

Luminaire Property

Luminaire: RH-CL2604 30W 4000K

Report NO.:

Test NO.: HLB211108

Lamp:

Sum Lumens: 3442.24 lm

Number of Lamps: 1

Diameter: 190mm

Length: mm

Photometric Type: Type C

Voltage: 230.6 V

Current: 0.128 A

Power: 28.5 W

Power Factor: 0.965

Ballast Type: OSRAM ELEMENT 28 700mA

Width: 190mm

Height: 104mm

Remark: CREE CXA1820

Photometric Results

Lumens: 3442.24 lm

Efficiency: 120.7804 lm/W

Central Intensity: 4399.415cd

Maximum Intensity: 4424.959cd

Beam Angle(10%): Left: -44.6 Right:41.6

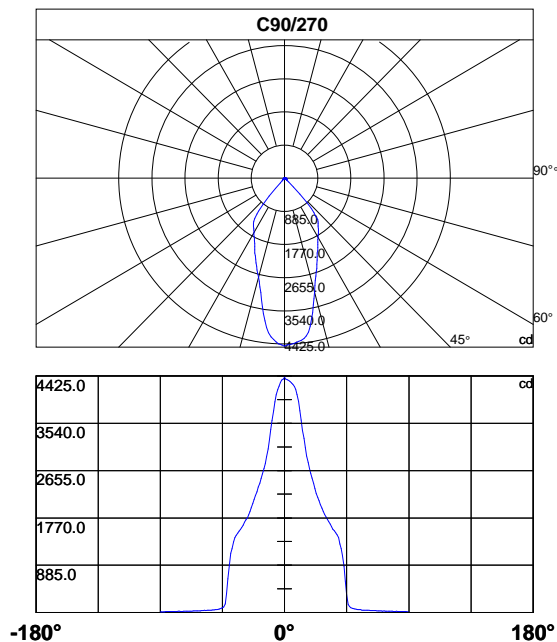
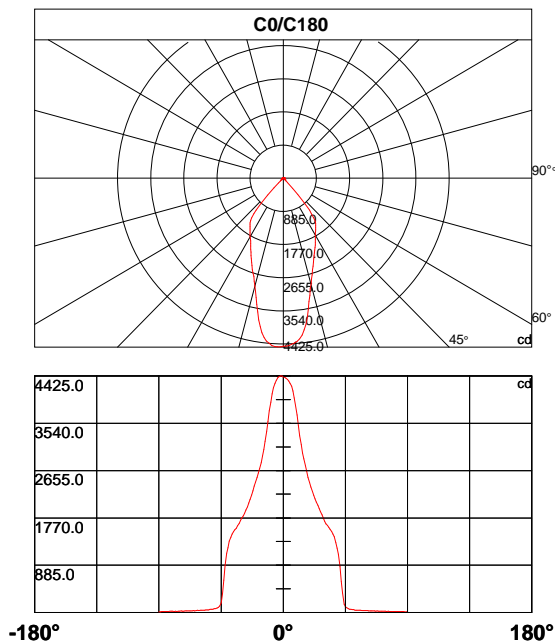
Angle of maximum intensity: C:135.0 G:2.0

Half Peak Side Angle(50%): Left: -23.7 Right:20.8

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	4399.4	4402.5	4387.0	4359.6	4329.5	4289.2	4232.1	4143.6	4009.2	3873.4
45.0	4399.4	4367.1	4357.6	4346.0	4321.2	4293.8	4270.1	4230.1	4174.3	4081.2
90.0	4399.4	4367.1	4357.6	4346.0	4321.2	4293.8	4270.1	4230.1	4174.3	4081.2
135.0	4399.4	4423.9	4425.0	4412.7	4397.6	4346.0	4288.2	4204.4	4089.1	3936.8
180.0	4399.4	4423.9	4425.0	4412.7	4397.6	4346.0	4288.2	4204.4	4089.1	3936.8
225.0	4399.4	4366.2	4348.7	4302.4	4237.0	4173.0	4070.6	3942.1	3774.0	3593.7
270.0	4399.4	4366.2	4348.7	4302.4	4237.0	4173.0	4070.6	3942.1	3774.0	3593.7
315.0	4399.4	4402.5	4387.0	4359.6	4329.5	4289.2	4232.1	4143.6	4009.2	3873.4
360.0	4399.4	4402.5	4387.0	4359.6	4329.5	4289.2	4232.1	4143.6	4009.2	3873.4

C\G	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0
0.0	3698.8	3499.3	3309.7	3147.6	2981.8	2875.4	2750.3	2642.9	2530.7	2433.9
45.0	3946.1	3771.1	3599.3	3406.5	3256.9	3091.1	2929.0	2806.4	2693.8	2598.4
90.0	3946.1	3771.1	3599.3	3406.5	3256.9	3091.1	2929.0	2806.4	2693.8	2598.4
135.0	3775.3	3572.9	3388.0	3207.0	3050.5	2929.9	2802.8	2695.4	2610.3	2528.7
180.0	3775.3	3572.9	3388.0	3207.0	3050.5	2929.9	2802.8	2695.4	2610.3	2528.7
225.0	3423.6	3236.7	3059.1	2920.7	2782.3	2693.8	2593.8	2511.2	2420.3	2347.0
270.0	3423.6	3236.7	3059.1	2920.7	2782.3	2693.8	2593.8	2511.2	2420.3	2347.0
315.0	3698.8	3499.3	3309.7	3147.6	2981.8	2875.4	2750.3	2642.9	2530.7	2433.9
360.0	3698.8	3499.3	3309.7	3147.6	2981.8	2875.4	2750.3	2642.9	2530.7	2433.9

C\G	20.0	21.0	22.0	23.0	24.0	25.0	26.0	27.0	28.0	29.0
0.0	2351.0	2263.5	2191.5	2128.4	2069.3	2006.9	1946.8	1886.7	1822.6	1763.2
45.0	2513.8	2412.4	2316.7	2226.2	2148.2	2089.8	2018.1	1954.7	1893.9	1838.2
90.0	2513.8	2412.4	2316.7	2226.2	2148.2	2089.8	2018.1	1954.7	1893.9	1838.2
135.0	2435.6	2362.9	2278.4	2198.8	2116.9	2051.1	1974.6	1919.4	1859.3	1808.4
180.0	2435.6	2362.9	2278.4	2198.8	2116.9	2051.1	1974.6	1919.4	1859.3	1808.4
225.0	2257.9	2184.6	2115.9	2041.2	1959.3	1886.7	1825.3	1768.8	1732.4	1686.6
270.0	2257.9	2184.6	2115.9	2041.2	1959.3	1886.7	1825.3	1768.8	1732.4	1686.6
315.0	2351.0	2263.5	2191.5	2128.4	2069.3	2006.9	1946.8	1886.7	1822.6	1763.2
360.0	2351.0	2263.5	2191.5	2128.4	2069.3	2006.9	1946.8	1886.7	1822.6	1763.2

C\G	30.0	31.0	32.0	33.0	34.0	35.0	36.0	37.0	38.0	39.0
0.0	1705.7	1658.5	1632.1	1594.4	1555.8	1515.5	1467.0	1418.8	1305.8	1205.7
45.0	1787.3	1740.4	1700.1	1653.2	1607.6	1560.4	1528.1	1492.7	1453.7	1401.2
90.0	1787.3	1740.4	1700.1	1653.2	1607.6	1560.4	1528.1	1492.7	1453.7	1401.2
135.0	1763.5	1715.3	1667.4	1624.5	1576.9	1545.5	1508.6	1465.9	1409.1	1334.9
180.0	1763.5	1715.3	1667.4	1624.5	1576.9	1545.5	1508.6	1465.9	1409.1	1334.9
225.0	1633.7	1586.5	1550.9	1521.1	1485.4	1444.5	1399.9	1325.2	1193.5	1109.3
270.0	1633.7	1586.5	1550.9	1521.1	1485.4	1444.5	1399.9	1325.2	1193.5	1109.3
315.0	1705.7	1658.5	1632.1	1594.4	1555.8	1515.5	1467.0	1418.8	1305.8	1205.7
360.0	1705.7	1658.5	1632.1	1594.4	1555.8	1515.5	1467.0	1418.8	1305.8	1205.7

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	1088.5	861.9	577.3	362.9	156.8	108.3	91.5	73.0	59.8	58.4
45.0	1280.0	1198.1	1067.3	860.6	586.5	332.6	149.9	111.0	91.5	80.3
90.0	1280.0	1198.1	1067.3	860.6	586.5	332.6	149.9	111.0	91.5	80.3
135.0	1210.3	1106.6	881.1	605.3	351.1	179.6	117.2	96.8	81.6	74.6
180.0	1210.3	1106.6	881.1	605.3	351.1	179.6	117.2	96.8	81.6	74.6
225.0	895.0	624.8	356.7	164.2	102.0	92.8	80.3	66.4	62.7	55.2
270.0	895.0	624.8	356.7	164.2	102.0	92.8	80.3	66.4	62.7	55.2
315.0	1088.5	861.9	577.3	362.9	156.8	108.3	91.5	73.0	59.8	58.4
360.0	1088.5	861.9	577.3	362.9	156.8	108.3	91.5	73.0	59.8	58.4

C\G	50.0	51.0	52.0	53.0	54.0	55.0	56.0	57.0	58.0	59.0
0.0	53.8	50.9	44.9	42.3	40.3	38.3	40.3	36.7	35.3	37.0
45.0	71.0	65.1	60.1	52.9	53.8	51.2	44.9	43.2	41.6	42.3
90.0	71.0	65.1	60.1	52.9	53.8	51.2	44.9	43.2	41.6	42.3
135.0	68.4	60.1	59.8	56.1	49.5	49.8	46.2	42.9	44.6	39.6
180.0	68.4	60.1	59.8	56.1	49.5	49.8	46.2	42.9	44.6	39.6
225.0	54.1	49.2	49.2	43.2	42.3	39.3	39.6	36.7	38.3	35.3
270.0	54.1	49.2	49.2	43.2	42.3	39.3	39.6	36.7	38.3	35.3
315.0	53.8	50.9	44.9	42.3	40.3	38.3	40.3	36.7	35.3	37.0
360.0	53.8	50.9	44.9	42.3	40.3	38.3	40.3	36.7	35.3	37.0

C\G	60.0	61.0	62.0	63.0	64.0	65.0	66.0	67.0	68.0	69.0
0.0	35.0	34.7	32.7	29.4	30.7	29.0	29.0	24.7	26.7	24.4
45.0	40.6	40.3	37.6	37.3	35.0	34.7	33.0	29.7	30.4	29.7
90.0	40.6	40.3	37.6	37.3	35.0	34.7	33.0	29.7	30.4	29.7
135.0	39.0	36.7	38.3	34.7	32.7	34.4	32.7	32.4	28.1	30.4
180.0	39.0	36.7	38.3	34.7	32.7	34.4	32.7	32.4	28.1	30.4
225.0	35.0	32.7	30.4	32.4	31.4	27.8	27.4	25.4	25.4	23.5
270.0	35.0	32.7	30.4	32.4	31.4	27.8	27.4	25.4	25.4	23.5
315.0	35.0	34.7	32.7	29.4	30.7	29.0	29.0	24.7	26.7	24.4
360.0	35.0	34.7	32.7	29.4	30.7	29.0	29.0	24.7	26.7	24.4

C\G	70.0	71.0	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0
0.0	22.8	22.8	23.5	23.1	20.8	19.5	21.5	18.1	18.1	17.8
45.0	25.8	25.1	26.7	22.8	23.1	24.1	21.8	20.5	22.4	18.8
90.0	25.8	25.1	26.7	22.8	23.1	24.1	21.8	20.5	22.4	18.8
135.0	26.7	28.1	25.1	24.4	25.8	24.4	21.5	20.1	20.5	19.2
180.0	26.7	28.1	25.1	24.4	25.8	24.4	21.5	20.1	20.5	19.2
225.0	23.1	25.1	24.4	21.8	20.1	19.8	21.1	20.8	20.1	20.1
270.0	23.1	25.1	24.4	21.8	20.1	19.8	21.1	20.8	20.1	20.1
315.0	22.8	22.8	23.5	23.1	20.8	19.5	21.5	18.1	18.1	17.8
360.0	22.8	22.8	23.5	23.1	20.8	19.5	21.5	18.1	18.1	17.8

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	17.8	17.5	18.8	16.8	16.8	17.2	16.2	15.8	14.5	11.9
45.0	19.2	20.5	18.1	18.1	19.5	17.5	19.2	16.8	17.8	13.9
90.0	19.2	20.5	18.1	18.1	19.5	17.5	19.2	16.8	17.8	13.9
135.0	21.5	20.8	21.1	18.1	20.1	17.8	19.8	18.8	18.1	14.5
180.0	21.5	20.8	21.1	18.1	20.1	17.8	19.8	18.8	18.1	14.5
225.0	20.1	16.5	16.4	16.2	19.2	18.5	16.2	14.7	13.2	12.9
270.0	20.1	16.5	16.4	16.2	19.2	18.5	16.2	14.7	13.2	12.9
315.0	17.8	17.5	18.8	16.8	16.8	17.2	16.2	15.8	14.5	11.9
360.0	17.8	17.5	18.8	16.8	16.8	17.2	16.2	15.8	14.5	11.9

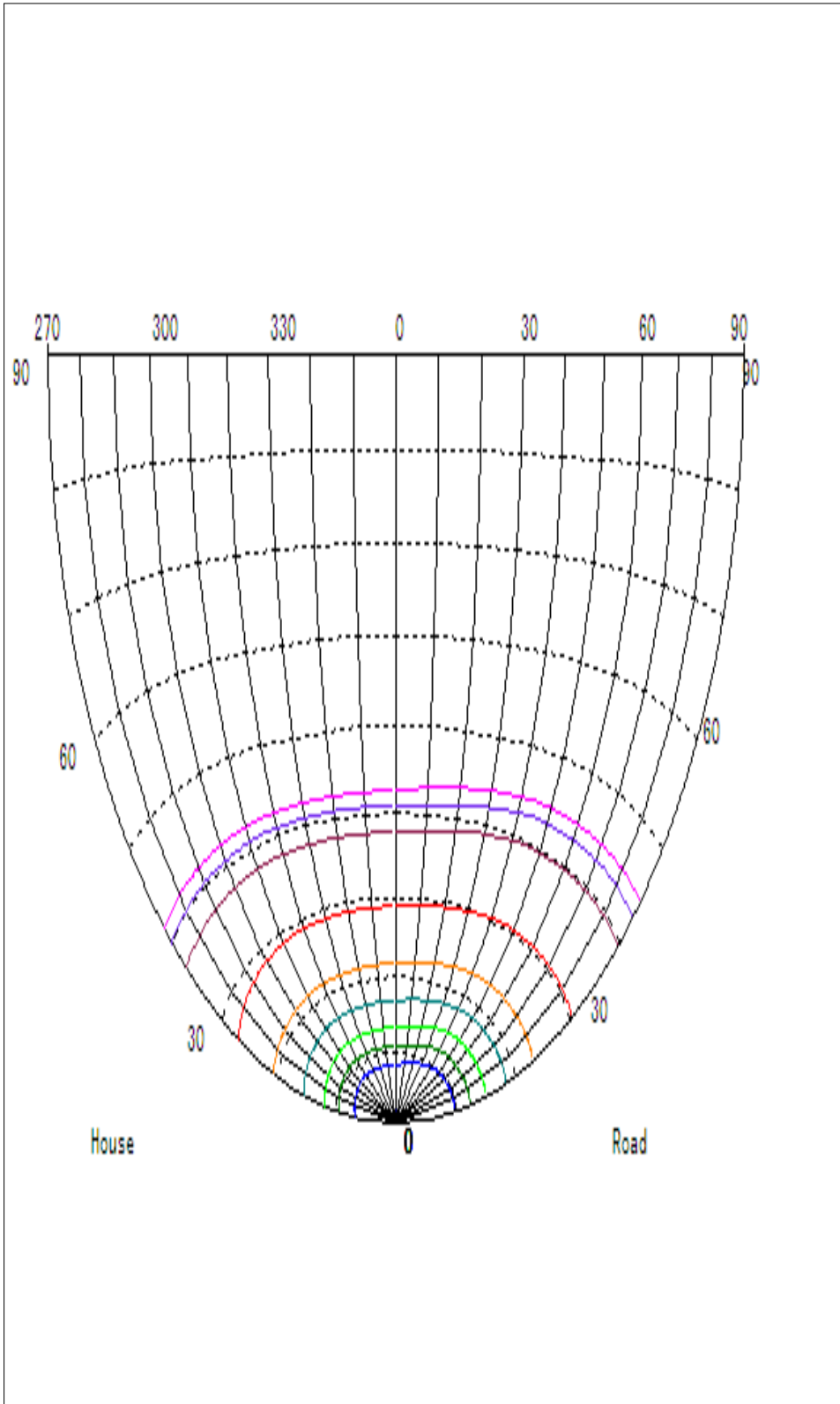
C\G	90.0
0.0	13.5
45.0	11.6
90.0	11.6
135.0	13.9
180.0	13.9
225.0	12.5
270.0	12.5
315.0	13.5
360.0	13.5

Zonal Flux Distribution

Gamma [°]	I _{mean} [cd]	Zonal Flux [lm]	Sum Flux [lm]	Zonal Flux [%]	Sum Flux [%]
0	4399.42	0.00	0.00	0.00	0.00
1	4389.93	4.21	4.21	0.12	0.12
2	4379.55	12.59	16.79	0.37	0.49
3	4355.19	20.89	37.68	0.61	1.09
4	4321.33	29.04	66.73	0.84	1.94
5	4275.52	36.98	103.71	1.07	3.01
6	4215.23	44.62	148.33	1.30	4.31
7	4130.03	51.80	200.13	1.50	5.81
8	4011.65	58.27	258.40	1.69	7.51
9	3871.29	63.89	322.28	1.86	9.36
10	3710.96	68.62	390.90	1.99	11.36
11	3519.99	72.25	463.15	2.10	13.45
12	3339.03	74.98	538.13	2.18	15.63
13	3170.44	77.25	615.38	2.24	17.88
14	3017.85	79.21	694.59	2.30	20.18
15	2897.56	81.21	775.80	2.36	22.54
16	2768.95	83.03	858.83	2.41	24.95
17	2663.99	84.61	943.44	2.46	27.41
18	2563.77	86.19	1029.63	2.50	29.91
19	2476.99	87.70	1117.33	2.55	32.46
20	2389.58	89.07	1206.40	2.59	35.05
21	2305.84	90.16	1296.56	2.62	37.67
22	2225.61	91.06	1387.63	2.65	40.31
23	2148.65	91.78	1479.41	2.67	42.98
24	2073.44	92.31	1571.72	2.68	45.66
25	2008.63	92.82	1664.54	2.70	48.36
26	1941.19	93.24	1757.77	2.71	51.06
27	1882.39	93.54	1851.32	2.72	53.78
28	1827.07	93.92	1945.23	2.73	56.51
29	1774.08	94.22	2039.45	2.74	59.25
30	1722.56	94.41	2133.86	2.74	61.99
31	1675.16	94.55	2228.41	2.75	64.74
32	1637.61	94.91	2323.32	2.76	67.49
33	1598.29	95.33	2418.65	2.77	70.26
34	1556.44	95.47	2514.12	2.77	73.04
35	1516.47	95.43	2609.55	2.77	75.81
36	1475.87	95.28	2704.83	2.77	78.58
37	1425.67	94.63	2799.46	2.75	81.33
38	1340.53	92.33	2891.80	2.68	84.01
39	1262.78	88.86	2980.65	2.58	86.59
40	1118.45	83.05	3063.70	2.41	89.00

Zonal Flux Distribution

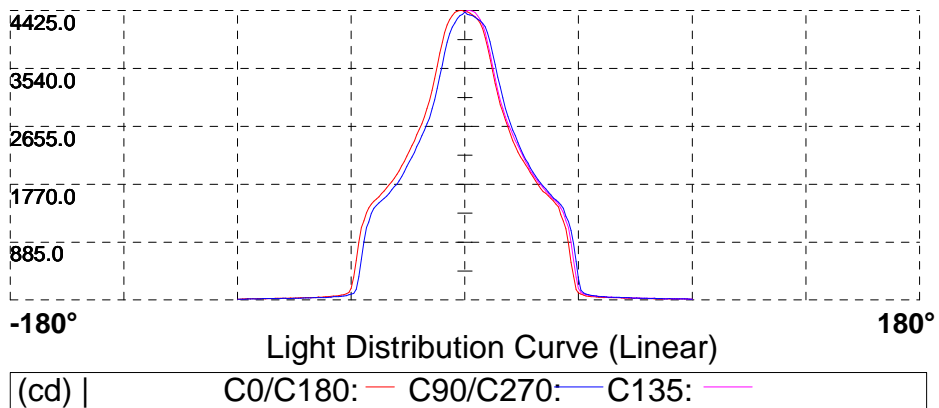
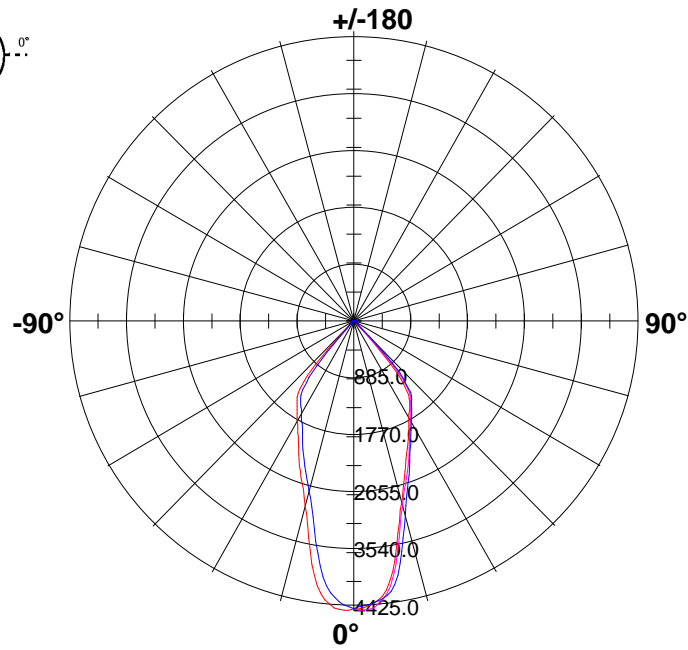
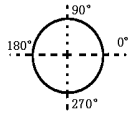
Gamma [°]	I _{mean} [cd]	Zonal Flux [lm]	Sum Flux [lm]	Zonal Flux [%]	Sum Flux [%]
41	947.88	73.58	3137.28	2.14	91.14
42	720.60	60.62	3197.90	1.76	92.90
43	498.25	45.15	3243.05	1.31	94.21
44	299.12	30.09	3273.15	0.87	95.09
45	178.33	18.35	3291.50	0.53	95.62
46	109.72	11.27	3302.76	0.33	95.95
47	86.78	7.82	3310.58	0.23	96.18
48	73.88	6.49	3317.07	0.19	96.36
49	67.12	5.79	3322.86	0.17	96.53
50	61.83	5.38	3328.24	0.16	96.69
51	56.32	5.00	3333.24	0.15	96.83
52	53.51	4.71	3337.95	0.14	96.97
53	48.63	4.44	3342.39	0.13	97.10
54	46.48	4.19	3346.59	0.12	97.22
55	44.66	4.07	3350.65	0.12	97.34
56	42.76	3.95	3354.60	0.11	97.45
57	39.88	3.78	3358.38	0.11	97.56
58	39.95	3.69	3362.07	0.11	97.67
59	38.56	3.67	3365.75	0.11	97.78
60	37.41	3.59	3369.33	0.10	97.88
61	36.08	3.51	3372.84	0.10	97.98
62	34.75	3.41	3376.25	0.10	98.08
63	33.43	3.32	3379.57	0.10	98.18
64	32.46	3.23	3382.80	0.09	98.27
65	31.45	3.16	3385.97	0.09	98.37
66	30.55	3.09	3389.06	0.09	98.46
67	28.05	2.95	3392.01	0.09	98.54
68	27.64	2.82	3394.83	0.08	98.62
69	26.99	2.79	3397.62	0.08	98.70
70	24.60	2.65	3400.27	0.08	98.78
71	25.27	2.58	3402.84	0.07	98.86
72	24.94	2.61	3405.45	0.08	98.93
73	23.03	2.51	3407.96	0.07	99.00
74	22.46	2.39	3410.35	0.07	99.07
75	21.97	2.35	3412.70	0.07	99.14
76	21.46	2.31	3415.01	0.07	99.21
77	19.90	2.21	3417.21	0.06	99.27
78	20.31	2.15	3419.36	0.06	99.34
79	18.99	2.11	3421.47	0.06	99.40
80	19.66	2.08	3423.56	0.06	99.46
81	18.83	2.08	3425.64	0.06	99.52



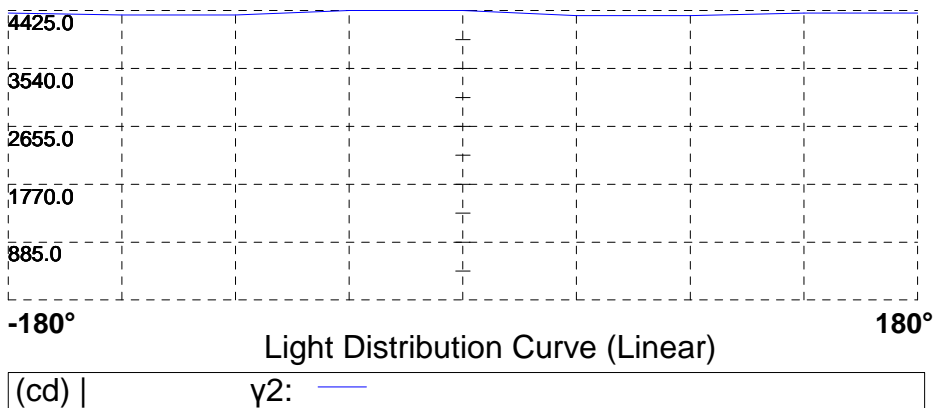
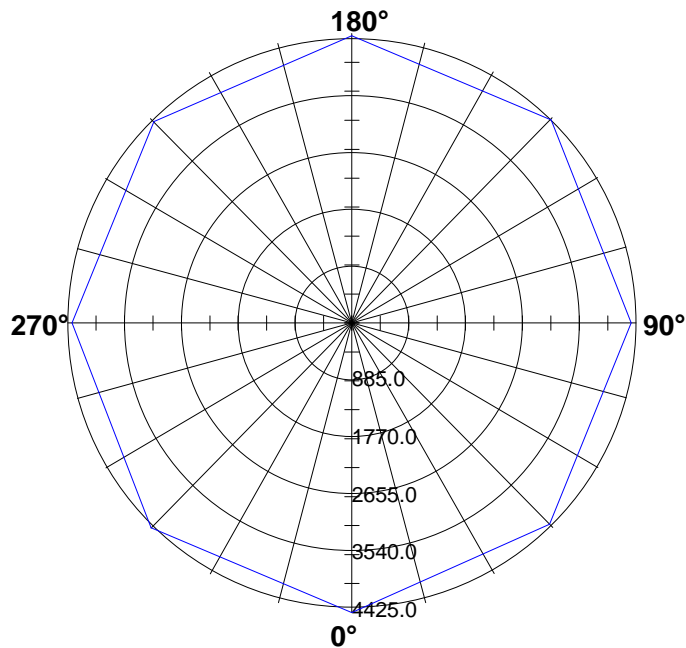
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884.9918 cd
1327.488 cd
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2212.479 cd
2654.975 cd
3097.471 cd
3539.967 cd
3982.463 cd
4424.959 cd

Light Distribution Curve [Unit: cd]

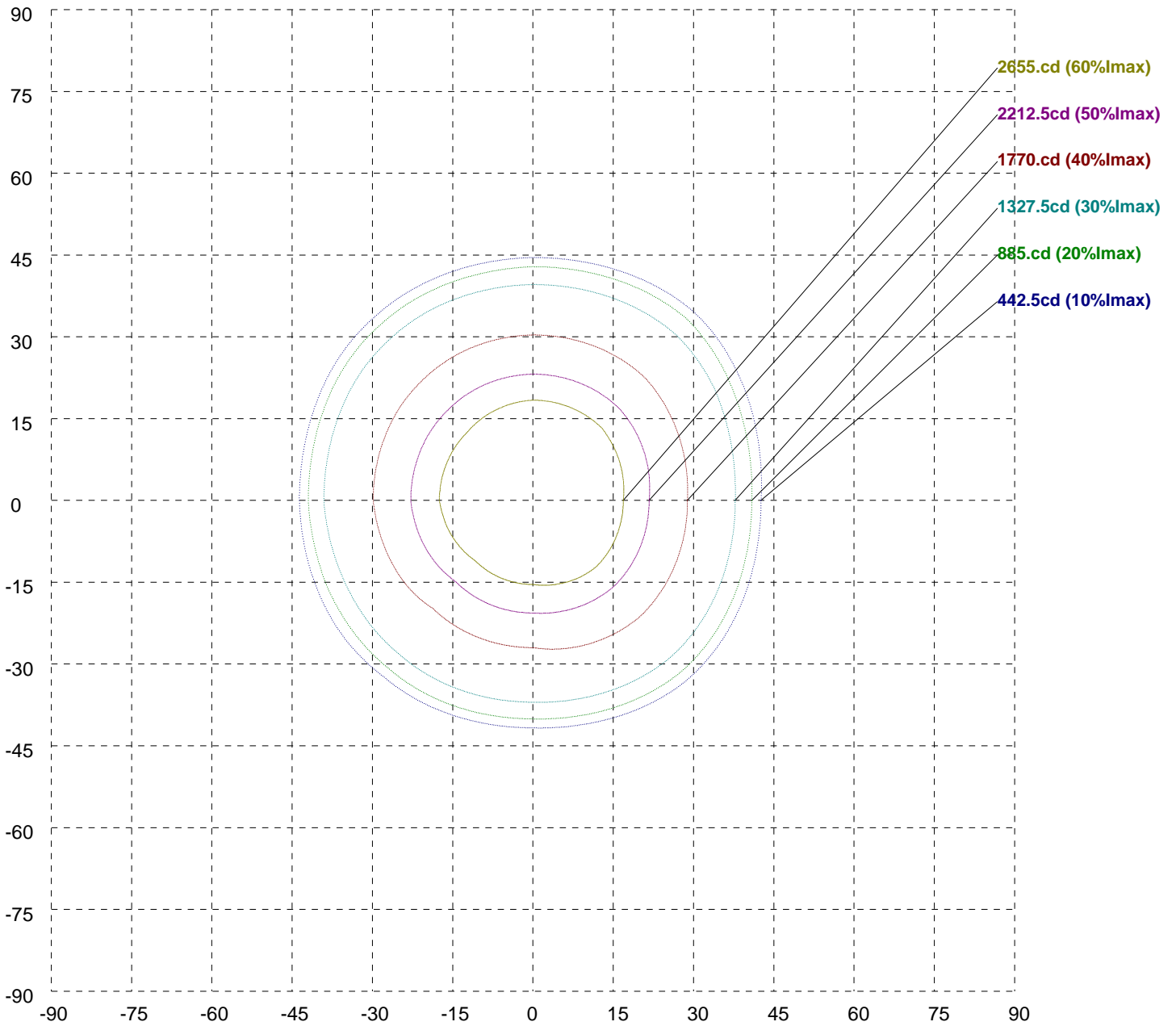
Luminaire



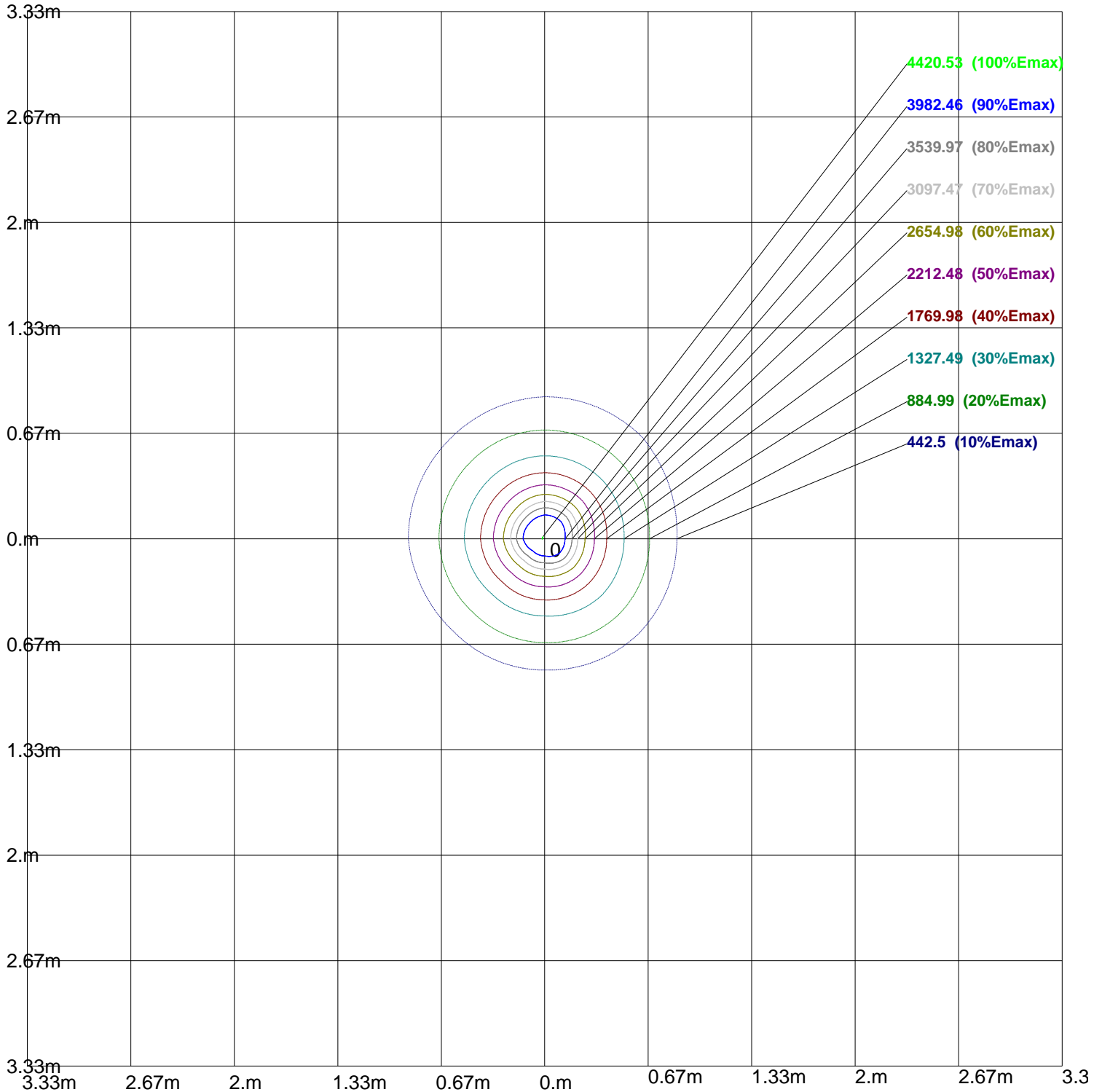
Max Plane Light Distribution Curve [Unit: cd]



等光强曲线 V-H [cd]



Iso-Lux[lx]



Height: 1 m
Max Illuminance : 4424.96lx

Luminance Limiting Curve

Diameter: 190mm

Length: mm

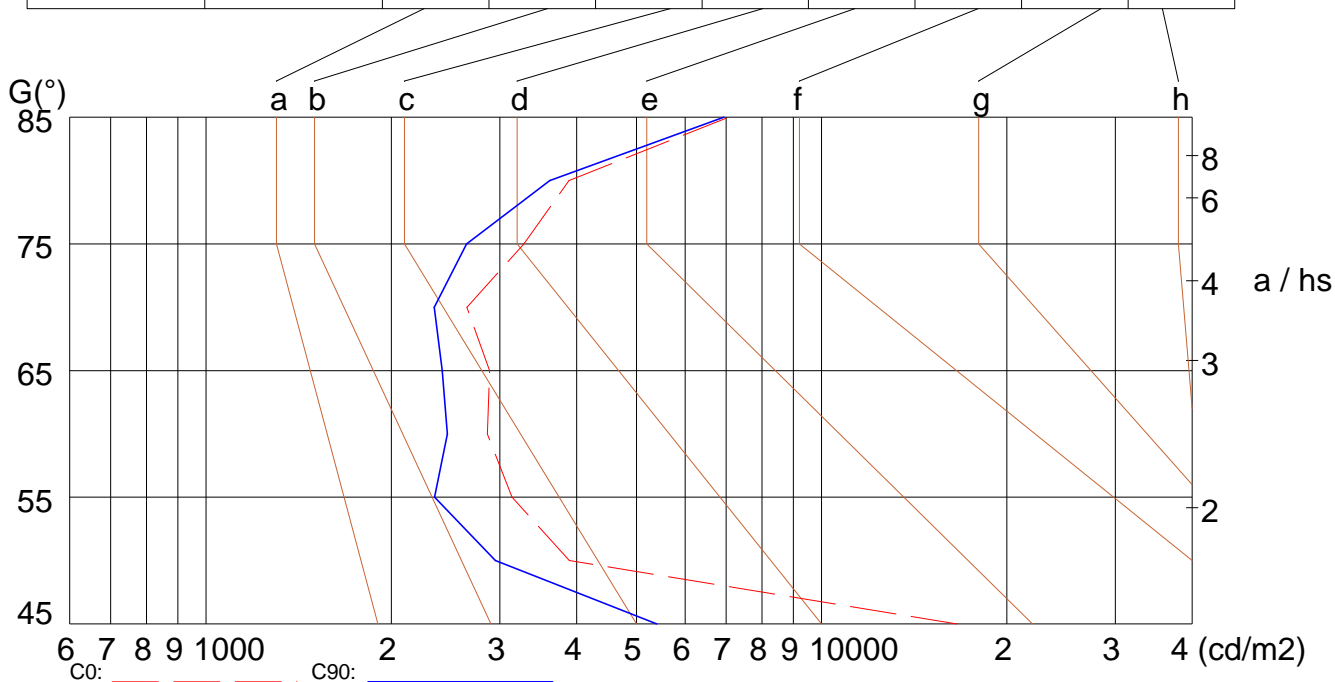
Width: 190mm

Height: 104mm

(cd/m²)

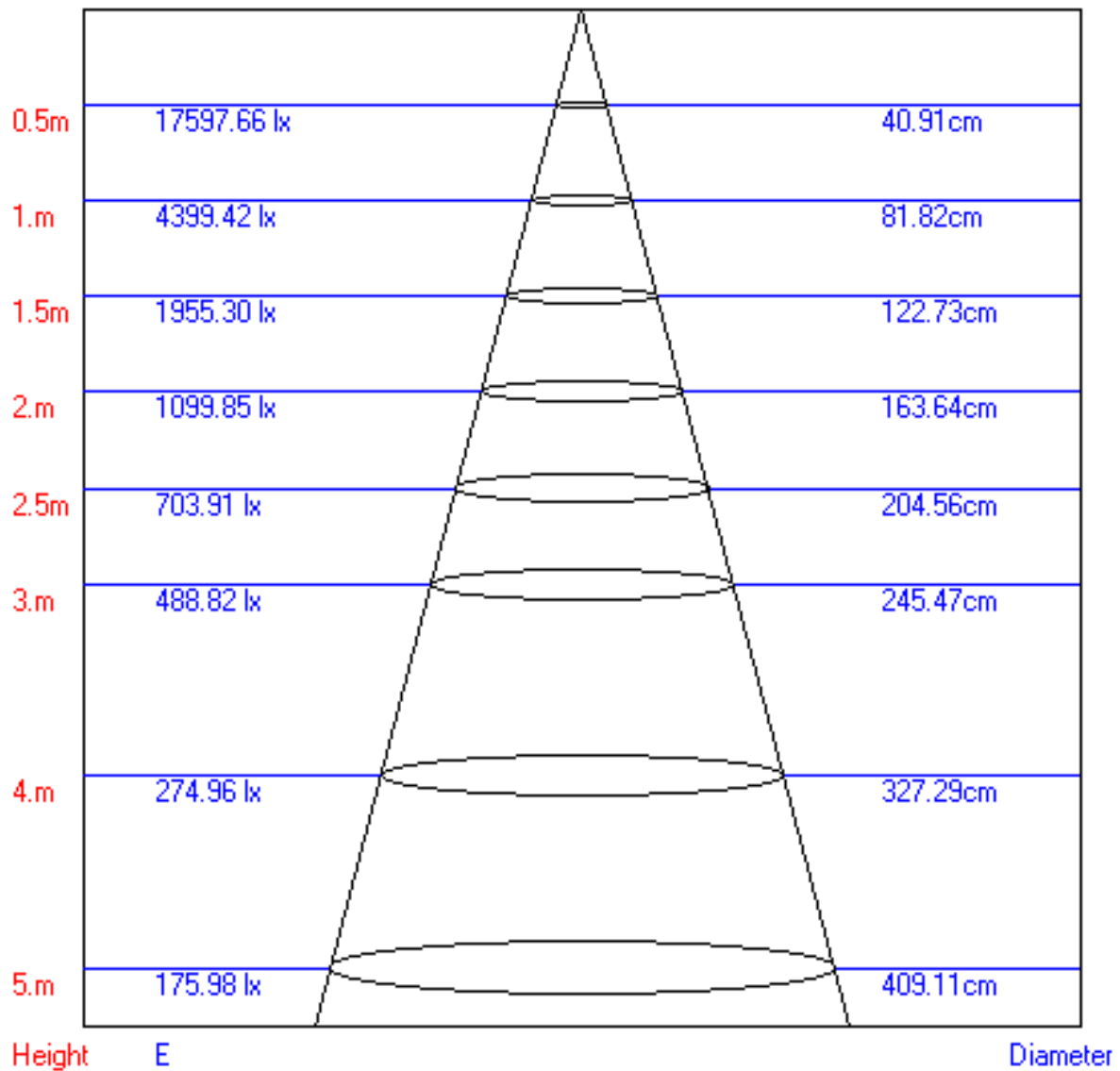
γ	45°	50°	55°	60°	65°	70°	75°	80°	85°
C0	16560	3890	3141	2862	2888	2653	3283	3887	7064
C90	5394	2949	2351	2466	2419	2347	2650	3618	6940

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:44.50°

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
RRCR	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	1.13	1.12	1.11	1.11	1.10	1.09	1.07	1.06	1.05	1.02	1.00	0.99	0.94	0.93	0.92	0.87
2	1.05	1.03	1.02	1.03	1.02	1.00	1.00	0.98	0.96	0.95	0.93	0.91	0.89	0.87	0.85	0.80
3	0.97	0.95	0.94	0.96	0.94	0.92	0.93	0.90	0.88	0.89	0.86	0.84	0.84	0.81	0.78	0.74
4	0.90	0.88	0.87	0.89	0.87	0.85	0.87	0.84	0.81	0.83	0.80	0.77	0.79	0.76	0.72	0.68
5	0.84	0.82	0.81	0.83	0.81	0.79	0.81	0.78	0.75	0.78	0.74	0.71	0.75	0.71	0.67	0.63
6	0.78	0.76	0.75	0.77	0.75	0.73	0.76	0.72	0.70	0.73	0.69	0.66	0.71	0.66	0.63	0.59
7	0.73	0.71	0.70	0.72	0.70	0.68	0.71	0.67	0.65	0.69	0.65	0.62	0.67	0.62	0.58	0.55
8	0.68	0.66	0.65	0.68	0.65	0.64	0.67	0.63	0.61	0.65	0.61	0.58	0.63	0.58	0.55	0.51
9	0.64	0.62	0.61	0.64	0.61	0.60	0.63	0.59	0.57	0.61	0.57	0.54	0.60	0.55	0.51	0.48
10	0.60	0.58	0.57	0.60	0.57	0.56	0.59	0.56	0.53	0.58	0.54	0.51	0.57	0.52	0.48	0.45

