Luminaire Property

Luminaire: DL SQ 18w 6500K

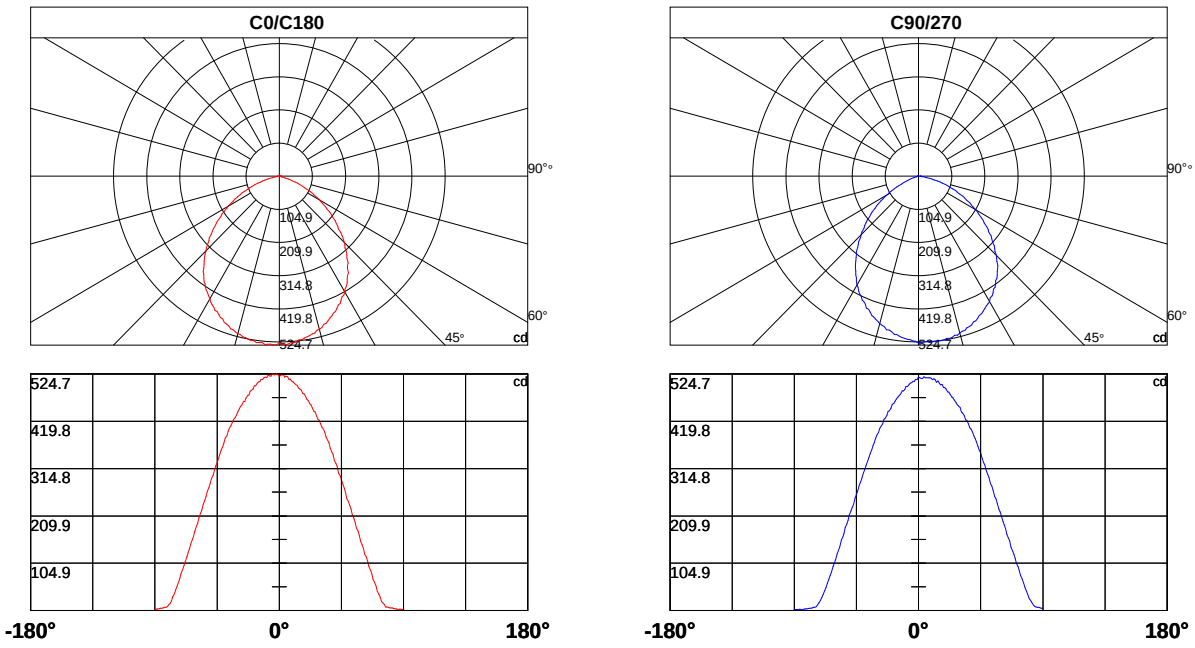
Report NO.:
Test NO.:
Lamp: SMD2835
Sum Lumens: 1223.92 lm
Number of Lamps: 108
Diameter: 145mm
Length: 145mm
Photometric Type: Type C

Voltage: 220.3 V
Current: 0.076 A
Power: 16.2 W
Power Factor: 0.966
Ballast Type:
Width: 145mm
Height: 45mm
Remark:

Photometric Results

Lumens: 1223.92 lm
Effective luminous flux: 1197.97 lm
Efficiency: N.A
Central Intensity: 518.85cd
Maximum Intensity: 524.686cd
Beam Angle(10%): Left: -70.1 Right:74.3

Angle of maximum intensity: C:135.0 G:5.0
Half Peak Side Angle(50%): Left: -47.9 Right:52.2
Light Out Rate(LOR) : 100.00%
Up Flux Rate: 0.0%
Down Flux Rate: 100.0%



Photometric Data Table [cd]

C\G	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
0.0	518.8	521.7	522.9	522.9	517.6	519.9	518.1	512.6	513.3	509.1
45.0	518.8	516.8	515.1	514.6	518.3	516.2	516.6	516.3	516.1	515.8
90.0	518.8	516.8	515.1	514.6	518.3	516.2	516.6	516.3	516.1	515.8
135.0	518.8	523.4	524.6	523.1	522.6	524.7	520.3	520.7	521.8	516.9
180.0	518.8	523.4	524.6	523.1	522.6	524.7	520.3	520.7	521.8	516.9
225.0	518.8	512.8	512.7	508.6	508.7	506.1	503.9	500.7	497.4	497.2
270.0	518.8	512.8	512.7	508.6	508.7	506.1	503.9	500.7	497.4	497.2
315.0	518.8	521.7	522.9	522.9	517.6	519.9	518.1	512.6	513.3	509.1
360.0	518.8	521.7	522.9	522.9	517.6	519.9	518.1	512.6	513.3	509.1

C\G	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0
0.0	507.1	504.1	501.6	499.6	493.2	491.9	488.9	481.6	480.6	475.2
45.0	512.1	514.1	511.8	506.7	509.3	504.4	500.9	501.7	495.4	494.2
90.0	512.1	514.1	511.8	506.7	509.3	504.4	500.9	501.7	495.4	494.2
135.0	517.7	515.9	512.7	512.4	507.7	506.8	503.8	498.7	498.3	491.8
180.0	517.7	515.9	512.7	512.4	507.7	506.8	503.8	498.7	498.3	491.8
225.0	490.3	487.4	487.2	480.2	477.1	474.2	469.3	464.7	459.3	457.1
270.0	490.3	487.4	487.2	480.2	477.1	474.2	469.3	464.7	459.3	457.1
315.0	507.1	504.1	501.6	499.6	493.2	491.9	488.9	481.6	480.6	475.2
360.0	507.1	504.1	501.6	499.6	493.2	491.9	488.9	481.6	480.6	475.2

C\G	20.0	21.0	22.0	23.0	24.0	25.0	26.0	27.0	28.0	29.0
0.0	468.9	465.6	458.8	455.7	449.5	441.9	440.2	431.8	424.3	422.1
45.0	491.6	485.1	484.3	479.6	473.8	471.8	467.1	462.1	456.6	453.7
90.0	491.6	485.1	484.3	479.6	473.8	471.8	467.1	462.1	456.6	453.7
135.0	488.8	486.3	478.2	477.4	471.7	463.8	463.9	456.4	453.2	447.3
180.0	488.8	486.3	478.2	477.4	471.7	463.8	463.9	456.4	453.2	447.3
225.0	449.3	443.3	442.1	432.6	426.9	423.9	414.1	409.7	404.0	394.7
270.0	449.3	443.3	442.1	432.6	426.9	423.9	414.1	409.7	404.0	394.7
315.0	468.9	465.6	458.8	455.7	449.5	441.9	440.2	431.8	424.3	422.1
360.0	468.9	465.6	458.8	455.7	449.5	441.9	440.2	431.8	424.3	422.1

C\G	30.0	31.0	32.0	33.0	34.0	35.0	36.0	37.0	38.0	39.0
0.0	413.9	406.8	402.0	395.3	385.3	377.7	371.8	360.0	351.4	346.0
45.0	450.1	440.1	438.7	432.4	423.3	422.1	414.2	405.8	402.6	395.7
90.0	450.1	440.1	438.7	432.4	423.3	422.1	414.2	405.8	402.6	395.7
135.0	440.2	433.4	428.4	423.6	417.2	408.8	405.2	396.7	387.3	382.7
180.0	440.2	433.4	428.4	423.6	417.2	408.8	405.2	396.7	387.3	382.7
225.0	390.4	381.9	372.4	366.0	356.5	347.9	339.5	330.9	321.9	312.7
270.0	390.4	381.9	372.4	366.0	356.5	347.9	339.5	330.9	321.9	312.7
315.0	413.9	406.8	402.0	395.3	385.3	377.7	371.8	360.0	351.4	346.0
360.0	413.9	406.8	402.0	395.3	385.3	377.7	371.8	360.0	351.4	346.0

Photometric Data Table [cd]

C\G	40.0	41.0	42.0	43.0	44.0	45.0	46.0	47.0	48.0	49.0
0.0	332.3	325.7	318.9	304.5	298.9	290.5	281.4	271.0	261.7	247.9
45.0	386.9	381.1	374.7	363.6	355.0	350.0	337.2	329.2	323.3	309.5
90.0	386.9	381.1	374.7	363.6	355.0	350.0	337.2	329.2	323.3	309.5
135.0	371.8	362.7	356.0	346.4	337.3	328.4	320.2	310.3	300.2	292.9
180.0	371.8	362.7	356.0	346.4	337.3	328.4	320.2	310.3	300.2	292.9
225.0	305.3	293.5	284.9	278.0	264.7	257.0	249.7	235.3	228.9	220.9
270.0	305.3	293.5	284.9	278.0	264.7	257.0	249.7	235.3	228.9	220.9
315.0	332.3	325.7	318.9	304.5	298.9	290.5	281.4	271.0	261.7	247.9
360.0	332.3	325.7	318.9	304.5	298.9	290.5	281.4	271.0	261.7	247.9

C\G	50.0	51.0	52.0	53.0	54.0	55.0	56.0	57.0	58.0	59.0
0.0	241.8	233.2	224.9	212.1	204.8	195.4	182.7	175.9	165.9	153.6
45.0	302.7	295.4	281.2	276.0	266.9	253.0	247.9	238.3	225.0	218.5
90.0	302.7	295.4	281.2	276.0	266.9	253.0	247.9	238.3	225.0	218.5
135.0	281.7	272.4	264.4	252.5	244.5	235.2	222.8	216.0	205.5	193.6
180.0	281.7	272.4	264.4	252.5	244.5	235.2	222.8	216.0	205.5	193.6
225.0	212.1	200.0	191.4	184.0	170.0	161.8	155.9	141.4	133.6	126.0
270.0	212.1	200.0	191.4	184.0	170.0	161.8	155.9	141.4	133.6	126.0
315.0	241.8	233.2	224.9	212.1	204.8	195.4	182.7	175.9	165.9	153.6
360.0	241.8	233.2	224.9	212.1	204.8	195.4	182.7	175.9	165.9	153.6

C\G	60.0	61.0	62.0	63.0	64.0	65.0	66.0	67.0	68.0	69.0
0.0	147.3	136.9	124.6	118.3	108.9	96.9	89.3	80.9	68.9	62.0
45.0	209.9	197.5	189.3	182.0	168.9	160.3	153.9	139.9	131.8	125.1
90.0	209.9	197.5	189.3	182.0	168.9	160.3	153.9	139.9	131.8	125.1
135.0	186.9	176.0	164.8	157.1	147.3	136.3	128.0	119.0	107.5	99.3
180.0	186.9	176.0	164.8	157.1	147.3	136.3	128.0	119.0	107.5	99.3
225.0	112.8	105.0	97.3	85.4	77.3	69.5	59.4	51.5	44.4	35.8
270.0	112.8	105.0	97.3	85.4	77.3	69.5	59.4	51.5	44.4	35.8
315.0	147.3	136.9	124.6	118.3	108.9	96.9	89.3	80.9	68.9	62.0
360.0	147.3	136.9	124.6	118.3	108.9	96.9	89.3	80.9	68.9	62.0

C\G	70.0	71.0	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0
0.0	54.3	42.1	35.9	29.9	20.4	16.7	13.1	7.9	7.8	7.0
45.0	115.6	104.0	97.1	88.1	77.3	69.9	61.9	50.4	43.4	36.0
90.0	115.6	104.0	97.1	88.1	77.3	69.9	61.9	50.4	43.4	36.0
135.0	91.0	82.1	71.4	62.8	54.9	45.5	37.1	30.8	21.5	15.7
180.0	91.0	82.1	71.4	62.8	54.9	45.5	37.1	30.8	21.5	15.7
225.0	29.1	22.9	16.6	12.6	8.8	7.2	6.8	5.8	5.2	4.8
270.0	29.1	22.9	16.6	12.6	8.8	7.2	6.8	5.8	5.2	4.8
315.0	54.3	42.1	35.9	29.9	20.4	16.7	13.1	7.9	7.8	7.0
360.0	54.3	42.1	35.9	29.9	20.4	16.7	13.1	7.9	7.8	7.0

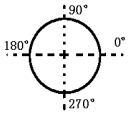
Photometric Data Table [cd]

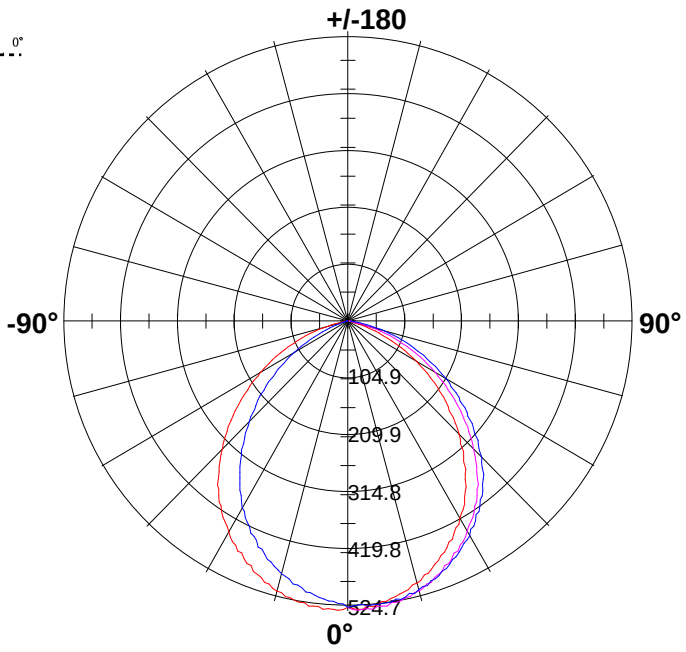
C\G	80.0	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	5.5	5.6	5.5	4.0	3.9	3.6	2.4	2.6	2.6	2.1
45.0	26.4	22.3	17.5	11.7	9.4	8.0	7.1	6.9	5.5	5.0
90.0	26.4	22.3	17.5	11.7	9.4	8.0	7.1	6.9	5.5	5.0
135.0	11.7	8.5	6.8	6.6	5.8	4.9	4.6	3.8	3.4	3.0
180.0	11.7	8.5	6.8	6.6	5.8	4.9	4.6	3.8	3.4	3.0
225.0	4.2	3.4	3.1	3.0	2.1	2.4	2.8	2.4	2.1	2.1
270.0	4.2	3.4	3.1	3.0	2.1	2.4	2.8	2.4	2.1	2.1
315.0	5.5	5.6	5.5	4.0	3.9	3.6	2.4	2.6	2.6	2.1
360.0	5.5	5.6	5.5	4.0	3.9	3.6	2.4	2.6	2.6	2.1

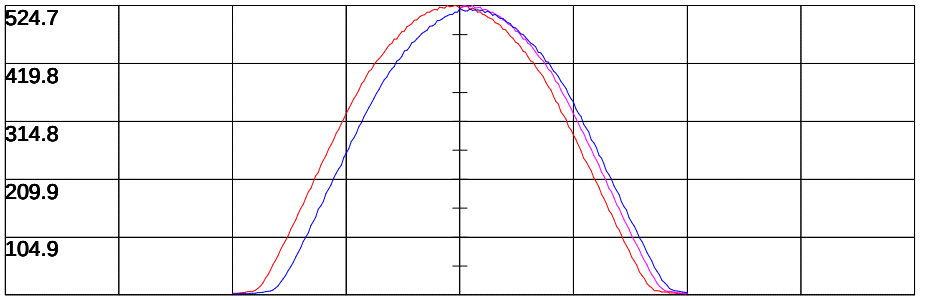
C\G	90.0
0.0	2.6
45.0	4.5
90.0	4.5
135.0	2.9
180.0	2.9
225.0	2.0
270.0	2.0
315.0	2.6
360.0	2.6

Light Distribution Curve [Unit: cd]

Luminaire



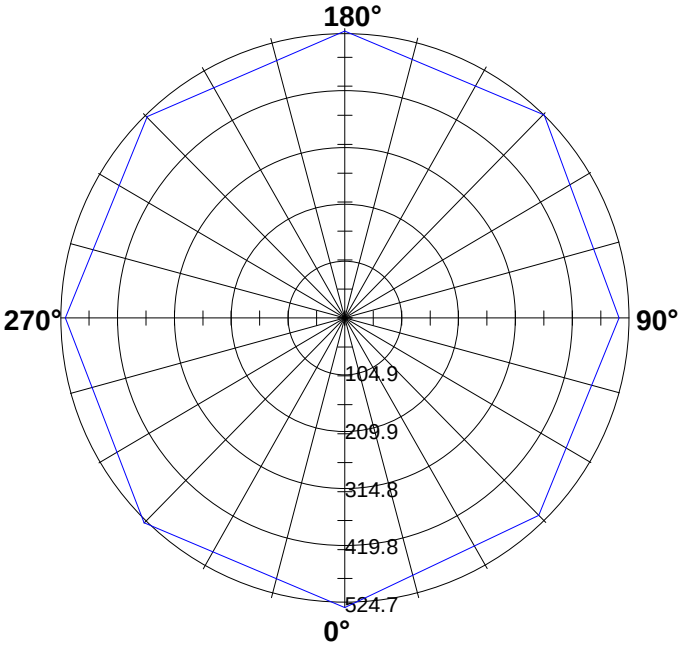


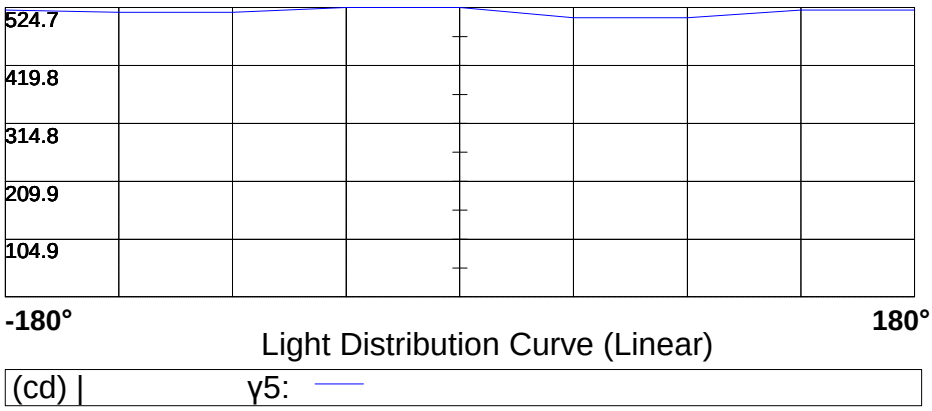


Light Distribution Curve (Linear)

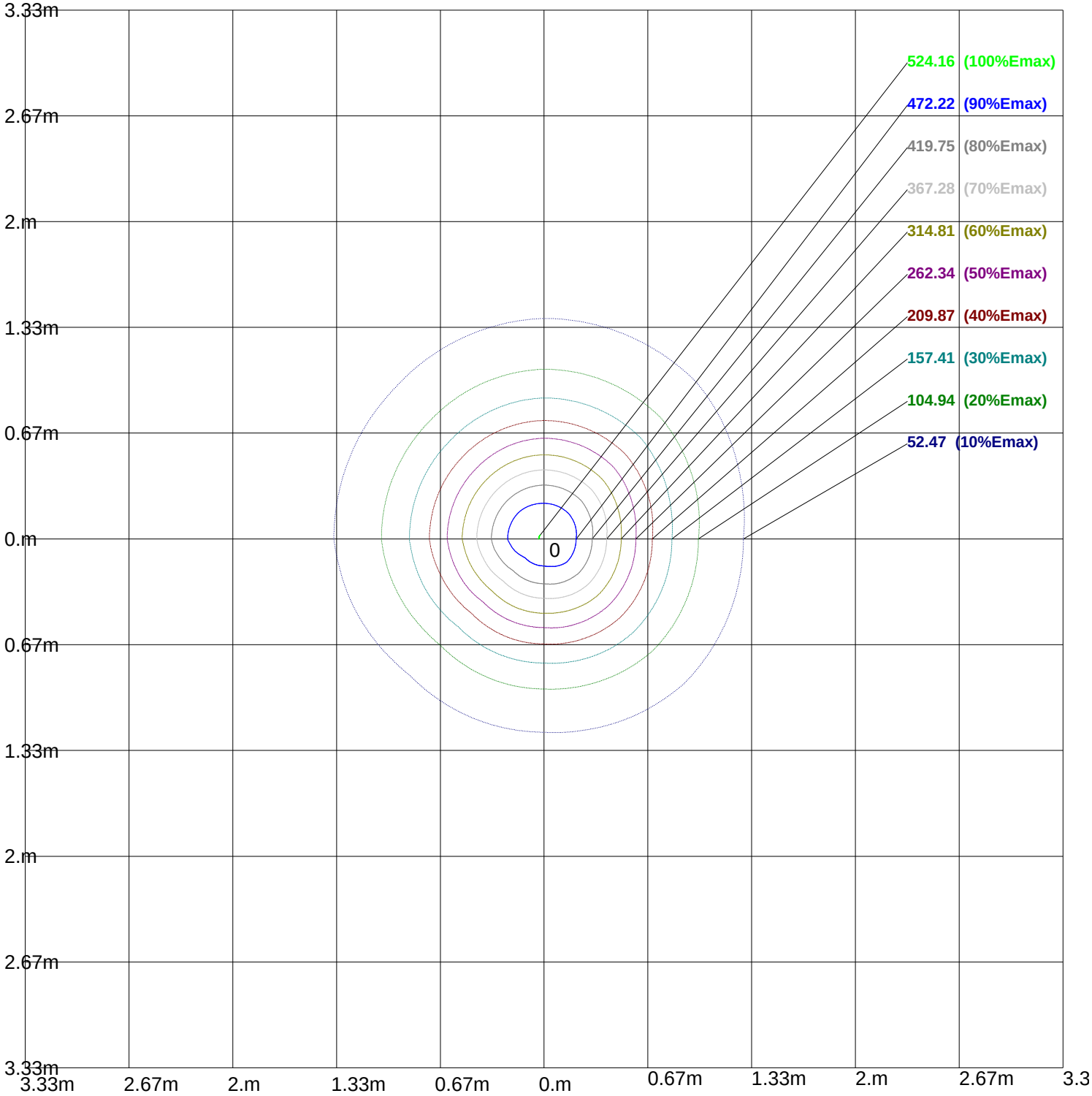
(cd) | C0/C180: C90/C270: C135:

Max Plane Light Distribution Curve [Unit: cd]





Iso-Lux[lx]



Height: 1 m
Max Illuminance : 524.69lx

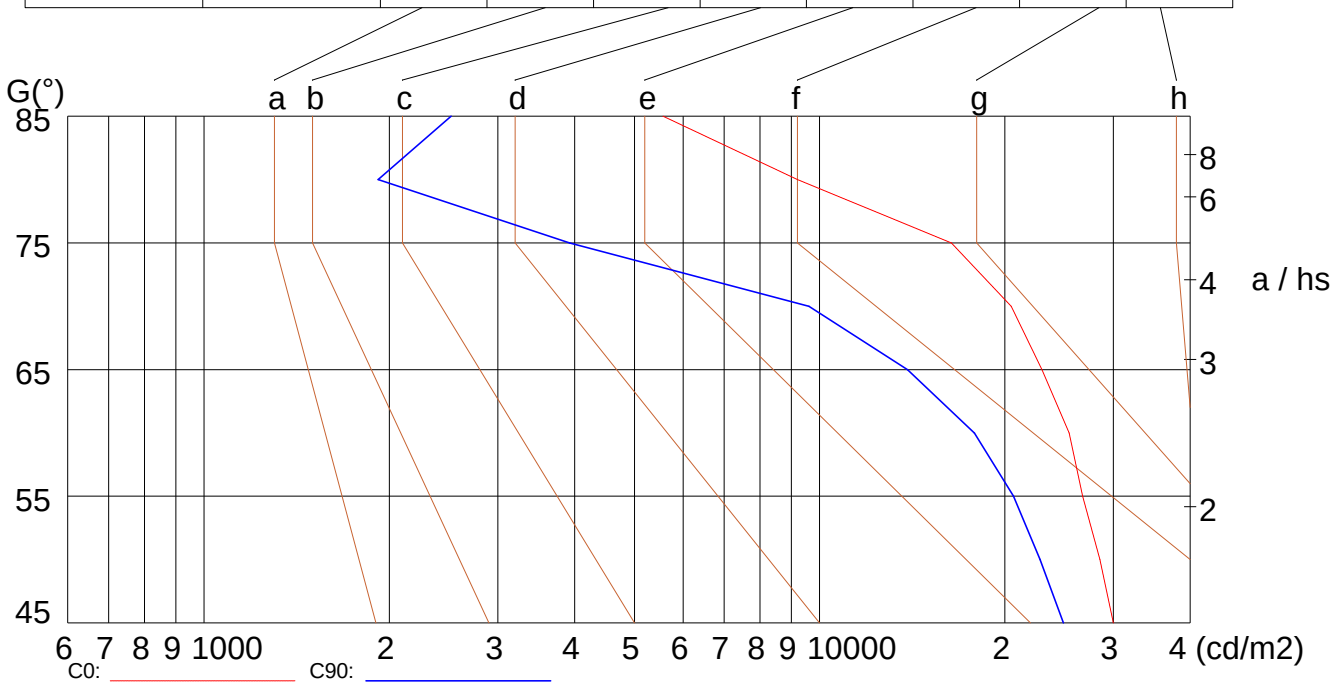
Luminance Limitting Curve

Diameter: 145mm
Length: 145mm
Width: 145mm
Height: 45mm

(cd/m2)

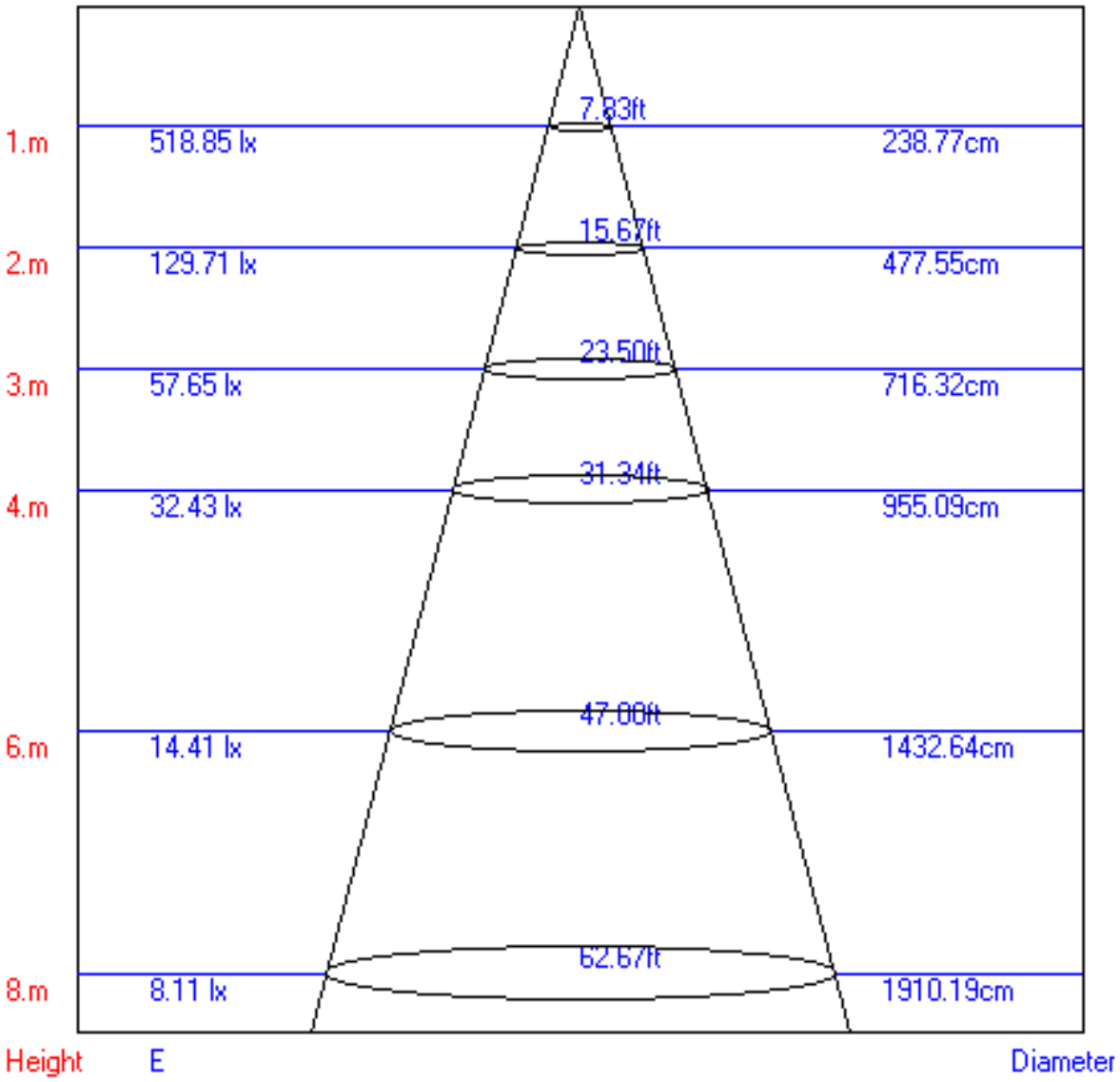
γ	45°	50°	55°	60°	65°	70°	75°	80°	85°
C0	30002	28537	26737	25442	22983	20490	16366	9205	5566
C90	24901	22797	20646	17852	13894	9615	3921	1917	2521

Glare	Quality	Service Values Illuminance (lx)							
1.15	A	2000	1000	500	≤300				
1.5	B		2000	1000	500	≤300			
1.85	C			2000	1000	500	≤300		
2.2	D				2000	1000	500	≤300	
2.55	E					2000	1000	500	≤300



Lum. Limitting Curve (C0/C90)

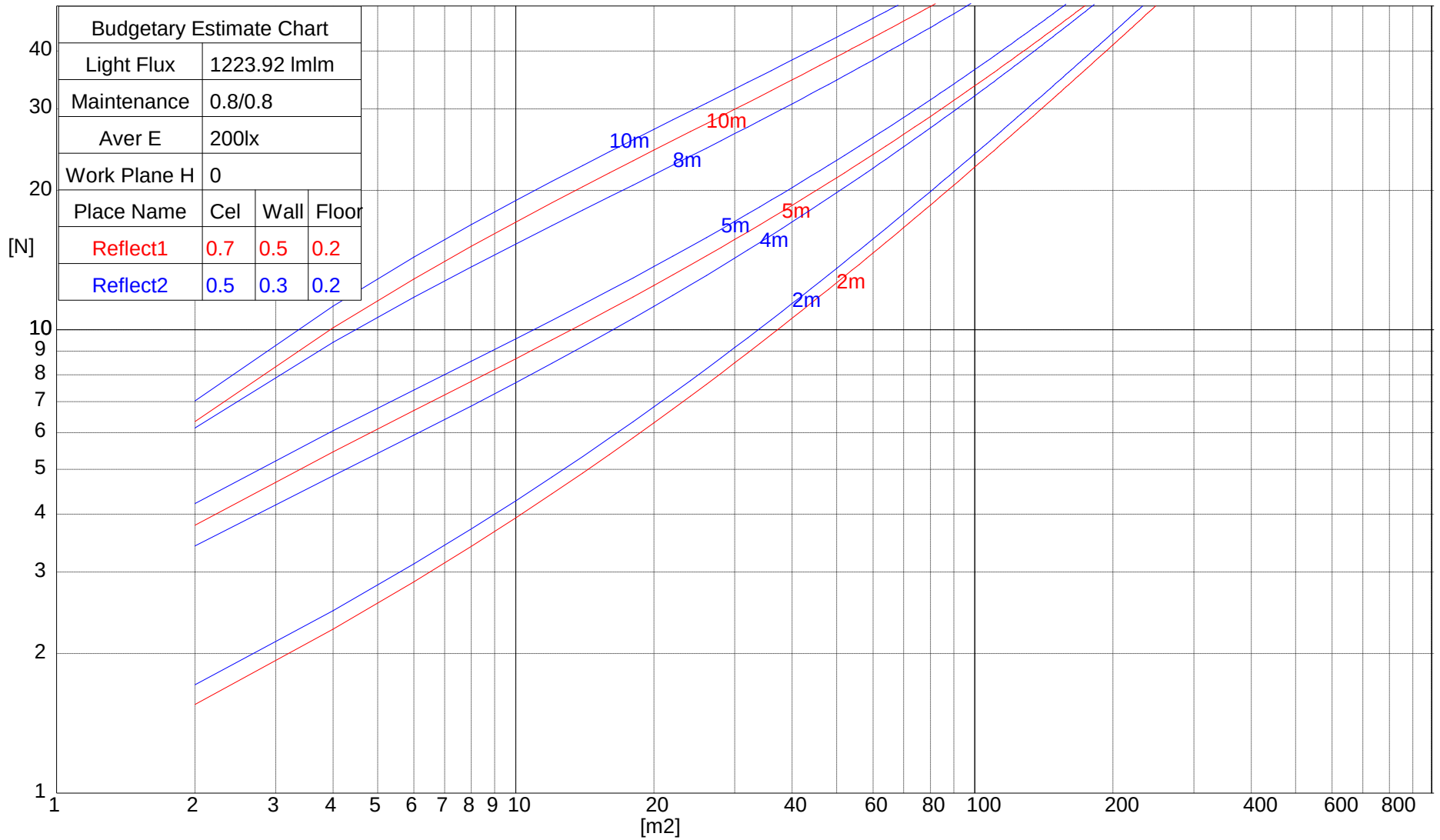
Lux-Distance Curve



Beam Angle:100.10°

Utilization Coefficient Table

RHOCC	80			70			50			30			10			0
RHOW	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR	COEFFCIENTS OF UTILIZATION FOR RHOFC=20															
0	1.19	1.19	1.19	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	1.07	1.06	1.05	1.06	1.04	1.03	1.02	1.00	0.99	0.97	0.95	0.93	0.91	0.88	0.87	0.81
2	0.93	0.91	0.89	0.92	0.90	0.88	0.90	0.87	0.84	0.86	0.83	0.80	0.81	0.78	0.74	0.70
3	0.81	0.79	0.77	0.81	0.78	0.75	0.79	0.75	0.72	0.77	0.72	0.69	0.73	0.68	0.64	0.60
4	0.71	0.68	0.67	0.71	0.68	0.65	0.70	0.66	0.62	0.69	0.63	0.59	0.66	0.61	0.56	0.52
5	0.63	0.60	0.58	0.63	0.59	0.57	0.63	0.58	0.55	0.62	0.56	0.52	0.60	0.54	0.49	0.45
6	0.56	0.53	0.51	0.56	0.53	0.50	0.56	0.52	0.48	0.56	0.50	0.46	0.55	0.49	0.44	0.40
7	0.50	0.47	0.46	0.50	0.47	0.45	0.51	0.46	0.43	0.51	0.45	0.41	0.50	0.44	0.39	0.36
8	0.45	0.43	0.41	0.46	0.42	0.40	0.46	0.42	0.39	0.47	0.41	0.37	0.46	0.40	0.35	0.32
9	0.41	0.38	0.37	0.42	0.38	0.36	0.43	0.38	0.35	0.43	0.37	0.33	0.43	0.37	0.32	0.29
10	0.37	0.35	0.34	0.38	0.35	0.33	0.39	0.35	0.32	0.40	0.34	0.30	0.40	0.34	0.29	0.26


Budgetary Estimate Chart
Light Flux 1223.92 lmlm
Maintenance 0.8/0.8
Aver E 200lx
Work Plane H 0
Place Name Cel Wall Floor
Reflect1 0.7 0.5 0.2
Reflect2 0.5 0.3 0.2
[N]
[m2]
10m
8m
5m
4m
2m
10m
5m
2m

UGR Glare Index

Ceiling		70	70	50	50	30	70	70	50	50	30
Wall		50	30	50	30	30	50	30	50	30	30
Floor		20	20	20	20	20	20	20	20	20	20
Room Size		Weft to light axis direction of observation					Direction of light axis parallel observation				
X	Y										
2H	2H	14.7	16.0	14.9	15.9	16.5	14.7	15.9	14.8	16.0	16.5
	3H	16.3	17.4	16.7	17.9	17.9	16.2	17.4	16.4	17.8	18.0
	4H	16.9	18.1	17.4	18.7	18.8	16.9	18.1	17.3	18.5	18.8
	6H	17.6	18.5	18.0	18.9	18.9	17.4	18.3	17.8	18.9	19.0
	8H	17.8	18.9	18.1	19.0	19.3	17.7	18.7	17.9	19.0	19.3
	12H	17.9	18.8	18.1	19.2	19.5	17.7	18.7	18.1	19.2	19.6
4H	2H	15.7	16.6	15.9	16.8	17.0	15.6	16.6	15.8	16.9	17.0
	3H	17.5	18.4	17.7	18.4	18.8	17.3	18.2	17.6	18.3	18.7
	4H	18.3	18.9	18.5	19.1	19.5	18.0	18.9	18.4	19.1	19.6
	6H	18.8	19.5	19.1	19.8	20.2	18.7	19.5	18.9	19.7	20.0
	8H	19.0	19.7	19.4	20.0	20.3	19.0	19.5	19.3	20.0	20.3
	12H	19.2	19.8	19.7	20.0	20.5	19.1	19.8	19.5	20.1	20.5
8H	4H	18.5	19.2	18.8	19.4	19.8	18.5	19.1	18.7	19.4	19.8
	6H	19.3	19.8	19.8	20.2	20.6	19.2	19.7	19.6	20.2	20.5
	8H	19.8	20.2	20.2	20.5	20.9	19.6	20.0	20.1	20.4	21.0
	12H	20.0	20.4	20.4	20.9	21.1	19.8	20.3	20.3	20.8	21.2
12H	4H	18.6	19.2	19.1	19.6	19.8	18.5	19.0	18.9	19.4	19.8
	6H	19.5	20.0	19.9	20.2	20.7	19.4	19.9	19.8	20.2	20.6
	8H	19.9	20.3	20.4	20.5	21.1	19.8	20.2	20.3	20.6	21.0