.5	0.2	0.1	0.0	0.0	22.1	10.5	
	50	0.0	0.0	0.1	0.1	0.3	0.6	0.9	1.2	1.4	1.3	1.1	0.8	0.5	0.2	0.1	0.0	0.0	0.0	8.8	0.0	
	60	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.4	0.4	0.4	0.3	0.2	0.1	0.1	0.0	0.0	0.0	3.1	0.0	
	70	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	1.4	0.0	
	80	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.8	0.0	
	90	0.1	0.6	2.1	7.5	21.5	51.1	99.7	151.8	181.4	179.7	145.4	89.2	42.1	16.7	5.6	1.5	0.4	0.1	997		
Flux(T)	0.0	0.0	0.0	0.0	13.1	44.6	93.7	146.0	175.8	174.0	139.6	83.1	35.3	6.8	0.0	0.0	0.0	0.0		912		
Flux(E)																						
		-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90	Flux(T)	Flux(E)
		Horizontal plane																				

Gamma Plane (°): 0.0-90.0: 5.0
 Test Device: GPM-1600L
 Distance: 7.172 m [K=1.0000]
 Humidity:
 Inspector:

C Plane (°): 0.0-360.0: 90.0
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

The Average Illuminance Effective Figure



C Plane (°): 0.0-360.0: 90.0
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

Gamma Plane (°): 0.0-90.0: 5.0
 Test Device: GPM-1600L
 Distance: 7.172 m [K=1.0000]
 Humidity:
 Inspector:

UGR Table

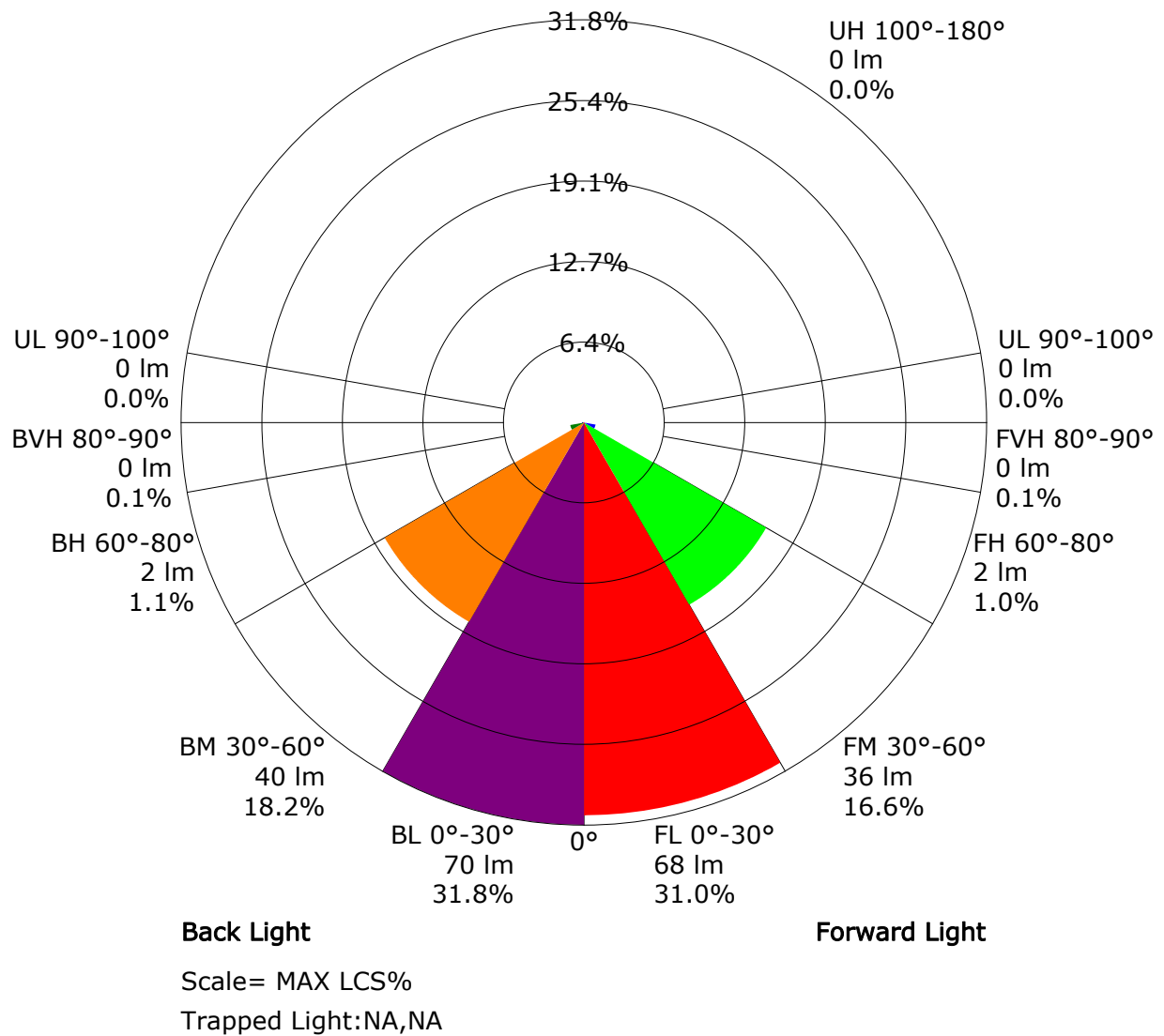
Reflectance:										
Ceiling (cavity)	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
X=2H Y=2H	18.0	19.0	18.3	19.2	19.4	18.6	19.6	18.9	19.8	20.0
3H	18.0	18.8	18.3	19.1	19.3	18.6	19.5	18.9	19.7	20.0
4H	17.9	18.7	18.3	19.0	19.3	18.6	19.4	18.9	19.6	19.9
6H	17.9	18.6	18.2	18.9	19.2	18.5	19.3	18.9	19.6	19.9
8H	17.9	18.6	18.2	18.9	19.2	18.5	19.3	18.9	19.6	19.9
12H	17.9	18.6	18.2	18.9	19.2	18.5	19.2	18.9	19.5	19.8
X=4H Y=2H	18.0	18.8	18.3	19.0	19.3	18.5	19.4	18.9	19.6	19.9
3H	18.0	18.6	18.3	19.0	19.3	18.6	19.2	18.9	19.6	19.9
4H	17.9	18.5	18.3	18.9	19.2	18.6	19.2	18.9	19.5	19.9
6H	17.9	18.5	18.3	18.8	19.2	18.5	19.1	19.0	19.5	19.8
8H	17.9	18.4	18.3	18.8	19.2	18.5	19.0	19.0	19.4	19.8
12H	17.9	18.4	18.4	18.8	19.2	18.6	19.0	19.0	19.4	19.8
X=8H Y=4H	17.9	18.4	18.3	18.7	19.2	18.5	19.0	18.9	19.3	19.8
6H	17.9	18.3	18.3	18.7	19.1	18.5	18.9	18.9	19.3	19.8
8H	17.9	18.2	18.4	18.7	19.2	18.5	18.8	19.0	19.3	19.8
12H	17.9	18.2	18.4	18.7	19.2	18.6	18.8	19.0	19.3	19.8
X=12H Y=4H	17.8	18.3	18.3	18.7	19.1	18.4	18.9	18.9	19.3	19.7
6H	17.8	18.2	18.3	18.6	19.1	18.5	18.8	18.9	19.2	19.7
8H	17.9	18.2	18.4	18.6	19.1	18.5	18.8	19.0	19.3	19.8
Variations with the observer position at spacings:										
S=1.0H	+2.2/-3.0					+2.3/-2.9				
S=1.5H	+4.3/-5.5					+4.4/-5.3				
S=2.0H	+6.3/-7.2					+6.2/-7.4				

Calculate in accordance with CIE Pub.117. The table is revised with 219lm ($8\log(F/F_0) = -5.3$).

C Plane (°):0.0-360.0: 90.0
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

Gamma Plane (°):0.0-90.0:5.0
Test Device: GPM-1600L
Distance: 7.172 m [K=1.0000]
Humidity:
Inspector:

LCS Graph



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	0.77	0.85	0.90	0.94	0.99	1.02	1.04	1.07	1.08	
	0.30		0.71	0.80	0.85	0.89	0.95	0.98	1.01	1.04	1.06	
	0.20		0.67	0.76	0.81	0.86	0.91	0.95	0.98	1.02	1.04	
0.50	0.50	0.20	0.75	0.83	0.88	0.91	0.96	0.99	1.00	1.03	1.04	
	0.30		0.71	0.78	0.84	0.87	0.92	0.96	0.98	1.01	1.03	
	0.20		0.67	0.75	0.80	0.84	0.90	0.93	0.96	0.99	1.01	
0.30	0.50	0.20	0.74	0.81	0.86	0.89	0.93	0.96	0.97	0.99	1.01	
	0.30		0.70	0.77	0.82	0.86	0.90	0.93	0.95	0.98	0.99	
	0.20		0.67	0.74	0.80	0.83	0.88	0.91	0.93	0.96	0.98	
0.00	0.00	0.00	0.65	0.72	0.77	0.81	0.85	0.88	0.90	0.92	0.93	
Rating:4W 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: 90.0
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

Gamma Plane (°):0.0-90.0:5.0
Test Device: GPM-1600L
Distance: 7.172 m [K=1.0000]
Humidity:
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	0.69	0.55	0.46	0.39	0.31	0.25	0.21	0.17	0.13	
	0.30		0.57	0.47	0.40	0.35	0.28	0.23	0.20	0.16	0.13	
	0.20		0.49	0.41	0.35	0.31	0.25	0.21	0.18	0.15	0.12	
0.50	0.50	0.20	0.66	0.52	0.43	0.37	0.29	0.28	0.20	0.15	0.12	
	0.30		0.56	0.45	0.38	0.33	0.26	0.22	0.19	0.14	0.12	
	0.20		0.48	0.40	0.34	0.30	0.24	0.20	0.18	0.14	0.11	
0.30	0.50	0.20	0.63	0.50	0.41	0.35	0.27	0.22	0.19	0.14	0.12	
	0.30		0.54	0.44	0.37	0.32	0.25	0.21	0.17	0.14	0.11	
	0.20		0.47	0.39	0.33	0.29	0.23	0.19	0.17	0.13	0.11	
0.00	0.00	0.00	0.35	0.27	0.23	0.19	0.15	0.12	0.10	0.08	0.06	
Rating:4W 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: 90.0
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

Gamma Plane (°):0.0-90.0:5.0
 Test Device: GPM-1600L
 Distance: 7.172 m [K=1.0000]
 Humidity:
 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	0.14	0.15	0.16	0.17	0.18	0.19	0.19	0.20	0.21	
	0.30		0.09	0.11	0.12	0.13	0.15	0.16	0.17	0.18	0.19	
	0.20		0.06	0.07	0.09	0.10	0.12	0.14	0.15	0.17	0.18	
0.50	0.50	0.20	0.13	0.14	0.15	0.16	0.17	0.18	0.19	0.19	0.20	
	0.30		0.09	0.10	0.12	0.13	0.15	0.16	0.17	0.18	0.19	
	0.20		0.05	0.07	0.09	0.10	0.12	0.14	0.15	0.16	0.17	
0.30	0.50	0.20	0.13	0.14	0.15	0.16	0.17	0.17	0.18	0.19	0.19	
	0.30		0.09	0.10	0.12	0.13	0.14	0.15	0.16	0.17	0.18	
	0.20		0.05	0.07	0.09	0.10	0.12	0.13	0.14	0.16	0.17	
0.00	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Rating:4W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												

Zonal Lumen

[illegible]

C Plane (°):0.0-360.0: 90.0
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

Gamma Plane (°):0.0-90.0:5.0
Test Device: GPM-1600L
Distance: 7.172 m [K=1.0000]
Humidity:
Inspector:

Zonal Lumen (Continue 1)

cone flux(90°): 194.09 lm

%lum = 88.7%
%lamp = 88.7%

cone flux(120°): 213.60 lm

%lum = 97.6%
%lamp = 97.6%

Unit: cd/klm

C Plane (°):0.0-360.0: 90.0
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

Gamma Plane (°):0.0-90.0:5.0
Test Device: GPM-1600L
Distance: 7.172 m [K=1.0000]
Humidity:
Inspector:

LED Average Luminance Report

Avg.L	cd/m ²
L 0-180(65) av	3715.52
L 0-180(75) av	2045.61
L 0-180(85) av	3052.15
L 90-270(65) av	3776.63
L 90-270(75) av	2245.18
L 90-270(85) av	2933.62
L 45(65) av	3746.08
L 45(75) av	2145.39
L 45(85) av	2992.89

Standard: GB/T 29293-2012