

Luminaire Property

Luminaire: RH-CL3181 20W 3000K

Report NO.:

Test NO.:

Lamp:

Sum Lumens: 2167.47 lm

Number of Lamps: 1

Diameter: 165mm

Length: mm

Photometric Type: Type C

Voltage: 219.8 V

Current: 0.096 A

Power: 19.9 W

Power Factor: 0.938

Ballast Type:

Width: 165mm

Height: 125mm

Remark:

Photometric Results

Lumens: 2167.47 lm

Effective luminous flux: 2046.61 lm

Efficiency: 108.9181 lm/W

Central Intensity: 3757.152cd

Maximum Intensity: 3764.916cd

Beam Angle(10%): Left: -36.7 Right:38.6

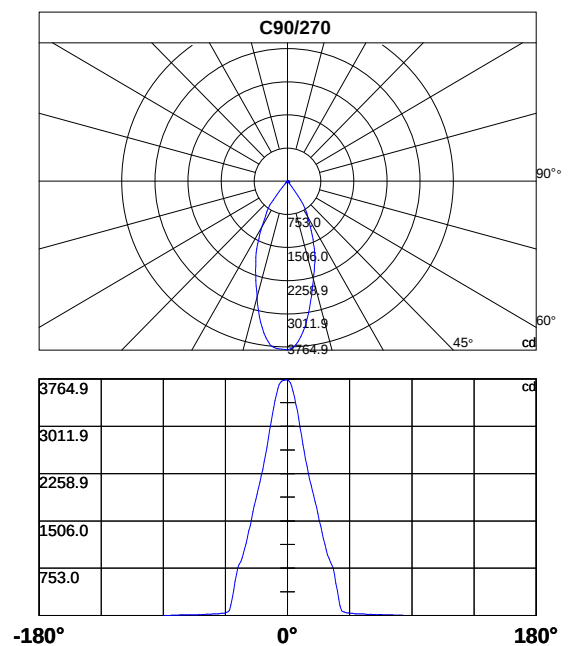
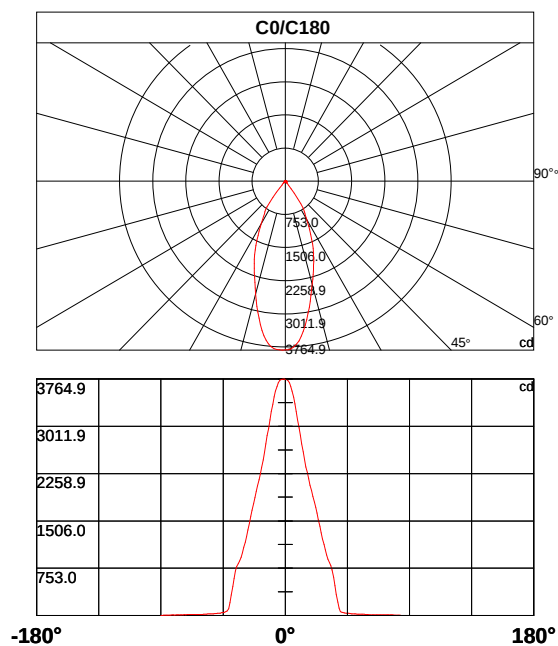
Angle of maximum intensity: C:135.0 G:1.0

Half Peak Side Angle(50%): Left: -20.1 Right:21.9

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	3757.2	3757.6	3738.1	3702.4	3641.5	3573.1	3473.5	3368.7	3247.6	3121.1
45.0	3757.2	3736.4	3703.1	3649.9	3571.5	3473.9	3363.5	3260.0	3132.2	2997.2
90.0	3757.2	3736.4	3703.1	3649.9	3571.5	3473.9	3363.5	3260.0	3132.2	2997.2
135.0	3757.2	3764.9	3760.2	3757.1	3742.7	3705.1	3643.4	3574.1	3479.6	3366.3
180.0	3757.2	3764.9	3760.2	3757.1	3742.7	3705.1	3643.4	3574.1	3479.6	3366.3
225.0	3757.2	3751.2	3748.6	3742.1	3735.1	3716.1	3680.2	3610.9	3525.4	3423.6
270.0	3757.2	3751.2	3748.6	3742.1	3735.1	3716.1	3680.2	3610.9	3525.4	3423.6
315.0	3757.2	3757.6	3738.1	3702.4	3641.5	3573.1	3473.5	3368.7	3247.6	3121.1
360.0	3757.2	3757.6	3738.1	3702.4	3641.5	3573.1	3473.5	3368.7	3247.6	3121.1

C\G	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0
0.0	2986.7	2869.9	2732.5	2604.4	2480.5	2364.6	2272.0	2173.6	2074.4	1986.3
45.0	2865.6	2729.2	2619.5	2493.6	2379.7	2269.8	2168.6	2074.0	1982.1	1905.4
90.0	2865.6	2729.2	2619.5	2493.6	2379.7	2269.8	2168.6	2074.0	1982.1	1905.4
135.0	3244.6	3113.5	2981.9	2864.7	2733.6	2600.9	2476.8	2359.4	2250.7	2161.8
180.0	3244.6	3113.5	2981.9	2864.7	2733.6	2600.9	2476.8	2359.4	2250.7	2161.8
225.0	3311.0	3207.1	3080.3	2947.1	2811.5	2681.9	2550.6	2446.1	2331.7	2226.3
270.0	3311.0	3207.1	3080.3	2947.1	2811.5	2681.9	2550.6	2446.1	2331.7	2226.3
315.0	2986.7	2869.9	2732.5	2604.4	2480.5	2364.6	2272.0	2173.6	2074.4	1986.3
360.0	2986.7	2869.9	2732.5	2604.4	2480.5	2364.6	2272.0	2173.6	2074.4	1986.3

C\G	20.0	21.0	22.0	23.0	24.0	25.0	26.0	27.0	28.0	29.0
0.0	1895.4	1803.3	1724.7	1630.1	1524.1	1421.0	1315.2	1217.4	1134.2	1046.4
45.0	1815.1	1720.9	1621.9	1512.9	1420.6	1320.2	1222.4	1132.2	1042.2	963.6
90.0	1815.1	1720.9	1621.9	1512.9	1420.6	1320.2	1222.4	1132.2	1042.2	963.6
135.0	2064.7	1973.4	1874.1	1780.4	1675.6	1581.6	1471.8	1362.0	1261.1	1164.7
180.0	2064.7	1973.4	1874.1	1780.4	1675.6	1581.6	1471.8	1362.0	1261.1	1164.7
225.0	2124.3	2022.6	1929.2	1845.8	1747.5	1648.4	1543.2	1433.2	1347.2	1247.2
270.0	2124.3	2022.6	1929.2	1845.8	1747.5	1648.4	1543.2	1433.2	1347.2	1247.2
315.0	1895.4	1803.3	1724.7	1630.1	1524.1	1421.0	1315.2	1217.4	1134.2	1046.4
360.0	1895.4	1803.3	1724.7	1630.1	1524.1	1421.0	1315.2	1217.4	1134.2	1046.4

C\G	30.0	31.0	32.0	33.0	34.0	35.0	36.0	37.0	38.0	39.0
0.0	962.5	896.9	842.3	794.8	724.5	607.7	475.0	336.3	215.4	115.9
45.0	905.9	850.8	808.8	751.9	645.0	510.6	392.9	265.3	152.9	78.4
90.0	905.9	850.8	808.8	751.9	645.0	510.6	392.9	265.3	152.9	78.4
135.0	1083.6	1000.2	926.1	866.5	822.5	778.7	706.8	592.5	462.7	324.8
180.0	1083.6	1000.2	926.1	866.5	822.5	778.7	706.8	592.5	462.7	324.8
225.0	1151.4	1062.7	983.6	913.1	855.1	813.3	762.8	661.9	538.4	399.9
270.0	1151.4	1062.7	983.6	913.1	855.1	813.3	762.8	661.9	538.4	399.9
315.0	962.5	896.9	842.3	794.8	724.5	607.7	475.0	336.3	215.4	115.9
360.0	962.5	896.9	842.3	794.8	724.5	607.7	475.0	336.3	215.4	115.9

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	64.1	52.5	44.0	41.6	35.1	32.5	33.3	28.1	26.1	24.4
45.0	61.2	55.3	46.0	42.0	40.7	35.1	32.9	33.3	31.6	27.0
90.0	61.2	55.3	46.0	42.0	40.7	35.1	32.9	33.3	31.6	27.0
135.0	201.3	108.7	70.8	59.9	53.2	44.2	43.1	37.7	34.4	32.9
180.0	201.3	108.7	70.8	59.9	53.2	44.2	43.1	37.7	34.4	32.9
225.0	289.3	168.8	86.9	58.2	51.2	42.3	37.9	36.8	34.0	31.4
270.0	289.3	168.8	86.9	58.2	51.2	42.3	37.9	36.8	34.0	31.4
315.0	64.1	52.5	44.0	41.6	35.1	32.5	33.3	28.1	26.1	24.4
360.0	64.1	52.5	44.0	41.6	35.1	32.5	33.3	28.1	26.1	24.4

C\G	50.0	51.0	52.0	53.0	54.0	55.0	56.0	57.0	58.0	59.0
0.0	23.3	21.9	20.5	19.8	20.9	17.6	19.2	18.7	15.2	14.6
45.0	25.7	27.0	25.5	24.2	22.9	21.8	18.3	17.6	16.6	15.7
90.0	25.7	27.0	25.5	24.2	22.9	21.8	18.3	17.6	16.6	15.7
135.0	30.3	29.0	26.8	25.3	26.8	22.2	24.0	20.0	21.6	20.7
180.0	30.3	29.0	26.8	25.3	26.8	22.2	24.0	20.0	21.6	20.7
225.0	26.8	25.1	22.9	25.1	23.1	19.6	20.7	17.4	19.2	18.1
270.0	26.8	25.1	22.9	25.1	23.1	19.6	20.7	17.4	19.2	18.1
315.0	23.3	21.9	20.5	19.8	20.9	17.6	19.2	18.7	15.2	14.6
360.0	23.3	21.9	20.5	19.8	20.9	17.6	19.2	18.7	15.2	14.6

C\G	60.0	61.0	62.0	63.0	64.0	65.0	66.0	67.0	68.0	69.0
0.0	13.7	12.8	12.5	12.2	11.7	11.1	10.2	10.9	10.8	10.7
45.0	17.8	16.8	16.3	15.9	15.2	12.4	14.4	14.2	14.2	11.3
90.0	17.8	16.8	16.3	15.9	15.2	12.4	14.4	14.2	14.2	11.3
135.0	16.8	16.6	15.7	17.2	14.2	16.1	15.5	15.0	14.9	14.8
180.0	16.8	16.6	15.7	17.2	14.2	16.1	15.5	15.0	14.9	14.8
225.0	14.6	13.7	13.2	12.6	13.7	11.6	11.1	10.0	9.6	9.2
270.0	14.6	13.7	13.2	12.6	13.7	11.6	11.1	10.0	9.6	9.2
315.0	13.7	12.8	12.5	12.2	11.7	11.1	10.2	10.9	10.8	10.7
360.0	13.7	12.8	12.5	12.2	11.7	11.1	10.2	10.9	10.8	10.7

C\G	70.0	71.0	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0
0.0	12.6	12.4	12.0	11.8	11.3	8.1	8.9	9.4	8.3	5.7
45.0	10.9	10.2	11.2	12.2	10.5	8.7	7.6	6.5	6.1	5.3
90.0	10.9	10.2	11.2	12.2	10.5	8.7	7.6	6.5	6.1	5.3
135.0	14.4	14.0	11.6	13.7	12.1	10.5	9.6	10.5	8.7	7.2
180.0	14.4	14.0	11.6	13.7	12.1	10.5	9.6	10.5	8.7	7.2
225.0	9.8	9.8	11.1	10.0	8.9	10.7	10.7	8.9	8.7	6.3
270.0	9.8	9.8	11.1	10.0	8.9	10.7	10.7	8.9	8.7	6.3
315.0	12.6	12.4	12.0	11.8	11.3	8.1	8.9	9.4	8.3	5.7
360.0	12.6	12.4	12.0	11.8	11.3	8.1	8.9	9.4	8.3	5.7

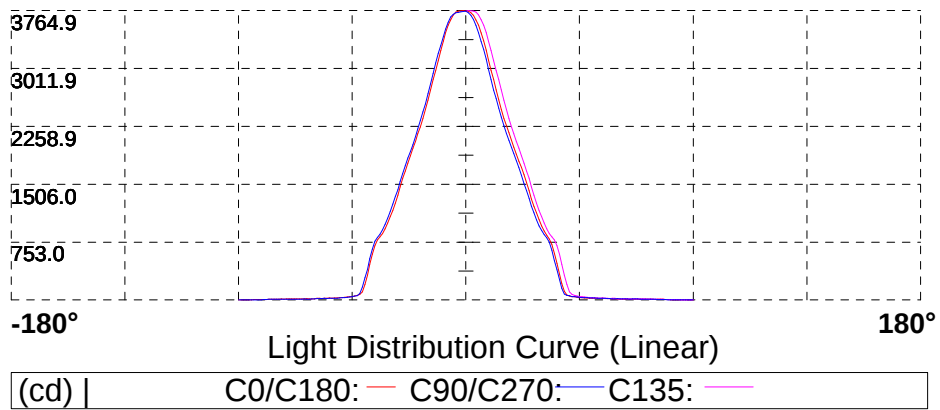
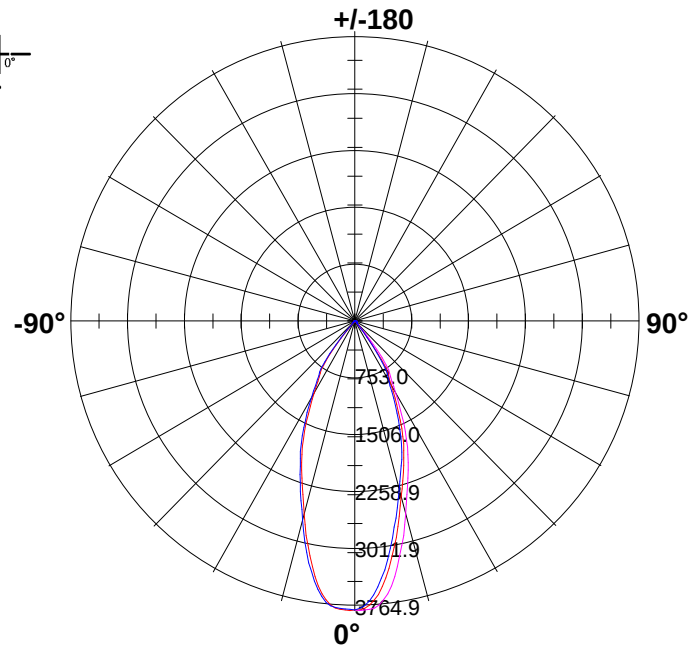
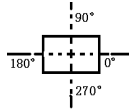
Photometric Data Table [cd]

C\G	80.0	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	4.8	3.9	3.9	3.9	1.5	1.2	0.9	0.9	1.3	1.5
45.0	4.5	4.4	4.3	3.9	1.5	0.7	0.9	1.1	1.1	1.1
90.0	4.5	4.4	4.3	3.9	1.5	0.7	0.9	1.1	1.1	1.1
135.0	6.7	8.1	7.4	6.3	5.4	4.5	3.9	3.3	2.6	1.9
180.0	6.7	8.1	7.4	6.3	5.4	4.5	3.9	3.3	2.6	1.9
225.0	5.0	4.3	3.7	3.2	2.8	1.5	0.5	0.6	0.7	0.0
270.0	5.0	4.3	3.7	3.2	2.8	1.5	0.5	0.6	0.7	0.0
315.0	4.8	3.9	3.9	3.9	1.5	1.2	0.9	0.9	1.3	1.5
360.0	4.8	3.9	3.9	3.9	1.5	1.2	0.9	0.9	1.3	1.5

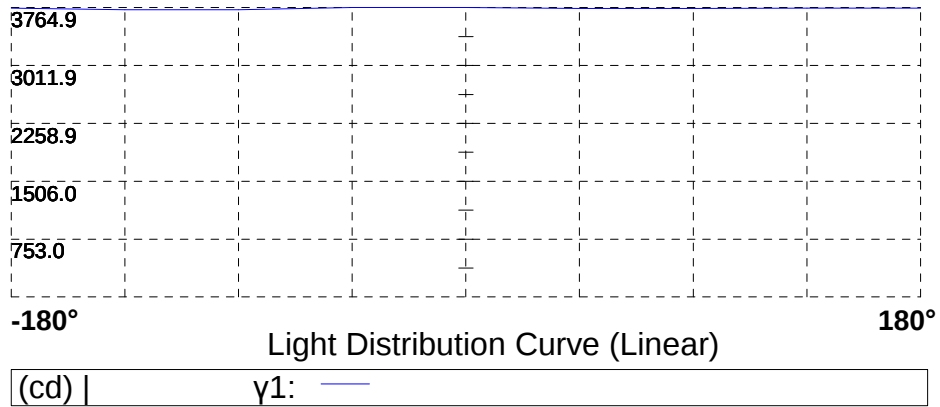
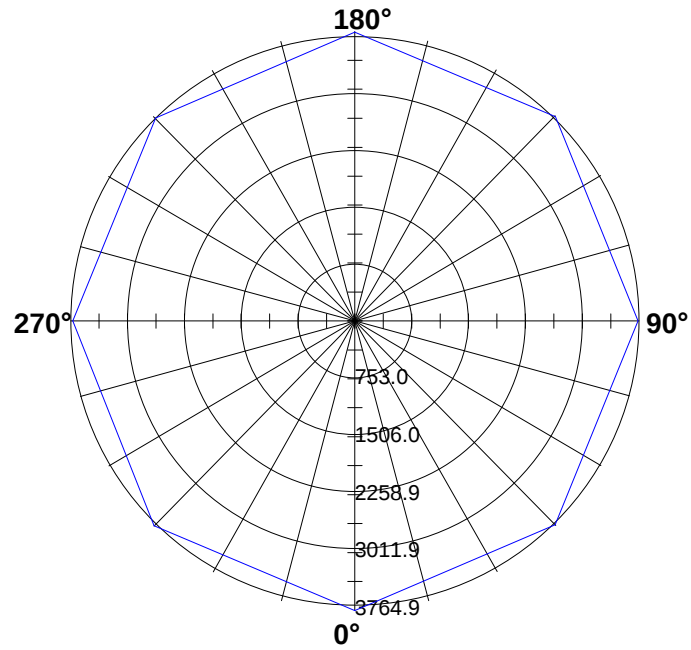
C\G	90.0
0.0	1.7
45.0	1.1
90.0	1.1
135.0	1.7
180.0	1.7
225.0	0.0
270.0	0.0
315.0	1.7
360.0	1.7

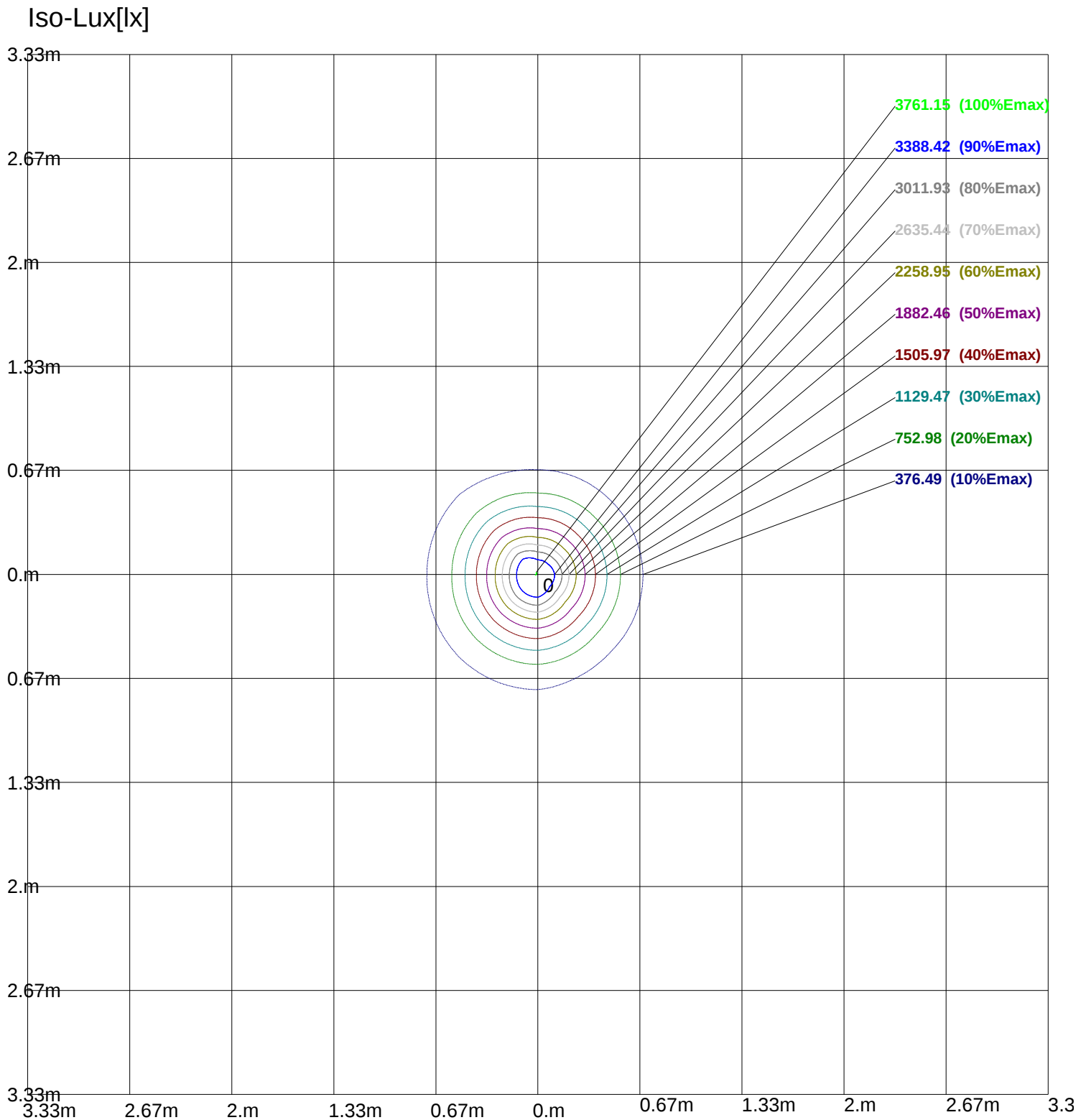
Light Distribution Curve [Unit: cd]

Luminaire



Max Plane Light Distribution Curve [Unit: cd]





Height: 1 m
Max Illuminance : 3764.92lx

Luminance Limiting Curve

Diameter: 165mm

Length: mm

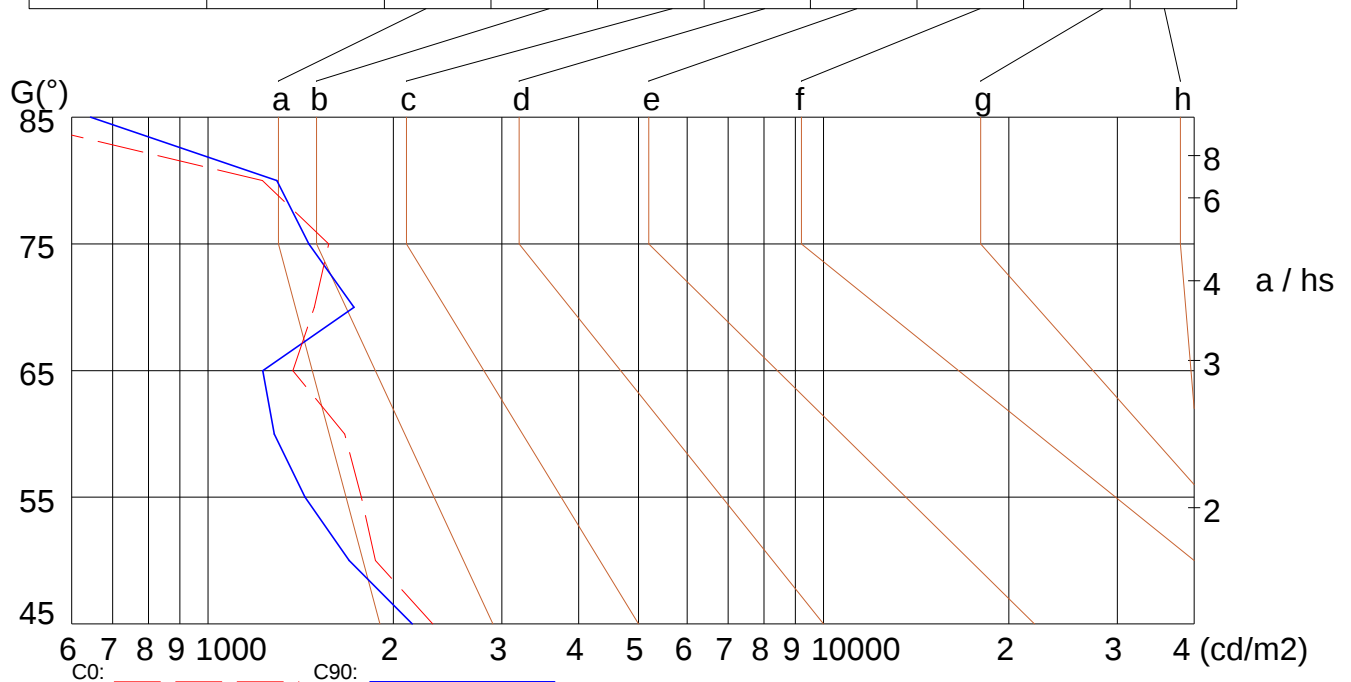
Width: 165mm

Height: 125mm

(cd/m²)

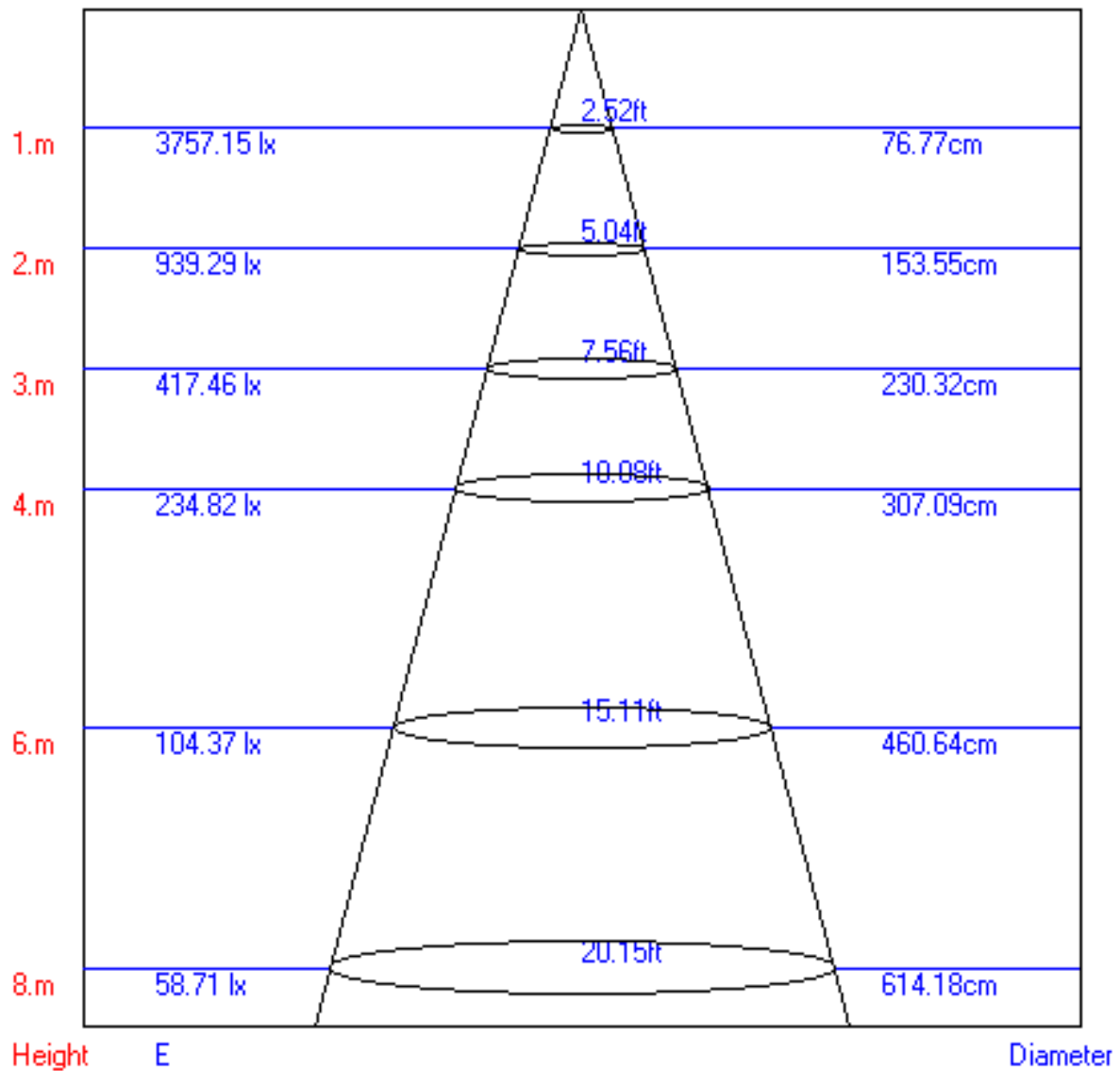
γ	45°	50°	55°	60°	65°	70°	75°	80°	85°
C0	2318	1869	1774	1667	1374	1488	1569	1224	356
C90	2145	1695	1437	1280	1227	1725	1458	1293	644

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)

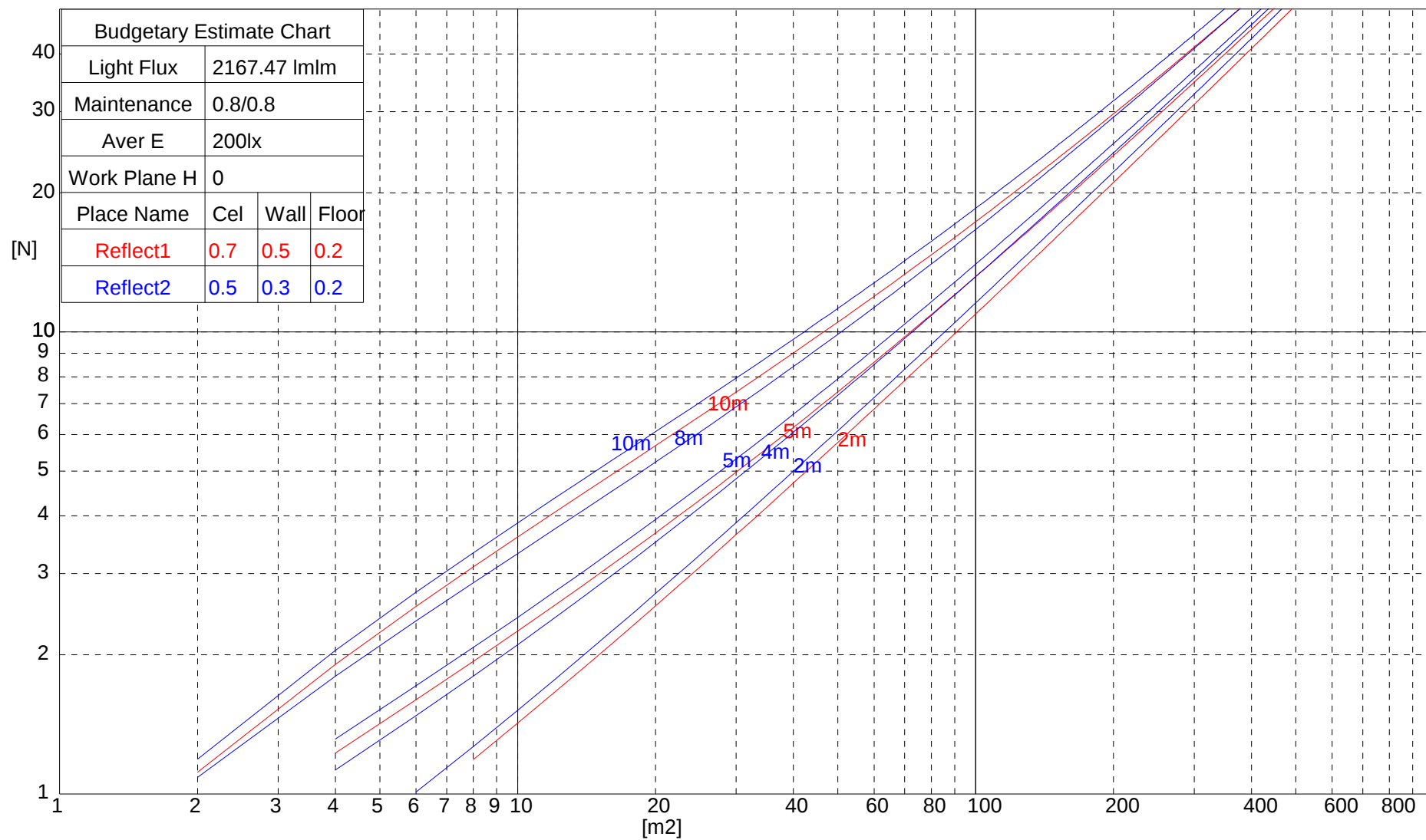
Lux-Distance Curve



Beam Angle:42.00°

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	1.15	1.14	1.13	1.13	1.12	1.11	1.08	1.07	1.06	1.03	1.02	1.01	0.96	0.94	0.93	0.88
2	1.08	1.07	1.06	1.06	1.05	1.04	1.02	1.01	0.99	0.98	0.96	0.94	0.91	0.89	0.87	0.83
3	1.01	1.00	0.99	1.00	0.98	0.97	0.97	0.94	0.93	0.92	0.90	0.88	0.87	0.85	0.82	0.78
4	0.96	0.94	0.93	0.94	0.92	0.91	0.91	0.89	0.87	0.88	0.85	0.82	0.83	0.80	0.77	0.73
5	0.90	0.89	0.88	0.89	0.87	0.86	0.86	0.84	0.82	0.83	0.80	0.77	0.80	0.76	0.73	0.69
6	0.85	0.84	0.83	0.84	0.82	0.81	0.82	0.79	0.77	0.79	0.76	0.73	0.76	0.72	0.69	0.65
7	0.81	0.79	0.78	0.80	0.78	0.76	0.78	0.75	0.73	0.75	0.72	0.69	0.73	0.68	0.65	0.61
8	0.76	0.75	0.74	0.76	0.74	0.72	0.74	0.71	0.69	0.72	0.68	0.65	0.69	0.65	0.62	0.58
9	0.73	0.71	0.70	0.72	0.70	0.69	0.70	0.67	0.65	0.68	0.65	0.62	0.66	0.62	0.59	0.55
10	0.69	0.68	0.67	0.68	0.67	0.65	0.67	0.64	0.62	0.65	0.62	0.59	0.63	0.59	0.56	0.53



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	13.1	14.1	13.4	14.1	14.5	13.0	14.1	13.2	14.1	14.5
	3H	14.4	15.4	14.8	15.7	15.9	14.4	15.4	14.6	15.9	16.0
	4H	15.0	16.1	15.4	16.5	16.6	15.1	16.0	15.3	16.5	16.7
	6H	15.5	16.4	15.9	16.8	16.9	15.4	16.3	15.8	16.7	17.0
	8H	15.9	16.8	16.1	16.8	17.1	15.8	16.6	15.9	16.9	17.2
4H	12H	16.0	16.7	16.1	17.1	17.3	15.8	16.5	16.0	17.0	17.4
	2H	13.9	14.8	14.1	15.0	15.2	13.9	14.7	14.0	14.9	15.1
	3H	15.6	16.3	15.8	16.3	16.6	15.4	16.2	15.5	16.3	16.7
	4H	16.2	16.8	16.4	16.9	17.4	16.0	16.7	16.3	17.1	17.3
	6H	16.7	17.3	17.1	17.5	17.8	16.7	17.2	16.9	17.5	17.8
8H	8H	16.8	17.5	17.3	17.7	18.1	16.9	17.4	17.1	17.7	18.0
	12H	17.1	17.6	17.5	18.0	18.1	17.1	17.5	17.4	17.9	18.2
	4H	16.5	17.0	16.7	17.2	17.7	16.3	16.9	16.6	17.2	17.6
	6H	17.2	17.6	17.5	18.0	18.3	17.0	17.6	17.5	17.9	18.3
	8H	17.5	18.0	17.9	18.2	18.5	17.4	17.7	17.7	18.2	18.6
12H	12H	17.7	18.2	18.1	18.4	18.9	17.7	18.1	18.0	18.3	18.7
	4H	16.5	17.0	16.8	17.3	17.7	16.3	16.9	16.6	17.4	17.7
	6H	17.4	17.7	17.6	18.0	18.3	17.2	17.6	17.6	17.9	18.3
	8H	17.6	18.1	18.0	18.4	18.7	17.6	18.0	17.9	18.3	18.8