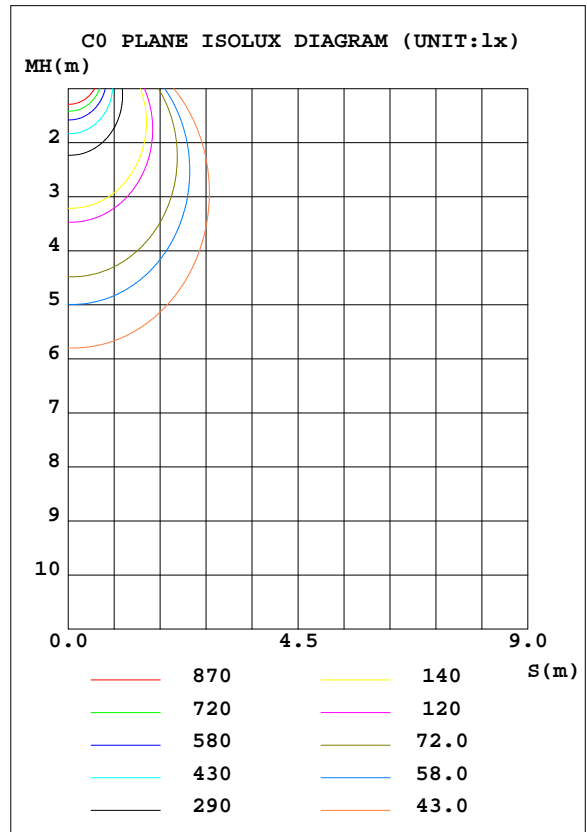
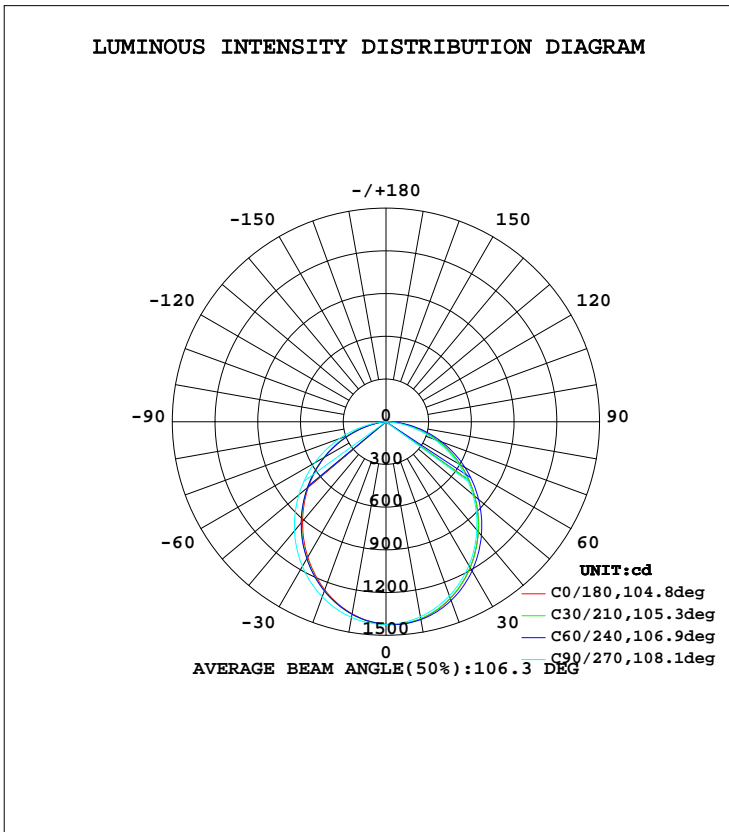


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:240.3V I:0.1590A P:36.30W PF:0.9490 Lamp Flux:3868.66x1 lm		
NAME: LL36W-CC-B	TYPE:36W	WEIGHT:
DIM.:	SPEC.:4000K	SERIAL No.:1
MFR.:	SUR.:1.175*0.03	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 106.57 lm/W			
MODEL	LL36W-CC-B	I _{max} (cd)	1454	S/MH(C0/180)	1.24
NOMINAL POWER(W)	36	LOR(%)	100.0	S/MH(C90/270)	1.22
RATED VOLTAGE(V)	240	TOTAL FLUX(lm)	3868.7	η UP, DN(C0-180)	0.7, 47.8
NOMINAL FLUX(lm)	3868.66	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.7, 50.8
LAMPS INSIDE	1	η up(%)	1.4	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	240.3	η down(%)	98.6	CIBSE SHR MAX	1.35



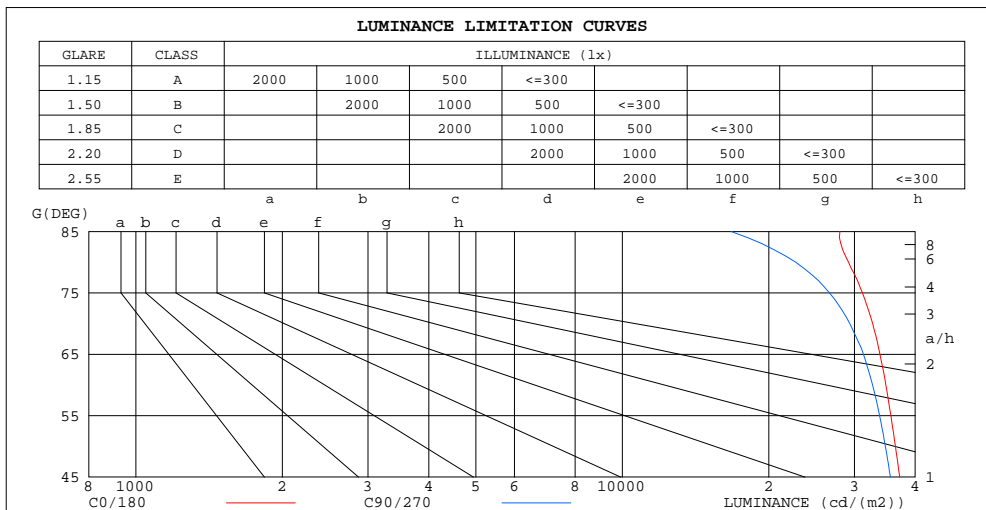
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2020-12-07

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:10.237m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM
AND LUMINANCE LIMITATION CURVES

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	$\%lum, lamp$
10	1405	1407	1390	1341	1370	1373	1395	1442	0- 10	134.3	134.3	3.47,3.47
20	1321	1328	1301	1207	1256	1264	1309	1395	10- 20	380.9	515.2	13.3,13.3
30	1182	1195	1165	1037	1098	1110	1173	1286	20- 30	567.5	1083	28,28
40	1008	1025	992.7	842.1	912.0	925.2	1000.0	1130	30- 40	670.0	1753	45.3,45.3
50	812.5	831.0	796.2	632.6	710.8	720.8	799.1	939.3	40- 50	680.4	2433	62.9,62.9
60	604.1	621.7	582.7	413.3	499.0	503.5	579.3	728.0	50- 60	603.1	3036	78.5,78.5
70	388.2	403.2	358.0	197.8	281.8	280.5	347.3	503.5	60- 70	451.1	3487	90.1,90.1
80	175.8	188.0	140.7	31.91	86.55	79.83	124.1	272.4	70- 80	252.1	3740	96.7,96.7
90	22.12	24.58	5.341	3.342	2.105	2.633	2.245	74.05	80- 90	74.85	3814	98.6,98.6
100	3.114	3.255	4.129	5.266	3.415	3.864	3.357	3.042	90-100	8.376	3823	98.8,98.8
110	4.837	5.039	6.143	7.391	5.230	5.607	5.377	3.479	100-110	4.729	3827	98.9,98.9
120	6.728	7.038	8.268	9.593	7.236	7.573	7.454	5.207	110-120	6.310	3834	99.1,99.1
130	8.804	9.105	10.35	11.66	9.307	9.549	9.437	7.142	120-130	7.508	3841	99.3,99.3
140	10.92	11.11	12.15	13.37	10.84	11.08	10.80	8.923	130-140	7.915	3849	99.5,99.5
150	12.93	12.91	13.64	14.79	12.53	12.65	12.18	10.73	140-150	7.498	3857	99.7,99.7
160	14.82	14.49	14.83	15.85	14.14	13.98	13.50	12.46	150-160	6.243	3863	99.9,99.9
170	16.48	15.69	15.69	16.33	15.57	15.07	14.52	14.04	160-170	4.189	3867	100,100
180	17.27	16.34	15.95	16.13	17.27	16.36	15.91	16.13	170-180	1.508	3869	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		



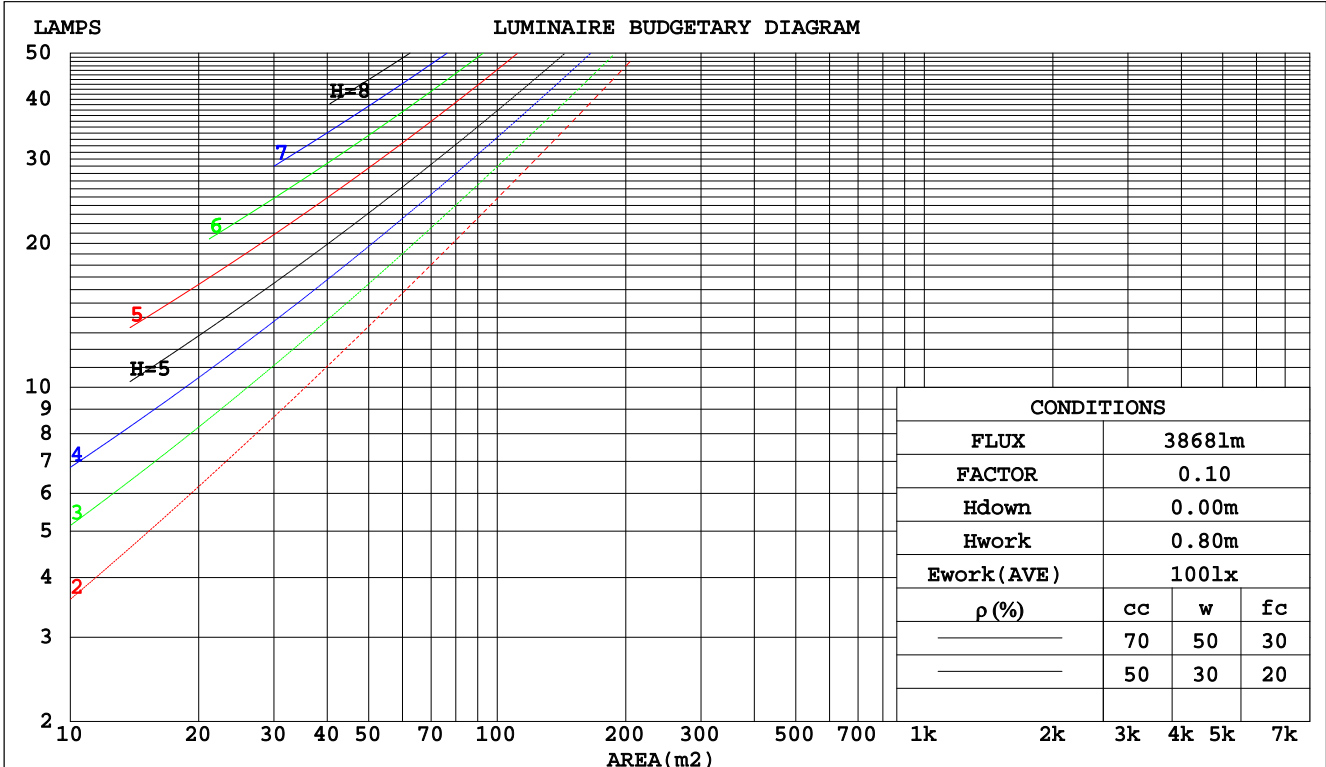
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2020-12-07

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:10.237m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:240.3V I:0.1590A P:36.30W PF:0.9490 Lamp Flux:3868.66x1 lm		
NAME: LL36W-CC-B	TYPE:36W	WEIGHT:
DIM.:	SPEC.:4000K	SERIAL No.:1
MFR.:	SUR.:1.175*0.03	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																
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	1.10	1.10	1.10	1.05	1.05	1.05	1.01	1.01	1.01	.99
1.0	1.04	.00	.96	1.01	.97	.94	.97	.94	.91	.93	.90	.88	.89	.87	.85	.83
2.0	.91	.84	.78	.89	.82	.77	.85	.80	.75	.81	.77	.73	.78	.74	.71	.69
3.0	.80	.72	.65	.78	.70	.64	.75	.68	.63	.72	.66	.62	.69	.65	.61	.58
4.0	.71	.62	.55	.69	.61	.55	.67	.59	.54	.64	.58	.53	.62	.56	.52	.50
5.0	.63	.54	.48	.62	.54	.47	.60	.52	.47	.58	.51	.46	.56	.50	.45	.43
6.0	.57	.48	.42	.56	.48	.41	.54	.46	.41	.52	.46	.40	.50	.45	.40	.38
7.0	.52	.43	.37	.51	.43	.37	.49	.42	.36	.48	.41	.36	.46	.40	.36	.34
8.0	.47	.39	.33	.46	.38	.33	.45	.38	.32	.44	.37	.32	.42	.36	.32	.30
9.0	.43	.35	.30	.43	.35	.30	.41	.34	.29	.40	.34	.29	.39	.33	.29	.27
10.0	.40	.32	.27	.39	.32	.27	.38	.31	.27	.37	.31	.26	.36	.30	.26	.24



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2020-12-07

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:10.237m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:240.3V I:0.1590A P:36.30W PF:0.9490 Lamp Flux:3868.66x1 lm		
NAME: LL36W-CC-B	TYPE:36W	WEIGHT:
DIM.:	SPEC.:4000K	SERIAL No.:1
MFR.:	SUR.:1.175*0.03	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	.306	.174	.055	.298	.170	.054	.284	.163	.052	.271	.156	.050	.259	.150	.048	
2.0	.287	.157	.048	.281	.155	.048	.268	.149	.046	.257	.144	.045	.246	.139	.044	
3.0	.266	.142	.042	.260	.139	.042	.249	.135	.041	.239	.131	.040	.230	.127	.039	
4.0	.246	.128	.038	.241	.126	.037	.231	.122	.037	.222	.119	.036	.213	.116	.035	
5.0	.227	.116	.034	.223	.114	.033	.214	.111	.033	.206	.109	.032	.198	.106	.032	
6.0	.211	.106	.030	.207	.105	.030	.199	.102	.030	.192	.100	.029	.185	.097	.029	
7.0	.197	.097	.028	.193	.096	.027	.186	.094	.027	.179	.092	.027	.173	.090	.026	
8.0	.184	.090	.025	.180	.089	.025	.174	.087	.025	.168	.085	.025	.163	.084	.024	
9.0	.172	.083	.023	.169	.083	.023	.164	.081	.023	.158	.079	.023	.153	.078	.023	
10.0	.162	.078	.022	.159	.077	.021	.154	.076	.021	.149	.074	.021	.145	.073	.021	

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	.201	.201	.201	.172	.172	.172	.117	.117	.117	.067	.067	.067	.022	.022	.022	
1.0	.191	.167	.145	.163	.143	.125	.112	.099	.087	.064	.057	.050	.021	.018	.016	
2.0	.182	.143	.109	.156	.123	.095	.107	.085	.066	.062	.049	.039	.020	.016	.013	
3.0	.175	.125	.086	.150	.108	.074	.103	.075	.052	.059	.044	.031	.019	.014	.010	
4.0	.167	.112	.070	.143	.097	.061	.099	.067	.043	.057	.039	.025	.018	.013	.008	
5.0	.160	.101	.059	.137	.088	.051	.094	.061	.036	.055	.036	.021	.018	.012	.007	
6.0	.152	.093	.051	.131	.081	.044	.090	.056	.031	.052	.033	.019	.017	.011	.006	
7.0	.146	.086	.045	.125	.075	.039	.087	.052	.028	.050	.031	.016	.016	.010	.005	
8.0	.139	.080	.040	.120	.070	.035	.083	.049	.025	.048	.029	.015	.016	.009	.005	
9.0	.133	.075	.036	.115	.066	.032	.079	.046	.023	.046	.027	.013	.015	.009	.004	
10.0	.128	.071	.034	.110	.062	.029	.076	.044	.021	.044	.026	.012	.014	.008	.004	

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2020-12-07

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:10.237m [K=1.0000]
 Remarks:

Uncorrected UGR Table

Test:U:240.3V I:0.1590A P:36.30W PF:0.9490 Lamp Flux:3868.66x1 lm										
NAME: LL36W-CC-B					TYPE:36W			WEIGHT:		
DIM.:					SPEC.:4000K			SERIAL No.:1		
MFR.:					SUR.:1.175*0.03			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	25.4	26.9	25.7	27.1	27.3	25.4	26.9	25.7	27.1	27.3
3H	27.0	28.4	27.3	28.6	28.9	26.9	28.2	27.2	28.5	28.8
4H	27.6	28.9	28.0	29.2	29.5	27.5	28.8	27.8	29.0	29.3
6H	28.1	29.4	28.5	29.7	30.0	27.8	29.1	28.2	29.4	29.7
8H	28.3	29.5	28.7	29.8	30.1	27.9	29.1	28.3	29.4	29.8
12H	28.4	29.6	28.8	29.9	30.2	28.0	29.1	28.4	29.4	29.8
4H 2H	26.1	27.4	26.4	27.6	27.9	26.1	27.4	26.4	27.6	27.9
3H	27.8	29.0	28.2	29.3	29.6	27.8	28.9	28.2	29.3	29.6
4H	28.6	29.6	29.0	30.0	30.3	28.5	29.6	28.9	29.9	30.3
6H	29.2	30.2	29.7	30.5	30.9	29.1	30.0	29.5	30.4	30.8
8H	29.5	30.3	29.9	30.7	31.1	29.2	30.1	29.7	30.5	30.9
12H	29.6	30.4	30.1	30.8	31.3	29.3	30.1	29.8	30.5	31.0
8H 4H	28.9	29.8	29.4	30.2	30.6	28.9	29.7	29.3	30.1	30.5
6H	29.7	30.4	30.2	30.9	31.3	29.6	30.3	30.1	30.8	31.2
8H	30.0	30.7	30.5	31.1	31.6	29.9	30.5	30.4	31.0	31.5
12H	30.3	30.9	30.8	31.3	31.8	30.1	30.6	30.6	31.1	31.6
12H 4H	29.0	29.7	29.4	30.2	30.6	28.9	29.7	29.3	30.1	30.5
6H	29.8	30.4	30.3	30.9	31.4	29.7	30.3	30.2	30.8	31.3
8H	30.2	30.7	30.7	31.2	31.7	30.1	30.6	30.6	31.1	31.6
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.2					+ 0.2 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.4				
2.0H	+ 0.1 / - 0.3					+ 0.2 / - 0.4				

CIE Pub.117 Corrected 3869 lm Total Lamp Luminous Flux.(8log(F/F0) = 4.7)

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2020-12-07

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:10.237m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:240.3V I:0.1590A P:36.30W PF:0.9490 Lamp Flux:3868.66x1 lm		
NAME: LL36W-CC-B	TYPE:36W	WEIGHT:
DIM.:	SPEC.:4000K	SERIAL No.:1
MFR.:	SUR.:1.175*0.03	PROTECTION ANGLE:

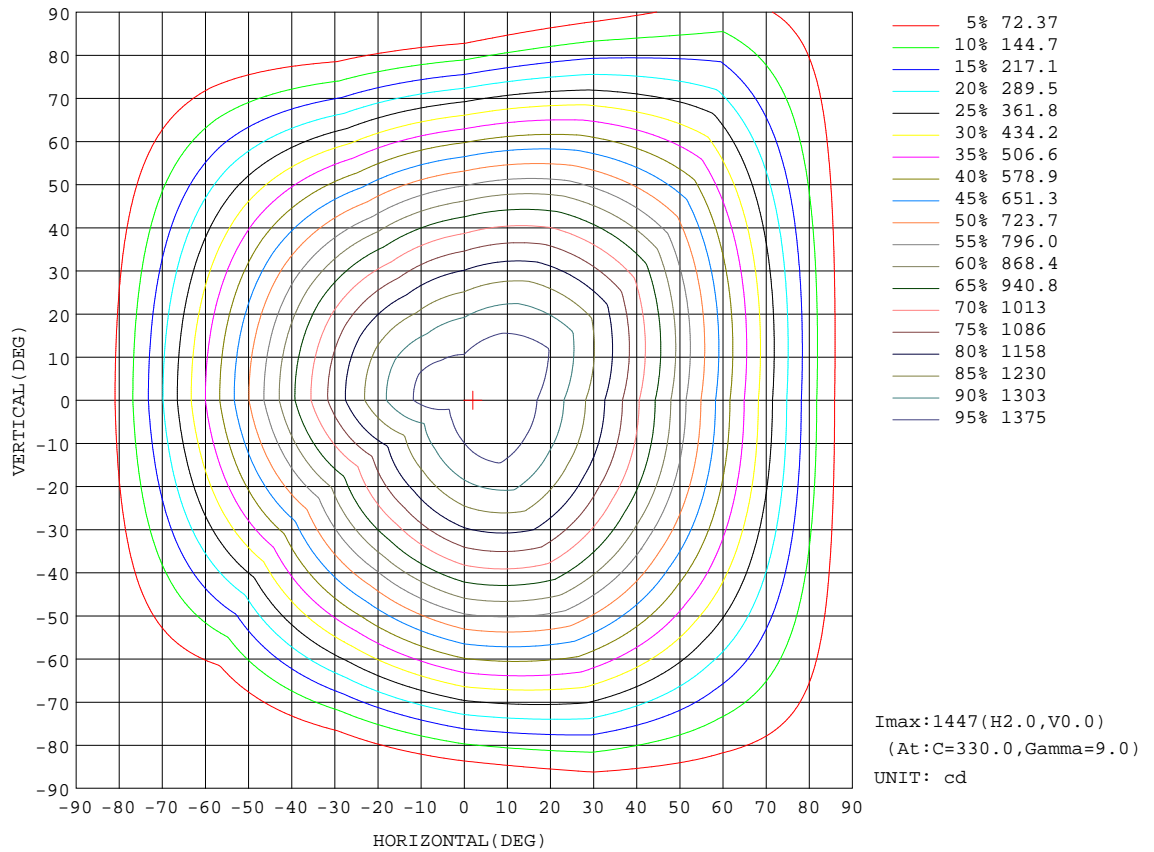
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	58	46	40	57	46	39	56	46	39	33
0.80	68	56	49	67	56	49	65	55	48	42
1.00	76	65	58	75	65	58	73	66	57	50
1.25	83	73	66	82	72	65	79	71	64	57
1.50	88	78	71	86	77	71	83	76	70	62
2.00	95	86	80	93	85	79	89	83	78	70
2.50	99	91	85	97	90	84	93	87	82	74
3.00	102	95	90	100	94	89	96	91	86	78
4.00	106	100	96	104	99	94	99	95	91	82
5.00	108	104	100	106	102	98	101	98	95	85
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:DAMIN
 Test Date:2020-12-07

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:10.237m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:240.3V I:0.1590A P:36.30W PF:0.9490 Lamp Flux:3868.66x1 lm		
NAME: LL36W-CC-B	TYPE:36W	WEIGHT:
DIM.:	SPEC.:4000K	SERIAL No.:1
MFR.:	SUR.:1.175*0.03	PROTECTION ANGLE:

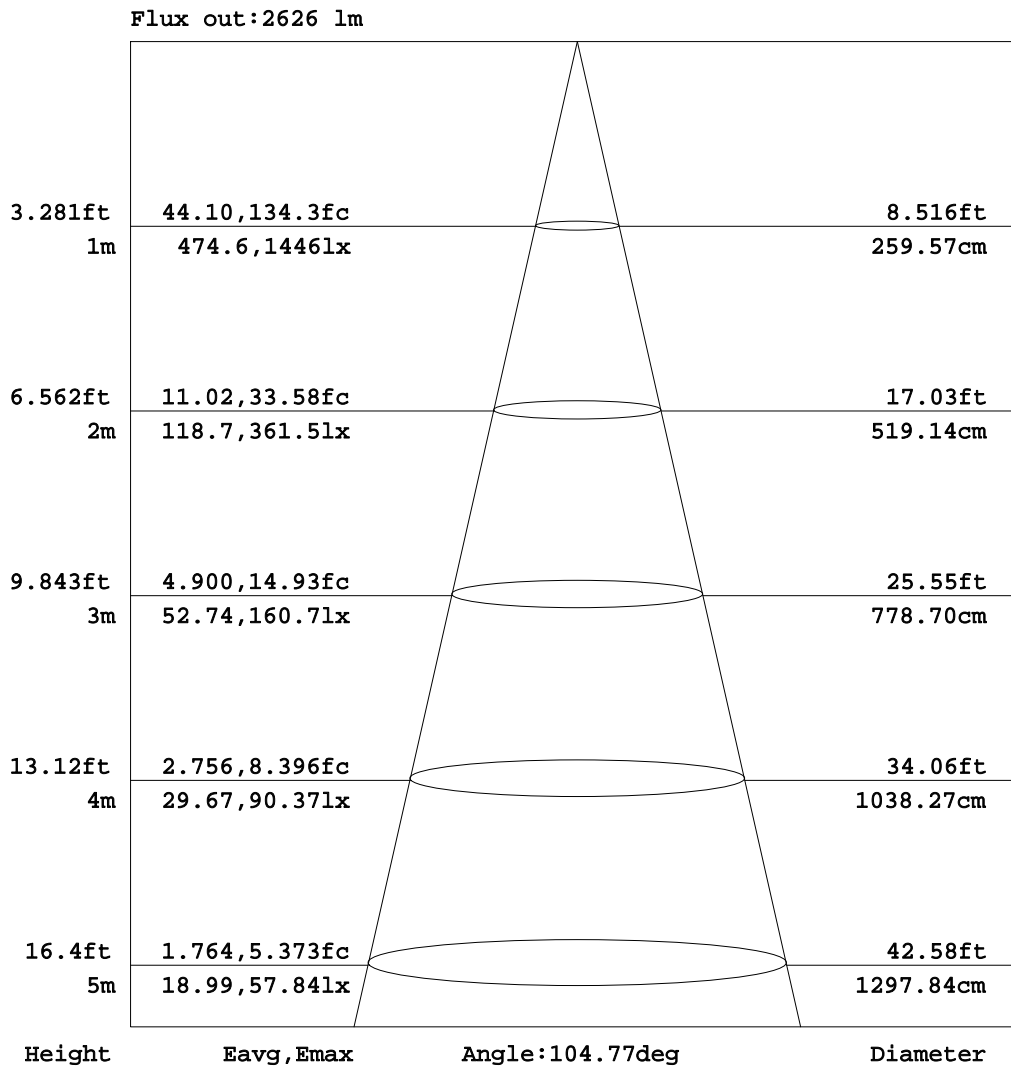


C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2020-12-07

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:10.237m [K=1.0000]
 Remarks:

AAI Figure

Test:U:240.3V I:0.1590A P:36.30W PF:0.9490 Lamp Flux:3868.66x1 lm		
NAME: LL36W-CC-B	TYPE:36W	WEIGHT:
DIM.:	SPEC.:4000K	SERIAL No.:1
MFR.:	SUR.:1.175*0.03	PROTECTION ANGLE:



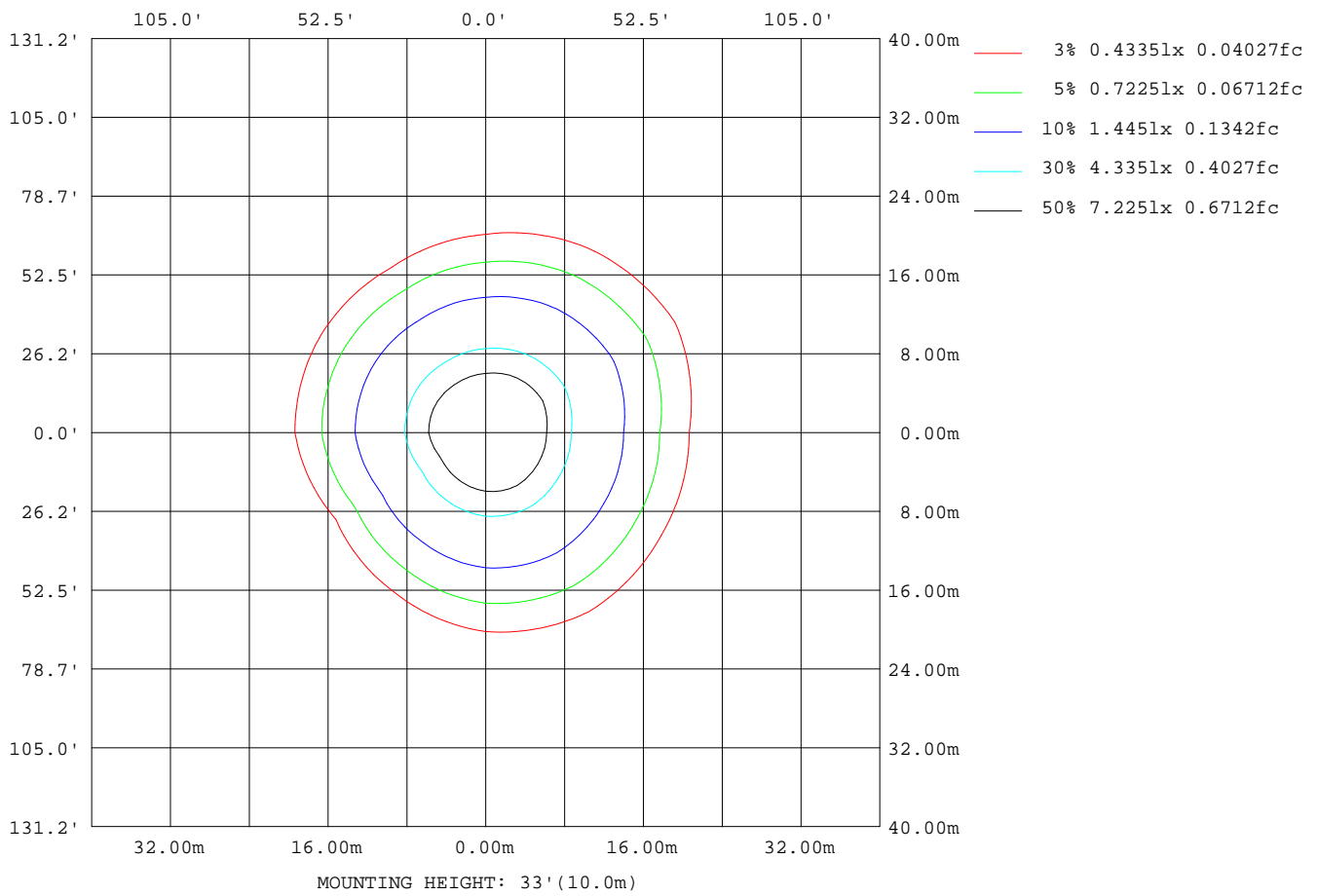
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2020-12-07

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:10.237m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

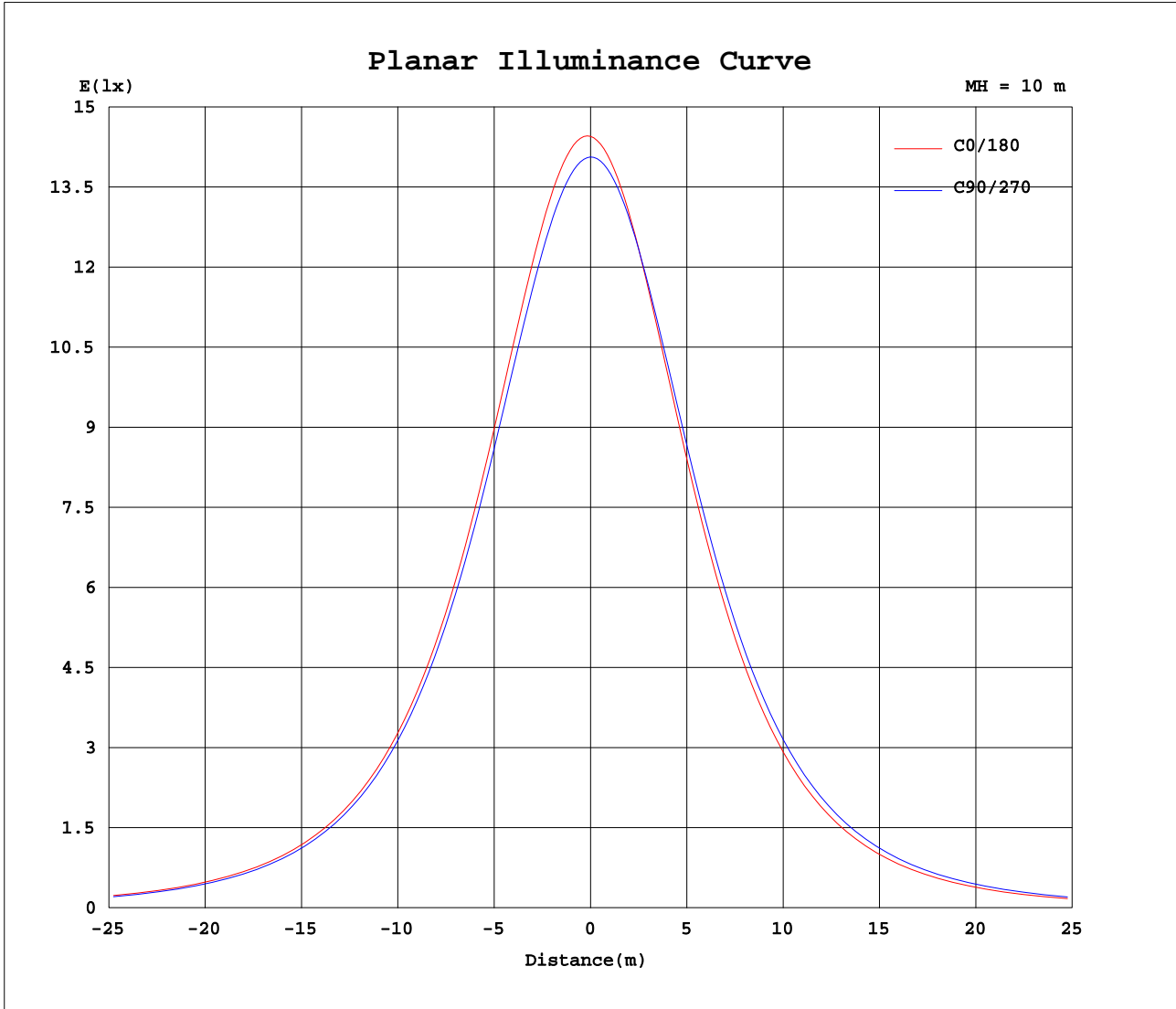
Test:U:240.3V I:0.1590A P:36.30W PF:0.9490 Lamp Flux:3868.66x1 lm		
NAME: LL36W-CC-B	TYPE:36W	WEIGHT:
DIM.:	SPEC.:4000K	SERIAL No.:1
MFR.:	SUR.:1.175*0.03	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2020-12-07

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:10.237m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2020-12-07

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity: 65.0%
 Test Distance: 10.237m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:240.3V I:0.1590A P:36.30W PF:0.9490 Lamp Flux:3868.66x1 lm		
NAME: LL36W-CC-B	TYPE:36W	WEIGHT:
DIM.:	SPEC.:4000K	SERIAL No.:1
MFR.:	SUR.:1.175*0.03	PROTECTION ANGLE:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330							
0	1423	1423	1423	1423	1423	1423	1423	1423	1423	1423	1423	1423							
5	1423	1422	1425	1414	1395	1383	1405	1407	1405	1416	1435	1447							
10	1405	1404	1411	1390	1354	1328	1370	1374	1372	1395	1430	1454							
15	1371	1369	1381	1352	1299	1260	1320	1326	1325	1359	1410	1443							
20	1321	1319	1336	1301	1232	1182	1256	1264	1265	1309	1374	1415							
25	1257	1256	1279	1238	1155	1096	1182	1192	1193	1247	1324	1371							
30	1182	1182	1209	1165	1070	1003	1098	1109	1112	1173	1261	1312							
35	1099	1099	1130	1083	978	905	1008	1019	1023	1091	1186	1240							
40	1008	1008	1043	993	881	803	912	924	927	1000	1101	1158							
45	912	913	948	897	780	698	813	824	826	902	1008	1067							
50	812	813	849	796	674	591	711	721	721	799	908	970							
55	710	710	746	691	566	482	606	614	612	691	803	868							
60	604	605	639	583	456	370	499	506	501	579	694	762							
65	497	497	530	472	345	262	389	396	386	464	581	653							
70	388	388	419	358	236	159	282	287	274	347	466	541							
75	280	280	308	246	133	70.6	178	181	166	232	349	428							
80	176	177	199	141	49.4	14.4	86.5	87.6	72.0	124	235	310							
85	84.7	85.2	101	52.0	5.87	2.86	22.3	22.0	12.2	38.2	129	202							
90	22.1	21.6	27.6	5.34	3.17	3.51	2.11	2.57	2.69	2.24	43.8	104							
95	2.76	2.85	3.09	3.20	4.04	4.42	2.68	2.91	3.31	2.47	4.01	31.1							
100	3.11	3.20	3.31	4.13	5.09	5.44	3.42	3.61	4.12	3.36	2.46	3.63							
105	3.93	4.03	4.19	5.10	6.10	6.51	4.29	4.37	5.03	4.34	3.06	2.48							
110	4.84	4.96	5.12	6.14	7.13	7.65	5.23	5.23	5.99	5.38	3.90	3.06							
115	5.75	5.95	6.08	7.19	8.22	8.78	6.23	6.18	7.02	6.44	4.82	3.80							
120	6.73	7.00	7.07	8.27	9.28	9.90	7.24	7.08	8.08	7.45	5.80	4.61							
125	7.73	8.03	8.11	9.33	10.4	10.9	8.26	8.08	9.08	8.47	6.76	5.56							
130	8.80	9.08	9.14	10.3	11.5	11.9	9.31	9.04	10.1	9.44	7.73	6.55							
135	9.86	10.1	10.1	11.3	12.3	12.8	9.92	9.73	10.7	9.94	8.45	7.49							
140	10.9	11.1	11.2	12.2	13.2	13.6	10.8	10.6	11.5	10.8	9.36	8.49							
145	12.0	12.0	12.1	12.9	13.9	14.3	11.6	11.5	12.3	11.5	10.2	9.42							
150	12.9	12.9	12.9	13.6	14.6	15.0	12.5	12.3	13.0	12.2	11.0	10.4							
155	13.9	13.8	13.6	14.3	15.1	15.6	13.4	13.1	13.6	12.9	11.8	11.4							
160	14.8	14.7	14.3	14.8	15.6	16.1	14.1	13.8	14.2	13.5	12.6	12.3							
165	15.7	15.3	15.0	15.3	15.9	16.4	14.9	14.4	14.7	14.0	13.3	13.1							
170	16.5	15.9	15.5	15.7	16.1	16.5	15.6	15.0	15.1	14.5	14.1	14.0							
175	17.0	16.3	15.9	15.9	16.2	16.5	17.1	16.3	16.1	15.7	15.5	15.6							
180	17.3	16.5	16.2	15.9	16.0	16.2	17.3	16.5	16.2	15.9	16.0	16.2							

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2020-12-07

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:10.237m [K=1.0000]
 Remarks: