



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HRZ-4-LED-FL-SS-40.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST] L250\_4000K\_SS(750)\_NA\_N2S\_5-16-2016  
[TESTLAB] Orb Optronix, Inc.  
[ISSUE DATE] 05-16-2016  
[TEST DATE] 01-12-2017  
[MANUFACTURER] LSI INDUSTRIES, INC  
[LUMEN CATEGORY] HRZ-4-LED-FL-SS-40  
[OTHER] TEST PROCEDURE: IESNA LM-79-08  
[ABSOLUTE] NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED  
[SEARCH SOURCE TYPE] LED  
[SEARCH APPLICATION] Indoor

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4384
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	119
Total Luminaire Watts	36.8
Ballast Factor	1.00
CIE Type	Semi-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)	0.60 ft
Luminous Height	0.13 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	1330	1119	1029
55	1294	1039	927
65	1217	915	782
75	1080	715	570
85	988	510	331

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**CANDELA TABULATION**

	<u>0</u>	<u>10</u>	<u>20</u>	<u>30</u>	<u>40</u>	<u>50</u>	<u>60</u>	<u>70</u>	<u>80</u>	<u>90</u>
<b>0</b>	286.870	286.870	286.870	286.870	286.870	286.870	286.870	286.870	286.870	286.870
<b>10</b>	286.530	286.564	286.248	285.049	284.600	283.678	282.738	281.840	281.645	281.118
<b>20</b>	280.588	281.046	278.990	276.597	274.667	272.916	271.227	270.261	268.635	268.352
<b>30</b>	265.577	265.876	263.346	259.421	256.176	253.682	250.861	249.292	247.709	246.819
<b>40</b>	238.172	238.288	237.141	232.071	228.608	225.524	222.025	219.481	217.684	216.743
<b>50</b>	197.704	197.886	196.897	194.677	189.893	186.545	183.472	180.839	178.809	177.733
<b>60</b>	150.633	150.792	150.547	148.662	145.621	142.397	138.127	135.401	133.108	131.884
<b>70</b>	96.043	96.453	96.329	95.309	93.748	91.395	89.100	86.571	84.205	82.470
<b>80</b>	44.261	44.560	45.049	44.578	43.690	41.965	40.395	38.978	36.577	35.098
<b>90</b>	8.244	8.498	9.919	12.620	14.060	17.171	17.391	16.058	14.094	8.465
<b>100</b>	190.582	183.947	191.671	197.445	195.879	188.612	172.038	145.433	111.298	78.198
<b>110</b>	711.037	696.782	670.023	635.152	595.002	536.610	469.706	378.930	257.750	202.632
<b>120</b>	914.632	903.725	875.600	833.407	776.154	705.839	615.704	486.752	384.749	349.230
<b>130</b>	986.980	975.451	948.341	908.928	844.607	762.942	657.835	560.156	506.247	489.873
<b>140</b>	974.375	963.607	930.237	884.872	826.765	757.893	681.105	633.863	612.378	606.126
<b>150</b>	889.685	879.572	859.641	828.821	789.650	751.741	724.221	707.485	701.171	697.699
<b>160</b>	814.616	808.863	803.071	793.406	783.246	773.433	767.366	763.817	759.327	755.928
<b>170</b>	805.829	802.998	801.128	800.050	798.908	796.672	794.439	792.688	790.493	789.831
<b>180</b>	802.461	802.461	802.461	802.461	802.461	802.461	802.461	802.461	802.461	802.461

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	106.38	N.A.	2.40
0-30	229.08	N.A.	5.20
0-40	380.92	N.A.	8.70
0-60	690.71	N.A.	15.80
0-80	877.37	N.A.	20.00
0-90	907.29	N.A.	20.70
10-90	880.05	N.A.	20.10
20-40	274.54	N.A.	6.30
20-50	435.67	N.A.	9.90
40-70	426.05	N.A.	9.70
60-80	186.66	N.A.	4.30
70-80	70.40	N.A.	1.60
80-90	29.92	N.A.	0.70
90-110	464.76	N.A.	10.60
90-120	1066.43	N.A.	24.30
90-130	1720.2	N.A.	39.20
90-150	2814.54	N.A.	64.20
90-180	3476.62	N.A.	79.30
110-180	3011.86	N.A.	68.70
0-180	4383.92	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	27.25
10-20	79.13
20-30	122.69
30-40	151.84
40-50	161.13
50-60	148.66
60-70	116.26
70-80	70.40
80-90	29.92
90-100	99.34
100-110	365.42
110-120	601.67
120-130	653.77
130-140	601.65
140-150	492.68
150-160	361.90
160-170	223.83
170-180	76.35

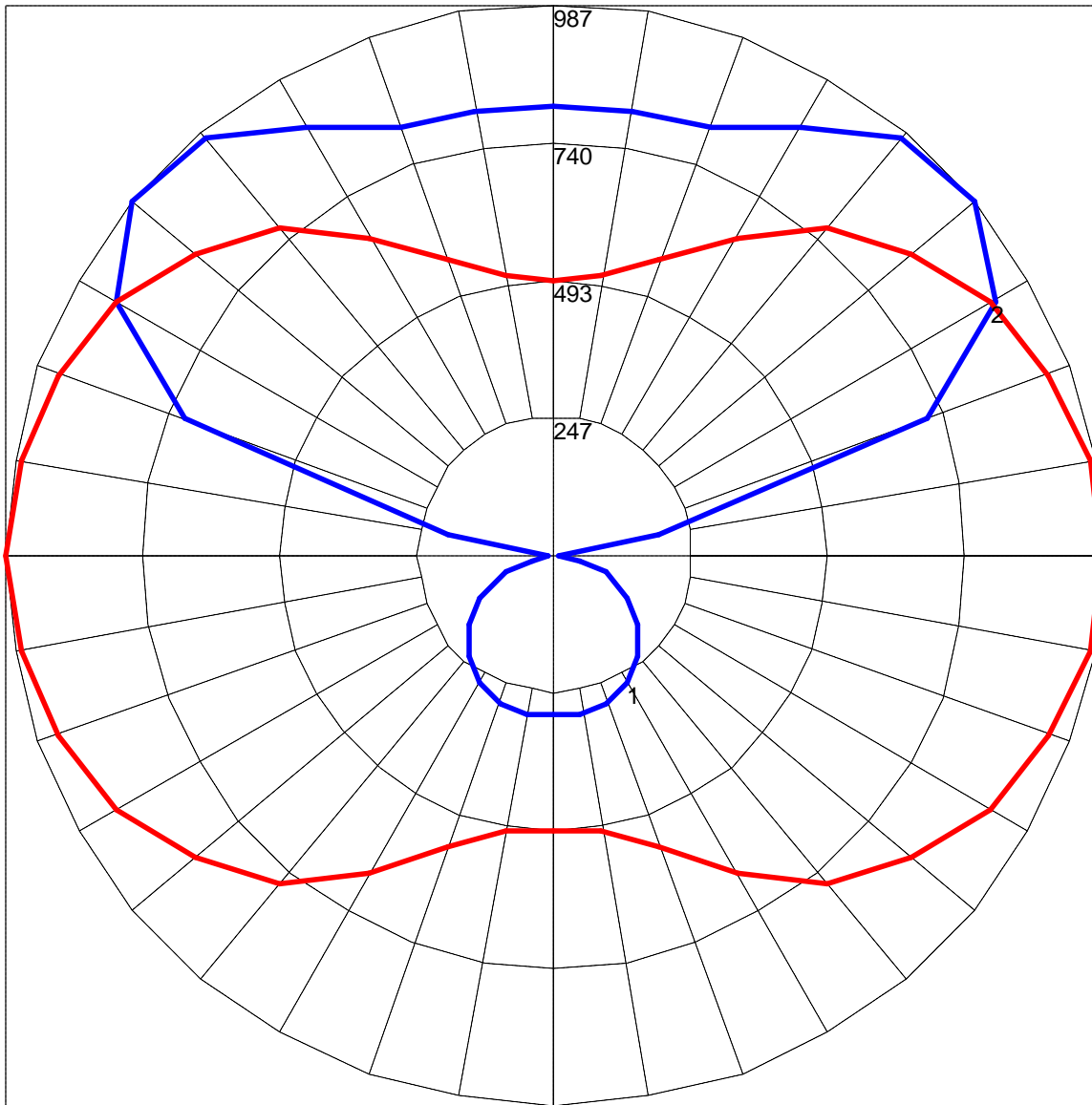
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

Effective Floor Cavity Reflectance 0.20

RC RW	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	100	100	100	100	89	89	89	89	67	67	67	47	47	47	29	29	29	21
1	91	87	83	80	80	77	74	71	58	56	54	41	40	39	25	25	24	17
2	83	76	70	65	73	67	62	58	51	48	45	36	34	32	22	21	20	14
3	75	66	59	54	66	59	53	48	45	41	37	32	29	27	20	18	17	12
4	69	58	51	45	60	52	45	40	39	35	31	28	25	23	17	16	14	10
5	63	52	44	38	55	46	39	34	35	30	27	25	22	20	15	14	12	9
6	58	46	38	33	51	41	34	30	31	27	23	22	19	17	14	12	11	7
7	53	41	34	28	47	37	30	26	28	24	20	20	17	15	13	11	10	7
8	49	37	30	25	43	33	27	22	26	21	18	18	15	13	12	10	8	6
9	46	34	27	22	40	30	24	20	23	19	16	17	14	12	11	9	8	5
10	42	31	24	19	37	28	22	18	21	17	14	15	12	10	10	8	7	5

POLAR GRAPH



Maximum Candela = 986.98 Located At Horizontal Angle = 0, Vertical Angle = 130  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (130) (Through Max. Cd.)