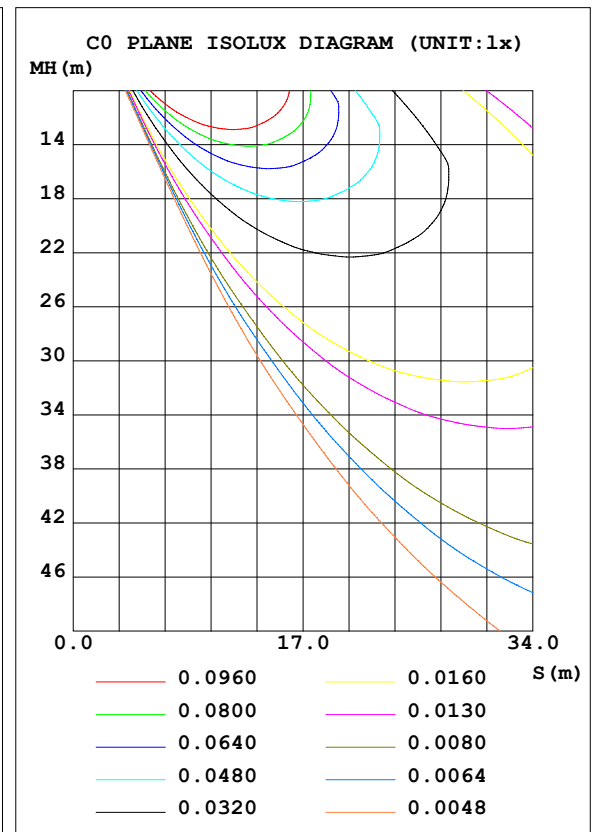
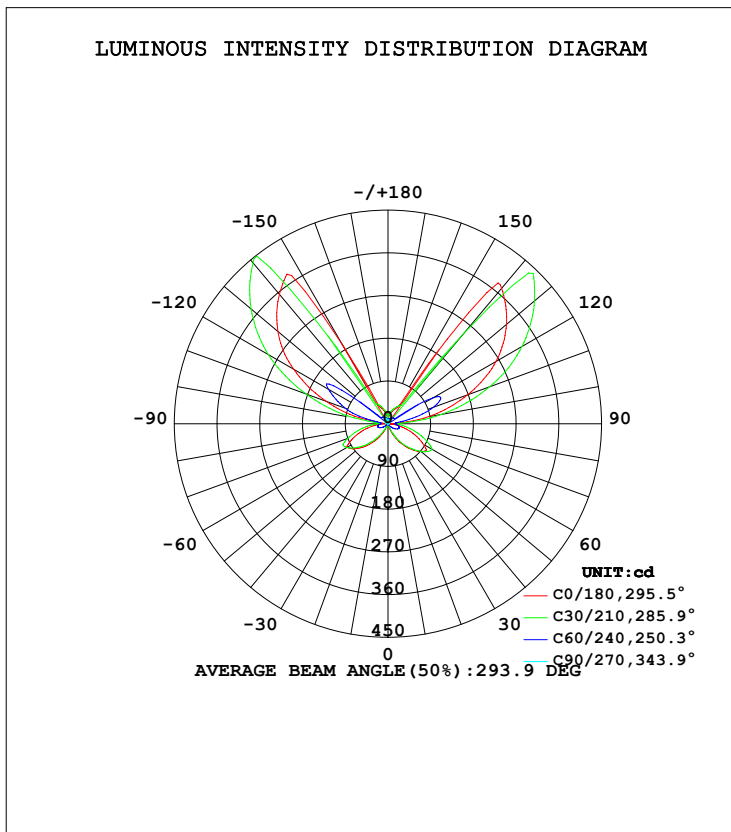


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: Niteo X	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	Niteo X	Imax (cd)	459.7	S/MH (C0/180)	11.86
NOMINAL POWER (W)	8	LOR (%)	151.8	S/MH (C90/270)	2.52
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	585.66	η UP, DN (C0-180)	58.8, 17.2
NOMINAL FLUX (lm)	385.842	CIE CLASS	SEMI-IND.	η UP, DN (C180-360)	58.4, 17.4
LAMPS INSIDE	1	η up (%)	117.1	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	220.2	η down (%)	34.7	CIBSE SHR MAX	1.30



C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DOBAC
 Test Date: 2017-11-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V1.0.260
 Humidity: 65.0%
 Test Distance: 6.960m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	lum, lamp
10	0.4853	0.6518	0.2488	0.1235	0.4745	0.5084	0.3230	0.2675	0- 10	0.0257	0.0257	0.00,0.01
20	0.7787	0.8961	0.3054	0.3240	10.28	0.8226	0.3139	0.3868	10- 20	0.1521	0.1778	0.03,0.05
30	23.04	2.701	0.3846	8.502	38.61	14.60	0.2541	2.547	20- 30	2.076	2.254	0.38,0.58
40	52.34	21.73	0.3756	18.27	66.54	39.14	0.2096	12.92	30- 40	8.534	10.79	1.84,2.8
50	80.03	46.31	0.3901	27.52	91.40	61.24	0.2123	23.54	40- 50	18.81	29.59	5.05,7.67
60	98.81	67.90	0.4192	33.79	85.89	78.12	0.1978	32.63	50- 60	30.23	59.83	10.2,15.5
70	71.15	73.61	0.3810	27.50	53.04	69.73	0.1633	32.51	60- 70	33.90	93.73	16,24.3
80	37.40	50.70	0.5149	15.36	21.01	42.79	0.1289	20.33	70- 80	25.81	119.5	20.4,31
90	8.006	25.79	1.915	8.750	6.642	25.85	0.8413	9.720	80- 90	14.17	133.7	22.8,34.7
100	34.16	82.63	2.881	43.00	87.56	104.6	2.227	17.72	90-100	18.66	152.4	26,39.5
110	139.0	181.3	4.890	83.14	178.4	212.0	3.128	67.73	100-110	59.20	211.6	36.1,54.8
120	229.0	277.4	7.218	118.9	262.6	302.2	2.788	109.9	110-120	99.71	311.3	53.2,80.7
130	302.7	357.5	9.336	147.6	326.2	301.1	3.950	141.7	120-130	115.5	426.8	72.9,111
140	356.0	177.5	11.07	41.05	372.6	41.27	5.565	125.1	130-140	98.80	525.6	89.7,136
150	195.0	39.42	12.19	14.66	39.40	34.58	5.801	15.26	140-150	46.69	572.3	97.7,148
160	33.75	30.49	12.75	11.45	29.65	27.03	6.908	11.64	150-160	8.754	581.1	99.2,151
170	20.69	21.33	8.295	7.945	19.33	19.59	7.346	7.699	160-170	3.848	584.9	99.9,152
180	1.960	3.041	0.9653	1.102	1.986	3.064	0.9635	1.088	170-180	0.7565	585.7	100,152
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

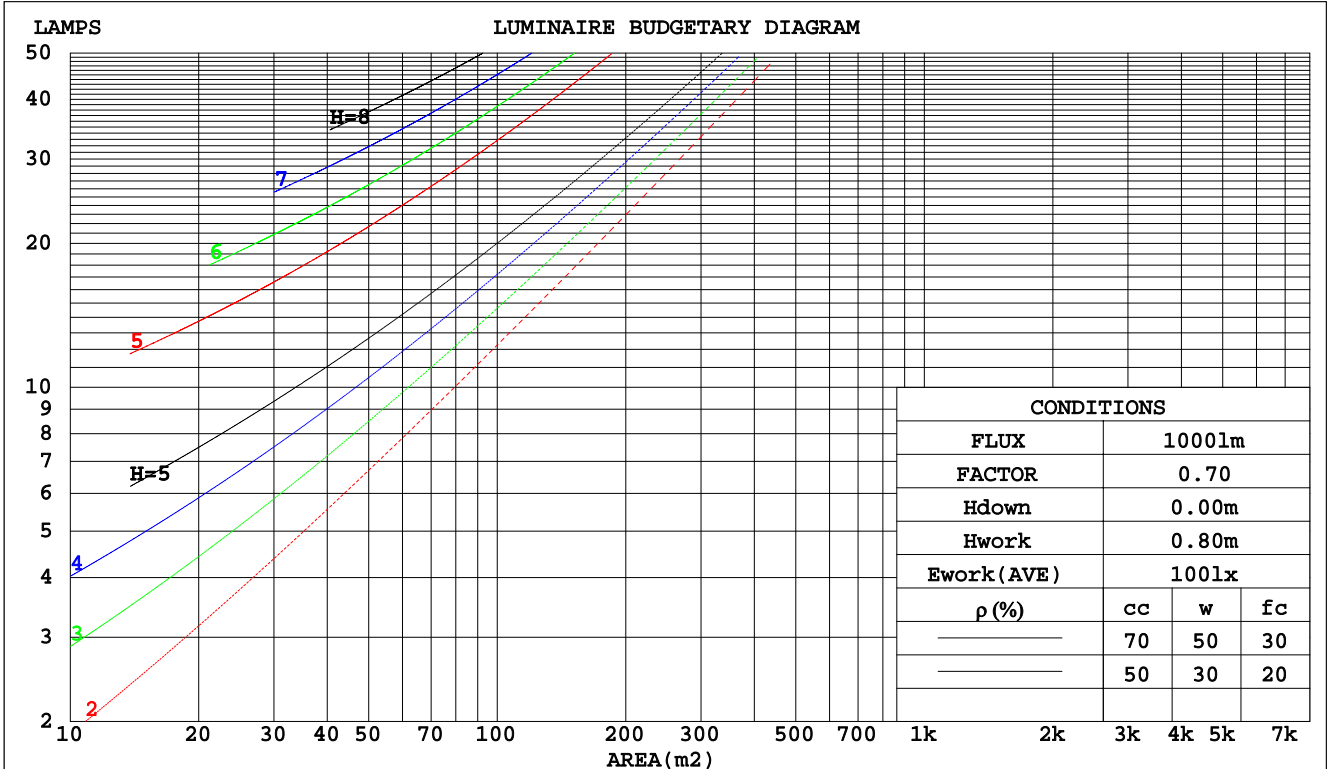
C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-27

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity:65.0%
Test Distance:6.960m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: Niteo X	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pw																
pfc																
RCR	RCR:Room Cavity Ratio															
	Coefficients of Utilization(CU)															
0.0	1.53	1.53	1.53	1.36	1.36	1.36	1.04	1.04	1.04	.74	.74	.74	.47	.47	.47	.35
1.0	1.29	1.22	1.16	1.14	1.09	1.04	.87	.83	.79	.61	.58	.56	.38	.36	.35	.24
2.0	1.10	1.00	.92	.97	.89	.82	.73	.67	.62	.51	.47	.44	.31	.28	.26	.17
3.0	.95	.83	.74	.84	.74	.66	.63	.56	.50	.43	.39	.35	.25	.22	.20	.12
4.0	.83	.70	.61	.73	.62	.54	.55	.47	.41	.37	.32	.28	.22	.18	.16	.09
5.0	.73	.60	.51	.64	.53	.45	.48	.40	.34	.33	.27	.23	.19	.15	.12	.06
6.0	.64	.52	.43	.57	.46	.38	.42	.34	.28	.29	.23	.19	.16	.13	.10	.05
7.0	.57	.45	.36	.51	.40	.32	.38	.30	.24	.26	.20	.16	.14	.11	.08	.04
8.0	.51	.40	.31	.45	.35	.28	.34	.26	.21	.23	.18	.14	.13	.10	.07	.03
9.0	.46	.35	.27	.41	.31	.24	.31	.23	.18	.21	.16	.12	.12	.08	.06	.02
10.0	.42	.31	.24	.37	.28	.21	.28	.21	.16	.19	.14	.10	.11	.07	.05	.02



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DOBAC
Test Date: 2017-11-27

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity: 65.0%
Test Distance: 6.960m [K=1.0000]
Remarks:

WEC AND CCEC

NAME: Niteo X	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.479	.273	.086	.433	.247	.078	.347	.199	.064	.267	.154	.049	.194	.112	.036	
2.0	.430	.236	.072	.388	.214	.066	.309	.172	.053	.236	.132	.041	.168	.095	.030	
3.0	.390	.207	.062	.351	.188	.057	.278	.151	.046	.211	.115	.035	.148	.082	.025	
4.0	.355	.185	.054	.320	.167	.049	.252	.134	.040	.190	.102	.031	.132	.072	.022	
5.0	.326	.166	.048	.293	.150	.044	.231	.120	.035	.173	.091	.027	.119	.064	.019	
6.0	.300	.151	.043	.270	.136	.039	.212	.109	.032	.159	.082	.024	.108	.057	.017	
7.0	.278	.138	.039	.250	.125	.036	.197	.099	.029	.146	.075	.022	.099	.052	.015	
8.0	.259	.127	.036	.233	.115	.032	.183	.091	.026	.136	.069	.020	.092	.047	.014	
9.0	.242	.117	.033	.217	.106	.030	.171	.084	.024	.127	.063	.018	.085	.043	.012	
10.0	.227	.109	.030	.204	.098	.027	.160	.078	.022	.119	.059	.017	.079	.040	.011	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	1.182	1.182	1.182	1.010	1.010	1.010	.689	.689	.689	.396	.396	.396	.127	.127	.127	
1.0	1.174	1.137	1.103	1.005	.976	.949	.687	.671	.657	.396	.388	.382	.127	.125	.123	
2.0	1.166	1.106	1.056	.998	.952	.913	.684	.659	.637	.394	.383	.373	.127	.124	.122	
3.0	1.156	1.084	1.026	.991	.935	.890	.681	.650	.624	.393	.379	.368	.126	.123	.121	
4.0	1.147	1.067	1.007	.984	.922	.875	.677	.643	.616	.392	.377	.364	.126	.123	.120	
5.0	1.138	1.055	.993	.977	.912	.864	.673	.637	.610	.390	.374	.362	.126	.122	.119	
6.0	1.129	1.044	.984	.970	.904	.856	.669	.633	.606	.388	.372	.360	.125	.122	.119	
7.0	1.120	1.035	.977	.963	.898	.851	.665	.629	.603	.387	.371	.359	.125	.121	.119	
8.0	1.111	1.028	.971	.956	.892	.847	.662	.626	.601	.385	.369	.358	.125	.121	.119	
9.0	1.103	1.022	.967	.950	.887	.844	.658	.623	.599	.383	.368	.357	.124	.121	.118	
10.0	1.095	1.017	.964	.944	.883	.841	.655	.621	.598	.382	.367	.357	.124	.121	.118	

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-27

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity:65.0%
Test Distance:6.960m [K=1.0000]
Remarks:

Uncorrected UGR Table

NAME: Niteo X		TYPE:LED					WEIGHT:				
DIM.:		SPEC.:					SERIAL No.:				
MFR.: DOBAC		SUR.:					PROTECTION 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	21.1	21.9	22.2	23.0	24.5	8.5	9.3	9.6	10.4	11.9	
3H	23.8	24.5	24.9	25.6	27.2	9.3	10.0	10.4	11.1	12.7	
4H	24.8	25.5	25.9	26.6	28.2	9.4	10.1	10.5	11.2	12.8	
6H	25.6	26.2	26.7	27.4	29.0	9.4	10.0	10.5	11.2	12.8	
8H	25.9	26.5	27.0	27.6	29.2	9.5	10.1	10.7	11.3	12.9	
12H	26.2	26.7	27.3	27.9	29.5	9.9	10.4	11.0	11.6	13.2	
4H 2H	21.4	22.1	22.5	23.2	24.8	16.0	16.7	17.1	17.8	19.4	
3H	24.4	25.0	25.6	26.1	27.7	17.5	18.1	18.6	19.2	20.8	
4H	25.6	26.1	26.8	27.3	28.9	18.0	18.5	19.2	19.7	21.3	
6H	26.6	27.0	27.7	28.2	29.8	18.3	18.7	19.5	19.9	21.5	
8H	27.0	27.4	28.1	28.6	30.2	18.3	18.7	19.5	19.9	21.5	
12H	27.3	27.7	28.5	28.9	30.5	18.3	18.7	19.5	19.9	21.5	
8H 4H	25.8	26.2	27.0	27.4	29.0	20.9	21.3	22.1	22.5	24.1	
6H	27.1	27.4	28.3	28.6	30.2	21.9	22.3	23.1	23.5	25.1	
8H	27.6	27.9	28.8	29.1	30.8	22.3	22.6	23.5	23.8	25.5	
12H	28.2	28.4	29.4	29.6	31.3	22.6	22.8	23.8	24.0	25.7	
12H 4H	25.8	26.2	27.0	27.3	29.0	21.3	21.7	22.5	22.9	24.5	
6H	27.1	27.4	28.3	28.6	30.3	22.7	23.0	23.9	24.2	25.9	
8H	27.8	28.1	29.0	29.3	30.9	23.4	23.7	24.6	24.9	26.5	
Variations with the observer position at spacings:											
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.1					
1.5H	+ 0.1 / - 0.2					+ 0.2 / - 0.2					
2.0H	+ 0.4 / - 0.5					+ 0.3 / - 0.3					

CIE Pub.117 Corrected 385.8 lm Total Lamp Luminous Flux. (8log(F/F0) = -3.3)

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-27

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity:65.0%
Test Distance:6.960m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

NAME: Niteo X	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

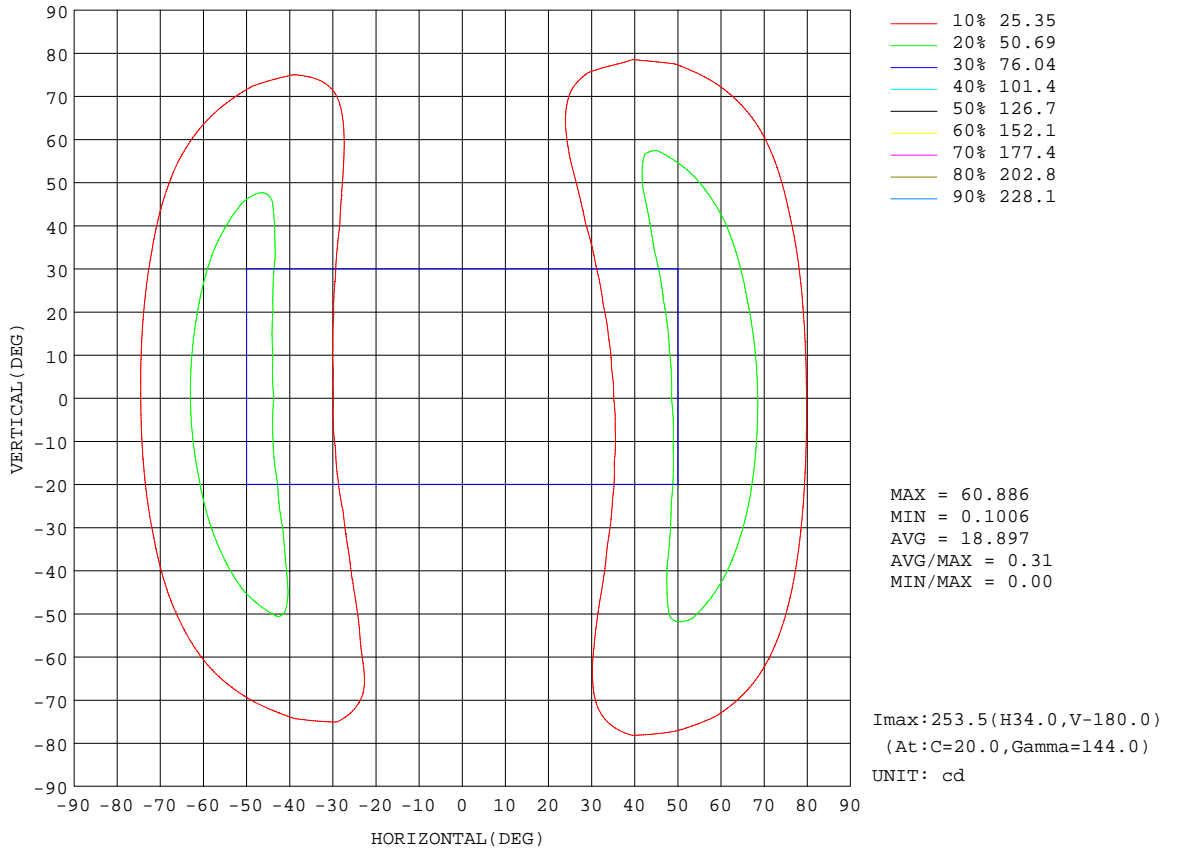
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	47	29	19	42	26	17	34	21	14	1
0.80	60	41	29	54	37	26	42	29	21	4
1.00	72	52	39	64	46	35	50	38	28	6
1.25	83	63	50	74	56	45	57	44	35	9
1.50	91	72	59	81	64	53	62	50	41	11
2.00	103	86	73	92	77	66	70	60	51	15
2.50	111	95	83	99	85	75	76	66	58	17
3.00	117	103	91	104	92	82	79	71	64	19
4.00	125	113	103	111	101	92	85	78	71	22
5.00	130	120	111	115	107	99	88	82	77	24
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-27

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity:65.0%
Test Distance:6.960m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

NAME: Niteo X	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

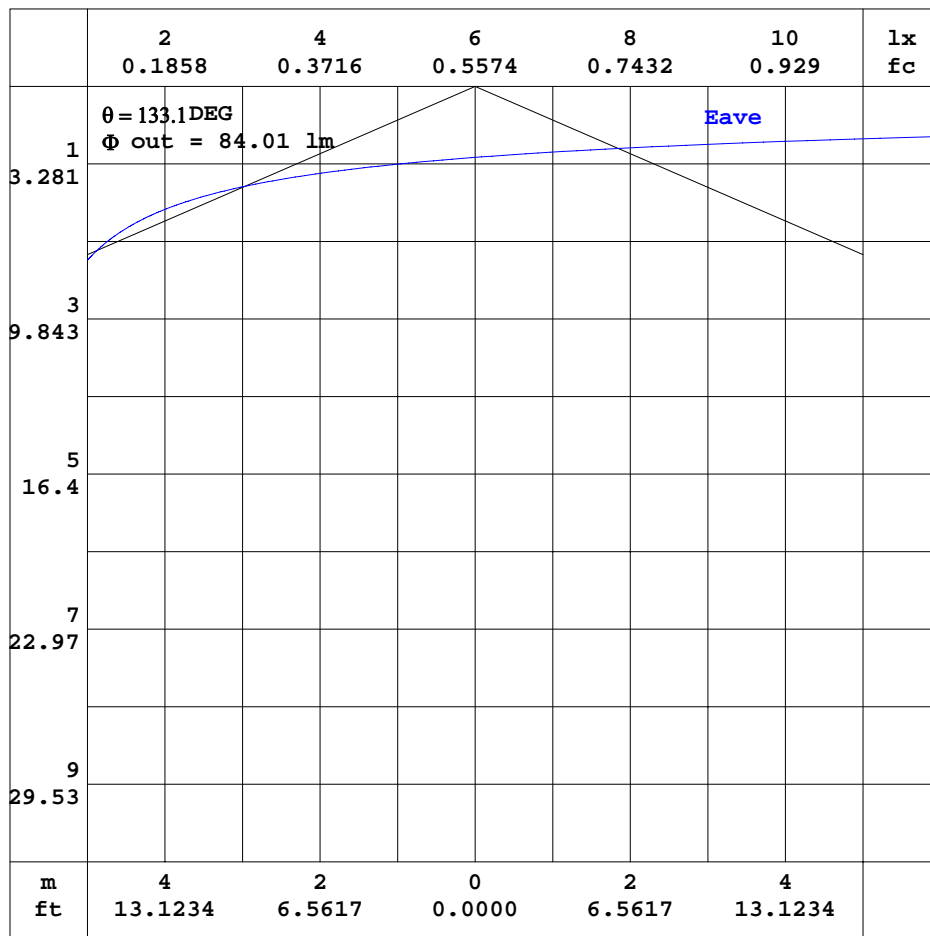


C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DOBAC
 Test Date: 2017-11-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V1.0.260
 Humidity: 65.0%
 Test Distance: 6.960m [K=1.0000]
 Remarks:

AAI CURVES

NAME: Niteo X	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:



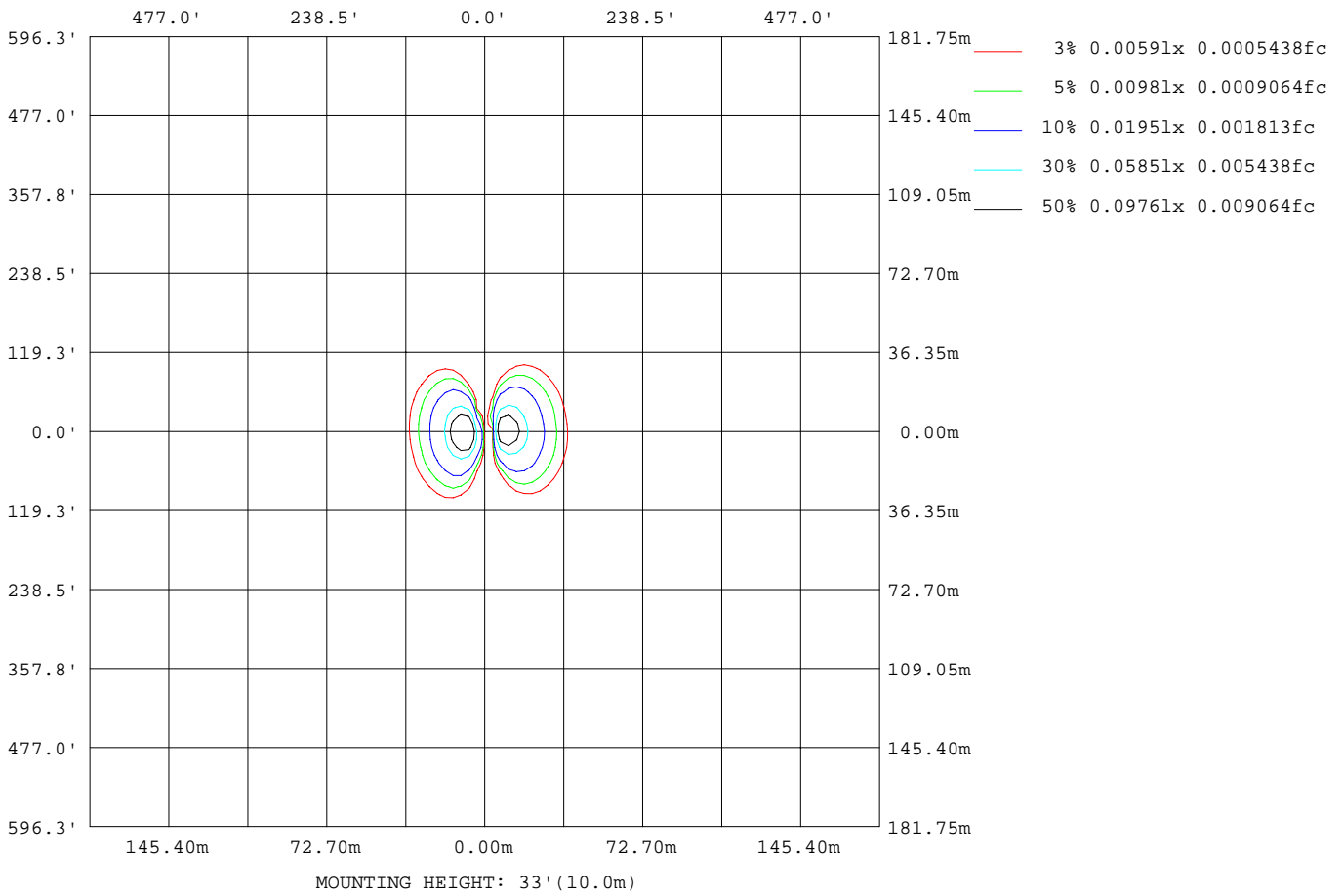
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DOBAC
 Test Date: 2017-11-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V1.0.260
 Humidity: 65.0%
 Test Distance: 6.960m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

NAME: Niteo X	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DOBAC
Test Date: 2017-11-27

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity: 65.0%
Test Distance: 6.960m [K=1.0000]
Remarks:

Average Luminance Table(CIBSE)

NAME: Niteo X	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Parameter description for average Luminance	Symbol	Value	Unit
Luminance in Azimuth Plane	Bc	refer Table 2	cd/sq.m.
Intensity at angle Gamma in given azimuth plane	I	from data	cd/klm
Number of lamps	N	1	
Output of each lamp(initial lumens as specified)	F	385.842	lm
Multiplying factor	K	1	
Luminous area in horizontal plane used in calculations	A	0.0038	sq.m.
Angle to the downward vertical from light centre	Gamma	from data	deg

Table 1. Calculation parameters for determination of CIBSE LG3:1996 Average Luminance

G deg	C plane(deg)																	
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170
55	421564680046371407673322720554	5542	360	223	184	706	4122	8257	126301611220808224092309144959									
60	520055823658548527104369428491	8582	1888	261	221	1610	5820	10700159161963623768236812347945203										
65	54482630266694065282558183762412388	3896	312	260	2789	8315	13933194772116723727230392259143369											
70	54746638406885169362659844812016863	6556	383	293	4603	1129117403210712125023196220492128540811												
75	5511665105714087349072314582892264110296	546	360	6956	1465619868220612135622621207461947337174													
80	5668368679774518210783074711613169416301	2857	780	110042009723426242662229622438192561695031834														
85	65716844761008751235818734078265455631631	8569	3981	216793469534925329642784225131183701294622394														

Table 2. Average Luminance(cd/sq.m.) for defined C plane,Gamma angle

CIBSE Category	Gamma (deg)	Average Luminance		Patch Luminance	
		maximum	specified	maximum	specified
		calculated	maximum	measured	maximum
Category 1	55 to 90	118734	200	---	500
Category 2	65 to 90	118734	200	---	500
Category 3	75 to 90	118734	200	---	500

Table 3. Tabulation of Average and Patch Luminance(cd/sq.m.) for defined CIBSE categories

No match

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-27

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity:65.0%
Test Distance:6.960m [K=1.0000]
Remarks:

Average Luminance Table(CIBSE)

NAME: Niteo X	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Parameter description for average Luminance	Symbol	Value	Unit
Luminance in Azimuth Plane	Bc	refer Table 2	cd/sq.m.
Intensity at angle Gamma in given azimuth plane	I	from data	cd/klm
Number of lamps	N	1	
Output of each lamp(initial lumens as specified)	F	385.842	lm
Multiplying factor	K	1	
Luminous area in horizontal plane used in calculations	A	0.0038	sq.m.
Angle to the downward vertical from light centre	Gamma	from data	deg

Table 1. Calculation parameters for determination of CIBSE LG3:2001 Average Luminance

G deg	C plane(deg)																	
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170
55	421564680046371407673322720554	5542	360	223	184	706	4122	8257	126301611220808224092309144959									
60	520055823658548527104369428491	8582	1888	261	221	1610	5820	10700159161963623768236812347945203										
65	54482630266694065282558183762412388	3896	312	260	2789	8315	13933194772116723727230392259143369											
70	54746638406885169362659844812016863	6556	383	293	4603	1129117403210712125023196220492128540811												
75	5511665105714087349072314582892264110296	546	360	6956	1465619868220612135622621207461947337174													
80	5668368679774518210783074711613169416301	2857	780	110042009723426242662229622438192561695031834														
85	65716844761008751235818734078265455631631	8569	3981	216793469534925329642784225131183701294622394														

Table 2. Average Luminance(cd/sq.m.) for defined C plane,Gamma angle

range (deg)	Maximum measured	Average Luminance(cd/sq.m)			
		Maximum limit for screen type & software category used			
		Type I,II screen Some neg.s'ware	Type I,II screen Only pos.s'ware	Type III screen Some neg.s'ware	Type III screen Only pos.s'ware
55 to 90	118734	1000	1500	200	500
65 to 90	118734	1000	1500	200	500

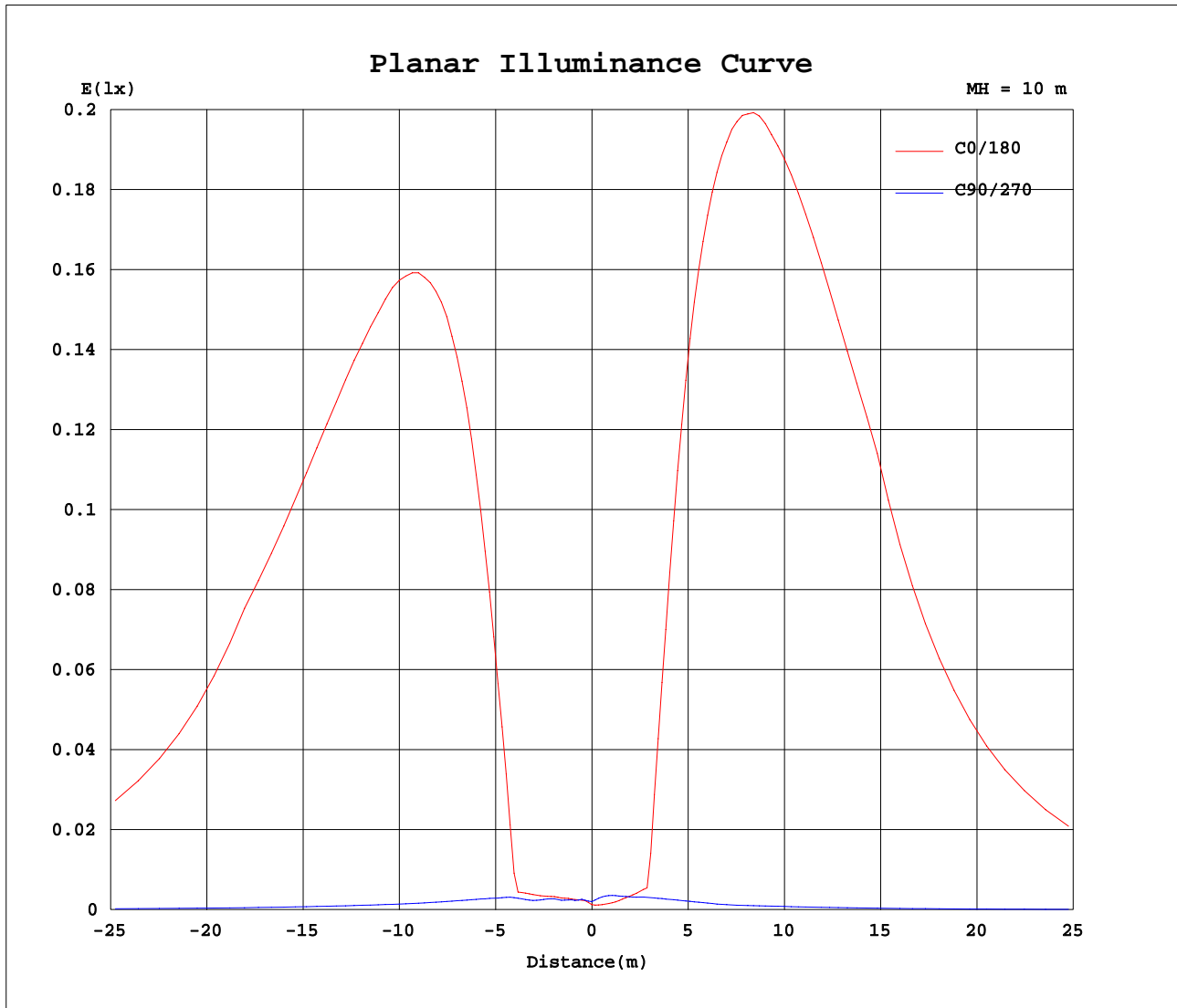
Table 3. Tabulation of average luminance(cd/sq.m.) and luminance limits

No match

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-27

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity:65.0%
Test Distance:6.960m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DOBAC
 Test Date: 2017-11-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V1.0.260
 Humidity: 65.0%
 Test Distance: 6.960m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: Niteo X	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
0	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
5	0.38	0.47	0.50	0.39	0.31	0.33	0.20	0.22	0.21	0.22	0.21	0.19	0.18	0.20	0.19	0.18	0.18	0.20	0.23
10	0.49	0.58	0.63	0.68	0.72	0.59	0.30	0.31	0.28	0.25	0.21	0.17	0.15	0.13	0.12	0.14	0.13	0.15	0.47
15	0.58	0.69	0.75	0.79	0.84	0.77	0.43	0.30	0.29	0.25	0.21	0.15	0.15	0.18	0.19	0.25	0.30	0.33	0.84
20	0.78	0.90	0.95	0.94	0.95	0.85	0.46	0.43	0.41	0.31	0.27	0.17	0.20	0.25	0.39	2.39	4.14	4.86	10.3
25	9.22	8.47	5.69	1.17	1.15	0.95	0.50	0.46	0.42	0.38	0.27	0.22	0.31	1.87	5.33	8.84	11.2	12.1	24.5
30	23.0	23.9	20.9	13.3	4.44	1.12	0.55	0.49	0.43	0.38	0.23	0.28	1.73	6.34	10.6	15.5	18.3	19.6	38.6
35	37.7	40.5	37.7	28.6	17.1	3.40	0.62	0.52	0.43	0.38	0.24	0.39	5.24	11.0	15.9	22.0	25.1	26.6	52.4
40	52.3	56.9	54.4	44.4	31.2	13.1	0.69	0.55	0.44	0.38	0.27	2.23	8.73	15.4	21.1	28.6	32.1	33.8	66.5
45	66.8	73.3	71.1	60.1	45.5	23.7	3.37	0.59	0.45	0.38	0.31	4.75	11.6	19.8	26.3	35.1	38.7	40.6	79.7
50	80.0	88.3	86.7	75.3	59.3	34.4	7.68	0.62	0.47	0.39	0.38	7.11	14.9	24.0	31.0	40.9	44.8	46.7	91.4
55	91.9	102	101	88.9	72.4	44.8	12.1	0.79	0.49	0.40	1.54	8.98	18.0	27.5	35.1	45.4	48.8	50.3	98.0
60	98.8	111	111	100	83.0	54.1	16.3	3.59	0.50	0.42	3.06	11.1	20.3	30.2	37.3	45.2	45.0	44.6	85.9
65	87.5	101	108	105	89.6	60.4	19.9	6.26	0.50	0.42	4.48	13.4	22.4	31.3	34.0	38.1	37.0	36.3	69.6
70	71.2	83.0	89.5	90.1	85.8	62.5	21.9	8.52	0.50	0.38	5.98	14.7	22.6	27.4	27.6	30.1	28.7	27.7	53.0
75	54.2	64.0	70.2	72.3	71.1	57.3	22.3	10.1	0.54	0.35	6.84	14.4	19.5	21.7	21.0	22.2	20.4	19.2	36.6
80	37.4	45.3	51.1	54.2	54.8	47.0	20.9	10.8	1.89	0.51	7.26	13.3	15.5	16.0	14.7	14.8	12.7	11.2	21.0
85	21.8	28.0	33.4	37.2	39.3	35.7	18.1	10.5	2.84	1.32	7.18	11.5	11.6	10.9	9.22	8.32	6.08	4.29	7.42
90	8.01	12.9	18.1	22.5	25.8	25.8	14.8	9.76	3.42	1.92	6.85	10.2	9.92	9.38	8.12	7.35	5.51	3.76	6.64
95	6.44	11.2	16.9	21.9	26.3	31.2	14.7	10.1	4.08	2.44	7.09	10.2	24.0	23.8	21.7	20.8	18.0	15.5	29.7
100	34.2	44.5	60.0	72.9	85.3	80.2	23.6	10.6	4.71	2.88	7.39	10.6	40.4	42.6	43.4	47.5	47.2	45.3	87.6
105	93.1	108	123	128	137	124	63.2	11.2	5.37	3.76	7.77	15.0	58.8	62.2	63.7	70.4	70.5	68.4	133
110	139	160	178	183	191	172	95.1	12.0	6.09	4.89	8.17	27.1	77.0	82.2	84.1	93.5	94.1	91.9	178
115	185	213	234	239	246	219	120	12.7	6.80	6.05	8.53	31.5	94.3	101	103	116	117	115	222
120	229	263	287	291	295	262	144	13.3	7.45	7.22	8.78	18.3	110	117	120	136	137	136	263
125	269	309	333	336	339	302	140	13.6	8.01	8.33	8.90	12.0	125	133	135	153	154	153	297
130	303	348	373	376	379	338	30.7	13.7	8.56	9.34	8.85	11.7	40.1	146	149	168	169	168	326
135	331	381	408	412	414	238	18.9	13.7	8.99	10.3	8.80	11.3	14.1	78.0	161	182	182	181	351
140	356	409	438	442	329	40.0	18.2	13.6	9.14	11.1	8.58	10.8	13.3	16.5	65.4	175	193	192	373
145	377	434	438	272	49.1	37.7	17.4	13.4	9.34	11.7	8.38	10.2	12.3	15.2	17.2	27.5	71.6	112	218
150	195	187	97.7	48.1	44.1	35.1	16.5	13.4	9.45	12.2	8.12	9.72	11.3	13.8	15.5	19.0	19.9	20.4	39.4
155	38.9	44.3	45.5	43.3	39.4	31.7	15.2	13.1	9.47	12.6	7.80	8.80	10.4	12.3	13.7	16.7	17.5	18.0	34.7
160	33.7	38.3	39.1	37.2	33.8	27.5	14.0	11.4	9.28	12.7	10.1	8.06	9.11	11.0	11.9	14.4	15.0	15.4	29.7
165	27.1	31.0	31.9	30.5	28.3	24.0	12.1	10.3	8.83	11.9	11.6	7.30	7.99	9.24	10.0	12.3	12.6	12.7	24.6
170	20.7	24.1	25.2	24.6	23.4	19.5	9.67	7.94	6.66	8.30	7.89	7.92	7.13	7.72	8.17	9.64	9.87	10.0	19.3
175	15.6	18.0	18.1	16.5	13.8	10.4	4.67	3.72	3.48	3.53	2.90	2.50	2.59	3.56	4.65	6.37	6.86	7.23	13.4
180	1.96	2.20	2.37	2.78	3.20	2.90	1.58	1.45	1.18	0.965	0.898	0.869	0.9834	1.09	1.12	1.28	1.16	0.9074	1.99

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-27

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity:65.0%
Test Distance:6.960m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: Niteo X	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Table--2

UNIT: cd

C(DEG) γ (DEG)	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350		
0	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19		
5	0.26	0.30	0.43	0.50	0.48	0.32	0.32	0.33	0.33	0.29	0.27	0.25	0.25	0.24	0.24	0.24	0.24		
10	0.53	0.52	0.49	0.51	0.51	0.30	0.31	0.31	0.32	0.30	0.28	0.26	0.27	0.26	0.29	0.29	0.31		
15	0.94	0.89	0.78	0.70	0.54	0.27	0.29	0.31	0.33	0.30	0.28	0.27	0.30	0.32	0.39	0.41	0.45		
20	10.6	7.56	2.88	0.96	0.70	0.31	0.27	0.30	0.31	0.28	0.27	0.31	0.37	0.41	0.51	0.55	0.58		
25	26.7	23.6	17.3	8.18	0.89	0.37	0.27	0.28	0.29	0.27	0.29	0.34	0.43	0.49	2.15	3.88	5.03		
30	42.9	40.4	33.0	21.8	8.07	0.44	0.30	0.26	0.25	0.24	0.30	0.38	0.7613	4.32	8.43	10.7	12.2		
35	58.3	56.4	48.4	36.1	18.5	1.70	0.32	0.22	0.21	0.24	0.32	0.42	5.21	9.80	15.4	18.1	19.8		
40	74.0	72.3	63.0	49.7	29.5	6.07	0.34	0.26	0.21	0.27	0.35	3.64	10.2	15.6	22.4	25.5	27.3		
45	88.8	87.6	77.4	62.4	39.7	10.6	0.37	0.26	0.21	0.30	0.61	7.54	15.3	21.3	29.3	32.8	34.8		
50	102	102	90.7	74.7	49.0	14.9	2.51	0.25	0.21	0.31	3.48	11.6	20.2	26.8	36.0	39.6	41.6		
55	111	112	102	85.5	57.5	18.8	5.21	0.24	0.20	0.31	6.41	15.4	24.9	31.9	42.0	45.7	47.6		
60	99.5	108	107	93.1	64.5	22.2	7.73	0.22	0.20	0.50	9.29	18.9	29.0	36.2	46.5	49.7	51.2		
65	81.4	90.4	92.5	91.3	67.5	24.5	9.80	0.21	0.17	2.65	11.6	21.3	31.6	38.4	45.7	45.9	45.2		
70	62.7	71.4	74.7	76.8	63.3	25.1	11.2	0.35	0.16	4.48	12.6	22.0	31.0	34.0	38.3	37.9	36.7		
75	44.4	52.6	56.7	60.6	52.9	23.9	11.7	1.46	0.15	5.09	11.6	20.1	25.9	27.5	30.3	29.5	28.1		
80	27.5	34.8	39.7	44.5	41.3	21.1	11.4	1.82	0.13	3.99	9.60	14.9	19.8	20.8	22.3	21.1	19.5		
85	12.8	19.4	24.8	30.2	30.3	17.4	10.9	2.35	0.54	3.45	7.74	12.0	14.1	14.4	14.9	13.3	11.5		
90	11.8	17.1	21.8	25.9	25.8	15.1	10.2	2.94	0.84	3.70	8.43	9.86	10.3	9.17	8.50	6.62	4.56		
95	38.2	44.8	51.2	53.8	51.1	15.8	10.4	3.54	1.55	5.26	9.70	9.94	10.1	9.00	8.14	5.92	3.99		
100	104	110	114	111	98.7	32.2	10.7	4.04	2.23	5.88	9.85	17.5	13.6	21.8	23.2	19.8	18.5		
105	156	167	171	169	150	68.8	11.1	4.54	3.02	6.65	9.43	13.8	43.1	43.0	49.7	48.3	48.6		
110	209	223	228	226	199	101	11.6	5.13	3.13	7.30	43.3	64.5	68.4	67.1	75.6	73.3	72.9		
115	259	276	280	276	244	122	11.9	5.70	2.99	8.72	71.3	85.9	91.2	89.6	101	97.2	96.9		
120	304	323	326	321	285	109	12.1	5.11	2.79	9.31	79.4	104	110	109	123	120	120		
125	342	364	366	364	322	27.8	12.1	4.98	2.69	8.98	46.2	120	127	127	143	141	141		
130	376	400	403	401	210	17.7	11.9	5.51	3.95	8.82	12.2	134	142	142	160	158	158		
135	404	431	435	323	38.4	16.9	11.7	7.22	5.40	8.59	12.1	38.9	155	155	175	173	173		
140	429	443	249	47.1	36.0	16.0	11.4	7.74	5.56	7.99	11.7	14.1	83.5	166	187	186	185		
145	181	93.1	47.6	43.2	33.3	15.0	10.9	9.37	5.68	7.51	10.4	13.8	15.3	74.0	171	197	196		
150	44.4	45.8	42.9	39.1	30.4	13.9	10.4	11.3	5.80	6.92	9.01	12.0	15.2	15.3	25.5	68.4	94.0		
155	39.0	40.3	37.9	34.8	27.3	12.8	9.91	11.6	6.05	6.57	7.79	10.0	13.1	14.3	18.3	19.8	20.1		
160	33.3	34.6	32.6	30.3	24.1	11.6	9.35	11.9	6.91	6.57	6.97	8.39	10.6	12.6	13.3	17.1	17.6		
165	27.7	28.8	27.3	25.7	21.0	10.4	12.3	12.1	8.30	6.84	6.69	7.29	8.67	9.94	11.7	13.2	14.2		
170	21.8	22.9	22.2	21.4	18.0	11.0	10.5	9.37	7.35	5.96	6.03	6.67	7.44	7.95	9.46	8.40	10.5		
175	14.9	15.4	13.4	12.0	8.62	4.54	4.34	4.43	4.21	3.42	3.36	3.95	4.77	5.56	7.09	7.58	7.36		
180	2.22	2.41	2.81	3.23	2.92	1.59	1.46	1.19	0.9635	0.8990	0.8634	0.9725	1.08	1.10	1.27	1.17	0.8813		

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-27

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity:65.0%
Test Distance:6.960m [K=1.0000]
Remarks: