

# Photometrics Pro

## Luminaire Photometric Report

**Filename:** ZS-FL22-K40-3050(3000K)

**Manufacturer:** Huizhou Zenith Technology Co., Ltd.

**Luminaire:** 2x2 Luminaires for Ambient Lighting of Interior Commercial Spaces

**Luminaire Cat:** ZS-FL2\*2-K40-3050(3000K)

**Lamp Output:** 1 lamp, rated Lumens/lamp: 5072.4

**Max Candela:** 1,973.4 at Horizontal: 0°, Vertical: 0°

**Input Wattage:** 39.11

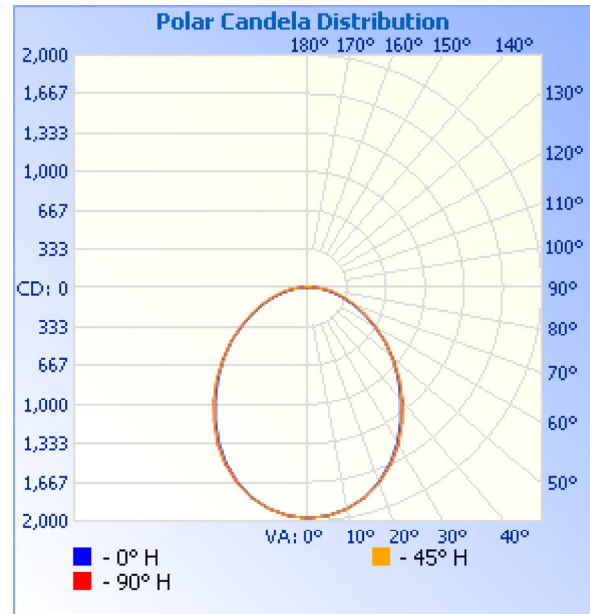
**Luminous Opening:** Rectangle w/Luminous Sides (L: 22.83", W: 22.83", H: 0.39")

**Test Date:** 2021/12/13

**Test Lab:** LCTECH 211120108005

**Photometry :** Type C

**Nema Type:** 7 X 7



### Roadway Summary

Cutoff Classification:	CUTOFF
Distribution:	Type VS
Max Cd, 90 Deg Vert:	76.7
Max Cd, 80 to <90 Deg:	236.3
	Lumens % Lamp
Downward Street Side:	2,476.6 48.8%
Downward House Side:	2,476.6 48.8%
Downward Total:	4,953.3 97.7%
Upward Street Side:	57.3 1.1%
Upward House Side:	57.3 1.1%
Upward Total:	114.6 2.3%
Total Lumens:	5,067.9 99.9%

### Flood Summary

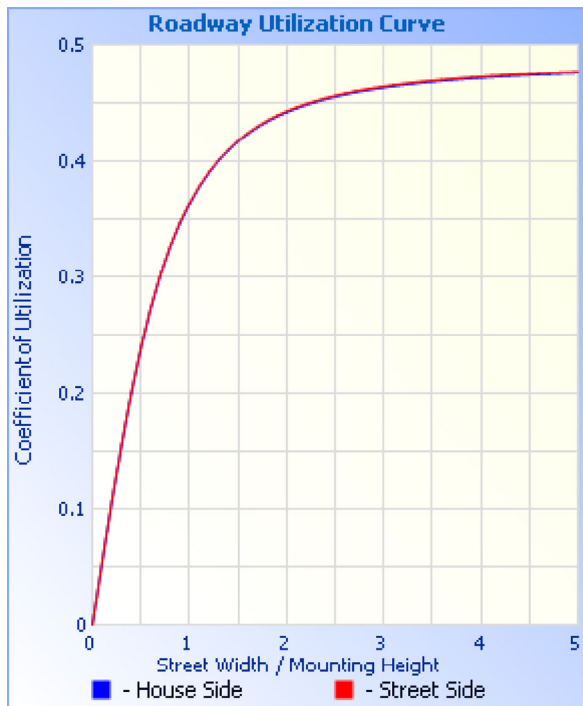
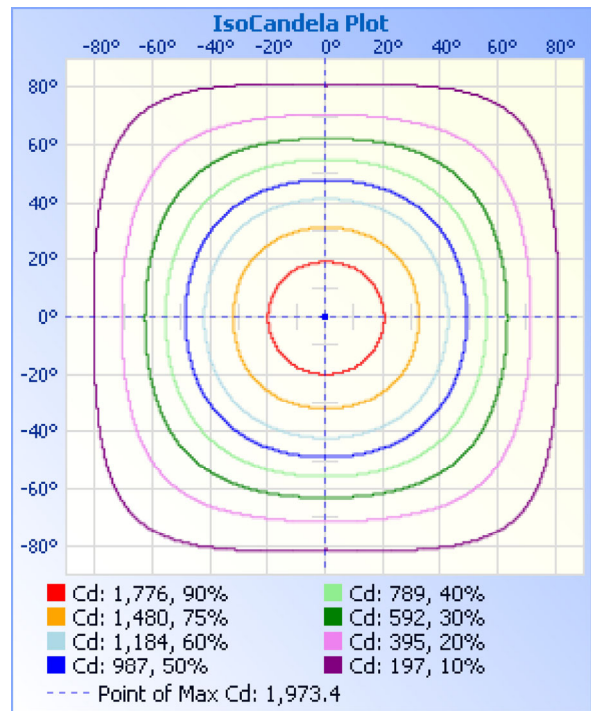
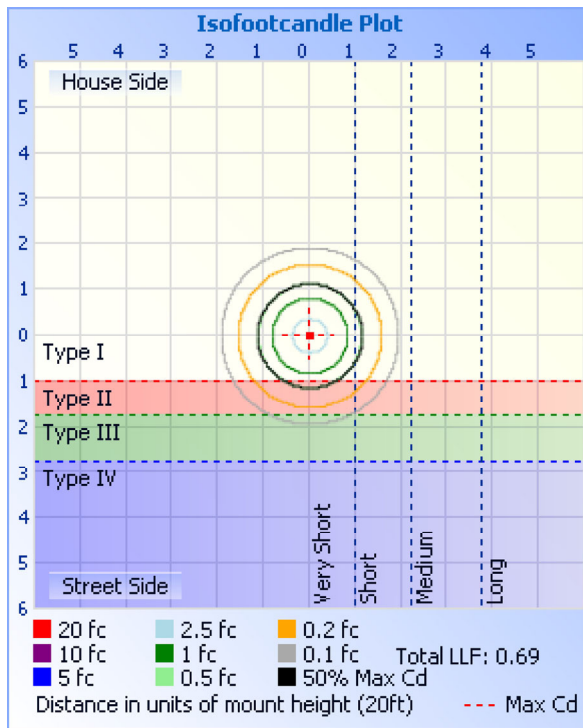
	Efficiency	Lumens	Horizontal Spread	Vertical Spread
Field (10%):	95.2%	4,831.2	161.8	162
Beam (50%):	60.5%	3,069.4	97.9	96.9
Total:	99.9%	5,066.3		

### Zonal Lumen Summary

Zone	Lumens	% Lamp	% Luminaire
0-30	1,474.3	29.1%	29.1%
0-40	2,345.6	46.2%	46.3%
0-60	3,911.0	77.1%	77.2%
60-90	1,039.8	20.5%	20.5%
70-100	541.4	10.7%	10.7%
90-120	78.1	1.5%	1.5%
0-90	4,950.7	97.6%	97.7%
90-180	114.7	2.3%	2.3%
0-180	5,065.4	99.9%	100%

### Lumens Per Zone

Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	185.6	3.7%	90-100	39.0	0.8%
10-20	523.2	10.3%	100-110	21.0	0.4%
20-30	765.4	15.1%	110-120	18.1	0.4%
30-40	871.3	17.2%	120-130	13.9	0.3%
40-50	845.4	16.7%	130-140	8.8	0.2%
50-60	720.0	14.2%	140-150	5.1	0.1%
60-70	537.3	10.6%	150-160	4.4	0.1%
70-80	340.1	6.7%	160-170	3.2	0.1%
80-90	162.3	3.2%	170-180	1.2	0%



**Illuminance at a Distance**

	Center Beam fc	Beam Width	
1.7R	683 fc	3.8 ft	3.9 ft
3.3R	181 fc	7.4 ft	7.6 ft
5.0R	78.9 fc	11.3 ft	11.5 ft
6.7R	44.0 fc	15.1 ft	15.4 ft
8.3R	28.6 fc	18.7 ft	19.1 ft
10.0R	19.7 fc	22.6 ft	23.0 ft

■ Vert. Spread: 96.9°  
 ■ Horiz. Spread: 97.9°

**Coefficients Of Utilization - Zonal Cavity Method**

Effective Floor Cavity Reflectance: 20%

RCC %:	80				70				50				30				10				0
RW %:	70	50	30	0	70	50	30	0	50	30	20	0	50	30	20	0	50	30	20	0	0
RCR: 0	1.18	1.18	1.18	1.18	1.15	1.15	1.15	.98	1.10	1.10	1.10	1.05	1.05	1.05	1.05	1.00	1.00	1.00	1.00	.98	
1	1.08	1.03	.99	.95	1.05	1.00	.96	.82	.96	.92	.89	.91	.89	.86	.87	.85	.83	.81	.81	.81	
2	.98	.90	.83	.77	.95	.88	.82	.69	.84	.79	.74	.80	.76	.72	.77	.73	.70	.68	.68	.68	
3	.90	.79	.71	.65	.87	.78	.70	.59	.74	.68	.63	.71	.66	.61	.68	.64	.60	.58	.58	.58	

4	.82	.71	.62	.55	.80	.69	.61	.51	.66	.59	.54	.64	.58	.53	.61	.56	.52	.50
5	.76	.63	.54	.48	.74	.62	.54	.45	.60	.52	.47	.57	.51	.46	.55	.50	.45	.43
6	.70	.57	.48	.42	.68	.56	.48	.40	.54	.47	.41	.52	.46	.41	.50	.45	.40	.38
7	.65	.52	.43	.37	.63	.51	.43	.36	.49	.42	.37	.48	.41	.36	.46	.40	.36	.34
8	.61	.48	.39	.33	.59	.47	.39	.32	.45	.38	.33	.44	.37	.33	.43	.37	.32	.30
9	.57	.44	.36	.30	.55	.43	.35	.29	.42	.35	.30	.41	.34	.30	.39	.34	.29	.27
10	.53	.40	.33	.27	.52	.40	.32	.27	.39	.32	.27	.38	.31	.27	.37	.31	.27	.25

**Candela Table - Type C**

	0	15	30	45	60	75	90
0	1973	1973	1973	1973	1973	1973	1973
5	1960	1960	1961	1961	1961	1960	1960
10	1922	1921	1923	1922	1924	1924	1924
15	1861	1857	1860	1860	1863	1863	1862
20	1769	1768	1775	1774	1778	1778	1781
25	1656	1658	1664	1667	1671	1671	1671
30	1527	1528	1537	1541	1560	1543	1546
35	1384	1385	1393	1398	1400	1401	1400
40	1233	1235	1243	1245	1250	1252	1256
45	1089	1089	1089	1108	1100	1104	1106
50	940	941	943	939	946	954	955
55	799	799	800	804	806	811	810
60	661	660	679	669	670	672	670
65	531	535	538	542	547	542	540
70	414	418	424	429	429	424	420
75	307	324	320	325	323	318	313
80	213	221	231	236	233	223	212
85	136	145	158	162	157	144	131
90	76	63	73	77	74	67	57
95	21	23	24	26	30	32	31
100	7	11	19	21	23	24	24
105	19	18	21	22	22	21	21
110	17	15	19	21	21	19	19
115	17	16	18	20	20	18	18
120	17	16	17	19	18	17	17
125	16	15	13	17	14	16	16
130	15	15	13	13	13	14	15
135	15	14	11	6	11	13	13
140	12	11	7	6	6	9	12
145	8	8	8	8	7	7	8
150	9	9	9	9	9	9	9
155	10	10	10	10	10	9	9
160	11	11	10	10	10	10	10
165	11	11	11	11	11	11	11
170	12	12	12	12	12	12	12
175	14	13	13	13	13	13	13
180	7	7	7	7	7	7	7

**Luminaire Report Summary**

IESNA:LM-63-2002  
[TEST]  
[TESTLAB] LCTECH 211120108005  
[TESTDATE] 2021/12/13  
[ISSUE DATE] 2021/12/13  
[MANUFAC] Huizhou Zenith Technology Co., Ltd.  
[LUMCAT] ZS-FL2\*2-K40-3050(3000K)  
[LUMINAIRE] 2x2 Luminaires for Ambient Lighting of Interior Commercial Spaces  
[LAMPCAT]  
[LAMP]  
[LumELE] 120.02 0.328 39.11 0.9923  
FILE: CANDELA MULTIPLIER: 1  
FILE: VERTICAL ANGLES: 37, HORIZONTAL ANGLES: 7  
FILE: COORDINATE SYSTEM: TYPE C  
FILE: UNIT OF MEASURE: METRIC  
FILE: BALLAST FACTOR: 1

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Reported data calculated from manufacturer's data file, based on IES recommended methods.