

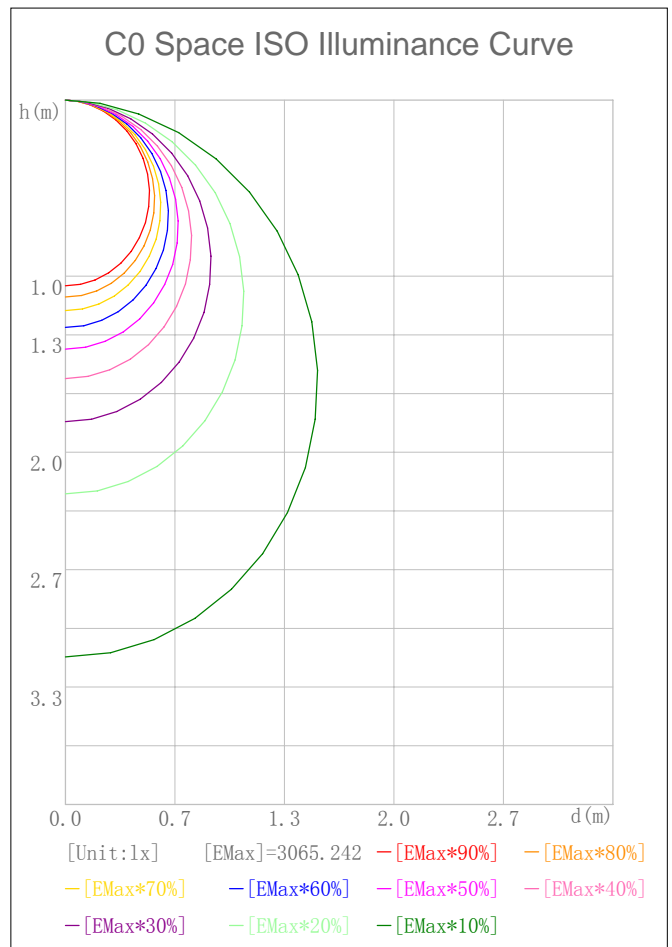
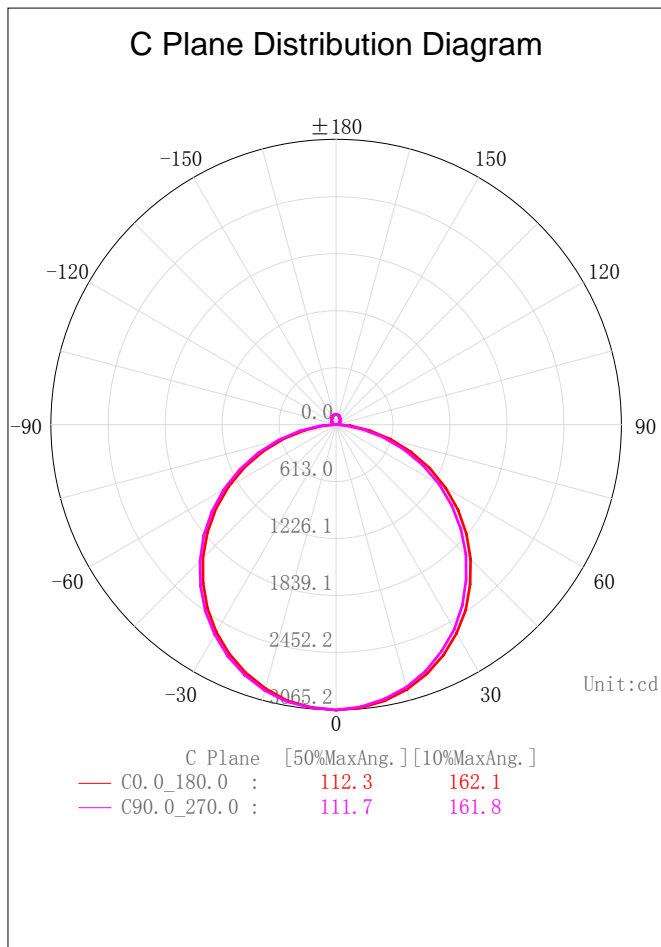
Indoor Luminaire Photometric Data

Description Information

Luminary Name: Campus D1000		Lum. Catalog: Ceiling Lamp	Test ID:
Lamp Name: SL2835 3K 30B18C	Lamp Catalog: LED		Test Date: 2017/08/25
Manufacture: DC-L APS	Shld. Ang(°):		Test Machine: GON-2000
Test Lab:	Frequency (Hz): 50	Lamp CCT (K): 3000 Ra: 80	
Lum. Size (W*L*H): 1.000m*0.000m*0.100m	Lum. Area (m2): 6.283	Lum. W (kg): 0.000	
Test System: C, γ	Test Step: C=30.0 γ=5.0	Temp. (°C): 25	Humidity (%): 50.0

Character Parameter

Lamp Speciality Parameter		Luminaire Speciality Parameter	
Rated Flux(lm): 9058.050	Luminary Flux(lm): 9058.053	Field Angle(10%Imax): 162.1(°)	
Rated Power(W): 80	Luminary Efficiency: 100.00%	Down Lumens&Percent: 8735.575lm 96.44%	
Rated Voltage(V): 230	Luminary EER(lm/W): 118.530	Up Lumens&Percent: 322.478lm 3.56%	
Tested Power(W): 76.420	Max. Candela(cd): 3065.242	S/MH: C0_a180=1.253 C90_270=1.249	
Lamps' Inside: 1	Max Cand@Ang. (°): C=0.0 γ=0.0	CIE Type: Semi-Direct	
Tested Electrics (V, A, pf): 231.3, 0.350, 0.943	Beam Angle(50%Imax): 112.3(°)	ErP φ use(120°): 6850.013lm	
Lamp Size (W*L*H): 1.000m*0.000m*0.100m	Left=-55.9°, Right=56.4°	IRF (%): 109.120	



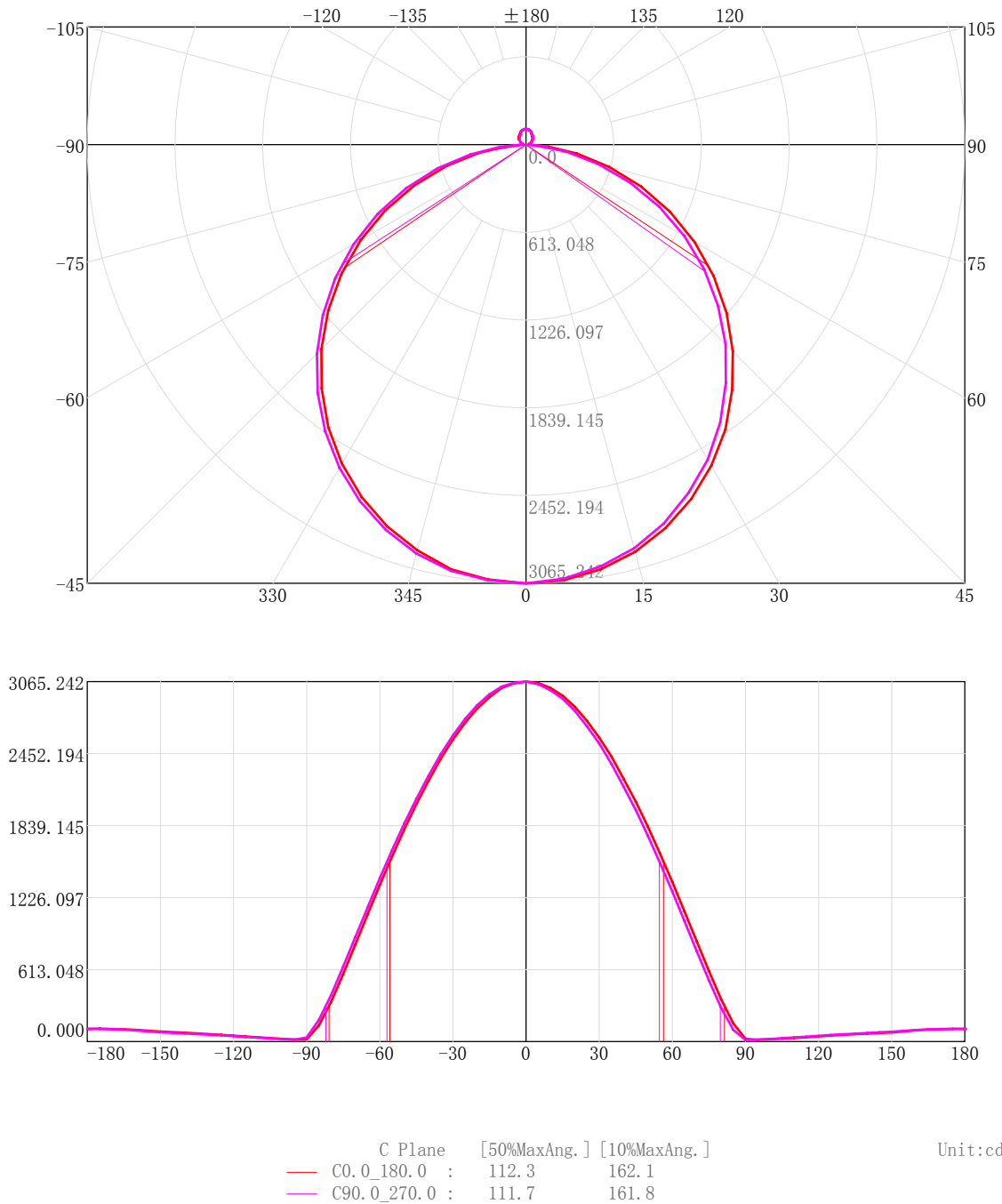
IES Indoor Report

Photometric Filename: Campus D1000 Ceiling SL2835 3K 30B18C HYL-1400H-O 3.0H70.IES

2D Plane Light Intensity Distribution Curve

Lum. Name: Campus D1000	Lum. Catalog: Ceiling Lamp	Test ID:
Lamp Name: SL2835 3K 30B18C	Lamp Catalog: LED	Test Lab:
Manufacture: DC-L APS	Test Machine: GON-2000	Test Date: 2017/08/25

C Plane Distribution Diagram



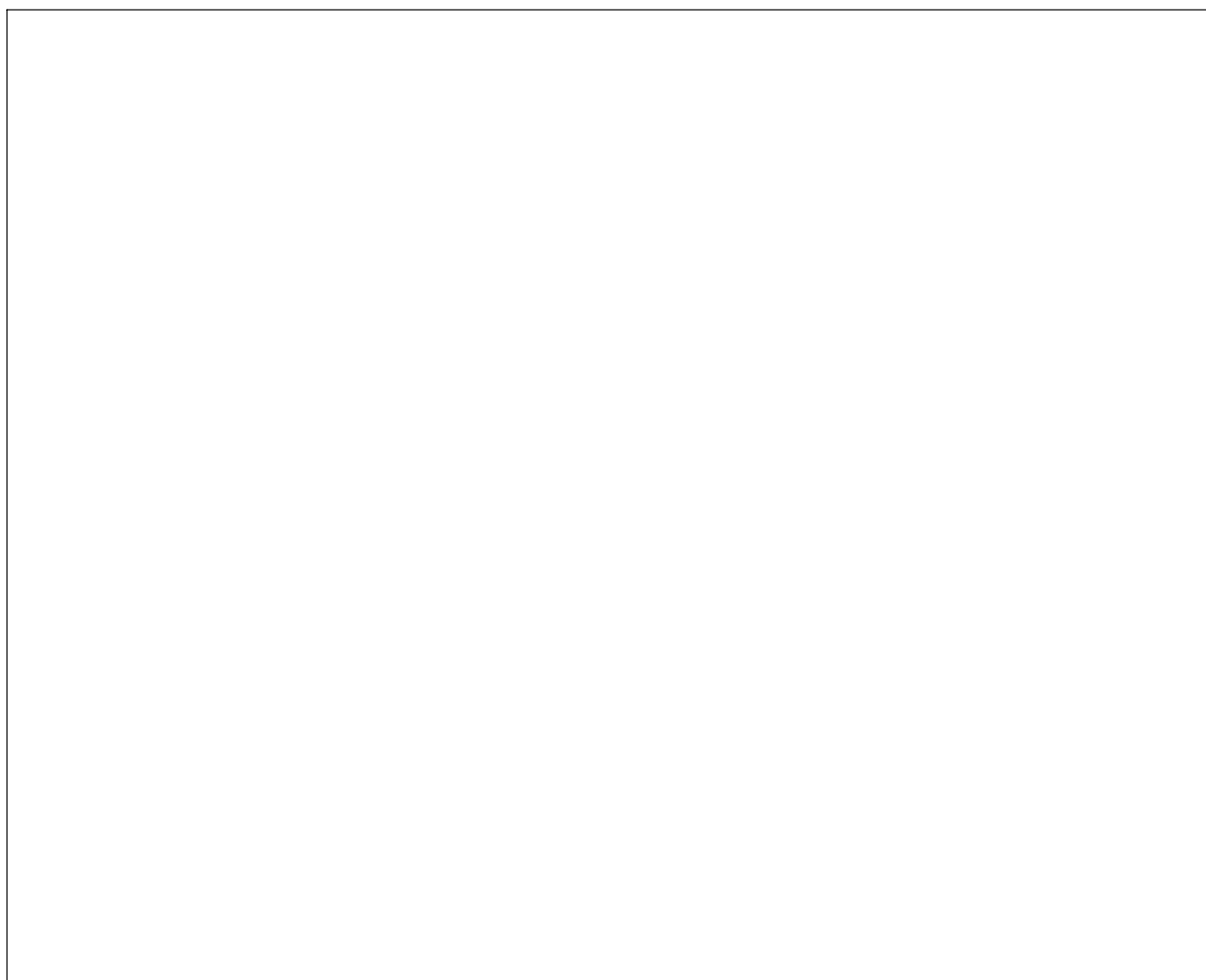
IES Indoor Report

Photometric Filename: Campus D1000 Ceiling SL2835 3K 30B18C HYL-1400H-O 3.0H70.IES

3D Light Intensity Distribution Modal

Lum. Name: Campus D1000	Lum. Catalog: Ceiling Lamp	Test ID:
Lamp Name: SL2835 3K 30B18C	Lamp Catalog: LED	Test Lab:
Manufacture: DC-L APS	Test Machine: GON-2000	Test Date: 2017/08/25

3D Light Intensity Distribution Modal



Curves: 3D Model —— Fixture —— Vert. HUD —— Hori. HUD ——
View Angles: Orient:0 Tilt:0 Roll:0 Spin:0

IES Indoor Report

Photometric Filename: Campus D1000 Ceiling SL2835 3K 30B18C HYL-1400H-O 3.0H70.IES

Zonal Flux Tabulation

Zone(γ)	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	Sums%Lamp
0.0-5.0	73.10	73.10	0.81	0.81
5.0-10.0	216.73	289.83	2.39	3.20
10.0-15.0	352.76	642.60	3.89	7.09
15.0-20.0	476.36	1118.96	5.26	12.35
20.0-25.0	583.33	1702.28	6.44	18.79
25.0-30.0	670.32	2372.60	7.40	26.19
30.0-35.0	734.63	3107.23	8.11	34.30
35.0-40.0	773.82	3881.05	8.54	42.85
40.0-45.0	787.37	4668.42	8.69	51.54
45.0-50.0	775.08	5443.50	8.56	60.10
50.0-55.0	737.15	6180.65	8.14	68.23
55.0-60.0	675.16	6855.81	7.45	75.69
60.0-65.0	591.05	7446.86	6.53	82.21
65.0-70.0	488.12	7934.98	5.39	87.60
70.0-75.0	371.58	8306.56	4.10	91.70
75.0-80.0	249.32	8555.89	2.75	94.46
80.0-85.0	133.58	8689.46	1.47	95.93
85.0-90.0	46.11	8735.58	0.51	96.44
90.0-95.0	11.21	8746.79	0.12	96.56
95.0-100.0	10.78	8757.56	0.12	96.68
100.0-105.0	13.60	8771.17	0.15	96.83
105.0-110.0	16.49	8787.66	0.18	97.01
110.0-115.0	19.19	8806.85	0.21	97.23
115.0-120.0	21.59	8828.44	0.24	97.47
120.0-125.0	23.55	8852.00	0.26	97.73
125.0-130.0	24.99	8876.98	0.28	98.00
130.0-135.0	25.79	8902.77	0.28	98.29
135.0-140.0	25.83	8928.60	0.29	98.57
140.0-145.0	25.07	8953.67	0.28	98.85
145.0-150.0	23.55	8977.22	0.26	99.11
150.0-155.0	21.82	8999.04	0.24	99.35
155.0-160.0	19.72	9018.75	0.22	99.57
160.0-165.0	16.58	9035.33	0.18	99.75
165.0-170.0	12.43	9047.76	0.14	99.89
170.0-175.0	7.69	9055.45	0.08	99.97
175.0-180.0	2.60	9058.05	0.03	100.00

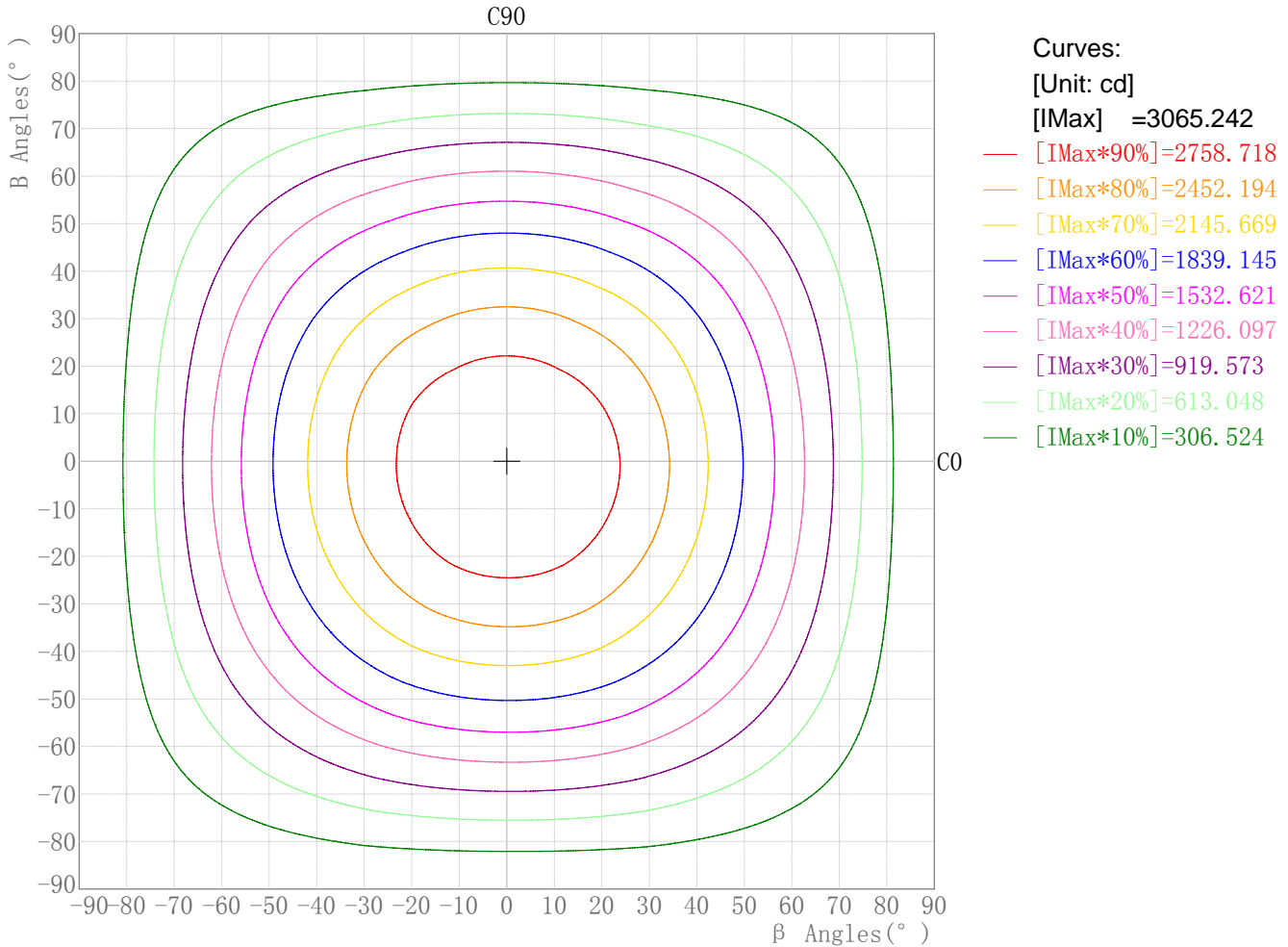
IES Indoor Report

Photometric Filename: Campus D1000 Ceiling SL2835 3K 30B18C HYL-1400H-O 3.0H70.IES

Rectangle ISO Lighting Intensity Diagram

Lum. Name: Campus D1000	Lum. Catalog: Ceiling Lamp	Test ID:
Lamp Name: SL2835 3K 30B18C	Lamp Catalog: LED	Test Lab:
Manufacture: DC-L APS	Test Machine: GON-2000	Test Date: 2017/08/25

ISO Lighting Intensity Curve



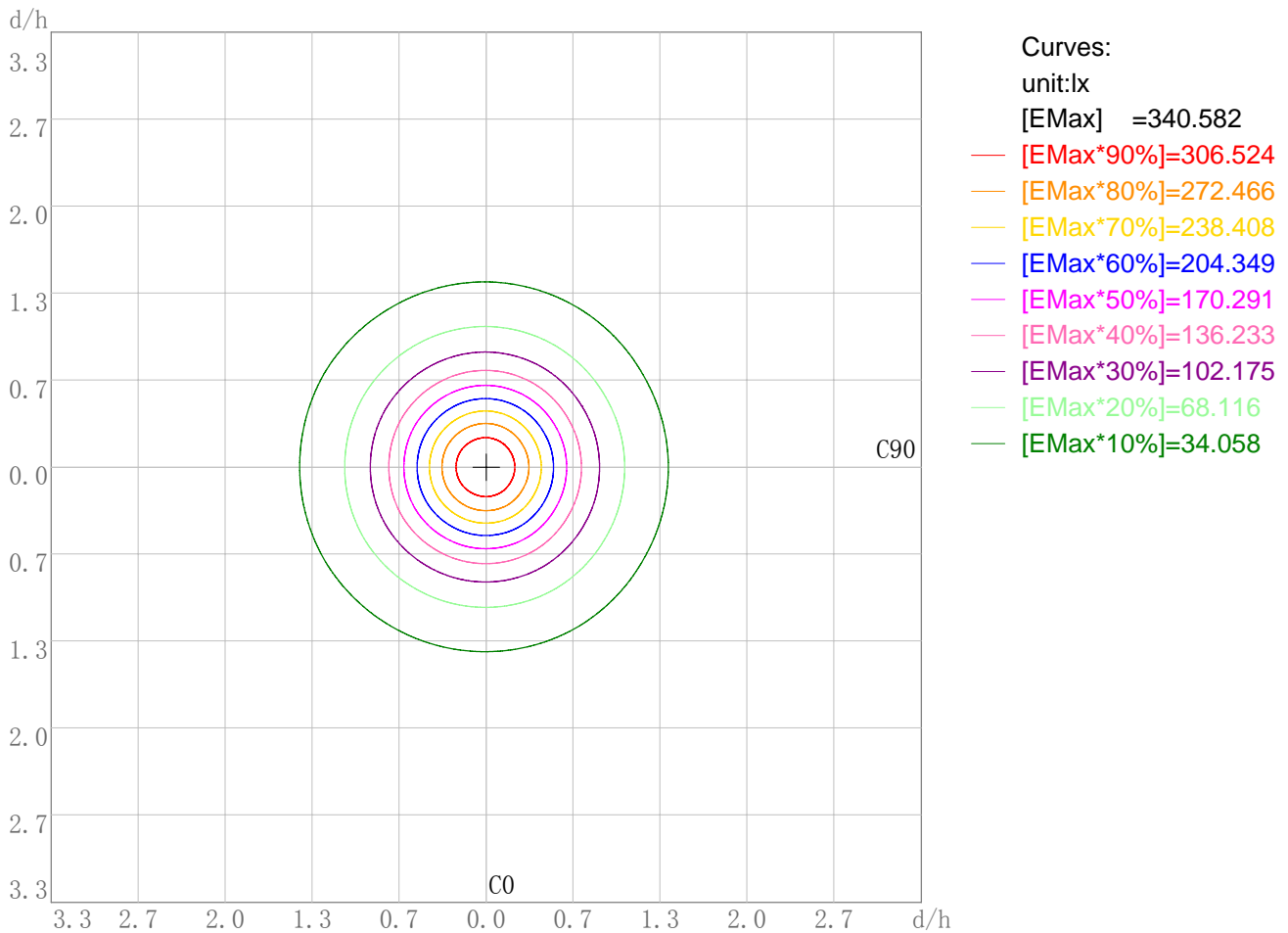
IES Indoor Report

Photometric Filename: Campus D1000 Ceiling SL2835 3K 30B18C HYL-1400H-O 3.0H70.IES

Plane ISO-Illuminance Diagram

Lum. Name: Campus D1000	Lum. Catalog: Ceiling Lamp	Test ID:
Lamp Name: SL2835 3K 30B18C	Lamp Catalog: LED	Test Lab:
Manufacture: DC-L APS	Test Machine: GON-2000	Test Date: 2017/08/25

Plane ISO-Illuminance Curve



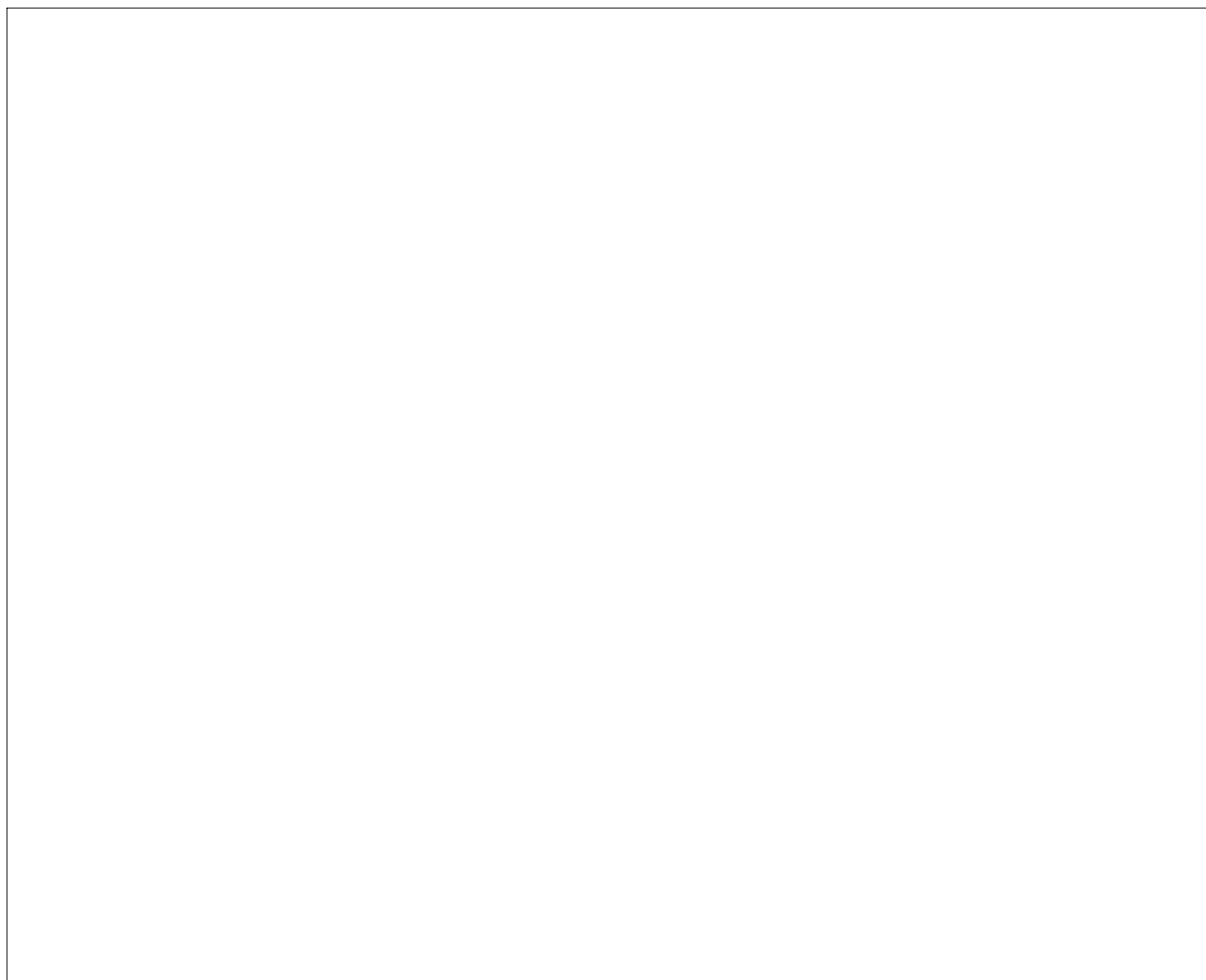
IES Indoor Report

Photometric Filename: Campus D1000 Ceiling SL2835 3K 30B18C HYL-1400H-O 3.0H70.IES

3D Plane ISO Illuminance Diagram

Lum. Name: Campus D1000	Lum. Catalog: Ceiling Lamp	Test ID:
Lamp Name: SL2835 3K 30B18C	Lamp Catalog: LED	Test Lab:
Manufacture: DC-L APS	Test Machine: GON-2000	Test Date: 2017/08/25

3D Plane Illuminance Modal



Curves: 3D Model — 90% — 80% — 70% — 60% — 50% — 40% — 30% — 20% — 10% —
View Angles(deg): 0 Height(m): 3.0 Distance(m): 10.0

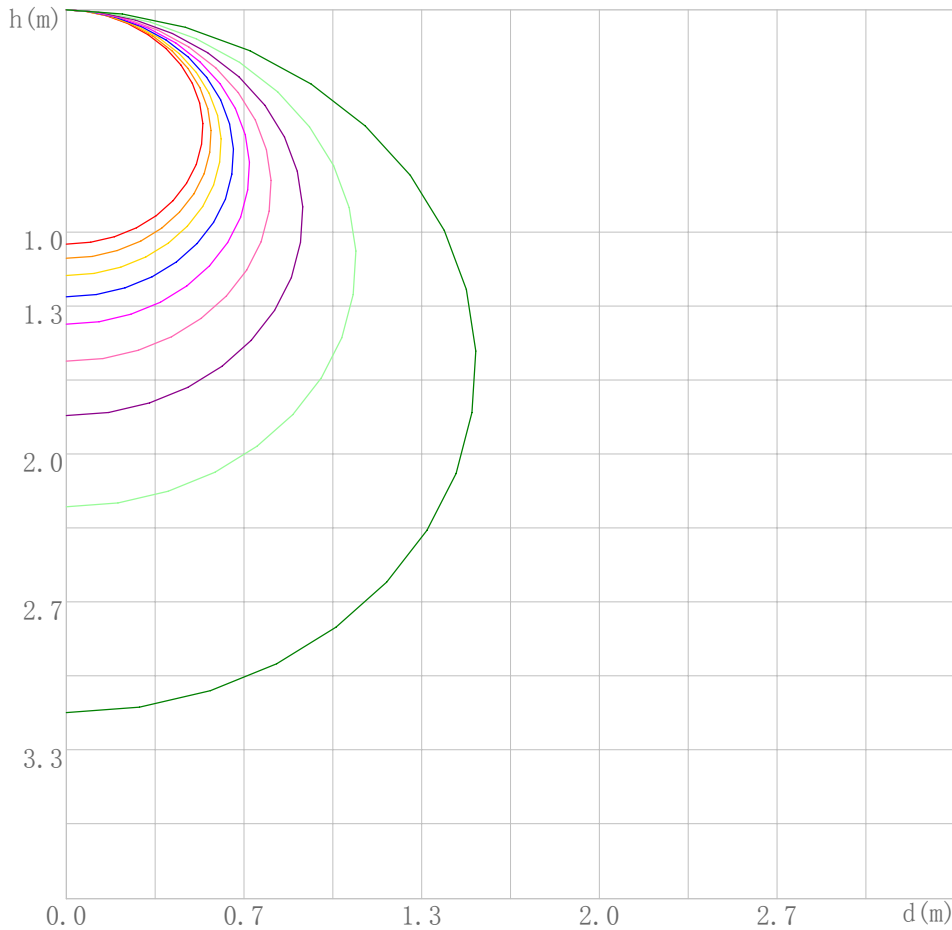
IES Indoor Report

Photometric Filename: Campus D1000 Ceiling SL2835 3K 30B18C HYL-1400H-O 3.0H70.IES

Space ISO Illuminance Diagram

Lum. Name: Campus D1000	Lum. Catalog: Ceiling Lamp	Test ID:
Lamp Name: SL2835 3K 30B18C	Lamp Catalog: LED	Test Lab:
Manufacture: DC-L APS	Test Machine: GON-2000	Test Date: 2017/08/25

Space ISO Illuminance Curve



Curves:

[Unit: lx]

[EMax] = 3065.242

— [EMax*90%]=2758.718

— [EMax*80%]=2452.194

— [EMax*70%]=2145.669

— [EMax*60%]=1839.145

— [EMax*50%]=1532.621

— [EMax*40%]=1226.097

— [EMax*30%]=919.573

— [EMax*20%]=613.048

— [EMax*10%]=306.524

Space Plane Maximum Illuminance and @Angle:3065.24lx,0.0deg
Plane Maximum Lighting Intensity and @Angle:3065.242cd,0deg

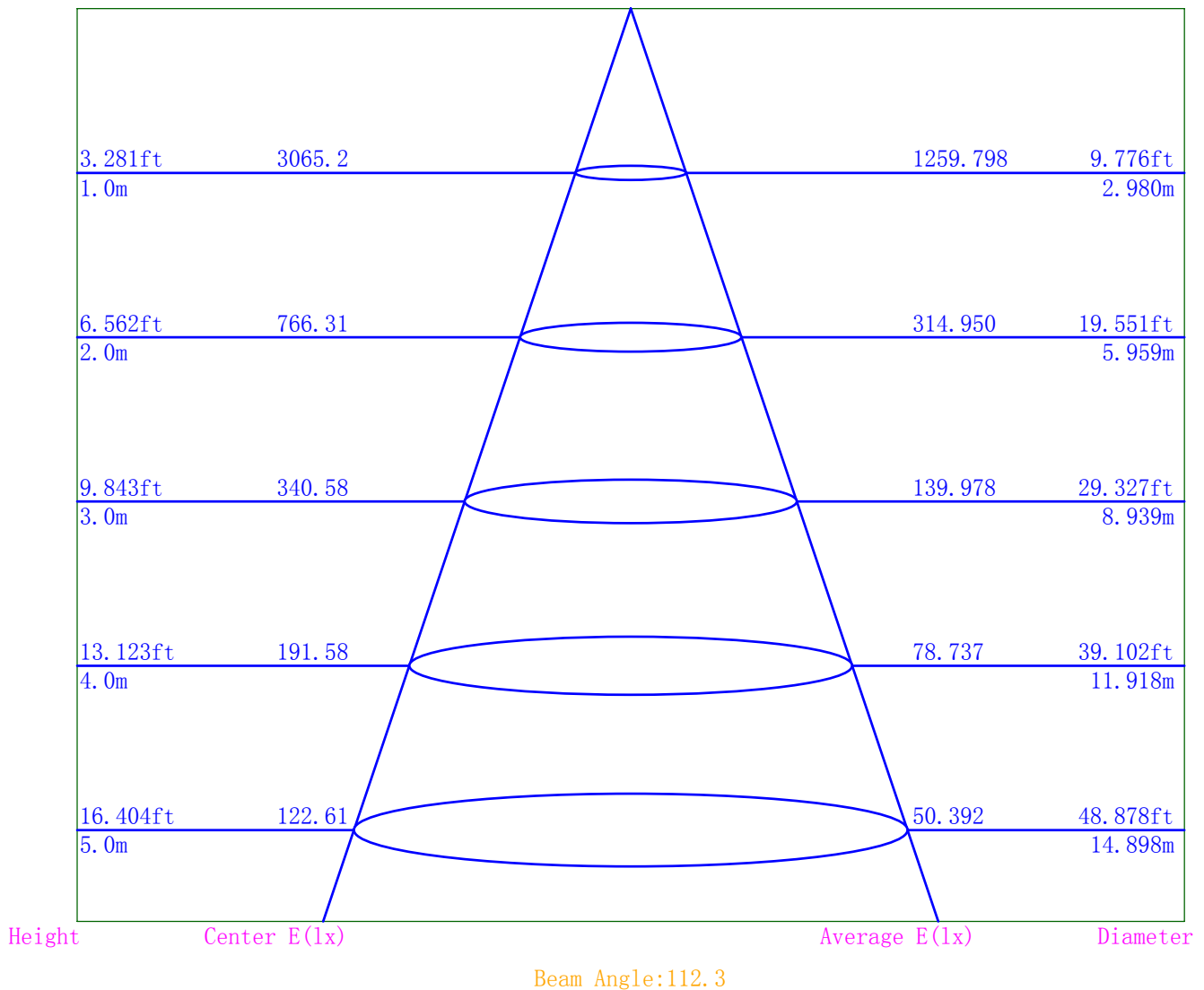
IES Indoor Report

Photometric Filename: Campus D1000 Ceiling SL2835 3K 30B18C HYL-1400H-O 3.0H70.IES

Illuminance-Distance Diagram

Lum. Name: Campus D1000	Lum. Catalog: Ceiling Lamp	Test ID:
Lamp Name: SL2835 3K 30B18C	Lamp Catalog: LED	Test Lab:
Manufacture: DC-L APS	Test Machine: GON-2000	Test Date: 2017/08/25

Illuminance-Distance Curve



IES Indoor Report

Photometric Filename: Campus D1000 Ceiling SL2835 3K 30B18C HYL-1400H-O 3.0H70.IES

Indoor Luminance Limiting Curves

Lum. Name: Campus D1000	Lum. Catalog: Ceiling Lamp	Test ID:
Lamp Name: SL2835 3K 30B18C	Lamp Catalog: LED	Test Lab:
Manufacture: DC-L APS	Test Machine: GON-2000	Test Date: 2017/08/25

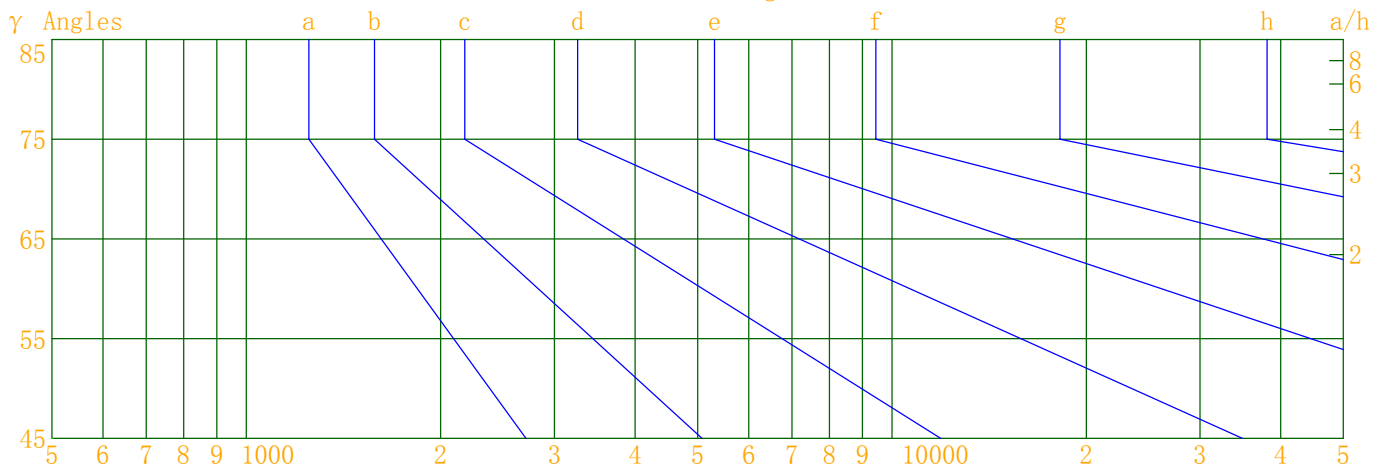
Glare Grade Table

GI	Quality	Using Illuminance							
		a	b	c	d	e	f	g	h
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	a				2000	1000	500	<=300
			b	c	d	e	f	g	h

Luminance Table

Gama (deg)	45	50	55	60	65	70	75	80	85
C0	460	453	444	433	418	398	370	333	286
C90	444	434	422	407	387	359	321	267	186

Luminance Limiting Curve



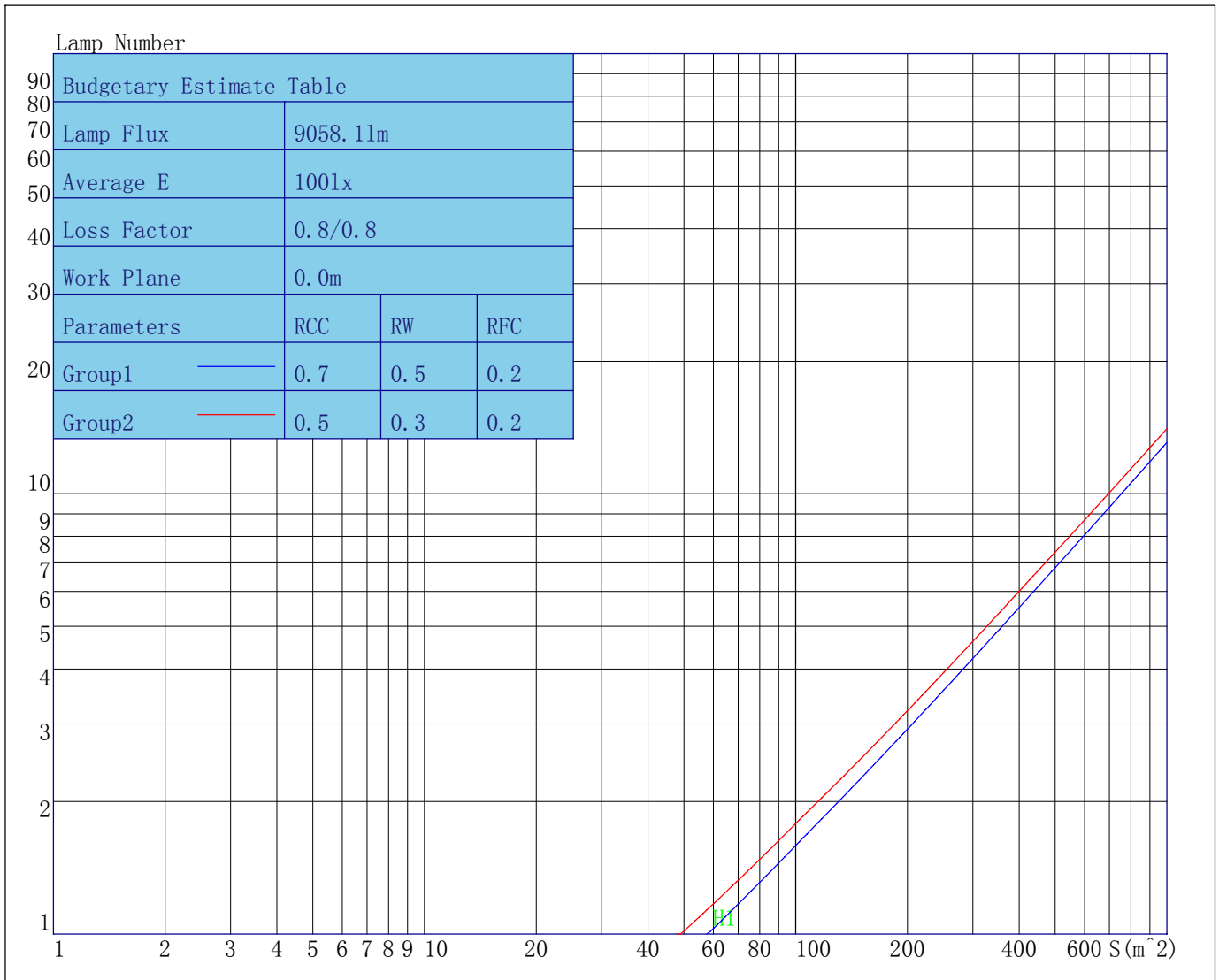
Luminous Size: Length(m)=0.000 Width(m)=-1.000 Height(m)=0.100 Area(m²)=6.283185
 Luminous Type: Without Luminous Side
 Luminous Curves: C0-C180 Color: — C90-C270 Color: —

IES Indoor Report

Photometric Filename: Campus D1000 Ceiling SL2835 3K 30B18C HYL-1400H-O 3.0H70.IES

Indoor Budgetary Estimate Table

Lum. Name: Campus D1000	Lum. Catalog: Ceiling Lamp	Test ID:
Lamp Name: SL2835 3K 30B18C	Lamp Catalog: LED	Test Lab:
Manufacture: DC-L APS	Test Machine: GON-2000	Test Date: 2017/08/25



Parameters1: Rhocc = 0.7 Rhow = 0.5 Rhofc = 0.2 LLF = 0.8
 Parameters2: Rhocc = 0.5 Rhow = 0.3 Rhofc = 0.2 LLF = 0.8
 Average Illuminance(lx): 100 Cavity Height: H1(m) = 2

IES Indoor Report

Photometric Filename: Campus D1000 Ceiling SL2835 3K 30B18C HYL-1400H-O 3.0H70.IES

Indoor Coefficient of Utilization Table

Lum. Name: Campus D1000	Lum. Catalog: Ceiling Lamp	Test ID:
Lamp Name: SL2835 3K 30B18C	Lamp Catalog: LED	Test Lab:
Manufacture: DC-L APS	Test Machine: GON-2000	Test Date: 2017/08/25

Coefficients of Utilization - Zonal Cavity Method																					
Coef.	Effective Floor Cavity Reflectance RFC=0.20																				
RhoCC (%)	80				70				50				30				10				0
RhoW (%)	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR	Coefficient of Utilization (%)																				
0	118	118	118	118	115	115	115	115	109	109	109	104	104	104	99	99	99	96			
1	108	103	99	95	105	100	96	93	95	92	89	91	88	86	87	85	83	80			
2	98	90	83	77	95	87	81	76	83	78	74	80	75	71	76	72	69	67			
3	89	79	70	64	86	77	69	63	73	67	62	70	65	60	67	62	59	56			
4	82	70	61	54	79	68	60	53	65	58	52	62	56	51	60	55	50	48			
5	75	62	53	46	73	61	52	46	58	51	45	56	49	44	54	48	44	41			
6	69	56	47	41	67	55	46	40	53	45	40	51	44	39	49	43	38	36			
7	64	51	42	36	62	50	41	35	48	40	35	46	39	34	44	38	34	32			
8	60	46	38	32	58	45	37	32	44	36	31	42	36	31	41	35	30	28			
9	56	42	34	29	54	42	34	28	40	33	28	39	32	28	38	32	27	26			
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	35	29	25	23			

IES Indoor Report

Photometric Filename: Campus D1000 Ceiling SL2835 3K 30B18C HYL-1400H-O 3.0H70.IES

Unified Glare Rating Table

Lum. Name: Campus D1000	Lum. Catalog: Ceiling Lamp	Test ID:
Lamp Name: SL2835 3K 30B18C	Lamp Catalog: LED	Test Lab:
Manufacture: DC-L APS	Test Machine: GON-2000	Test Date: 2017/08/25

Unified Glare Rating Table

Ceiling RCC	0.70	0.70	0.50	0.50	0.30	0.70	0.70	0.50	0.50	0.30
Wall RW	0.50	0.30	0.50	0.30	0.30	0.50	0.30	0.50	0.30	0.30
Floor RFC	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Room Size	Viewed crosswise					Viewed endwise				
X=2H Y=2H	4.4	5.9	3.4	4.7	5.0	3.9	5.4	2.9	4.2	4.5
Y=3H	6.0	7.4	5.2	6.3	6.7	5.4	6.8	4.6	5.8	6.1
Y=4H	6.7	7.9	5.9	7.0	7.4	6.0	7.3	5.3	6.4	6.7
Y=6H	7.2	8.4	6.5	7.6	7.9	6.4	7.6	5.7	6.8	7.2
Y=8H	7.3	8.5	6.7	7.7	8.1	6.5	7.6	5.9	6.9	7.3
Y=12H	7.4	8.5	6.9	7.8	8.2	6.5	7.6	6.0	6.9	7.3
X=4H Y=2H	4.1	5.4	3.4	4.5	4.9	3.7	4.9	2.9	4.0	4.4
Y=3H	5.8	6.9	5.3	6.2	6.7	5.2	6.3	4.7	5.6	6.1
Y=4H	6.6	7.6	6.2	7.0	7.5	5.9	6.8	5.5	6.3	6.8
Y=6H	7.2	8.1	6.9	7.7	8.2	6.4	7.2	6.1	6.8	7.3
Y=8H	7.5	8.2	7.2	7.9	8.4	6.5	7.3	6.3	7.0	7.5
Y=12H	7.6	8.3	7.5	8.1	8.6	6.6	7.2	6.4	7.0	7.6
X=8H Y=4H	8.4	9.2	8.2	8.9	9.4	7.8	8.6	7.6	8.3	8.8
Y=6H	9.0	9.6	8.9	9.5	10.0	8.3	8.9	8.2	8.8	9.3
Y=8H	9.2	9.7	9.2	9.7	10.3	8.4	8.9	8.4	8.9	9.5
Y=12H	9.4	9.8	9.5	9.9	10.5	8.4	8.9	8.6	9.0	9.6
X=12H Y=4H	8.5	9.2	8.4	9.0	9.5	8.0	8.7	7.8	8.5	9.0
Y=6H	9.2	9.7	9.2	9.7	10.2	8.5	9.0	8.5	9.0	9.5
Y=8H	9.4	9.9	9.5	10.0	10.5	8.6	9.1	8.7	9.2	9.8
Variations with the observer position at spacings										
S=1.0H	0.8/-0.9					1.0/-1.0				
S=1.5H	1.6/-1.7					1.7/-1.9				
S=2.0H	1.5/-1.7					1.8/-2.1				
Reduced UGR Table:										
Nordic Standard Table:	BKO					BKO				
Correction Value	3.5					3.3				

le is calculated according to the document STD.CIE 117-1995

IES Indoor Report

Photometric Filename: Campus D1000 Ceiling SL2835 3K 30B18C HYL-1400H-O 3.0H70.IES

Candela Tabulation

V/H	C0.0	C30.0	C60.0	C90.0	C120.0	C150.0	C180.0	C210.0	C240.0	C270.0	C300.0	C330.0
γ 0.0	3065.24	3065.24	3065.24	3065.24	3065.24	3065.24	3065.24	3065.24	3065.24	3065.24	3065.24	3065.24
γ 5.0	3053.56	3049.72	3034.64	3043.37	3044.26	3051.68	3049.05	3049.21	3056.06	3054.02	3060.21	3050.74
γ 10.0	3011.98	3002.11	2996.43	2992.68	2994.60	3003.41	3012.15	3007.95	3019.32	3023.15	3023.69	3016.98
γ 15.0	2945.35	2932.30	2919.05	2919.39	2917.88	2931.26	2933.62	2940.88	2951.92	2956.84	2961.49	2948.12
γ 20.0	2850.24	2836.13	2815.02	2815.70	2812.95	2837.76	2837.38	2844.89	2862.97	2864.39	2867.99	2857.41
γ 25.0	2730.94	2711.34	2683.71	2684.73	2688.01	2711.25	2716.31	2726.46	2745.70	2747.40	2752.57	2739.96
γ 30.0	2588.99	2568.83	2537.02	2539.00	2538.61	2567.00	2572.69	2583.03	2605.21	2606.20	2615.87	2600.97
γ 35.0	2428.21	2402.04	2365.39	2365.53	2367.75	2400.70	2408.61	2420.42	2443.07	2446.18	2456.66	2437.46
γ 40.0	2239.36	2217.41	2176.28	2172.42	2181.06	2213.51	2221.41	2236.59	2262.40	2264.61	2274.61	2254.81
γ 45.0	2043.30	2014.65	1973.62	1971.83	1975.12	2013.78	2022.51	2036.08	2065.84	2065.51	2077.26	2055.08
γ 50.0	1828.09	1795.39	1753.31	1750.83	1755.96	1794.88	1804.02	1820.74	1850.77	1854.00	1865.07	1841.75
γ 55.0	1599.28	1564.05	1516.81	1519.24	1521.20	1565.82	1574.65	1595.26	1626.64	1628.12	1644.17	1612.65
γ 60.0	1359.38	1326.67	1277.27	1277.80	1278.05	1322.21	1332.88	1354.77	1387.61	1389.98	1401.22	1375.06
γ 65.0	1110.08	1076.69	1026.11	1027.41	1026.20	1071.75	1084.37	1106.33	1140.33	1143.09	1154.69	1125.62
γ 70.0	855.43	822.69	772.26	771.29	770.29	814.63	828.41	852.31	889.23	892.23	901.02	870.58
γ 75.0	602.29	571.50	523.86	522.02	520.30	562.40	575.66	600.52	636.94	638.69	647.64	617.05
γ 80.0	362.90	335.22	292.53	291.05	288.57	325.43	338.11	359.76	395.32	395.01	404.21	374.60
γ 85.0	156.48	135.41	103.20	102.11	99.21	126.75	136.76	154.23	182.85	183.76	190.15	165.42
γ 90.0	24.07	17.82	14.59	14.04	14.66	17.09	19.66	24.04	36.23	35.44	38.94	28.08
γ 95.0	15.72	16.49	17.76	17.84	17.91	17.16	18.33	18.24	17.34	17.03	16.22	16.65
γ 100.0	20.33	21.59	23.16	23.23	23.43	22.58	23.85	23.69	22.70	22.02	21.15	21.58
γ 105.0	25.87	27.27	29.08	29.28	29.75	28.81	30.31	29.85	28.52	27.77	26.93	27.40
γ 110.0	31.85	33.11	35.05	35.77	36.42	35.32	36.97	36.34	34.66	33.92	33.11	33.50
γ 115.0	38.14	39.21	41.42	42.60	42.98	42.06	43.84	42.72	41.02	40.34	39.20	40.00
γ 120.0	44.64	45.39	47.55	49.54	49.70	48.98	50.91	49.35	47.01	47.08	45.63	46.64
γ 125.0	51.65	52.08	53.43	56.48	56.97	55.75	57.91	55.89	52.06	54.08	50.90	53.15
γ 130.0	57.90	58.78	58.99	62.76	63.21	62.49	64.40	62.28	59.21	59.55	58.82	60.21
γ 135.0	63.91	65.00	65.37	68.25	70.13	69.13	70.42	68.27	65.96	64.66	64.96	66.84
γ 140.0	69.31	70.35	71.37	73.49	76.01	75.01	76.13	73.77	71.59	70.61	71.24	72.17
γ 145.0	74.27	75.02	76.93	79.42	81.63	79.93	81.24	78.92	76.19	75.08	76.18	77.17
γ 150.0	79.22	79.86	81.93	84.42	85.93	84.19	85.99	83.86	80.40	79.43	80.12	81.88
γ 155.0	87.74	88.61	90.63	92.17	92.71	90.72	93.41	93.00	88.20	87.24	87.22	90.08
γ 160.0	96.83	97.42	98.21	99.47	98.94	97.76	100.59	99.38	96.92	95.98	94.92	97.63
γ 165.0	102.96	102.34	103.75	104.68	103.56	103.42	105.38	104.47	102.97	102.42	101.41	102.40
γ 170.0	105.47	105.85	107.01	107.75	106.52	105.47	107.45	106.56	106.53	106.34	104.69	105.65
γ 175.0	108.70	108.39	108.82	109.28	107.94	108.09	109.65	109.15	108.77	108.93	107.36	107.96
γ 180.0	109.17	109.17	109.17	109.17	109.17	109.17	109.17	109.17	109.17	109.17	109.17	109.17