

Report No.: PKS200407100-10

Test Time: 2020/4/7 17:30

Luminaire Property

Luminaire Manufacturer: AFX
 Luminaire Category:
 LuminaireDescription:TRBF12LAJD1BK
 Lamp Description:
 Lumens per Lamp:
 Luminous Width (mm):
 Voltage: 120.0 V
 Power: 19.03 W

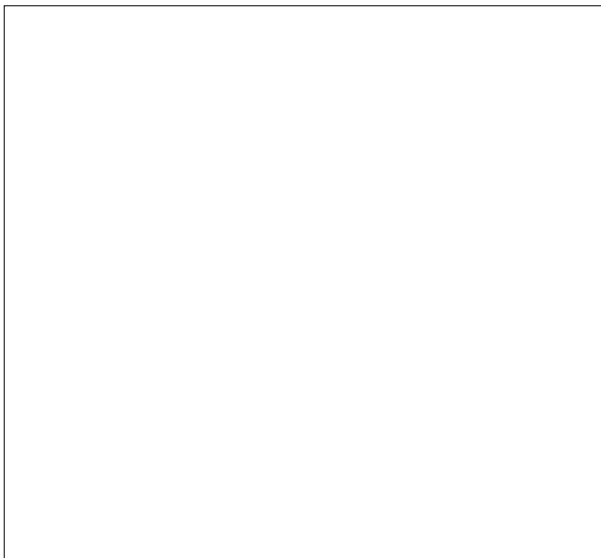
Lamp Catalog:
 Number of Lamps:
 Luminous Length (mm):
 Luminous Height (mm):
 Current: 0.161 A
 Power Factor: 0.986

Photometric Results

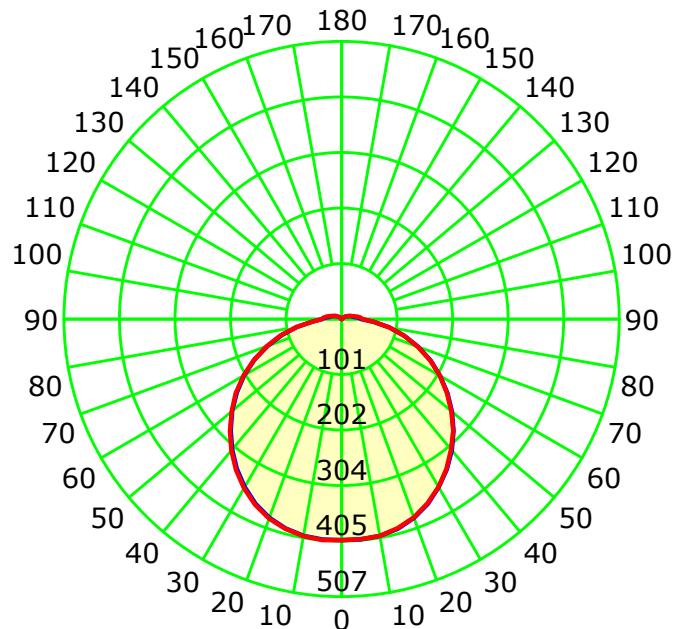
CIE Class: Direct
 Measurement Flux: 1415.9 lm
 Downward Ratio: 94%
 Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 177.7, 178.2, 178.2, 178.1
 Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 121.6, 121.5, 121.6, 121.3
 Luminaire Efficacy Rating (LER): 74.46
 Max. Intensity: 406 cd
 S/MH(C0/C180): 1.30

Total Rated Lamp Lumens: 1415.9 lm
 Efficiency: 100%
 Upward Ratio: 6%
 C0r0 Intensity: 404 cd
 Pos of Max. Intensity: H225 V5
 S/MH(C90/C270): 1.30

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd

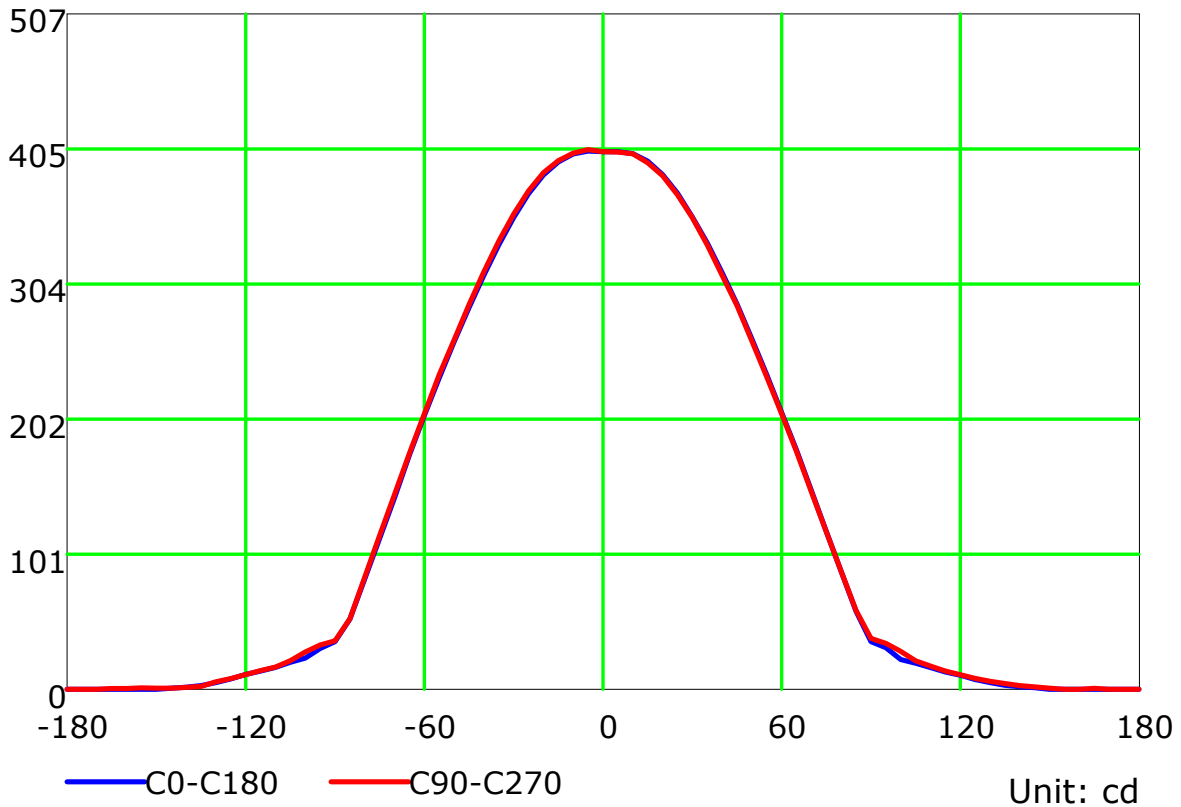
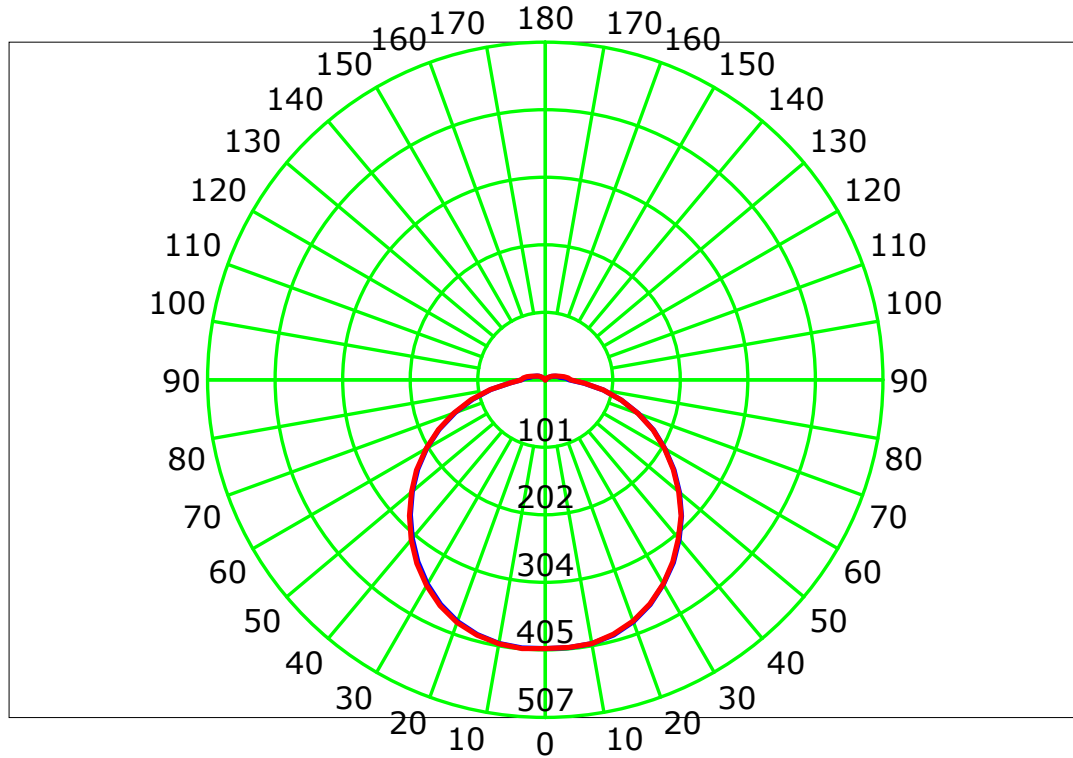
Average Diffuse Angle(50%): 121.5°

— C0-C180 — C90-C270

C Plane (°):0.0-360.0: 22.5
 Test Lab: BACL
 Test Type: TYPE C
 Temperature: 24.7 °C
 Operator: KOBE

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

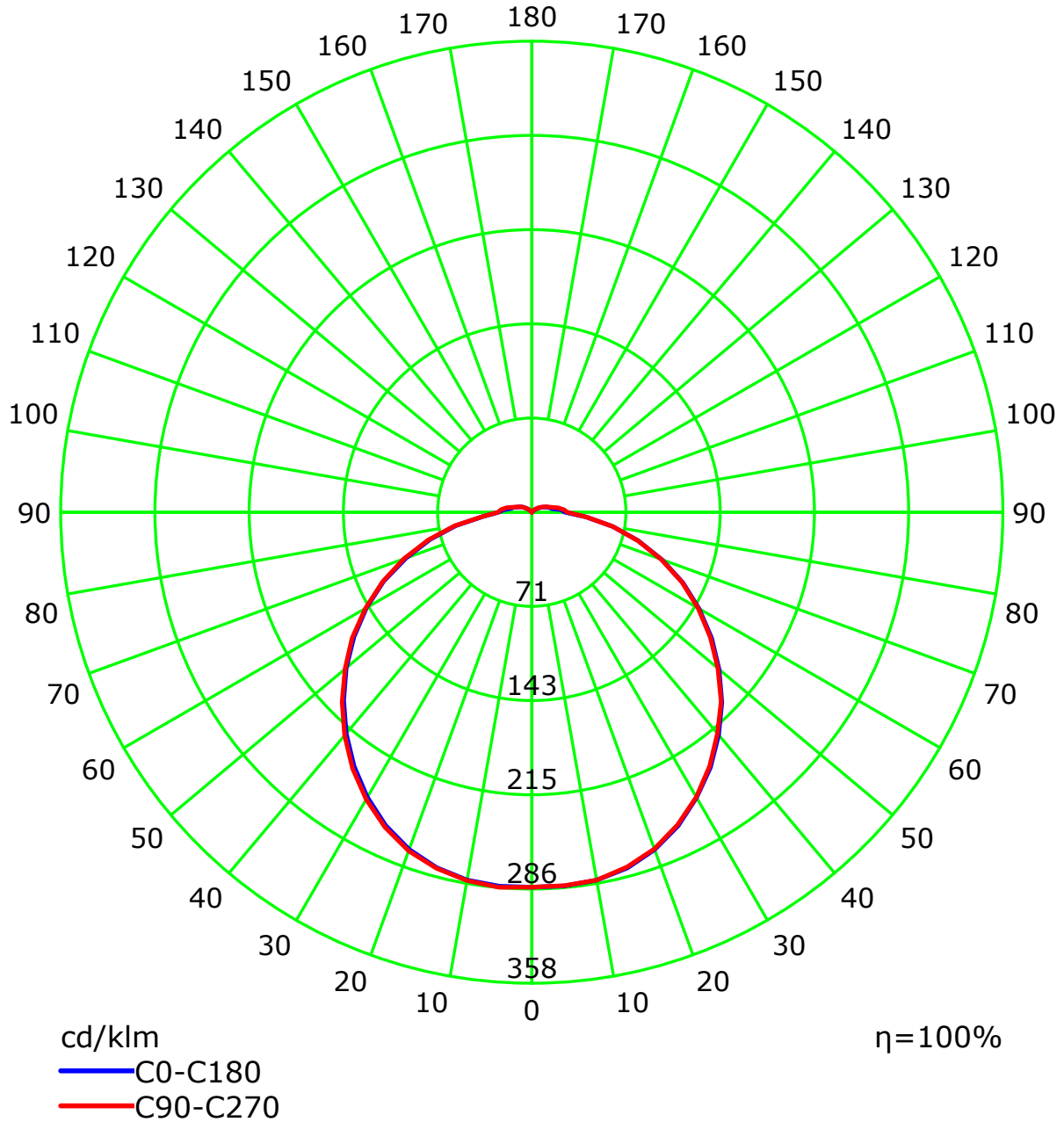
Luminous Intensity Distribution Curve



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 Inspector:

Luminous Intensity Distribution Curve(cd/klm)



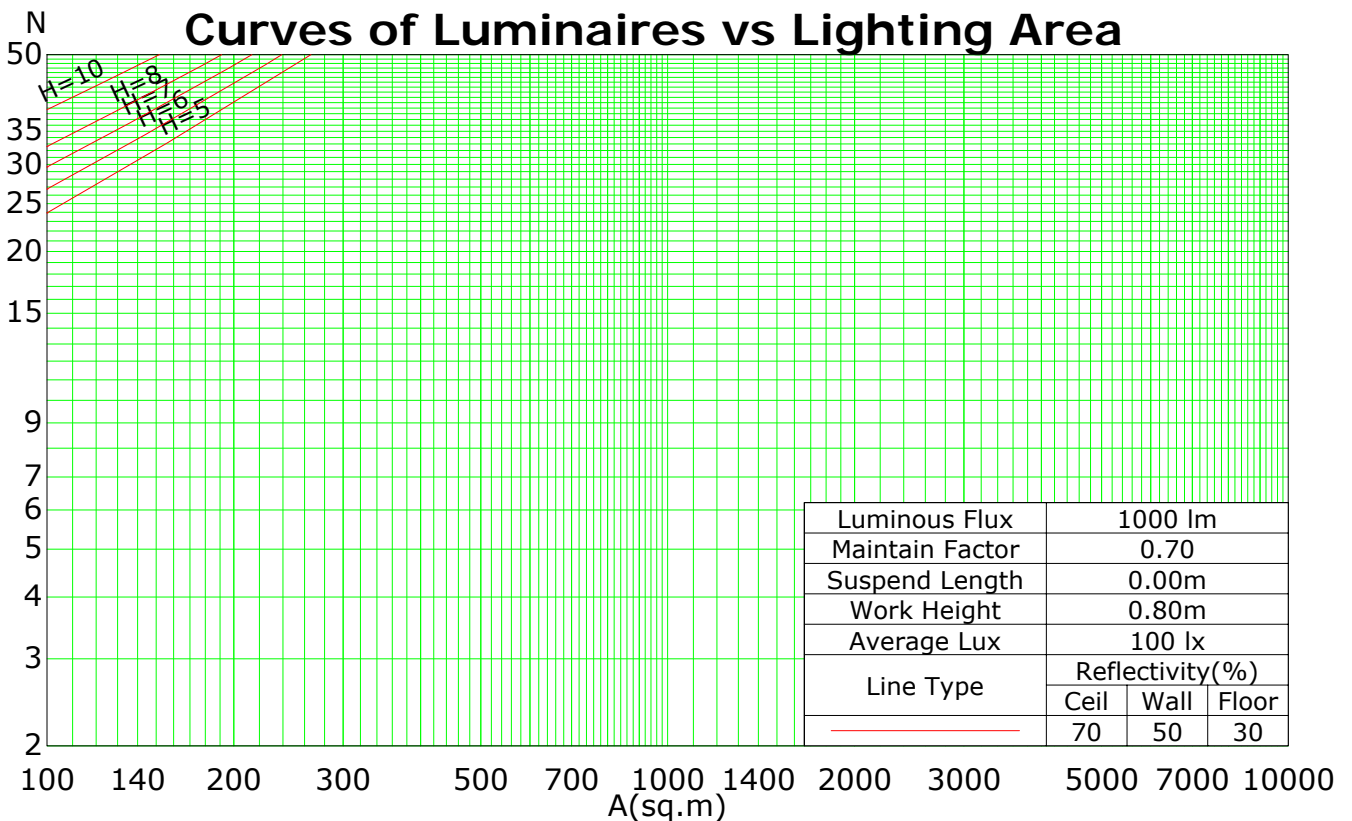
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Coefficients Of Utilization - Zonal Cavity Method

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
RCCR	RF = 0.2																	
0	1.18	1.18	1.18	1.18	1.14	1.14	1.14	1.14	1.08	1.08	1.08	1.02	1.02	1.02	.96	.96	.96	.94
1	1.06	1.00	.95	.91	1.02	.97	.93	.89	.92	.88	.85	.87	.84	.81	.82	.80	.78	.75
2	.96	.87	.79	.73	.92	.84	.77	.72	.79	.74	.69	.75	.70	.66	.71	.67	.64	.61
3	.87	.75	.67	.60	.84	.73	.65	.59	.69	.63	.57	.66	.60	.55	.62	.58	.53	.51
4	.79	.67	.57	.50	.76	.65	.56	.50	.61	.54	.48	.58	.52	.47	.55	.50	.46	.43
5	.73	.59	.50	.43	.70	.58	.49	.42	.55	.47	.41	.52	.46	.40	.50	.44	.39	.37
6	.67	.53	.44	.37	.65	.52	.43	.37	.49	.42	.36	.47	.40	.35	.45	.39	.34	.32
7	.62	.48	.39	.33	.60	.47	.38	.32	.45	.37	.32	.43	.36	.31	.41	.35	.30	.28
8	.58	.44	.35	.29	.56	.43	.35	.29	.41	.34	.28	.39	.33	.28	.38	.32	.27	.25
9	.54	.40	.32	.26	.52	.39	.31	.26	.38	.30	.25	.36	.30	.25	.35	.29	.24	.22
10	.50	.37	.29	.24	.49	.36	.28	.23	.35	.28	.23	.33	.27	.23	.32	.26	.22	.20

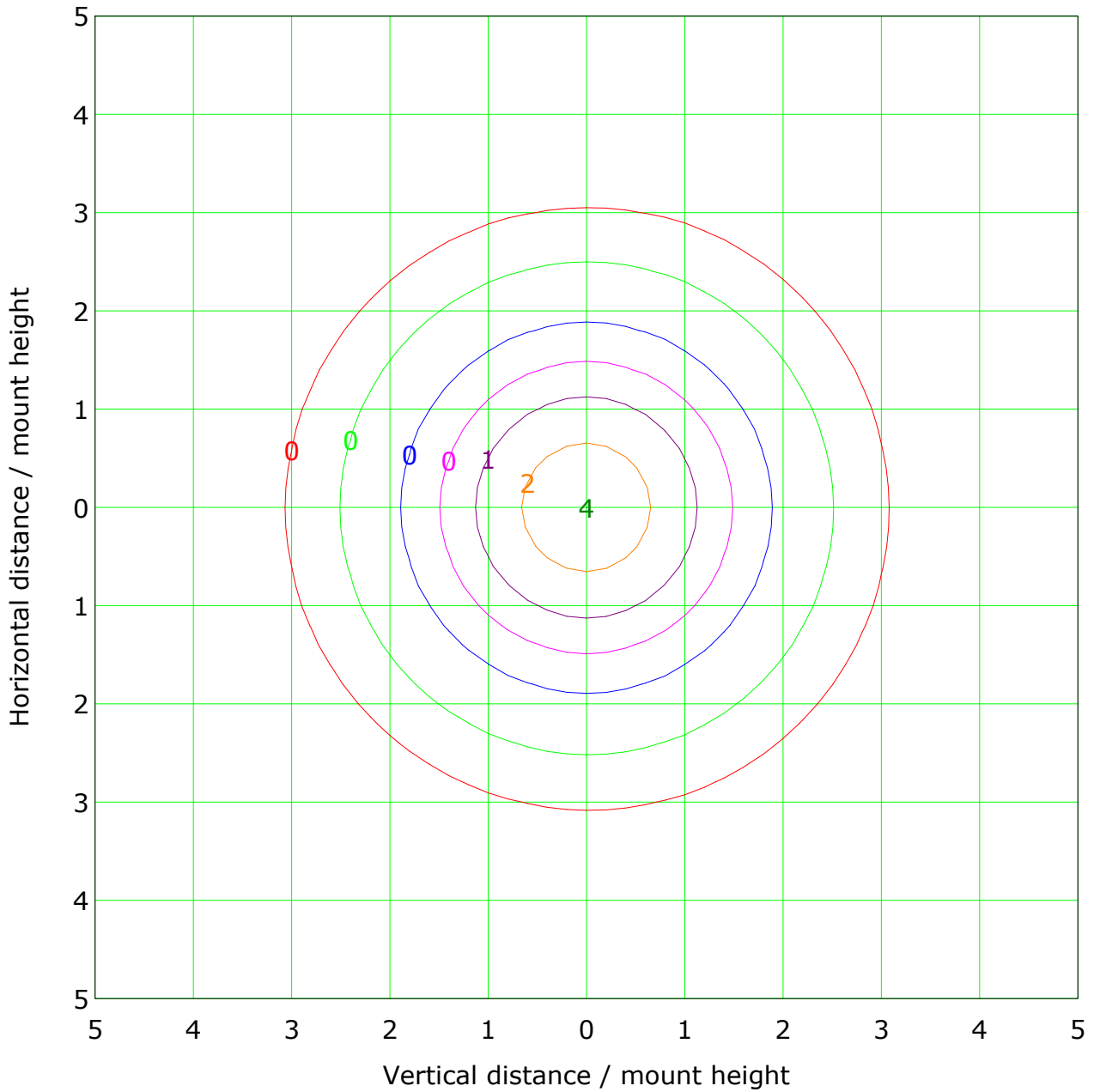
Spacing Criteria (0-180): 1.30
 Spacing Criteria (90-270): 1.30
 Spacing Criteria (Diagonal): 1.42



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 Test Device: GPM-1900
 Distance: 14.073 m
 Humidity: 48
 Inspector:

IsoLux Plot



Mounting Height: 10.0m Max Lux(100%): 4.0 lx

— (1%): 0.0 lx	— (2%): 0.1 lx
— (5%): 0.2 lx	— (10%): 0.4 lx
— (20%): 0.8 lx	— (50%): 2.0 lx
— (100%): 4.0 lx	

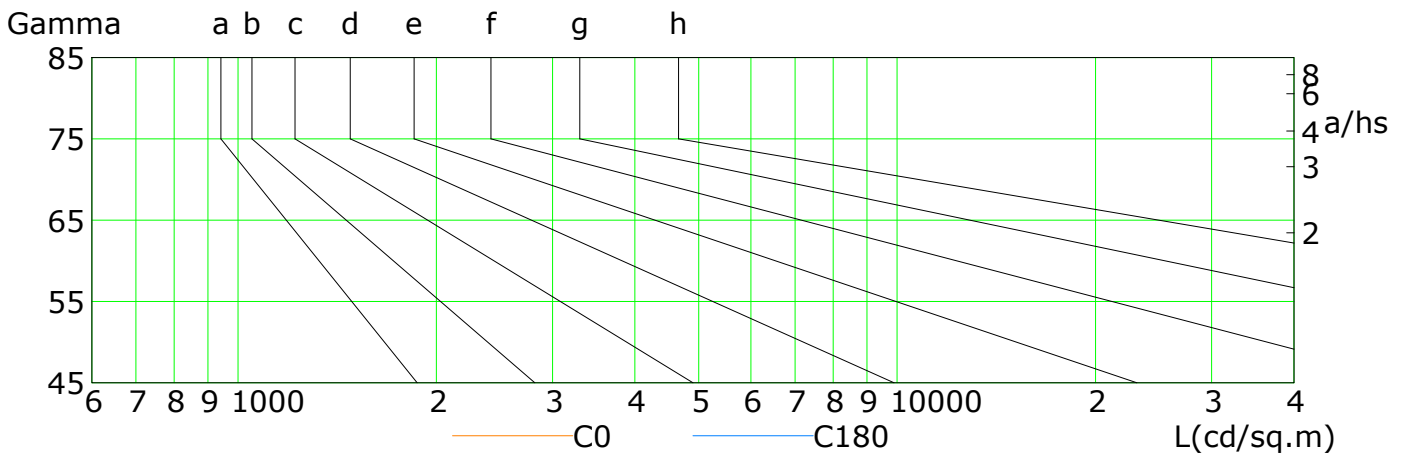
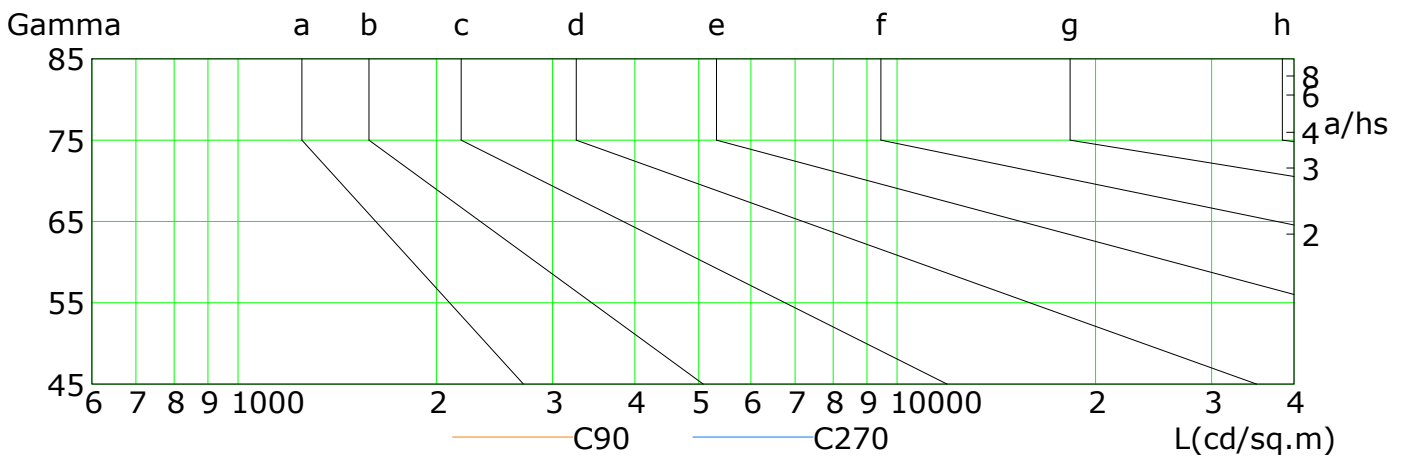
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Humidity: 48
Inspector:

Lum Limit Curve

Dazzle	Quality	Illuminance (lx)							
		2000	1000	500	<=300				
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	289	263	236	208	180	149	119	89	59
C90	288	262	235	207	179	148	118	89	59
C180	287	261	234	206	176	144	114	83	53
C270	289	263	237	207	177	147	116	84	53

C Plane (°):0.0-360.0: 22.5

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Test Type: TYPE C

Temperature: 24.7 'C

Operator: KOBE

Gamma Plane (°):0.0-180.0:5.0

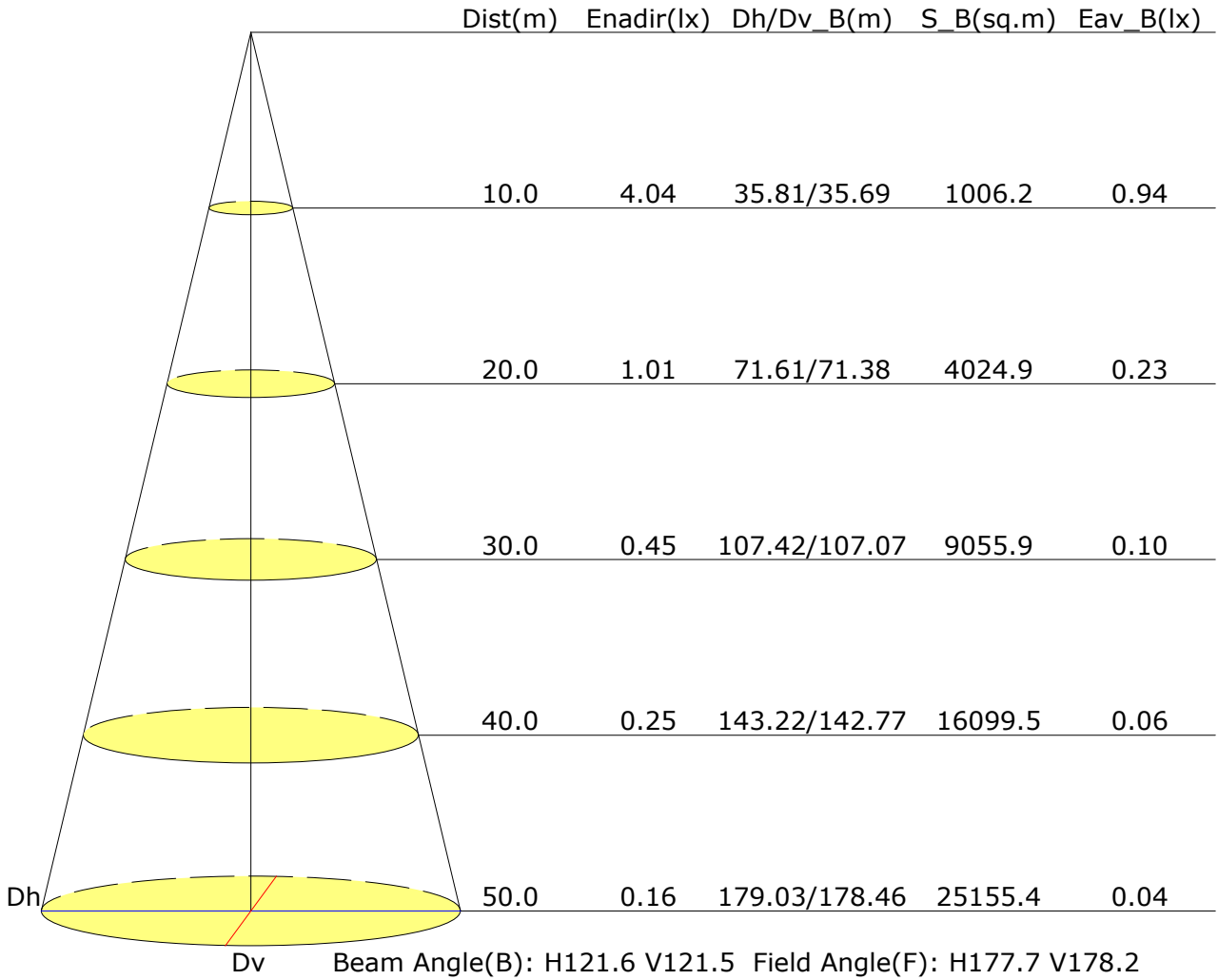
Test Device: GPM-1900

Distance: 14.073 m

Humidity: 48

Inspector:

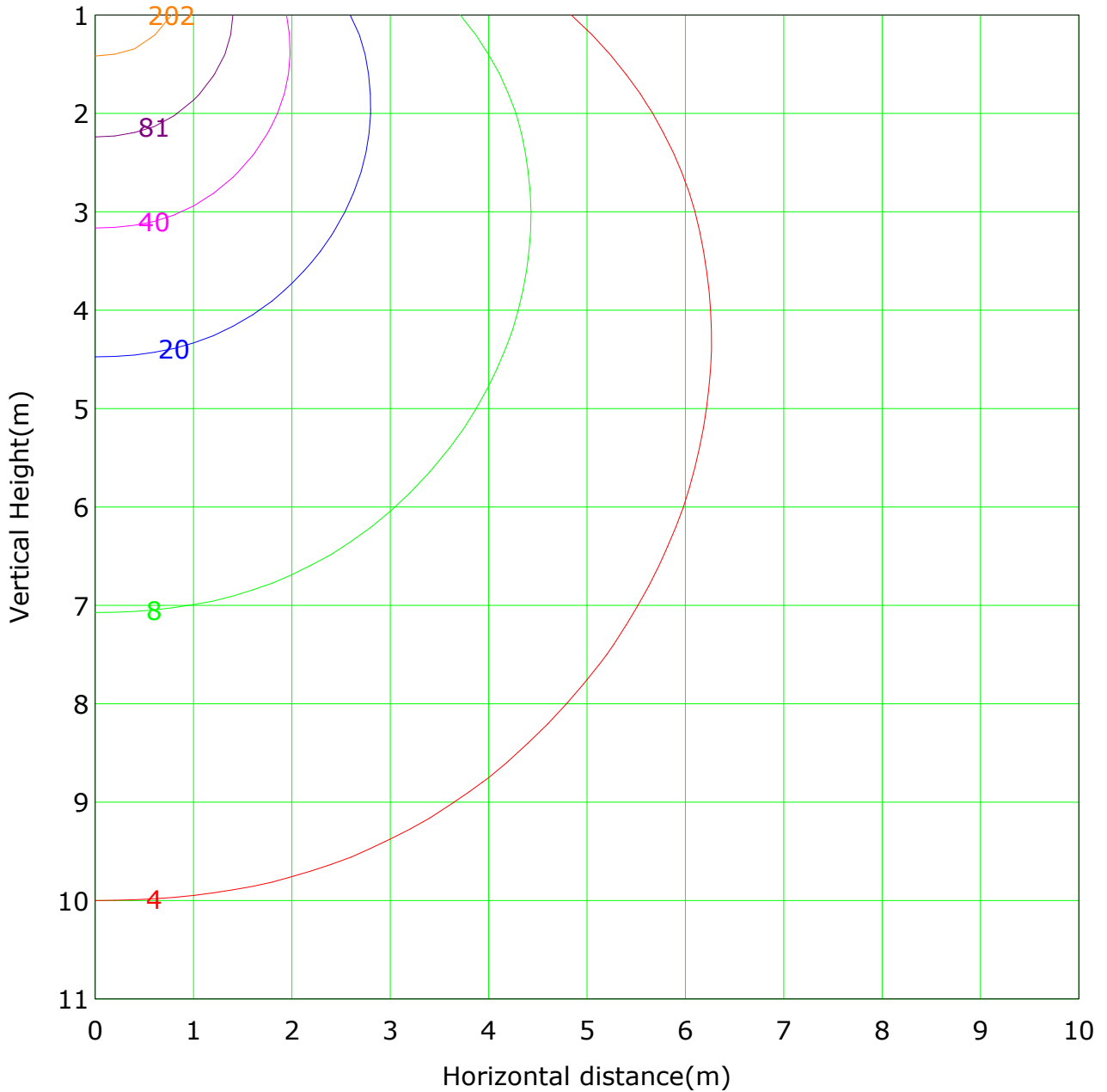
Illuminance at a Distance



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

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

Vertical IsoLux Plot



Lowest(m): 1.0m Highest(m): 11.0m Max Lux: 404.0 lx

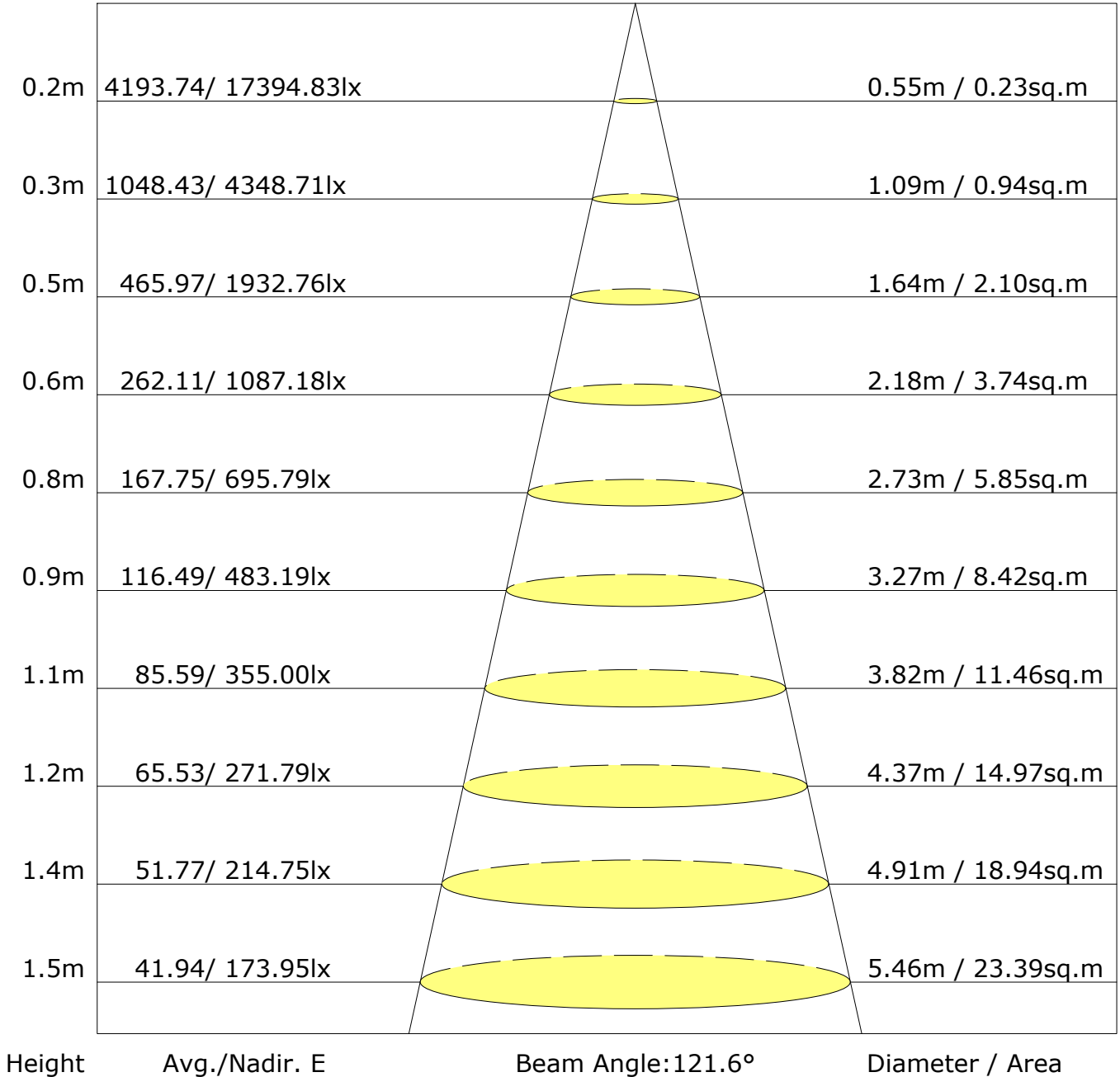
— (1%): 4.0 lx	— (2%): 8.1 lx
— (5%): 20.2 lx	— (10%): 40.4 lx
— (20%): 80.8 lx	— (50%): 202.0 lx
— (100%): 404.0 lx	

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 Humidity: 48
 Inspector:

The Average Illuminance Effective Figure

Flux Out: 980.76lm



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 1416lm ($8\log(F/F_0) = 1.2$).

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 Distance: 14.073 m
 Humidity: 48
 Inspector:

Zonal Lumen

Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
0.0-5.0	404.2	9.7	9.7	0.68	0.68
5.0-10.0	403.5	28.9	38.5	2.04	2.72
10.0-15.0	399.4	47.4	85.9	3.35	6.07
15.0-20.0	391.6	64.5	150.5	4.56	10.63
20.0-25.0	379.8	79.7	230.1	5.63	16.25
25.0-30.0	364.0	92.1	322.3	6.51	22.76
30.0-35.0	345.1	101.6	423.9	7.18	29.94
35.0-40.0	323.6	108.0	531.9	7.63	37.56
40.0-45.0	300.3	111.2	643.1	7.85	45.42
45.0-50.0	275.4	111.3	754.4	7.86	53.28
50.0-55.0	248.9	108.3	862.6	7.65	60.92
55.0-60.0	221.2	102.3	964.9	7.22	68.14
60.0-65.0	192.4	93.5	1058.4	6.61	74.75
65.0-70.0	162.5	82.3	1140.7	5.81	80.56
70.0-75.0	131.7	68.9	1209.6	4.86	85.42
75.0-80.0	101.2	54.1	1263.7	3.82	89.25
80.0-85.0	71.0	38.6	1302.3	2.72	91.97
85.0-90.0	46.5	25.5	1327.8	1.80	93.77
90.0-95.0	35.2	19.3	1347.0	1.36	95.13
95.0-100.0	30.8	16.7	1363.8	1.18	96.32
100.0-105.0	25.9	13.9	1377.6	0.98	97.29
105.0-110.0	21.1	11.1	1388.7	0.78	98.08
110.0-115.0	16.9	8.6	1397.2	0.60	98.68
115.0-120.0	13.4	6.5	1403.7	0.46	99.14
120.0-125.0	10.3	4.7	1408.5	0.34	99.47
125.0-130.0	7.5	3.2	1411.7	0.23	99.70
130.0-135.0	4.9	2.0	1413.7	0.14	99.84
135.0-140.0	2.9	1.1	1414.8	0.08	99.92
140.0-145.0	1.8	0.6	1415.4	0.04	99.96
145.0-150.0	1.1	0.3	1415.7	0.02	99.98
150.0-155.0	0.6	0.1	1415.8	0.01	99.99
155.0-160.0	0.3	0.1	1415.9	0.00	100.00
160.0-165.0	0.2	0.0	1415.9	0.00	100.00
165.0-170.0	0.1	0.0	1415.9	0.00	100.00
170.0-175.0	0.0	0.0	1415.9	0.00	100.00
175.0-180.0	0.0	0.0	1415.9	0.00	100.00

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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	404.0	404.0	404.0	404.0	404.0	404.0	404.0	404.0	404.0	404.0
G5.0	404.0	404.3	404.8	403.5	403.8	403.2	405.1	404.1	404.4	404.6
G10.0	402.5	402.0	402.3	400.8	402.5	402.3	403.3	402.2	402.3	402.1
G15.0	396.9	396.3	396.3	395.4	395.7	395.4	395.7	396.6	396.3	396.7
G20.0	386.9	387.3	387.1	385.8	385.9	386.0	386.7	386.8	386.6	387.4
G25.0	372.8	372.4	372.7	371.2	371.6	371.5	372.3	373.0	372.5	373.3
G30.0	354.9	355.2	355.4	353.4	354.4	354.2	354.7	355.2	354.5	356.1
G35.0	335.5	335.5	334.9	333.6	334.0	333.7	333.9	334.2	334.0	334.5
G40.0	313.1	313.3	312.9	312.1	311.2	310.7	311.9	312.2	311.3	311.7
G45.0	289.5	289.5	289.2	288.0	288.5	288.2	287.0	287.4	286.9	287.5
G50.0	263.4	263.9	263.6	262.5	261.7	261.4	261.4	262.1	261.2	261.7
G55.0	236.3	237.1	237.0	236.0	234.8	234.5	234.6	234.6	234.1	234.1
G60.0	208.0	208.4	208.9	207.5	207.1	206.3	205.8	206.8	205.8	205.1
G65.0	179.7	179.9	179.7	179.2	178.6	177.2	177.6	177.3	176.2	176.1
G70.0	149.3	150.6	150.3	149.2	148.3	146.8	146.5	146.2	144.2	144.6
G75.0	118.6	120.3	119.9	119.1	118.4	117.4	116.1	115.3	113.5	112.8
G80.0	88.5	89.3	90.3	89.6	88.5	87.2	86.3	85.1	83.1	82.1
G85.0	58.7	59.5	60.8	60.4	59.2	57.8	57.2	55.7	52.9	51.3
G90.0	35.8	37.2	37.9	39.0	38.3	38.5	37.6	36.8	35.9	37.1
G95.0	31.3	33.0	34.1	34.9	34.6	34.4	33.8	33.3	30.7	33.5
G100.0	22.4	28.8	29.6	30.1	28.6	29.5	30.0	29.5	23.5	28.5
G105.0	19.6	23.9	25.5	24.6	21.5	23.7	26.3	24.2	20.4	23.2
G110.0	16.4	18.6	21.5	19.7	17.5	18.8	21.7	19.4	16.5	18.0
G115.0	13.0	14.3	17.1	15.2	13.8	14.5	17.7	15.6	13.8	14.4
G120.0	10.6	11.0	13.1	11.6	11.0	11.4	13.8	12.1	11.3	11.1
G125.0	7.4	8.8	10.1	9.0	8.2	8.6	10.4	9.3	7.9	8.4
G130.0	5.2	6.1	7.5	7.1	6.1	6.3	7.2	6.4	5.1	5.7
G135.0	3.0	4.3	4.8	4.4	4.4	4.5	4.2	4.4	2.9	2.7
G140.0	1.9	2.8	3.0	3.4	2.8	2.3	2.6	2.2	1.6	1.5
G145.0	1.3	2.0	1.8	2.4	1.8	2.0	1.4	1.3	0.9	0.7
G150.0	0.0	1.2	1.2	1.7	0.9	1.1	0.8	1.2	0.0	0.9
G155.0	0.0	0.8	0.0	0.8	0.0	1.0	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	0.7
G165.0	0.0	0.0	0.0	0.0	0.8	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

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Operator: KOBE

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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	404.0	404.0	404.0	404.0	404.0	404.0	404.0			
G5.0	406.0	404.1	405.6	404.5	405.4	404.2	404.0			
G10.0	403.8	402.9	403.0	403.1	402.5	402.5	402.5			
G15.0	397.5	397.3	397.2	396.1	396.2	395.9	396.9			
G20.0	389.1	387.6	388.2	386.6	386.5	385.6	386.9			
G25.0	374.0	373.5	374.5	373.2	373.0	371.5	372.8			
G30.0	357.4	356.5	357.0	355.3	355.3	354.5	354.9			
G35.0	336.6	336.6	336.8	335.4	334.5	334.1	335.5			
G40.0	314.0	313.2	313.8	312.5	312.5	312.1	313.1			
G45.0	289.0	288.5	289.0	288.6	288.5	287.3	289.5			
G50.0	263.1	262.7	262.6	263.5	262.3	262.0	263.4			
G55.0	235.4	235.4	236.5	236.0	235.4	234.7	236.3			
G60.0	206.4	207.0	207.1	206.8	207.4	207.1	208.0			
G65.0	176.4	176.8	177.4	177.2	177.4	177.9	179.7			
G70.0	145.1	145.9	146.6	146.6	146.8	147.6	149.3			
G75.0	113.1	113.5	115.7	115.4	115.5	116.6	118.6			
G80.0	82.0	83.1	84.5	84.1	86.0	86.6	88.5			
G85.0	51.4	52.4	53.1	53.5	54.8	56.1	58.7			
G90.0	37.2	36.9	36.5	36.3	36.4	36.6	35.8			
G95.0	33.4	33.7	33.3	33.0	32.5	32.5	31.3			
G100.0	29.1	28.2	28.1	29.2	29.5	29.1	22.4			
G105.0	25.2	23.4	21.5	24.1	25.6	22.6	19.6			
G110.0	21.6	18.0	16.8	18.8	20.8	17.4	16.4			
G115.0	17.0	13.8	14.1	14.8	16.6	13.7	13.0			
G120.0	13.4	11.6	11.1	11.2	13.1	10.8	10.6			
G125.0	10.0	7.8	8.1	8.6	9.6	8.2	7.4			
G130.0	6.3	5.8	5.7	6.1	6.4	5.6	5.2			
G135.0	3.0	2.7	2.3	3.6	3.9	3.5	3.0			
G140.0	1.2	1.6	1.5	2.1	1.8	2.4	1.9			
G145.0	0.9	1.2	0.9	1.1	0.8	0.9	1.3			
G150.0	1.0	1.0	0.9	0.0	0.0	1.0	0.0			
G155.0	1.0	0.9	1.1	0.0	0.0	0.0	0.0			
G160.0	1.0	0.0	0.7	0.0	0.8	0.7	0.0			
G165.0	0.0	0.7	0.7	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: 24.7 'C

Operator: KOBE

Gamma Plane (°):0.0-180.0:5.0

Test Device: GPM-1900

Distance: 14.073 m

Humidity: 48

Inspector: