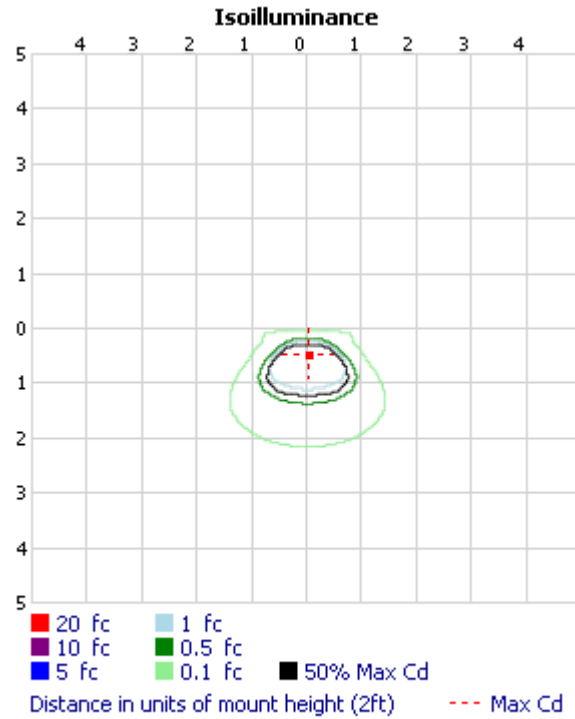
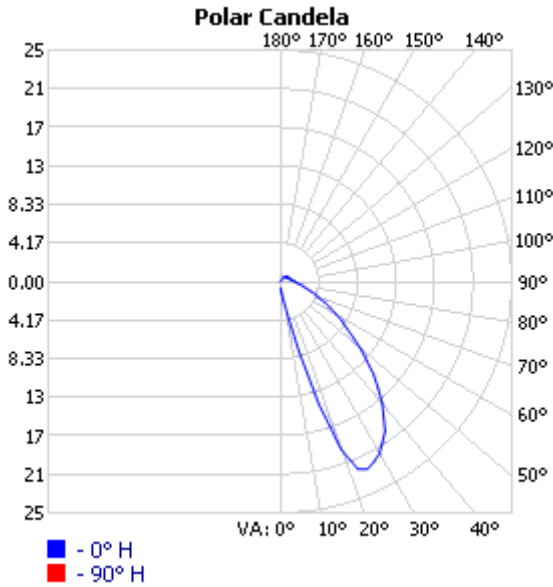


**OUTDOOR PHOTOMETRIC REPORT**  
 CATALOG: SPJ-MSL-2

Manufacturer: SPJ Lighting  
 Test #: 80142489-2  
 Test Lab: CSA Group  
 Catalog: SPJ-MSL-2  
 Description: LED Step Light  
 Lamp Output: Total luminaire Lumens: 17.9, **absolute photometry \***  
 Ballast / Driver: KEYSTONE KTET-20-1-LED-FDIM  
 Input Wattage: 2.13  
 Luminous Opening: (L: 0", W: 1.56", H: 1.2")  
 Max Cd: 22.3 at Horizontal: 0°, Vertical: 25°  
 Roadway Class: VERY SHORT, TYPE II

No  
 Photo  
 Available



\*Test based on absolute photometry where lamp lumens=lumens total.  
 \*Cutoff Classification and efficiency cannot be properly calculated for absolute photometry.

**OUTDOOR PHOTOMETRIC REPORT**  
 CATALOG: SPJ-MSL-2

**Zonal Lumen Summary**

Zone	Lumens	% Luminaire
0-30	3.3	18.2%
0-40	6.7	37.5%
0-60	12.3	69.1%
60-90	3.3	18.7%
70-100	2.3	12.7%
90-120	1.5	8.2%
0-90	15.7	87.8%
90-180	2.2	12.2%
0-180	17.9	100%

**Lumens Per Zone**

Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	0.0	0.3%	90-100	0.6	3.1%
10-20	0.6	3.5%	100-110	0.5	2.7%
20-30	2.6	14.4%	110-120	0.4	2.3%
30-40	3.4	19.3%	120-130	0.4	2.1%
40-50	3.2	18.0%	130-140	0.3	1.7%
50-60	2.4	13.7%	140-150	0.0	0.2%
60-70	1.6	9.1%	150-160	0.000	0%
70-80	1.0	5.7%	160-170	0.000	0%
80-90	0.7	3.8%	170-180	0.000	0%

**Roadway Summary**

Distribution: TYPE II, VERY SHORT

Max Cd, 90 Deg Vert:	1.6	
Max Cd, 80 to <90 Deg:	2.4	
	Lumens	% Lamp
Downward Street Side:	15.7	87.8%
Downward House Side:	0.000	0%
Downward Total:	15.7	87.8%
Upward Street Side:	2.2	12.2%
Upward House Side:	0.000	0%
Upward Total:	2.2	12.2%
<b>Total Lumens:</b>	<b>17.9</b>	<b>100%</b>

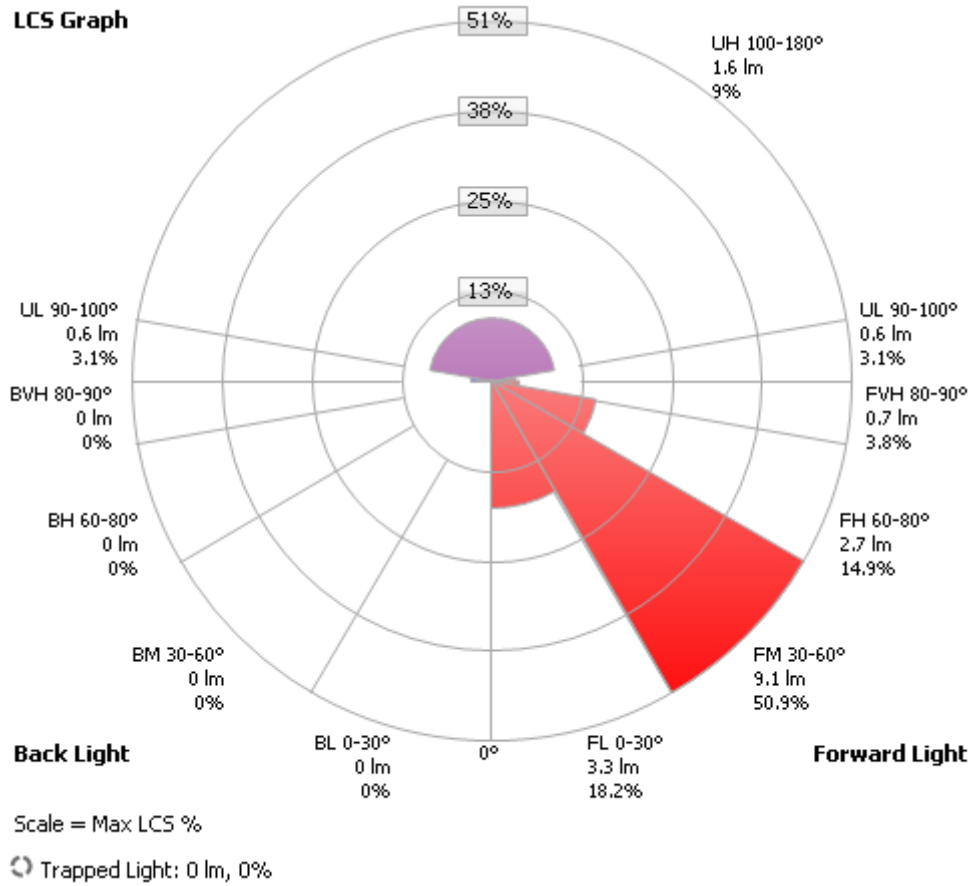
**LCS Table**

**BUG Rating**

**B0 - U1 - G0**

Forward Light	Lumens	Lumens %
Low(0-30):	3.3	18.2%
Medium(30-60):	9.1	50.9%
High(60-80):	2.7	14.9%
Very High(80-90):	0.7	3.8%
Back Light		
Low(0-30):	0.000	0%
Medium(30-60):	0.000	0%
High(60-80):	0.000	0%
Very High(80-90):	0.000	0%
Uplight		
Low(90-100):	0.6	3.1%
High(100-180):	1.6	9%
<b>Trapped Light:</b>	0.003	0%

**OUTDOOR PHOTOMETRIC REPORT**  
 CATALOG: SPJ-MSL-2



**OUTDOOR PHOTOMETRIC REPORT**  
 CATALOG: SPJ-MSL-2

**Candela Table - Type C**

	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0	0	0	0	0	0	0	0	0	0	0
10	2.1	2.1	2	1.8	1.4	1.1	0.9	0.9	0.8	0	0	0	0	0	0	0	0	0	0	0
15	7.8	7.5	6.5	4.8	3.2	2	1.3	0.9	0.8	0	0	0	0	0	0	0	0	0	0	0
20	19.3	18.7	16.8	13.7	8.7	4	1.8	0.9	0.9	0	0	0	0	0	0	0	0	0	0	0
25	22.3	22.1	21.5	20.1	16.2	8.2	2.4	1.1	0.9	0	0	0	0	0	0	0	0	0	0	0
30	21.4	21.2	21	20.5	18.8	10.2	2.6	1.1	0.9	0	0	0	0	0	0	0	0	0	0	0
35	19.7	19.5	19.4	19.1	17.3	10	2.6	1.1	0.9	0	0	0	0	0	0	0	0	0	0	0
40	17.1	17	17.1	17	15.4	9	2.5	1.1	0.9	0	0	0	0	0	0	0	0	0	0	0
45	14.3	14.1	14.4	14.4	13.1	7.7	2.2	1.1	0.8	0	0	0	0	0	0	0	0	0	0	0
50	11.4	11.3	11.7	11.7	10.6	6.3	2	1.1	0.9	0	0	0	0	0	0	0	0	0	0	0
55	8.8	8.9	9.1	9.2	8.3	5	1.8	1.1	0.8	0	0	0	0	0	0	0	0	0	0	0
60	6.9	6.9	7	7	6.3	3.9	1.6	1	0.9	0	0	0	0	0	0	0	0	0	0	0
65	5.3	5.3	5.3	5.2	4.6	2.9	1.4	1	0.9	0	0	0	0	0	0	0	0	0	0	0
70	4.1	4	4	3.8	3.2	2.2	1.2	1	0.8	0	0	0	0	0	0	0	0	0	0	0
75	3	3	3	2.7	2.2	1.7	1.1	1	0.9	0	0	0	0	0	0	0	0	0	0	0
80	2.4	2.3	2.2	1.9	1.5	1.3	1	1	0.8	0	0	0	0	0	0	0	0	0	0	0
85	1.9	1.8	1.8	1.5	1.2	1	0.9	0.9	0.7	0	0	0	0	0	0	0	0	0	0	0
90	1.6	1.5	1.4	1.2	1	1	0.9	0.9	0.8	0	0	0	0	0	0	0	0	0	0	0
95	1.3	1.4	1.3	1.2	1	0.9	0.9	0.9	0.9	0	0	0	0	0	0	0	0	0	0	0
100	1.3	1.2	1.1	1.1	1	0.9	0.9	0.9	0.9	0	0	0	0	0	0	0	0	0	0	0
105	1.1	1.1	1.1	1	0.9	0.8	0.9	0.8	0.8	0	0	0	0	0	0	0	0	0	0	0
110	1	0.9	1	0.9	0.9	0.9	0.9	0.8	0.8	0	0	0	0	0	0	0	0	0	0	0
115	1	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0	0	0	0	0
120	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0	0	0	0	0
125	0.8	0.9	0.9	1	0.9	0.9	0.9	0.8	0.8	0	0	0	0	0	0	0	0	0	0	0
130	0.8	0.9	0.9	0.8	0.9	0.9	0.8	0.8	0.8	0	0	0	0	0	0	0	0	0	0	0
135	0.9	0.9	0.8	0.9	0.8	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0	0	0	0	0
140	0.8	0.9	0.8	0.8	0.9	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0	0	0	0	0
145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0