

Luminaire Property

Luminaire: RH-MSD18 18W 4000K

Report NO.:

Voltage: 220.0 V

Test NO.:

Current: 0.144 A

Lamp:

Power: 17.1 W

Sum Lumens: 1607.02 lm

Power Factor: 0.539

Number of Lamps: 1

Ballast Type: EMC 300mA

Diameter: mm

Width: 225mm

Length: 225mm

Height: 38mm

Photometric Type: Type C

Remark: PMMA+0.5wSMD2835

Photometric Results

Lumens: 1607.02 lm

Angle of maximum intensity: C:0.0 G:1.0

Effective luminous flux: 1583.73 lm

Half Peak Side Angle(50%): Left: -54.5 Right:53.6

Efficiency: 93.9778 lm/W

Light Out Rate(LOR) : 100.00%

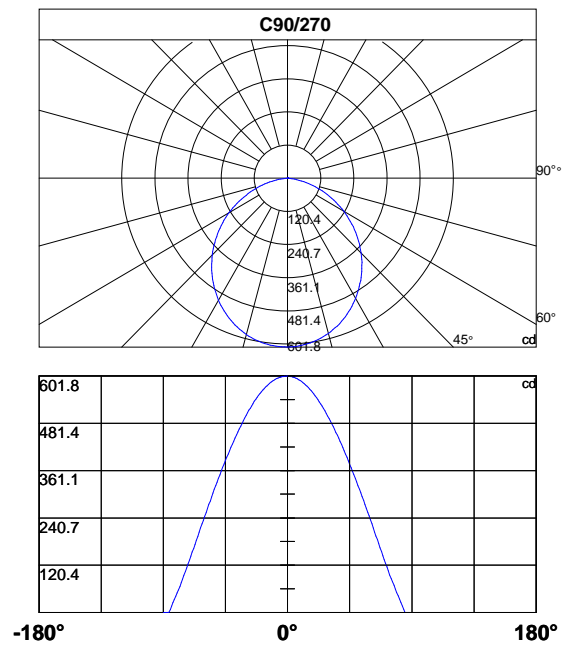
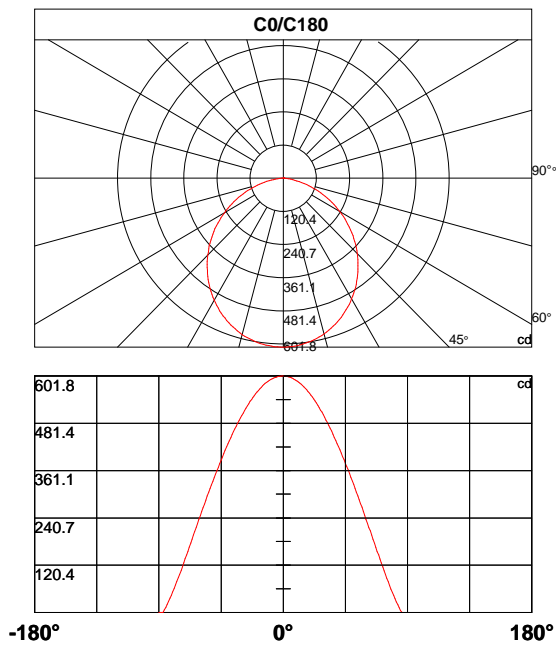
Central Intensity: 601.723cd

Up Flux Rate: 0.0%

Maximum Intensity: 601.763cd

Down Flux Rate: 100.0%

Beam Angle(10%): Left: -79.1 Right:77.9



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	601.7	601.8	601.1	600.5	599.5	598.3	597.3	595.3	593.4	591.3
45.0	601.7	601.4	600.6	600.2	598.9	597.9	596.3	594.6	592.7	590.4
90.0	601.7	601.4	600.6	600.2	598.9	597.9	596.3	594.6	592.7	590.4
135.0	601.7	601.8	601.5	601.3	600.1	599.1	597.9	596.6	595.0	593.1
180.0	601.7	601.8	601.5	601.3	600.1	599.1	597.9	596.6	595.0	593.1
225.0	601.7	601.4	601.1	600.7	600.2	599.0	598.0	596.6	595.2	593.2
270.0	601.7	601.4	601.1	600.7	600.2	599.0	598.0	596.6	595.2	593.2
315.0	601.7	601.8	601.1	600.5	599.5	598.3	597.3	595.3	593.4	591.3
360.0	601.7	601.8	601.1	600.5	599.5	598.3	597.3	595.3	593.4	591.3

C\G	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0
0.0	588.9	586.6	584.0	580.8	577.5	573.9	570.1	566.7	562.2	557.8
45.0	588.0	585.1	582.6	579.5	576.4	572.4	568.6	564.5	560.4	556.4
90.0	588.0	585.1	582.6	579.5	576.4	572.4	568.6	564.5	560.4	556.4
135.0	591.0	588.2	585.6	583.2	580.1	576.7	573.0	569.0	564.8	561.3
180.0	591.0	588.2	585.6	583.2	580.1	576.7	573.0	569.0	564.8	561.3
225.0	590.8	588.8	586.1	582.9	580.0	576.7	573.5	569.5	565.7	561.3
270.0	590.8	588.8	586.1	582.9	580.0	576.7	573.5	569.5	565.7	561.3
315.0	588.9	586.6	584.0	580.8	577.5	573.9	570.1	566.7	562.2	557.8
360.0	588.9	586.6	584.0	580.8	577.5	573.9	570.1	566.7	562.2	557.8

C\G	20.0	21.0	22.0	23.0	24.0	25.0	26.0	27.0	28.0	29.0
0.0	553.3	548.3	543.2	538.3	533.1	527.5	521.2	515.4	509.8	503.4
45.0	551.6	546.6	541.5	536.2	530.4	525.2	519.6	513.3	506.9	500.4
90.0	551.6	546.6	541.5	536.2	530.4	525.2	519.6	513.3	506.9	500.4
135.0	556.7	551.9	547.2	541.8	537.4	531.6	526.1	519.9	514.1	507.4
180.0	556.7	551.9	547.2	541.8	537.4	531.6	526.1	519.9	514.1	507.4
225.0	556.8	552.1	547.1	542.6	537.1	531.4	525.7	519.9	514.4	508.2
270.0	556.8	552.1	547.1	542.6	537.1	531.4	525.7	519.9	514.4	508.2
315.0	553.3	548.3	543.2	538.3	533.1	527.5	521.2	515.4	509.8	503.4
360.0	553.3	548.3	543.2	538.3	533.1	527.5	521.2	515.4	509.8	503.4

C\G	30.0	31.0	32.0	33.0	34.0	35.0	36.0	37.0	38.0	39.0
0.0	496.6	489.7	482.9	475.5	469.1	461.7	454.1	445.9	438.0	429.8
45.0	493.7	487.5	480.7	473.3	465.8	458.2	451.5	443.9	436.0	427.5
90.0	493.7	487.5	480.7	473.3	465.8	458.2	451.5	443.9	436.0	427.5
135.0	501.2	495.3	488.4	481.2	474.2	466.5	460.5	452.8	444.9	436.8
180.0	501.2	495.3	488.4	481.2	474.2	466.5	460.5	452.8	444.9	436.8
225.0	501.5	494.6	487.7	480.9	474.5	467.2	459.2	451.8	443.6	435.6
270.0	501.5	494.6	487.7	480.9	474.5	467.2	459.2	451.8	443.6	435.6
315.0	496.6	489.7	482.9	475.5	469.1	461.7	454.1	445.9	438.0	429.8
360.0	496.6	489.7	482.9	475.5	469.1	461.7	454.1	445.9	438.0	429.8

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	422.9	414.2	405.9	397.0	388.4	379.2	371.5	362.5	353.2	343.8
45.0	419.6	410.9	403.5	395.2	386.0	377.5	368.0	359.1	351.0	341.5
90.0	419.6	410.9	403.5	395.2	386.0	377.5	368.0	359.1	351.0	341.5
135.0	428.8	421.8	413.4	404.8	395.9	387.5	378.4	369.2	361.6	352.1
180.0	428.8	421.8	413.4	404.8	395.9	387.5	378.4	369.2	361.6	352.1
225.0	428.5	420.5	411.7	403.2	394.7	386.7	378.1	369.0	359.8	350.4
270.0	428.5	420.5	411.7	403.2	394.7	386.7	378.1	369.0	359.8	350.4
315.0	422.9	414.2	405.9	397.0	388.4	379.2	371.5	362.5	353.2	343.8
360.0	422.9	414.2	405.9	397.0	388.4	379.2	371.5	362.5	353.2	343.8

C\G	50.0	51.0	52.0	53.0	54.0	55.0	56.0	57.0	58.0	59.0
0.0	334.3	325.9	316.2	306.4	296.5	286.3	276.7	267.6	257.5	247.2
45.0	332.2	322.8	313.2	304.5	295.1	285.1	274.7	265.2	254.5	245.9
90.0	332.2	322.8	313.2	304.5	295.1	285.1	274.7	265.2	254.5	245.9
135.0	342.9	333.6	324.1	315.6	306.2	296.2	286.2	276.1	266.4	257.7
180.0	342.9	333.6	324.1	315.6	306.2	296.2	286.2	276.1	266.4	257.7
225.0	341.0	331.2	323.2	313.5	303.7	293.7	283.7	275.1	264.8	254.6
270.0	341.0	331.2	323.2	313.5	303.7	293.7	283.7	275.1	264.8	254.6
315.0	334.3	325.9	316.2	306.4	296.5	286.3	276.7	267.6	257.5	247.2
360.0	334.3	325.9	316.2	306.4	296.5	286.3	276.7	267.6	257.5	247.2

C\G	60.0	61.0	62.0	63.0	64.0	65.0	66.0	67.0	68.0	69.0
0.0	237.2	226.6	216.3	207.3	196.8	186.5	175.7	165.6	154.9	146.3
45.0	235.7	225.7	215.0	204.7	194.6	185.5	175.4	164.7	154.4	144.4
90.0	235.7	225.7	215.0	204.7	194.6	185.5	175.4	164.7	154.4	144.4
135.0	247.2	237.0	226.7	216.7	206.3	197.4	186.7	176.3	166.2	155.6
180.0	247.2	237.0	226.7	216.7	206.3	197.4	186.7	176.3	166.2	155.6
225.0	244.4	233.9	225.5	214.7	204.6	193.8	183.6	172.9	162.6	153.7
270.0	244.4	233.9	225.5	214.7	204.6	193.8	183.6	172.9	162.6	153.7
315.0	237.2	226.6	216.3	207.3	196.8	186.5	175.7	165.6	154.9	146.3
360.0	237.2	226.6	216.3	207.3	196.8	186.5	175.7	165.6	154.9	146.3

C\G	70.0	71.0	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0
0.0	136.0	125.9	115.5	105.4	97.0	87.5	78.1	68.4	59.7	50.5
45.0	134.2	125.5	115.5	105.7	95.5	86.0	78.2	68.9	59.7	50.8
90.0	134.2	125.5	115.5	105.7	95.5	86.0	78.2	68.9	59.7	50.8
135.0	146.8	136.5	126.4	116.6	106.5	96.6	88.6	78.8	69.9	60.7
180.0	146.8	136.5	126.4	116.6	106.5	96.6	88.6	78.8	69.9	60.7
225.0	143.2	133.4	123.1	112.8	104.1	94.7	84.7	75.5	66.2	57.0
270.0	143.2	133.4	123.1	112.8	104.1	94.7	84.7	75.5	66.2	57.0
315.0	136.0	125.9	115.5	105.4	97.0	87.5	78.1	68.4	59.7	50.5
360.0	136.0	125.9	115.5	105.4	97.0	87.5	78.1	68.4	59.7	50.5

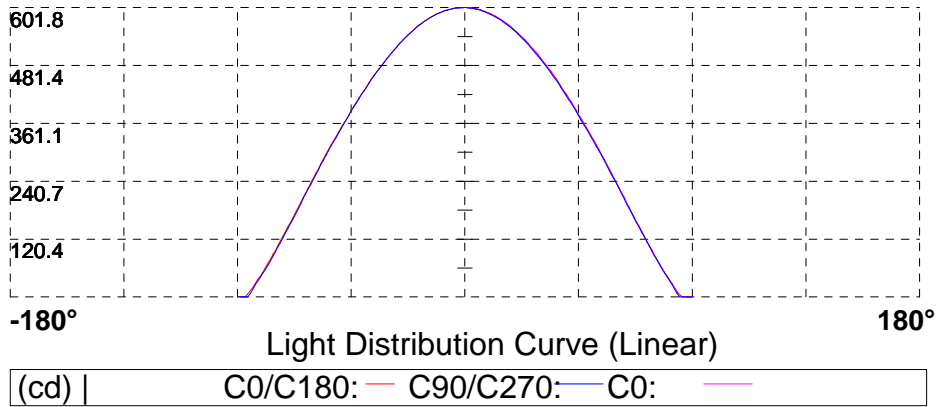
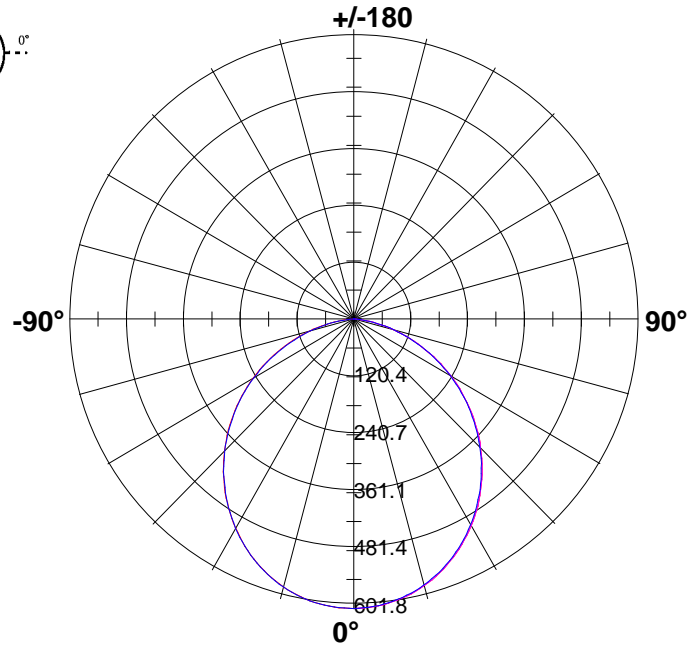
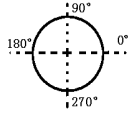
Photometric Data Table [cd]

C\G	80.0	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	43.2	35.2	27.0	19.5	12.0	5.1	0.0	0.0	0.0	0.0
45.0	42.4	33.8	26.1	16.7	7.8	0.0	0.0	0.0	0.0	0.0
90.0	42.4	33.8	26.1	16.7	7.8	0.0	0.0	0.0	0.0	0.0
135.0	51.9	43.1	36.1	27.8	20.1	13.0	6.2	0.0	0.0	0.0
180.0	51.9	43.1	36.1	27.8	20.1	13.0	6.2	0.0	0.0	0.0
225.0	49.6	41.2	33.0	24.9	16.2	7.2	0.0	0.0	0.0	0.0
270.0	49.6	41.2	33.0	24.9	16.2	7.2	0.0	0.0	0.0	0.0
315.0	43.2	35.2	27.0	19.5	12.0	5.1	0.0	0.0	0.0	0.0
360.0	43.2	35.2	27.0	19.5	12.0	5.1	0.0	0.0	0.0	0.0

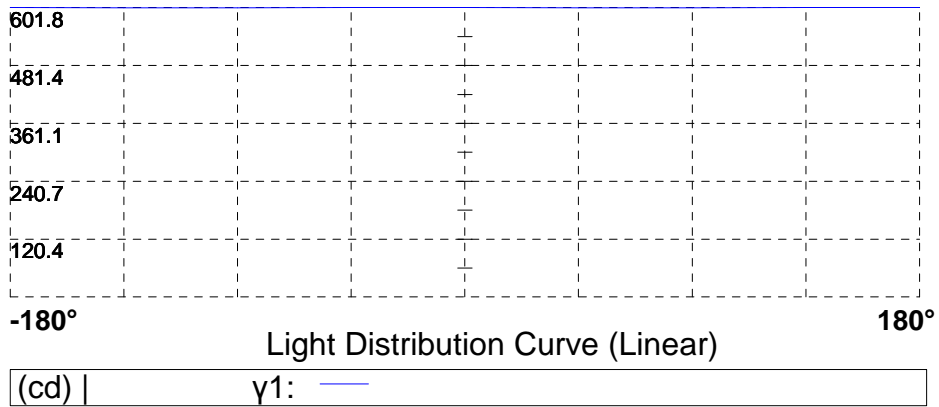
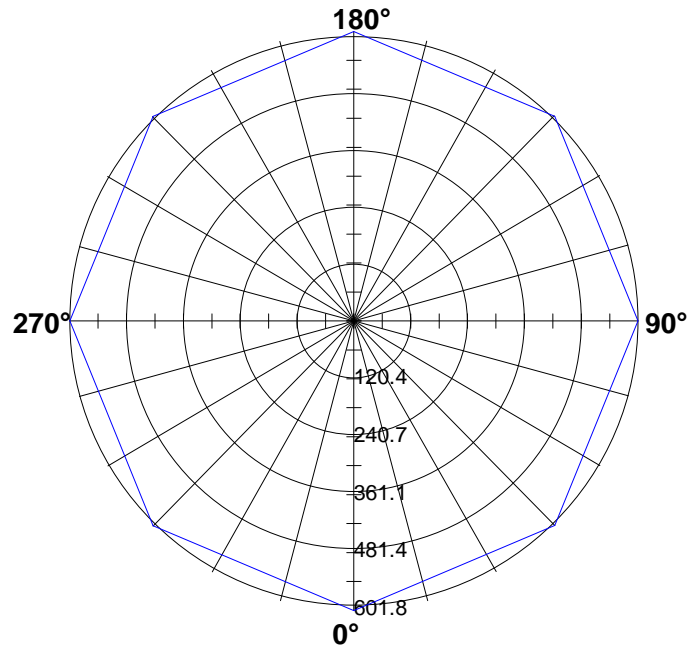
C\G	90.0
0.0	0.0
45.0	0.0
90.0	0.0
135.0	0.0
180.0	0.0
225.0	0.0
270.0	0.0
315.0	0.0
360.0	0.0

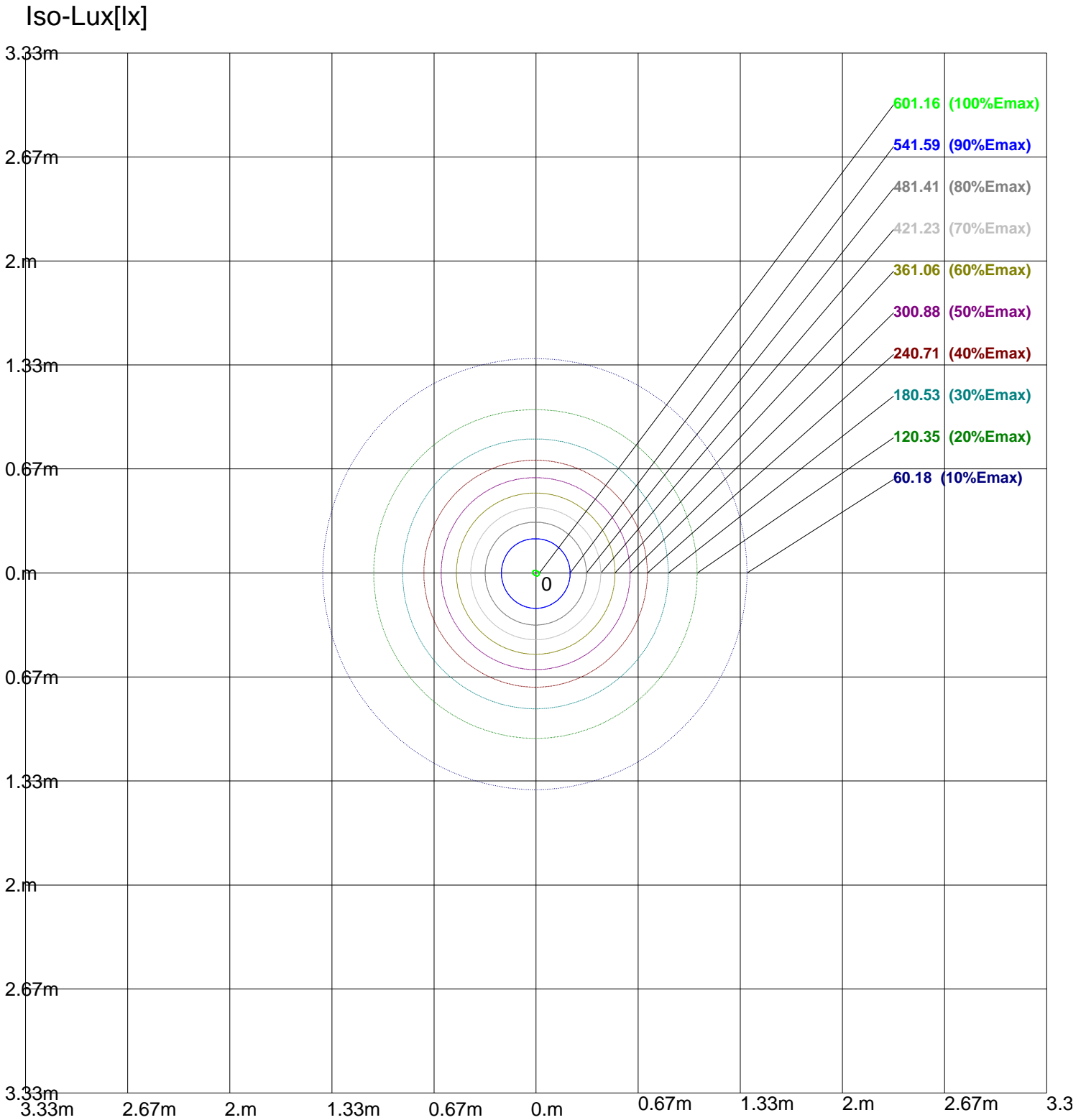
Light Distribution Curve [Unit: cd]

Luminaire



Max Plane Light Distribution Curve [Unit: cd]





Height: 1 m
Max Illuminance : 601.76lx

Luminance Limiting Curve

Diameter: mm

Length: 225mm

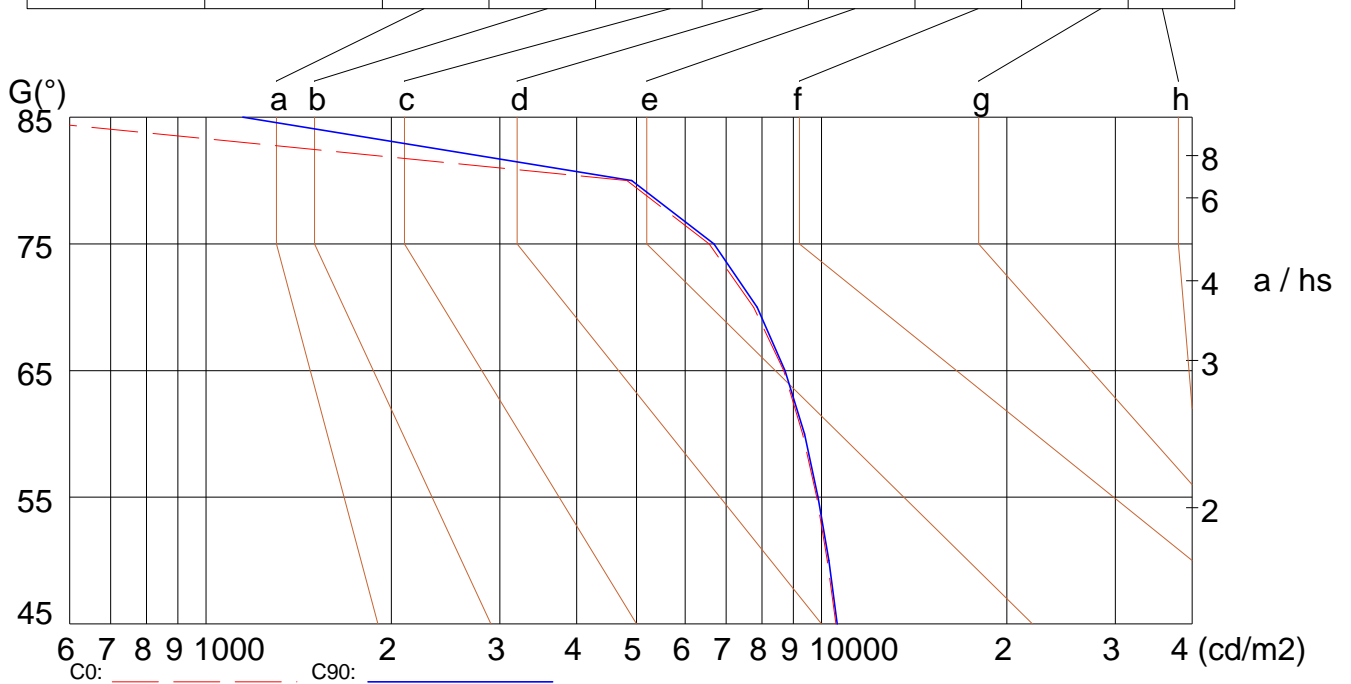
Width: 225mm

Height: 38mm

(cd/m²)

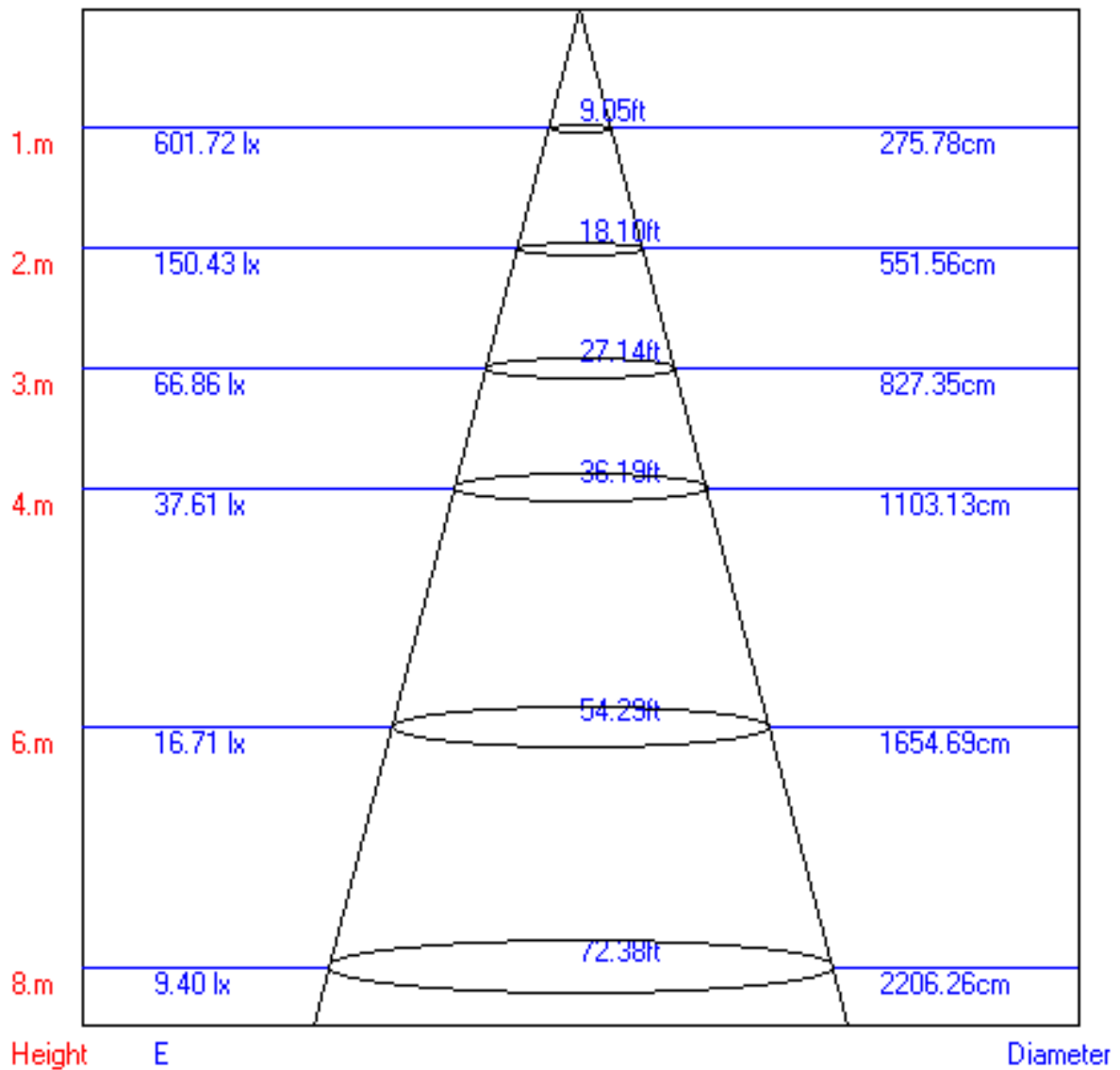
γ	45°	50°	55°	60°	65°	70°	75°	80°	85°
C0	10550	10213	9824	9315	8673	7754	6570	4823	0
C90	10599	10280	9866	9376	8721	7861	6683	4916	1148

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. Limiting Curve (C0/C90)

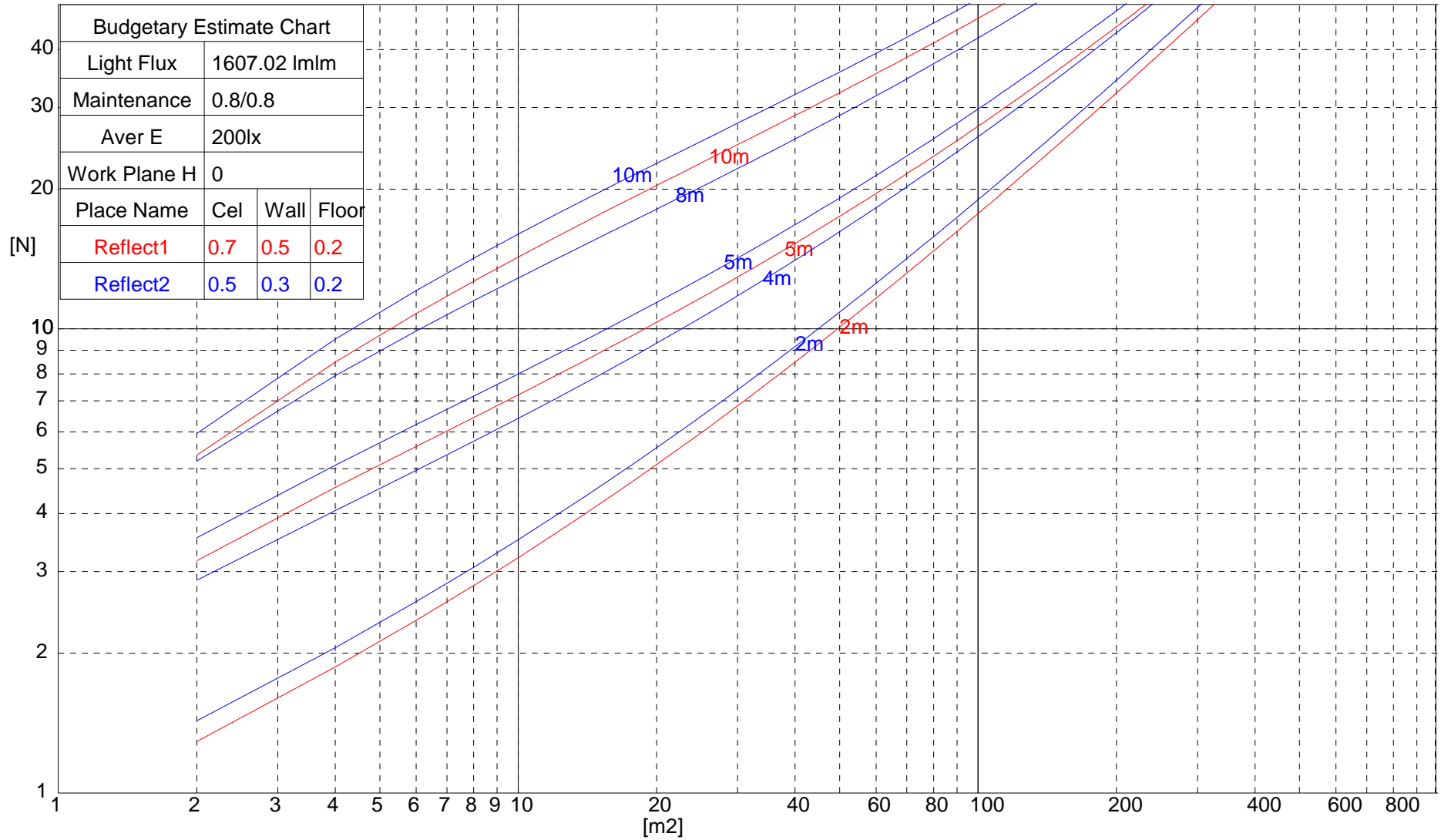
Lux-Distance Curve



Beam Angle:108.10°

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	COEFFICIENTS 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	1.06	1.04	1.02	1.04	1.02	1.01	1.00	0.98	0.96	0.96	0.93	0.91	0.89	0.87	0.85	0.80
2	0.90	0.88	0.86	0.89	0.86	0.84	0.87	0.84	0.81	0.84	0.80	0.77	0.79	0.75	0.71	0.67
3	0.77	0.74	0.73	0.77	0.74	0.71	0.76	0.72	0.68	0.74	0.69	0.65	0.70	0.65	0.61	0.56
4	0.67	0.64	0.62	0.67	0.63	0.61	0.67	0.62	0.58	0.65	0.60	0.56	0.63	0.57	0.52	0.48
5	0.59	0.56	0.54	0.59	0.55	0.53	0.59	0.54	0.51	0.59	0.53	0.48	0.57	0.51	0.46	0.42
6	0.52	0.49	0.47	0.52	0.49	0.46	0.53	0.48	0.44	0.53	0.47	0.42	0.52	0.45	0.40	0.37
7	0.46	0.43	0.42	0.47	0.43	0.41	0.48	0.43	0.39	0.48	0.42	0.38	0.48	0.41	0.36	0.33
8	0.41	0.39	0.37	0.42	0.39	0.37	0.43	0.39	0.35	0.44	0.38	0.34	0.44	0.37	0.32	0.29
9	0.37	0.35	0.34	0.38	0.35	0.33	0.40	0.35	0.32	0.40	0.35	0.30	0.41	0.34	0.29	0.26
10	0.34	0.32	0.31	0.35	0.32	0.30	0.36	0.32	0.29	0.37	0.32	0.28	0.38	0.31	0.26	0.24



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 X Y		Weft to light axis direction of observation					Direction of light axis parallel observation					
2H	2H	14.8	15.9	15.1	15.9	16.3	14.7	15.9	14.9	15.9	16.3	
	3H	16.2	17.4	16.7	17.7	18.0	16.2	17.4	16.5	17.9	18.0	
	4H	16.9	18.1	17.4	18.6	18.7	17.0	18.0	17.3	18.6	18.8	
	6H	17.5	18.5	18.0	18.9	19.0	17.3	18.3	17.8	18.8	19.1	
	8H	17.9	18.9	18.2	18.9	19.3	17.8	18.7	18.0	19.0	19.3	
	12H	18.0	18.8	18.2	19.3	19.5	17.8	18.6	18.0	19.2	19.5	
4H	2H	15.6	16.6	15.9	16.9	17.1	15.6	16.6	15.8	16.8	17.0	
	3H	17.5	18.4	17.8	18.3	18.7	17.3	18.2	17.5	18.4	18.8	
	4H	18.2	19.0	18.5	19.1	19.5	18.0	18.9	18.4	19.2	19.5	
	6H	18.8	19.5	19.2	19.8	20.1	18.8	19.4	19.0	19.7	20.1	
	8H	19.0	19.8	19.5	19.9	20.4	19.0	19.6	19.2	19.9	20.3	
	12H	19.3	19.9	19.7	20.2	20.4	19.2	19.7	19.6	20.2	20.5	
8H	4H	18.6	19.2	18.8	19.4	19.9	18.4	19.0	18.8	19.4	19.8	
	6H	19.4	19.8	19.7	20.2	20.7	19.2	19.9	19.7	20.2	20.6	
	8H	19.8	20.2	20.1	20.5	20.9	19.6	20.0	20.0	20.5	20.9	
	12H	19.9	20.5	20.4	20.7	21.3	19.9	20.4	20.2	20.7	21.1	
	12H	4H	18.6	19.1	18.9	19.5	19.9	18.4	19.0	18.8	19.6	19.9
		6H	19.6	20.0	19.9	20.2	20.6	19.3	19.8	19.8	20.2	20.7
8H		19.9	20.4	20.3	20.7	21.1	19.9	20.3	20.2	20.6	21.1	