

Indoor Luminaire Photometric Data

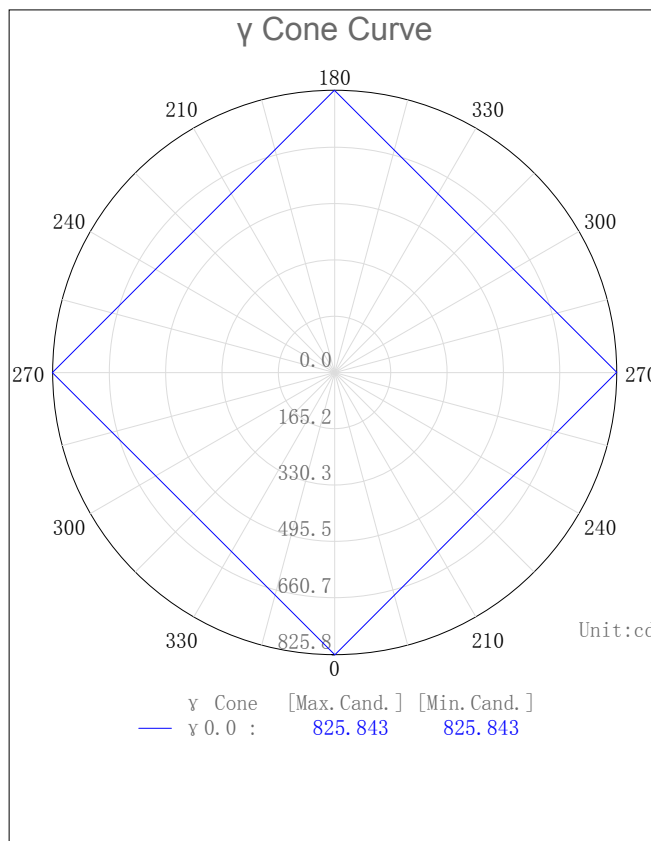
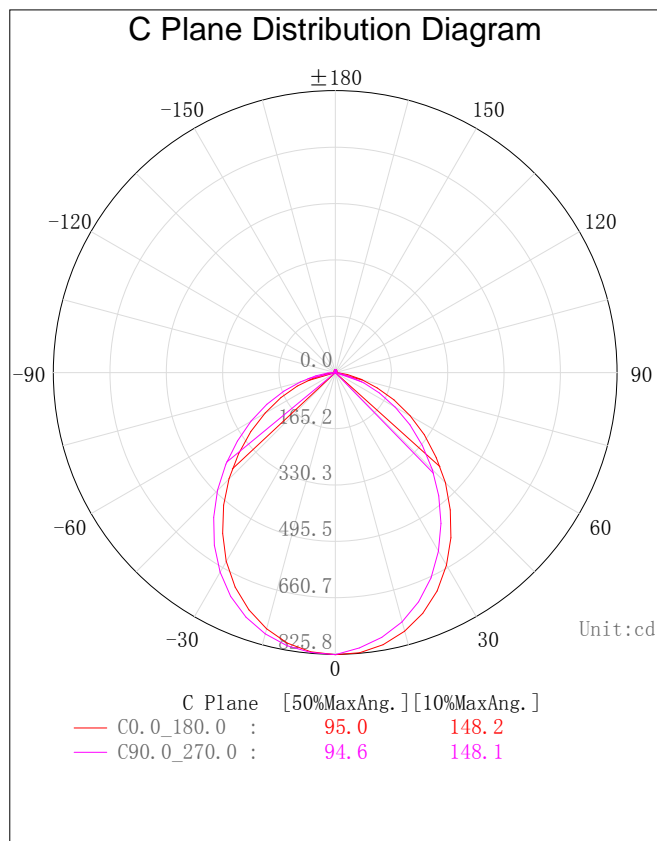
Description Information

Lum. Name: ICDLR20W3K-WH	Lum. Catalog: LED DOWNLIGHT	Test ID:
Lamp Name: 3000K	Lamp Catalog: SMD2835	Test Date: 2019/08/02
Manufacture: Asia Unique	ShldAngle(°):	Test Machine:GON-2000
Test Lab:	Frequency(Hz):	Lamp CCT(K): Ra:
Lum. Size(W*L*H):0.190m*0.190m*0.050m	Lum. Area(m2):0.046	Lum. W(kg): 2.000
Test System: C, γ	Test Step: C=90.0 γ=5.0	Temp.(°C): 25
		Humidity(%):

Character Parameter

Lamp Speciality Parameter	Luminaire Speciality Parameter	
Rated Flux(lm): 1893.900	Luminaire Flux: 1893.898lm	Field Angle(10%Imax): 148.2
Rated Power(W):	Luminaire Efficiency: 100.00%	Down Lumens&Percent: 1877.450lm 99.13%
Rated Voltage(V):	Luminaire EER(lm/W): 90.358	Up Lumens&Percent: 16.448lm 0.87%
Tested Power(W): 20.960	Max. Cand. (cd): 825.843	S/MH: C0_a180=1.169 C90_270=1.162
Lamps' Inside: 1	Max Cand@Ang. (°): C=0.0 γ=0.0	CIE Type: Semi-Direct
Tested Electric:U=243.6V, I=0.088A, PF=0.000	Beam Angle(50%Imax): 95.0	ErP Φuse(120°): 1578.147lm
Lamp Size(W*L*H):0.190m*0.190m*0.050m	Left=-46.9 Right=48.1	IRF: 123.727%

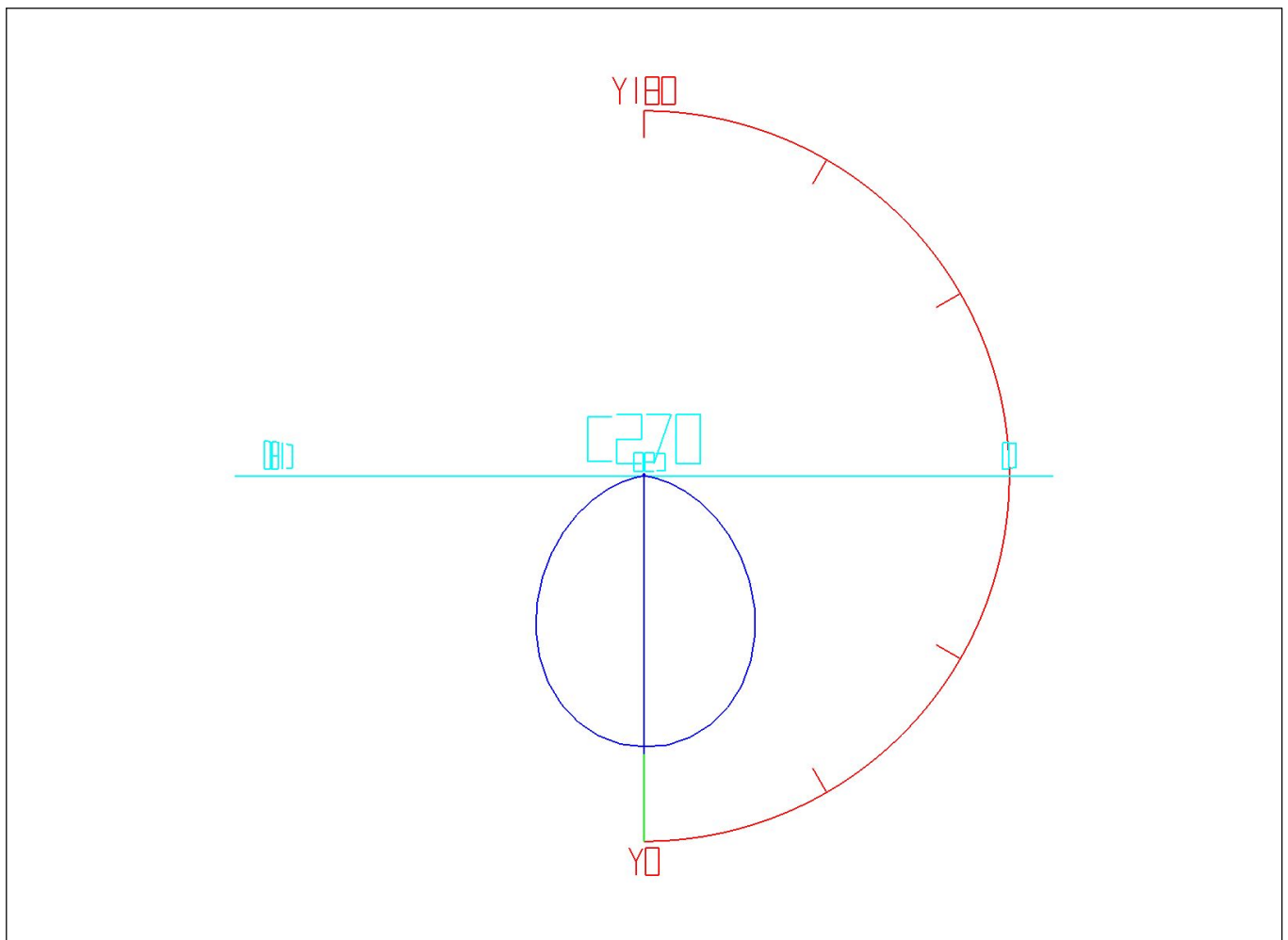
Lighting Distribution Diagram



3D Light Intensity Distribution Modal

Lum. Name: ICDLR20W3K-WH	Lum. Catalog: LED DOWNLIGHT	Test ID:
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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

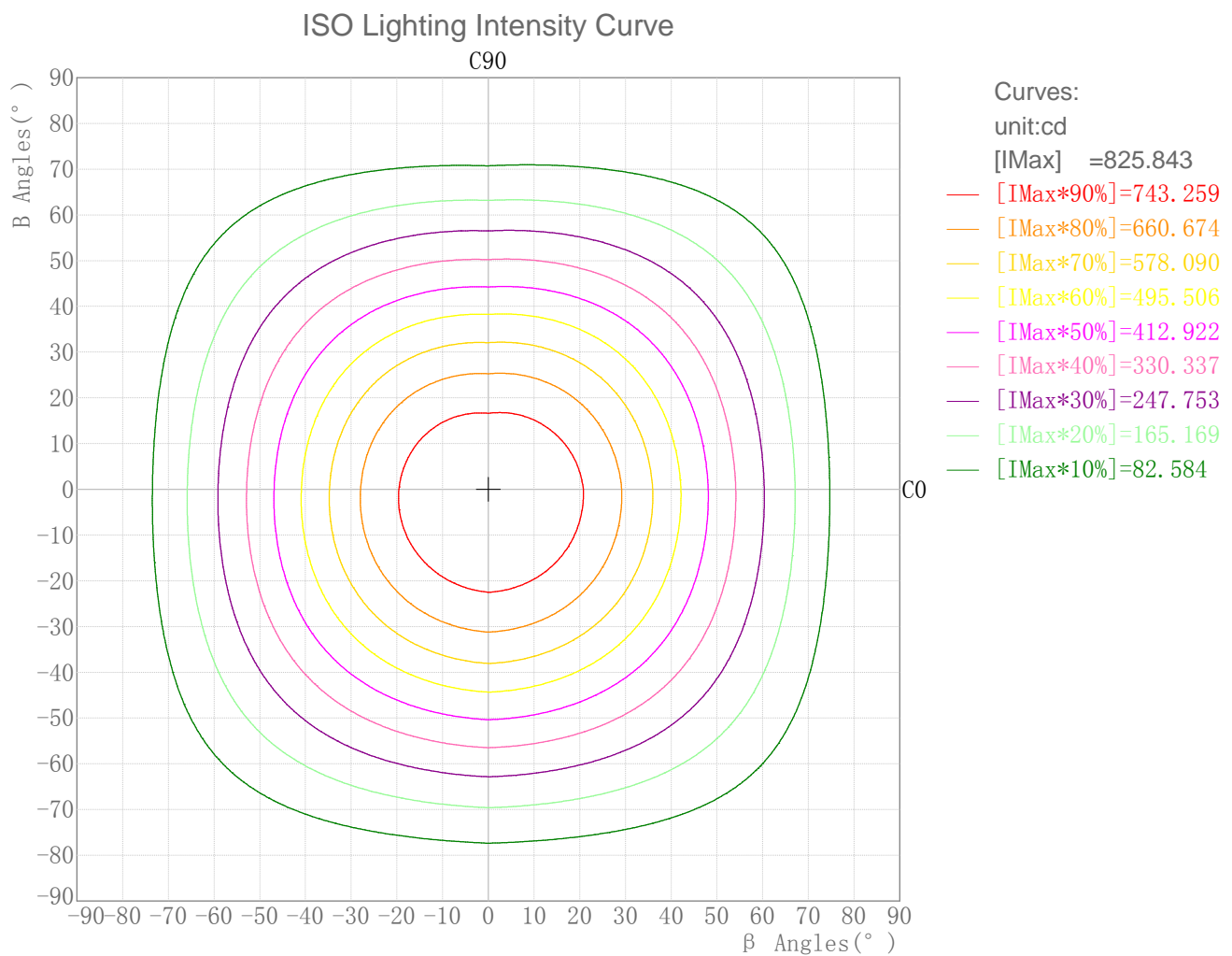
Photometric Filename:ICDLR20W3K-WH.IES

Zonal Flux Tabulation

Zone (y)	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	Sums%Lamp
0.0-5.0	19.67	19.67	1.04	1.04
5.0-10.0	58.06	77.73	3.07	4.10
10.0-15.0	93.81	171.54	4.95	9.06
15.0-20.0	125.26	296.81	6.61	15.67
20.0-25.0	150.90	447.71	7.97	23.64
25.0-30.0	169.45	617.16	8.95	32.59
30.0-35.0	180.09	797.24	9.51	42.10
35.0-40.0	182.70	979.94	9.65	51.74
40.0-45.0	177.82	1157.76	9.39	61.13
45.0-50.0	166.25	1324.01	8.78	69.91
50.0-55.0	149.15	1473.15	7.88	77.78
55.0-60.0	127.84	1600.99	6.75	84.53
60.0-65.0	103.54	1704.54	5.47	90.00
65.0-70.0	77.67	1782.21	4.10	94.10
70.0-75.0	51.90	1834.10	2.74	96.84
75.0-80.0	28.68	1862.78	1.51	98.36
80.0-85.0	11.66	1874.44	0.62	98.97
85.0-90.0	3.01	1877.45	0.16	99.13
90.0-95.0	0.45	1877.90	0.02	99.16
95.0-100.0	0.14	1878.04	0.01	99.16
100.0-105.0	0.18	1878.22	0.01	99.17
105.0-110.0	0.35	1878.57	0.02	99.19
110.0-115.0	0.60	1879.16	0.03	99.22
115.0-120.0	0.85	1880.01	0.04	99.27
120.0-125.0	1.08	1881.10	0.06	99.32
125.0-130.0	1.27	1882.37	0.07	99.39
130.0-135.0	1.43	1883.80	0.08	99.47
135.0-140.0	1.52	1885.32	0.08	99.55
140.0-145.0	1.56	1886.88	0.08	99.63
145.0-150.0	1.54	1888.42	0.08	99.71
150.0-155.0	1.46	1889.88	0.08	99.79
155.0-160.0	1.32	1891.20	0.07	99.86
160.0-165.0	1.12	1892.32	0.06	99.92
165.0-170.0	0.86	1893.17	0.05	99.96
170.0-175.0	0.54	1893.71	0.03	99.99
175.0-180.0	0.19	1893.90	0.01	100.00

Rectangle ISO Lighting Intensity Diagram

Lum. Name: ICDLR20W3K-WH	Lum. Catalog: LED DOWNLIGHT	Test ID:
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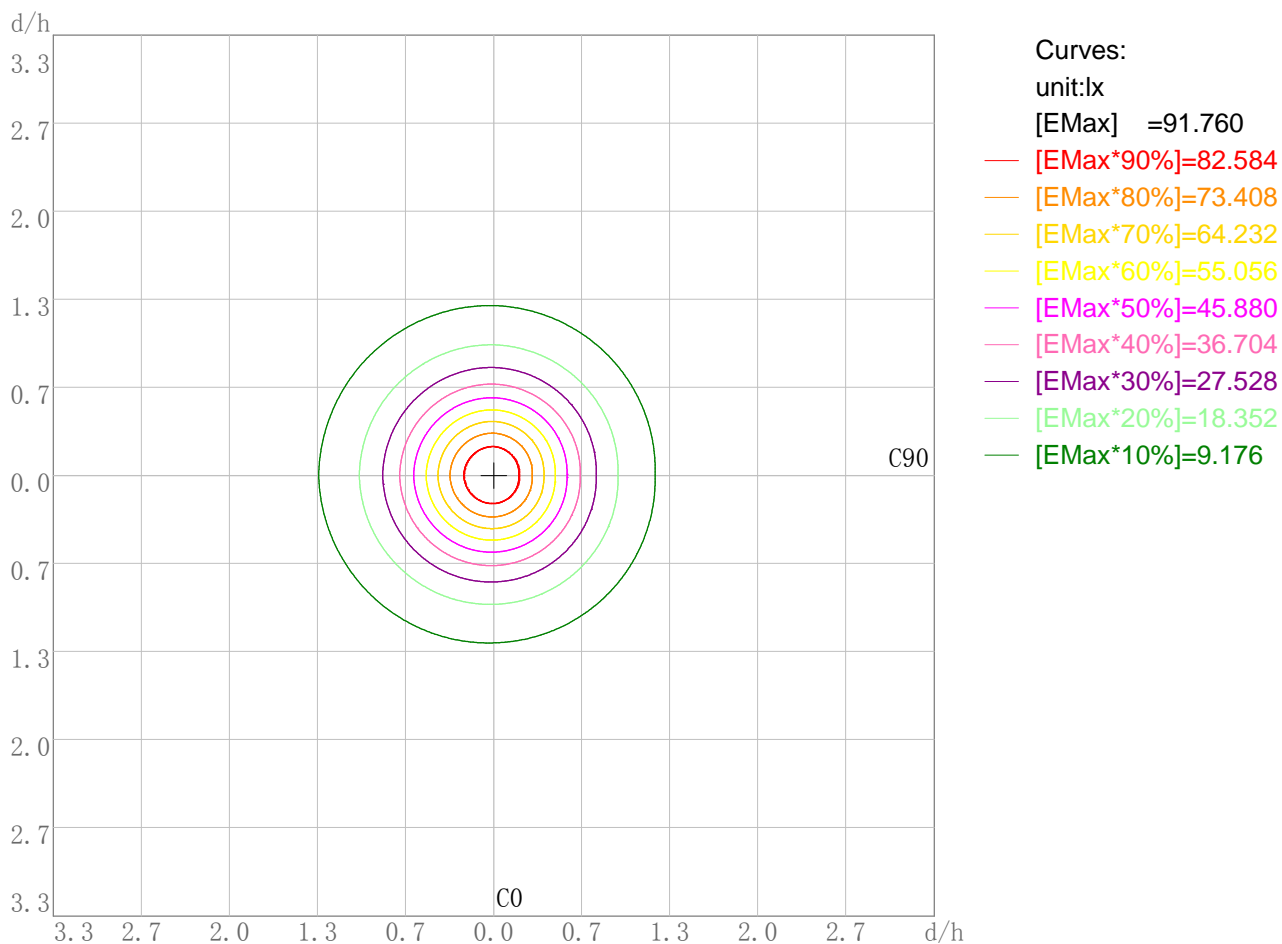


Maximum Light Intensity(cd): 825.84
Maximum Cand.@Angle: H=0.0°,V=0.0°

Plane ISO-Illuminance Diagram

Lum. Name: ICDLR20W3K-WH	Lum. Catalog: LED DOWNLIGHT	Test ID:
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Plane ISO-Illuminance Curve

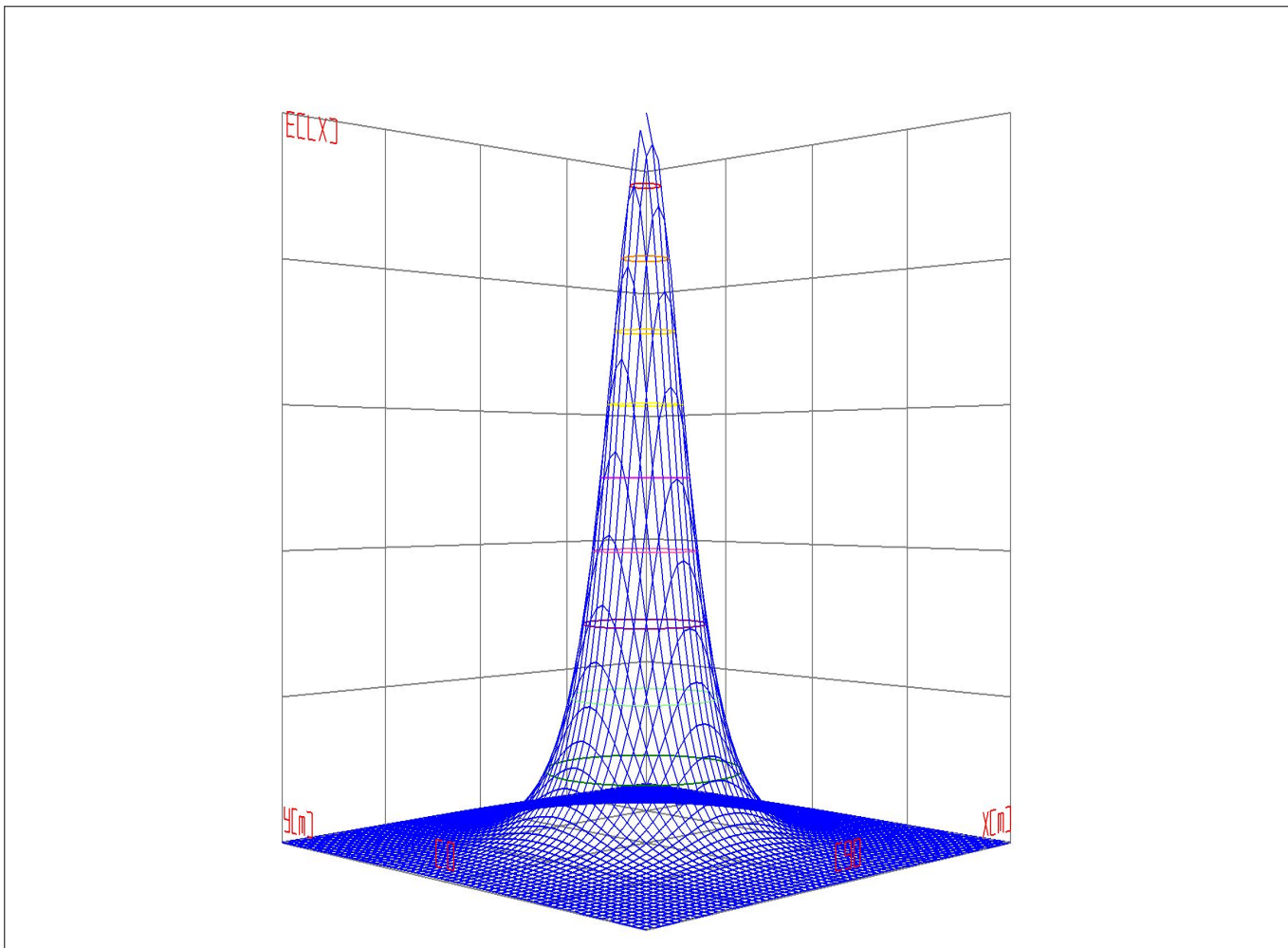


Working Plane Luminaire Mounting Height(m): 3.00
 Working Plane Maximum Illuminance(lx): 91.76
 Working Plane Maximum Illuminance Position(d/h):H0.0 V0.0

3D Plane ISO Illuminance Diagram

Lum. Name: ICDLR20W3K-WH	Lum. Catalog: LED DOWNLIGHT	Test ID:
Lamp Name: 3000K	Lamp Catalog: SMD2835	Test Lab:
Manufacture: Asia Unique	Test Machine:GON-2000	Test Date: 2019/08/02

3D Plane Illuminance Modal

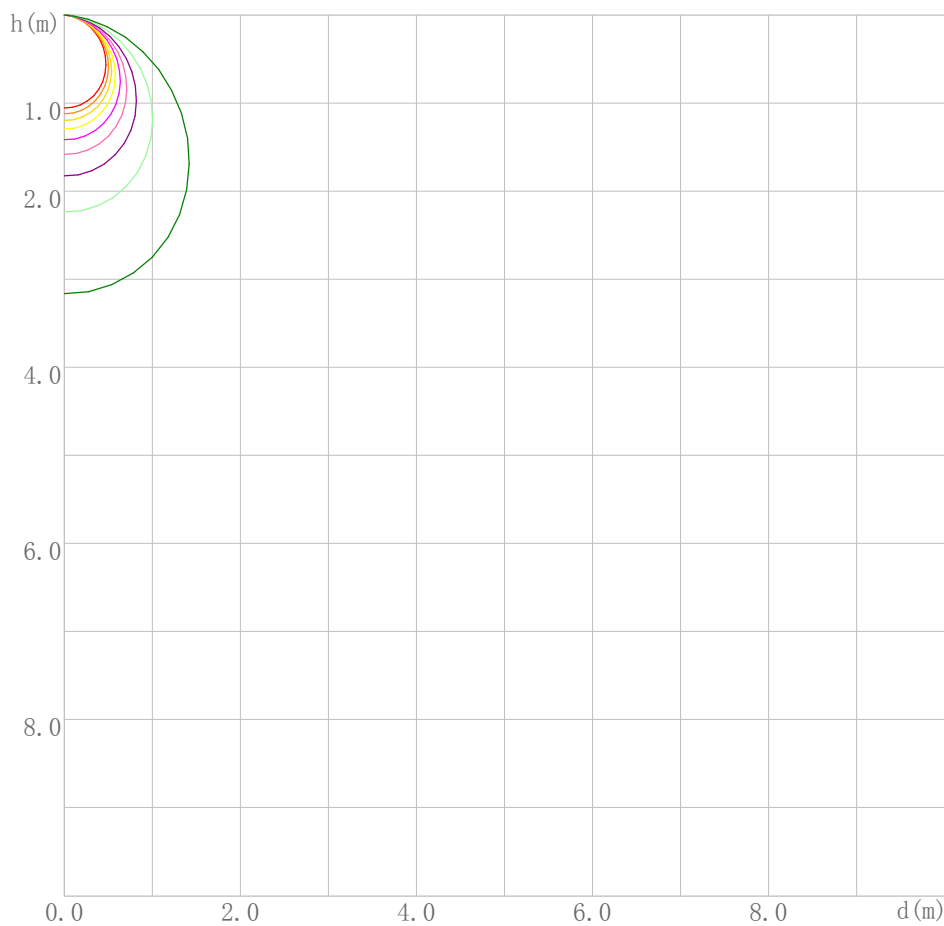


Curves: 3D Model — 90% — 80% — 70% — 60% — 50% — 40% — 30% — 20% — 10% —
 View Angles(deg): 0 Height(m): 3.0 Distance(m): 10.0

Space ISO Illuminance Diagram

Lum. Name: ICDLR20W3K-WH	Lum. Catalog: LED DOWNLIGHT	Test ID:
Lamp Name: 3000K	Lamp Catalog: SMD2835	Test Lab:
Manufacture: Asia Unique	Test Machine:GON-2000	Test Date: 2019/08/02

Space ISO Illuminance Curve

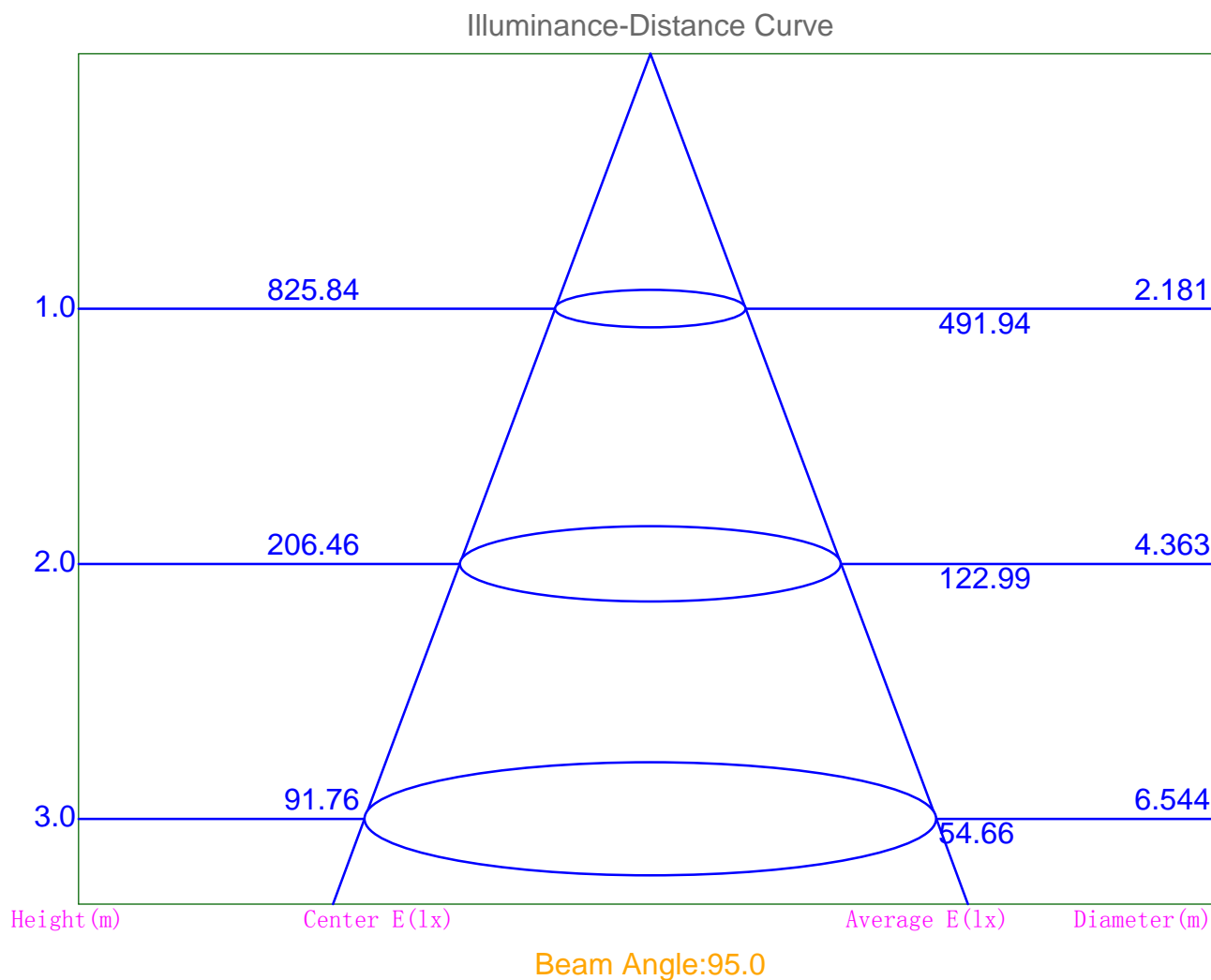


- Curves:
unit:lx
[EMax] =825.843
- [EMax*90%]=743.259
 - [EMax*80%]=660.674
 - [EMax*70%]=578.090
 - [EMax*60%]=495.506
 - [EMax*50%]=412.922
 - [EMax*40%]=330.337
 - [EMax*30%]=247.753
 - [EMax*20%]=165.169
 - [EMax*10%]=82.584

Space Plane Maximum Illuminance and @Angle:825.84,0.0deg
Plane Maximum Lighting Intensity and @Angle:825.843cd,0deg

Illuminance-Distance Diagram

Lum. Name: ICDLR20W3K-WH	Lum. Catalog: LED DOWNLIGHT	Test ID:
Lamp Name: 3000K	Lamp Catalog: SMD2835	Test Lab:
Manufacture: Asia Unique	Test Machine:GON-2000	Test Date: 2019/08/02



Indoor Luminance Limiting Curves

Lum. Name: ICDLR20W3K-WH	Lum. Catalog: LED DOWNLIGHT	Test ID:
Lamp Name: 3000K	Lamp Catalog: SMD2835	Test Lab:
Manufacture: Asia Unique	Test Machine:GON-2000	Test Date: 2019/08/02

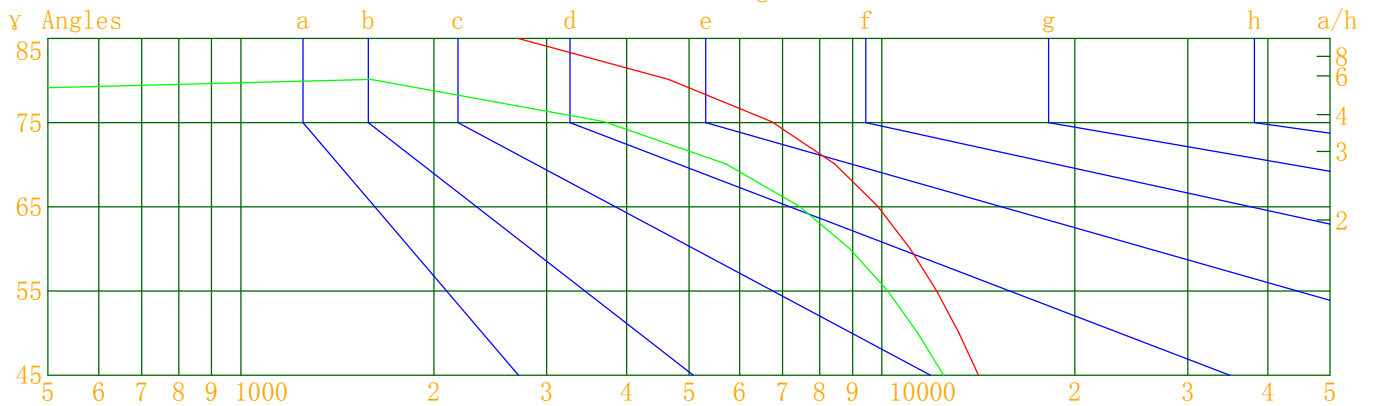
Glare Grade Table

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	14145	13188	12172	11065	9851	8438	6727	4648	2708
C90	12477	11370	10203	8903	7428	5711	3688	1595	7

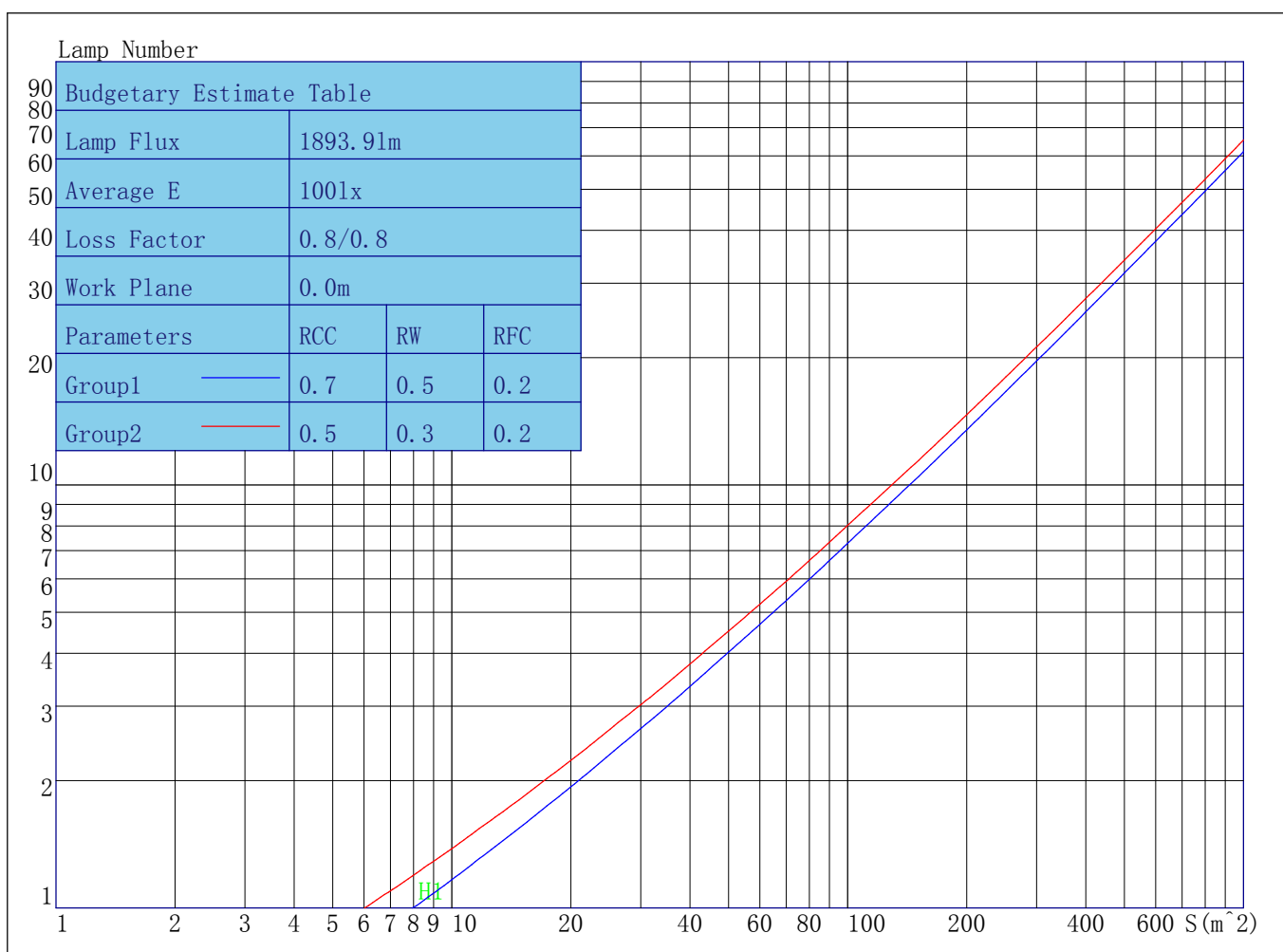
Luminance Limiting Curve



Luminous Size: Length(m)=0.190 Width(m)=0.190 Height(m)=0.050 Area(m^2)=0.045600
 Luminous Type: Without Luminous Side
 Luminous Curves: C0-C180 Color: — C90-C270 Color: —

Indoor Budgetary Estimate Table

Lum. Name: ICDLR20W3K-WH	Lum. Catalog: LED DOWNLIGHT	Test ID:
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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

Indoor Coefficient of Utilization Table

Lum. Name: ICDLR20W3K-WH	Lum. Catalog: LED DOWNLIGHT	Test ID:
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Manufacture: Asia Unique	Test Machine:GON-2000	Test Date: 2019/08/02

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	101	101	101	99
1	110	106	102	98	107	103	100	97	99	96	93	95	93	90	91	89	88	86
2	101	93	87	82	98	91	86	81	88	83	79	84	80	77	81	78	75	73
3	92	83	75	69	90	81	74	69	78	72	67	75	70	66	73	68	65	63
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	65	61	56	54
5	79	66	58	52	77	65	57	51	63	56	51	61	55	50	59	54	50	48
6	73	60	52	46	71	59	51	45	57	50	45	56	49	45	54	48	44	42
7	68	55	46	41	66	54	46	40	52	45	40	51	45	40	50	44	39	38
8	63	50	42	37	62	50	42	36	48	41	36	47	41	36	46	40	36	34
9	59	46	38	33	58	46	38	33	44	38	33	43	37	33	42	37	32	31
10	56	43	35	30	54	42	35	30	41	35	30	40	34	30	39	34	30	28

Unified Glare Rating Table

Lum. Name: ICDLR20W3K-WH	Lum. Catalog: LED DOWNLIGHT	Test ID:
Lamp Name: 3000K	Lamp Catalog: SMD2835	Test Lab:
Manufacture: Asia Unique	Test Machine:GON-2000	Test Date: 2019/08/02

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	29.1	32.4	29.8	33.1	33.7	28.0	31.4	28.8	32.0	32.7
	Y=3H	32.3	35.6	33.0	36.3	36.9	30.5	33.8	31.2	34.5	35.1
	Y=4H	34.2	37.1	35.0	37.7	38.4	32.0	34.8	32.7	35.5	36.1
	Y=6H	35.0	37.7	35.8	38.4	39.0	32.2	35.0	33.0	35.7	36.3
	Y=8H	35.1	37.9	35.9	38.5	39.2	32.2	35.0	33.0	35.6	36.3
	Y=12H	35.2	37.9	36.0	38.6	39.2	32.2	34.9	33.0	35.6	36.2
X=4H	Y=2H	30.0	32.8	30.8	33.5	34.1	29.2	32.1	30.0	32.7	33.4
	Y=3H	33.3	36.2	34.1	36.8	37.5	31.9	34.7	32.6	35.4	36.0
	Y=4H	33.7	35.3	34.7	36.2	37.0	31.8	33.4	32.8	34.3	35.1
	Y=6H	34.8	36.1	35.8	37.1	37.9	32.3	33.7	33.3	34.6	35.4
	Y=8H	35.0	36.4	36.0	37.3	38.1	32.4	33.7	33.4	34.6	35.5
	Y=12H	34.3	35.4	35.4	36.4	37.3	31.5	32.6	32.6	33.6	34.5
X=8H	Y=4H	33.8	35.2	34.8	36.1	36.9	32.0	33.3	33.0	34.2	35.1
	Y=6H	34.1	35.0	35.2	36.0	36.9	31.8	32.7	32.9	33.7	34.6
	Y=8H	34.0	34.6	35.1	35.7	36.7	31.4	32.1	32.6	33.2	34.2
	Y=12H	34.1	34.8	35.3	35.9	36.9	31.4	32.1	32.6	33.2	34.1
X=12H	Y=4H	32.9	34.0	34.0	35.0	36.0	31.1	32.2	32.2	33.2	34.1
	Y=6H	33.6	34.3	34.7	35.4	36.4	31.3	32.0	32.4	33.1	34.1
	Y=8H	33.9	34.6	35.1	35.7	36.7	31.4	32.0	32.6	33.1	34.1
Variations with the objver position at spacings											
	S=1.0H	3.2/-1.3					3.3/-0.6				
	S=1.5H	-1.3/-21.8					-0.3/-19.9				
	S=2.0H	-1.3/-21.8					-0.3/-19.9				

IES Indoor Report
Photometric Filename:ICDLR20W3K-WH.IES

Candela Tabulation

V/H	C0.0	C90.0	C180.0	C270.0
Y 0.0	825.84	825.84	825.84	825.84
Y 5.0	824.25	809.63	821.19	822.59
Y 10.0	809.64	787.94	804.44	812.49
Y 15.0	785.03	756.63	777.12	792.70
Y 20.0	750.22	714.98	740.00	763.03
Y 25.0	705.96	663.63	693.60	723.74
Y 30.0	651.75	604.86	637.77	674.63
Y 35.0	590.73	539.79	574.97	617.24
Y 40.0	524.97	471.36	507.75	553.38
Y 45.0	456.08	402.33	438.84	486.69
Y 50.0	386.56	333.27	369.25	417.96
Y 55.0	318.36	266.86	301.40	350.10
Y 60.0	252.29	202.98	236.32	283.92
Y 65.0	189.84	143.15	174.83	220.38
Y 70.0	131.59	89.07	117.75	160.40
Y 75.0	79.39	43.52	67.11	105.33
Y 80.0	36.81	12.63	26.63	57.29
Y 85.0	10.76	0.03	6.10	21.45
Y 90.0	0.41	0.00	0.00	5.17
Y 95.0	0.37	0.00	0.00	0.61
Y 100.0	0.47	0.00	0.00	0.59
Y 105.0	0.87	0.00	0.00	0.76
Y 110.0	1.28	0.62	0.59	1.21
Y 115.0	1.75	1.25	1.19	1.56
Y 120.0	2.36	1.85	1.86	2.13
Y 125.0	2.85	2.56	2.55	2.60
Y 130.0	3.49	3.10	3.13	3.17
Y 135.0	4.02	3.76	3.86	3.72
Y 140.0	4.56	4.34	4.38	4.22
Y 145.0	5.18	4.90	5.05	4.80
Y 150.0	5.64	5.50	5.55	5.24
Y 155.0	6.23	5.93	6.18	5.84
Y 160.0	6.70	6.51	6.66	6.29
Y 165.0	7.15	6.89	7.22	6.83
Y 170.0	7.55	7.28	7.54	7.26
Y 175.0	7.82	7.54	7.78	7.66
Y 180.0	7.89	7.89	7.89	7.89
