IES Indoor Report
Photometric Filename:B20W-CC-MS 4K.IES

Indoor Luminaire Photometric Data

Description Information

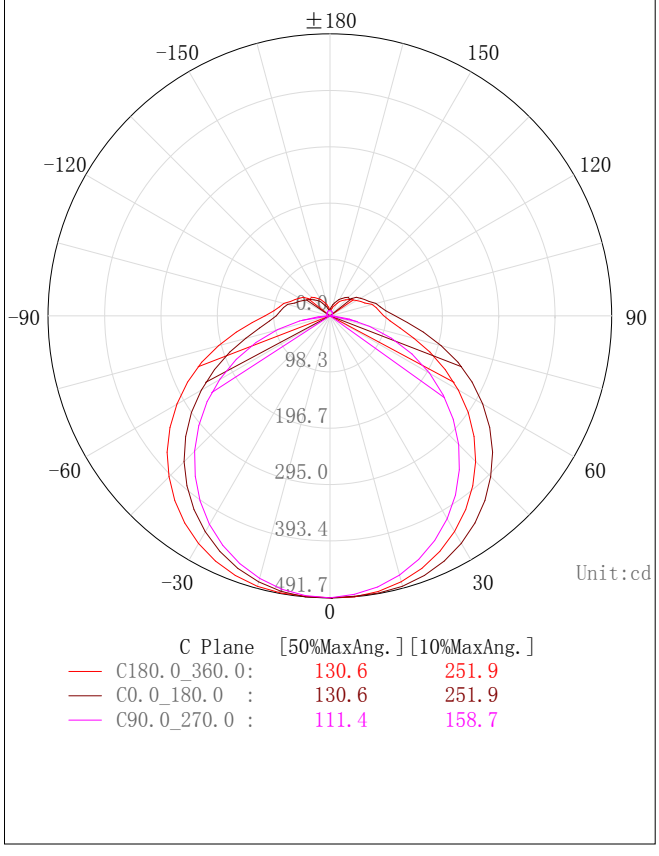
Lum.Name: B20W-CC-MS 4K		Lum.Catelog: LED BATTEN	Test ID:
Lamp Name: 4000K		Lamp Catelog: SMD2835	Test Date: 2018/10/27
Manufacture:		ShldAngle(°):	Test Machine:GON-2000
Test Lab:		Frequency(Hz):	Lamp CCT(K): Ra:
Lum.Size(W*L*H):0.080m*0.600m*0.065m		Lum.Area(m2):0.087	Lum.W(kg): 2.000
Test System: C, γ	Test Step: C=90.0 γ=5.0	Temp.(℃): 25	Humidity(%):

Character Parameter

Lamp Speciality Parameter		Luminaire Speciality Parameter	
Rated Flux(lm): 1790.090	Luminaire Flux: 1790.089lm		Field Angle(10%Imax): 251.9
Rated Power(W):	Luminaire Efficiency: 100.00%		Down Lumens&Percent: 1590.331lm 88.84%
Rated Voltage(V):	Luminaire EER(lm/W): 101.767		Up Lumens&Percent: 199.757lm 11.16%
Tested Power(W): 17.590	Max.Cand.(cd): 491.699		S/MH: C0_a180=1.349 C90_270=1.253
Lamps' Inside: 1	Max Cand@Ang.(°): C=180.0 γ=5.0		CIE Type: General Diffuse
Tested Electric:U=240.8V, I=0.078A, PF=0.000	Beam Angle(50%Imax): 130.6		ErP Φuse(120°): 1157.027lm
Lamp Size(W*L*H):0.080m*0.600m*0.065m	Left=-68.8 Right=61.8		IRF: 100.978%

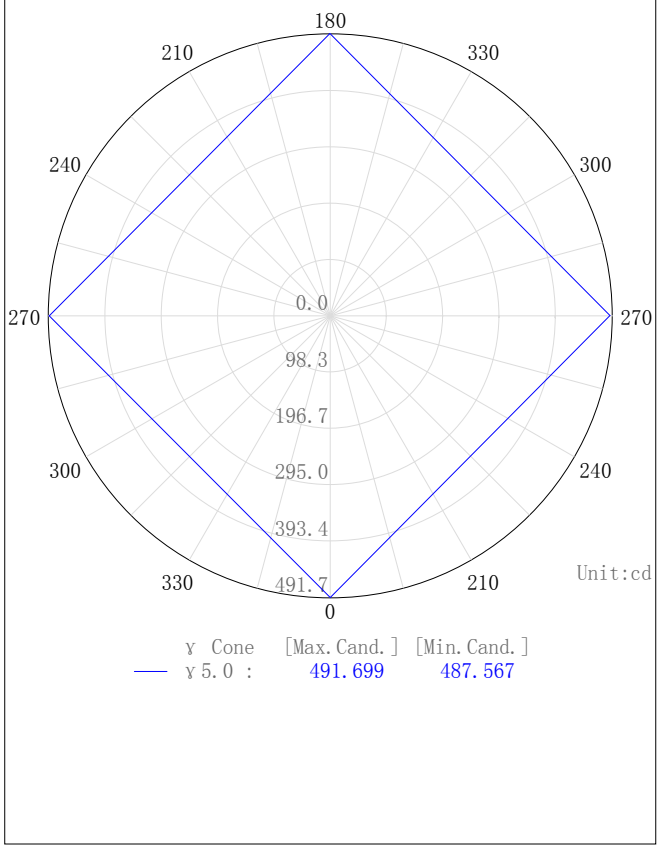
Lighting Distribution Diagram

C Plane Distribution Diagram



C Plane	[50%MaxAng.]	[10%MaxAng.]
C180.0_360.0:	130.6	251.9
C0.0_180.0 :	130.6	251.9
C90.0_270.0 :	111.4	158.7

γ Cone Curve



γ Cone	[Max.Cand.]	[Min.Cand.]
γ5.0 :	491.699	487.567

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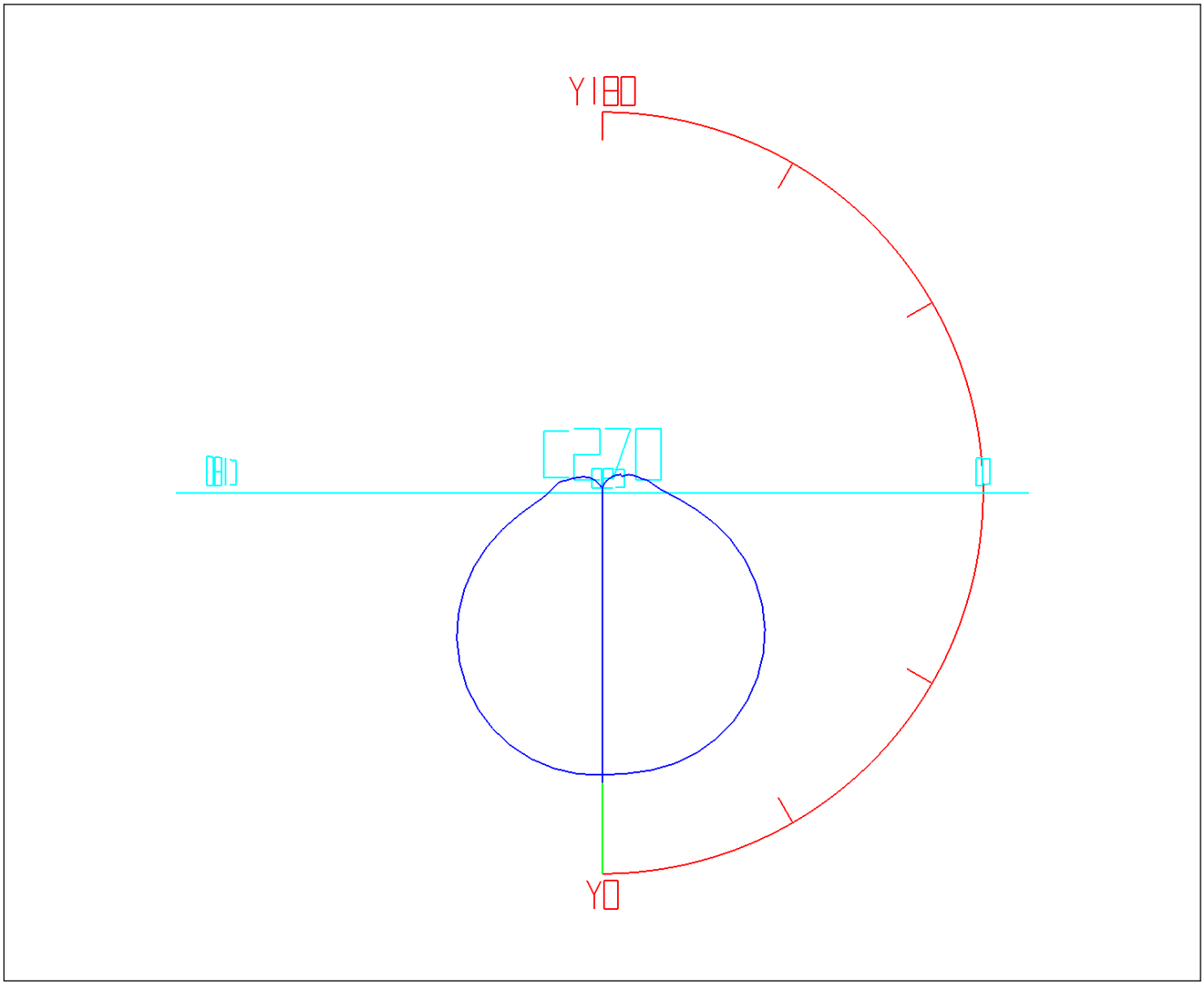
3D Light Intensity Distribution Modal

Lum.Name: B20W-CC-MS 4K	Lum.Catelog: LED BATTEN	Test ID:
Lamp Name: 4000K	Lamp Catelog: SMD2835	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2018/10/27

3D Light Intensity Distribution Modal



Curves: 3D Model Fixture Vert. HUD Hori. HUD

View Angles: Orient:0 Tilt:0 Roll:0 Spin:0

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Zonal Flux Tabulation

Zone(γ)	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	Sums%Lamp
0.0-5.0	11.73	11.73	0.66	0.66
5.0-10.0	34.90	46.63	1.95	2.61
10.0-15.0	57.14	103.77	3.19	5.80
15.0-20.0	77.73	181.50	4.34	10.14
20.0-25.0	96.01	277.51	5.36	15.50
25.0-30.0	111.38	388.89	6.22	21.72
30.0-35.0	123.34	512.24	6.89	28.62
35.0-40.0	131.51	643.75	7.35	35.96
40.0-45.0	135.63	779.38	7.58	43.54
45.0-50.0	135.54	914.93	7.57	51.11
50.0-55.0	131.23	1046.15	7.33	58.44
55.0-60.0	122.83	1168.98	6.86	65.30
60.0-65.0	110.71	1279.70	6.18	71.49
65.0-70.0	95.44	1375.14	5.33	76.82
70.0-75.0	77.97	1453.11	4.36	81.18
75.0-80.0	60.04	1513.15	3.35	84.53
80.0-85.0	44.05	1557.19	2.46	86.99
85.0-90.0	33.14	1590.33	1.85	88.84
90.0-95.0	27.85	1618.19	1.56	90.40
95.0-100.0	25.23	1643.42	1.41	91.81
100.0-105.0	23.17	1666.59	1.29	93.10
105.0-110.0	20.55	1687.14	1.15	94.25
110.0-115.0	17.93	1705.07	1.00	95.25
115.0-120.0	15.88	1720.95	0.89	96.14
120.0-125.0	13.91	1734.86	0.78	96.91
125.0-130.0	11.74	1746.60	0.66	97.57
130.0-135.0	10.00	1756.60	0.56	98.13
135.0-140.0	8.66	1765.26	0.48	98.61
140.0-145.0	7.13	1772.39	0.40	99.01
145.0-150.0	5.66	1778.04	0.32	99.33
150.0-155.0	4.30	1782.34	0.24	99.57
155.0-160.0	3.15	1785.49	0.18	99.74
160.0-165.0	2.20	1787.69	0.12	99.87
165.0-170.0	1.41	1789.10	0.08	99.94
170.0-175.0	0.76	1789.86	0.04	99.99
175.0-180.0	0.23	1790.09	0.01	100.00

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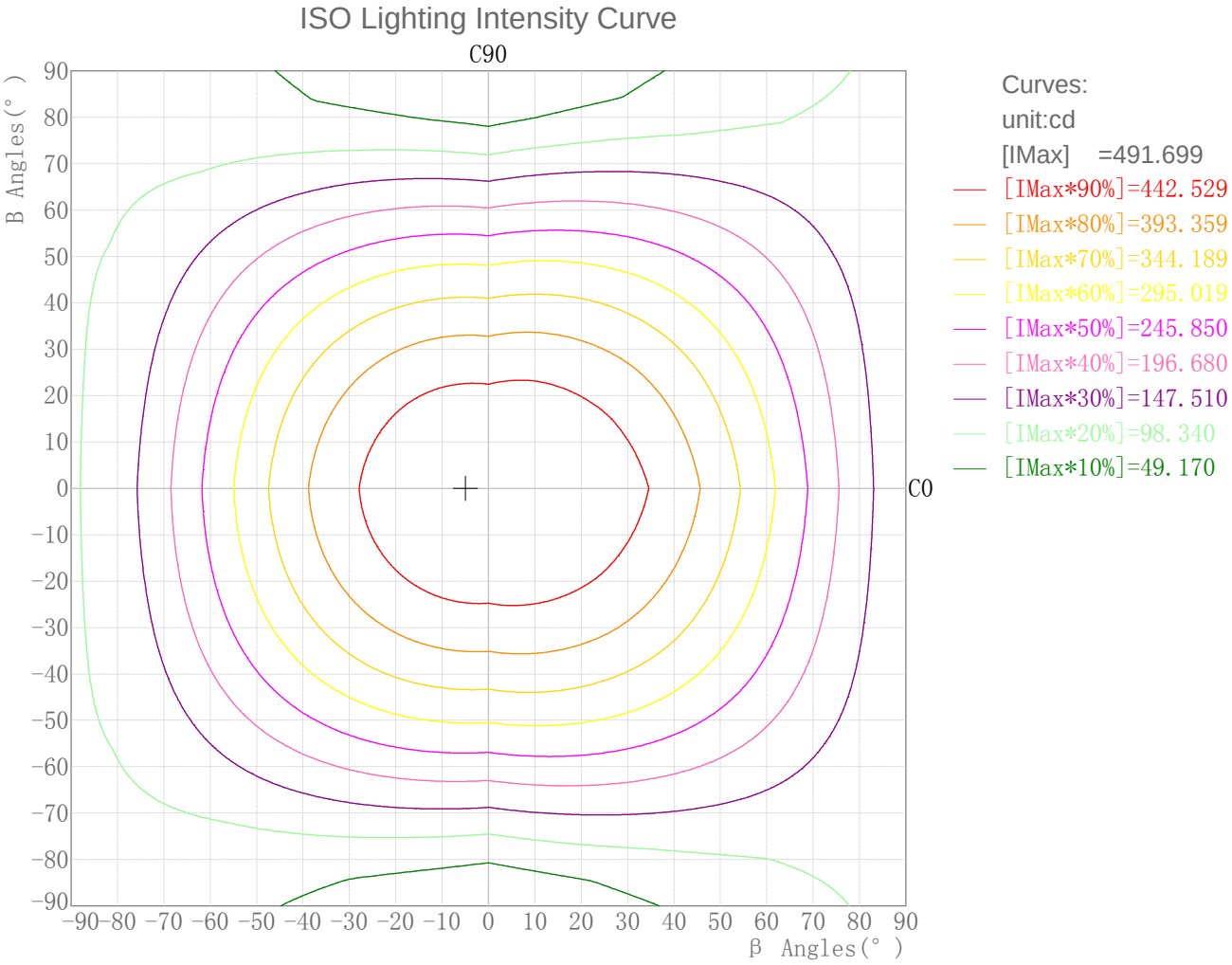
Rectangle ISO Lighting Intensity Diagram

Lum.Name: B20W-CC-MS 4K	Lum.Catelog: LED BATTEN	Test ID:
Lamp Name: 4000K	Lamp Catelog: SMD2835	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2018/10/27



Maximum Light Intensity(cd): 491.70
Maximum Cand.@Angle: H=-5.0°,V=0.0°

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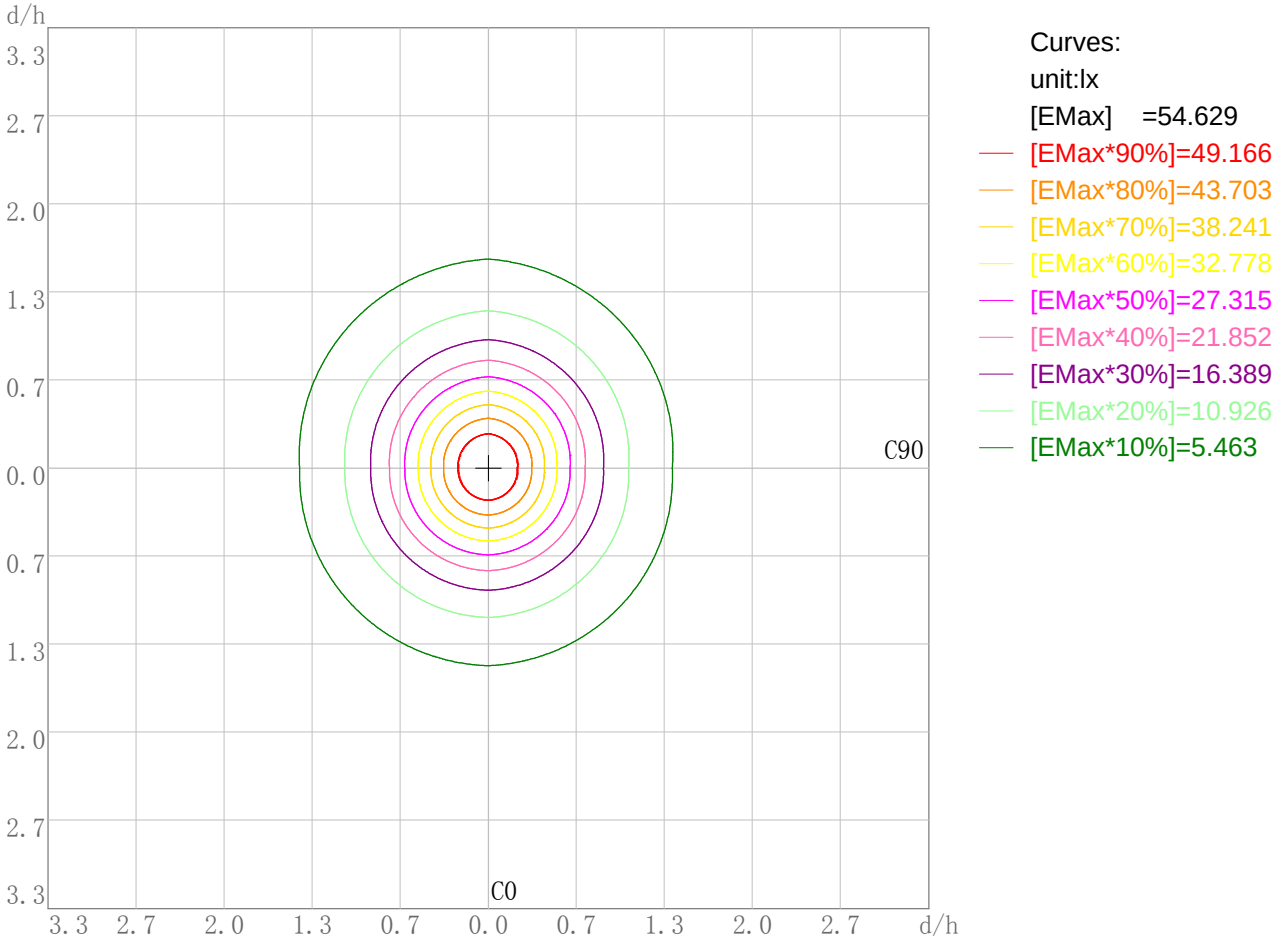
Plane ISO-Illuminance Diagram

Lum.Name: B20W-CC-MS 4K	Lum.Catelog: LED BATTEN	Test ID:
Lamp Name: 4000K	Lamp Catelog: SMD2835	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2018/10/27

Plane ISO-Illuminance Curve



Working Plane Luminaire Mounting Height(m): 3.00
Working Plane Maximum Illuminance(lx): 54.63
Working Plane Maximum Illuminance Position(d/h):H0.0 V0.0

IES Indoor Report
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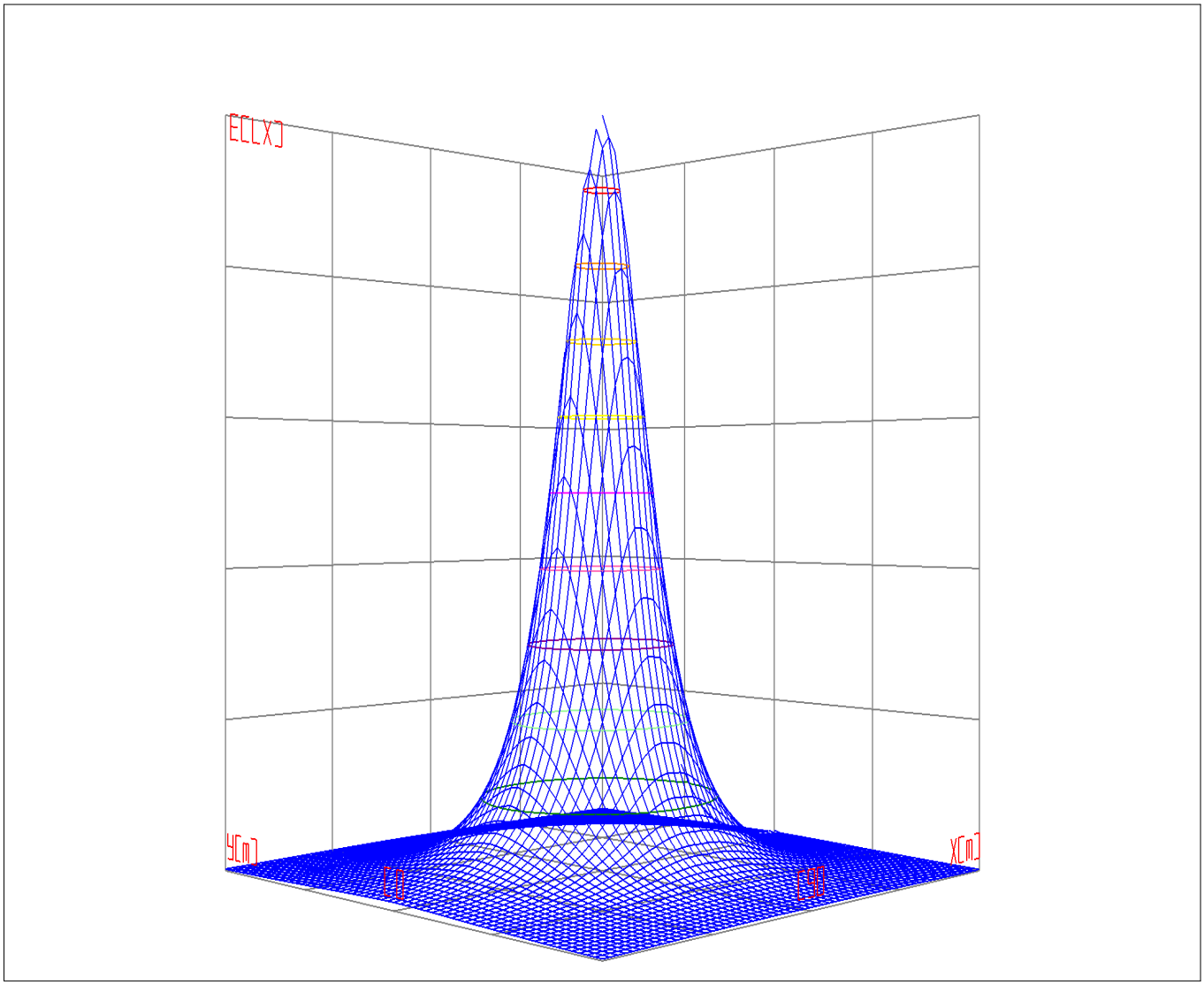
3D Plane ISO Illuminance Diagram

Lum.Name: B20W-CC-MS 4K	Lum.Catelog: LED BATTEN	Test ID:
Lamp Name: 4000K	Lamp Catelog: SMD2835	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2018/10/27

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
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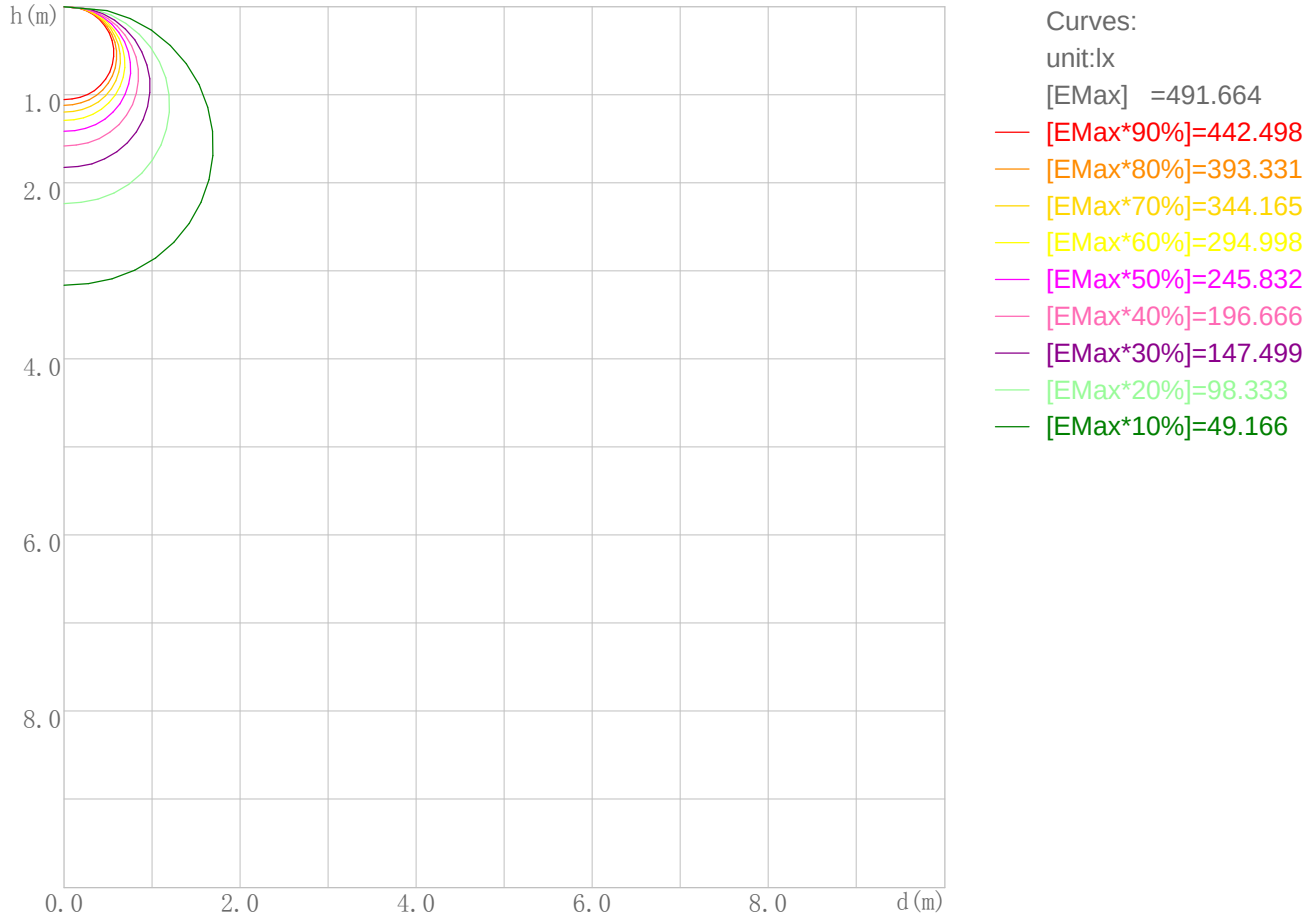
Space ISO Illuminance Diagram

Lum.Name: B20W-CC-MS 4K	Lum.Catelog: LED BATTEN	Test ID:
Lamp Name: 4000K	Lamp Catelog: SMD2835	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2018/10/27

Space ISO Illuminance Curve



Space Plane Maximum Illuminance and @Angle:491.66,0.0deg
Plane Maximum Lighting Intensity and @Angle:491.664cd,0eg

IES Indoor Report
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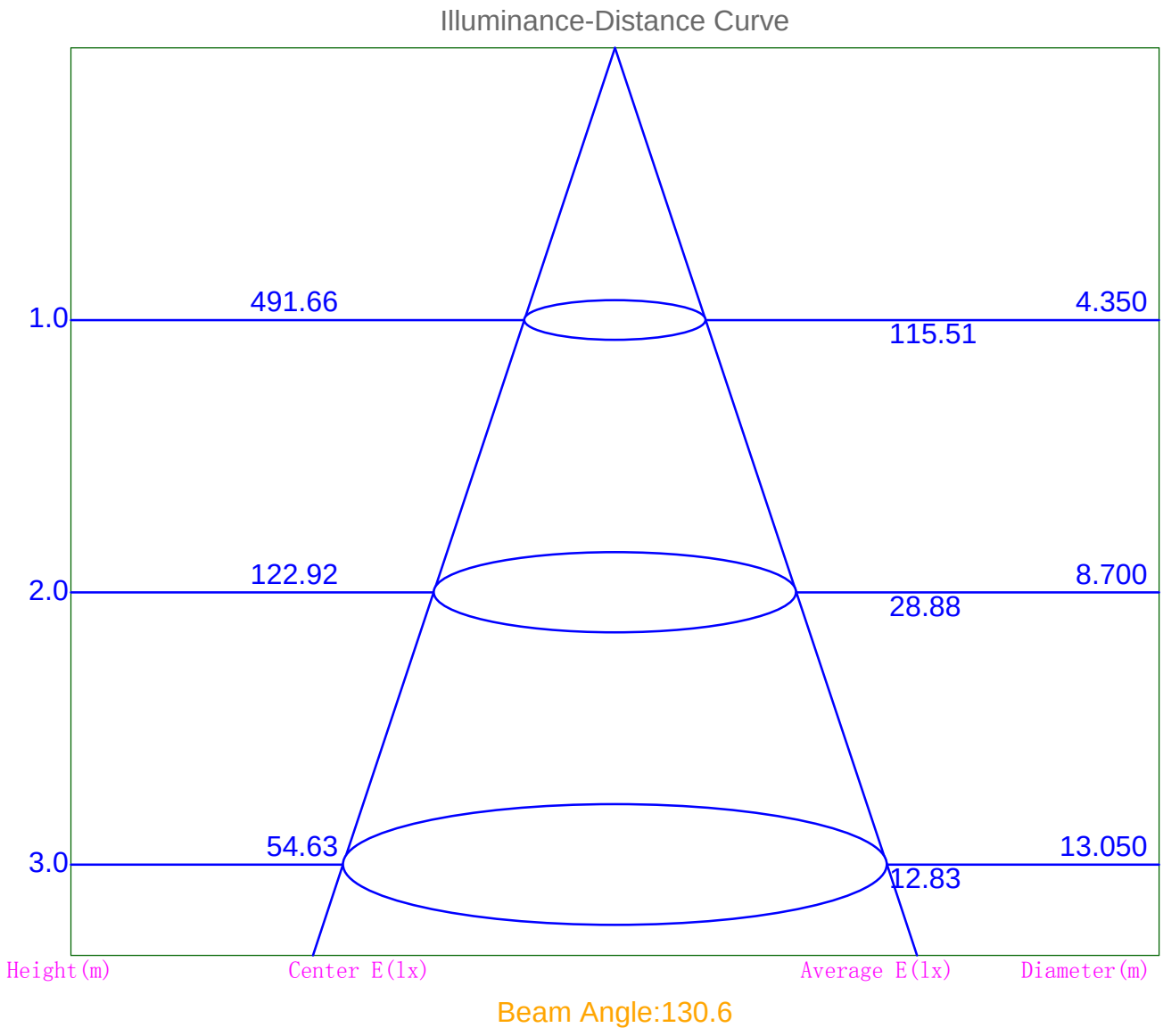
Illuminance-Distance Diagram

Lum.Name: B20W-CC-MS 4K	Lum.Catelog: LED BATTEN	Test ID:
Lamp Name: 4000K	Lamp Catelog: SMD2835	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2018/10/27



Beam Angle:130.6

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Indoor Luminance Limiting Curves

Lum.Name: B20W-CC-MS 4K	Lum.Catelog: LED BATTEN	Test ID:
Lamp Name: 4000K	Lamp Catelog: SMD2835	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2018/10/27

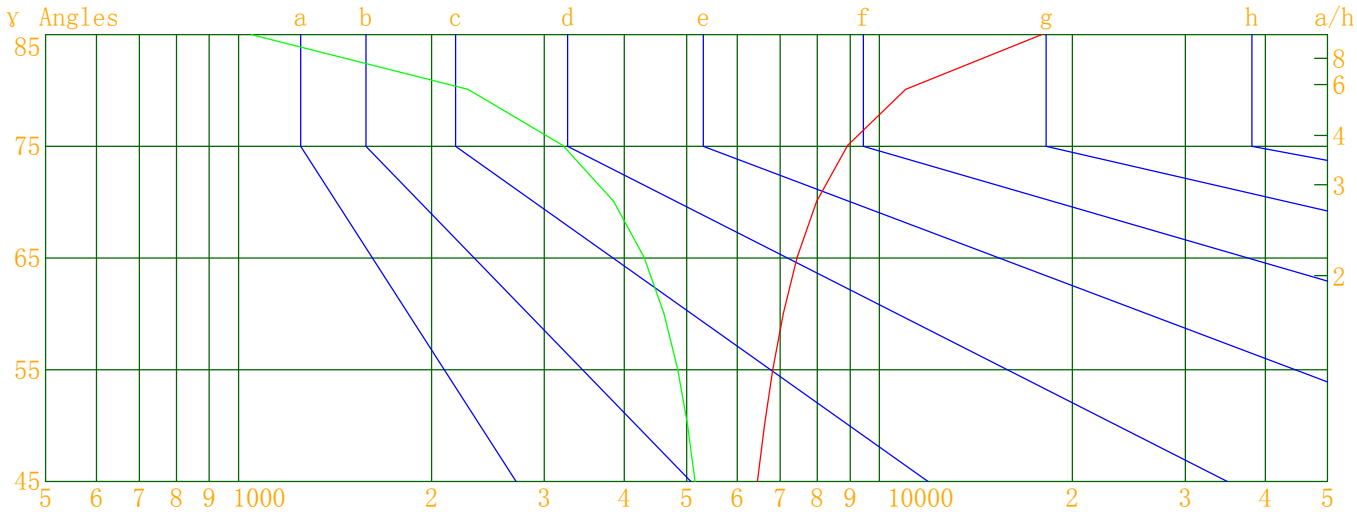
Glare Grade Table

GI	Quality	Using Illuminace							
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	6449	6615	6816	7077	7437	7983	8917	10983	17900
C90	5155	5019	4843	4609	4294	3847	3204	2280	1047

Luminance Limiting Curve



Luminous Size: Length(m)=0.600 Width(m)=0.080 Height(m)=0.065 Area(m^2)=0.087000

Luminous Type: Without Luminous Side

Luminous Curves: C0-C180 Color: ——— C90-C270 Color: ———

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Indoor Budgetary Estimate Table

Lum.Name: B20W-CC-MS 4K	Lum.Catelog: LED BATTEN	Test ID:
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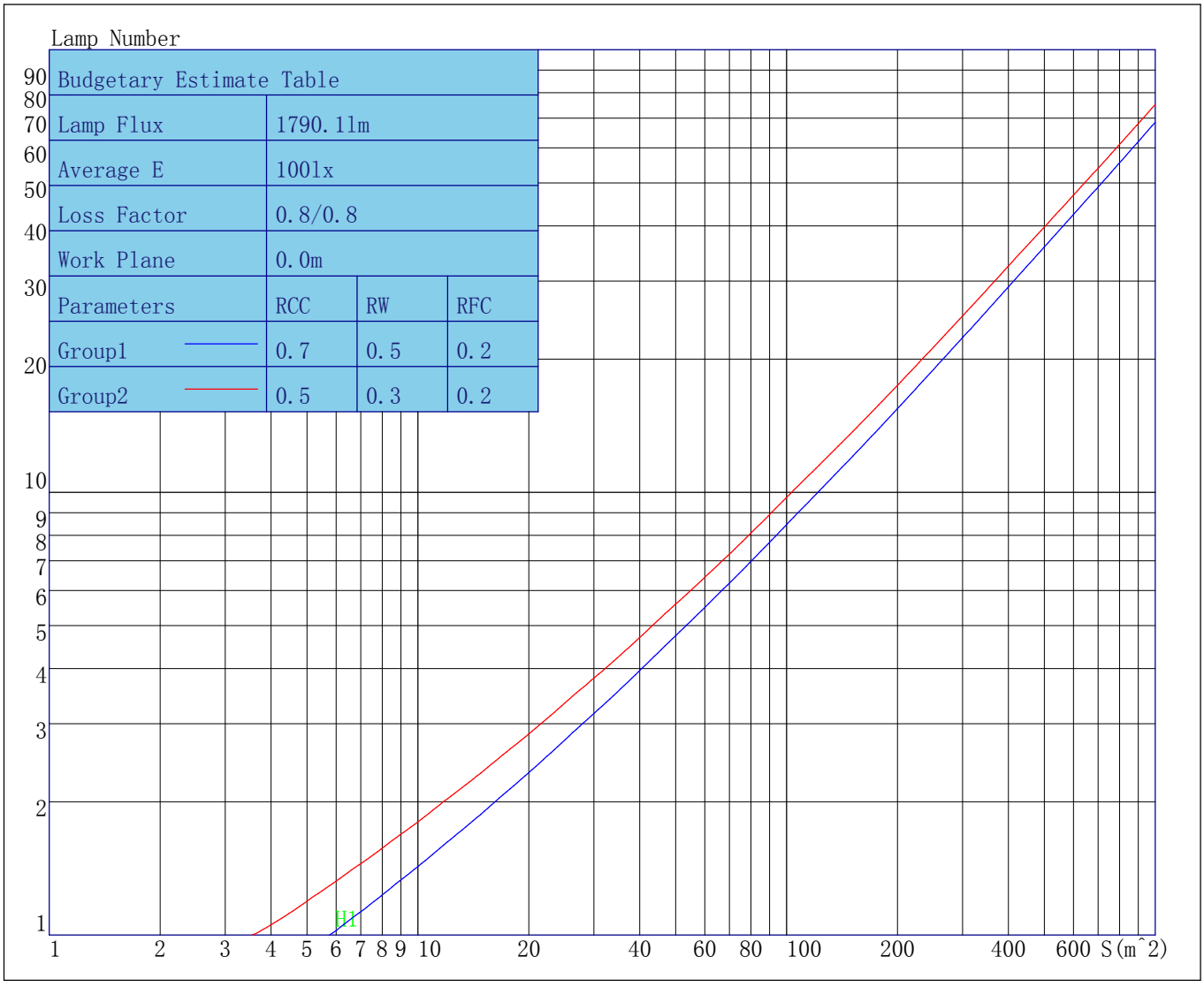
Manufacture:	Test Machine:GON-2000	Test Date: 2018/10/27



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

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Indoor Coefficient of Utilization Table

Lum.Name: B20W-CC-MS 4K	Lum.Catelog: LED BATTEN	Test ID:
Lamp Name: 4000K	Lamp Catelog: SMD2835	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2018/10/27

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	0
RCR	Coefficient of Utilization(%)																	
0	116	116	116	116	112	112	112	112	105	105	105	98	98	98	92	92	92	89
1	105	100	95	91	101	96	92	88	90	86	83	84	81	79	79	76	74	71
2	95	86	79	73	91	83	77	71	78	72	68	73	68	64	68	65	61	58
3	86	75	67	60	83	73	65	59	68	61	56	64	58	54	60	55	51	49
4	79	66	57	50	75	64	56	49	60	53	47	57	50	46	53	48	44	41
5	72	59	50	43	69	57	49	42	54	46	41	51	44	39	48	42	38	35
6	66	53	44	37	64	51	43	37	48	41	35	46	39	34	43	37	33	31
7	62	48	39	33	59	46	38	32	44	37	31	41	35	30	39	34	29	27
8	57	44	35	29	55	42	34	29	40	33	28	38	32	27	36	30	26	24
9	53	40	32	26	51	39	31	26	37	30	25	35	29	24	33	28	23	22
10	50	37	29	23	48	36	28	23	34	27	22	32	26	22	31	25	21	19

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Unified Glare Rating Table

Lum.Name: B20W-CC-MS 4K	Lum.Catelog: LED BATTEN	Test ID:
Lamp Name: 4000K	Lamp Catelog: SMD2835	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2018/10/27

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		Vewed crosswise					Vewed endwise				
X=2H	Y=2H	23.7	27.0	24.9	28.3	29.5	21.6	24.9	22.8	26.2	27.4
	Y=3H	29.9	33.2	31.1	34.5	35.7	25.8	29.1	27.0	30.3	31.6
	Y=4H	33.8	36.8	35.1	38.1	39.3	28.1	31.0	29.3	32.3	33.6
	Y=6H	37.4	40.3	38.7	41.6	42.9	29.3	32.1	30.6	33.4	34.7
	Y=8H	39.4	42.2	40.6	43.5	44.8	29.6	32.4	30.9	33.7	35.0
	Y=12H	41.5	44.3	42.8	45.6	46.9	29.8	32.6	31.0	33.9	35.1
X=4H	Y=2H	24.9	27.8	26.2	29.1	30.4	24.1	27.0	25.4	28.3	29.6
	Y=3H	31.4	34.3	32.6	35.6	36.9	28.6	31.5	29.8	32.8	34.1
	Y=4H	33.8	35.7	35.4	37.2	38.7	29.5	31.4	31.1	32.9	34.4
	Y=6H	38.1	39.7	39.6	41.3	42.8	31.4	33.1	33.0	34.6	36.2
	Y=8H	40.4	42.0	42.0	43.6	45.1	32.1	33.7	33.7	35.2	36.8
	Y=12H	42.2	43.6	43.9	45.2	46.8	31.6	33.0	33.3	34.6	36.3
X=8H	Y=4H	34.2	35.8	35.7	37.3	38.9	30.8	32.4	32.3	33.9	35.4
	Y=6H	37.8	39.0	39.6	40.7	42.3	32.4	33.5	34.1	35.2	36.8
	Y=8H	40.0	41.0	41.8	42.7	44.4	33.0	34.0	34.8	35.7	37.4
	Y=12H	43.2	44.1	45.0	45.8	47.5	34.0	34.8	35.8	36.6	38.3
X=12H	Y=4H	33.3	34.6	35.0	36.3	37.9	30.2	31.5	31.9	33.2	34.8
	Y=6H	37.4	38.4	39.2	40.1	41.8	32.4	33.4	34.2	35.1	36.8
	Y=8H	40.1	41.0	41.9	42.7	44.4	33.8	34.6	35.6	36.4	38.1
Variations with the objerver position at spacings											
S=1.0H		2.0/-2.2					2.2/-0.1				
S=1.5H		-2.2/-20.6					-0.1/-16.3				
S=2.0H		-2.2/-20.6					-0.1/-16.3				

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Candela Tabulation

V/H	C0.0	C90.0	C180.0	C270.0
Y 0.0	491.66	491.66	491.66	491.66
Y 5.0	491.01	487.57	491.70	489.43
Y 10.0	490.84	480.10	487.70	483.81
Y 15.0	488.18	468.27	480.03	473.85
Y 20.0	481.93	452.27	468.55	459.76
Y 25.0	471.99	432.32	453.33	441.59
Y 30.0	458.37	408.61	434.65	419.58
Y 35.0	441.09	381.35	412.61	394.17
Y 40.0	420.48	350.80	387.27	365.25
Y 45.0	396.75	317.14	359.05	333.31
Y 50.0	369.93	280.68	327.92	298.41
Y 55.0	340.14	241.69	294.36	260.96
Y 60.0	307.83	200.50	258.89	221.24
Y 65.0	273.45	157.89	222.13	179.76
Y 70.0	237.55	114.47	185.46	136.95
Y 75.0	200.79	72.15	151.71	94.16
Y 80.0	165.92	34.45	124.50	53.81
Y 85.0	135.73	7.94	105.43	20.66
Y 90.0	113.00	2.64	93.68	5.02
Y 95.0	97.86	2.93	87.23	4.57
Y 100.0	88.96	3.39	81.94	4.58
Y 105.0	82.89	3.81	76.07	4.74
Y 110.0	72.61	4.31	65.19	4.90
Y 115.0	66.87	4.76	59.35	5.24
Y 120.0	61.20	5.19	53.11	5.59
Y 125.0	55.93	5.66	48.03	5.95
Y 130.0	44.75	6.02	43.39	6.31
Y 135.0	45.46	6.45	38.93	6.62
Y 140.0	41.30	6.82	34.47	7.00
Y 145.0	36.71	7.24	29.97	7.31
Y 150.0	32.21	7.61	24.90	7.67
Y 155.0	27.32	8.01	20.22	8.01
Y 160.0	23.63	8.30	16.22	8.31
Y 165.0	20.15	8.67	12.93	8.69
Y 170.0	16.22	8.98	10.24	9.01
Y 175.0	12.98	9.17	8.77	9.24
Y 180.0	9.44	9.44	9.44	9.44