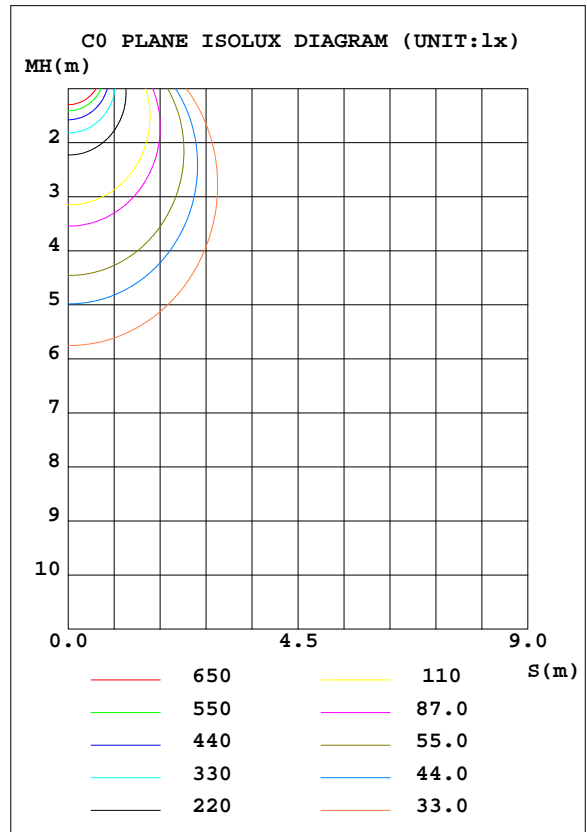
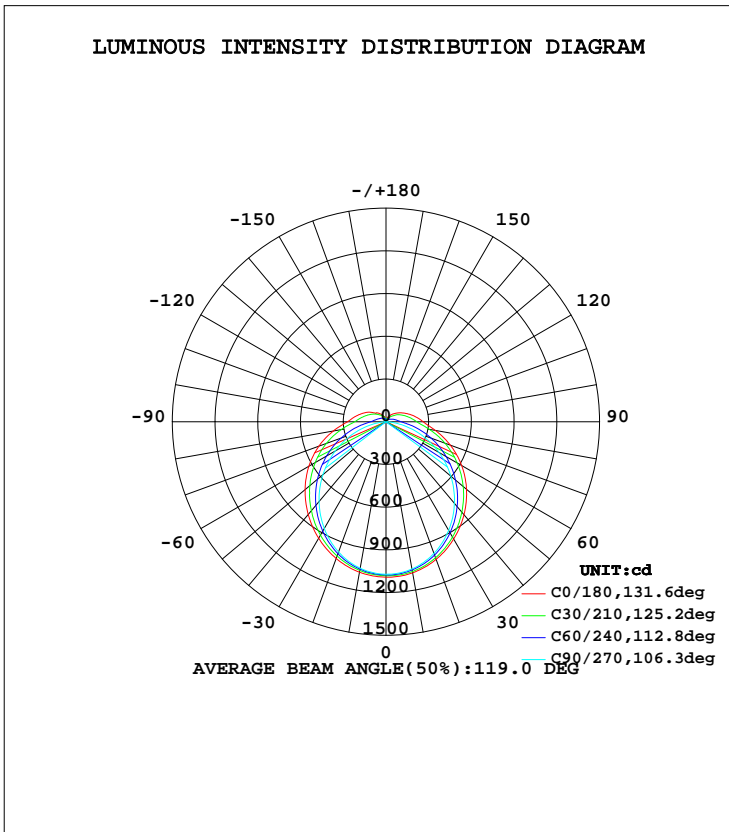


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:240.8V I:0.1750A P:40.00W PF:0.9490 Lamp Flux:3925.3x1 lm		
NAME: 136-301_3000K	TYPE:40W	WEIGHT:
DIM.:	SPEC.:3000K	SERIAL No.:1
MFR.:	SUR.:0.066X1.168	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 98.13 lm/W			
MODEL	136-301_3000K	Imax(cd)	1092	S/MH(C0/180)	1.30
NOMINAL POWER(W)	40	LOR(%)	100.0	S/MH(C90/270)	1.23
RATED VOLTAGE(V)	240	TOTAL FLUX(lm)	3925.3	η UP, DN(C0-180)	6.0, 44.2
NOMINAL FLUX(lm)	3925.3	CIE CLASS	SEMI-D.	η UP, DN(C180-360)	6.1, 43.7
LAMPS INSIDE	1	η up(%)	12.1	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	240.8	η down(%)	87.9	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMAN
 Test Date:2020-04-14

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.443m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	Φlum,lamp
10	1077	1063	1050	1046	1073	1056	1045	1046	0- 10	101.7	101.7	2.59,2.59
20	1029	1007	983.9	988.9	1022	995.2	974.0	987.6	10- 20	290.9	392.6	10,10
30	950.9	917.6	880.9	900.6	945.5	903.9	866.5	896.3	20- 30	440.4	833.0	21.2,21.2
40	852.4	803.4	747.8	790.4	850.1	790.7	731.7	782.0	30- 40	533.4	1366	34.8,34.8
50	738.6	672.4	594.8	664.8	742.1	663.4	578.2	652.1	40- 50	563.2	1930	49.2,49.2
60	613.3	532.0	429.4	531.8	625.7	528.1	412.6	513.3	50- 60	531.9	2462	62.7,62.7
70	481.5	389.4	257.6	396.1	501.4	390.6	242.2	371.6	60- 70	448.7	2910	74.1,74.1
80	352.3	253.9	97.11	265.2	376.4	260.5	83.46	240.1	70- 80	329.8	3240	82.5,82.5
90	261.9	161.7	3.327	164.2	270.4	163.7	3.478	155.2	80- 90	209.7	3450	87.9,87.9
100	209.8	122.0	4.259	124.7	218.5	126.0	5.075	117.2	90-100	146.5	3596	91.6,91.6
110	164.0	92.74	6.138	97.35	174.8	98.66	7.097	88.56	100-110	110.9	3707	94.4,94.4
120	126.2	68.61	8.013	76.91	136.2	78.22	9.159	64.63	110-120	80.83	3788	96.5,96.5
130	94.92	47.06	9.950	61.12	92.57	61.01	11.26	44.57	120-130	55.55	3843	97.9,97.9
140	69.41	34.08	12.06	48.47	78.42	48.15	13.39	32.57	130-140	36.74	3880	98.8,98.8
150	48.89	26.27	14.11	37.77	57.17	38.81	15.27	25.37	140-150	23.34	3903	99.4,99.4
160	32.95	21.09	15.85	29.42	36.85	29.88	16.66	20.36	150-160	13.51	3917	99.8,99.8
170	21.39	18.09	17.34	22.40	22.95	22.56	17.61	17.53	160-170	6.505	3923	100,100
180	17.00	17.97	17.98	17.90	17.12	17.95	17.95	17.89	170-180	1.800	3925	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

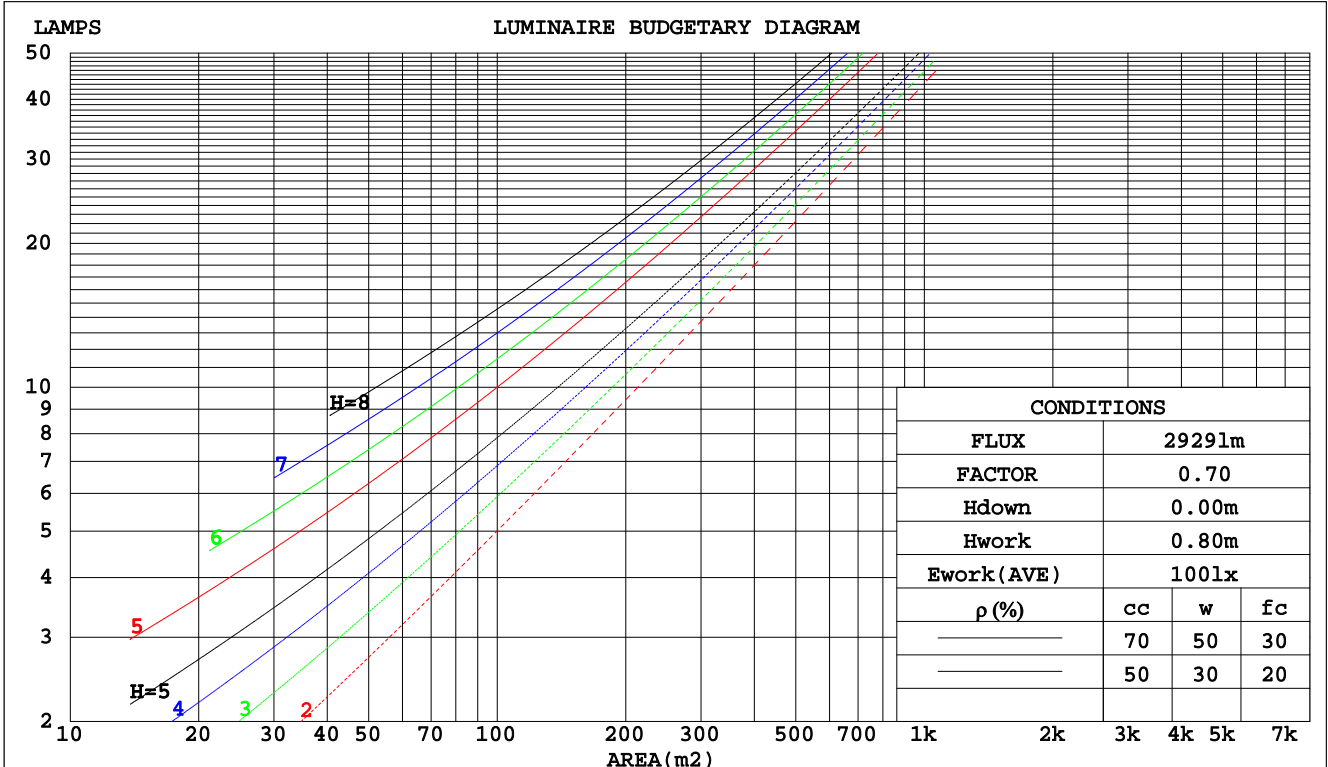
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMAN
 Test Date:2020-04-14

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.443m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:240.8V I:0.1750A P:40.00W PF:0.9490 Lamp Flux:3925.3x1 lm		
NAME: 136-301_3000K	TYPE:40W	WEIGHT:
DIM.:	SPEC.:3000K	SERIAL No.:1
MFR.:	SUR.:0.066X1.168	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	1.16	1.16	1.16	1.12	1.12	1.12	1.04	1.04	1.04	.97	.97	.97	.91	.91	.91	.88
1.0	.99	.94	.89	.95	.91	.87	.89	.85	.82	.83	.80	.77	.77	.75	.73	.70
2.0	.85	.78	.71	.82	.75	.70	.76	.71	.66	.71	.67	.63	.67	.63	.60	.57
3.0	.74	.65	.59	.72	.64	.57	.67	.60	.55	.62	.57	.52	.58	.54	.50	.47
4.0	.65	.56	.49	.63	.55	.48	.59	.52	.46	.55	.49	.44	.52	.47	.42	.40
5.0	.58	.49	.42	.56	.48	.41	.53	.45	.40	.50	.43	.38	.46	.41	.37	.34
6.0	.52	.43	.36	.51	.42	.36	.48	.40	.35	.45	.38	.33	.42	.36	.32	.30
7.0	.47	.38	.32	.46	.37	.32	.43	.36	.30	.41	.34	.29	.38	.33	.28	.26
8.0	.43	.34	.28	.42	.34	.28	.39	.32	.27	.37	.31	.26	.35	.30	.25	.23
9.0	.39	.31	.25	.38	.30	.25	.36	.29	.24	.34	.28	.24	.32	.27	.23	.21
10.0	.36	.28	.23	.35	.28	.23	.33	.27	.22	.32	.26	.21	.30	.25	.21	.19



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMAN
 Test Date:2020-04-14

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.443m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:240.8V I:0.1750A P:40.00W PF:0.9490 Lamp Flux:3925.3x1 lm		
NAME: 136-301_3000K	TYPE:40W	WEIGHT:
DIM.:	SPEC.:3000K	SERIAL No.:1
MFR.:	SUR.:0.066X1.168	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	.355	.202	.064	.344	.196	.062	.324	.186	.059	.305	.176	.056	.288	.167	.054	
2.0	.316	.173	.053	.306	.169	.052	.288	.160	.050	.271	.152	.048	.255	.144	.046	
3.0	.285	.151	.045	.276	.148	.044	.259	.141	.043	.244	.134	.041	.230	.127	.039	
4.0	.258	.134	.039	.251	.131	.039	.236	.125	.037	.222	.119	.036	.209	.114	.035	
5.0	.236	.121	.035	.229	.118	.034	.216	.112	.033	.203	.107	.032	.192	.102	.031	
6.0	.218	.109	.031	.211	.107	.031	.199	.102	.030	.188	.098	.029	.177	.093	.028	
7.0	.201	.100	.028	.196	.097	.028	.185	.093	.027	.174	.089	.026	.164	.085	.025	
8.0	.187	.092	.026	.182	.090	.025	.172	.086	.025	.162	.082	.024	.153	.079	.023	
9.0	.175	.085	.024	.170	.083	.023	.161	.080	.023	.152	.076	.022	.144	.073	.021	
10.0	.164	.079	.022	.160	.077	.022	.151	.074	.021	.143	.071	.020	.135	.068	.020	

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	.283	.283	.283	.242	.242	.242	.165	.165	.165	.095	.095	.095	.030	.030	.030	
1.0	.276	.249	.224	.237	.214	.193	.162	.147	.133	.093	.085	.077	.030	.027	.025	
2.0	.269	.225	.189	.231	.194	.163	.158	.134	.114	.091	.078	.067	.029	.025	.022	
3.0	.261	.209	.166	.224	.180	.144	.154	.125	.101	.089	.073	.060	.029	.024	.020	
4.0	.254	.196	.152	.218	.169	.132	.150	.118	.093	.087	.069	.055	.028	.022	.018	
5.0	.246	.186	.141	.211	.161	.123	.146	.112	.087	.084	.066	.051	.027	.022	.017	
6.0	.239	.178	.134	.205	.154	.117	.142	.108	.082	.082	.063	.049	.027	.021	.016	
7.0	.232	.171	.128	.199	.148	.112	.138	.104	.079	.080	.061	.047	.026	.020	.016	
8.0	.225	.165	.124	.194	.143	.108	.134	.101	.077	.078	.059	.046	.025	.019	.015	
9.0	.219	.160	.121	.189	.139	.105	.131	.098	.075	.076	.058	.045	.025	.019	.015	
10.0	.213	.156	.118	.184	.136	.103	.128	.096	.073	.074	.056	.044	.024	.019	.015	

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMAN
 Test Date:2020-04-14

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.443m [K=1.0000]
 Remarks:

Uncorrected UGR Table

Test:U:240.8V I:0.1750A P:40.00W PF:0.9490 Lamp Flux:3925.3x1 lm										
NAME: 136-301_3000K					TYPE:40W			WEIGHT:		
DIM.:					SPEC.:3000K			SERIAL No.:1		
MFR.:					SUR.:0.066X1.168			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	21.9	23.3	22.3	23.7	24.1	20.5	21.9	20.9	22.3	22.7
3H	24.1	25.4	24.5	25.8	26.3	21.9	23.2	22.4	23.7	24.2
4H	25.2	26.5	25.7	26.9	27.4	22.5	23.7	23.0	24.2	24.7
6H	26.5	27.6	27.0	28.1	28.6	22.9	24.0	23.4	24.5	25.0
8H	27.1	28.2	27.6	28.7	29.3	22.9	24.1	23.5	24.6	25.1
12H	27.9	29.0	28.4	29.5	30.0	23.0	24.1	23.5	24.6	25.1
4H 2H	22.4	23.6	22.9	24.1	24.6	21.4	22.6	21.8	23.1	23.6
3H	24.9	25.9	25.4	26.4	27.0	23.0	24.1	23.6	24.6	25.2
4H	26.2	27.2	26.7	27.7	28.3	23.8	24.8	24.3	25.3	25.9
6H	27.6	28.5	28.2	29.1	29.7	24.3	25.2	24.9	25.7	26.4
8H	28.4	29.2	29.0	29.8	30.4	24.5	25.3	25.1	25.9	26.5
12H	29.3	30.1	29.9	30.7	31.3	24.6	25.3	25.2	25.9	26.6
8H 4H	26.5	27.3	27.1	27.9	28.5	24.5	25.3	25.0	25.9	26.5
6H	28.2	28.9	28.8	29.5	30.2	25.3	26.0	25.9	26.6	27.3
8H	29.2	29.8	29.8	30.4	31.1	25.6	26.2	26.3	26.9	27.6
12H	30.3	30.8	31.0	31.5	32.2	25.9	26.4	26.5	27.1	27.8
12H 4H	26.5	27.3	27.1	27.8	28.5	24.6	25.4	25.3	26.0	26.7
6H	28.3	28.9	28.9	29.5	30.2	25.6	26.3	26.3	26.9	27.6
8H	29.3	29.9	30.0	30.5	31.3	26.1	26.6	26.8	27.3	28.0
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.4				

CIE Pub.117 Corrected 3925 lm Total Lamp Luminous Flux.(8log(F/F0) = 4.8)

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMAN
 Test Date:2020-04-14

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.443m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:240.8V I:0.1750A P:40.00W PF:0.9490 Lamp Flux:3925.3x1 lm		
NAME: 136-301_3000K	TYPE:40W	WEIGHT:
DIM.:	SPEC.:3000K	SERIAL No.:1
MFR.:	SUR.:0.066X1.168	PROTECTION ANGLE:

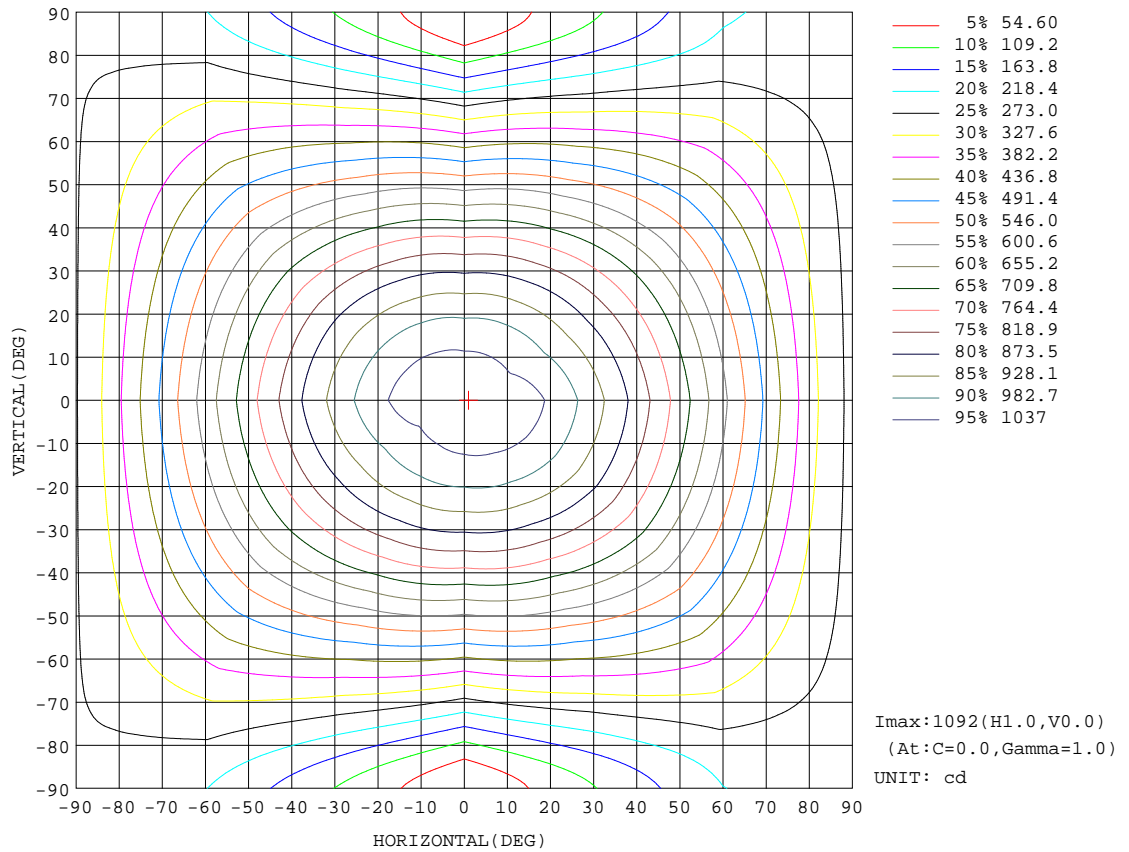
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	51	39	32	50	39	32	49	38	32	25
0.80	61	49	41	60	48	40	57	47	40	32
1.00	69	57	49	67	56	48	64	57	47	39
1.25	76	64	56	74	63	55	70	61	54	45
1.50	81	70	62	79	68	61	74	65	59	50
2.00	88	78	70	85	76	69	80	73	67	56
2.50	92	83	76	89	81	74	84	77	71	60
3.00	96	87	81	93	85	79	87	81	76	64
4.00	100	93	87	97	90	85	91	85	81	69
5.00	103	97	92	99	94	89	93	89	85	72
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMAN
 Test Date:2020-04-14

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.443m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:240.8V I:0.1750A P:40.00W PF:0.9490 Lamp Flux:3925.3x1 lm		
NAME: 136-301_3000K	TYPE:40W	WEIGHT:
DIM.:	SPEC.:3000K	SERIAL No.:1
MFR.:	SUR.:0.066X1.168	PROTECTION ANGLE:

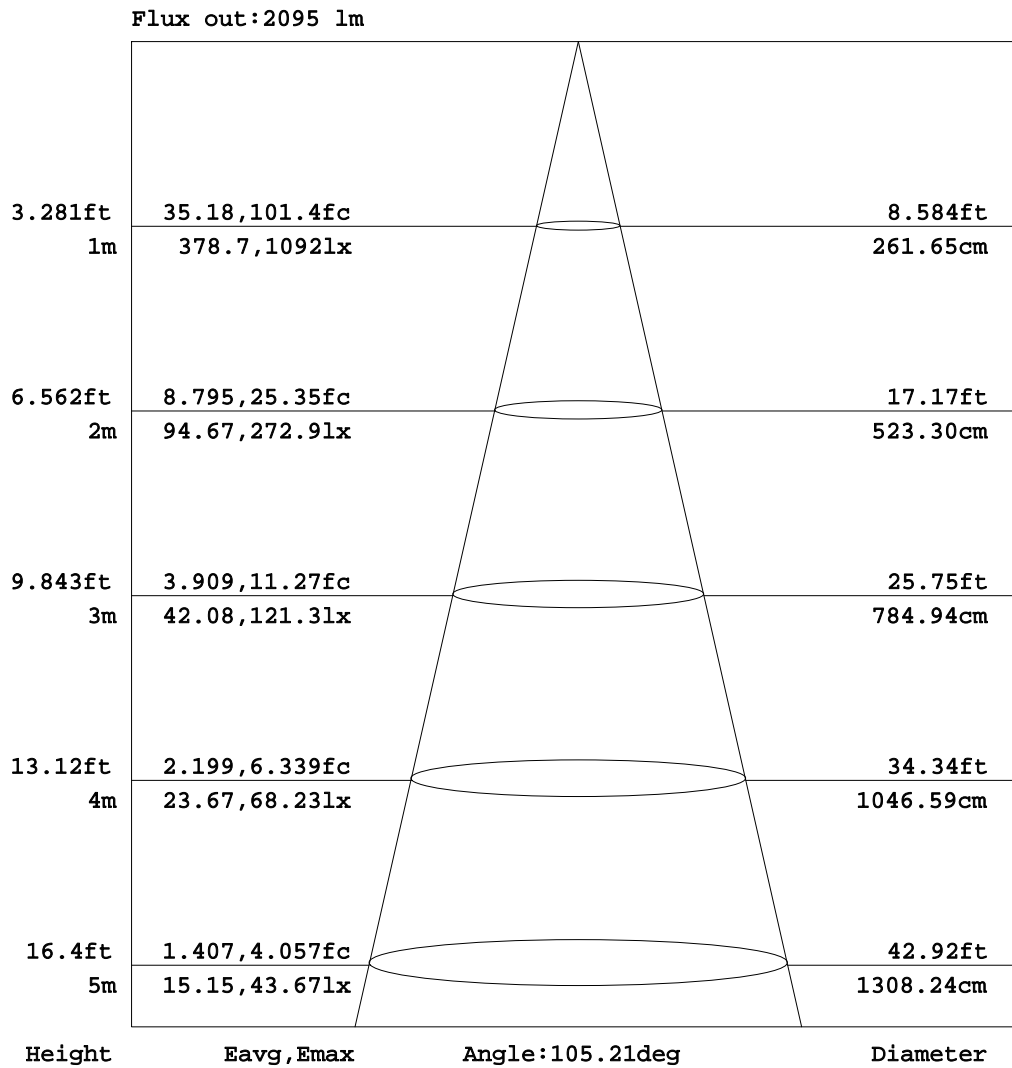


C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMAN
 Test Date:2020-04-14

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.443m [K=1.0000]
 Remarks:

AAI Figure

Test:U:240.8V I:0.1750A P:40.00W PF:0.9490 Lamp Flux:3925.3x1 lm		
NAME: 136-301_3000K	TYPE:40W	WEIGHT:
DIM.:	SPEC.:3000K	SERIAL No.:1
MFR.:	SUR.:0.066X1.168	PROTECTION ANGLE:



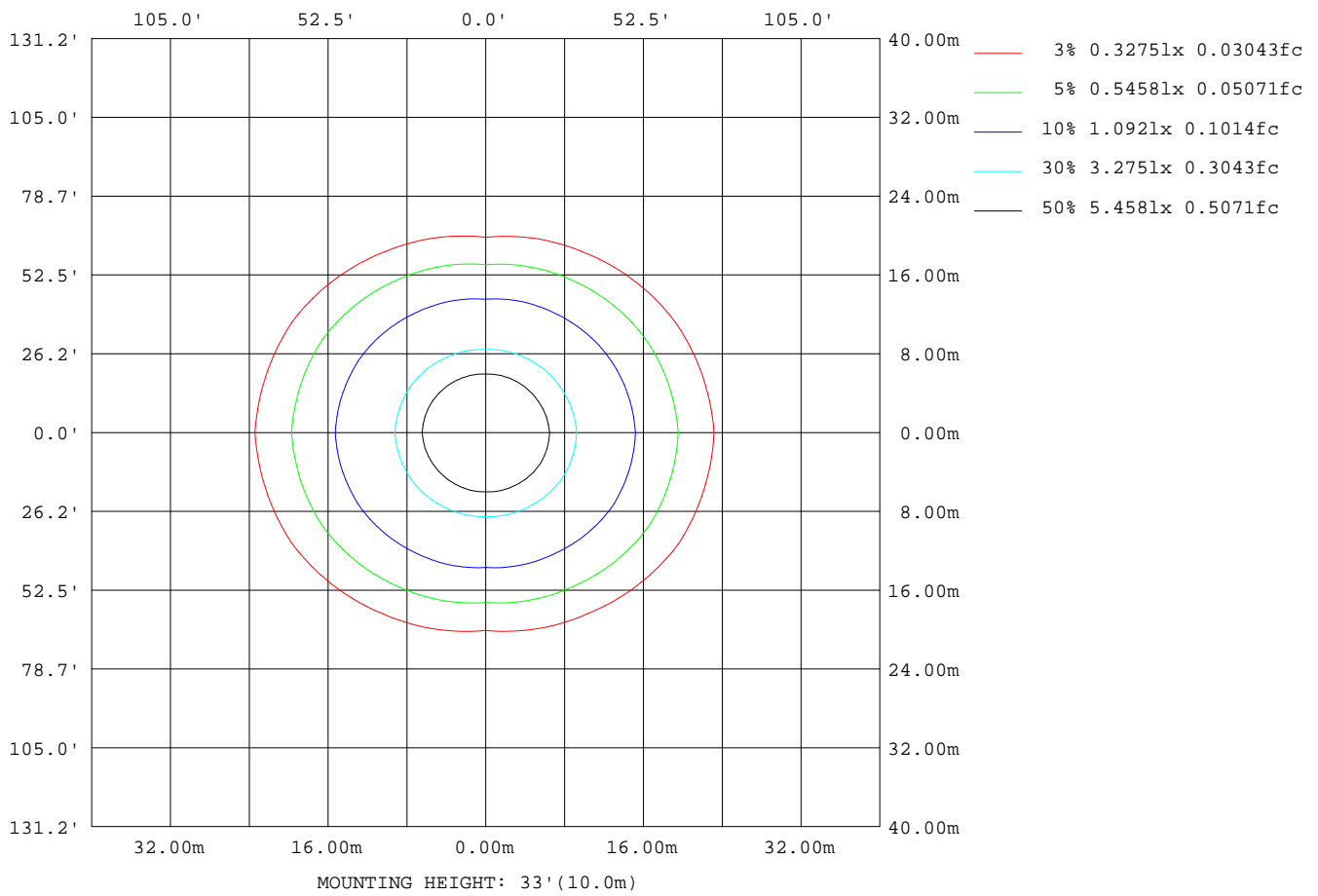
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMAN
 Test Date:2020-04-14

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.443m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

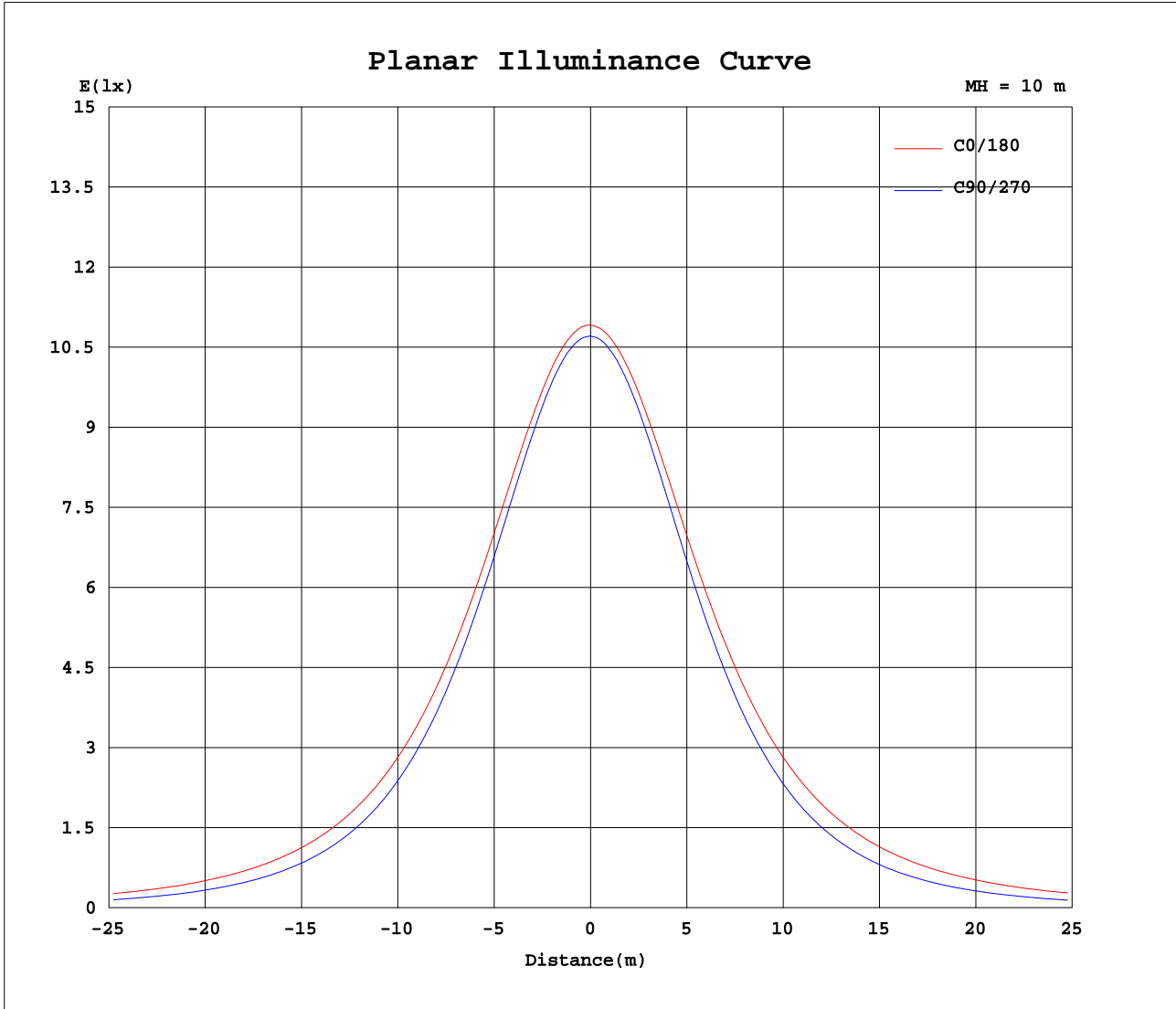
Test:U:240.8V I:0.1750A P:40.00W PF:0.9490 Lamp Flux:3925.3x1 lm		
NAME: 136-301_3000K	TYPE:40W	WEIGHT:
DIM.:	SPEC.:3000K	SERIAL No.:1
MFR.:	SUR.:0.066X1.168	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMAN
 Test Date:2020-04-14

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.443m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMAN
 Test Date: 2020-04-14

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity: 65.0%
 Test Distance: 9.443m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:240.8V I:0.1750A P:40.00W PF:0.9490 Lamp Flux:3925.3x1 lm		
NAME: 136-301_3000K	TYPE:40W	WEIGHT:
DIM.:	SPEC.:3000K	SERIAL No.:1
MFR.:	SUR.:0.066X1.168	PROTECTION ANGLE:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330							
0	1092	1082	1076	1071	1068	1063	1092	1082	1076	1071	1068	1063							
5	1089	1080	1072	1066	1062	1059	1086	1076	1069	1063	1061	1060							
10	1077	1068	1057	1050	1046	1045	1073	1060	1051	1045	1045	1046							
15	1057	1047	1032	1023	1020	1023	1052	1036	1024	1015	1018	1024							
20	1029	1017	996	984	985	993	1022	1004	986	974	982	993							
25	993	979	953	937	941	955	987	965	941	925	937	955							
30	951	935	901	881	889	912	945	920	888	866	884	909							
35	904	884	842	818	832	864	900	870	829	802	825	859							
40	852	829	778	748	770	811	850	815	766	732	760	804							
45	797	770	709	673	703	756	797	758	698	657	692	745							
50	739	708	637	595	633	697	742	699	628	578	621	683							
55	677	644	563	513	562	637	684	637	556	496	547	619							
60	613	576	488	429	489	575	626	574	482	413	472	554							
65	548	509	413	343	416	512	564	510	409	327	398	488							
70	482	441	338	258	344	448	501	446	336	242	322	421							
75	415	374	266	174	274	385	439	382	266	159	252	355							
80	352	309	199	97.1	208	322	376	320	201	83.5	187	294							
85	297	253	142	34.2	150	265	317	263	145	24.8	133	241							
90	262	217	106	3.33	108	220	270	220	107	3.48	101	209							
95	235	193	88.1	3.44	89.5	194	243	196	89.9	4.19	84.3	185							
100	210	170	73.9	4.26	76.1	173	218	175	77.0	5.08	71.0	163							
105	186	150	62.9	5.17	65.8	154	196	155	67.1	6.07	60.7	144							
110	164	132	53.6	6.14	58.0	137	175	138	59.2	7.10	50.3	127							
115	144	116	43.1	7.09	51.8	121	155	123	53.1	8.12	41.2	109							
120	126	101	36.2	8.01	46.9	107	136	108	48.2	9.16	34.8	94.4							
125	110	82.6	31.2	8.97	43.0	94.3	112	95.1	43.7	10.2	30.5	75.2							
130	94.9	66.5	27.6	9.95	39.4	82.9	92.6	82.2	39.8	11.3	27.1	62.0							
135	81.5	54.9	24.9	11.0	35.5	72.6	89.6	71.2	37.0	12.3	24.5	52.1							
140	69.4	45.4	22.8	12.1	33.5	63.5	78.4	61.9	34.4	13.4	22.4	42.7							
145	58.5	37.8	21.4	13.1	31.0	55.2	67.3	55.0	32.1	14.4	21.0	35.6							
150	48.9	31.8	20.7	14.1	28.8	46.7	57.2	47.8	29.8	15.3	20.3	30.4							
155	40.4	27.0	19.8	15.0	26.6	40.6	48.2	41.1	27.2	16.0	19.4	25.9							
160	33.0	23.3	18.9	15.9	24.2	34.6	36.8	35.1	24.7	16.7	18.5	22.2							
165	26.6	21.1	18.0	16.6	22.2	29.1	29.4	29.3	22.6	17.2	17.6	20.1							
170	21.4	18.9	17.2	17.3	20.6	24.2	22.9	24.3	20.9	17.6	17.0	18.1							
175	17.7	17.4	16.7	17.8	19.1	20.4	18.7	20.5	19.3	17.9	16.6	16.7							
180	17.0	18.0	18.0	18.0	17.9	17.9	17.1	17.9	18.0	18.0	17.9	17.8							

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMAN
 Test Date:2020-04-14

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.443m [K=1.0000]
 Remarks: