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Report No: L091603906

Date: 9/29/2016



NVLAP LAB CODE 200927-0

**Report No:** L091603906

**Report Prepared For:** Leotek Electronics USA, LLC  
 1955 Lundy Ave, San Jose, 95131

**Model Number:** GCJ2-20H-MV-CW-2R-XX-700

**Test:** Electrical and Photometric tests

**Standards Used:** Appropriate part or all test guidelines were used for test performed:  
*IESNA LM79: 2008* Approved Methods for Electrical and Photometric Measurements of Solid-State Lighting Products  
*ANSI NEMA ANSLG C78.377: 2008* Specification of the Chromaticity of Solid State Lighting Products  
*ANSI C82.77:2002:* Harmonic Emission Limits-Related Quality Requirements for Lighting Equipment

**Description of Sample:** Client submitted the sample. Catalog number is GCJ2-20H-MV-CW-2R-XX-700 .  
 Received in working and undamaged condition. No modifications were necessary.

**Testing Condition:** Fixture is tested with no special conditions.

**Sample Arrival Date:** 9/12/16

**Date of Tests:** 9/27/16 - 9/27/16

**Seasoning of Sample:** No seasoning was performed in accordance with IESNA LM-79.

**Equipment List**

Equipment Used	Model No	Stock No	Calibration Due Date
Chroma Programmable AC Source	61604	PS-AC02	--
Yokogawa Digital Power Meter	WT210	MT-EL06-S1	11/18/16
Xitron Power Analyzer	2503AH	MT-EL01	11/30/16
ITECH DC Power Supply	IT6122	PSDC-03-S1	11/17/16
Fluke Digital Thermometer	52k/J	MT-TP02-GC	11/24/16
LLI Type C Goniophotometer System	RMG-C-MKII	CD-LL04-GC	--
LLI 2M Sphere	2MR97	CD-SN03-S2	--
LLI Spectroradiometer	SPR-3000	MT-SC01-S2	Before Use

\*All Results in accordance to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting.

**Test Summary**

<b>Manufacturer:</b>	Leotek Electronics USA, LLC	
<b>Model Number:</b>	GCJ2-20H-MV-CW-2R-XX-700	
<b>Driver Model Number:</b>	PHILIPS ADVANCE XI075C105V070CNY2	
<b>Total Lumens:</b>	5434.60	
<b>Input Voltage (VAC/60Hz):</b>	120.00	
<b>Input Current (Amp):</b>	0.37	
<b>Input Power (W):</b>	44.80	
<b>Input Power Factor:</b>	1.00	
<b>Current ATHD @ 120V(%):</b>	8%	
<b>Current ATHD @ 277V(%):</b>	9% (0.16A, 44.69W, 0.98PF)	
<b>Efficacy:</b>	121	
<b>Color Rendering Index (CRI):</b>	72	
<b>Correlated Color Temperature (K):</b>	4863	
<b>Chromaticity Coordinate x:</b>	0.3502	
<b>Chromaticity Coordinate y:</b>	0.3645	
<b>Ambient Temperature (°C):</b>	25.0	
<b>Stabilization Time (Hours):</b>	0:30	
<b>Total Operating Time (Hours):</b>	2:00	
<b>Off State Power(W):</b>	0.00	

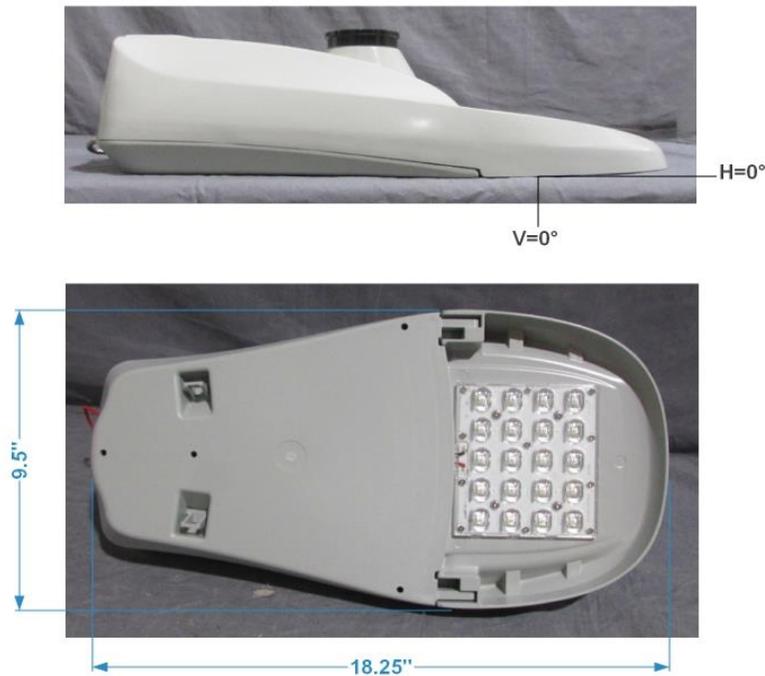
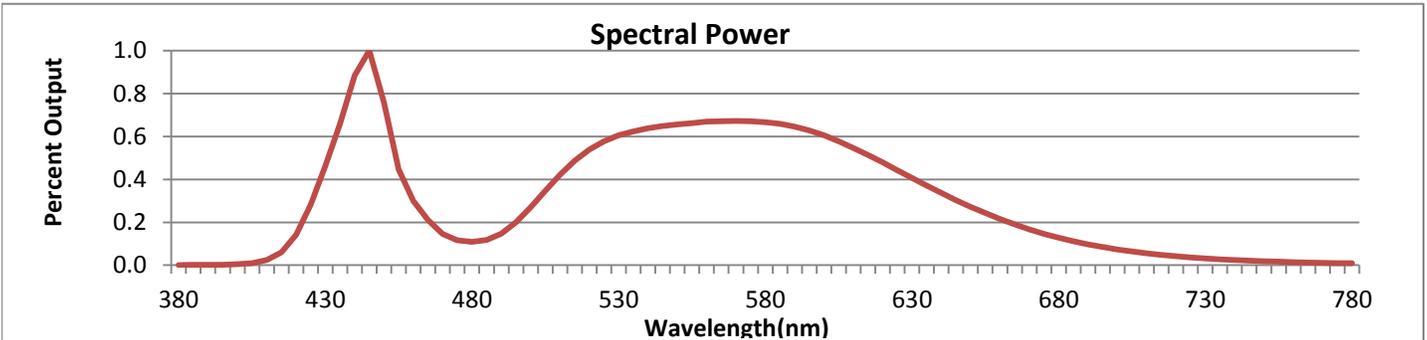


FIG. 1 LUMINAIRE

\*All Results in accordance to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting.



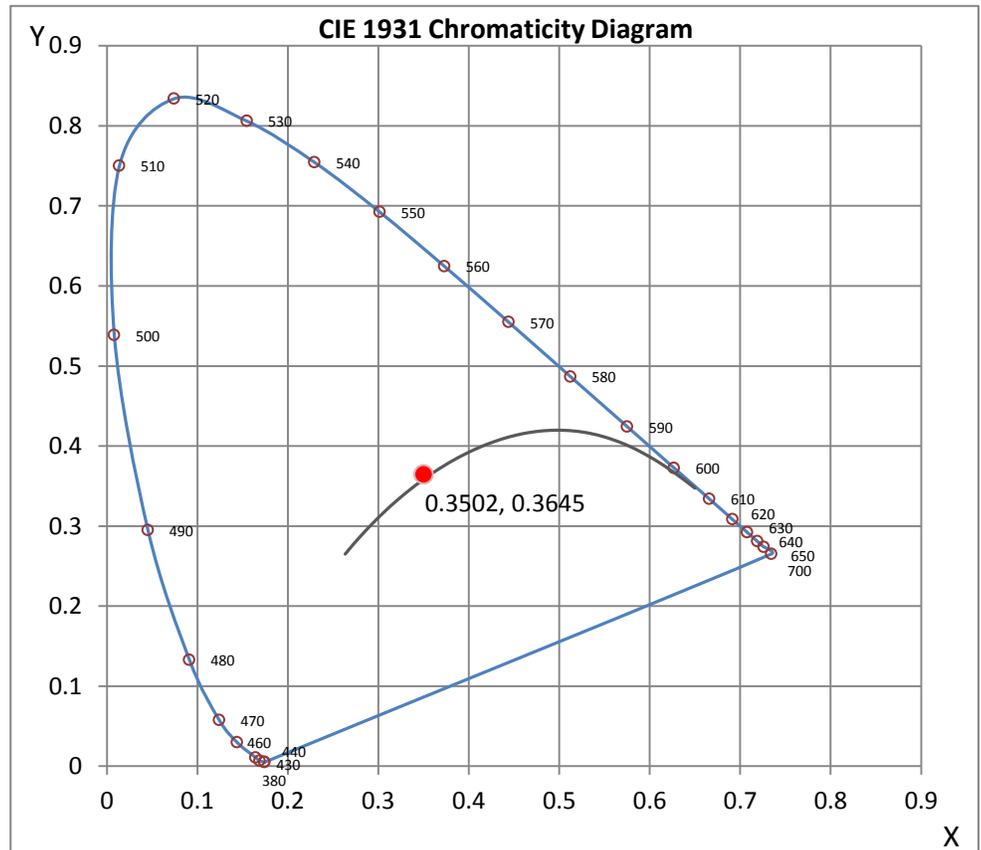
Wavelength	W/m <sup>2</sup> nm	440	0.8857	510	0.4220	580	0.6665	650	0.2725	720	0.0419
380	0.0011	450	0.7588	520	0.5391	590	0.6458	660	0.2158	730	0.0318
390	0.0017	460	0.3007	530	0.6054	600	0.6058	670	0.1666	740	0.0241
400	0.0046	470	0.1455	540	0.6383	610	0.5470	680	0.1280	750	0.0186
410	0.0237	480	0.1093	550	0.6568	620	0.4797	690	0.0969	760	0.0142
420	0.1408	490	0.1470	560	0.6696	630	0.4075	700	0.0733	770	0.0109
430	0.4638	500	0.2707	570	0.6733	640	0.3372	710	0.0554	780	0.0095

**CRI & CCT**

x	0.3502
y	0.3645
u'	0.2099
v'	0.4916
CRI	72.00
CCT	4863
Duv	0.00437

**R Values**

R1	70.07
R2	75.35
R3	79.98
R4	73.82
R5	70.43
R6	66.93
R7	80.24
R8	58.99
R9	-23.40
R10	42.17
R11	72.10
R12	45.17
R13	70.03
R14	88.28



\*All Results in accordance to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting.

## Test Methods

### Photometric Measurements - Goniophotometer

A Custom Light Laboratory Type C Rotating Mirror Goniophotometer was used to measure candelas(intensity) at each angle of distribution as defined by IESNA for the appropriate fixture type.

Ambient temperature is set to 25°C and is measured from the center of the fixture, within 1ft from the outside of the fixture. Temperature is maintained at 25°C throughout the testing process and the sample is stabilized for at least 30mins and longer as necessary for the sample to achieve stabilization.

Electrical measurements are measured using the listed equipment.

### Spectral Measurements - Integrating Sphere

A Sensing Spectroradiometer SPR-3000, in conjunction with Light Laboratory 2 meter integrating sphere was used to measure chromaticity coordinates, correlated color temperature(CCT) and the color rendering index(CRI) for each sample.

Ambient temperature is set to 25°C and is measured from the center of the fixture, within 1ft from the outside of the fixture. Temperature is maintained at 25°C throughout the testing process and the sample is stabilized for at least 30mins and longer as necessary for the sample to achieve stabilization.

Electrical measurements are measured using the listed equipment.

### Disclaimers:

This report must not be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST or any agency of Federal Government.

Report Prepared by : JEFF AHN

Test Report Released by:



Jeff Ahn  
Engineering Manager

Test Report Reviewed by:



Steve Kang  
Quality Assurance

*\*Attached are photometric data reports. Total number of pages: 14*



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# Photometric Test Report

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : L091603906.IES**

## DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] L091603906  
 [TESTLAB] LIGHT LABORATORY, INC.  
 [ISSUEDATE] 9/29/2016  
 [MANUFAC] Leotek Electronics USA, LLC  
 [LUMCAT] GCJ2-20H-MV-CW-2R-XX-700  
 [LUMINAIRE] 18.25"L. X 9.5"W. X 4.5"H. LED STREET LIGHT  
 [BALLASTCAT] PHILIPS ADVANCE XI075C105V070CNY2  
 [OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND  
 [MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.  
 [\_INPUT] 120VAC, 44.80W  
 [\_TEST PROCEDURE] IESNA:LM-79-08

## CHARACTERISTICS

IES Classification	Type II
Longitudinal Classification	Medium
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5435
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	121
Total Luminaire Watts	44.8
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	4540
Maximum Candela Angle	75H 69V
Maximum Candela (<90 Degrees Vertical)	4540
Maximum Candela Angle (<90 Degrees Vertical)	75H 69V
Maximum Candela At 90 Degrees Vertical	0 (0.0% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	1017 (18.7% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

**IES ROAD REPORT**  
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**LUMINAIRE CLASSIFICATION SYSTEM (LCS)**

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	531.0	N.A.	9.8
FM - Front-Medium (30-60)	2243.4	N.A.	41.3
FH - Front-High (60-80)	1435.9	N.A.	26.4
FVH - Front-Very High (80-90)	39.7	N.A.	0.7
BL - Back-Low (0-30)	346.4	N.A.	6.4
BM - Back-Medium (30-60)	544.7	N.A.	10.0
BH - Back-High (60-80)	279.4	N.A.	5.1
BVH - Back-Very High (80-90)	14.2	N.A.	0.3
UL - Uplight-Low (90-100)	0.0	N.A.	0.0
UH - Uplight-High (100-180)	0.0	N.A.	0.0
Total	5434.7	N.A.	100.0
BUG Rating	B1-U0-G1		

**ZONAL LUMEN SUMMARY**

Zone	%
0-20	7.5
0-30	16.1
0-40	28.7
0-60	67.4
0-80	99
0-90	100
10-90	98
20-40	21.2
20-50	38.7
40-70	58.8
60-80	31.6
70-80	11.5
80-90	1
90-110	0
90-120	0
90-130	0
90-150	0
90-180	0
110-180	0
0-180	100

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : L091603906.IES**

**CANDELA TABULATION**

Vert. Angles	Horizontal Angles									
	<u>0</u>	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>	<u>35</u>	<u>40</u>	<u>45</u>
<b>0.0</b>	1208	1208	1208	1208	1208	1208	1208	1208	1208	1208
<b>2.5</b>	1206	1207	1208	1208	1208	1209	1209	1209	1206	1205
<b>5.0</b>	1199	1200	1202	1201	1200	1201	1201	1200	1197	1196
<b>7.5</b>	1199	1200	1200	1199	1198	1198	1197	1196	1191	1189
<b>10.0</b>	1211	1212	1211	1210	1209	1208	1204	1199	1193	1187
<b>12.5</b>	1212	1213	1214	1214	1216	1218	1218	1216	1208	1198
<b>15.0</b>	1211	1212	1213	1214	1218	1221	1224	1226	1224	1218
<b>17.5</b>	1212	1213	1215	1218	1225	1230	1234	1238	1239	1239
<b>20.0</b>	1222	1225	1227	1233	1241	1248	1255	1261	1264	1266
<b>22.5</b>	1249	1253	1255	1262	1272	1282	1292	1298	1298	1298
<b>25.0</b>	1287	1291	1294	1304	1319	1335	1344	1347	1343	1337
<b>27.5</b>	1341	1345	1351	1364	1386	1407	1417	1414	1400	1386
<b>30.0</b>	1392	1396	1405	1431	1472	1502	1518	1513	1492	1462
<b>32.5</b>	1449	1453	1461	1497	1555	1603	1635	1645	1626	1584
<b>35.0</b>	1526	1529	1539	1580	1635	1694	1751	1787	1779	1732
<b>37.5</b>	1618	1617	1625	1666	1729	1790	1855	1920	1932	1896
<b>40.0</b>	1704	1702	1711	1755	1824	1901	1971	2028	2066	2060
<b>42.5</b>	1778	1780	1791	1837	1916	2013	2102	2156	2177	2213
<b>45.0</b>	1824	1823	1837	1880	1990	2095	2210	2283	2306	2340
<b>47.5</b>	1836	1834	1845	1901	2026	2139	2277	2373	2429	2474
<b>50.0</b>	1792	1792	1818	1912	2051	2174	2310	2425	2522	2594
<b>52.5</b>	1661	1676	1753	1866	2055	2189	2334	2453	2578	2681
<b>55.0</b>	1456	1523	1636	1795	1976	2139	2353	2466	2588	2712
<b>56.0</b>	1361	1422	1547	1740	1939	2165	2424	2462	2579	2714
<b>57.0</b>	1248	1304	1446	1634	1885	2143	2466	2520	2568	2704
<b>58.0</b>	1047	1120	1292	1511	1792	2093	2390	2744	2575	2687
<b>59.0</b>	659	725	944	1294	1651	2005	2335	2888	2756	2690
<b>60.0</b>	473	493	565	817	1381	1860	2246	2772	3142	2847
<b>61.0</b>	369	382	433	514	822	1526	2087	2547	3065	3051
<b>62.0</b>	303	310	338	391	498	948	1797	2343	2860	3135
<b>63.0</b>	245	241	263	313	373	523	1289	2094	2655	2974
<b>64.0</b>	165	163	185	252	296	378	672	1670	2379	2739
<b>65.0</b>	133	135	139	191	253	301	422	879	1987	2497
<b>66.0</b>	122	125	128	156	214	256	318	583	1519	2178
<b>67.0</b>	113	117	118	130	185	218	254	375	807	1775
<b>68.0</b>	105	109	111	117	142	190	214	284	571	1364
<b>69.0</b>	98	101	103	109	123	164	187	230	369	785
<b>70.0</b>	92	95	95	99	112	141	159	189	267	629
<b>71.0</b>	86	89	88	91	103	122	142	158	214	398
<b>72.0</b>	80	83	82	83	94	106	126	136	184	278
<b>73.0</b>	73	76	76	77	86	96	112	121	171	226
<b>74.0</b>	66	70	69	71	79	87	100	109	125	190
<b>75.0</b>	60	64	63	65	70	77	90	99	110	171
<b>76.0</b>	55	61	58	61	64	70	80	89	96	129
<b>77.0</b>	50	56	55	58	59	63	72	79	86	112
<b>78.0</b>	47	51	51	53	54	57	66	71	77	92
<b>79.0</b>	44	47	48	49	49	52	59	63	67	72
<b>80.0</b>	41	45	46	45	46	47	53	56	55	58
<b>82.5</b>	36	43	40	35	36	38	38	36	34	35
<b>85.0</b>	29	42	31	24	24	25	23	21	20	20
<b>87.5</b>	15	15	15	15	15	14	14	14	14	14
<b>90.0</b>	0	0	0	0	0	0	0	0	0	0

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : L091603906.IES**

**CANDELA TABULATION - (Cont.)**

Vert. Angles	Horizontal Angles									
	<u>50</u>	<u>55</u>	<u>60</u>	<u>65</u>	<u>70</u>	<u>75</u>	<u>80</u>	<u>85</u>	<u>90</u>	<u>95</u>
0.0	1208	1208	1208	1208	1208	1208	1208	1208	1208	1208
2.5	1205	1203	1202	1200	1199	1200	1200	1197	1198	1196
5.0	1196	1194	1193	1190	1190	1190	1189	1186	1185	1181
7.5	1187	1184	1181	1178	1176	1175	1172	1167	1165	1159
10.0	1181	1174	1168	1163	1160	1159	1155	1148	1142	1133
12.5	1187	1176	1165	1157	1152	1150	1146	1139	1129	1115
15.0	1209	1195	1179	1167	1158	1155	1150	1142	1131	1111
17.5	1237	1228	1212	1188	1174	1169	1164	1154	1140	1115
20.0	1267	1263	1252	1228	1200	1189	1181	1169	1149	1117
22.5	1299	1297	1292	1275	1239	1215	1203	1185	1161	1124
25.0	1333	1330	1327	1313	1281	1247	1228	1204	1176	1130
27.5	1375	1368	1362	1350	1321	1278	1256	1230	1190	1134
30.0	1436	1417	1406	1389	1358	1309	1276	1254	1210	1146
32.5	1533	1492	1462	1437	1402	1349	1288	1266	1228	1158
35.0	1672	1605	1541	1498	1454	1390	1310	1274	1237	1165
37.5	1833	1745	1659	1574	1516	1445	1342	1288	1244	1172
40.0	2006	1916	1800	1683	1592	1505	1385	1311	1257	1169
42.5	2193	2110	1977	1832	1695	1572	1441	1342	1275	1176
45.0	2371	2311	2186	1997	1826	1664	1506	1376	1295	1193
47.5	2526	2502	2388	2185	1975	1781	1579	1413	1319	1205
50.0	2651	2670	2573	2368	2134	1905	1667	1463	1349	1219
52.5	2750	2805	2731	2525	2285	2023	1773	1536	1387	1237
55.0	2807	2882	2853	2663	2429	2171	1900	1612	1431	1261
56.0	2810	2889	2880	2722	2485	2220	1972	1666	1451	1263
57.0	2797	2887	2905	2760	2543	2285	2024	1712	1472	1272
58.0	2788	2876	2924	2804	2603	2367	2096	1763	1496	1281
59.0	2798	2880	2948	2853	2669	2449	2176	1799	1533	1289
60.0	2879	2942	3011	2929	2745	2545	2266	1861	1562	1298
61.0	2938	3021	3115	3061	2879	2659	2367	1929	1580	1319
62.0	2961	3022	3177	3194	3045	2808	2489	2012	1613	1328
63.0	3026	3011	3187	3306	3234	2995	2652	2140	1650	1335
64.0	3039	3001	3177	3421	3454	3249	2861	2262	1687	1341
65.0	2843	3030	3211	3521	3693	3549	3161	2424	1739	1336
66.0	2591	3009	3284	3657	3933	3865	3433	2647	1821	1348
67.0	2341	2850	3329	3815	4167	4149	3724	2869	1972	1366
68.0	2019	2630	3211	3938	4357	4391	4010	3184	2097	1419
69.0	1671	2290	2986	3777	4416	4540	4285	3442	2280	1445
70.0	1269	1943	2643	3518	4272	4535	4409	3681	2462	1519
71.0	803	1575	2271	3239	4058	4388	4397	3781	2702	1615
72.0	599	1205	1862	2881	3802	4230	4294	3787	2851	1705
73.0	393	756	1517	2466	3522	4025	4117	3745	2837	1760
74.0	288	548	1255	2127	3188	3694	3800	3559	2768	1743
75.0	232	371	711	1697	2773	3231	3294	3222	2602	1647
76.0	189	261	493	949	2300	2690	2708	2730	2323	939
77.0	142	200	344	765	1840	2155	2158	2183	1938	810
78.0	108	172	249	651	1451	1725	1700	1682	1506	676
79.0	84	111	183	516	1316	1368	1275	1218	1103	499
80.0	67	82	161	390	795	1017	855	831	696	294
82.5	40	43	45	151	412	401	249	190	154	46
85.0	19	19	19	27	72	57	39	33	32	18
87.5	13	13	13	13	12	12	11	11	11	11
90.0	0	0	0	0	0	0	0	0	0	0

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : L091603906.IES**

**CANDELA TABULATION - (Cont.)**

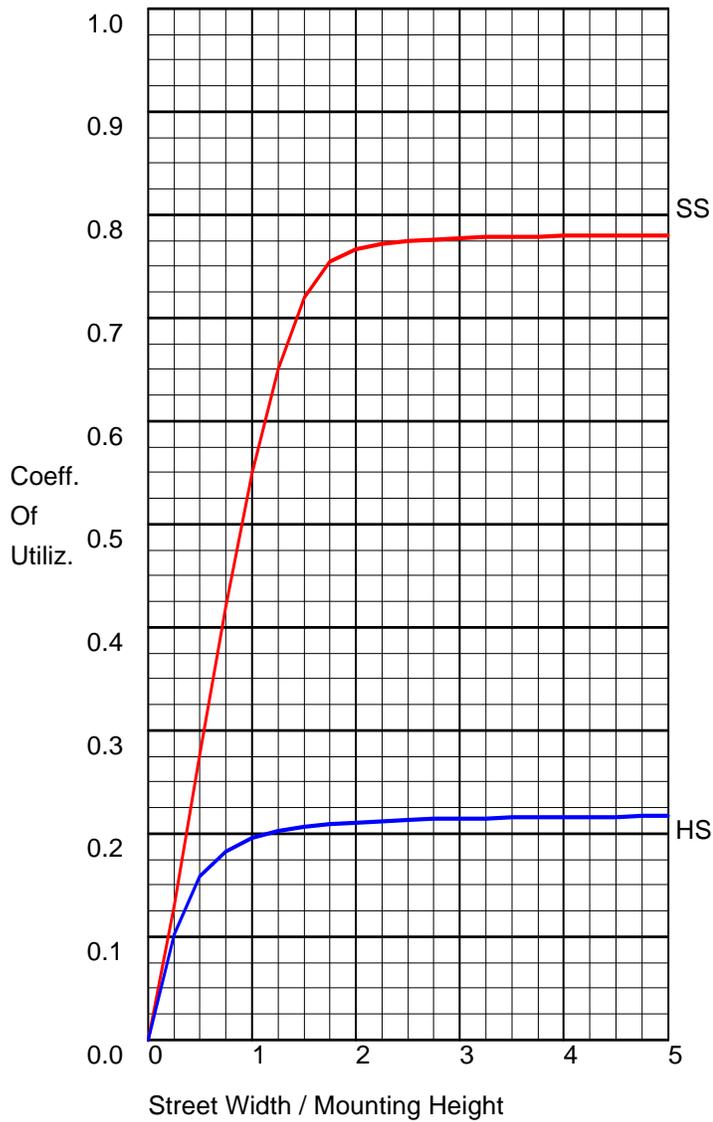
Vert. Angles	Horizontal Angles									
	<u>100</u>	<u>105</u>	<u>110</u>	<u>115</u>	<u>120</u>	<u>125</u>	<u>130</u>	<u>135</u>	<u>140</u>	<u>145</u>
0.0	1208	1208	1208	1208	1208	1208	1208	1208	1208	1208
2.5	1195	1195	1195	1193	1195	1196	1193	1193	1192	1193
5.0	1180	1177	1175	1170	1168	1165	1159	1156	1152	1149
7.5	1154	1148	1141	1132	1125	1119	1110	1103	1095	1089
10.0	1123	1111	1099	1084	1072	1060	1046	1034	1023	1013
12.5	1100	1081	1061	1040	1020	1000	979	961	944	931
15.0	1089	1065	1037	1005	976	948	918	891	868	849
17.5	1085	1053	1020	980	942	902	863	829	797	769
20.0	1082	1045	1001	956	912	863	814	770	729	693
22.5	1079	1035	985	930	877	826	768	713	665	620
25.0	1077	1022	964	904	846	784	721	661	601	548
27.5	1075	1016	949	878	812	741	672	602	540	488
30.0	1075	1004	932	853	773	701	619	541	479	439
32.5	1075	995	912	827	742	650	560	483	432	406
35.0	1077	990	897	800	705	597	500	431	402	386
37.5	1077	977	878	770	655	544	443	398	380	368
40.0	1073	969	855	742	605	475	396	373	361	349
42.5	1068	960	838	695	542	412	362	349	339	326
45.0	1069	942	754	635	459	360	332	322	309	289
47.5	1067	926	725	567	391	321	308	296	276	247
50.0	1065	908	699	489	326	287	280	268	239	215
52.5	1066	886	660	407	276	256	250	236	212	192
55.0	1067	767	574	329	235	225	219	204	186	171
56.0	1066	746	557	300	221	213	207	192	181	164
57.0	1055	750	525	273	210	202	196	181	168	155
58.0	1062	742	479	250	199	192	186	177	161	149
59.0	1059	718	447	229	189	183	176	161	152	142
60.0	1053	710	416	210	179	174	171	152	145	138
61.0	1047	686	385	195	172	164	157	142	138	134
62.0	1040	676	354	182	160	156	149	134	132	130
63.0	1032	665	338	176	152	148	141	127	127	125
64.0	1022	653	308	170	144	141	133	122	122	121
65.0	1008	640	281	166	136	133	125	116	117	116
66.0	980	606	255	148	129	125	117	111	110	111
67.0	1140	573	221	143	123	118	109	104	103	106
68.0	1112	519	202	126	117	111	102	97	97	101
69.0	794	486	193	120	111	106	94	90	92	96
70.0	771	474	188	116	107	100	86	85	86	91
71.0	796	427	178	114	103	94	80	79	81	86
72.0	765	398	174	109	98	86	75	72	75	81
73.0	705	366	166	99	87	79	68	66	69	75
74.0	665	347	158	88	78	72	63	60	62	70
75.0	516	312	155	79	70	66	58	55	55	62
76.0	368	301	160	71	64	62	54	50	50	55
77.0	237	268	160	63	58	57	49	45	45	48
78.0	172	201	100	58	53	51	44	40	41	44
79.0	66	140	73	52	49	45	39	36	37	40
80.0	46	102	55	44	43	40	33	32	33	35
82.5	29	44	32	29	29	27	25	24	25	26
85.0	18	19	18	18	19	19	18	18	18	19
87.5	11	12	12	12	13	13	13	14	14	15
90.0	0	0	0	0	0	0	0	0	0	0

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : L091603906.IES**

**CANDELA TABULATION - (Cont.)**

Vert. Angles	Horizontal Angles						
	<u>150</u>	<u>155</u>	<u>160</u>	<u>165</u>	<u>170</u>	<u>175</u>	<u>180</u>
0.0	1208	1208	1208	1208	1208	1208	1208
2.5	1194	1193	1192	1192	1190	1190	1189
5.0	1147	1143	1141	1140	1138	1137	1135
7.5	1083	1076	1071	1067	1064	1063	1061
10.0	1004	995	986	980	975	973	971
12.5	919	907	896	888	880	876	874
15.0	832	816	805	795	785	780	778
17.5	746	727	711	699	688	682	679
20.0	662	634	610	593	582	575	573
22.5	580	544	516	493	479	472	470
25.0	506	472	445	428	418	412	411
27.5	449	425	407	394	383	376	373
30.0	415	397	383	368	356	347	343
32.5	392	377	362	347	333	323	318
35.0	373	360	345	330	314	301	297
37.5	356	342	325	305	285	267	262
40.0	336	316	290	269	250	235	230
42.5	306	280	258	238	218	202	197
45.0	262	240	219	200	182	169	165
47.5	227	207	188	178	158	149	147
50.0	197	182	165	155	145	137	136
52.5	180	160	152	144	134	127	125
55.0	157	145	138	130	122	116	112
56.0	150	140	133	124	118	110	107
57.0	145	135	127	120	114	108	104
58.0	139	131	122	116	111	105	102
59.0	135	127	118	112	107	102	99
60.0	131	123	115	109	104	100	97
61.0	127	121	112	106	101	97	95
62.0	124	118	109	103	99	95	94
63.0	121	116	106	100	97	94	93
64.0	118	113	104	98	95	93	94
65.0	114	110	102	95	93	93	94
66.0	110	108	99	93	92	92	93
67.0	106	105	98	92	90	91	91
68.0	102	101	96	90	89	89	90
69.0	97	97	93	88	87	87	88
70.0	93	93	90	85	84	85	86
71.0	89	90	87	83	81	83	84
72.0	85	87	84	80	77	77	77
73.0	81	84	81	74	70	69	65
74.0	76	80	78	69	60	54	53
75.0	71	76	75	63	52	51	50
76.0	64	71	71	57	50	49	48
77.0	57	65	64	54	47	46	45
78.0	49	58	57	51	45	42	42
79.0	43	50	52	47	42	40	40
80.0	39	43	47	44	39	37	37
82.5	28	29	32	31	29	28	29
85.0	19	19	20	20	19	19	19
87.5	15	15	15	15	15	15	15
90.0	0	0	0	0	0	0	0

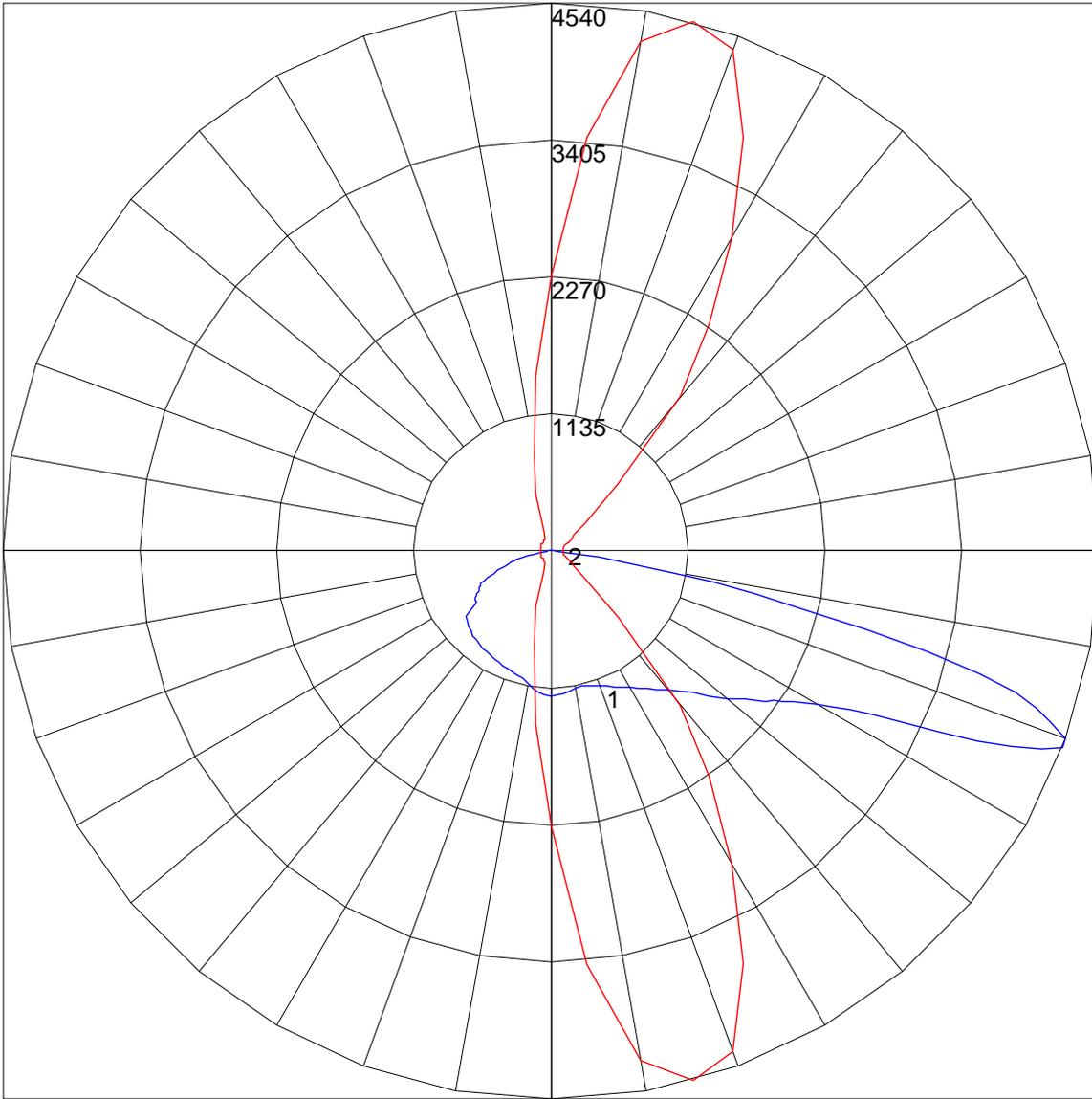
**COEFFICIENTS OF UTILIZATION**



**FLUX DISTRIBUTION**

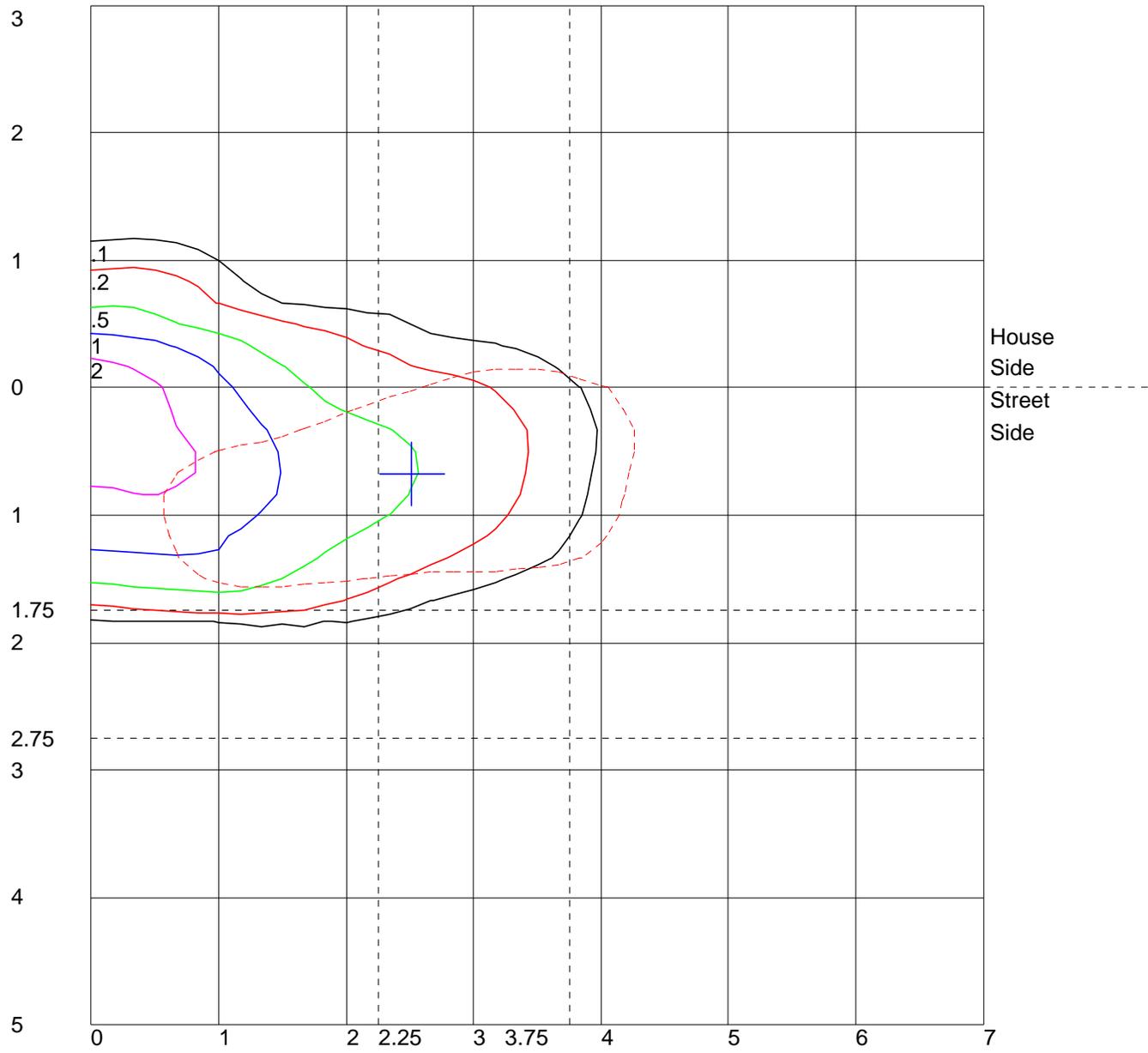
	Lumens	Percent Of Luminaire
Downward Street Side	4249.9	78.2
Downward House Side	1184.7	21.8
Downward Total	5434.6	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
<b>Total Flux</b>	<b>5434.6</b>	<b>100.0</b>

POLAR GRAPH



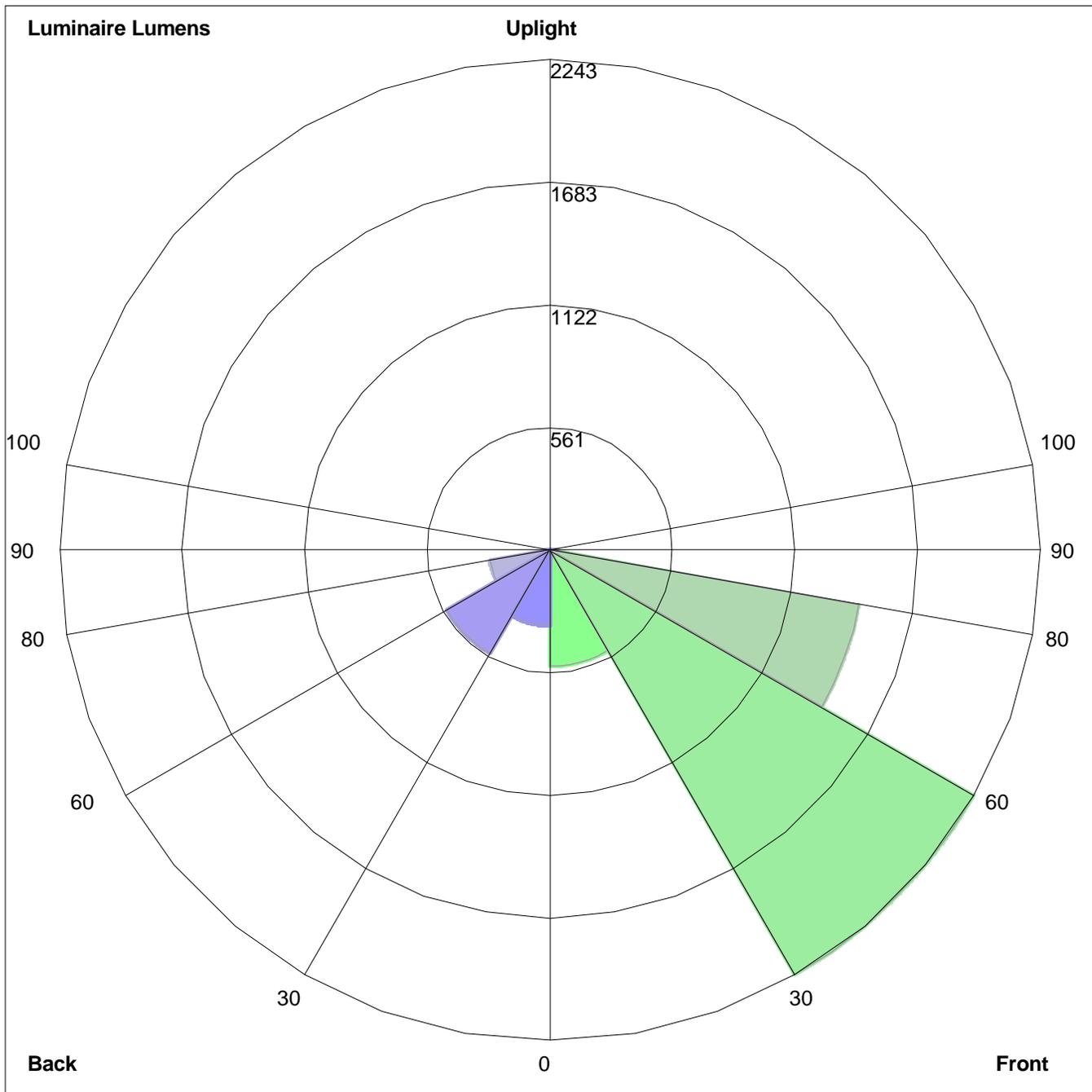
Maximum Candela = 4540 Located At Horizontal Angle = 75, Vertical Angle = 69  
# 1 - Vertical Plane Through Horizontal Angles (75 - 255) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (69) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



Distance In Units Of Mounting Height  
 Values Based On 20 Foot Mounting Height  
 1/2 Maximum Candela Trace Shown As Dashed Curve  
 (+) = Maximum Candela Point

LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:  
Front: Low=531.0, Medium=2243.4, High=1435.9, Very High=39.7  
Back: Low=346.4, Medium=544.7, High=279.4, Very High=14.2  
Uplight: Low=0.0, High=0.0

BUG Rating : B1-U0-G1