



IES INDOOR REPORT

PHOTOMETRIC FILENAME : HRZ-4-LED-6040-FL-VHO-35.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] L250_3500K_VHO(1250)_6040_N2S_5-11-2016

[TESTLAB] Orb Optronix, Inc.

[ISSUE DATE] 05-11-2016

[TEST DATE] 01-12-2017

[MANUFACT] LSI INDUSTRIES, INC

[LUMCAT] HRZ-4-LED-6040-FL-VHO-35

[OTHER] TEST PROCEDURE: IESNA LM-79-08

[_ABSOLUTE] NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] Indoor

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5858
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	93
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	3051	2640	2530
55	2876	2394	2272
65	2598	2048	1919
75	2150	1530	1407
85	1840	957	794

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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>
0	738.143	738.143	738.143	738.143	738.143	738.143	738.143	738.143	738.143	738.143
10	730.174	728.713	727.068	725.302	724.331	722.533	721.768	721.562	720.107	720.581
20	695.799	694.766	691.464	689.195	686.490	684.385	682.950	681.807	680.739	680.968
30	634.250	632.630	628.905	625.694	622.882	620.296	618.133	617.206	615.664	615.697
40	552.671	550.124	549.098	544.738	542.105	539.170	536.981	535.149	534.473	534.771
50	447.084	445.909	445.910	444.082	440.742	438.274	436.689	435.213	434.887	435.405
60	327.183	327.409	327.911	328.043	326.662	325.148	324.422	323.278	322.597	323.168
70	199.129	200.042	201.409	202.657	203.511	203.522	203.241	202.773	202.177	202.888
80	80.013	80.057	82.543	84.525	85.738	86.678	88.467	87.966	86.876	87.170
90	17.801	18.687	19.393	19.905	21.106	25.634	27.963	26.557	22.291	17.460
100	205.389	217.880	216.983	221.140	226.602	216.950	198.716	171.762	154.284	130.846
110	685.831	696.614	691.085	659.713	611.622	563.552	502.470	422.974	321.107	275.136
120	887.030	903.517	872.876	853.437	802.911	735.164	654.095	545.117	459.018	431.254
130	965.769	979.029	957.335	907.746	878.974	809.490	724.368	638.906	592.867	575.721
140	975.004	980.967	969.676	930.584	863.868	804.301	752.854	724.542	708.552	706.620
150	916.236	922.535	911.171	887.946	857.351	824.131	797.279	784.108	776.154	775.545
160	861.326	866.297	870.130	866.938	862.003	858.844	856.398	852.310	850.380	852.175
170	864.519	863.489	866.826	870.888	872.830	873.524	872.443	872.738	871.287	871.858
180	857.675	857.675	857.675	857.675	857.675	857.675	857.675	857.675	857.675	857.675

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	269.74	N.A.	4.60
0-30	572.83	N.A.	9.80
0-40	938.65	N.A.	16.00
0-60	1662.52	N.A.	28.40
0-80	2076.54	N.A.	35.40
0-90	2135.07	N.A.	36.40
10-90	2065.29	N.A.	35.30
20-40	668.91	N.A.	11.40
20-50	1049.18	N.A.	17.90
40-70	985.86	N.A.	16.80
60-80	414.03	N.A.	7.10
70-80	152.03	N.A.	2.60
80-90	58.53	N.A.	1.00
90-110	516.97	N.A.	8.80
90-120	1147.55	N.A.	19.60
90-130	1832.62	N.A.	31.30
90-150	3000.8	N.A.	51.20
90-180	3723.13	N.A.	63.60
110-180	3206.16	N.A.	54.70
0-180	5858.21	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	69.79
10-20	199.95
20-30	303.09
30-40	365.82
40-50	380.27
50-60	343.59
60-70	261.99
70-80	152.03
80-90	58.53
90-100	120.72
100-110	396.25
110-120	630.58
120-130	685.07
130-140	638.30
140-150	529.88
150-160	394.63
160-170	245.23
170-180	82.47

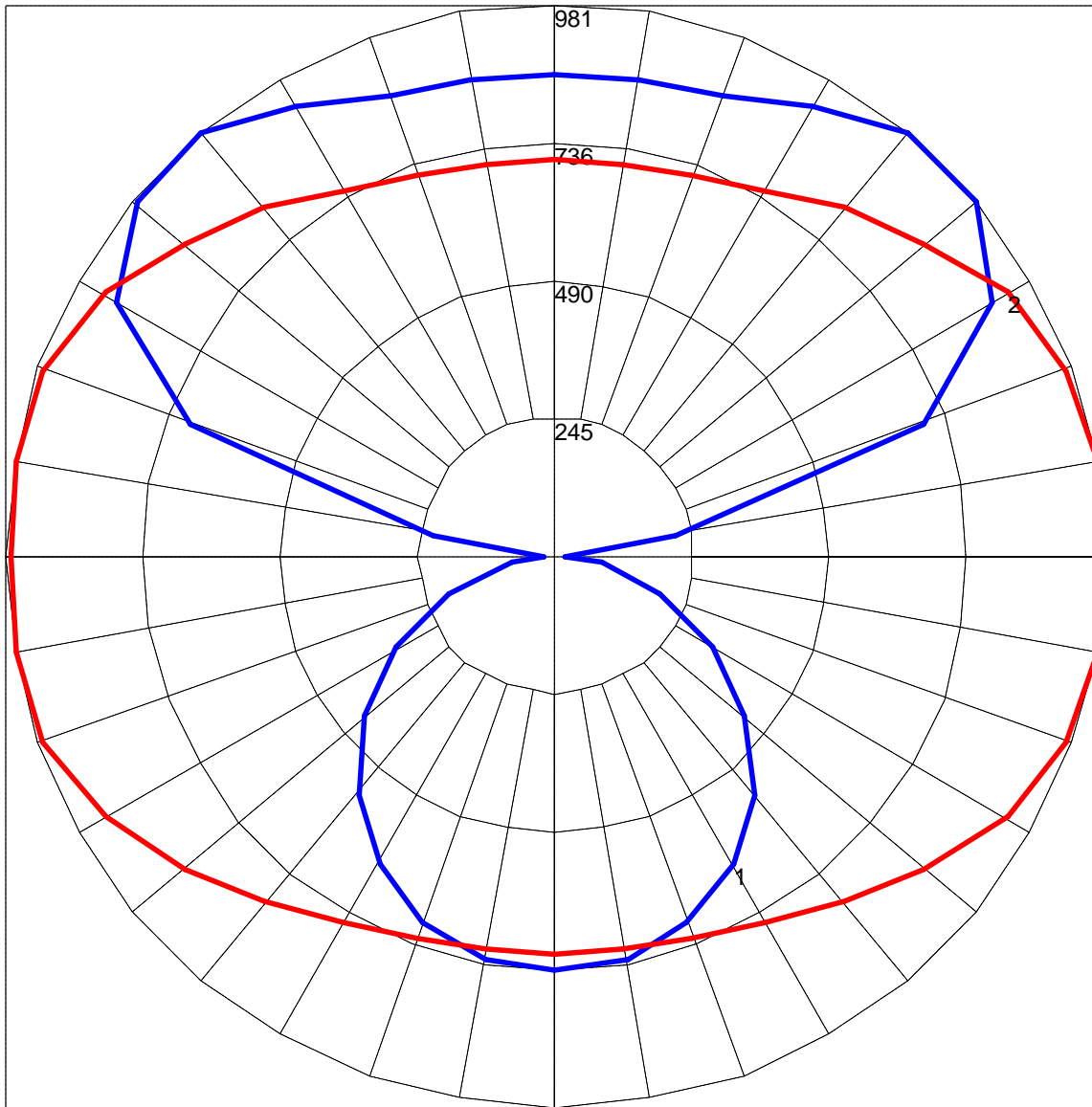
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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 = 980.967 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.)