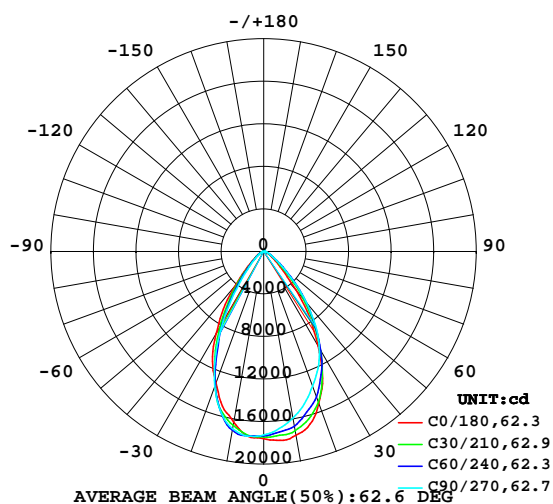


LUMINAIRE PHOTOMETRIC TEST REPORT

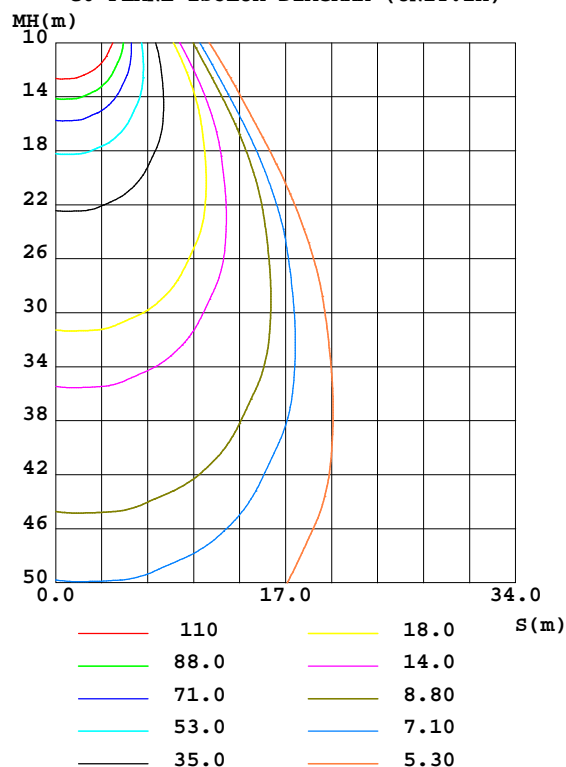
Test:U:219.3V I:0.6064A P:129.9W PF:0.9765 Lamp Flux:19750.6x1 lm		
NAME: NTB-130C_A60	TYPE:LED	WEIGHT:
SPEC.:130C_A60	DIM.:	SERIAL No.:
MFR.: ICEPIPE	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 152.09 lm/W			
MODEL	NTB-130C_A60	Imax(cd)	17868	S/MH(C0/180)	0.91
NOMINAL POWER(W)	130	LOR(%)	100.0	S/MH(C90/270)	0.86
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	19751	η UP,DN(C0-180)	0.8,54.2
NOMINAL FLUX(lm)	19750.6	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.8,44.3
LAMPS INSIDE	1	η up(%)	1.6	CIBSE SHR NOM	1.00
TEST VOLTAGE(V)	220	η down(%)	98.4	CIBSE SHR MAX	1.00

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-130C_A60

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	1754	1703	1591	1575	1628	1684	1692	1750	0- 10	1631	1631	8.26,8.26
20	1519	1520	1346	1351	1314	1344	1347	1423	10- 20	4362	5993	30.3,30.3
30	1025	1076	1045	957.9	897.8	792.5	766.3	854.6	20- 30	5338	11330	57.4,57.4
40	474.2	618.7	619.1	568.3	411.0	352.0	281.6	373.9	30- 40	4255	15585	78.9,78.9
50	158.0	253.9	241.9	225.0	142.8	124.4	103.7	133.0	40- 50	2243	17828	90.3,90.3
60	69.66	94.34	91.75	83.47	64.82	49.92	41.69	51.58	50- 60	970.8	18799	95.2,95.2
70	29.78	40.40	40.12	36.34	28.02	16.80	11.55	16.34	60- 70	444.5	19244	97.4,97.4
80	7.262	12.32	12.45	10.77	6.695	1.847	0.8598	1.665	70- 80	165.2	19409	98.3,98.3
90	0.8259	1.038	1.145	0.9012	0.7243	0.8137	0.7843	0.6952	80- 90	30.64	19439	98.4,98.4
100	1.443	1.183	1.068	1.167	1.298	1.497	1.514	1.354	90-100	10.75	19450	98.5,98.5
110	2.586	2.200	2.097	2.296	2.464	2.729	2.752	2.510	100-110	19.27	19469	98.6,98.6
120	4.229	3.798	3.735	4.001	4.199	4.462	4.452	4.125	110-120	32.04	19501	98.7,98.7
130	6.210	5.772	5.754	6.023	6.274	6.486	6.447	6.044	120-130	45.51	19547	99,99
140	8.280	7.827	7.810	8.037	8.372	8.524	8.485	8.052	130-140	55.04	19602	99.2,99.2
150	10.12	9.613	9.573	9.690	10.16	10.18	10.15	9.740	140-150	56.63	19659	99.5,99.5
160	11.34	10.85	10.68	10.76	11.32	11.22	11.19	10.87	150-160	48.33	19707	99.8,99.8
170	12.05	11.65	11.51	11.60	12.07	11.95	11.93	11.73	160-170	32.19	19739	99.9,99.9
180	12.44	12.32	12.39	12.23	12.48	12.29	12.41	12.21	170-180	11.46	19751	100,100
DEG	LUMINOUS INTENSITY: #10cd									UNIT: lm		

Conical surface Flux(90deg): 16936 lm

%lum = 85.7%

%lamp = 85.7%

Conical surface Flux(120deg): 18799 lm

%lum = 95.2%

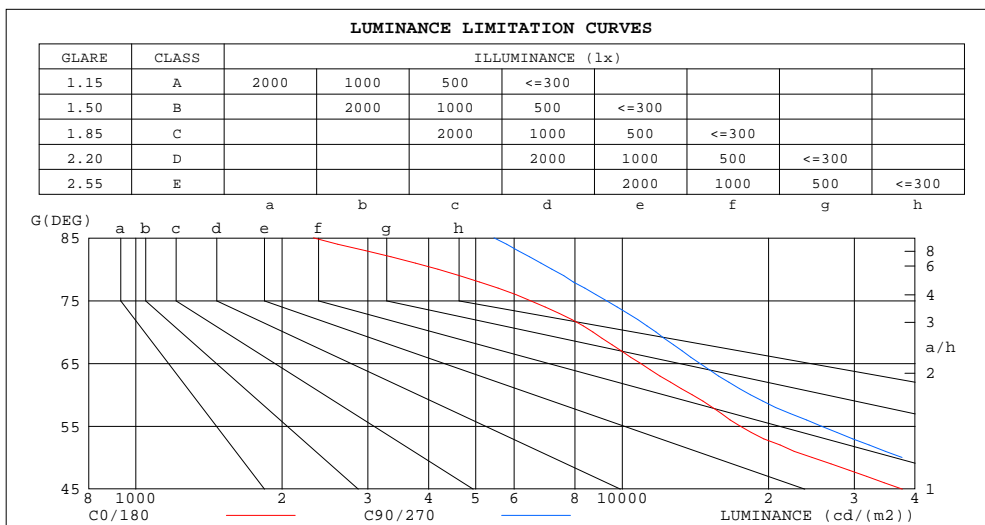
%lamp = 95.2%

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-130C_A60

LUMINANCE LIMITATION CURVES

Test:U:219.3V I:0.6064A P:129.9W PF:0.9765 Lamp Flux:19750.6x1 lm		
NAME: NTB-130C_A60	TYPE:LED	WEIGHT:
SPEC.:130C_A60	DIM.:	SERIAL No.:
MFR.: ICEPIPE	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	2319	5451
80	4182	7171
75	6468	9276
70	8708	11731
65	10902	14449
60	13933	18349
55	17472	25622
50	24585	37638
45	37687	56801

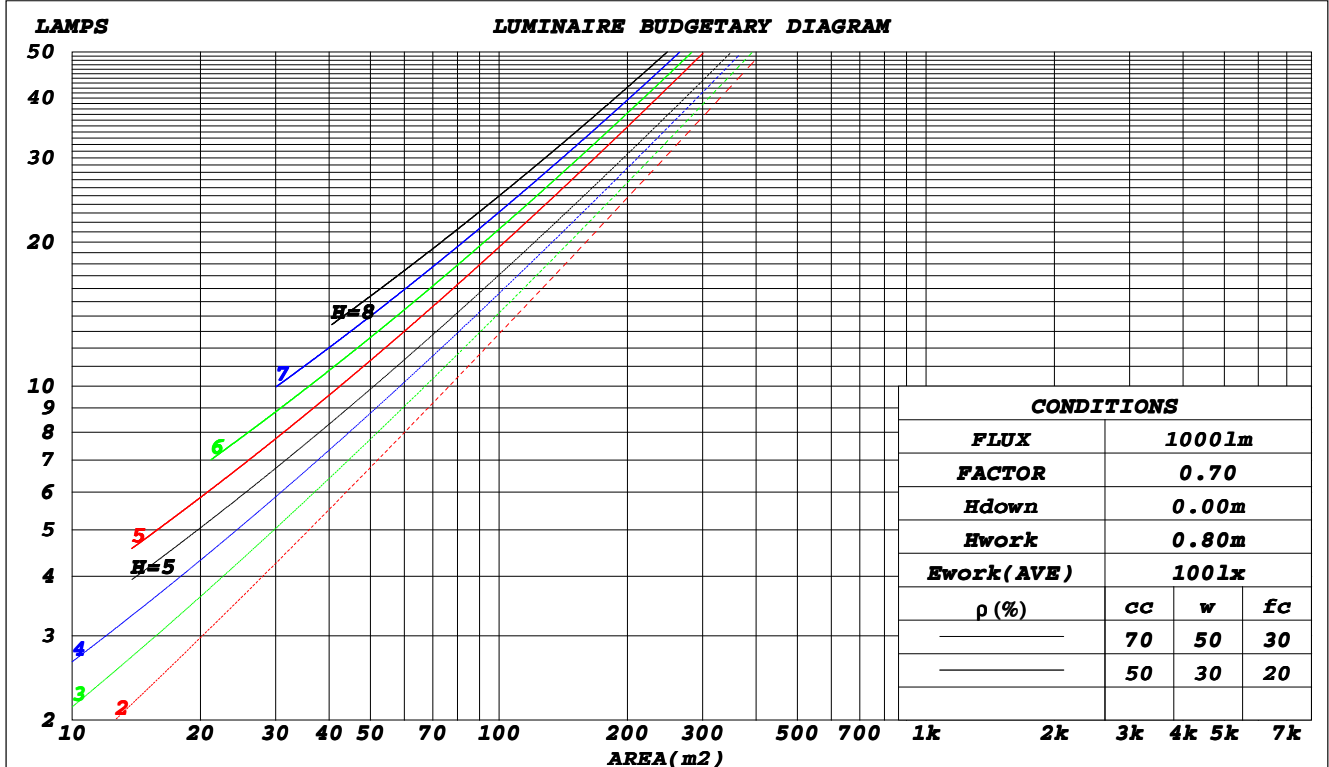
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:KAR
Test Date:22 July 2021

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-130C_A60

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:219.3V I:0.6064A P:129.9W PF:0.9765 Lamp Flux:19750.6x1 lm		
NAME: NTB-130C_A60	TYPE:LED	WEIGHT:
SPEC.:130C_A60	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	1.09	1.06	1.04	1.07	1.04	1.02	1.02	1.00	.98	.98	.97	.95	.95	.93	.92	.90
2.0	1.00	.95	.92	.98	.94	.90	.95	.91	.88	.91	.88	.86	.88	.86	.84	.82
3.0	.92	.86	.82	.90	.85	.81	.87	.83	.79	.85	.81	.78	.82	.79	.77	.75
4.0	.85	.79	.74	.84	.78	.73	.81	.76	.72	.79	.75	.71	.77	.73	.70	.68
5.0	.79	.72	.67	.77	.71	.67	.75	.70	.66	.73	.69	.65	.72	.68	.64	.63
6.0	.73	.66	.61	.72	.66	.61	.70	.65	.60	.69	.64	.60	.67	.63	.59	.58
7.0	.68	.61	.56	.67	.61	.56	.66	.60	.56	.64	.59	.55	.63	.58	.55	.53
8.0	.63	.57	.52	.63	.56	.52	.61	.56	.52	.60	.55	.51	.59	.54	.51	.50
9.0	.59	.53	.48	.59	.53	.48	.58	.52	.48	.57	.52	.48	.56	.51	.48	.46
10.0	.56	.49	.45	.55	.49	.45	.54	.49	.45	.53	.48	.45	.53	.48	.44	.43



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-130C_A60

WEC AND CCEC

Test:U:219.3V I:0.6064A P:129.9W PF:0.9765 Lamp Flux:19750.6x1 lm		
NAME: NTB-130C_A60	TYPE:LED	WEIGHT:
SPEC.:130C_A60	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	.203	.116	.037	.196	.112	.036	.182	.105	.033	.170	.098	.031	.158	.092	.030		
2.0	.196	.107	.033	.190	.105	.032	.178	.099	.031	.167	.094	.029	.158	.089	.028		
3.0	.187	.099	.030	.181	.097	.029	.171	.093	.028	.162	.089	.027	.153	.085	.026		
4.0	.177	.092	.027	.172	.090	.027	.164	.087	.026	.155	.083	.025	.148	.080	.024		
5.0	.168	.086	.025	.164	.084	.025	.156	.081	.024	.149	.079	.023	.142	.076	.023		
6.0	.160	.080	.023	.156	.079	.023	.149	.076	.022	.142	.074	.022	.136	.072	.021		
7.0	.152	.075	.021	.148	.074	.021	.142	.072	.021	.136	.070	.020	.131	.068	.020		
8.0	.144	.070	.020	.141	.070	.020	.136	.068	.019	.130	.066	.019	.126	.064	.019		
9.0	.137	.066	.019	.135	.066	.018	.130	.064	.018	.125	.063	.018	.121	.061	.018		
10.0	.131	.063	.017	.129	.062	.017	.124	.061	.017	.120	.060	.017	.116	.058	.017		

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	.202	.202	.202	.173	.173	.173	.118	.118	.118	.068	.068	.068	.022	.022	.022	
1.0	.185	.169	.155	.158	.145	.133	.108	.100	.092	.062	.058	.054	.020	.019	.017	
2.0	.172	.145	.122	.147	.124	.105	.101	.086	.073	.058	.050	.043	.019	.016	.014	
3.0	.161	.126	.098	.138	.109	.085	.095	.076	.060	.055	.044	.035	.018	.014	.012	
4.0	.151	.112	.081	.130	.097	.071	.089	.067	.050	.052	.039	.029	.017	.013	.010	
5.0	.143	.100	.069	.123	.087	.060	.085	.061	.042	.049	.036	.025	.016	.012	.008	
6.0	.136	.091	.059	.117	.079	.052	.081	.055	.037	.047	.033	.022	.015	.011	.007	
7.0	.130	.084	.052	.112	.073	.045	.077	.051	.032	.045	.030	.019	.015	.010	.006	
8.0	.124	.078	.046	.107	.068	.040	.074	.048	.029	.043	.028	.017	.014	.009	.006	
9.0	.119	.073	.042	.103	.063	.037	.071	.045	.026	.041	.026	.016	.013	.009	.005	
10.0	.114	.069	.038	.099	.060	.034	.068	.042	.024	.040	.025	.014	.013	.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-130C_A60

UGR(Unified Glare Rating) Table

Test:U:219.3V I:0.6064A P:129.9W PF:0.9765 Lamp Flux:19750.6x1 lm										
NAME: NTB-130C_A60					TYPE:LED			WEIGHT:		
SPEC.:130C_A60					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	22.6	23.7	22.9	23.9	24.1	23.7	24.8	24.0	25.0	25.2
3H	22.7	23.7	23.0	23.9	24.2	23.8	24.8	24.1	25.0	25.3
4H	22.7	23.7	23.0	23.9	24.2	23.8	24.8	24.1	25.0	25.3
6H	22.7	23.6	23.0	23.8	24.1	23.8	24.7	24.2	25.0	25.3
8H	22.6	23.5	23.0	23.8	24.1	23.8	24.6	24.1	24.9	25.2
12H	22.6	23.4	23.0	23.7	24.0	23.8	24.6	24.1	24.9	25.2
4H 2H	22.7	23.6	23.0	23.9	24.1	23.6	24.6	23.9	24.8	25.1
3H	22.9	23.7	23.2	24.0	24.3	23.9	24.7	24.2	25.0	25.3
4H	22.9	23.6	23.3	24.0	24.3	23.9	24.7	24.3	25.0	25.3
6H	22.9	23.5	23.3	23.9	24.3	23.9	24.6	24.4	25.0	25.3
8H	22.9	23.5	23.3	23.9	24.3	23.9	24.5	24.4	24.9	25.3
12H	22.8	23.4	23.3	23.8	24.2	23.9	24.5	24.4	24.9	25.3
8H 4H	22.9	23.5	23.3	23.9	24.3	23.9	24.5	24.3	24.8	25.2
6H	22.9	23.4	23.4	23.8	24.3	23.9	24.4	24.4	24.8	25.3
8H	22.9	23.3	23.4	23.8	24.3	23.9	24.4	24.4	24.8	25.3
12H	22.9	23.2	23.4	23.7	24.2	23.9	24.3	24.4	24.8	25.3
12H 4H	22.8	23.4	23.3	23.8	24.2	23.8	24.4	24.3	24.8	25.2
6H	22.9	23.3	23.4	23.8	24.2	23.9	24.3	24.4	24.8	25.2
8H	22.9	23.2	23.4	23.7	24.2	23.9	24.3	24.4	24.7	25.2
Variations with the observer position at spacings:										
S = 1.0H	+ 1.7 / - 3.0					+ 1.5 / - 2.5				
1.5H	+ 2.3 / - 2.6					+ 1.9 / - 1.9				
2.0H	+ 2.5 / - 2.2					+ 3.1 / - 2.3				

CIE Pub.117 Corrected 19751 lm Total Lamp Luminous Flux.(8log(F/F0) = 10.4)

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-130C_A60

UTILIZATION FACTORS TABLE

Test:U:219.3V I:0.6064A P:129.9W PF:0.9765 Lamp Flux:19750.6x1 lm		
NAME: NTB-130C_A60	TYPE:LED	WEIGHT:
SPEC.:130C_A60	DIM.:	SERIAL No.:
MFR.: ICEPIPE	SUR.:	Shielding Angle:

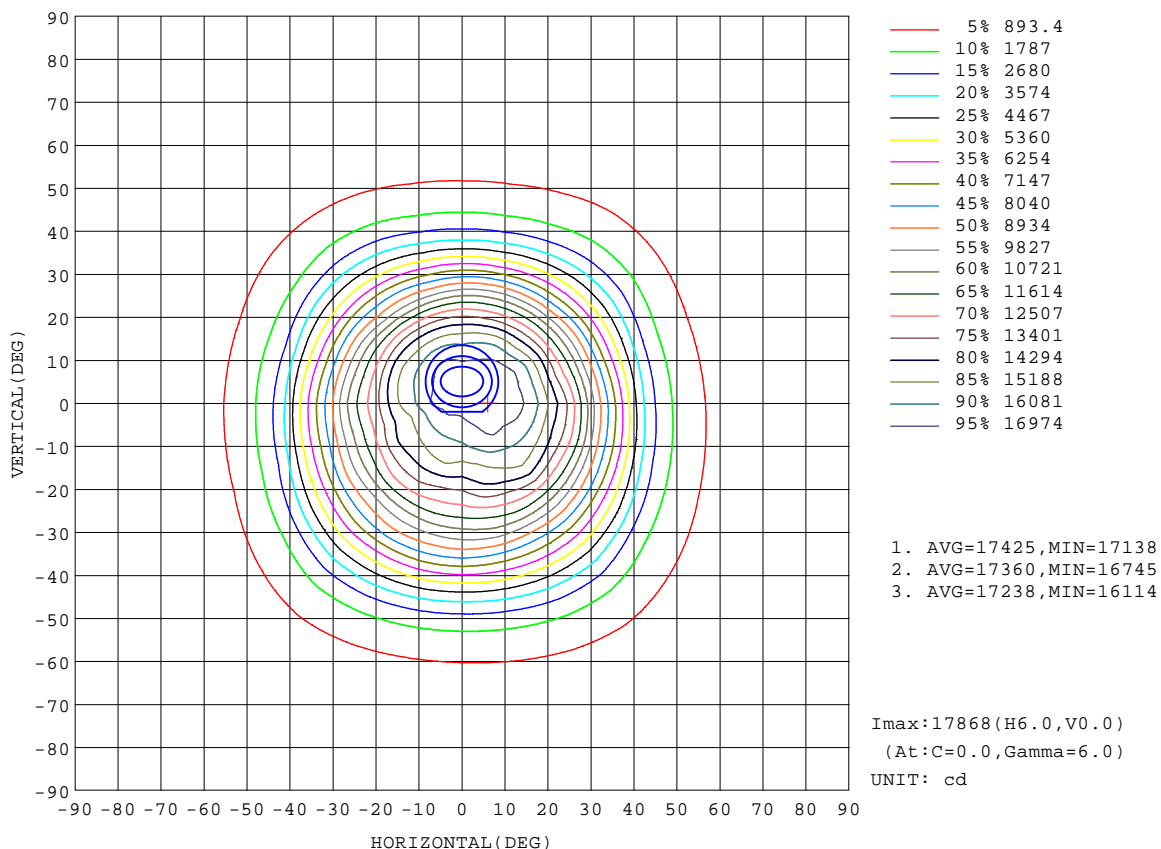
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	78	70	66	78	70	66	77	70	65	61
0.80	87	79	75	86	79	74	84	78	74	69
1.00	93	86	81	92	85	81	90	85	80	75
1.25	98	91	87	97	91	87	94	89	86	80
1.50	101	95	91	100	94	90	97	93	89	84
2.00	105	100	96	103	99	95	100	96	93	87
2.50	107	103	99	105	101	98	102	98	96	89
3.00	109	105	102	107	103	100	103	101	98	91
4.00	112	108	105	109	106	104	105	103	101	93
5.00	113	110	108	111	108	106	106	104	103	94
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-130C_A60

ISOCANDELA DIAGRAM

Test:U:219.3V I:0.6064A P:129.9W PF:0.9765 Lamp Flux:19750.6x1 lm		
NAME: NTB-130C_A60	TYPE:LED	WEIGHT:
SPEC.:130C_A60	DIM.:	SERIAL No.:
MFR.: ICEPIPE	SUR.:	Shielding Angle:

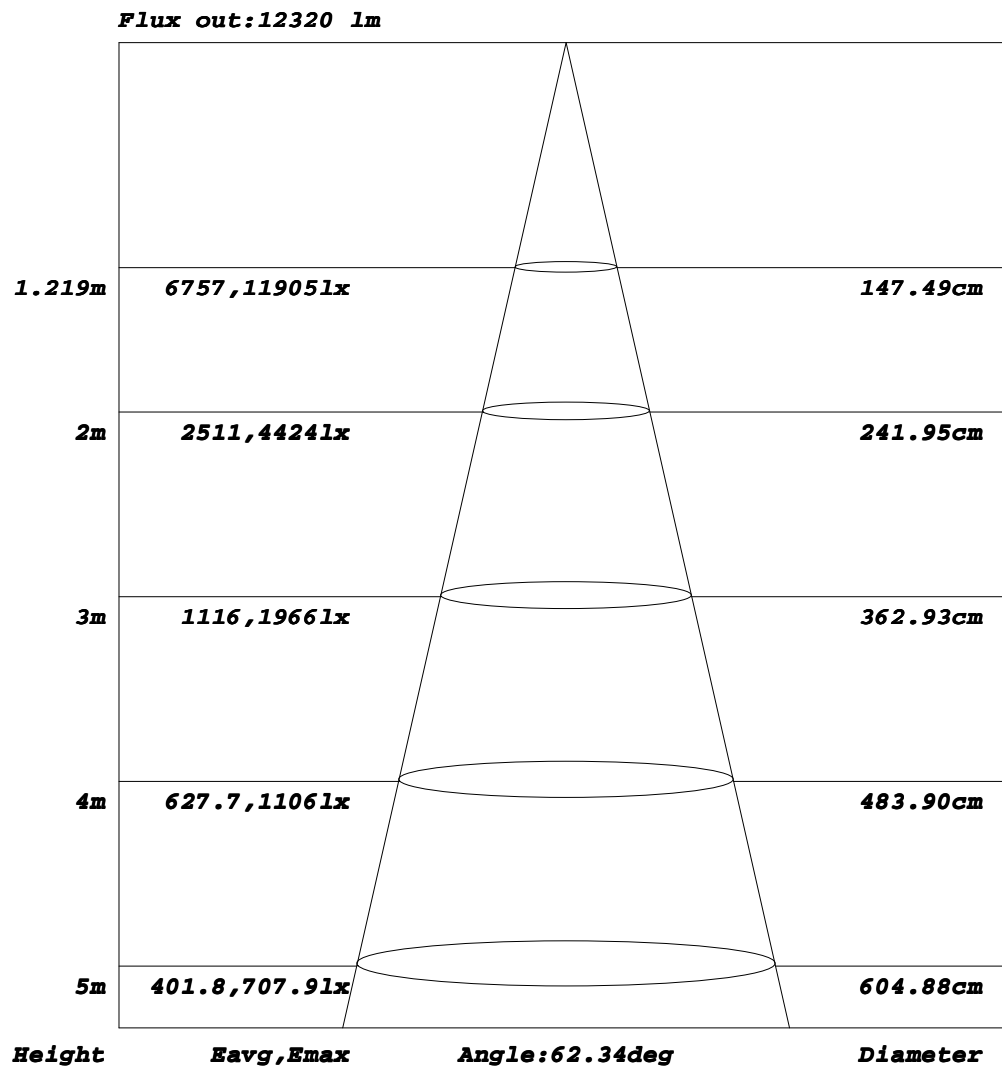


C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:KAR
Test Date:22 July 2021

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-130C_A60

AAI Figure

Test:U:219.3V I:0.6064A P:129.9W PF:0.9765 Lamp Flux:19750.6x1 lm		
NAME: NTB-130C_A60	TYPE:LED	WEIGHT:
SPEC.:130C_A60	DIM.:	SERIAL No.:
MFR.: ICEPIPE	SUR.:	Shielding Angle:



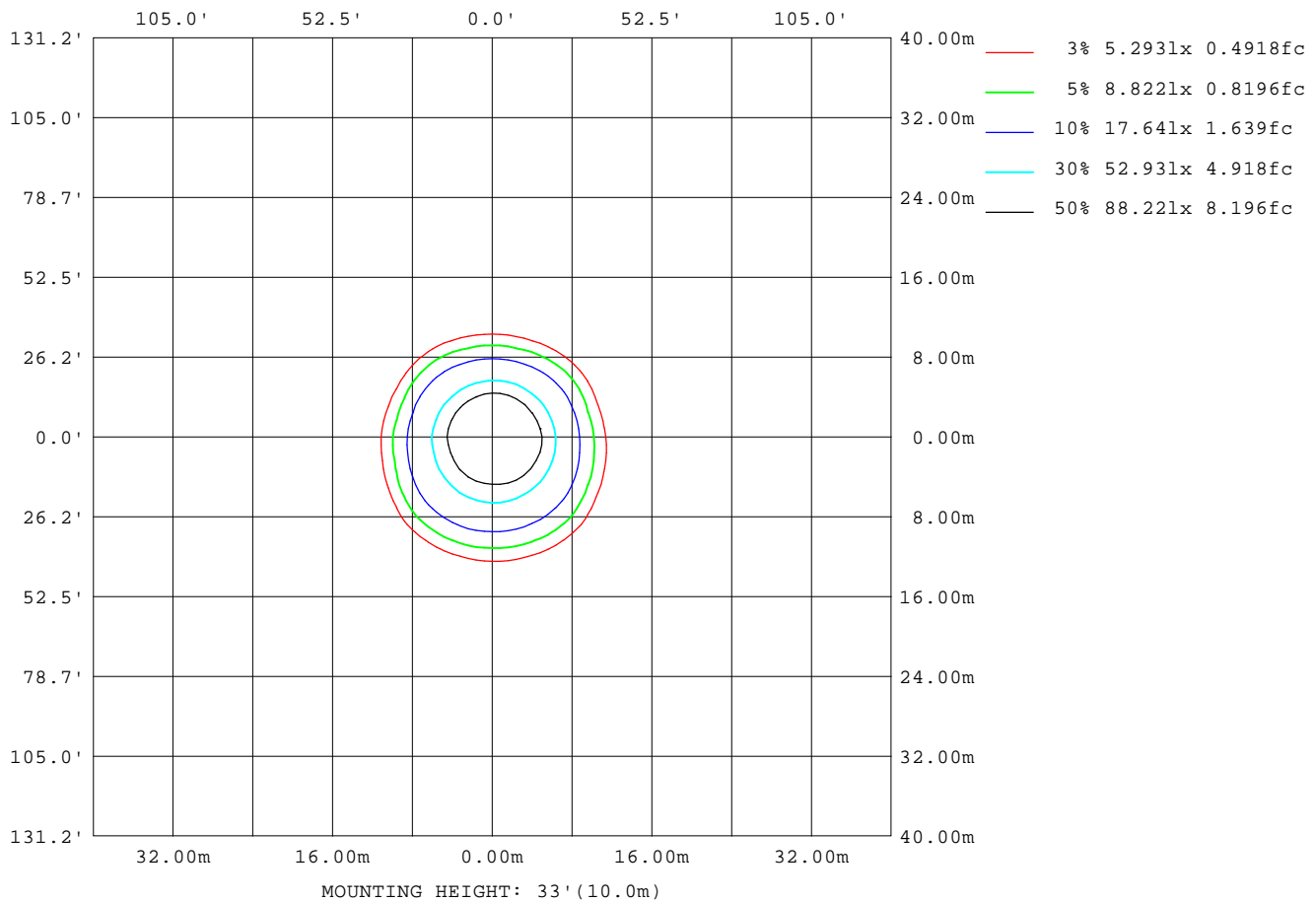
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: 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-130C_A60

ISOLUX DIAGRAM

Test:U:219.3V I:0.6064A P:129.9W PF:0.9765 Lamp Flux:19750.6x1 lm		
NAME: NTB-130C_A60	TYPE:LED	WEIGHT:
SPEC.:130C_A60	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-130C_A60

LED Avg.L Report

Test:U:219.3V I:0.6064A P:129.9W PF:0.9765 Lamp Flux:19750.6x1 lm		
NAME: NTB-130C_A60	TYPE:LED	WEIGHT:
SPEC.:130C_A60	DIM.:	SERIAL No.:
MFR.: ICEPIPE	SUR.:	Shielding Angle:

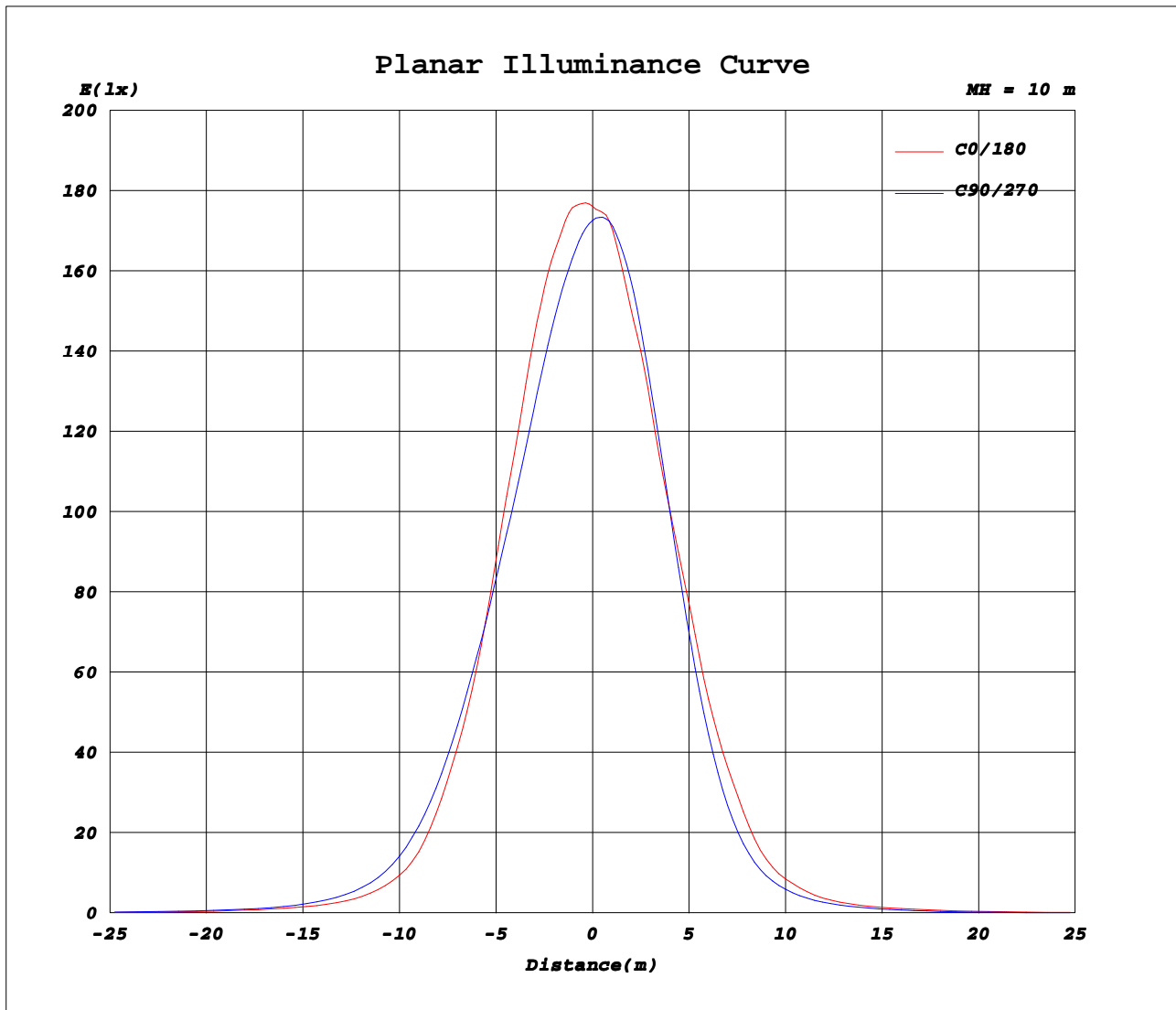
AvgL	cd/m2
L_0~180(65)av	10550
L_0~180(75)av	6300
L_0~180(85)av	2161
L_90~270(65)av	10036
L_90~270(75)av	5399
L_90~270(85)av	3068
L_45(65)av	10594
L_45(75)av	5783
L_45(85)av	2696

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-130C_A60

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-130C_A60

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:219.3V I:0.6064A P:129.9W PF:0.9765 Lamp Flux:19750.6x1 lm																		
NAME: NTB-130C_A60									TYPE:LED					WEIGHT:				
SPEC.:130C_A60									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	1761	1752	1745	1739	1734	1730	1726	1724	1721	1720	1718	1718	1761	1752	1745	1739	1734	1730	1726
5	1783	1757	1735	1718	1704	1690	1672	1669	1677	1689	1693	1694	1743	1737	1735	1737	1740	1741	1744
10	1754	1731	1712	1703	1668	1626	1591	1587	1582	1575	1572	1574	1628	1638	1661	1684	1707	1707	1692
15	1683	1664	1634	1603	1565	1512	1483	1508	1497	1479	1474	1459	1506	1534	1551	1548	1563	1568	1561
20	1519	1501	1506	1520	1453	1414	1346	1343	1360	1351	1334	1295	1314	1321	1336	1344	1336	1340	1347
25	1315	1322	1304	1319	1279	1249	1212	1203	1191	1174	1135	1118	1140	1103	1089	1047	1036	1043	1070
30	1025	1057	1067	1076	1075	1068	1045	1025	998	958	945	903	898	851	829	793	778	754	766
35	752	782	814	836	834	846	850	835	813	772	722	678	661	611	581	557	524	492	488
40	474	531	580	619	624	621	619	612	591	568	511	449	411	373	370	352	327	291	282
45	266	305	365	413	418	411	402	402	394	375	319	255	241	212	205	208	192	171	167
50	158	181	207	254	259	249	242	240	237	225	181	154	143	129	125	124	117	107	104
55	100	111	130	149	155	150	147	144	140	134	111	94.8	91.8	83.8	81.6	77.2	73.2	67.7	65.9
60	69.7	77.1	84.1	94.3	96.9	94.8	91.7	89.2	87.2	83.5	73.0	65.3	64.8	59.5	54.7	49.9	46.7	42.3	41.7
65	46.1	51.7	57.5	62.2	63.0	62.3	61.1	59.5	56.8	54.9	49.6	45.4	43.1	38.9	35.6	31.1	27.9	24.4	23.8
70	29.8	33.5	38.2	40.4	41.0	40.6	40.1	38.8	38.1	36.3	33.2	29.7	28.0	24.1	20.9	16.8	13.9	12.0	11.5
75	16.7	20.3	22.6	24.4	24.7	24.4	24.0	23.5	22.8	21.8	19.7	17.6	15.9	13.4	9.90	7.01	5.28	4.20	3.94
80	7.26	9.99	11.1	12.3	12.4	12.6	12.5	12.1	11.4	10.8	9.59	8.12	6.69	5.17	3.14	1.85	1.21	0.92	0.86
85	2.02	3.19	3.82	4.41	4.61	4.81	4.75	4.59	4.20	3.79	3.09	2.39	1.75	1.20	0.76	0.66	0.64	0.62	0.60
90	0.83	0.90	0.96	1.04	1.10	1.17	1.14	1.10	1.00	0.90	0.80	0.73	0.72	0.76	0.79	0.81	0.82	0.81	0.78
95	1.07	0.99	0.94	0.89	0.84	0.80	0.78	0.78	0.80	0.83	0.89	0.94	0.94	1.00	1.05	1.09	1.10	1.11	1.08
100	1.44	1.34	1.26	1.18	1.13	1.08	1.07	1.08	1.12	1.17	1.25	1.34	1.30	1.38	1.45	1.50	1.52	1.53	1.51
105	1.94	1.82	1.71	1.62	1.55	1.51	1.50	1.52	1.58	1.65	1.76	1.88	1.81	1.90	1.98	2.04	2.08	2.09	2.07
110	2.59	2.43	2.30	2.20	2.14	2.09	2.10	2.13	2.20	2.30	2.44	2.57	2.46	2.58	2.66	2.73	2.76	2.78	2.75
115	3.35	3.19	3.05	2.93	2.87	2.83	2.85	2.88	2.98	3.09	3.25	3.40	3.27	3.39	3.48	3.55	3.58	3.59	3.55
120	4.23	4.05	3.91	3.80	3.74	3.71	3.73	3.78	3.88	4.00	4.17	4.34	4.20	4.31	4.41	4.46	4.49	4.49	4.45
125	5.19	5.01	4.86	4.75	4.70	4.69	4.72	4.77	4.87	4.99	5.16	5.34	5.21	5.32	5.41	5.45	5.47	5.47	5.43
130	6.21	6.03	5.87	5.77	5.72	5.72	5.75	5.81	5.90	6.02	6.19	6.37	6.27	6.37	6.44	6.49	6.51	6.50	6.45
135	7.25	7.07	6.91	6.81	6.76	6.76	6.80	6.85	6.94	7.05	7.21	7.38	7.34	7.42	7.49	7.53	7.55	7.53	7.48
140	8.28	8.09	7.92	7.83	7.78	7.78	7.81	7.86	7.94	8.04	8.18	8.36	8.37	8.43	8.49	8.52	8.55	8.53	8.48
145	9.26	9.07	8.87	8.77	8.73	8.73	8.75	8.79	8.85	8.93	9.06	9.25	9.33	9.37	9.41	9.43	9.45	9.44	9.40
150	10.1	9.93	9.72	9.61	9.55	9.56	9.57	9.60	9.63	9.69	9.81	9.99	10.2	10.2	10.2	10.2	10.2	10.2	10.2
155	10.8	10.6	10.4	10.3	10.2	10.2	10.2	10.2	10.2	10.3	10.4	10.6	10.8	10.8	10.8	10.8	10.8	10.8	10.7
160	11.3	11.2	11.0	10.8	10.7	10.7	10.7	10.7	10.7	10.8	10.9	11.0	11.3	11.3	11.3	11.2	11.2	11.2	11.2
165	11.7	11.6	11.4	11.3	11.1	11.1	11.1	11.1	11.1	11.2	11.3	11.4	11.7	11.7	11.7	11.6	11.6	11.6	11.6
170	12.1	12.0	11.8	11.6	11.5	11.5	11.5	11.6	11.6	11.6	11.6	11.7	12.1	12.0	12.0	12.0	12.0	11.9	11.9
175	12.3	12.3	12.1	12.1	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.3	12.3	12.3	12.2	12.3	12.3	12.3
180	12.4	12.4	12.3	12.3	12.3	12.4	12.4	12.4	12.3	12.2	12.2	12.2	12.5	12.4	12.4	12.3	12.3	12.4	12.4

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-130C_A60

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:219.3V I:0.6064A P:129.9W PF:0.9765 Lamp Flux:19750.6x1 lm		
NAME: NTB-130C_A60	TYPE:LED	WEIGHT:
SPEC.:130C_A60	DIM.:	SERIAL No.:
MFR.: ICEPIPE	SUR.:	Shielding Angle:

Table--2

UNIT: #10cd

C(DEG) γ (DEG)	285	300	315	330	345														
0	1724	1721	1720	1718	1718														
5	1752	1761	1766	1771	1767														
10	1703	1718	1750	1764	1749														
15	1592	1625	1632	1677	1669														
20	1358	1391	1423	1475	1478														
25	1092	1118	1155	1189	1231														
30	785	820	855	916	956														
35	502	546	595	642	679														
40	291	328	374	412	429														
45	170	190	222	243	238														
50	105	115	133	140	141														
55	67.2	72.8	81.8	86.3	88.7														
60	42.0	46.3	51.6	56.5	60.0														
65	24.1	27.4	31.0	35.1	39.8														
70	11.9	13.4	16.3	20.4	24.5														
75	4.10	5.09	6.66	9.64	12.9														
80	0.88	1.11	1.66	2.97	4.94														
85	0.57	0.55	0.54	0.65	1.08														
90	0.76	0.73	0.70	0.65	0.60														
95	1.06	1.01	0.96	0.89	0.82														
100	1.48	1.42	1.35	1.25	1.16														
105	2.03	1.96	1.87	1.75	1.63														
110	2.70	2.61	2.51	2.37	2.23														
115	3.49	3.39	3.27	3.11	2.95														
120	4.38	4.26	4.13	3.95	3.79														
125	5.34	5.20	5.05	4.88	4.71														
130	6.35	6.21	6.04	5.86	5.70														
135	7.37	7.22	7.06	6.88	6.72														
140	8.37	8.22	8.05	7.88	7.73														
145	9.28	9.13	8.96	8.81	8.69														
150	10.0	9.90	9.74	9.61	9.53														
155	10.6	10.5	10.4	10.3	10.2														
160	11.1	11.0	10.9	10.8	10.8														
165	11.5	11.4	11.3	11.3	11.3														
170	11.8	11.8	11.7	11.7	11.7														
175	12.2	12.1	12.1	12.1	12.0														
180	12.4	12.3	12.2	12.2	12.2														

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-130C_A60

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	17607	17522	17446	17388	17339	17298	17260	17237	17209	17203
3.0	17753	17586	17429	17313	17188	17076	16991	16968	16993	17033
6.0	17868	17573	17338	17149	16977	16795	16576	16523	16601	16738
9.0	17646	17404	17238	17104	16791	16449	16102	16018	16014	15990
12.0	17365	17127	16831	16681	16325	15808	15514	15600	15491	15367
15.0	16832	16642	16340	16028	15653	15115	14833	15080	14971	14789
18.0	15991	15783	15615	15628	15035	14578	14023	14119	14162	14050
21.0	14774	14601	14744	14895	14218	13873	13193	13131	13321	13220
24.0	13622	13577	13493	13688	13147	12872	12404	12330	12312	12167
27.0	12025	12279	12163	12194	12060	11736	11482	11349	11107	10840
30.0	10246	10572	10672	10757	10754	10683	10450	10246	9980	9579
33.0	8542	8825	9116	9335	9278	9396	9339	9119	8922	8489
36.0	6978	7351	7641	7899	7901	7992	8045	7925	7685	7327
39.0	5288	5842	6240	6599	6671	6642	6650	6567	6341	6095
42.0	3726	4270	4934	5353	5382	5345	5291	5247	5102	4888
45.0	2665	3047	3654	4128	4184	4107	4016	4015	3944	3755
48.0	1960	2235	2581	3118	3157	3058	2969	2973	2926	2773
51.0	1422	1627	1869	2284	2332	2249	2188	2162	2130	2027
54.0	1083	1212	1418	1659	1707	1657	1626	1589	1549	1483
57.0	871.5	950.9	1085	1235	1286	1246	1207	1181	1148	1096
60.0	696.6	771.2	841.4	943.4	968.5	948.5	917.5	891.6	872.2	834.7
63.0	543.2	608.7	667.7	729.3	743.8	735.5	716.5	696.6	671.5	650.9
66.0	423.5	476.9	532.4	572.6	580.0	574.1	563.2	549.0	523.8	505.2
69.0	326.2	367.0	417.0	442.4	448.6	445.0	437.6	425.0	415.1	396.5
72.0	243.2	278.8	316.0	334.7	339.6	336.0	332.8	322.8	315.1	299.7
75.0	167.4	203.4	225.6	244.2	247.4	244.2	240.1	235.2	227.6	217.8
78.0	105.8	138.1	151.1	166.5	167.7	168.2	164.9	162.0	153.7	147.4
81.0	58.82	82.54	92.91	103.6	104.7	107.3	106.6	103.8	96.46	90.11
84.0	27.21	41.87	49.43	55.83	57.97	60.72	60.55	58.42	53.32	48.48
87.0	11.71	17.61	21.64	25.55	26.77	28.59	28.51	27.07	24.08	21.33
90.0	8.259	9.015	9.637	10.38	11.04	11.71	11.45	11.05	9.978	9.012
93.0	9.570	8.958	8.454	8.083	7.946	7.950	7.791	7.653	7.417	7.422
96.0	11.36	10.54	9.929	9.363	8.899	8.476	8.262	8.261	8.542	8.900
99.0	13.57	12.60	11.83	11.13	10.62	10.17	10.02	10.05	10.42	10.88
102.0	16.26	15.17	14.23	13.39	12.84	12.35	12.25	12.32	12.83	13.44
105.0	19.45	18.20	17.08	16.18	15.54	15.11	15.02	15.21	15.75	16.54
108.0	23.15	21.74	20.50	19.50	18.82	18.44	18.41	18.65	19.31	20.19
111.0	27.30	25.74	24.44	23.37	22.70	22.31	22.34	22.67	23.42	24.43
114.0	31.90	30.26	28.87	27.77	27.13	26.75	26.89	27.22	28.13	29.17
117.0	36.92	35.14	33.78	32.63	32.05	31.72	31.91	32.30	33.25	34.39
120.0	42.29	40.53	39.06	37.98	37.39	37.14	37.35	37.85	38.80	40.01
123.0	47.96	46.21	44.69	43.60	43.05	42.90	43.16	43.69	44.69	45.88
126.0	53.93	52.14	50.58	49.55	48.99	48.89	49.25	49.80	50.74	51.98
129.0	60.02	58.22	56.64	55.65	55.13	55.08	55.46	56.03	56.97	58.15
132.0	66.21	64.43	62.84	61.87	61.38	61.36	61.71	62.29	63.23	64.38
135.0	72.50	70.66	69.07	68.11	67.62	67.61	67.96	68.51	69.41	70.55
138.0	78.69	76.86	75.17	74.27	73.80	73.78	74.11	74.65	75.48	76.53
141.0	84.82	82.94	81.16	80.23	79.76	79.79	80.07	80.55	81.27	82.24
144.0	90.70	88.79	86.86	85.91	85.46	85.47	85.73	86.16	86.75	87.58
147.0	96.20	94.30	92.23	91.22	90.73	90.78	91.00	91.34	91.76	92.51
150.0	101.2	99.31	97.16	96.13	95.53	95.57	95.73	95.99	96.26	96.90
153.0	105.6	103.8	101.6	100.4	99.77	99.76	99.80	99.98	100.1	100.7
156.0	109.3	107.6	105.4	104.2	103.4	103.3	103.2	103.4	103.4	103.9
159.0	112.4	111.0	108.7	107.5	106.3	106.2	106.0	106.1	106.1	106.7
162.0	115.2	113.9	111.6	110.3	109.0	108.6	108.3	108.5	108.7	109.4
165.0	117.5	116.4	114.1	112.7	111.4	111.0	110.8	111.1	111.3	111.9
168.0	119.4	118.5	116.3	115.0	113.7	113.5	113.3	113.7	113.9	114.4
171.0	121.0	120.3	118.4	117.3	116.2	116.1	116.1	116.5	116.5	116.8
174.0	122.5	122.0	120.5	119.7	118.8	119.0	119.1	119.4	119.1	119.1
177.0	123.6	123.4	122.4	122.1	121.4	121.9	121.9	122.1	121.4	121.1
180.0	124.4	124.4	123.4	123.2	123.1	123.7	123.9	123.7	122.7	122.3
G/C	150.0	165.0	180.0	195.0	210.0	225.0	240.0	255.0	270.0	285.0
0.0	17177	17178	17607	17522	17446	17388	17339	17298	17260	17237
3.0	17056	17062	17528	17471	17423	17391	17370	17380	17413	17463
6.0	16757	16774	17276	17212	17234	17326	17414	17403	17389	17488
9.0	15997	16032	16561	16595	16770	16990	17228	17193	17072	17161
12.0	15246	15207	15767	15986	16219	16403	16648	16693	16531	16692
15.0	14742	14590	15065	15343	15505	15485	15626	15678	15614	15922
18.0	14081	13656	13910	14182	14398	14390	14355	14397	14408	14626
21.0	12890	12612	12813	12760	12823	12887	12809	12850	12955	13061
24.0	11700	11562	11794	11473	11376	11074	10956	11063	11295	11469
27.0	10636	10399	10579	10103	9847	9333	9288	9226	9486	9732
30.0	9452	9028	8978	8509	8290	7925	7778	7541	7663	7855

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-130C_A60

Photometric Data Table [cd]

33.0	8134	7628	7511	7028	6775	6515	6228	5918	5931	6076
36.0	6769	6342	6153	5641	5356	5127	4796	4450	4390	4529
39.0	5513	4965	4628	4208	4107	3883	3615	3249	3167	3264
42.0	4322	3590	3281	2916	2968	2865	2645	2341	2271	2322
45.0	3188	2550	2414	2118	2052	2082	1921	1711	1672	1699
48.0	2270	1898	1779	1580	1499	1513	1423	1288	1246	1271
51.0	1624	1387	1294	1172	1150	1128	1063	975.9	948.4	962.3
54.0	1215	1035	991.5	906.8	888.7	847.0	802.0	742.3	723.3	735.4
57.0	933.7	806.9	801.7	728.7	694.4	644.6	615.2	563.7	549.4	557.8
60.0	729.9	653.4	648.2	594.9	546.8	499.2	467.1	423.0	416.9	419.7
63.0	572.4	528.9	506.8	464.6	425.0	379.9	346.4	309.0	302.9	306.2
66.0	462.2	419.3	397.2	354.8	324.1	279.0	246.5	214.5	208.3	211.7
69.0	362.1	324.8	306.0	266.6	236.6	193.1	162.8	140.5	135.7	138.9
72.0	272.3	246.0	229.4	194.5	159.7	124.0	98.45	83.31	79.81	82.19
75.0	197.1	176.1	158.7	134.2	99.03	70.06	52.76	42.01	39.38	41.01
78.0	132.8	115.6	98.94	79.74	53.17	34.12	23.15	17.19	15.83	16.61
81.0	79.72	66.29	53.40	39.84	23.45	13.30	9.059	7.588	7.350	7.280
84.0	40.32	31.96	23.63	16.35	9.436	6.972	6.266	5.964	5.757	5.550
87.0	17.07	12.91	9.942	7.775	6.889	6.985	6.978	6.865	6.657	6.416
90.0	7.970	7.310	7.243	7.573	7.916	8.137	8.169	8.079	7.843	7.629
93.0	7.784	8.213	8.408	8.882	9.327	9.666	9.763	9.723	9.483	9.249
96.0	9.479	10.07	10.04	10.66	11.19	11.64	11.78	11.82	11.57	11.32
99.0	11.67	12.46	12.15	12.93	13.54	14.07	14.30	14.37	14.17	13.87
102.0	14.35	15.36	14.86	15.66	16.40	16.94	17.29	17.38	17.21	16.85
105.0	17.63	18.81	18.06	18.99	19.78	20.39	20.77	20.90	20.72	20.30
108.0	21.46	22.79	21.82	22.86	23.69	24.37	24.71	24.89	24.65	24.19
111.0	25.88	27.27	26.12	27.26	28.13	28.83	29.15	29.30	29.01	28.50
114.0	30.74	32.25	30.95	32.16	33.05	33.73	34.04	34.15	33.79	33.23
117.0	36.04	37.64	36.30	37.48	38.38	39.05	39.29	39.37	38.96	38.34
120.0	41.68	43.38	41.99	43.14	44.07	44.62	44.88	44.89	44.52	43.78
123.0	47.60	49.32	48.02	49.13	49.98	50.49	50.73	50.71	50.28	49.47
126.0	53.67	55.45	54.25	55.31	56.10	56.56	56.78	56.74	56.27	55.38
129.0	59.85	61.60	60.60	61.57	62.34	62.77	62.98	62.89	62.41	61.45
132.0	66.02	67.77	67.01	67.89	68.63	69.03	69.23	69.12	68.62	67.58
135.0	72.10	73.85	73.37	74.16	74.89	75.25	75.45	75.31	74.80	73.75
138.0	78.02	79.79	79.64	80.30	80.96	81.33	81.55	81.40	80.91	79.77
141.0	83.66	85.45	85.71	86.24	86.85	87.14	87.39	87.24	86.78	85.62
144.0	88.94	90.77	91.50	91.88	92.34	92.60	92.85	92.69	92.25	91.09
147.0	93.77	95.65	96.86	97.04	97.35	97.50	97.77	97.61	97.20	96.02
150.0	98.07	99.94	101.6	101.6	101.8	101.8	102.1	101.9	101.5	100.3
153.0	101.8	103.6	105.8	105.6	105.6	105.5	105.8	105.6	105.2	104.0
156.0	105.0	106.6	109.3	108.9	108.9	108.7	109.0	108.8	108.4	107.1
159.0	107.7	109.3	112.3	111.8	111.7	111.3	111.7	111.5	111.1	109.9
162.0	110.2	111.7	114.4	114.4	114.3	113.8	114.0	113.8	113.5	112.4
165.0	112.6	113.9	117.4	116.7	116.7	116.2	116.2	115.9	115.7	114.7
168.0	114.9	116.0	119.4	118.7	118.8	118.3	118.4	118.1	117.9	117.0
171.0	117.0	117.8	121.3	120.6	120.6	120.1	120.4	120.1	120.0	119.1
174.0	119.0	119.5	122.9	122.2	122.1	121.6	122.1	122.1	122.1	121.2
177.0	120.7	121.0	124.2	123.4	123.2	122.7	123.2	123.5	123.6	122.9
180.0	121.9	122.0	124.8	123.9	123.8	122.9	123.3	123.6	124.1	123.5
G/C	300.0	315.0	330.0	345.0						
0.0	17209	17203	17177	17178						
3.0	17503	17536	17519	17473						
6.0	17583	17690	17787	17748						
9.0	17291	17585	17774	17633						
12.0	16937	17193	17333	17240						
15.0	16245	16323	16772	16688						
18.0	14964	15127	15684	15696						
21.0	13370	13725	14206	14261						
24.0	11754	12116	12443	12767						
27.0	10014	10373	10821	11277						
30.0	8196	8546	9164	9558						
33.0	6498	6937	7471	7867						
36.0	4969	5475	5929	6286						
39.0	3648	4135	4540	4777						
42.0	2628	3041	3368	3403						
45.0	1901	2221	2428	2377						
48.0	1395	1617	1739	1718						
51.0	1051	1200	1259	1286						
54.0	798.7	900.2	945.2	967.7						
57.0	607.2	675.9	725.6	755.4						
60.0	463.3	515.8	565.2	599.9						
63.0	342.9	385.8	427.3	475.0						
66.0	241.4	276.5	317.8	362.1						

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

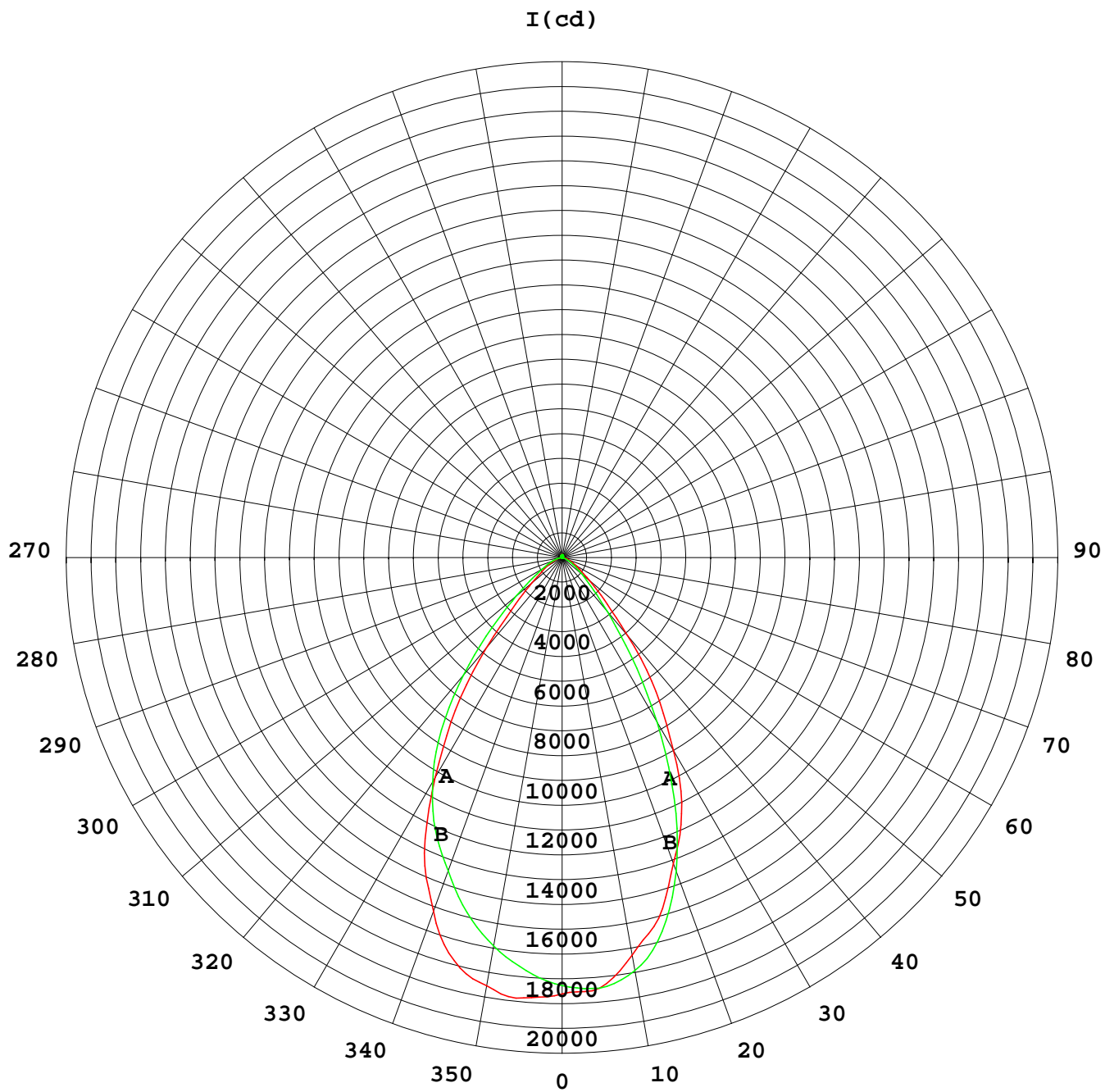
γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.351
Humidity: 65.0%
Test Distance: 8.100m [K=1.0000]
Remarks: NTB-130C_A60

Photometric Data Table [cd]

69.0	157.8	188.8	230.2	271.6
72.0	95.84	118.4	156.5	195.5
75.0	50.87	66.55	96.43	129.2
78.0	21.96	31.66	50.73	76.56
81.0	8.201	11.68	21.86	38.25
84.0	5.448	5.911	7.984	15.12
87.0	6.142	5.826	5.486	6.559
90.0	7.311	6.952	6.460	5.977
93.0	8.855	8.427	7.790	7.166
96.0	10.85	10.31	9.522	8.762
99.0	13.31	12.65	11.70	10.80
102.0	16.22	15.43	14.37	13.32
105.0	19.56	18.66	17.48	16.26
108.0	23.36	22.38	21.04	19.71
111.0	27.59	26.54	25.05	23.62
114.0	32.22	31.09	29.49	27.98
117.0	37.23	36.01	34.33	32.75
120.0	42.56	41.25	39.51	37.91
123.0	48.19	46.76	45.01	43.35
126.0	54.00	52.50	50.73	49.06
129.0	60.03	58.43	56.64	54.99
132.0	66.14	64.50	62.69	61.04
135.0	72.25	70.60	68.81	67.18
138.0	78.28	76.62	74.86	73.31
141.0	84.10	82.44	80.75	79.29
144.0	89.56	87.91	86.32	85.08
147.0	94.54	92.94	91.46	90.45
150.0	98.95	97.40	96.08	95.29
153.0	102.7	101.3	100.2	99.60
156.0	106.0	104.7	103.9	103.4
159.0	108.8	107.7	107.3	106.9
162.0	111.4	110.6	110.3	110.1
165.0	113.9	113.3	113.1	113.0
168.0	116.3	115.8	115.6	115.5
171.0	118.5	118.0	117.9	117.7
174.0	120.6	120.0	120.0	119.7
177.0	122.3	121.6	121.6	121.3
180.0	122.9	122.1	122.1	121.8

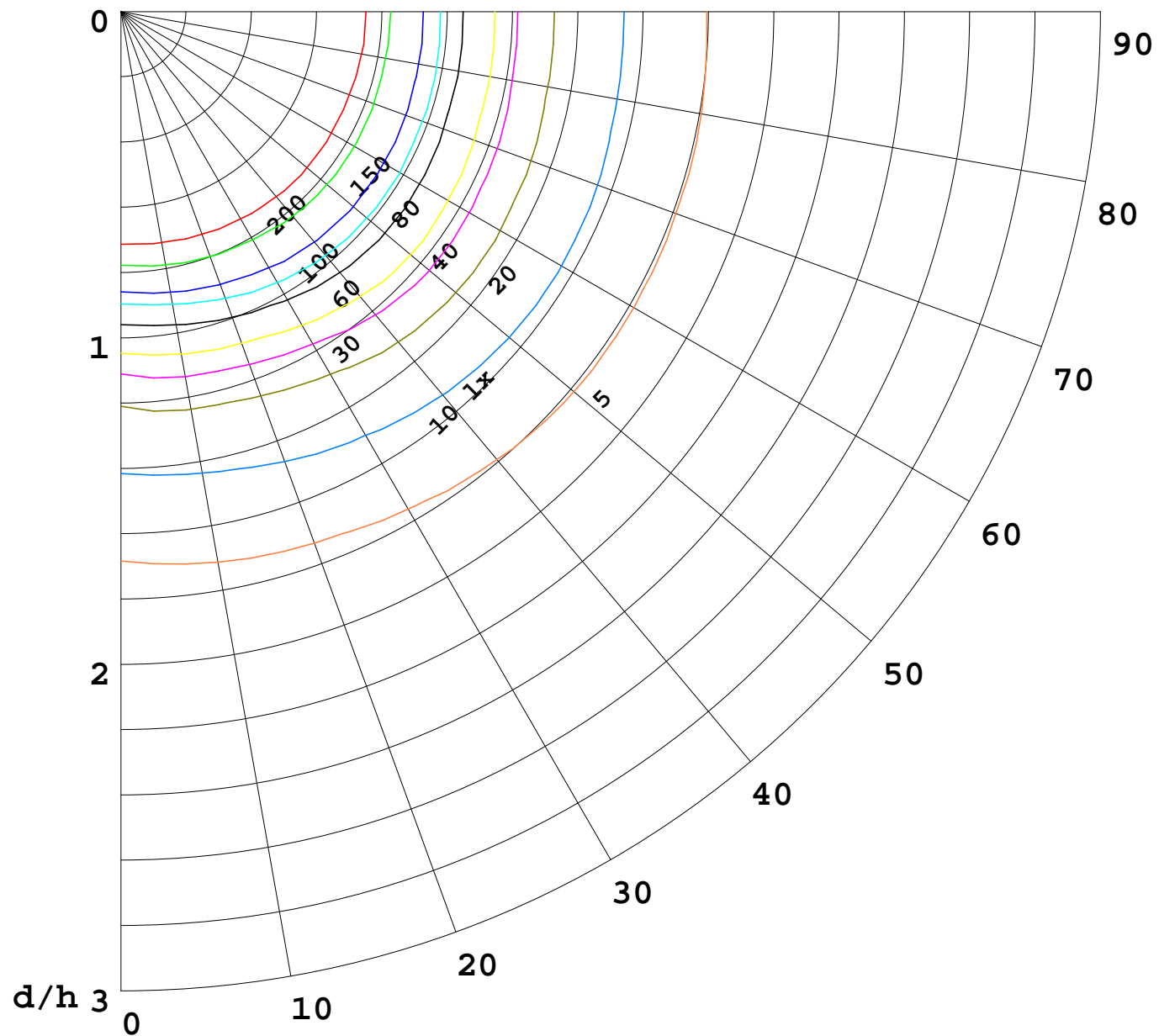
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: KAR
Test Date: 22 July 2021

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-130C_A60



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

