



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : HRZ-4-LED-6040-FL-VHO-40.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST] L250\_4000K\_VHO(1250)\_6040\_N2S\_5-11-2016  
[TESTLAB] Orb Optronix, Inc.  
[ISSUE DATE] 05-11-2016  
[TEST DATE] 01-12-2017  
[MANUFACTURER] LSI INDUSTRIES, INC  
[LUMEN CATEGORY] HRZ-4-LED-6040-FL-VHO-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	6058
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	97
Total Luminaire Watts	62.7
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	3155	2730	2616
55	2974	2476	2349
65	2686	2118	1984
75	2223	1582	1455
85	1903	989	821

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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>	763.333	763.333	763.333	763.333	763.333	763.333	763.333	763.333	763.333	763.333
<b>10</b>	755.092	753.581	751.880	750.054	749.050	747.190	746.399	746.186	744.682	745.172
<b>20</b>	719.544	718.476	715.061	712.715	709.917	707.740	706.256	705.074	703.970	704.207
<b>30</b>	655.895	654.219	650.367	647.047	644.139	641.464	639.227	638.269	636.674	636.708
<b>40</b>	571.532	568.898	567.837	563.328	560.605	557.570	555.306	553.412	552.713	553.021
<b>50</b>	462.341	461.126	461.127	459.237	455.783	453.231	451.591	450.065	449.728	450.264
<b>60</b>	338.348	338.582	339.101	339.238	337.810	336.244	335.493	334.310	333.606	334.196
<b>70</b>	205.924	206.869	208.282	209.573	210.456	210.467	210.177	209.693	209.077	209.812
<b>80</b>	82.744	82.789	85.360	87.410	88.664	89.636	91.486	90.968	89.841	90.145
<b>90</b>	18.408	19.325	20.055	20.584	21.826	26.509	28.917	27.463	23.052	18.056
<b>100</b>	212.398	225.315	224.388	228.687	234.335	224.354	205.497	177.624	159.549	135.311
<b>110</b>	709.236	720.387	714.669	682.226	632.494	582.784	519.617	437.408	332.065	284.525
<b>120</b>	917.301	934.351	902.664	882.562	830.311	760.252	676.417	563.720	474.683	445.971
<b>130</b>	998.727	1012.440	990.005	938.724	908.970	837.115	749.088	660.709	613.099	595.368
<b>140</b>	1008.277	1014.444	1002.767	962.341	893.349	831.749	778.546	749.268	732.732	730.734
<b>150</b>	947.504	954.018	942.266	918.248	886.609	852.255	824.487	810.867	802.641	802.011
<b>160</b>	890.720	895.860	899.824	896.523	891.420	888.153	885.624	881.396	879.400	881.256
<b>170</b>	894.022	892.957	896.407	900.608	902.616	903.334	902.216	902.521	901.021	901.611
<b>180</b>	886.944	886.944	886.944	886.944	886.944	886.944	886.944	886.944	886.944	886.944

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	278.95	N.A.	4.60
0-30	592.38	N.A.	9.80
0-40	970.68	N.A.	16.00
0-60	1719.25	N.A.	28.40
0-80	2147.41	N.A.	35.40
0-90	2207.94	N.A.	36.40
10-90	2135.77	N.A.	35.30
20-40	691.73	N.A.	11.40
20-50	1084.99	N.A.	17.90
40-70	1019.51	N.A.	16.80
60-80	428.16	N.A.	7.10
70-80	157.22	N.A.	2.60
80-90	60.53	N.A.	1.00
90-110	534.61	N.A.	8.80
90-120	1186.71	N.A.	19.60
90-130	1895.16	N.A.	31.30
90-150	3103.2	N.A.	51.20
90-180	3850.19	N.A.	63.60
110-180	3315.58	N.A.	54.70
0-180	6058.13	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	72.17
10-20	206.78
20-30	313.43
30-40	378.30
40-50	393.25
50-60	355.32
60-70	270.94
70-80	157.22
80-90	60.53
90-100	124.84
100-110	409.77
110-120	652.10
120-130	708.45
130-140	660.08
140-150	547.96
150-160	408.10
160-170	253.60
170-180	85.28

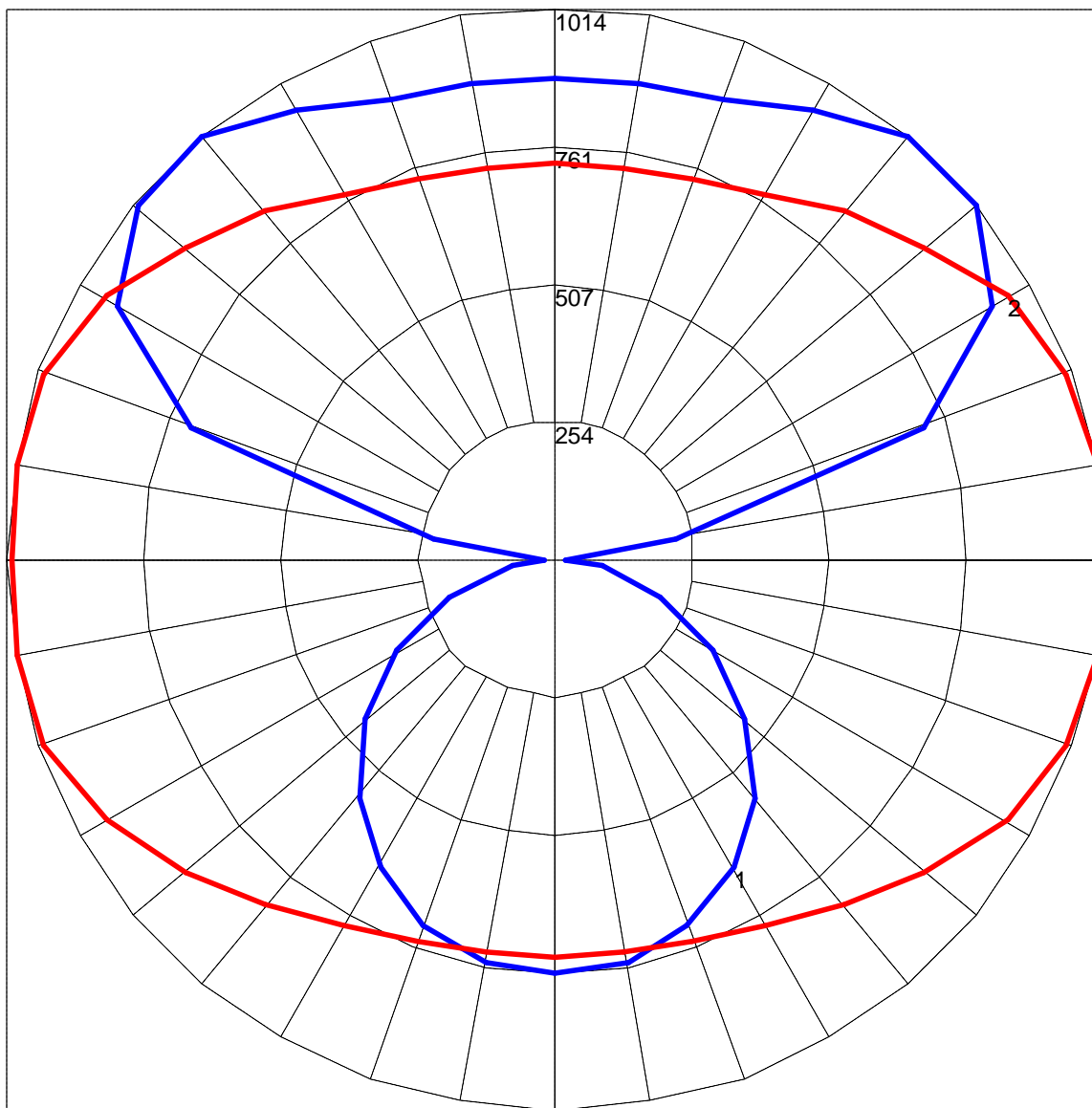
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	104	104	104	104	94	94	94	94	76	76	76	59	59	59	44	44	44	36
1	95	90	86	83	85	82	78	76	66	64	62	52	50	49	38	37	36	30
2	86	79	72	67	78	71	66	62	58	54	51	45	43	40	33	32	30	25
3	78	69	62	56	71	63	56	51	51	46	42	40	37	34	29	27	26	21
4	71	61	53	47	64	55	49	43	45	40	36	35	32	29	26	24	22	18
5	65	54	46	40	59	49	42	37	40	35	31	32	28	25	24	21	19	15
6	60	48	40	35	54	44	37	32	36	31	27	28	25	22	21	19	17	14
7	56	43	36	30	50	40	33	28	32	27	23	26	22	19	19	17	15	12
8	51	39	32	26	46	36	29	25	30	24	21	23	20	17	18	15	13	11
9	48	36	28	23	43	33	26	22	27	22	18	22	18	15	16	14	12	10
10	45	33	26	21	40	30	24	19	25	20	16	20	16	14	15	13	11	9

POLAR GRAPH



Maximum Candela = 1014.444 Located At Horizontal Angle = 10, Vertical Angle = 140  
# 1 - Vertical Plane Through Horizontal Angles (10 - 190) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (140) (Through Max. Cd.)