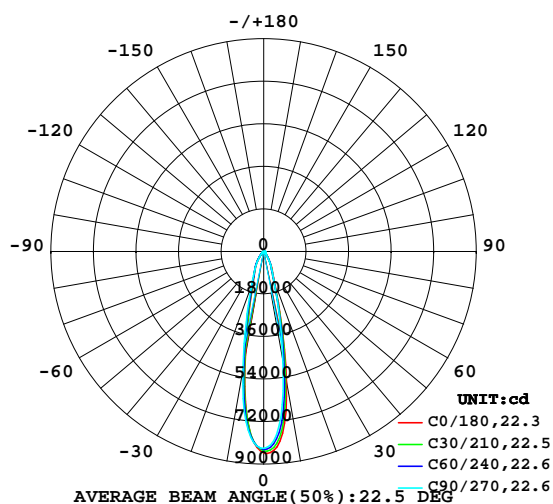


LUMINAIRE PHOTOMETRIC TEST REPORT

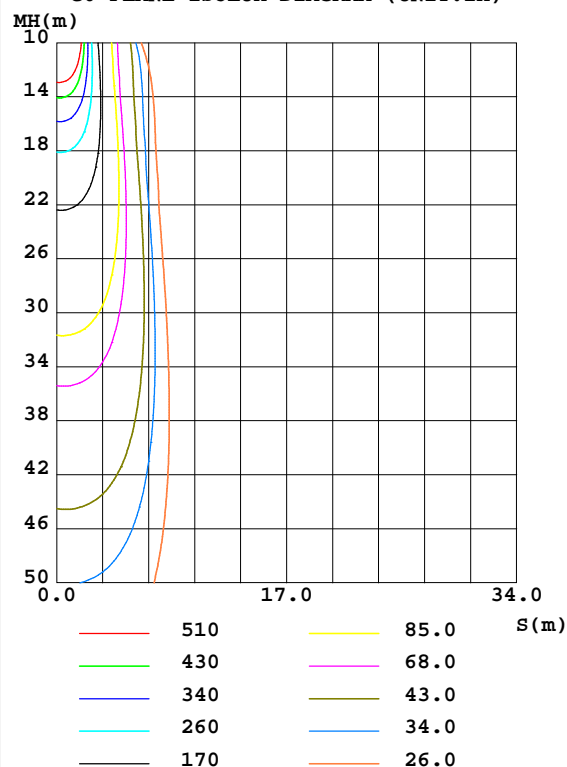
Test:U:219.3V I:0.6960A P:150.1W PF:0.9833 Lamp Flux:22240.3x1 lm		
NAME: NTB-150C_A20	TYPE:LED	WEIGHT:
SPEC.:150C_A20	DIM.:	SERIAL No.:
MFR.: ICEPIPE	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 148.22 lm/W			
MODEL	NTB-150C_A20	Imax(cd)	85443	S/MH(C0/180)	0.36
NOMINAL POWER(W)	150	LOR(%)	100.0	S/MH(C90/270)	0.40
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	22240	η UP,DN(C0-180)	0.8,47.2
NOMINAL FLUX(lm)	22240.3	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.7,51.2
LAMPS INSIDE	1	η up(%)	1.6	CIBSE SHR NOM	0.00
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-150C_A20

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	5571	5214	4742	4399	4475	4757	5089	5340	0- 10	6357	6357	28.6,28.6
20	1336	1194	1254	1154	1288	1324	1467	1335	10- 20	7048	13405	60.3,60.3
30	552.0	543.0	495.8	572.7	637.6	681.6	646.3	616.4	20- 30	3973	17378	78.1,78.1
40	137.6	198.4	153.8	229.8	162.4	294.5	213.8	249.8	30- 40	2290	19668	88.4,88.4
50	75.97	82.00	76.51	92.54	86.13	111.5	91.62	96.15	40- 50	976.0	20644	92.8,92.8
60	60.21	54.56	55.31	53.72	61.61	60.34	61.52	56.94	50- 60	631.3	21276	95.7,95.7
70	33.27	28.46	24.86	25.36	30.20	27.90	27.21	28.79	60- 70	412.3	21688	97.5,97.5
80	9.586	7.108	5.356	5.276	7.482	6.099	6.100	7.301	70- 80	173.3	21861	98.3,98.3
90	0.5574	0.5832	0.5668	0.5725	0.5002	0.4908	0.4774	0.5028	80- 90	25.16	21886	98.4,98.4
100	0.9495	0.9953	0.9751	0.9374	0.7469	0.7258	0.7006	0.7474	90-100	7.217	21894	98.4,98.4
110	1.819	1.871	1.858	1.735	1.406	1.296	1.284	1.359	100-110	12.30	21906	98.5,98.5
120	3.547	3.665	3.695	3.555	2.830	2.582	2.537	2.621	110-120	22.11	21928	98.6,98.6
130	7.349	7.519	7.643	7.523	6.391	5.938	5.687	5.691	120-130	41.97	21970	98.8,98.8
140	11.86	11.88	11.91	11.69	11.14	10.61	10.41	10.33	130-140	69.21	22039	99.1,99.1
150	14.36	14.18	14.09	13.87	14.05	13.56	13.46	13.38	140-150	79.28	22118	99.5,99.5
160	15.26	14.99	14.90	14.77	15.16	14.75	14.72	14.54	150-160	66.61	22185	99.8,99.8
170	14.83	14.52	14.49	14.29	14.72	14.26	14.42	14.18	160-170	41.91	22227	99.9,99.9
180	13.58	13.44	13.68	13.28	13.65	13.39	13.71	13.25	170-180	13.32	22240	100,100
DEG	LUMINOUS INTENSITY:≠10cd									UNIT:lm		

Conical surface Flux(90deg): 20235 lm

%lum = 91.0%

%lamp = 91.0%

Conical surface Flux(120deg): 21276 lm

%lum = 95.7%

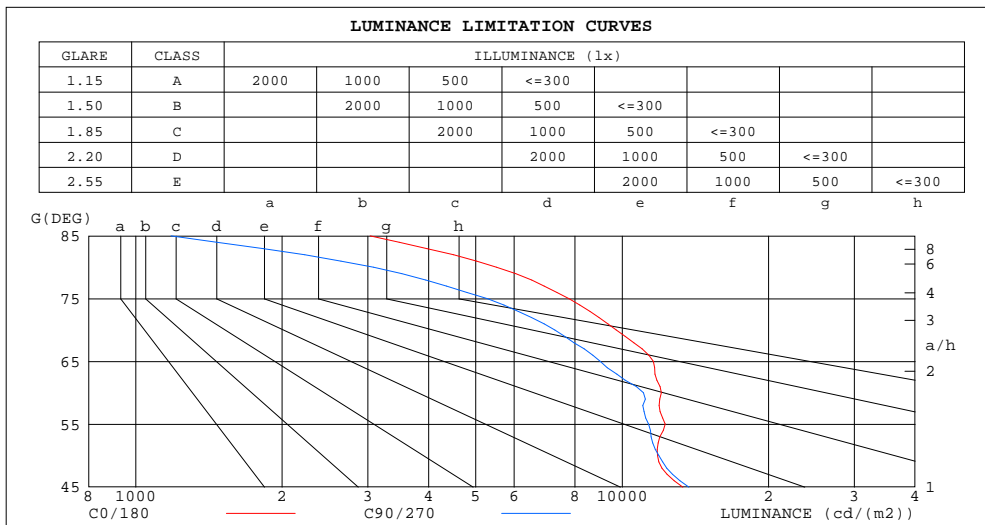
%lamp = 95.7%

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_A20

LUMINANCE LIMITATION CURVES

Test:U:219.3V I:0.6960A P:150.1W PF:0.9833 Lamp Flux:22240.3x1 lm		
NAME: NTB-150C_A20	TYPE:LED	WEIGHT:
SPEC.:150C_A20	DIM.:	SERIAL No.:
MFR.: ICEPIPE	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	3033	1182
80	5521	3085
75	7766	5283
70	9728	7268
65	11585	9011
60	12042	11061
55	12263	11330
50	11820	11902
45	13317	13708

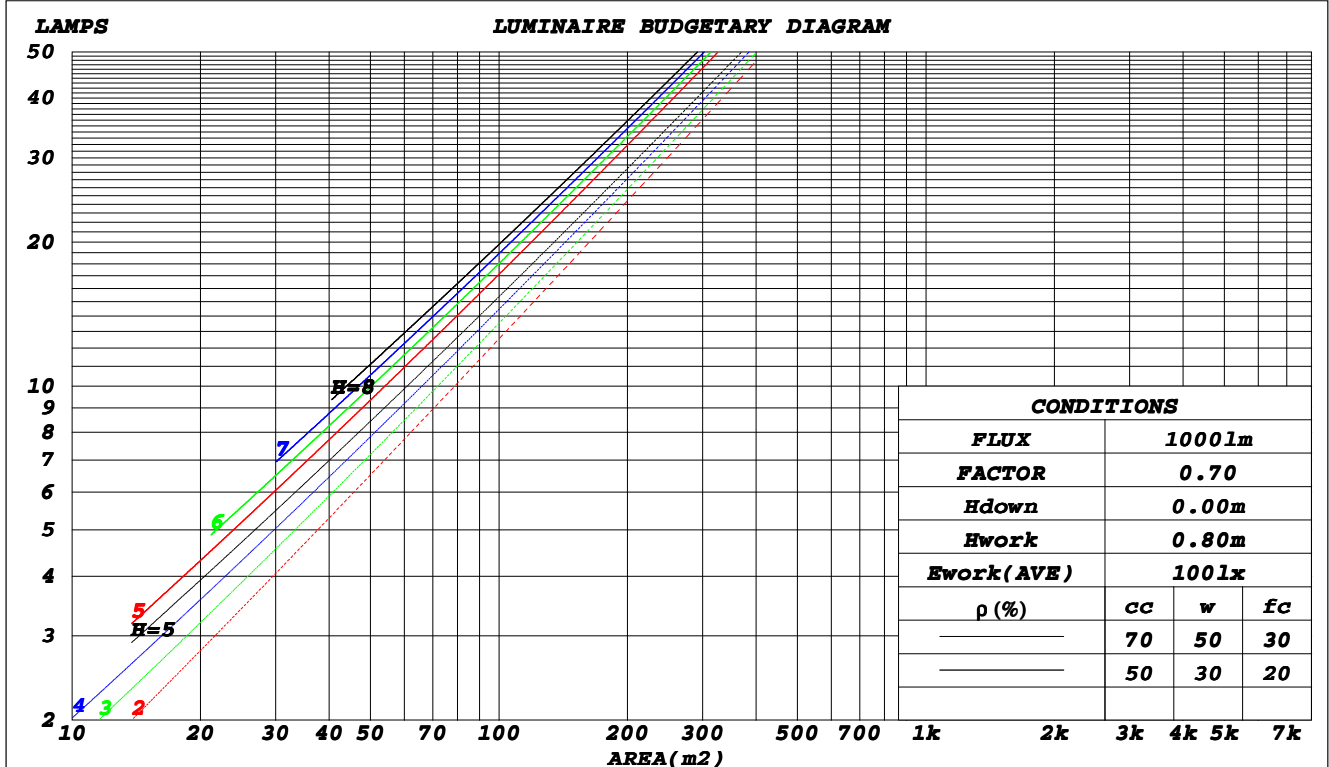
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:KAR
Test Date:22 July 2021

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_A20

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:219.3V I:0.6960A P:150.1W PF:0.9833 Lamp Flux:22240.3x1 lm		
NAME: NTB-150C_A20	TYPE:LED	WEIGHT:
SPEC.:150C_A20	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	1.11	1.09	1.07	1.09	1.07	1.05	1.04	1.03	1.01	1.00	.99	.98	.97	.96	.95	.93
2.0	1.04	1.00	.97	1.02	.99	.96	.99	.96	.94	.96	.93	.91	.93	.91	.89	.88
3.0	.98	.94	.90	.97	.92	.89	.94	.90	.88	.91	.88	.86	.89	.86	.84	.83
4.0	.93	.88	.84	.92	.87	.84	.89	.85	.82	.87	.84	.81	.85	.82	.80	.79
5.0	.88	.83	.79	.87	.82	.79	.85	.81	.78	.84	.80	.77	.82	.79	.76	.75
6.0	.84	.79	.75	.83	.78	.75	.82	.77	.74	.80	.77	.74	.79	.76	.73	.72
7.0	.81	.75	.72	.80	.75	.72	.78	.74	.71	.77	.73	.71	.76	.73	.70	.69
8.0	.77	.72	.69	.77	.72	.68	.76	.71	.68	.74	.71	.68	.73	.70	.67	.66
9.0	.74	.69	.66	.74	.69	.66	.73	.69	.66	.72	.68	.65	.71	.68	.65	.64
10.0	.72	.67	.64	.71	.67	.63	.70	.66	.63	.70	.66	.63	.69	.65	.63	.62



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_A20

WEC AND CCEC

Test:U:219.3V I:0.6960A P:150.1W PF:0.9833 Lamp Flux:22240.3x1 lm		
NAME: NTB-150C_A20	TYPE:LED	WEIGHT:
SPEC.:150C_A20	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	.167	.095	.030	.160	.091	.029	.147	.084	.027	.134	.077	.025	.123	.071	.023		
2.0	.158	.086	.027	.152	.083	.026	.140	.078	.024	.130	.073	.023	.120	.068	.021		
3.0	.148	.079	.024	.143	.076	.023	.133	.072	.022	.124	.068	.021	.116	.064	.020		
4.0	.139	.072	.021	.134	.070	.021	.126	.067	.020	.118	.064	.019	.111	.060	.018		
5.0	.131	.067	.019	.127	.065	.019	.119	.062	.018	.113	.060	.018	.106	.057	.017		
6.0	.123	.062	.018	.120	.061	.017	.114	.058	.017	.108	.056	.016	.102	.054	.016		
7.0	.117	.058	.016	.114	.057	.016	.108	.055	.016	.103	.053	.015	.098	.051	.015		
8.0	.111	.054	.015	.108	.053	.015	.103	.052	.015	.098	.050	.014	.094	.048	.014		
9.0	.105	.051	.014	.103	.050	.014	.099	.049	.014	.094	.047	.014	.090	.046	.013		
10.0	.100	.048	.013	.098	.047	.013	.094	.046	.013	.091	.045	.013	.087	.044	.013		

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	.158	.156	.146	.136	.107	.100	.094	.062	.058	.055	.020	.019	.018	
2.0	.167	.145	.127	.143	.125	.109	.098	.086	.076	.056	.050	.045	.018	.016	.015	
3.0	.153	.126	.104	.131	.109	.090	.090	.075	.063	.052	.044	.037	.017	.014	.012	
4.0	.142	.111	.087	.122	.096	.076	.084	.067	.053	.048	.039	.032	.016	.013	.010	
5.0	.132	.099	.074	.114	.086	.065	.078	.060	.046	.045	.035	.027	.015	.011	.009	
6.0	.124	.090	.065	.107	.078	.056	.074	.054	.040	.043	.032	.024	.014	.010	.008	
7.0	.117	.082	.057	.101	.071	.050	.069	.050	.035	.040	.029	.021	.013	.010	.007	
8.0	.111	.075	.051	.095	.065	.044	.066	.046	.031	.038	.027	.019	.012	.009	.006	
9.0	.105	.070	.046	.090	.061	.040	.063	.043	.028	.037	.025	.017	.012	.008	.006	
10.0	.100	.065	.042	.086	.057	.037	.060	.040	.026	.035	.024	.015	.011	.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_A20

UGR(Unified Glare Rating) Table

Test:U:219.3V I:0.6960A P:150.1W PF:0.9833 Lamp Flux:22240.3x1 lm										
NAME: NTB-150C_A20					TYPE:LED			WEIGHT:		
SPEC.:150C_A20					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	16.6	17.4	16.8	17.6	17.8	16.3	17.1	16.6	17.3	17.5
3H	17.6	18.4	17.9	18.6	18.8	17.0	17.7	17.3	18.0	18.2
4H	17.9	18.6	18.2	18.9	19.1	17.2	17.9	17.4	18.1	18.4
6H	18.1	18.8	18.4	19.0	19.3	17.2	17.9	17.5	18.1	18.4
8H	18.1	18.7	18.4	19.0	19.3	17.2	17.8	17.5	18.1	18.4
12H	18.1	18.7	18.4	19.0	19.3	17.1	17.7	17.5	18.0	18.3
4H 2H	16.9	17.6	17.2	17.9	18.1	16.7	17.4	17.0	17.6	17.9
3H	18.1	18.7	18.4	19.0	19.3	17.5	18.1	17.8	18.4	18.7
4H	18.5	19.0	18.8	19.4	19.7	17.7	18.3	18.1	18.6	18.9
6H	18.7	19.2	19.1	19.6	19.9	17.8	18.3	18.2	18.6	19.0
8H	18.7	19.2	19.1	19.6	20.0	17.7	18.2	18.1	18.6	19.0
12H	18.7	19.1	19.1	19.5	20.0	17.7	18.1	18.1	18.5	18.9
8H 4H	18.5	19.0	18.9	19.3	19.7	17.8	18.2	18.2	18.6	19.0
6H	18.8	19.2	19.2	19.6	20.0	17.9	18.2	18.3	18.7	19.1
8H	18.8	19.2	19.3	19.6	20.1	17.8	18.2	18.3	18.6	19.1
12H	18.8	19.1	19.3	19.6	20.1	17.8	18.1	18.3	18.6	19.1
12H 4H	18.5	18.9	18.9	19.3	19.7	17.7	18.2	18.2	18.6	19.0
6H	18.7	19.1	19.2	19.5	20.0	17.8	18.2	18.3	18.6	19.1
8H	18.8	19.1	19.3	19.5	20.0	17.8	18.1	18.3	18.6	19.1
Variations with the observer position at spacings:										
S = 1.0H	+ 0.5 / - 0.6					+ 0.7 / - 0.9				
1.5H	+ 0.8 / - 0.6					+ 1.1 / - 0.7				
2.0H	+ 0.2 / - 0.3					+ 0.4 / - 0.5				

CIE Pub.117 Corrected 22240 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_A20

UTILIZATION FACTORS TABLE

Test:U:219.3V I:0.6960A P:150.1W PF:0.9833 Lamp Flux:22240.3x1 lm		
NAME: NTB-150C_A20	TYPE:LED	WEIGHT:
SPEC.:150C_A20	DIM.:	SERIAL No.:
MFR.: ICEPIPE	SUR.:	Shielding Angle:

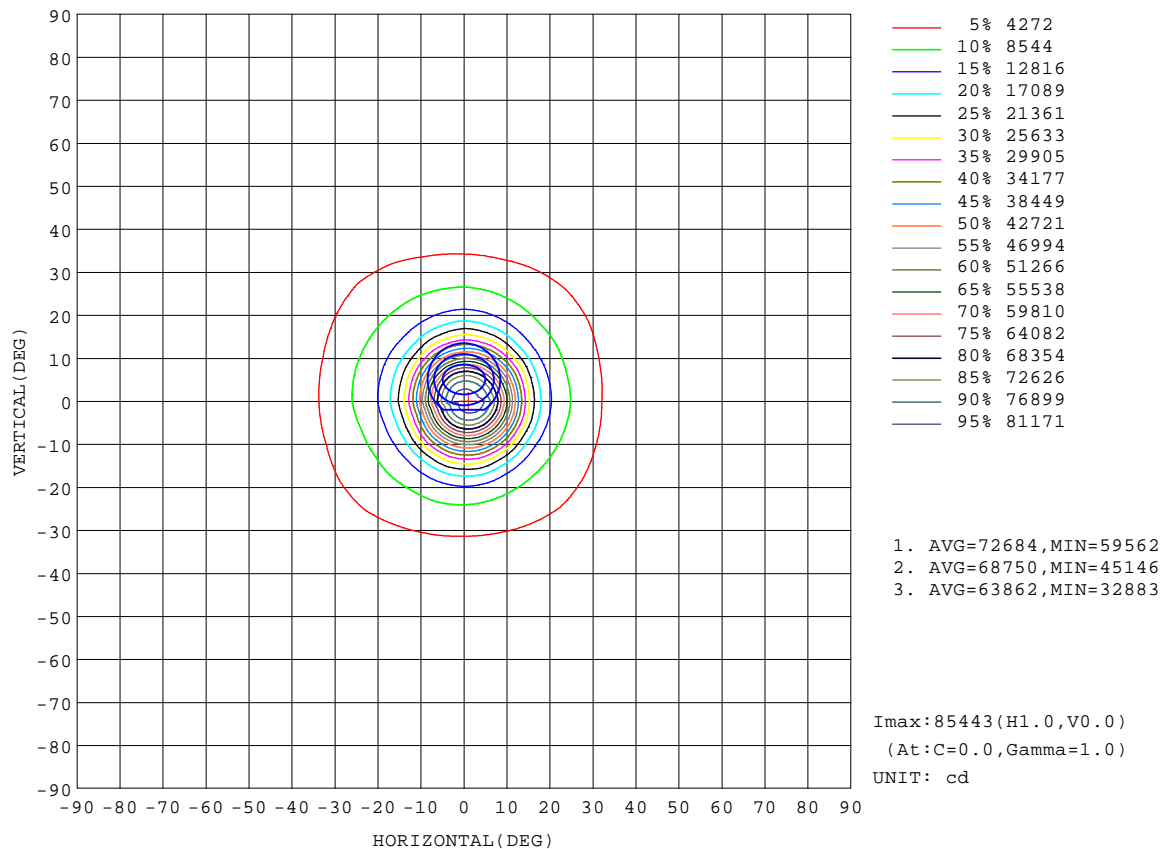
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	84	78	74	84	77	73	83	77	73	69
0.80	92	86	82	91	85	81	90	85	81	77
1.00	97	91	87	96	90	86	94	90	86	81
1.25	101	95	91	100	95	91	98	93	90	85
1.50	104	99	95	102	98	94	100	96	93	88
2.00	107	102	99	105	101	98	102	99	96	91
2.50	109	105	101	107	103	100	104	101	98	92
3.00	111	107	104	109	105	103	105	102	100	93
4.00	113	110	107	111	108	106	107	105	103	95
5.00	114	112	110	112	110	108	108	106	105	96
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: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_A20

ISOCANDELA DIAGRAM

Test:U:219.3V I:0.6960A P:150.1W PF:0.9833 Lamp Flux:22240.3x1 lm		
NAME: NTB-150C_A20	TYPE:LED	WEIGHT:
SPEC.:150C_A20	DIM.:	SERIAL No.:
MFR.: ICEPIPE	SUR.:	Shielding Angle:



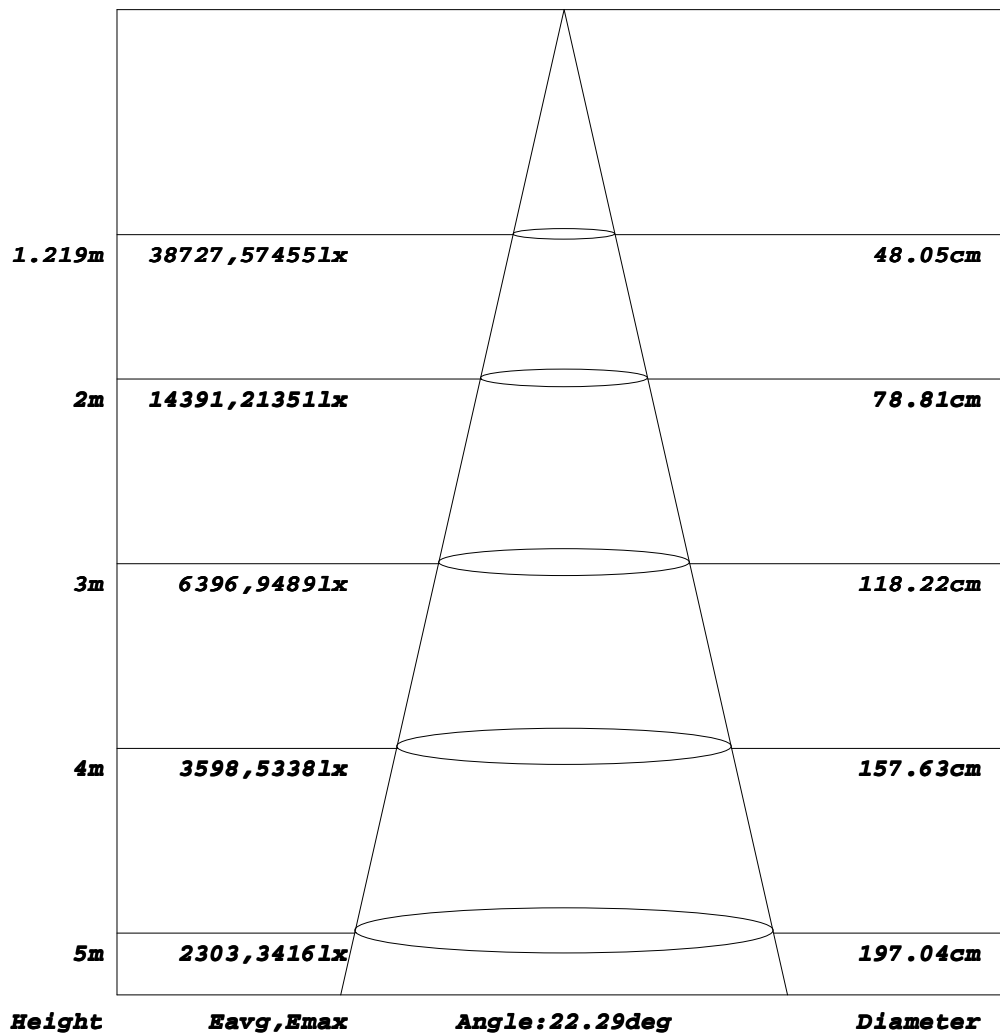
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:KAR
Test Date:22 July 2021

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_A20

AAI Figure

Test:U:219.3V I:0.6960A P:150.1W PF:0.9833 Lamp Flux:22240.3x1 lm		
NAME: NTB-150C_A20	TYPE:LED	WEIGHT:
SPEC.:150C_A20	DIM.:	SERIAL No.:
MFR.: ICEPIPE	SUR.:	Shielding Angle:

Flux out:8171 lm



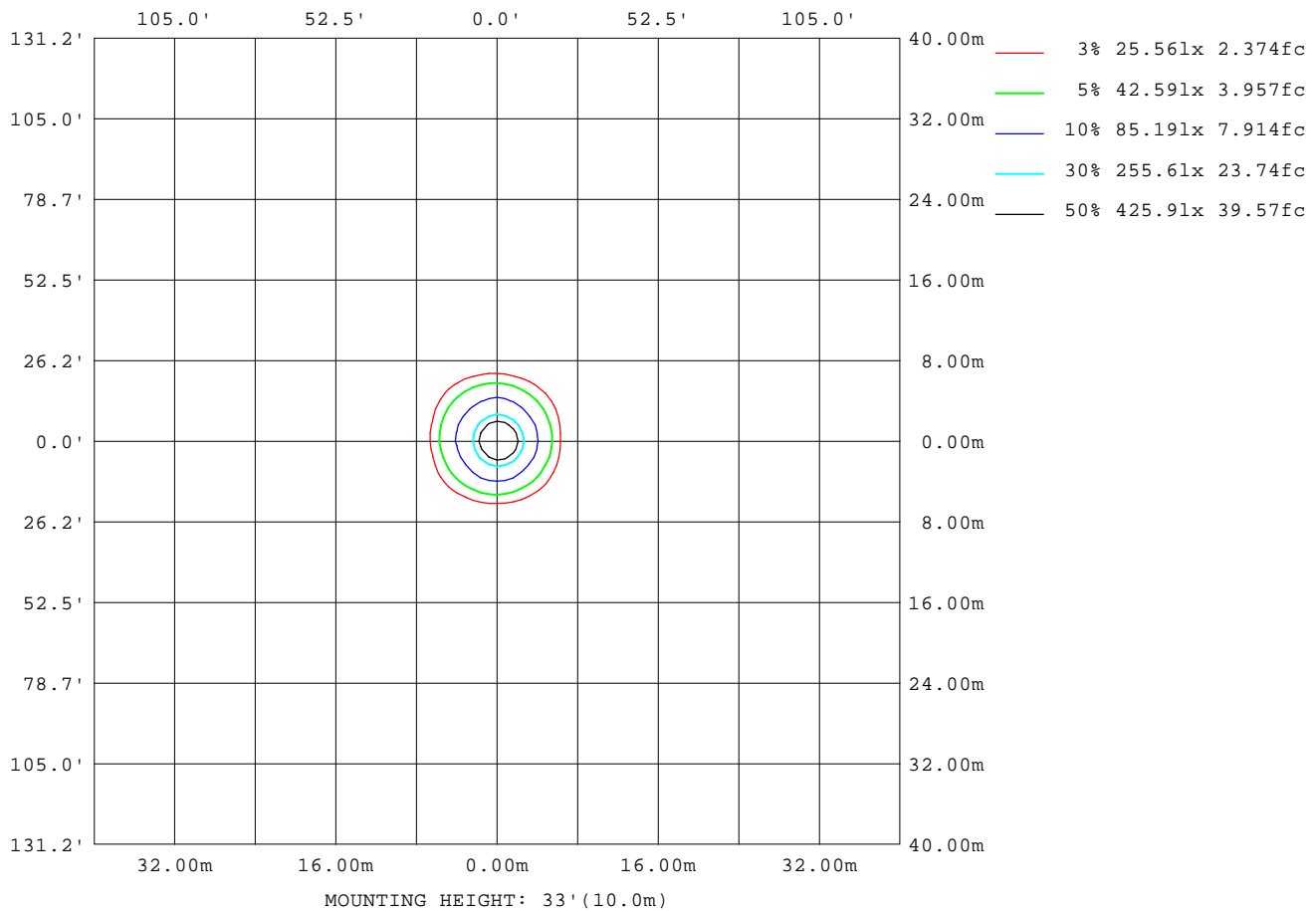
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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_A20

ISOLUX DIAGRAM

Test:U:219.3V I:0.6960A P:150.1W PF:0.9833 Lamp Flux:22240.3x1 lm		
NAME: NTB-150C_A20	TYPE:LED	WEIGHT:
SPEC.:150C_A20	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_A20

LED Avg.L Report

Test:U:219.3V I:0.6960A P:150.1W PF:0.9833 Lamp Flux:22240.3x1 lm		
NAME: NTB-150C_A20	TYPE:LED	WEIGHT:
SPEC.:150C_A20	DIM.:	SERIAL No.:
MFR.: ICEPIPE	SUR.:	Shielding Angle:

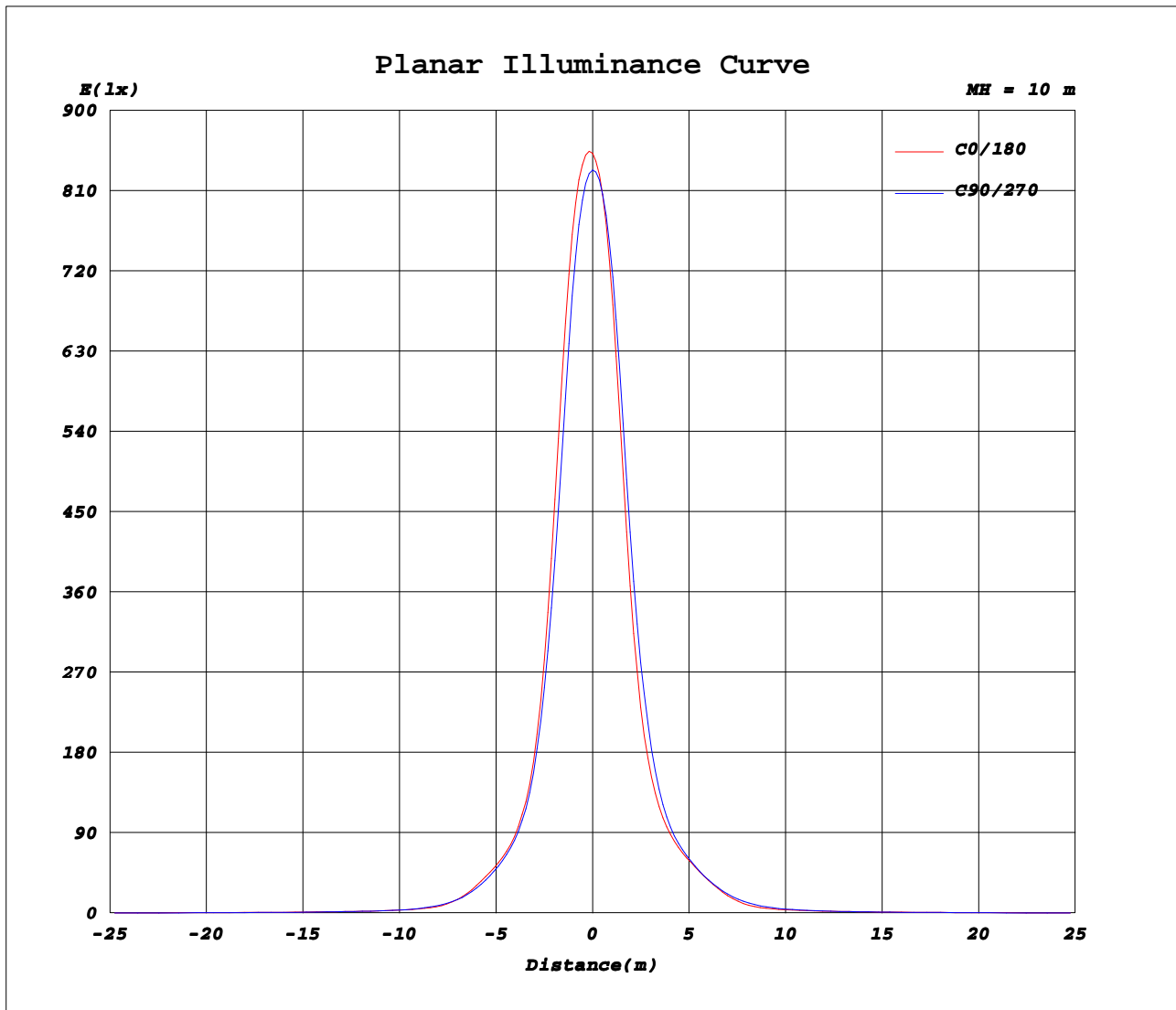
AvgL	cd/m2
L_0~180(65)av	11288
L_0~180(75)av	7285
L_0~180(85)av	2441
L_90~270(65)av	9433
L_90~270(75)av	5566
L_90~270(85)av	1312
L_45(65)av	9771
L_45(75)av	6077
L_45(85)av	1665

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_A20

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_A20

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:219.3V I:0.6960A P:150.1W PF:0.9833 Lamp Flux:22240.3x1 lm																		
NAME: NTB-150C_A20									TYPE:LED					WEIGHT:				
SPEC.:150C_A20									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	8519	8469	8434	8402	8379	8351	8332	8315	8294	8280	8269	8261	8519	8469	8434	8402	8379	8351	8332
5	8054	7989	7890	7793	7664	7570	7451	7376	7284	7219	7132	7113	7405	7396	7430	7470	7534	7559	7604
10	5571	5482	5343	5214	5034	4902	4742	4628	4486	4399	4262	4212	4475	4513	4638	4757	4889	4982	5089
15	2649	2622	2511	2516	2433	2474	2394	2347	2203	2140	2046	2055	2209	2216	2304	2374	2533	2588	2733
20	1336	1277	1211	1194	1209	1244	1254	1229	1185	1154	1163	1193	1288	1300	1323	1324	1376	1410	1467
25	842	808	774	764	761	775	792	800	790	806	810	839	907	916	915	920	929	945	955
30	552	546	538	543	517	500	496	513	537	573	590	601	638	657	676	682	682	660	646
35	278	291	329	347	317	290	275	293	333	381	381	352	357	380	439	477	456	410	390
40	138	141	172	198	180	161	154	160	188	230	216	171	162	176	242	294	273	230	214
45	94.2	93.9	102	116	110	100	96.9	101	116	139	124	106	107	110	133	173	164	137	128
50	76.0	75.6	77.9	82.0	80.9	76.5	76.5	76.7	83.8	92.5	88.0	82.7	86.1	86.5	95.9	112	110	95.6	91.6
55	70.3	66.2	66.0	66.9	65.3	63.0	65.0	62.7	66.2	70.6	69.9	70.0	75.9	75.2	76.0	80.5	80.4	73.3	73.4
60	60.2	56.4	55.0	54.6	51.6	50.1	55.3	49.7	50.5	53.7	54.8	55.5	61.6	59.5	59.9	60.3	58.8	55.7	61.5
65	49.0	44.6	43.5	41.2	38.4	37.1	38.1	36.5	36.5	38.8	40.6	41.4	46.4	44.6	44.6	43.1	41.6	40.0	41.7
70	33.3	32.2	30.3	28.5	26.0	24.9	24.9	24.1	23.8	25.4	26.6	28.0	30.2	29.8	29.4	27.9	27.1	26.1	27.2
75	20.1	19.7	17.9	16.8	14.8	14.0	13.7	13.2	13.0	13.9	14.8	16.1	17.6	17.4	16.6	15.4	14.9	14.4	15.1
80	9.59	9.43	8.36	7.11	5.97	5.63	5.36	5.20	4.94	5.28	5.82	6.72	7.48	7.46	6.90	6.10	5.77	5.72	6.10
85	2.64	2.74	2.14	1.71	1.32	1.16	1.03	0.99	0.98	1.05	1.18	1.43	1.61	1.65	1.44	1.24	1.19	1.15	1.26
90	0.56	0.57	0.58	0.58	0.58	0.57	0.57	0.57	0.57	0.57	0.56	0.55	0.50	0.50	0.50	0.49	0.49	0.48	0.48
95	0.70	0.71	0.73	0.74	0.74	0.73	0.72	0.72	0.72	0.72	0.70	0.68	0.59	0.58	0.58	0.58	0.58	0.56	0.56
100	0.95	0.96	0.98	1.00	1.00	0.99	0.98	0.96	0.95	0.94	0.92	0.89	0.75	0.73	0.73	0.73	0.72	0.71	0.70
105	1.32	1.33	1.36	1.36	1.37	1.36	1.35	1.32	1.30	1.26	1.25	1.21	1.01	0.98	0.96	0.95	0.94	0.93	0.93
110	1.82	1.84	1.86	1.87	1.88	1.88	1.86	1.82	1.77	1.73	1.71	1.68	1.41	1.36	1.32	1.30	1.28	1.28	1.28
115	2.51	2.53	2.56	2.58	2.60	2.60	2.58	2.53	2.48	2.43	2.41	2.36	1.96	1.90	1.84	1.79	1.77	1.77	1.79
120	3.55	3.58	3.63	3.67	3.70	3.71	3.70	3.64	3.60	3.55	3.54	3.50	2.83	2.74	2.65	2.58	2.53	2.53	2.54
125	5.16	5.21	5.27	5.32	5.39	5.41	5.41	5.37	5.33	5.30	5.31	5.25	4.28	4.16	4.03	3.93	3.83	3.79	3.77
130	7.35	7.40	7.45	7.52	7.59	7.63	7.64	7.60	7.56	7.52	7.53	7.48	6.39	6.24	6.08	5.94	5.80	5.74	5.69
135	9.73	9.77	9.80	9.85	9.92	9.96	9.96	9.91	9.85	9.80	9.79	9.74	8.84	8.66	8.48	8.33	8.19	8.12	8.07
140	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.8	11.8	11.7	11.7	11.6	11.1	10.9	10.8	10.6	10.5	10.4	10.4
145	13.4	13.4	13.3	13.3	13.3	13.3	13.2	13.2	13.1	13.0	12.9	12.9	12.9	12.7	12.5	12.4	12.3	12.3	12.2
150	14.4	14.3	14.2	14.2	14.1	14.1	14.1	14.0	13.9	13.9	13.8	13.8	14.1	13.8	13.7	13.6	13.5	13.5	13.5
155	15.0	14.9	14.8	14.7	14.6	14.7	14.6	14.6	14.5	14.4	14.4	14.4	14.8	14.6	14.5	14.3	14.3	14.2	14.3
160	15.3	15.2	15.0	15.0	14.9	14.9	14.9	14.9	14.8	14.8	14.7	14.7	15.2	14.9	14.9	14.8	14.8	14.7	14.7
165	15.2	15.2	15.0	15.0	14.9	14.9	14.9	14.9	14.8	14.8	14.6	14.6	15.2	14.9	14.8	14.8	14.8	14.8	14.8
170	14.8	14.9	14.6	14.5	14.4	14.5	14.5	14.5	14.4	14.3	14.1	14.1	14.7	14.4	14.3	14.3	14.4	14.4	14.4
175	14.0	14.1	13.9	13.8	13.7	13.8	13.8	13.8	13.7	13.5	13.3	13.3	13.9	13.7	13.6	13.5	13.7	13.7	13.7
180	13.6	13.6	13.4	13.4	13.5	13.7	13.7	13.6	13.5	13.3	13.2	13.2	13.7	13.5	13.4	13.5	13.6	13.6	13.7

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_A20

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:219.3V I:0.6960A P:150.1W PF:0.9833 Lamp Flux:22240.3x1 lm		
NAME: NTB-150C_A20	TYPE:LED	WEIGHT:
SPEC.:150C_A20	DIM.:	SERIAL No.:
MFR.: ICEPIPE	SUR.:	Shielding Angle:

Table--2

UNIT: #10cd

C(DEG) γ (DEG)	285	300	315	330	345														
0	8315	8294	8280	8269	8261														
5	7632	7671	7718	7793	7837														
10	5176	5281	5340	5445	5482														
15	2714	2732	2670	2740	2649														
20	1421	1394	1335	1317	1327														
25	930	892	856	853	832														
30	630	621	616	596	571														
35	382	403	411	384	315														
40	213	238	250	206	149														
45	129	143	148	116	94.3														
50	91.4	98.1	96.2	82.9	75.8														
55	71.0	73.9	72.9	69.0	65.5														
60	55.1	56.3	56.9	56.5	56.0														
65	40.2	40.9	42.2	44.1	43.9														
70	26.6	27.2	28.8	31.0	31.6														
75	14.9	15.6	16.8	18.4	19.6														
80	6.21	6.47	7.30	8.70	9.62														
85	1.33	1.51	1.81	2.31	2.86														
90	0.48	0.49	0.50	0.51	0.53														
95	0.56	0.58	0.59	0.59	0.59														
100	0.71	0.73	0.75	0.75	0.76														
105	0.95	0.97	0.99	1.01	1.03														
110	1.31	1.33	1.36	1.38	1.42														
115	1.82	1.84	1.87	1.90	1.95														
120	2.57	2.59	2.62	2.65	2.71														
125	3.79	3.80	3.83	3.85	3.91														
130	5.69	5.68	5.69	5.68	5.74														
135	8.05	8.02	8.02	7.99	8.05														
140	10.4	10.4	10.3	10.3	10.4														
145	12.2	12.2	12.2	12.2	12.2														
150	13.4	13.4	13.4	13.4	13.4														
155	14.2	14.2	14.1	14.1	14.2														
160	14.6	14.6	14.5	14.6	14.6														
165	14.7	14.7	14.6	14.6	14.6														
170	14.3	14.3	14.2	14.2	14.3														
175	13.6	13.6	13.5	13.6	13.6														
180	13.6	13.5	13.2	13.2	13.2														

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-150C_A20

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	85187	84694	84342	84022	83794	83515	83315	83150	82941	82796
3.0	84265	83700	83048	82387	81561	80969	80268	79777	79175	78776
6.0	77344	76614	75459	74283	72829	71690	70371	69411	68374	67522
9.0	62196	61175	59589	58207	56508	55032	53430	52234	50850	49947
12.0	42509	41910	41065	40029	38635	37766	36584	35601	34254	33289
15.0	26491	26220	25110	25160	24325	24740	23944	23472	22030	21404
18.0	16822	16381	15546	15581	15505	16062	15695	15501	14653	14235
21.0	11938	11489	10899	10685	10803	11127	11255	11137	10769	10606
24.0	9096	8730	8376	8187	8223	8414	8624	8669	8484	8618
27.0	7193	6979	6675	6699	6561	6575	6646	6808	6846	7058
30.0	5520	5458	5378	5430	5170	4995	4958	5134	5371	5727
33.0	3744	3835	4105	4203	3916	3653	3523	3722	4075	4532
36.0	2367	2528	2899	3135	2838	2567	2430	2591	2984	3473
39.0	1514	1601	1954	2225	2016	1804	1715	1799	2110	2550
42.0	1134	1154	1368	1581	1449	1296	1262	1293	1515	1861
45.0	941.6	939.3	1019	1158	1103	1000	969.3	1008	1160	1386
48.0	808.1	815.6	851.2	913.9	900.5	837.5	827.1	841.9	940.1	1064
51.0	742.7	731.9	753.0	783.4	769.4	734.0	736.7	734.3	796.6	872.1
54.0	714.6	676.6	680.6	695.5	679.0	653.8	671.9	652.1	694.0	742.2
57.0	651.5	635.2	618.2	622.6	600.2	579.3	604.3	576.0	597.7	637.1
60.0	602.1	563.8	550.0	545.6	516.3	500.9	553.1	496.6	504.9	537.2
63.0	530.6	493.9	480.8	461.4	434.9	422.3	442.7	416.8	419.8	444.1
66.0	461.6	423.0	409.9	385.2	357.8	346.1	354.1	339.5	338.4	359.6
69.0	363.3	348.5	329.9	310.0	284.2	273.3	272.8	265.3	262.0	280.0
72.0	277.0	270.4	249.6	235.3	212.5	203.1	201.1	195.3	191.6	205.8
75.0	201.0	197.5	178.7	167.7	147.5	139.8	136.7	132.4	129.6	139.1
78.0	135.4	133.2	119.2	105.2	90.61	84.30	82.11	78.99	76.31	82.78
81.0	78.60	77.59	67.21	56.46	47.13	44.33	41.30	40.12	38.20	40.54
84.0	36.37	37.13	29.82	24.12	18.97	17.11	15.34	14.77	14.23	15.46
87.0	11.81	13.42	10.30	8.106	6.709	6.230	6.013	5.910	5.871	5.954
90.0	5.574	5.709	5.774	5.832	5.786	5.733	5.668	5.698	5.710	5.725
93.0	6.294	6.393	6.569	6.693	6.703	6.608	6.515	6.504	6.525	6.507
96.0	7.408	7.517	7.737	7.865	7.893	7.766	7.648	7.607	7.597	7.534
99.0	8.891	9.017	9.258	9.371	9.421	9.297	9.148	9.040	8.988	8.858
102.0	10.83	10.94	11.18	11.27	11.37	11.21	11.09	10.85	10.75	10.52
105.0	13.21	13.34	13.55	13.61	13.73	13.62	13.47	13.15	12.95	12.64
108.0	16.01	16.23	16.35	16.49	16.58	16.54	16.33	15.98	15.62	15.26
111.0	19.38	19.61	19.78	19.92	20.06	20.03	19.81	19.36	18.91	18.49
114.0	23.51	23.75	23.99	24.15	24.36	24.32	24.14	23.61	23.13	22.62
117.0	28.64	28.99	29.29	29.57	29.86	29.85	29.67	29.12	28.65	28.16
120.0	35.47	35.81	36.29	36.65	37.04	37.07	36.95	36.43	36.03	35.55
123.0	44.41	44.84	45.38	45.84	46.44	46.51	46.53	45.95	45.65	45.22
126.0	55.61	56.13	56.74	57.29	58.02	58.23	57.86	57.86	57.52	57.14
129.0	68.81	69.27	69.87	70.51	71.32	71.61	71.76	71.30	70.93	70.55
132.0	83.02	83.49	83.93	84.63	85.36	85.72	85.86	85.41	84.95	84.45
135.0	97.34	97.74	97.99	98.54	99.18	99.57	99.64	99.07	98.53	98.01
138.0	110.7	111.0	110.9	111.4	111.8	112.1	112.0	111.4	110.7	110.0
141.0	122.1	122.3	121.9	122.1	122.3	122.5	122.2	121.6	120.6	120.0
144.0	131.2	131.3	130.6	130.6	130.5	130.6	130.1	129.5	128.5	127.7
147.0	138.3	138.1	137.1	136.7	136.7	136.7	136.2	135.6	134.6	133.9
150.0	143.6	143.4	142.1	141.8	141.3	141.4	140.9	140.2	139.3	138.7
153.0	147.7	147.3	145.7	145.3	144.7	144.9	144.4	143.8	142.9	142.4
156.0	150.5	150.1	148.4	147.8	147.2	147.4	147.0	146.6	145.7	145.3
159.0	152.3	151.9	150.1	149.5	148.7	149.0	148.6	148.4	147.6	147.2
162.0	152.9	152.6	150.7	150.2	149.3	149.6	149.3	149.3	148.5	148.2
165.0	152.5	152.3	150.1	149.6	148.8	149.2	149.0	149.1	148.4	147.7
168.0	150.6	150.6	148.2	147.5	146.7	147.3	147.2	147.4	146.5	145.5
171.0	147.0	147.2	144.7	143.8	142.9	143.6	143.5	143.6	142.6	141.3
174.0	141.8	142.2	140.3	139.5	138.5	139.0	139.1	139.2	137.9	136.3
177.0	137.4	137.6	136.2	135.7	135.0	136.2	136.7	136.3	135.0	133.0
180.0	135.8	135.7	134.2	134.4	134.7	136.7	136.8	136.0	134.6	132.8
G/C	150.0	165.0	180.0	195.0	210.0	225.0	240.0	255.0	270.0	285.0
0.0	82689	82607	83187	84694	84342	84022	83794	83515	83315	83150
3.0	78290	78093	80864	80510	80522	80514	80730	80752	80939	81056
6.0	66543	66297	69351	69350	69887	70479	71323	71832	72474	72870
9.0	48716	48276	51188	51479	52612	53670	55012	55984	56988	57805
12.0	31966	31417	33494	33945	35118	36440	37793	38710	39779	40346
15.0	20463	20550	22088	22155	23044	23737	25328	25882	27325	27143
18.0	13961	14500	15639	15604	15993	16090	17158	17659	18536	18114
21.0	10687	10971	11884	11916	12127	12080	12483	12967	13249	13002
24.0	8620	8917	9678	9725	9743	9793	9905	10144	10279	10033
27.0	7162	7450	8039	8141	8126	8139	8243	8231	8256	8021
30.0	5903	6012	6376	6568	6761	6816	6822	6597	6463	6296

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_A20

Photometric Data Table [cd]

33.0	4651	4466	4686	4883	5366	5608	5449	5037	4847	4734
36.0	3409	3084	3084	3295	3953	4361	4135	3671	3466	3412
39.0	2430	1975	1873	2047	2758	3268	3048	2593	2407	2402
42.0	1698	1331	1321	1367	1871	2372	2203	1828	1711	1699
45.0	1241	1056	1070	1105	1330	1730	1642	1374	1279	1288
48.0	982.5	901.0	918.7	935.2	1068	1316	1269	1085	1033	1031
51.0	835.9	798.3	842.8	837.4	910.0	1037	1025	902.2	870.0	866.9
54.0	731.5	724.2	791.7	775.3	792.7	852.9	851.1	770.7	764.1	744.6
57.0	636.9	643.9	706.0	686.8	695.4	722.0	713.4	660.2	674.0	645.4
60.0	548.5	554.9	616.1	595.5	599.0	603.4	587.8	556.8	615.2	550.9
63.0	463.0	468.6	528.1	503.6	508.4	496.2	481.0	460.3	486.4	461.5
66.0	378.2	386.4	429.4	417.4	413.5	398.2	384.6	371.4	387.5	373.5
69.0	293.1	305.7	331.0	327.3	322.8	309.8	298.1	288.0	298.5	292.6
72.0	213.4	229.1	248.3	245.0	237.6	225.5	218.6	211.0	220.9	217.3
75.0	147.7	160.9	176.1	174.4	165.5	154.3	148.6	143.9	151.4	149.3
78.0	90.66	101.0	111.2	111.2	104.1	93.69	89.19	86.16	91.51	91.66
81.0	45.02	52.47	58.74	58.50	53.65	47.16	45.11	44.97	47.82	49.23
84.0	17.15	20.94	23.83	24.18	21.06	18.39	17.46	17.15	18.60	19.64
87.0	6.065	6.525	6.428	7.012	6.593	6.104	5.996	5.938	6.199	6.401
90.0	5.637	5.534	5.002	4.963	4.962	4.908	4.877	4.774	4.774	4.830
93.0	6.406	6.205	5.504	5.413	5.443	5.398	5.346	5.251	5.210	5.223
96.0	7.393	7.126	6.162	6.071	6.073	6.033	5.986	5.868	5.826	5.868
99.0	8.696	8.376	7.085	6.947	6.945	6.901	6.834	6.712	6.663	6.751
102.0	10.36	10.02	8.366	8.167	8.093	8.051	7.943	7.844	7.790	7.935
105.0	12.46	12.10	10.09	9.816	9.626	9.536	9.403	9.312	9.494	9.494
108.0	15.05	14.73	12.29	11.93	11.59	11.44	11.26	11.26	11.26	11.50
111.0	18.24	17.94	15.02	14.52	14.08	13.80	13.60	13.66	13.74	13.98
114.0	22.43	22.02	18.35	17.72	17.14	16.75	16.54	16.57	16.76	16.99
117.0	27.96	27.51	22.58	21.85	21.11	20.61	20.28	20.33	20.47	20.77
120.0	35.45	34.95	28.30	27.42	26.51	25.82	25.35	25.30	25.37	25.66
123.0	45.26	44.76	36.17	35.06	33.97	33.11	32.31	32.10	31.96	32.27
126.0	57.24	56.68	46.53	45.22	43.90	42.80	41.69	41.30	40.95	41.15
129.0	70.64	70.13	59.28	57.79	56.23	54.89	53.61	52.99	52.54	52.58
132.0	84.51	84.00	73.63	71.90	70.24	68.72	67.33	66.66	66.11	66.08
135.0	97.92	97.38	88.45	86.59	84.83	83.26	81.87	81.24	80.66	80.52
138.0	109.8	109.3	102.7	100.7	98.97	97.41	96.18	95.57	95.09	94.85
141.0	119.6	119.1	115.4	113.3	111.6	110.1	109.1	108.6	108.3	108.0
144.0	127.3	126.9	125.8	123.7	122.2	120.7	119.9	119.4	119.3	119.0
147.0	133.3	133.1	134.1	131.9	130.5	129.1	128.5	128.0	127.9	127.7
150.0	138.1	138.0	140.5	138.2	137.0	135.6	135.1	134.6	134.6	134.3
153.0	142.0	141.9	145.5	143.1	142.0	140.6	140.2	139.8	139.8	139.3
156.0	144.9	144.8	149.0	146.7	145.8	144.4	144.2	143.7	143.7	143.1
159.0	146.7	146.5	151.2	148.8	148.1	147.0	146.9	146.5	146.6	145.8
162.0	147.2	147.0	152.1	149.4	148.9	148.1	148.3	148.0	148.1	147.2
165.0	146.4	146.1	151.7	148.8	148.1	147.7	148.2	147.9	148.1	147.1
168.0	143.9	143.8	149.6	146.4	145.6	145.3	146.1	146.2	146.5	145.4
171.0	139.7	140.0	145.7	142.5	141.5	141.0	142.2	142.3	142.8	141.7
174.0	134.6	134.9	140.9	138.1	137.0	136.3	137.8	138.2	138.4	137.3
177.0	131.3	131.7	137.5	135.3	134.5	133.7	135.3	136.5	136.6	135.2
180.0	131.6	131.9	136.5	135.1	134.8	133.9	135.1	136.3	137.1	135.8
G/C	300.0	315.0	330.0	345.0						
0.0	82941	82796	82689	82607						
3.0	81158	81299	81652	81859						
6.0	73393	73977	74954	75467						
9.0	58824	59426	60482	61020						
12.0	40961	41492	42454	42293						
15.0	27318	26701	27403	26493						
18.0	17850	17007	17080	16739						
21.0	12508	11871	11819	11870						
24.0	9618	9179	9176	8992						
27.0	7707	7515	7361	7217						
30.0	6208	6164	5955	5707						
33.0	4850	4897	4680	4111						
36.0	3660	3751	3441	2740						
39.0	2654	2780	2345	1726						
42.0	1906	2017	1626	1193						
45.0	1425	1477	1164	943.3						
48.0	1122	1124	921.4	821.5						
51.0	922.9	899.8	794.9	730.9						
54.0	779.4	767.4	713.3	670.8						
57.0	666.8	662.7	641.4	625.6						
60.0	563.1	569.4	564.9	560.5						
63.0	468.8	475.8	490.1	488.0						
66.0	379.3	393.6	416.1	415.7						

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

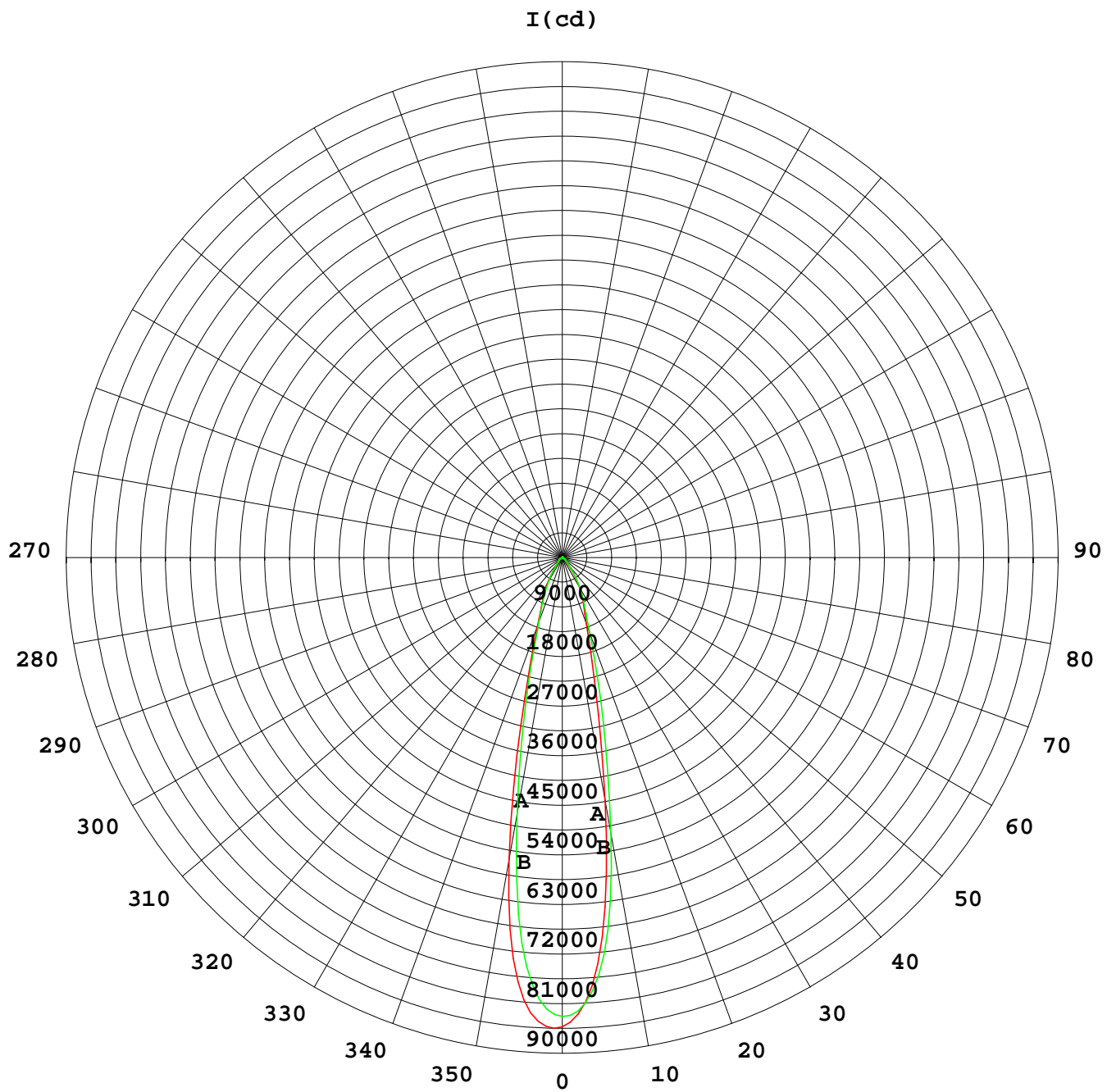
γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.351
Humidity: 65.0%
Test Distance: 8.100m [K=1.0000]
Remarks: NTB-150C_A20

Photometric Data Table [cd]

69.0	297.5	314.1	338.5	341.8
72.0	222.9	236.7	255.4	266.7
75.0	155.7	168.1	184.1	196.4
78.0	97.09	107.1	122.7	133.6
81.0	51.66	58.17	70.39	79.12
84.0	21.73	25.47	32.06	38.25
87.0	7.174	8.413	11.04	14.08
90.0	4.895	5.028	5.145	5.260
93.0	5.332	5.411	5.475	5.454
96.0	6.009	6.125	6.189	6.173
99.0	6.922	7.083	7.150	7.167
102.0	8.126	8.330	8.422	8.520
105.0	9.688	9.943	10.07	10.28
108.0	11.69	11.98	12.13	12.48
111.0	14.19	14.48	14.71	15.13
114.0	17.23	17.49	17.80	18.27
117.0	20.96	21.29	21.59	22.17
120.0	25.86	26.21	26.47	27.10
123.0	32.42	32.76	32.93	33.60
126.0	41.21	41.54	41.60	42.25
129.0	52.55	52.71	52.64	53.29
132.0	65.84	65.89	65.70	66.29
135.0	80.25	80.16	79.86	80.46
138.0	94.58	94.37	94.05	94.66
141.0	107.7	107.5	107.2	107.8
144.0	118.8	118.5	118.4	118.9
147.0	127.5	127.2	127.2	127.8
150.0	134.1	133.8	133.9	134.5
153.0	139.2	138.7	138.9	139.3
156.0	142.9	142.4	142.5	142.8
159.0	145.5	144.8	145.0	145.1
162.0	146.8	146.2	146.2	146.3
165.0	146.8	145.9	145.9	146.1
168.0	145.0	144.0	144.1	144.6
171.0	141.4	140.4	140.9	141.5
174.0	137.2	136.4	137.1	137.5
177.0	134.9	133.8	133.9	134.1
180.0	134.9	132.5	131.8	131.7

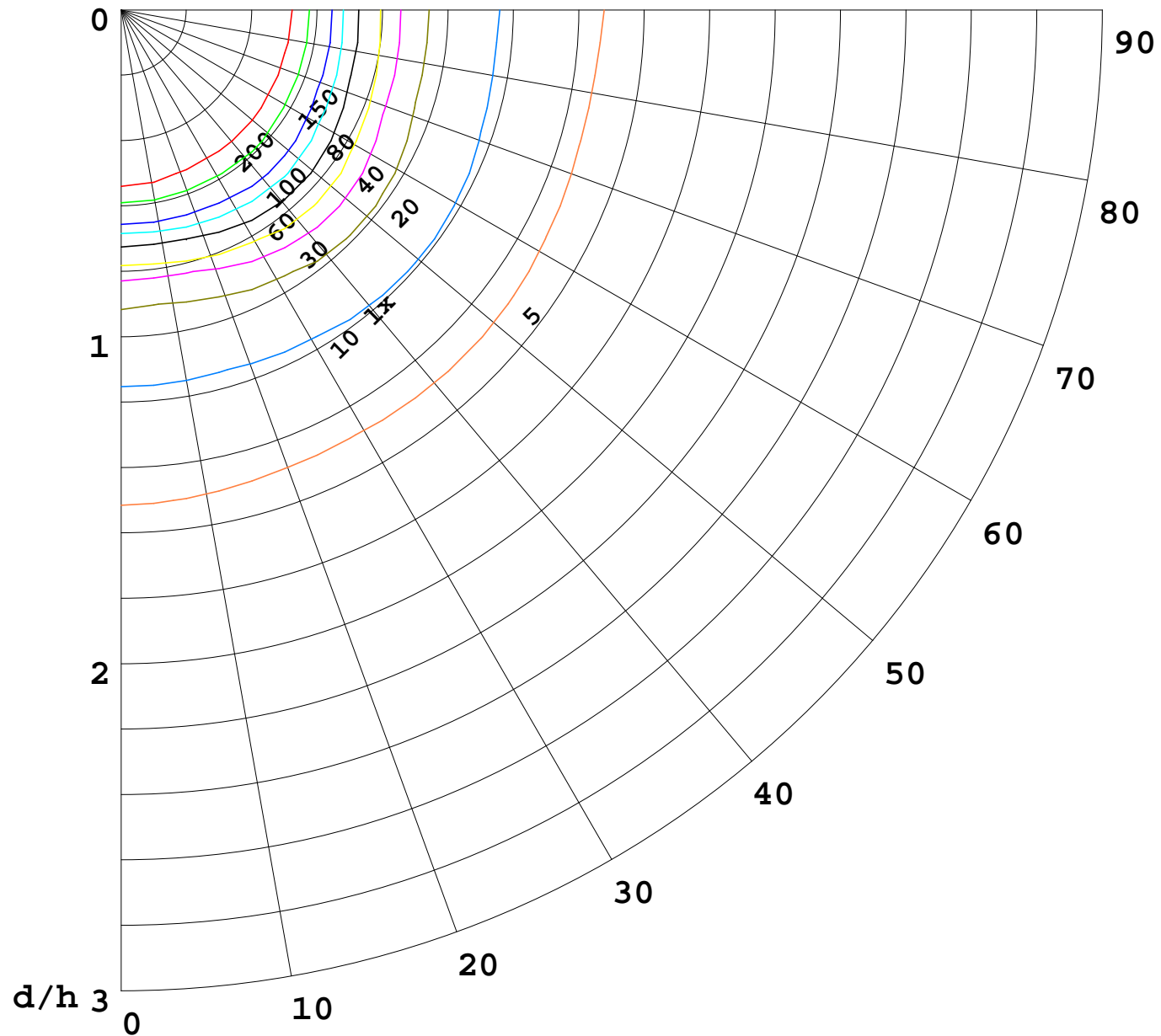
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: KAR
Test Date: 22 July 2021

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_A20



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

