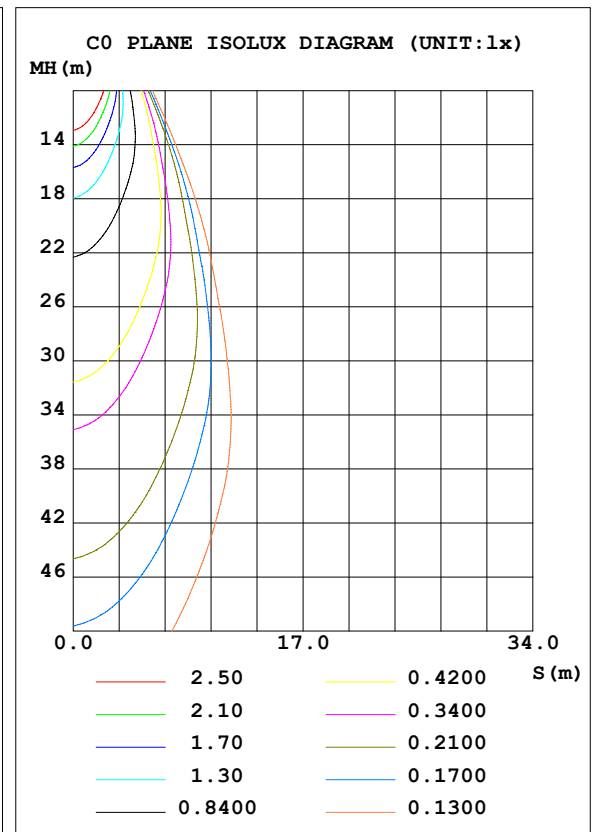
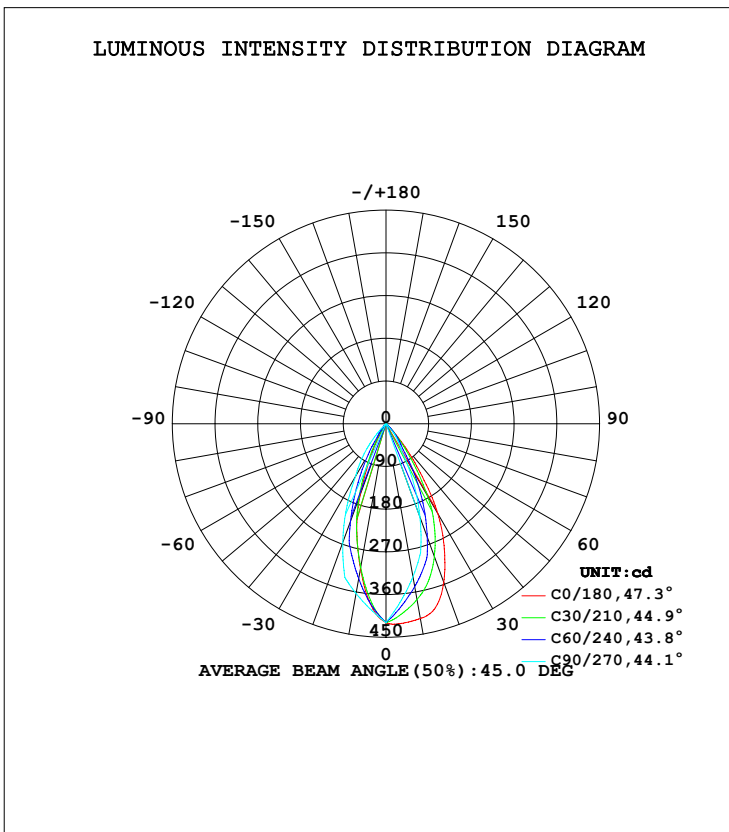


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: Yuca Round Tilted 3W-45D-3000K-80	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	Yuca Round Tilted 3W-45D-3000K-80	Imax (cd)	422.7	S/MH (C0/180)	0.55
NOMINAL POWER (W)	3	LOR (%)	100.0	S/MH (C90/270)	0.76
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	246.32	η UP, DN (C0-180)	0.0, 54.6
NOMINAL FLUX (lm)	246.317	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 45.4
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE (V)	229.9	η down (%)	100.0	CIBSE SHR MAX	0.75



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DOBAC  
 Test Date: 2017-11-09

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
 Humidity: 65.0%  
 Test Distance: 6.960m [K=1.0000]  
 Remarks:

**ZONAL FLUX DIAGRAM**

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	lum, lamp
5	380.5	375.6	391.0	406.0	421.6	391.9	373.1	364.4	0- 5	9.535	9.535	3.87,3.87
10	310.1	317.3	363.1	391.9	416.7	361.0	327.4	296.9	5- 10	26.08	35.62	14.5,14.5
15	237.8	258.2	335.3	374.0	401.7	324.9	281.6	228.4	10- 15	38.33	73.95	30,30
20	158.3	200.4	266.4	346.1	355.8	280.1	209.7	160.5	15- 20	44.90	118.9	48.3,48.3
25	79.34	120.1	197.5	279.4	291.1	214.7	137.7	89.86	20- 25	43.25	162.1	65.8,65.8
30	22.68	56.06	128.7	202.9	219.0	145.0	65.78	39.67	25- 30	35.25	197.4	80.1,80.1
35	5.472	18.78	87.04	125.3	126.3	77.24	44.65	13.41	30- 35	24.14	221.5	89.9,89.9
40	2.808	3.904	45.40	56.90	56.33	23.39	23.52	3.061	35- 40	14.44	235.9	95.8,95.8
45	1.947	2.403	3.753	26.45	12.03	10.09	2.390	2.094	40- 45	6.554	242.5	98.4,98.4
50	1.196	1.561	2.804	9.239	3.930	3.942	1.775	1.352	45- 50	1.918	244.4	99.2,99.2
55	0.6848	0.9270	1.856	1.933	2.010	1.648	1.160	0.7424	50- 55	0.8357	245.2	99.6,99.6
60	0.3167	0.5333	0.9083	1.372	1.369	1.128	0.5447	0.3999	55- 60	0.5132	245.8	99.8,99.8
65	0.0134	0.1934	0.6120	0.8719	0.8435	0.6735	0.3631	0.1267	60- 65	0.2998	246.1	99.9,99.9
70	0	0.0217	0.3157	0.4946	0.4964	0.3517	0.1816	0	65- 70	0.1703	246.2	100,100
75	0	0.0035	0.0194	0.2248	0.2157	0.1572	0	0	70- 75	0.0804	246.3	100,100
80	0	0	0	0.0027	0.0117	0	0	0	75- 80	0.0150	246.3	100,100
85	0	0	0	0	0	0	0	0	80- 85	0.0005	246.3	100,100
90	0	0	0	0	0	0	0	0	85- 90	0	246.3	100,100
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:cd								UNIT:lm			

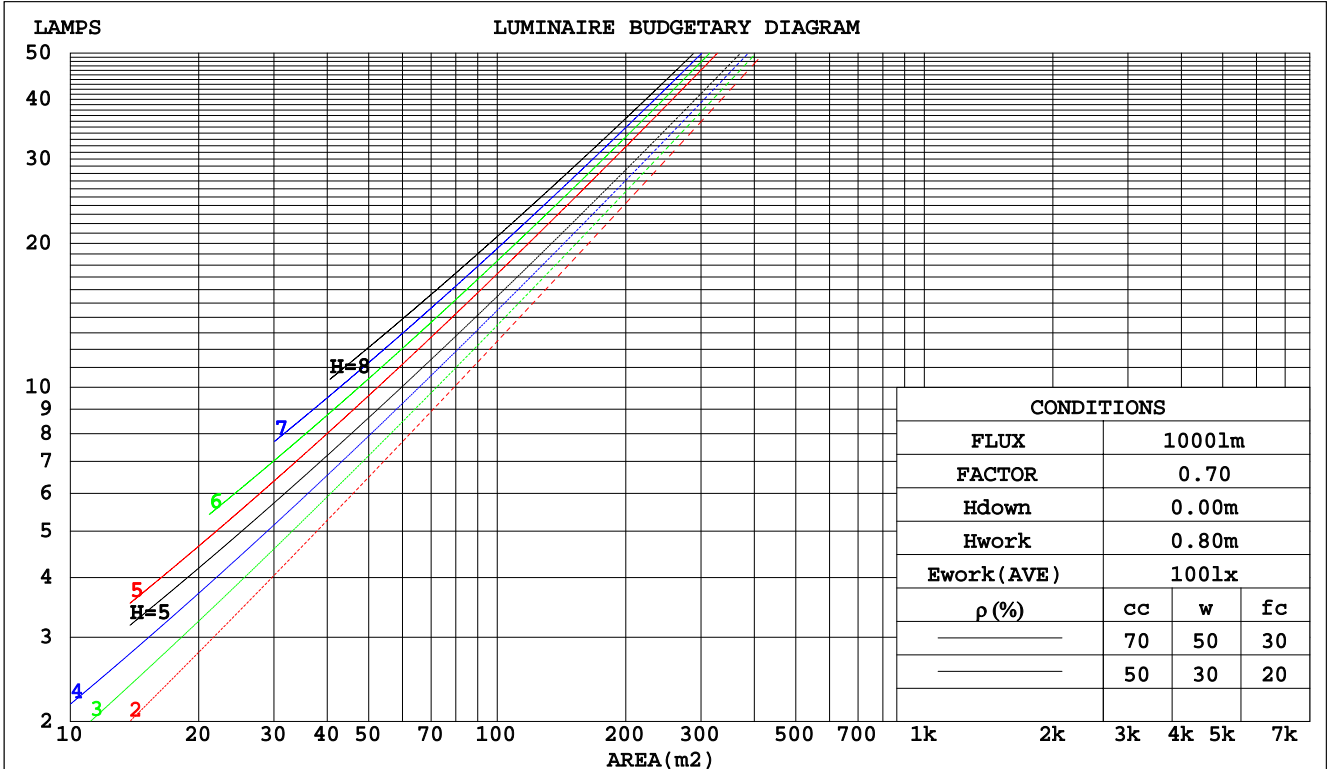
C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DOBAC  
Test Date:2017-11-09

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity:65.0%  
Test Distance:6.960m [K=1.0000]  
Remarks:

**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

NAME: Yuca Round Tilted 3W-45D-3000K-80	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pw																0
pfc	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	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1.0	1.11	1.09	1.07	1.09	1.07	1.05	1.05	1.04	1.02	1.01	1.00	.99	.98	.97	.96	.94
2.0	1.04	1.01	.97	1.03	.99	.96	.99	.97	.94	.97	.94	.92	.94	.92	.90	.89
3.0	.98	.93	.90	.97	.92	.89	.94	.91	.88	.92	.89	.86	.89	.87	.85	.84
4.0	.92	.87	.83	.91	.86	.83	.89	.85	.82	.87	.84	.81	.85	.82	.80	.79
5.0	.87	.82	.78	.86	.81	.77	.84	.80	.77	.83	.79	.76	.81	.78	.75	.74
6.0	.82	.77	.73	.82	.76	.73	.80	.76	.72	.79	.75	.72	.78	.74	.71	.70
7.0	.78	.73	.69	.77	.72	.69	.76	.72	.68	.75	.71	.68	.74	.70	.67	.66
8.0	.74	.69	.65	.74	.68	.65	.73	.68	.64	.72	.67	.64	.71	.67	.64	.63
9.0	.70	.65	.61	.70	.65	.61	.69	.64	.61	.68	.64	.61	.67	.64	.61	.59
10.0	.67	.62	.58	.67	.62	.58	.66	.61	.58	.65	.61	.58	.65	.61	.58	.57



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: DOBAC  
Test Date: 2017-11-09

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity: 65.0%  
Test Distance: 6.960m [K=1.0000]  
Remarks:

WEC AND CCEC

NAME: Yuca Round Tilted 3W-45D-3000K-80	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.166	.095	.030	.160	.091	.029	.147	.084	.027	.136	.078	.025	.125	.072	.023	
2.0	.158	.087	.027	.153	.084	.026	.142	.079	.025	.133	.074	.023	.124	.070	.022	
3.0	.150	.080	.024	.146	.078	.023	.137	.074	.023	.129	.070	.022	.121	.067	.021	
4.0	.143	.074	.022	.139	.073	.021	.131	.070	.021	.124	.067	.020	.118	.064	.019	
5.0	.136	.069	.020	.133	.068	.020	.126	.066	.019	.120	.063	.019	.114	.061	.018	
6.0	.130	.065	.019	.127	.064	.018	.121	.062	.018	.116	.060	.018	.111	.058	.017	
7.0	.124	.062	.017	.122	.061	.017	.117	.059	.017	.112	.057	.017	.107	.056	.016	
8.0	.119	.058	.016	.117	.058	.016	.112	.056	.016	.108	.055	.016	.104	.053	.016	
9.0	.114	.055	.015	.112	.055	.015	.108	.053	.015	.104	.052	.015	.101	.051	.015	
10.0	.110	.053	.015	.108	.052	.015	.104	.051	.014	.101	.050	.014	.098	.049	.014	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.170	.157	.146	.146	.135	.125	.100	.093	.087	.057	.054	.050	.018	.017	.016	
2.0	.154	.133	.114	.132	.114	.099	.091	.079	.069	.052	.046	.040	.017	.015	.013	
3.0	.141	.113	.091	.121	.098	.079	.083	.068	.055	.048	.040	.033	.015	.013	.011	
4.0	.131	.099	.074	.112	.085	.064	.077	.059	.045	.045	.035	.027	.014	.011	.009	
5.0	.122	.087	.061	.104	.075	.053	.072	.052	.038	.042	.031	.022	.013	.010	.007	
6.0	.114	.077	.051	.098	.067	.045	.068	.047	.032	.039	.028	.019	.013	.009	.006	
7.0	.107	.070	.043	.092	.060	.038	.064	.042	.027	.037	.025	.016	.012	.008	.005	
8.0	.102	.063	.037	.087	.055	.032	.060	.039	.023	.035	.023	.014	.011	.007	.005	
9.0	.096	.058	.032	.083	.050	.028	.058	.035	.020	.034	.021	.012	.011	.007	.004	
10.0	.092	.054	.028	.079	.047	.025	.055	.033	.018	.032	.019	.010	.010	.006	.003	

C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DOBAC  
 Test Date:2017-11-09

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
 Humidity:65.0%  
 Test Distance:6.960m [K=1.0000]  
 Remarks:

Uncorrected UGR Table

NAME: Yuca Round Tilted 3W-45D-3000K-80						TYPE:					WEIGHT:				
DIM.:						SPEC.:					SERIAL No.:				
MFR.: DOBAC						SUR.:					PROTECTION ANGLE:				
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3	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	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	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise									
x = 2H y = 2H	1.5	2.4	1.7	2.5	2.7	14.1	15.0	14.3	15.1	15.3	14.1	15.0	14.3	15.1	15.3
3H	1.3	2.1	1.6	2.3	2.5	13.9	14.7	14.2	14.9	15.1	13.9	14.7	14.2	14.9	15.1
4H	1.3	2.0	1.5	2.2	2.4	13.9	14.6	14.1	14.8	15.1	13.9	14.6	14.1	14.8	15.1
6H	1.2	1.9	1.5	2.1	2.4	13.8	14.5	14.1	14.7	15.0	13.8	14.5	14.1	14.7	15.0
8H	1.1	1.8	1.4	2.1	2.3	13.7	14.4	14.0	14.7	14.9	13.7	14.4	14.0	14.7	14.9
12H	1.1	1.7	1.4	2.0	2.3	13.7	14.3	14.0	14.6	14.9	13.7	14.3	14.0	14.6	14.9
4H 2H	1.4	2.2	1.7	2.4	2.6	13.8	14.6	14.1	14.8	15.0	13.8	14.6	14.1	14.8	15.0
3H	1.2	1.9	1.6	2.2	2.4	13.7	14.3	14.0	14.6	14.9	13.7	14.3	14.0	14.6	14.9
4H	1.1	1.7	1.5	2.0	2.3	13.6	14.2	13.9	14.5	14.8	13.6	14.2	13.9	14.5	14.8
6H	1.0	1.6	1.4	1.9	2.2	13.5	14.0	13.9	14.3	14.7	13.5	14.0	13.9	14.3	14.7
8H	1.0	1.5	1.4	1.8	2.2	13.4	13.9	13.8	14.3	14.6	13.4	13.9	13.8	14.3	14.6
12H	0.9	1.4	1.3	1.8	2.1	13.4	13.8	13.8	14.2	14.6	13.4	13.8	13.8	14.2	14.6
8H 4H	1.0	1.5	1.4	1.8	2.2	13.4	13.9	13.8	14.3	14.6	13.4	13.9	13.8	14.3	14.6
6H	0.9	1.3	1.3	1.7	2.1	13.3	13.7	13.8	14.1	14.5	13.3	13.7	13.8	14.1	14.5
8H	0.8	1.2	1.3	1.6	2.1	13.3	13.6	13.7	14.0	14.5	13.3	13.6	13.7	14.0	14.5
12H	0.8	1.1	1.3	1.5	2.0	13.2	13.5	13.7	14.0	14.4	13.2	13.5	13.7	14.0	14.4
12H 4H	1.0	1.4	1.4	1.8	2.2	13.4	13.8	13.8	14.2	14.6	13.4	13.8	13.8	14.2	14.6
6H	0.8	1.2	1.3	1.6	2.1	13.3	13.6	13.7	14.0	14.5	13.3	13.6	13.7	14.0	14.5
8H	0.8	1.1	1.3	1.5	2.0	13.2	13.5	13.7	14.0	14.4	13.2	13.5	13.7	14.0	14.4
Variations with the observer position at spacings:															
S = 1.0H	+ 1.9 / - 4.7					+ 5.6 / -14.4									
1.5H	+ 2.4 / - 2.4					+ 8.4 / -13.1									
2.0H	+ 3.6 / - 8.0					+ 4.3 / - 5.4									

CIE Pub.117 Corrected 246.3 lm Total Lamp Luminous Flux. (8log(F/F0) = -4.9)

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: DOBAC  
Test Date: 2017-11-09

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity: 65.0%  
Test Distance: 6.960m [K=1.0000]  
Remarks:

UTILIZATION FACTORS TABLE

NAME: Yuca Round Tilted 3W-45D-3000K-80	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

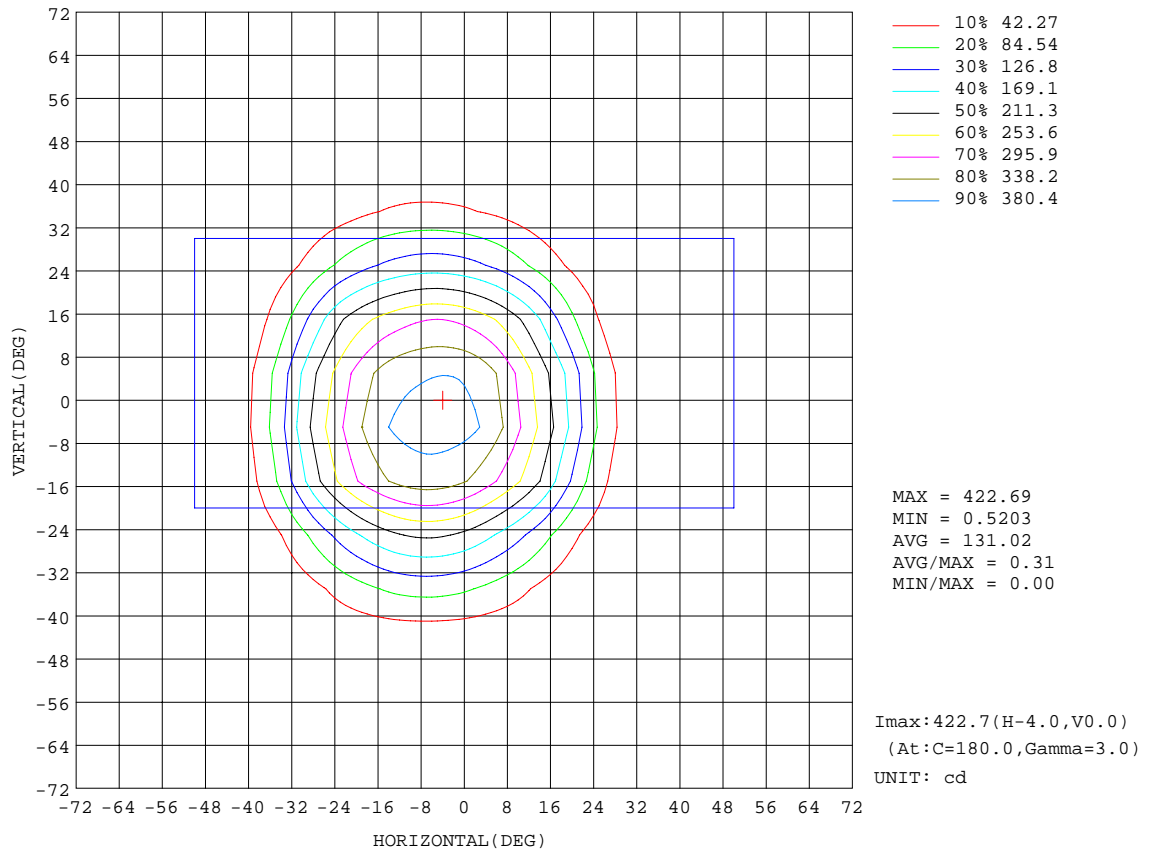
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	89	83	79	88	83	79	88	82	79	76
0.80	96	91	87	96	90	87	94	90	87	83
1.00	100	95	92	100	95	91	98	94	91	87
1.25	104	99	96	103	99	96	101	98	95	91
1.50	107	102	99	106	102	99	103	100	98	93
2.00	109	105	102	108	104	101	105	102	100	95
2.50	111	107	104	109	106	103	106	104	102	96
3.00	112	109	106	110	108	105	107	105	103	97
4.00	114	112	109	112	110	108	109	107	105	98
5.00	115	113	112	113	111	110	109	108	107	99
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNM = 1.25			

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: DOBAC  
Test Date: 2017-11-09

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity: 65.0%  
Test Distance: 6.960m [K=1.0000]  
Remarks:

ISOCANDELA DIAGRAM

NAME: Yuca Round Tilted 3W-45D-3000K-80	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

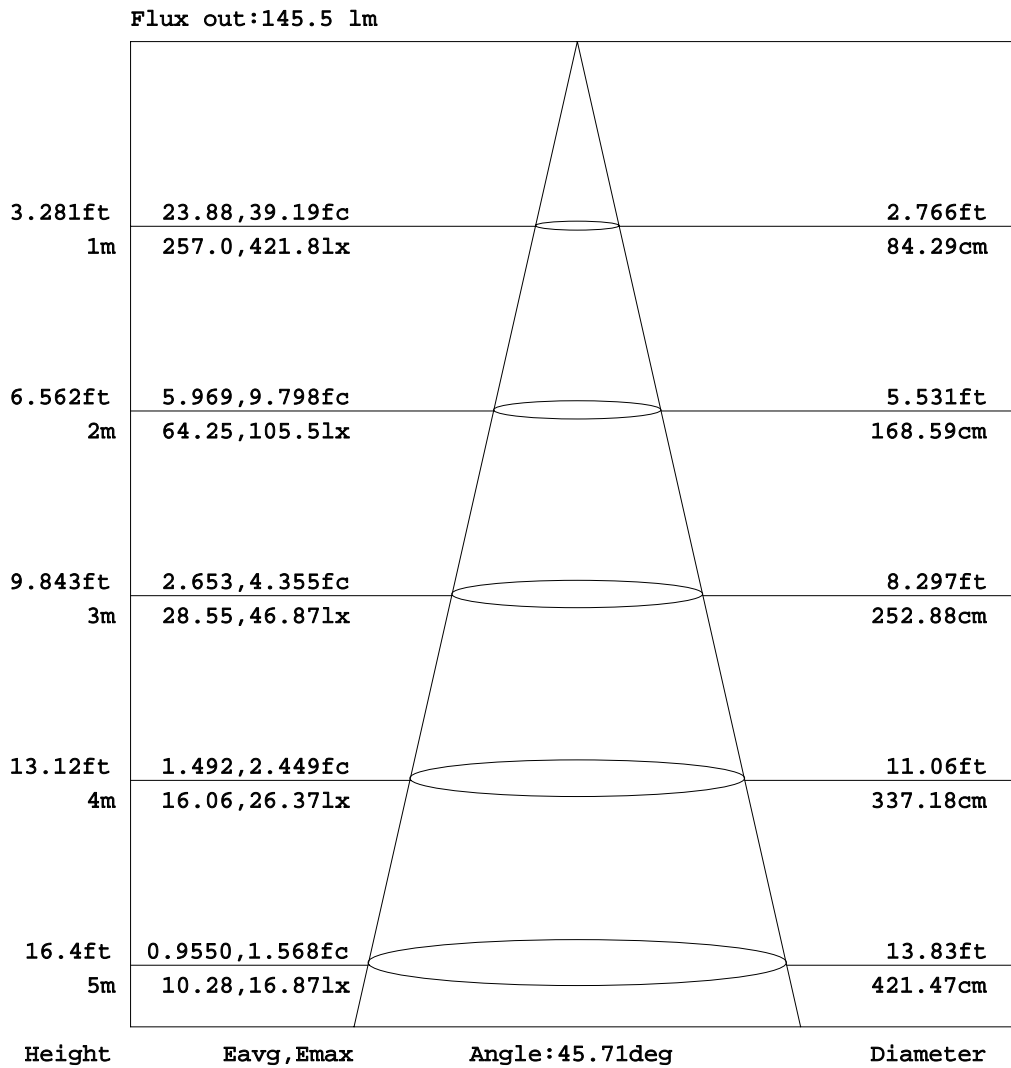


C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DOBAC  
 Test Date: 2017-11-09

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
 Humidity: 65.0%  
 Test Distance: 6.960m [K=1.0000]  
 Remarks:

AAI Figure

NAME: Yuca Round Tilted 3W-45D-3000K-80	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:



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

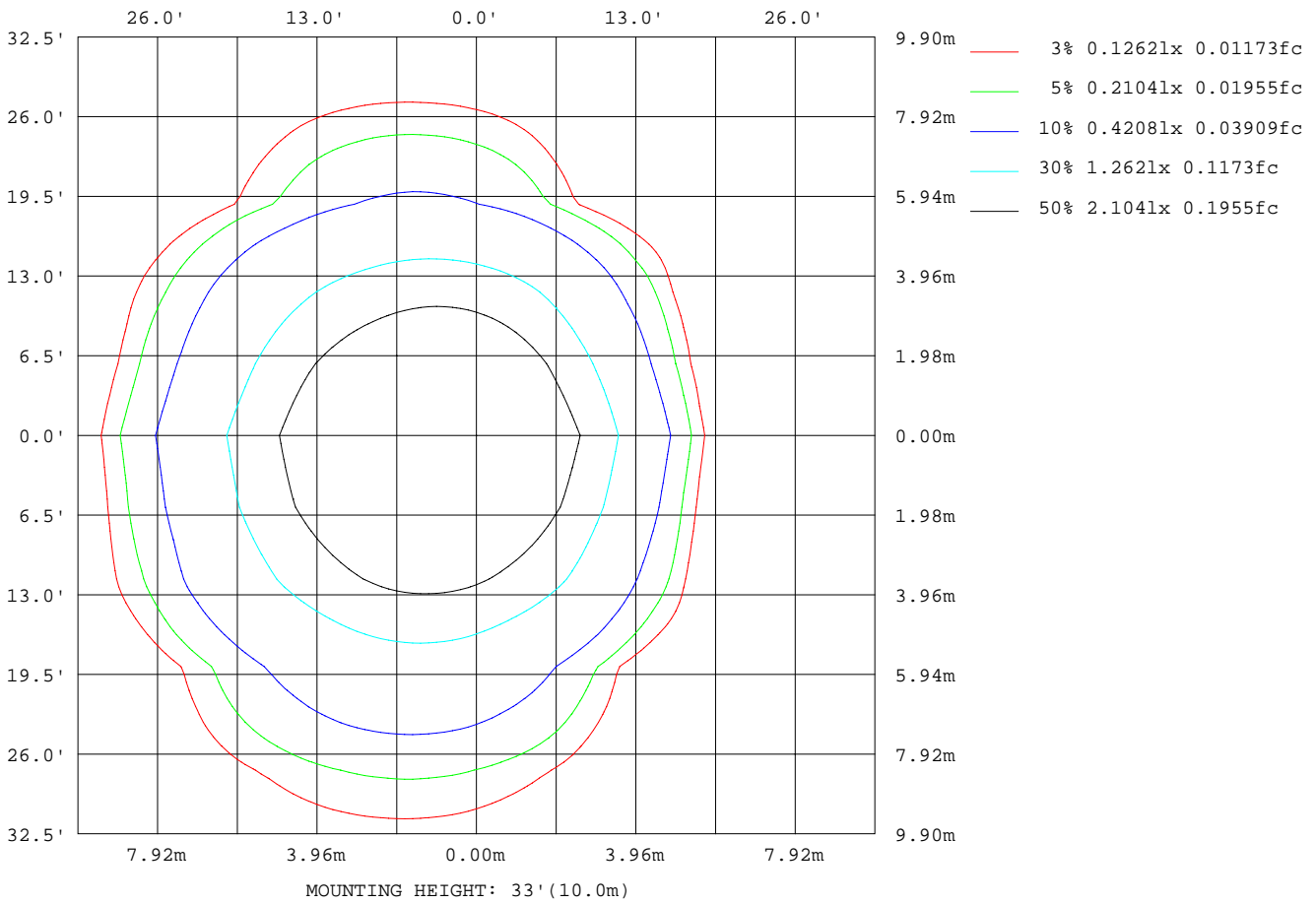
C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: DOBAC  
Test Date: 2017-11-09

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity: 65.0%  
Test Distance: 6.960m [K=1.0000]  
Remarks:



ISOLUX DIAGRAM

NAME: Yuca Round Tilted 3W-45D-3000K-80	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DOBAC  
 Test Date: 2017-11-09

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
 Humidity: 65.0%  
 Test Distance: 6.960m [K=1.0000]  
 Remarks:

**Average Luminance Table(CIBSE)**

NAME: Yuca Round Tilted 3W-45D-3000K-80	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Parameter description for average Luminance	Symbol	Value	Unit
Luminance in Azimuth Plane	Bc	refer Table 2	cd/sq.m.
Intensity at angle Gamma in given azimuth plane	I	from data	cd/klm
Number of lamps	N	1	
Output of each lamp(initial lumens as specified)	F	246.317	lm
Multiplying factor	K	1	
Luminous area in horizontal plane used in calculations	A	0.0021	sq.m.
Angle to the downward vertical from light centre	Gamma	from data	deg

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

G deg	C plane(deg)																		
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
55	569	594	621	692	760	845	1009	1125	1271	1541	1813	1951	1839	1644	2067	1851	1776	1695	1669
60	302	322	361	411	478	562	683	735	794	865	1000	1214	1309	1301	1310	1324	1339	1325	1304
65	15	37	86	133	233	230	406	502	605	690	755	823	862	930	1020	982	992	960	950
70	0	0	1	29	0	93	266	327	381	439	489	558	619	668	691	730	718	712	691
75	0	0	0	0	0	36	93	63	28	36	58	133	244	360	452	457	390	414	397
80	0	0	0	0	0	0	0	0	0	0	1	5	11	16	28	191	56	4	32
85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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

CIBSE Category	Gamma (deg)	Average Luminance		Patch Luminance	
		maximum calculated	specified maximum	maximum measured	specified maximum
Category 1	55 to 90	2067	200	---	500
Category 2	65 to 90	1020	200	---	500
Category 3	75 to 90	457	200	---	500

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

No match

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DOBAC  
Test Date:2017-11-09

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity:65.0%  
Test Distance:6.960m [K=1.0000]  
Remarks:

**Average Luminance Table(CIBSE)**

NAME: Yuca Round Tilted 3W-45D-3000K-80	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Parameter description for average Luminance	Symbol	Value	Unit
Luminance in Azimuth Plane	Bc	refer Table 2	cd/sq.m.
Intensity at angle Gamma in given azimuth plane	I	from data	cd/klm
Number of lamps	N	1	
Output of each lamp(initial lumens as specified)	F	246.317	lm
Multiplying factor	K	1	
Luminous area in horizontal plane used in calculations	A	0.0021	sq.m.
Angle to the downward vertical from light centre	Gamma	from data	deg

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

G deg	C plane(deg)																		
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
55	569	594	621	692	760	845	1009	1125	1271	1541	1813	1951	1839	1644	2067	1851	1776	1695	1669
60	302	322	361	411	478	562	683	735	794	865	1000	1214	1309	1301	1310	1324	1339	1325	1304
65	15	37	86	133	233	230	406	502	605	690	755	823	862	930	1020	982	992	960	950
70	0	0	1	29	0	93	266	327	381	439	489	558	619	668	691	730	718	712	691
75	0	0	0	0	0	36	93	63	28	36	58	133	244	360	452	457	390	414	397
80	0	0	0	0	0	0	0	0	0	0	1	5	11	16	28	191	56	4	32
85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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

range (deg)	Maximum measured	Average Luminance(cd/sq.m)			
		Maximum limit for screen type & software category used			
		Type I,II screen Some neg.s'ware	Type I,II screen Only pos.s'ware	Type III screen Some neg.s'ware	Type III screen Only pos.s'ware
55 to 90	2067	1000	1500	200	500
65 to 90	1020	1000	1500	200	500

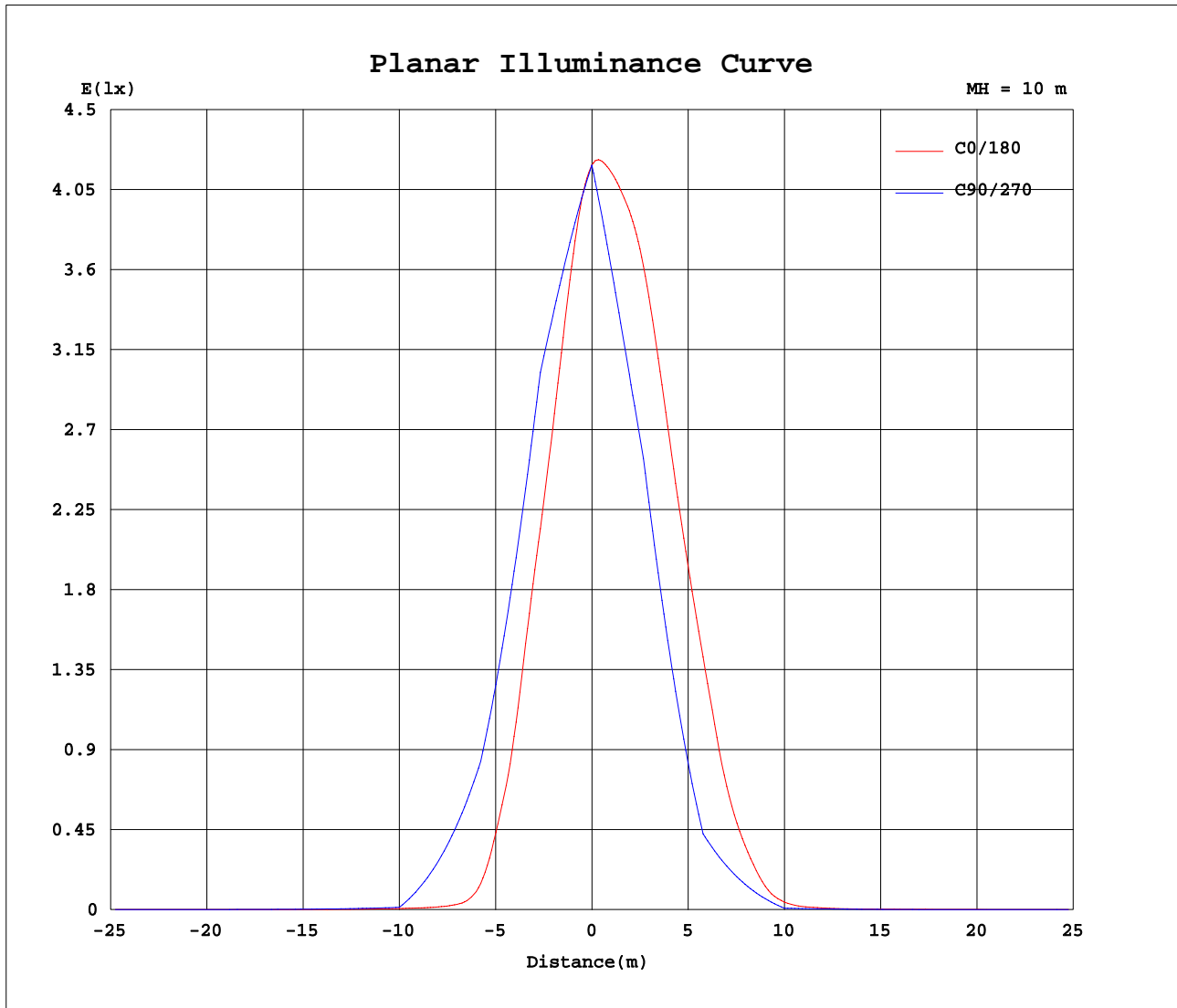
Table 3. Tabulation of average luminance(cd/sq.m.) and luminance limits

No match

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DOBAC  
Test Date:2017-11-09

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity:65.0%  
Test Distance:6.960m [K=1.0000]  
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DOBAC  
 Test Date: 2017-11-09

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
 Humidity: 65.0%  
 Test Distance: 6.960m [K=1.0000]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: Yuca Round Tilted 3W-45D-3000K-80	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C( DEG) γ (DEG)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
0	419	419	419	419	419	419	419	419	419	419	419	419	419	419	419	419	419	419	419
5	380	378	376	375	374	374	374	374	375	376	377	378	380	382	383	385	387	389	391
10	310	307	305	304	304	305	307	310	313	317	322	326	331	337	342	348	353	358	363
15	238	234	232	231	232	235	239	244	251	258	266	274	283	291	300	309	318	327	335
20	158	154	152	152	155	160	167	176	187	200	209	214	219	225	231	238	247	256	266
25	79.3	75.7	74.4	75.2	78.3	84.1	92.3	104	112	120	129	137	144	152	159	167	176	186	198
30	22.7	21.5	21.8	23.2	26.1	31.4	39.1	45.3	50.3	56.1	62.5	69.1	75.4	82.0	89.9	97.8	107	117	129
35	5.47	5.28	5.31	5.58	6.07	7.15	9.42	12.9	17.3	18.8	18.5	17.8	26.7	37.1	48.6	59.3	68.6	77.9	87.0
40	2.81	2.76	2.77	2.86	2.97	3.22	3.48	3.83	4.24	3.90	4.74	7.24	11.9	18.6	24.9	31.0	35.7	40.4	45.4
45	1.95	1.90	1.92	1.98	1.99	2.03	2.12	2.20	2.26	2.40	2.78	3.28	4.67	6.46	7.33	6.92	5.48	4.12	3.75
50	1.20	1.17	1.20	1.25	1.28	1.31	1.38	1.46	1.52	1.56	1.65	1.72	1.77	1.87	1.97	2.08	2.25	2.51	2.80
55	0.68	0.68	0.72	0.72	0.75	0.79	0.83	0.88	0.92	0.93	1.02	1.13	1.22	1.29	1.35	1.42	1.53	1.68	1.86
60	0.32	0.31	0.34	0.34	0.38	0.39	0.43	0.47	0.50	0.53	0.59	0.67	0.72	0.75	0.77	0.79	0.83	0.86	0.91
65	0.01	0.03	0.03	0.05	0.08	0.10	0.12	0.20	0.21	0.19	0.20	0.27	0.36	0.40	0.45	0.49	0.54	0.57	0.61
70	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.03	0.00	0.02	0.07	0.14	0.19	0.22	0.24	0.25	0.27	0.29	0.32
75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.04	0.05	0.04	0.03	0.02	0.02	0.01	0.02
80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: DOBAC  
Test Date: 2017-11-09

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity: 65.0%  
Test Distance: 6.960m [K=1.0000]  
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: Yuca Round Tilted 3W-45D-3000K-80	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Table--2

UNIT: cd

C( DEG) γ (DEG)	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185
0	419	419	419	419	419	419	419	419	419	419	419	419	419	419	419	419	419	419	419
5	393	395	396	398	400	401	403	404	406	408	409	411	413	414	416	418	420	422	418
10	368	371	375	378	382	384	387	389	392	394	396	399	401	404	407	410	413	417	409
15	343	350	356	361	365	368	371	372	374	376	377	379	382	385	388	392	396	402	390
20	276	286	295	305	314	323	332	342	346	345	344	343	343	343	344	346	350	356	343
25	208	218	228	237	246	254	262	270	279	290	301	295	289	285	283	283	286	291	277
30	139	149	158	167	175	182	188	195	203	211	219	227	226	218	212	210	213	219	204
35	94.9	102	108	112	115	115	113	119	125	131	136	140	142	138	128	122	122	126	115
40	50.3	55.5	60.6	65.3	68.5	69.5	68.5	64.4	56.9	58.2	63.0	65.1	64.2	63.1	58.2	53.8	53.0	56.3	48.6
45	5.10	8.47	13.6	19.9	25.9	30.6	32.8	31.3	26.5	20.0	14.3	20.0	20.9	17.6	14.4	12.2	11.5	12.0	10.6
50	3.09	3.31	3.43	3.47	3.38	3.19	5.75	9.41	9.24	6.93	5.02	4.33	4.83	4.44	4.34	3.97	3.78	3.93	3.55
55	2.04	2.18	2.29	2.35	2.33	2.21	2.07	1.98	1.93	2.49	2.53	2.23	2.07	2.14	2.07	2.04	1.98	2.01	1.94
60	0.97	1.05	1.16	1.28	1.36	1.37	1.37	1.37	1.37	1.38	1.37	1.39	1.38	1.41	1.38	1.39	1.36	1.37	1.32
65	0.64	0.67	0.70	0.73	0.76	0.76	0.77	0.83	0.87	0.91	0.91	0.87	0.87	0.88	0.87	0.85	0.83	0.84	0.80
70	0.33	0.35	0.38	0.40	0.43	0.44	0.46	0.48	0.49	0.50	0.52	0.52	0.51	0.52	0.51	0.51	0.50	0.50	0.47
75	0.02	0.03	0.05	0.07	0.10	0.13	0.17	0.20	0.22	0.25	0.26	0.25	0.20	0.21	0.22	0.22	0.21	0.22	0.18
80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.05	0.07	0.04	0.02	0.01	0.00	0.01	0.01	0.00
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DOBAC  
Test Date:2017-11-09

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity:65.0%  
Test Distance:6.960m [K=1.0000]  
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: Yuca Round Tilted 3W-45D-3000K-80	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Table--3

UNIT: cd

C( DEG) γ (DEG)	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280
0	419	419	419	419	419	419	419	419	419	419	419	419	419	419	419	419	419	419	419
5	414	411	407	404	401	398	395	392	389	387	385	382	380	378	377	375	373	371	370
10	402	395	388	382	376	371	366	361	357	352	349	345	341	338	334	331	327	324	320
15	380	370	361	352	344	337	331	325	320	315	311	307	303	298	293	287	282	276	269
20	331	321	313	305	298	291	286	280	272	263	255	246	238	231	223	216	210	203	198
25	266	258	251	246	242	238	226	215	204	194	184	176	167	159	152	144	138	132	126
30	192	184	179	177	174	166	156	145	135	125	115	105	96.2	87.4	79.2	71.9	65.8	60.8	56.9
35	107	103	102	101	98.2	93.4	86.9	77.2	66.2	55.9	57.4	58.2	57.3	55.1	52.2	48.6	44.6	40.2	34.9
40	44.2	42.7	43.3	43.5	41.8	37.3	29.1	23.4	28.2	31.7	34.3	34.7	33.3	31.1	28.5	25.9	23.5	21.2	18.4
45	9.91	9.36	10.7	12.3	12.6	6.01	7.19	10.1	13.3	14.9	14.8	13.3	10.4	7.23	4.49	2.80	2.39	2.80	3.51
50	3.35	3.43	3.47	3.37	2.73	3.08	3.35	3.94	4.39	3.31	2.17	2.13	2.09	1.98	1.73	1.63	1.77	1.81	1.74
55	1.94	1.91	1.89	1.83	1.80	1.80	1.83	1.65	1.63	1.61	1.57	1.53	1.46	1.32	1.03	0.94	1.16	1.20	1.15
60	1.32	1.27	1.26	1.22	1.16	1.11	1.13	1.13	1.10	1.06	1.00	0.93	0.85	0.68	0.32	0.24	0.54	0.59	0.58
65	0.79	0.78	0.75	0.73	0.70	0.70	0.70	0.67	0.62	0.55	0.55	0.53	0.50	0.42	0.20	0.15	0.36	0.39	0.36
70	0.46	0.44	0.42	0.38	0.37	0.37	0.36	0.35	0.34	0.33	0.32	0.29	0.27	0.23	0.11	0.07	0.18	0.20	0.18
75	0.18	0.12	0.16	0.10	0.11	0.16	0.17	0.16	0.14	0.11	0.09	0.06	0.04	0.02	0.01	0.00	0.00	0.00	0.01
80	0.00	0.00	0.01	0.02	0.03	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DOBAC  
Test Date:2017-11-09

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity:65.0%  
Test Distance:6.960m [K=1.0000]  
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: Yuca Round Tilted 3W-45D-3000K-80	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Table--4

UNIT: cd

C( DEG) γ (DEG)	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355				
0	419	419	419	419	419	419	419	419	419	419	419	419	419	419	419				
5	369	367	366	366	365	365	364	365	365	366	367	369	371	374	377				
10	316	313	309	306	302	299	297	295	294	293	293	294	297	300	305				
15	264	258	252	246	240	234	228	224	220	218	217	218	220	224	230				
20	192	187	182	178	173	168	160	152	147	143	141	140	142	145	150				
25	121	116	112	107	102	95.8	89.9	83.3	76.3	72.2	69.6	67.7	67.5	69.4	73.3				
30	53.3	50.3	48.4	46.8	45.3	43.1	39.7	36.7	31.9	25.5	21.7	20.7	20.1	20.1	20.7				
35	28.3	21.5	14.9	9.91	7.60	12.0	13.4	11.4	8.62	6.54	5.54	5.42	5.25	5.12	5.19				
40	14.8	11.0	7.45	5.02	4.13	3.52	3.06	3.39	3.32	3.15	2.92	2.80	2.76	2.72	2.73				
45	4.00	3.83	3.23	2.75	2.47	2.20	2.09	2.05	2.01	1.94	1.88	1.89	1.91	1.85	1.87				
50	1.68	1.62	1.54	1.45	1.39	1.37	1.35	1.33	1.29	1.22	1.19	1.17	1.16	1.15	1.14				
55	1.11	1.07	1.02	0.94	0.86	0.79	0.74	0.76	0.74	0.70	0.68	0.66	0.66	0.67	0.66				
60	0.56	0.55	0.52	0.48	0.44	0.41	0.40	0.39	0.35	0.30	0.30	0.31	0.28	0.31	0.29				
65	0.33	0.29	0.23	0.14	0.07	0.08	0.13	0.16	0.12	0.05	0.06	0.05	0.01	0.03	0.02				
70	0.17	0.15	0.12	0.07	0.03	0.00	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00				
75	0.01	0.02	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: DOBAC  
Test Date: 2017-11-09

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity: 65.0%  
Test Distance: 6.960m [K=1.0000]  
Remarks: