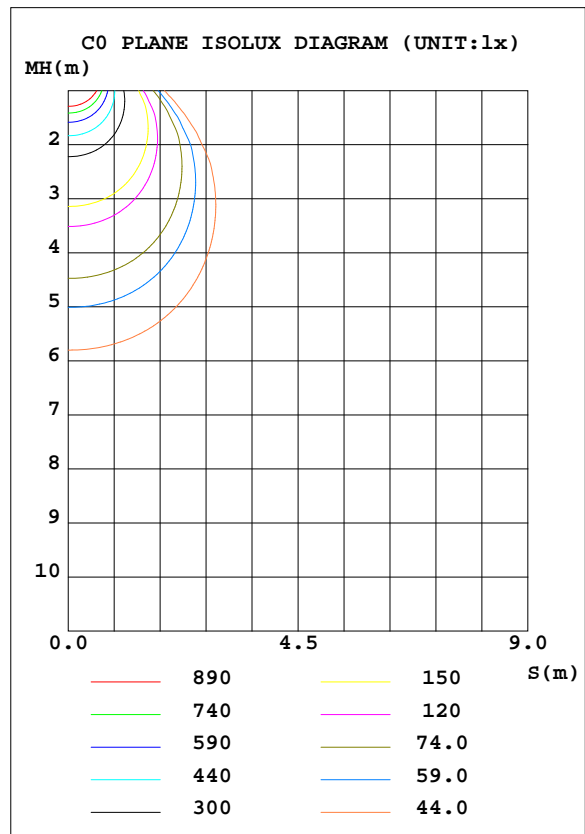
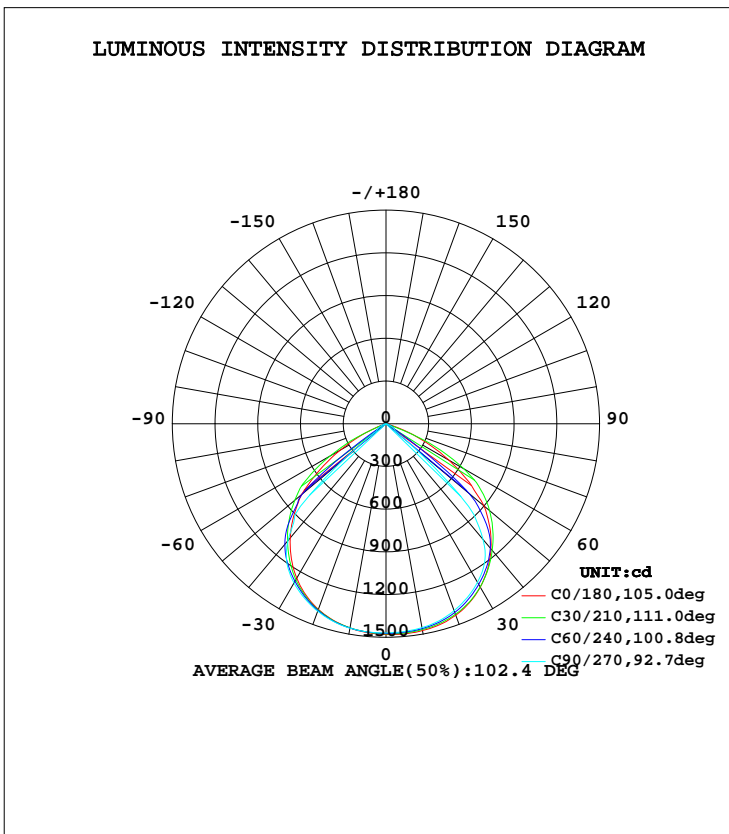


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:240.5V I:0.1560A P:35.60W PF:0.9450 Lamp Flux:3215.45x1 lm		
NAME: LED-SL35W-NW	TYPE:35W	WEIGHT:
DIM.:	SPEC.:4000K	SERIAL No.:1
MFR.:	SUR.:0.164X0.08	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 90.32 lm/W			
MODEL	LED-SL35W-NW	I <sub>max</sub> (cd)	1481	S/MH(C0/180)	1.32
NOMINAL POWER(W)	35	LOR(%)	100.0	S/MH(C90/270)	1.30
RATED VOLTAGE(V)	240	TOTAL FLUX(lm)	3215.5	η UP, DN(C0-180)	0.0, 50.2
NOMINAL FLUX(lm)	3215.45	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 49.8
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	240.5	η down(%)	100.0	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2018-08-09

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity:65.0%  
 Test Distance:9.600m [K=1.0000]  
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	$\Phi$ lum,lamp
10	1475	1465	1454	1443	1457	1456	1458	1459	0- 10	139.8	139.8	4.35,4.35
20	1431	1417	1398	1381	1387	1393	1401	1414	10- 20	405.8	545.6	17,17
30	1325	1313	1286	1260	1253	1272	1292	1311	20- 30	623.5	1169	36.4,36.4
40	1146	1150	1061	1077	1046	1091	1071	1146	30- 40	754.6	1924	59.8,59.8
50	900.3	857.0	226.9	684.6	774.6	803.8	356.2	861.5	40- 50	726.3	2650	82.4,82.4
60	510.8	345.4	59.67	249.1	373.1	255.4	63.46	310.8	50- 60	402.1	3052	94.9,94.9
70	135.1	46.78	15.92	18.65	40.63	18.73	21.83	26.20	60- 70	144.7	3197	99.4,99.4
80	8.528	5.499	4.413	5.727	7.716	5.887	5.882	8.114	70- 80	14.78	3212	99.9,99.9
90	1.422	0.3092	0	0	0.0804	0.6770	1.231	1.877	80- 90	3.930	3215	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		

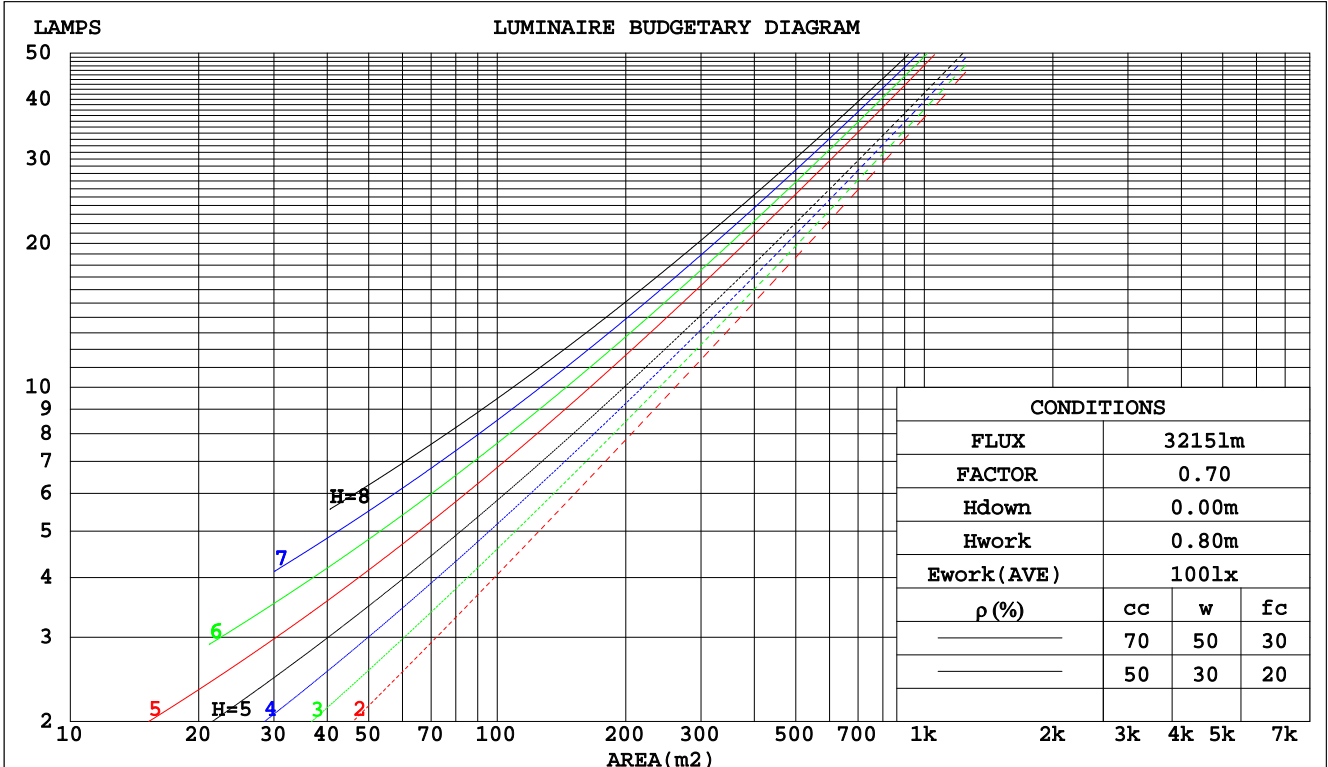
C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2018-08-09

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity:65.0%  
 Test Distance:9.600m [K=1.0000]  
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:240.5V I:0.1560A P:35.60W PF:0.9450 Lamp Flux:3215.45x1 lm		
NAME: LED-SL35W-NW	TYPE:35W	WEIGHT:
DIM.:	SPEC.:4000K	SERIAL No.:1
MFR.:	SUR.:0.164X0.08	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																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	1.08	1.05	1.02	1.06	1.03	1.00	1.02	.99	.97	.98	.96	.94	.94	.93	.91	.89
2.0	.97	.92	.87	.95	.90	.86	.92	.88	.84	.89	.85	.82	.86	.83	.80	.79
3.0	.87	.80	.75	.86	.79	.74	.83	.78	.73	.80	.76	.72	.78	.74	.71	.69
4.0	.78	.71	.65	.77	.70	.65	.75	.69	.64	.73	.67	.63	.71	.66	.62	.61
5.0	.71	.63	.57	.70	.63	.57	.68	.62	.57	.66	.60	.56	.64	.59	.55	.54
6.0	.65	.57	.51	.64	.56	.51	.62	.55	.50	.60	.54	.50	.59	.54	.50	.48
7.0	.59	.51	.45	.58	.51	.45	.57	.50	.45	.55	.49	.45	.54	.49	.44	.43
8.0	.54	.46	.41	.53	.46	.41	.52	.45	.41	.51	.45	.40	.50	.44	.40	.38
9.0	.50	.42	.37	.49	.42	.37	.48	.41	.37	.47	.41	.37	.46	.40	.36	.35
10.0	.46	.39	.34	.45	.38	.34	.44	.38	.33	.44	.38	.33	.43	.37	.33	.32



C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2018-08-09

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity:65.0%  
 Test Distance:9.600m [K=1.0000]  
 Remarks:

WEC AND CCEC

Test:U:240.5V I:0.1560A P:35.60W PF:0.9450 Lamp Flux:3215.45x1 lm		
NAME: LED-SL35W-NW	TYPE:35W	WEIGHT:
DIM.:	SPEC.:4000K	SERIAL No.:1
MFR.:	SUR.:0.164X0.08	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	.233	.133	.042	.226	.129	.041	.213	.122	.039	.202	.116	.037	.191	.110	.036	
2.0	.229	.126	.039	.224	.123	.038	.212	.118	.037	.202	.113	.035	.193	.109	.034	
3.0	.220	.117	.035	.215	.115	.035	.205	.111	.034	.196	.108	.033	.188	.104	.032	
4.0	.210	.109	.032	.205	.107	.032	.196	.104	.031	.188	.101	.031	.181	.098	.030	
5.0	.198	.101	.029	.194	.100	.029	.187	.097	.029	.180	.095	.028	.173	.092	.028	
6.0	.188	.094	.027	.184	.093	.027	.177	.091	.026	.171	.089	.026	.165	.087	.026	
7.0	.178	.088	.025	.174	.087	.025	.168	.085	.025	.163	.083	.024	.157	.082	.024	
8.0	.168	.082	.023	.165	.081	.023	.160	.080	.023	.155	.078	.023	.150	.077	.022	
9.0	.159	.077	.022	.157	.076	.021	.152	.075	.021	.147	.074	.021	.143	.073	.021	
10.0	.151	.073	.020	.149	.072	.020	.144	.071	.020	.140	.070	.020	.136	.069	.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	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.175	.157	.140	.150	.135	.121	.102	.093	.084	.059	.054	.049	.019	.017	.016	
2.0	.164	.132	.106	.140	.114	.091	.096	.079	.064	.055	.046	.037	.018	.015	.012	
3.0	.155	.114	.081	.133	.098	.071	.091	.068	.049	.053	.040	.029	.017	.013	.010	
4.0	.147	.100	.064	.126	.086	.056	.087	.060	.039	.050	.035	.023	.016	.011	.008	
5.0	.140	.089	.052	.120	.077	.045	.083	.054	.032	.048	.032	.019	.015	.010	.006	
6.0	.133	.081	.043	.115	.070	.037	.079	.049	.026	.046	.029	.016	.015	.009	.005	
7.0	.127	.074	.036	.110	.064	.031	.076	.045	.022	.044	.026	.013	.014	.009	.004	
8.0	.122	.068	.031	.105	.059	.027	.072	.041	.019	.042	.024	.011	.014	.008	.004	
9.0	.116	.063	.027	.100	.055	.023	.069	.038	.017	.040	.023	.010	.013	.007	.003	
10.0	.111	.059	.024	.096	.051	.021	.067	.036	.015	.039	.021	.009	.013	.007	.003	

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2018-08-09

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity:65.0%  
 Test Distance:9.600m [K=1.0000]  
 Remarks:

Uncorrected UGR Table

Test:U:240.5V I:0.1560A P:35.60W PF:0.9450 Lamp Flux:3215.45x1 lm										
NAME: LED-SL35W-NW					TYPE:35W			WEIGHT:		
DIM.:					SPEC.:4000K			SERIAL No.:1		
MFR.:					SUR.:0.164X0.08			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	29.5	30.8	29.8	31.0	31.2	25.2	26.5	25.5	26.7	26.9
3H	29.8	31.0	30.1	31.2	31.4	25.0	26.2	25.3	26.4	26.7
4H	29.7	30.8	30.0	31.1	31.3	24.9	26.1	25.2	26.3	26.5
6H	29.6	30.7	29.9	30.9	31.2	24.8	25.9	25.2	26.2	26.4
8H	29.5	30.6	29.9	30.8	31.1	24.8	25.8	25.1	26.1	26.4
12H	29.5	30.5	29.8	30.8	31.0	24.7	25.7	25.1	26.0	26.3
4H 2H	29.5	30.6	29.8	30.9	31.1	25.8	27.0	26.1	27.2	27.4
3H	29.8	30.8	30.1	31.0	31.3	25.7	26.7	26.0	26.9	27.2
4H	29.7	30.6	30.1	30.9	31.2	25.6	26.5	26.0	26.8	27.1
6H	29.6	30.4	30.0	30.7	31.1	25.5	26.3	25.9	26.6	27.0
8H	29.6	30.3	30.0	30.6	31.0	25.5	26.2	25.9	26.5	26.9
12H	29.5	30.2	29.9	30.5	30.9	25.4	26.1	25.8	26.4	26.8
8H 4H	29.6	30.3	30.0	30.6	31.0	25.5	26.2	25.9	26.6	26.9
6H	29.5	30.1	29.9	30.5	30.9	25.4	26.0	25.8	26.4	26.8
8H	29.4	29.9	29.9	30.4	30.8	25.4	25.9	25.8	26.3	26.7
12H	29.4	29.8	29.9	30.3	30.7	25.3	25.8	25.8	26.2	26.7
12H 4H	29.5	30.2	29.9	30.5	30.9	25.4	26.1	25.9	26.5	26.9
6H	29.4	29.9	29.9	30.4	30.8	25.4	25.9	25.8	26.3	26.7
8H	29.4	29.8	29.9	30.3	30.7	25.3	25.8	25.8	26.2	26.7
Variations with the observer position at spacings:										
S = 1.0H	+ 0.5 / - 0.8					+ 2.4 / - 6.6				
1.5H	+ 1.2 / - 1.3					+ 1.2 / - 5.7				
2.0H	+ 1.0 / - 3.1					+ 4.3 / - 9.8				

CIE Pub.117 Corrected 3215 lm Total Lamp Luminous Flux.(8log(F/F0) = 4.1)

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2018-08-09

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity:65.0%  
 Test Distance:9.600m [K=1.0000]  
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:240.5V I:0.1560A P:35.60W PF:0.9450 Lamp Flux:3215.45x1 lm		
NAME: LED-SL35W-NW	TYPE:35W	WEIGHT:
DIM.:	SPEC.:4000K	SERIAL No.:1
MFR.:	SUR.:0.164X0.08	PROTECTION ANGLE:

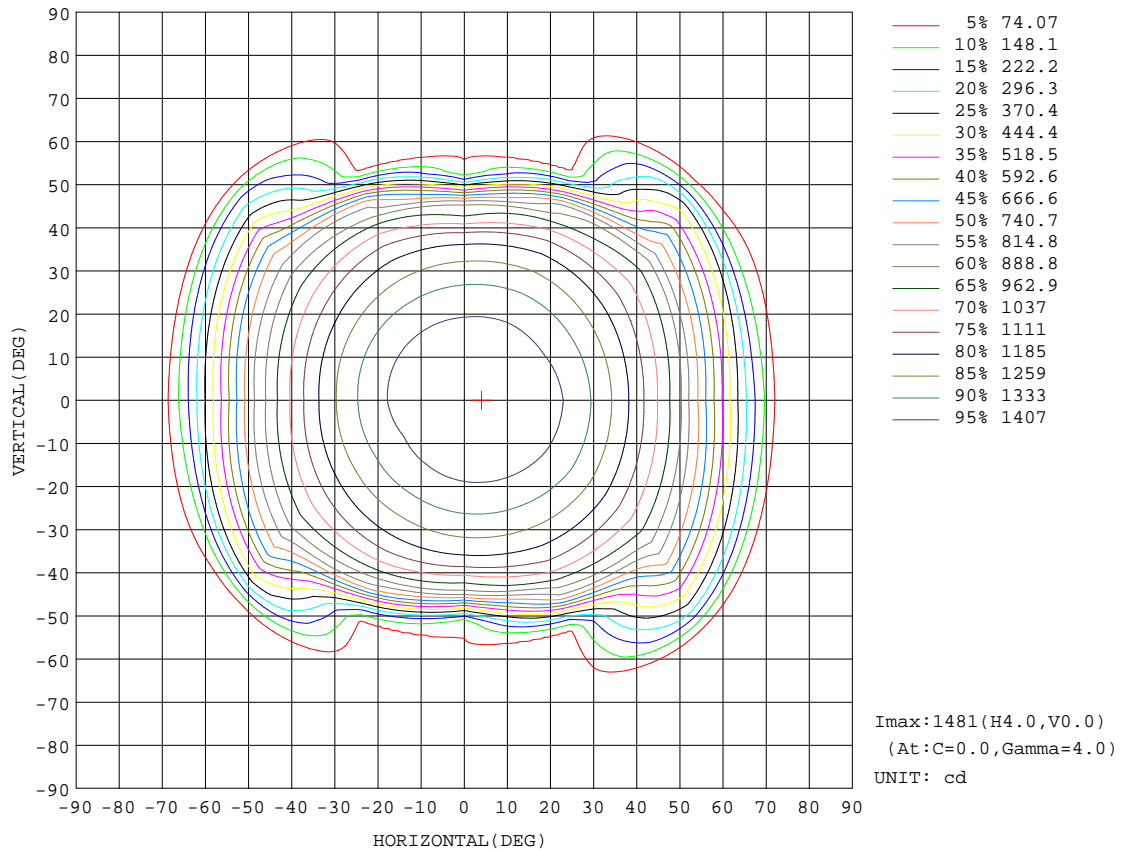
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	66	55	49	65	55	49	64	55	49	43
0.80	76	67	60	75	66	60	74	65	60	54
1.00	85	76	70	84	75	70	82	76	69	63
1.25	92	83	78	90	83	77	88	81	77	71
1.50	96	88	83	95	88	83	92	86	81	75
2.00	102	95	90	100	94	90	97	92	88	82
2.50	104	99	94	103	97	93	99	95	91	84
3.00	107	102	98	105	100	97	101	98	95	87
4.00	110	106	102	108	104	101	104	101	98	90
5.00	112	108	105	109	106	103	105	102	100	92
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:2018-08-09

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity:65.0%  
 Test Distance:9.600m [K=1.0000]  
 Remarks:

ISOCANDELA DIAGRAM

Test:U:240.5V I:0.1560A P:35.60W PF:0.9450 Lamp Flux:3215.45x1 lm		
NAME: LED-SL35W-NW	TYPE:35W	WEIGHT:
DIM.:	SPEC.:4000K	SERIAL No.:1
MFR.:	SUR.:0.164X0.08	PROTECTION ANGLE:

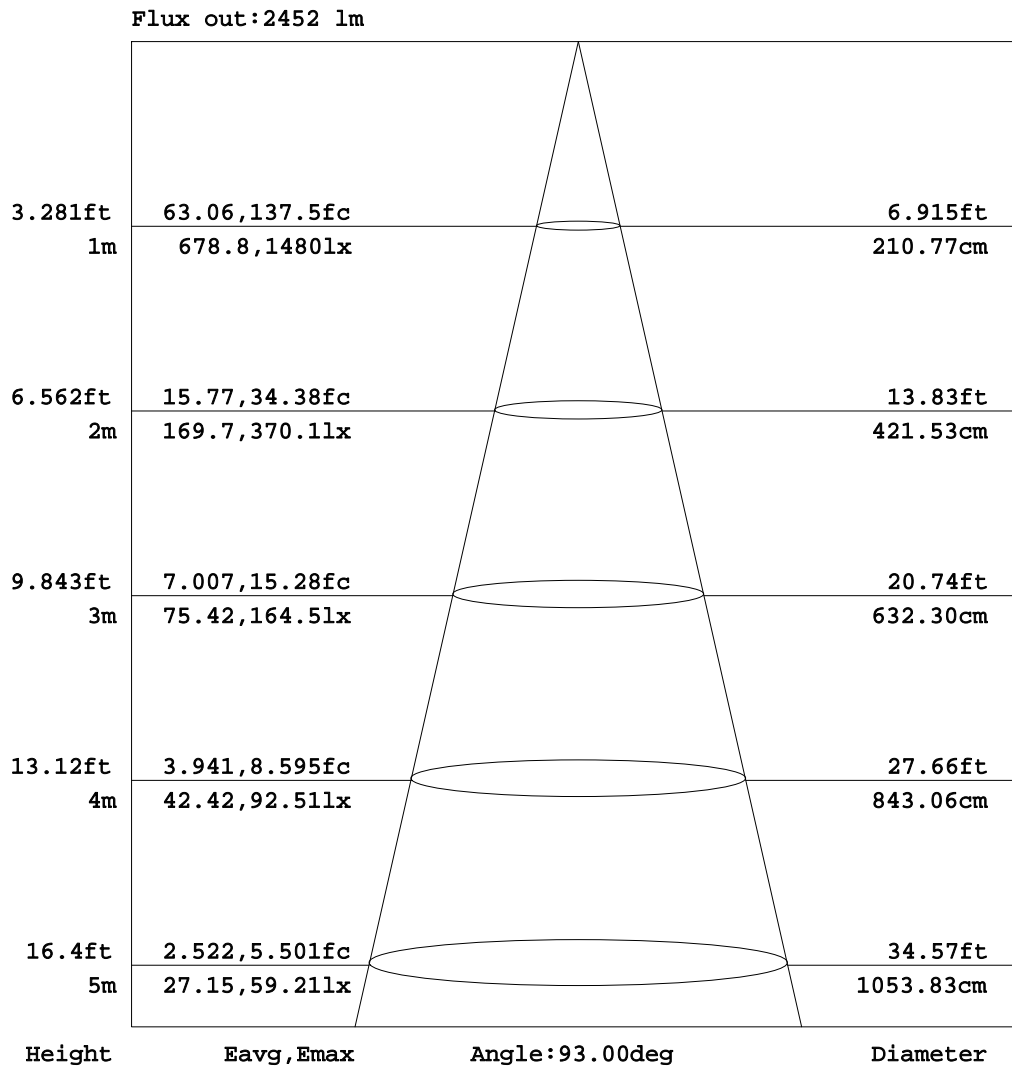


C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2018-08-09

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity:65.0%  
 Test Distance:9.600m [K=1.0000]  
 Remarks:

AAI Figure

Test:U:240.5V I:0.1560A P:35.60W PF:0.9450 Lamp Flux:3215.45x1 lm		
NAME: LED-SL35W-NW	TYPE:35W	WEIGHT:
DIM.:	SPEC.:4000K	SERIAL No.:1
MFR.:	SUR.:0.164X0.08	PROTECTION ANGLE:



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

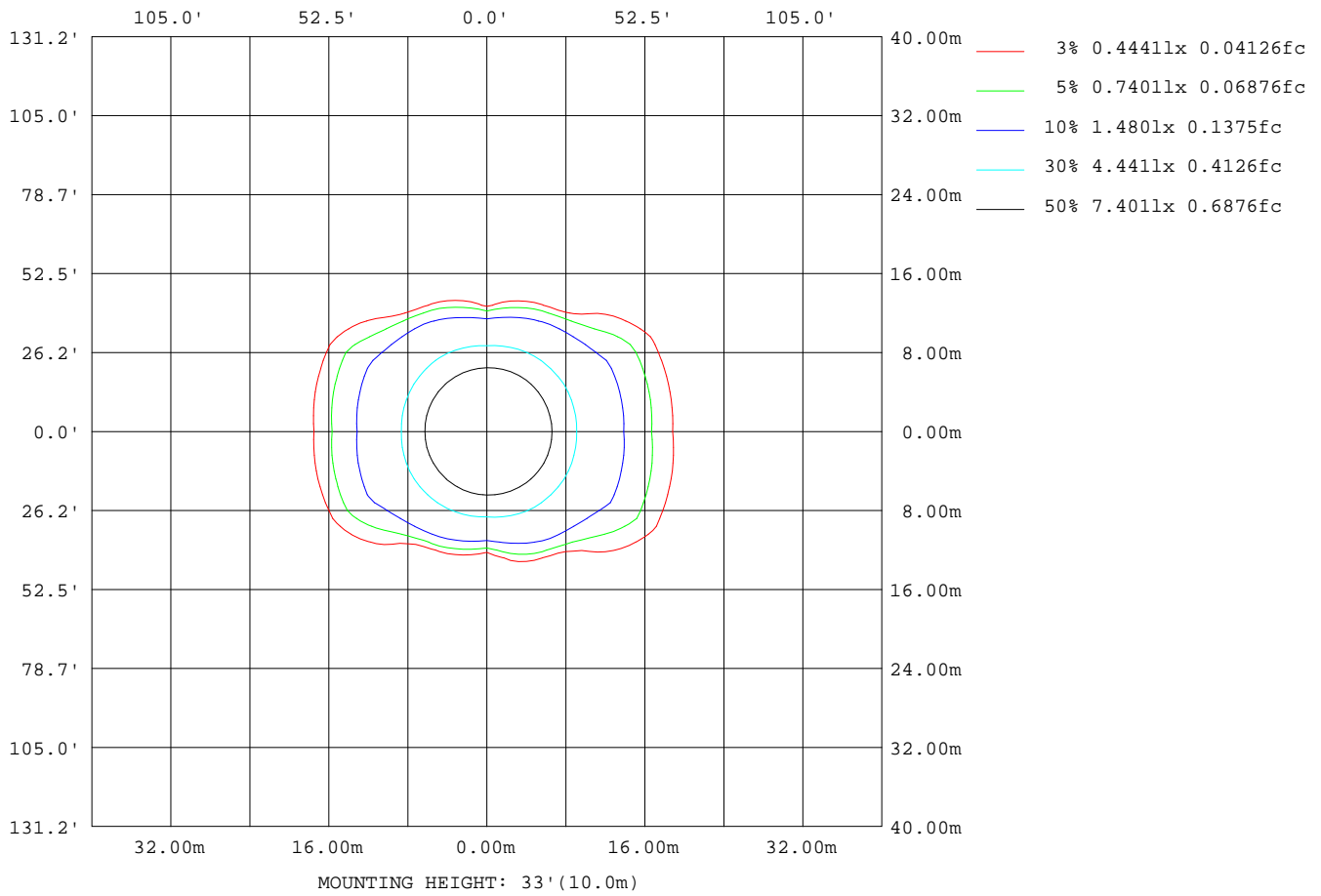
C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2018-08-09

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity:65.0%  
 Test Distance:9.600m [K=1.0000]  
 Remarks:



ISOLUX DIAGRAM

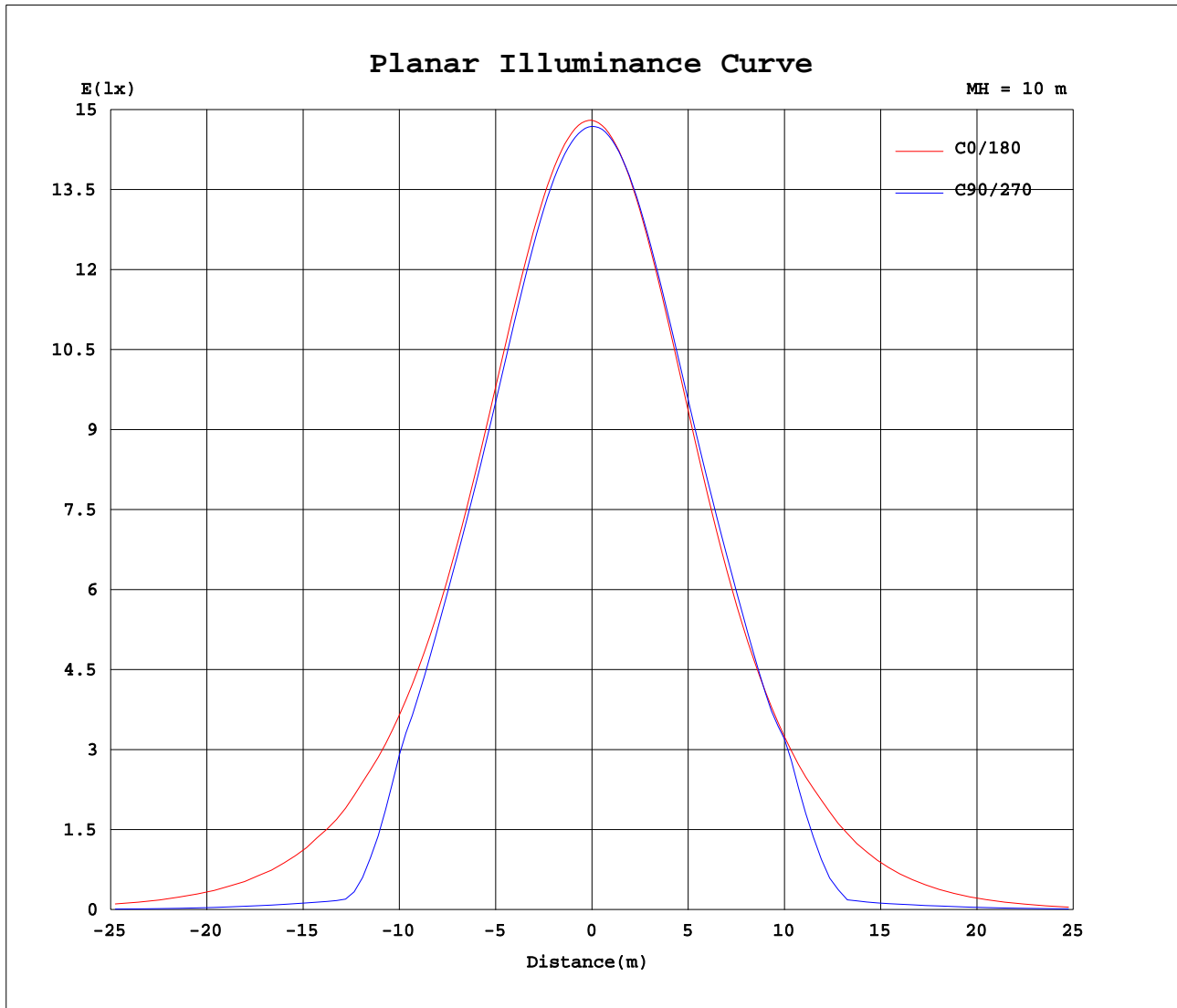
Test:U:240.5V I:0.1560A P:35.60W PF:0.9450 Lamp Flux:3215.45x1 lm		
NAME: LED-SL35W-NW	TYPE:35W	WEIGHT:
DIM.:	SPEC.:4000K	SERIAL No.:1
MFR.:	SUR.:0.164X0.08	PROTECTION ANGLE:



C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2018-08-09

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity:65.0%  
 Test Distance:9.600m [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: 2018-08-09

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity: 65.0%  
 Test Distance: 9.600m [K=1.0000]  
 Remarks:

