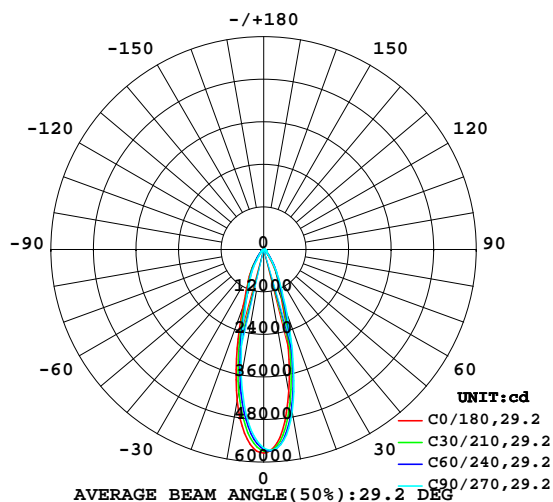


LUMINAIRE PHOTOMETRIC TEST REPORT

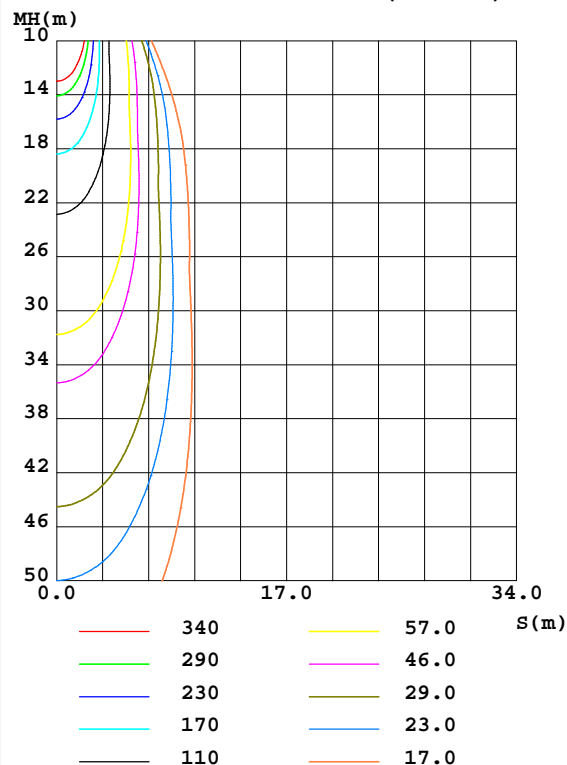
Test:U:219.3V I:0.6961A P:150.1W PF:0.9834 Lamp Flux:22208x1 lm		
NAME: NTB-150C_A30	TYPE:LED	WEIGHT:
SPEC.:150C_A30	DIM.:	SERIAL No.:
MFR.: ICEPIPE	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 147.94 lm/W			
MODEL	NTB-150C_A30	Imax(cd)	57471	S/MH(C0/180)	0.51
NOMINAL POWER(W)	150	LOR(%)	100.0	S/MH(C90/270)	0.44
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	22208	η UP,DN(C0-180)	0.8,52.7
NOMINAL FLUX(lm)	22208	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.8,45.8
LAMPS INSIDE	1	η up(%)	1.6	CIBSE SHR NOM	0.50
TEST VOLTAGE(V)	220	η down(%)	98.4	CIBSE SHR MAX	0.50

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:KAR
 Test Date:22 July 2021

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: NTB-150C_A30

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	4087	4456	4644	4504	4322	3927	3648	3634	0- 10	4640	4640	20.9,20.9
20	1489	1703	1908	1832	1697	1421	1372	1313	10- 20	7439	12078	54.4,54.4
30	621.2	684.4	726.6	752.0	736.6	691.7	593.7	610.7	20- 30	4710	16789	75.6,75.6
40	155.4	269.7	211.1	324.3	197.4	296.2	171.6	240.5	30- 40	2599	19387	87.3,87.3
50	89.04	100.8	92.45	115.1	96.96	112.4	85.79	95.71	40- 50	1100	20487	92.3,92.3
60	64.63	67.02	62.76	68.78	68.26	62.27	50.85	57.97	50- 60	694.1	21181	95.4,95.4
70	34.97	37.60	33.20	37.42	34.60	27.00	20.01	26.42	60- 70	456.9	21638	97.4,97.4
80	9.749	10.43	8.706	9.704	8.983	4.452	2.346	4.337	70- 80	190.1	21828	98.3,98.3
90	0.6335	0.7012	0.6801	0.6355	0.5537	0.5715	0.5504	0.5539	80- 90	27.06	21855	98.4,98.4
100	1.082	1.009	0.9087	0.9049	0.8209	0.8705	0.8600	0.8975	90-100	7.818	21863	98.4,98.4
110	2.093	1.892	1.757	1.700	1.549	1.590	1.665	1.695	100-110	13.42	21876	98.5,98.5
120	4.168	3.747	3.482	3.405	3.115	3.248	3.418	3.451	110-120	24.66	21901	98.6,98.6
130	7.749	7.130	6.733	6.636	6.257	6.529	6.812	6.788	120-130	44.78	21946	98.8,98.8
140	11.55	10.95	10.58	10.43	10.32	10.48	10.75	10.65	130-140	67.52	22013	99.1,99.1
150	13.98	13.49	13.25	13.08	13.39	13.26	13.38	13.22	140-150	75.96	22089	99.5,99.5
160	14.89	14.53	14.37	14.27	14.73	14.30	14.33	14.09	150-160	64.54	22154	99.8,99.8
170	14.62	14.37	14.36	14.24	14.70	14.02	13.85	13.58	160-170	40.73	22195	99.9,99.9
180	14.19	13.99	14.11	13.69	14.26	13.94	14.14	13.67	170-180	13.35	22208	100,100
DEG	LUMINOUS INTENSITY:≠10cd									UNIT:lm		

Conical surface Flux(90deg): 20030 lm

%lum = 90.2%

%lamp = 90.2%

Conical surface Flux(120deg): 21181 lm

%lum = 95.4%

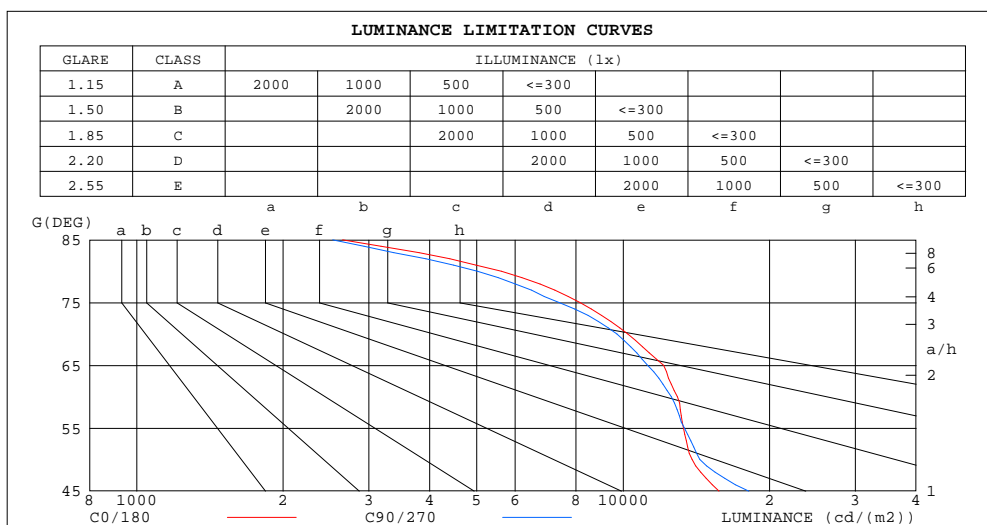
%lamp = 95.4%

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:KAR
Test Date:22 July 2021

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: NTB-150C_A30

LUMINANCE LIMITATION CURVES

Test:U:219.3V I:0.6961A P:150.1W PF:0.9834 Lamp Flux:22208x1 lm		
NAME: NTB-150C_A30	TYPE:LED	WEIGHT:
SPEC.:150C_A30	DIM.:	SERIAL No.:
MFR.: ICEPIPE	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	2650	2530
80	5614	5014
75	8155	7396
70	10224	9708
65	12106	11236
60	12925	12551
55	13301	13368
50	13852	14383
45	15741	18134

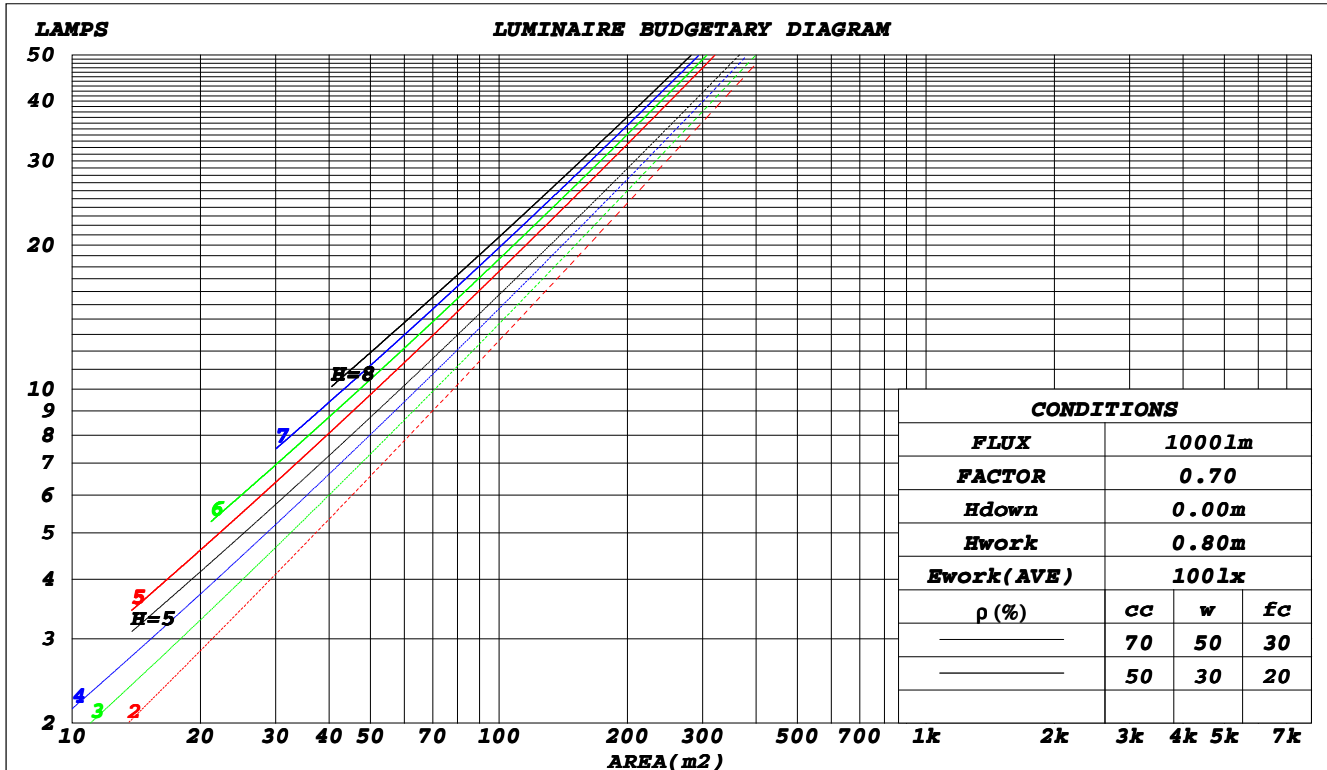
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:KAR
Test Date:22 July 2021

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: NTB-150C_A30

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:219.3V I:0.6961A P:150.1W PF:0.9834 Lamp Flux:22208xl lm		
NAME: NTB-150C_A30	TYPE:LED	WEIGHT:
SPEC.:150C_A30	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	1.19	1.19	1.19	1.16	1.16	1.16	1.10	1.10	1.10	1.05	1.05	1.05	1.01	1.01	1.01	.98
1.0	1.10	1.08	1.06	1.08	1.06	1.04	1.04	1.02	1.01	.99	.98	.97	.96	.95	.94	.92
2.0	1.03	.99	.96	1.01	.98	.95	.98	.95	.92	.95	.92	.90	.92	.90	.88	.86
3.0	.97	.92	.88	.95	.91	.87	.92	.89	.86	.90	.87	.84	.87	.85	.83	.81
4.0	.91	.86	.82	.90	.85	.81	.87	.83	.80	.85	.82	.79	.83	.80	.78	.76
5.0	.86	.81	.77	.85	.80	.76	.83	.79	.75	.81	.77	.74	.80	.76	.74	.72
6.0	.82	.76	.72	.81	.76	.72	.79	.75	.71	.78	.74	.71	.76	.73	.70	.69
7.0	.78	.72	.68	.77	.72	.68	.75	.71	.67	.74	.70	.67	.73	.69	.67	.65
8.0	.74	.69	.65	.73	.68	.65	.72	.68	.64	.71	.67	.64	.70	.66	.64	.62
9.0	.71	.65	.62	.70	.65	.62	.69	.65	.61	.68	.64	.61	.67	.64	.61	.60
10.0	.68	.63	.59	.67	.62	.59	.66	.62	.59	.66	.61	.59	.65	.61	.58	.57



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:KAR
Test Date:22 July 2021

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: NTB-150C_A30

WEC AND CCEC

Test:U:219.3V I:0.6961A P:150.1W PF:0.9834 Lamp Flux:22208x1 lm		
NAME: NTB-150C_A30	TYPE:LED	WEIGHT:
SPEC.:150C_A30	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	.176	.100	.032	.169	.096	.031	.155	.089	.028	.143	.082	.026	.131	.076	.025		
2.0	.167	.091	.028	.161	.088	.027	.149	.083	.026	.139	.078	.024	.129	.073	.023		
3.0	.157	.083	.025	.152	.081	.024	.142	.077	.023	.133	.073	.022	.124	.069	.021		
4.0	.148	.077	.023	.143	.075	.022	.135	.071	.021	.127	.068	.021	.119	.065	.020		
5.0	.139	.071	.021	.135	.069	.020	.128	.067	.020	.121	.064	.019	.115	.061	.018		
6.0	.132	.066	.019	.128	.065	.019	.122	.062	.018	.116	.060	.018	.110	.058	.017		
7.0	.125	.062	.017	.122	.061	.017	.116	.059	.017	.111	.057	.016	.106	.055	.016		
8.0	.119	.058	.016	.116	.057	.016	.111	.055	.016	.106	.054	.015	.101	.052	.015		
9.0	.113	.055	.015	.111	.054	.015	.106	.052	.015	.102	.051	.015	.098	.050	.014		
10.0	.108	.052	.014	.106	.051	.014	.102	.050	.014	.098	.048	.014	.094	.047	.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	.203	.203	.203	.173	.173	.173	.118	.118	.118	.068	.068	.068	.022	.022	.022	
1.0	.183	.170	.157	.157	.145	.135	.107	.100	.094	.062	.058	.054	.020	.019	.018	
2.0	.168	.145	.125	.144	.125	.108	.099	.086	.076	.057	.050	.044	.018	.016	.014	
3.0	.155	.126	.103	.133	.109	.089	.091	.075	.062	.053	.044	.037	.017	.014	.012	
4.0	.144	.111	.086	.124	.096	.075	.085	.067	.053	.049	.039	.031	.016	.013	.010	
5.0	.135	.099	.073	.116	.086	.064	.080	.060	.045	.046	.035	.027	.015	.012	.009	
6.0	.127	.090	.063	.109	.078	.055	.075	.055	.039	.044	.032	.023	.014	.010	.008	
7.0	.120	.082	.056	.103	.071	.049	.071	.050	.034	.041	.029	.021	.013	.010	.007	
8.0	.114	.076	.050	.098	.066	.043	.068	.046	.031	.039	.027	.018	.013	.009	.006	
9.0	.108	.071	.045	.093	.061	.039	.065	.043	.028	.038	.025	.017	.012	.008	.006	
10.0	.104	.066	.041	.089	.057	.036	.062	.040	.025	.036	.024	.015	.012	.008	.005	

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:KAR
Test Date:22 July 2021

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: NTB-150C_A30

UGR(Unified Glare Rating) Table

Test:U:219.3V I:0.6961A P:150.1W PF:0.9834 Lamp Flux:22208x1 lm										
NAME: NTB-150C_A30					TYPE:LED			WEIGHT:		
SPEC.:150C_A30					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	17.8	18.6	18.0	18.8	19.0	18.2	19.1	18.4	19.3	19.4
3H	18.6	19.4	18.9	19.6	19.9	18.8	19.6	19.1	19.9	20.1
4H	18.9	19.7	19.2	19.9	20.2	19.0	19.8	19.3	20.0	20.3
6H	19.0	19.7	19.3	20.0	20.3	19.1	19.8	19.4	20.1	20.4
8H	19.0	19.7	19.3	20.0	20.3	19.1	19.8	19.4	20.1	20.3
12H	19.0	19.7	19.3	19.9	20.3	19.0	19.7	19.4	20.0	20.3
4H 2H	18.1	18.9	18.4	19.1	19.4	18.5	19.2	18.8	19.5	19.7
3H	19.2	19.8	19.5	20.1	20.4	19.3	20.0	19.6	20.3	20.6
4H	19.5	20.1	19.9	20.5	20.8	19.6	20.2	19.9	20.5	20.8
6H	19.7	20.3	20.1	20.6	21.0	19.7	20.2	20.1	20.6	20.9
8H	19.7	20.2	20.2	20.6	21.0	19.7	20.2	20.1	20.5	20.9
12H	19.7	20.2	20.1	20.6	21.0	19.6	20.1	20.1	20.5	20.9
8H 4H	19.6	20.1	20.0	20.5	20.9	19.6	20.1	20.1	20.5	20.9
6H	19.9	20.3	20.3	20.7	21.1	19.8	20.2	20.3	20.6	21.1
8H	19.9	20.3	20.4	20.7	21.2	19.8	20.2	20.3	20.6	21.1
12H	19.9	20.2	20.4	20.7	21.2	19.8	20.1	20.3	20.6	21.1
12H 4H	19.6	20.0	20.0	20.4	20.9	19.6	20.1	20.0	20.5	20.9
6H	19.8	20.2	20.3	20.6	21.1	19.8	20.1	20.3	20.6	21.1
8H	19.9	20.2	20.4	20.7	21.2	19.8	20.1	20.3	20.6	21.1
Variations with the observer position at spacings:										
S = 1.0H	+ 0.5 / - 0.6					+ 0.8 / - 1.0				
1.5H	+ 0.8 / - 0.6					+ 1.5 / - 0.8				
2.0H	+ 0.2 / - 0.3					+ 0.7 / - 0.5				

CIE Pub.117 Corrected 22208 lm Total Lamp Luminous Flux.(8log(F/F0) = 10.8)

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:KAR
Test Date:22 July 2021

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: NTB-150C_A30

UTILIZATION FACTORS TABLE

Test:U:219.3V I:0.6961A P:150.1W PF:0.9834 Lamp Flux:22208x1 lm		
NAME: NTB-150C_A30	TYPE:LED	WEIGHT:
SPEC.:150C_A30	DIM.:	SERIAL No.:
MFR.: ICEPIPE	SUR.:	Shielding Angle:

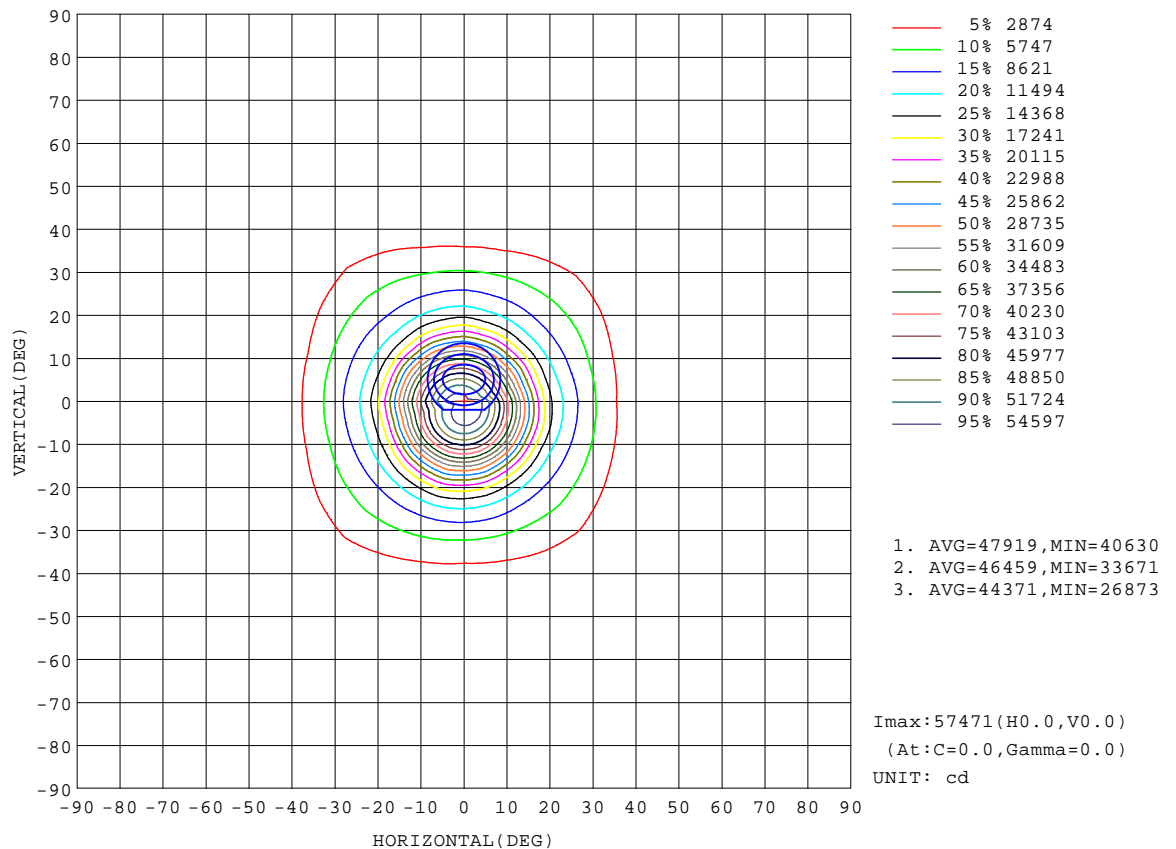
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	84	77	73	83	77	73	82	76	72	68
0.80	91	85	81	91	84	81	89	84	80	76
1.00	96	90	86	95	89	86	93	89	85	81
1.25	101	95	91	99	94	90	97	93	89	85
1.50	103	98	94	102	97	94	100	96	93	88
2.00	107	102	98	105	101	98	102	99	96	90
2.50	109	104	101	107	103	100	103	100	98	91
3.00	110	107	104	108	105	102	105	102	100	93
4.00	113	110	107	110	108	106	106	104	103	95
5.00	114	111	109	112	109	108	107	106	104	96
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNM = 1.25		

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:KAR
Test Date:22 July 2021

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: NTB-150C_A30

ISOCANDELA DIAGRAM

Test:U:219.3V I:0.6961A P:150.1W PF:0.9834 Lamp Flux:22208x1 lm		
NAME: NTB-150C_A30	TYPE:LED	WEIGHT:
SPEC.:150C_A30	DIM.:	SERIAL No.:
MFR.: ICEPIPE	SUR.:	Shielding Angle:



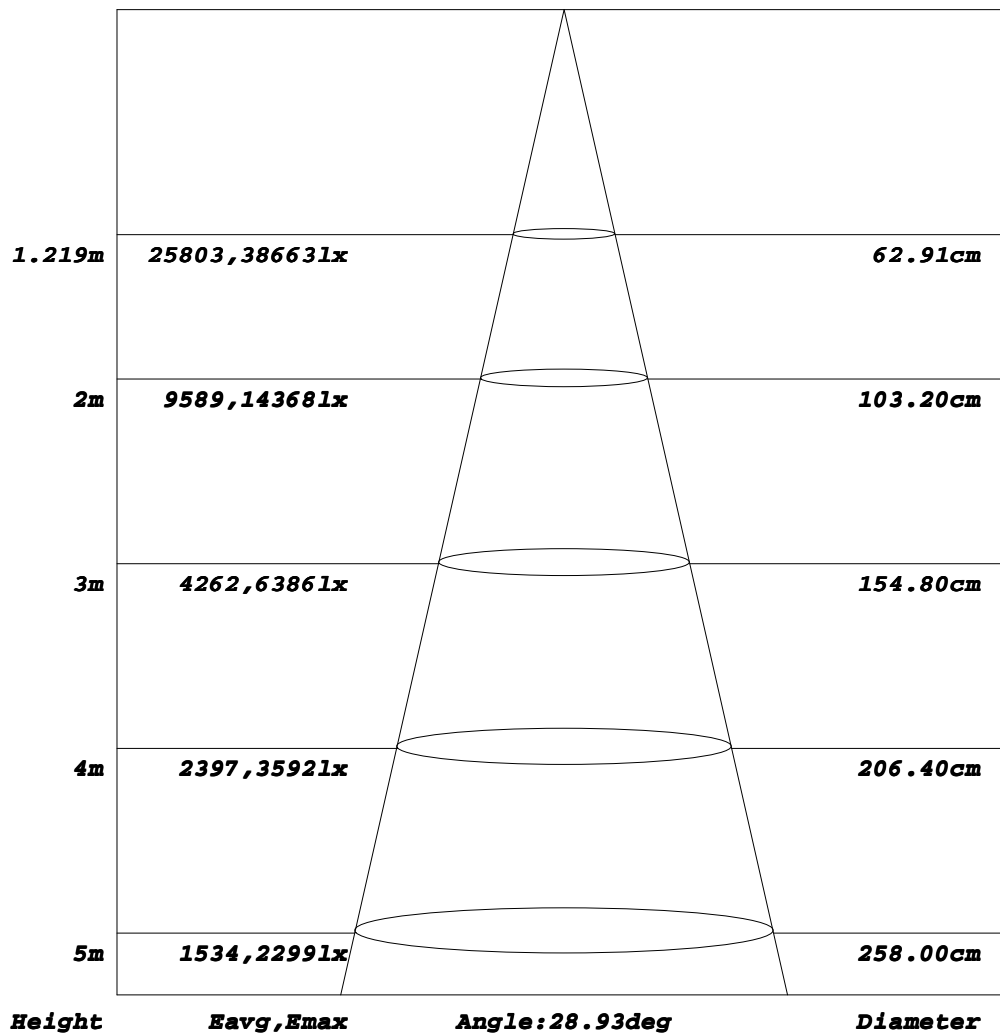
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:KAR
Test Date:22 July 2021

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: NTB-150C_A30

AAI Figure

Test:U:219.3V I:0.6961A P:150.1W PF:0.9834 Lamp Flux:22208x1 lm		
NAME: NTB-150C_A30	TYPE:LED	WEIGHT:
SPEC.:150C_A30	DIM.:	SERIAL No.:
MFR.: ICEPIPE	SUR.:	Shielding Angle:

Flux out:8651 lm



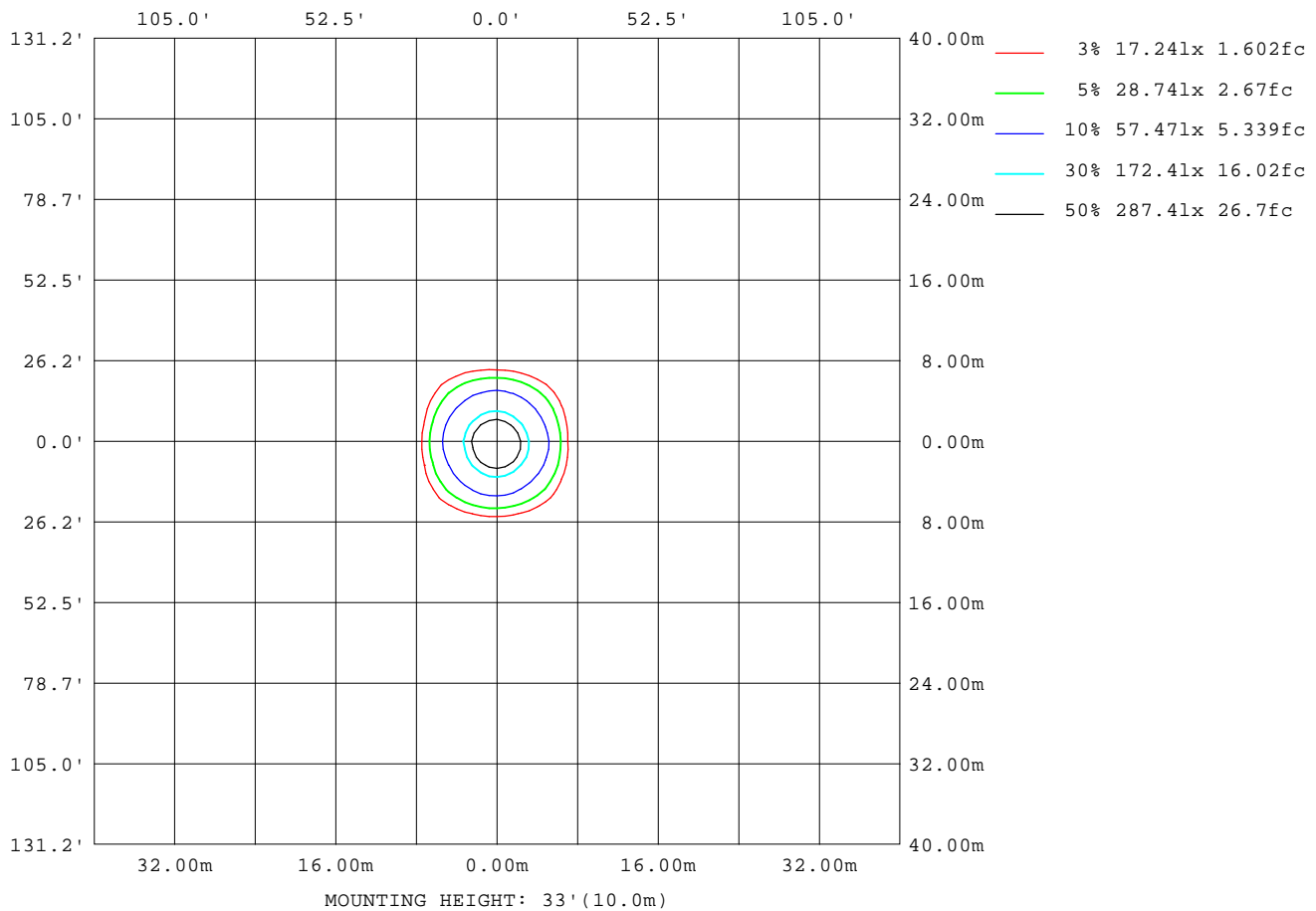
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: KAR
Test Date: 22 July 2021

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: NTB-150C_A30

ISOLUX DIAGRAM

Test:U:219.3V I:0.6961A P:150.1W PF:0.9834 Lamp Flux:22208x1 lm		
NAME: NTB-150C_A30	TYPE:LED	WEIGHT:
SPEC.:150C_A30	DIM.:	SERIAL No.:
MFR.: ICEPIPE	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:KAR
Test Date:22 July 2021

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: NTB-150C_A30

LED Avg.L Report

Test:U:219.3V I:0.6961A P:150.1W PF:0.9834 Lamp Flux:22208x1 lm		
NAME: NTB-150C_A30	TYPE:LED	WEIGHT:
SPEC.:150C_A30	DIM.:	SERIAL No.:
MFR.: ICEPIPE	SUR.:	Shielding Angle:

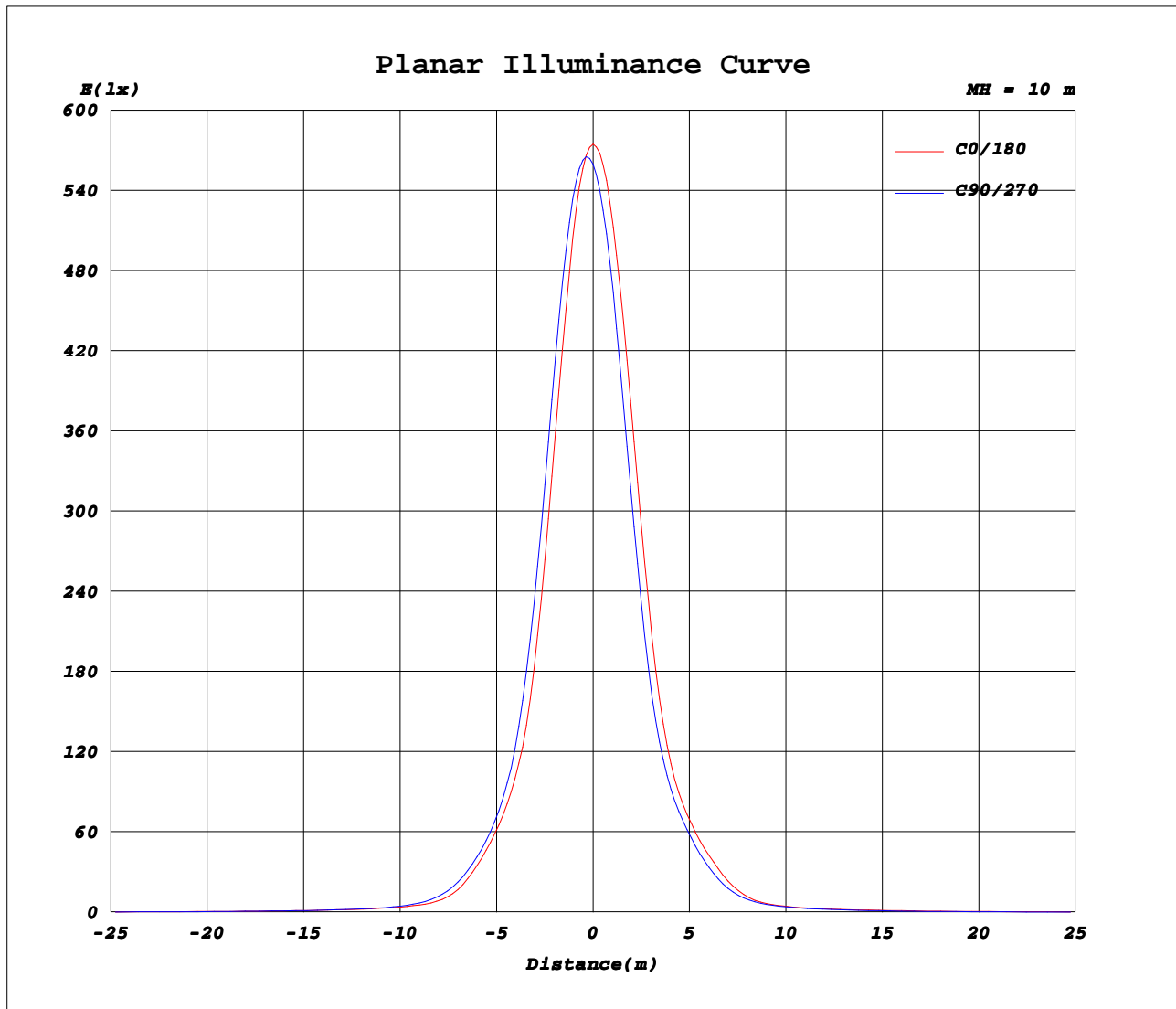
AvgL	cd/m2
L_0~180(65)av	12200
L_0~180(75)av	8022
L_0~180(85)av	2429
L_90~270(65)av	9755
L_90~270(75)av	5467
L_90~270(85)av	1599
L_45(65)av	11334
L_45(75)av	6867
L_45(85)av	1903

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:KAR
Test Date:22 July 2021

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: NTB-150C_A30

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: KAR
Test Date: 22 July 2021

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: NTB-150C_A30

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:219.3V I:0.6961A P:150.1W PF:0.9834 Lamp Flux:22208x1 lm		
NAME: NTB-150C_A30	TYPE:LED	WEIGHT:
SPEC.:150C_A30	DIM.:	SERIAL No.:
MFR.: ICEPIPE	SUR.:	Shielding Angle:

Table--1

UNIT: #10cd

C(DEG) γ (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	5747	5717	5689	5662	5642	5615	5597	5572	5551	5525	5506	5492	5747	5717	5689	5662	5642	5615	5597
5	5316	5376	5420	5474	5508	5535	5531	5511	5460	5385	5291	5198	5376	5266	5182	5096	5026	4959	4926
10	4087	4200	4316	4456	4559	4630	4644	4648	4591	4504	4374	4223	4322	4176	4062	3927	3819	3715	3648
15	2602	2744	2832	2976	3077	3172	3204	3224	3160	3089	2953	2845	2909	2746	2648	2474	2417	2315	2300
20	1489	1577	1609	1703	1773	1878	1908	1959	1889	1832	1705	1646	1697	1564	1488	1421	1412	1372	1372
25	977	988	980	1014	1060	1116	1148	1159	1127	1090	1070	1058	1087	1035	1000	946	939	925	918
30	621	641	663	684	688	717	727	742	752	752	737	725	737	715	707	692	661	611	594
35	310	349	401	456	442	420	411	442	481	514	487	438	423	421	455	472	422	354	326
40	155	169	217	270	254	223	211	230	275	324	285	217	197	205	258	296	249	191	172
45	111	113	127	157	150	132	128	134	157	191	161	127	124	124	147	175	151	120	111
50	89.0	90.3	91.5	101	99.8	93.7	92.5	93.9	103	115	104	95.6	97.0	96.2	102	112	103	89.6	85.8
55	76.3	76.4	77.9	79.8	78.2	75.2	76.7	76.9	81.1	86.2	83.5	79.4	82.5	80.1	81.5	83.3	77.4	69.8	68.6
60	64.6	64.1	65.2	67.0	64.0	62.0	62.8	62.8	65.3	68.8	67.6	65.9	68.3	65.0	64.2	62.3	57.6	51.8	50.8
65	51.2	50.2	51.0	52.4	49.6	47.5	47.5	48.0	50.2	52.6	51.9	49.8	52.0	47.7	46.9	44.2	39.4	35.3	35.0
70	35.0	35.8	37.0	37.6	34.4	33.0	33.2	33.5	34.5	37.4	36.2	34.6	34.6	32.2	30.8	27.0	23.8	20.6	20.0
75	21.1	22.5	22.9	22.3	20.7	19.5	19.1	19.6	20.3	21.9	21.8	20.8	20.4	18.7	16.6	13.6	11.2	9.49	9.16
80	9.75	10.9	10.8	10.4	9.39	8.93	8.71	8.88	9.10	9.70	9.82	9.49	8.98	7.86	6.00	4.45	3.17	2.48	2.35
85	2.31	2.89	2.86	2.80	2.43	2.32	2.20	2.25	2.27	2.49	2.41	2.28	1.92	1.55	1.01	0.69	0.62	0.59	0.58
90	0.63	0.64	0.68	0.70	0.69	0.69	0.68	0.67	0.65	0.64	0.59	0.56	0.55	0.56	0.57	0.57	0.57	0.56	0.55
95	0.80	0.78	0.78	0.77	0.74	0.71	0.69	0.68	0.69	0.69	0.70	0.69	0.65	0.66	0.68	0.69	0.69	0.67	0.67
100	1.08	1.05	1.04	1.01	0.98	0.94	0.91	0.89	0.90	0.90	0.91	0.91	0.82	0.84	0.86	0.87	0.87	0.87	0.86
105	1.50	1.46	1.42	1.37	1.34	1.29	1.26	1.23	1.23	1.23	1.24	1.25	1.11	1.12	1.14	1.16	1.16	1.18	1.18
110	2.09	2.02	1.96	1.89	1.85	1.80	1.76	1.72	1.70	1.70	1.73	1.75	1.55	1.56	1.57	1.59	1.61	1.64	1.67
115	2.94	2.83	2.74	2.64	2.58	2.51	2.46	2.40	2.38	2.38	2.43	2.48	2.18	2.20	2.21	2.25	2.27	2.33	2.36
120	4.17	4.02	3.88	3.75	3.65	3.55	3.48	3.41	3.39	3.40	3.48	3.55	3.11	3.16	3.19	3.25	3.30	3.37	3.42
125	5.81	5.62	5.44	5.27	5.15	5.02	4.93	4.83	4.81	4.84	4.94	5.04	4.48	4.55	4.62	4.69	4.76	4.86	4.92
130	7.75	7.53	7.32	7.13	6.98	6.84	6.73	6.63	6.60	6.64	6.75	6.87	6.26	6.35	6.44	6.53	6.62	6.74	6.81
135	9.75	9.52	9.30	9.10	8.95	8.81	8.70	8.60	8.55	8.58	8.69	8.81	8.29	8.38	8.46	8.55	8.65	8.76	8.85
140	11.5	11.4	11.1	10.9	10.8	10.7	10.6	10.5	10.4	10.4	10.5	10.6	10.3	10.4	10.4	10.5	10.6	10.7	10.7
145	13.0	12.8	12.6	12.4	12.3	12.2	12.1	12.1	12.0	12.0	12.0	12.1	12.1	12.0	12.1	12.1	12.2	12.2	12.3
150	14.0	13.8	13.6	13.5	13.4	13.3	13.3	13.2	13.1	13.1	13.1	13.2	13.4	13.3	13.3	13.3	13.3	13.3	13.4
155	14.6	14.5	14.3	14.2	14.1	14.0	14.0	13.9	13.8	13.8	13.8	13.9	14.3	14.1	14.1	14.0	14.0	14.0	14.0
160	14.9	14.8	14.6	14.5	14.4	14.4	14.4	14.3	14.3	14.3	14.3	14.3	14.7	14.5	14.4	14.3	14.3	14.3	14.3
165	14.9	14.9	14.7	14.6	14.5	14.5	14.5	14.5	14.4	14.4	14.3	14.4	14.9	14.6	14.4	14.3	14.3	14.2	14.2
170	14.6	14.7	14.4	14.4	14.3	14.3	14.4	14.4	14.3	14.2	14.1	14.1	14.7	14.4	14.2	14.0	14.0	13.9	13.9
175	14.2	14.3	14.1	14.1	14.0	14.1	14.2	14.1	14.0	13.9	13.7	13.7	14.4	14.1	14.0	13.8	13.8	13.8	13.8
180	14.2	14.2	14.0	14.0	14.0	14.1	14.1	14.0	13.8	13.7	13.6	13.6	14.3	14.1	14.1	13.9	14.0	14.0	14.1

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:KAR
Test Date:22 July 2021

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: NTB-150C_A30

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:219.3V I:0.6961A P:150.1W PF:0.9834 Lamp Flux:22208x1 lm		
NAME: NTB-150C_A30	TYPE:LED	WEIGHT:
SPEC.:150C_A30	DIM.:	SERIAL No.:
MFR.: ICEPIPE	SUR.:	Shielding Angle:

Table--2

UNIT: #10cd

C(DEC) γ (DEC)	285	300	315	330	345														
0	5572	5551	5525	5506	5492														
5	4899	4900	4918	4965	5024														
10	3606	3609	3634	3715	3808														
15	2233	2256	2246	2346	2385														
20	1322	1313	1313	1352	1385														
25	886	883	869	881	911														
30	587	600	611	614	595														
35	328	366	401	379	329														
40	176	209	240	211	161														
45	113	129	140	122	106														
50	86.1	92.9	95.7	88.3	85.9														
55	68.0	71.8	74.9	74.0	73.0														
60	50.8	54.3	58.0	60.3	60.4														
65	35.0	38.0	42.4	44.9	46.3														
70	20.4	23.0	26.4	29.7	31.8														
75	9.41	10.8	13.2	16.3	18.7														
80	2.44	3.04	4.34	6.03	8.13														
85	0.58	0.60	0.66	1.03	1.70														
90	0.55	0.55	0.55	0.55	0.54														
95	0.67	0.68	0.69	0.68	0.66														
100	0.87	0.89	0.90	0.89	0.87														
105	1.21	1.21	1.22	1.20	1.20														
110	1.69	1.70	1.69	1.68	1.67														
115	2.40	2.40	2.40	2.36	2.35														
120	3.47	3.47	3.45	3.39	3.35														
125	4.99	4.97	4.94	4.84	4.76														
130	6.88	6.85	6.79	6.66	6.56														
135	8.89	8.86	8.78	8.65	8.54														
140	10.8	10.7	10.6	10.5	10.4														
145	12.3	12.2	12.2	12.1	12.0														
150	13.4	13.3	13.2	13.2	13.1														
155	14.0	14.0	13.9	13.8	13.8														
160	14.2	14.2	14.1	14.1	14.1														
165	14.1	14.0	14.0	14.0	14.1														
170	13.7	13.6	13.6	13.7	13.8														
175	13.6	13.4	13.4	13.4	13.5														
180	14.0	13.8	13.7	13.6	13.5														

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:KAR
Test Date:22 July 2021

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: NTB-150C_A30

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	57471	57171	56890	56616	56421	56151	55971	55717	55507	55252
3.0	55874	56128	56318	56484	56590	56611	56499	56280	55847	55294
6.0	51216	51985	52622	53318	53812	54177	54210	54025	53480	52685
9.0	43716	44771	45877	47170	48072	48739	48873	48818	48248	47352
12.0	34868	36169	37411	38800	39980	40763	40961	41043	40490	39709
15.0	26016	27436	28320	29757	30766	31718	32036	32238	31597	30894
18.0	18546	19775	20317	21565	22291	23566	23761	24288	23488	22890
21.0	13719	14180	14313	15173	15809	16741	17129	17548	16886	16396
24.0	10637	10763	10641	11118	11669	12244	12665	12786	12402	11987
27.0	8265	8339	8465	8586	8854	9352	9580	9636	9508	9239
30.0	6212	6412	6628	6844	6875	7165	7266	7423	7525	7520
33.0	4247	4573	5026	5430	5323	5267	5283	5569	5861	6056
36.0	2630	3019	3554	4124	3979	3712	3584	3888	4316	4715
39.0	1727	1910	2466	3021	2846	2538	2404	2619	3085	3566
42.0	1324	1399	1690	2167	2028	1765	1676	1805	2181	2632
45.0	1113	1130	1266	1566	1497	1323	1282	1340	1574	1914
48.0	966.2	979.4	1021	1183	1169	1062	1034	1063	1203	1393
51.0	860.0	866.6	878.2	947.2	936.9	889.6	890.8	896.6	972.1	1071
54.0	786.9	785.0	803.0	827.6	813.7	783.1	797.4	799.0	847.0	904.0
57.0	716.6	718.5	728.9	744.2	727.6	697.5	710.1	709.5	745.9	789.8
60.0	646.3	641.0	652.5	670.2	640.0	619.9	627.6	628.2	652.6	687.8
63.0	562.6	562.1	567.1	589.1	552.1	535.3	537.5	539.0	563.2	592.6
66.0	476.2	473.2	481.8	493.8	468.1	442.6	444.8	448.0	471.4	494.3
69.0	379.8	386.0	398.5	406.7	373.9	357.2	359.9	362.5	374.2	405.4
72.0	291.6	303.8	313.1	316.1	289.1	274.5	274.9	277.9	287.4	309.6
75.0	211.1	225.0	229.2	223.1	206.9	194.9	191.4	196.5	202.8	219.4
78.0	140.4	152.6	153.0	148.8	134.8	126.5	124.9	126.8	131.0	140.6
81.0	78.01	89.18	88.30	84.29	76.20	72.31	70.12	71.69	73.53	78.82
84.0	33.21	40.46	39.42	39.32	33.60	31.97	30.67	31.29	31.71	35.41
87.0	10.05	13.59	13.58	13.24	11.54	10.95	10.46	10.56	10.55	11.29
90.0	6.335	6.447	6.777	7.012	6.932	6.886	6.801	6.663	6.474	6.355
93.0	7.212	7.096	7.048	6.962	6.753	6.499	6.281	6.234	6.273	6.342
96.0	8.454	8.287	8.219	8.076	7.824	7.471	7.207	7.146	7.218	7.300
99.0	10.15	9.860	9.737	9.511	9.241	8.829	8.548	8.415	8.500	8.557
102.0	12.31	11.96	11.73	11.38	11.07	10.62	10.33	10.12	10.16	10.17
105.0	15.02	14.58	14.18	13.73	13.37	12.90	12.62	12.29	12.29	12.26
108.0	18.31	17.72	17.17	16.65	16.22	15.78	15.38	15.03	14.90	14.91
111.0	22.38	21.60	20.90	20.20	19.71	19.21	18.78	18.33	18.13	18.15
114.0	27.44	26.46	25.56	24.67	24.09	23.45	22.99	22.40	22.24	22.24
117.0	33.81	32.57	31.42	30.37	29.56	28.80	28.19	27.58	27.36	27.48
120.0	41.68	40.19	38.79	37.47	36.53	35.53	34.82	34.07	33.93	34.05
123.0	51.14	49.34	47.68	46.15	45.01	43.84	42.98	42.15	41.95	42.21
126.0	61.83	59.85	57.93	56.22	54.91	53.61	52.65	51.70	51.49	51.74
129.0	73.52	71.35	69.28	67.37	65.93	64.53	63.51	62.51	62.28	62.55
132.0	85.58	83.36	81.07	79.15	77.65	76.20	75.13	74.13	73.79	74.07
135.0	97.48	95.23	92.99	91.02	89.54	88.13	87.02	86.01	85.54	85.81
138.0	108.7	106.6	104.2	102.4	101.0	99.69	98.63	97.59	97.06	97.21
141.0	118.7	116.8	114.4	112.8	111.4	110.3	109.3	108.3	107.7	107.7
144.0	127.2	125.6	123.2	121.7	120.4	119.6	118.6	117.7	117.0	116.8
147.0	134.3	132.7	130.4	129.1	127.9	127.2	126.4	125.5	124.7	124.6
150.0	139.8	138.4	136.1	134.9	133.8	133.3	132.5	131.8	130.9	130.8
153.0	144.0	142.7	140.5	139.4	138.3	138.0	137.3	136.7	135.8	135.7
156.0	146.9	145.8	143.6	142.7	141.6	141.5	140.7	140.2	139.4	139.4
159.0	148.6	147.8	145.6	144.8	143.7	143.7	143.1	142.8	142.0	142.0
162.0	149.3	148.8	146.6	145.9	144.8	144.8	144.4	144.3	143.7	143.6
165.0	149.0	148.8	146.5	145.9	144.8	145.1	144.9	145.1	144.4	144.1
168.0	147.6	147.8	145.6	144.9	143.9	144.4	144.4	144.7	143.9	143.5
171.0	145.4	145.9	143.8	143.1	142.2	142.8	143.0	143.4	142.3	141.7
174.0	143.0	143.4	141.9	141.4	140.5	141.2	141.8	141.8	140.5	139.5
177.0	141.5	141.7	140.6	140.3	139.6	140.5	141.1	140.8	139.0	137.9
180.0	141.9	141.7	140.4	139.9	139.7	140.8	141.1	140.2	138.0	136.9
G/C	150.0	165.0	180.0	195.0	210.0	225.0	240.0	255.0	270.0	285.0
0.0	55065	54921	54741	54711	54890	54616	54421	54151	53971	53717
3.0	54687	54051	54142	53359	54716	54045	53519	53005	52745	52498
6.0	51597	50517	52110	50930	49970	49019	48292	47524	47135	46811
9.0	46129	44708	45844	44352	43230	41938	40984	39932	39312	38895
12.0	38224	36804	37623	36113	34912	33598	32421	31421	30807	30338
15.0	29533	28451	29089	27458	26483	24744	24170	23149	22999	22332
18.0	21384	20503	21068	19497	18689	17630	17343	16690	16656	16002
21.0	15315	14871	15331	14175	13504	13046	12860	12697	12556	12027
24.0	11659	11412	11716	11120	10710	10123	10088	9989	9889	9492
27.0	9149	9149	9386	9023	8733	8353	8194	7928	7838	7656
30.0	7373	7253	7366	7152	7067	6917	6607	6115	5937	5868

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: KAR
Test Date: 22 July 2021

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: NTB-150C_A30

Photometric Data Table [cd]

33.0	5838	5515	5514	5391	5477	5554	5109	4476	4211	4206
36.0	4418	3838	3664	3671	4124	4324	3810	3128	2822	2874
39.0	3209	2515	2288	2369	2950	3276	2767	2147	1916	1968
42.0	2240	1675	1565	1590	2027	2401	2024	1557	1417	1444
45.0	1609	1272	1239	1236	1473	1746	1506	1203	1115	1126
48.0	1208	1050	1048	1051	1139	1320	1174	994.3	947.3	949.4
51.0	987.1	918.3	935.9	924.3	973.7	1050	969.5	849.0	819.9	820.3
54.0	866.3	822.4	850.2	829.8	855.7	881.9	820.8	732.4	719.8	714.6
57.0	771.8	744.8	774.4	742.5	742.4	744.9	690.5	626.8	614.4	612.4
60.0	675.8	659.3	682.6	649.9	642.1	622.7	575.7	517.9	508.5	508.1
63.0	581.8	564.0	585.5	545.2	538.4	511.1	464.9	416.4	412.5	412.3
66.0	487.3	465.9	479.0	444.2	434.5	407.1	361.3	322.4	318.9	319.5
69.0	393.0	375.3	376.8	351.7	337.7	301.2	268.4	234.9	228.9	232.3
72.0	302.1	289.1	286.6	264.5	249.6	211.8	182.7	154.9	152.3	154.3
75.0	218.5	207.7	204.2	186.6	166.0	136.0	111.9	94.93	91.58	94.10
78.0	142.6	136.1	132.0	117.8	97.39	74.26	58.16	46.08	43.69	45.33
81.0	79.04	76.89	71.19	61.24	44.75	31.86	22.47	16.72	15.68	16.41
84.0	34.01	32.39	28.52	23.06	15.40	9.620	7.115	6.388	6.353	6.301
87.0	10.96	10.28	7.660	7.066	5.968	5.557	5.322	5.192	5.094	5.095
90.0	5.940	5.645	5.537	5.619	5.736	5.715	5.692	5.575	5.504	5.475
93.0	6.362	6.299	6.085	6.166	6.321	6.356	6.334	6.204	6.126	6.152
96.0	7.329	7.246	6.800	6.909	7.101	7.178	7.164	7.049	6.966	7.035
99.0	8.606	8.530	7.787	7.923	8.136	8.268	8.267	8.195	8.136	8.241
102.0	10.29	10.26	9.178	9.328	9.537	9.699	9.723	9.730	9.709	9.889
105.0	12.44	12.49	11.06	11.25	11.37	11.58	11.64	11.76	11.81	12.06
108.0	15.09	15.30	13.54	13.68	13.79	13.98	14.11	14.33	14.51	14.73
111.0	18.45	18.78	16.57	16.71	16.80	16.98	17.23	17.55	17.84	18.11
114.0	22.65	23.11	20.32	20.54	20.63	20.90	21.18	21.66	22.01	22.38
117.0	27.99	28.64	25.10	25.42	25.60	25.97	26.35	26.91	27.39	27.77
120.0	34.80	35.54	31.15	31.63	31.93	32.48	32.95	33.70	34.18	34.73
123.0	43.08	44.00	38.74	39.39	39.94	40.62	41.25	42.10	42.67	43.25
126.0	52.85	53.95	47.98	48.82	49.49	50.35	51.10	52.14	52.77	53.40
129.0	63.69	64.95	58.76	59.65	60.49	61.40	62.29	63.41	64.19	64.71
132.0	75.25	76.46	70.60	71.49	72.40	73.33	74.28	75.43	76.22	76.79
135.0	86.89	88.13	82.92	83.76	84.64	85.53	86.49	87.64	88.47	88.94
138.0	98.13	99.27	95.21	95.86	96.62	97.38	98.34	99.43	100.2	100.6
141.0	108.4	109.5	106.9	107.2	107.8	108.4	109.2	110.2	110.9	111.1
144.0	117.4	118.3	117.4	117.3	117.7	118.0	118.8	119.5	120.2	120.2
147.0	125.0	125.8	126.5	126.0	126.1	126.7	127.2	127.8	127.8	127.7
150.0	131.0	131.8	133.9	133.0	132.9	132.6	133.0	133.3	133.8	133.5
153.0	135.9	136.6	139.7	138.4	138.0	137.4	137.7	137.8	138.3	137.9
156.0	139.5	140.1	143.9	142.3	141.6	140.7	141.0	140.9	141.4	140.8
159.0	142.0	142.4	146.6	144.5	143.8	142.6	142.9	142.6	143.1	142.3
162.0	143.3	143.5	148.1	145.7	144.7	143.3	143.3	142.9	143.4	142.2
165.0	143.5	143.7	148.7	145.8	144.5	142.8	142.5	141.8	142.1	140.8
168.0	142.6	142.7	148.0	144.8	143.3	141.4	140.9	139.9	140.1	138.6
171.0	140.7	140.7	146.4	143.2	141.7	139.6	139.1	137.9	137.9	136.2
174.0	138.2	137.9	144.4	141.7	140.3	138.3	138.3	137.5	137.2	135.4
177.0	136.2	135.9	143.0	141.0	140.0	138.5	139.1	139.2	139.1	137.3
180.0	135.8	135.7	142.6	141.1	140.8	139.4	140.1	140.5	141.4	139.9
G/C	300.0	315.0	330.0	345.0						
0.0	55507	55252	55065	54921						
3.0	52466	52502	52752	53040						
6.0	46839	47098	47659	48297						
9.0	38946	39235	40011	40865						
12.0	30373	30528	31461	32309						
15.0	22559	22457	23462	23854						
18.0	16156	16064	16705	17116						
21.0	11988	11876	12249	12723						
24.0	9474	9312	9453	9874						
27.0	7644	7609	7729	7747						
30.0	5997	6107	6136	5945						
33.0	4517	4797	4652	4263						
36.0	3281	3640	3387	2850						
39.0	2336	2677	2381	1827						
42.0	1700	1938	1665	1325						
45.0	1286	1402	1217	1060						
48.0	1038	1083	970.4	924.0						
51.0	881.8	907.1	848.8	829.7						
54.0	754.6	785.6	765.8	753.1						
57.0	646.6	680.2	688.4	684.5						
60.0	543.3	579.7	602.9	604.0						
63.0	440.8	483.9	509.9	521.8						
66.0	349.6	392.0	417.2	434.5						

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: KAR
Test Date: 22 July 2021

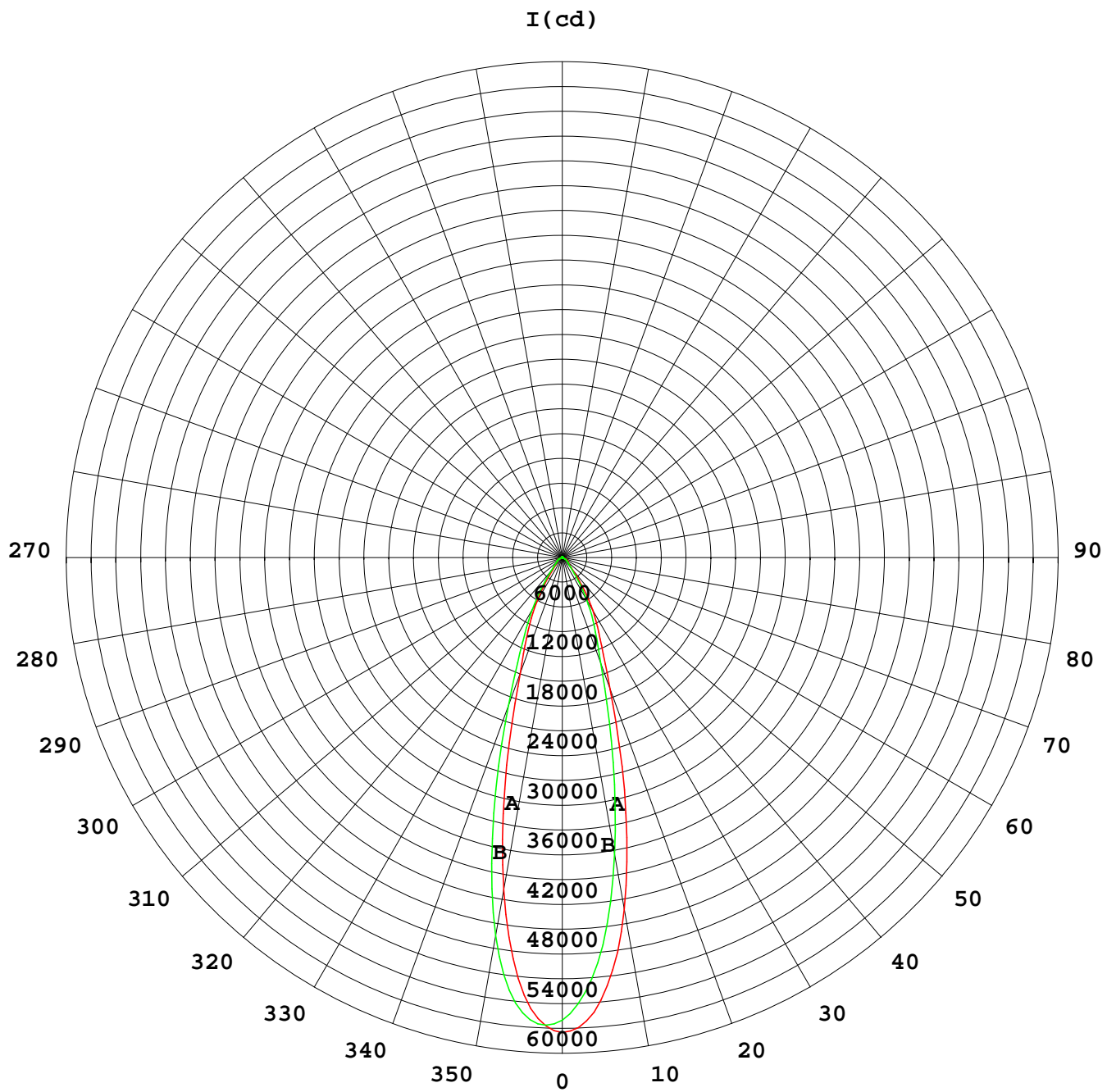
γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.351
Humidity: 65.0%
Test Distance: 8.100m [K=1.0000]
Remarks: NTB-150C_A30

Photometric Data Table [cd]

69.0	258.7	294.1	325.0	346.7
72.0	175.5	207.6	241.1	263.7
75.0	108.0	132.4	163.2	186.5
78.0	55.57	73.33	97.54	120.3
81.0	21.53	30.88	45.46	63.41
84.0	6.822	9.312	15.62	25.03
87.0	5.136	5.379	5.801	7.695
90.0	5.544	5.539	5.493	5.377
93.0	6.236	6.259	6.200	6.020
96.0	7.168	7.206	7.124	6.929
99.0	8.388	8.474	8.360	8.161
102.0	10.03	10.11	9.965	9.813
105.0	12.12	12.22	12.05	11.95
108.0	14.81	14.83	14.70	14.58
111.0	18.16	18.13	17.95	17.83
114.0	22.37	22.33	22.04	21.87
117.0	27.81	27.67	27.28	27.00
120.0	34.67	34.51	33.88	33.46
123.0	43.18	42.90	42.10	41.46
126.0	53.23	52.85	51.82	50.97
129.0	64.55	63.97	62.79	61.76
132.0	76.52	75.79	74.51	73.44
135.0	88.60	87.80	86.51	85.39
138.0	100.2	99.33	98.09	97.09
141.0	110.7	109.8	108.8	107.9
144.0	119.8	118.9	118.1	117.4
147.0	127.2	126.4	125.7	125.3
150.0	133.1	132.2	131.7	131.5
153.0	137.4	136.5	136.2	136.1
156.0	140.3	139.3	139.1	139.2
159.0	141.7	140.7	140.8	141.1
162.0	141.6	140.8	141.2	141.8
165.0	140.2	139.7	140.5	141.4
168.0	137.8	137.5	138.6	139.9
171.0	135.3	135.0	136.1	137.5
174.0	134.3	133.7	134.6	135.5
177.0	136.0	134.9	135.0	135.1
180.0	138.3	136.7	136.1	135.5

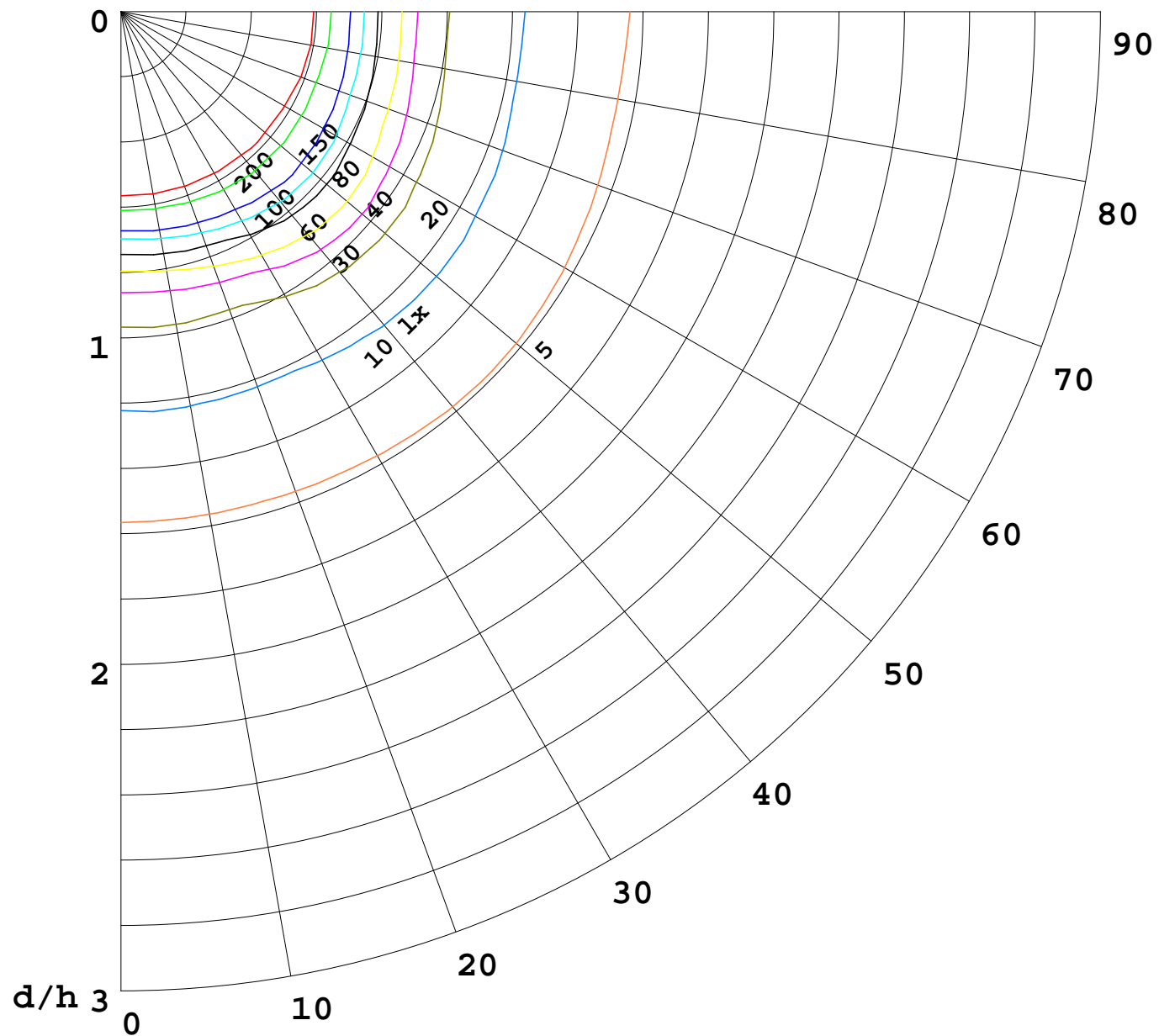
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: KAR
Test Date: 22 July 2021

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: NTB-150C_A30



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

