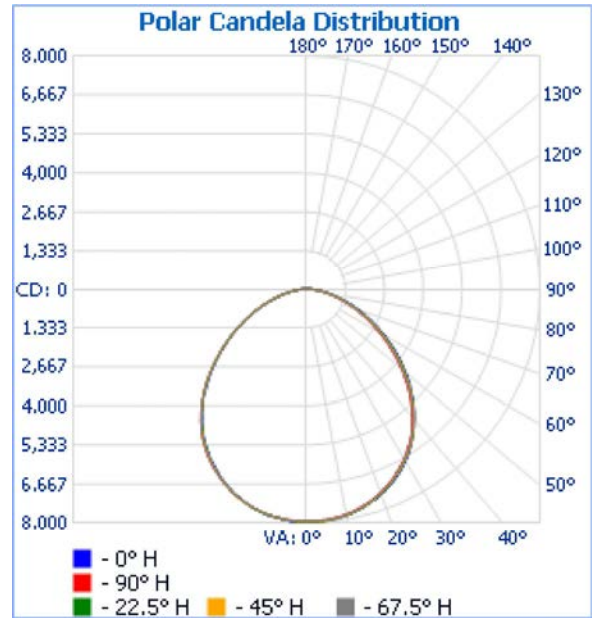


Photometrics Pro

Luminaire Photometric Report

Filename: 55227
Manufacturer: P.Q.L., Inc.
Luminaire: Flat High Bay 4000K (A1+B3)
Lamp Output: 1 lamp(s), rated Lumens/lamp: 20627.37
Max Candela: 7,978.5 at Horizontal: 22.5°, Vertical: 2°
Input Wattage: 158.8
Luminous Opening: Point
Test: Goniophotometer test
Test Date: 2016-11-10
Test Lab: UL-CCIC (Suzhou) Co.,Ltd
Photometry : Type C
CIE Class: Direct

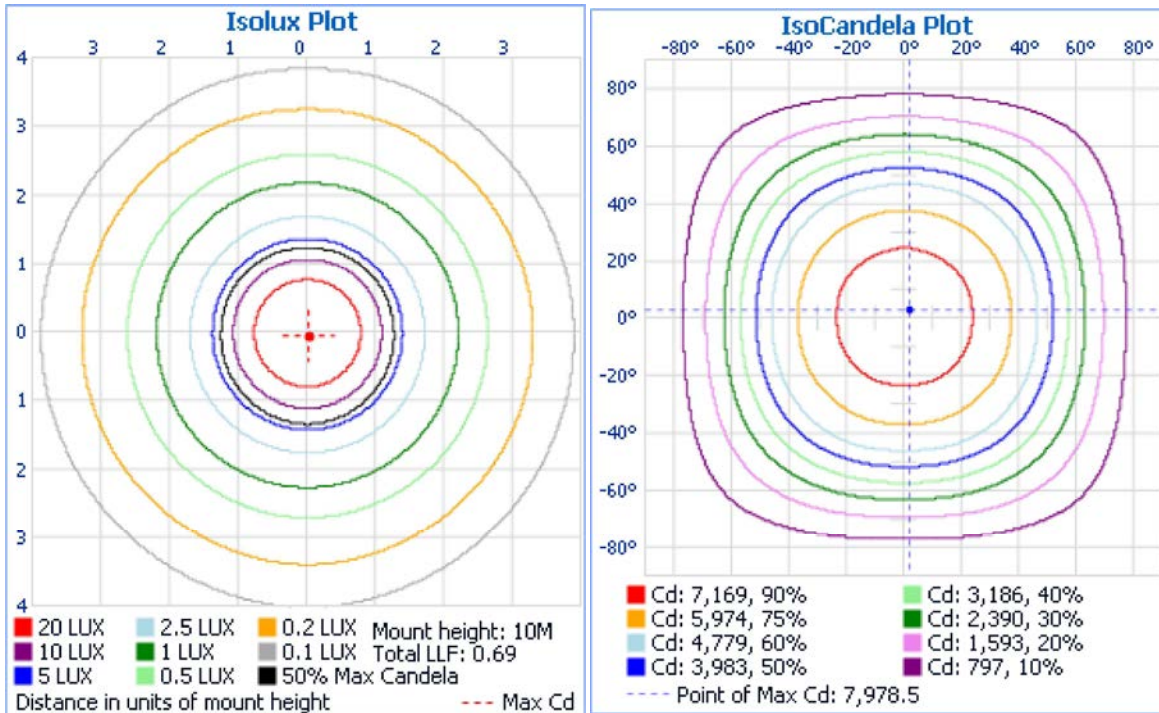


Roadway Summary		
Cutoff Classification:		CUTOFF
Distribution:		Type VS
Max Cd, 90 Deg Vert:		28.3
Max Cd, 80 to <90 Deg:		656.8
	Lumens	% Lamp
Downward Street Side:	10,412.6	50.5%
Downward House Side:	10,165.0	49.3%
Downward Total:	20,577.5	99.8%
Upward Street Side:	26.5	0.1%
Upward House Side:	25.6	0.1%
Upward Total:	52.1	0.3%
Total Lumens:	20,629.7	100%

Flood Summary				
	Efficiency	Lumens	Horizontal Spread	Vertical Spread
Field (10%):	97.5%	20,112.8	154.3	155.2
Beam (50%):	70.7%	14,592.2	103.3	104.3
Total:	100%	20,620.5		

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	6,187.7	30%
0-40	10,075.4	48.8%
0-60	17,088.6	82.8%
60-90	3,486.6	16.9%
70-100	1,351.1	6.6%
90-120	18.1	0.1%
0-90	20,575.2	99.7%
90-180	52.1	0.3%
0-180	20,627.4	100%

Lumens Per Zone					
Zone	Lumens	% Total	Zone	Lumens	% Total
0-5	190.1	0.9%	90-95	4.0	0%
5-10	564.5	2.7%	95-100	3.0	0%
10-15	920.2	4.5%	100-105	2.7	0%
15-20	1,243.8	6.0%	105-110	2.6	0%
20-25	1,522.9	7.4%	110-115	2.7	0%
25-30	1,746.2	8.5%	115-120	3.1	0%
30-35	1,903.9	9.2%	120-125	3.1	0%
35-40	1,983.8	9.6%	125-130	3.4	0%
40-45	1,973.1	9.6%	130-135	3.6	0%
45-50	1,873.3	9.1%	135-140	3.9	0%
50-55	1,697.9	8.2%	140-145	4.0	0%
55-60	1,468.9	7.1%	145-150	3.8	0%
60-65	1,208.0	5.9%	150-155	3.5	0%
65-70	934.5	4.5%	155-160	3.0	0%
70-75	663.9	3.2%	160-165	2.4	0%
75-80	420.1	2.0%	165-170	1.8	0%
80-85	207.8	1.0%	170-175	1.2	0%
85-90	52.3	0.3%	175-180	0.4	0%



Illuminance at a Distance

	Center Beam LUX	Beam Width	
0.7M	17,916.53 LUX	1.7M	1.7M
1.3M	4,479.13 LUX	3.4M	3.4M
2.0M	1,990.73 LUX	5.1M	5.1M
2.7M	1,119.78 LUX	6.9M	6.7M
3.3M	716.66 LUX	8.6M	8.4M
4.0M	497.68 LUX	10.3M	10.1M

■ Vert. Spread: 104.3° ■ Horiz. Spread: 103.3°

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	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1.00	1.11	1.11	1.11	1.06	1.06	1.06	1.06	1.02	1.02	1.02	1.02	1.00	1.00
1	1.09	1.05	1.01	.97	1.07	1.03	.99	.86	.98	.95	.93	.94	.92	.90	.91	.89	.87	.87	.87	.85	.85
2	1.00	.92	.86	.80	.97	.90	.84	.73	.87	.82	.77	.83	.79	.76	.80	.77	.74	.74	.74	.72	.72
3	.92	.81	.74	.67	.89	.80	.73	.63	.77	.71	.66	.74	.69	.64	.72	.67	.63	.63	.63	.61	.61
4	.84	.72	.64	.58	.82	.71	.63	.54	.69	.62	.56	.66	.60	.56	.64	.59	.55	.55	.55	.53	.53
5	.77	.65	.56	.50	.75	.64	.56	.48	.62	.55	.49	.60	.53	.48	.58	.52	.48	.48	.48	.46	.46
6	.72	.59	.50	.44	.70	.58	.49	.42	.56	.49	.43	.54	.48	.43	.53	.47	.42	.42	.42	.40	.40
7	.66	.53	.45	.39	.65	.52	.44	.38	.51	.44	.38	.49	.43	.38	.48	.42	.38	.38	.38	.36	.36
8	.62	.49	.40	.35	.60	.48	.40	.34	.47	.39	.34	.45	.39	.34	.44	.38	.34	.34	.34	.32	.32
9	.58	.45	.37	.31	.56	.44	.36	.31	.43	.36	.31	.42	.35	.31	.41	.35	.31	.31	.31	.29	.29
10	.54	.41	.34	.28	.53	.41	.33	.28	.40	.33	.28	.39	.33	.28	.38	.32	.28	.28	.28	.26	.26

Candela Table - Type C

	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5	360
0	7963	7963	7963	7963	7963	7963	7963	7963	7963	7963	7963	7963	7963	7963	7963	7963	7963
1	7958	7974	7960	7971	7956	7960	7963	7974	7958	7974	7963	7960	7956	7971	7960	7974	7958
2	7969	7978	7967	7959	7943	7950	7963	7975	7956	7975	7963	7950	7943	7959	7967	7978	7969
3	7955	7970	7963	7948	7935	7948	7949	7960	7968	7960	7949	7948	7935	7948	7963	7970	7955
4	7955	7971	7968	7953	7928	7938	7939	7952	7967	7952	7939	7938	7928	7953	7968	7971	7955
5	7945	7964	7947	7932	7929	7945	7928	7930	7938	7930	7928	7945	7929	7932	7947	7964	7945
6	7928	7951	7929	7922	7921	7914	7929	7917	7942	7917	7929	7914	7921	7922	7929	7951	7928
7	7925	7928	7913	7924	7887	7885	7893	7892	7889	7892	7893	7885	7887	7924	7913	7928	7925
8	7904	7913	7897	7895	7887	7879	7879	7886	7877	7886	7879	7879	7887	7895	7897	7913	7904
9	7883	7893	7887	7877	7853	7853	7853	7852	7854	7852	7853	7853	7853	7877	7887	7893	7883
10	7855	7872	7858	7846	7825	7816	7823	7845	7850	7845	7823	7816	7825	7846	7858	7872	7855
11	7840	7842	7826	7810	7800	7799	7794	7800	7806	7800	7794	7799	7800	7810	7826	7842	7840
12	7808	7817	7802	7789	7774	7774	7775	7772	7767	7772	7775	7774	7774	7789	7802	7817	7808
13	7781	7774	7765	7759	7727	7732	7732	7727	7732	7727	7732	7732	7727	7759	7765	7774	7781
14	7738	7747	7720	7712	7696	7679	7691	7702	7686	7702	7691	7679	7696	7712	7720	7747	7738
15	7707	7700	7678	7677	7653	7651	7658	7654	7664	7654	7658	7651	7653	7677	7678	7700	7707
16	7656	7660	7639	7623	7613	7611	7616	7603	7593	7603	7616	7611	7613	7623	7639	7660	7656
17	7612	7606	7611	7588	7567	7555	7572	7553	7554	7553	7572	7555	7567	7588	7611	7606	7612
18	7570	7560	7553	7532	7522	7509	7516	7512	7487	7512	7516	7509	7522	7532	7553	7560	7570
19	7540	7516	7498	7480	7462	7460	7462	7463	7453	7463	7462	7460	7462	7480	7498	7516	7540
20	7482	7463	7447	7415	7413	7406	7399	7395	7389	7395	7399	7406	7413	7415	7447	7463	7482
21	7429	7408	7382	7369	7343	7334	7337	7326	7325	7326	7337	7334	7343	7369	7382	7408	7429
22	7361	7347	7320	7305	7283	7284	7281	7271	7256	7271	7281	7284	7283	7305	7320	7347	7361
23	7303	7286	7267	7246	7218	7215	7209	7206	7185	7206	7209	7215	7218	7246	7267	7286	7303
24	7238	7225	7193	7183	7156	7149	7134	7143	7122	7143	7134	7149	7156	7183	7193	7225	7238
25	7180	7144	7125	7117	7081	7081	7069	7075	7044	7075	7069	7081	7081	7117	7125	7144	7180
26	7102	7078	7060	7029	7006	6985	6991	6993	6946	6993	6991	6985	7006	7029	7060	7078	7102
27	7036	6997	6979	6958	6937	6918	6906	6900	6873	6900	6906	6918	6937	6958	6979	6997	7036
28	6955	6928	6911	6884	6854	6851	6832	6828	6794	6828	6832	6851	6854	6884	6911	6928	6955
29	6878	6848	6828	6798	6779	6757	6748	6750	6704	6750	6748	6757	6779	6798	6828	6848	6878
30	6789	6751	6740	6720	6694	6664	6650	6661	6645	6661	6650	6664	6694	6720	6740	6751	6789
31	6701	6669	6667	6629	6610	6575	6569	6566	6533	6566	6569	6575	6610	6629	6667	6669	6701
32	6603	6582	6567	6547	6505	6503	6494	6465	6447	6465	6494	6503	6505	6547	6567	6582	6603
33	6513	6483	6472	6441	6408	6398	6384	6365	6354	6365	6384	6398	6408	6441	6472	6483	6513
34	6413	6383	6390	6353	6320	6298	6293	6278	6254	6278	6293	6298	6320	6353	6390	6383	6413
35	6307	6296	6278	6240	6220	6192	6190	6172	6152	6172	6190	6192	6220	6240	6278	6296	6307
36	6197	6197	6181	6141	6118	6108	6076	6050	6054	6050	6076	6108	6118	6141	6181	6197	6197
37	6084	6081	6066	6034	6000	6000	5970	5947	5938	5947	5970	6000	6000	6034	6066	6081	6084
38	5980	5970	5965	5922	5876	5871	5852	5836	5821	5836	5852	5871	5876	5922	5965	5970	5980
39	5849	5836	5849	5810	5763	5758	5734	5711	5693	5711	5734	5758	5763	5810	5849	5836	5849
40	5736	5736	5730	5682	5628	5620	5613	5588	5580	5588	5613	5620	5628	5682	5730	5736	5736
41	5624	5609	5599	5553	5508	5494	5477	5477	5461	5477	5477	5494	5508	5553	5599	5609	5624
42	5503	5477	5469	5426	5372	5368	5361	5337	5321	5337	5361	5368	5372	5426	5469	5477	5503
43	5371	5347	5341	5289	5234	5234	5222	5215	5207	5215	5222	5234	5234	5289	5341	5347	5371
44	5245	5218	5194	5157	5108	5103	5087	5074	5074	5074	5087	5103	5108	5157	5194	5218	5245
45	5101	5087	5055	5019	4971	4961	4955	4939	4898	4939	4955	4961	4971	5019	5055	5087	5101
46	4955	4937	4930	4863	4827	4825	4810	4791	4777	4791	4810	4825	4827	4863	4930	4937	4955
47	4853	4804	4790	4730	4678	4676	4673	4655	4614	4655	4673	4676	4678	4730	4790	4804	4853
48	4699	4667	4634	4582	4528	4518	4524	4514	4481	4514	4524	4518	4528	4582	4634	4667	4699
49	4557	4522	4494	4435	4386	4376	4378	4372	4328	4372	4378	4376	4386	4435	4494	4522	4557
50	4418	4379	4342	4286	4230	4221	4224	4224	4179	4224	4224	4221	4230	4286	4342	4379	4418
51	4272	4234	4195	4136	4083	4073	4078	4076	4034	4076	4078	4073	4083	4136	4195	4234	4272
52	4139	4098	4050	3988	3934	3927	3931	3931	3888	3931	3931	3927	3934	3988	4050	4098	4139
53	3990	3942	3902	3841	3786	3779	3782	3787	3742	3787	3782	3779	3786	3841	3902	3942	3990
54	3848	3798	3757	3693	3640	3628	3634	3641	3595	3641	3634	3628	3640	3693	3757	3798	3848
55	3702	3651	3608	3543	3492	3480	3488	3497	3451	3497	3488	3480	3492	3543	3608	3651	3702
56	3560	3506	3462	3397	3343	3334	3342	3353	3307	3353	3342	3334	3343	3397	3462	3506	3560
57	3415	3361	3316	3252	3199	3188	3198	3209	3166	3209	3198	3188	3199	3252	3316	3361	3415
58	3273	3218	3170	3107	3053	3045	3053	3066	3026	3066	3053	3045	3053	3107	3170	3218	3273
59	3129	3075	3028	2966	2914	2905	2910	2926	2889	2926	2910	2905	2914	2966	3028	3075	3129
60	2987	2932	2885	2824	2774	2765	2773	2789	2751	2789	2773	2765	2774	2824	2885	2932	2987
61	2847	2793	2746	2684	2635	2626	2632	2651	2614	2651	2632	2626	2635	2684	2746	2793	2847
62	2709	2657	2608	2548	2501	2491	2498	2516	2483	2516	2498	2491	2501	2548	2608	2657	2709
63	2576	2522	2472	2413	2369	2358	2364	2384	2351	2384	2364	2358	2369	2413	2472	2522	2576
64	2443	2388	2338	2280	2240	2228	2236	2253	2222	2253	2236	2228	2240	2280	2338	2388	2443
65	2310	2257	2207	2154	2114	2101	2107	2124	2094	2124	2107	2101	2114	2154	2207	2257	2310
66	2182	2126	2077	2026	1988	1977	1981	1998	1967	1998	1981	1977	1988	2026	2077	2126	2182
67	2053	1997	1948	1900	1866	1854	1857	1872	1839	1872	1857	1854	1866	1900	1948	1997	2053
68	1930	1873	1826	1780	1746	1732	1734	1752	1718	1752	1734	1732	1746	1780	1826	1873	1930
69	1808	1750	1704	1660	1628	1615	1614	1632	1599	1632	1614	1615	1628	1660	1704	1750	1808
70	1687	1628	1582	1543	1515	1500	1498	1512	1478	1512	1498	1500	1515	1543	1582	1628	1687
71	1570	1509	1468	1428	1400	1387	1385	1399	1362	1399	1385	1387	1400	1428	1468	1509	1570
72	1456	1397	1356	1318	1294	1277	1275	1288	1253	1288	1275	1277	1294	1318	1356	1397	1456
73	1346	1287	1248	1213	1189</												

75	1133	1081	1045	1012	990	976	972	984	959	984	972	976	990	1012	1045	1081	1133
76	1032	984	950	919	898	883	877	889	867	889	877	883	898	919	950	984	1032
77	930	890	857	829	806	794	787	799	780	799	787	794	806	829	857	890	930
78	834	799	766	741	720	707	700	712	691	712	700	707	720	741	766	799	834
79	743	709	680	654	636	624	616	625	610	625	616	624	636	654	680	709	743
80	657	622	595	571	554	542	535	543	529	543	535	542	554	571	595	622	657
81	573	542	514	490	474	464	458	464	451	464	458	464	474	490	514	542	573
82	490	461	438	418	401	390	384	390	375	390	384	390	401	418	438	461	490
83	412	385	364	345	329	321	316	319	307	319	316	321	329	345	364	385	412
84	341	317	296	278	265	256	251	251	242	251	251	256	265	278	296	317	341
85	274	249	232	215	204	197	191	191	185	191	191	197	204	215	232	249	274
86	210	189	174	161	149	143	135	137	129	137	135	143	149	161	174	189	210
87	154	135	123	111	101	96	90	90	82	90	90	96	101	111	123	135	154
88	103	88	79	70	60	55	50	49	42	49	50	55	60	70	79	88	103
89	58	49	42	36	29	26	25	23	19	23	25	26	29	36	42	49	58
90	28	22	19	14	11	10	10	12	9	12	10	10	11	14	19	22	28
91	14	10	8	6	5	6	6	6	7	6	6	6	5	6	8	10	14
92	6	7	7	6	5	6	7	7	10	7	7	6	5	6	7	7	6
93	7	8	6	6	6	6	7	6	7	6	7	6	6	6	6	8	7
94	6	7	5	6	5	4	6	8	8	8	6	4	5	6	5	7	6
95	7	5	6	6	6	6	4	6	7	6	4	6	6	6	6	5	7
96	5	6	6	6	5	6	6	8	8	8	6	6	5	6	6	6	5
97	6	6	5	5	6	6	6	4	6	4	6	6	6	5	5	6	6
98	7	6	4	6	4	4	6	6	5	6	6	4	4	6	4	6	7
99	7	7	7	5	3	5	6	6	5	6	6	5	3	5	7	7	7
100	9	6	6	6	4	6	5	6	5	6	5	6	4	6	6	6	9
101	6	5	5	5	4	5	5	7	6	7	5	5	4	5	5	5	6
102	5	6	5	4	2	5	6	5	8	5	6	5	2	4	5	6	5
103	8	6	4	4	2	5	5	7	5	7	5	5	2	4	4	6	8
104	5	5	5	4	3	5	6	7	4	7	6	5	3	4	5	5	5
105	6	6	5	4	4	5	5	7	5	7	5	5	4	4	5	6	6
106	7	6	4	4	2	4	4	6	7	6	4	4	2	4	4	6	7
107	5	6	4	5	3	5	5	6	3	6	5	5	3	5	4	6	5
108	6	6	5	4	4	5	6	5	6	5	6	5	4	4	5	6	6
109	4	6	5	6	3	5	6	6	6	6	6	5	3	6	5	6	4
110	4	7	5	4	3	5	5	7	6	7	5	5	3	4	5	7	4
111	5	5	5	4	3	6	6	7	5	7	6	6	3	4	5	5	5
112	5	7	5	7	2	6	6	7	4	7	6	6	2	7	5	7	5
113	6	5	6	5	3	3	7	7	6	7	7	3	3	5	6	5	6
114	5	7	6	6	3	4	3	7	7	7	3	4	3	6	6	7	5
115	4	6	7	5	4	6	7	5	6	5	7	6	4	5	7	6	4
116	4	6	7	5	2	7	7	6	6	6	7	7	2	5	7	6	4
117	6	6	8	7	4	6	9	7	7	7	9	6	4	7	8	6	6
118	6	6	8	7	5	7	8	5	7	5	8	7	5	7	8	6	6
119	6	7	8	8	4	6	6	8	8	8	6	6	4	8	8	7	6
120	5	6	5	6	4	8	7	6	6	6	7	8	4	6	5	6	5
121	6	7	6	8	3	7	8	7	6	7	8	7	3	8	6	7	6
122	6	4	7	7	5	7	6	7	7	7	6	7	5	7	7	4	6
123	5	6	6	10	3	11	8	6	7	6	8	11	3	10	6	6	5
124	4	7	8	10	4	10	7	7	8	7	7	10	4	10	8	7	4
125	7	6	7	11	8	9	7	8	9	8	7	9	8	11	7	6	7
126	7	6	7	11	8	8	6	7	9	7	6	8	8	11	7	6	7
127	9	6	8	11	5	8	7	7	8	7	7	8	5	11	8	6	9
128	6	7	8	8	6	10	8	8	7	8	8	10	6	8	8	7	6
129	8	9	7	10	5	8	8	7	9	7	8	8	5	10	7	9	8
130	7	7	9	9	7	10	9	7	7	7	9	10	7	9	9	7	7
131	7	9	10	10	4	10	8	8	8	8	8	10	4	10	10	9	7
132	8	8	8	11	6	8	10	10	7	10	10	8	6	11	8	8	8
133	9	10	10	11	6	9	11	9	7	9	11	9	6	11	10	10	9
134	8	8	11	11	4	9	10	9	10	9	10	9	4	11	11	8	8
135	9	10	11	11	6	10	13	9	9	9	13	10	6	11	11	10	9
136	8	10	13	13	6	10	9	10	11	10	9	10	6	13	13	10	8
137	9	11	12	11	6	10	10	9	10	10	10	10	6	11	12	11	9
138	11	11	13	11	6	11	10	12	11	12	10	11	6	11	13	11	11
139	12	12	13	11	7	11	11	11	9	11	11	11	7	11	13	12	12
140	12	12	13	13	7	10	13	12	10	12	13	10	7	13	13	12	12
141	13	13	14	12	8	10	12	12	10	12	12	10	8	12	14	13	13
142	12	14	14	13	8	10	12	14	10	14	12	10	8	13	14	14	12
143	13	16	14	11	8	11	14	15	11	15	14	11	8	11	14	16	13
144	13	13	14	12	7	9	13	14	14	14	13	9	7	12	14	13	13
145	15	14	15	12	8	12	15	13	14	13	15	12	8	12	15	14	15
146	16	12	14	12	8	12	12	14	13	14	12	12	8	12	14	12	16
147	13	14	16	11	8	12	14	14	13	14	14	12	8	11	16	14	13
148	16	13	15	11	8	11	14	15	14	15	14	11	8	11	15	13	16
149	14	15	15	12	8	12	14	14	15	14	14	12	8	12	15	15	14
150	15	16	15	13	8	12	14	15	12	15	14	12	8	13	15	16	15
151	15	15	14	11	9	10	16	14	14	16	16	10	9	11	14	15	15
152	17	16	16	16	9	9	14	16	16	16	14	9	9	16	16	16	17

Luminaire Report Summary

IESNA:LM-63-2002
[TEST] Goniophotometer test
[TESTLAB] UL-CCIC (Suzhou) Co.,Ltd
[TESTDATE] 2016-11-10
[ISSUEDATE] 2016-11-10
[MANUFAC] P.Q.L., Inc.
[LUMCAT]
[LUMINAIRE] 55227/4000K
[LAMP]

FILE: CREATED USING ABSOLUTE PHOTOMETRY
FILE: CANDELA MULTIPLIER: 1
FILE: VERTICAL ANGLES: 181, HORIZONTAL ANGLES: 17
FILE: COORDINATE SYSTEM: TYPE C
FILE: UNIT OF MEASURE: STANDARD
FILE: BALLAST FACTOR: 1

Photometrics Pro 1.3.14 copyright 2003-2016 by jSolutions, Inc.
Reported data calculated from manufacturer's data file, based on IES recommended methods.