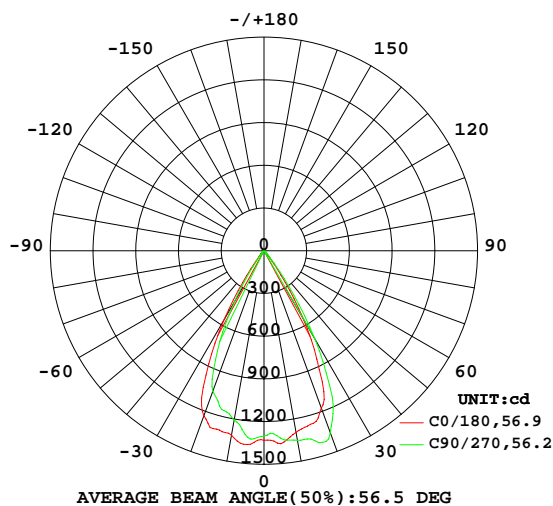


LUMINAIRE PHOTOMETRIC TEST REPORT

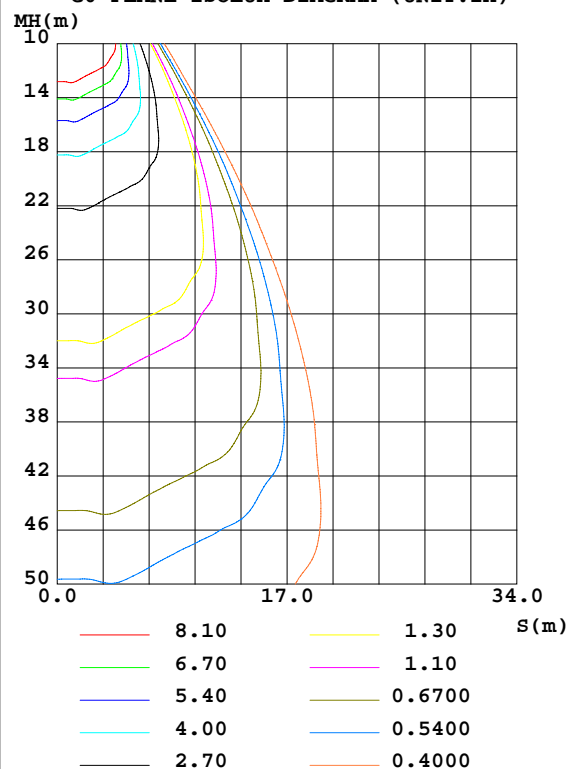
NAME: DL3145	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: SPEL LIGHTING	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 72.21 lm/W
MODEL	DL3145	Imax(cd)	1409	S/MH(C0/180)	0.84	
NOMINAL POWER(W)	15	LOR(%)	100.0	S/MH(C90/270)	0.79	
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	1092.8	η UP,DN(C0-180)	0.4,54.6	
NOMINAL FLUX(lm)	1092.77	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.4,44.6	
LAMPS INSIDE	1	η up(%)	0.8	CIBSE SHR NOM	0.75	
TEST VOLTAGE(V)	220.1	η down(%)	99.2	CIBSE SHR MAX	0.80	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:liangwei
Test Date:03 July 2018

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.650m [K=1.0000]
Remarks: 圓形嵌灯

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	1295	1338	1351	1325	1314	1232	1207	1212	0- 10	125.1	125.1	11.4,11.4
20	1176	1290	1360	1319	1234	1111	1050	1076	10- 20	354.7	479.8	43.9,43.9
30	552.0	657.4	716.0	662.5	569.0	463.1	418.4	454.7	20- 30	418.8	898.6	82.2,82.2
40	54.11	75.43	85.28	72.24	59.53	40.73	40.42	40.73	30- 40	148.3	1047	95.8,95.8
50	17.58	19.11	21.58	20.79	18.39	15.64	14.82	15.40	40- 50	23.25	1070	97.9,97.9
60	5.205	7.282	8.359	7.439	5.849	3.528	2.871	3.400	50- 60	11.03	1081	98.9,98.9
70	0.7896	1.108	1.301	1.258	1.180	0.6831	0.6513	0.6688	60- 70	1.983	1083	99.1,99.1
80	0.3280	0.3316	0.3564	0.3352	0.2987	0.2524	0.2453	0.2524	70- 80	0.5525	1084	99.2,99.2
90	0.0250	0.0359	0.0537	0.0324	0.0071	0.0036	0.0071	0.0036	80- 90	0.1502	1084	99.2,99.2
100	0.0214	0.0071	0.0107	0.0071	0.0214	0.0178	0.0214	0.0178	90-100	0.0124	1084	99.2,99.2
110	0.0534	0.0390	0.0462	0.0390	0.0428	0.0499	0.0570	0.0534	100-110	0.0273	1084	99.2,99.2
120	0.2664	0.1884	0.1812	0.1884	0.1963	0.2356	0.2675	0.2284	110-120	0.0994	1084	99.2,99.2
130	1.244	1.013	0.9671	1.003	0.9272	1.066	1.173	1.073	120-130	0.5026	1085	99.2,99.2
140	3.195	2.700	2.626	2.661	2.121	2.345	2.520	2.306	130-140	1.341	1086	99.4,99.4
150	5.482	4.859	5.150	4.717	3.637	3.783	4.360	3.605	140-150	2.191	1088	99.6,99.6
160	6.079	5.985	6.255	5.864	4.374	4.773	5.212	4.563	150-160	2.265	1090	99.8,99.8
170	7.946	7.241	7.708	7.280	6.463	6.608	6.703	6.132	160-170	1.695	1092	99.9,99.9
180	8.561	8.593	8.497	8.379	8.589	8.611	8.529	8.400	170-180	0.7266	1093	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 1061.4 lm

%lum = 97.1%

%lamp = 97.1%

Conical surface Flux(120deg): 1081.2 lm

%lum = 98.9%

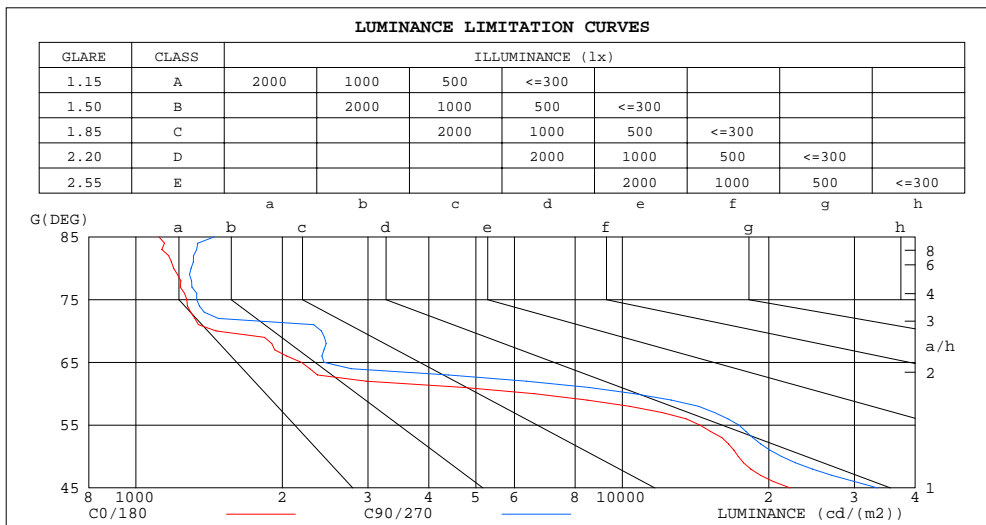
%lamp = 98.9%

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:liangwei
 Test Date:03 July 2018

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:7.650m [K=1.0000]
 Remarks: 圆形嵌灯

LUMINANCE LIMITATION CURVES

NAME: DL3145	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: SPEL LIGHTING	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	1115	1450
80	1196	1299
75	1272	1334
70	1461	2407
65	2189	2437
60	6589	10581
55	14426	17368
50	17310	21244
45	22144	33497

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: liangwei
 Test Date: 03 July 2018

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity: 65.0%
 Test Distance: 7.650m [K=1.0000]
 Remarks: 圆形嵌灯

WEC AND CCEC

NAME: DL3145	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: SPEL LIGHTING	SUR.:	Shielding Angle:

pcc	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	.169	.096	.030	.162	.092	.029	.149	.086	.027	.137	.079	.025	.126	.073	.024		
2.0	.161	.088	.027	.155	.085	.026	.144	.080	.025	.134	.075	.024	.125	.071	.022		
3.0	.153	.081	.024	.148	.079	.024	.139	.075	.023	.130	.071	.022	.122	.068	.021		
4.0	.146	.076	.022	.141	.074	.022	.133	.071	.021	.126	.068	.020	.119	.065	.020		
5.0	.139	.071	.020	.135	.069	.020	.128	.067	.020	.121	.064	.019	.115	.062	.019		
6.0	.133	.066	.019	.129	.065	.019	.123	.063	.018	.117	.061	.018	.112	.059	.017		
7.0	.127	.063	.018	.124	.062	.018	.118	.060	.017	.113	.058	.017	.109	.056	.017		
8.0	.122	.059	.017	.119	.059	.017	.114	.057	.016	.110	.055	.016	.105	.054	.016		
9.0	.117	.056	.016	.114	.056	.016	.110	.054	.015	.106	.053	.015	.102	.052	.015		
10.0	.112	.054	.015	.110	.053	.015	.106	.052	.015	.102	.051	.014	.099	.050	.014		

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	.197	.197	.197	.168	.168	.168	.115	.115	.115	.066	.066	.066	.021	.021	.021	
1.0	.177	.164	.152	.151	.140	.131	.103	.097	.090	.060	.056	.053	.019	.018	.017	
2.0	.161	.139	.120	.138	.119	.104	.095	.083	.072	.055	.048	.042	.017	.016	.014	
3.0	.148	.120	.097	.127	.103	.084	.087	.072	.059	.050	.042	.035	.016	.014	.011	
4.0	.138	.105	.080	.118	.091	.070	.081	.063	.049	.047	.037	.029	.015	.012	.010	
5.0	.129	.093	.067	.111	.081	.058	.076	.056	.041	.044	.033	.024	.014	.011	.008	
6.0	.121	.084	.057	.104	.073	.050	.072	.051	.035	.042	.030	.021	.013	.010	.007	
7.0	.115	.076	.049	.099	.066	.043	.068	.046	.031	.040	.027	.018	.013	.009	.006	
8.0	.109	.070	.043	.094	.061	.038	.065	.043	.027	.038	.025	.016	.012	.008	.005	
9.0	.104	.065	.038	.089	.056	.033	.062	.040	.024	.036	.023	.014	.012	.008	.005	
10.0	.099	.060	.034	.086	.052	.030	.059	.037	.021	.035	.022	.013	.011	.007	.004	

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:liangwei
Test Date:03 July 2018

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.650m [K=1.0000]
Remarks: 圆形嵌灯

UGR(Unified Glare Rating) Table

NAME: DL3145					TYPE:					WEIGHT:				
SPEC.:					DIM.:					SERIAL No.:				
MFR.: SPEL LIGHTING					SUR.:					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					20.3	21.2	20.5	21.4	21.5	21.8	22.7	22.0	22.8	23.0
3H					20.1	21.0	20.4	21.2	21.4	21.6	22.4	21.9	22.6	22.8
4H					20.1	20.8	20.3	21.1	21.3	21.5	22.3	21.8	22.5	22.8
6H					20.0	20.7	20.3	20.9	21.2	21.4	22.1	21.7	22.4	22.7
8H					19.9	20.6	20.2	20.9	21.2	21.4	22.1	21.7	22.3	22.6
12H					19.9	20.5	20.2	20.8	21.1	21.3	22.0	21.7	22.3	22.6
4H 2H					20.1	20.8	20.4	21.1	21.3	21.5	22.3	21.8	22.5	22.8
3H					19.9	20.6	20.2	20.8	21.1	21.4	22.0	21.7	22.3	22.6
4H					19.8	20.4	20.2	20.7	21.0	21.3	21.9	21.6	22.2	22.5
6H					19.7	20.2	20.1	20.6	20.9	21.2	21.7	21.5	22.0	22.4
8H					19.7	20.1	20.1	20.5	20.9	21.1	21.6	21.5	22.0	22.3
12H					19.6	20.1	20.0	20.4	20.8	21.1	21.5	21.5	21.9	22.3
8H 4H					19.7	20.1	20.1	20.5	20.9	21.1	21.6	21.5	22.0	22.3
6H					19.6	20.0	20.0	20.4	20.8	21.0	21.4	21.4	21.8	22.2
8H					19.5	19.9	20.0	20.3	20.7	20.9	21.3	21.4	21.7	22.2
12H					19.4	19.7	19.9	20.2	20.7	20.9	21.2	21.4	21.7	22.1
12H 4H					19.6	20.1	20.0	20.4	20.8	21.1	21.5	21.5	21.9	22.3
6H					19.5	19.9	20.0	20.3	20.7	20.9	21.3	21.4	21.7	22.2
8H					19.4	19.7	19.9	20.2	20.7	20.9	21.2	21.4	21.6	22.1
Variations with the observer position at spacings:														
S = 1.0H					+ 3.3 / - 6.2					+ 4.2 / - 7.1				
1.5H					+ 5.2 / - 4.0					+ 6.4 / - 5.3				
2.0H					+ 2.7 / - 9.5					+ 3.9 / -10.1				

CIE Pub.117, 1093 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.3)

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:liangwei
Test Date:03 July 2018

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.650m [K=1.0000]
Remarks: 圆形嵌灯

UTILIZATION FACTORS TABLE

NAME: DL3145	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: SPEL LIGHTING	SUR.:	Shielding Angle:

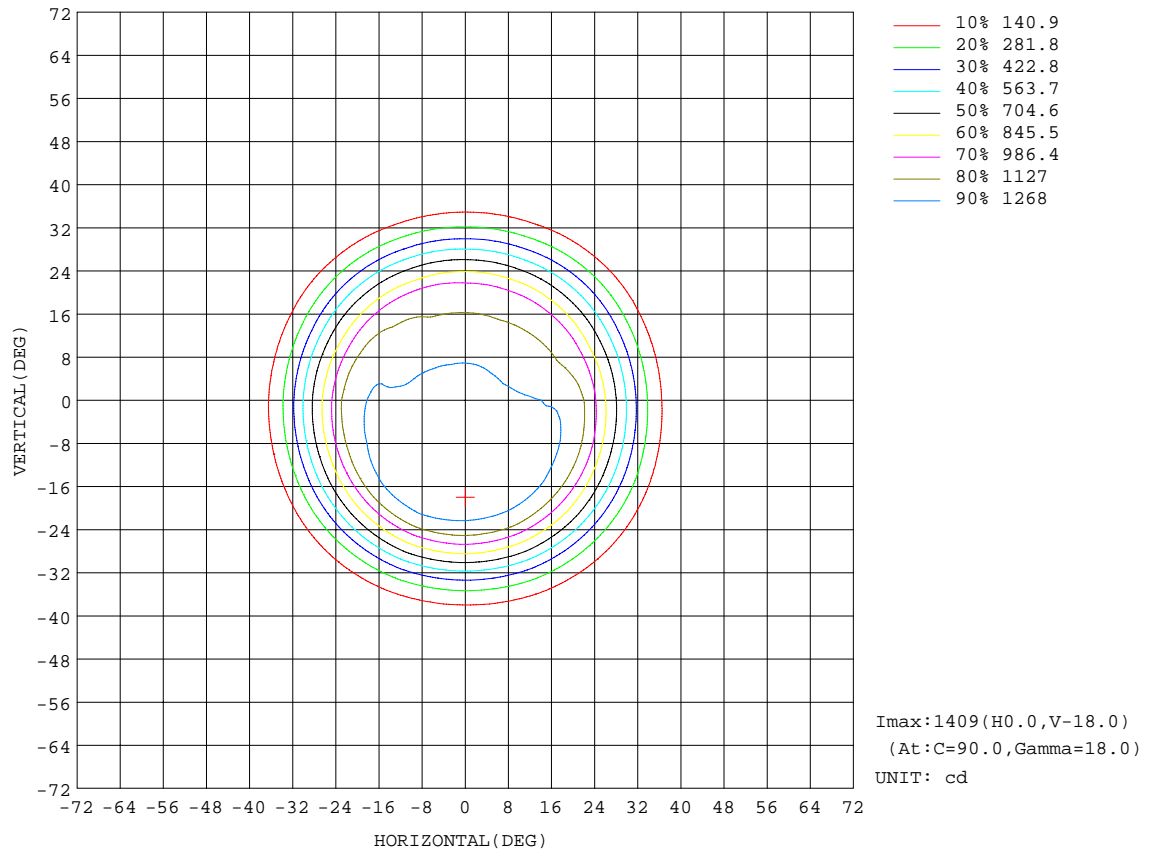
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	89	83	79	88	83	79	88	82	79	76
0.80	96	91	87	95	90	87	94	90	86	83
1.00	100	95	92	99	94	91	98	94	91	87
1.25	104	99	96	103	98	95	101	97	95	90
1.50	107	102	99	105	101	98	103	100	97	93
2.00	109	105	102	108	104	101	105	102	100	94
2.50	111	107	104	109	106	103	106	103	101	95
3.00	112	109	106	110	107	105	107	105	103	96
4.00	114	111	109	112	110	108	108	106	105	98
5.00	115	113	111	113	111	110	109	108	106	99
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004										
Suspended										
SHRNM = 1.25										

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:liangwei
Test Date:03 July 2018

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.650m [K=1.0000]
Remarks: 圆形嵌灯

ISOCANDELA DIAGRAM

NAME: DL3145	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: SPEL LIGHTING	SUR.:	Shielding Angle:

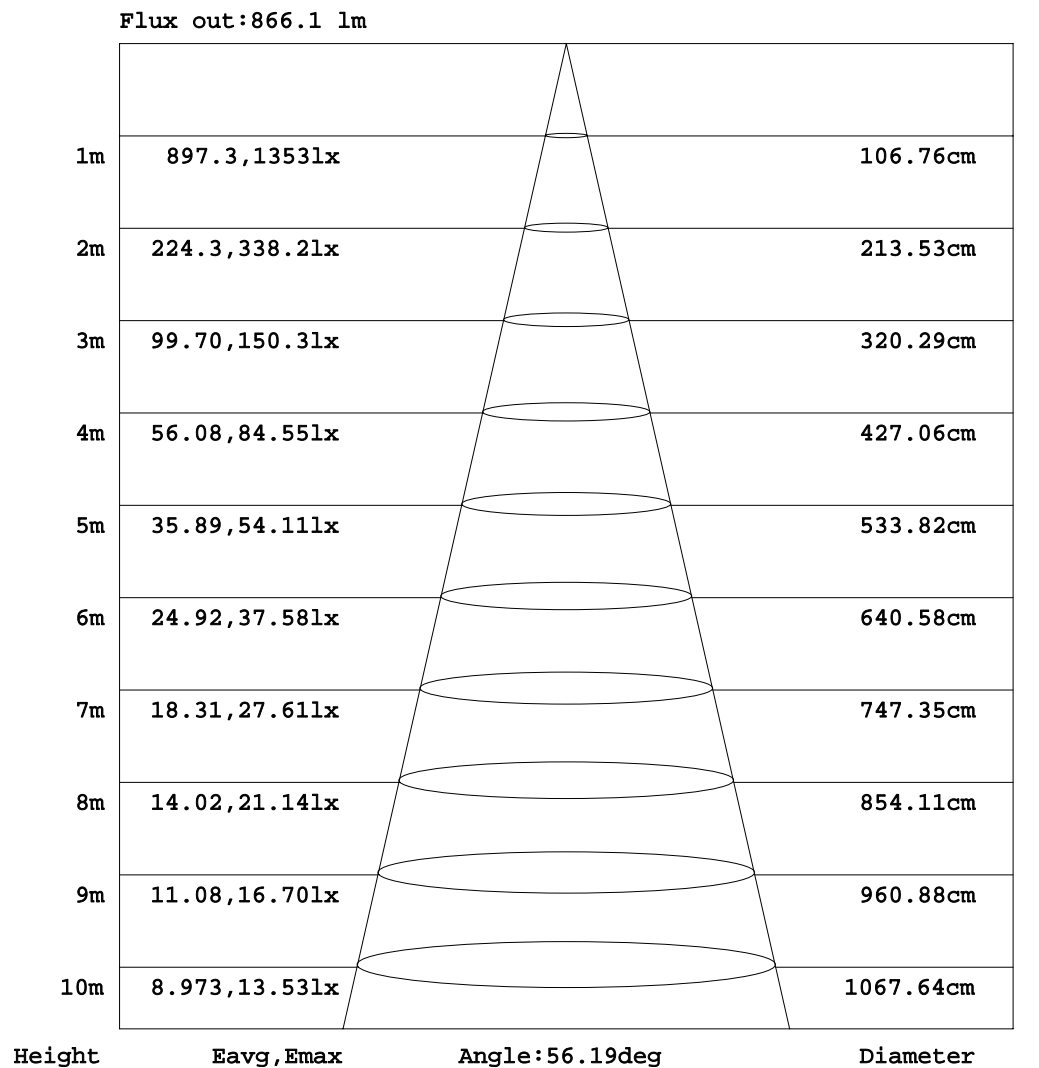


C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:liangwei
 Test Date:03 July 2018

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:7.650m [K=1.0000]
 Remarks: 圆形嵌灯

AAI Figure

NAME: DL3145	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: SPEL LIGHTING	SUR.:	Shielding Angle:

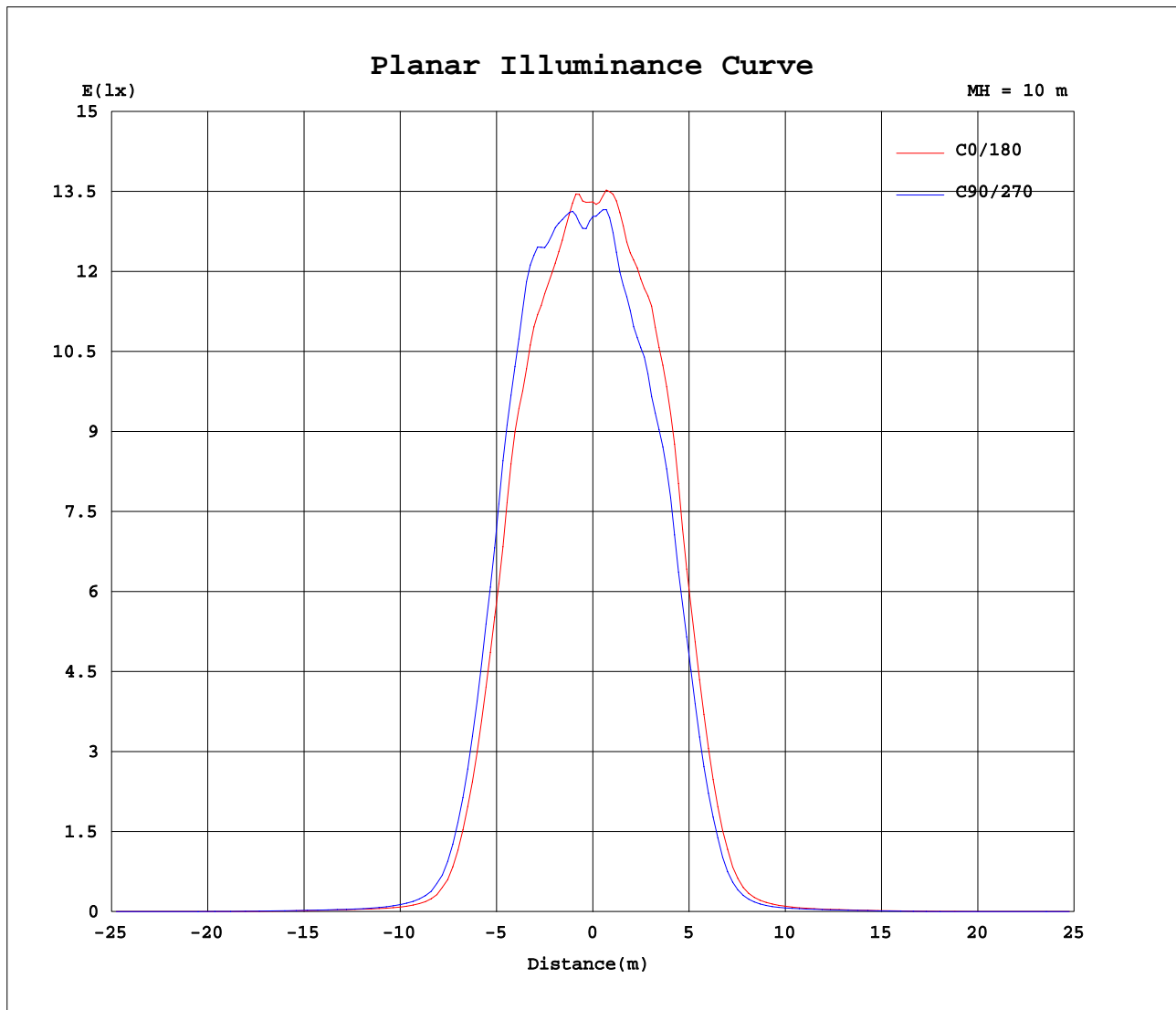


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:liangwei
Test Date:03 July 2018

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.650m [K=1.0000]
Remarks: 圆形嵌灯

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: liangwei
Test Date: 03 July 2018

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 7.650m [K=1.0000]
Remarks: 圆形嵌灯

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: DL3145	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: SPEL LIGHTING	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5			
0	1331	1322	1316	1309	1303	1299	1295	1289	1331	1322	1316	1309	1303	1299	1295	1289			
5	1361	1345	1335	1328	1321	1321	1324	1323	1365	1355	1341	1319	1316	1304	1303	1310			
10	1295	1324	1338	1351	1351	1342	1325	1310	1314	1274	1232	1211	1207	1179	1212	1222			
15	1261	1303	1327	1353	1382	1370	1349	1329	1296	1232	1200	1153	1154	1140	1157	1175			
20	1176	1238	1290	1335	1360	1355	1319	1263	1234	1168	1111	1082	1050	1057	1076	1098			
25	919	997	1059	1120	1135	1140	1096	1023	963	875	823	782	773	772	801	841			
30	552	606	657	707	716	714	663	613	569	506	463	428	418	423	455	494			
35	210	255	273	301	305	293	261	234	213	171	146	132	136	135	150	175			
40	54.1	67.2	75.4	85.1	85.3	81.1	72.2	62.9	59.5	47.8	40.7	36.6	40.4	37.5	40.7	44.5			
45	24.7	29.4	30.9	35.9	37.4	36.6	34.9	30.5	28.8	24.3	20.6	20.1	20.0	19.5	21.1	21.5			
50	17.6	18.7	19.1	21.1	21.6	21.0	20.8	18.9	18.4	16.8	15.6	15.0	14.8	14.7	15.4	15.8			
55	13.1	13.9	14.6	15.5	15.7	15.5	14.8	14.1	13.6	12.1	11.2	10.4	10.2	10.2	10.8	11.4			
60	5.21	6.43	7.28	8.17	8.36	8.20	7.44	6.67	5.85	4.37	3.53	2.86	2.87	2.82	3.40	3.92			
65	1.46	1.51	1.54	1.59	1.63	1.61	1.61	1.66	1.77	1.50	1.43	1.33	1.34	1.31	1.34	1.30			
70	0.79	0.98	1.11	1.17	1.30	1.36	1.26	1.32	1.18	0.74	0.68	0.67	0.65	0.68	0.67	0.71			
75	0.52	0.50	0.53	0.52	0.55	0.53	0.53	0.49	0.49	0.50	0.45	0.46	0.44	0.47	0.45	0.47			
80	0.33	0.30	0.33	0.32	0.36	0.32	0.34	0.30	0.30	0.30	0.25	0.28	0.25	0.27	0.25	0.29			
85	0.15	0.14	0.17	0.15	0.20	0.15	0.17	0.13	0.12	0.14	0.08	0.10	0.07	0.10	0.08	0.13			
90	0.03	0.01	0.04	0.01	0.05	0.02	0.03	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.00	0.01			
95	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01			
100	0.02	0.02	0.01	0.02	0.01	0.02	0.01	0.03	0.02	0.01	0.02	0.01	0.02	0.01	0.02	0.01			
105	0.03	0.05	0.01	0.03	0.02	0.04	0.01	0.04	0.03	0.01	0.03	0.01	0.04	0.01	0.03	0.01			
110	0.05	0.07	0.04	0.06	0.05	0.06	0.04	0.06	0.04	0.03	0.05	0.04	0.06	0.03	0.05	0.02			
115	0.10	0.11	0.07	0.09	0.07	0.09	0.07	0.10	0.08	0.06	0.09	0.08	0.11	0.07	0.09	0.06			
120	0.27	0.24	0.19	0.20	0.18	0.21	0.19	0.24	0.20	0.20	0.24	0.23	0.27	0.23	0.23	0.18			
125	0.62	0.55	0.49	0.49	0.46	0.48	0.49	0.55	0.47	0.51	0.57	0.60	0.62	0.59	0.57	0.49			
130	1.24	1.11	1.01	0.97	0.97	0.97	1.00	1.09	0.93	1.00	1.07	1.13	1.17	1.13	1.07	1.00			
135	2.10	1.90	1.75	1.69	1.69	1.68	1.73	1.84	1.49	1.59	1.67	1.75	1.80	1.76	1.68	1.59			
140	3.19	2.88	2.70	2.59	2.63	2.58	2.66	2.81	2.12	2.24	2.34	2.50	2.52	2.46	2.31	2.21			
145	4.49	4.05	3.85	3.84	3.79	3.82	3.78	3.94	2.93	2.98	3.13	3.39	3.56	3.31	3.00	2.87			
150	5.48	5.15	4.86	4.99	5.15	4.92	4.72	4.95	3.64	3.68	3.78	4.17	4.36	4.03	3.61	3.51			
155	6.13	5.83	5.47	5.54	5.71	5.44	5.34	5.59	4.10	4.07	4.31	4.52	4.64	4.44	4.09	3.87			
160	6.08	5.91	5.98	5.90	6.25	5.99	5.86	5.73	4.37	4.43	4.77	5.04	5.21	4.84	4.56	4.11			
165	6.73	6.48	6.42	6.65	7.08	6.71	6.37	6.43	5.21	5.21	5.48	5.88	6.21	5.59	5.13	4.81			
170	7.95	7.71	7.24	7.54	7.71	7.45	7.28	7.68	6.46	6.61	6.61	6.65	6.70	6.36	6.13	6.20			
175	8.57	8.35	8.22	8.16	8.14	8.06	8.14	8.13	7.61	7.68	7.75	7.70	7.53	7.47	7.41	7.32			
180	8.56	8.44	8.59	8.42	8.50	8.30	8.38	8.13	8.59	8.40	8.61	8.38	8.53	8.27	8.40	8.09			

C Range: 0 - 360DEG

C Interval: 22.5DEG

Test Speed: HIGH

Temperature:25.3DEG

Operators:liangwei

Test Date:03 July 2018

γ Range: 0 - 180DEG

γ Interval: 1.0DEG

Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362

Humidity:65.0%

Test Distance:7.650m [K=1.0000]

Remarks: 圆形嵌灯