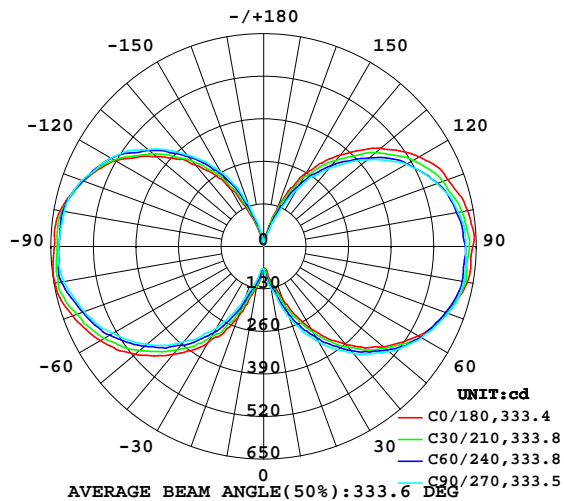


LUMINAIRE PHOTOMETRIC TEST REPORT

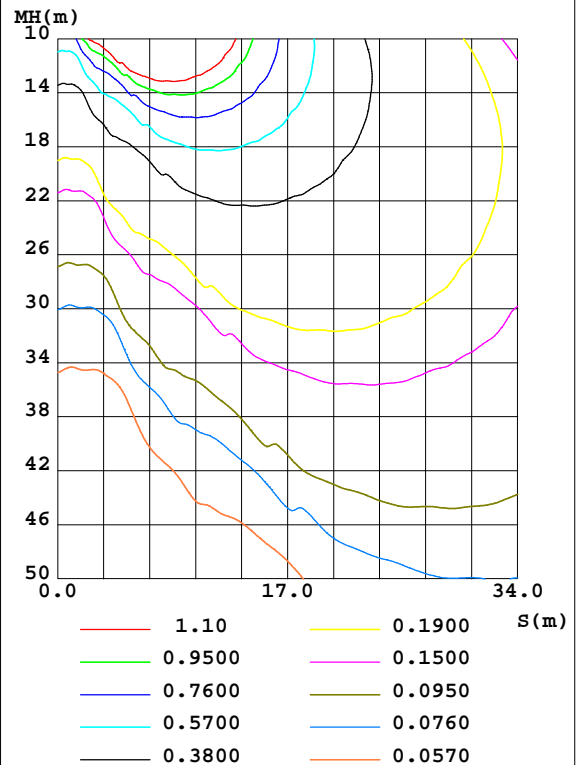
Test:U:220.0V I:0.1942A P:41.00W PF:0.9596 Lamp Flux:6034.22x1 lm		
NAME: OBBC-40W L+ -5700K	TYPE:LED	WEIGHT:
SPEC.:OBBC-40W L+ -5700K	DIM.:	SERIAL No.:
MFR.: ICEPIPE	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 147.19 lm/W			
MODEL	OBBC-40W L+ -5700K	Imax(cd)	649.3	S/MH(C0/180)	4.49
NOMINAL POWER(W)	40	LOR(%)	100.0	S/MH(C90/270)	4.35
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	6034.2	η UP,DN(C0-180)	23.5,26.3
NOMINAL FLUX(lm)	6034.22	CIE CLASS	DIFFUSE	η UP,DN(C180-360)	24.6,25.6
LAMPS INSIDE	1	η up(%)	48.1	CIBSE SHR NOM	1.75
TEST VOLTAGE(V)	220	η down(%)	51.9	CIBSE SHR MAX	1.75

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:LUC
Test Date:16 October 2018

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.351
Humidity:65.0%
Test Distance:8.000m [K=1.0000]
Remarks: OBBC-40W L+ -5700K

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	98.97	117.7	130.2	132.2	127.4	114.8	96.90	84.37	0- 10	8.851	8.851	0.15,0.15
20	172.3	201.5	231.9	241.2	232.2	199.6	166.5	155.7	10- 20	44.05	52.90	0.88,0.88
30	292.0	312.1	336.1	347.6	337.0	312.3	287.1	275.0	20- 30	120.9	173.8	2.88,2.88
40	392.1	406.2	427.4	437.8	430.6	406.1	380.2	375.7	30- 40	227.9	401.7	6.66,6.66
50	478.0	484.5	500.1	515.3	512.9	492.1	465.0	456.7	40- 50	348.3	750.1	12.4,12.4
60	546.7	554.7	557.3	572.8	575.8	561.1	530.6	526.6	50- 60	469.6	1220	20.2,20.2
70	596.3	595.0	599.7	614.0	620.9	608.0	583.4	576.8	60- 70	574.5	1794	29.7,29.7
80	631.8	625.7	620.9	633.8	647.7	640.7	619.3	611.0	70- 80	652.5	2447	40.5,40.5
90	639.2	627.5	617.3	626.4	639.3	634.3	625.7	624.6	80- 90	687.9	3135	51.9,51.9
100	632.6	612.8	603.8	612.0	631.3	630.6	619.1	616.0	90-100	683.9	3818	63.3,63.3
110	598.9	581.0	563.9	566.0	585.8	590.7	591.8	592.3	100-110	638.8	4457	73.9,73.9
120	548.3	519.5	503.6	503.6	525.0	535.3	540.0	541.7	110-120	554.2	5011	83.1,83.1
130	467.2	436.0	413.1	408.6	427.6	448.5	460.4	466.0	120-130	436.9	5448	90.3,90.3
140	364.2	339.3	313.2	310.1	324.9	347.3	364.0	371.6	130-140	304.9	5753	95.3,95.3
150	260.6	236.6	199.5	193.4	201.7	236.6	261.5	268.5	140-150	183.1	5936	98.4,98.4
160	133.5	101.6	79.18	65.22	76.88	99.91	139.6	139.2	150-160	79.16	6015	99.7,99.7
170	29.98	26.25	19.14	16.51	19.18	26.42	31.94	31.73	160-170	17.06	6033	100,100
180	8.922	8.882	8.927	9.063	8.918	8.895	8.936	9.063	170-180	1.690	6034	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 560.45 lm

%lum = 9.3%

%lamp = 9.3%

Conical surface Flux(120deg): 1219.7 lm

%lum = 20.2%

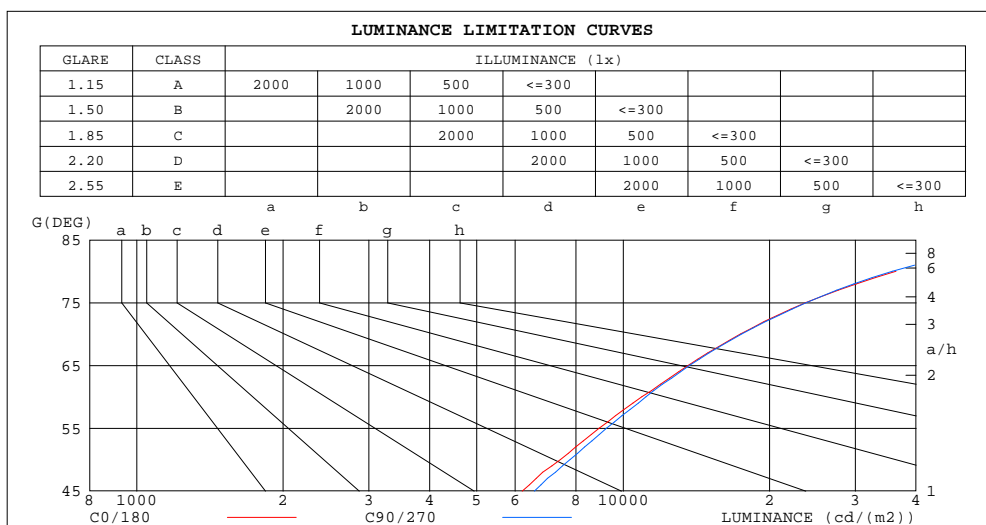
%lamp = 20.2%

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:LUC
Test Date:16 October 2018

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.351
Humidity:65.0%
Test Distance:8.000m [K=1.0000]
Remarks: OBBC-40W L+ -5700K

LUMINANCE LIMITATION CURVES

Test:U:220.0V I:0.1942A P:41.00W PF:0.9596 Lamp Flux:6034.22x1 lm		
NAME: OBBC-40W L+ -5700K	TYPE:LED	WEIGHT:
SPEC.:OBBC-40W L+ -5700K	DIM.:	SERIAL No.:
MFR.: ICEPIPE	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	72877	71166
80	36385	35758
75	23745	23801
70	17434	17533
65	13604	13699
60	10934	11145
55	8938	9252
50	7436	7780
45	6201	6568

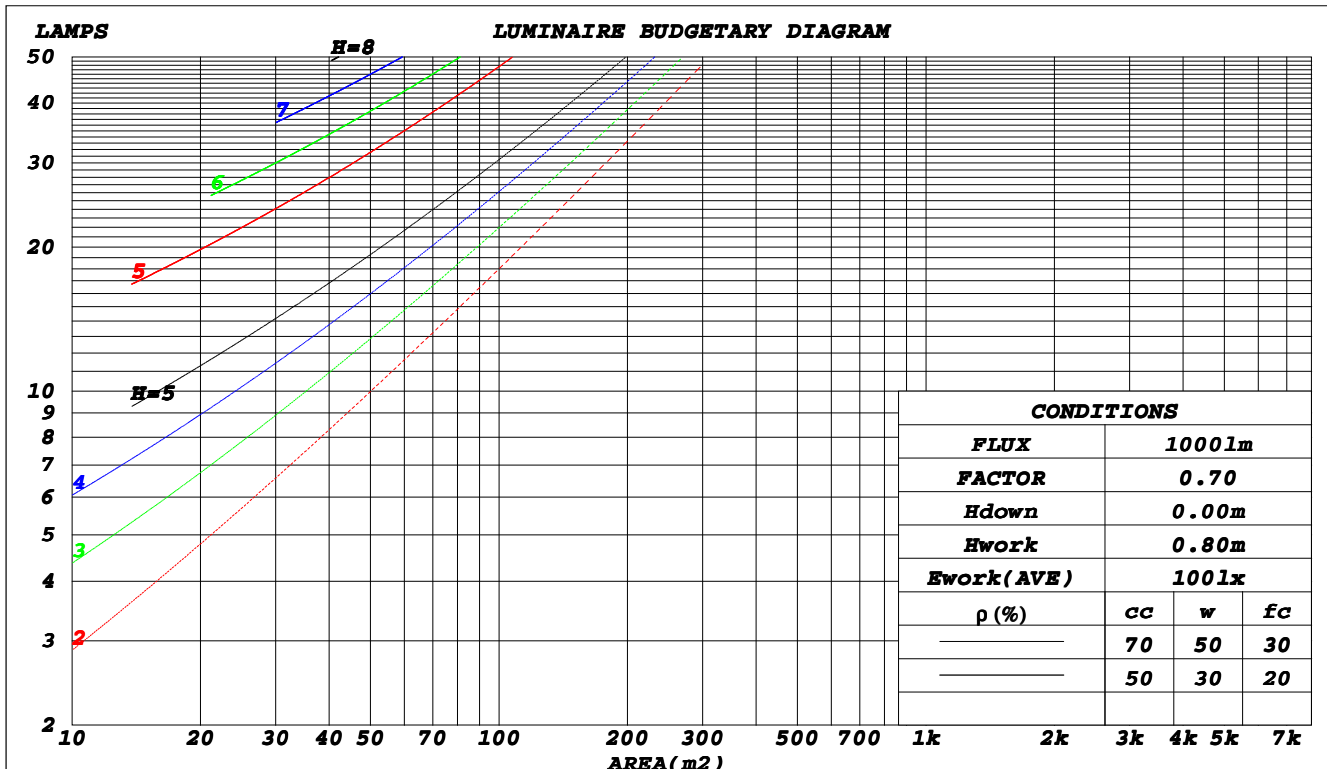
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:LUC
Test Date:16 October 2018

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.351
Humidity:65.0%
Test Distance:8.000m [K=1.0000]
Remarks: OBBC-40W L+ -5700K

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.0V I:0.1942A P:41.00W PF:0.9596 Lamp Flux:6034.22x1 lm		
NAME: OBBc-40W L+ -5700K	TYPE:LED	WEIGHT:
SPEC.:OBBc-40W L+ -5700K	DIM.:	SERIAL No.:
MFR.: ICEPIPE	SUR.:	Shielding Angle:

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	1.08	1.08	1.08	.00	.00	.00	.84	.84	.84	.71	.71	.71	.58	.58	.58	.52
1.0	.85	.79	.74	.78	.73	.68	.65	.61	.57	.53	.50	.47	.42	.39	.37	.32
2.0	.71	.63	.56	.65	.58	.51	.54	.48	.43	.43	.39	.35	.34	.30	.27	.22
3.0	.61	.51	.44	.56	.47	.40	.46	.39	.33	.36	.31	.27	.28	.24	.20	.16
4.0	.53	.43	.35	.48	.39	.32	.39	.32	.27	.31	.26	.21	.24	.20	.16	.12
5.0	.46	.36	.29	.42	.33	.27	.34	.27	.22	.27	.22	.17	.21	.16	.13	.09
6.0	.41	.31	.24	.37	.29	.22	.31	.24	.18	.24	.19	.15	.18	.14	.11	.08
7.0	.36	.27	.21	.33	.25	.19	.27	.21	.16	.22	.16	.12	.17	.12	.09	.06
8.0	.33	.24	.18	.30	.22	.16	.25	.18	.13	.20	.14	.11	.15	.11	.08	.05
9.0	.30	.21	.16	.27	.19	.14	.22	.16	.12	.18	.13	.09	.14	.10	.07	.04
10.0	.27	.19	.14	.25	.17	.12	.20	.14	.10	.16	.11	.08	.13	.09	.06	.04



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:LUC
Test Date:16 October 2018

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.351
Humidity:65.0%
Test Distance:8.000m [K=1.0000]
Remarks: OBBc-40W L+ -5700K

WEC AND CCEC

Test:U:220.0V I:0.1942A P:41.00W PF:0.9596 Lamp Flux:6034.22x1 lm		
NAME: OBBc-40W L+ -5700K	TYPE:LED	WEIGHT:
SPEC.:OBBc-40W L+ -5700K	DIM.:	SERIAL No.:
MFR.: ICEPIPE	SUR.:	Shielding Angle:

ρ_{cc}	80%			70%			50%			30%			10%			0	
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
ρ_{fc}	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.441	.251	.079	.419	.239	.076	.378	.217	.069	.340	.196	.063	.306	.177	.057		
2.0	.363	.199	.061	.343	.189	.058	.306	.170	.053	.271	.152	.048	.239	.135	.043		
3.0	.314	.167	.050	.296	.158	.048	.261	.142	.043	.229	.126	.039	.200	.111	.034		
4.0	.278	.144	.042	.261	.137	.040	.229	.122	.036	.200	.107	.032	.173	.094	.029		
5.0	.249	.127	.037	.234	.120	.035	.205	.107	.031	.178	.094	.028	.153	.082	.025		
6.0	.226	.113	.032	.212	.107	.031	.185	.095	.028	.160	.083	.024	.137	.072	.021		
7.0	.207	.102	.029	.194	.097	.028	.169	.086	.025	.146	.075	.022	.124	.065	.019		
8.0	.191	.093	.026	.179	.088	.025	.156	.078	.022	.134	.068	.020	.114	.059	.017		
9.0	.177	.086	.024	.166	.081	.023	.144	.071	.020	.124	.062	.018	.105	.053	.015		
10.0	.165	.079	.022	.155	.075	.021	.135	.066	.019	.116	.057	.016	.098	.049	.014		

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.557	.557	.557	.476	.476	.476	.325	.325	.325	.187	.187	.187	.060	.060	.060	
1.0	.559	.524	.493	.478	.450	.424	.327	.309	.294	.188	.179	.171	.060	.058	.055	
2.0	.553	.503	.461	.474	.433	.398	.325	.300	.278	.187	.174	.163	.060	.056	.053	
3.0	.547	.488	.442	.469	.421	.383	.322	.293	.269	.186	.171	.158	.060	.055	.052	
4.0	.539	.477	.429	.463	.412	.373	.318	.287	.263	.184	.168	.155	.059	.055	.051	
5.0	.532	.468	.421	.457	.405	.366	.314	.283	.259	.182	.166	.153	.059	.054	.051	
6.0	.524	.461	.415	.451	.399	.361	.311	.279	.256	.180	.164	.152	.058	.054	.050	
7.0	.517	.455	.411	.445	.394	.358	.307	.276	.254	.179	.163	.151	.058	.053	.050	
8.0	.510	.449	.407	.439	.390	.355	.304	.274	.252	.177	.161	.150	.057	.053	.050	
9.0	.504	.445	.405	.434	.386	.353	.301	.271	.251	.175	.160	.150	.057	.053	.050	
10.0	.498	.441	.403	.430	.383	.352	.298	.269	.250	.174	.159	.149	.056	.052	.049	

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:LUC
Test Date:16 October 2018

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.351
Humidity:65.0%
Test Distance:8.000m [K=1.0000]
Remarks: OBBc-40W L+ -5700K

UGR(Unified Glare Rating) Table

Test:U:220.0V I:0.1942A P:41.00W PF:0.9596 Lamp Flux:6034.22x1 lm										
NAME: OBBc-40W L+ -5700K					TYPE:LED			WEIGHT:		
SPEC.:OBBc-40W L+ -5700K					DIM.:			SERIAL No.:		
MFR.: ICEPIPE					SUR.:			Shielding Angle:		
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	17.7	18.8	18.5	19.7	20.8	17.8	19.0	18.7	19.9	21.0
3H	21.3	22.3	22.1	23.2	24.4	21.4	22.5	22.3	23.4	24.6
4H	23.3	24.3	24.2	25.2	26.4	23.4	24.4	24.3	25.3	26.5
6H	25.5	26.5	26.4	27.4	28.6	25.6	26.5	26.5	27.5	28.7
8H	26.8	27.7	27.7	28.6	29.8	26.8	27.7	27.7	28.6	29.8
12H	28.1	29.0	29.1	30.0	31.2	28.1	29.0	29.0	29.9	31.1
4H 2H	18.8	19.8	19.7	20.7	21.9	18.9	19.9	19.8	20.8	22.0
3H	22.5	23.3	23.4	24.3	25.5	22.6	23.4	23.5	24.4	25.6
4H	24.6	25.4	25.5	26.4	27.6	24.7	25.5	25.6	26.5	27.7
6H	27.0	27.7	27.9	28.6	29.9	27.0	27.7	28.0	28.7	30.0
8H	28.3	28.9	29.2	29.9	31.2	28.3	28.9	29.2	29.9	31.2
12H	29.7	30.3	30.7	31.3	32.6	29.7	30.3	30.7	31.3	32.6
8H 4H	25.4	26.0	26.3	27.0	28.3	25.4	26.1	26.4	27.1	28.4
6H	28.0	28.6	29.0	29.6	30.9	28.0	28.6	29.0	29.6	30.9
8H	29.4	30.0	30.4	31.0	32.3	29.4	30.0	30.4	31.0	32.3
12H	31.1	31.6	32.1	32.6	33.9	31.1	31.6	32.1	32.6	33.9
12H 4H	25.6	26.2	26.6	27.2	28.5	25.7	26.3	26.6	27.3	28.6
6H	28.3	28.8	29.3	29.8	31.2	28.3	28.8	29.3	29.9	31.2
8H	29.9	30.3	30.9	31.4	32.7	29.9	30.3	30.9	31.4	32.7
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.1				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.3 / - 0.4					+ 0.3 / - 0.4				

CIE Pub.117 Corrected 6034 lm Total Lamp Luminous Flux.(8log(F/F0) = 6.2)

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:LUC
Test Date:16 October 2018

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.351
Humidity:65.0%
Test Distance:8.000m [K=1.0000]
Remarks: OBBc-40W L+ -5700K

UTILIZATION FACTORS TABLE

Test:U:220.0V I:0.1942A P:41.00W PF:0.9596 Lamp Flux:6034.22x1 lm		
NAME: OBBc-40W L+ -5700K	TYPE:LED	WEIGHT:
SPEC.:OBBc-40W L+ -5700K	DIM.:	SERIAL No.:
MFR.: ICEPIPE	SUR.:	Shielding Angle:

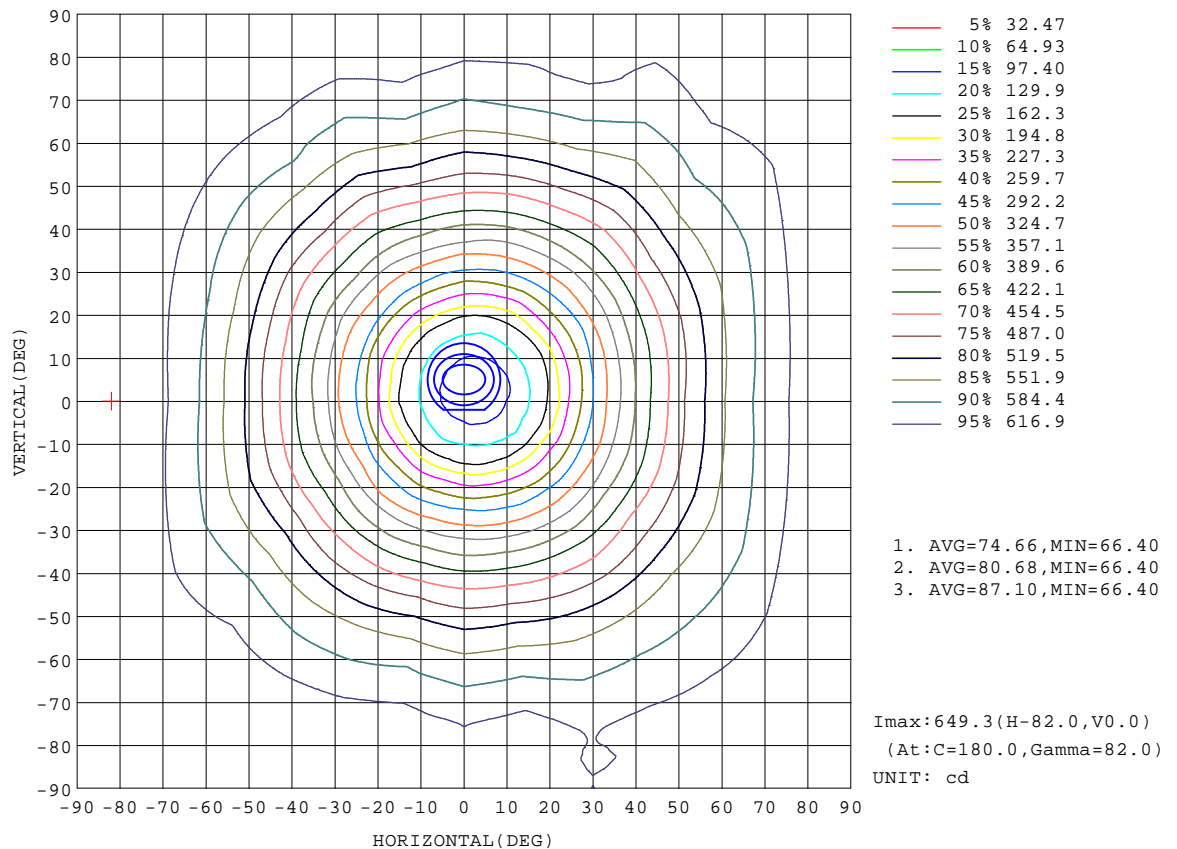
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	34	21	13	32	20	13	29	18	12	5
0.80	42	28	19	40	26	18	35	24	17	7
1.00	49	35	25	46	33	24	40	31	21	10
1.25	56	41	31	52	39	30	45	34	26	13
1.50	62	47	37	57	44	35	49	38	31	15
2.00	70	56	46	65	52	43	55	45	38	20
2.50	75	62	52	69	58	49	59	50	43	23
3.00	79	67	58	73	63	54	62	54	47	26
4.00	85	74	66	78	69	62	66	59	53	30
5.00	88	79	72	82	74	67	69	63	57	32
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:LUC
Test Date:16 October 2018

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.351
Humidity:65.0%
Test Distance:8.000m [K=1.0000]
Remarks: OBBc-40W L+ -5700K

ISOCANDELA DIAGRAM

Test:U:220.0V I:0.1942A P:41.00W PF:0.9596 Lamp Flux:6034.22x1 lm		
NAME: OBBc-40W L+ -5700K	TYPE:LED	WEIGHT:
SPEC.:OBBc-40W L+ -5700K	DIM.:	SERIAL No.:
MFR.: ICEPIPE	SUR.:	Shielding Angle:



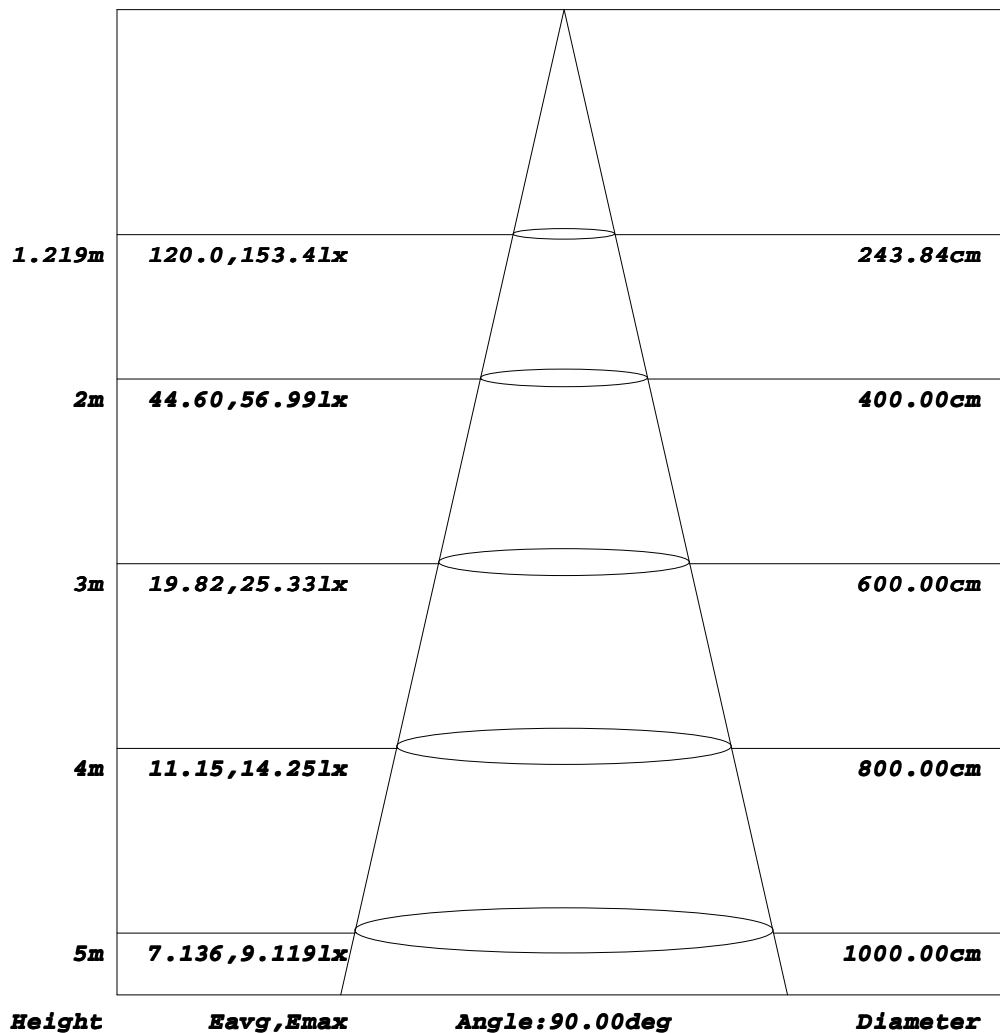
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:LUC
Test Date:16 October 2018

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.351
Humidity:65.0%
Test Distance:8.000m [K=1.0000]
Remarks: OBBc-40W L+ -5700K

AAI Figure

Test:U:220.0V I:0.1942A P:41.00W PF:0.9596 Lamp Flux:6034.22x1 lm		
NAME: OBBC-40W L+ -5700K	TYPE:LED	WEIGHT:
SPEC.:OBBC-40W L+ -5700K	DIM.:	SERIAL No.:
MFR.: ICEPIPE	SUR.:	Shielding Angle:

Flux out:560.5 lm



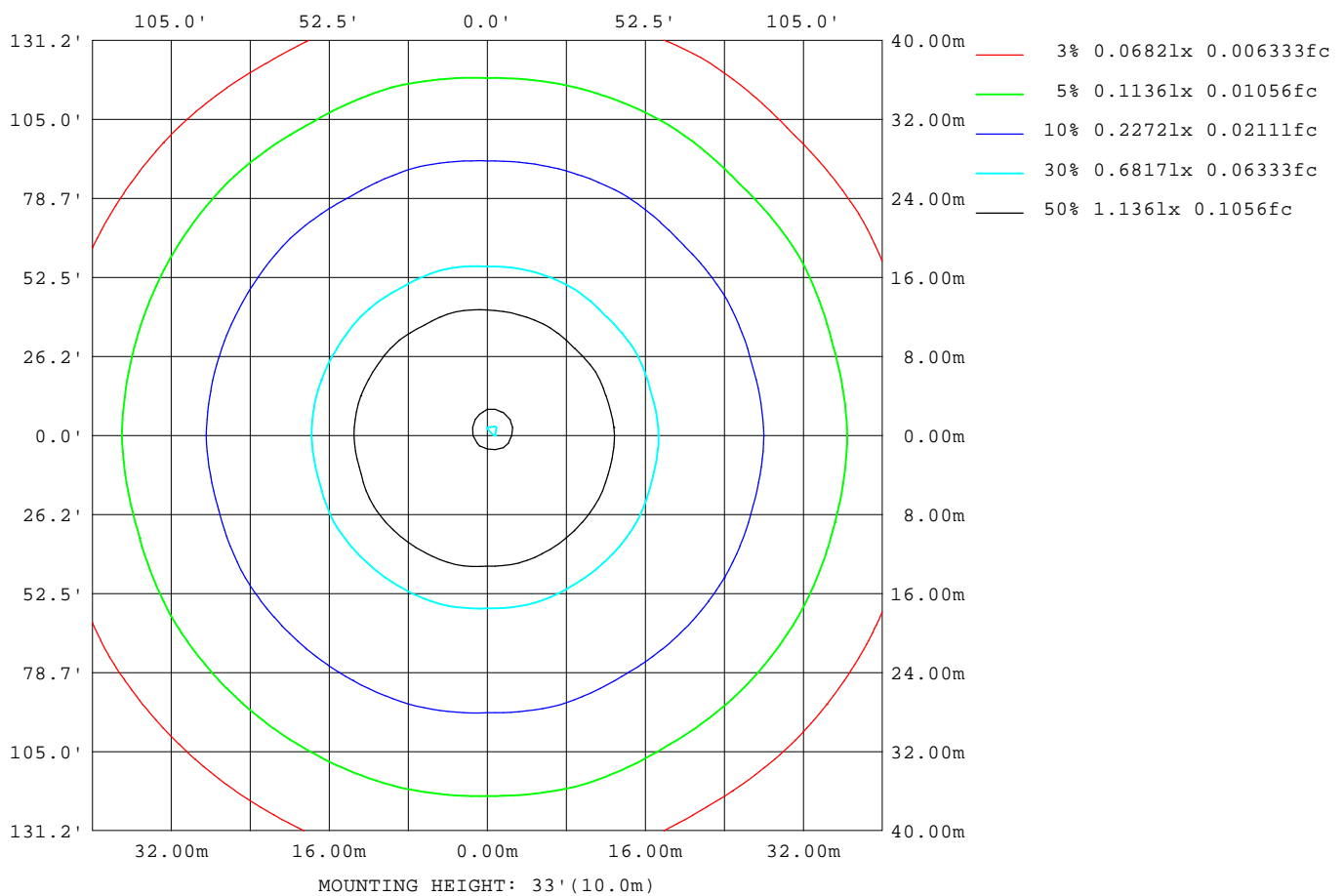
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: LUC
Test Date: 16 October 2018

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.351
Humidity: 65.0%
Test Distance: 8.000m [K=1.0000]
Remarks: OBBC-40W L+ -5700K

ISOLUX DIAGRAM

Test:U:220.0V I:0.1942A P:41.00W PF:0.9596 Lamp Flux:6034.22x1 lm		
NAME: OBBC-40W L+ -5700K	TYPE:LED	WEIGHT:
SPEC.:OBBC-40W L+ -5700K	DIM.:	SERIAL No.:
MFR.: ICEPIPE	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: LUC
Test Date: 16 October 2018

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.351
Humidity: 65.0%
Test Distance: 8.000m [K=1.0000]
Remarks: OBBC-40W L+ -5700K

LED Avg.L Report

Test:U:220.0V I:0.1942A P:41.00W PF:0.9596 Lamp Flux:6034.22x1 lm		
NAME: OBBc-40W L+ -5700K	TYPE:LED	WEIGHT:
SPEC.:OBBc-40W L+ -5700K	DIM.:	SERIAL No.:
MFR.: ICEPIPE	SUR.:	Shielding Angle:

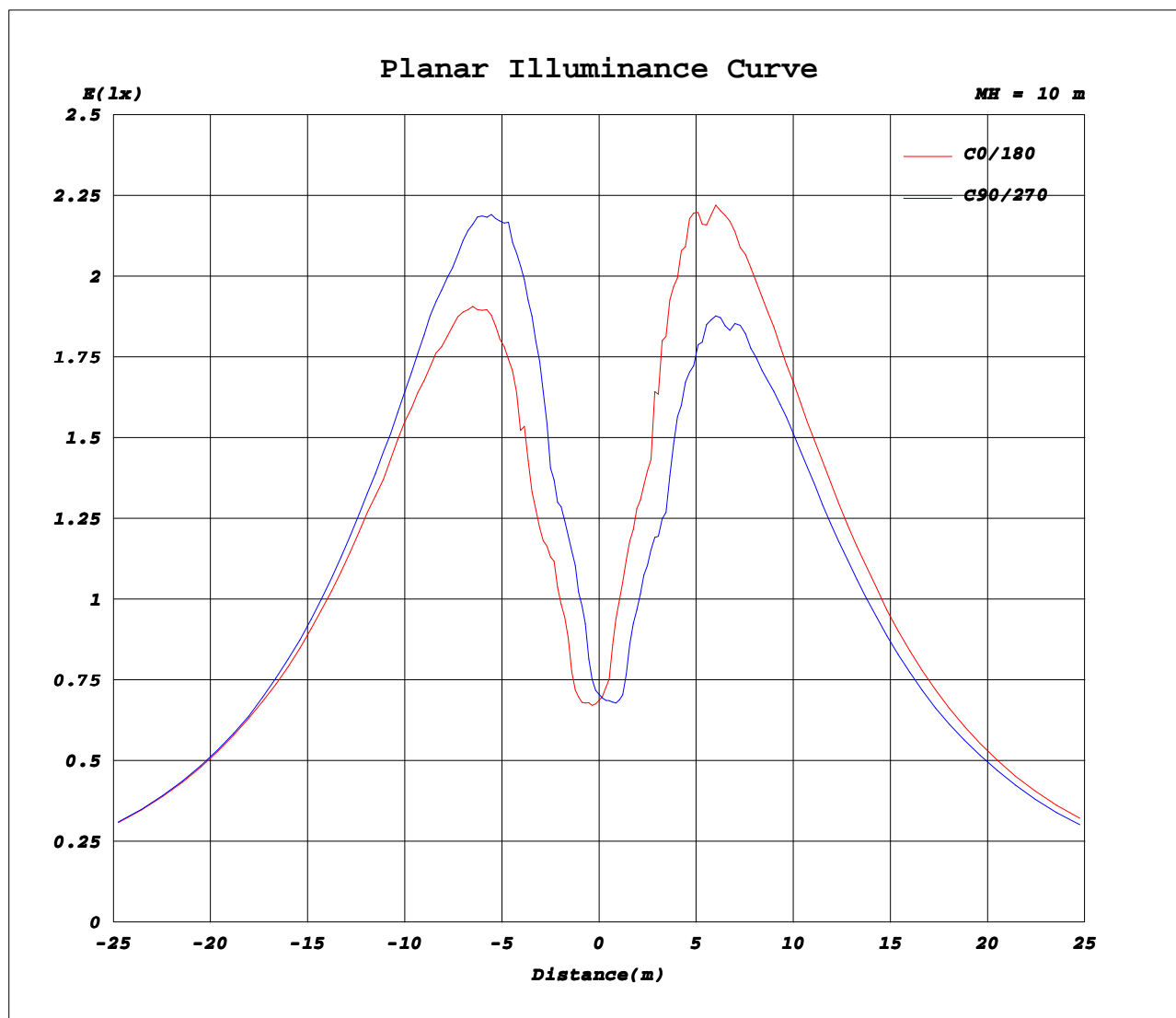
AvgL	cd/m2
L_0~180(65)av	13893
L_0~180(75)av	24232
L_0~180(85)av	73515
L_90~270(65)av	13501
L_90~270(75)av	23523
L_90~270(85)av	71625
L_45(65)av	13676
L_45(75)av	23797
L_45(85)av	72167

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:LUC
Test Date:16 October 2018

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.351
Humidity:65.0%
Test Distance:8.000m [K=1.0000]
Remarks: OBBc-40W L+ -5700K

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: LUC
Test Date: 16 October 2018

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.351
Humidity: 65.0%
Test Distance: 8.000m [K=1.0000]
Remarks: OBBC-40W L+ -5700K

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.0V I:0.1942A P:41.00W PF:0.9596 Lamp Flux:6034.22x1 lm		
NAME: OBBc-40W L+ -5700K	TYPE:LED	WEIGHT:
SPEC.:OBBc-40W L+ -5700K	DIM.:	SERIAL No.:
MFR.: ICEPIPE	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	68.7	69.6	69.9	70.3	70.5	70.4	70.5	70.2	69.2	69.2	69.1	68.8	68.7	69.6	69.9	70.3	70.5	70.4	70.5
5	68.9	70.6	74.6	81.4	90.4	93.6	99.1	99.6	101	101	101	99.3	95.1	93.9	88.1	80.5	73.7	72.7	68.7
10	99.0	104	110	118	123	125	130	130	129	132	134	132	127	125	121	115	109	104	96.9
15	129	131	141	143	151	158	171	171	177	179	181	175	159	156	150	143	135	134	128
20	172	181	192	202	215	227	232	238	241	241	246	233	232	223	212	200	190	179	167
25	234	240	248	257	273	285	291	295	292	298	294	301	293	283	267	255	247	239	229
30	292	298	304	312	321	331	336	343	346	348	351	345	337	328	316	312	304	295	287
35	344	348	354	359	370	382	384	390	388	391	398	392	389	379	371	364	350	348	337
40	392	393	400	406	416	423	427	435	434	438	442	429	431	427	412	406	395	393	380
45	438	436	448	449	456	464	464	474	473	475	481	470	473	467	455	450	438	441	428
50	478	475	484	484	492	502	500	513	511	515	520	507	513	507	494	492	475	475	465
55	513	508	519	524	529	537	531	547	545	548	552	539	549	546	531	529	511	516	501
60	547	542	555	555	555	565	557	571	570	573	578	566	576	573	562	561	543	548	531
65	575	568	576	576	573	585	579	594	593	595	603	588	599	593	587	587	569	578	562
70	596	586	596	595	591	609	600	614	611	614	620	609	621	613	607	608	588	599	583
75	615	607	614	613	608	624	616	627	625	629	634	625	640	632	629	625	609	618	602
80	632	622	627	626	616	630	621	632	631	634	645	632	648	643	637	641	628	637	619
85	635	621	623	622	615	632	620	632	630	631	641	629	646	639	636	640	629	643	628
90	639	629	628	627	617	628	617	623	625	626	634	624	639	634	632	634	625	637	626
95	641	627	623	621	610	624	617	622	622	622	632	624	641	635	633	635	625	633	622
100	633	619	615	613	598	614	604	609	612	612	623	615	631	626	627	631	623	632	619
105	618	605	598	595	587	598	589	593	592	592	602	593	611	605	608	612	610	621	610
110	599	588	583	581	565	576	564	565	568	566	576	569	586	584	587	591	587	599	592
115	581	568	558	552	536	544	536	537	542	538	547	542	558	556	563	567	566	575	564
120	548	535	527	519	505	512	504	502	508	504	513	510	525	521	528	535	538	547	540
125	509	497	487	481	470	469	460	454	457	456	463	464	475	479	483	491	499	511	508
130	467	455	446	436	422	419	413	404	413	409	415	419	428	432	441	449	457	459	460
135	415	405	391	384	370	372	363	359	362	359	368	368	379	378	389	399	406	414	416
140	364	351	342	339	323	320	313	304	308	310	314	320	325	329	342	347	357	364	364
145	313	307	294	284	272	267	263	259	265	259	261	263	273	282	284	292	308	313	319
150	261	256	246	237	216	214	200	195	196	193	193	198	202	205	227	237	253	261	261
155	198	186	181	174	145	142	133	123	134	124	129	130	140	143	146	168	186	195	204
160	134	128	107	102	96.0	85.9	79.2	70.0	69.6	65.2	65.6	70.4	76.9	84.2	96.3	99.9	111	122	140
165	65.9	58.9	55.8	45.4	38.7	36.1	33.0	30.6	30.2	28.5	30.4	30.8	33.3	35.8	41.7	52.1	59.9	65.6	75.0
170	30.0	29.1	27.8	26.2	23.7	20.5	19.1	17.6	16.9	16.5	17.0	17.3	19.2	21.3	23.8	26.4	29.0	29.5	31.9
175	16.2	15.7	14.8	13.5	12.5	11.5	10.6	10.2	10.3	10.3	10.1	10.3	10.1	10.8	12.2	13.8	15.8	16.6	18.0
180	8.92	8.90	8.88	8.88	8.90	8.93	8.93	8.99	8.99	9.06	9.06	9.09	8.92	8.88	8.88	8.90	8.90	8.94	8.94

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:LUC
Test Date:16 October 2018
γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.351
Humidity:65.0%
Test Distance:8.000m [K=1.0000]
Remarks: OBBc-40W L+ -5700K

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.0V I:0.1942A P:41.00W PF:0.9596 Lamp Flux:6034.22x1 lm		
NAME: OBBc-40W L+ -5700K	TYPE:LED	WEIGHT:
SPEC.:OBBc-40W L+ -5700K	DIM.:	SERIAL No.:
MFR.: ICEPIPE	SUR.:	Shielding Angle:

Table--2

UNIT: cd

C(DEG) γ (DEG)	285	300	315	330	345														
0	70.2	69.2	69.2	69.1	68.8														
5	67.7	67.4	67.1	68.5	67.3														
10	91.7	87.5	84.4	82.5	86.4														
15	124	123	125	123	125														
20	155	151	156	151	160														
25	222	221	216	217	224														
30	279	274	275	277	286														
35	329	327	324	330	332														
40	375	373	376	376	382														
45	423	421	416	422	427														
50	461	461	457	465	467														
55	503	503	495	502	501														
60	538	540	527	540	534														
65	568	569	554	568	561														
70	590	596	577	589	582														
75	609	612	596	613	602														
80	622	630	611	625	618														
85	631	640	623	635	622														
90	631	642	625	635	624														
95	628	639	624	639	630														
100	625	632	616	631	619														
105	616	621	608	620	606														
110	600	606	592	603	591														
115	577	582	571	586	572														
120	552	554	542	553	538														
125	516	518	508	519	507														
130	469	473	466	476	464														
135	423	428	420	424	418														
140	374	377	372	377	367														
145	319	323	321	323	319														
150	270	270	269	272	264														
155	202	213	212	210	202														
160	141	139	139	144	139														
165	74.9	75.5	75.8	80.7	73.7														
170	34.3	33.4	31.7	32.4	31.9														
175	18.6	17.8	17.5	17.8	17.0														
180	9.00	9.00	9.06	9.06	9.11														

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:LUC
Test Date:16 October 2018

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.351
Humidity:65.0%
Test Distance:8.000m [K=1.0000]
Remarks: OBBc-40W L+ -5700K

Photometric Data Table [cd]

G/C	0.0	15.0	30.0	45.0	60.0	75.0	90.0	105.0	120.0	135.0
0.0	68.75	69.60	69.92	70.31	70.53	70.39	70.53	70.18	69.23	69.16
3.0	68.28	67.82	69.91	72.75	74.86	77.59	81.81	83.88	82.81	82.09
6.0	70.99	72.64	81.82	90.58	96.96	99.89	104.0	106.1	104.9	108.4
9.0	91.43	96.91	102.2	107.2	117.4	120.8	124.2	125.5	125.9	126.4
12.0	110.8	120.7	121.6	127.9	132.3	136.8	138.9	143.1	142.3	145.1
15.0	129.2	131.1	141.1	143.4	150.9	158.4	171.3	171.1	176.5	178.8
18.0	148.6	153.4	169.5	177.5	189.7	208.3	209.1	211.5	213.9	221.5
21.0	188.7	189.0	206.1	212.9	229.1	240.7	244.6	249.7	250.7	251.6
24.0	223.9	231.7	237.0	249.5	259.7	269.5	276.0	280.9	285.0	286.4
27.0	255.2	265.6	270.7	284.1	290.2	302.8	306.9	311.2	310.4	312.0
30.0	292.0	298.2	304.1	312.1	321.0	330.7	336.1	343.1	346.1	347.6
33.0	323.2	325.2	335.0	344.3	350.9	360.5	366.4	372.6	373.2	374.9
36.0	354.0	359.4	365.1	369.4	378.0	388.3	390.4	397.3	396.1	398.2
39.0	379.6	384.1	393.8	396.3	406.7	412.1	417.0	426.5	424.9	427.4
42.0	408.8	407.0	417.6	423.2	433.7	441.3	443.3	449.5	450.7	455.0
45.0	438.5	436.3	447.7	448.7	456.2	463.9	464.4	474.4	473.0	474.6
48.0	457.3	459.0	469.2	467.3	476.4	487.0	485.8	497.9	496.3	499.2
51.0	485.2	481.0	490.0	492.0	499.6	507.9	507.0	519.6	516.2	521.7
54.0	505.5	501.6	512.6	514.4	521.6	530.6	525.2	541.4	537.1	542.7
57.0	525.4	522.1	535.7	537.7	537.5	547.7	541.4	556.5	557.1	558.5
60.0	546.7	542.3	555.1	554.7	554.9	564.9	557.3	570.9	570.4	572.8
63.0	565.5	560.3	566.9	568.9	564.4	575.9	570.7	585.8	582.0	585.2
66.0	578.9	571.7	578.2	579.2	576.4	589.8	583.1	598.3	598.7	600.2
69.0	592.6	582.8	590.7	594.6	588.7	605.4	595.9	611.6	607.0	609.8
72.0	602.4	593.7	601.3	601.1	598.3	615.7	607.1	620.3	618.2	619.7
75.0	614.6	607.3	613.8	613.3	607.8	623.7	616.0	626.9	624.9	628.7
78.0	626.4	618.6	622.1	623.6	614.7	628.2	618.9	631.2	629.4	633.6
81.0	633.6	624.8	627.1	623.9	616.0	629.1	621.5	632.9	631.4	633.0
84.0	635.9	622.6	623.8	622.0	613.7	631.0	620.8	632.4	630.6	631.5
87.0	634.1	621.4	624.6	624.7	616.4	630.9	619.4	630.3	628.6	629.2
90.0	639.2	629.2	628.5	627.5	616.5	628.4	617.3	623.4	624.9	626.4
93.0	644.5	632.6	627.2	623.7	610.6	626.5	617.2	623.0	624.9	626.1
96.0	638.6	624.7	621.2	618.9	609.2	623.4	615.3	620.1	620.3	620.8
99.0	634.9	620.2	617.7	614.4	601.3	616.9	606.9	611.3	615.3	615.2
102.0	628.1	614.1	610.8	607.8	595.1	605.8	598.1	601.8	604.9	604.8
105.0	618.1	605.4	598.3	595.1	586.8	597.8	589.4	592.7	592.4	592.0
108.0	606.0	593.5	588.1	586.8	575.7	587.0	572.9	576.5	579.1	575.7
111.0	596.7	585.2	579.1	576.8	559.2	568.4	558.4	560.6	562.7	559.6
114.0	587.5	572.6	564.5	557.9	542.5	551.1	542.0	544.5	546.7	543.9
117.0	568.7	555.4	546.1	540.5	523.1	531.7	523.9	521.9	529.5	524.1
120.0	548.3	534.7	527.4	519.5	505.4	512.4	503.6	501.9	507.6	503.6
123.0	526.1	513.9	505.7	496.3	487.6	488.6	476.9	472.5	476.2	474.8
126.0	500.6	486.5	477.8	473.1	461.9	459.8	449.5	445.8	449.2	448.7
129.0	473.7	463.0	454.2	447.0	431.5	429.1	422.2	415.1	422.1	417.7
132.0	448.5	437.0	428.9	415.2	401.9	400.2	393.6	387.5	396.0	392.2
135.0	415.5	404.9	391.4	384.1	370.4	372.4	363.1	358.7	362.2	359.5
138.0	382.9	370.0	362.8	356.2	345.1	342.7	331.9	327.2	335.1	327.9
141.0	356.4	340.9	335.5	327.5	313.4	309.8	303.0	293.5	301.2	299.4
144.0	325.7	318.2	305.9	298.8	281.4	275.8	265.4	269.5	271.0	267.2
147.0	290.1	277.9	265.3	260.1	255.3	249.2	239.4	227.5	232.2	228.7
150.0	260.6	255.5	245.7	236.6	216.1	214.4	199.5	195.4	195.7	193.4
153.0	218.4	211.9	200.9	190.5	185.0	168.9	156.9	151.9	146.8	142.1
156.0	184.5	179.1	161.7	137.9	136.2	130.2	118.0	109.4	108.1	103.3
159.0	140.3	132.4	128.8	110.6	100.6	97.82	82.24	77.54	76.08	75.02
162.0	101.1	101.0	94.27	80.24	71.27	60.89	52.30	44.96	45.01	40.91
165.0	65.95	58.94	55.76	45.35	38.66	36.10	33.04	30.60	30.24	28.53
168.0	38.04	35.86	33.32	30.88	28.54	27.08	24.92	22.31	21.55	20.91
171.0	28.51	27.34	25.54	23.40	20.17	19.03	16.83	15.50	14.94	14.30
174.0	18.66	18.06	16.68	15.52	14.38	13.41	12.14	10.98	11.00	10.71
177.0	9.809	9.452	9.250	9.076	9.021	8.918	8.938	8.963	8.987	9.009
180.0	8.922	8.895	8.882	8.882	8.895	8.931	8.927	8.995	8.990	9.063
G/C	150.0	165.0	180.0	195.0	210.0	225.0	240.0	255.0	270.0	285.0
0.0	69.06	68.78	68.75	69.60	69.92	70.31	70.53	70.39	70.53	70.18
3.0	81.83	77.57	75.57	75.47	73.36	72.77	71.64	69.90	68.90	67.73
6.0	108.1	105.2	101.5	99.98	93.88	91.95	80.27	73.94	70.09	68.49
9.0	123.6	125.3	122.6	122.7	116.2	109.5	103.3	98.50	89.39	79.86
12.0	141.4	142.1	139.8	138.3	131.9	128.3	120.1	117.5	108.6	102.2
15.0	180.8	175.1	158.9	155.9	150.4	142.6	135.0	133.9	127.9	124.2
18.0	217.9	214.4	209.4	200.5	184.5	178.7	162.9	153.2	145.2	138.9
21.0	249.7	246.2	241.9	237.9	219.5	218.3	204.2	193.9	182.1	174.8
24.0	288.5	286.4	274.4	266.2	251.5	247.5	236.0	230.1	219.3	207.4
27.0	316.2	310.3	310.6	306.7	298.7	286.4	272.7	263.1	252.8	242.8
30.0	351.0	345.2	337.0	327.8	316.0	312.3	303.8	295.2	287.1	279.2

C Range: 0 - 360DEG

C Interval: 15.0DEG

Test Speed: HIGH

Temperature: 25.3DEG

Operators: LUC

Test Date: 16 October 2018

γ Range: 0 - 180DEG

γ Interval: 1.0DEG

Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.351

Humidity: 65.0%

Test Distance: 8.000m [K=1.0000]

Remarks: OBBC-40W L+ -5700K

Photometric Data Table [cd]

33.0	378.0	372.6	371.0	363.3	352.4	343.4	330.6	325.0	313.0	307.6
36.0	404.7	397.7	394.6	389.2	380.9	375.0	361.8	357.6	349.1	342.0
39.0	433.1	421.2	422.1	418.7	403.8	401.3	389.8	383.7	372.2	367.5
42.0	455.7	446.3	449.2	445.9	428.9	425.9	410.9	411.8	400.6	394.6
45.0	480.7	470.0	473.2	467.0	454.7	450.4	437.8	440.7	428.0	423.3
48.0	505.9	493.2	497.2	490.8	478.4	476.7	458.0	460.7	452.1	447.6
51.0	527.5	513.7	520.0	514.7	502.6	500.1	482.1	484.1	472.7	467.7
54.0	546.3	531.9	543.0	539.0	525.6	521.3	503.6	508.2	494.4	494.2
57.0	563.2	550.4	558.6	556.1	541.3	542.1	523.1	530.0	513.7	515.4
60.0	578.4	565.9	575.8	573.1	562.2	561.1	543.1	547.9	530.6	537.9
63.0	595.1	579.6	591.4	585.4	577.7	578.7	559.7	566.9	552.4	555.0
66.0	607.8	592.6	603.7	599.3	592.1	588.4	573.4	582.9	566.0	570.7
69.0	617.5	605.8	617.8	610.9	602.8	604.3	585.2	594.5	580.6	585.6
72.0	626.4	614.3	628.3	621.1	617.1	614.7	596.3	606.5	590.0	601.8
75.0	633.9	625.0	639.8	631.9	628.8	625.3	608.6	618.2	601.6	608.7
78.0	641.4	630.3	647.0	640.6	638.8	635.7	621.2	629.4	612.8	614.2
81.0	644.8	632.1	648.9	643.0	637.2	640.8	630.9	639.7	622.7	624.5
84.0	641.7	629.4	647.1	640.5	637.3	639.8	631.6	644.7	627.6	631.6
87.0	638.1	625.3	643.4	637.4	634.1	638.2	627.8	640.3	628.7	631.6
90.0	633.8	624.2	639.3	633.6	631.7	634.3	625.4	636.6	625.7	631.4
93.0	632.5	624.5	640.5	634.9	632.6	634.4	623.6	635.1	623.5	629.9
96.0	631.1	623.4	639.7	633.8	632.5	635.7	624.3	633.9	621.2	628.3
99.0	626.5	617.4	634.9	628.5	629.1	632.3	624.7	633.1	619.3	627.3
102.0	615.1	606.3	624.4	618.0	619.9	624.5	618.8	630.6	616.9	622.3
105.0	601.5	593.3	610.7	605.5	607.9	612.1	610.0	620.6	610.0	615.7
108.0	585.8	577.7	596.5	592.6	594.4	598.8	597.8	608.3	599.9	608.1
111.0	570.4	565.2	580.3	579.3	582.6	586.4	583.4	595.8	585.7	595.8
114.0	553.6	548.4	563.2	562.7	567.0	571.7	570.5	580.3	568.1	583.3
117.0	534.3	532.3	544.8	543.5	550.2	553.6	556.1	563.3	556.1	566.6
120.0	512.5	510.2	525.0	521.5	528.2	535.3	538.4	547.2	540.0	551.7
123.0	479.6	482.1	494.8	499.0	503.4	510.1	518.4	527.0	521.3	532.8
126.0	453.7	457.9	467.5	471.0	473.8	481.0	487.8	498.2	499.8	507.8
129.0	423.4	428.2	437.4	442.3	448.9	457.8	465.5	468.0	469.2	477.7
132.0	396.2	400.2	408.8	412.1	421.7	430.7	439.5	440.9	445.7	452.4
135.0	368.0	367.8	378.7	378.2	389.0	399.0	406.3	414.4	416.1	422.8
138.0	329.9	336.5	352.6	353.8	360.6	366.7	377.8	381.8	386.6	391.2
141.0	302.0	308.7	316.3	319.9	329.4	339.7	348.4	353.1	357.8	363.8
144.0	270.0	276.0	284.5	290.1	295.5	307.3	316.7	320.2	326.6	333.0
147.0	236.2	246.1	248.4	253.9	267.2	275.5	279.2	286.2	294.3	300.6
150.0	193.4	198.0	201.7	205.5	227.2	236.6	252.8	260.8	261.5	270.0
153.0	147.8	146.1	159.2	172.9	192.3	198.9	215.7	214.8	231.7	233.9
156.0	105.4	108.6	125.2	137.4	143.5	146.2	170.3	182.2	193.0	193.9
159.0	75.63	78.85	91.69	94.38	102.2	110.4	131.3	141.4	145.8	150.5
162.0	44.38	49.03	57.67	64.59	72.64	81.98	92.95	96.41	101.4	103.1
165.0	30.43	30.83	33.29	35.80	41.73	52.13	59.85	65.56	75.01	74.93
168.0	21.84	22.57	25.04	27.20	30.00	31.37	34.94	38.21	43.26	48.27
171.0	14.71	15.34	17.21	18.62	21.31	23.65	26.47	28.41	29.86	29.32
174.0	10.71	10.80	11.04	12.41	14.30	15.67	18.37	19.53	20.85	21.86
177.0	9.041	9.063	8.909	8.974	9.048	9.203	9.393	9.647	11.28	11.46
180.0	9.063	9.086	8.918	8.882	8.882	8.895	8.904	8.936	8.936	9.000
G/C	300.0	315.0	330.0	345.0						
0.0	69.23	69.16	69.06	68.78						
3.0	69.69	71.14	70.97	69.44						
6.0	66.67	66.28	66.72	68.08						
9.0	76.30	73.93	74.33	78.38						
12.0	101.5	103.3	100.7	105.1						
15.0	122.7	124.7	122.8	125.3						
18.0	141.3	139.4	137.3	141.8						
21.0	169.6	164.0	163.7	174.6						
24.0	201.8	199.5	199.2	210.1						
27.0	238.4	234.4	239.2	248.3						
30.0	274.2	275.0	276.6	285.6						
33.0	304.4	306.4	305.9	314.6						
36.0	340.3	332.4	342.3	345.1						
39.0	365.5	362.7	364.8	373.3						
42.0	393.6	392.3	394.4	401.4						
45.0	421.4	415.6	421.9	427.1						
48.0	446.8	442.0	450.9	449.9						
51.0	467.5	462.4	473.8	472.3						
54.0	494.4	486.8	496.1	494.0						
57.0	516.1	509.2	517.2	515.4						
60.0	540.0	526.6	539.7	533.5						
63.0	556.3	545.1	557.2	550.6						
66.0	575.6	560.0	573.5	565.0						

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: LUC
Test Date: 16 October 2018

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.351
Humidity: 65.0%
Test Distance: 8.000m [K=1.0000]
Remarks: OBBC-40W L+ -5700K

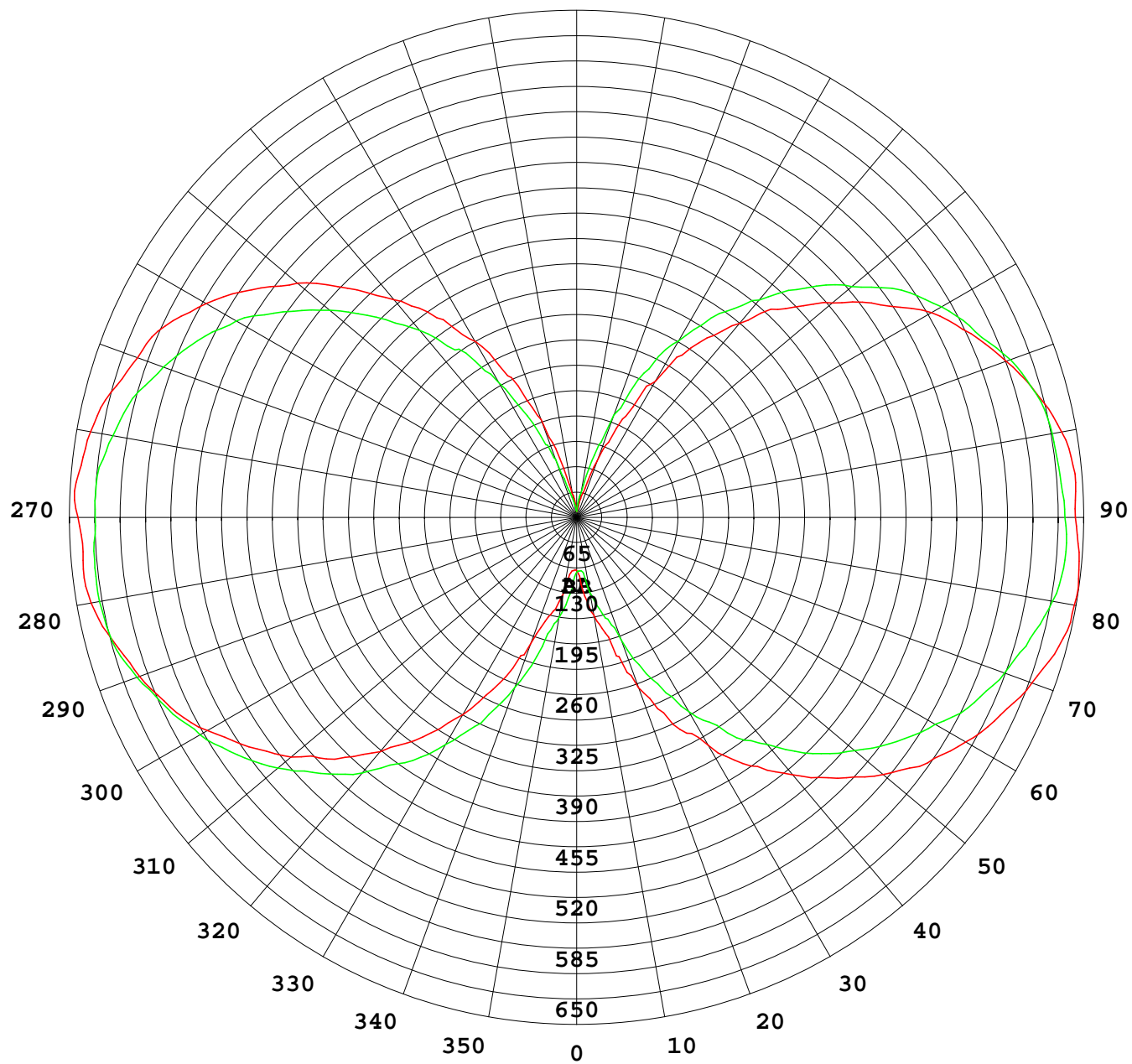
Photometric Data Table [cd]

69.0	588.5	572.8	586.2	577.5
72.0	604.5	586.9	598.9	589.8
75.0	612.5	596.3	612.6	601.5
78.0	625.7	607.9	620.4	612.5
81.0	633.1	613.7	628.2	619.8
84.0	639.0	621.4	634.4	622.3
87.0	641.3	624.4	635.3	620.3
90.0	641.5	624.6	635.4	624.0
93.0	640.8	625.0	639.9	631.4
96.0	637.1	622.1	637.9	628.2
99.0	633.0	617.0	633.5	621.3
102.0	629.1	614.0	626.4	615.8
105.0	620.8	607.9	619.9	606.1
108.0	613.9	598.7	609.4	595.4
111.0	601.7	588.1	600.3	587.4
114.0	587.3	575.9	590.8	577.1
117.0	570.0	560.6	572.7	559.2
120.0	554.4	541.7	553.3	537.9
123.0	534.0	522.3	532.9	519.4
126.0	510.0	501.2	510.1	499.2
129.0	483.8	476.5	485.1	473.6
132.0	454.0	447.1	456.5	447.7
135.0	428.1	420.3	424.5	418.1
138.0	397.3	388.9	394.1	384.4
141.0	365.2	360.4	372.6	358.2
144.0	334.5	330.1	335.7	330.0
147.0	304.8	297.3	299.9	295.1
150.0	270.3	268.5	272.1	264.2
153.0	232.1	226.6	233.1	237.8
156.0	197.9	198.9	196.2	193.7
159.0	149.9	155.3	146.7	151.8
162.0	107.1	112.8	110.0	113.5
165.0	75.55	75.80	80.73	73.69
168.0	44.55	43.13	42.75	41.24
171.0	30.32	30.14	30.33	30.09
174.0	21.09	20.70	21.44	19.97
177.0	10.46	10.27	10.42	9.808
180.0	9.000	9.063	9.063	9.113

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: LUC
Test Date: 16 October 2018

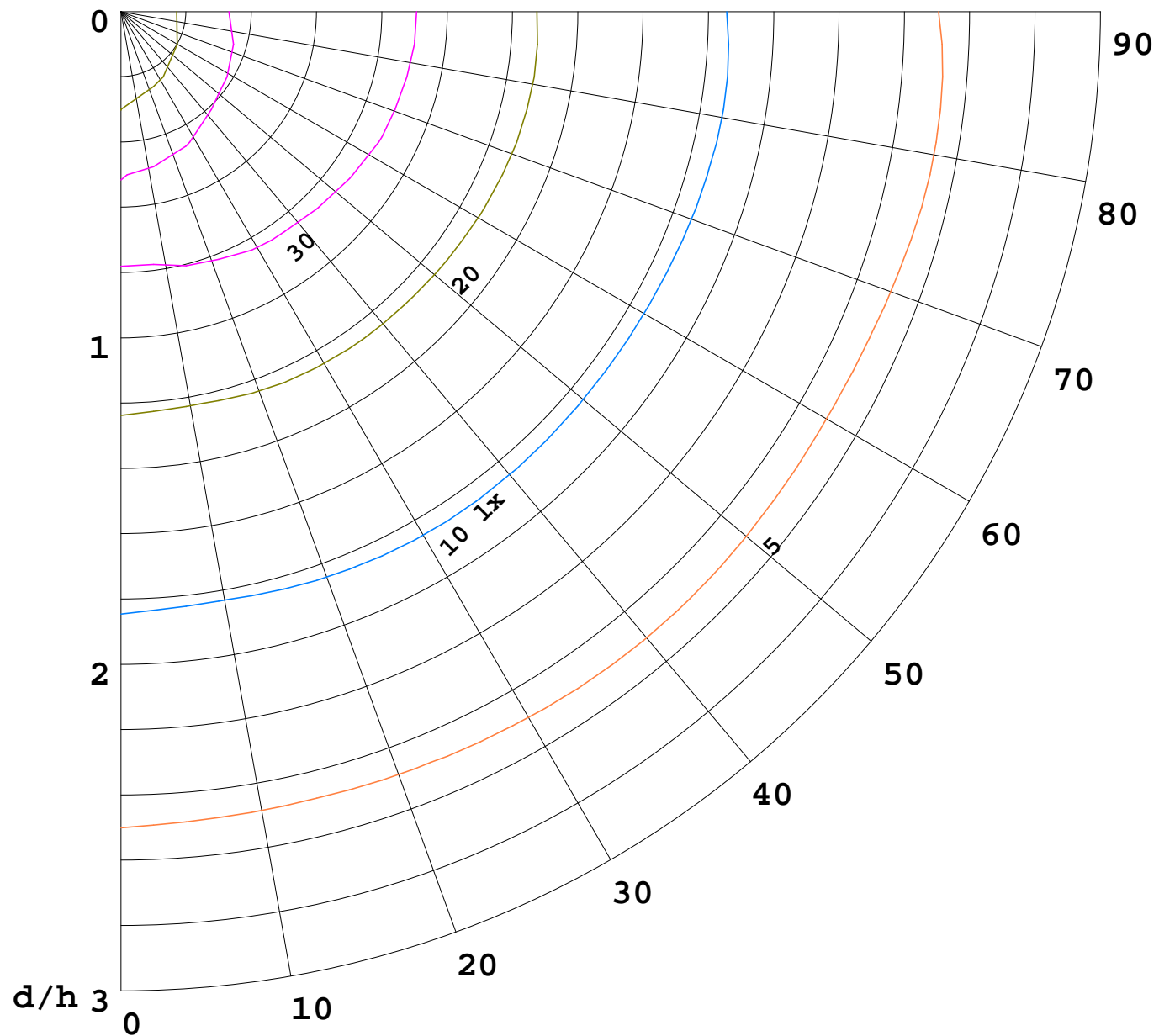
γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.351
Humidity: 65.0%
Test Distance: 8.000m [K=1.0000]
Remarks: OBBC-40W L+ -5700K

I(cd)



1000 lm

$K = 1$



F = 1000 lm
 K = 0.7
 H_{cc} = 0.8 m
 H_{fc} = 0.0 m
 E_{ave} = 100 lx

	P_{cc}	P_w	P_{fc}
—————	70	50	30
—————	50	30	20

