

Report No.: PKS200616100-10

Test Time: 2020/6/14 16:12

## Luminaire Property

Luminaire Manufacturer:

Luminaire Category:

Luminaire Description: 3尺

Lamp Description:

Lumens per Lamp:

Luminous Width (mm):

Voltage: 120.0 V

Power: 29.04 W

Lamp Catalog:

Number of Lamps:

Luminous Length (mm):

Luminous Height (mm):

Current: 0.245 A

Power Factor: 0.989

## Photometric Results

CIE Class: Semi-Direct

Measurement Flux: 1847.4 lm

Downward Ratio: 86%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 163.0, 271.9, 243.6, 244.3

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 113.4, 148.6, 136.3, 136.7

Luminaire Efficacy Rating (LER): 63.67

Max. Intensity: 430.2 cd

S/MH(C0/C180): 1.27

Total Rated Lamp Lumens: 1847.4 lm

Efficiency: 100%

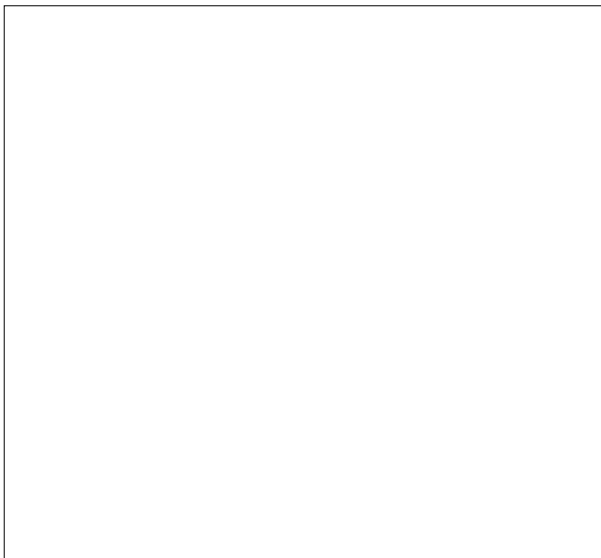
Upward Ratio: 14%

C0r0 Intensity: 420.3 cd

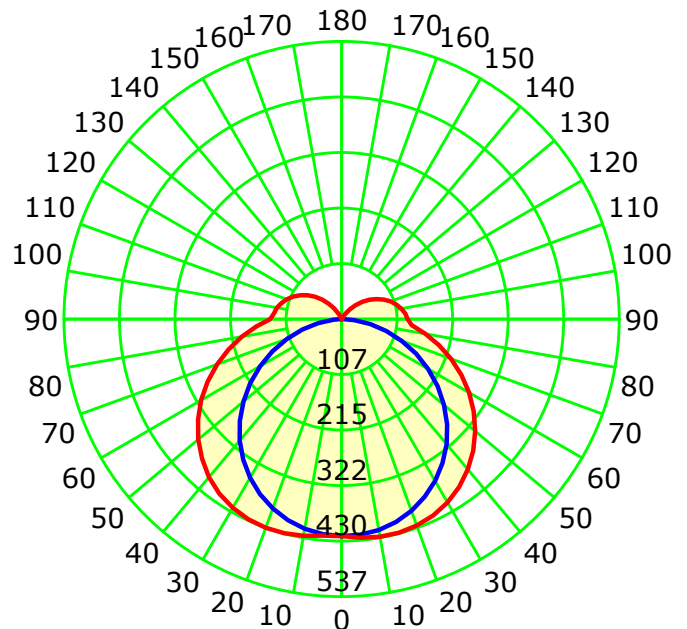
Pos of Max. Intensity: H270 V20

S/MH(C90/C270): 1.47

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd

Average Diffuse Angle(50%): 131.0°

— C0-C180 — C90-C270

C Plane (°):0.0-360.0: 22.5

Test Lab: BACL

Test Type: TYPE C

Temperature: 24.4 °C

Operator: KOBE

Gamma Plane (°):0.0-180.0:5.0

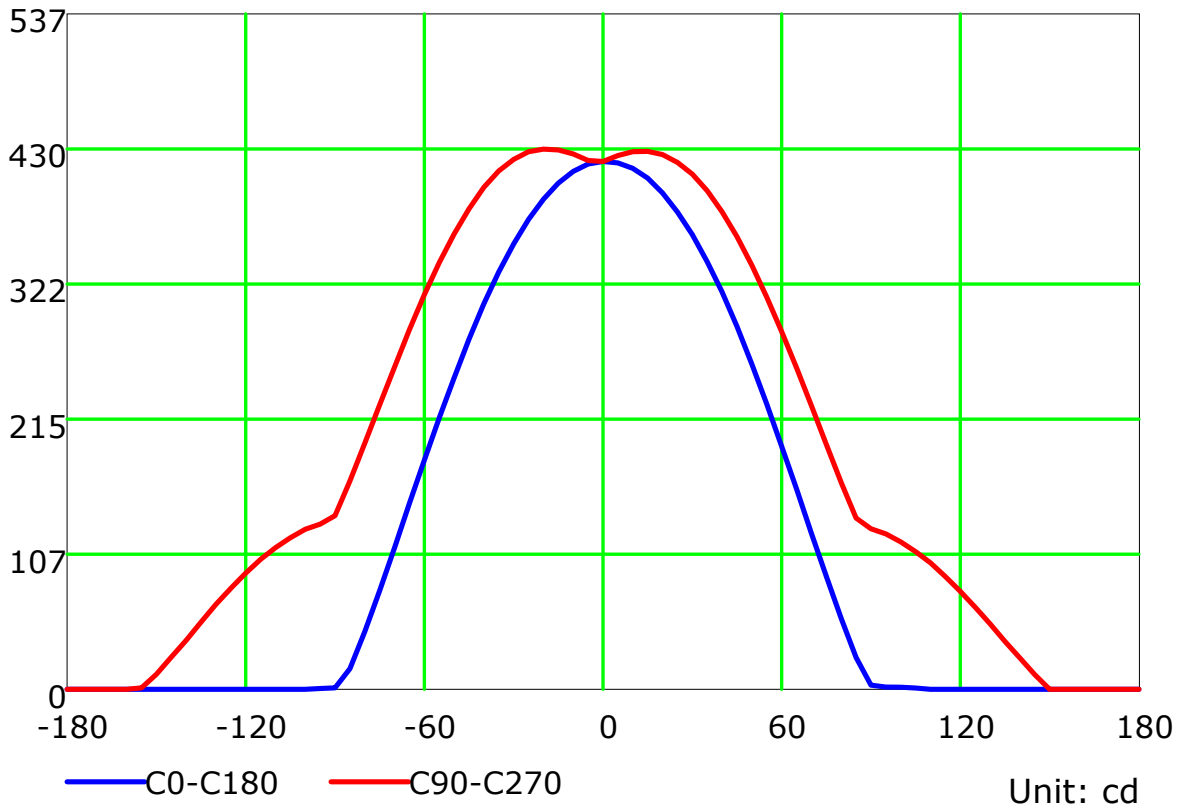
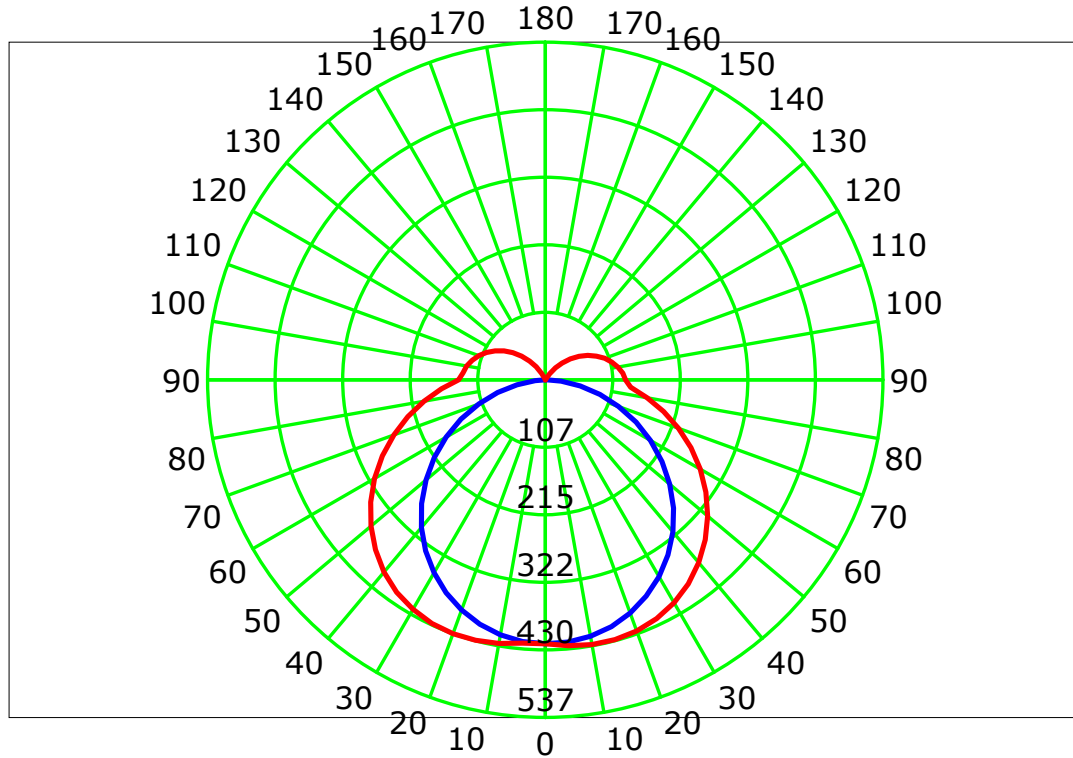
Test Device: GPM-1900

Distance: 14.073 m

Humidity: 48

Inspector:

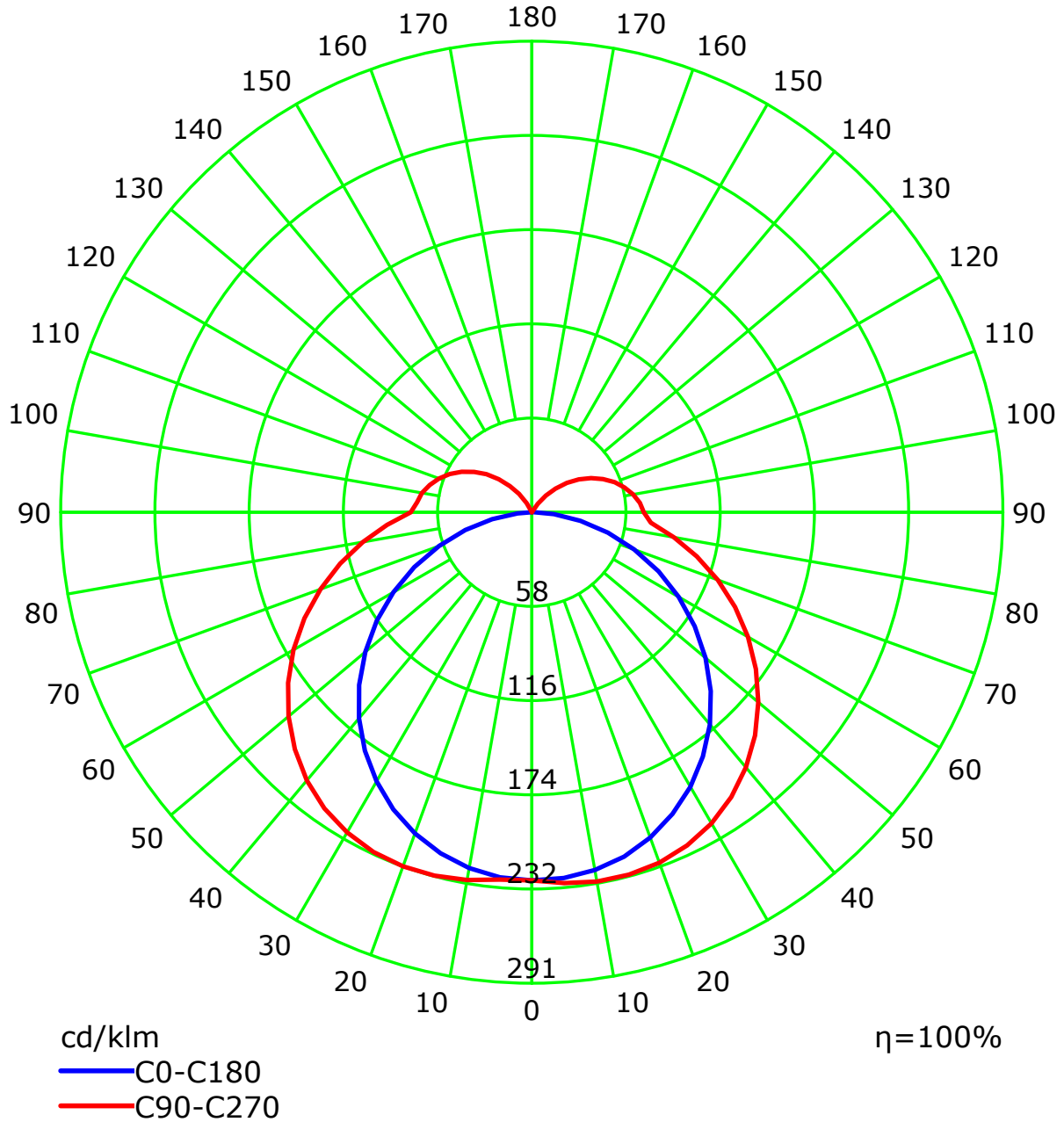
## Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 22.5  
Test Lab: BACL  
Test Type: TYPE C  
Temperature: 24.4 °C  
Operator: KOBE

Gamma Plane (°):0.0-180.0:5.0  
Test Device: GPM-1900  
Distance: 14.073 m  
Humidity: 48  
Inspector:

## Luminous Intensity Distribution Curve(cd/klm)



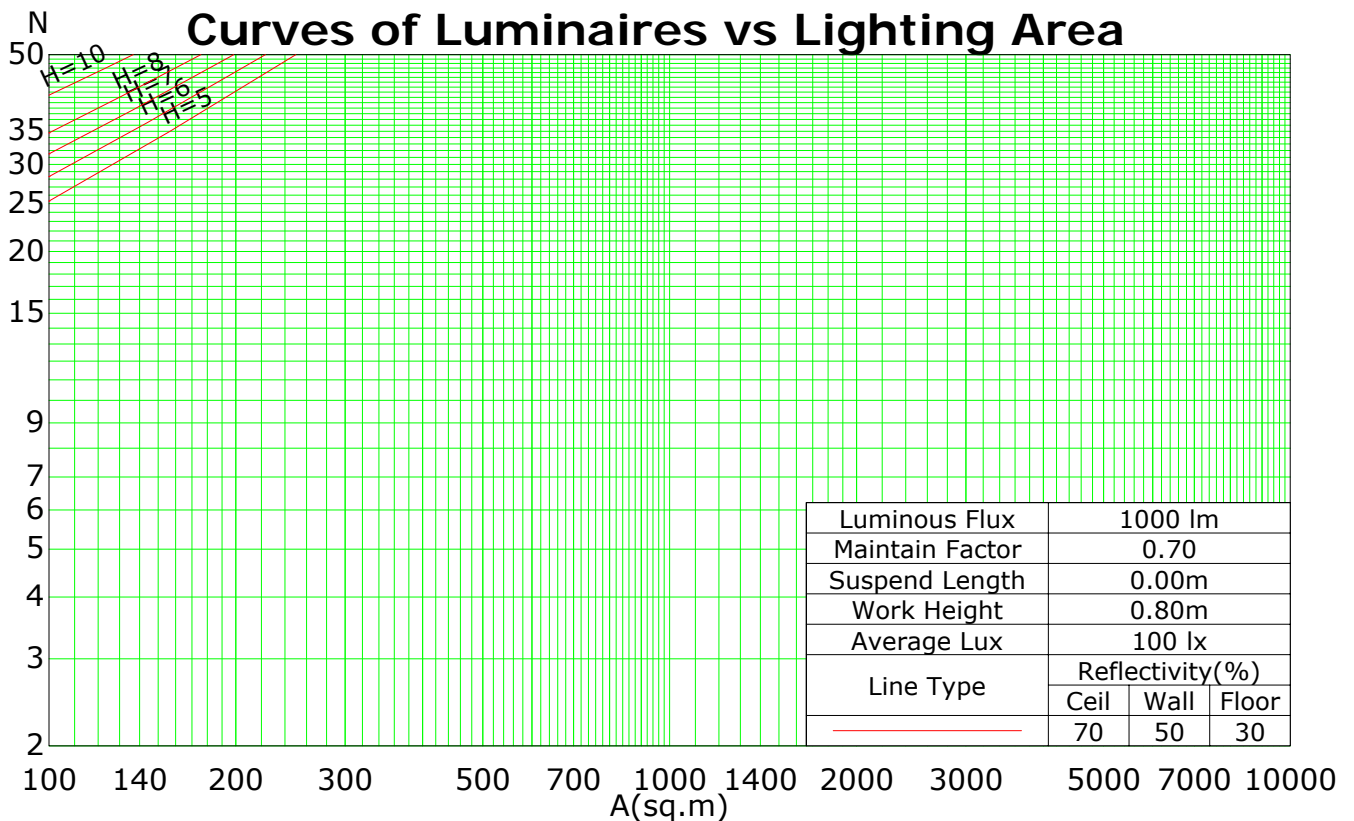
C Plane (°):0.0-360.0: 22.5  
 Test Lab: BACL  
 Test Type: TYPE C  
 Temperature: 24.4 °C  
 Operator: KOBE

Gamma Plane (°):0.0-180.0:5.0  
 Test Device: GPM-1900  
 Distance: 14.073 m  
 Humidity: 48  
 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
RCCR	RF = 0.2																	
0	1.16	1.16	1.16	1.16	1.11	1.11	1.11	1.11	1.03	1.03	1.03	.96	.96	.96	.89	.89	.89	.86
1	1.03	.98	.92	.88	.99	.94	.89	.85	.87	.83	.80	.81	.78	.75	.75	.73	.70	.67
2	.93	.84	.76	.69	.89	.80	.73	.68	.75	.69	.64	.69	.64	.60	.64	.60	.57	.54
3	.84	.73	.64	.57	.80	.70	.62	.55	.65	.58	.52	.60	.55	.50	.56	.51	.47	.44
4	.77	.64	.54	.47	.73	.61	.53	.46	.57	.50	.44	.53	.47	.42	.49	.44	.40	.37
5	.70	.57	.47	.40	.67	.55	.46	.39	.51	.43	.37	.47	.41	.36	.44	.39	.34	.32
6	.65	.51	.41	.35	.62	.49	.40	.34	.46	.38	.32	.43	.36	.31	.40	.34	.30	.27
7	.60	.46	.37	.30	.57	.44	.36	.30	.41	.34	.28	.39	.32	.27	.36	.31	.26	.24
8	.55	.41	.33	.27	.53	.40	.32	.26	.38	.30	.25	.35	.29	.24	.33	.28	.23	.21
9	.52	.38	.29	.24	.49	.37	.29	.23	.35	.27	.23	.33	.26	.22	.31	.25	.21	.19
10	.48	.35	.27	.21	.46	.34	.26	.21	.32	.25	.20	.30	.24	.20	.28	.23	.19	.17

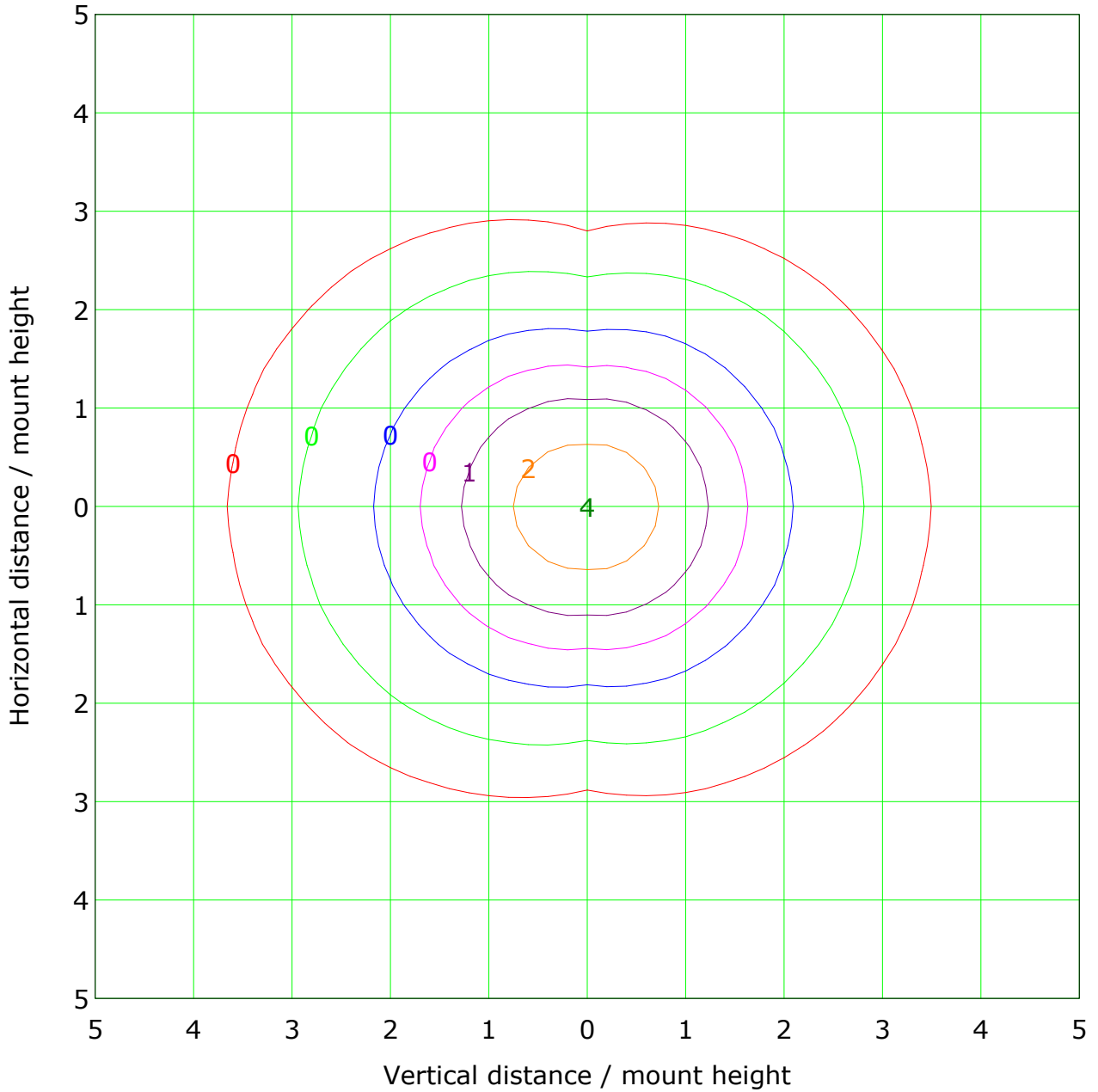
Spacing Criteria (0-180): 1.27  
 Spacing Criteria (90-270): 1.47  
 Spacing Criteria (Diagonal): 1.52



C Plane (°):0.0-360.0: 22.5  
 Test Lab: BACL  
 Test Type: TYPE C  
 Temperature: 24.4 °C  
 Operator: KOBE

Gamma Plane (°):0.0-180.0:5.0  
 Test Device: GPM-1900  
 Distance: 14.073 m  
 Humidity: 48  
 Inspector:

## IsoLux Plot



Mounting Height: 10.0m		Max Lux(100%): 4.2 lx	
<ul style="list-style-type: none"> <li><span style="color: red;">—</span> ( 1%): 0.0 lx</li> <li><span style="color: blue;">—</span> ( 5%): 0.2 lx</li> <li><span style="color: purple;">—</span> ( 20%): 0.8 lx</li> <li><span style="color: green;">—</span> (100%): 4.2 lx</li> </ul>	<ul style="list-style-type: none"> <li><span style="color: green;">—</span> ( 2%): 0.1 lx</li> <li><span style="color: magenta;">—</span> ( 10%): 0.4 lx</li> <li><span style="color: orange;">—</span> ( 50%): 2.1 lx</li> </ul>		

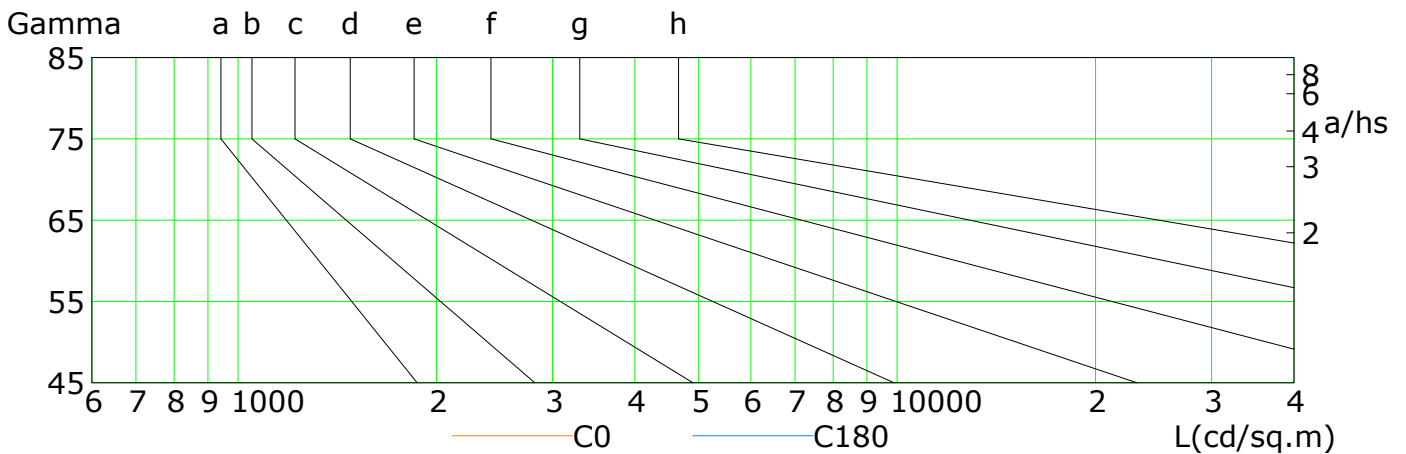
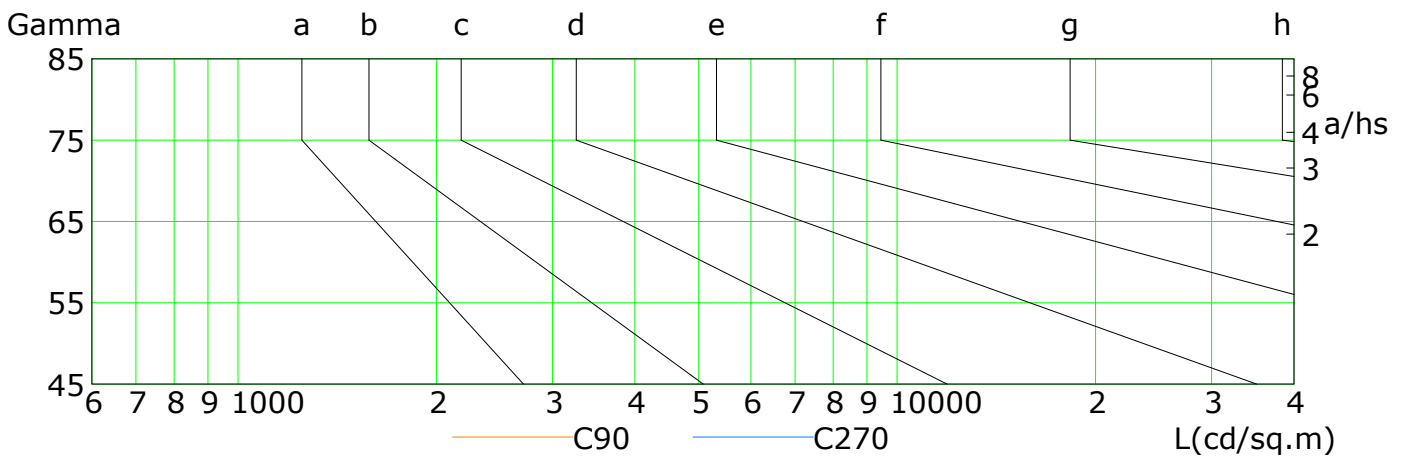
C Plane (°):0.0-360.0: 22.5  
 Test Lab: BACL  
 Test Type: TYPE C  
 Temperature: 24.4 'C  
 Operator: KOBE

Gamma Plane (°):0.0-180.0:5.0  
 Test Device: GPM-1900  
 Distance: 14.073 m  
 Humidity: 48  
 Inspector:

## Lum Limit Curve

Dazzle	Quality	Illuminance (lx)								
		2000	1000	500	<=300					
1.15	A									
1.50	B									
1.85	C									
2.20	D									
2.55	E									

a b c d e f g h



L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	289	259	227	194	160	124	90	57	25
C90	360	338	312	285	256	226	195	165	136
C180	279	248	216	182	148	113	79	46	16
C270	383	362	340	314	286	257	227	196	166

C Plane (°):0.0-360.0: 22.5

Test Lab: BACL

Test Type: TYPE C

Temperature: 24.4 °C

Operator: KOBE

Gamma Plane (°):0.0-180.0:5.0

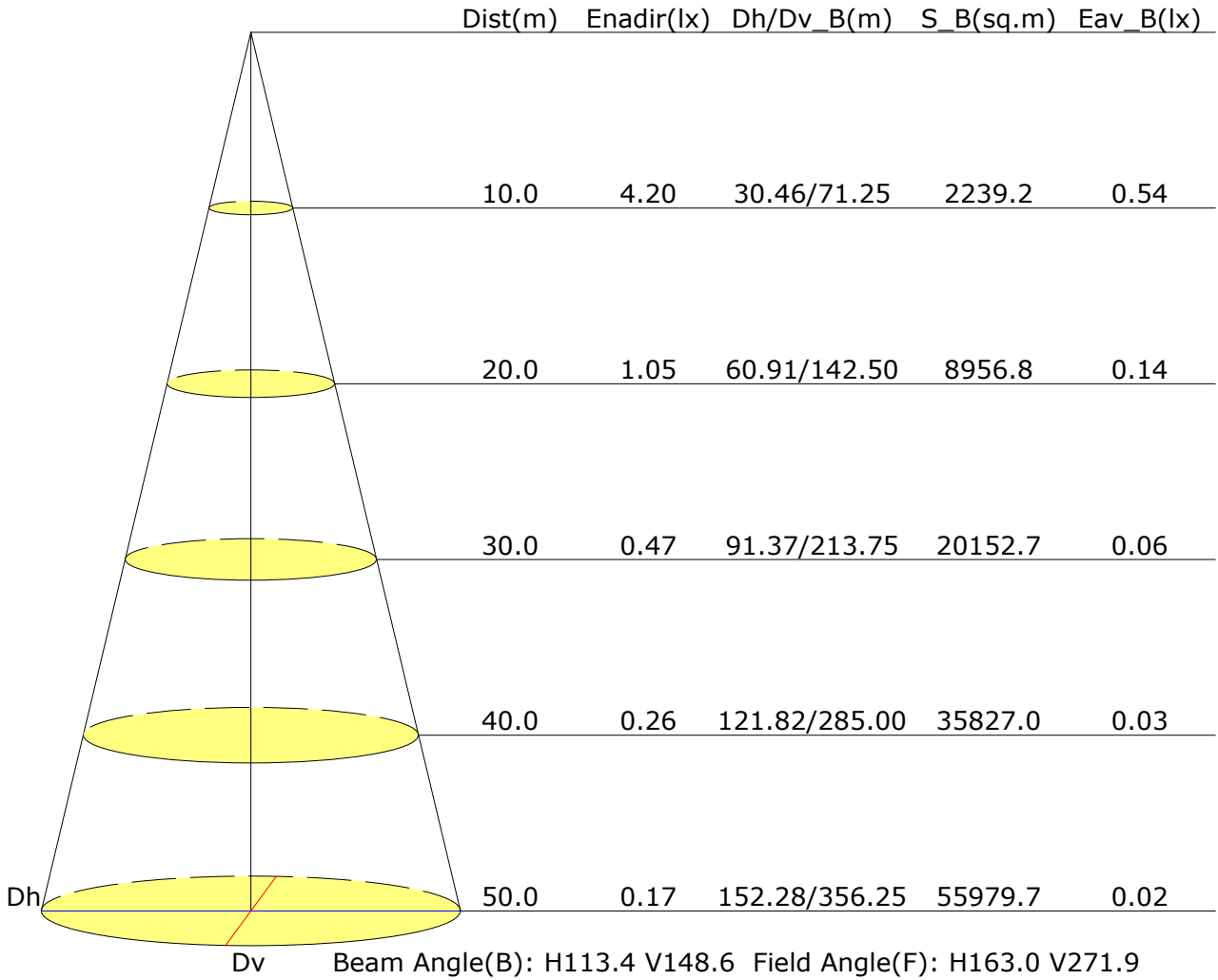
Test Device: GPM-1900

Distance: 14.073 m

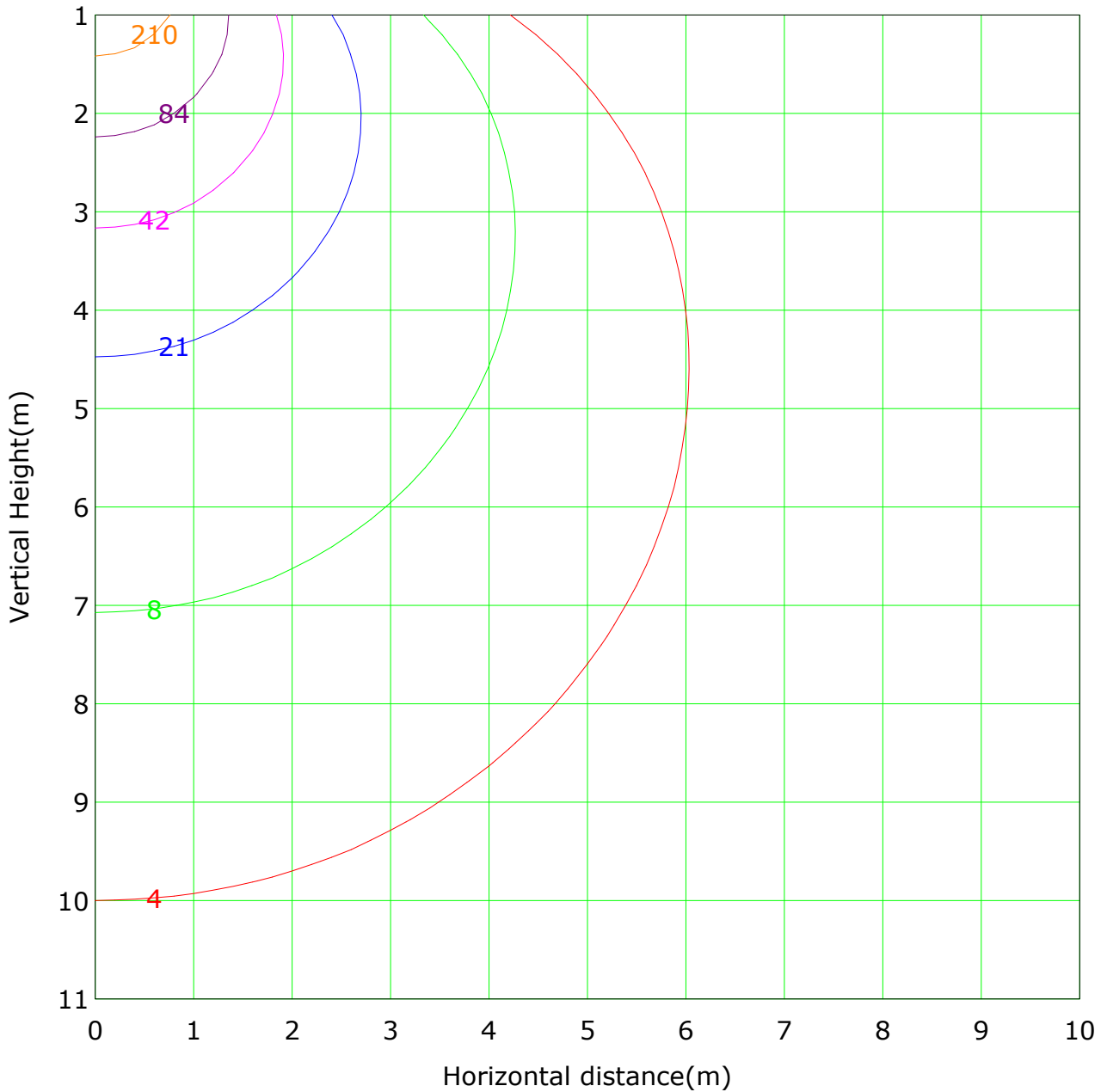
Humidity: 48

Inspector:

## Illuminance at a Distance



## Vertical IsoLux Plot



Lowest(m): 1.0m    Highest(m): 11.0m    Max Lux: 420.3 lx

— ( 1%): 4.2 lx	— ( 2%): 8.4 lx
— ( 5%): 21.0 lx	— ( 10%): 42.0 lx
— ( 20%): 84.1 lx	— ( 50%): 210.1 lx
— (100%): 420.3 lx	

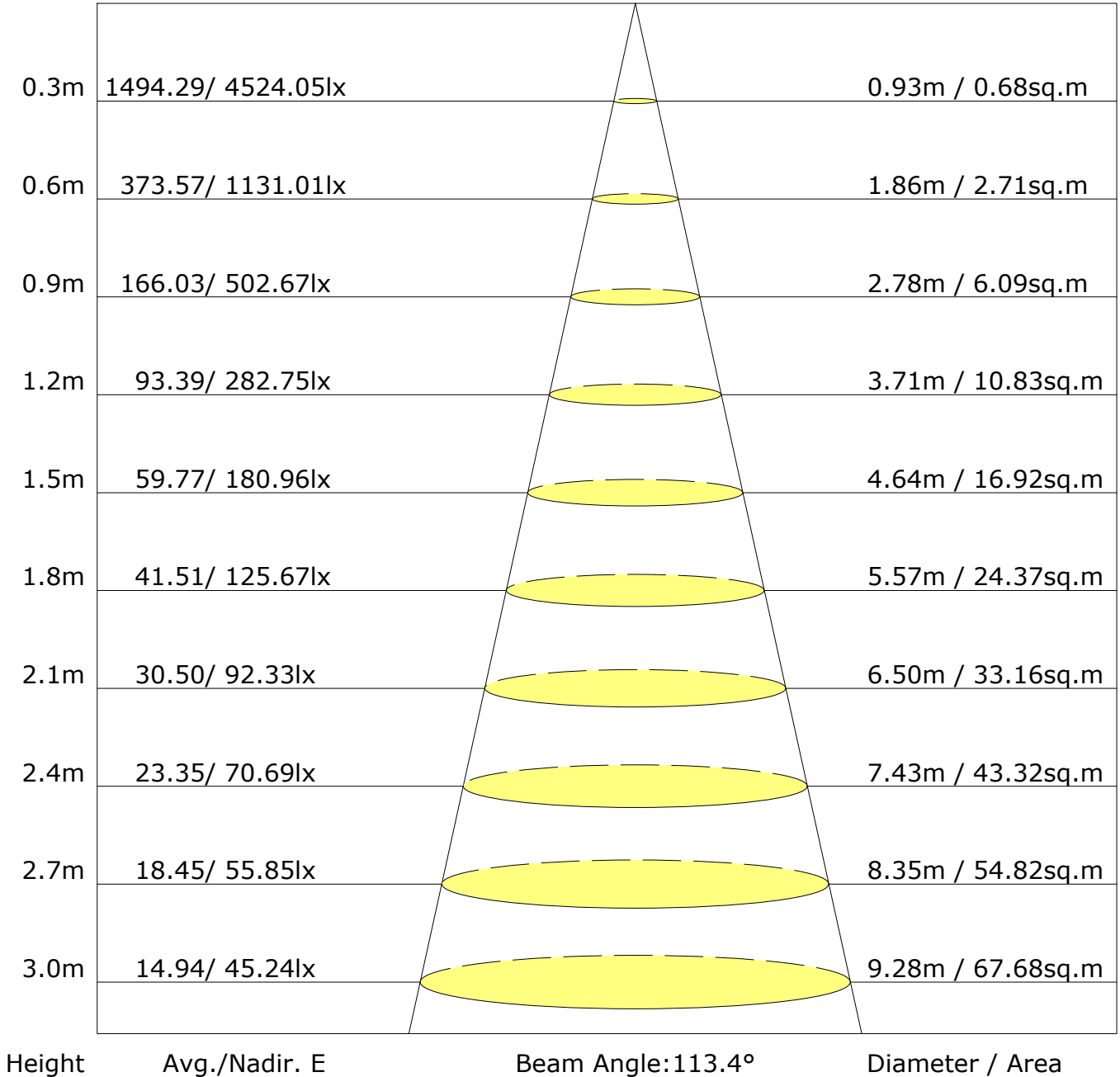
C Plane (°):0.0-360.0: 22.5  
 Test Lab: BACL  
 Test Type: TYPE C  
 Temperature: 24.4 'C  
 Operator: KOBE

Gamma Plane (°):0.0-180.0:5.0  
 Test Device: GPM-1900  
 Distance: 14.073 m  
 Humidity: 48  
 Inspector:



## The Average Illuminance Effective Figure

Flux Out: 1011.35lm



C Plane (°):0.0-360.0: 22.5  
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 Test Type: TYPE C  
 Temperature: 24.4 °C  
 Operator: KOBE

Gamma Plane (°):0.0-180.0:5.0  
 Test Device: GPM-1900  
 Distance: 14.073 m  
 Humidity: 48  
 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	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
3H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
4H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
6H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
8H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
12H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
X=4H Y=2H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
3H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
4H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
6H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
8H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
12H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
X=8H Y=4H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
6H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
8H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
12H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
X=12H Y=4H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
6H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
8H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
Variations with the observer position at spacings:										
S=1.0H	-1.\$/-1.\$					-1.\$/-1.\$				
S=1.5H	-1.\$/-1.\$					-1.\$/-1.\$				
S=2.0H	-1.\$/-1.\$					-1.\$/-1.\$				

Calculate in accordance with CIE Pub.117. The table is revised with 1847lm ( $8\log(F/F_0) = 2.1$ ).

C Plane (°):0.0-360.0: 22.5  
 Test Lab: BACL  
 Test Type: TYPE C  
 Temperature: 24.4 °C  
 Operator: KOBE

Gamma Plane (°):0.0-180.0:5.0  
 Test Device: GPM-1900  
 Distance: 14.073 m  
 Humidity: 48  
 Inspector:

## Zonal Lumen

Gamma [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
0.0-5.0	420.5	10.1	10.1	0.54	0.54
5.0-10.0	420.7	30.1	40.2	1.63	2.17
10.0-15.0	419.5	49.8	89.9	2.69	4.87
15.0-20.0	415.4	68.5	158.4	3.71	8.57
20.0-25.0	408.2	85.6	244.0	4.63	13.21
25.0-30.0	397.7	100.7	344.7	5.45	18.66
30.0-35.0	383.9	113.1	457.7	6.12	24.78
35.0-40.0	366.8	122.4	580.1	6.63	31.40
40.0-45.0	346.5	128.3	708.5	6.95	38.35
45.0-50.0	323.2	130.6	839.1	7.07	45.42
50.0-55.0	297.4	129.3	968.4	7.00	52.42
55.0-60.0	269.3	124.5	1092.9	6.74	59.16
60.0-65.0	239.4	116.4	1209.3	6.30	65.46
65.0-70.0	208.1	105.4	1314.6	5.70	71.16
70.0-75.0	176.1	92.1	1406.7	4.98	76.15
75.0-80.0	144.3	77.2	1483.9	4.18	80.33
80.0-85.0	113.4	61.7	1545.6	3.34	83.66
85.0-90.0	89.1	48.8	1594.4	2.64	86.31
90.0-95.0	77.8	42.6	1637.0	2.31	88.61
95.0-100.0	73.7	40.1	1677.1	2.17	90.78
100.0-105.0	68.7	36.8	1713.9	1.99	92.77
105.0-110.0	62.4	32.6	1746.5	1.77	94.54
110.0-115.0	55.1	27.9	1774.4	1.51	96.05
115.0-120.0	47.0	22.8	1797.2	1.24	97.28
120.0-125.0	38.6	17.8	1815.0	0.96	98.25
125.0-130.0	30.4	13.2	1828.3	0.72	98.96
130.0-135.0	22.7	9.2	1837.4	0.50	99.46
135.0-140.0	15.4	5.7	1843.1	0.31	99.77
140.0-145.0	8.8	2.9	1846.1	0.16	99.93
145.0-150.0	3.7	1.1	1847.2	0.06	99.99
150.0-155.0	0.8	0.2	1847.4	0.01	100.00
155.0-160.0	0.0	0.0	1847.4	0.00	100.00
160.0-165.0	0.0	0.0	1847.4	0.00	100.00
165.0-170.0	0.0	0.0	1847.4	0.00	100.00
170.0-175.0	0.0	0.0	1847.4	0.00	100.00
175.0-180.0	0.0	0.0	1847.4	0.00	100.00

C Plane (°):0.0-360.0: 22.5  
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 Temperature: 24.4 °C  
 Operator: KOBE

Gamma Plane (°):0.0-180.0:5.0  
 Test Device: GPM-1900  
 Distance: 14.073 m  
 Humidity: 48  
 Inspector:

## Candlepower Table

Unit: cd

G\C	C0.0	C22.5	C45.0	C67.5	C90.0	C112.5	C135.0	C157.5	C180.0	C202.5
G0.0	420.3	420.3	420.3	420.3	420.3	420.3	420.3	420.3	420.3	420.3
G5.0	419.1	421.0	422.6	424.3	425.0	424.1	422.7	420.3	418.3	417.9
G10.0	414.8	418.9	423.3	426.6	428.0	426.6	422.7	417.9	412.4	413.6
G15.0	407.0	413.6	420.9	426.2	428.3	425.8	420.0	411.7	403.1	407.3
G20.0	395.2	405.3	415.3	423.0	425.7	422.0	414.0	402.1	390.2	398.9
G25.0	380.0	393.5	406.3	415.7	419.6	414.5	404.3	389.3	374.2	387.2
G30.0	362.0	378.2	394.0	405.4	410.2	404.2	391.6	373.4	354.6	372.6
G35.0	340.4	360.2	378.0	391.5	396.9	390.1	375.3	354.5	332.4	354.6
G40.0	316.3	338.7	359.6	374.3	380.2	372.4	356.2	331.8	307.1	333.8
G45.0	288.9	314.2	337.1	353.5	360.3	351.5	333.8	306.8	278.8	309.9
G50.0	258.8	287.5	312.1	330.4	337.5	328.4	308.8	279.0	248.1	283.7
G55.0	227.1	258.0	284.8	304.5	312.3	302.8	281.4	249.3	216.2	255.3
G60.0	193.5	226.1	255.5	276.4	284.9	274.7	252.0	217.9	182.5	224.3
G65.0	159.6	193.7	224.3	247.1	256.0	244.6	220.4	185.9	148.2	192.9
G70.0	124.2	160.0	192.5	216.1	225.9	214.0	188.5	152.1	112.8	160.7
G75.0	90.0	126.8	160.7	185.3	195.0	182.9	156.5	119.0	78.7	127.9
G80.0	56.5	94.0	129.0	154.7	164.7	152.4	124.8	86.0	46.0	95.0
G85.0	25.4	62.0	99.5	126.6	136.4	124.6	95.4	55.5	16.5	64.5
G90.0	3.4	43.4	85.6	115.9	127.8	115.5	84.1	41.5	1.2	43.2
G95.0	1.9	39.4	81.7	111.7	123.8	111.0	80.0	37.9	0.7	40.4
G100.0	1.7	34.5	76.4	106.2	117.5	105.2	75.2	32.2	0.0	36.4
G105.0	1.1	26.8	69.6	99.0	109.6	97.6	68.0	26.1	0.0	30.5
G110.0	0.0	20.2	61.7	90.0	100.7	88.5	59.6	17.9	0.0	23.7
G115.0	0.0	12.1	51.6	80.0	89.7	78.3	50.1	10.6	0.0	16.9
G120.0	0.0	5.4	41.2	68.6	78.0	66.7	40.1	3.4	0.0	9.4
G125.0	0.0	0.0	31.2	56.0	65.5	55.0	29.5	0.0	0.0	3.0
G130.0	0.0	0.0	20.8	43.5	52.2	42.5	19.2	0.0	0.0	0.0
G135.0	0.0	0.0	10.3	31.5	38.2	29.7	8.9	0.0	0.0	0.0
G140.0	0.0	0.0	2.8	19.4	25.0	17.0	0.0	0.0	0.0	0.0
G145.0	0.0	0.0	0.0	8.2	11.8	4.8	0.0	0.0	0.0	0.0
G150.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
G155.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
G160.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
G165.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
G170.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
G175.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
G180.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

C Plane (°):0.0-360.0: 22.5

Test Lab: BACL

Test Type: TYPE C

Temperature: 24.4 °C

Operator: KOBE

Gamma Plane (°):0.0-180.0:5.0

Test Device: GPM-1900

Distance: 14.073 m

Humidity: 48

Inspector:

## Candlepower Table (Continue 1)

Unit: cd

G\C	C225.0	C247.5	C270.0	C292.5	C315.0	C337.5	C360.0			
G0.0	420.3	420.3	420.3	420.3	420.3	420.3	420.3			
G5.0	418.5	420.0	421.0	420.2	419.2	418.0	419.1			
G10.0	418.9	423.9	426.2	424.1	419.7	414.3	414.8			
G15.0	417.8	426.1	429.5	426.3	419.0	408.6	407.0			
G20.0	413.6	425.1	430.1	425.6	415.3	400.1	395.2			
G25.0	406.9	421.4	428.0	422.1	408.5	389.0	380.0			
G30.0	396.1	413.9	421.9	414.8	398.6	374.8	362.0			
G35.0	382.3	402.9	412.8	404.3	385.2	357.3	340.4			
G40.0	365.3	388.6	399.7	390.3	368.8	337.0	316.3			
G45.0	345.4	370.2	382.6	372.6	349.5	313.7	288.9			
G50.0	322.1	349.2	362.5	351.7	326.4	287.6	258.8			
G55.0	296.0	325.4	339.7	328.1	301.4	259.7	227.1			
G60.0	267.9	299.2	314.2	301.7	273.5	230.2	193.5			
G65.0	238.1	271.1	286.4	273.4	244.1	199.1	159.6			
G70.0	207.2	240.6	256.7	243.9	212.9	166.3	124.2			
G75.0	175.5	210.5	226.6	212.9	180.7	133.5	90.0			
G80.0	143.0	180.0	196.1	181.7	149.1	101.7	56.5			
G85.0	112.7	149.9	166.0	152.1	117.9	70.3	25.4			
G90.0	89.3	124.5	138.3	125.0	92.3	46.2	3.4			
G95.0	85.8	118.8	131.6	118.3	87.1	42.2	1.9			
G100.0	81.9	114.5	127.5	114.1	83.6	39.3	1.7			
G105.0	76.3	108.9	120.7	108.0	77.9	33.4	1.1			
G110.0	69.2	101.0	112.8	101.0	70.4	27.3	0.0			
G115.0	60.2	91.5	103.6	91.5	62.4	20.1	0.0			
G120.0	51.0	81.0	92.5	81.5	52.9	12.7	0.0			
G125.0	40.5	69.4	80.5	69.9	43.0	6.2	0.0			
G130.0	30.0	57.4	67.8	57.6	33.2	0.0	0.0			
G135.0	19.9	43.7	53.6	44.6	22.6	0.0	0.0			
G140.0	9.8	30.7	39.1	32.0	13.1	0.0	0.0			
G145.0	1.4	18.3	25.7	19.6	3.8	0.0	0.0			
G150.0	0.0	6.1	12.0	7.2	0.0	0.0	0.0			
G155.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0			
G160.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
G165.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
G170.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
G175.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
G180.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			

C Plane (°):0.0-360.0: 22.5  
 Test Lab: BACL  
 Test Type: TYPE C  
 Temperature: 24.4 °C  
 Operator: KOBE

Gamma Plane (°):0.0-180.0:5.0  
 Test Device: GPM-1900  
 Distance: 14.073 m  
 Humidity: 48  
 Inspector: