

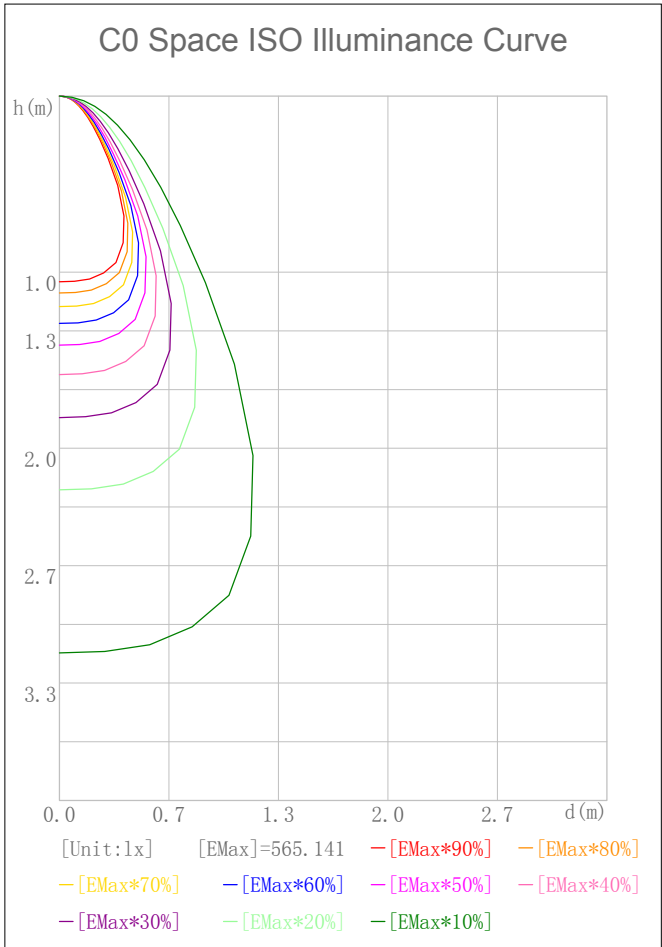
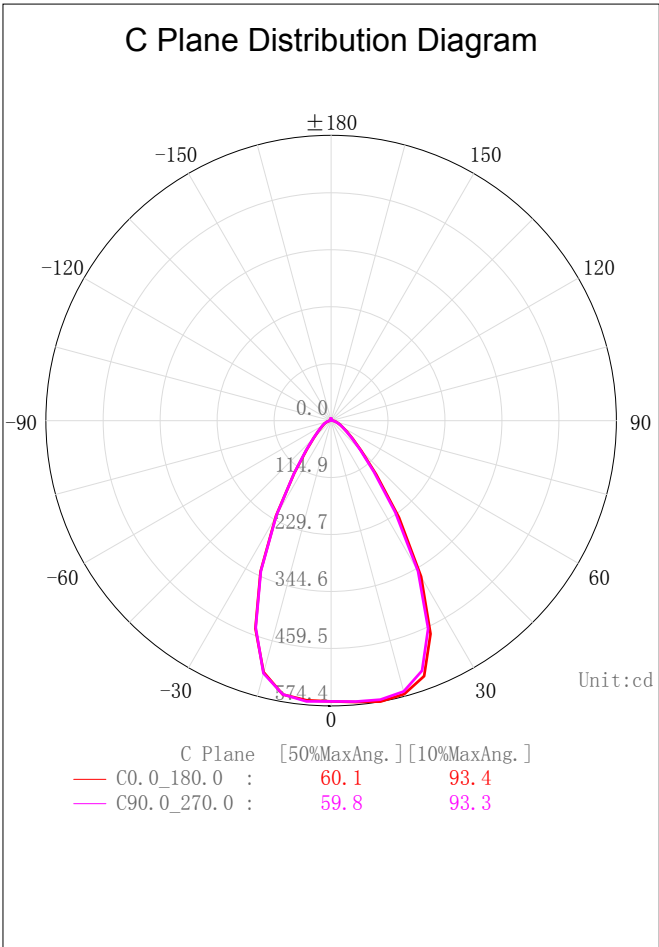
Indoor Luminaire Photometric Data

Description Information

Luminary Name:WL02-09-DW-01 1800-3000K RA90 60D		Lum. Catalog:	Test ID: 01
Lamp Name:		Lamp Catalog: LED	Test Date: 2022/08/29
Manufacture: Shenzhen Norming Lighting		Shld. Ang(°):	Test Machine:GON-2000
Test Lab: Quality Department		Frequency (Hz):	Lamp CCT (K): Ra:
Lum. Size (W*L*H):0.076m*0.076m*0.000m		Lum. Area (m2):0.006	Lum. W (kg): 0.000
Test System: C, γ	Test Step: C=90.0 γ=5.0	Temp. (°C): 25	Humidity(%): 50.0

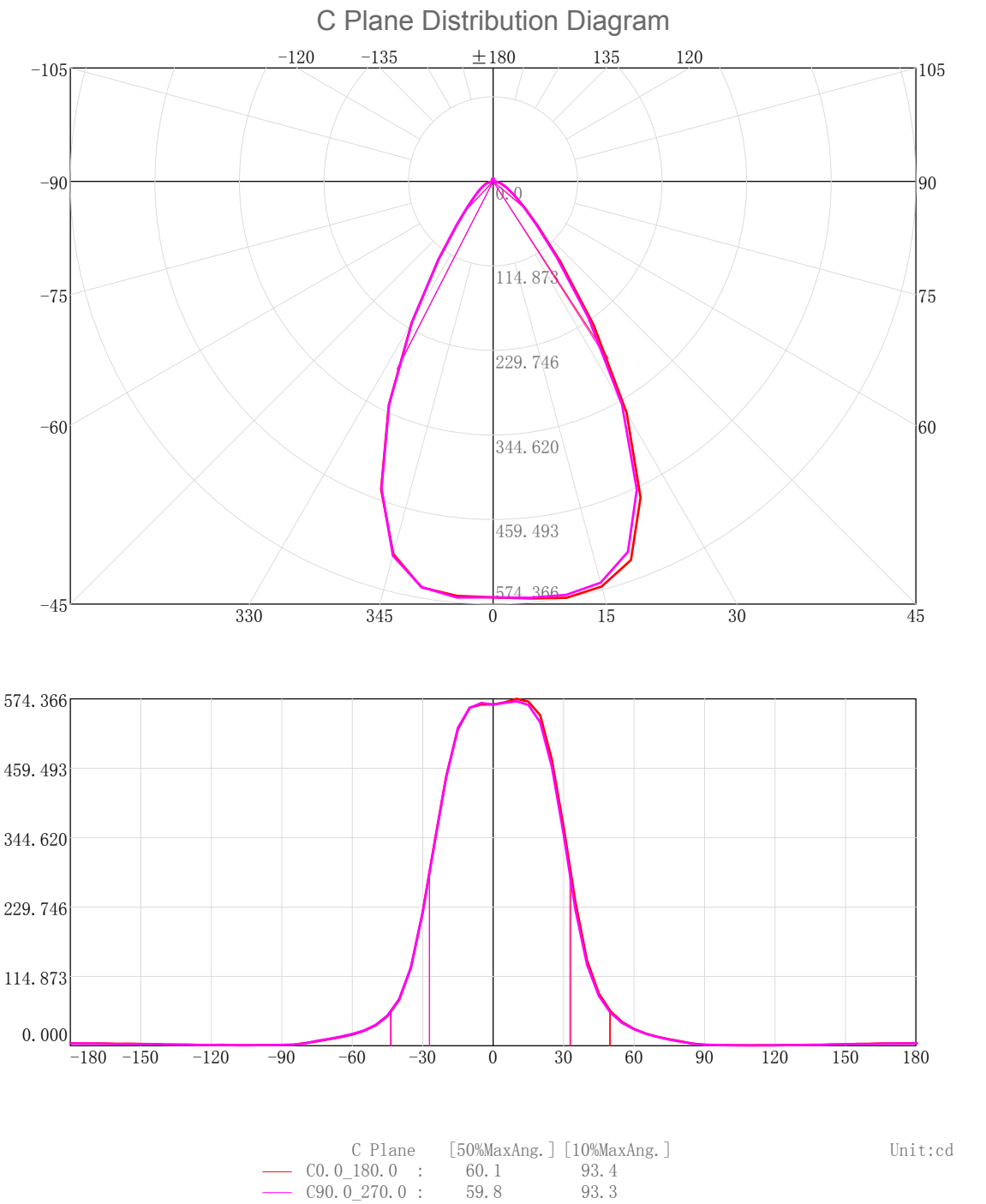
Character Parameter

Lamp Speciality Parameter		Luminaire Speciality Parameter	
Rated Flux(lm): 630.210	Luminary Flux(lm): 630.212	Field Angle(10%Imax): 93.4(°)	
Rated Power(W):	Luminary Efficiency: 100.00%	Down Lumens&Percent: 619.421lm 98.29%	
Rated Voltage(V):	Luminary EER(lm/W): 76.159	Up Lumens&Percent: 10.792lm 1.71%	
Tested Power(W): 8.275	Max. Candela(cd): 574.366	S/MH: C0_a180=0.969 C90_270=0.960	
Lamps' Inside: 1	Max Cand@Ang. (°): C=0.0 γ=10.0	CIE Type: Semi-Direct	
Tested Electrics (V, A, pf):240.0, 0.038, 0.891	Beam Angle(50%Imax): 60.1(°)	ErP ϕ use(90°): 534.749lm	
Lamp Size (W*L*H):0.076m*0.076m*0.000m	Left=-27.1°, Right=33.0°	IRF(%): 195.104	



2D Plane Light Intensity Distribution Curve

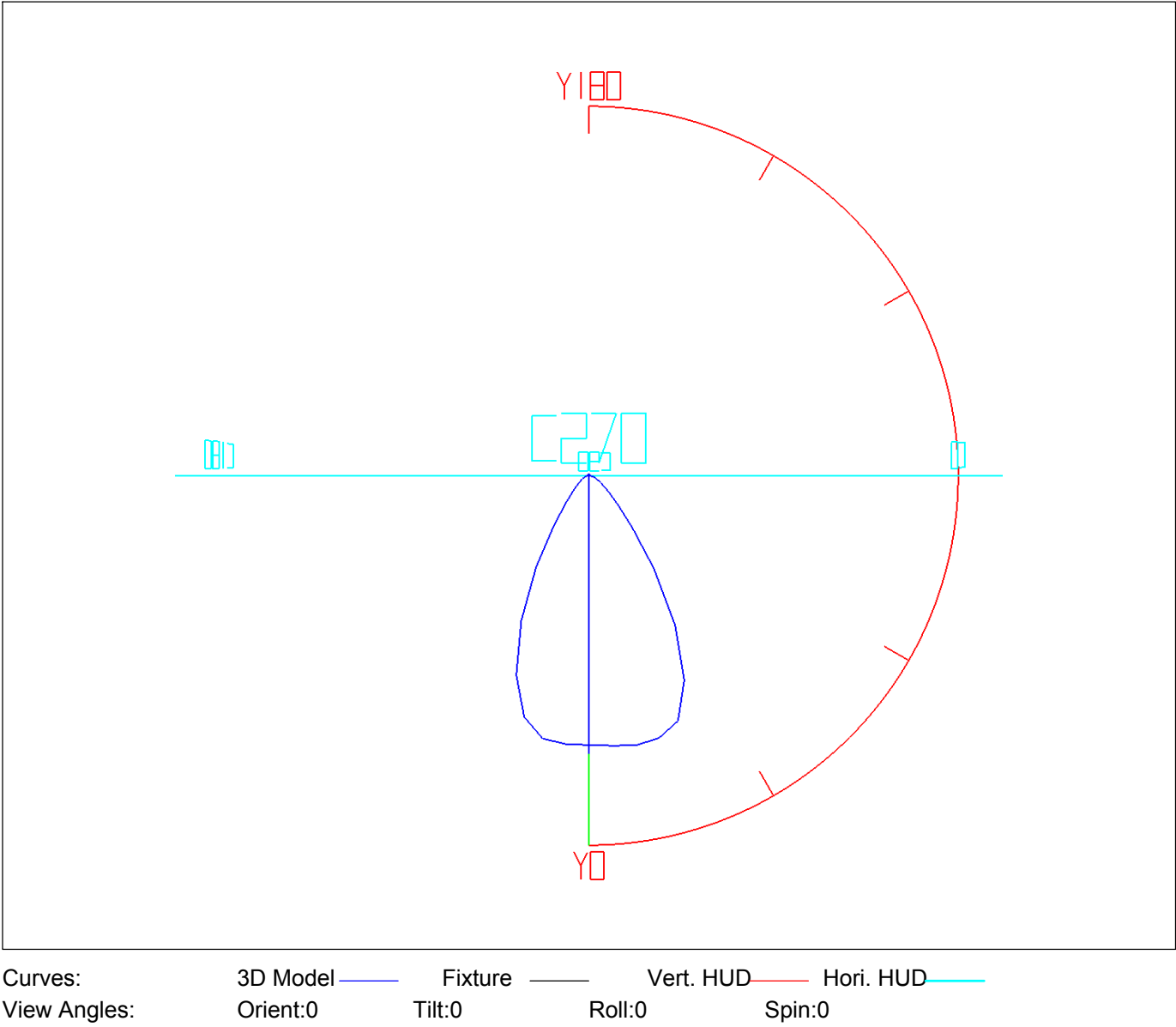
Lum. Name: WL02-09-DW-01 1800-3000K RA90 60D	Lum. Catelog:	Test ID: 01
Lamp Name:	Lamp Catelog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/08/29



3D Light Intensity Distribution Modal

Lum. Name: WL02-09-DW-01 1800-3000K RA90 60D	Lum. Catelog:	Test ID: 01
Lamp Name:	Lamp Catelog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/08/29

3D Light Intensity Distribution Modal

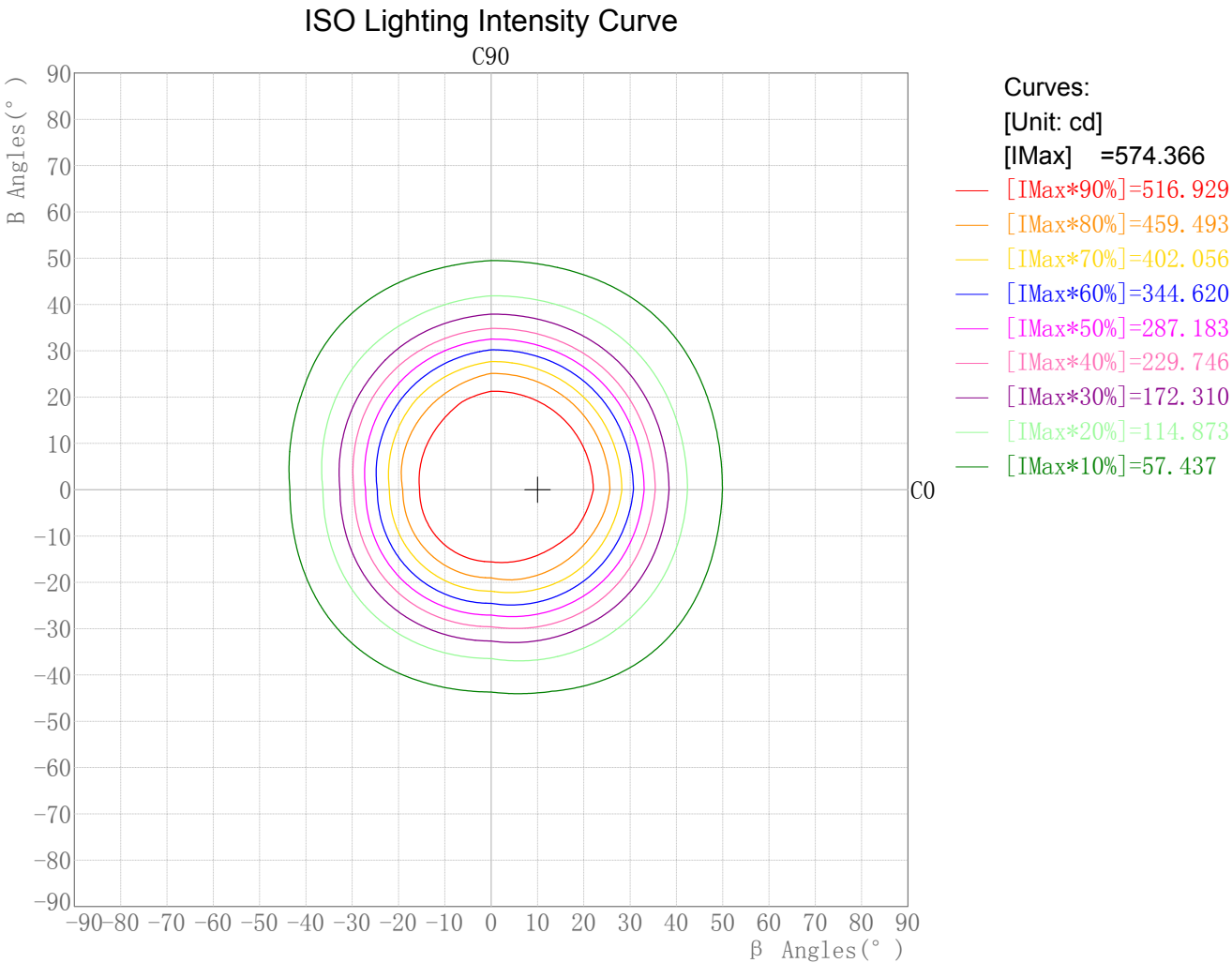


Zonal Flux Tabulation

Zone(γ)	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	Sums%Lamp
0. 0-5. 0	13. 54	13. 54	2. 15	2. 15
5. 0-10. 0	40. 54	54. 08	6. 43	8. 58
10. 0-15. 0	65. 97	120. 05	10. 47	19. 05
15. 0-20. 0	85. 64	205. 69	13. 59	32. 64
20. 0-25. 0	93. 80	299. 48	14. 88	47. 52
25. 0-30. 0	87. 30	386. 78	13. 85	61. 37
30. 0-35. 0	69. 08	455. 87	10. 96	72. 34
35. 0-40. 0	48. 04	503. 91	7. 62	79. 96
40. 0-45. 0	32. 29	536. 20	5. 12	85. 08
45. 0-50. 0	22. 65	558. 85	3. 59	88. 68
50. 0-55. 0	16. 69	575. 54	2. 65	91. 33
55. 0-60. 0	12. 76	588. 30	2. 02	93. 35
60. 0-65. 0	9. 96	598. 26	1. 58	94. 93
65. 0-70. 0	7. 75	606. 01	1. 23	96. 16
70. 0-75. 0	5. 84	611. 85	0. 93	97. 09
75. 0-80. 0	4. 02	615. 87	0. 64	97. 72
80. 0-85. 0	2. 32	618. 19	0. 37	98. 09
85. 0-90. 0	1. 23	619. 42	0. 20	98. 29
90. 0-95. 0	0. 86	620. 28	0. 14	98. 42
95. 0-100. 0	0. 67	620. 94	0. 11	98. 53
100. 0-105. 0	0. 53	621. 47	0. 08	98. 61
105. 0-110. 0	0. 50	621. 97	0. 08	98. 69
110. 0-115. 0	0. 56	622. 52	0. 09	98. 78
115. 0-120. 0	0. 60	623. 13	0. 10	98. 88
120. 0-125. 0	0. 60	623. 73	0. 10	98. 97
125. 0-130. 0	0. 64	624. 37	0. 10	99. 07
130. 0-135. 0	0. 71	625. 08	0. 11	99. 19
135. 0-140. 0	0. 72	625. 81	0. 11	99. 30
140. 0-145. 0	0. 78	626. 58	0. 12	99. 42
145. 0-150. 0	0. 81	627. 39	0. 13	99. 55
150. 0-155. 0	0. 76	628. 15	0. 12	99. 67
155. 0-160. 0	0. 67	628. 82	0. 11	99. 78
160. 0-165. 0	0. 57	629. 39	0. 09	99. 87
165. 0-170. 0	0. 45	629. 84	0. 07	99. 94
170. 0-175. 0	0. 28	630. 12	0. 04	99. 98
175. 0-180. 0	0. 10	630. 21	0. 02	100. 00

Rectangle ISO Lighting Intensity Diagram

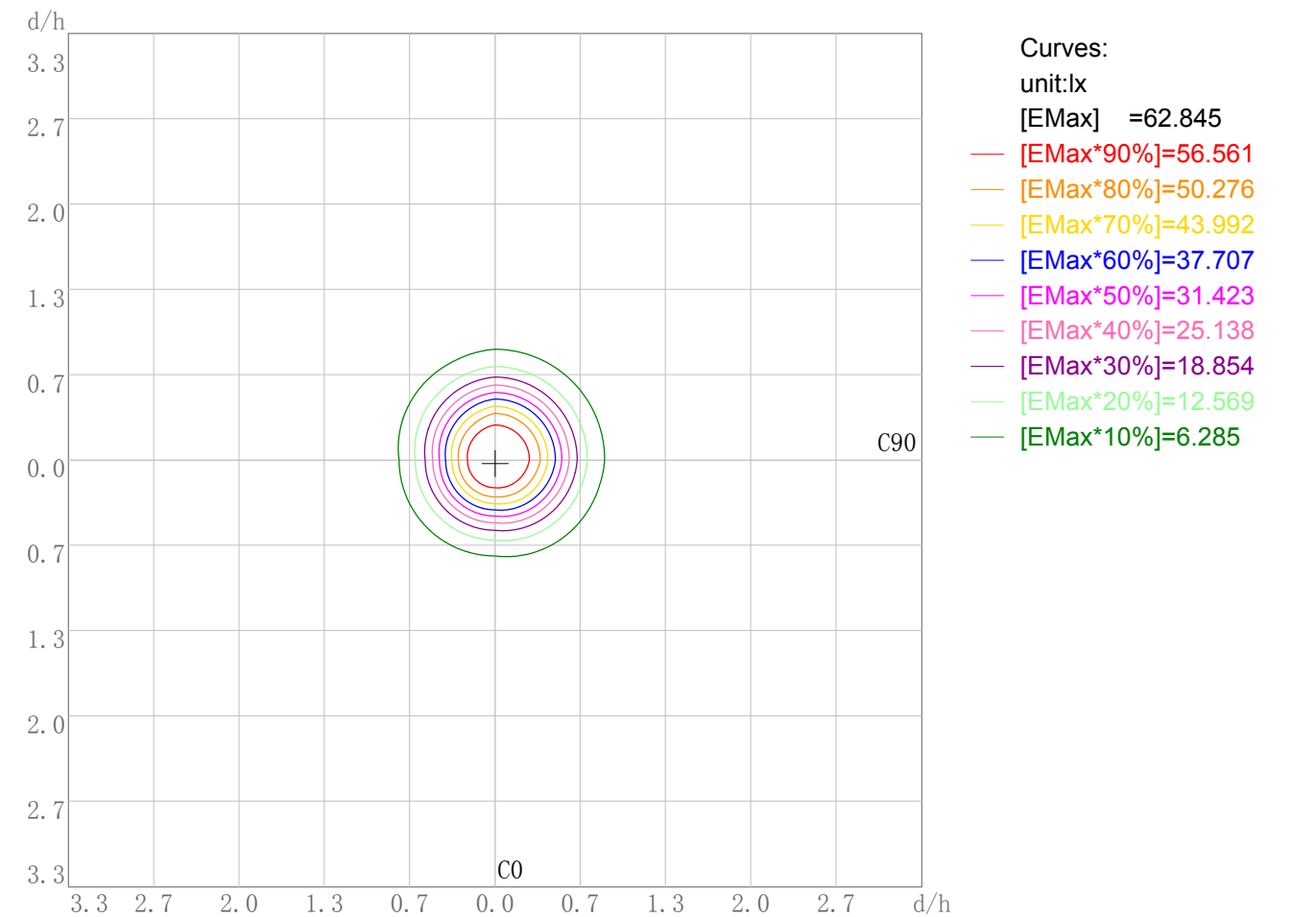
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Lamp Name:	Lamp Catalog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/08/29



Plane ISO-Illuminance Diagram

Lum. Name: WL02-09-DW-01 1800-3000K RA90 60D	Lum. Catalog:	Test ID: 01
Lamp Name:	Lamp Catalog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/08/29

Plane ISO-Illuminance Curve

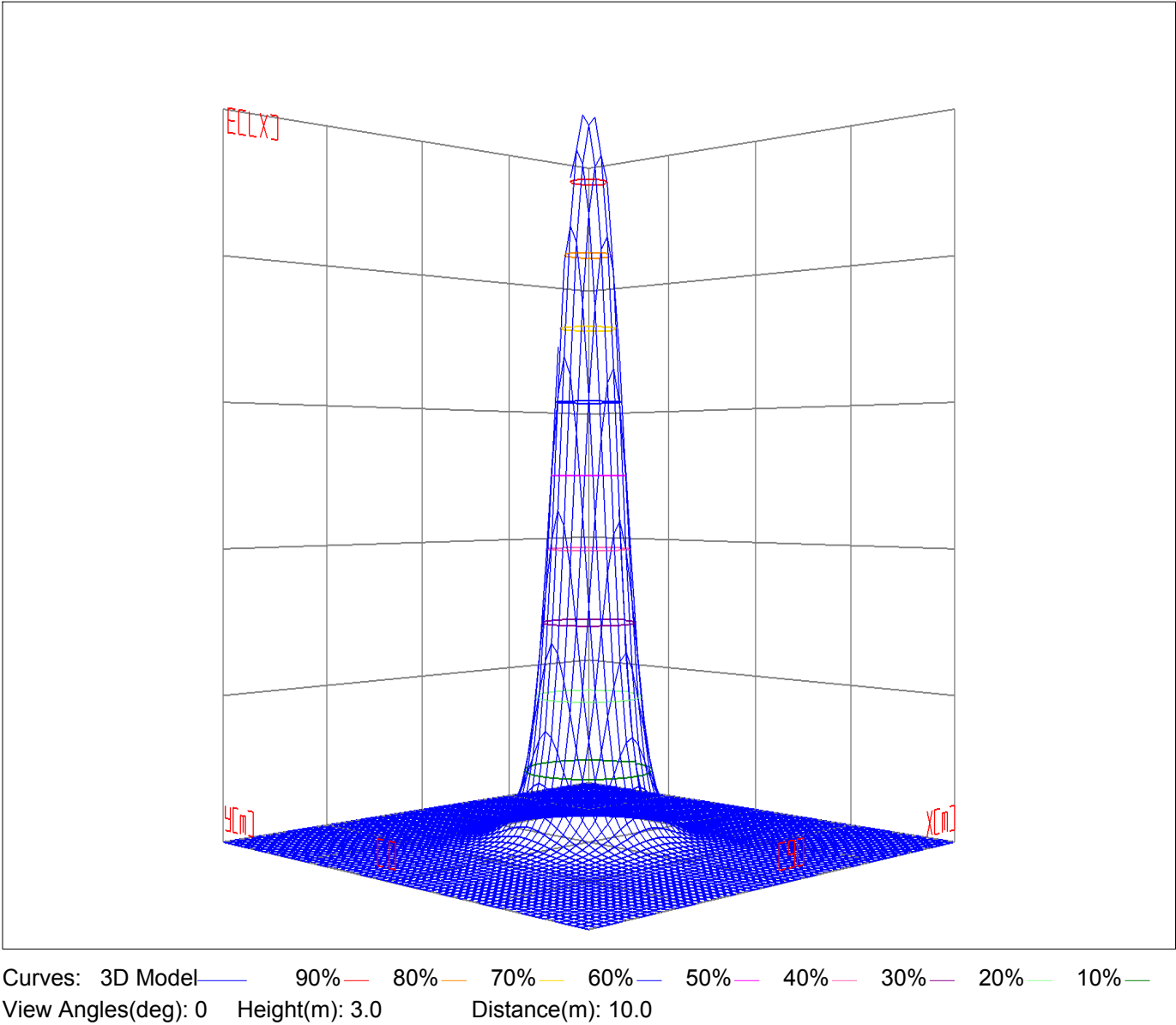


Working Plane Luminaire Mounting Height(m): 3.00
Working Plane Maximum Illuminance(lx): 62.85
Working Plane Maximum Illuminance Position(d/h):H0.0 V0.0

3D Plane ISO Illuminance Diagram

Lum. Name: WL02-09-DW-01 1800-3000K RA90 60D	Lum. Catelog:	Test ID: 01
Lamp Name:	Lamp Catelog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/08/29

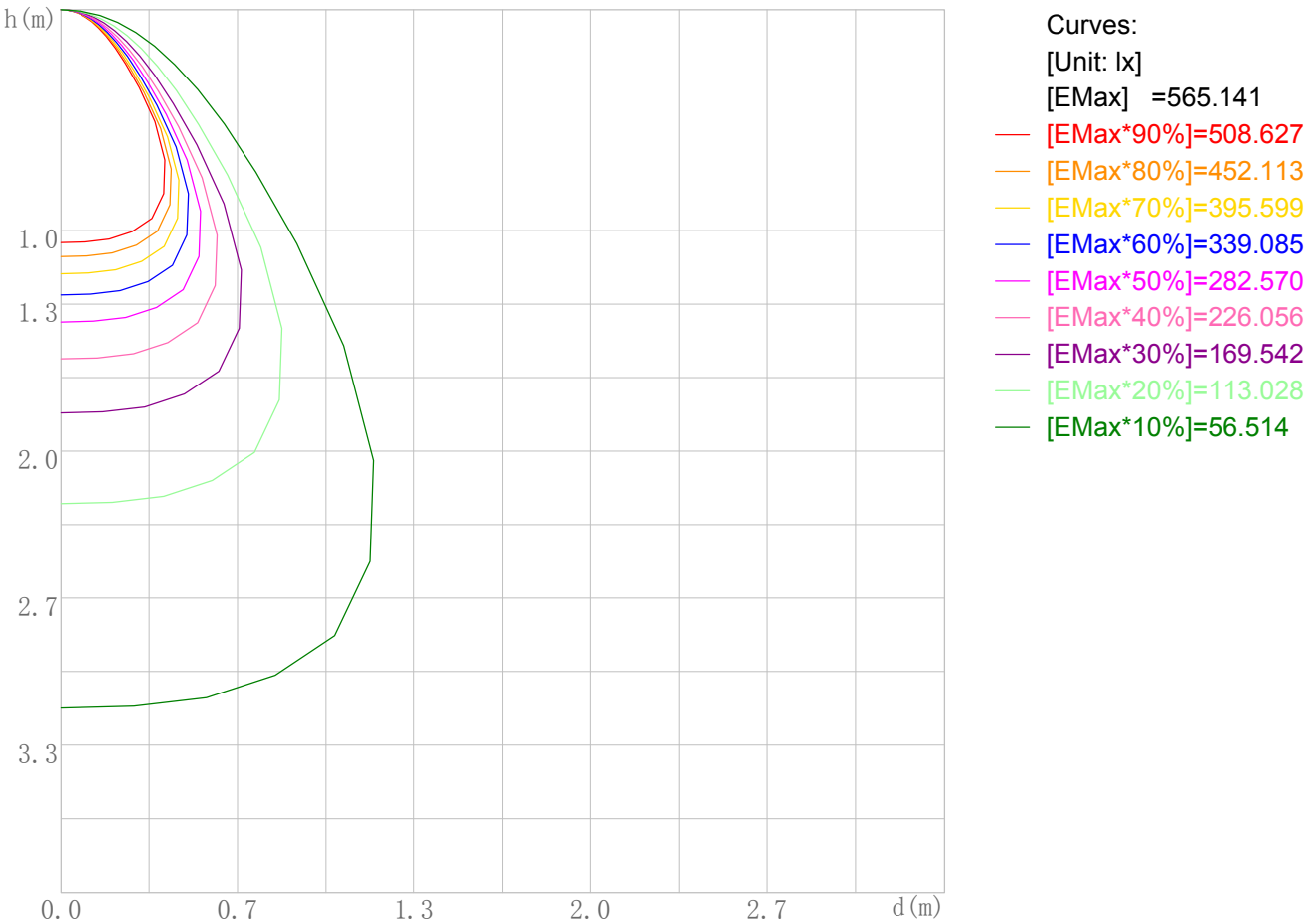
3D Plane Illuminance Modal



Space ISO Illuminance Diagram

Lum. Name: WL02-09-DW-01 1800-3000K RA90 60D	Lum. Catalog:	Test ID: 01
Lamp Name:	Lamp Catalog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/08/29

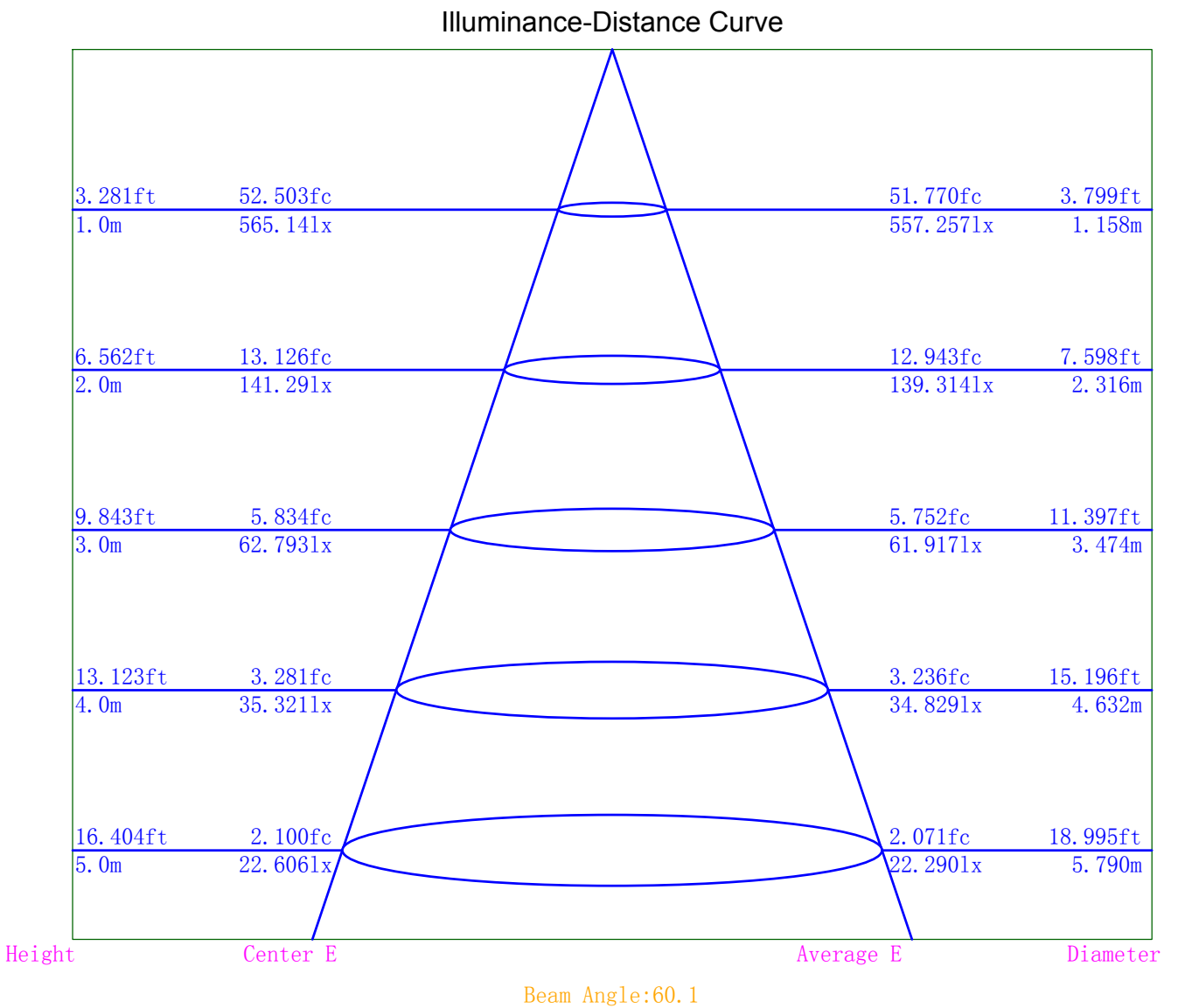
Space ISO Illuminance Curve



Space Plane Maximum Illuminance and @Angle:565.14lx,0.0deg
Plane Maximum Lighting Intensity and @Angle:574.366cd,0deg

Illuminance-Distance Diagram

Lum. Name: WL02-09-DW-01 1800-3000K RA90 60D	Lum. Catalog:	Test ID: 01
Lamp Name:	Lamp Catalog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/08/29



Indoor Luminance Limiting Curves

Lum. Name: WL02-09-DW-01 1800-3000K RA90 60D	Lum. Catalog:	Test ID: 01
Lamp Name:	Lamp Catalog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/08/29

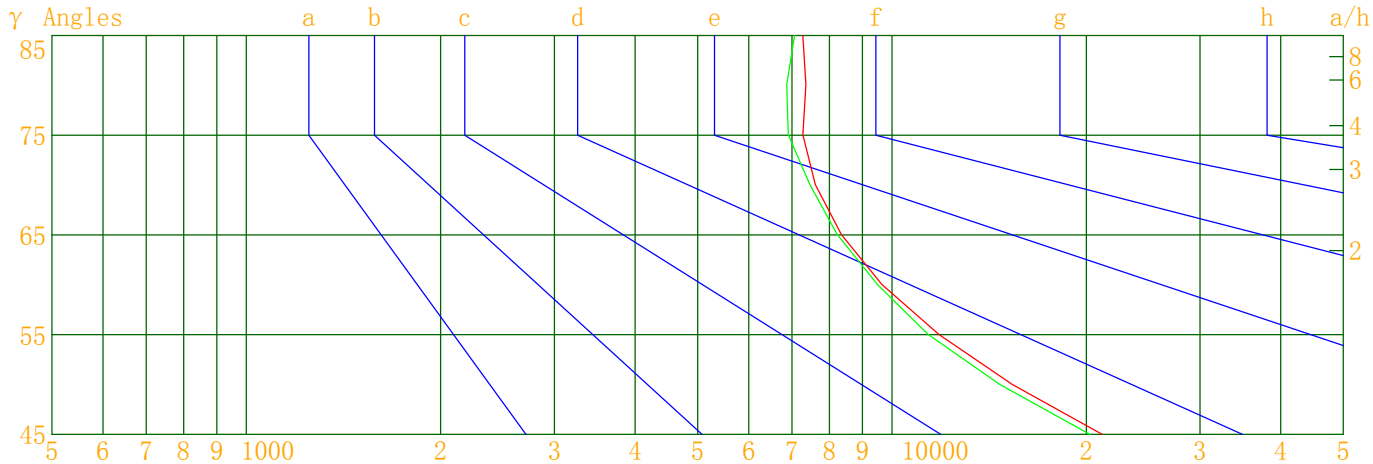
Glare Grade Table

GI	Quality	Using Illuminance							
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	21166	15359	11821	9648	8353	7609	7278	7358	7278
C90	20249	14689	11380	9496	8226	7463	6909	6869	7064

Luminance Limiting Curve



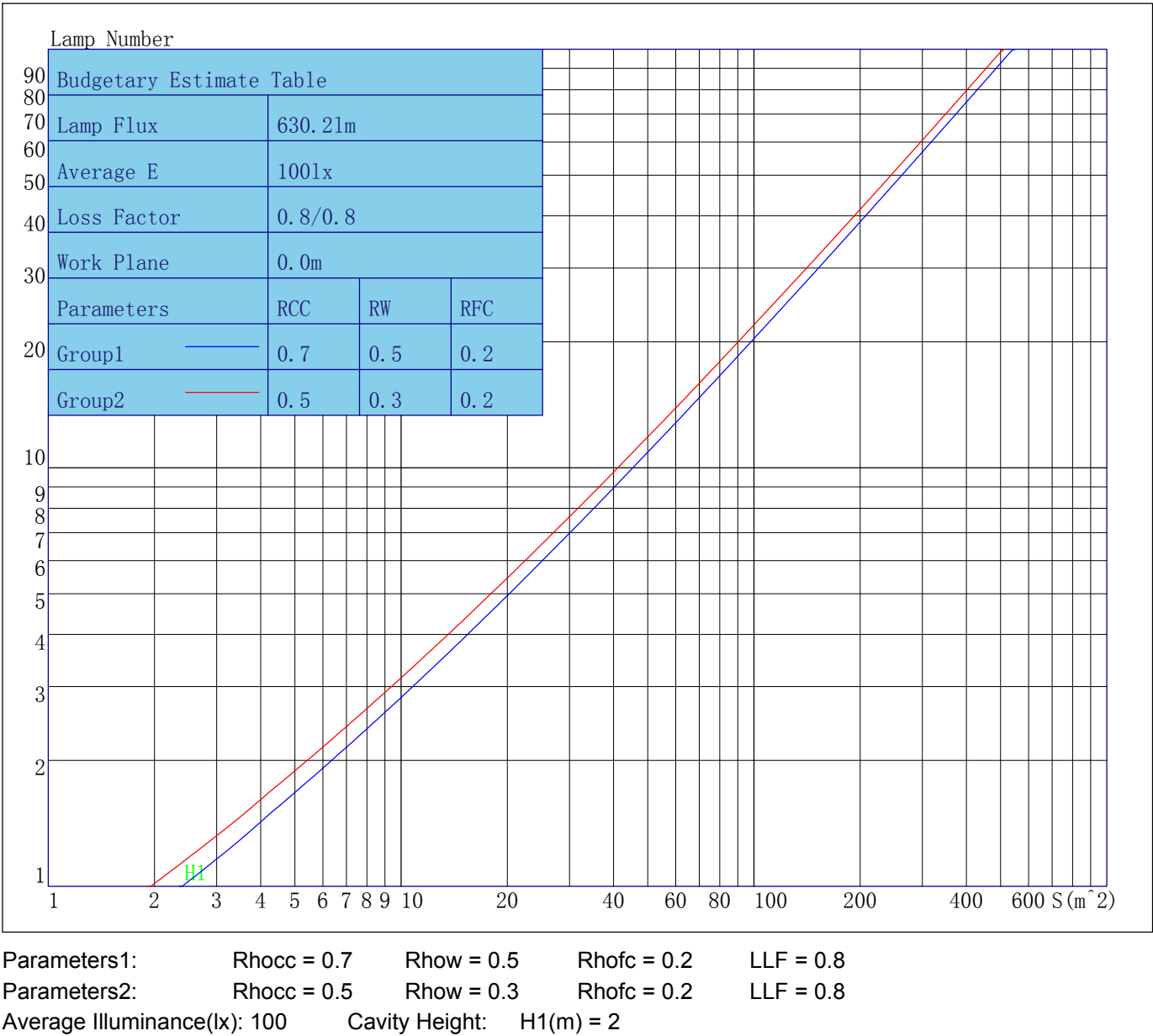
Luminous Size: Length(m)=0.076 Width(m)=0.076 Height(m)=0.000 Area(m^2)=0.005776

Luminous Type: Without Luminous Side

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

Indoor Budgetary Estimate Table

Lum. Name: WL02-09-DW-01 1800-3000K RA90 60D	Lum. Catalog:	Test ID: 01
Lamp Name:	Lamp Catalog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/08/29



Indoor Coefficient of Utilization Table

Lum. Name: WL02-09-DW-01 1800-3000K RA90 60D	Lum. Catelog:	Test ID: 01
Lamp Name:	Lamp Catelog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/08/29

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	110	110	110	105	105	105	100	100	100	98
1	112	109	106	103	109	106	104	101	102	100	98	98	96	95	94	93	92	90
2	105	100	95	91	103	98	94	90	94	91	88	91	88	86	88	86	84	82
3	99	92	86	82	97	90	85	81	87	83	79	85	81	78	82	79	76	75
4	94	85	79	74	91	84	78	73	81	76	72	79	75	71	77	73	70	68
5	88	79	72	67	86	78	72	67	76	70	66	74	69	66	72	68	65	63
6	83	73	67	62	82	73	66	62	71	65	61	69	64	61	68	63	60	58
7	79	69	62	57	77	68	62	57	66	61	57	65	60	56	64	59	56	54
8	75	64	58	53	73	64	57	53	62	57	53	61	56	52	60	55	52	51
9	71	60	54	50	70	60	54	50	59	53	49	58	53	49	57	52	49	47
10	67	57	51	46	66	56	50	46	55	50	46	55	49	46	54	49	46	44

Unified Glare Rating Table

Lum. Name: WL02-09-DW-01 1800-3000K RA90 60D	Lum. Catelog:	Test ID: 01
Lamp Name:	Lamp Catelog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/08/29

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	19.9	21.1	20.3	21.4	21.8	19.7	20.9	20.1	21.2	21.6
	20.4	21.4	20.8	21.7	22.1	20.2	21.2	20.6	21.5	21.9
	20.6	21.5	21.0	21.9	22.3	20.4	21.3	20.8	21.7	22.1
	20.8	21.6	21.2	22.0	22.5	20.6	21.4	21.0	21.8	22.3
	20.9	21.7	21.3	22.1	22.5	20.6	21.4	21.1	21.9	22.3
	20.9	21.7	21.4	22.1	22.6	20.7	21.5	21.2	21.9	22.4
X=4H Y=2H	20.0	20.9	20.4	21.3	21.7	19.8	20.7	20.2	21.1	21.5
	20.6	21.3	21.0	21.8	22.2	20.4	21.2	20.8	21.6	22.0
	20.9	21.6	21.4	22.0	22.5	20.7	21.4	21.2	21.8	22.3
	21.2	21.8	21.7	22.3	22.8	21.0	21.6	21.5	22.1	22.6
	21.4	21.9	21.9	22.4	22.9	21.1	21.7	21.6	22.2	22.7
	21.5	22.0	22.0	22.5	23.0	21.3	21.7	21.8	22.2	22.8
X=8H Y=4H	21.0	21.5	21.5	22.0	22.5	20.8	21.3	21.3	21.8	22.3
	21.4	21.8	21.9	22.4	22.9	21.2	21.6	21.7	22.2	22.7
	21.6	22.0	22.1	22.5	23.1	21.4	21.8	21.9	22.3	22.9
	21.8	22.1	22.3	22.7	23.3	21.6	21.9	22.1	22.4	23.1
X=12H Y=4H	20.9	21.4	21.4	21.9	22.4	20.7	21.2	21.3	21.7	22.3
	21.4	21.8	22.0	22.3	22.9	21.2	21.6	21.7	22.1	22.7
	21.6	22.0	22.2	22.5	23.1	21.4	21.8	22.0	22.3	22.9
Variations with the objverver position at spacings										
S=1.0H	0.4/-0.4					0.4/-0.4				
S=1.5H	0.7/-0.7					0.7/-0.8				
S=2.0H	0.9/-1.0					1.0/-1.1				
Reduced UGR Table:										
Nordic Standard Table:	BK0					BK0				
Correction Value	1.5					1.5				

o the CIE Pub.117, data has been corrected, refers to the lamp’s lumens 8.2flm.

Candela Tabulation

V/H	C0.0	C90.0	C180.0	C270.0
γ 0.0	565.14	565.14	565.14	565.14
γ 5.0	568.63	567.73	565.16	567.48
γ 10.0	574.37	570.29	559.93	559.49
γ 15.0	569.71	564.41	524.04	526.43
γ 20.0	547.39	535.59	445.25	443.52
γ 25.0	473.75	461.93	335.49	334.27
γ 30.0	362.43	350.12	221.08	220.28
γ 35.0	238.19	225.52	128.77	130.16
γ 40.0	141.16	134.28	76.05	77.71
γ 45.0	86.45	82.70	49.06	50.14
γ 50.0	57.03	54.53	33.73	34.73
γ 55.0	39.16	37.70	24.74	25.45
γ 60.0	27.86	27.42	18.70	19.78
γ 65.0	20.39	20.08	14.40	15.24
γ 70.0	15.03	14.74	10.90	11.62
γ 75.0	10.88	10.33	7.49	8.35
γ 80.0	7.38	6.89	4.65	4.10
γ 85.0	3.66	3.56	1.89	2.04
γ 90.0	1.80	1.76	1.61	1.70
γ 95.0	1.28	1.64	1.37	1.34
γ 100.0	1.05	0.88	1.19	1.05
γ 105.0	0.85	0.88	1.09	0.91
γ 110.0	1.01	0.78	0.93	1.13
γ 115.0	1.12	0.77	1.74	1.32
γ 120.0	1.00	0.99	1.68	1.32
γ 125.0	1.36	1.10	1.63	1.36
γ 130.0	1.31	1.12	2.01	1.92
γ 135.0	1.75	1.68	2.10	2.14
γ 140.0	1.85	1.62	2.26	2.24
γ 145.0	2.35	2.35	3.01	2.95
γ 150.0	2.57	2.58	3.23	2.96
γ 155.0	3.09	3.18	3.53	2.91
γ 160.0	3.33	3.04	3.51	2.95
γ 165.0	3.80	3.64	3.81	3.36
γ 170.0	3.96	3.85	3.95	3.77
γ 175.0	3.90	4.08	3.87	3.82
γ 180.0	4.20	4.20	4.20	4.20