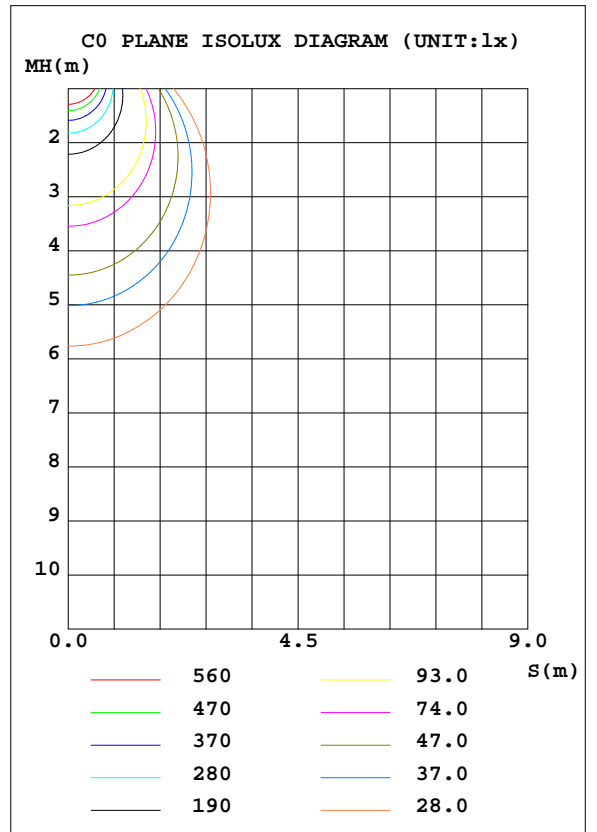
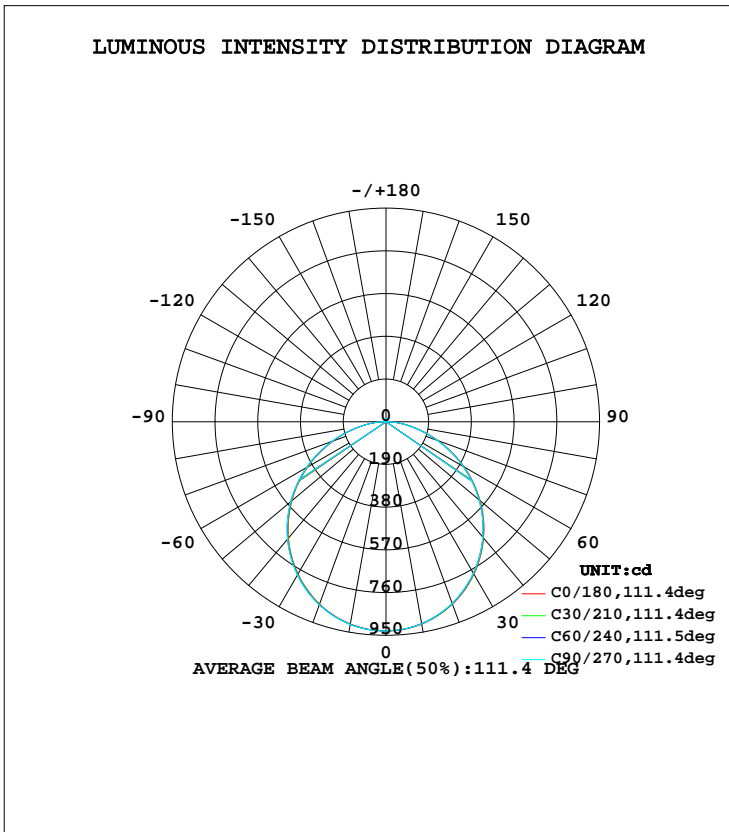


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:240.4V I:0.1100A P:25.10W PF:0.9420 Lamp Flux:2691.57x1 lm		
NAME: LED-OY25W-CC-IP54	TYPE:25W	WEIGHT:
DIM.:	SPEC.:4000K	SERIAL No.:1
MFR.:	SUR.:0.135	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 107.23 lm/W			
MODEL	LED-OY25W-CC-IP54	I _{max} (cd)	930.3	S/MH(C0/180)	1.25
NOMINAL POWER(W)	25	LOR(%)	100.0	S/MH(C90/270)	1.24
RATED VOLTAGE(V)	240	TOTAL FLUX(lm)	2691.6	η UP, DN(C0-180)	0.9, 48.7
NOMINAL FLUX(lm)	2691.57	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.9, 49.5
LAMPS INSIDE	1	η up(%)	1.8	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	240.4	η down(%)	98.2	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-03-21

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	Φ lum, lamp
10	914.1	912.1	912.0	912.3	913.7	914.5	915.7	915.6	0- 10	88.02	88.02	3.27,3.27
20	863.4	861.0	859.7	860.0	863.0	865.4	866.7	866.1	10- 20	251.8	339.8	12.6,12.6
30	782.6	779.0	777.6	778.2	782.0	785.2	787.5	786.6	20- 30	380.7	720.6	26.8,26.8
40	675.3	671.7	669.6	670.1	674.9	679.3	681.3	679.9	30- 40	457.7	1178	43.8,43.8
50	546.3	542.3	540.2	541.1	546.4	551.0	553.1	551.5	40- 50	472.9	1651	61.3,61.3
60	400.5	396.9	395.2	396.0	401.4	406.6	408.2	406.3	50- 60	424.8	2076	77.1,77.1
70	247.6	243.7	242.4	243.9	248.5	253.6	255.4	252.9	60- 70	321.5	2397	89.1,89.1
80	105.7	104.0	102.8	105.7	109.0	110.4	112.5	109.9	70- 80	185.4	2583	96,96
90	15.28	14.33	13.91	13.94	15.42	15.83	16.96	15.52	80- 90	59.51	2642	98.2,98.2
100	3.245	3.195	3.381	3.220	3.633	3.438	3.494	3.934	90-100	7.246	2650	98.4,98.4
110	4.548	4.689	4.700	4.754	5.069	4.939	4.912	4.883	100-110	4.224	2654	98.6,98.6
120	6.372	6.502	6.565	6.619	6.955	6.828	6.754	6.726	110-120	5.680	2659	98.8,98.8
130	8.244	8.363	8.452	8.457	8.828	8.681	8.615	8.613	120-130	6.799	2666	99.1,99.1
140	10.04	10.16	10.24	10.26	10.56	10.43	10.37	10.36	130-140	7.283	2674	99.3,99.3
150	11.64	11.75	11.83	11.84	12.06	11.97	11.91	11.90	140-150	6.954	2681	99.6,99.6
160	13.02	13.12	13.21	13.19	13.33	13.24	13.19	13.19	150-160	5.786	2686	99.8,99.8
170	14.22	14.27	14.31	14.32	14.35	14.29	14.25	14.23	160-170	3.884	2690	99.9,99.9
180	14.78	14.77	14.77	14.77	14.79	14.77	14.76	14.77	170-180	1.386	2692	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

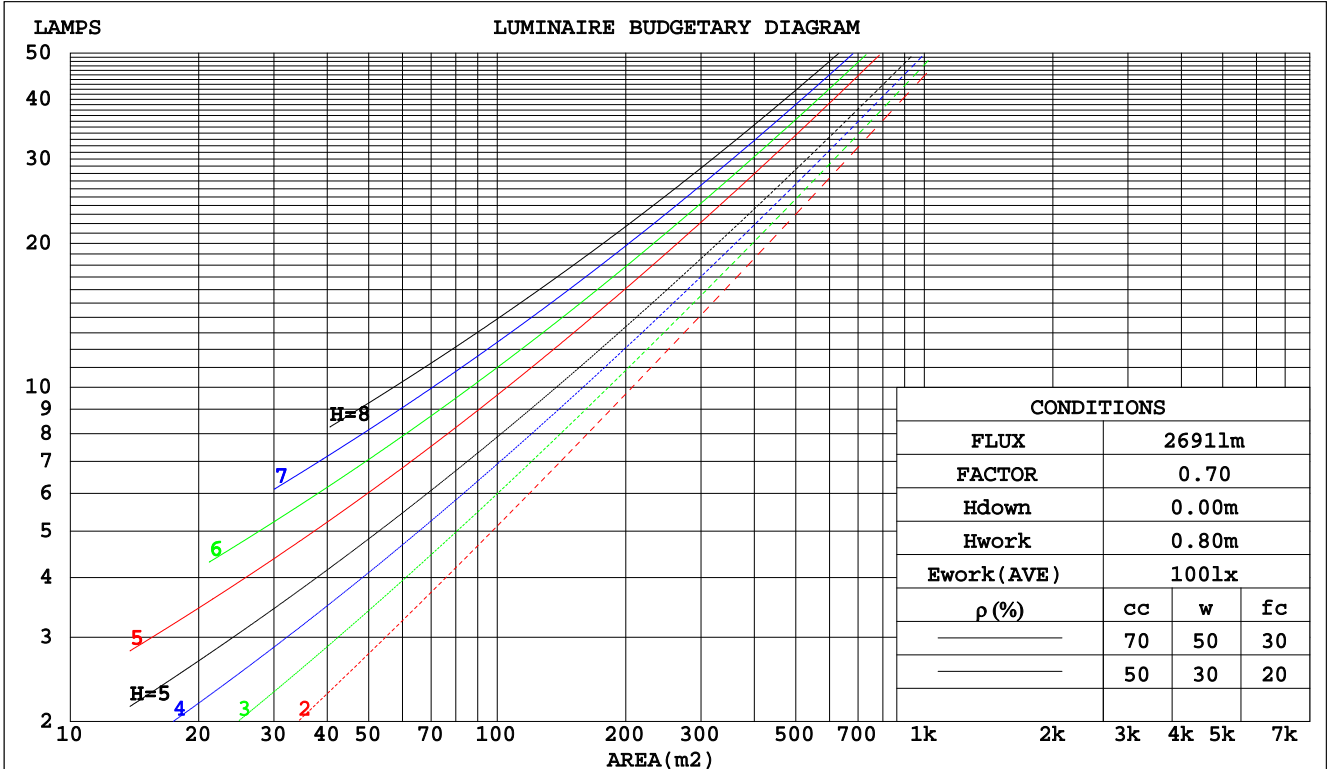
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-03-21

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:240.4V I:0.1100A P:25.10W PF:0.9420 Lamp Flux:2691.57x1 lm		
NAME: LED-OY25W-CC-IP54	TYPE:25W	WEIGHT:
DIM.:	SPEC.:4000K	SERIAL No.:1
MFR.:	SUR.:0.135	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	1.10	1.10	1.10	1.05	1.05	1.05	1.00	1.00	1.00	.98
1.0	1.03	.99	.95	1.01	.97	.93	.96	.93	.90	.92	.89	.87	.88	.86	.84	.82
2.0	.90	.83	.77	.88	.82	.76	.84	.79	.74	.80	.76	.72	.77	.74	.70	.68
3.0	.79	.71	.64	.77	.70	.63	.74	.67	.62	.71	.65	.61	.68	.64	.60	.57
4.0	.70	.61	.54	.68	.60	.54	.66	.59	.53	.63	.57	.52	.61	.55	.51	.49
5.0	.62	.53	.47	.61	.53	.46	.59	.51	.46	.57	.50	.45	.55	.49	.44	.42
6.0	.56	.47	.41	.55	.47	.40	.53	.46	.40	.51	.45	.39	.50	.44	.39	.37
7.0	.51	.42	.36	.50	.42	.36	.48	.41	.35	.47	.40	.35	.45	.39	.35	.33
8.0	.46	.38	.32	.46	.38	.32	.44	.37	.32	.43	.36	.31	.41	.35	.31	.29
9.0	.43	.34	.29	.42	.34	.29	.41	.33	.28	.39	.33	.28	.38	.32	.28	.26
10.0	.39	.31	.26	.39	.31	.26	.38	.31	.26	.37	.30	.26	.36	.30	.25	.24



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-03-21

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:240.4V I:0.1100A P:25.10W PF:0.9420 Lamp Flux:2691.57x1 lm		
NAME: LED-OY25W-CC-IP54	TYPE:25W	WEIGHT:
DIM.:	SPEC.:4000K	SERIAL No.:1
MFR.:	SUR.:0.135	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	.312	.177	.056	.304	.174	.055	.290	.166	.053	.277	.160	.051	.265	.154	.049	
2.0	.292	.160	.049	.285	.157	.048	.273	.152	.047	.261	.146	.046	.250	.142	.045	
3.0	.270	.144	.043	.264	.141	.043	.253	.137	.042	.242	.133	.041	.233	.129	.040	
4.0	.249	.129	.038	.243	.127	.038	.233	.124	.037	.224	.120	.036	.216	.117	.036	
5.0	.230	.117	.034	.225	.116	.034	.216	.113	.033	.208	.110	.033	.200	.107	.032	
6.0	.213	.107	.031	.209	.106	.030	.201	.103	.030	.193	.101	.030	.186	.098	.029	
7.0	.198	.098	.028	.195	.097	.028	.187	.095	.027	.181	.093	.027	.174	.091	.027	
8.0	.185	.090	.025	.182	.090	.025	.175	.088	.025	.169	.086	.025	.164	.084	.024	
9.0	.174	.084	.023	.171	.083	.023	.165	.081	.023	.159	.080	.023	.154	.078	.023	
10.0	.163	.078	.022	.160	.077	.022	.155	.076	.021	.150	.075	.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	.204	.204	.204	.175	.175	.175	.119	.119	.119	.069	.069	.069	.022	.022	.022	
1.0	.195	.170	.148	.166	.146	.128	.114	.100	.088	.066	.058	.051	.021	.019	.017	
2.0	.186	.146	.112	.160	.126	.097	.109	.087	.068	.063	.051	.040	.020	.016	.013	
3.0	.179	.129	.089	.153	.111	.077	.105	.077	.054	.061	.045	.032	.020	.015	.010	
4.0	.171	.115	.073	.147	.100	.063	.101	.069	.044	.058	.041	.026	.019	.013	.009	
5.0	.164	.105	.062	.141	.091	.054	.097	.063	.038	.056	.037	.022	.018	.012	.007	
6.0	.156	.097	.054	.134	.084	.047	.093	.059	.033	.054	.034	.020	.017	.011	.006	
7.0	.150	.090	.048	.129	.078	.042	.089	.055	.029	.052	.032	.018	.017	.011	.006	
8.0	.143	.084	.043	.123	.073	.038	.085	.051	.027	.050	.030	.016	.016	.010	.005	
9.0	.137	.079	.040	.118	.069	.035	.082	.048	.025	.048	.028	.015	.015	.009	.005	
10.0	.131	.075	.037	.113	.065	.032	.079	.046	.023	.046	.027	.014	.015	.009	.005	

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-03-21

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:240.4V I:0.1100A P:25.10W PF:0.9420 Lamp Flux:2691.57x1 lm										
NAME: LED-OY25W-CC-IP54					TYPE:25W			WEIGHT:		
DIM.:					SPEC.:4000K			SERIAL No.:1		
MFR.:					SUR.:0.135			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	22.0	23.5	22.3	23.7	24.0	21.9	23.4	22.2	23.7	23.9
3H	23.5	24.9	23.8	25.1	25.4	23.4	24.8	23.7	25.1	25.3
4H	24.1	25.4	24.4	25.7	26.0	24.0	25.3	24.3	25.6	25.9
6H	24.5	25.7	24.9	26.0	26.4	24.4	25.6	24.8	25.9	26.3
8H	24.6	25.8	25.0	26.2	26.5	24.5	25.7	24.9	26.0	26.4
12H	24.7	25.9	25.1	26.2	26.6	24.6	25.8	25.0	26.1	26.4
4H 2H	22.6	23.9	22.9	24.2	24.5	22.5	23.9	22.9	24.1	24.4
3H	24.2	25.4	24.6	25.7	26.1	24.2	25.3	24.6	25.7	26.0
4H	25.0	26.0	25.4	26.4	26.7	24.9	25.9	25.3	26.3	26.7
6H	25.5	26.4	25.9	26.8	27.2	25.4	26.4	25.8	26.7	27.1
8H	25.7	26.6	26.2	27.0	27.4	25.6	26.5	26.1	26.9	27.3
12H	25.9	26.7	26.3	27.1	27.5	25.8	26.6	26.2	27.0	27.4
8H 4H	25.2	26.1	25.6	26.5	26.9	25.1	26.0	25.6	26.4	26.8
6H	25.9	26.6	26.4	27.1	27.5	25.8	26.5	26.3	27.0	27.4
8H	26.2	26.8	26.7	27.3	27.8	26.1	26.7	26.6	27.2	27.7
12H	26.4	27.0	27.0	27.5	28.0	26.3	26.9	26.8	27.4	27.9
12H 4H	25.2	26.0	25.7	26.4	26.9	25.1	25.9	25.6	26.4	26.8
6H	26.0	26.6	26.5	27.1	27.6	25.9	26.5	26.4	27.0	27.5
8H	26.3	26.9	26.8	27.3	27.9	26.2	26.8	26.7	27.2	27.8
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				

CIE Pub.117 Corrected 2692 lm Total Lamp Luminous Flux.(8log(F/F0) = 3.4)

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-03-21

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:240.4V I:0.1100A P:25.10W PF:0.9420 Lamp Flux:2691.57x1 lm		
NAME: LED-OY25W-CC-IP54	TYPE:25W	WEIGHT:
DIM.:	SPEC.:4000K	SERIAL No.:1
MFR.:	SUR.:0.135	PROTECTION ANGLE:

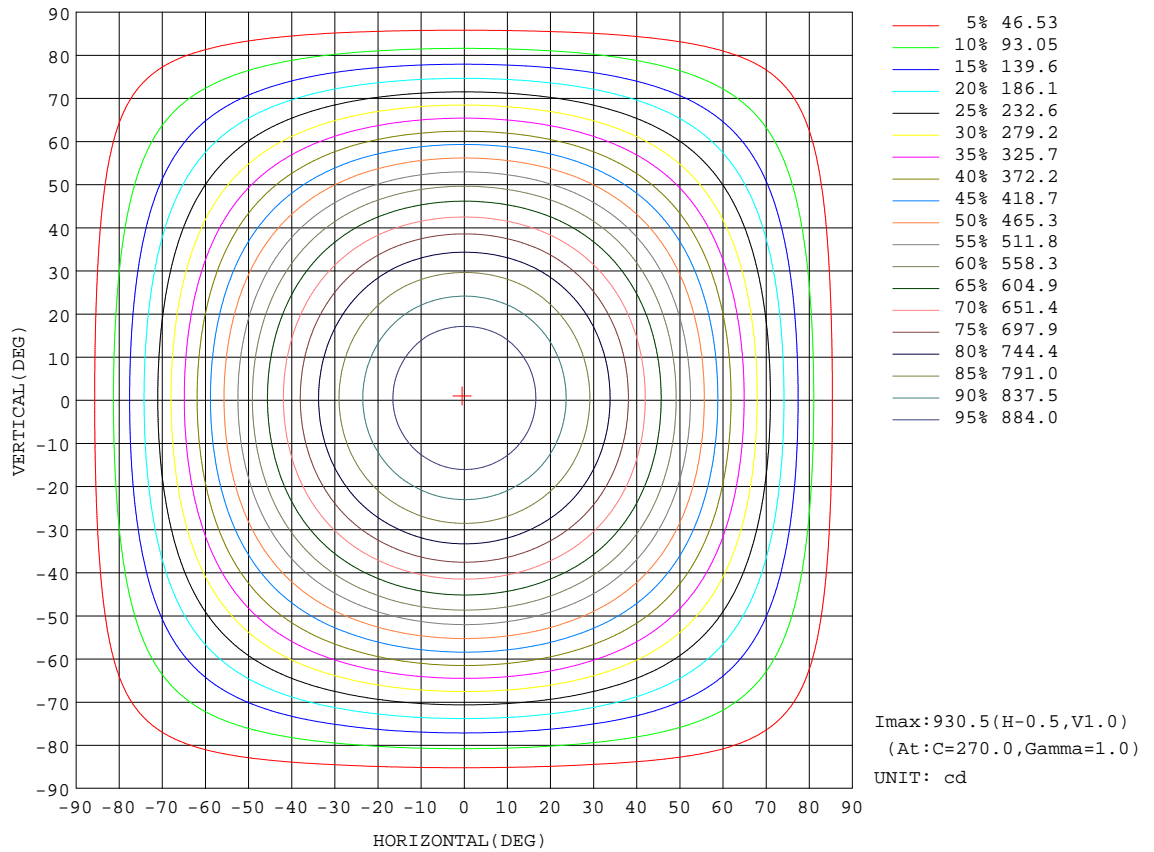
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	57	45	38	56	45	38	55	45	38	32
0.80	67	55	48	66	55	48	64	54	47	40
1.00	75	64	57	74	64	57	72	65	56	49
1.25	82	72	65	81	71	64	78	69	63	56
1.50	87	77	70	86	76	70	82	75	69	61
2.00	94	86	79	92	84	78	89	82	77	68
2.50	98	90	84	96	89	83	92	86	81	72
3.00	102	95	89	99	93	88	95	90	85	76
4.00	106	100	95	103	98	94	98	94	91	81
5.00	108	103	99	105	101	97	101	97	94	84
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:2019-03-21

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:240.4V I:0.1100A P:25.10W PF:0.9420 Lamp Flux:2691.57x1 lm		
NAME: LED-OY25W-CC-IP54	TYPE:25W	WEIGHT:
DIM.:	SPEC.:4000K	SERIAL No.:1
MFR.:	SUR.:0.135	PROTECTION ANGLE:

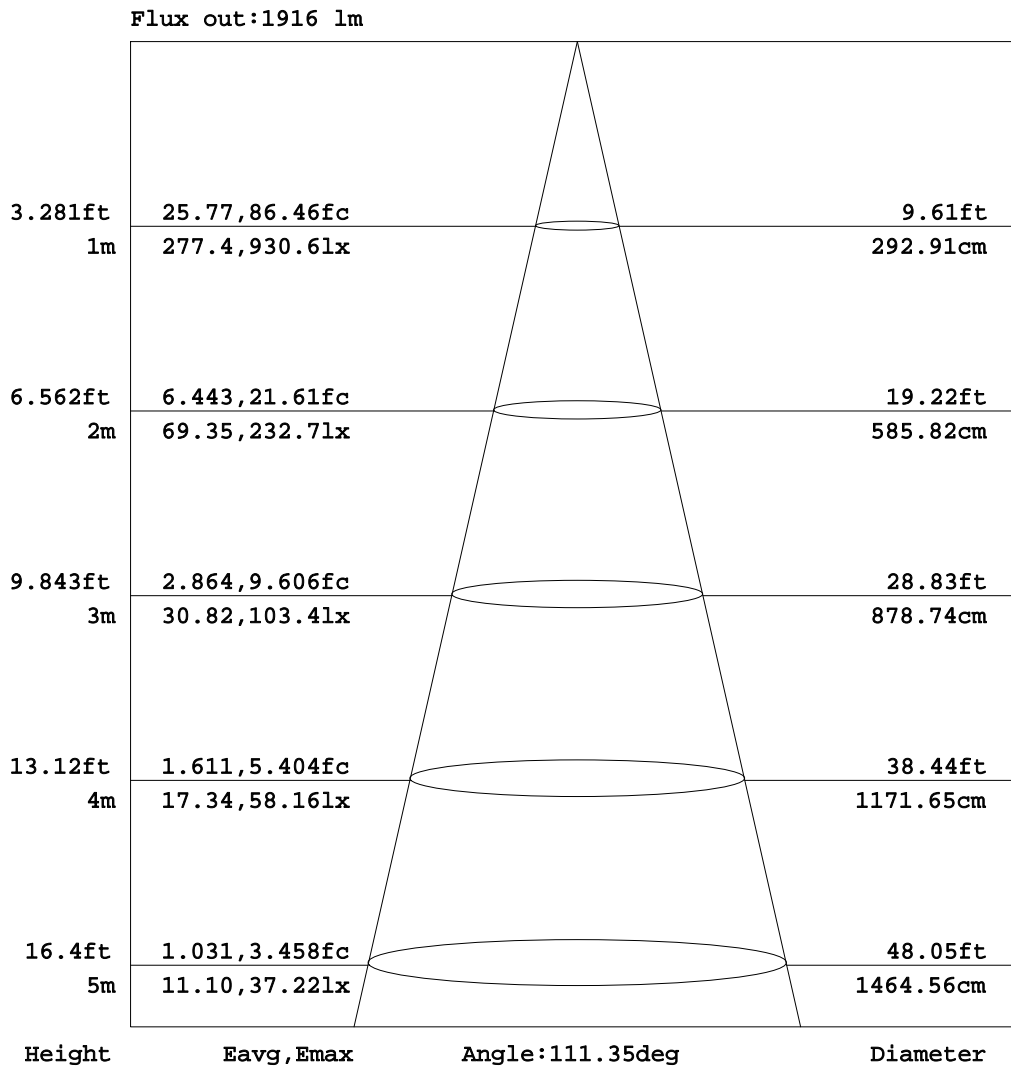


C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-03-21

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:240.4V I:0.1100A P:25.10W PF:0.9420 Lamp Flux:2691.57x1 lm		
NAME: LED-OY25W-CC-IP54	TYPE:25W	WEIGHT:
DIM.:	SPEC.:4000K	SERIAL No.:1
MFR.:	SUR.:0.135	PROTECTION ANGLE:



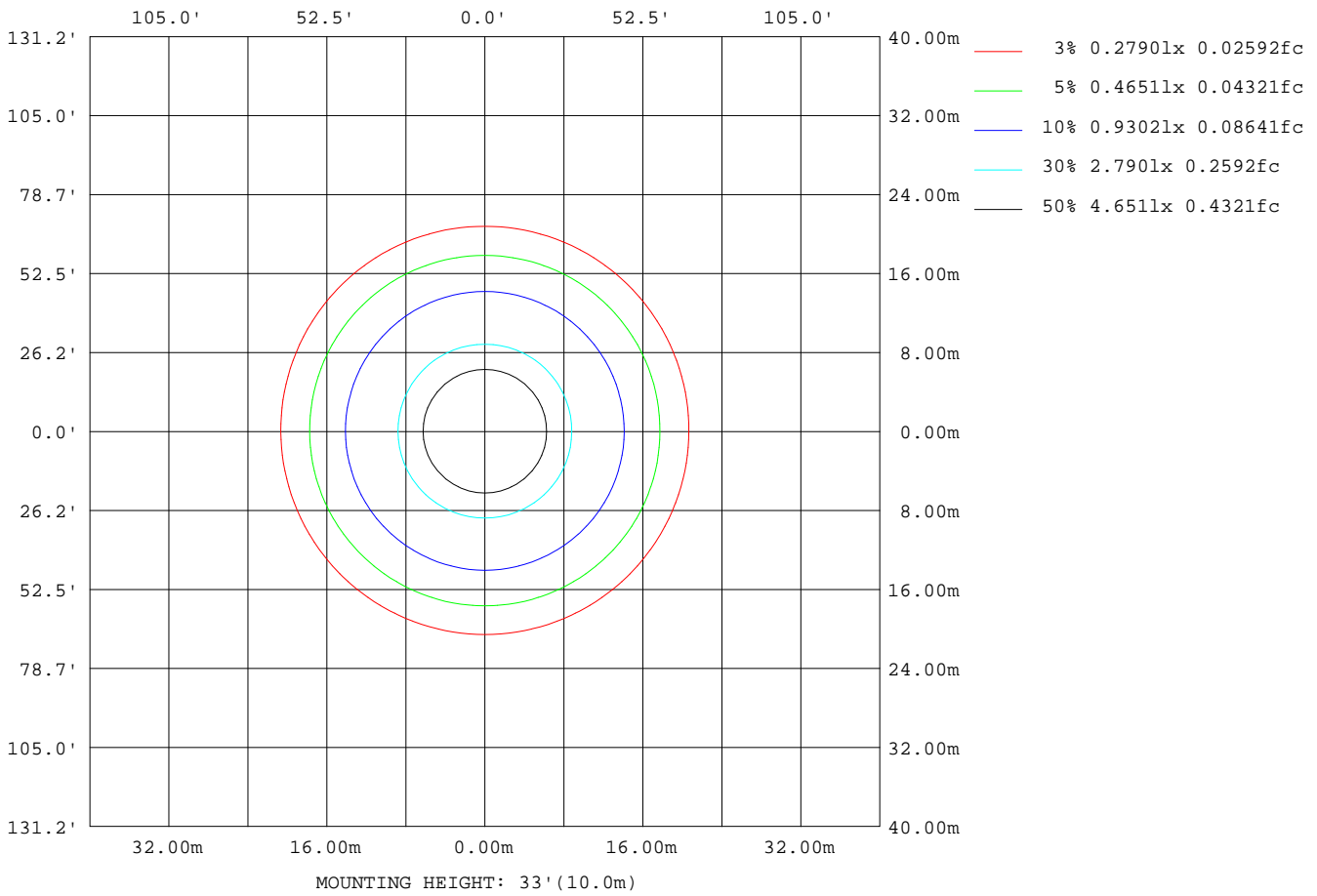
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-03-21

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

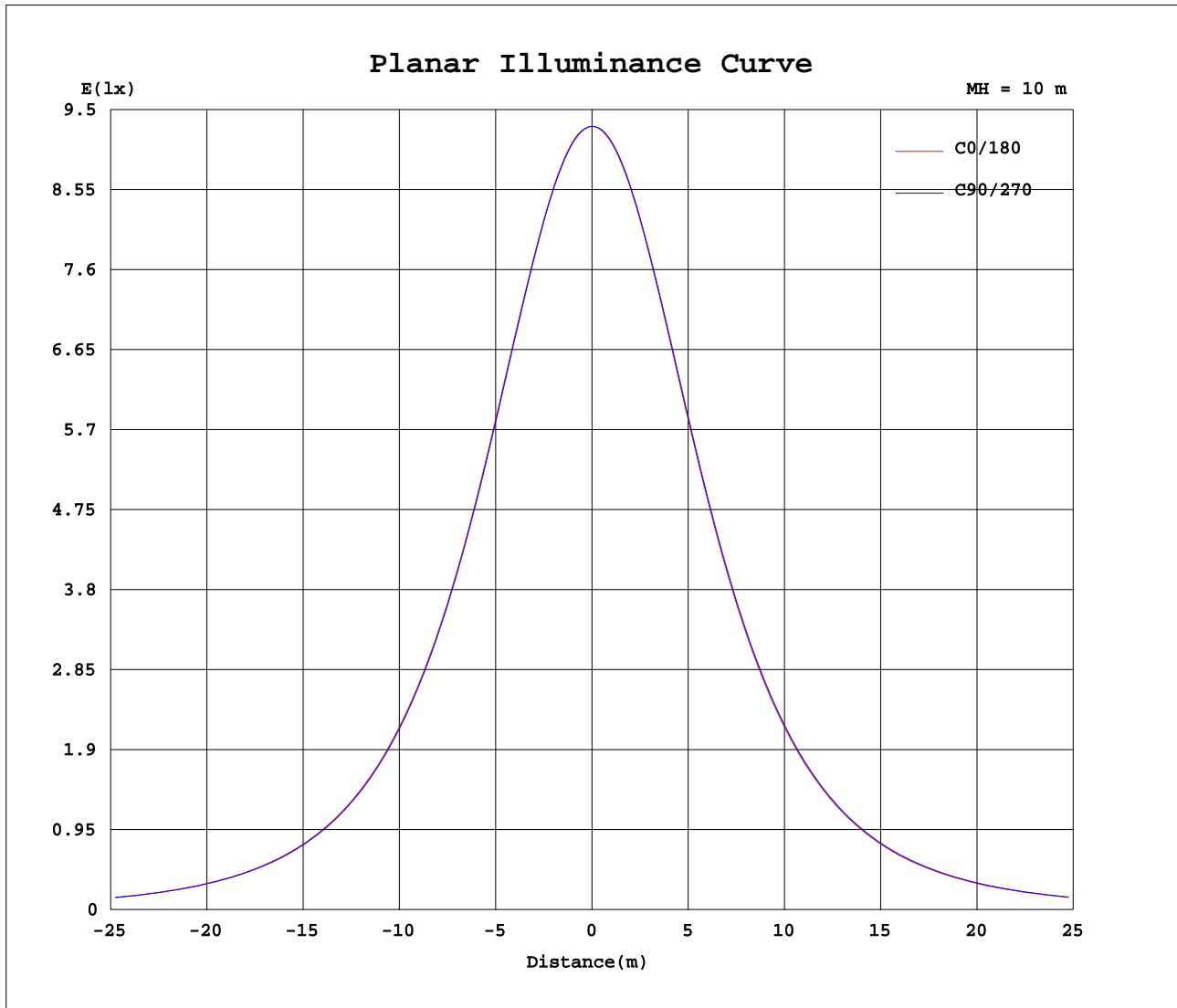
Test:U:240.4V I:0.1100A P:25.10W PF:0.9420 Lamp Flux:2691.57x1 lm		
NAME: LED-OY25W-CC-IP54	TYPE:25W	WEIGHT:
DIM.:	SPEC.:4000K	SERIAL No.:1
MFR.:	SUR.:0.135	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-03-21

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: DAMIN
 Test Date: 2019-03-21

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:240.4V I:0.1100A P:25.10W PF:0.9420 Lamp Flux:2691.57x1 lm		
NAME: LED-OY25W-CC-IP54	TYPE:25W	WEIGHT:
DIM.:	SPEC.:4000K	SERIAL No.:1
MFR.:	SUR.:0.135	PROTECTION ANGLE:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330							
0	930	930	930	930	930	930	930	930	930	930	930	930							
5	927	926	925	925	925	926	926	927	927	928	928	927							
10	914	913	912	912	912	913	914	914	915	916	916	915							
15	893	891	890	890	890	891	893	893	895	895	896	894							
20	863	862	860	860	859	861	863	864	866	867	867	865							
25	827	825	822	822	822	824	826	828	830	831	831	829							
30	783	780	778	778	777	779	782	784	787	787	788	785							
35	732	730	727	727	726	728	731	734	737	737	738	735							
40	675	673	670	670	669	671	675	678	681	681	681	678							
45	613	611	608	607	607	609	613	616	619	620	620	617							
50	546	544	541	540	540	543	546	549	553	553	553	550							
55	475	473	469	469	469	472	475	479	482	482	482	479							
60	401	399	395	395	394	398	401	405	408	408	408	404							
65	324	321	319	318	318	321	324	329	331	332	331	328							
70	248	245	243	242	243	245	249	252	255	255	254	251							
75	174	171	169	169	170	173	175	178	181	181	180	177							
80	106	105	103	103	104	108	109	109	112	113	112	108							
85	49.7	50.7	48.4	48.5	48.9	51.7	53.0	52.5	54.3	54.5	54.0	51.0							
90	15.3	15.2	13.5	13.9	13.1	14.8	15.4	15.8	15.8	17.0	15.6	15.4							
95	5.85	4.11	4.45	5.97	5.22	3.80	4.78	6.74	6.11	4.83	6.20	7.61							
100	3.25	3.15	3.24	3.38	3.27	3.17	3.63	3.56	3.32	3.49	3.85	4.01							
105	3.75	3.78	3.84	3.84	3.87	3.81	4.16	4.07	4.02	4.04	4.09	4.05							
110	4.55	4.61	4.76	4.70	4.82	4.69	5.07	4.98	4.90	4.91	4.87	4.89							
115	5.46	5.53	5.63	5.64	5.74	5.61	6.00	5.92	5.83	5.83	5.79	5.81							
120	6.37	6.45	6.55	6.57	6.67	6.57	6.96	6.88	6.78	6.75	6.71	6.74							
125	7.30	7.37	7.49	7.53	7.59	7.49	7.88	7.80	7.71	7.68	7.67	7.69							
130	8.24	8.29	8.43	8.45	8.50	8.41	8.83	8.73	8.63	8.62	8.60	8.63							
135	9.15	9.21	9.34	9.38	9.40	9.35	9.71	9.64	9.54	9.50	9.48	9.52							
140	10.0	10.1	10.2	10.2	10.3	10.2	10.6	10.5	10.4	10.4	10.3	10.4							
145	10.9	10.9	11.0	11.1	11.1	11.0	11.3	11.3	11.2	11.2	11.1	11.2							
150	11.6	11.7	11.8	11.8	11.9	11.8	12.1	12.0	11.9	11.9	11.9	11.9							
155	12.4	12.4	12.5	12.5	12.6	12.5	12.7	12.7	12.6	12.6	12.5	12.6							
160	13.0	13.1	13.2	13.2	13.2	13.2	13.3	13.3	13.2	13.2	13.2	13.2							
165	13.6	13.7	13.8	13.8	13.8	13.8	13.9	13.8	13.8	13.8	13.7	13.8							
170	14.2	14.2	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.2	14.2	14.2							
175	14.6	14.6	14.6	14.6	14.7	14.6	14.7	14.7	14.6	14.6	14.6	14.6							
180	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8							

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-03-21

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: