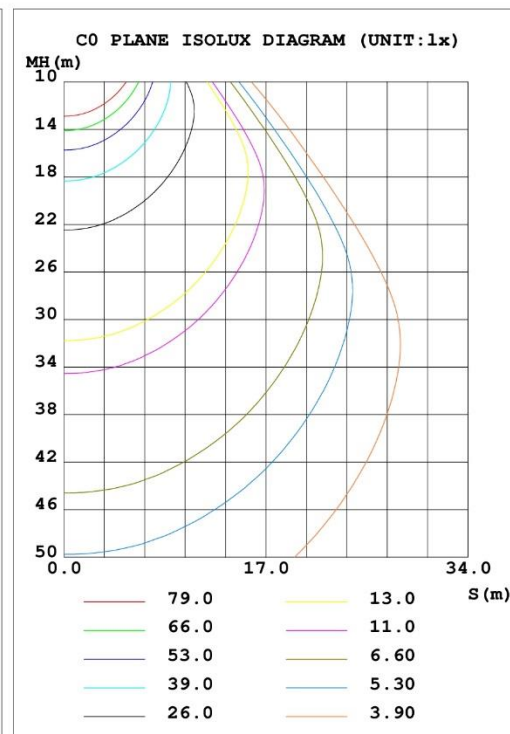
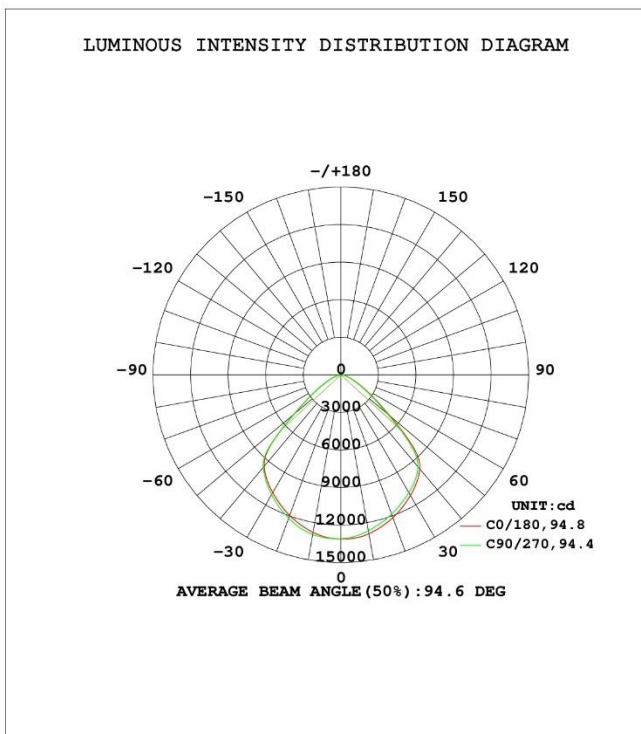


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:218.0V I:0.7027A P:149.9W PF:0.9786 Freq:50.00Hz Lamp Flux:27817.3x1 lm		
NAME: SL-UFOA00-150W-R090-C	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:D0.325	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 185.55 lm/W			
MODEL SL-UFOA00-150W-R090-C		Imax (cd)	13125	S/MH (C0/180)	1.24
NOMINAL POWER (W)	150	LOR (%)	100.0	S/MH (C90/270)	1.26
RATED VOLTAGE (V)	100-240	TOTAL FLUX (lm)	27817	η UP, DN (C0-180)	1.7, 49.1
NOMINAL FLUX (lm)	27817.3	CIE CLASS	DIRECT	η UP, DN (C180-360)	1.1, 48.1
LAMPS INSIDE	1	η up (%)	2.8	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	230	η down (%)	97.2	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 28.5DEG
 Operators: lumingli
 Test Date: 2019-06-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity: 55.0%
 Test Distance: 11.340m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	1289	1276	1266	1265	1279	1289	1295	1291	0- 10	1237	1237	4.45,4.45
20	1214	1199	1185	1184	1196	1208	1218	1212	10- 20	3515	4752	17.1,17.1
30	1112	1101	1087	1086	1087	1096	1104	1100	20- 30	5311	10063	36.2,36.2
40	981.0	974.3	958.4	953.0	952.6	955.9	964.1	963.4	30- 40	6484	16547	59.5,59.5
50	515.1	518.8	489.0	477.2	489.5	480.4	486.2	489.7	40- 50	5900	22446	80.7,80.7
60	202.7	207.0	190.4	192.5	182.3	183.0	180.6	186.2	50- 60	2811	25258	90.8,90.8
70	80.55	80.26	75.27	75.42	62.72	62.28	63.24	64.56	60- 70	1208	26466	95.1,95.1
80	28.39	28.16	26.96	26.52	15.90	15.68	16.04	16.73	70- 80	442.5	26909	96.7,96.7
90	12.38	12.34	12.18	12.13	3.885	3.874	3.808	3.776	80- 90	129.7	27038	97.2,97.2
100	11.67	11.66	11.58	11.56	5.228	5.204	5.109	5.069	90-100	88.75	27127	97.5,97.5
110	12.29	12.29	12.27	12.27	6.955	6.913	6.795	6.747	100-110	94.27	27221	97.9,97.9
120	13.76	13.79	13.80	13.80	9.111	9.043	8.886	8.842	110-120	103.4	27325	98.2,98.2
130	15.64	15.69	15.71	15.72	11.56	11.45	11.29	11.25	120-130	111.5	27436	98.6,98.6
140	17.53	17.57	17.61	17.64	13.96	13.83	13.69	13.65	130-140	113.1	27549	99,99
150	19.09	19.13	19.15	19.19	16.16	16.04	15.89	15.86	140-150	104.2	27653	99.4,99.4
160	20.66	20.69	20.69	20.75	18.56	18.45	18.33	18.27	150-160	85.60	27739	99.7,99.7
170	21.92	21.91	21.88	21.93	20.75	20.65	20.55	20.51	160-170	57.71	27797	99.9,99.9
180	22.04	22.04	21.91	21.94	22.09	22.00	21.95	21.90	170-180	20.62	27817	100,100
DEG	LUMINOUS INTENSITY:×10cd									UNIT:lm		

Conical surface Flux(90deg): 19859 lm

%lum = 71.4%
%lamp = 71.4%

Conical surface Flux(120deg): 25258 lm

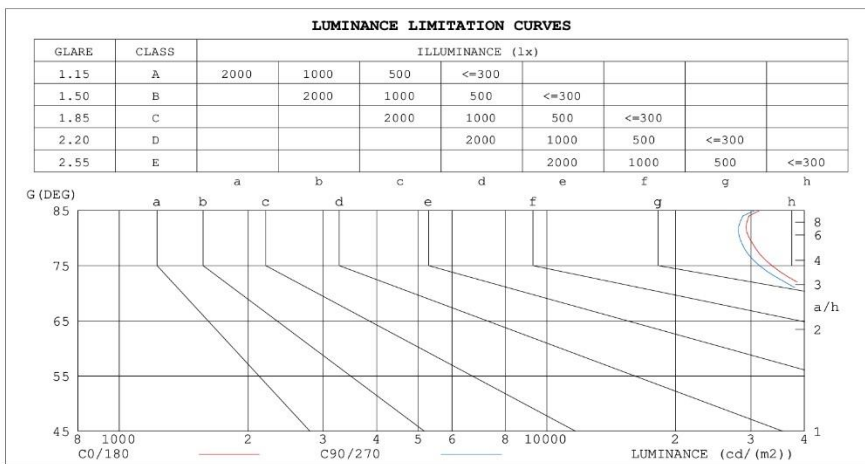
%lum = 90.8%
%lamp = 90.8%

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:28.5DEG
Operators:lumingli
Test Date:2019-06-21

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:55.0%
Test Distance:11.340m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:218.0V I:0.7027A P:149.9W PF:0.9786 Freq:50.00Hz Lamp Flux:27817.3x1 lm		
NAME: SL-UFOA00-150W-R090-C	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:D0.325	Shielding Angle:



LUMINANCE cd/ (m2)		
G (DEG)	C0/180	C90/270
85	31471	30691
80	29730	28233
75	33570	31380
70	42822	40012
65	55898	52382
60	73724	69223
55	101679	95512
50	145699	138305
45	210654	202649

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:28.5DEG
 Operators:lumingli
 Test Date:2019-06-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:55.0%
 Test Distance:11.340m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:218.0V I:0.7027A P:149.9W PF:0.9786 Freq:50.00Hz Lamp Flux:27817.3x1 lm					
NAME: SL-UFOA00-150W-R090-C			TYPE:		WEIGHT:
SPEC.:			DIM.:		SERIAL No.:
MFR.:			SUR.:D0.325		Shielding 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	.240	.136	.043	.232	.132	.042	.218	.125	.040	.204	.118	.038	.192	.111	.036	
2.0	.233	.128	.039	.226	.124	.038	.213	.119	.037	.202	.113	.035	.191	.108	.034	
3.0	.221	.118	.035	.216	.115	.035	.204	.111	.034	.194	.106	.033	.185	.102	.032	
4.0	.209	.109	.032	.204	.107	.032	.194	.103	.031	.185	.099	.030	.177	.096	.029	
5.0	.198	.101	.029	.193	.099	.029	.184	.096	.028	.176	.093	.028	.168	.090	.027	
6.0	.187	.094	.027	.182	.092	.027	.175	.089	.026	.167	.087	.026	.160	.084	.025	
7.0	.176	.087	.025	.173	.086	.024	.165	.084	.024	.159	.081	.024	.152	.079	.023	
8.0	.167	.081	.023	.163	.080	.023	.157	.078	.022	.151	.076	.022	.145	.075	.022	
9.0	.158	.076	.021	.155	.075	.021	.149	.074	.021	.144	.072	.021	.138	.070	.020	
10.0	.150	.072	.020	.147	.071	.020	.142	.069	.020	.137	.068	.019	.132	.066	.019	

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	.212	.212	.212	.181	.181	.181	.124	.124	.124	.071	.071	.071	.023	.023	.023	
1.0	.197	.178	.161	.169	.153	.139	.115	.105	.096	.066	.061	.056	.021	.020	.018	
2.0	.186	.154	.127	.159	.132	.110	.109	.092	.076	.063	.053	.045	.020	.017	.015	
3.0	.177	.136	.103	.152	.117	.089	.104	.081	.063	.060	.048	.037	.019	.015	.012	
4.0	.169	.122	.086	.145	.105	.075	.100	.073	.053	.058	.043	.031	.019	.014	.010	
5.0	.162	.111	.074	.139	.096	.064	.096	.067	.045	.055	.039	.027	.018	.013	.009	
6.0	.155	.103	.065	.133	.089	.057	.092	.062	.040	.053	.037	.024	.017	.012	.008	
7.0	.149	.096	.058	.128	.083	.051	.089	.058	.036	.051	.034	.021	.017	.011	.007	
8.0	.143	.090	.053	.123	.078	.046	.085	.055	.033	.050	.032	.020	.016	.011	.006	
9.0	.138	.085	.049	.119	.074	.043	.082	.052	.030	.048	.031	.018	.016	.010	.006	
10.0	.133	.081	.046	.115	.070	.040	.079	.049	.029	.046	.029	.017	.015	.010	.006	

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:28.5DEG
 Operators:lumingli
 Test Date:2019-06-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:55.0%
 Test Distance:11.340m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:218.0V I:0.7027A P:149.9W PF:0.9786 Freq:50.00Hz Lamp Flux:27817.3x1 lm										
NAME: SL-UFOA00-150W-R090-C					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.:					SUR.:D0.325			Shielding 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	17.1	18.4	17.4	18.6	18.9	16.9	18.2	17.2	18.5	18.7
3H	17.3	18.5	17.6	18.7	19.0	17.1	18.3	17.4	18.5	18.8
4H	17.3	18.4	17.7	18.7	19.0	17.1	18.2	17.5	18.5	18.8
6H	17.3	18.3	17.7	18.7	19.0	17.1	18.1	17.5	18.5	18.8
8H	17.3	18.3	17.7	18.6	19.0	17.1	18.1	17.5	18.4	18.8
12H	17.3	18.2	17.7	18.6	18.9	17.1	18.0	17.5	18.4	18.7
4H 2H	17.1	18.2	17.5	18.5	18.8	17.0	18.1	17.3	18.4	18.7
3H	17.4	18.3	17.8	18.7	19.0	17.2	18.2	17.6	18.5	18.9
4H	17.5	18.3	17.9	18.7	19.1	17.3	18.2	17.7	18.5	18.9
6H	17.5	18.3	18.0	18.7	19.1	17.4	18.1	17.8	18.5	18.9
8H	17.6	18.3	18.0	18.7	19.1	17.4	18.1	17.8	18.5	18.9
12H	17.6	18.2	18.0	18.6	19.1	17.4	18.0	17.9	18.5	18.9
8H 4H	17.4	18.1	17.9	18.5	19.0	17.3	18.0	17.7	18.4	18.8
6H	17.6	18.1	18.0	18.6	19.1	17.4	18.0	17.9	18.4	18.9
8H	17.6	18.1	18.1	18.6	19.1	17.4	17.9	17.9	18.4	18.9
12H	17.7	18.1	18.2	18.6	19.1	17.5	17.9	18.0	18.4	18.9
12H 4H	17.4	18.0	17.9	18.5	18.9	17.2	17.9	17.7	18.3	18.8
6H	17.5	18.0	18.0	18.5	19.0	17.4	17.9	17.9	18.3	18.8
8H	17.6	18.0	18.1	18.5	19.1	17.4	17.9	18.0	18.4	18.9
Variations with the observer position at spacings:										
S = 1.0H	+ 1.4 / - 1.6					+ 1.4 / - 1.7				
1.5H	+ 1.0 / - 1.3					+ 0.9 / - 1.3				
2.0H	+ 2.9 / - 2.3					+ 2.9 / - 2.2				

CIE Pub.117, 27817 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 11.6)

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:28.5DEG
 Operators:lumingli
 Test Date:2019-06-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:55.0%
 Test Distance:11.340m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:218.0V I:0.7027A P:149.9W PF:0.9786 Freq:50.00Hz Lamp Flux:27817.3x1 lm		
NAME: SL-UFOA00-150W-R090-C	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:D0.325	Shielding Angle:

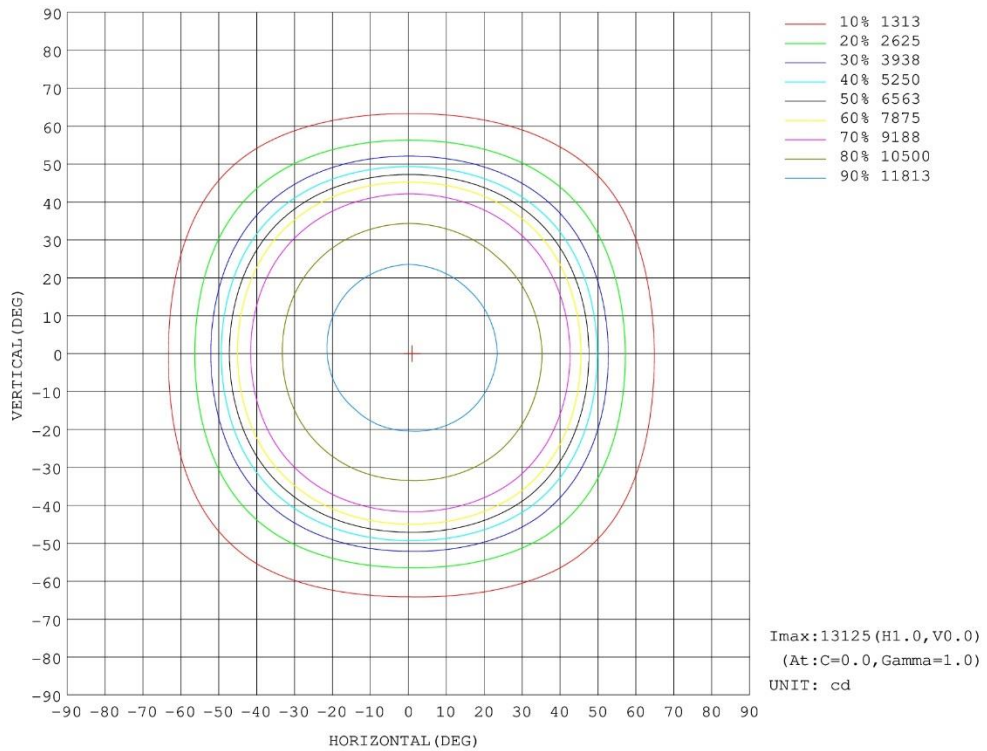
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	66	56	50	65	56	50	64	55	49	44
0.80	76	66	60	75	66	60	73	65	59	54
1.00	84	75	69	83	75	69	81	75	68	62
1.25	91	82	77	89	82	76	87	80	75	69
1.50	95	87	82	93	86	81	90	84	80	73
2.00	100	94	89	99	93	88	95	90	86	79
2.50	103	97	93	101	96	92	97	93	89	82
3.00	106	101	96	104	99	95	100	96	93	84
4.00	109	104	101	106	102	99	102	99	96	87
5.00	111	107	104	108	105	102	103	101	98	89
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004	Suspended							SHRNOM = 1.25		

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:28.5DEG
 Operators:lumingli
 Test Date:2019-06-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:55.0%
 Test Distance:11.340m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:218.0V I:0.7027A P:149.9W PF:0.9786 Freq:50.00Hz Lamp Flux:27817.3x1 lm		
NAME: SL-UFOA00-150W-R090-C	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:D0.325	Shielding Angle:

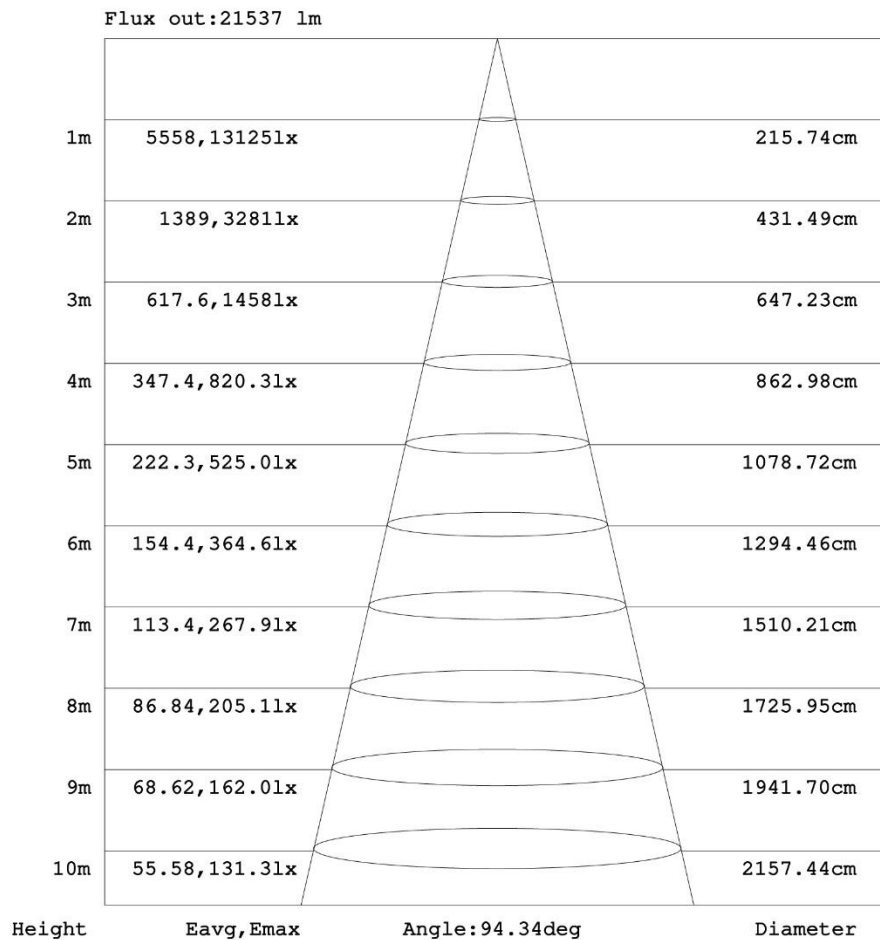


C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:28.5DEG
 Operators:lumingli
 Test Date:2019-06-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:55.0%
 Test Distance:11.340m [K=1.0000]
 Remarks:

AAI Figure

Test:U:218.0V I:0.7027A P:149.9W PF:0.9786 Freq:50.00Hz Lamp Flux:27817.3x1 lm		
NAME: SL-UFOA00-150W-R090-C	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:D0.325	Shielding Angle:

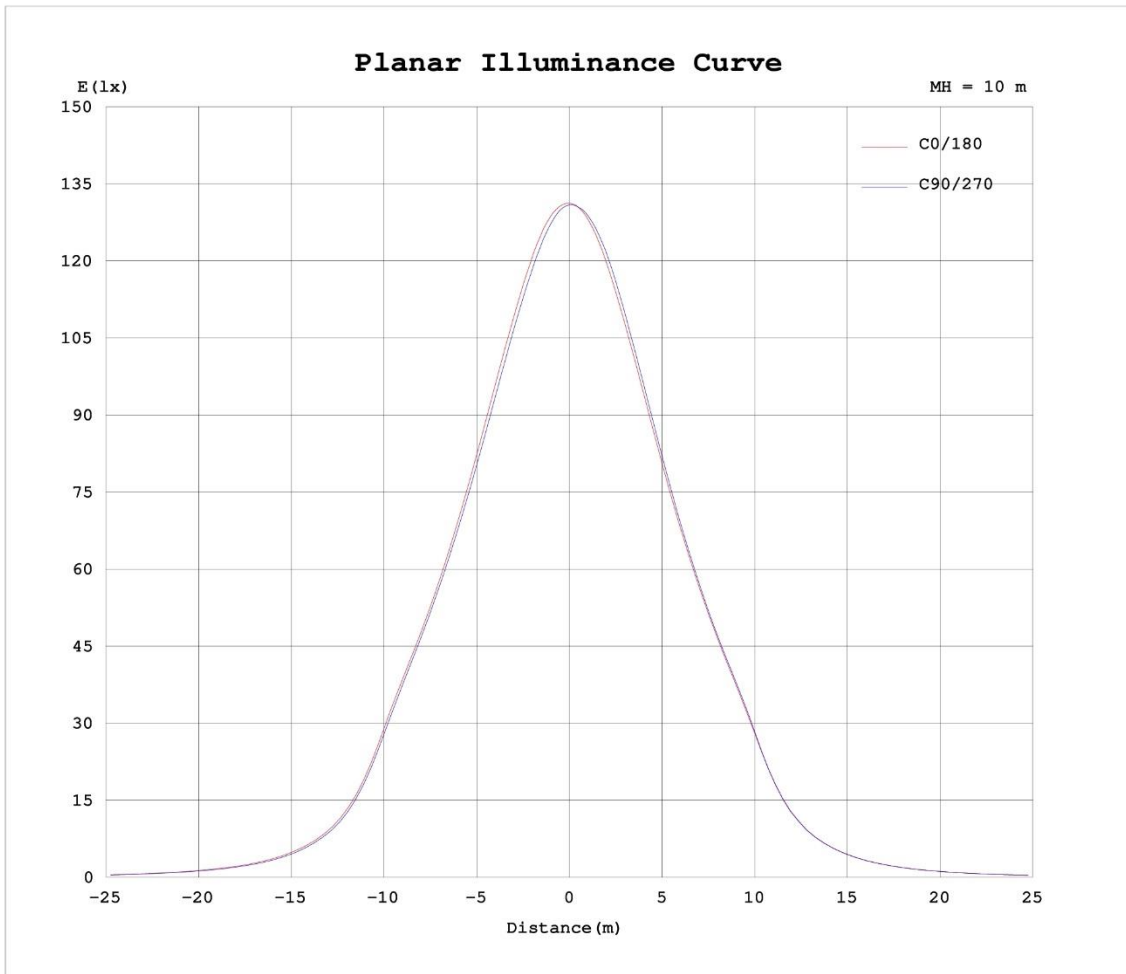


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:28.5DEG
 Operators:lumingli
 Test Date:2019-06-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:55.0%
 Test Distance:11.340m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 28.5DEG
 Operators: lumingli
 Test Date: 2019-06-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity: 55.0%
 Test Distance: 11.340m [K=1.0000]
 Remarks: