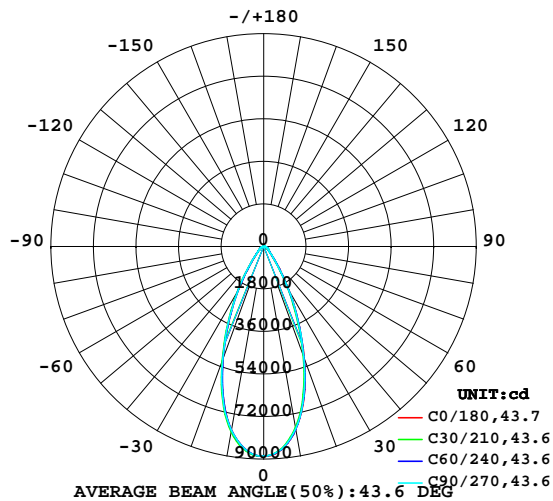


LUMINAIRE PHOTOMETRIC TEST REPORT

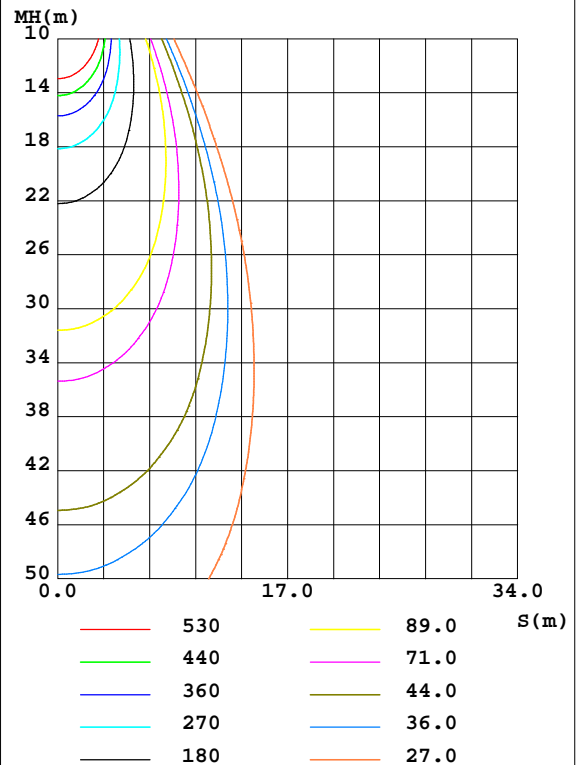
Test:U:220.0V I:1.842A P:395.0W PF:0.9746 Lamp Flux:58400.5x1 lm		
NAME: NCD-400C-D45	TYPE:LED	WEIGHT:
SPEC.:SB3535_274EA_D1*2EA	DIM.:	SERIAL No.:1
MFR.: ICEPIPE	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 147.84 lm/W			
MODEL	NCD-400C-D45	Imax(cd)	88818	S/MH(C0/180)	0.70
NOMINAL POWER(W)	400	LOR(%)	100.0	S/MH(C90/270)	0.70
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	58400	η UP,DN(C0-180)	1.0,48.5
NOMINAL FLUX(lm)	58400.5	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.8,49.7
LAMPS INSIDE	1	η up(%)	1.7	CIBSE SHR NOM	0.75
TEST VOLTAGE(V)	220	η down(%)	98.3	CIBSE SHR MAX	0.75

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: HSO
 Test Date: 24 October 2006

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: NCD-400C-D45

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	7846	7835	7830	7870	7884	7899	7895	7842	0- 10	7993	7993	13.7,13.7
20	5006	4952	4963	5053	5058	5059	5080	4997	10- 20	18141	26134	44.7,44.7
30	2136	2108	2107	2184	2195	2196	2237	2149	20- 30	15854	41988	71.9,71.9
40	663.7	656.3	648.9	682.9	685.4	679.1	695.2	672.5	30- 40	7870	49858	85.4,85.4
50	292.6	296.2	292.6	303.9	303.0	303.7	302.1	301.1	40- 50	3350	53208	91.1,91.1
60	178.3	179.9	183.1	182.1	182.0	184.6	188.4	180.6	50- 60	2095	55303	94.7,94.7
70	92.69	94.03	98.00	95.25	96.30	98.00	101.9	93.07	60- 70	1363	56667	97,97
80	23.83	25.66	27.25	26.44	24.79	27.03	28.82	23.83	70- 80	612.3	57279	98.1,98.1
90	4.343	4.381	4.339	4.363	1.755	1.801	1.741	1.810	80- 90	103.7	57383	98.3,98.3
100	6.422	6.454	6.476	6.399	2.685	2.661	2.686	2.728	90-100	40.86	57424	98.3,98.3
110	9.834	9.880	9.928	9.808	5.250	5.175	5.196	5.293	100-110	62.26	57486	98.4,98.4
120	15.16	15.12	15.27	15.04	10.45	10.32	10.32	10.48	110-120	98.56	57585	98.6,98.6
130	22.05	22.00	22.12	21.88	17.96	17.88	17.74	18.00	120-130	145.0	57730	98.9,98.9
140	29.08	29.10	29.09	28.92	26.25	26.18	25.97	26.19	130-140	183.5	57913	99.2,99.2
150	34.32	34.26	34.21	34.13	32.73	32.64	32.46	32.54	140-150	192.3	58105	99.5,99.5
160	36.07	35.87	35.79	35.90	35.40	35.35	35.12	35.10	150-160	160.7	58266	99.8,99.8
170	35.51	35.23	35.31	35.41	35.35	35.40	35.21	35.09	160-170	100.5	58367	99.9,99.9
180	35.70	35.66	35.79	35.60	35.73	35.65	35.78	35.61	170-180	33.79	58400	100,100
DEG	LUMINOUS INTENSITY: #10cd									UNIT: lm		

Conical surface Flux(90deg): 51799 lm

%lum = 88.7%

%lamp = 88.7%

Conical surface Flux(120deg): 55304 lm

%lum = 94.7%

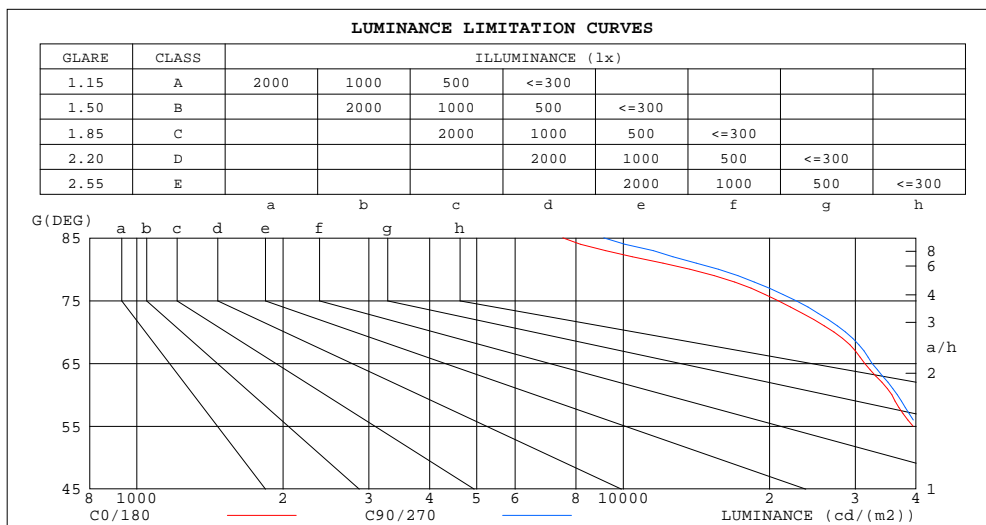
%lamp = 94.7%

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: HSO
Test Date: 24 October 2006

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: NCD-400C-D45

LUMINANCE LIMITATION CURVES

Test:U:220.0V I:1.842A P:395.0W PF:0.9746 Lamp Flux:58400.5x1 lm		
NAME: NCD-400C-D45	TYPE:LED	WEIGHT:
SPEC.:SB3535_274EA_D1*2EA	DIM.:	SERIAL No.:1
MFR.: ICEPIPE	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	7514	9124
80	13723	15692
75	20811	22647
70	27101	28654
65	31360	32478
60	35660	36620
55	39419	40305
50	45519	45519
45	57424	56765

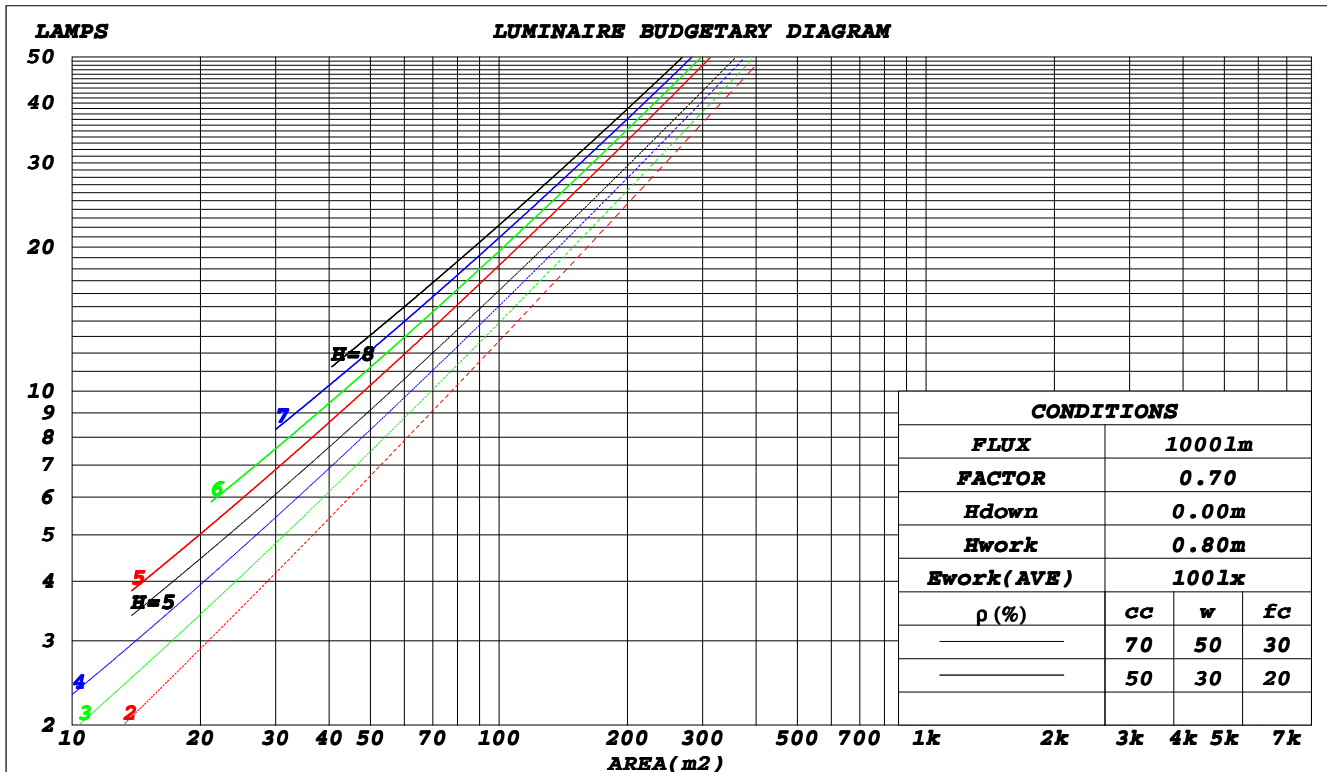
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:HSO
Test Date:24 October 2006

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: NCD-400C-D45

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.0V I:1.842A P:395.0W PF:0.9746 Lamp Flux:58400.5x1 lm		
NAME: NCD-400C-D45	TYPE:LED	WEIGHT:
SPEC.:SB3535_274EA_D1*2EA	DIM.:	SERIAL No.:1
MFR.: ICEPIPE	SUR.:	Shielding Angle:

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						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	1.00	1.00	1.00	.98
1.0	1.10	1.07	1.05	1.07	1.05	1.03	1.03	1.01	.00	.99	.98	.96	.95	.94	.93	.91
2.0	1.02	.98	.94	.00	.96	.93	.96	.93	.91	.93	.91	.88	.90	.88	.86	.85
3.0	.95	.90	.86	.93	.89	.85	.90	.86	.83	.88	.84	.82	.85	.83	.80	.79
4.0	.89	.83	.79	.87	.82	.78	.85	.80	.77	.83	.79	.76	.81	.77	.75	.73
5.0	.83	.77	.73	.82	.77	.72	.80	.75	.72	.78	.74	.71	.76	.73	.70	.69
6.0	.78	.72	.68	.77	.72	.68	.76	.71	.67	.74	.70	.66	.73	.69	.66	.64
7.0	.74	.68	.64	.73	.67	.63	.72	.67	.63	.70	.66	.63	.69	.65	.62	.61
8.0	.70	.64	.60	.69	.64	.60	.68	.63	.59	.67	.62	.59	.66	.62	.59	.57
9.0	.66	.61	.57	.66	.60	.57	.65	.60	.56	.64	.59	.56	.63	.59	.56	.54
10.0	.63	.57	.54	.63	.57	.54	.62	.57	.53	.61	.56	.53	.60	.56	.53	.52



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:HSO
 Test Date:24 October 2006

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: NCD-400C-D45

WEC AND CCEC

Test:U:220.0V I:1.842A P:395.0W PF:0.9746 Lamp Flux:58400.5x1 lm		
NAME: NCD-400C-D45	TYPE:LED	WEIGHT:
SPEC.:SB3535_274EA_D1*2EA	DIM.:	SERIAL No.:1
MFR.: ICEPIPE	SUR.:	Shielding Angle:

ρ_{cc}	80%			70%			50%			30%			10%			0	
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
ρ_{fc}	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.188	.107	.034	.180	.103	.033	.167	.096	.031	.154	.089	.029	.143	.083	.027		
2.0	.178	.098	.030	.172	.095	.029	.161	.089	.028	.150	.084	.026	.140	.079	.025		
3.0	.168	.090	.027	.163	.087	.026	.153	.083	.025	.144	.079	.024	.135	.075	.023		
4.0	.159	.083	.024	.154	.081	.024	.146	.077	.023	.138	.074	.022	.130	.071	.022		
5.0	.150	.076	.022	.146	.075	.022	.138	.072	.021	.131	.069	.021	.125	.067	.020		
6.0	.142	.071	.020	.139	.070	.020	.132	.068	.020	.126	.065	.019	.120	.063	.019		
7.0	.135	.067	.019	.132	.066	.019	.126	.064	.018	.120	.062	.018	.115	.060	.018		
8.0	.128	.063	.018	.126	.062	.017	.120	.060	.017	.115	.058	.017	.110	.057	.017		
9.0	.122	.059	.017	.120	.058	.016	.115	.057	.016	.110	.055	.016	.106	.054	.016		
10.0	.117	.056	.016	.115	.055	.015	.110	.054	.015	.106	.053	.015	.102	.051	.015		

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	.204	.204	.204	.174	.174	.174	.119	.119	.119	.068	.068	.068	.022	.022	.022	
1.0	.185	.171	.157	.159	.146	.135	.108	.101	.094	.062	.058	.054	.020	.019	.018	
2.0	.171	.146	.125	.146	.126	.108	.100	.087	.075	.058	.051	.044	.019	.016	.014	
3.0	.158	.127	.102	.136	.110	.089	.093	.076	.062	.054	.045	.037	.017	.014	.012	
4.0	.148	.113	.085	.127	.097	.074	.087	.068	.052	.051	.040	.031	.016	.013	.010	
5.0	.139	.101	.073	.120	.087	.063	.082	.061	.045	.048	.036	.027	.015	.012	.009	
6.0	.132	.092	.063	.113	.079	.055	.078	.056	.039	.045	.033	.023	.015	.011	.008	
7.0	.125	.084	.056	.108	.073	.048	.074	.051	.034	.043	.030	.020	.014	.010	.007	
8.0	.119	.078	.050	.103	.068	.043	.071	.047	.031	.041	.028	.018	.013	.009	.006	
9.0	.114	.073	.045	.098	.063	.039	.068	.044	.028	.040	.026	.017	.013	.009	.006	
10.0	.109	.068	.041	.094	.059	.036	.065	.042	.026	.038	.025	.015	.012	.008	.005	

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:HSO
Test Date:24 October 2006

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: NCD-400C-D45

UGR(Unified Glare Rating) Table

Test:U:220.0V I:1.842A P:395.0W PF:0.9746 Lamp Flux:58400.5x1 lm		
NAME: NCD-400C-D45	TYPE:LED	WEIGHT:
SPEC.:SB3535_274EA_D1*2EA	DIM.:	SERIAL No.:1
MFR.: ICEPIPE	SUR.:	Shielding Angle:

ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	22.0	23.0	22.3	23.1	23.3	22.1	23.1	22.4	23.3	23.5
3H	22.6	23.5	22.9	23.7	23.9	22.8	23.7	23.1	23.9	24.1
4H	22.8	23.6	23.1	23.9	24.1	23.0	23.9	23.3	24.1	24.4
6H	22.8	23.6	23.1	23.9	24.2	23.1	23.9	23.4	24.2	24.4
8H	22.8	23.6	23.1	23.8	24.1	23.1	23.8	23.4	24.1	24.4
12H	22.8	23.5	23.1	23.8	24.1	23.1	23.8	23.4	24.1	24.4
4H 2H	22.2	23.1	22.5	23.3	23.6	22.4	23.2	22.7	23.4	23.7
3H	23.0	23.7	23.3	24.0	24.3	23.2	23.9	23.5	24.2	24.5
4H	23.2	23.9	23.6	24.2	24.5	23.5	24.1	23.9	24.5	24.8
6H	23.3	23.9	23.7	24.2	24.6	23.6	24.2	24.0	24.6	25.0
8H	23.3	23.8	23.7	24.2	24.6	23.6	24.2	24.1	24.6	25.0
12H	23.3	23.7	23.7	24.1	24.6	23.6	24.1	24.1	24.5	24.9
8H 4H	23.3	23.8	23.7	24.2	24.6	23.5	24.1	23.9	24.4	24.8
6H	23.4	23.8	23.8	24.2	24.7	23.7	24.2	24.2	24.6	25.0
8H	23.4	23.8	23.9	24.2	24.7	23.8	24.1	24.2	24.6	25.1
12H	23.4	23.7	23.8	24.2	24.7	23.7	24.1	24.2	24.5	25.1
12H 4H	23.2	23.7	23.7	24.1	24.5	23.5	24.0	23.9	24.4	24.8
6H	23.4	23.7	23.8	24.2	24.7	23.7	24.1	24.2	24.5	25.0
8H	23.4	23.7	23.9	24.2	24.7	23.7	24.1	24.2	24.5	25.0
Variations with the observer position at spacings:										
S = 1.0H	+ 1.0 / - 1.0					+ 0.8 / - 0.9				
1.5H	+ 1.9 / - 0.7					+ 1.6 / - 0.7				
2.0H	+ 1.0 / - 0.7					+ 0.9 / - 0.5				

CIE Pub.117 Corrected 58400 lm Total Lamp Luminous Flux.(8log(F/F0) = 14.1)

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:HSO
Test Date:24 October 2006

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: NCD-400C-D45

UTILIZATION FACTORS TABLE

Test:U:220.0V I:1.842A P:395.0W PF:0.9746 Lamp Flux:58400.5x1 lm		
NAME: NCD-400C-D45	TYPE:LED	WEIGHT:
SPEC.:SB3535_274EA_D1*2EA	DIM.:	SERIAL No.:1
MFR.: ICEPIPE	SUR.:	Shielding Angle:

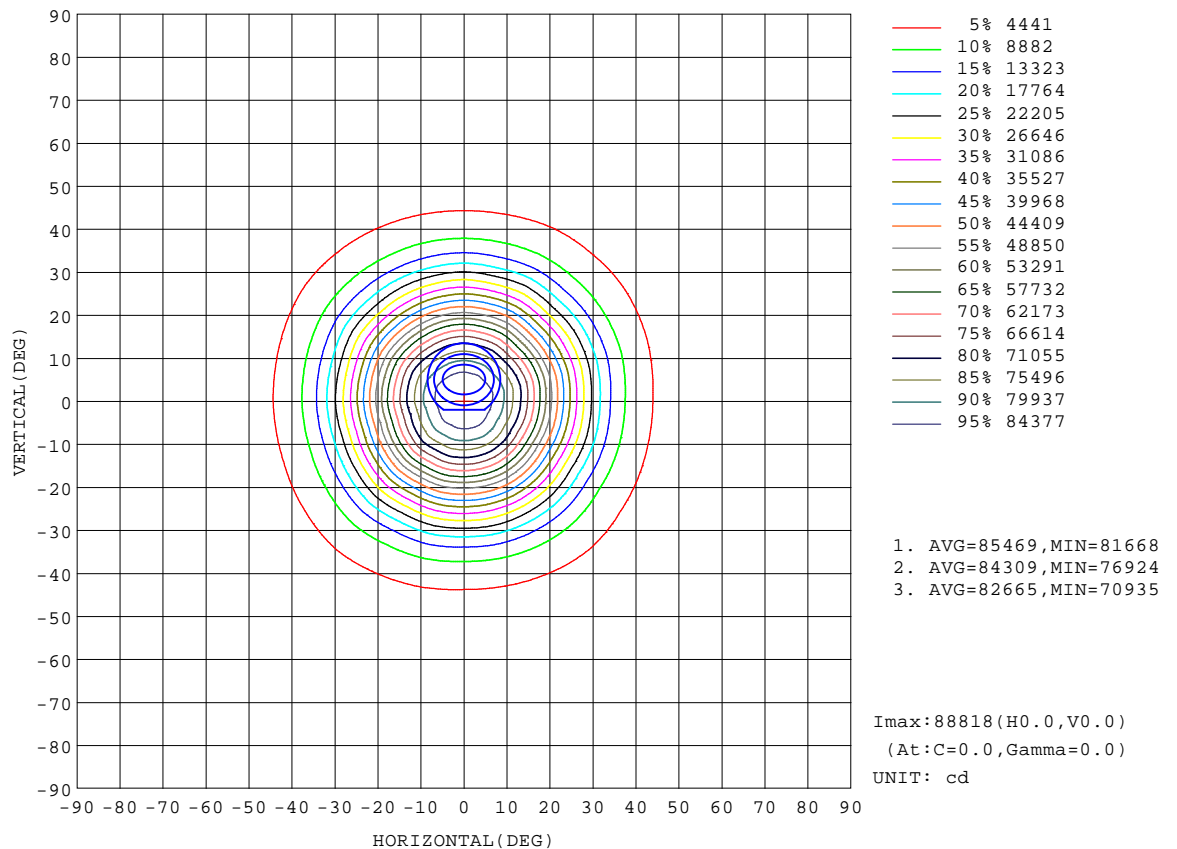
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	82	75	71	82	75	71	81	75	71	67
0.80	90	84	79	89	83	79	88	82	79	74
1.00	95	89	85	94	88	84	92	88	84	79
1.25	100	94	90	99	93	89	96	92	88	84
1.50	103	97	93	101	96	93	99	95	92	86
2.00	106	101	98	104	100	97	101	98	95	89
2.50	108	104	100	106	102	99	103	100	97	91
3.00	110	106	103	108	104	102	104	102	99	92
4.00	112	109	107	110	107	105	106	104	102	94
5.00	114	111	109	111	109	107	107	105	104	95
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:HSO
Test Date:24 October 2006

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: NCD-400C-D45

ISOCANDELA DIAGRAM

Test:U:220.0V I:1.842A P:395.0W PF:0.9746 Lamp Flux:58400.5x1 lm		
NAME: NCD-400C-D45	TYPE:LED	WEIGHT:
SPEC.:SB3535_274EA_D1*2EA	DIM.:	SERIAL No.:1
MFR.: ICEPIPE	SUR.:	Shielding Angle:

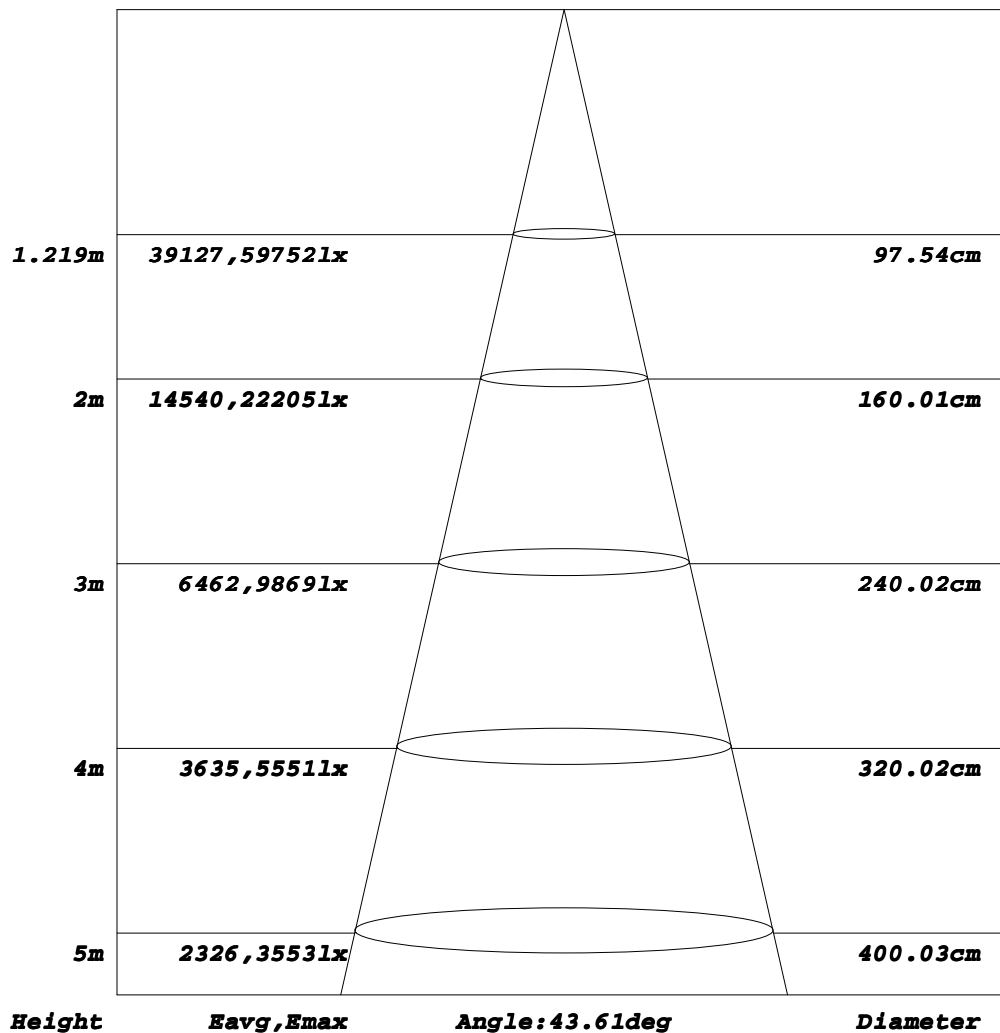


C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:HSO
Test Date:24 October 2006

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: NCD-400C-D45

AAI Figure

Test:U:220.0V I:1.842A P:395.0W PF:0.9746 Lamp Flux:58400.5x1 lm		
NAME: NCD-400C-D45	TYPE:LED	WEIGHT:
SPEC.:SB3535_274EA_D1*2EA	DIM.:	SERIAL No.:1
MFR.: ICEPIPE	SUR.:	Shielding Angle:

Flux out:29826 lm


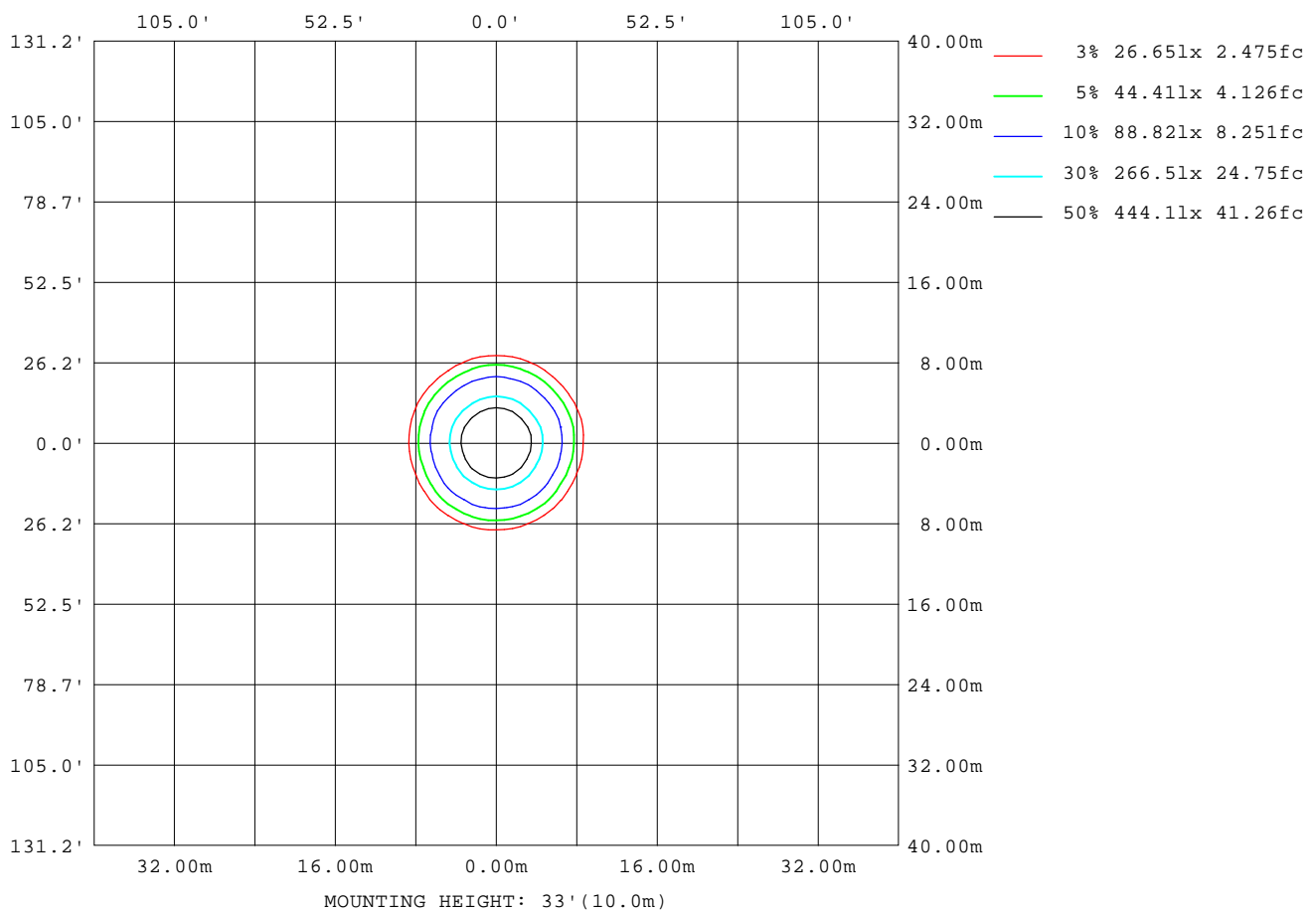
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: HSO
Test Date: 24 October 2006

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: NCD-400C-D45

ISOLUX DIAGRAM

Test:U:220.0V I:1.842A P:395.0W PF:0.9746 Lamp Flux:58400.5x1 lm		
NAME: NCD-400C-D45	TYPE:LED	WEIGHT:
SPEC.:SB3535_274EA_D1*2EA	DIM.:	SERIAL No.:1
MFR.: ICEPIPE	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:HSO
Test Date:24 October 2006

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: NCD-400C-D45

LED Avg.L Report

Test:U:220.0V I:1.842A P:395.0W PF:0.9746 Lamp Flux:58400.5x1 lm		
NAME: NCD-400C-D45	TYPE:LED	WEIGHT:
SPEC.:SB3535_274EA_D1*2EA	DIM.:	SERIAL No.:1
MFR.: ICEPIPE	SUR.:	Shielding Angle:

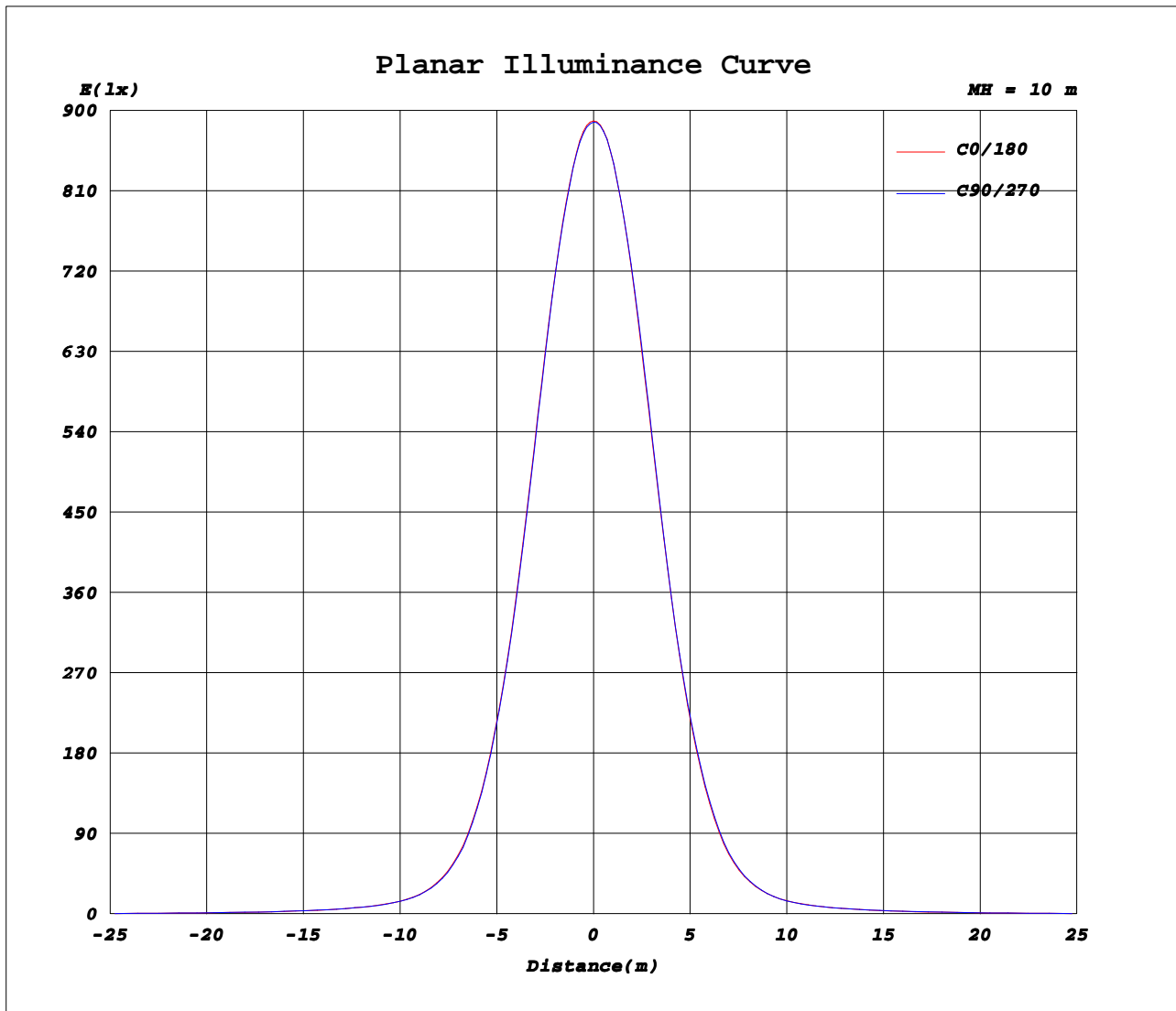
AvgL	cd/m2
L_0~180(65)av	31819
L_0~180(75)av	21190
L_0~180(85)av	6823
L_90~270(65)av	33081
L_90~270(75)av	23236
L_90~270(85)av	8697
L_45(65)av	32520
L_45(75)av	21764
L_45(85)av	8270

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:HSO
Test Date:24 October 2006

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: NCD-400C-D45

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: HSO
Test Date: 24 October 2006

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: NCD-400C-D45

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.0V I:1.842A P:395.0W PF:0.9746 Lamp Flux:58400.5x1 lm																		
NAME: NCD-400C-D45									TYPE:LED					WEIGHT:				
SPEC.:SB3535_274EA_D1*2EA									DIM.:					SERIAL No.:1				
MFR.: ICEPIPE									SUR.:					Shielding Angle:				

Table--1

UNIT: #10cd

γ (DEG) \ C (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	8882	8880	8880	8880	8878	8873	8871	8872	8867	8869	8871	8868	8882	8880	8880	8880	8878	8873	8871
5	8629	8610	8592	8623	8629	8622	8615	8615	8593	8626	8604	8590	8647	8664	8689	8656	8639	8649	8651
10	7846	7816	7771	7835	7860	7836	7830	7850	7813	7870	7814	7777	7884	7907	7954	7899	7875	7888	7895
15	6603	6561	6484	6558	6593	6571	6568	6601	6560	6659	6570	6496	6629	6665	6737	6667	6626	6656	6682
20	5006	4951	4874	4952	5003	4975	4963	5004	4963	5053	4980	4903	5058	5088	5157	5059	5031	5058	5080
25	3452	3405	3327	3405	3439	3424	3422	3450	3407	3497	3427	3365	3504	3531	3602	3518	3493	3511	3534
30	2136	2123	2031	2108	2114	2133	2107	2149	2088	2184	2103	2079	2195	2198	2297	2196	2200	2193	2237
35	1204	1176	1128	1174	1184	1185	1175	1205	1177	1224	1183	1164	1221	1253	1290	1249	1223	1247	1252
40	664	647	629	656	657	652	649	670	664	683	656	650	685	691	710	679	675	687	695
45	406	398	391	407	405	403	401	413	413	418	404	403	421	423	426	414	413	416	417
50	293	289	287	296	295	296	293	301	299	304	294	293	303	305	306	304	303	304	302
55	226	224	225	229	232	229	231	232	233	234	229	225	233	233	239	235	236	235	237
60	178	173	176	180	184	181	183	182	184	182	180	174	182	180	188	185	188	184	188
65	133	130	130	136	138	138	137	139	137	138	132	131	136	136	140	141	142	141	142
70	92.7	88.2	88.9	94.0	99.1	96.8	98.0	97.7	98.1	95.3	92.0	89.0	96.3	93.6	99.0	98.0	102	99.9	102
75	53.9	51.1	50.4	55.9	59.2	58.6	58.6	59.3	58.3	56.2	52.9	52.0	55.8	55.0	58.4	59.0	61.4	61.0	61.7
80	23.8	21.4	21.1	25.7	27.9	27.7	27.2	28.2	27.3	26.4	22.5	22.3	24.8	23.5	26.1	27.0	28.9	28.2	28.8
85	6.55	6.35	6.50	7.70	8.27	8.01	7.95	8.33	8.09	8.20	6.96	6.47	5.34	5.48	6.68	7.07	7.28	7.17	7.21
90	4.34	4.43	4.46	4.38	4.34	4.34	4.34	4.33	4.39	4.36	4.44	4.48	1.75	1.83	1.81	1.80	1.77	1.75	1.74
95	5.29	5.30	5.35	5.30	5.28	5.28	5.29	5.28	5.33	5.25	5.30	5.33	2.08	2.08	2.07	2.11	2.12	2.10	2.09
100	6.42	6.46	6.53	6.45	6.43	6.47	6.48	6.45	6.50	6.40	6.47	6.53	2.68	2.65	2.61	2.66	2.70	2.70	2.69
105	7.91	7.96	8.06	7.95	7.92	7.96	7.99	7.95	8.01	7.89	7.98	8.05	3.69	3.64	3.56	3.64	3.68	3.68	3.66
110	9.83	9.89	10.0	9.88	9.84	9.90	9.93	9.88	9.97	9.81	9.93	10.0	5.25	5.18	5.06	5.18	5.22	5.22	5.20
115	12.2	12.3	12.5	12.3	12.2	12.3	12.4	12.3	12.4	12.2	12.4	12.5	7.49	7.40	7.23	7.39	7.45	7.44	7.41
120	15.2	15.2	15.4	15.1	15.1	15.1	15.3	15.1	15.3	15.0	15.3	15.3	10.4	10.3	10.1	10.3	10.4	10.4	10.3
125	18.5	18.5	18.7	18.4	18.4	18.4	18.6	18.4	18.6	18.3	18.6	18.7	14.0	13.9	13.6	13.9	13.9	13.9	13.8
130	22.1	22.1	22.3	22.0	22.0	22.0	22.1	22.0	22.2	21.9	22.2	22.2	18.0	17.9	17.6	17.9	17.9	17.9	17.7
135	25.7	25.7	26.0	25.6	25.6	25.6	25.7	25.6	25.8	25.5	25.8	25.8	22.2	22.1	21.8	22.1	22.1	22.1	21.9
140	29.1	29.2	29.3	29.1	29.0	29.0	29.1	29.0	29.1	28.9	29.1	29.3	26.2	26.2	25.9	26.2	26.2	26.1	26.0
145	32.1	32.1	32.2	32.1	32.0	32.0	32.0	31.9	32.1	31.9	32.1	32.2	29.9	29.8	29.6	29.8	29.8	29.7	29.6
150	34.3	34.4	34.4	34.3	34.2	34.2	34.2	34.2	34.2	34.1	34.3	34.3	32.7	32.7	32.5	32.6	32.6	32.5	32.5
155	35.7	35.7	35.7	35.5	35.5	35.4	35.5	35.4	35.5	35.5	35.6	35.6	34.6	34.5	34.4	34.5	34.5	34.4	34.3
160	36.1	36.0	36.0	35.9	35.8	35.7	35.8	35.8	35.9	35.9	36.0	35.9	35.4	35.4	35.4	35.3	35.3	35.2	35.1
165	35.8	35.8	35.6	35.5	35.5	35.5	35.5	35.6	35.6	35.7	35.7	35.7	35.5	35.5	35.5	35.4	35.4	35.3	35.2
170	35.5	35.5	35.3	35.2	35.2	35.2	35.3	35.4	35.4	35.4	35.4	35.4	35.4	35.3	35.4	35.4	35.4	35.3	35.2
175	35.6	35.5	35.4	35.4	35.4	35.5	35.5	35.5	35.5	35.4	35.4	35.3	35.5	35.5	35.5	35.5	35.5	35.5	35.5
180	35.7	35.7	35.7	35.7	35.7	35.8	35.8	35.7	35.6	35.6	35.6	35.5	35.7	35.7	35.6	35.7	35.8	35.8	35.8

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:HSO
Test Date:24 October 2006
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: NCD-400C-D45

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.0V I:1.842A P:395.0W PF:0.9746 Lamp Flux:58400.5x1 lm		
NAME: NCD-400C-D45	TYPE:LED	WEIGHT:
SPEC.:SB3535_274EA_D1*2EA	DIM.:	SERIAL No.:1
MFR.: ICEPIPE	SUR.:	Shielding Angle:

Table--2

UNIT: #10cd

C(DEG) γ (DEG)	285	300	315	330	345														
0	8872	8867	8869	8871	8868														
5	8636	8647	8625	8652	8668														
10	7879	7907	7842	7892	7925														
15	6651	6680	6596	6658	6715														
20	5054	5110	4997	5068	5123														
25	3505	3553	3447	3516	3566														
30	2178	2248	2149	2240	2244														
35	1240	1258	1224	1260	1286														
40	686	696	673	696	706														
45	417	423	412	422	425														
50	303	307	301	302	303														
55	235	239	233	235	231														
60	184	189	181	183	179														
65	140	142	135	135	135														
70	98.8	102	93.1	94.2	93.2														
75	59.9	61.3	54.2	54.2	55.1														
80	27.6	29.0	23.8	22.5	23.9														
85	6.90	7.44	5.87	5.44	5.39														
90	1.77	1.79	1.81	1.82	1.82														
95	2.13	2.13	2.16	2.11	2.09														
100	2.72	2.68	2.73	2.68	2.64														
105	3.71	3.64	3.73	3.64	3.59														
110	5.26	5.17	5.29	5.17	5.08														
115	7.48	7.36	7.53	7.36	7.25														
120	10.4	10.3	10.5	10.3	10.1														
125	13.9	13.8	14.0	13.7	13.6														
130	17.9	17.6	18.0	17.7	17.6														
135	22.1	21.8	22.2	21.8	21.7														
140	26.1	25.8	26.2	25.9	25.8														
145	29.7	29.5	29.7	29.5	29.4														
150	32.5	32.4	32.5	32.4	32.3														
155	34.3	34.2	34.3	34.3	34.3														
160	35.1	35.0	35.1	35.1	35.2														
165	35.1	35.1	35.1	35.2	35.3														
170	35.1	35.1	35.1	35.1	35.2														
175	35.4	35.4	35.4	35.4	35.4														
180	35.7	35.6	35.6	35.6	35.6														

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:HSO
Test Date:24 October 2006

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: NCD-400C-D45

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	88818	88799	88805	88798	88781	88735	88712	88725	88675	88692
3.0	88022	87835	87694	87836	87892	87813	87777	87777	87647	87885
6.0	85047	84892	84691	85083	85137	85033	84956	84943	84725	85133
9.0	80483	80116	79713	80315	80534	80304	80243	80376	80052	80583
12.0	74043	73677	73161	73841	74110	73920	73867	74112	73691	74454
15.0	66035	65612	64836	65581	65932	65714	65680	66013	65597	66589
18.0	56590	56073	55380	56096	56561	56332	56186	56670	56159	57162
21.0	46846	46302	45481	46321	46785	46578	46410	46834	46417	47301
24.0	37444	37027	36218	37065	37392	37258	37161	37511	37060	37988
27.0	28938	28467	27719	28405	28705	28612	28622	28836	28406	29260
30.0	21361	21226	20310	21080	21140	21327	21068	21494	20879	21844
33.0	15186	14998	14308	14917	14951	15093	14871	15272	14777	15531
36.0	10637	10388	9960	10401	10458	10467	10358	10677	10439	10856
39.0	7422	7235	7010	7313	7330	7300	7249	7491	7396	7637
42.0	5356	5222	5092	5321	5316	5294	5262	5415	5397	5509
45.0	4060	3976	3911	4067	4055	4032	4014	4130	4125	4179
48.0	3306	3239	3206	3319	3325	3301	3278	3370	3373	3394
51.0	2772	2745	2724	2792	2796	2798	2780	2837	2834	2870
54.0	2375	2350	2360	2403	2424	2404	2421	2431	2441	2455
57.0	2049	2028	2048	2086	2108	2088	2108	2106	2114	2117
60.0	1783	1733	1763	1799	1836	1806	1831	1820	1836	1821
63.0	1502	1472	1475	1532	1557	1546	1550	1561	1556	1551
66.0	1249	1222	1220	1275	1304	1298	1297	1307	1297	1295
69.0	1012	965.3	974.3	1023	1073	1050	1063	1060	1063	1037
72.0	761.9	723.6	726.6	778.9	825.2	808.4	814.9	815.3	814.6	786.0
75.0	538.6	510.9	504.3	559.1	591.8	586.5	586.1	593.4	582.7	562.5
78.0	352.6	320.6	314.6	366.6	393.1	389.1	386.6	395.2	386.0	369.5
81.0	188.9	169.9	170.4	211.0	227.9	223.3	221.3	229.2	223.6	215.2
84.0	85.40	80.51	83.15	102.0	110.4	106.2	105.4	110.9	108.1	107.3
87.0	44.48	44.60	44.32	47.45	48.50	48.20	47.72	49.58	48.28	50.96
90.0	43.43	44.28	44.55	43.81	43.38	43.38	43.39	43.31	43.92	43.63
93.0	49.09	49.49	49.75	49.18	48.82	48.83	48.86	48.74	49.35	48.85
96.0	54.95	55.07	55.60	55.04	54.84	54.98	55.06	54.90	55.40	54.55
99.0	61.70	62.00	62.75	61.96	61.79	62.02	62.17	61.93	62.38	61.42
102.0	69.73	70.11	70.99	70.09	69.84	70.18	70.35	70.07	70.55	69.51
105.0	79.10	79.57	80.59	79.52	79.23	79.62	79.87	79.51	80.13	78.91
108.0	90.07	90.61	91.76	90.54	90.18	90.68	90.96	90.53	91.31	89.87
111.0	102.8	103.4	104.6	103.3	102.8	103.4	103.8	103.3	104.2	102.5
114.0	117.3	117.9	119.3	117.7	117.2	117.9	118.3	117.8	118.8	117.0
117.0	133.5	134.2	135.8	133.9	133.4	134.2	134.7	134.1	135.3	133.2
120.0	151.6	151.6	153.9	151.2	151.4	151.3	152.7	151.2	153.3	150.4
123.0	171.1	171.0	173.6	170.6	170.8	170.8	172.1	170.7	172.8	169.8
126.0	191.8	191.8	194.3	191.3	191.4	191.4	192.7	191.3	193.4	190.4
129.0	213.2	213.3	215.9	212.6	212.7	212.6	214.0	212.5	214.8	211.4
132.0	235.0	235.2	237.8	234.7	234.4	234.4	235.6	234.1	236.4	233.2
135.0	256.8	257.0	259.5	256.4	256.1	256.1	257.3	255.7	257.8	254.9
138.0	277.7	277.9	280.3	277.5	276.9	277.1	277.9	276.7	278.4	275.8
141.0	297.3	297.9	299.6	297.4	296.4	296.8	297.3	296.3	297.7	295.5
144.0	315.1	315.6	317.1	315.0	314.3	314.4	314.9	314.1	315.3	313.4
147.0	330.6	331.2	332.1	330.3	329.5	329.7	330.1	329.3	330.4	328.8
150.0	343.2	343.5	344.1	342.6	341.7	341.7	342.1	341.5	342.4	341.3
153.0	352.3	352.6	352.9	351.6	350.6	350.5	350.7	350.4	351.2	350.6
156.0	358.1	358.1	357.9	356.8	355.8	355.6	356.0	355.9	356.6	356.4
159.0	360.5	360.4	359.6	358.8	357.7	357.5	357.8	358.0	358.7	358.9
162.0	360.1	359.8	358.7	357.7	356.9	356.8	357.0	357.5	357.9	358.6
165.0	358.3	357.8	356.2	355.4	354.7	354.7	355.0	355.6	356.1	356.9
168.0	356.2	355.5	353.9	352.7	352.8	352.8	353.4	354.1	354.2	354.9
171.0	355.0	354.2	352.8	352.2	352.0	352.4	353.2	353.6	353.6	353.9
174.0	355.4	355.0	354.2	353.8	353.7	354.5	355.1	355.2	354.6	353.8
177.0	356.2	355.8	355.1	355.0	354.9	355.9	356.4	356.2	355.1	354.5
180.0	357.0	357.0	356.6	356.6	356.8	357.8	357.9	357.3	356.4	356.0
G/C	150.0	165.0	180.0	195.0	210.0	225.0	240.0	255.0	270.0	285.0
0.0	88706	88684	88818	88799	88805	88798	88781	88735	88712	88725
3.0	87759	87700	88066	88159	88294	88114	88016	88022	88020	87923
6.0	84819	84635	85356	85571	85866	85506	85311	85389	85397	85216
9.0	80085	79788	80755	80984	81433	80943	80666	80781	80816	80669
12.0	73800	73137	74363	74735	75284	74634	74342	74535	74657	74444
15.0	65699	64957	66286	66648	67365	66669	66265	66562	66818	66506
18.0	56356	55548	57092	57362	58071	57151	56847	57146	57417	57118
21.0	46580	45856	47393	47694	48310	47406	47124	47396	47547	47360
24.0	37263	36641	38068	38304	38990	38153	37862	38092	38280	38039
27.0	28643	28240	29376	29570	30474	29529	29340	29472	29787	29343
30.0	21030	20789	21954	21982	22975	21958	21996	21932	22365	21775

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: HSO
Test Date: 24 October 2006
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: NCD-400C-D45

Photometric Data Table [cd]

33.0	14911	14768	15593	15716	16438	15680	15605	15611	15948	15506
36.0	10466	10299	10826	11090	11405	11042	10791	11051	11070	10991
39.0	7320	7258	7644	7734	7960	7627	7547	7692	7770	7688
42.0	5301	5276	5557	5594	5703	5465	5456	5525	5581	5528
45.0	4044	4027	4211	4233	4262	4140	4134	4159	4167	4172
48.0	3300	3285	3419	3415	3453	3382	3396	3379	3382	3397
51.0	2786	2759	2850	2880	2893	2879	2862	2878	2855	2871
54.0	2407	2362	2446	2449	2498	2468	2474	2465	2476	2458
57.0	2083	2034	2110	2109	2179	2139	2155	2135	2169	2132
60.0	1795	1745	1820	1803	1884	1846	1878	1840	1884	1840
63.0	1506	1484	1546	1533	1598	1580	1604	1580	1609	1576
66.0	1242	1229	1281	1276	1315	1319	1333	1330	1339	1321
69.0	1002	974.1	1048	1022	1074	1064	1102	1083	1103	1072
72.0	753.5	730.5	789.5	772.0	820.7	815.6	854.4	835.9	851.4	825.0
75.0	529.3	519.7	558.3	549.8	584.0	590.0	614.4	610.2	616.6	598.7
78.0	332.3	333.3	364.7	352.5	375.0	386.5	405.8	403.4	406.7	395.4
81.0	180.0	176.3	194.9	184.7	204.4	220.2	233.0	228.3	231.6	223.3
84.0	88.63	82.34	77.68	77.33	92.55	100.1	104.8	102.0	102.4	99.22
87.0	46.95	45.43	25.39	27.34	32.40	31.84	31.14	31.60	31.80	29.87
90.0	44.37	44.81	17.55	18.33	18.14	18.01	17.73	17.51	17.41	17.68
93.0	49.40	49.77	19.17	19.69	19.50	19.64	19.55	19.37	19.25	19.61
96.0	55.02	55.47	21.75	21.57	21.46	21.93	22.10	21.99	21.87	22.21
99.0	62.14	62.63	25.36	25.09	24.68	25.18	25.56	25.53	25.41	25.75
102.0	70.33	70.89	30.26	29.89	29.32	29.95	30.31	30.35	30.21	30.58
105.0	79.85	80.50	36.86	36.37	35.58	36.37	36.76	36.80	36.63	37.10
108.0	90.96	91.69	45.49	44.86	43.83	44.84	45.27	45.27	45.06	45.60
111.0	103.8	104.6	56.39	55.67	54.36	55.63	56.10	56.06	55.79	56.43
114.0	118.4	119.3	69.88	68.94	67.41	68.92	69.47	69.33	69.05	69.77
117.0	134.8	135.8	85.92	84.85	83.04	84.79	85.42	85.19	84.85	85.65
120.0	152.9	153.2	104.5	103.3	101.2	103.2	103.9	103.6	103.2	104.1
123.0	172.5	172.9	125.3	124.0	121.7	123.9	124.7	124.3	123.7	124.7
126.0	193.1	193.6	147.3	146.6	143.8	146.5	146.4	146.8	145.4	147.2
129.0	214.4	215.0	171.3	170.7	167.3	170.6	170.5	170.7	169.3	170.9
132.0	236.2	236.9	196.5	195.7	192.3	195.5	195.5	195.5	194.0	195.7
135.0	257.8	258.5	221.6	221.0	217.5	220.8	220.7	220.7	219.1	220.7
138.0	278.4	279.4	246.5	245.9	242.6	245.7	245.6	245.5	243.9	245.3
141.0	297.6	298.9	270.3	269.7	266.5	269.5	269.3	269.1	267.6	268.8
144.0	315.2	316.4	292.0	291.1	288.9	291.0	291.2	290.5	289.4	290.1
147.0	330.5	331.3	311.2	310.4	308.4	310.2	310.3	309.5	308.6	309.0
150.0	342.7	343.4	327.3	326.6	325.0	326.4	326.3	325.5	324.6	324.8
153.0	351.6	352.1	339.7	339.1	338.0	338.9	338.7	337.9	337.0	336.9
156.0	357.2	357.4	348.2	347.8	347.2	347.6	347.2	346.4	345.6	345.3
159.0	359.4	359.5	353.1	352.8	352.6	352.5	352.0	351.3	350.5	349.7
162.0	359.1	358.9	354.9	354.6	354.6	354.3	353.7	353.0	352.0	351.2
165.0	357.1	357.0	354.8	354.5	354.7	354.3	353.6	353.0	351.9	351.0
168.0	354.9	354.5	353.8	353.6	354.1	354.0	353.1	352.4	351.7	350.7
171.0	353.7	353.2	353.6	353.4	353.9	354.2	354.0	353.4	352.6	351.8
174.0	353.4	353.3	354.8	354.1	354.2	354.3	354.9	354.9	354.5	353.7
177.0	354.4	354.2	355.9	355.5	355.6	355.4	356.0	356.9	356.7	355.9
180.0	356.0	355.4	357.3	356.7	356.7	356.5	356.9	357.7	357.8	357.3
G/C	300.0	315.0	330.0	345.0						
0.0	88675	88692	88706	88684						
3.0	87974	87805	87977	88073						
6.0	85427	85173	85459	85637						
9.0	81016	80419	80849	81142						
12.0	74705	73998	74531	74977						
15.0	66801	65955	66577	67147						
18.0	57612	56506	57305	57850						
21.0	47872	46789	47395	48014						
24.0	38515	37527	38067	38670						
27.0	29877	28897	29645	30005						
30.0	22477	21491	22404	22441						
33.0	16059	15318	16039	16086						
36.0	11117	10839	11138	11396						
39.0	7786	7539	7787	7916						
42.0	5611	5431	5613	5653						
45.0	4230	4117	4219	4247						
48.0	3453	3355	3406	3407						
51.0	2895	2856	2848	2857						
54.0	2503	2445	2461	2427						
57.0	2180	2111	2133	2090						
60.0	1894	1806	1831	1789						
63.0	1611	1531	1540	1525						
66.0	1338	1269	1266	1270						

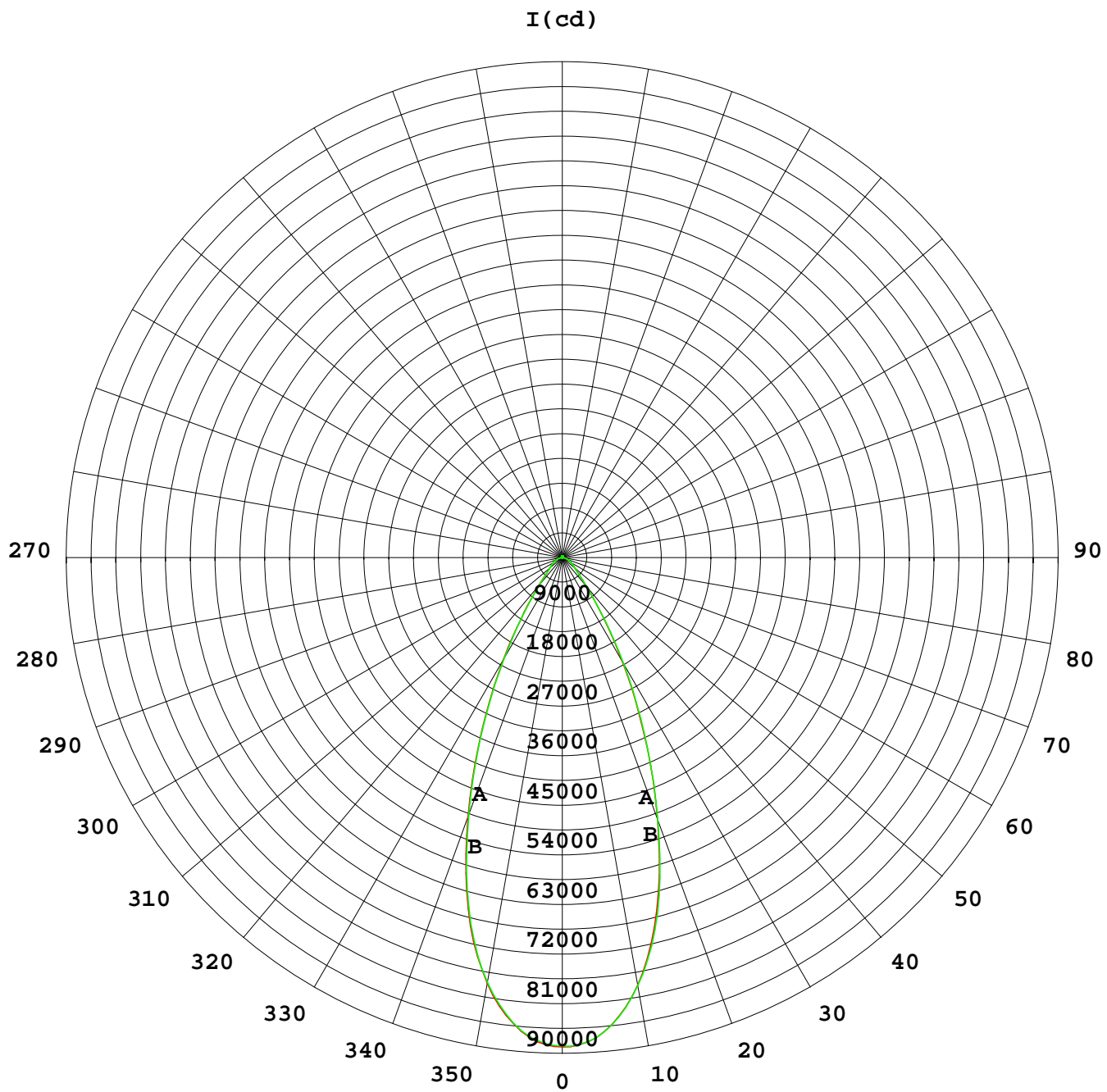
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: HSO
Test Date: 24 October 2006
γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.351
Humidity: 65.0%
Test Distance: 8.100m [K=1.0000]
Remarks: NCD-400C-D45

Photometric Data Table [cd]

69.0	1106	1015	1026	1016
72.0	855.8	766.5	774.1	767.5
75.0	613.3	541.6	542.1	550.8
78.0	406.4	347.8	336.2	355.6
81.0	233.9	191.3	176.4	186.5
84.0	106.7	83.71	75.67	76.45
87.0	31.89	26.78	26.69	26.51
90.0	17.94	18.10	18.17	18.17
93.0	19.75	20.13	19.88	19.76
96.0	22.14	22.38	21.93	21.66
99.0	25.44	25.82	25.34	24.97
102.0	30.08	30.71	30.05	29.60
105.0	36.44	37.27	36.43	35.85
108.0	44.82	45.91	44.82	44.06
111.0	55.51	56.82	55.49	54.57
114.0	68.67	70.27	68.66	67.57
117.0	84.40	86.28	84.41	83.07
120.0	102.6	104.8	102.6	101.2
123.0	123.0	125.5	123.1	121.5
126.0	144.6	147.9	144.7	143.8
129.0	168.3	171.8	168.4	167.5
132.0	192.9	196.5	193.2	192.3
135.0	217.8	221.5	218.2	217.3
138.0	242.6	246.0	242.9	242.1
141.0	266.2	269.6	266.6	265.9
144.0	288.0	290.7	288.4	287.4
147.0	307.4	309.6	307.8	307.0
150.0	323.5	325.4	324.0	323.3
153.0	335.9	337.6	336.5	336.2
156.0	344.5	345.8	345.3	345.3
159.0	349.3	350.3	350.2	350.7
162.0	351.0	351.5	352.2	352.9
165.0	350.8	351.3	351.9	352.9
168.0	350.4	350.7	351.2	352.1
171.0	351.2	351.4	351.5	352.0
174.0	353.2	353.3	353.3	353.3
177.0	355.4	355.3	355.0	354.9
180.0	356.3	356.1	355.9	355.6

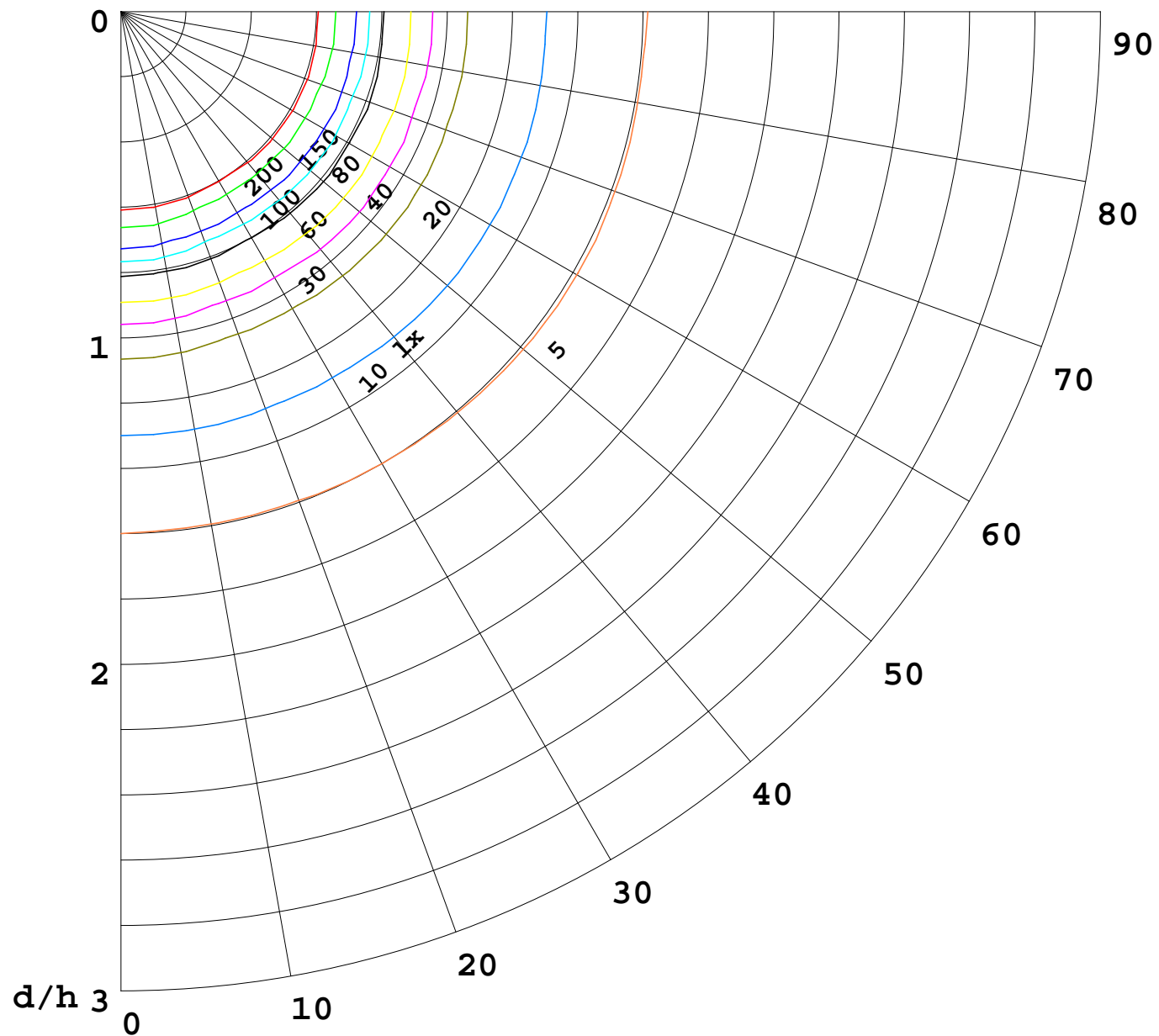
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: HSO
Test Date: 24 October 2006

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: NCD-400C-D45



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

