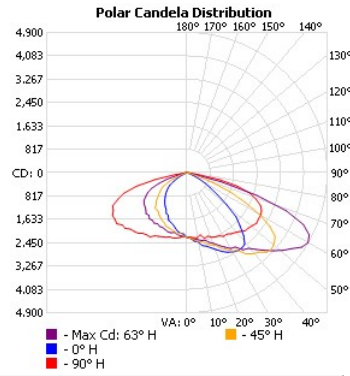


**Filename: LED module 42he1 distribution**

Lamp Output: 2 lamps, rated Lumens/lamp: 5400  
 Max Candela: 4,885.7 at Horizontal: 63Å°, Vertical: 60Å°  
 Input Wattage: 1  
 Luminous Opening: Point  
 Test Lab: LightTools Simulation  
 Photometry : Type C  
 Nema Type: 7 X 6



**Roadway Summary**

Cutoff Classification:	N/A
Distribution:	TYPE II, SHORT
Max Cd, 90 Deg Vert:	94.8
Max Cd, 80 to <90 Deg:	412.6
Lumens % Lamp	
Downward Street Side:	6,264.2 58%
Downward House Side:	3,442.2 31.9%
Downward Total:	9,706.4 89.9%
Upward Street Side:	126.6 1.2%
Upward House Side:	96.3 0.9%
Upward Total:	222.9 2.1%
Total Lumens:	9,929.3 91.9%

**Flood Summary**

	Efficiency	Lumens	Horizontal Spread	Vertical Spread
Field (10%):	87.6%	9,464.3	156.3	123.5
Beam (50%):	53.5%	5,782.1	138.5	73.7
Total:	91.9%	9,925.3		

**Zonal Lumen Summary**

Zone	Lumens	% Lamp	% Luminaire
0-30	1,994.2	18.5%	20%
0-40	3,572.6	33.1%	35.9%
0-60	7,477.9	69.2%	75.1%
60-90	2,226.9	20.6%	22.4%
70-100	738.4	6.8%	7.4%
90-120	176.3	1.6%	1.8%
0-90	9,704.8	89.9%	97.5%
90-180	248.2	2.3%	2.5%
0-180	9,953.0	92.2%	100%

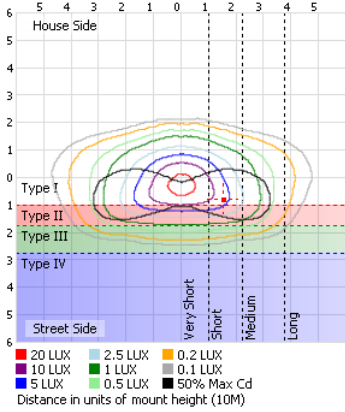
**Lumens Per Zone**

Zone	Lumens	% Total	Zone	Lumens	% Total
0-5	53.9	0.5%	90-95	31.2	0.3%
5-10	162.5	1.6%	95-100	31.0	0.3%
10-15	273.0	2.7%	100-105	27.7	0.3%
15-20	385.5	3.9%	105-110	29.8	0.3%
20-25	499.2	5.0%	110-115	28.9	0.3%
25-30	620.2	6.2%	115-120	27.7	0.3%
30-35	736.8	7.4%	120-125	24.0	0.2%
35-40	841.5	8.5%	125-130	24.8	0.2%
40-45	936.3	9.4%	130-135	23.1	0.2%
45-50	995.3	10.0%	135-140	0	0%
50-55	1,002.9	10.1%	140-145	0	0%
55-60	970.8	9.8%	145-150	0	0%
60-65	873.3	8.8%	150-155	0	0%
65-70	677.5	6.8%	155-160	0	0%
70-75	422.6	4.2%	160-165	0	0%
75-80	176.9	1.8%	165-170	0	0%
80-85	46.1	0.5%	170-175	0	0%
85-90	30.6	0.3%	175-180	0	0%

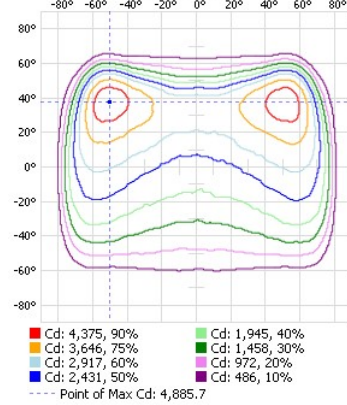
**LCS Table**

BUG Rating	B2 - U3 - G2	Lumens	Lumens %
<b>Forward Light</b>			
Low(0-30):	1,145.8	10.6%	
Medium(30-60):	3,627.7	33.6%	
High(60-80):	1,447.9	13.4%	
Very High(80-90):	42.9	0.4%	
<b>Back Light</b>			
Low(0-30):	848.2	7.9%	
Medium(30-60):	1,856.5	17.2%	
High(60-80):	700.1	6.5%	
Very High(80-90):	37.4	0.3%	
<b>Uplight</b>			
Low(90-100):	57.4	0.5%	
High(100-180):	165.5	1.5%	
<b>Trapped Light:</b>	870.7	8.1%	

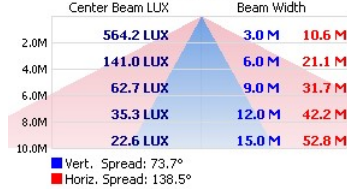
**Isolux Plot**



**IsoCandela Plot**



**Illuminance at a Distance**







39	3205	3155	3160	3179	3184	3218	3157	3210	3242	3299	3438	3431	3476	3552	3613	3650	3703	3672	3607	3591	3529	3403	3351	3347	3201	3157	3034	2937	2869	2792	2687	2607	2552	2500	2386	2320	2261	2164	2133	2136	2018	191		
42	2961	2931	2959	2945	3010	3036	3038	3122	3198	3220	3349	3414	3515	3596	3712	3742	3760	3779	3840	3745	3651	3611	3506	3474	3388	3274	3182	3075	2956	2882	2764	2758	2628	2475	2421	2407	2330	2207	2105	1999	1951	186		
45	2614	2596	2582	2600	2702	2757	2764	2873	2958	3064	3291	3427	3574	3726	3794	3936	3999	3945	3995	4005	3874	3840	3744	3646	3606	3424	3265	3183	3098	2961	2872	2758	2699	2612	2479	2332	2269	2182	2108	2029	1924	184		
48	2314	2213	2161	2226	2263	2303	2416	2576	2732	2947	3135	3273	3531	3699	3818	3983	4129	4184	4221	4195	4189	4074	4039	3930	3742	3545	3464	3347	3131	2969	2887	2829	2688	2550	2450	2403	2246	2174	2090	1964	1882	176		
51	1788	1732	1706	1724	1798	1877	1966	2132	2313	2554	2785	3084	3273	3454	3751	3920	4167	4209	4295	4412	4345	4312	4225	4090	3919	3789	3610	3415	3228	3166	2940	2847	2718	2585	2475	2355	2298	2111	2009	1905	1786	172		
54	1326	1318	1387	1383	1392	1452	1551	1742	1926	2124	2344	2626	2874	3175	3544	3805	3996	4314	4445	4572	4541	4519	4464	4323	4159	3959	3736	3562	3320	3132	3009	2840	2684	2648	2475	2343	2222	2102	1986	1843	1729	160		
57	967	929	988	1023	1101	1173	1230	1331	1419	1611	1845	2089	2355	2751	3083	3460	3825	4275	4451	4650	4783	4778	4676	4473	4258	4055	3811	3561	3385	3175	2975	2843	2746	2592	2436	2331	2224	2081	1933	1715	1645	152		
60	737	716	729	769	795	869	895	1028	1099	1189	1358	1561	1806	2141	2518	2945	3478	3944	4397	4663	4794	4886	4842	4678	4478	4139	3988	3701	3371	3199	2974	2859	2719	2580	2396	2233	2089	1963	1824	1660	1571	138		
63	493	522	527	550	578	603	655	705	782	851	946	1100	1294	1553	1829	2288	2888	3440	3831	4345	4658	4792	4855	4744	4515	4239	3891	3647	3361	3093	2922	2785	2618	2440	2325	2170	2039	1833	1742	1526	1338	118		
66	282	301	300	333	353	386	402	415	511	564	657	727	850	1011	1244	1682	2093	2707	3297	3809	4197	4452	4586	4527	4355	4115	3782	3542	3193	3001	2814	2624	2505	2371	2205	2084	1868	1691	1546	1343	1104	96		
69	84	95	100	101	120	130	170	172	210	255	307	388	482	577	732	984	1314	1789	2317	2873	3343	3722	3915	3961	3906	3680	3427	3114	2991	2791	2587	2423	2283	2192	2051	1866	1680	1481	1249	1043	879	68		
72	48	56	67	63	67	68	69	72	85	70	88	108	136	180	273	415	633	925	1324	1774	2244	2572	2853	3008	2993	2925	2796	2635	2475	2417	2313	2236	2100	1906	1768	1615	1389	1155	936	734	541	37		
75	45	56	68	76	72	77	87	90	100	89	93	80	63	59	65	101	162	292	521	748	1047	1258	1481	1678	1765	1859	1828	1851	1771	1859	1828	1800	1762	1595	1434	1246	1000	787	557	344	207	12		
78	63	61	73	73	90	88	93	90	107	97	85	89	66	49	42	42	49	67	85	122	161	253	314	413	500	639	759	905	977	1064	1163	1137	1070	968	866	664	475	337	213	105	75	6		
81	62	66	68	89	87	95	88	100	93	86	92	106	96	94	53	38	41	47	60	48	44	44	56	58	65	122	193	271	319	396	383	384	396	316	242	166	120	99	81	67	71	7		
84	61	73	78	72	84	99	94	92	86	84	87	79	89	113	104	39	43	44	49	42	46	40	48	46	49	59	70	83	77	81	75	76	69	70	61	66	77	84	80	78	79	6		
87	50	55	61	71	80	83	80	95	87	86	84	78	68	86	103	56	35	36	39	42	39	45	46	44	40	39	47	48	49	48	47	49	56	62	79	72	85	83	83	76	68	7		
90	41	53	56	51	78	85	83	94	86	93	89	87	88	75	82	74	42	35	39	40	42	45	46	51	53	53	50	61	54	54	52	66	67	68	66	58	75	76	68	71	66	6		
180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Luminaire Report Summary**

IESNA:LM-63-2002  
 [TEST]  
 [TESTLAB]LightTools Simulation  
 [ISSUEDATE]2018-3-22  
 [MANUFAC]  
 FILE: CANDELA MULTIPLIER: 1  
 FILE: VERTICAL ANGLES: 32, HORIZONTAL ANGLES: 121  
 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.