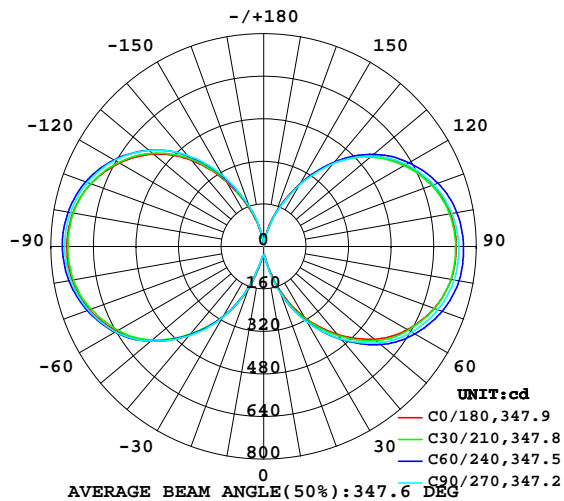


LUMINAIRE PHOTOMETRIC TEST REPORT

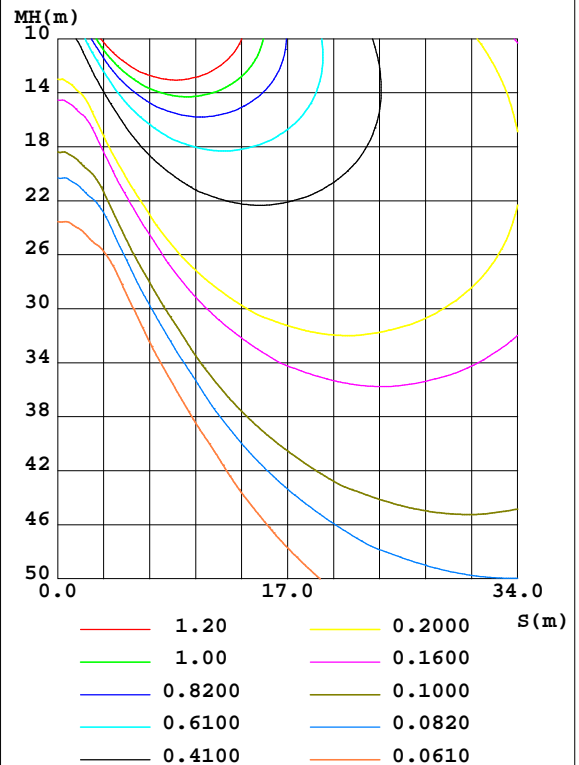
Test:U:219.7V I:0.1965A P:41.80W PF:0.9683 Lamp Flux:6964.39x1 lm		
NAME: OB200c-40W-5700K_20200110	TYPE:LED	WEIGHT:
SPEC.:OB200c-40W-5700K_20200110	DIM.:	SERIAL No.:1
MFR.: ICEPIPE	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 166.61 lm/W			
MODEL	OB200c-40W-5700K	Imax(cd)	757.8	S/MH(C0/180)	6.08
NOMINAL POWER(W)	40	LOR(%)	100.0	S/MH(C90/270)	6.13
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	6964.4	η UP,DN(C0-180)	24.5,25.5
NOMINAL FLUX(lm)	6964.39	CIE CLASS	DIFFUSE	η UP,DN(C180-360)	25.0,25.0
LAMPS INSIDE	1	η up(%)	49.5	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	220	η down(%)	50.5	CIBSE SHR MAX	1.55

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:ARK
Test Date:10 January 2020

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.351
Humidity:65.0%
Test Distance:8.100m [K=1.0000]
Remarks: OB200c-40W-5700K_20200110

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	53.59	58.50	61.32	59.35	52.47	48.35	46.41	46.44	0- 10	3.985	3.985	0.06,0.06
20	171.5	183.0	188.1	185.4	167.9	162.3	158.2	156.6	10- 20	31.70	35.69	0.51,0.51
30	307.5	326.2	328.4	321.7	305.6	304.6	307.1	290.5	20- 30	114.4	150.1	2.15,2.15
40	431.6	453.0	454.4	445.7	437.7	433.6	438.3	418.3	30- 40	237.9	388.0	5.57,5.57
50	543.2	565.8	564.7	557.4	554.4	546.2	553.9	533.5	40- 50	386.2	774.1	11.1,11.1
60	625.3	645.6	644.2	636.6	638.7	630.4	643.1	616.9	50- 60	536.3	1310	18.8,18.8
70	682.4	698.7	696.3	692.2	697.3	688.0	700.9	674.9	60- 70	660.5	1971	28.3,28.3
80	716.2	729.7	727.5	724.5	732.1	722.4	735.6	711.0	70- 80	751.4	2722	39.1,39.1
90	724.3	737.3	733.1	730.6	740.6	733.2	748.3	720.7	80- 90	797.8	3520	50.5,50.5
100	714.1	723.1	719.0	718.4	729.0	722.6	737.6	712.1	90-100	796.1	4316	62,62
110	678.4	685.4	680.1	680.5	691.5	688.4	705.4	677.5	100-110	747.1	5063	72.7,72.7
120	615.5	623.4	618.5	614.7	627.3	631.7	647.4	616.8	110-120	652.7	5716	82.1,82.1
130	528.8	535.7	527.8	526.5	540.8	548.9	562.4	534.9	120-130	524.4	6240	89.6,89.6
140	411.1	415.7	407.9	408.8	423.7	434.6	447.6	421.4	130-140	374.7	6615	95,95
150	267.9	270.7	262.1	267.6	281.2	294.2	307.6	283.1	140-150	222.8	6838	98.2,98.2
160	138.9	136.6	130.8	134.7	142.9	152.3	161.6	150.1	150-160	98.35	6936	99.6,99.6
170	37.87	33.15	30.73	33.17	38.26	44.50	47.31	43.74	160-170	26.12	6962	100,100
180	8.835	8.812	8.891	8.961	8.835	8.817	8.896	8.942	170-180	2.052	6964	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 561.58 lm

%lum = 8.1%

%lamp = 8.1%

Conical surface Flux(120deg): 1310.4 lm

%lum = 18.8%

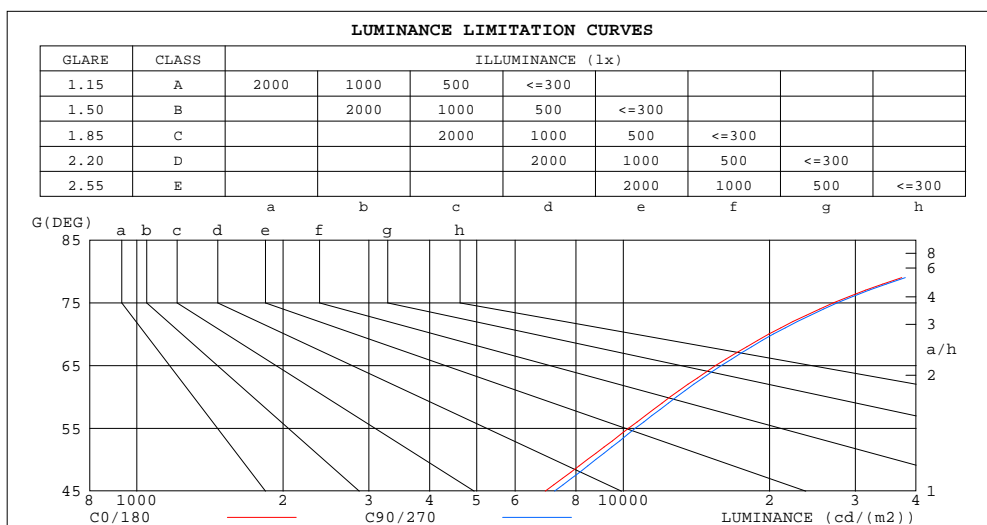
%lamp = 18.8%

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ARK
Test Date:10 January 2020

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.351
Humidity:65.0%
Test Distance:8.100m [K=1.0000]
Remarks: OB200c-40W-5700K_20200110

LUMINANCE LIMITATION CURVES

Test:U:219.7V I:0.1965A P:41.80W PF:0.9683 Lamp Flux:6964.39x1 lm		
NAME: OB200c-40W-5700K_20200110	TYPE:LED	WEIGHT:
SPEC.:OB200c-40W-5700K_20200110	DIM.:	SERIAL No.:1
MFR.: ICEPIPE	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	82914	84108
80	41246	41893
75	27112	27622
70	19952	20358
65	15511	15932
60	12506	12884
55	10265	10602
50	8451	8785
45	6918	7224

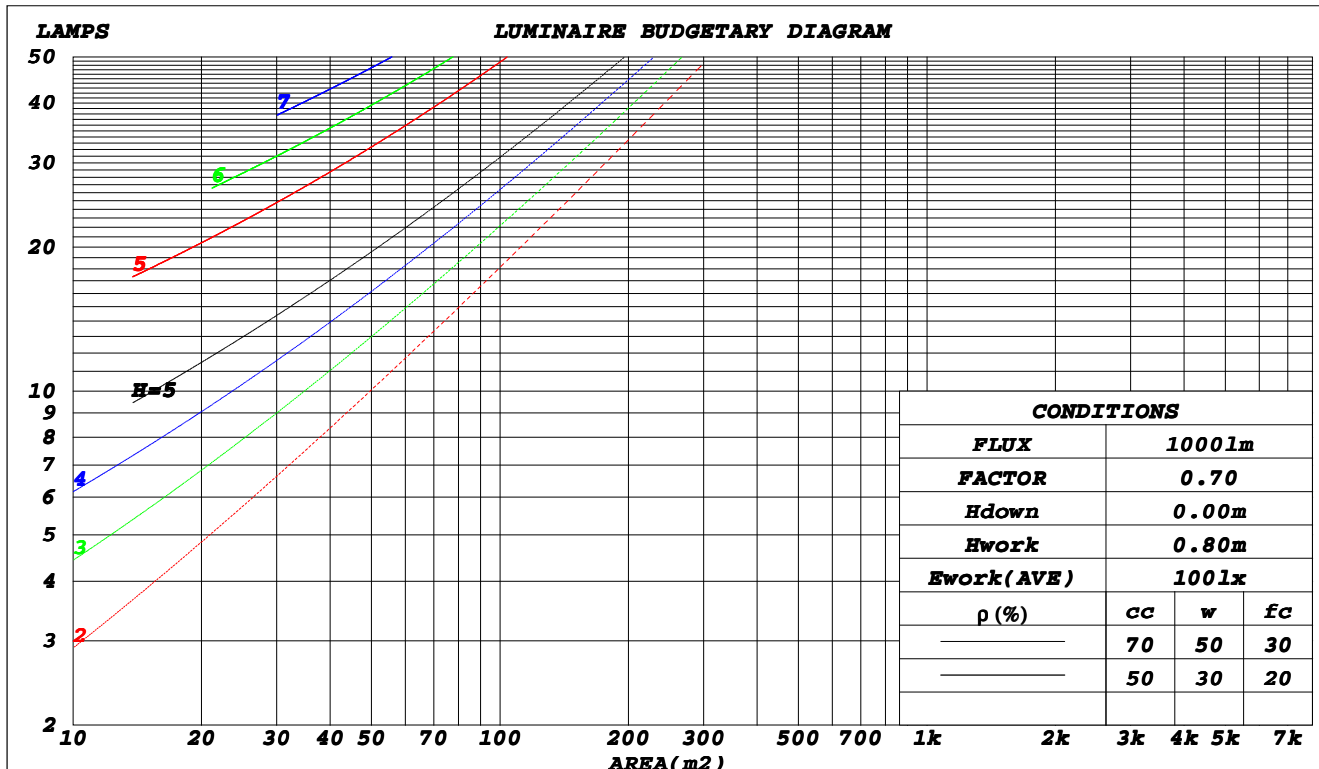
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ARK
Test Date:10 January 2020

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.351
Humidity:65.0%
Test Distance:8.100m [K=1.0000]
Remarks: OB200c-40W-5700K_20200110

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:219.7V I:0.1965A P:41.80W PF:0.9683 Lamp Flux:6964.39x1 lm		
NAME: OB200c-40W-5700K_20200110	TYPE:LED	WEIGHT:
SPEC.:OB200c-40W-5700K_20200110	DIM.:	SERIAL No.:1
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	Coefficients of Utilization(CU)															
0.0	1.07	1.07	1.07	.99	.99	.99	.84	.84	.84	.70	.70	.70	.57	.57	.57	.51
1.0	.85	.79	.73	.78	.72	.68	.64	.60	.56	.52	.49	.46	.41	.38	.36	.30
2.0	.71	.62	.55	.65	.57	.51	.53	.47	.42	.42	.38	.34	.32	.29	.26	.21
3.0	.60	.51	.43	.55	.47	.40	.45	.38	.33	.35	.30	.26	.27	.23	.19	.15
4.0	.52	.42	.35	.48	.39	.32	.39	.32	.26	.30	.25	.21	.23	.19	.15	.11
5.0	.46	.36	.29	.42	.33	.26	.34	.27	.21	.27	.21	.17	.20	.16	.12	.09
6.0	.40	.31	.24	.37	.28	.22	.30	.23	.18	.24	.18	.14	.18	.13	.10	.07
7.0	.36	.27	.20	.33	.25	.19	.27	.20	.15	.21	.16	.12	.16	.12	.08	.05
8.0	.32	.24	.17	.29	.22	.16	.24	.18	.13	.19	.14	.10	.14	.10	.07	.04
9.0	.29	.21	.15	.27	.19	.14	.22	.16	.11	.17	.12	.09	.13	.09	.06	.04
10.0	.27	.19	.13	.24	.17	.12	.20	.14	.10	.16	.11	.07	.12	.08	.05	.03



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ARK
Test Date:10 January 2020

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.351
Humidity:65.0%
Test Distance:8.100m [K=1.0000]
Remarks: OB200c-40W-5700K_20200110

WEC AND CCEC

Test:U:219.7V I:0.1965A P:41.80W PF:0.9683 Lamp Flux:6964.39x1 lm		
NAME: OB200c-40W-5700K_20200110	TYPE:LED	WEIGHT:
SPEC.:OB200c-40W-5700K_20200110	DIM.:	SERIAL No.:1
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	.442	.252	.080	.420	.240	.076	.378	.217	.069	.340	.196	.063	.304	.176	.057		
2.0	.364	.199	.061	.343	.189	.058	.305	.170	.053	.270	.151	.047	.237	.134	.042		
3.0	.314	.167	.050	.296	.158	.048	.261	.141	.043	.228	.125	.038	.198	.110	.034		
4.0	.278	.144	.042	.261	.136	.040	.229	.121	.036	.199	.107	.032	.171	.093	.028		
5.0	.249	.127	.037	.234	.120	.035	.204	.106	.031	.177	.093	.028	.151	.081	.024		
6.0	.226	.113	.032	.212	.107	.031	.185	.095	.028	.159	.083	.024	.135	.071	.021		
7.0	.207	.102	.029	.194	.097	.028	.169	.085	.025	.145	.074	.022	.123	.064	.019		
8.0	.191	.093	.026	.179	.088	.025	.155	.078	.022	.133	.067	.019	.112	.058	.017		
9.0	.177	.086	.024	.166	.081	.023	.144	.071	.020	.123	.062	.018	.104	.053	.015		
10.0	.165	.079	.022	.154	.075	.021	.134	.066	.018	.115	.057	.016	.096	.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	.567	.567	.567	.485	.485	.485	.331	.331	.331	.190	.190	.190	.061	.061	.061		
1.0	.569	.535	.504	.487	.459	.434	.333	.316	.300	.192	.183	.174	.061	.059	.056		
2.0	.564	.514	.472	.483	.442	.408	.331	.306	.284	.191	.178	.167	.061	.058	.054		
3.0	.558	.499	.453	.478	.431	.392	.328	.299	.275	.190	.175	.162	.061	.057	.053		
4.0	.550	.488	.440	.472	.422	.382	.325	.294	.269	.188	.172	.159	.060	.056	.052		
5.0	.543	.479	.432	.466	.414	.376	.321	.289	.265	.186	.170	.157	.060	.055	.052		
6.0	.535	.472	.426	.460	.409	.371	.317	.286	.263	.184	.168	.156	.059	.055	.052		
7.0	.528	.466	.422	.454	.404	.368	.314	.283	.260	.182	.167	.155	.059	.055	.051		
8.0	.522	.460	.418	.449	.399	.365	.311	.280	.259	.181	.165	.154	.058	.054	.051		
9.0	.515	.456	.416	.444	.396	.363	.308	.278	.258	.179	.164	.154	.058	.054	.051		
10.0	.509	.452	.414	.439	.393	.361	.305	.276	.257	.178	.163	.153	.058	.054	.051		

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ARK
Test Date:10 January 2020

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.351
Humidity:65.0%
Test Distance:8.100m [K=1.0000]
Remarks: OB200c-40W-5700K_20200110

UGR(Unified Glare Rating) Table

Test:U:219.7V I:0.1965A P:41.80W PF:0.9683 Lamp Flux:6964.39x1 lm										
NAME: OB200c-40W-5700K_20200110					TYPE:LED			WEIGHT:		
SPEC.:OB200c-40W-5700K_20200110					DIM.:			SERIAL No.:1		
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	18.1	19.2	19.0	20.1	21.3	18.4	19.5	19.2	20.4	21.6
3H	21.7	22.8	22.6	23.7	24.9	22.0	23.0	22.9	23.9	25.1
4H	23.7	24.7	24.6	25.6	26.9	24.0	25.0	24.9	25.9	27.1
6H	25.9	26.9	26.8	27.8	29.0	26.2	27.1	27.1	28.0	29.3
8H	27.1	28.0	28.1	29.0	30.2	27.4	28.2	28.3	29.2	30.4
12H	28.5	29.4	29.4	30.3	31.6	28.7	29.6	29.6	30.5	31.8
4H 2H	19.3	20.3	20.2	21.2	22.4	19.5	20.5	20.4	21.4	22.6
3H	22.9	23.8	23.9	24.8	26.0	23.2	24.0	24.1	25.0	26.2
4H	25.0	25.8	26.0	26.8	28.1	25.3	26.1	26.2	27.1	28.3
6H	27.4	28.1	28.3	29.0	30.3	27.6	28.3	28.6	29.3	30.6
8H	28.6	29.3	29.6	30.3	31.6	28.9	29.5	29.9	30.5	31.8
12H	30.1	30.7	31.1	31.7	33.0	30.3	30.9	31.3	31.9	33.3
8H 4H	25.8	26.5	26.8	27.5	28.8	26.0	26.7	27.0	27.7	29.0
6H	28.4	29.0	29.4	30.0	31.3	28.6	29.2	29.6	30.2	31.5
8H	29.8	30.4	30.8	31.4	32.7	30.1	30.6	31.1	31.6	33.0
12H	31.5	32.0	32.5	33.0	34.3	31.7	32.2	32.8	33.2	34.6
12H 4H	26.1	26.7	27.1	27.7	29.0	26.2	26.9	27.2	27.9	29.2
6H	28.7	29.3	29.8	30.3	31.6	28.9	29.5	29.9	30.5	31.8
8H	30.3	30.8	31.3	31.8	33.1	30.5	31.0	31.5	32.0	33.4
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 6964 lm Total Lamp Luminous Flux.(8log(F/F0) = 6.7)

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ARK
Test Date:10 January 2020

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.351
Humidity:65.0%
Test Distance:8.100m [K=1.0000]
Remarks: OB200c-40W-5700K_20200110

UTILIZATION FACTORS TABLE

Test:U:219.7V I:0.1965A P:41.80W PF:0.9683 Lamp Flux:6964.39x1 lm		
NAME: OB200c-40W-5700K_20200110	TYPE:LED	WEIGHT:
SPEC.:OB200c-40W-5700K_20200110	DIM.:	SERIAL No.:1
MFR.: ICEPIPE	SUR.:	Shielding Angle:

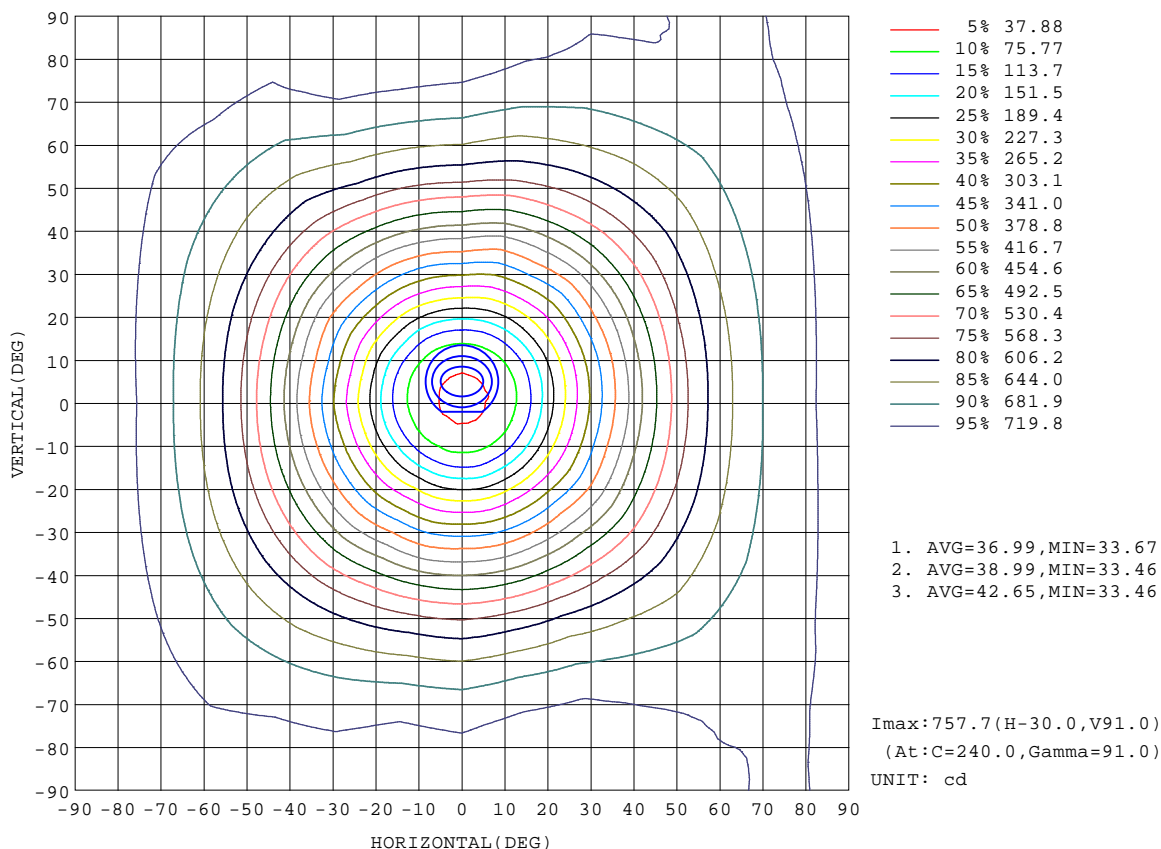
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	33	20	13	31	19	12	28	17	11	4
0.80	42	27	18	39	26	17	34	23	16	6
1.00	49	34	24	46	32	23	39	30	20	9
1.25	56	41	31	52	38	29	44	33	25	12
1.50	61	46	36	57	43	34	48	38	30	14
2.00	69	55	45	64	51	42	54	44	37	18
2.50	74	62	52	69	57	48	58	49	42	21
3.00	79	67	57	72	62	53	61	53	46	24
4.00	84	74	65	78	68	61	65	58	52	28
5.00	88	79	71	81	73	66	68	62	56	31
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:ARK
Test Date:10 January 2020

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.351
Humidity:65.0%
Test Distance:8.100m [K=1.0000]
Remarks: OB200c-40W-5700K_20200110

ISOCANDELA DIAGRAM

Test:U:219.7V I:0.1965A P:41.80W PF:0.9683 Lamp Flux:6964.39x1 lm		
NAME: OB200c-40W-5700K_20200110	TYPE:LED	WEIGHT:
SPEC.:OB200c-40W-5700K_20200110	DIM.:	SERIAL No.:1
MFR.: ICEPIPE	SUR.:	Shielding Angle:

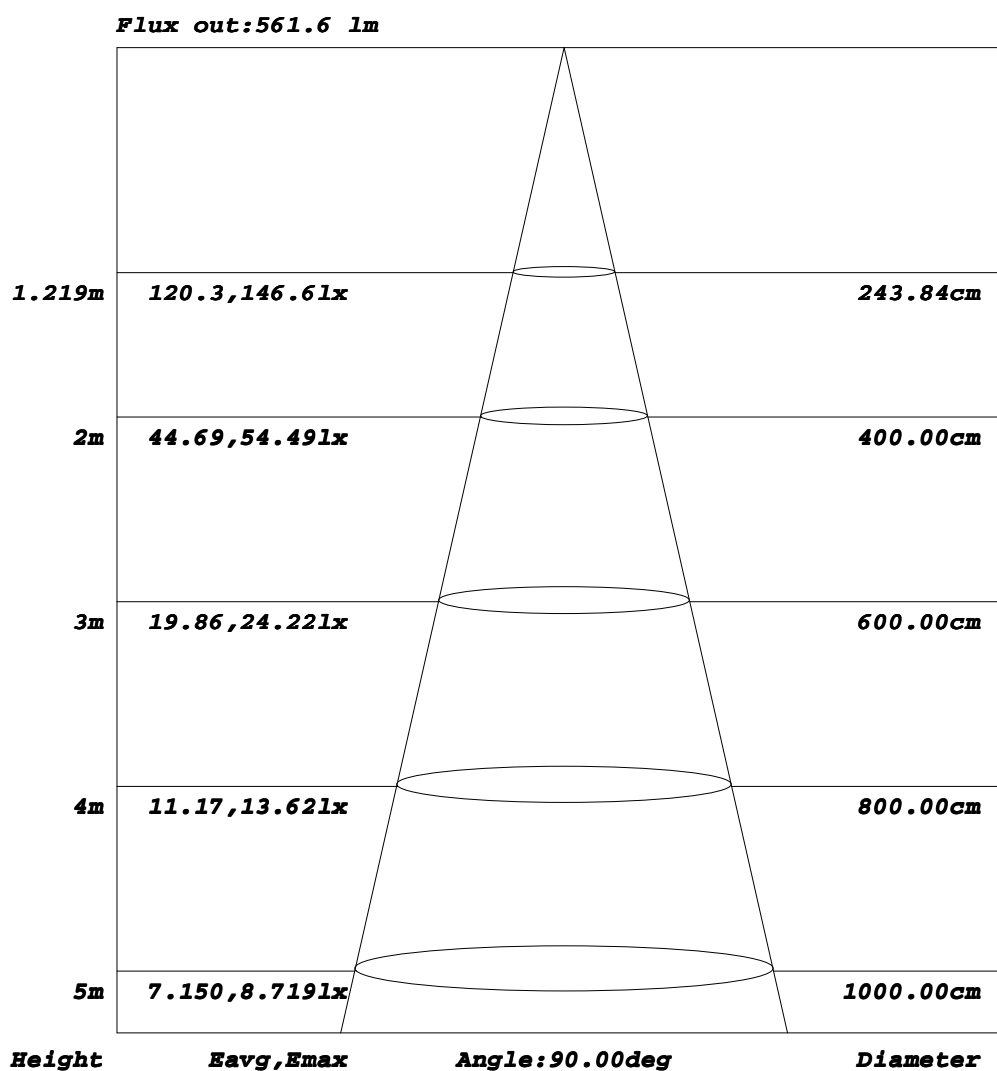


C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ARK
Test Date:10 January 2020

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.351
Humidity:65.0%
Test Distance:8.100m [K=1.0000]
Remarks: OB200c-40W-5700K_20200110

AAI Figure

Test:U:219.7V I:0.1965A P:41.80W PF:0.9683 Lamp Flux:6964.39x1 lm		
NAME: OB200c-40W-5700K_20200110	TYPE:LED	WEIGHT:
SPEC.:OB200c-40W-5700K_20200110	DIM.:	SERIAL No.:1
MFR.: ICEPIPE	SUR.:	Shielding Angle:



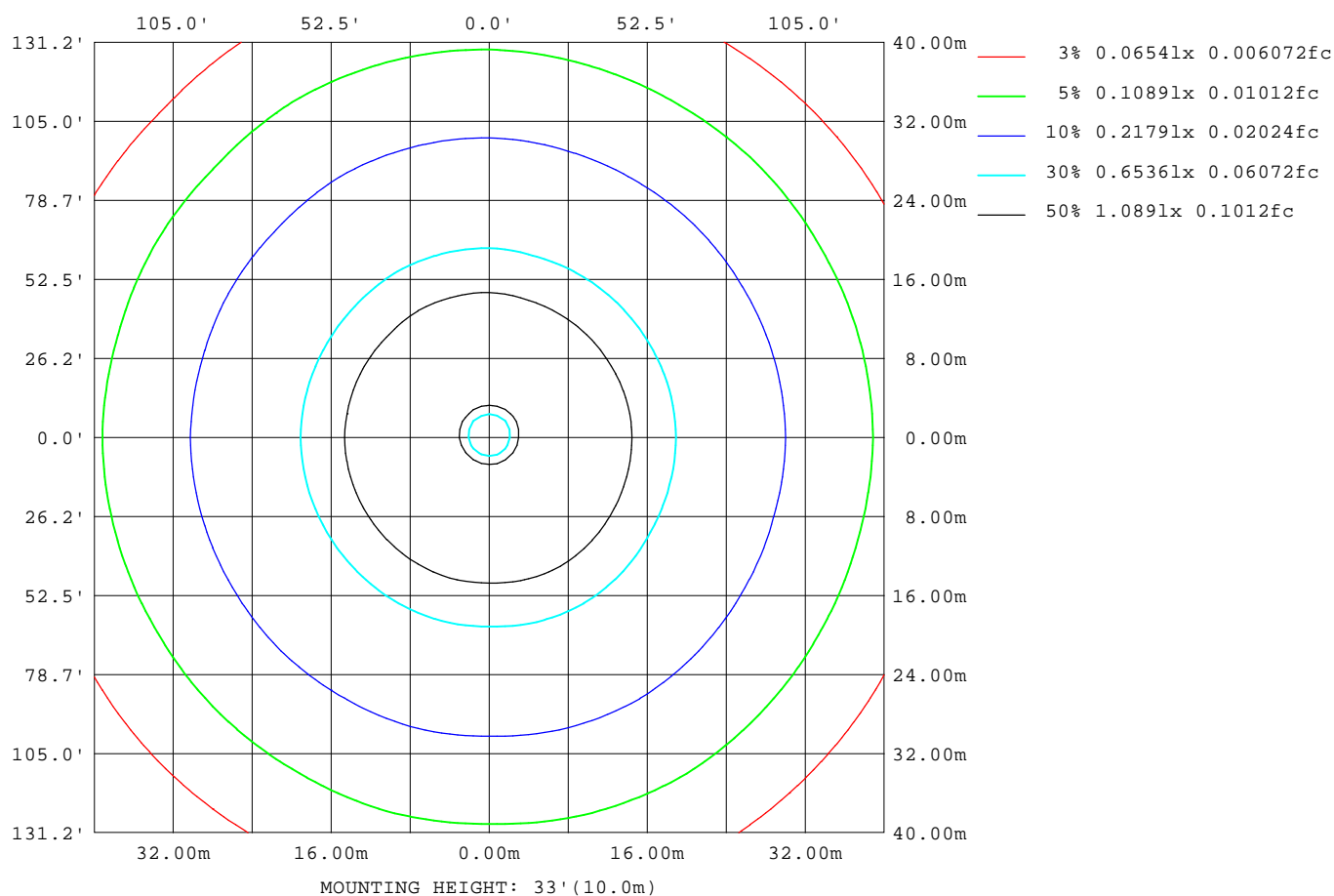
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: ARK
Test Date: 10 January 2020

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.351
Humidity: 65.0%
Test Distance: 8.100m [K=1.0000]
Remarks: OB200c-40W-5700K_20200110

ISOLUX DIAGRAM

Test:U:219.7V I:0.1965A P:41.80W PF:0.9683 Lamp Flux:6964.39x1 lm		
NAME: OB200c-40W-5700K_20200110	TYPE:LED	WEIGHT:
SPEC.:OB200c-40W-5700K_20200110	DIM.:	SERIAL No.:1
MFR.: ICEPIPE	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: ARK
Test Date: 10 January 2020

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.351
Humidity: 65.0%
Test Distance: 8.100m [K=1.0000]
Remarks: OB200c-40W-5700K_20200110

LED Avg.L Report

Test:U:219.7V I:0.1965A P:41.80W PF:0.9683 Lamp Flux:6964.39x1 lm		
NAME: OB200c-40W-5700K_20200110	TYPE:LED	WEIGHT:
SPEC.:OB200c-40W-5700K_20200110	DIM.:	SERIAL No.:1
MFR.: ICEPIPE	SUR.:	Shielding Angle:

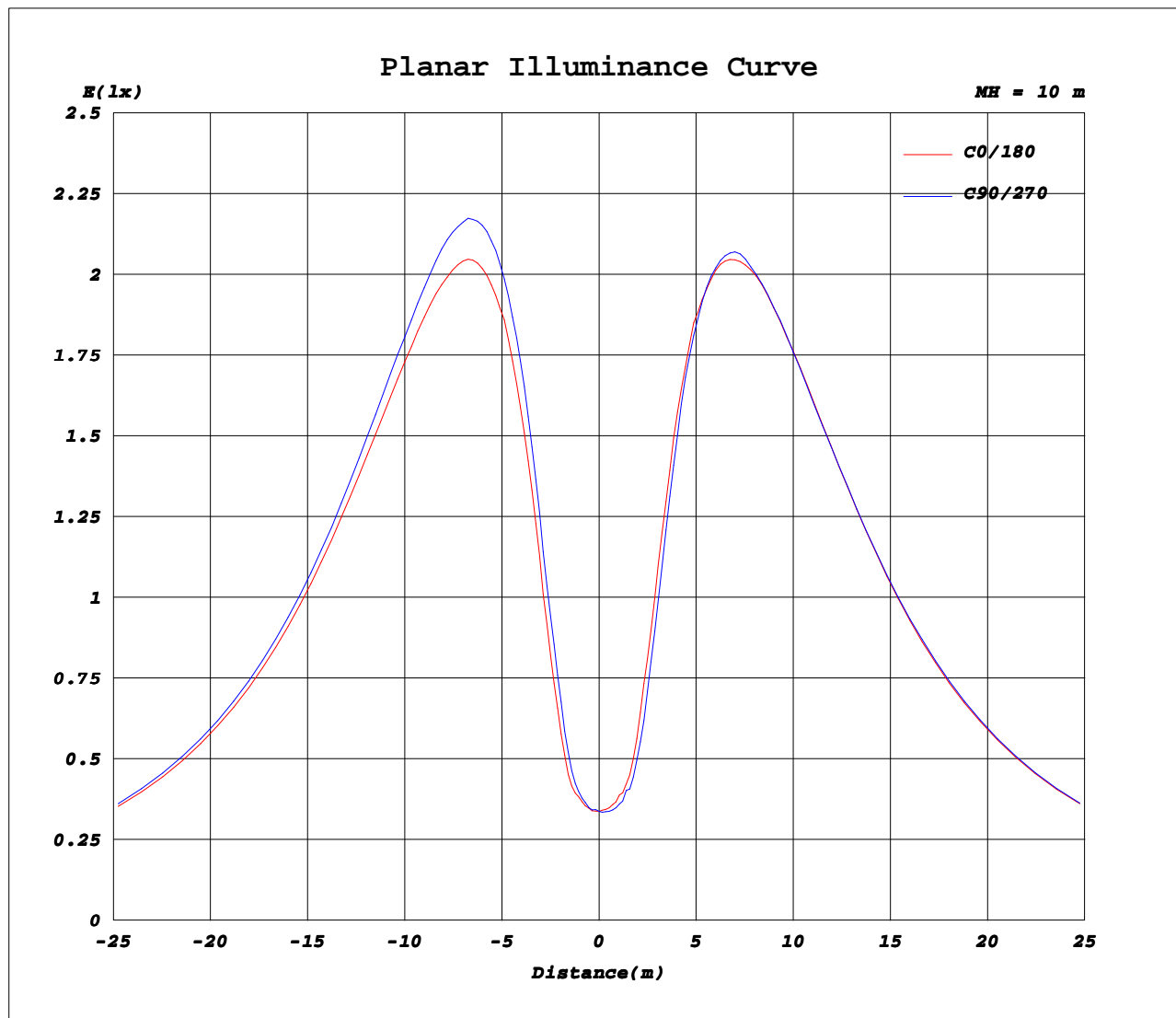
AvgL	cd/m2
L_0~180(65)av	15686
L_0~180(75)av	27423
L_0~180(85)av	83865
L_90~270(65)av	15947
L_90~270(75)av	27749
L_90~270(85)av	84801
L_45(65)av	15687
L_45(75)av	27367
L_45(85)av	83632

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ARK
Test Date:10 January 2020

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.351
Humidity:65.0%
Test Distance:8.100m [K=1.0000]
Remarks: OB200c-40W-5700K_20200110

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: ARK
Test Date: 10 January 2020

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.351
Humidity: 65.0%
Test Distance: 8.100m [K=1.0000]
Remarks: OB200c-40W-5700K_20200110

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:219.7V I:0.1965A P:41.80W PF:0.9683 Lamp Flux:6964.39x1 lm		
NAME: OB200c-40W-5700K_20200110	TYPE:LED	WEIGHT:
SPEC.:OB200c-40W-5700K_20200110	DIM.:	SERIAL No.:1
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	33.8	33.8	33.8	33.8	33.8	33.7	33.8	33.7	33.8	33.6	33.7	33.6	33.8	33.8	33.8	33.8	33.8	33.7	33.8
5	37.2	37.4	37.4	37.6	38.1	38.1	38.4	37.7	38.7	39.0	37.7	37.5	37.1	36.6	36.9	36.5	35.4	35.6	35.3
10	53.6	56.0	56.7	58.5	59.9	60.8	61.3	60.4	61.9	59.3	57.3	55.6	52.5	51.8	50.1	48.3	48.1	47.3	46.4
15	102	105	111	112	114	113	115	116	116	114	110	106	99.6	97.9	94.7	92.9	89.5	89.8	88.9
20	172	176	180	183	185	185	188	188	191	185	182	175	168	166	160	162	156	157	158
25	242	246	251	257	261	257	260	260	263	257	253	248	240	240	233	235	232	235	235
30	307	314	315	326	327	327	328	326	331	322	321	316	306	307	301	305	303	304	307
35	371	378	378	393	394	392	393	389	394	385	384	380	372	375	366	373	372	373	377
40	432	438	439	453	457	456	454	453	456	446	445	442	438	437	430	434	434	436	438
45	489	494	497	512	518	515	511	513	512	504	503	500	498	496	491	491	496	496	498
50	543	547	551	566	574	572	565	567	564	557	556	555	554	551	547	546	554	553	554
55	589	590	596	610	620	617	608	612	607	602	599	599	601	597	595	593	605	604	603
60	625	625	629	646	658	654	644	647	642	637	635	636	639	634	631	630	645	644	643
65	656	654	658	675	688	685	673	677	672	666	665	667	670	666	663	663	678	677	675
70	682	677	683	699	714	710	696	702	694	692	689	692	697	689	690	688	706	704	701
75	702	696	702	717	733	730	715	721	712	712	707	712	718	708	712	708	727	726	721
80	716	708	715	730	746	743	727	734	723	724	720	725	732	722	726	722	744	742	736
85	723	716	720	736	751	749	733	740	729	730	727	732	739	730	734	731	753	752	745
90	724	717	722	737	751	750	733	741	731	731	728	733	741	732	736	733	757	755	748
95	721	714	719	733	747	746	729	736	726	727	724	730	737	729	734	731	755	753	746
100	714	704	709	723	738	735	719	725	716	718	715	721	729	720	727	723	747	745	738
105	699	690	694	707	721	718	703	709	701	703	699	706	714	706	714	709	733	731	725
110	678	669	672	685	697	695	680	686	678	680	677	684	691	685	692	688	712	710	705
115	650	642	643	657	667	666	653	657	651	651	650	656	663	659	665	663	685	681	679
120	615	610	609	623	630	629	619	620	617	615	617	622	627	627	631	632	651	648	647
125	576	570	569	583	590	586	577	578	576	575	577	583	587	587	593	594	610	609	609
130	529	523	524	536	540	536	528	528	528	526	529	536	541	542	546	549	564	562	562
135	473	471	470	480	482	478	472	472	471	470	475	481	486	487	491	496	509	507	509
140	411	409	409	416	416	413	408	409	408	409	413	418	424	426	430	435	446	446	448
145	342	342	341	345	343	341	336	338	339	341	343	349	355	356	361	367	376	377	380
150	268	273	269	271	269	267	262	264	267	268	271	277	281	284	290	294	301	302	308
155	198	199	195	197	195	196	191	192	192	195	199	205	207	211	214	219	224	225	228
160	139	136	135	137	135	133	131	131	129	135	135	140	143	145	152	152	158	159	162
165	83.5	81.5	74.7	73.0	71.7	70.6	68.5	70.3	71.2	73.7	75.1	79.2	82.5	85.8	90.8	94.9	97.2	98.4	99.9
170	37.9	36.6	34.6	33.2	32.0	31.6	30.7	30.6	31.5	33.2	34.3	36.0	38.3	39.9	42.7	44.5	45.5	47.0	47.3
175	12.1	11.7	10.8	10.8	10.1	10.3	10.1	10.4	10.6	11.1	11.5	12.3	11.4	11.9	13.1	13.7	14.1	12.7	12.2
180	8.84	8.81	8.81	8.81	8.82	8.87	8.89	8.92	8.97	8.96	8.98	9.00	8.84	8.83	8.82	8.82	8.82	8.85	8.90

C Range: 0 - 360DEG

C Interval: 15.0DEG

Test Speed: HIGH

Temperature:25.3DEG

Operators:ARK

Test Date:10 January 2020

γ Range: 0 - 180DEG

γ Interval: 1.0DEG

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

Humidity:65.0%

Test Distance:8.100m [K=1.0000]

Remarks: OB200c-40W-5700K_20200110

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:219.7V I:0.1965A P:41.80W PF:0.9683 Lamp Flux:6964.39x1 lm		
NAME: OB200c-40W-5700K_20200110	TYPE:LED	WEIGHT:
SPEC.:OB200c-40W-5700K_20200110	DIM.:	SERIAL No.:1
MFR.: ICEPIPE	SUR.:	Shielding Angle:

Table--2

UNIT: cd

C(DEG) γ (DEG)	285	300	315	330	345														
0	33.7	33.8	33.6	33.7	33.6														
5	35.6	35.4	36.0	36.3	36.5														
10	46.4	47.0	46.4	49.1	50.7														
15	88.5	89.0	89.8	92.6	96.5														
20	156	155	157	158	163														
25	226	227	228	229	233														
30	294	294	291	298	302														
35	358	362	354	363	365														
40	420	421	418	422	428														
45	482	481	479	481	485														
50	538	537	534	535	540														
55	588	582	580	579	585														
60	625	620	617	615	623														
65	657	652	648	647	653														
70	684	676	675	672	678														
75	706	696	696	692	698														
80	720	710	711	705	712														
85	729	718	719	713	720														
90	731	721	721	716	721														
95	729	719	719	713	719														
100	721	711	712	705	711														
105	709	697	698	693	696														
110	689	678	677	672	675														
115	662	652	650	646	649														
120	628	621	617	615	616														
125	589	584	580	577	577														
130	544	539	535	532	531														
135	492	488	482	479	478														
140	433	429	421	419	418														
145	368	362	355	350	346														
150	296	293	283	279	275														
155	221	222	213	210	205														
160	155	154	150	147	143														
165	97.6	97.5	91.5	91.2	86.8														
170	46.5	45.3	43.7	42.3	40.4														
175	11.8	13.5	12.9	12.8	11.3														
180	8.93	8.96	8.94	8.99	9.00														

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ARK
Test Date:10 January 2020

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.351
Humidity:65.0%
Test Distance:8.100m [K=1.0000]
Remarks: OB200c-40W-5700K_20200110

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	33.81	33.80	33.79	33.79	33.84	33.73	33.82	33.67	33.76	33.60
3.0	34.93	34.85	34.79	35.12	35.36	35.25	35.13	35.06	35.66	35.56
6.0	38.98	38.52	39.72	40.29	39.77	40.39	40.70	40.29	40.69	40.60
9.0	46.96	48.42	49.32	51.27	51.57	53.44	54.06	52.40	54.04	51.99
12.0	70.22	73.41	75.21	77.70	78.69	79.58	81.16	80.29	81.76	78.92
15.0	101.6	104.6	110.8	111.9	114.4	113.0	114.8	115.8	115.7	113.8
18.0	143.0	147.9	150.1	154.0	156.8	155.4	158.8	158.3	159.7	155.4
21.0	185.4	191.6	195.5	198.3	201.2	199.8	203.1	202.9	206.7	199.9
24.0	227.2	233.3	238.2	242.4	245.3	243.6	245.0	245.4	248.4	242.3
27.0	268.1	274.6	276.8	285.8	286.9	285.4	287.5	285.2	289.5	281.5
30.0	307.5	313.7	314.6	326.2	327.5	326.7	328.4	325.9	330.8	321.7
33.0	346.5	354.0	353.7	367.0	366.8	366.8	367.9	364.9	369.5	360.2
36.0	383.3	390.6	390.6	404.8	406.5	404.7	405.6	402.3	407.1	397.7
39.0	419.2	426.4	427.0	441.0	445.3	443.0	442.9	440.8	443.6	433.9
42.0	455.1	461.4	462.3	477.3	481.7	479.5	477.3	477.3	478.5	469.4
45.0	489.2	493.5	496.9	511.6	517.6	514.8	510.8	513.2	511.9	503.7
48.0	522.4	525.9	530.6	544.5	552.8	550.0	544.6	545.8	544.8	536.8
51.0	553.1	556.3	560.9	575.4	584.8	581.9	574.2	577.1	573.5	567.5
54.0	580.7	582.1	587.8	602.1	612.7	609.1	600.0	603.8	598.8	594.4
57.0	604.9	604.7	610.2	624.8	636.4	632.4	623.6	626.9	621.9	617.1
60.0	625.3	624.7	629.4	645.6	657.8	654.4	644.2	647.0	642.2	636.6
63.0	644.5	642.9	646.4	664.5	676.5	673.0	661.7	665.7	661.2	655.0
66.0	661.4	659.7	663.6	679.9	693.3	690.4	678.8	682.6	676.4	672.4
69.0	677.4	673.2	678.5	694.2	709.4	705.1	692.7	698.1	690.0	687.5
72.0	690.8	685.2	691.9	706.4	722.8	718.6	704.9	711.1	701.9	702.0
75.0	701.7	696.1	702.3	716.7	733.5	729.7	714.9	721.3	711.7	712.2
78.0	711.3	703.8	710.3	725.3	741.8	737.7	723.3	729.0	719.6	720.4
81.0	717.6	710.3	716.6	731.6	748.0	744.5	728.8	735.2	725.5	726.3
84.0	721.7	714.7	719.9	735.8	750.3	748.3	732.3	739.4	728.8	729.2
87.0	723.9	716.8	722.1	737.6	752.3	750.4	734.1	741.6	730.9	730.9
90.0	724.3	716.9	722.1	737.3	751.0	750.1	733.1	740.9	730.5	730.6
93.0	723.1	715.3	720.3	735.4	749.7	748.3	731.8	738.4	727.9	728.9
96.0	720.4	711.4	717.2	731.3	745.8	743.5	727.7	733.7	724.3	726.0
99.0	715.6	706.4	711.7	725.6	740.4	737.5	721.4	727.7	718.8	720.9
102.0	709.1	698.8	704.8	716.7	732.1	728.6	713.2	719.5	711.0	712.6
105.0	699.4	689.6	694.2	706.7	720.9	717.9	702.7	708.9	700.8	702.8
108.0	687.2	677.4	682.7	694.6	708.0	705.3	690.3	696.2	687.8	690.8
111.0	673.1	663.3	667.2	680.0	691.3	689.5	675.4	680.7	673.4	674.7
114.0	656.3	647.7	649.8	663.3	673.5	672.3	658.2	662.8	656.6	657.4
117.0	636.5	629.9	630.7	644.9	652.8	651.8	639.4	642.4	638.3	637.0
120.0	615.5	609.8	609.4	623.4	630.5	629.0	618.5	620.1	617.1	614.7
123.0	593.0	587.3	586.0	600.4	606.9	604.9	594.7	596.0	593.3	592.1
126.0	567.8	561.0	560.8	574.7	580.1	576.6	567.7	568.9	567.1	566.0
129.0	539.2	533.5	533.4	546.2	550.4	547.1	538.0	538.9	537.5	537.2
132.0	507.3	503.1	503.4	514.2	517.5	514.3	506.3	506.9	505.9	504.9
135.0	473.3	470.8	470.3	479.8	481.9	478.3	471.7	472.4	471.4	470.4
138.0	437.0	435.0	433.8	442.4	442.7	440.0	434.1	435.3	434.9	434.2
141.0	397.4	395.8	395.7	402.3	402.3	398.8	394.0	394.6	394.7	395.8
144.0	356.6	355.4	354.4	359.7	358.1	355.7	350.1	353.2	353.1	354.6
147.0	313.5	314.3	313.4	314.7	311.5	311.5	307.4	308.8	310.1	312.4
150.0	267.9	273.4	269.0	270.7	268.7	266.8	262.1	264.0	267.3	267.6
153.0	224.8	229.6	222.3	223.4	222.0	222.7	218.0	219.0	220.1	222.5
156.0	186.4	186.0	183.2	183.9	182.2	182.3	177.2	180.0	179.0	182.7
159.0	150.9	147.5	146.2	146.8	145.4	145.3	141.8	142.9	141.3	146.9
162.0	115.5	114.9	113.1	113.0	109.6	108.6	105.6	106.5	109.7	110.7
165.0	83.48	81.49	74.68	73.02	71.68	70.60	68.51	70.29	71.23	73.69
168.0	52.23	50.80	48.62	47.40	46.23	45.29	43.60	44.34	45.22	47.13
171.0	31.56	30.17	28.72	27.06	26.11	25.68	24.64	25.10	25.75	27.26
174.0	16.51	15.81	14.80	14.31	13.72	13.46	13.13	13.39	13.75	14.41
177.0	8.845	8.817	8.808	8.798	8.808	8.822	8.845	8.863	8.901	8.924
180.0	8.835	8.812	8.808	8.812	8.822	8.868	8.891	8.924	8.966	8.961
G/C	150.0	165.0	180.0	195.0	210.0	225.0	240.0	255.0	270.0	285.0
0.0	33.73	33.61	33.81	33.80	33.79	33.79	33.84	33.73	33.82	33.67
3.0	35.33	34.99	35.04	34.24	34.65	34.58	34.62	34.20	33.91	34.42
6.0	39.31	38.81	39.56	39.13	37.68	37.14	37.64	36.91	36.68	36.91
9.0	50.76	48.56	46.77	46.17	44.57	44.20	43.23	42.83	42.27	41.71
12.0	76.36	73.93	68.82	66.48	62.99	61.77	60.61	59.13	59.08	58.74
15.0	110.5	105.5	99.61	97.87	94.72	92.86	89.47	89.79	88.95	88.48
18.0	151.7	144.4	139.9	136.4	132.8	132.1	126.5	127.3	127.8	126.2
21.0	196.3	189.8	183.7	180.7	175.0	176.5	171.6	172.8	173.2	170.3
24.0	238.5	233.7	224.9	226.1	219.4	220.4	216.8	220.2	220.5	212.8
27.0	280.5	275.5	266.4	269.2	261.9	262.7	261.4	262.9	263.8	254.4
30.0	320.7	316.2	305.6	307.5	300.5	304.6	303.1	304.4	307.1	294.2

C Range: 0 - 360DEG

C Interval: 15.0DEG

Test Speed: HIGH

Temperature: 25.3DEG

Operators: ARK

Test Date: 10 January 2020

γ Range: 0 - 180DEG

γ Interval: 1.0DEG

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

Humidity: 65.0%

Test Distance: 8.100m [K=1.0000]

Remarks: OB200c-40W-5700K_20200110

Photometric Data Table [cd]

33.0	359.7	354.3	346.1	349.4	341.5	346.0	345.4	345.1	348.9	333.9
36.0	396.6	391.9	385.3	387.5	378.1	385.4	384.3	386.0	389.7	370.5
39.0	433.2	429.5	424.9	424.3	417.1	421.4	421.4	423.8	425.9	407.2
42.0	468.8	466.1	462.0	461.1	454.9	457.1	459.4	461.2	462.5	445.1
45.0	502.7	500.3	498.5	496.0	491.2	490.6	495.9	496.3	497.9	481.8
48.0	535.4	534.1	533.0	531.2	526.1	523.8	530.5	531.3	531.4	516.8
51.0	565.7	564.8	564.1	561.0	558.1	556.5	564.6	563.7	564.8	549.2
54.0	591.2	591.1	593.1	588.7	586.3	584.7	595.9	594.7	593.9	579.4
57.0	613.8	614.0	617.4	612.3	611.6	608.5	622.4	620.5	619.6	604.0
60.0	635.0	636.2	638.7	634.2	631.3	630.4	644.9	644.0	643.1	625.3
63.0	653.3	655.3	658.4	653.9	650.0	650.8	665.6	664.5	662.8	644.2
66.0	670.2	672.7	675.5	670.3	668.4	668.4	683.7	682.5	680.3	662.8
69.0	684.8	687.8	692.5	685.0	684.3	683.3	701.1	699.3	696.5	679.1
72.0	696.7	701.1	706.1	697.4	700.4	696.9	715.5	713.4	709.9	693.6
75.0	706.8	712.0	717.8	708.2	712.4	708.0	727.5	725.9	721.5	705.7
78.0	715.3	720.5	726.9	717.0	721.6	717.6	738.2	736.5	730.9	715.2
81.0	722.0	727.0	733.7	724.7	728.4	724.9	746.2	744.6	738.6	723.5
84.0	726.5	731.8	738.7	729.7	733.0	729.7	751.8	750.9	743.7	727.6
87.0	728.1	732.7	739.9	731.6	735.5	732.4	755.5	754.0	747.1	729.8
90.0	728.1	733.3	740.6	732.2	736.1	733.2	757.4	755.2	748.3	731.3
93.0	726.6	732.4	739.2	730.9	736.2	732.6	756.8	754.5	747.7	729.6
96.0	723.1	729.4	735.9	727.7	732.4	729.8	753.7	751.9	744.9	727.6
99.0	717.3	723.8	731.1	722.7	728.6	725.2	748.7	746.8	740.1	723.4
102.0	709.0	716.2	723.7	715.2	722.0	717.6	742.1	740.1	733.8	717.4
105.0	699.4	706.4	714.0	705.7	713.6	708.6	732.6	730.6	724.7	708.6
108.0	686.5	694.2	701.6	694.3	701.7	696.9	721.4	718.9	713.6	697.3
111.0	672.5	678.7	685.6	680.3	687.2	684.0	707.7	704.7	700.8	684.8
114.0	656.0	662.0	668.3	665.0	671.0	668.9	691.0	686.8	685.2	668.1
117.0	637.5	642.9	649.0	646.8	652.7	651.2	672.4	669.3	667.9	649.1
120.0	616.7	622.2	627.3	626.7	631.1	631.7	651.1	648.1	647.4	628.2
123.0	593.9	599.5	603.8	604.0	608.7	609.8	627.4	625.1	625.2	605.4
126.0	567.8	573.6	578.7	578.8	584.0	585.5	601.6	599.5	599.9	580.3
129.0	539.6	546.2	550.7	551.5	556.1	558.3	573.2	571.9	572.7	553.6
132.0	508.6	515.3	519.6	520.2	524.5	528.8	542.7	540.5	541.9	524.2
135.0	474.7	481.3	486.2	487.4	491.5	496.0	509.3	507.2	509.4	492.4
138.0	438.3	444.2	449.6	451.7	456.2	460.0	471.7	471.7	473.2	457.9
141.0	399.3	404.9	410.0	412.3	417.0	421.6	431.8	432.7	434.6	420.8
144.0	357.0	362.9	368.6	369.9	375.0	381.7	390.1	390.9	394.5	381.4
147.0	314.5	320.9	326.2	326.7	333.1	338.3	347.1	347.3	351.5	339.0
150.0	271.4	276.9	281.2	284.2	290.1	294.2	300.9	302.3	307.6	295.5
153.0	227.2	233.2	237.0	239.8	243.1	248.9	253.8	256.5	260.0	250.5
156.0	185.2	191.5	193.7	197.1	201.1	204.8	209.4	211.7	213.8	206.5
159.0	146.8	151.1	154.4	156.9	163.7	164.9	170.4	171.7	174.9	167.0
162.0	113.9	115.5	118.7	123.1	127.4	129.9	135.8	135.2	137.2	132.2
165.0	75.13	79.19	82.51	85.78	90.80	94.87	97.17	98.45	99.86	97.63
168.0	48.53	50.87	52.95	55.28	58.03	59.88	62.07	64.04	63.75	61.94
171.0	28.26	29.64	31.64	33.41	35.74	37.25	38.08	39.52	40.10	39.22
174.0	15.10	16.09	16.70	17.49	18.66	19.38	19.07	18.21	19.20	18.07
177.0	8.947	8.952	8.794	8.780	8.766	8.770	8.803	8.831	8.877	8.901
180.0	8.984	9.003	8.835	8.826	8.817	8.817	8.817	8.854	8.896	8.928
G/C	300.0	315.0	330.0	345.0						
0.0	33.76	33.60	33.73	33.61						
3.0	34.57	34.35	34.45	34.87						
6.0	36.77	36.97	37.80	37.04						
9.0	42.40	42.72	43.46	45.23						
12.0	60.69	60.71	63.89	66.05						
15.0	88.95	89.80	92.63	96.53						
18.0	125.2	128.7	129.8	136.4						
21.0	168.9	171.1	172.9	178.5						
24.0	212.8	213.7	215.6	220.1						
27.0	256.0	255.6	257.7	261.2						
30.0	293.9	290.5	297.6	301.9						
33.0	337.2	329.6	336.7	340.2						
36.0	374.4	366.9	374.6	377.1						
39.0	409.7	405.3	410.0	415.2						
42.0	445.5	443.2	446.1	451.9						
45.0	480.8	478.8	481.1	484.8						
48.0	515.2	512.6	513.9	518.6						
51.0	546.4	543.6	545.0	550.5						
54.0	573.7	571.7	570.9	577.7						
57.0	598.7	596.5	594.2	600.4						
60.0	619.8	616.9	615.1	622.9						
63.0	639.4	636.0	634.8	641.6						
66.0	657.0	653.4	652.6	658.2						

C Range: 0 - 360DEG

C Interval: 15.0DEG

Test Speed: HIGH

Temperature: 25.3DEG

Operators: ARK

Test Date: 10 January 2020

γ Range: 0 - 180DEG

γ Interval: 1.0DEG

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

Humidity: 65.0%

Test Distance: 8.100m [K=1.0000]

Remarks: OB200c-40W-5700K_20200110

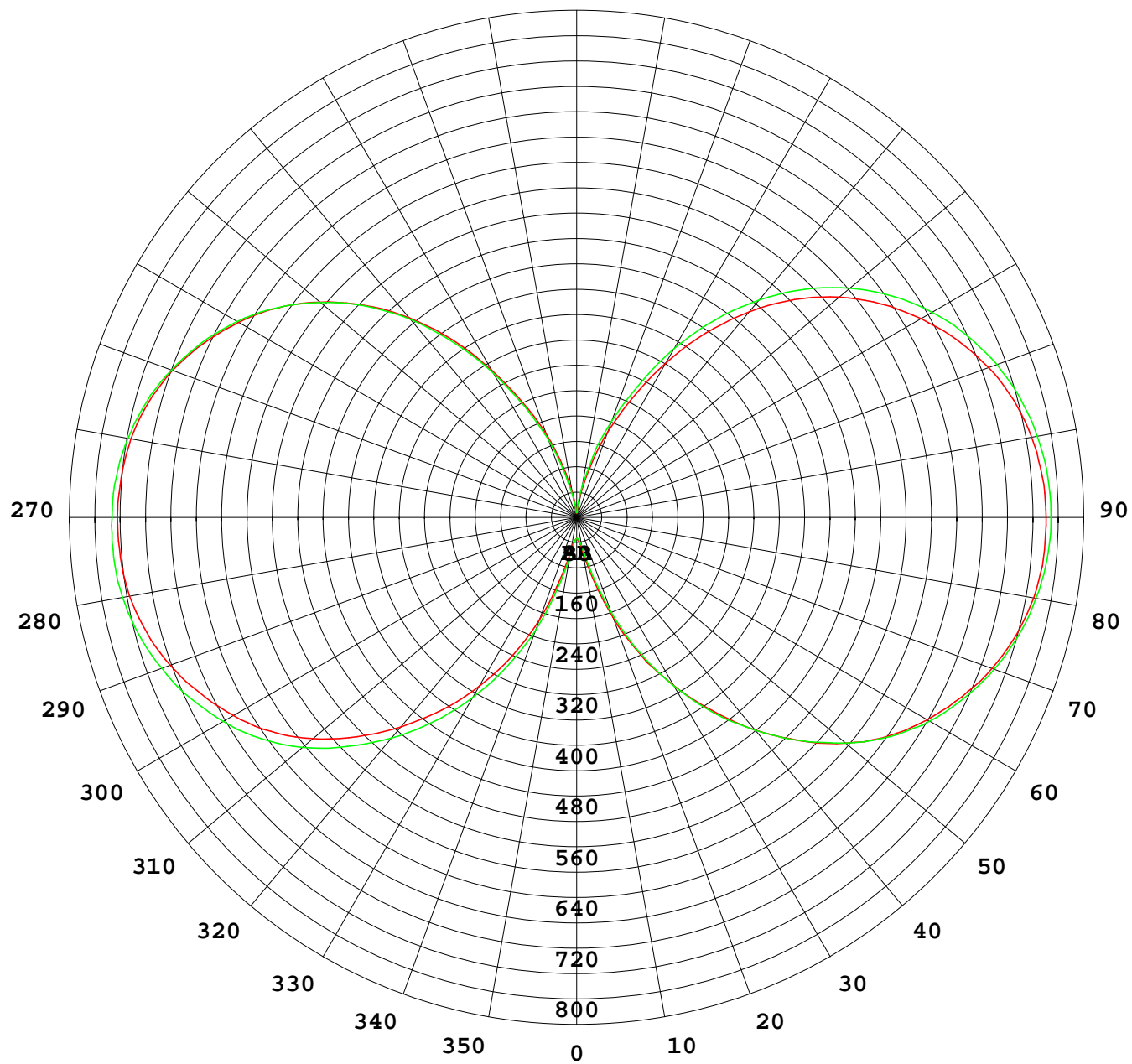
Photometric Data Table [cd]

69.0	672.0	669.7	667.0	673.7
72.0	684.7	684.0	680.6	686.8
75.0	695.9	696.3	692.4	698.2
78.0	705.5	705.7	701.0	707.2
81.0	712.4	713.8	707.3	713.7
84.0	717.3	718.0	712.5	718.8
87.0	720.5	720.2	715.2	720.7
90.0	721.2	720.7	715.8	721.4
93.0	720.4	720.3	715.0	720.1
96.0	717.7	717.3	712.1	717.7
99.0	712.7	713.7	707.3	712.6
102.0	706.1	707.3	700.9	705.1
105.0	697.1	698.2	692.6	695.9
108.0	685.8	686.6	680.9	684.6
111.0	673.5	672.7	667.9	670.2
114.0	658.1	656.1	652.3	654.0
117.0	640.8	637.5	634.5	636.1
120.0	621.4	616.8	614.6	616.3
123.0	599.6	595.6	593.1	593.2
126.0	575.1	571.3	568.6	568.1
129.0	548.5	544.4	541.8	540.1
132.0	519.9	514.1	512.0	510.7
135.0	487.7	482.0	479.4	478.2
138.0	453.7	446.5	444.1	443.4
141.0	416.4	408.8	406.5	404.8
144.0	375.6	368.4	364.5	360.7
147.0	334.7	326.8	321.4	317.2
150.0	292.8	283.1	278.6	274.9
153.0	251.4	240.4	236.0	231.7
156.0	206.8	200.3	198.0	191.8
159.0	166.0	162.8	159.6	153.8
162.0	129.5	126.7	124.5	120.1
165.0	97.55	91.55	91.20	86.84
168.0	61.19	59.52	58.88	55.03
171.0	37.48	36.61	35.95	33.79
174.0	18.03	18.75	19.24	17.88
177.0	8.929	8.952	8.966	8.966
180.0	8.961	8.942	8.994	9.003

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: ARK
Test Date: 10 January 2020

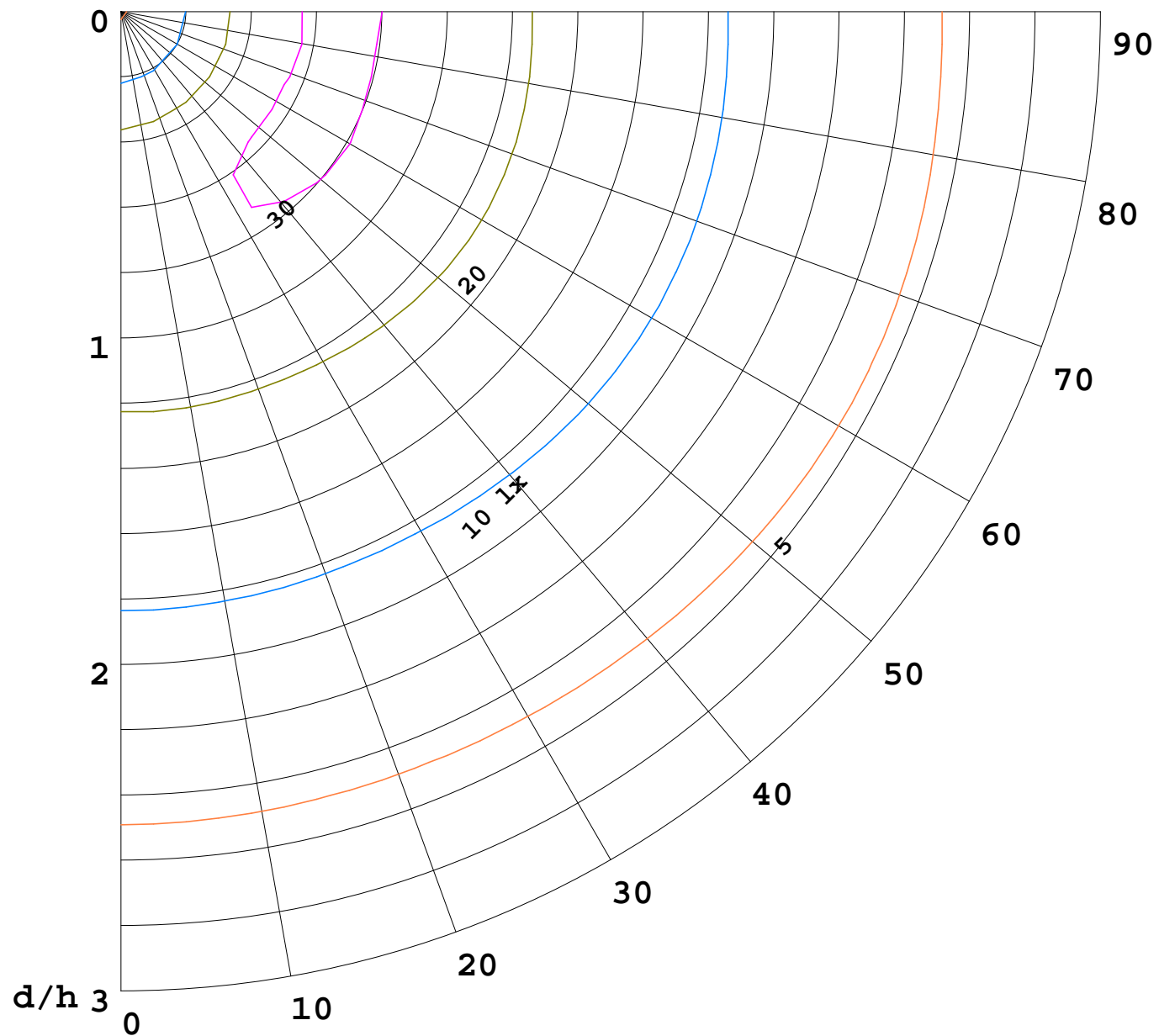
γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.351
Humidity: 65.0%
Test Distance: 8.100m [K=1.0000]
Remarks: OB200c-40W-5700K_20200110

I(cd)



1000 lm

$K = 1$



F = 1000 lm
K = 0.7
Hcc = 0.8 m
Hfc = 0.0 m
Eave = 100 lx

	Pcc	Pw	Pfc
————	70	50	30
————	50	30	20

