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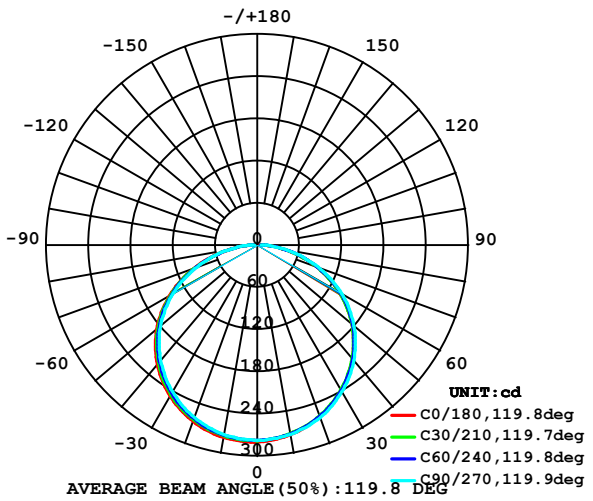
LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:110.4V I:0.0903A P:9.793W PF:0.9827 Lamp Flux:865.044x1 lm		
NAME: LED lighting	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: OPTOMA	SUR.:	PROTECTION ANGLE:

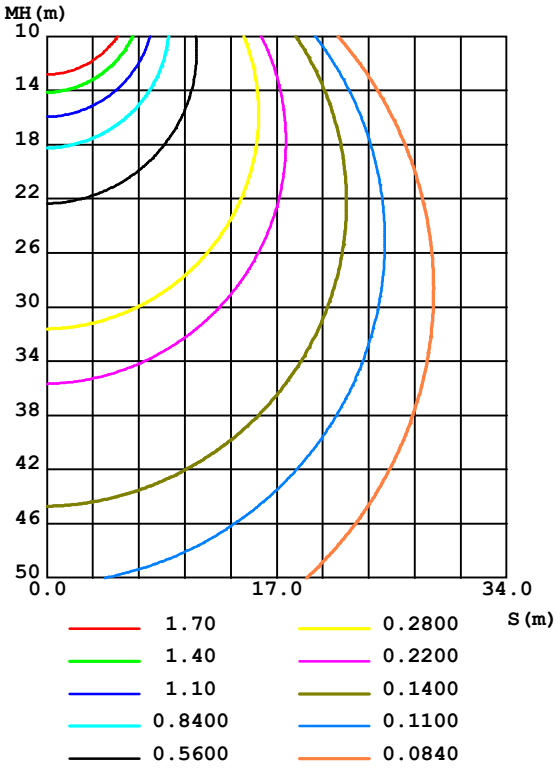
DATA OF LAMP		PHOTOMETRIC DATA Eff: 88.34 lm/W			
MODEL	FP3030C1LB-1	Imax(cd)	280.3	S/MH(C0/180)	1.32
NOMINAL POWER(W)	10	LOR(%)	100.0	S/MH(C90/270)	1.29
RATED VOLTAGE(V)	220.0	TOTAL FLUX(lm)	865.04	η UP,DN(C0-180)	0.0,50.1
NOMINAL FLUX(lm)	865.044	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,49.9
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	220.2	η down(%)	100.0	CIBSE SHR MAX	1.50

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



AVERAGE BEAM ANGLE(50%):119.8 DEG

C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:001
Test Date:2015-02-27

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.286
Humidity:65.0%
Test Distance:6.930m [K=1.0000]
Remarks:

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ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	273.8	272.6	273.6	274.6	277.8	275.1	273.5	271.7	0- 10	26.32	26.32	3.04,3.04
20	260.1	259.3	261.3	263.7	266.9	264.0	261.2	258.4	10- 20	75.85	102.2	11.8,11.8
30	238.8	238.6	241.4	244.8	248.3	244.7	241.1	237.7	20- 30	116.4	218.6	25.3,25.3
40	210.8	211.0	214.0	217.7	221.2	217.5	213.9	210.0	30- 40	143.2	361.8	41.8,41.8
50	176.3	177.6	179.8	184.2	187.1	182.9	179.8	175.8	40- 50	152.8	514.6	59.5,59.5
60	135.3	136.6	138.8	142.2	144.0	140.4	138.2	134.5	50- 60	143.1	657.6	76,76
70	89.16	90.09	92.40	93.92	94.72	92.09	90.78	88.14	60- 70	114.1	771.7	89.2,89.2
80	40.72	41.78	43.83	43.65	43.20	41.62	42.05	39.83	70- 80	70.14	841.8	97.3,97.3
90	4.474	4.779	6.053	4.792	4.150	3.622	4.372	3.622	80- 90	23.22	865.0	100,100
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:001
Test Date:2015-02-27

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.286
Humidity:65.0%
Test Distance:6.930m [K=1.0000]
Remarks:

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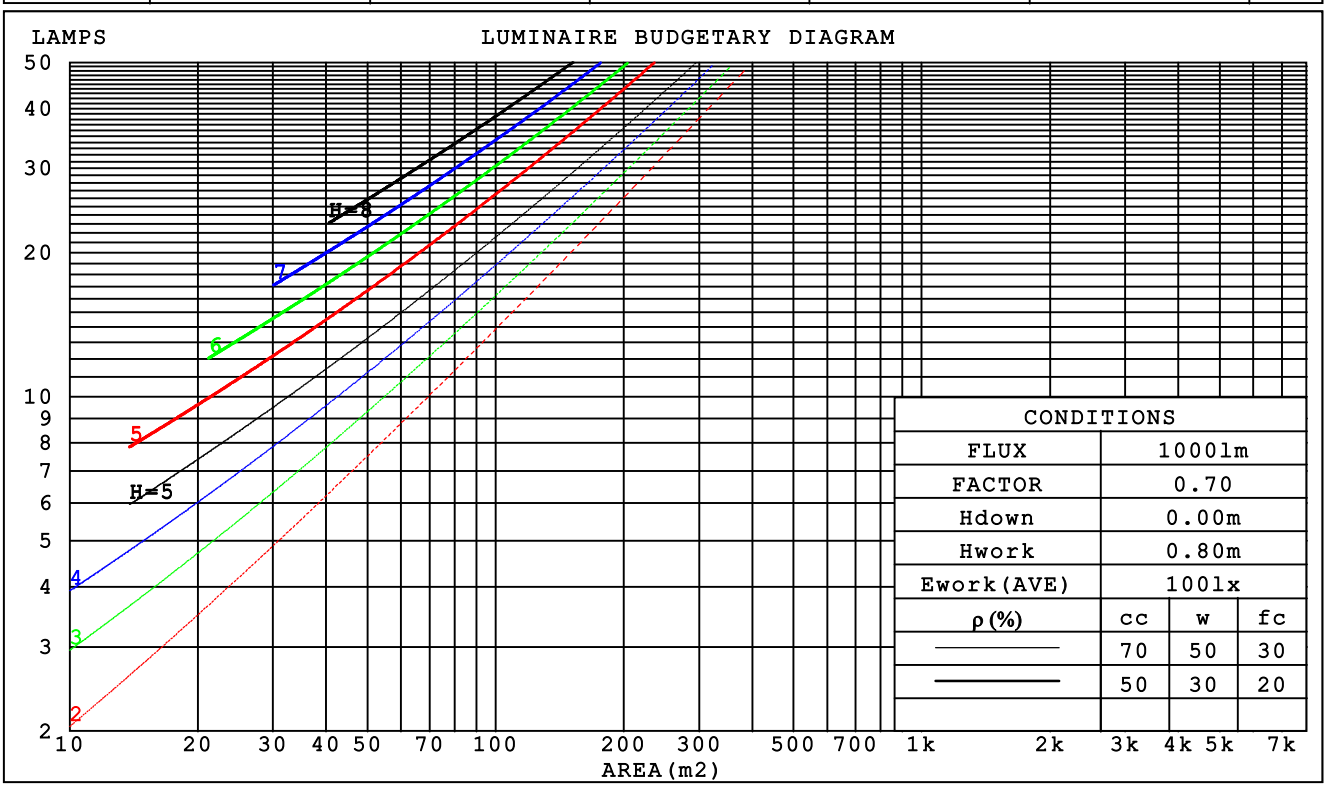
CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:110.4V I:0.0903A P:9.793W PF:0.9827 Lamp Flux:865.044x1 lm		
NAME: LED lighting	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: OPTOMA	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			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	1.03	.98	.94	1.01	.97	.93	.96	.93	.90	.92	.90	.87	.89	.87	.84	.82
2.0	.89	.82	.76	.87	.81	.75	.84	.78	.73	.80	.76	.72	.77	.73	.70	.68
3.0	.78	.69	.63	.76	.68	.62	.73	.66	.61	.70	.65	.60	.68	.63	.59	.56
4.0	.69	.60	.53	.67	.59	.52	.65	.57	.52	.62	.56	.51	.60	.55	.50	.48
5.0	.61	.52	.45	.60	.51	.45	.58	.50	.44	.56	.49	.44	.54	.48	.43	.41
6.0	.55	.46	.39	.54	.45	.39	.52	.44	.39	.50	.44	.38	.49	.43	.38	.36
7.0	.50	.41	.34	.49	.40	.34	.47	.40	.34	.46	.39	.34	.44	.38	.34	.31
8.0	.45	.37	.31	.45	.36	.31	.43	.36	.30	.42	.35	.30	.41	.35	.30	.28
9.0	.42	.33	.27	.41	.33	.27	.40	.32	.27	.39	.32	.27	.38	.31	.27	.25
10.0	.38	.30	.25	.38	.30	.25	.37	.30	.25	.36	.29	.25	.35	.29	.24	.23



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:001
Test Date:2015-02-27

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.286
Humidity:65.0%
Test Distance:6.930m [K=1.0000]
Remarks:

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WEC AND CCEC

Test:U:110.4V I:0.0903A P:9.793W PF:0.9827 Lamp Flux:865.044x1 lm		
NAME: LED lighting	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: OPTOMA	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 Coeffcients(WEC)									
0.0																
1.0	.327	.186	.059	.320	.183	.058	.307	.176	.056	.294	.170	.054	.283	.164	.053	
2.0	.304	.167	.051	.298	.164	.051	.286	.159	.049	.275	.154	.048	.265	.150	.047	
3.0	.279	.149	.045	.274	.147	.044	.263	.143	.043	.254	.139	.043	.245	.136	.042	
4.0	.257	.133	.039	.252	.132	.039	.242	.129	.038	.234	.126	.038	.226	.123	.037	
5.0	.236	.120	.035	.232	.119	.035	.224	.116	.034	.216	.114	.034	.209	.112	.034	
6.0	.218	.110	.031	.215	.108	.031	.207	.106	.031	.200	.104	.031	.194	.102	.030	
7.0	.203	.100	.028	.199	.099	.028	.193	.097	.028	.187	.096	.028	.181	.094	.028	
8.0	.189	.092	.026	.186	.092	.026	.180	.090	.026	.175	.088	.026	.169	.087	.025	
9.0	.177	.086	.024	.174	.085	.024	.169	.083	.024	.164	.082	.024	.159	.081	.023	
10.0	.166	.080	.022	.164	.079	.022	.159	.078	.022	.154	.077	.022	.150	.076	.022	

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	.182	.156	.133	.155	.134	.114	.106	.092	.079	.061	.053	.046	.020	.017	.015	
2.0	.174	.132	.097	.149	.113	.083	.102	.079	.058	.059	.046	.034	.019	.015	.011	
3.0	.166	.114	.073	.143	.099	.063	.098	.069	.044	.057	.040	.026	.018	.013	.009	
4.0	.159	.101	.057	.136	.087	.050	.094	.061	.035	.054	.036	.021	.017	.012	.007	
5.0	.151	.091	.046	.130	.079	.040	.089	.055	.028	.052	.032	.017	.017	.011	.006	
6.0	.144	.082	.038	.124	.071	.033	.085	.050	.024	.050	.029	.014	.016	.010	.005	
7.0	.137	.076	.033	.118	.066	.028	.081	.046	.020	.047	.027	.012	.015	.009	.004	
8.0	.130	.070	.028	.112	.061	.025	.078	.043	.017	.045	.025	.010	.015	.008	.003	
9.0	.124	.065	.025	.107	.056	.022	.074	.040	.015	.043	.023	.009	.014	.008	.003	
10.0	.118	.061	.022	.102	.053	.019	.071	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:001
Test Date:2015-02-27

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.286
Humidity:65.0%
Test Distance:6.930m [K=1.0000]
Remarks:

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UGR(Unified Glare Rating) Table

Test:U:110.4V I:0.0903A P:9.793W PF:0.9827 Lamp Flux:865.044x1 lm		
NAME: LED lighting	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: OPTOMA	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
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	17.2	18.7	17.4	18.9	19.1	17.3	18.8	17.5	19.0	19.2
3H	18.8	20.3	19.1	20.5	20.8	19.0	20.4	19.3	20.7	20.9
4H	19.5	20.9	19.9	21.2	21.4	19.7	21.1	20.0	21.4	21.6
6H	20.1	21.4	20.4	21.7	21.9	20.3	21.6	20.6	21.9	22.2
8H	20.3	21.5	20.6	21.8	22.1	20.5	21.8	20.9	22.1	22.4
12H	20.4	21.6	20.8	21.9	22.2	20.7	21.9	21.0	22.2	22.5
4H 2H	17.8	19.2	18.1	19.5	19.7	17.9	19.3	18.2	19.6	19.8
3H	19.7	20.9	20.1	21.2	21.5	19.8	21.0	20.2	21.3	21.6
4H	20.5	21.6	20.9	22.0	22.3	20.7	21.8	21.1	22.1	22.5
6H	21.2	22.2	21.6	22.5	22.9	21.4	22.4	21.8	22.8	23.1
8H	21.4	22.4	21.9	22.7	23.1	21.7	22.6	22.1	23.0	23.4
12H	21.6	22.5	22.1	22.9	23.3	21.9	22.8	22.3	23.1	23.6
8H 4H	20.9	21.8	21.3	22.1	22.5	21.0	21.9	21.4	22.3	22.7
6H	21.7	22.5	22.1	22.9	23.3	21.9	22.7	22.3	23.1	23.5
8H	22.0	22.7	22.5	23.1	23.6	22.3	22.9	22.7	23.4	23.8
12H	22.3	22.9	22.8	23.4	23.8	22.6	23.2	23.1	23.6	24.1
12H 4H	20.9	21.7	21.3	22.1	22.5	21.0	21.9	21.4	22.3	22.7
6H	21.8	22.5	22.2	22.9	23.3	22.0	22.6	22.4	23.1	23.5
8H	22.2	22.8	22.6	23.2	23.7	22.4	23.0	22.9	23.4	23.9
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.1 / - 0.3					+ 0.1 / - 0.3				

CIE Pub.117 Corrected 865.0 lm Total Lamp Luminous Flux.(8log(F/F0) = -0.5)

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:001
Test Date:2015-02-27

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.286
Humidity:65.0%
Test Distance:6.930m [K=1.0000]
Remarks:

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UTILIZATION FACTORS TABLE

Test:U:110.4V I:0.0903A P:9.793W PF:0.9827 Lamp Flux:865.044x1 lm		
NAME: LED lighting	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: OPTOMA	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	56	44	37	55	44	37	54	43	37	30
0.80	66	54	46	65	54	46	63	53	46	39
1.00	74	63	55	73	62	55	71	64	54	47
1.25	82	71	63	80	70	63	77	68	62	54
1.50	87	76	69	85	75	68	82	74	67	60
2.00	94	85	78	92	83	77	88	81	76	68
2.50	98	90	83	96	88	82	92	86	80	72
3.00	101	94	88	99	92	87	95	89	85	76
4.00	105	99	94	103	98	93	99	94	90	81
5.00	108	103	99	105	101	97	101	97	94	85
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004				Suspended					SHRNOM = 1.25	

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:001
Test Date:2015-02-27

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.286
Humidity:65.0%
Test Distance:6.930m [K=1.0000]
Remarks:

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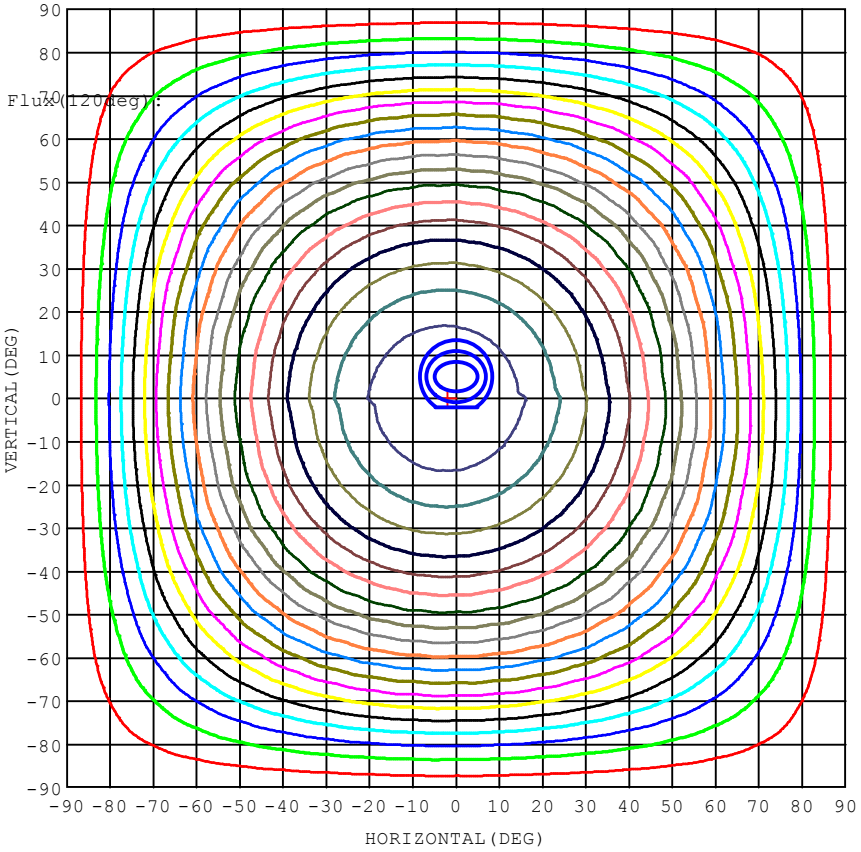
ISOCANDELA DIAGRAM

Test:U:110.4V I:0.0903A P:9.793W PF:0.9827 Lamp Flux:865.044x1 lm		
NAME: LED lighting	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: OPTOMA	SUR.:	PROTECTION ANGLE:

Conical surface Flux(90deg):
438.13 lm
%lum = 50.6%
%lamp = 50.6%

Conical surface Flux(120deg):
657.63 lm
%lum = 76.0%
%lamp = 76.0%



5% 14.01
10% 28.03
15% 42.04
20% 56.06
25% 70.07
30% 84.08
35% 98.10
40% 112.1
45% 126.1
50% 140.1
55% 154.2
60% 168.2
65% 182.2
70% 196.2
75% 210.2
80% 224.2
85% 238.2
90% 252.2
95% 266.3

1. AVG=276.1,MIN=274.0
2. AVG=275.8,MIN=272.0
3. AVG=275.2,MIN=269.6

Imax:280.3(H-2.0,V0.0)
(At:C=180.0,Gamma=2.0)
UNIT: cd

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:001
Test Date:2015-02-27

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.286
Humidity:65.0%
Test Distance:6.930m [K=1.0000]
Remarks:

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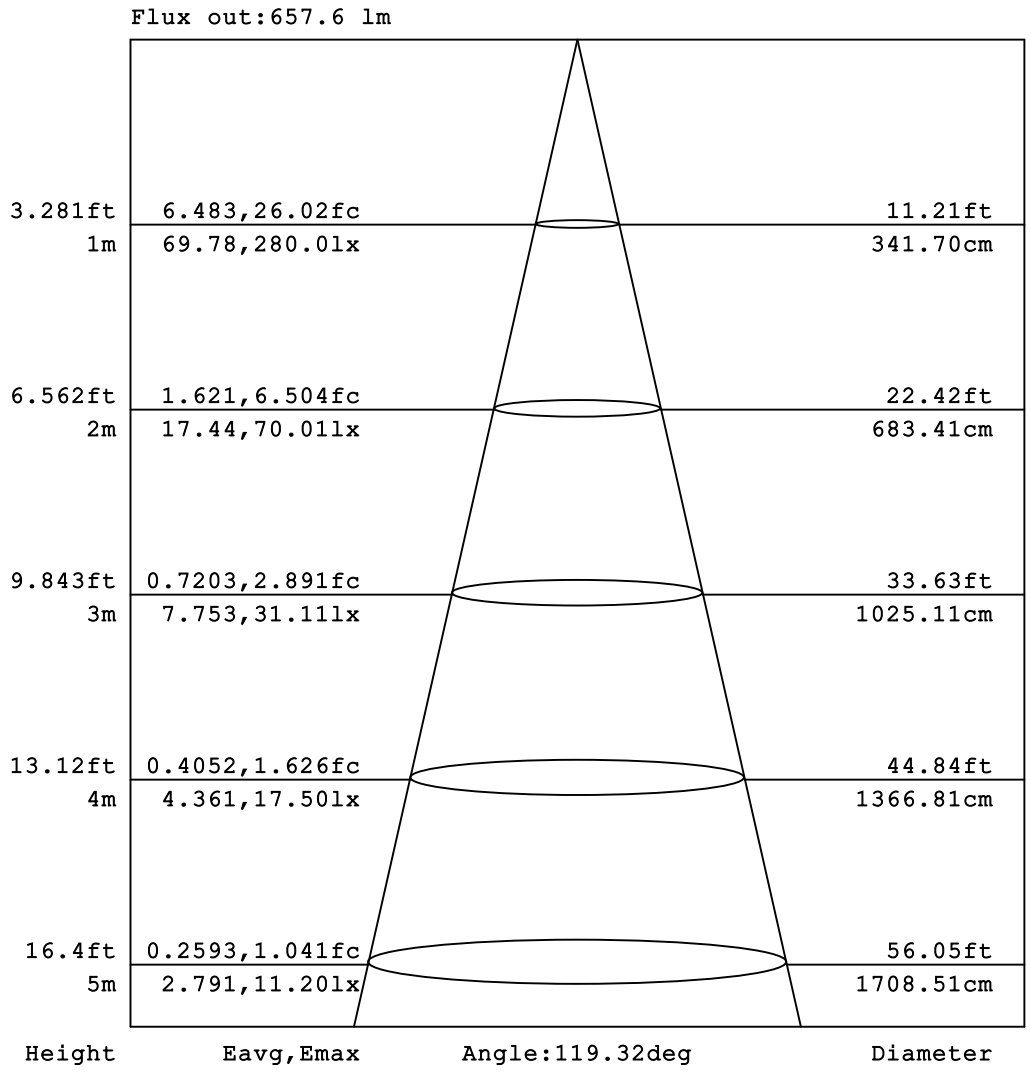
AAI Figure

Test:U:110.4V I:0.0903A P:9.793W PF:0.9827 Lamp Flux:865.044x1 lm		
NAME: LED lighting	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: OPTOMA	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:001
Test Date:2015-02-27

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.286
Humidity:65.0%
Test Distance:6.930m [K=1.0000]
Remarks:

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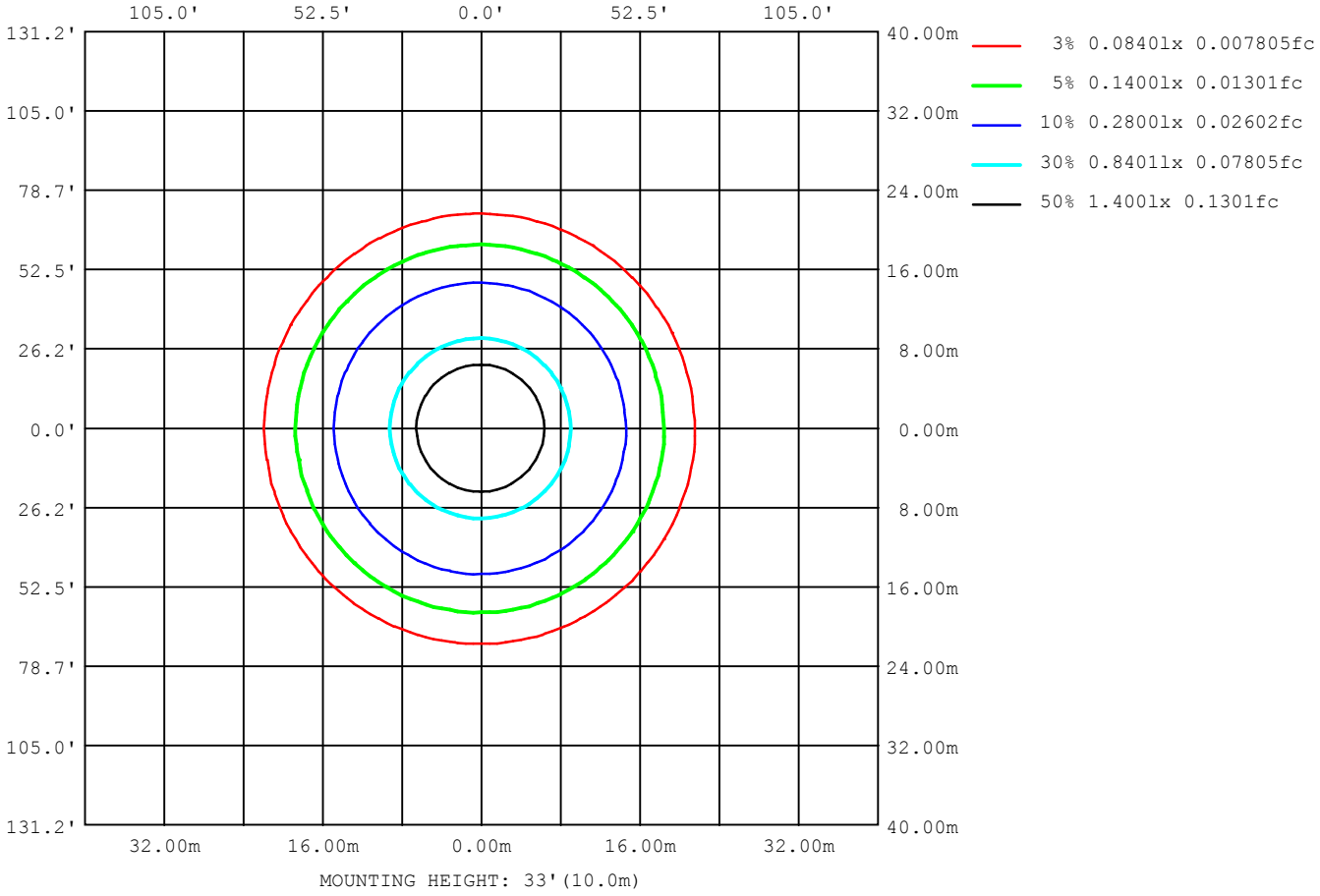
ISOLUX DIAGRAM

Test:U:110.4V I:0.0903A P:9.793W PF:0.9827 Lamp Flux:865.044x1 lm		
NAME: LED lighting	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: OPTOMA	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:001
Test Date:2015-02-27

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.286
Humidity:65.0%
Test Distance:6.930m [K=1.0000]
Remarks:

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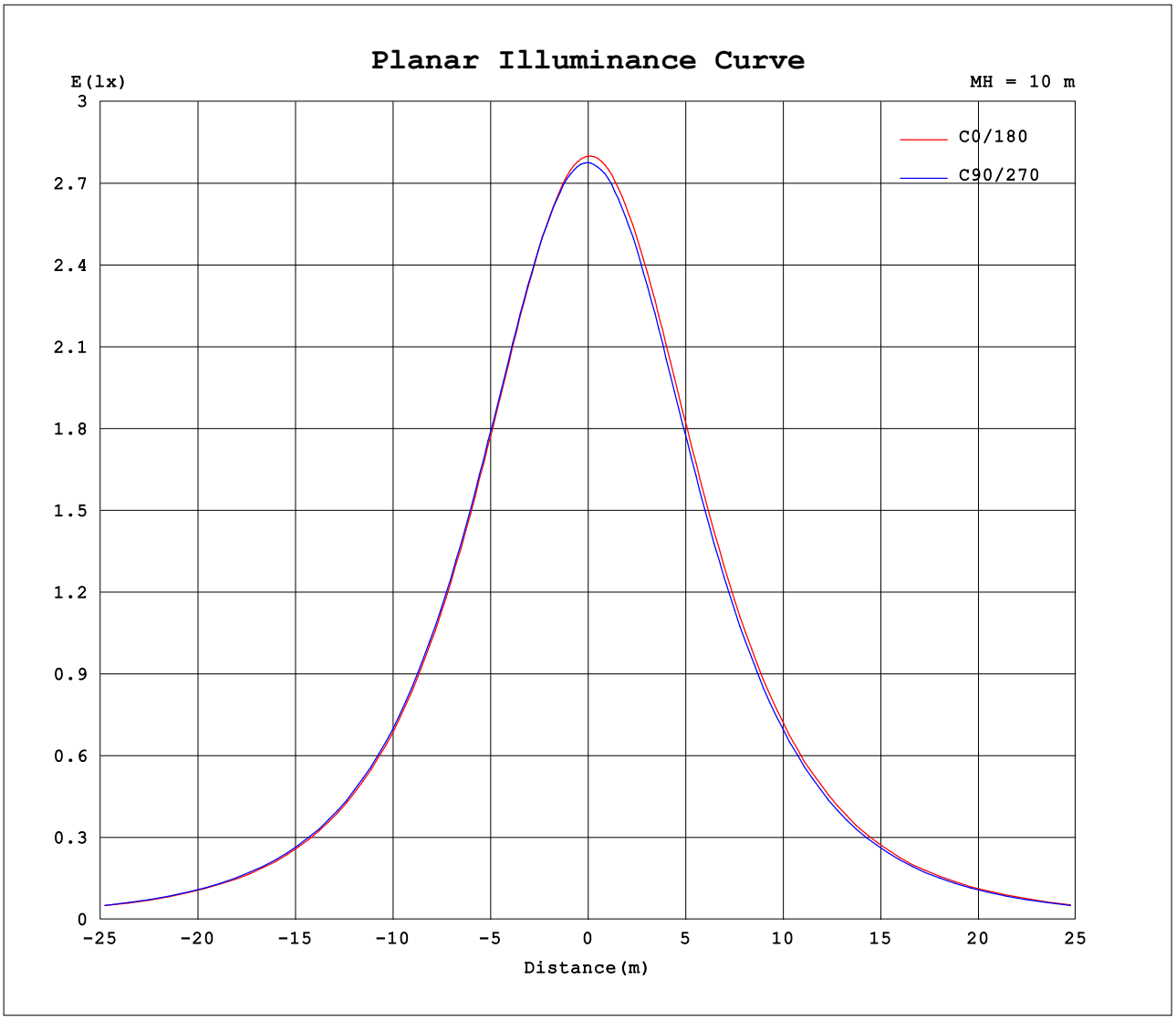
Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:001
Test Date:2015-02-27

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.286
Humidity:65.0%
Test Distance:6.930m [K=1.0000]
Remarks:

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LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:110.4V I:0.0903A P:9.793W PF:0.9827 Lamp Flux:865.044x1 lm		
NAME: LED lighting	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: OPTOMA	SUR.:	PROTECTION ANGLE:

Table--1 UNIT: cd

γ (DEG) \ C(DEG)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
0	280	279	279	279	279	278	278	278	278	278	278	278	278	278	278	278	278	278	278
5	278	277	277	277	276	276	276	276	276	276	276	276	276	276	276	276	276	277	276
10	274	273	273	273	272	273	272	272	272	273	272	273	273	273	273	273	273	273	274
15	268	268	267	267	267	267	266	267	267	267	267	267	267	267	267	268	268	268	268
20	260	260	259	259	259	259	259	259	259	259	259	259	260	260	260	261	261	261	261
25	250	250	249	250	249	249	249	250	249	250	250	250	250	251	251	251	251	252	252
30	239	239	238	238	238	238	238	238	238	239	238	239	239	240	240	240	241	241	241
35	226	226	225	225	225	225	225	225	225	226	225	226	226	227	227	228	228	228	228
40	211	211	210	211	210	210	210	211	211	211	211	212	212	212	212	213	213	214	214
45	194	195	194	194	194	194	194	195	194	195	195	196	195	196	196	197	197	198	198
50	176	177	176	177	176	177	176	177	176	178	177	178	177	179	178	180	179	181	180
55	157	157	156	157	156	157	156	157	157	158	157	159	158	159	159	160	159	161	160
60	135	136	135	136	135	136	135	136	135	137	136	137	137	138	137	139	138	140	139
65	113	114	112	113	112	113	112	114	113	114	113	115	114	115	115	116	115	117	116
70	89.2	89.6	88.9	89.4	88.9	89.4	89.0	89.7	89.3	90.1	89.8	90.7	90.5	91.4	91.2	92.1	91.8	92.6	92.4
75	64.8	65.1	64.6	65.0	64.6	65.0	64.7	65.3	65.0	65.7	65.5	66.2	66.2	66.9	66.9	67.7	67.6	68.1	68.0
80	40.7	41.1	40.6	41.0	40.6	41.1	40.8	41.4	41.1	41.8	41.6	42.3	42.2	42.9	42.8	43.6	43.5	44.1	43.8
85	19.5	19.8	19.5	19.8	19.5	19.9	19.7	20.2	20.0	20.5	20.4	21.0	20.9	21.5	21.4	22.0	21.9	22.5	22.2
90	4.47	4.45	4.45	4.44	4.48	4.50	4.55	4.58	4.69	4.78	4.92	5.03	5.21	5.34	5.53	5.67	5.84	5.95	6.05

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:001
Test Date:2015-02-27

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.286
Humidity:65.0%
Test Distance:6.930m [K=1.0000]
Remarks:

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LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:110.4V I:0.0903A P:9.793W PF:0.9827 Lamp Flux:865.044x1 lm		
NAME: LED lighting	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: OPTOMA	SUR.:	PROTECTION ANGLE:

Table--2 UNIT: cd

γ (DEG) \ C(DEG)	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185
0	277	278	278	277	278	278	277	278	278	277	277	278	277	277	277	277	277	280	279
5	277	277	277	277	277	277	277	277	277	277	277	277	277	277	277	277	277	280	279
10	274	274	274	274	274	274	275	274	275	275	275	275	275	275	275	275	275	278	277
15	269	269	269	269	270	270	270	270	270	270	271	271	271	271	271	271	271	273	273
20	262	262	262	262	263	263	263	263	264	264	264	264	264	264	265	265	265	267	266
25	253	253	253	254	254	254	255	255	255	255	256	256	256	256	256	256	256	259	258
30	242	242	243	243	244	244	244	244	245	245	245	245	246	246	246	246	246	248	247
35	229	229	230	230	231	231	232	232	232	232	233	233	233	233	233	233	234	236	235
40	215	215	216	216	216	216	217	217	218	218	218	218	219	219	219	219	219	221	220
45	199	199	200	200	200	200	201	201	202	201	202	202	203	202	203	203	203	205	204
50	181	181	182	181	183	182	184	183	184	183	185	184	185	184	185	184	185	187	185
55	162	161	162	162	163	162	164	163	164	163	165	164	165	164	165	164	165	166	165
60	140	139	141	140	141	141	142	141	142	141	142	142	143	142	143	142	143	144	143
65	117	116	118	117	118	117	119	118	119	118	119	118	119	118	119	118	119	120	119
70	93.2	92.8	93.5	93.0	93.9	93.3	93.9	93.2	93.9	93.2	93.9	93.1	94.0	93.2	94.1	93.3	94.1	94.7	93.7
75	68.6	68.3	68.8	68.5	68.8	68.3	68.6	68.1	68.5	68.0	68.4	67.9	68.3	67.9	68.3	67.9	68.3	68.7	68.1
80	44.4	44.0	44.4	43.9	44.2	43.6	43.9	43.3	43.7	43.0	43.4	42.8	43.3	42.7	43.1	42.6	43.1	43.2	42.6
85	22.6	22.2	22.4	21.8	22.0	21.5	21.7	21.1	21.3	20.8	21.0	20.5	20.8	20.3	20.7	20.2	20.6	20.5	20.1
90	5.99	5.86	5.67	5.54	5.35	5.21	5.05	4.94	4.79	4.68	4.55	4.46	4.39	4.36	4.30	4.29	4.25	4.15	4.13

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:001
Test Date:2015-02-27

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.286
Humidity:65.0%
Test Distance:6.930m [K=1.0000]
Remarks:

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LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:110.4V I:0.0903A P:9.793W PF:0.9827 Lamp Flux:865.044x1 lm		
NAME: LED lighting	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: OPTOMA	SUR.:	PROTECTION ANGLE:

Table--3 UNIT: cd

γ (DEG) \ C(DEG)	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280
0	279	279	279	278	278	278	278	278	278	278	278	278	278	278	278	278	278	277	278
5	279	279	278	278	278	278	278	278	277	277	277	277	277	277	277	277	277	276	276
10	277	276	276	276	276	275	275	275	275	275	274	274	274	274	274	274	273	273	273
15	273	272	272	271	271	271	271	271	270	270	270	269	269	269	269	269	268	268	268
20	266	266	265	265	265	264	264	264	264	263	263	263	262	262	262	261	261	261	261
25	258	257	257	256	256	256	256	255	255	254	254	254	254	253	253	252	252	252	251
30	247	247	247	246	246	245	245	245	244	244	244	243	243	242	242	241	241	241	240
35	235	234	234	234	233	233	233	232	232	231	231	230	230	230	229	229	229	228	227
40	220	220	220	219	219	218	218	218	217	217	217	216	216	215	215	214	214	213	213
45	204	203	203	203	203	202	202	201	201	200	200	199	199	198	198	198	198	197	197
50	186	185	186	184	185	184	184	183	183	182	183	181	182	180	181	179	180	178	179
55	166	164	165	164	165	163	164	163	163	162	162	161	161	160	161	159	160	158	159
60	143	142	143	142	142	141	142	140	141	140	140	139	140	138	139	137	138	137	137
65	120	118	119	118	119	117	118	117	117	116	117	116	116	115	116	114	115	114	114
70	94.3	93.3	93.9	93.0	93.3	92.5	92.7	92.1	92.4	91.7	92.0	91.4	91.7	91.0	91.2	90.6	90.8	90.0	90.2
75	68.3	67.8	68.0	67.3	67.4	66.9	67.1	66.6	66.8	66.4	66.7	66.3	66.6	66.2	66.4	65.9	66.1	65.5	65.7
80	43.0	42.4	42.6	42.0	42.2	41.7	42.0	41.6	42.0	41.5	42.0	41.6	42.1	41.8	42.2	41.7	42.1	41.4	41.7
85	20.3	19.8	19.9	19.5	19.8	19.5	19.7	19.4	19.8	19.5	19.9	19.8	20.2	20.1	20.5	20.3	20.5	20.2	20.3
90	4.03	3.97	3.89	3.84	3.75	3.70	3.63	3.62	3.60	3.64	3.68	3.81	3.92	4.06	4.19	4.33	4.37	4.31	4.16

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:001
Test Date:2015-02-27

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.286
Humidity:65.0%
Test Distance:6.930m [K=1.0000]
Remarks:

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LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:110.4V I:0.0903A P:9.793W PF:0.9827 Lamp Flux:865.044x1 lm		
NAME: LED lighting	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: OPTOMA	SUR.:	PROTECTION ANGLE:

Table--4 UNIT: cd

γ (DEG) \ C(DEG)	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355				
0	278	277	278	278	277	278	278	277	277	278	277	277	277	277	277				
5	276	276	276	276	276	276	276	275	275	276	275	275	275	275	275				
10	273	273	273	272	272	272	272	272	271	272	271	272	271	271	271				
15	267	267	267	267	267	267	266	266	266	266	266	266	266	266	265				
20	260	260	260	259	259	259	258	258	258	258	258	258	258	258	258				
25	251	251	250	250	249	249	249	249	248	248	248	248	248	248	248				
30	240	240	239	239	238	238	238	238	237	237	237	237	237	237	237				
35	227	227	226	226	225	225	225	225	224	224	224	224	223	224	224				
40	212	212	211	211	211	211	210	210	210	210	209	209	209	209	209				
45	196	196	195	195	194	195	194	194	193	194	193	193	193	193	193				
50	178	178	177	178	176	177	176	177	175	176	175	176	175	176	175				
55	158	158	157	158	157	157	156	157	156	156	155	156	155	156	155				
60	136	137	136	136	135	136	135	135	134	135	134	135	134	135	134				
65	113	114	112	113	112	113	111	112	111	112	111	112	111	112	111				
70	89.6	89.8	89.0	89.1	88.5	88.7	88.1	88.4	88.0	88.4	88.0	88.5	88.1	88.5	88.1				
75	65.1	65.2	64.5	64.7	64.1	64.2	63.7	64.0	63.6	64.0	63.6	64.1	63.8	64.2	63.9				
80	41.1	41.3	40.5	40.8	40.1	40.4	39.8	40.2	39.7	40.1	39.7	40.2	39.8	40.5	40.0				
85	19.8	19.9	19.4	19.5	19.1	19.2	18.8	19.0	18.7	19.0	18.7	19.0	18.9	19.2	19.1				
90	4.03	3.88	3.77	3.69	3.66	3.63	3.62	3.61	3.64	3.66	3.76	3.83	3.96	4.05	4.19				

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:001
Test Date:2015-02-27

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.286
Humidity:65.0%
Test Distance:6.930m [K=1.0000]
Remarks: