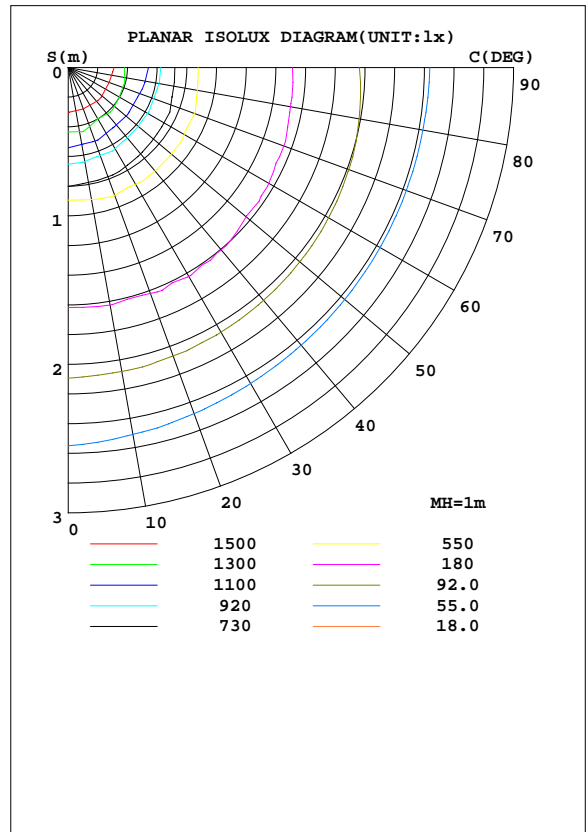
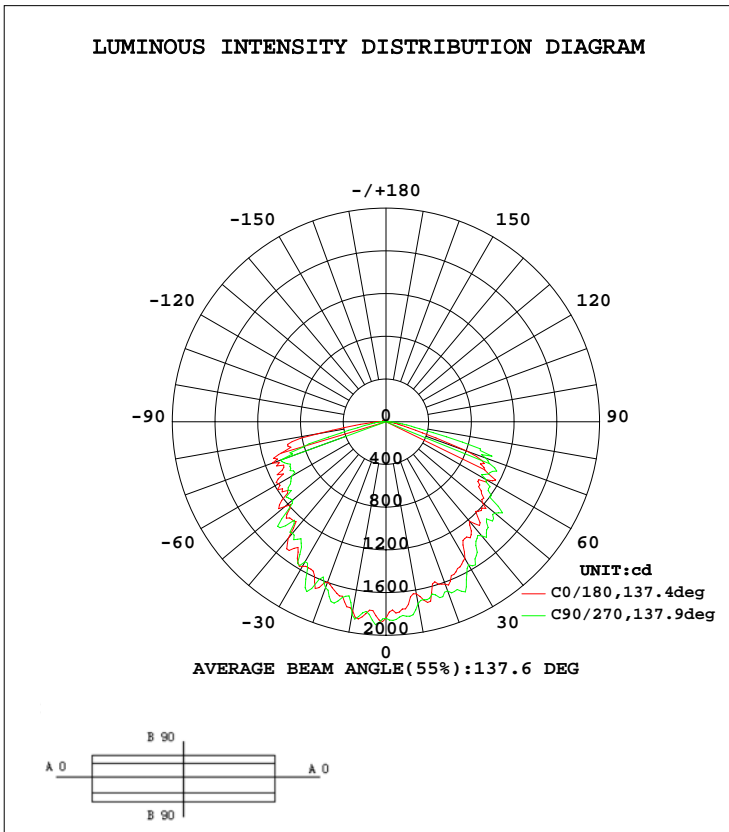


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.3V I:0.4215A P:49.80W PF:0.9823 Lamp Flux:6286.46x1 lm		
NAME: LED Canopy Light	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: KiLi-LED Lighting Limited	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 126.24 lm/W			
MODEL	KLCPSW050	Imax(cd)	1955	S/MH(C0/180)	1.28
NOMINAL POWER(W)	50	LOR(%)	100.0	S/MH(C90/270)	1.27
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	6286.5	η UP, DN(C0-180)	0.6, 49.7
NOMINAL FLUX(lm)	6286.46	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.6, 49.1
LAMPS INSIDE	1	η up(%)	1.2	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	120.3	η down(%)	98.8	CIBSE SHR MAX	1.50



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:32DEG
 Operators:1
 Test Date:2018-09-28

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:%
 Test Distance:9.190m [K=0.9793]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	Φlum,lamp
10	1798	1851	1832	1660	1636	1740	1731	1814	0- 10	172.5	172.5	2.74,2.74
20	1598	1705	1655	1536	1619	1596	1685	1737	10- 20	480.3	652.7	10.4,10.4
30	1565	1578	1514	1356	1478	1483	1548	1589	20- 30	735.2	1388	22.1,22.1
40	1426	1475	1362	1207	1216	1317	1395	1500	30- 40	902.3	2290	36.4,36.4
50	1237	1385	1139	1156	1178	1275	1333	1329	40- 50	1011	3301	52.5,52.5
60	1160	1187	1020	1016	1085	1105	1082	1206	50- 60	1052	4353	69.2,69.2
70	1131	1066	1046	626.7	814.3	746.7	991.8	1051	60- 70	1029	5382	85.6,85.6
80	649.0	550.7	203.3	79.08	87.90	98.67	241.9	695.3	70- 80	674.7	6057	96.3,96.3
90	75.32	59.71	22.69	28.47	25.04	23.89	22.71	88.09	80- 90	154.0	6211	98.8,98.8
100	25.99	28.61	19.13	15.06	25.50	18.31	20.16	21.16	90-100	31.40	6242	99.3,99.3
110	23.13	13.54	14.63	7.024	14.61	7.908	13.18	13.01	100-110	19.42	6262	99.6,99.6
120	13.58	7.261	9.184	3.645	6.522	3.373	8.267	6.339	110-120	9.814	6272	99.8,99.8
130	5.714	3.744	4.096	4.046	3.823	3.743	3.713	3.700	120-130	4.822	6276	99.8,99.8
140	3.838	4.157	4.384	4.357	4.240	4.148	4.120	4.029	130-140	3.112	6279	99.9,99.9
150	4.310	4.626	4.765	4.823	4.641	4.626	4.584	4.470	140-150	2.745	6282	99.9,99.9
160	4.790	5.130	5.196	5.257	5.145	5.137	5.057	4.962	150-160	2.230	6284	100,100
170	5.372	5.641	5.611	5.634	5.561	5.582	5.570	5.502	160-170	1.502	6286	100,100
180	5.671	5.838	5.802	5.781	5.702	5.822	5.827	5.781	170-180	0.5397	6286	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

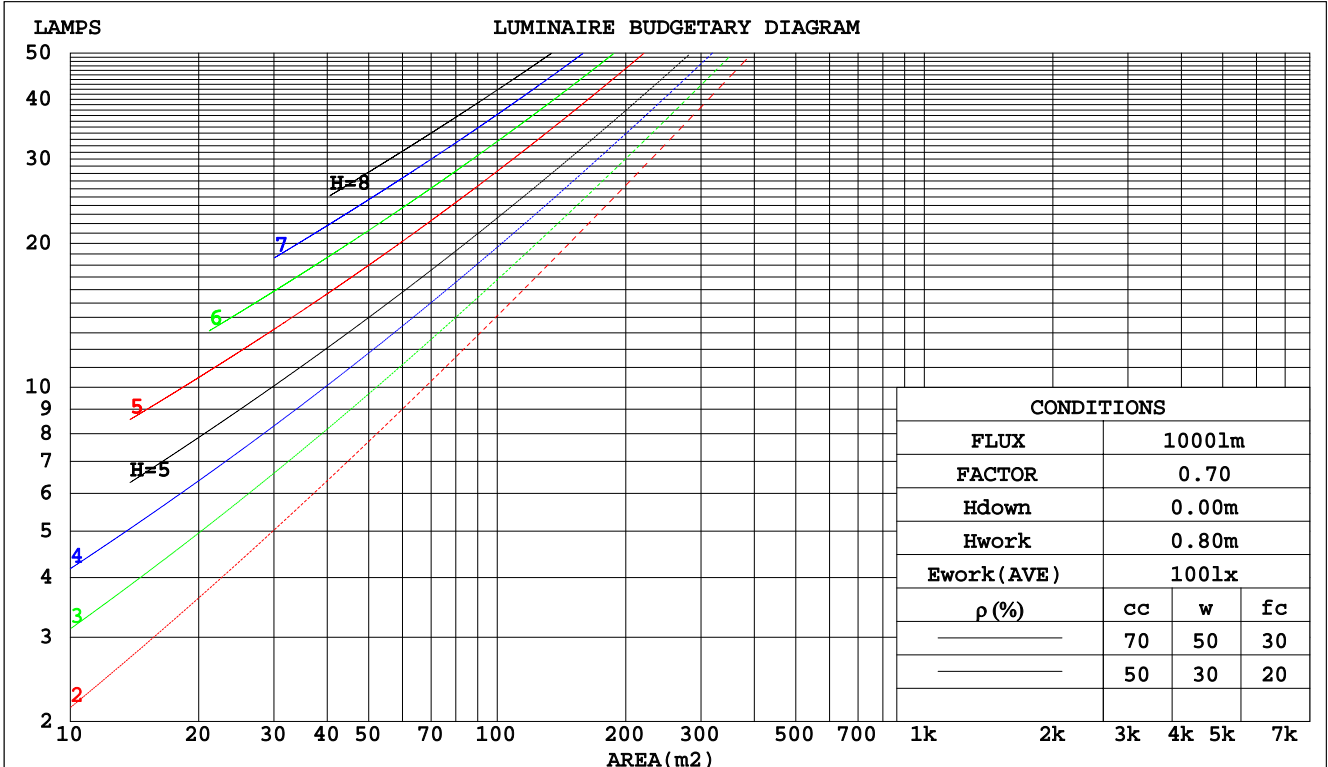
C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:32DEG
 Operators:1
 Test Date:2018-09-28

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:%
 Test Distance:9.190m [K=0.9793]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.3V I:0.4215A P:49.80W PF:0.9823 Lamp Flux:6286.46x1 lm		
NAME: LED Canopy Light	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: KiLi-LED Lighting Limited	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	1.10	1.10	1.10	1.05	1.05	1.05	1.01	1.01	1.01	.99
1.0	1.02	.97	.92	.99	.95	.91	.95	.91	.88	.90	.88	.85	.87	.84	.82	.80
2.0	.87	.79	.73	.85	.78	.72	.81	.75	.70	.78	.73	.68	.74	.70	.66	.64
3.0	.75	.66	.59	.73	.65	.58	.70	.63	.57	.67	.61	.56	.64	.59	.55	.52
4.0	.66	.56	.49	.64	.56	.49	.62	.54	.48	.59	.52	.47	.57	.51	.46	.44
5.0	.58	.49	.42	.57	.48	.41	.55	.47	.41	.53	.46	.40	.51	.44	.39	.37
6.0	.52	.43	.36	.51	.42	.36	.49	.41	.35	.47	.40	.35	.46	.39	.34	.32
7.0	.47	.38	.31	.46	.37	.31	.45	.37	.31	.43	.36	.31	.41	.35	.30	.28
8.0	.43	.34	.28	.42	.34	.28	.41	.33	.27	.39	.32	.27	.38	.32	.27	.25
9.0	.39	.31	.25	.39	.30	.25	.37	.30	.25	.36	.29	.24	.35	.29	.24	.22
10.0	.36	.28	.22	.36	.28	.22	.34	.27	.22	.33	.27	.22	.32	.26	.22	.20



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 32DEG
 Operators: 1
 Test Date: 2018-09-28

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity: %
 Test Distance: 9.190m [K=0.9793]
 Remarks:

WEC AND CCEC

Test:U:120.3V I:0.4215A P:49.80W PF:0.9823 Lamp Flux:6286.46x1 lm		
NAME: LED Canopy Light	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: KiLi-LED Lighting Limited	SUR.:	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	.347	.197	.063	.340	.194	.062	.325	.187	.060	.312	.180	.058	.300	.174	.056	
2.0	.323	.177	.054	.316	.174	.054	.303	.169	.052	.292	.164	.051	.281	.159	.050	
3.0	.295	.157	.047	.289	.155	.047	.277	.150	.046	.267	.146	.045	.257	.143	.044	
4.0	.269	.140	.041	.264	.138	.041	.254	.134	.040	.244	.131	.040	.236	.128	.039	
5.0	.246	.125	.036	.241	.124	.036	.232	.121	.036	.224	.118	.035	.216	.116	.035	
6.0	.226	.113	.032	.222	.112	.032	.214	.110	.032	.207	.107	.032	.200	.105	.031	
7.0	.209	.103	.029	.205	.102	.029	.198	.100	.029	.192	.098	.029	.185	.096	.028	
8.0	.194	.095	.027	.191	.094	.027	.185	.092	.026	.179	.090	.026	.173	.089	.026	
9.0	.181	.088	.024	.178	.087	.024	.172	.085	.024	.167	.084	.024	.162	.082	.024	
10.0	.170	.081	.023	.167	.081	.022	.162	.079	.022	.157	.078	.022	.152	.077	.022	

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	.200	.200	.200	.171	.171	.171	.116	.116	.116	.067	.067	.067	.021	.021	.021	
1.0	.192	.165	.141	.164	.142	.121	.112	.097	.084	.065	.056	.049	.021	.018	.016	
2.0	.186	.141	.104	.159	.121	.090	.109	.084	.062	.063	.049	.037	.020	.016	.012	
3.0	.179	.124	.080	.153	.107	.069	.105	.074	.049	.061	.043	.029	.020	.014	.009	
4.0	.171	.111	.065	.147	.096	.056	.101	.067	.040	.058	.039	.023	.019	.013	.008	
5.0	.163	.101	.054	.140	.087	.047	.097	.061	.033	.056	.036	.020	.018	.012	.007	
6.0	.156	.092	.047	.134	.080	.041	.093	.056	.029	.054	.033	.017	.017	.011	.006	
7.0	.149	.086	.041	.128	.074	.036	.088	.052	.025	.051	.031	.015	.017	.010	.005	
8.0	.142	.080	.037	.122	.069	.032	.085	.049	.023	.049	.029	.014	.016	.009	.005	
9.0	.136	.075	.034	.117	.065	.030	.081	.046	.021	.047	.027	.013	.015	.009	.004	
10.0	.130	.071	.031	.112	.061	.027	.077	.043	.019	.045	.025	.012	.015	.008	.004	

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:32DEG
 Operators:1
 Test Date:2018-09-28

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:%
 Test Distance:9.190m [K=0.9793]
 Remarks:

Uncorrected UGR Table

Test:U:120.3V I:0.4215A P:49.80W PF:0.9823 Lamp Flux:6286.46x1 lm										
NAME: LED Canopy Light					TYPE:			WEIGHT:		
DIM.:					SPEC.:			SERIAL No.:		
MFR.: KiLi-LED Lighting Limited					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	40.0	41.6	40.3	41.8	42.1	39.5	41.1	39.8	41.3	41.6
3H	42.9	44.4	43.3	44.7	45.0	42.3	43.8	42.6	44.1	44.3
4H	44.5	45.9	44.8	46.2	46.5	43.3	44.7	43.6	45.0	45.3
6H	45.8	47.2	46.2	47.5	47.8	43.5	44.9	43.9	45.2	45.5
8H	46.0	47.3	46.4	47.6	48.0	43.6	44.9	43.9	45.2	45.5
12H	46.1	47.4	46.5	47.7	48.0	43.6	44.8	43.9	45.1	45.5
4H 2H	40.9	42.3	41.2	42.6	42.9	40.5	41.9	40.9	42.2	42.5
3H	44.1	45.3	44.4	45.6	46.0	43.5	44.8	43.9	45.1	45.5
4H	45.8	46.9	46.2	47.3	47.6	44.7	45.8	45.1	46.2	46.6
6H	47.2	48.2	47.6	48.6	49.0	45.1	46.1	45.5	46.5	46.9
8H	47.4	48.4	47.9	48.8	49.2	45.1	46.1	45.6	46.5	46.9
12H	47.5	48.4	48.0	48.8	49.3	45.1	46.0	45.6	46.4	46.9
8H 4H	46.3	47.2	46.7	47.6	48.1	45.4	46.4	45.8	46.7	47.2
6H	47.8	48.6	48.3	49.0	49.5	46.0	46.8	46.4	47.2	47.7
8H	48.1	48.8	48.6	49.3	49.8	46.1	46.8	46.6	47.3	47.8
12H	48.3	48.9	48.8	49.4	49.9	46.2	46.8	46.7	47.3	47.8
12H 4H	46.3	47.2	46.8	47.6	48.0	45.5	46.4	45.9	46.8	47.2
6H	47.9	48.6	48.3	49.0	49.5	46.1	46.9	46.6	47.3	47.8
8H	48.2	48.8	48.7	49.3	49.8	46.3	46.9	46.8	47.4	47.9
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.1				
1.5H	+ 0.2 / - 0.2					+ 0.3 / - 0.2				
2.0H	+ 0.3 / - 0.3					+ 0.3 / - 0.6				

CIE Pub.117 Corrected 6286 lm Total Lamp Luminous Flux.(8log(F/F0) = 6.4)

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:32DEG
 Operators:1
 Test Date:2018-09-28

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:%
 Test Distance:9.190m [K=0.9793]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:120.3V I:0.4215A P:49.80W PF:0.9823 Lamp Flux:6286.46x1 lm		
NAME: LED Canopy Light	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: KiLi-LED Lighting Limited	SUR.:	PROTECTION ANGLE:

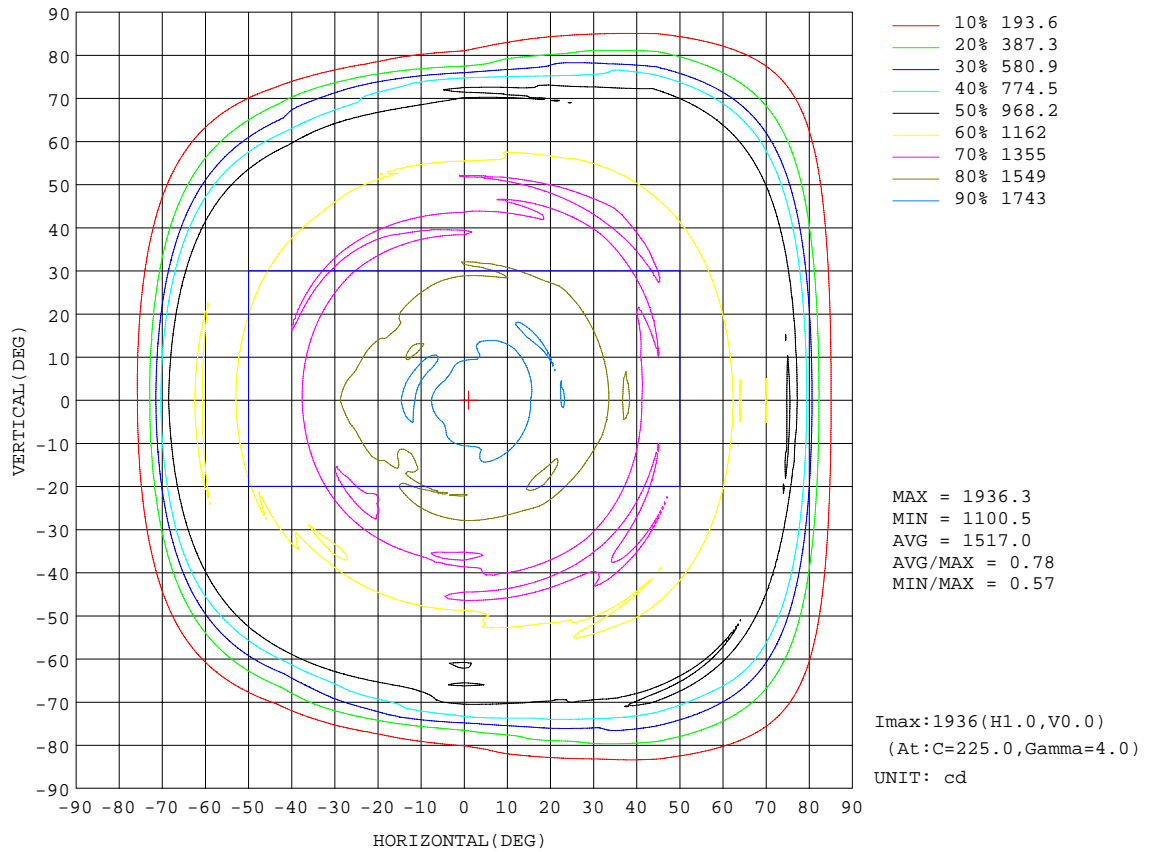
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	53	41	33	52	41	33	51	40	33	26
0.80	63	50	42	62	50	42	60	49	42	34
1.00	71	59	51	70	58	50	67	60	50	42
1.25	78	67	59	77	66	58	74	64	57	49
1.50	84	72	65	82	72	64	78	70	63	55
2.00	91	81	74	89	80	73	85	78	72	63
2.50	96	87	80	93	85	79	89	82	77	68
3.00	99	92	85	97	90	84	93	87	82	73
4.00	104	98	92	101	96	91	97	92	88	78
5.00	107	101	97	104	99	95	99	96	92	82
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:32DEG
 Operators:1
 Test Date:2018-09-28

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:%
 Test Distance:9.190m [K=0.9793]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:120.3V I:0.4215A P:49.80W PF:0.9823 Lamp Flux:6286.46x1 lm		
NAME: LED Canopy Light	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: KiLi-LED Lighting Limited	SUR.:	PROTECTION ANGLE:

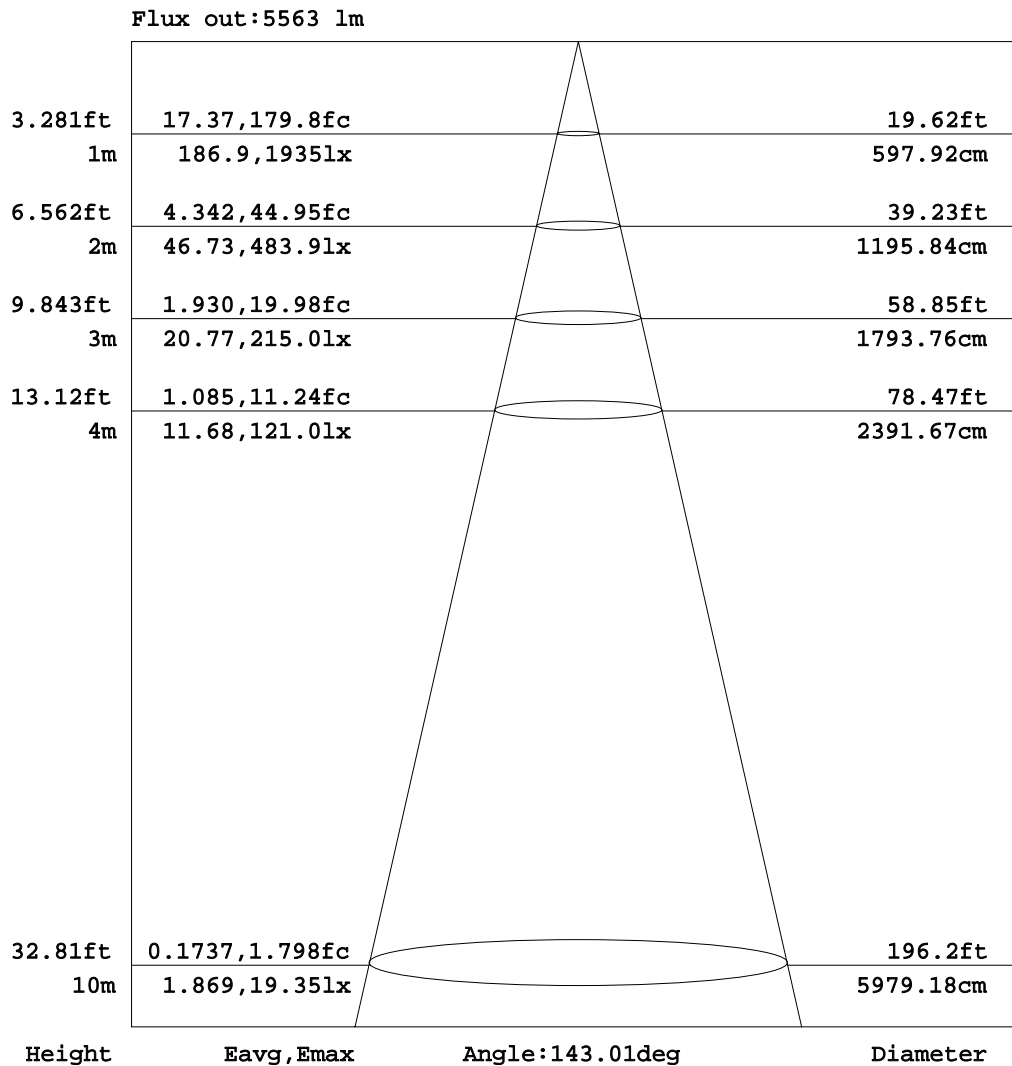


C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:32DEG
 Operators:1
 Test Date:2018-09-28

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:%
 Test Distance:9.190m [K=0.9793]
 Remarks:

AAI Figure

Test:U:120.3V I:0.4215A P:49.80W PF:0.9823 Lamp Flux:6286.46x1 lm		
NAME: LED Canopy Light	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: KiLi-LED Lighting Limited	SUR.:	PROTECTION ANGLE:



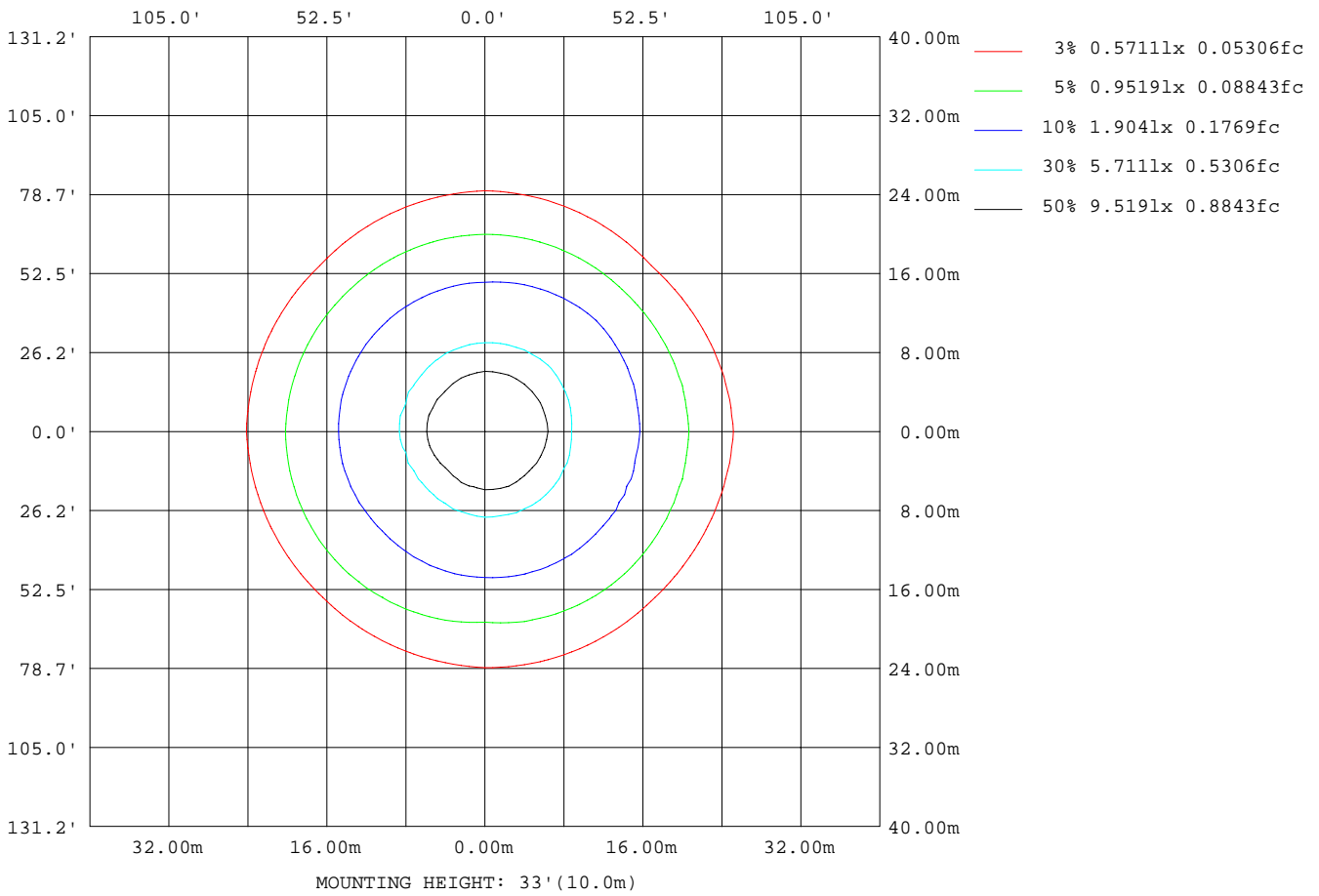
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:32DEG
 Operators:1
 Test Date:2018-09-28

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:%
 Test Distance:9.190m [K=0.9793]
 Remarks:

ISOLUX DIAGRAM

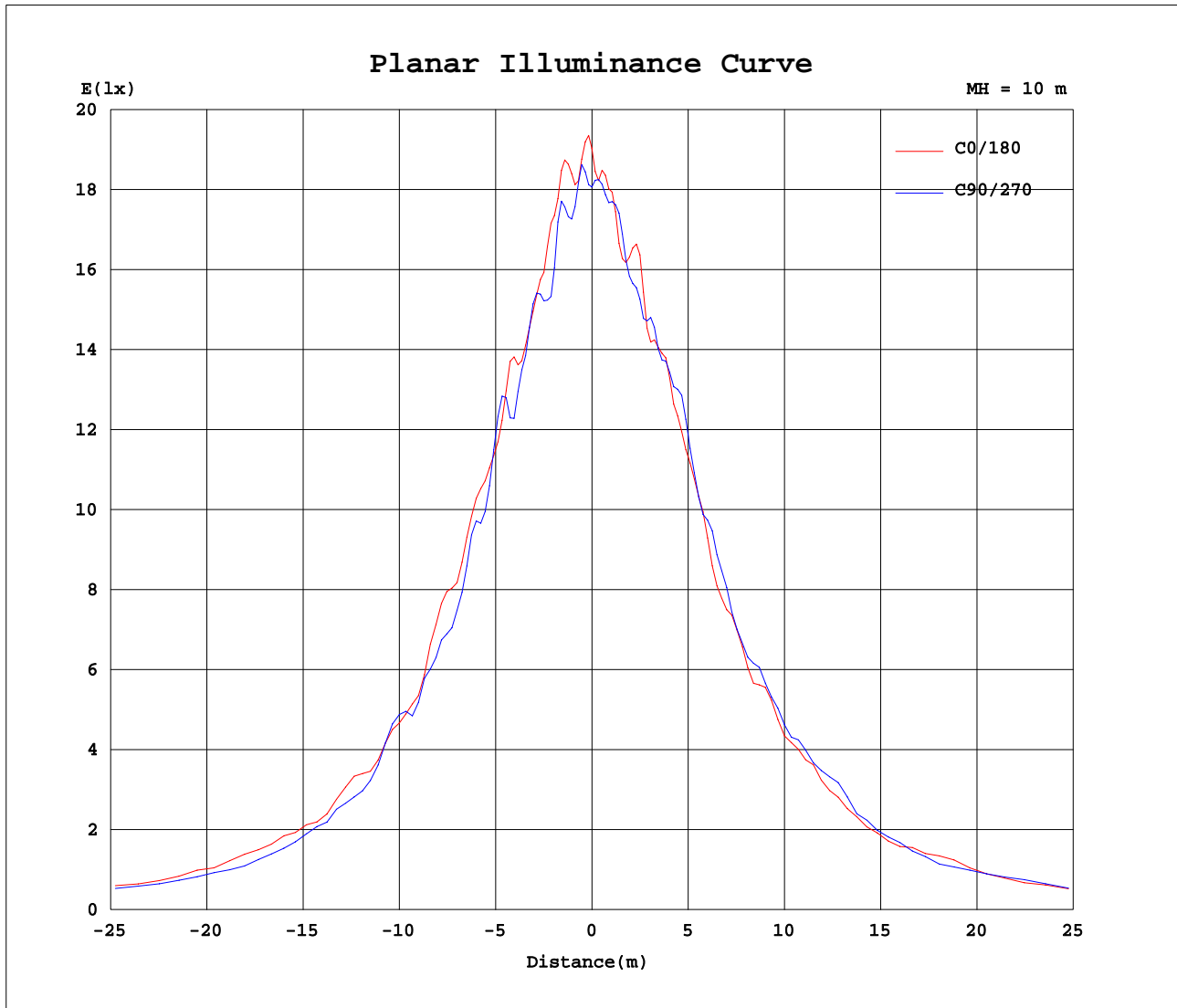
Test:U:120.3V I:0.4215A P:49.80W PF:0.9823 Lamp Flux:6286.46x1 lm		
NAME: LED Canopy Light	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: KiLi-LED Lighting Limited	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 32DEG
 Operators: 1
 Test Date: 2018-09-28

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity: %
 Test Distance: 9.190m [K=0.9793]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 32DEG
 Operators: 1
 Test Date: 2018-09-28

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity: %
 Test Distance: 9.190m [K=0.9793]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.3V I:0.4215A P:49.80W PF:0.9823 Lamp Flux:6286.46x1 lm		
NAME: LED Canopy Light	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: KiLi-LED Lighting Limited	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	45	90	135	180	225	270	315											
0	1839	1839	1839	1839	1839	1839	1839	1839											
5	1771	1923	1810	1826	1760	1887	1820	1883											
10	1798	1851	1832	1660	1636	1740	1731	1814											
15	1688	1823	1738	1611	1655	1594	1669	1846											
20	1598	1705	1655	1536	1619	1596	1685	1737											
25	1587	1523	1755	1527	1551	1532	1758	1581											
30	1565	1578	1514	1356	1478	1483	1548	1589											
35	1437	1463	1386	1394	1317	1442	1491	1518											
40	1426	1475	1362	1207	1216	1317	1395	1500											
45	1274	1372	1405	1141	1187	1268	1331	1396											
50	1237	1385	1139	1156	1178	1275	1333	1329											
55	1122	1206	1119	1029	1059	1156	1206	1307											
60	1160	1187	1020	1016	1085	1105	1082	1206											
65	1071	1024	993	985	1012	1026	1100	1072											
70	1131	1066	1046	627	814	747	992	1051											
75	923	1056	560	238	213	367	740	1087											
80	649	551	203	79.1	87.9	98.7	242	695											
85	190	208	85.5	30.1	31.2	38.6	100	283											
90	75.3	59.7	22.7	28.5	25.0	23.9	22.7	88.1											
95	25.3	25.4	26.6	25.1	35.9	29.2	21.3	31.6											
100	26.0	28.6	19.1	15.1	25.5	18.3	20.2	21.2											
105	33.1	23.7	17.1	9.92	19.4	11.1	15.2	23.2											
110	23.1	13.5	14.6	7.02	14.6	7.91	13.2	13.0											
115	18.1	9.51	12.2	3.77	10.7	4.74	6.50	9.20											
120	13.6	7.26	9.18	3.64	6.52	3.37	8.27	6.34											
125	9.67	3.46	6.09	3.90	3.73	3.58	5.60	4.57											
130	5.71	3.74	4.10	4.05	3.82	3.74	3.71	3.70											
135	3.69	3.94	4.16	4.23	4.03	3.95	3.88	3.88											
140	3.84	4.16	4.38	4.36	4.24	4.15	4.12	4.03											
145	4.08	4.39	4.57	4.59	4.44	4.38	4.36	4.23											
150	4.31	4.63	4.77	4.82	4.64	4.63	4.58	4.47											
155	4.55	4.86	4.95	5.04	4.87	4.90	4.80	4.69											
160	4.79	5.13	5.20	5.26	5.14	5.14	5.06	4.96											
165	5.10	5.40	5.44	5.45	5.39	5.35	5.33	5.24											
170	5.37	5.64	5.61	5.63	5.56	5.58	5.57	5.50											
175	5.59	5.76	5.74	5.72	5.69	5.71	5.73	5.65											
180	5.67	5.84	5.80	5.78	5.70	5.82	5.83	5.78											

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:32DEG
 Operators:1
 Test Date:2018-09-28

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:%
 Test Distance:9.190m [K=0.9793]
 Remarks: