

IES Indoor Report

Photometric Filename: COBLG15WCCT-3K-2019-08-29.IES

Indoor Luminaire Photometric Data

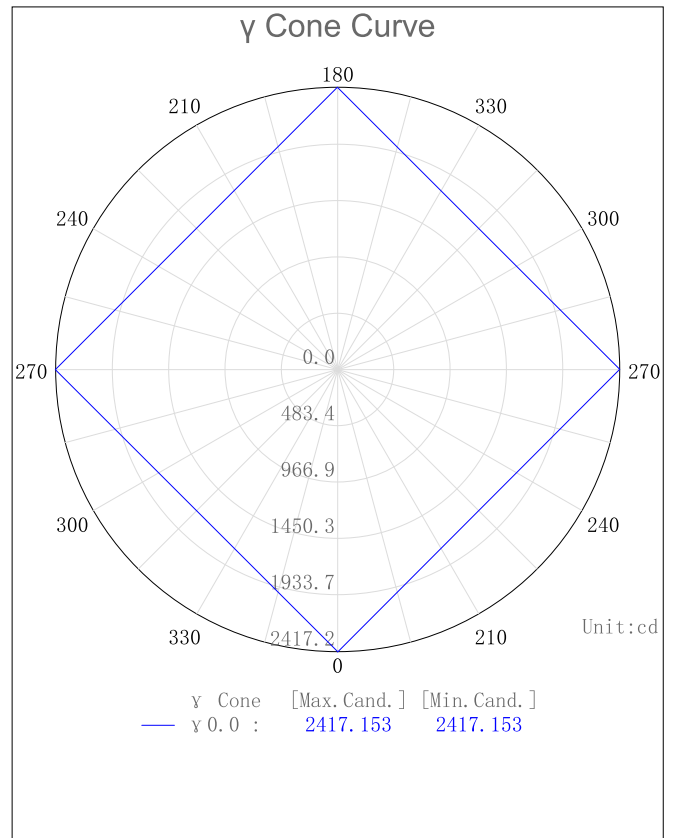
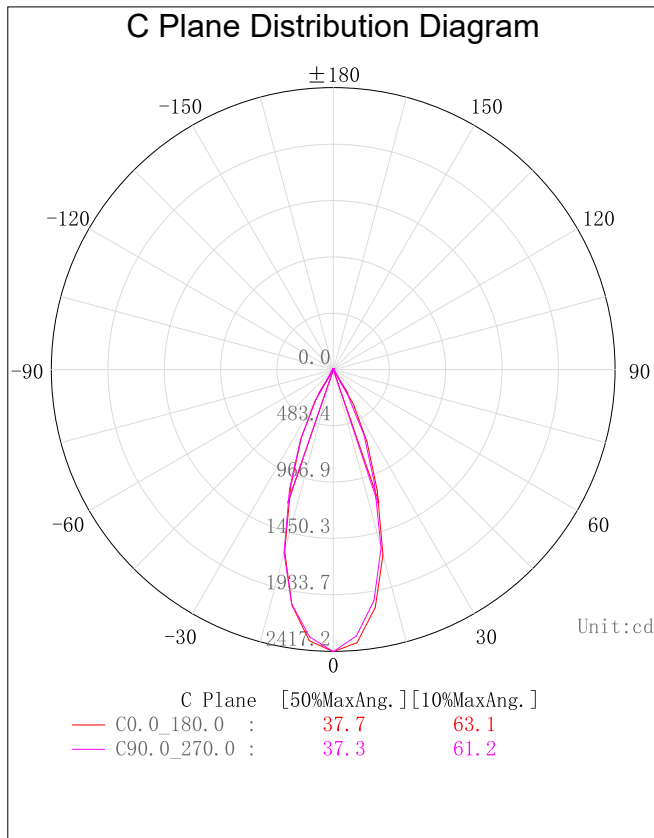
Description Information

Lum. Name: COBLG15WCCT-3K	Lum. Catalog: LED DOWNLIGHT	Test ID:
Lamp Name: 3000K	Lamp Catalog: COB	Test Date: 2019/08/29
Manufacture:	ShldAngle(°):	Test Machine: GON-2000
Test Lab:	Frequency(Hz):	Lamp CCT(K): Ra:
Lum. Size (W*L*H): 0.095m*0.095m*0.092m	Lum. Area(m2): 0.018	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): 1044.060	Luminaire Flux: 1044.063lm	Field Angle(10%Imax): 63.1
Rated Power(W):	Luminaire Efficiency: 100.00%	Down Lumens&Percent: 1037.650lm 99.39%
Rated Voltage(V):	Luminaire EER(lm/W): 68.418	Up Lumens&Percent: 6.413lm 0.61%
Tested Power(W): 15.260	Max. Cand. (cd): 2417.153	S/MH: C0_a180=0.622 C90_270=0.616
Lamps' Inside: 1	Max Cand@Ang. (°): C=0.0 γ=0.0	CIE Type: Semi-Direct
Tested Electric: U=238.7V, I=0.066A, PF=0.000	Beam Angle(50%Imax): 37.7	ErP Φ use(90°): 1014.680lm
Lamp Size(W*L*H): 0.095m*0.095m*0.092m	Left=-18.7 Right=19.0	IRF: 482.214%

Lighting Distribution Diagram



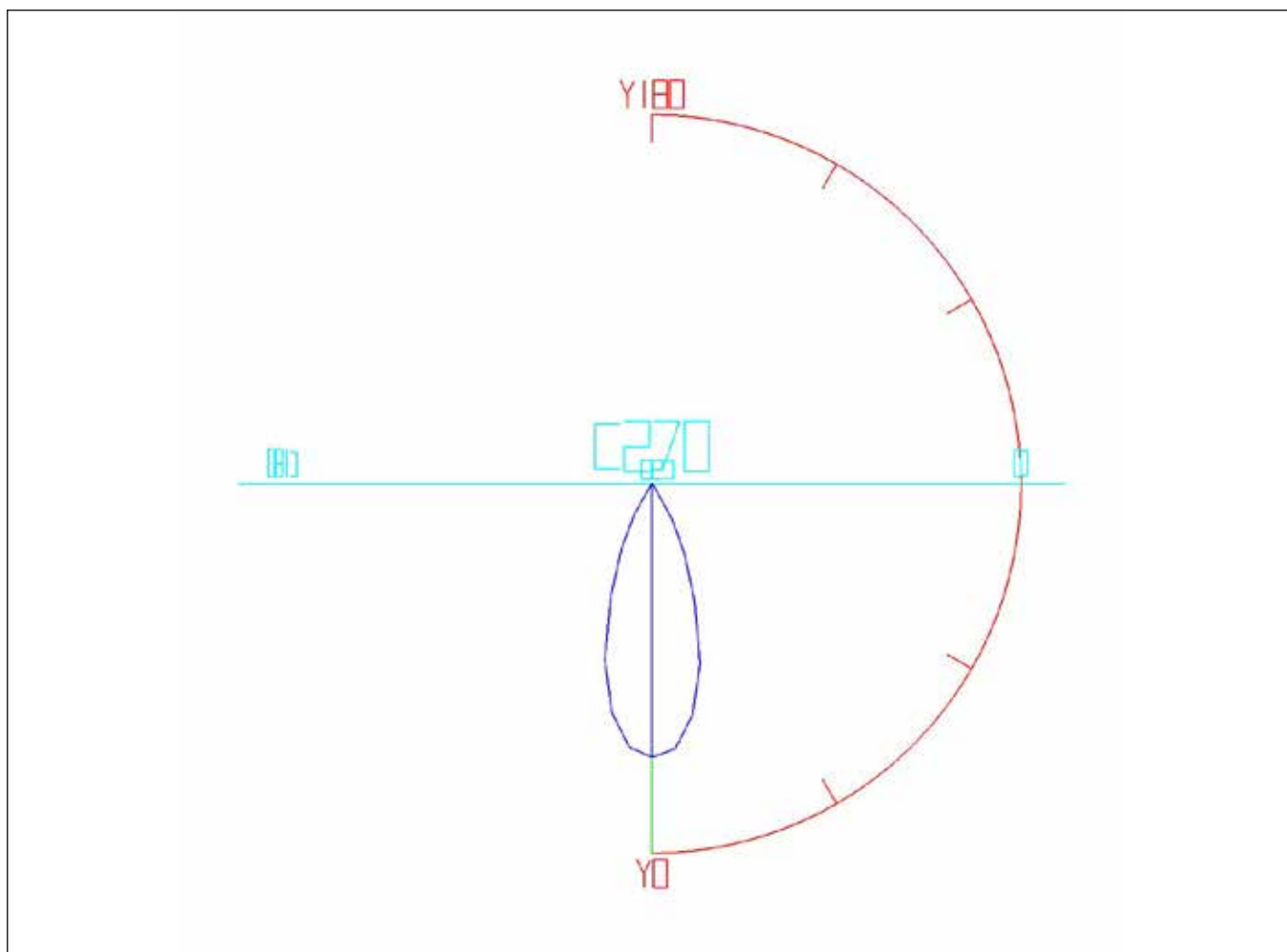
IES Indoor Report

Photometric Filename:COBLG15WCCT-3K-2019-08-29.IES

3D Light Intensity Distribution Modal

Lum. Name: COBLG15WCCT-3K	Lum. Catalog: LED DOWNLIGHT	Test ID:
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Manufacture:	Test Machine:GON-2000	Test Date: 2019/08/29

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:COBLG15WCCT-3K-2019-08-29.IES

Zonal Flux Tabulation

Zone (y)	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	Sums%Lamp
0.0-5.0	56.62	56.62	5.42	5.42
5.0-10.0	156.01	212.63	14.94	20.37
10.0-15.0	216.99	429.62	20.78	41.15
15.0-20.0	221.62	651.25	21.23	62.38
20.0-25.0	181.19	832.44	17.35	79.73
25.0-30.0	120.99	953.43	11.59	91.32
30.0-35.0	49.85	1003.28	4.77	96.09
35.0-40.0	10.41	1013.69	1.00	97.09
40.0-45.0	7.94	1021.63	0.76	97.85
45.0-50.0	6.09	1027.72	0.58	98.43
50.0-55.0	4.62	1032.33	0.44	98.88
55.0-60.0	3.20	1035.53	0.31	99.18
60.0-65.0	1.57	1037.10	0.15	99.33
65.0-70.0	0.44	1037.54	0.04	99.38
70.0-75.0	0.11	1037.65	0.01	99.39
75.0-80.0	0.00	1037.65	0.00	99.39
80.0-85.0	0.00	1037.65	0.00	99.39
85.0-90.0	0.00	1037.65	0.00	99.39
90.0-95.0	0.00	1037.65	0.00	99.39
95.0-100.0	0.00	1037.65	0.00	99.39
100.0-105.0	0.00	1037.65	0.00	99.39
105.0-110.0	0.00	1037.65	0.00	99.39
110.0-115.0	0.00	1037.65	0.00	99.39
115.0-120.0	0.00	1037.65	0.00	99.39
120.0-125.0	0.00	1037.65	0.00	99.39
125.0-130.0	0.01	1037.66	0.00	99.39
130.0-135.0	0.22	1037.88	0.02	99.41
135.0-140.0	0.60	1038.48	0.06	99.47
140.0-145.0	0.90	1039.38	0.09	99.55
145.0-150.0	1.06	1040.44	0.10	99.65
150.0-155.0	1.07	1041.52	0.10	99.76
155.0-160.0	0.95	1042.46	0.09	99.85
160.0-165.0	0.73	1043.19	0.07	99.92
165.0-170.0	0.49	1043.69	0.05	99.96
170.0-175.0	0.28	1043.97	0.03	99.99
175.0-180.0	0.09	1044.06	0.01	100.00

IES Indoor Report

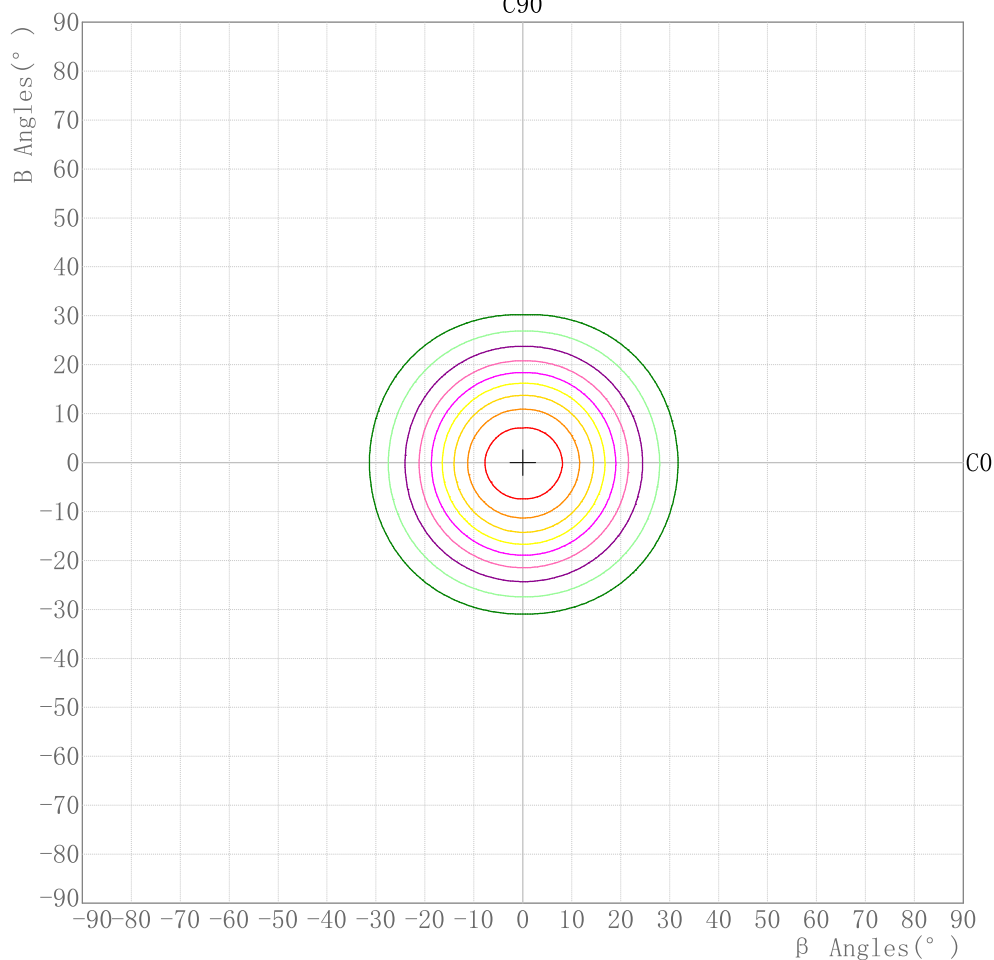
Photometric Filename: COBLG15WCCT-3K-2019-08-29.IES

Rectangle ISO Lighting Intensity Diagram

Lum. Name: COBLG15WCCT-3K	Lum. Catalog: LED DOWNLIGHT	Test ID:
Lamp Name: 3000K	Lamp Catalog: COB	Test Lab:
Manufacture:	Test Machine: GON-2000	Test Date: 2019/08/29

ISO Lighting Intensity Curve

C90



Maximum Light Intensity(cd): 2417.15
 Maximum Cand.@Angle: H=0.0°,V=0.0°

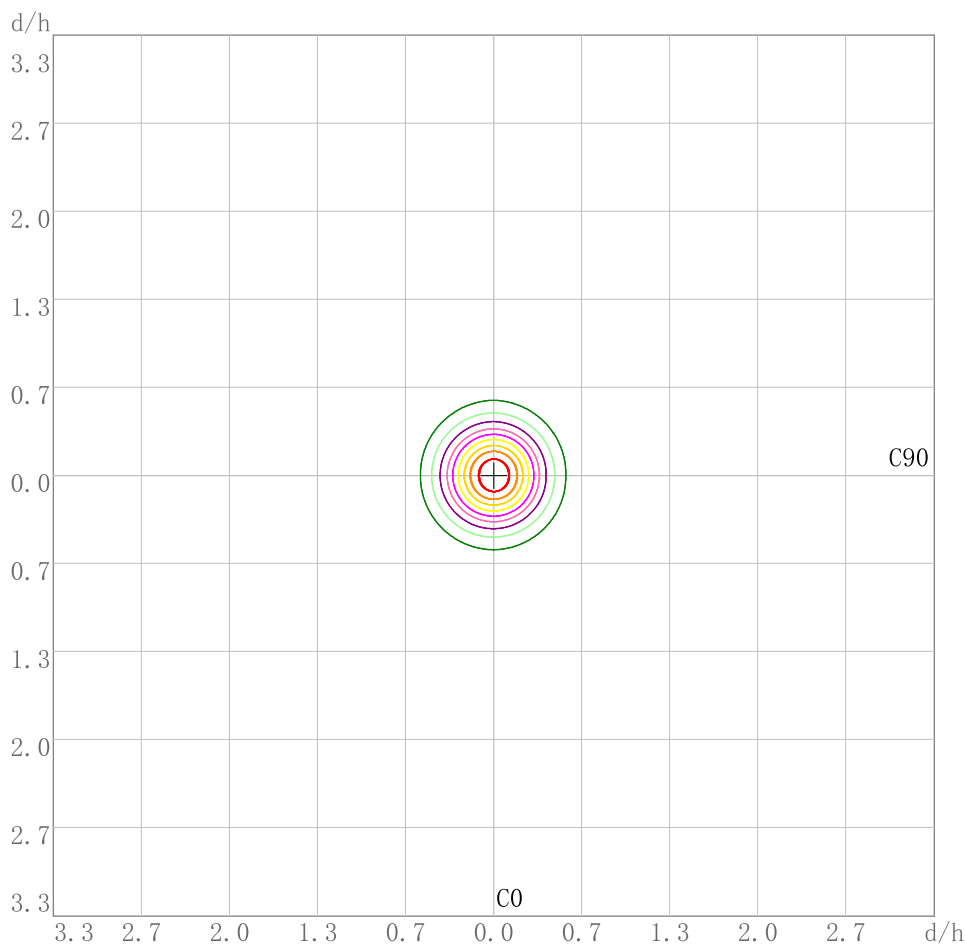
IES Indoor Report

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Plane ISO-Illuminance Diagram

Lum. Name: COBLG15WCCT-3K	Lum. Catalog: LED DOWNLIGHT	Test ID:
Lamp Name: 3000K	Lamp Catalog: COB	Test Lab:
Manufacture:	Test Machine: GON-2000	Test Date: 2019/08/29

Plane ISO-Illuminance Curve



- Curves:
unit: lx
- [E_{Max}] = 268.573
 - [E_{Max}*90%]=241.715
 - [E_{Max}*80%]=214.858
 - [E_{Max}*70%]=188.001
 - [E_{Max}*60%]=161.144
 - [E_{Max}*50%]=134.286
 - [E_{Max}*40%]=107.429
 - [E_{Max}*30%]=80.572
 - [E_{Max}*20%]=53.715
 - [E_{Max}*10%]=26.857

Working Plane Luminaire Mounting Height(m): 3.00
 Working Plane Maximum Illuminance(lx): 268.57
 Working Plane Maximum Illuminance Position(d/h): H0.0 V0.0

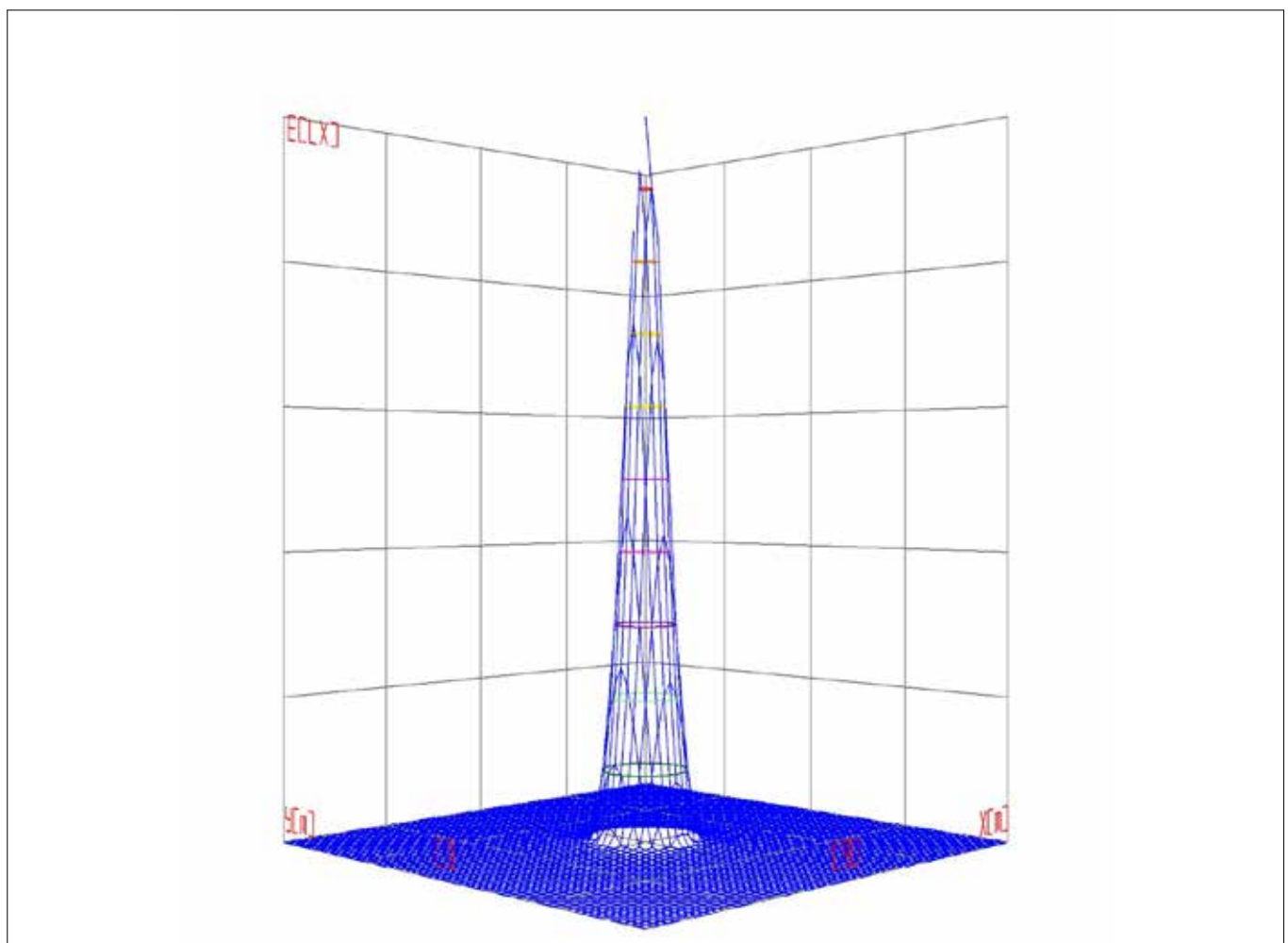
IES Indoor Report

Photometric Filename:COBLG15WCCT-3K-2019-08-29.IES

3D Plane ISO Illuminance Diagram

Lum. Name: COBLG15WCCT-3K	Lum. Catalog: LED DOWNLIGHT	Test ID:
Lamp Name: 3000K	Lamp Catalog: COB	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2019/08/29

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

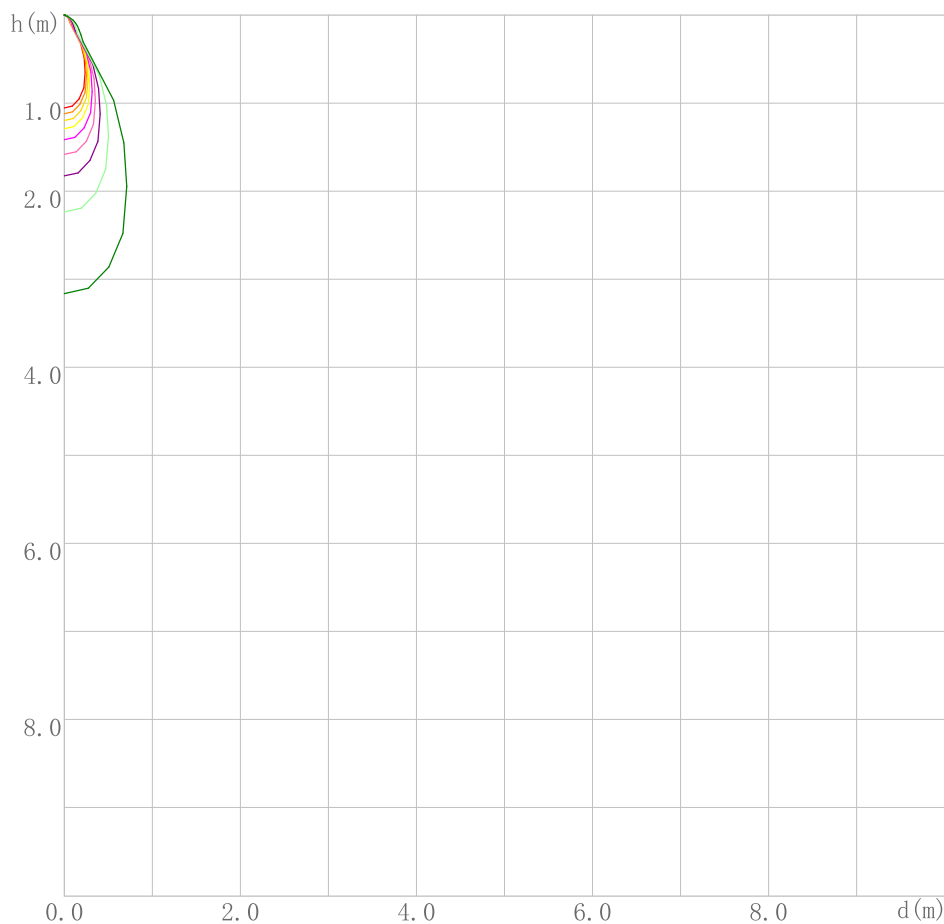
IES Indoor Report

Photometric Filename:COBLG15WCCT-3K-2019-08-29.IES

Space ISO Illuminance Diagram

Lum. Name: COBLG15WCCT-3K	Lum. Catalog: LED DOWNLIGHT	Test ID:
Lamp Name: 3000K	Lamp Catalog: COB	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2019/08/29

Space ISO Illuminance Curve

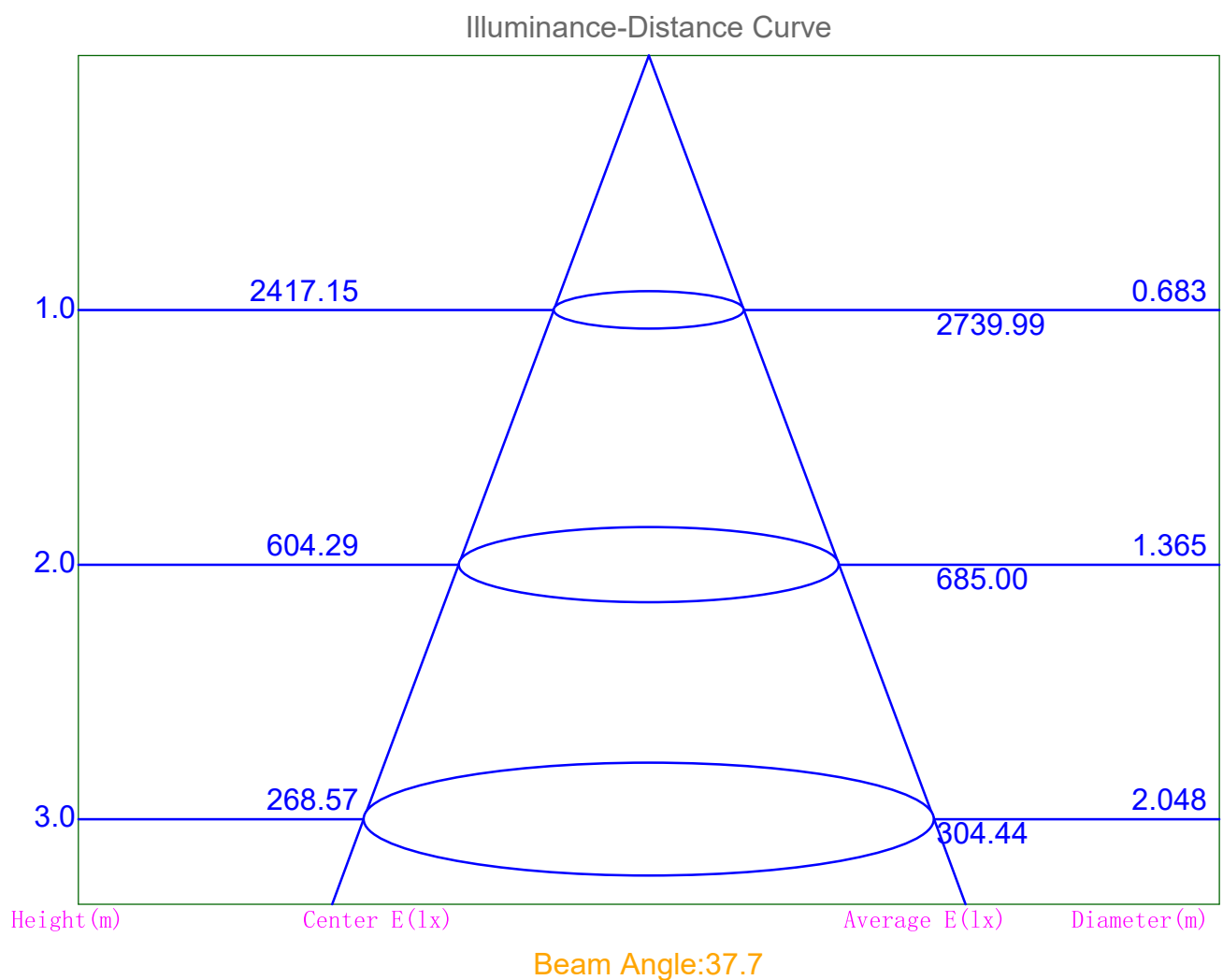


- Curves:
unit:lx
[EMax] =2417.153
- [EMax*90%]=2175.438
 - [EMax*80%]=1933.722
 - [EMax*70%]=1692.007
 - [EMax*60%]=1450.292
 - [EMax*50%]=1208.577
 - [EMax*40%]=966.861
 - [EMax*30%]=725.146
 - [EMax*20%]=483.431
 - [EMax*10%]=241.715

Space Plane Maximum Illuminance and @Angle:2417.15,0.0deg
Plane Maximum Lighting Intensity and @Angle:2417.153cd,0deg

Illuminance-Distance Diagram

Lum. Name: COBLG15WCCT-3K	Lum. Catalog: LED DOWNLIGHT	Test ID:
Lamp Name: 3000K	Lamp Catalog: COB	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2019/08/29



IES Indoor Report

Photometric Filename: COBLG15WCCT-3K-2019-08-29.IES

Indoor Luminance Limiting Curves

Lum. Name: COBLG15WCCT-3K	Lum. Catalog: LED DOWNLIGHT	Test ID:
Lamp Name: 3000K	Lamp Catalog: COB	Test Lab:
Manufacture:	Test Machine: GON-2000	Test Date: 2019/08/29

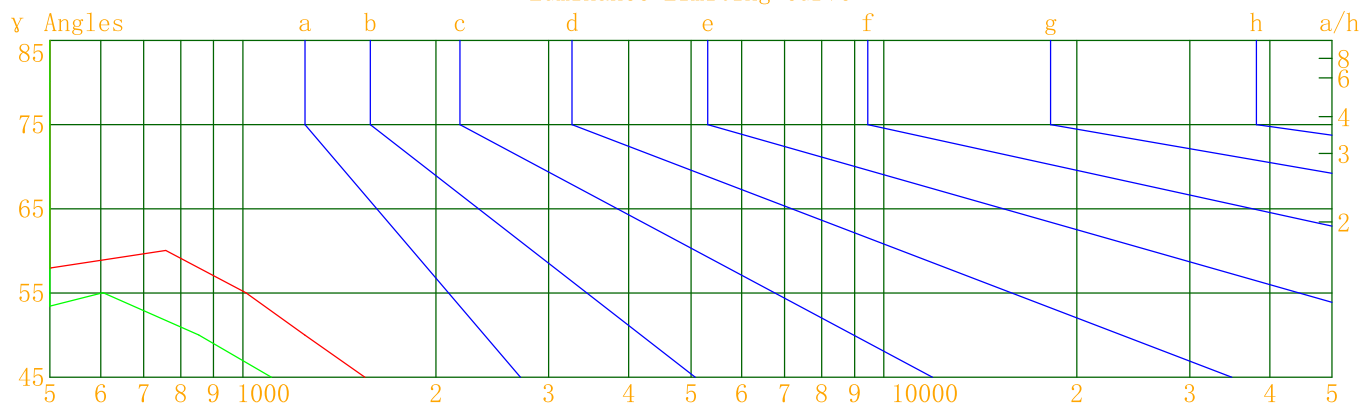
Glare Grade Table

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	1551	1249	1010	758	285	121	0	0	0
C90	1108	853	605	337	0	0	0	0	0

Luminance Limiting Curve



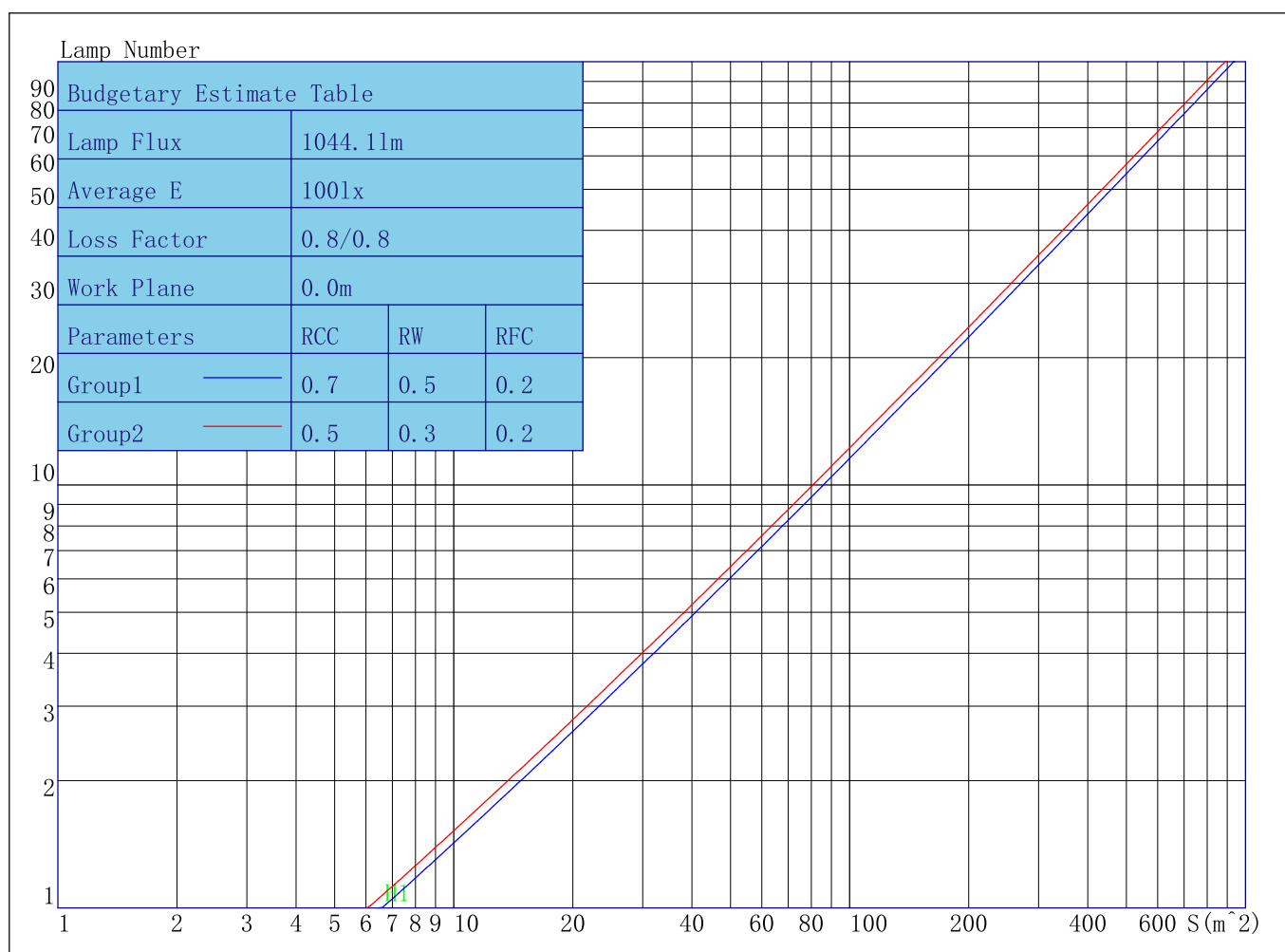
Luminous Size: Length(m)=0.095 Width(m)=0.095 Height(m)=0.092 Area(m²)=0.017765
 Luminous Type: Without Luminous Side
 Luminous Curves: C0-C180 Color: — C90-C270 Color: —

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Indoor Budgetary Estimate Table

Lum. Name: COBLG15WCCT-3K	Lum. Catalog: LED DOWNLIGHT	Test ID:
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Manufacture:	Test Machine: GON-2000	Test Date: 2019/08/29



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

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Indoor Coefficient of Utilization Table

Lum. Name: COBLG15WCCT-3K	Lum. Catalog: LED DOWNLIGHT	Test ID:
Lamp Name: 3000K	Lamp Catalog: COB	Test Lab:
Manufacture:	Test Machine: GON-2000	Test Date: 2019/08/29

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	111	111	111	106	106	106	101	101	101	99
1	114	112	110	108	112	110	108	106	106	104	103	102	101	100	98	97	97	95
2	110	106	102	99	108	104	101	98	101	98	96	98	96	94	95	93	92	90
3	105	100	96	93	104	99	95	92	96	93	90	94	91	89	91	89	88	86
4	101	95	91	87	100	94	90	87	92	88	86	90	87	85	88	86	84	82
5	98	91	86	82	96	90	85	82	88	84	81	86	83	81	85	82	80	79
6	94	87	82	78	93	86	81	78	84	80	77	83	80	77	82	79	76	75
7	90	83	78	75	89	82	78	74	81	77	74	80	76	74	79	76	73	72
8	87	79	75	71	86	79	74	71	78	74	71	77	73	70	76	73	70	69
9	84	76	71	68	83	76	71	68	75	71	68	74	70	68	73	70	67	66
10	81	73	69	65	80	73	68	65	72	68	65	71	68	65	71	67	65	64

IES Indoor Report

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Unified Glare Rating Table

Lum. Name: COBLG15WCCT-3K	Lum. Catalog: LED DOWNLIGHT	Test ID:
Lamp Name: 3000K	Lamp Catalog: COB	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2019/08/29

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	Viewed crosswise					Viewed endwise				
X=2H Y=2H	19.0	20.5	19.8	21.2	21.8	18.2	19.8	19.0	20.4	21.0
Y=3H	18.6	20.2	19.4	20.8	21.5	17.8	19.4	18.6	20.1	20.7
Y=4H	18.5	20.0	19.3	20.7	21.3	17.7	19.2	18.5	19.9	20.5
Y=6H	18.3	19.8	19.1	20.5	21.1	17.5	19.1	18.3	19.7	20.3
Y=8H	18.3	19.8	19.0	20.4	21.0	17.5	19.0	18.2	19.6	20.3
Y=12H	18.2	19.7	18.9	20.3	21.0	17.4	18.9	18.2	19.5	20.2
X=4H Y=2H	18.5	20.0	19.3	20.7	21.3	17.7	19.2	18.5	19.9	20.5
Y=3H	18.1	19.6	18.9	20.3	20.9	17.4	18.9	18.1	19.5	20.1
Y=4H	15.9	16.9	16.8	17.8	18.6	15.1	16.1	16.1	17.0	17.8
Y=6H	15.7	16.7	16.7	17.6	18.4	14.9	15.9	15.9	16.8	17.6
Y=8H	15.6	16.6	16.6	17.5	18.3	14.8	15.8	15.8	16.7	17.5
Y=12H	14.6	15.4	15.7	16.4	17.3	13.8	14.6	14.9	15.6	16.5
X=8H Y=4H	15.6	16.6	16.6	17.5	18.3	14.8	15.8	15.8	16.7	17.5
Y=6H	14.5	15.3	15.6	16.3	17.2	13.8	14.5	14.8	15.5	16.4
Y=8H	14.0	14.6	15.1	15.7	16.7	13.2	13.8	14.3	14.9	15.9
Y=12H	13.9	14.5	15.0	15.6	16.6	13.1	13.7	14.3	14.8	15.8
X=12H Y=4H	14.6	15.4	15.7	16.4	17.3	13.8	14.6	14.9	15.6	16.5
Y=6H	14.0	14.6	15.1	15.7	16.7	13.2	13.8	14.3	14.9	15.9
Y=8H	13.9	14.5	15.0	15.6	16.6	13.1	13.7	14.3	14.8	15.8
Variations with the observer position at spacings										
S=1.0H	-20.2/-31.3					-21.5/-31.2				
S=1.5H	-28.2/-78.4					-27.4/-77.6				
S=2.0H	-28.2/-79.6					-27.4/-78.8				

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Photometric Filename:COBLG15WCCT-3K-2019-08-29.IES

Candela Tabulation

V/H	C0.0	C90.0	C180.0	C270.0
Y 0.0	2417.15	2417.15	2417.15	2417.15
Y 5.0	2350.75	2292.66	2333.81	2300.03
Y 10.0	2070.81	2009.98	2045.28	2040.96
Y 15.0	1645.13	1582.45	1607.80	1629.71
Y 20.0	1100.89	1032.37	1065.20	1092.98
Y 25.0	681.94	623.45	646.11	667.30
Y 30.0	348.14	251.16	318.10	288.12
Y 35.0	40.72	29.54	36.89	41.42
Y 40.0	27.52	20.07	25.27	28.08
Y 45.0	19.48	13.92	17.47	19.71
Y 50.0	14.26	9.74	12.10	13.88
Y 55.0	10.30	6.17	8.43	10.02
Y 60.0	6.73	2.99	5.26	5.45
Y 65.0	2.14	0.00	0.80	2.46
Y 70.0	0.73	0.00	0.00	0.89
Y 75.0	0.00	0.00	0.00	0.00
Y 80.0	0.00	0.00	0.00	0.00
Y 85.0	0.00	0.00	0.00	0.00
Y 90.0	0.00	0.00	0.00	0.00
Y 95.0	0.00	0.00	0.00	0.00
Y 100.0	0.00	0.00	0.00	0.00
Y 105.0	0.00	0.00	0.00	0.00
Y 110.0	0.00	0.00	0.00	0.00
Y 115.0	0.00	0.00	0.00	0.00
Y 120.0	0.00	0.00	0.00	0.00
Y 125.0	0.00	0.00	0.00	0.00
Y 130.0	0.00	0.00	0.15	0.01
Y 135.0	0.99	0.85	1.25	1.08
Y 140.0	2.27	2.04	2.46	2.07
Y 145.0	3.32	3.10	3.42	3.04
Y 150.0	4.26	3.86	4.13	3.67
Y 155.0	4.76	4.43	4.58	4.16
Y 160.0	4.97	4.47	4.60	4.13
Y 165.0	4.65	4.27	4.39	3.92
Y 170.0	4.32	3.96	4.10	3.65
Y 175.0	4.07	3.81	4.04	3.69
Y 180.0	4.01	4.01	4.01	4.01