Luminaire Property

Luminaire: RH-MRD20-20W 4000K

Report NO.:
Test NO.: HLB221123
Lamp:
Sum Lumens: 2360.58 lm
Number of Lamps: 1
Diameter: 240mm
Length: mm
Photometric Type: Type C

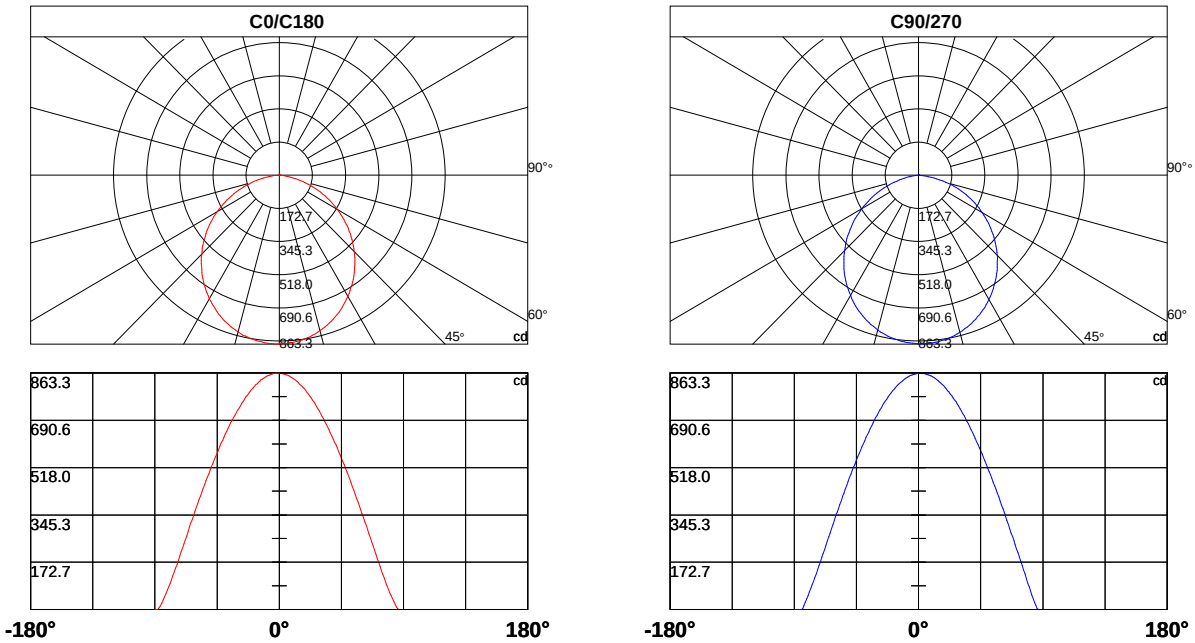
Voltage: 219.9 V
Current: 0.089 A
Power: 19.1 W
Power Factor: 0.968
Ballast Type: DL-20H-C500-LAC 500mA
Width: 240mm
Height: 35mm
Remark: 0.5W SMD2835 9B12C

Photometric Results

Lumens: 2360.58 lm
Efficiency: 123.5906 lm/W
Central Intensity: 862.55cd
Maximum Intensity: 863.255cd

Beam Angle(10%): Left: -79.1 Right:78.6

Angle of maximum intensity: C:135.0 G:1.0
Half Peak Side Angle(50%): Left: -55.2 Right:54.8
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	862.6	861.4	861.8	859.8	859.3	857.1	855.5	853.1	850.2	847.3
45.0	862.6	861.9	862.4	861.1	861.7	859.9	857.9	857.0	854.4	852.7
90.0	862.6	861.9	862.4	861.1	861.7	859.9	857.9	857.0	854.4	852.7
135.0	862.6	863.3	863.0	862.1	860.7	860.2	857.3	855.3	854.2	851.3
180.0	862.6	863.3	863.0	862.1	860.7	860.2	857.3	855.3	854.2	851.3
225.0	862.6	861.1	859.9	858.7	857.8	855.3	854.1	850.8	848.1	845.1
270.0	862.6	861.1	859.9	858.7	857.8	855.3	854.1	850.8	848.1	845.1
315.0	862.6	861.4	861.8	859.8	859.3	857.1	855.5	853.1	850.2	847.3
360.0	862.6	861.4	861.8	859.8	859.3	857.1	855.5	853.1	850.2	847.3

C\G	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0
0.0	843.7	840.4	836.6	832.5	827.6	822.0	816.7	812.6	807.0	800.0
45.0	850.1	847.0	843.4	840.0	835.9	831.1	827.6	821.9	817.7	811.5
90.0	850.1	847.0	843.4	840.0	835.9	831.1	827.6	821.9	817.7	811.5
135.0	848.7	845.1	841.6	838.7	833.6	829.7	823.6	819.7	814.6	808.6
180.0	848.7	845.1	841.6	838.7	833.6	829.7	823.6	819.7	814.6	808.6
225.0	841.2	838.3	833.0	828.8	825.1	819.7	814.2	808.0	802.4	796.4
270.0	841.2	838.3	833.0	828.8	825.1	819.7	814.2	808.0	802.4	796.4
315.0	843.7	840.4	836.6	832.5	827.6	822.0	816.7	812.6	807.0	800.0
360.0	843.7	840.4	836.6	832.5	827.6	822.0	816.7	812.6	807.0	800.0

C\G	20.0	21.0	22.0	23.0	24.0	25.0	26.0	27.0	28.0	29.0
0.0	793.7	786.5	779.6	773.3	766.0	758.0	749.9	741.3	731.8	723.9
45.0	806.2	798.6	794.5	786.5	780.5	772.6	765.7	759.2	750.2	742.8
90.0	806.2	798.6	794.5	786.5	780.5	772.6	765.7	759.2	750.2	742.8
135.0	803.0	796.4	790.1	782.5	776.4	769.1	760.9	753.1	745.0	736.2
180.0	803.0	796.4	790.1	782.5	776.4	769.1	760.9	753.1	745.0	736.2
225.0	790.1	783.0	775.9	768.3	760.9	754.0	745.4	736.7	728.1	718.9
270.0	790.1	783.0	775.9	768.3	760.9	754.0	745.4	736.7	728.1	718.9
315.0	793.7	786.5	779.6	773.3	766.0	758.0	749.9	741.3	731.8	723.9
360.0	793.7	786.5	779.6	773.3	766.0	758.0	749.9	741.3	731.8	723.9

C\G	30.0	31.0	32.0	33.0	34.0	35.0	36.0	37.0	38.0	39.0
0.0	715.3	705.2	696.4	685.4	677.3	666.0	656.1	644.8	634.0	622.9
45.0	732.4	724.1	715.2	706.8	697.5	687.2	677.3	666.9	656.2	645.9
90.0	732.4	724.1	715.2	706.8	697.5	687.2	677.3	666.9	656.2	645.9
135.0	728.4	719.5	710.1	700.9	690.9	682.4	672.2	661.6	650.6	640.2
180.0	728.4	719.5	710.1	700.9	690.9	682.4	672.2	661.6	650.6	640.2
225.0	709.2	701.3	691.0	681.3	670.6	660.2	648.8	639.4	629.0	616.5
270.0	709.2	701.3	691.0	681.3	670.6	660.2	648.8	639.4	629.0	616.5
315.0	715.3	705.2	696.4	685.4	677.3	666.0	656.1	644.8	634.0	622.9
360.0	715.3	705.2	696.4	685.4	677.3	666.0	656.1	644.8	634.0	622.9

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	610.9	601.4	589.5	577.1	564.4	551.9	541.0	527.6	515.5	501.9
45.0	636.1	625.0	612.7	601.8	591.5	579.5	567.7	554.5	543.5	529.8
90.0	636.1	625.0	612.7	601.8	591.5	579.5	567.7	554.5	543.5	529.8
135.0	628.3	617.5	607.5	595.2	583.5	570.6	558.5	548.0	535.3	522.3
180.0	628.3	617.5	607.5	595.2	583.5	570.6	558.5	548.0	535.3	522.3
225.0	605.2	593.2	581.3	570.7	557.5	545.7	532.3	519.7	508.4	494.5
270.0	605.2	593.2	581.3	570.7	557.5	545.7	532.3	519.7	508.4	494.5
315.0	610.9	601.4	589.5	577.1	564.4	551.9	541.0	527.6	515.5	501.9
360.0	610.9	601.4	589.5	577.1	564.4	551.9	541.0	527.6	515.5	501.9

C\G	50.0	51.0	52.0	53.0	54.0	55.0	56.0	57.0	58.0	59.0
0.0	488.5	476.4	463.2	449.1	434.7	421.0	406.4	392.4	378.8	364.8
45.0	516.9	505.3	492.1	478.6	464.9	451.4	439.5	425.3	411.0	396.4
90.0	516.9	505.3	492.1	478.6	464.9	451.4	439.5	425.3	411.0	396.4
135.0	509.1	495.4	482.7	470.9	456.8	442.7	429.1	414.5	402.3	387.1
180.0	509.1	495.4	482.7	470.9	456.8	442.7	429.1	414.5	402.3	387.1
225.0	481.2	466.7	453.3	439.5	424.4	413.1	397.7	383.4	368.3	355.3
270.0	481.2	466.7	453.3	439.5	424.4	413.1	397.7	383.4	368.3	355.3
315.0	488.5	476.4	463.2	449.1	434.7	421.0	406.4	392.4	378.8	364.8
360.0	488.5	476.4	463.2	449.1	434.7	421.0	406.4	392.4	378.8	364.8

C\G	60.0	61.0	62.0	63.0	64.0	65.0	66.0	67.0	68.0	69.0
0.0	349.5	335.1	319.6	306.2	291.3	276.0	260.6	244.8	232.2	214.5
45.0	382.6	367.5	355.3	339.8	325.1	309.9	294.7	279.6	266.9	252.0
90.0	382.6	367.5	355.3	339.8	325.1	309.9	294.7	279.6	266.9	252.0
135.0	373.4	358.0	342.8	328.0	315.0	299.9	284.3	269.2	254.1	238.8
180.0	373.4	358.0	342.8	328.0	315.0	299.9	284.3	269.2	254.1	238.8
225.0	341.3	325.2	310.8	294.9	279.4	266.3	250.2	235.2	219.7	205.0
270.0	341.3	325.2	310.8	294.9	279.4	266.3	250.2	235.2	219.7	205.0
315.0	349.5	335.1	319.6	306.2	291.3	276.0	260.6	244.8	232.2	214.5
360.0	349.5	335.1	319.6	306.2	291.3	276.0	260.6	244.8	232.2	214.5

C\G	70.0	71.0	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0
0.0	201.7	186.0	170.6	156.3	140.8	128.7	114.7	100.8	87.4	73.7
45.0	236.6	220.9	206.2	192.6	177.4	161.0	144.9	129.1	112.6	96.6
90.0	236.6	220.9	206.2	192.6	177.4	161.0	144.9	129.1	112.6	96.6
135.0	225.1	209.6	194.7	179.7	164.5	151.2	137.4	122.6	108.3	94.4
180.0	225.1	209.6	194.7	179.7	164.5	151.2	137.4	122.6	108.3	94.4
225.0	191.5	175.8	160.7	146.3	131.5	116.7	103.2	91.4	77.7	63.7
270.0	191.5	175.8	160.7	146.3	131.5	116.7	103.2	91.4	77.7	63.7
315.0	201.7	186.0	170.6	156.3	140.8	128.7	114.7	100.8	87.4	73.7
360.0	201.7	186.0	170.6	156.3	140.8	128.7	114.7	100.8	87.4	73.7

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	61.3	50.8	40.1	28.5	18.4	9.0	1.5	0.0	0.0	0.0
45.0	82.7	67.8	52.1	37.6	24.2	13.5	2.6	0.0	0.0	0.0
90.0	82.7	67.8	52.1	37.6	24.2	13.5	2.6	0.0	0.0	0.0
135.0	81.9	70.2	57.7	45.1	34.2	23.2	12.7	5.0	0.0	0.0
180.0	81.9	70.2	57.7	45.1	34.2	23.2	12.7	5.0	0.0	0.0
225.0	50.4	39.9	25.8	13.8	2.5	0.0	0.0	0.0	0.0	0.0
270.0	50.4	39.9	25.8	13.8	2.5	0.0	0.0	0.0	0.0	0.0
315.0	61.3	50.8	40.1	28.5	18.4	9.0	1.5	0.0	0.0	0.0
360.0	61.3	50.8	40.1	28.5	18.4	9.0	1.5	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

Zonal Flux Distribution

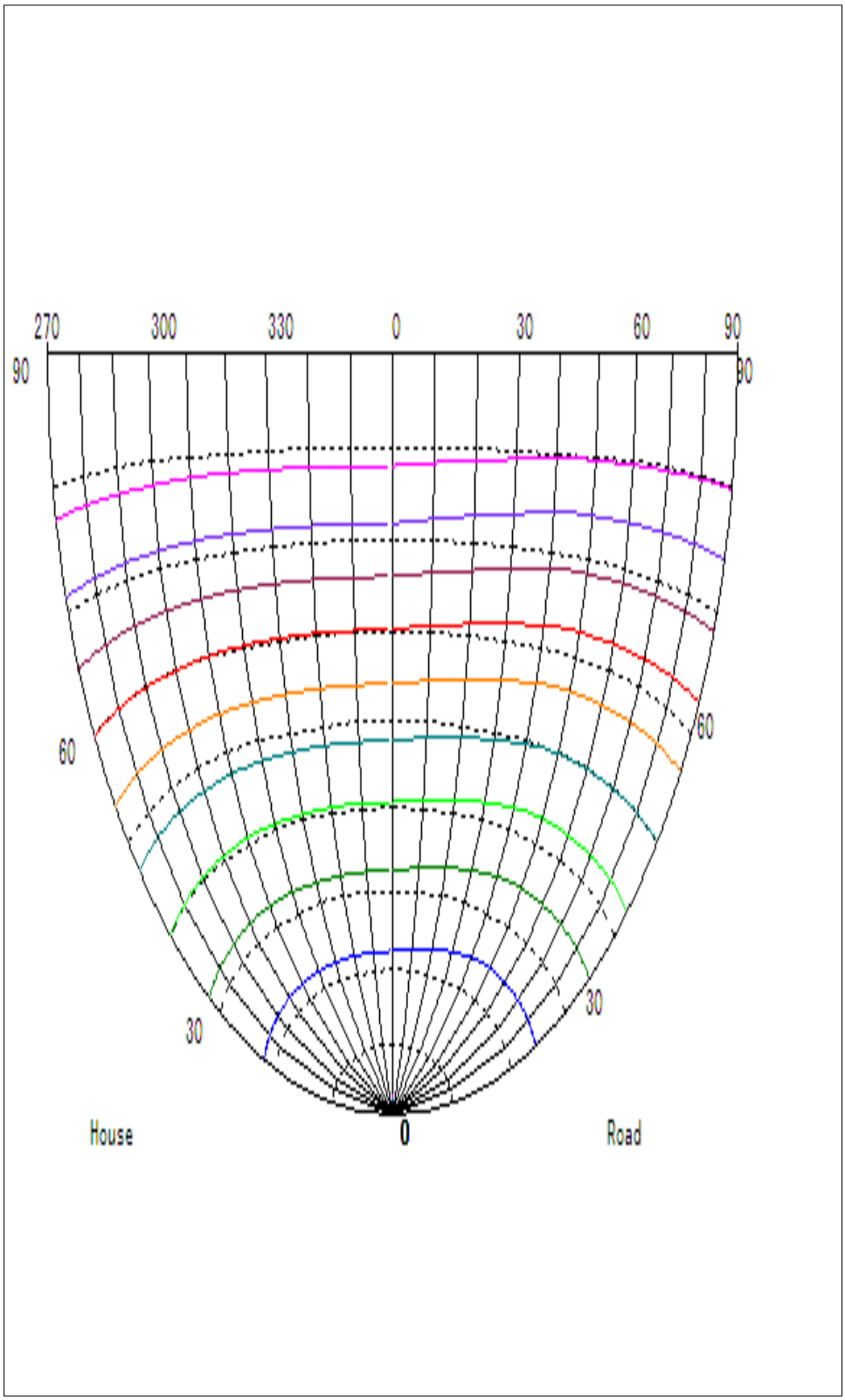
Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Flux [lm]	Zonal Flux [%]	Sum Flux [%]
0	862.55	0.00	0.00	0.00	0.00
1	861.89	0.83	0.83	0.03	0.03
2	861.78	2.47	3.30	0.10	0.14
3	860.39	4.12	7.42	0.17	0.31
4	859.89	5.76	13.18	0.24	0.56
5	858.14	7.39	20.57	0.31	0.87
6	856.17	9.01	29.58	0.38	1.25
7	854.04	10.62	40.19	0.45	1.70
8	851.71	12.21	52.40	0.52	2.22
9	849.11	13.78	66.18	0.58	2.80
10	845.92	15.34	81.52	0.65	3.45
11	842.69	16.87	98.40	0.71	4.17
12	838.65	18.38	116.78	0.78	4.95
13	835.02	19.86	136.64	0.84	5.79
14	830.56	21.32	157.96	0.90	6.69
15	825.65	22.74	180.69	0.96	7.65
16	820.53	24.12	204.82	1.02	8.68
17	815.54	25.48	230.29	1.08	9.76
18	810.43	26.81	257.10	1.14	10.89
19	804.12	28.09	285.19	1.19	12.08
20	798.27	29.33	314.52	1.24	13.32
21	791.13	30.52	345.04	1.29	14.62
22	785.04	31.67	376.71	1.34	15.96
23	777.68	32.79	409.50	1.39	17.35
24	770.97	33.86	443.36	1.43	18.78
25	763.43	34.89	478.25	1.48	20.26
26	755.46	35.85	514.10	1.52	21.78
27	747.58	36.77	550.88	1.56	23.34
28	738.78	37.63	588.51	1.59	24.93
29	730.46	38.44	626.95	1.63	26.56
30	721.30	39.20	666.15	1.66	28.22
31	712.55	39.90	706.05	1.69	29.91
32	703.18	40.56	746.61	1.72	31.63
33	693.62	41.15	787.76	1.74	33.37
34	684.08	41.69	829.45	1.77	35.14
35	673.96	42.18	871.62	1.79	36.92
36	663.58	42.59	914.21	1.80	38.73
37	653.18	42.95	957.16	1.82	40.55
38	642.44	43.25	1000.40	1.83	42.38
39	631.38	43.48	1043.88	1.84	44.22
40	620.12	43.65	1087.53	1.85	46.07

Zonal Flux Distribution

Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Flux [lm]	Zonal Flux [%]	Sum Flux [%]
41	609.27	43.78	1131.31	1.85	47.93
42	597.74	43.85	1175.16	1.86	49.78
43	586.17	43.86	1219.02	1.86	51.64
44	574.21	43.80	1262.81	1.86	53.50
45	561.94	43.66	1306.48	1.85	55.35
46	549.86	43.48	1349.96	1.84	57.19
47	537.44	43.24	1393.20	1.83	59.02
48	525.67	42.98	1436.18	1.82	60.84
49	512.09	42.62	1478.79	1.81	62.65
50	498.92	42.15	1520.95	1.79	64.43
51	485.98	41.67	1562.62	1.77	66.20
52	472.81	41.14	1603.76	1.74	67.94
53	459.53	40.56	1644.31	1.72	69.66
54	445.17	39.88	1684.19	1.69	71.35
55	432.05	39.16	1723.35	1.66	73.01
56	418.17	38.42	1761.77	1.63	74.63
57	403.89	37.59	1799.35	1.59	76.23
58	390.09	36.72	1836.07	1.56	77.78
59	375.88	35.81	1871.88	1.52	79.30
60	361.70	34.85	1906.73	1.48	80.77
61	346.47	33.80	1940.52	1.43	82.21
62	332.13	32.70	1973.22	1.39	83.59
63	317.20	31.58	2004.80	1.34	84.93
64	302.70	30.42	2035.22	1.29	86.22
65	288.02	29.23	2064.45	1.24	87.46
66	272.47	27.97	2092.42	1.18	88.64
67	257.18	26.63	2119.05	1.13	89.77
68	243.23	25.35	2144.40	1.07	90.84
69	227.57	24.02	2168.42	1.02	91.86
70	213.73	22.66	2191.08	0.96	92.82
71	198.06	21.28	2212.37	0.90	93.72
72	183.07	19.82	2232.18	0.84	94.56
73	168.73	18.40	2250.58	0.78	95.34
74	153.58	16.94	2267.52	0.72	96.06
75	139.39	15.48	2283.00	0.66	96.71
76	125.05	14.04	2297.04	0.59	97.31
77	110.97	12.58	2309.62	0.53	97.84
78	96.48	11.11	2320.73	0.47	98.31
79	82.10	9.60	2330.32	0.41	98.72
80	69.07	8.15	2338.47	0.35	99.06
81	57.17	6.83	2345.30	0.29	99.35

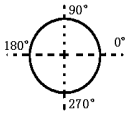
Zonal Flux Distribution

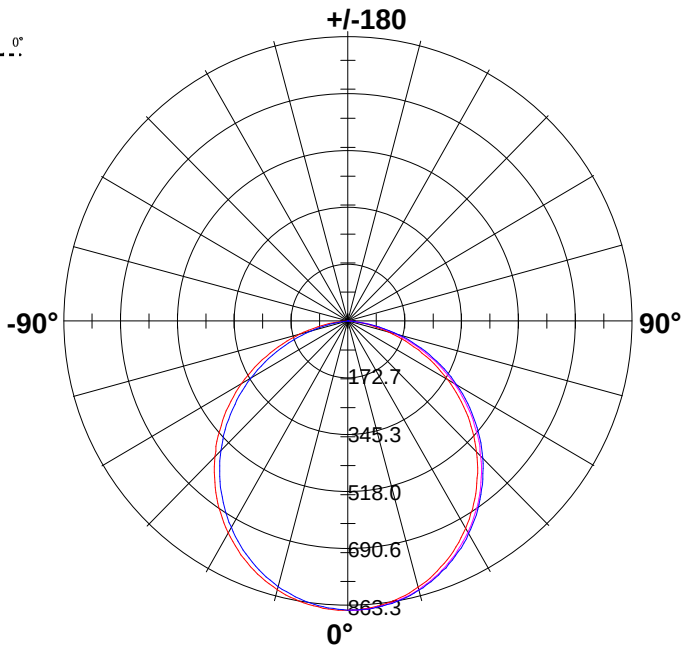
Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Flux [lm]	Zonal Flux [%]	Sum Flux [%]
82	43.93	5.48	2350.78	0.23	99.58
83	31.25	4.09	2354.87	0.17	99.76
84	19.82	2.78	2357.65	0.12	99.88
85	11.44	1.71	2359.36	0.07	99.95
86	4.20	0.86	2360.21	0.04	99.98
87	1.25	0.30	2360.51	0.01	100.00
88	0.00	0.07	2360.58	0.00	100.00
89	0.00	0.00	2360.58	0.00	100.00
90	0.00	0.00	2360.58	0.00	100.00

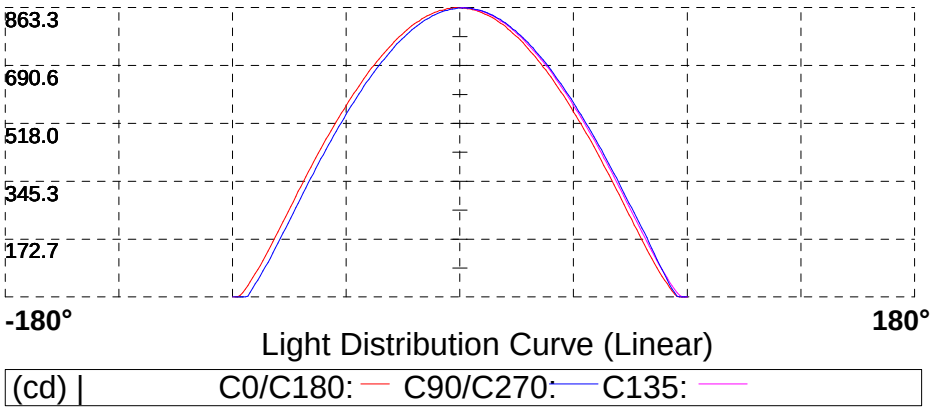

270
300
330
0
30
60
90
90
90
60
60
30
30
House
0
Road
86.3255 cd
172.651 cd
258.9765 cd
345.302 cd
431.6275 cd
517.953 cd
604.2785 cd
690.604 cd
776.9295 cd
863.255 cd

Light Distribution Curve [Unit: cd]

Luminaire



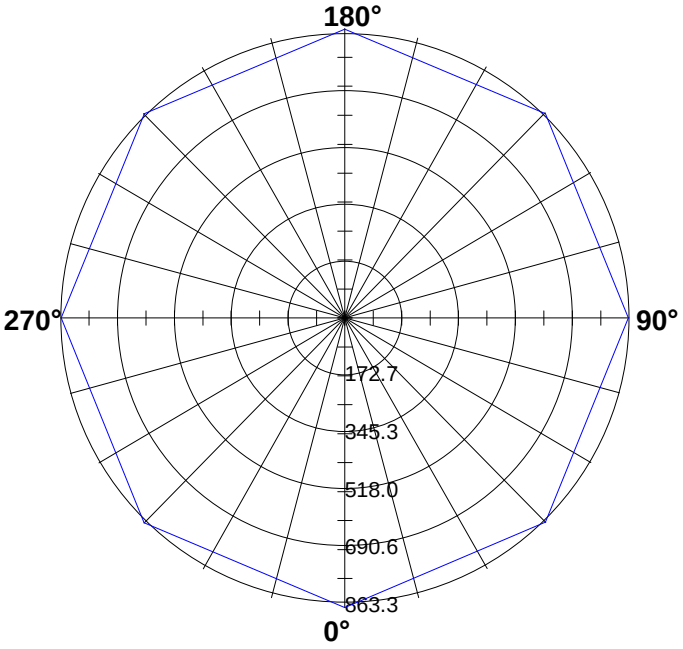


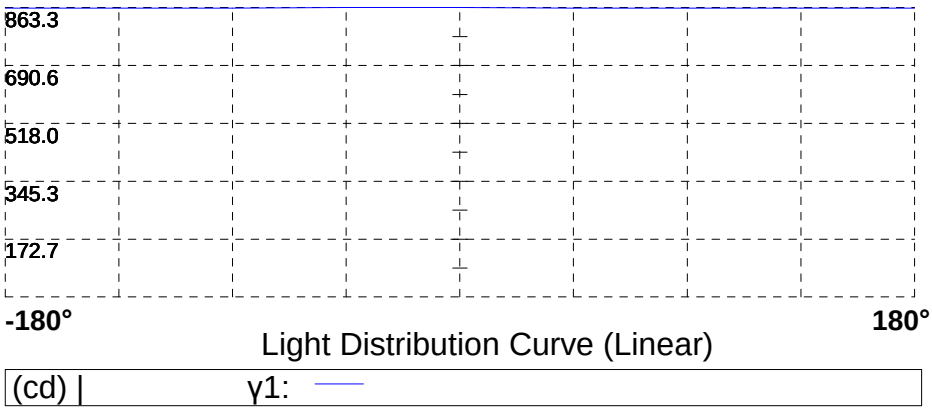


Light Distribution Curve (Linear)

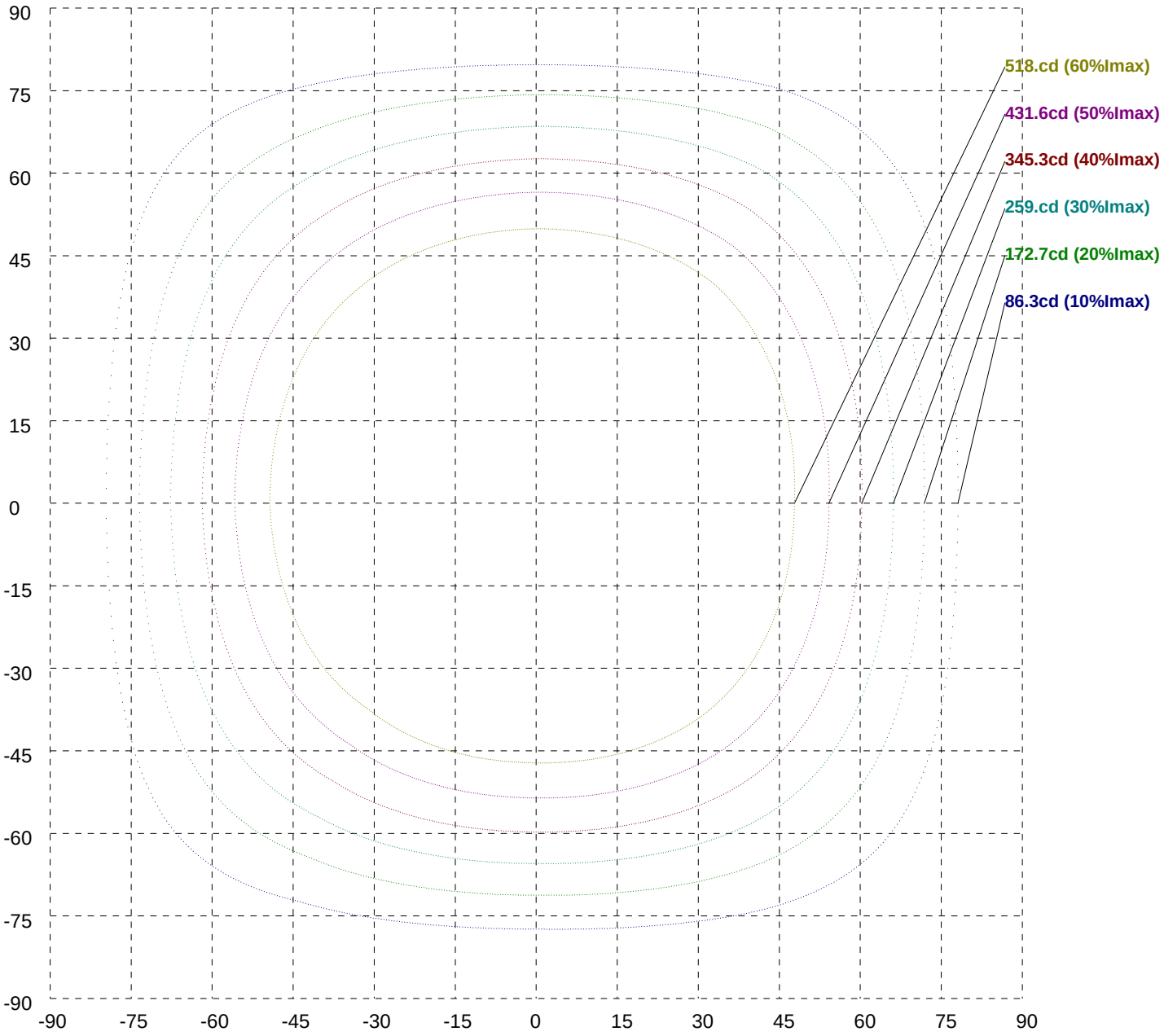
(cd) | C0/C180: C90/C270: C135:

Max Plane Light Distribution Curve [Unit: cd]



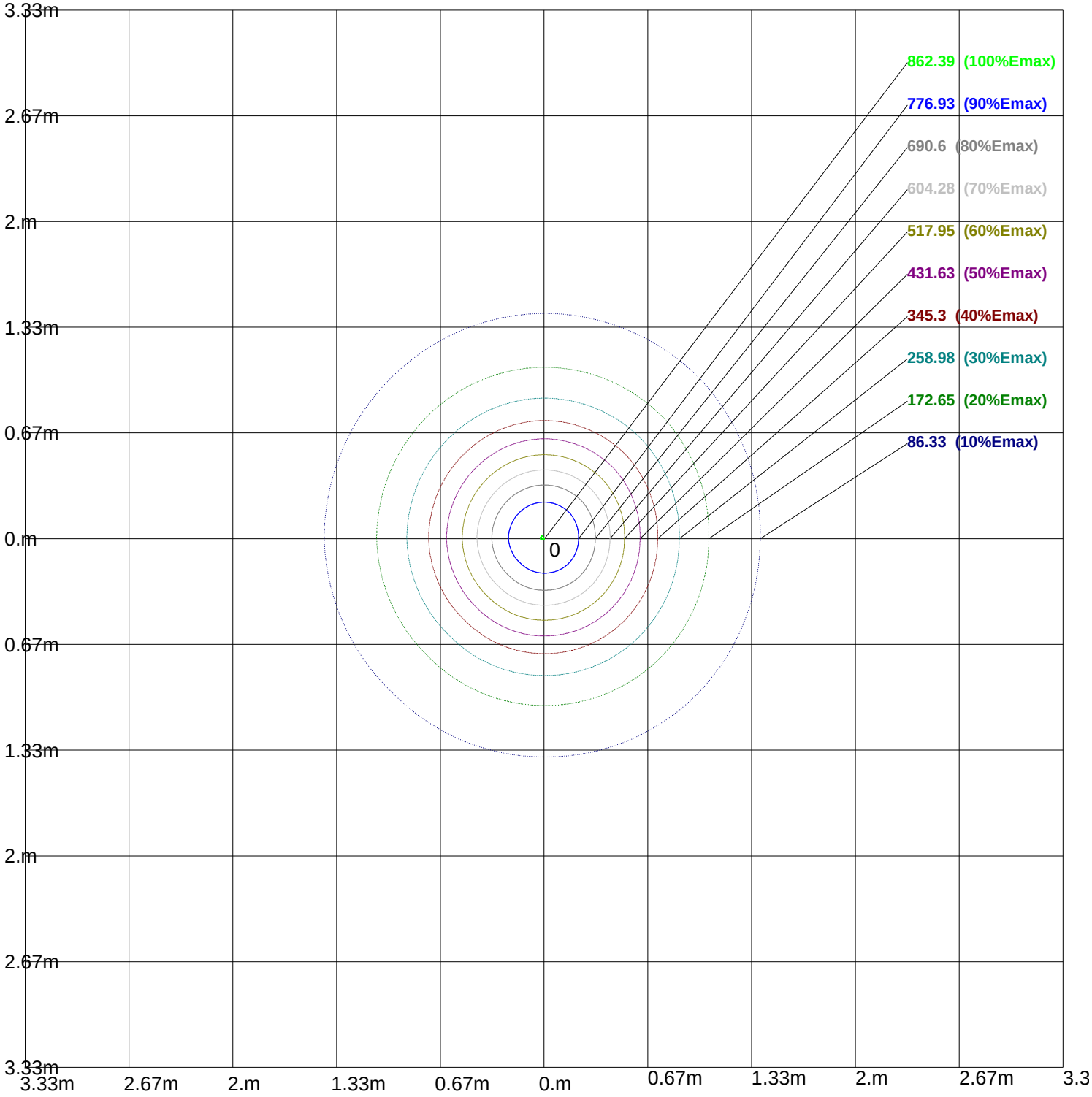


等光强曲线 V-H [cd]



测试设备:LINKCOLOR LCG-GONIO　　测试日期:2022-12-27　　测试人员:xiong
环境温度:25℃　　环境湿度:60%　　报告编号:

Iso-Lux[lx]



Height: 1 m
Max Illuminance : 863.26lx

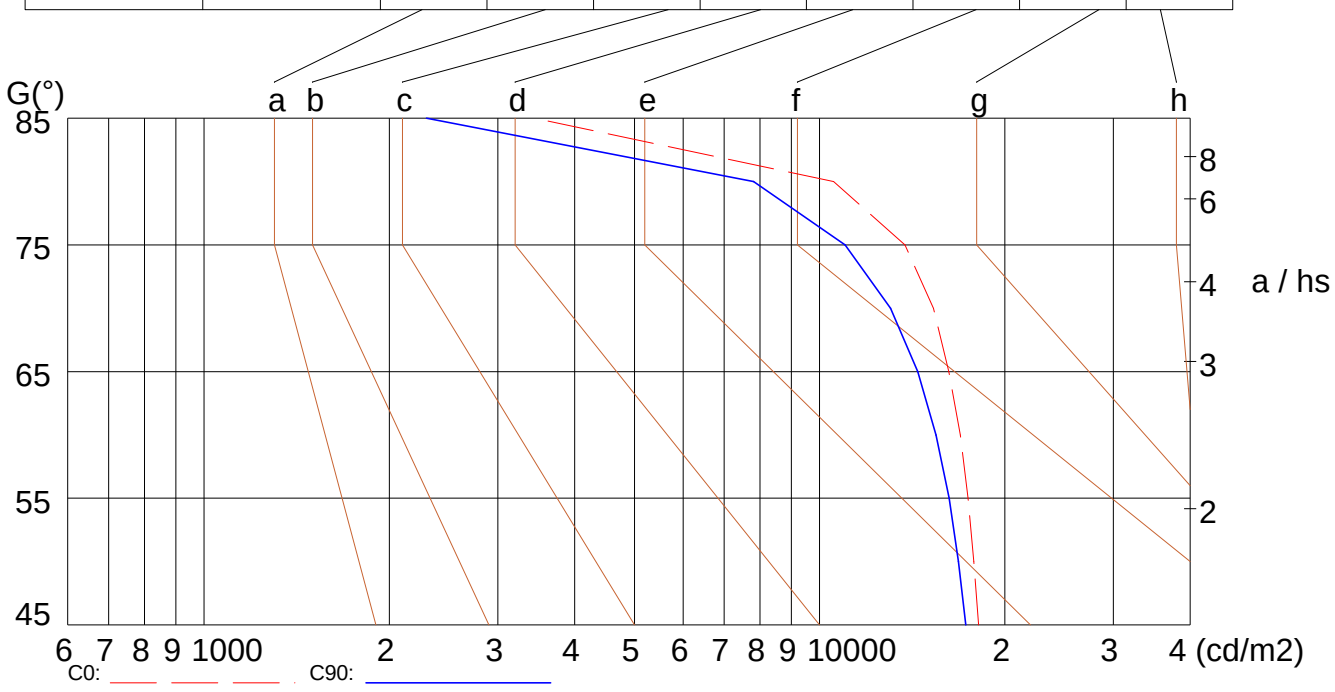
Luminance Limitting Curve

Diameter: 240mm
Length: mm
Width: 240mm
Height: 35mm

(cd/m2)

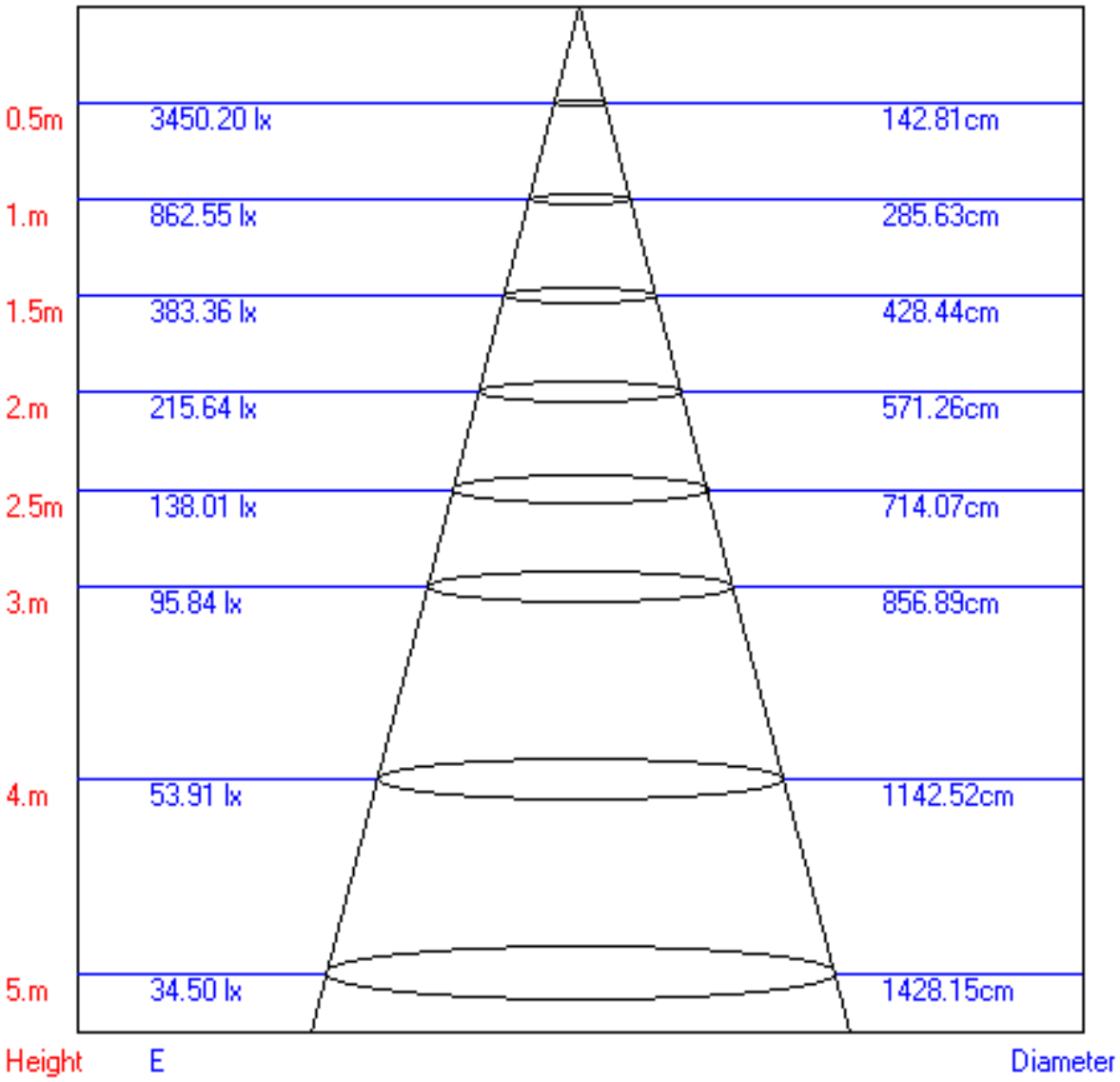
γ	45°	50°	55°	60°	65°	70°	75°	80°	85°
C0	18131	17791	17412	16929	16223	15304	13761	10532	3439
C90	17268	16813	16239	15466	14446	13046	10999	7809	2297

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:110.00°

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	1.05	1.04	1.02	1.04	1.02	1.00	1.00	0.98	0.96	0.95	0.93	0.91	0.89	0.87	0.85	0.79
2	0.90	0.87	0.85	0.89	0.86	0.84	0.87	0.83	0.80	0.83	0.79	0.76	0.79	0.75	0.71	0.66
3	0.77	0.74	0.72	0.77	0.73	0.71	0.75	0.71	0.68	0.73	0.68	0.64	0.70	0.65	0.60	0.56
4	0.66	0.63	0.62	0.67	0.63	0.60	0.66	0.62	0.58	0.65	0.60	0.55	0.63	0.57	0.52	0.48
5	0.58	0.55	0.53	0.59	0.55	0.52	0.59	0.54	0.50	0.58	0.52	0.48	0.57	0.50	0.45	0.41
6	0.51	0.48	0.47	0.52	0.48	0.46	0.53	0.48	0.44	0.52	0.46	0.42	0.52	0.45	0.40	0.36
7	0.46	0.43	0.41	0.46	0.43	0.41	0.47	0.42	0.39	0.48	0.42	0.37	0.47	0.41	0.35	0.32
8	0.41	0.38	0.37	0.42	0.38	0.36	0.43	0.38	0.35	0.44	0.38	0.33	0.44	0.37	0.32	0.29
9	0.37	0.35	0.33	0.38	0.35	0.33	0.39	0.35	0.31	0.40	0.34	0.30	0.40	0.34	0.29	0.26
10	0.34	0.31	0.30	0.35	0.31	0.30	0.36	0.31	0.28	0.37	0.31	0.27	0.37	0.31	0.26	0.23

Budgetary Estimate Chart			
Light Flux	2360.58 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

