



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HRZ-4-LED-FL-HO-30.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST] L250\_3000K\_HO(950)\_NA\_N2S\_5-12-2016  
[TESTLAB] Orb Optronix, Inc.  
[ISSUE DATE] 05-12-2016  
[TEST DATE] 01-12-2017  
[MANUFACTURER] LSI INDUSTRIES, INC  
[LUMEN CATEGORY] HRZ-4-LED-FL-HO-30  
[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	4877
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	109
Total Luminaire Watts	44.8
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	1542	1286	1181
55	1503	1196	1069
65	1409	1055	906
75	1248	823	657
85	1148	588	379

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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>	329.951	329.951	329.951	329.951	329.951	329.951	329.951	329.951	329.951	329.951
<b>10</b>	330.324	329.397	328.625	327.849	326.911	325.459	324.841	324.374	323.475	323.470
<b>20</b>	323.053	322.605	320.597	317.973	315.360	313.481	312.010	310.608	308.896	308.647
<b>30</b>	306.176	305.184	302.143	297.919	294.886	291.546	288.817	286.869	284.857	283.949
<b>40</b>	274.730	273.920	272.703	266.430	263.001	258.967	255.759	253.006	250.462	249.254
<b>50</b>	230.495	229.632	228.420	225.564	218.466	214.610	211.451	208.287	205.700	203.813
<b>60</b>	174.055	173.913	172.954	171.250	168.007	163.678	160.283	157.017	154.457	152.968
<b>70</b>	111.438	111.045	111.234	110.553	108.210	105.433	102.861	99.575	97.008	95.483
<b>80</b>	50.652	50.865	51.216	51.060	49.850	48.132	46.437	44.367	41.538	39.954
<b>90</b>	10.347	10.833	13.566	13.863	16.239	20.448	20.810	18.309	14.786	10.020
<b>100</b>	292.444	314.039	275.711	191.580	190.363	189.322	177.083	154.153	122.771	86.563
<b>110</b>	697.914	680.646	667.578	635.698	609.797	567.352	506.464	420.556	289.692	222.489
<b>120</b>	1005.330	993.534	960.361	918.204	856.934	784.130	688.126	549.644	426.221	379.426
<b>130</b>	1103.931	1090.679	1060.916	1014.438	943.158	856.265	742.995	629.763	554.953	530.269
<b>140</b>	1094.843	1082.260	1050.775	994.968	932.941	858.703	768.623	698.965	666.683	657.949
<b>150</b>	1005.990	995.037	974.090	939.677	893.349	841.241	797.858	771.414	761.671	756.367
<b>160</b>	909.097	901.371	890.670	876.172	858.796	843.830	834.502	827.860	823.776	819.811
<b>170</b>	877.516	873.303	870.320	868.325	866.812	864.138	862.279	858.823	856.657	854.454
<b>180</b>	867.943	867.943	867.943	867.943	867.943	867.943	867.943	867.943	867.943	867.943

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	122.28	N.A.	2.50
0-30	263.31	N.A.	5.40
0-40	437.94	N.A.	9.00
0-60	795.28	N.A.	16.30
0-80	1010.53	N.A.	20.70
0-90	1044.95	N.A.	21.40
10-90	1013.62	N.A.	20.80
20-40	315.66	N.A.	6.50
20-50	501.33	N.A.	10.30
40-70	491.60	N.A.	10.10
60-80	215.25	N.A.	4.40
70-80	81.00	N.A.	1.70
80-90	34.42	N.A.	0.70
90-110	508.21	N.A.	10.40
90-120	1153.82	N.A.	23.70
90-130	1880.51	N.A.	38.60
90-150	3104.37	N.A.	63.70
90-180	3831.87	N.A.	78.60
110-180	3323.66	N.A.	68.20
0-180	4876.82	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	31.33
10-20	90.95
20-30	141.04
30-40	174.62
40-50	185.67
50-60	171.67
60-70	134.25
70-80	81.00
80-90	34.42
90-100	117.81
100-110	390.40
110-120	645.62
120-130	726.69
130-140	672.93
140-150	550.92
150-160	400.56
160-170	244.22
170-180	82.72

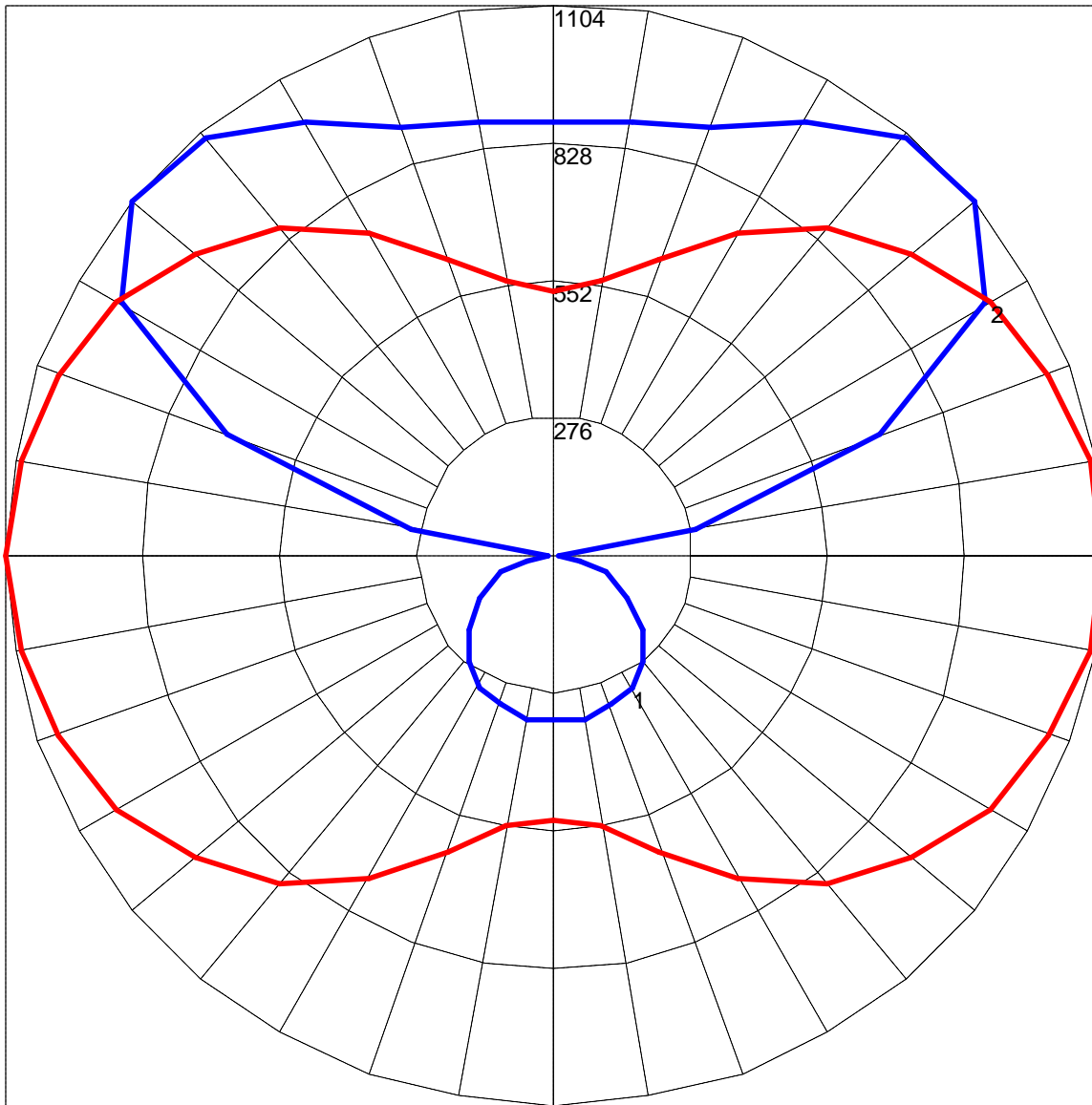
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	100	100	100	100	89	89	89	89	67	67	67	48	48	48	30	30	30	21
1	91	87	83	80	81	77	74	71	59	57	55	42	40	39	26	25	25	18
2	83	76	70	65	73	67	62	58	51	48	45	36	34	32	23	22	21	14
3	75	66	59	54	66	59	53	48	45	41	37	32	29	27	20	19	17	12
4	69	58	51	45	61	52	45	41	40	35	32	28	25	23	18	16	15	10
5	63	52	44	38	55	46	39	34	35	31	27	25	22	20	16	14	13	9
6	58	46	38	33	51	41	35	30	32	27	23	23	20	17	14	12	11	8
7	53	41	34	29	47	37	30	26	28	24	20	20	17	15	13	11	10	7
8	49	37	30	25	43	33	27	23	26	21	18	19	15	13	12	10	9	6
9	46	34	27	22	40	30	24	20	23	19	16	17	14	12	11	9	8	5
10	43	31	24	19	38	28	22	18	21	17	14	16	13	10	10	8	7	5

POLAR GRAPH



Maximum Candela = 1103.931 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.)