

Luminaire Photograph



Light Output Ratio:	100.0%	
Luminaire Power:	9.04 W	
SHR Nominal:	1.25	Calculated using the TM5
SHR Maximum:	1.35	fine grid method.

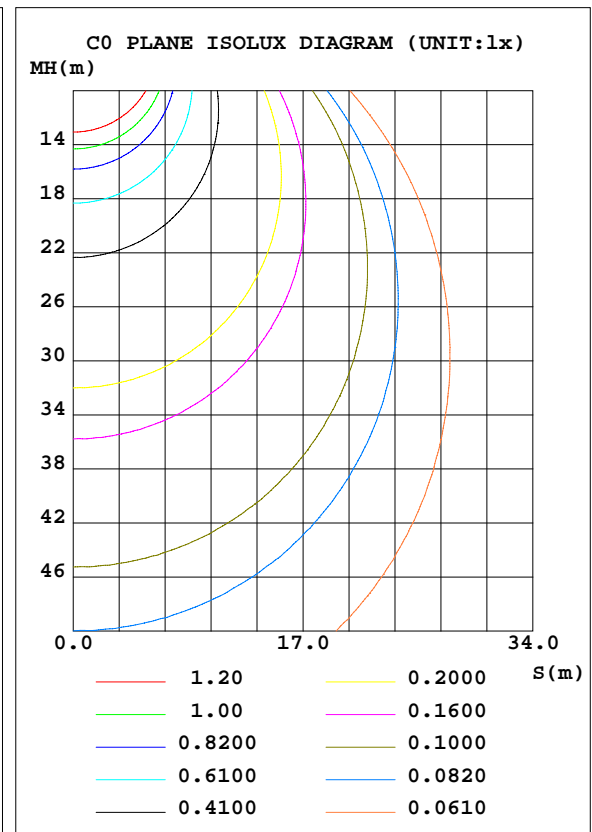
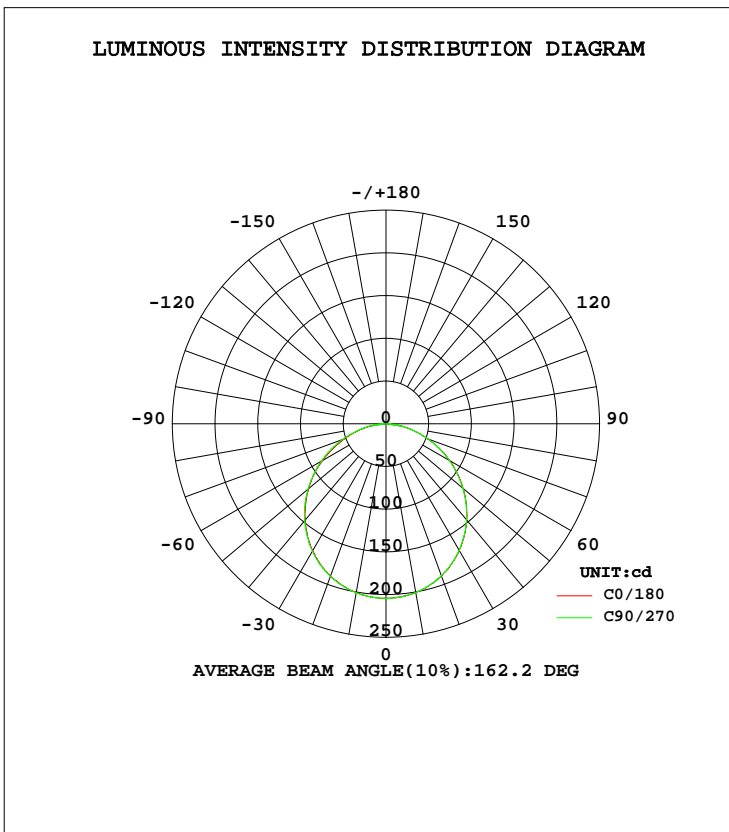
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:jwx  
 Test Date:2013-07-13

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V1.0.257  
 Humidity:65.0%  
 Test Distance:18.000m [K=1.0000]  
 Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.3V I:0.0490A P:9.040W PF:0.8350 Lamp Flux:572.55x1 lm		
NAME: Classic LED Down Light	TYPE: PAN-08W	WEIGHT:
DIMENSION:	SPECIFICATION: 4000-4300K	SERIAL No.: CZ130606
MANUFACTURER: Sheenly Lighting Co., Ltd	SURFACE:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 63.34 lm/W			
MODEL	LED8W	I <sub>max</sub> (cd)	204.7	S/MH(C0/180)	1.25
NOMINAL POWER(W)	8	LOR(%)	100.0	S/MH(C90/270)	1.25
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	572.55	η UP, DN(C0-180)	0.0, 50.2
NOMINAL FLUX(lm)	572.55	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)	220.3	η down(%)	100.0	CIBSE SHR MAX	1.35



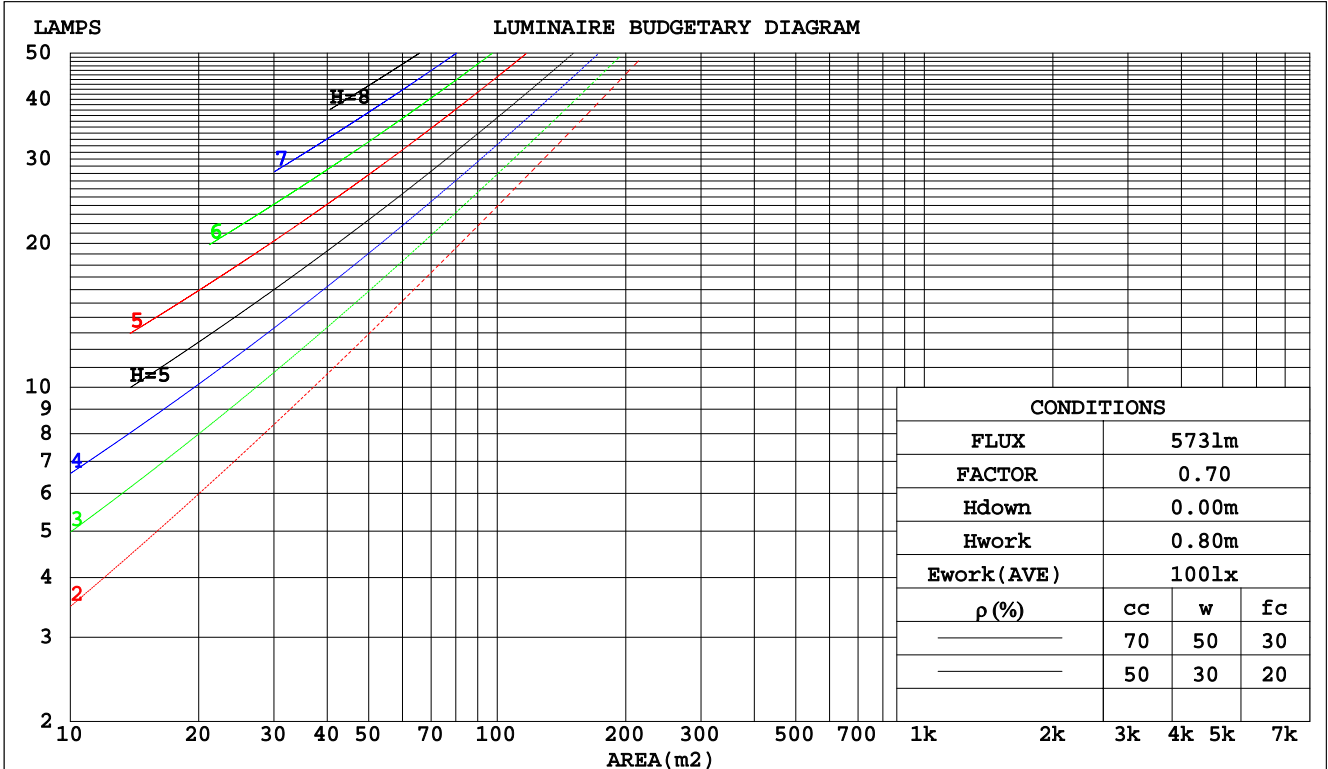
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature: 25.3DEG  
 Operators: jwx  
 Test Date: 2013-07-13

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V1.0.257  
 Humidity: 65.0%  
 Test Distance: 18.000m [K=1.0000]  
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.3V I:0.0490A P:9.040W PF:0.8350 Lamp Flux:572.55x1 lm		
NAME: Classic LED Down Light	TYPE: PAN-08W	WEIGHT:
DIMENSION:	SPECIFICATION: 4000-4300K	SERIAL No.: CZ130606
MANUFACTURER: Sheenly Lighting Co., Ltd	SURFACE:	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	1.02	1.02	1.02	1.00
1.0	1.04	.00	.96	1.02	.98	.94	.97	.94	.91	.93	.91	.88	.90	.88	.86	.84
2.0	.91	.84	.78	.89	.82	.77	.85	.80	.75	.82	.77	.74	.79	.75	.72	.70
3.0	.80	.71	.65	.78	.70	.64	.75	.68	.63	.72	.67	.62	.70	.65	.61	.59
4.0	.70	.62	.55	.69	.61	.55	.67	.59	.54	.64	.58	.53	.62	.57	.52	.50
5.0	.63	.54	.47	.62	.53	.47	.60	.52	.47	.58	.51	.46	.56	.50	.45	.43
6.0	.57	.48	.41	.56	.47	.41	.54	.46	.41	.52	.45	.40	.51	.45	.40	.38
7.0	.51	.43	.36	.51	.42	.36	.49	.42	.36	.48	.41	.36	.46	.40	.36	.34
8.0	.47	.38	.33	.46	.38	.32	.45	.37	.32	.44	.37	.32	.42	.36	.32	.30
9.0	.43	.35	.29	.42	.35	.29	.41	.34	.29	.40	.34	.29	.39	.33	.29	.27
10.0	.40	.32	.27	.39	.32	.26	.38	.31	.26	.37	.31	.26	.36	.30	.26	.24



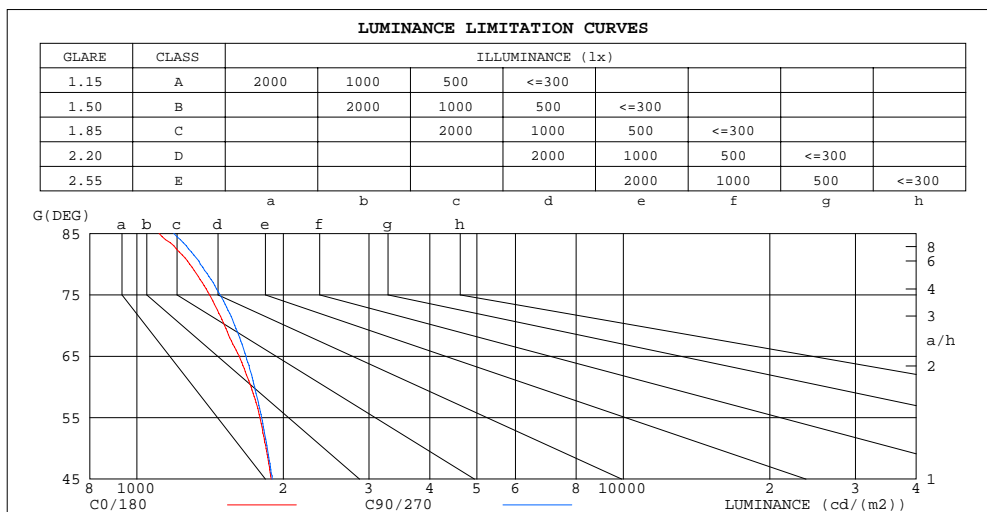
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature: 25.3DEG  
 Operators: jwx  
 Test Date: 2013-07-13

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V1.0.257  
 Humidity: 65.0%  
 Test Distance: 18.000m [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	%
5	203.5	203.6	203.5	203.8	203.4	203.7	203.5	203.4	0- 5	4.876	4.876	0.85
10	200.7	200.9	201.0	200.9	200.7	200.7	200.6	200.6	5- 10	14.46	19.34	3.38
15	196.1	196.3	196.2	196.7	196.0	196.4	195.8	195.8	10- 15	23.55	42.88	7.49
20	189.9	190.0	190.2	190.4	189.8	189.6	189.4	189.3	15- 20	31.81	74.70	13.05
25	181.6	181.7	182.2	182.4	181.6	181.5	181.1	181.2	20- 25	38.95	113.6	19.85
30	171.7	171.6	172.2	172.4	171.5	171.6	171.3	171.1	25- 30	44.71	158.4	27.66
35	160.3	160.1	160.9	161.1	159.8	160.0	159.6	159.6	30- 35	48.87	207.2	36.20
40	147.3	147.4	148.1	148.2	146.9	147.2	146.5	146.5	35- 40	51.29	258.5	45.15
45	133.2	133.5	134.1	134.1	133.0	133.1	132.5	132.3	40- 45	51.92	310.5	54.22
50	118.1	118.2	119.1	119.2	117.9	118.1	117.4	117.3	45- 50	50.78	361.2	63.09
55	102.5	102.6	103.5	103.5	102.1	102.3	101.5	101.6	50- 55	47.95	409.2	71.47
60	85.65	86.34	87.30	87.28	86.06	86.07	85.41	85.27	55- 60	43.59	452.8	79.08
65	68.45	69.96	70.84	70.87	69.37	69.69	68.86	68.80	60- 65	37.88	490.6	85.69
70	51.69	53.65	54.38	54.45	52.21	53.31	52.47	52.45	65- 70	31.10	521.7	91.13
75	36.44	37.73	38.38	38.61	36.22	37.45	36.46	36.75	70- 75	23.63	545.4	95.25
80	22.24	23.10	23.44	23.82	22.09	22.89	21.76	22.22	75- 80	16.01	561.4	98.05
85	9.658	10.04	10.38	10.68	9.535	9.819	8.947	9.257	80- 85	8.766	570.2	99.58
90	0.4826	0.4171	0.4087	0.4343	0.6573	0.6337	0.6422	0.6515	85- 90	2.397	572.6	100.00
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	1111	1191
80	1284	1350
75	1412	1483
70	1515	1590
65	1624	1676
60	1717	1746
55	1791	1804
50	1842	1854
45	1888	1897

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
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 Operators: jwx  
 Test Date: 2013-07-13

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V1.0.257  
 Humidity: 65.0%  
 Test Distance: 18.000m [K=1.0000]  
 Remarks:

WEC AND CCEC

Test:U:220.3V I:0.0490A P:9.040W PF:0.8350 Lamp Flux:572.55x1 lm														
NAME: Classic LED Down Light					TYPE: PAN-08W					WEIGHT:				
DIMENSION:					SPECIFICATION: 4000-4300K SERIAL No.: CZ130606									
MANUFACTURER: Sheenly Lighting Co., Ltd					SURFACE:					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	.309	.176	.056	.302	.172	.055	.289	.166	.053	.276	.159	.051	.265	.154	.050	
2.0	.291	.159	.049	.284	.157	.048	.273	.152	.047	.262	.147	.046	.252	.142	.045	
3.0	.269	.143	.043	.263	.141	.042	.253	.137	.042	.243	.133	.041	.235	.130	.040	
4.0	.248	.129	.038	.243	.127	.038	.234	.124	.037	.226	.121	.037	.218	.118	.036	
5.0	.230	.117	.034	.225	.116	.034	.217	.113	.033	.209	.111	.033	.202	.108	.032	
6.0	.213	.107	.031	.209	.106	.030	.202	.103	.030	.195	.101	.030	.189	.099	.030	
7.0	.198	.098	.028	.195	.097	.028	.188	.095	.027	.182	.093	.027	.177	.092	.027	
8.0	.185	.090	.025	.182	.090	.025	.176	.088	.025	.171	.087	.025	.166	.085	.025	
9.0	.174	.084	.023	.171	.083	.023	.166	.082	.023	.161	.081	.023	.156	.079	.023	
10.0	.163	.078	.022	.161	.078	.022	.156	.076	.022	.152	.075	.021	.147	.074	.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	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.180	.156	.134	.154	.134	.116	.105	.092	.080	.061	.053	.047	.019	.017	.015	
2.0	.172	.132	.098	.147	.114	.085	.101	.079	.059	.058	.046	.035	.019	.015	.011	
3.0	.164	.114	.074	.141	.099	.065	.097	.068	.045	.056	.040	.027	.018	.013	.009	
4.0	.157	.101	.058	.134	.087	.051	.092	.061	.036	.053	.036	.021	.017	.012	.007	
5.0	.149	.091	.047	.128	.078	.041	.088	.055	.029	.051	.032	.017	.016	.010	.006	
6.0	.142	.082	.039	.122	.071	.034	.084	.050	.024	.049	.029	.014	.016	.010	.005	
7.0	.135	.075	.033	.116	.065	.029	.080	.046	.021	.047	.027	.012	.015	.009	.004	
8.0	.129	.069	.029	.111	.060	.025	.077	.042	.018	.045	.025	.011	.014	.008	.004	
9.0	.123	.065	.025	.106	.056	.022	.073	.039	.016	.043	.023	.009	.014	.008	.003	
10.0	.117	.060	.022	.101	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature: 25.3DEG  
 Operators: jwx  
 Test Date: 2013-07-13

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V1.0.257  
 Humidity: 65.0%  
 Test Distance: 18.000m [K=1.0000]  
 Remarks:

Uncorrected UGR Table

Test:U:220.3V I:0.0490A P:9.040W PF:0.8350 Lamp Flux:572.55x1 lm										
NAME: Classic LED Down Light					TYPE: PAN-08W			WEIGHT:		
DIMENSION:					SPECIFICATION: 4000-4300K SERIAL No.: CZ130606					
MANUFACTURER: Sheenly Lighting Co., Ltd					SURFACE:			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	14.8	16.4	15.1	16.6	16.8	14.9	16.4	15.2	16.6	16.8
3H	16.3	17.7	16.6	17.9	18.2	16.4	17.8	16.7	18.0	18.3
4H	16.9	18.2	17.2	18.5	18.7	17.0	18.3	17.3	18.6	18.8
6H	17.3	18.5	17.6	18.8	19.1	17.4	18.7	17.8	19.0	19.3
8H	17.4	18.6	17.8	18.9	19.2	17.6	18.8	17.9	19.1	19.4
12H	17.5	18.7	17.9	19.0	19.3	17.7	18.9	18.0	19.1	19.5
4H 2H	15.5	16.8	15.8	17.0	17.3	15.5	16.8	15.8	17.1	17.3
3H	17.1	18.3	17.4	18.6	18.9	17.2	18.3	17.5	18.6	18.9
4H	17.8	18.9	18.2	19.2	19.5	17.9	19.0	18.3	19.3	19.6
6H	18.4	19.3	18.8	19.7	20.0	18.5	19.4	18.9	19.8	20.1
8H	18.5	19.4	19.0	19.8	20.2	18.7	19.6	19.1	19.9	20.3
12H	18.7	19.5	19.1	19.9	20.3	18.8	19.6	19.2	20.0	20.4
8H 4H	18.1	19.0	18.5	19.3	19.7	18.2	19.1	18.6	19.4	19.8
6H	18.8	19.5	19.2	19.9	20.4	18.9	19.6	19.3	20.0	20.5
8H	19.1	19.7	19.5	20.1	20.6	19.2	19.8	19.6	20.3	20.7
12H	19.3	19.8	19.7	20.3	20.8	19.4	20.0	19.9	20.4	20.9
12H 4H	18.1	18.9	18.5	19.3	19.7	18.2	19.0	18.6	19.4	19.8
6H	18.8	19.5	19.3	19.9	20.4	19.0	19.6	19.4	20.0	20.5
8H	19.2	19.7	19.6	20.2	20.7	19.3	19.8	19.8	20.3	20.8
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 / - 0.2				

CIE Pub.117 Corrected 572.5 lm Total Lamp Luminous Flux. (8log(F/F0) = -1.9)

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γ Range: 0 - 90DEG  
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 Test System: EVERFINE GO-2000A\_V1 SYSTEM V1.0.257  
 Humidity: 65.0%  
 Test Distance: 18.000m [K=1.0000]  
 Remarks:

UTILIZATION FACTORS TABLE

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MANUFACTURER: Sheenly Lighting Co., Ltd	SURFACE:	PROTECTION ANGLE:

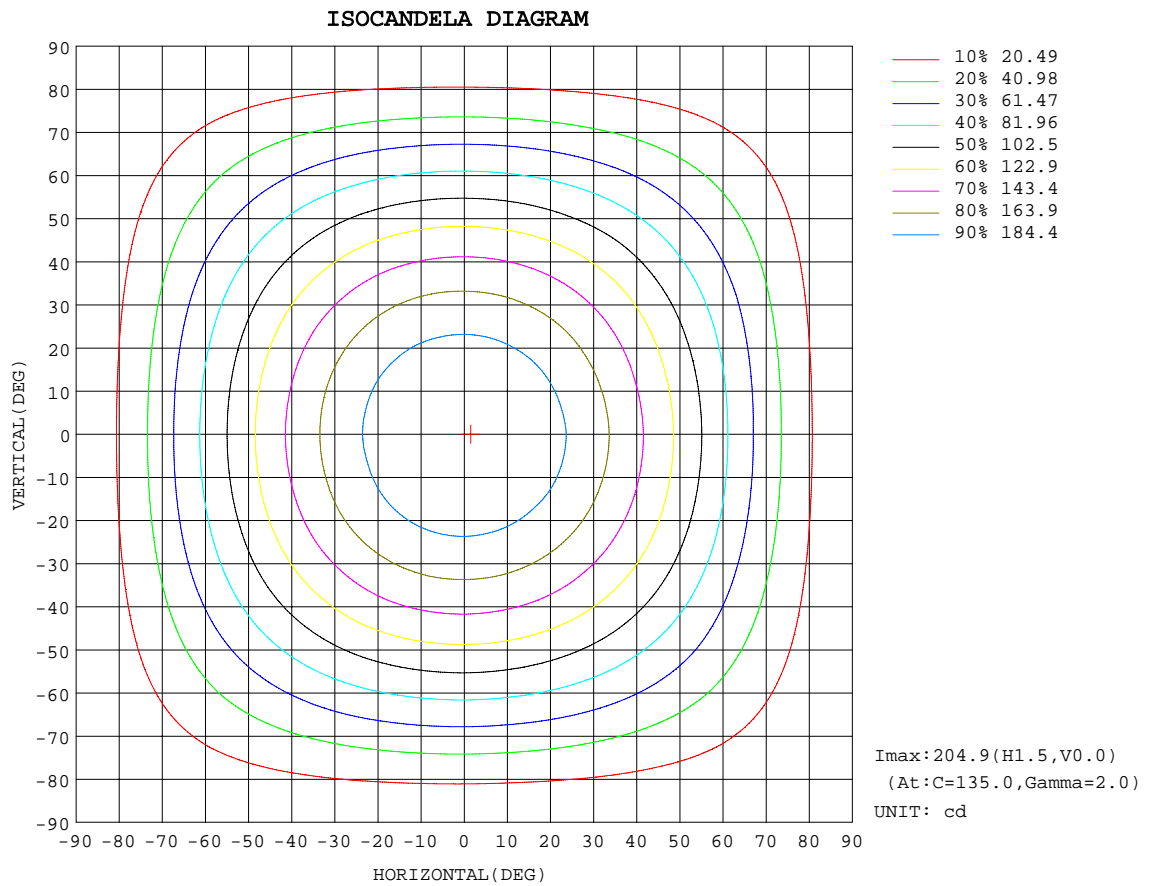
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	58	46	39	57	46	39	56	46	39	33
0.80	68	56	49	67	56	49	65	55	48	41
1.00	76	65	58	75	65	58	73	66	57	50
1.25	83	73	66	82	72	65	79	71	65	57
1.50	88	78	71	87	78	71	84	76	70	62
2.00	95	87	80	93	85	79	90	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	87	78
4.00	106	101	96	104	99	95	100	95	92	83
5.00	109	104	100	106	102	98	102	98	95	86
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

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ISOCANDELA DIAGRAM

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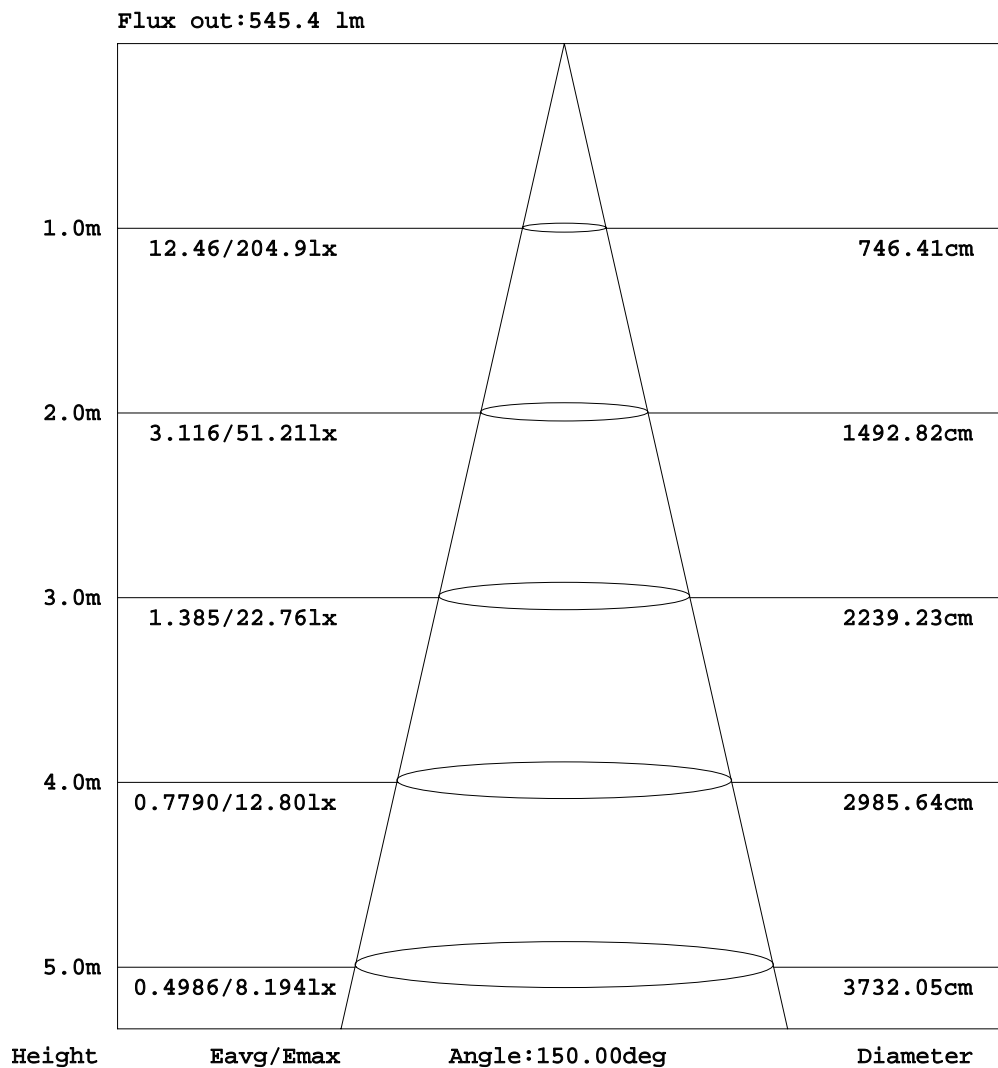
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AAI Figure

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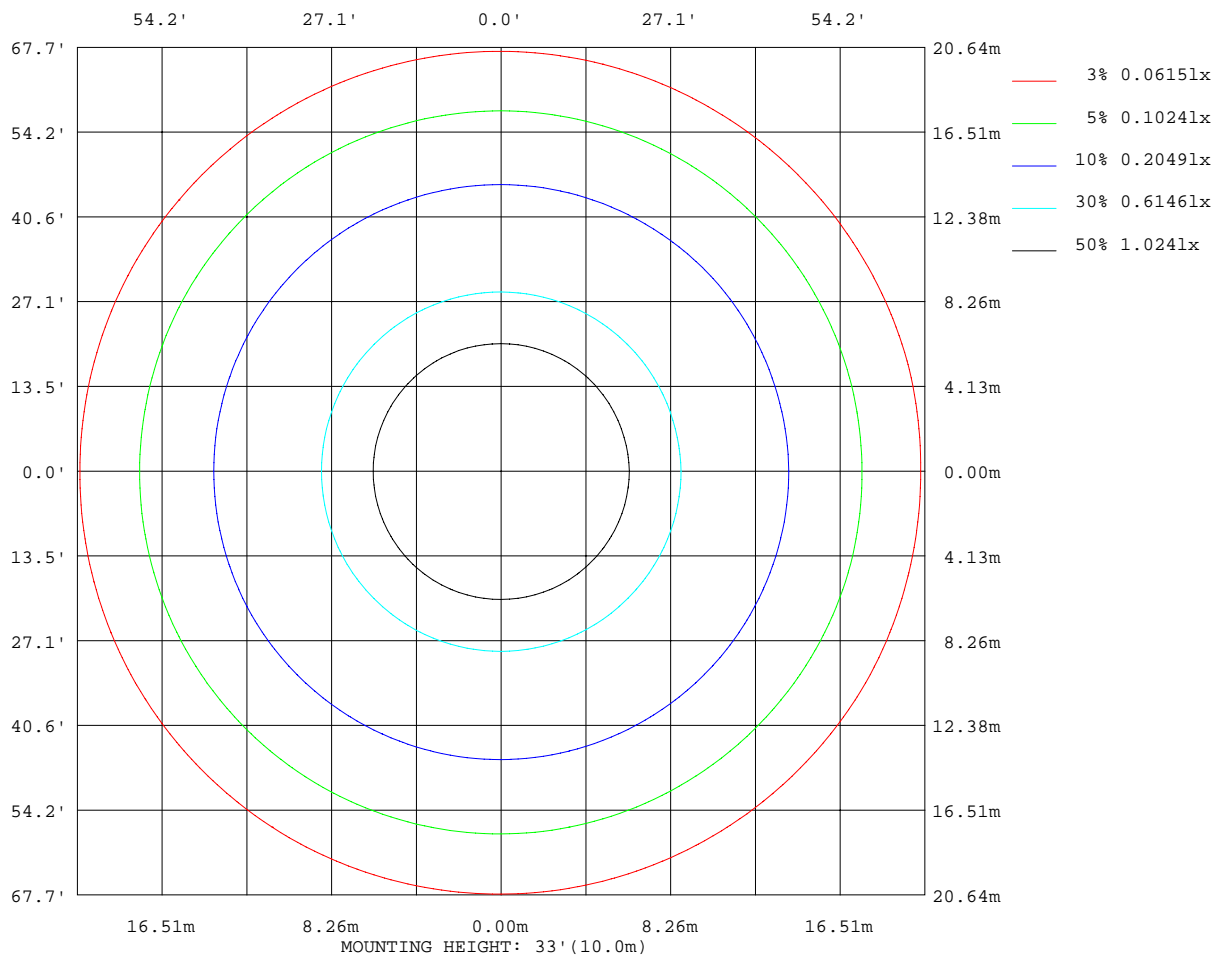
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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ISOLUX DIAGRAM

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C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature: 25.3DEG  
 Operators: jwx  
 Test Date: 2013-07-13

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V1.0.257  
 Humidity: 65.0%  
 Test Distance: 18.000m [K=1.0000]  
 Remarks:

Average Luminance Table(CIBSE)

Test:U:220.3V I:0.0490A P:9.040W PF:0.8350 Lamp Flux:572.55x1 lm		
NAME: Classic LED Down Light	TYPE: PAN-08W	WEIGHT:
DIMENSION:	SPECIFICATION: 4000-4300K	SERIAL No.: CZ130606
MANUFACTURER: Sheenly Lighting Co., Ltd	SURFACE:	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	572.55	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	1791	1790	1789	1788	1788	1789	1792	1795	1800	1804	1806	1806	1806	1804	1802	1799	1791	1786	1785
60	1717	1727	1729	1727	1726	1728	1731	1737	1742	1746	1749	1749	1748	1745	1742	1738	1733	1728	1725
65	1624	1626	1639	1655	1656	1656	1659	1663	1670	1676	1677	1679	1683	1678	1674	1671	1663	1653	1645
70	1515	1530	1549	1567	1569	1569	1572	1577	1584	1590	1593	1596	1598	1593	1589	1585	1566	1544	1530
75	1412	1423	1442	1462	1460	1459	1463	1468	1475	1483	1488	1492	1495	1492	1489	1481	1456	1425	1403
80	1284	1293	1312	1332	1332	1331	1334	1336	1341	1350	1356	1365	1374	1372	1368	1359	1327	1295	1275
85	1111	1108	1121	1143	1150	1155	1163	1168	1177	1191	1203	1220	1236	1230	1218	1197	1146	1109	1097

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	1806	500		1500
Category 2	65 to 90	1683	500		1500
Category 3	75 to 90	1495	500		1500

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

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature: 25.3DEG  
 Operators: jwx  
 Test Date: 2013-07-13

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V1.0.257  
 Humidity: 65.0%  
 Test Distance: 18.000m [K=1.0000]  
 Remarks:



