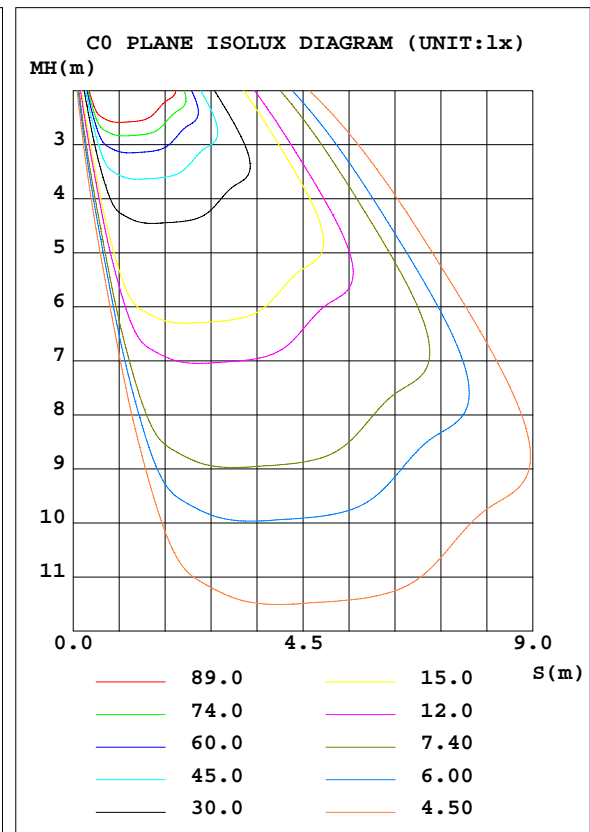
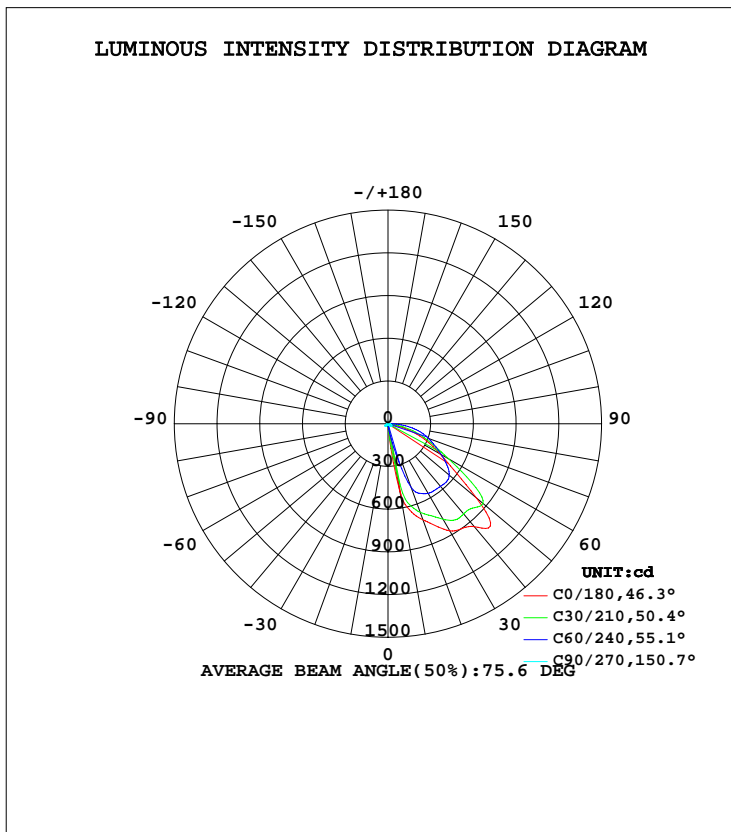


## LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: 11" Wide LED Wallwasher 15-Watts	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: Avenue Lighting	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	ML7230-BLK	Imax(cd)	1017	S/MH(C0/180)	4.96
NOMINAL POWER(W)	18.7	LOR(%)	100.0	S/MH(C90/270)	2.90
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	1138.5	$\eta$ UP, DN(C0-180)	0.3, 54.1
NOMINAL FLUX(lm)	1138.49	CIE CLASS	DIRECT	$\eta$ UP, DN(C180-360)	0.3, 45.3
LAMPS INSIDE	1	$\eta$ up(%)	0.6	CIBSE SHR NOM	0.00
TEST VOLTAGE(V)	24	$\eta$ down(%)	99.4	CIBSE SHR MAX	1.00



C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: VD  
 Test Date: 2022-03-15

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.262  
 Humidity: 65.0%  
 Test Distance: 7.100m [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	482.6	178.4	10.94	6.185	5.411	6.194	10.82	188.7	0- 10	4.948	4.948	0.43,0.43
20	717.7	595.3	12.41	4.609	1.329	4.494	11.92	593.1	10- 20	55.76	60.71	5.33,5.33
30	868.0	675.6	15.35	0.8149	0	0.2225	14.26	668.3	20- 30	126.4	187.1	16.4,16.4
40	943.9	734.1	21.21	0.0165	0	0.0331	19.45	722.8	30- 40	197.0	384.1	33.7,33.7
50	810.6	690.8	30.60	0	0	0	26.76	666.7	40- 50	255.0	639.1	56.1,56.1
60	419.5	569.8	32.17	0	0	0	24.74	544.5	50- 60	230.5	869.6	76.4,76.4
70	218.5	314.9	27.33	0	0	0	16.68	297.7	60- 70	157.3	1027	90.2,90.2
80	34.73	125.2	16.66	0.0071	0	0.0072	5.879	114.3	70- 80	81.87	1109	97.4,97.4
90	9.125	15.53	0.1264	0.2005	0.1041	0.2266	0.0094	13.61	80- 90	22.50	1131	99.4,99.4
100	1.928	1.921	0.0850	0.5969	0.4394	0.6418	0.0660	1.524	90-100	2.821	1134	99.6,99.6
110	0.8738	0.5570	0.1936	1.132	1.053	1.180	0.1887	0.4153	100-110	0.7666	1135	99.7,99.7
120	0.3875	0.0828	0.3068	1.678	1.846	1.730	0.3160	0.0306	110-120	0.7265	1136	99.7,99.7
130	0.0570	0	0.4107	2.057	2.492	2.110	0.4246	0	120-130	0.7808	1136	99.8,99.8
140	0	0	0.5003	2.158	2.756	2.214	0.5096	0	130-140	0.7555	1137	99.9,99.9
150	0	0	0.5805	2.041	2.770	2.074	0.5804	0.0000	140-150	0.6368	1138	99.9,99.9
160	0	0.0379	0.6418	1.633	2.156	1.649	0.6182	0.0826	150-160	0.4330	1138	100,100
170	0.0892	0.3068	0.6701	1.185	1.382	1.187	0.6666	0.3493	160-170	0.2247	1138	100,100
180	0.7126	0.6937	0.6796	0.7338	0.7551	0.7244	0.6796	0.7055	170-180	0.0698	1138	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

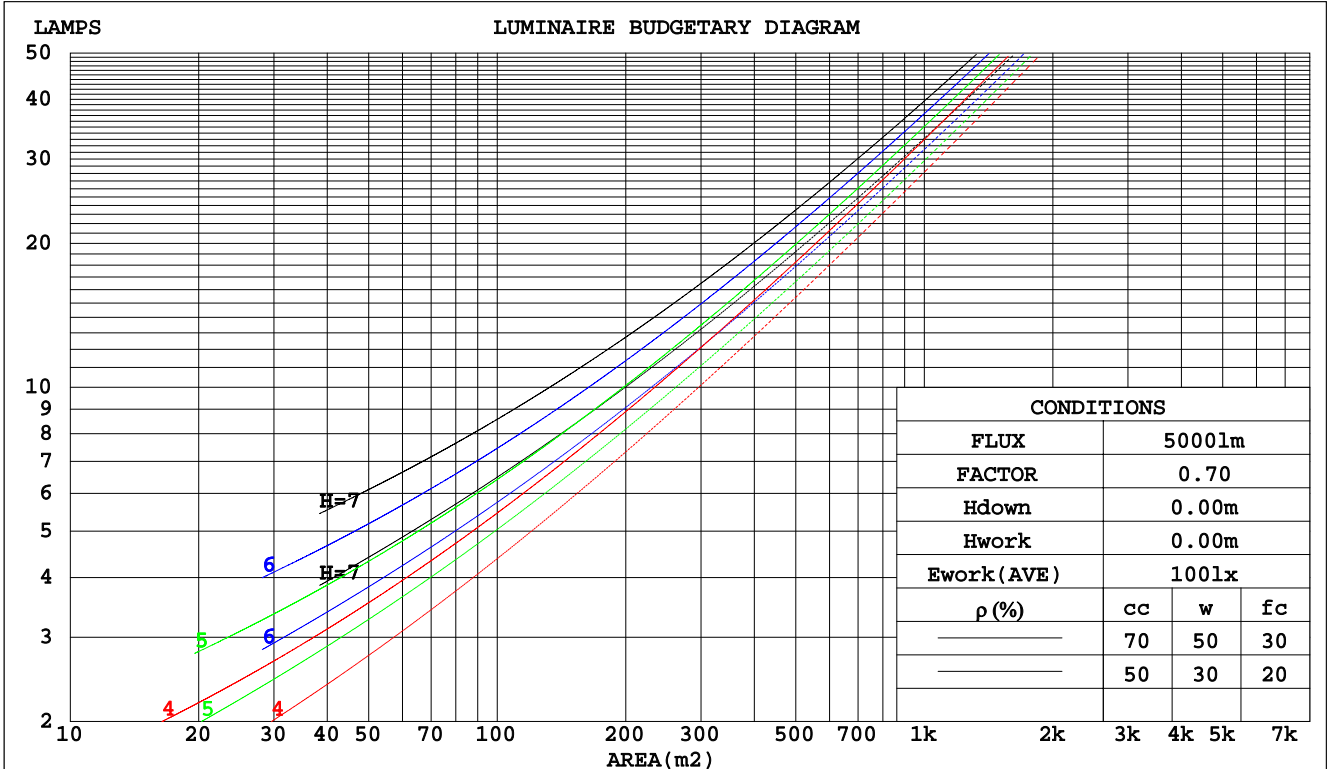
C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:VD  
Test Date:2022-03-15

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.262  
Humidity:65.0%  
Test Distance:7.100m [K=1.0000]  
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: Wallsher30-s-3000k-90RA-18W-Diffuse	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: VD	SUR.:	PROTECTION ANGLE:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	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	1.11	1.11	1.11	1.06	1.06	1.06	1.01	1.01	1.01	.99
1.0	1.03	.98	.94	1.00	.96	.92	.96	.92	.89	.92	.89	.86	.88	.86	.84	.82
2.0	.88	.81	.75	.86	.79	.74	.82	.77	.72	.79	.74	.70	.76	.72	.68	.66
3.0	.76	.67	.60	.74	.66	.60	.71	.64	.58	.68	.62	.57	.66	.61	.56	.54
4.0	.66	.57	.49	.65	.56	.49	.62	.54	.48	.60	.53	.48	.57	.52	.47	.44
5.0	.58	.48	.41	.57	.48	.41	.55	.47	.40	.53	.45	.40	.51	.44	.39	.37
6.0	.51	.42	.35	.50	.41	.35	.48	.40	.34	.47	.39	.34	.45	.38	.33	.31
7.0	.46	.36	.30	.45	.36	.30	.43	.35	.29	.42	.34	.29	.40	.34	.29	.27
8.0	.41	.32	.26	.40	.32	.26	.39	.31	.25	.38	.30	.25	.36	.30	.25	.23
9.0	.37	.28	.22	.37	.28	.22	.35	.28	.22	.34	.27	.22	.33	.27	.22	.20
10.0	.34	.25	.20	.33	.25	.20	.32	.25	.19	.31	.24	.19	.30	.24	.19	.17



C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: VD  
 Test Date: 2022-03-15

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.262  
 Humidity: 65.0%  
 Test Distance: 7.100m [K=1.0000]  
 Remarks:

WEC AND CCEC

NAME: Wallsher30-s-3000k-90RA-18W-Diffuse	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: VD	SUR.:	PROTECTION ANGLE:

ρ <sub>cc</sub>	80%			70%			50%			30%			10%			0
ρ <sub>w</sub>	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ <sub>fc</sub>	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.330	.188	.059	.322	.184	.058	.309	.177	.057	.296	.171	.055	.284	.165	.053	
2.0	.312	.171	.053	.306	.168	.052	.294	.163	.051	.282	.158	.050	.272	.154	.048	
3.0	.290	.154	.046	.284	.152	.046	.273	.148	.045	.263	.144	.044	.254	.140	.043	
4.0	.268	.139	.041	.263	.137	.041	.253	.134	.040	.244	.131	.040	.235	.128	.039	
5.0	.248	.126	.037	.243	.125	.036	.234	.122	.036	.226	.119	.035	.219	.117	.035	
6.0	.229	.115	.033	.225	.114	.033	.217	.111	.032	.210	.109	.032	.203	.107	.032	
7.0	.213	.105	.030	.209	.104	.030	.203	.102	.029	.196	.100	.029	.190	.099	.029	
8.0	.199	.097	.027	.195	.096	.027	.189	.095	.027	.183	.093	.027	.178	.091	.027	
9.0	.186	.090	.025	.183	.089	.025	.177	.088	.025	.172	.086	.025	.167	.085	.025	
10.0	.174	.084	.023	.172	.083	.023	.167	.082	.023	.162	.080	.023	.157	.079	.023	

ρ <sub>cc</sub>	80%			70%			50%			30%			10%			0
ρ <sub>w</sub>	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ <sub>fc</sub>	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.195	.195	.195	.167	.167	.167	.114	.114	.114	.065	.065	.065	.021	.021	.021	
1.0	.187	.161	.138	.160	.138	.118	.109	.095	.082	.063	.055	.048	.020	.018	.015	
2.0	.180	.137	.100	.154	.118	.087	.106	.081	.061	.061	.047	.035	.020	.015	.012	
3.0	.173	.119	.076	.149	.103	.066	.102	.072	.046	.059	.042	.027	.019	.014	.009	
4.0	.166	.106	.060	.143	.092	.053	.098	.064	.037	.057	.038	.022	.018	.012	.007	
5.0	.159	.096	.050	.137	.083	.043	.094	.058	.030	.055	.034	.018	.018	.011	.006	
6.0	.153	.088	.042	.131	.076	.036	.090	.053	.026	.052	.031	.015	.017	.010	.005	
7.0	.146	.081	.036	.125	.071	.032	.087	.049	.022	.050	.029	.013	.016	.010	.004	
8.0	.139	.076	.032	.120	.066	.028	.083	.046	.020	.048	.027	.012	.016	.009	.004	
9.0	.133	.071	.029	.115	.062	.025	.079	.043	.018	.046	.026	.011	.015	.008	.004	
10.0	.127	.067	.026	.110	.058	.023	.076	.041	.016	.044	.024	.010	.014	.008	.003	

C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: VD  
 Test Date: 2022-03-15

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.262  
 Humidity: 65.0%  
 Test Distance: 7.100m [K=1.0000]  
 Remarks:

## Uncorrected UGR Table

NAME: Wallsher30-s-3000k-90RA-18W-Diffuse		TYPE:					WEIGHT:				
DIM.:		SPEC.:					SERIAL No.:				
MFR.: VD		SUR.:					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		24.7	26.4	25.0	26.6	26.8	21.6	23.2	21.9	23.4	23.7
	3H	25.5	27.1	25.9	27.3	27.6	22.6	24.1	22.9	24.3	24.6
	4H	25.7	27.2	26.1	27.4	27.7	22.9	24.3	23.2	24.6	24.9
	6H	25.7	27.1	26.1	27.4	27.7	23.0	24.4	23.4	24.7	25.0
	8H	25.7	27.0	26.0	27.3	27.6	23.0	24.4	23.4	24.7	25.0
	12H	25.6	26.9	26.0	27.2	27.5	23.0	24.3	23.4	24.6	24.9
	4H 2H	25.3	26.7	25.6	27.0	27.3	23.3	24.8	23.7	25.1	25.3
	3H	26.3	27.6	26.7	27.9	28.2	24.8	26.0	25.1	26.3	26.7
	4H	26.6	27.7	27.0	28.1	28.4	25.3	26.5	25.7	26.8	27.2
	6H	26.6	27.7	27.1	28.0	28.4	25.7	26.7	26.1	27.1	27.4
	8H	26.6	27.6	27.0	27.9	28.3	25.8	26.7	26.2	27.1	27.5
	12H	26.6	27.5	27.0	27.9	28.3	25.8	26.7	26.3	27.1	27.5
	8H 4H	26.9	27.9	27.4	28.3	28.7	25.9	26.8	26.3	27.2	27.6
	6H	27.1	27.9	27.5	28.3	28.7	26.7	27.5	27.1	27.9	28.3
	8H	27.1	27.8	27.5	28.2	28.7	27.0	27.7	27.5	28.1	28.6
	12H	27.1	27.7	27.6	28.1	28.6	27.2	27.8	27.7	28.3	28.8
	12H 4H	27.0	27.9	27.4	28.3	28.7	25.9	26.8	26.3	27.2	27.6
	6H	27.2	27.9	27.7	28.3	28.8	26.8	27.5	27.2	27.9	28.4
	8H	27.2	27.8	27.7	28.3	28.8	27.2	27.8	27.7	28.3	28.8
Variations with the observer position at spacings:											
S = 1.0H		+ 0.1 / - 0.2					+ 0.3 / - 0.3				
1.5H		+ 0.5 / - 0.9					+ 0.5 / - 0.8				
2.0H		+ 0.6 / - 0.9					+ 0.9 / - 1.6				

CIE Pub.117 Corrected 1138 lm Total Lamp Luminous Flux.(8log(F/F0) = 0.5)

C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: VD  
Test Date: 2022-03-15

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.262  
Humidity: 65.0%  
Test Distance: 7.100m [K=1.0000]  
Remarks:

## UTILIZATION FACTORS TABLE

NAME: Wallsher30-s-3000k-90RA-18W-Diffuse	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: VD	SUR.:	PROTECTION ANGLE:

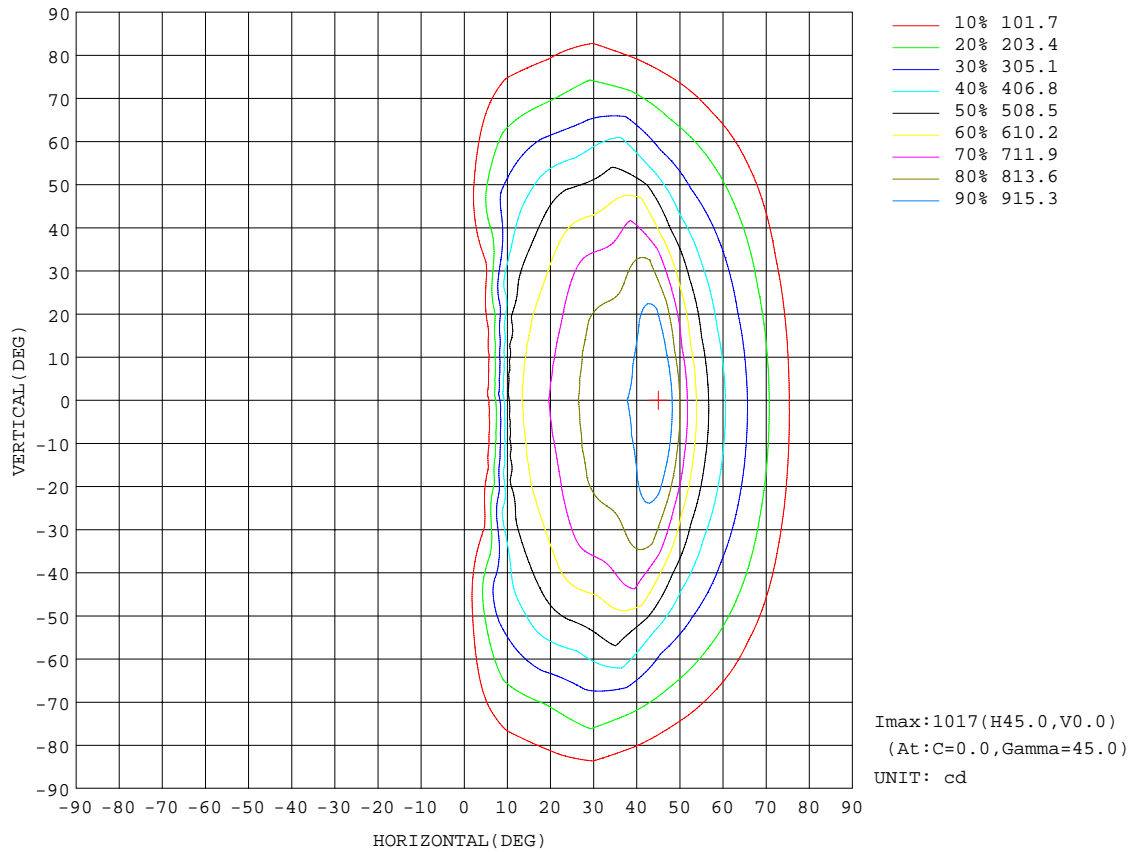
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	50	38	30	50	37	30	48	37	30	23
0.80	61	49	40	60	48	40	58	47	40	32
1.00	71	59	51	70	58	50	67	60	50	42
1.25	79	67	60	77	67	59	75	65	58	50
1.50	85	74	66	83	73	65	80	71	64	56
2.00	92	83	76	90	82	75	87	79	74	65
2.50	97	88	82	95	87	81	90	84	79	70
3.00	100	93	87	98	91	86	94	88	84	75
4.00	105	98	93	102	97	92	98	93	89	80
5.00	107	102	97	105	100	96	100	96	93	83
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: VD  
 Test Date: 2022-03-15

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.262  
 Humidity: 65.0%  
 Test Distance: 7.100m [K=1.0000]  
 Remarks:

ISOCANDELA DIAGRAM

NAME: Wallsher30-s-3000k-90RA-18W-Diffuse	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: VD	SUR.:	PROTECTION ANGLE:

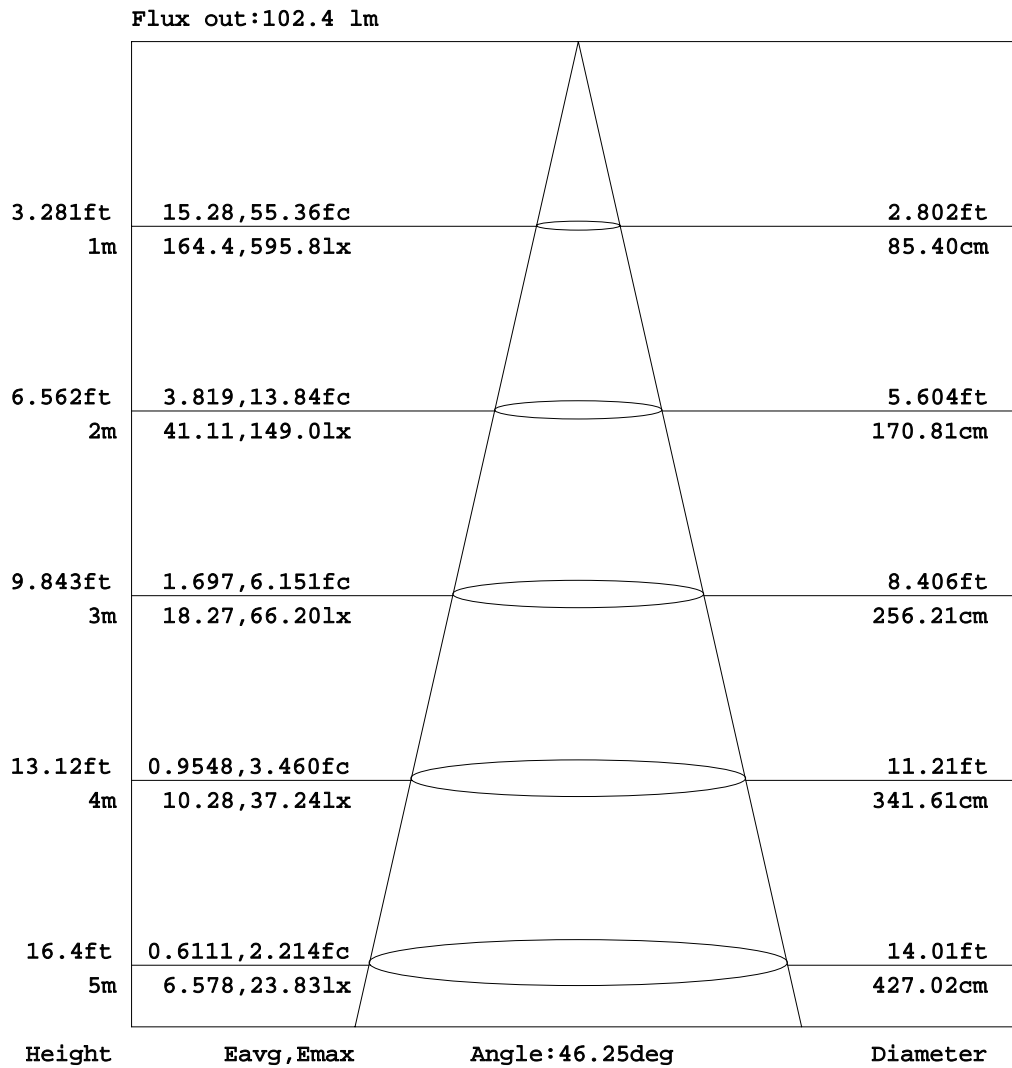


C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: VD  
 Test Date: 2022-03-15

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.262  
 Humidity: 65.0%  
 Test Distance: 7.100m [K=1.0000]  
 Remarks:

AAI Figure

NAME: Wallsher30-s-3000k-90RA-18W-Diffuse	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: VD	SUR.:	PROTECTION ANGLE:



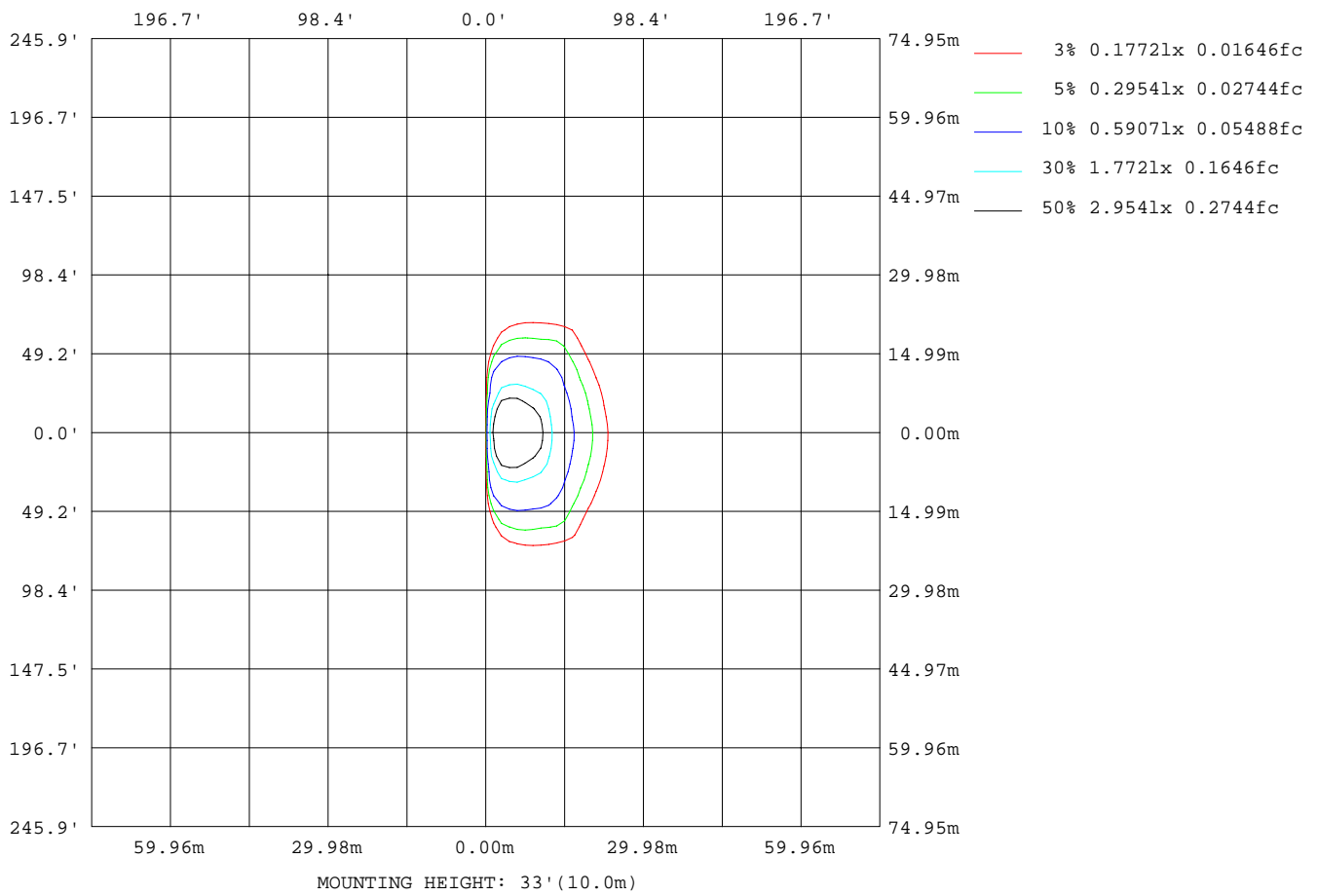
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: VD  
 Test Date: 2022-03-15

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.262  
 Humidity: 65.0%  
 Test Distance: 7.100m [K=1.0000]  
 Remarks:

ISOLUX DIAGRAM

NAME: Wallsher30-s-3000k-90RA-18W-Diffuse	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: VD	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: VD  
 Test Date: 2022-03-15

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.262  
 Humidity: 65.0%  
 Test Distance: 7.100m [K=1.0000]  
 Remarks:

Average Luminance Table(CIBSE)

NAME: Wallsher30-s-3000k-90RA-18W-Diffuse	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: VD	SUR.:	PROTECTION ANGLE:

Parameter description for average Luminance	Symbol	Value	Unit
Luminance in Azimuth Plane	Bc	refer Table 2	cd/sq.m.
Intensity at angle Gamma in given azimuth plane	I	from data	cd/klm
Number of lamps	N	1	
Output of each lamp(initial lumens as specified)	F	1138.49	lm
Multiplying factor	K	1	
Luminous area in horizontal plane used in calculations	A	0.1	sq.m.
Angle to the downward vertical from light centre	Gamma	from data	deg

Table 1. Calculation parameters for determination of CIBSE LG3:1996 Average Luminance

G deg	C plane(deg)																		
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
55	9823	10073	10742	11247	11748	12235	12735	10288	8823	7035	4919	565	158	2	0	0	0	0	0
60	8389	8519	8797	9795	11767	11024	8639	7144	4916	643	107	0	0	0	0	0	0	0	0
65	7516	7625	7788	8312	9474	11381	8570	6896	4865	720	40	0	0	0	0	0	0	0	0
70	6388	6525	6939	7423	8185	10229	8885	6542	4740	799	8	0	0	0	0	0	0	0	0
75	4190	4536	5253	6368	7517	8900	9459	6380	4480	876	1	0	0	0	0	0	0	0	0
80	2000	2247	2831	4185	6110	8315	10004	6732	4392	959	0	0	0	1	0	0	0	0	0
85	1604	1685	1870	2485	3963	7085	10780	8463	4793	1070	0	7	6	12	4	5	0	0	1

Table 2. Average Luminance(cd/sq.m.) for defined C plane,Gamma angle

CIBSE Category	Gamma (deg)	Average Luminance		Patch Luminance	
		maximum	specified	maximum	specified
		calculated	maximum	measured	maximum
Category 1	55 to 90	12735	200	---	500
Category 2	65 to 90	11381	200	---	500
Category 3	75 to 90	10780	200	---	500

Table 3. Tabulation of Average and Patch Luminance(cd/sq.m.) for defined CIBSE categories

No match

C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:VD  
 Test Date:2022-03-15

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.262  
 Humidity:65.0%  
 Test Distance:7.100m [K=1.0000]  
 Remarks:

Average Luminance Table(CIBSE)

NAME: Wallsher30-s-3000k-90RA-18W-Diffuse	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: VD	SUR.:	PROTECTION ANGLE:

Parameter description for average Luminance	Symbol	Value	Unit
Luminance in Azimuth Plane	Bc	refer Table 2	cd/sq.m.
Intensity at angle Gamma in given azimuth plane	I	from data	cd/klm
Number of lamps	N	1	
Output of each lamp(initial lumens as specified)	F	1138.49	lm
Multiplying factor	K	1	
Luminous area in horizontal plane used in calculations	A	0.1	sq.m.
Angle to the downward vertical from light centre	Gamma	from data	deg

Table 1. Calculation parameters for determination of CIBSE LG3:2001 Average Luminance

G deg	C plane(deg)																		
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
55	9823	10073	10742	11247	11735	12088	12283	7035	4919	565	158	2	0	0	0	0	0	0	0
60	8389	8519	8797	9795	11767	11024	8639	7144	4916	643	107	0	0	0	0	0	0	0	0
65	7516	7625	7788	8312	9474	11381	8570	6896	4865	720	40	0	0	0	0	0	0	0	0
70	6388	6525	6939	7423	8185	10229	8885	6542	4740	799	8	0	0	0	0	0	0	0	0
75	4190	4536	5253	6368	7517	8900	9459	6380	4480	876	1	0	0	0	0	0	0	0	0
80	2000	2247	2831	4185	6110	8315	10004	6732	4392	959	0	0	0	1	0	0	0	0	0
85	1604	1685	1870	2485	3963	7085	10780	8463	4793	1070	0	7	6	12	4	5	0	0	1

Table 2. Average Luminance(cd/sq.m.) for defined C plane,Gamma angle

range (deg)	Maximum measured	Average Luminance(cd/sq.m)			
		Maximum limit for screen type & software category used			
		Type I,II screen Some neg.s'ware	Type I,II screen Only pos.s'ware	Type III screen Some neg.s'ware	Type III screen Only pos.s'ware
55 to 90	12735	1000	1500	200	500
65 to 90	11381	1000	1500	200	500

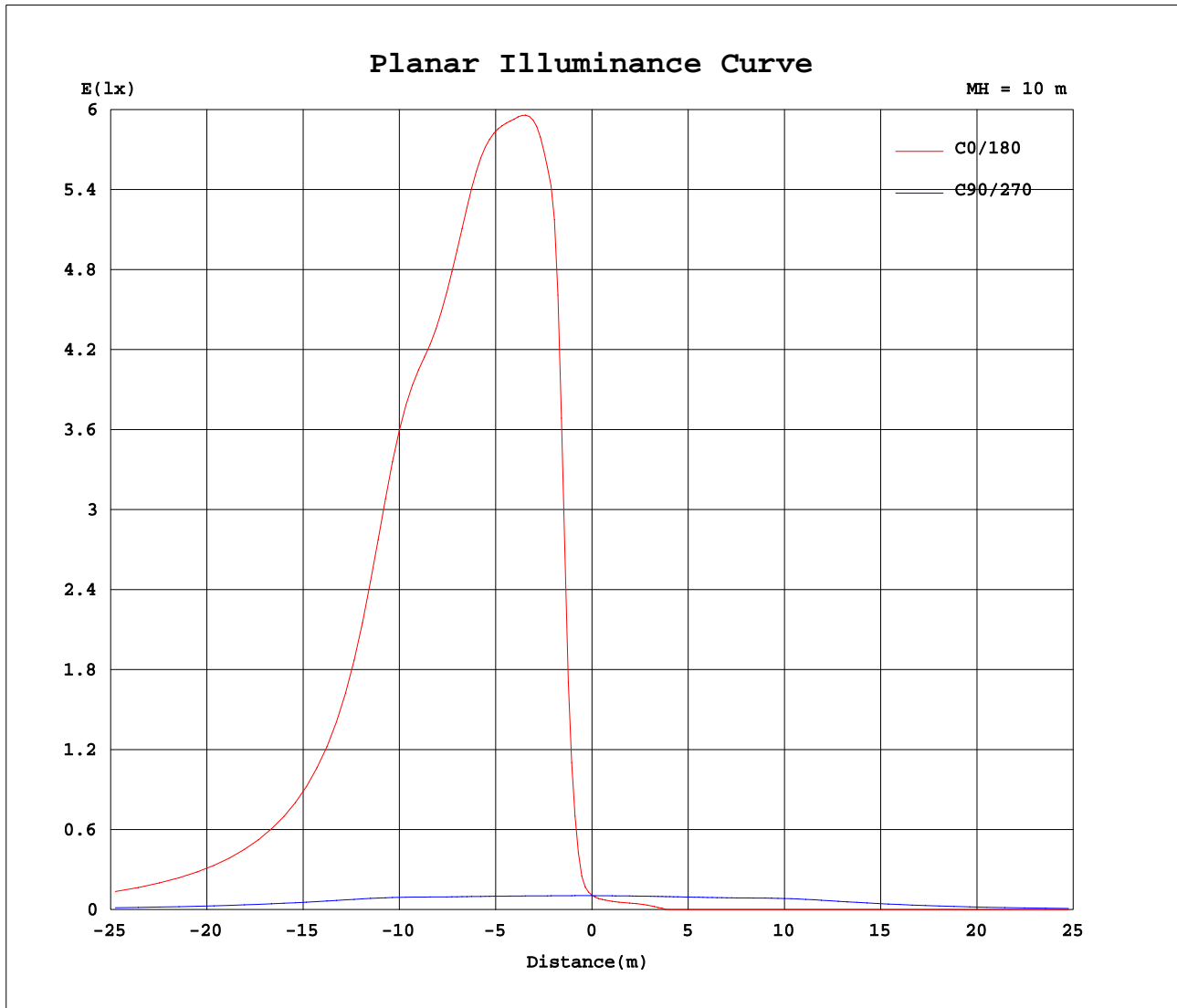
Table 3. Tabulation of average luminance(cd/sq.m.) and luminance limits

No match

C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:VD  
 Test Date:2022-03-15

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.262  
 Humidity:65.0%  
 Test Distance:7.100m [K=1.0000]  
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: VD  
 Test Date: 2022-03-15

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.262  
 Humidity: 65.0%  
 Test Distance: 7.100m [K=1.0000]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: Wallsher30-s-3000k-90RA-18W-Diffuse	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: VD	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C( DEG) γ (DEG)	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
0	10.9	10.6	10.7	10.5	10.6	10.5	10.5	10.4	10.5	10.5	10.6	10.7	10.7	10.9	11.0	11.2	11.1	11.3	10.9
5	71.0	64.6	58.6	46.3	36.4	25.7	19.2	14.9	12.4	10.7	9.49	8.64	8.09	7.72	7.42	7.15	6.96	6.86	6.78
10	483	456	417	325	223	134	68.5	30.2	15.6	10.9	8.72	7.58	6.89	6.35	6.02	5.74	5.60	5.42	5.41
15	643	633	617	588	550	434	220	77.0	22.8	11.5	8.39	7.00	6.20	5.59	5.24	4.91	4.66	4.45	4.28
20	718	709	691	662	623	568	473	180	38.9	12.4	8.27	6.61	5.69	4.98	4.24	3.30	2.21	1.73	1.33
25	790	777	752	713	669	614	540	355	66.1	13.6	8.26	6.31	5.19	3.86	1.79	0.16	0.17	0.09	0.07
30	868	855	824	774	711	640	565	461	108	15.3	8.43	6.05	4.33	1.47	0.16	0.07	0.07	0.00	0.00
35	900	889	863	824	759	666	571	473	177	17.7	8.89	5.61	2.18	0.11	0.08	0.00	0.00	0.00	0.00
40	944	921	875	827	776	692	574	470	264	21.2	9.86	4.76	0.21	0.03	0.00	0.00	0.00	0.00	0.00
45	1017	1003	943	838	752	687	579	455	321	26.3	11.5	2.94	0.12	0.00	0.00	0.00	0.00	0.00	0.00
50	811	837	878	871	741	641	562	432	312	30.6	12.5	0.26	0.03	0.00	0.00	0.00	0.00	0.00	0.00
55	563	578	616	716	730	590	506	403	282	32.4	9.04	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	419	426	440	490	588	551	432	357	246	32.2	5.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
65	318	322	329	351	400	481	362	291	206	30.4	1.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70	218	223	237	254	280	350	304	224	162	27.3	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75	108	117	136	165	195	230	245	165	116	22.7	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80	34.7	39.0	49.2	72.7	106	144	174	117	76.3	16.7	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
85	14.0	14.7	16.3	21.7	34.5	61.7	94.0	73.8	41.8	9.33	0.00	0.06	0.05	0.10	0.03	0.04	0.00	0.00	0.01
90	9.12	9.38	9.74	10.9	13.3	17.7	23.6	20.8	10.9	0.13	0.02	0.16	0.17	0.24	0.16	0.15	0.07	0.09	0.10
95	6.29	6.48	6.42	6.66	6.91	6.53	3.57	1.89	0.26	0.04	0.11	0.27	0.33	0.40	0.34	0.32	0.22	0.22	0.25
100	1.93	1.94	1.92	1.94	1.97	1.87	1.42	0.51	0.00	0.09	0.20	0.43	0.51	0.62	0.58	0.55	0.43	0.43	0.44
105	1.29	1.26	1.28	1.20	1.15	0.94	0.58	0.05	0.00	0.13	0.29	0.58	0.72	0.86	0.85	0.85	0.72	0.69	0.70
110	0.87	0.83	0.84	0.74	0.68	0.44	0.19	0.00	0.00	0.19	0.39	0.72	0.92	1.12	1.15	1.18	1.08	1.04	1.05
115	0.60	0.55	0.56	0.44	0.38	0.16	0.00	0.00	0.00	0.25	0.49	0.87	1.14	1.38	1.45	1.52	1.45	1.44	1.45
120	0.39	0.34	0.35	0.23	0.17	0.00	0.00	0.00	0.03	0.31	0.56	1.00	1.33	1.62	1.74	1.85	1.82	1.82	1.85
125	0.22	0.17	0.17	0.06	0.01	0.00	0.00	0.00	0.07	0.35	0.64	1.10	1.46	1.82	1.99	2.14	2.14	2.19	2.20
130	0.06	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.10	0.41	0.70	1.16	1.56	1.96	2.16	2.35	2.39	2.47	2.49
135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.15	0.45	0.73	1.16	1.61	1.99	2.27	2.49	2.55	2.64	2.66
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.19	0.50	0.78	1.17	1.62	2.00	2.31	2.54	2.63	2.71	2.76
145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.25	0.55	0.80	1.16	1.60	1.97	2.30	2.54	2.69	2.74	2.80
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.30	0.58	0.81	1.13	1.54	1.85	2.23	2.44	2.66	2.71	2.77
155	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.22	0.34	0.60	0.80	1.08	1.43	1.69	2.02	2.21	2.42	2.47	2.52
160	0.00	0.00	0.00	0.00	0.00	0.08	0.11	0.30	0.42	0.64	0.80	1.03	1.31	1.51	1.76	1.90	2.08	2.12	2.16
165	0.00	0.00	0.00	0.08	0.09	0.20	0.24	0.41	0.49	0.66	0.79	0.96	1.18	1.31	1.51	1.59	1.72	1.74	1.75
170	0.09	0.18	0.17	0.26	0.26	0.35	0.38	0.51	0.56	0.67	0.79	0.88	1.06	1.11	1.26	1.28	1.38	1.36	1.38
175	0.37	0.45	0.42	0.49	0.46	0.52	0.52	0.61	0.62	0.68	0.77	0.78	0.90	0.91	1.01	1.00	1.08	1.06	1.09
180	0.71	0.74	0.72	0.73	0.69	0.69	0.68	0.68	0.67	0.68	0.71	0.71	0.73	0.72	0.75	0.74	0.79	0.77	0.76

C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: VD  
 Test Date: 2022-03-15

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.262  
 Humidity: 65.0%  
 Test Distance: 7.100m [K=1.0000]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: Wallsher30-s-3000k-90RA-18W-Diffuse	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: VD	SUR.:	PROTECTION ANGLE:

Table--2

UNIT: cd

C( DEG) γ (DEG)	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350		
0	10.6	10.7	10.5	10.6	10.5	10.5	10.4	10.5	10.5	10.6	10.7	10.7	10.9	11.0	11.2	11.1	11.3		
5	6.76	6.88	7.03	7.26	7.57	7.95	8.49	9.31	10.5	12.3	15.1	19.7	28.8	40.5	55.8	67.3	79.7		
10	5.43	5.53	5.74	6.00	6.39	6.87	7.65	8.68	10.8	15.3	30.5	68.9	138	240	363	438	493		
15	4.29	4.56	4.90	5.23	5.66	6.19	7.03	8.34	11.3	21.0	74.1	215	446	552	592	618	637		
20	1.43	1.91	2.87	4.04	4.95	5.65	6.64	8.17	11.9	33.3	164	459	565	621	663	690	708		
25	0.10	0.10	0.20	1.31	3.45	5.02	6.31	8.13	12.9	54.6	330	531	608	664	713	751	778		
30	0.02	0.01	0.10	0.10	0.34	3.89	5.96	8.27	14.3	86.1	446	554	632	704	774	823	852		
35	0.00	0.00	0.02	0.02	0.15	1.46	5.28	8.72	16.3	135	458	560	656	751	819	858	881		
40	0.00	0.00	0.00	0.00	0.07	0.14	4.04	9.70	19.5	209	450	558	681	765	816	868	918		
45	0.00	0.00	0.00	0.00	0.00	0.05	1.55	11.0	23.8	273	431	557	669	735	825	933	989		
50	0.00	0.00	0.00	0.00	0.00	0.00	0.24	9.42	26.8	283	406	538	615	718	850	860	800		
55	0.00	0.00	0.00	0.00	0.00	0.00	0.13	6.17	26.9	255	376	479	559	706	686	600	553		
60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.72	24.7	221	328	405	517	572	467	427	409		
65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40	21.2	182	266	335	452	389	335	319	309		
70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	16.7	141	204	274	329	266	244	225	212		
75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.4	100	147	219	219	182	154	126	105		
80	0.00	0.00	0.00	0.01	0.00	0.03	0.00	0.00	5.88	63.3	99.9	155	131	97.4	62.8	43.9	32.8		
85	0.00	0.04	0.02	0.10	0.08	0.12	0.05	0.03	1.36	31.8	58.8	81.0	49.7	30.0	18.8	15.3	13.3		
90	0.07	0.14	0.14	0.23	0.22	0.25	0.15	0.10	0.01	2.68	10.6	18.8	14.9	12.4	10.1	9.20	8.26		
95	0.21	0.30	0.30	0.42	0.40	0.41	0.29	0.20	0.02	0.05	1.24	2.64	3.53	5.07	5.25	5.38	5.27		
100	0.41	0.51	0.54	0.66	0.62	0.60	0.43	0.28	0.07	0.00	0.30	1.05	1.48	1.57	1.57	1.50	1.64		
105	0.69	0.79	0.84	0.93	0.87	0.82	0.58	0.39	0.13	0.02	0.00	0.33	0.72	0.90	1.02	1.01	1.02		
110	1.04	1.14	1.17	1.23	1.13	1.03	0.75	0.49	0.19	0.06	0.00	0.01	0.35	0.49	0.66	0.66	0.68		
115	1.43	1.52	1.50	1.54	1.39	1.25	0.90	0.60	0.25	0.08	0.00	0.00	0.11	0.24	0.40	0.43	0.49		
120	1.82	1.88	1.84	1.83	1.63	1.43	1.03	0.68	0.32	0.12	0.00	0.00	0.00	0.06	0.22	0.25	0.32		
125	2.17	2.22	2.13	2.07	1.83	1.58	1.13	0.75	0.36	0.16	0.00	0.00	0.00	0.00	0.06	0.09	0.17		
130	2.45	2.47	2.35	2.25	1.97	1.68	1.19	0.81	0.42	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.03		
135	2.61	2.62	2.48	2.34	2.05	1.67	1.23	0.85	0.47	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
140	2.69	2.70	2.55	2.36	2.07	1.67	1.24	0.85	0.51	0.29	0.05	0.00	0.00	0.00	0.00	0.00	0.00		
145	2.77	2.71	2.55	2.34	2.05	1.62	1.24	0.85	0.55	0.34	0.10	0.02	0.00	0.00	0.00	0.00	0.00		
150	2.77	2.64	2.51	2.21	1.94	1.53	1.21	0.84	0.58	0.39	0.15	0.06	0.00	0.00	0.00	0.00	0.00		
155	2.53	2.39	2.26	2.00	1.76	1.42	1.16	0.84	0.59	0.43	0.22	0.13	0.00	0.02	0.00	0.00	0.00		
160	2.16	2.05	1.96	1.74	1.56	1.28	1.09	0.83	0.62	0.48	0.30	0.22	0.08	0.08	0.00	0.00	0.00		
165	1.78	1.69	1.63	1.47	1.36	1.15	1.02	0.81	0.65	0.56	0.38	0.33	0.20	0.19	0.09	0.09	0.00		
170	1.41	1.33	1.33	1.21	1.17	1.01	0.94	0.78	0.67	0.62	0.49	0.45	0.35	0.35	0.27	0.26	0.17		
175	1.10	1.02	1.02	0.95	0.94	0.85	0.83	0.73	0.67	0.66	0.58	0.58	0.50	0.53	0.48	0.51	0.44		
180	0.77	0.76	0.75	0.73	0.72	0.72	0.72	0.71	0.68	0.68	0.68	0.69	0.70	0.71	0.72	0.75	0.75		

C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: VD  
 Test Date: 2022-03-15

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.262  
 Humidity: 65.0%  
 Test Distance: 7.100m [K=1.0000]  
 Remarks: