



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : ZIS-33-LED-SO.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] L101411401R01  
 [TESTLAB] LIGHT LABORATORY, INC.  
 [ISSUE DATE] 11/20/2014  
 [MANUFAC] PRUDENTIAL LTG.  
 [LUMCAT] ZIS-33-LED SO-SAL-DM10  
 [MORE] DIFFUSED LENS  
 [BALLASTCAT] OSRAM OPTOTRONIC  
 [BALLAST]  
 [LAMPPOSITION] 0,0  
 [LAMPCAT] N/A  
 [OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND  
 [MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.  
 [ INPUT] 1  
 [ TEST PROCEDURE] IESNA:LM-79-08

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	10535
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	98
Total Luminaire Watts	108
Ballast Factor	1.00
CIE Type	General Diffuse
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)	2.02 ft
Luminous Width (90-270)	2.02 ft
Luminous Height	0.13 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3251	3416	3253
55	3709	3886	3691
65	4564	4726	4593
75	6325	6289	6488
85	12186	8527	12690

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**CANDELA TABULATION**

	<b>0</b>	<b>5</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>30</b>	<b>35</b>	<b>40</b>	<b>45</b>
<b>0</b>	840.435	840.435	840.435	840.435	840.435	840.435	840.435	840.435	840.435	840.435
<b>5</b>	854.037	853.580	854.291	853.796	853.275	853.605	853.770	853.846	853.757	854.075
<b>10</b>	881.926	881.596	881.837	881.558	882.091	883.425	884.263	884.911	885.228	885.812
<b>15</b>	912.470	912.533	913.016	913.917	915.733	918.299	920.369	922.007	923.214	924.204
<b>20</b>	939.470	938.974	941.794	944.270	947.966	951.878	955.561	958.647	961.199	962.965
<b>25</b>	958.037	958.913	962.990	967.918	973.595	980.021	984.974	989.241	992.543	994.702
<b>30</b>	965.505	967.372	973.772	980.757	988.746	997.013	1004.227	1009.332	1013.460	1015.924
<b>35</b>	953.313	955.738	964.806	974.928	987.463	999.604	1010.082	1017.041	1021.651	1024.242
<b>40</b>	939.990	943.292	953.313	964.578	976.922	988.047	998.525	1006.551	1014.755	1018.527
<b>45</b>	928.446	933.463	944.410	956.500	967.283	976.020	984.059	991.959	997.191	999.871
<b>50</b>	903.211	909.485	920.394	934.072	948.385	959.485	968.273	975.398	977.379	978.129
<b>55</b>	881.418	887.260	900.316	913.854	926.173	936.003	944.766	951.332	954.761	955.624
<b>60</b>	861.835	868.210	881.583	894.715	905.700	915.416	923.430	928.713	931.456	933.298
<b>65</b>	832.929	839.559	852.805	866.673	878.916	888.936	896.188	900.874	903.961	905.713
<b>70</b>	803.923	810.806	824.979	837.540	847.954	855.828	861.670	865.784	869.010	871.652
<b>75</b>	770.318	776.872	789.153	799.147	807.225	813.448	817.918	821.271	824.573	827.418
<b>80</b>	736.981	742.366	748.906	752.488	753.961	753.618	752.818	752.475	753.554	756.145
<b>85</b>	699.427	694.741	677.227	656.641	635.292	614.769	596.913	583.641	576.237	575.323
<b>90</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>95</b>	700.113	695.287	676.656	653.491	630.364	609.333	591.515	579.488	573.557	573.710
<b>100</b>	732.257	737.933	744.652	748.474	750.049	750.316	749.833	750.214	751.903	755.231
<b>105</b>	761.771	768.655	781.113	791.566	799.998	806.742	812.076	816.686	821.258	825.208
<b>110</b>	792.162	799.325	813.740	827.126	838.111	846.925	853.948	859.460	864.235	868.248
<b>115</b>	820.026	826.630	840.511	855.294	868.604	879.475	887.984	894.118	898.639	902.043
<b>120</b>	849.401	855.980	869.798	883.806	895.934	906.742	916.064	922.718	926.795	929.348
<b>125</b>	871.118	876.871	890.270	904.583	917.753	928.395	938.009	945.274	949.769	951.484
<b>130</b>	896.607	901.649	913.994	927.621	941.692	953.783	963.193	970.382	972.706	973.684
<b>135</b>	924.014	928.129	939.927	951.954	963.054	972.223	979.995	987.184	991.997	994.092
<b>140</b>	937.806	940.511	949.744	960.907	973.010	984.085	993.775	1000.849	1008.316	1011.009
<b>145</b>	949.617	951.979	960.971	970.775	982.726	994.385	1003.910	1009.917	1013.638	1015.238
<b>150</b>	959.841	961.288	967.041	974.128	981.634	989.470	995.731	1000.354	1003.605	1004.938
<b>155</b>	949.719	950.443	954.100	958.748	963.841	969.264	973.722	977.201	979.678	981.024
<b>160</b>	927.710	927.011	929.068	931.266	934.466	938.238	941.476	944.042	945.934	947.128
<b>165</b>	897.026	896.950	897.077	898.080	899.719	902.056	903.897	905.142	905.916	906.602
<b>170</b>	864.133	863.816	863.956	863.295	863.613	864.883	865.657	866.178	866.229	866.750
<b>175</b>	834.873	834.428	835.063	834.517	833.844	833.857	833.755	833.590	833.298	833.374
<b>180</b>	818.172	818.172	818.172	818.172	818.172	818.172	818.172	818.172	818.172	818.172

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

	<b>50</b>	<b>55</b>	<b>60</b>	<b>65</b>	<b>70</b>	<b>75</b>	<b>80</b>	<b>85</b>	<b>90</b>
<b>0</b>	840.435	840.435	840.435	840.435	840.435	840.435	840.435	840.435	840.435
<b>5</b>	854.291	854.875	855.370	855.650	855.612	856.259	856.704	856.043	856.450
<b>10</b>	885.977	886.460	886.752	886.765	886.269	886.663	887.438	887.197	887.844
<b>15</b>	924.916	925.373	925.398	924.598	923.353	922.909	923.023	923.366	923.468
<b>20</b>	964.057	964.095	963.409	961.758	959.294	957.097	956.412	954.659	955.307
<b>25</b>	995.845	995.489	994.245	991.832	987.958	983.704	979.868	977.125	976.287
<b>30</b>	1016.724	1015.682	1013.193	1008.824	1002.563	996.112	989.622	984.606	982.840
<b>35</b>	1024.306	1022.121	1017.918	1011.314	1003.719	994.905	986.345	978.306	975.373
<b>40</b>	1018.095	1014.806	1009.218	1000.900	991.197	980.148	969.200	960.234	956.412
<b>45</b>	1000.989	997.712	991.235	982.116	970.534	958.812	946.772	935.025	929.081
<b>50</b>	977.214	973.899	968.045	959.333	947.483	933.526	919.531	906.958	900.100
<b>55</b>	953.249	949.566	943.724	935.901	926.122	913.079	898.792	884.796	877.125
<b>60</b>	932.459	929.640	924.039	916.622	907.605	896.518	882.891	868.820	860.806

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**CANDELA TABULATION - (Cont.)**

<b>65</b>	905.472	904.240	901.192	895.299	886.219	874.370	860.006	845.985	838.175
<b>70</b>	872.668	872.693	871.106	867.372	861.314	852.043	839.356	824.878	817.054
<b>75</b>	829.627	831.177	831.761	830.504	826.491	820.077	810.158	797.255	790.143
<b>80</b>	759.854	764.438	769.772	774.941	778.345	778.777	776.148	769.290	763.499
<b>85</b>	581.368	593.611	611.327	633.476	657.619	682.206	705.358	724.294	728.332
<b>90</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>95</b>	580.377	592.557	609.460	629.780	652.996	675.919	698.944	722.427	727.469
<b>100</b>	759.384	764.045	769.163	773.519	776.643	777.049	774.027	767.855	761.530
<b>105</b>	828.370	830.555	831.393	830.059	826.033	819.696	810.184	798.284	789.940
<b>110</b>	870.877	872.211	871.576	867.969	861.949	853.224	841.311	827.748	818.185
<b>115</b>	903.326	903.173	900.455	894.855	886.612	875.703	862.457	849.173	839.406
<b>120</b>	929.234	927.265	922.579	915.175	906.310	896.061	883.412	869.823	859.574
<b>125</b>	949.820	946.620	941.146	932.790	923.366	911.136	897.585	883.679	873.531
<b>130</b>	973.049	969.543	963.308	954.265	942.823	929.437	915.962	902.945	893.775
<b>135</b>	994.600	990.867	984.186	974.801	963.206	951.738	939.711	927.049	918.985
<b>140</b>	1009.726	1005.700	999.249	990.321	980.338	969.315	958.405	948.461	942.797
<b>145</b>	1014.197	1010.882	1005.700	998.144	989.901	980.999	972.375	962.863	958.240
<b>150</b>	1004.481	1002.220	998.753	993.546	986.714	979.780	972.642	965.898	962.990
<b>155</b>	981.405	980.084	977.875	974.649	970.166	965.517	960.641	956.310	954.392
<b>160</b>	947.801	947.052	945.705	943.521	940.575	937.768	935.647	932.853	932.980
<b>165</b>	907.097	907.237	906.678	905.421	903.529	902.183	901.306	900.798	900.493
<b>170</b>	866.750	866.927	866.711	866.102	864.984	864.692	864.984	864.451	864.921
<b>175</b>	833.260	833.526	833.704	833.768	833.564	833.869	834.136	833.298	833.691
<b>180</b>	818.172	818.172	818.172	818.172	818.172	818.172	818.172	818.172	818.172

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	344.21	N.A.	3.30
0-30	797.89	N.A.	7.60
0-40	1422.72	N.A.	13.50
0-60	3003.00	N.A.	28.50
0-80	4731.4	N.A.	44.90
0-90	5286.98	N.A.	50.20
10-90	5204.49	N.A.	49.40
20-40	1078.51	N.A.	10.20
20-50	1828.33	N.A.	17.40
40-70	2452.72	N.A.	23.30
60-80	1728.4	N.A.	16.40
70-80	855.95	N.A.	8.10
80-90	555.59	N.A.	5.30
90-110	1405.81	N.A.	13.30
90-120	2273.7	N.A.	21.60
90-130	3099.53	N.A.	29.40
90-150	4463.64	N.A.	42.40
90-180	5248.1	N.A.	49.80
110-180	3842.28	N.A.	36.50
0-180	10535.08	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	82.50
10-20	261.71
20-30	453.68
30-40	624.83
40-50	749.82
50-60	830.46
60-70	872.45
70-80	855.95
80-90	555.59
90-100	553.33
100-110	852.49
110-120	867.88
120-130	825.83
130-140	745.11
140-150	619.00
150-160	447.28
160-170	256.64
170-180	80.53

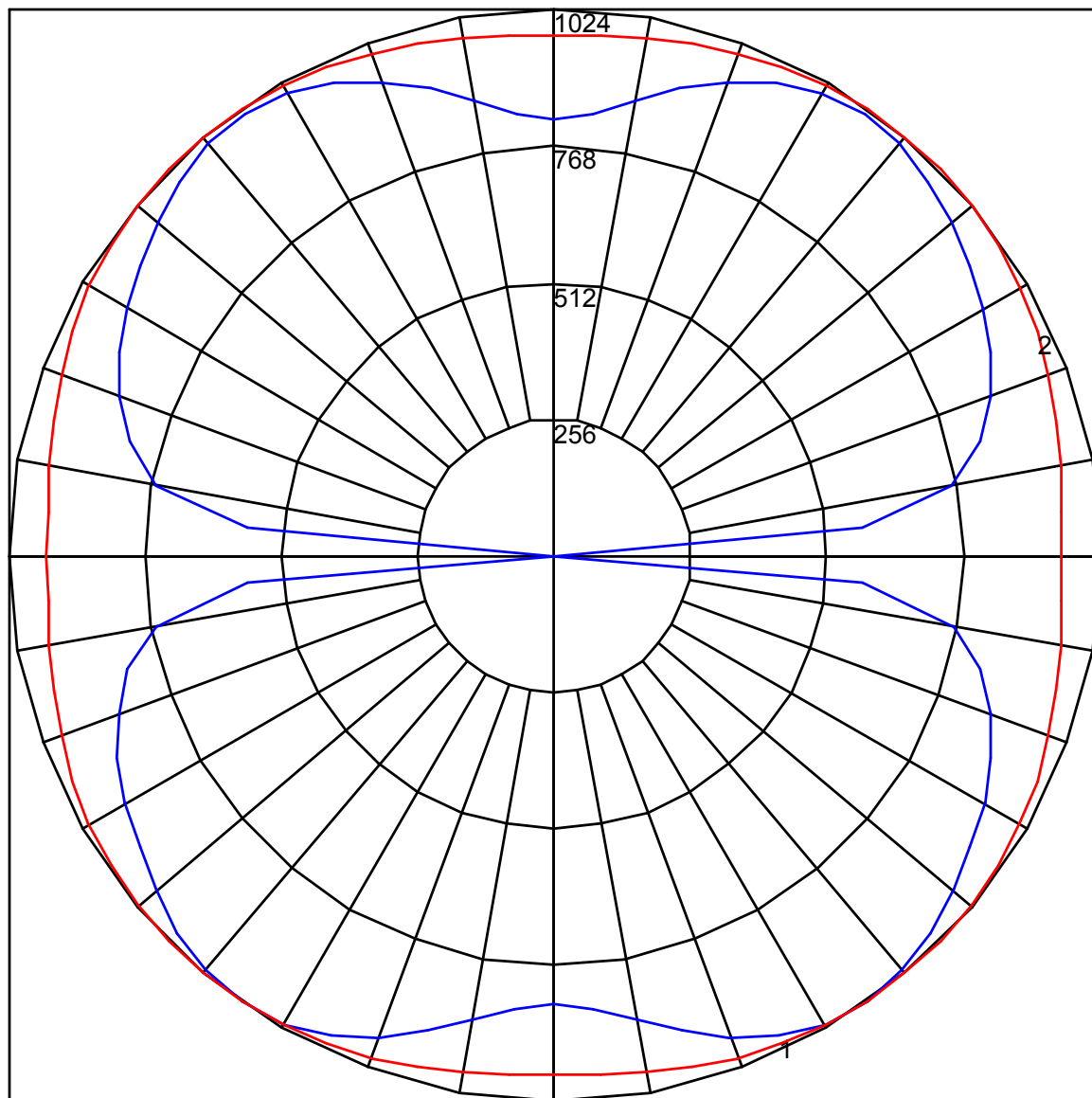
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50
1	95	89	84	80	87	82	78	74	69	65	62	56	54	52	45	43	42	36
2	85	76	69	62	78	70	63	58	58	53	49	48	44	41	38	35	33	28
3	77	66	57	50	70	60	53	47	50	44	40	41	36	33	32	29	26	22
4	70	57	48	42	63	53	45	39	44	38	33	36	31	27	28	25	22	18
5	64	51	42	35	58	47	38	32	39	32	28	32	27	23	25	21	18	15
6	58	45	36	30	53	41	33	28	35	28	24	28	23	19	22	19	16	12
7	54	40	32	26	49	37	29	24	31	25	20	25	21	17	20	16	13	11
8	50	36	28	22	45	34	26	21	28	22	18	23	18	15	18	15	12	9
9	46	33	25	20	42	31	23	18	26	20	16	21	16	13	17	13	10	8
10	43	30	23	17	39	28	21	16	24	18	14	19	15	12	16	12	9	7

POLAR GRAPH



Maximum Candela = 1024.306 Located At Horizontal Angle = 50, Vertical Angle = 35  
# 1 - Vertical Plane Through Horizontal Angles (50 - 230) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (35) (Through Max. Cd.)