

## IES INDOOR REPORT

PHOTOMETRIC FILENAME : WALWV-LED35-LO-P.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] WALWV-LED35-LO-P (direct/indirect)

[TESTLAB] Intertek

[ISSUE DATE] 7/21/18

[MANUFAC] Prudential Ltg

[\_TOTAL LUMINAIRE LUMENS] 4375.6

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2013
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	112
Total Luminaire Watts	18
Ballast Factor	1.00
CIE Type	Indirect
Spacing Criterion (0-180)	N.A.
Spacing Criterion (90-270)	N.A.
Spacing Criterion (Diagonal)	N.A.
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.38 ft
Luminous Height	0.19 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	594	306	133
55	675	312	100
65	713	322	62
75	643	289	35
85	625	153	14

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**CANDELA TABULATION**

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>	<u>202.5</u>
<b>0.0</b>	32.163	32.163	32.163	32.163	32.163	32.163	32.163	32.163	32.163	32.163
<b>2.5</b>	32.697	33.166	32.586	32.605	31.354	31.662	31.367	31.938	31.666	31.855
<b>5.0</b>	33.217	34.394	33.290	32.402	31.262	31.657	31.082	31.082	30.769	30.245
<b>7.5</b>	33.925	36.018	33.686	32.168	31.142	31.114	30.075	29.785	29.785	29.173
<b>10.0</b>	35.319	37.030	33.865	32.310	31.018	30.618	29.307	29.293	28.888	28.828
<b>12.5</b>	36.197	37.955	34.850	32.237	30.204	29.633	28.143	27.678	27.770	27.572
<b>15.0</b>	38.231	39.744	35.871	32.563	29.403	28.971	28.239	26.846	27.191	26.749
<b>17.5</b>	40.425	41.533	36.312	32.734	29.794	28.920	26.717	26.133	26.611	25.815
<b>20.0</b>	42.872	43.286	37.163	32.770	29.610	28.221	26.593	24.978	26.257	24.739
<b>22.5</b>	45.581	45.903	37.564	33.562	28.870	27.388	25.116	24.095	25.493	23.409
<b>25.0</b>	48.654	48.001	38.488	32.333	28.106	26.804	24.513	23.262	24.329	22.692
<b>27.5</b>	51.962	50.770	40.245	32.504	27.802	25.907	23.488	21.767	23.524	21.395
<b>30.0</b>	57.132	53.254	40.650	32.356	27.034	25.079	22.246	21.243	22.706	20.176
<b>32.5</b>	59.404	56.249	41.248	32.085	26.008	23.805	21.767	20.065	22.039	19.375
<b>35.0</b>	61.405	57.781	41.667	31.487	25.222	21.698	19.578	18.202	20.498	18.423
<b>37.5</b>	62.477	60.564	42.647	31.459	23.971	20.705	18.418	16.905	18.865	16.758
<b>40.0</b>	61.999	61.263	41.957	30.043	22.834	18.653	16.992	15.369	17.098	14.209
<b>42.5</b>	62.192	61.732	41.869	28.920	21.859	17.609	15.014	13.179	15.129	12.158
<b>45.0</b>	61.323	63.066	41.796	28.331	19.748	15.589	12.935	12.158	13.648	10.571
<b>47.5</b>	60.679	63.034	41.073	26.781	18.796	13.841	11.813	10.575	11.762	9.126
<b>50.0</b>	59.828	63.347	40.567	25.222	16.997	12.020	10.221	8.487	9.398	7.976
<b>52.5</b>	58.760	62.330	39.776	23.685	15.865	11.035	8.993	7.199	7.700	6.693
<b>55.0</b>	57.629	61.033	38.709	23.074	13.667	9.527	7.346	5.667	6.978	5.732
<b>57.5</b>	55.067	59.496	37.223	20.843	12.121	7.986	6.288	4.954	5.598	4.338
<b>60.0</b>	52.716	56.884	36.391	18.658	10.948	6.371	5.345	3.827	4.149	3.639
<b>62.5</b>	49.652	53.631	35.218	16.887	8.731	5.313	4.494	3.588	3.436	2.981
<b>65.0</b>	46.276	49.606	34.739	15.295	7.521	4.407	3.252	3.068	2.801	1.978
<b>67.5</b>	42.136	44.243	33.281	13.556	6.210	3.179	3.146	2.470	2.387	1.674
<b>70.0</b>	37.844	39.174	31.073	13.184	5.331	2.737	2.433	2.010	1.822	1.633
<b>72.5</b>	32.770	33.230	28.934	13.059	4.678	2.332	1.826	1.394	0.980	1.329
<b>75.0</b>	27.273	27.163	25.507	13.133	3.579	2.627	2.433	1.196	0.828	0.810
<b>77.5</b>	23.023	22.315	22.048	13.110	2.714	2.654	2.015	1.674	1.385	1.371
<b>80.0</b>	18.280	17.949	16.914	11.528	2.148	1.688	1.743	1.656	1.196	0.690
<b>82.5</b>	15.042	14.085	13.147	9.126	1.559	1.849	2.088	1.348	0.685	1.398
<b>85.0</b>	11.666	11.196	10.079	7.162	1.178	1.992	1.955	0.948	1.371	1.320
<b>87.5</b>	9.536	8.786	8.312	5.497	0.759	2.226	2.167	1.283	0.317	0.883
<b>90.0</b>	9.770	9.113	6.868	4.476	1.403	1.946	2.553	1.421	1.145	1.201
<b>92.5</b>	9.172	8.395	7.001	5.106	5.032	2.631	2.861	2.461	3.165	2.461
<b>95.0</b>	11.284	10.842	10.382	64.510	11.716	8.878	8.482	6.675	7.921	6.675
<b>97.5</b>	14.513	18.336	200.979	102.828	24.288	17.020	15.994	14.803	15.267	14.803
<b>100.0</b>	216.458	357.480	268.134	143.598	40.425	26.422	27.421	26.160	27.402	26.160
<b>102.5</b>	463.229	429.410	325.211	184.649	60.458	37.007	39.302	39.422	41.533	39.422
<b>105.0</b>	524.142	488.488	374.468	221.757	82.869	49.082	51.465	52.803	55.177	52.803
<b>107.5</b>	576.610	539.166	421.043	259.339	109.020	61.244	63.705	64.828	67.648	64.828
<b>110.0</b>	621.869	580.400	462.668	295.246	137.563	73.927	76.631	77.749	79.865	77.749
<b>112.5</b>	658.817	617.104	497.122	328.284	166.561	85.399	87.800	89.479	91.420	89.479
<b>115.0</b>	691.389	649.837	529.419	358.156	195.505	97.387	99.700	101.122	103.339	101.122
<b>117.5</b>	717.292	676.251	555.252	386.993	222.677	107.332	110.832	112.617	114.765	112.617
<b>120.0</b>	736.391	694.324	578.827	412.579	246.532	117.558	120.750	122.581	124.536	122.581
<b>122.5</b>	752.220	710.714	604.017	439.056	268.686	125.267	131.316	131.256	133.704	131.256
<b>125.0</b>	764.419	724.946	620.949	465.005	289.754	134.081	139.582	140.608	142.526	140.608
<b>127.5</b>	775.795	737.421	635.522	524.934	309.198	142.264	147.913	149.486	150.241	149.486
<b>130.0</b>	785.409	748.093	647.422	600.024	326.922	151.018	156.000	157.012	157.716	157.012
<b>132.5</b>	793.045	754.722	657.464	609.505	345.046	162.431	163.121	164.119	164.823	164.119

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**CANDELA TABULATION - (Cont.)**

<b>135.0</b>	796.412	759.800	667.488	585.447	361.178	175.154	169.786	170.329	171.023	170.329
<b>137.5</b>	797.438	762.652	674.406	571.734	376.671	190.951	174.492	176.355	177.095	176.355
<b>140.0</b>	795.736	764.764	678.748	567.028	391.607	207.603	178.379	182.178	182.965	182.178
<b>142.5</b>	793.298	763.071	684.512	567.134	405.076	227.217	183.232	186.162	187.450	186.162
<b>145.0</b>	786.720	759.290	717.775	567.672	419.106	246.399	186.811	189.584	191.047	189.584
<b>147.5</b>	779.332	753.751	767.616	567.520	431.508	266.331	192.082	192.340	194.111	192.340
<b>150.0</b>	771.756	751.668	750.669	567.318	442.543	285.609	202.547	194.801	195.417	194.801
<b>152.5</b>	766.079	790.795	710.553	567.714	453.036	306.447	217.410	197.409	197.414	197.409
<b>155.0</b>	808.625	811.192	683.882	568.358	462.866	326.798	237.397	203.918	201.774	203.918
<b>157.5</b>	815.134	761.838	664.093	569.199	470.925	345.911	260.539	218.247	211.683	218.247
<b>160.0</b>	756.723	718.175	645.527	568.804	479.136	366.031	285.458	240.083	231.403	240.083
<b>162.5</b>	713.676	686.582	628.760	567.001	486.376	386.400	311.360	267.444	259.081	267.444
<b>165.0</b>	678.744	656.921	613.410	562.999	493.106	405.361	338.137	297.155	288.549	297.155
<b>167.5</b>	648.402	631.042	599.937	557.377	498.433	423.632	366.073	329.250	323.086	329.250
<b>170.0</b>	620.706	609.541	585.175	549.488	503.226	442.009	394.073	363.506	358.386	363.506
<b>172.5</b>	597.871	587.862	567.599	541.139	506.046	460.644	421.158	398.015	396.009	398.015
<b>175.0</b>	571.458	562.060	547.699	531.673	508.452	480.015	449.176	432.754	432.460	432.754
<b>177.5</b>	541.655	534.055	527.105	520.679	509.887	498.024	481.528	470.792	474.389	470.792
<b>180.0</b>	509.031	509.031	509.031	509.031	509.031	509.031	509.031	509.031	509.031	509.031

**Vert. Angles**      **Horizontal Angles**

	<b><u>225.0</u></b>	<b><u>247.5</u></b>	<b><u>270.0</u></b>	<b><u>292.5</u></b>	<b><u>315.0</u></b>	<b><u>337.5</u></b>	<b><u>360.0</u></b>
<b>0.0</b>	32.163	32.163	32.163	32.163	32.163	32.163	32.163
<b>2.5</b>	31.009	31.464	31.565	32.333	32.264	33.115	32.697
<b>5.0</b>	30.829	31.312	31.745	32.614	33.916	34.794	33.217
<b>7.5</b>	29.771	30.990	31.151	32.320	33.511	35.678	33.925
<b>10.0</b>	29.150	30.033	31.022	32.329	34.560	36.667	35.319
<b>12.5</b>	28.741	29.132	30.176	32.416	34.873	38.760	36.197
<b>15.0</b>	27.347	28.676	29.863	33.042	35.682	40.761	38.231
<b>17.5</b>	27.287	28.014	29.339	32.701	36.777	42.058	40.425
<b>20.0</b>	26.077	27.536	29.169	32.637	37.886	44.252	42.872
<b>22.5</b>	25.093	26.671	28.515	32.862	38.893	46.805	45.581
<b>25.0</b>	24.375	25.443	28.308	32.545	39.261	48.815	48.654
<b>27.5</b>	23.198	25.447	26.970	32.665	40.581	51.428	51.962
<b>30.0</b>	21.947	24.458	27.007	31.988	41.230	55.200	57.132
<b>32.5</b>	20.686	23.639	25.990	32.872	42.550	57.661	59.404
<b>35.0</b>	19.541	21.887	25.157	32.278	43.102	59.956	61.405
<b>37.5</b>	17.627	20.723	23.773	31.009	43.755	61.111	62.477
<b>40.0</b>	16.082	19.338	22.512	30.631	43.603	62.399	61.999
<b>42.5</b>	14.642	17.917	20.912	29.472	43.364	63.604	62.192
<b>45.0</b>	12.590	14.734	19.596	28.419	42.729	63.802	61.323
<b>47.5</b>	10.713	13.975	18.096	27.655	41.883	63.126	60.679
<b>50.0</b>	9.011	12.388	15.994	25.884	41.796	63.324	59.828
<b>52.5</b>	7.880	10.460	14.826	24.973	41.027	61.686	58.760
<b>55.0</b>	6.541	8.919	13.303	22.259	39.864	60.564	57.629
<b>57.5</b>	5.686	7.622	11.256	20.005	38.382	58.526	55.067
<b>60.0</b>	4.430	6.353	10.230	18.336	37.421	56.704	52.716
<b>62.5</b>	3.514	5.101	8.142	17.406	36.386	52.449	49.652
<b>65.0</b>	2.930	4.513	6.932	15.415	35.061	48.792	46.276
<b>67.5</b>	1.969	3.197	6.031	14.766	33.051	42.697	42.136
<b>70.0</b>	1.513	3.077	4.623	13.276	30.838	36.915	37.844
<b>72.5</b>	1.431	2.226	4.269	14.660	28.382	31.487	32.770
<b>75.0</b>	1.316	1.325	2.921	15.139	24.458	26.376	27.273
<b>77.5</b>	1.693	1.776	2.213	14.016	19.141	20.484	23.023
<b>80.0</b>	1.697	0.828	1.757	11.054	14.849	16.951	18.280

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**CANDELA TABULATION - (Cont.)**

82.5	1.582	1.477	2.139	8.873	11.399	13.372	15.042
85.0	1.771	1.582	1.725	5.897	8.377	10.667	11.666
87.5	1.040	1.283	1.306	4.264	6.734	9.062	9.536
90.0	1.628	1.900	2.360	3.928	7.240	9.430	9.770
92.5	2.861	2.631	5.032	5.106	7.001	8.395	9.172
95.0	8.482	8.878	11.716	64.510	10.382	10.842	11.284
97.5	15.994	17.020	24.288	102.828	200.979	18.336	14.513
100.0	27.421	26.422	40.425	143.598	268.134	357.480	216.458
102.5	39.302	37.007	60.458	184.649	325.211	429.410	463.229
105.0	51.465	49.082	82.869	221.757	374.468	488.488	524.142
107.5	63.705	61.244	109.020	259.339	421.043	539.166	576.610
110.0	76.631	73.927	137.563	295.246	462.668	580.400	621.869
112.5	87.800	85.399	166.561	328.284	497.122	617.104	658.817
115.0	99.700	97.387	195.505	358.156	529.419	649.837	691.389
117.5	110.832	107.332	222.677	386.993	555.252	676.251	717.292
120.0	120.750	117.558	246.532	412.579	578.827	694.324	736.391
122.5	131.316	125.267	268.686	439.056	604.017	710.714	752.220
125.0	139.582	134.081	289.754	465.005	620.949	724.946	764.419
127.5	147.913	142.264	309.198	524.934	635.522	737.421	775.795
130.0	156.000	151.018	326.922	600.024	647.422	748.093	785.409
132.5	163.121	162.431	345.046	609.505	657.464	754.722	793.045
135.0	169.786	175.154	361.178	585.447	667.488	759.800	796.412
137.5	174.492	190.951	376.671	571.734	674.406	762.652	797.438
140.0	178.379	207.603	391.607	567.028	678.748	764.764	795.736
142.5	183.232	227.217	405.076	567.134	684.512	763.071	793.298
145.0	186.811	246.399	419.106	567.672	717.775	759.290	786.720
147.5	192.082	266.331	431.508	567.520	767.616	753.751	779.332
150.0	202.547	285.609	442.543	567.318	750.669	751.668	771.756
152.5	217.410	306.447	453.036	567.714	710.553	790.795	766.079
155.0	237.397	326.798	462.866	568.358	683.882	811.192	808.625
157.5	260.539	345.911	470.925	569.199	664.093	761.838	815.134
160.0	285.458	366.031	479.136	568.804	645.527	718.175	756.723
162.5	311.360	386.400	486.376	567.001	628.760	686.582	713.676
165.0	338.137	405.361	493.106	562.999	613.410	656.921	678.744
167.5	366.073	423.632	498.433	557.377	599.937	631.042	648.402
170.0	394.073	442.009	503.226	549.488	585.175	609.541	620.706
172.5	421.158	460.644	506.046	541.139	567.599	587.862	597.871
175.0	449.176	480.015	508.452	531.673	547.699	562.060	571.458
177.5	481.528	498.024	509.887	520.679	527.105	534.055	541.655
180.0	509.031	509.031	509.031	509.031	509.031	509.031	509.031

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	12.09	N.A.	0.60
0-30	27.07	N.A.	1.30
0-40	47.30	N.A.	2.30
0-60	90.76	N.A.	4.50
0-80	119.76	N.A.	5.90
0-90	125.47	N.A.	6.20
10-90	122.42	N.A.	6.10
20-40	35.21	N.A.	1.70
20-50	57.46	N.A.	2.90
40-70	60.84	N.A.	3.00
60-80	29.01	N.A.	1.40
70-80	11.63	N.A.	0.60
80-90	5.71	N.A.	0.30
90-110	246.95	N.A.	12.30
90-120	545.83	N.A.	27.10
90-130	879.53	N.A.	43.70
90-150	1486.08	N.A.	73.80
90-180	1887.83	N.A.	93.80
110-180	1640.88	N.A.	81.50
0-180	2013.3	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	3.05
10-20	9.04
20-30	14.98
30-40	20.23
40-50	22.24
50-60	21.21
60-70	17.38
70-80	11.63
80-90	5.71
90-100	37.43
100-110	209.52
110-120	298.89
120-130	333.69
130-140	326.03
140-150	280.52
150-160	217.71
160-170	136.43
170-180	47.61

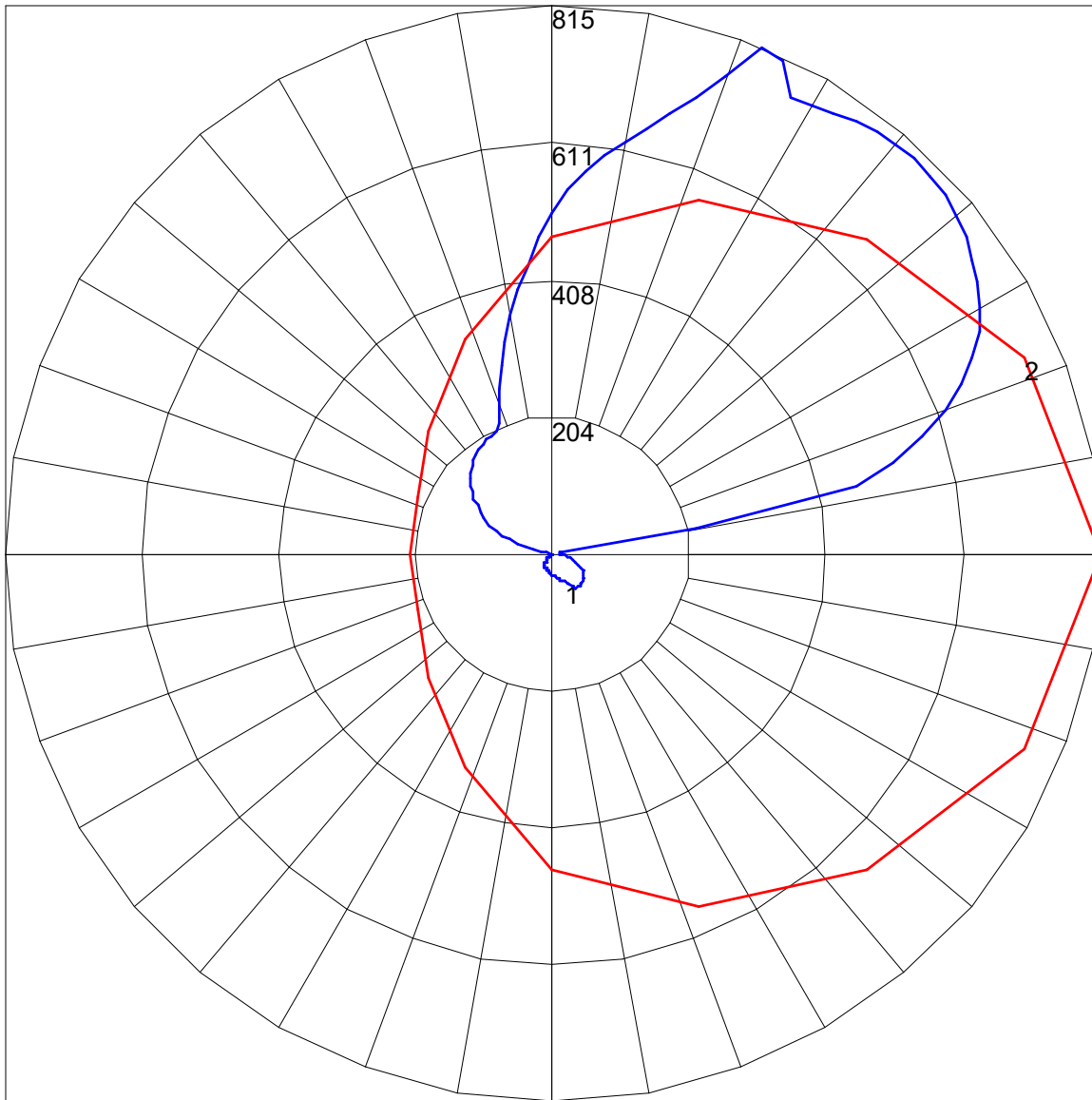
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	97	97	97	97	84	84	84	84	59	59	59	37	37	37	16	16	16	6
1	88	84	80	77	76	72	70	67	51	49	48	32	31	30	14	13	13	5
2	80	73	67	62	69	63	59	55	45	42	39	28	26	25	12	11	11	4
3	73	64	57	52	62	55	50	45	39	36	33	24	22	21	11	10	9	3
4	66	56	49	43	57	49	43	38	35	31	28	22	19	18	9	8	8	3
5	61	50	42	37	52	43	37	32	31	27	24	19	17	15	8	7	7	2
6	56	44	37	31	48	39	32	28	27	23	20	17	15	13	7	6	6	2
7	51	40	32	27	44	35	28	24	25	21	18	15	13	11	7	6	5	2
8	47	36	29	24	41	31	25	21	22	18	15	14	12	10	6	5	4	2
9	44	32	25	21	38	28	22	18	20	16	13	13	10	9	6	5	4	1
10	41	29	23	18	35	26	20	16	18	15	12	12	9	8	5	4	3	1

POLAR GRAPH



Maximum Candela = 815.134 Located At Horizontal Angle = 0, Vertical Angle = 157.5  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (157.5) (Through Max. Cd.)