



IES INDOOR REPORT
PHOTOMETRIC FILENAME : HRZ-4-LED-6040-FL-HO-40.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] L250_4000K_HO(950)_6040_N2S_5-16-2016
[TESTLAB] Orb Optronix, Inc.
[ISSUEDATE] 05-16-2016
[TESTDATE] 01-12-2017
[MANUFAC] LSI INDUSTRIES, INC
[LUMCAT] HRZ-4-LED-6040-FL-HO-40
[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	4786
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	107
Total Luminaire Watts	44.9
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	2589	2236	2123
55	2453	2035	1904
65	2225	1743	1599
75	1843	1294	1148
85	1455	852	598

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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	616.404	616.404	616.404	616.404	616.404	616.404	616.404	616.404	616.404	616.404
10	608.983	608.066	607.935	606.810	605.737	604.615	603.771	603.945	603.379	602.424
20	583.467	582.739	580.177	577.705	576.728	574.433	573.169	571.822	570.928	570.913
30	533.608	533.189	530.747	527.865	525.219	522.008	520.376	518.148	516.838	516.763
40	467.857	466.370	466.206	461.411	458.459	455.576	452.764	450.638	449.591	448.935
50	380.546	379.747	379.214	378.085	374.411	371.580	368.980	366.992	365.372	365.362
60	279.787	279.921	280.370	280.288	278.797	276.362	274.319	271.934	271.101	270.346
70	171.027	171.495	172.329	173.436	173.214	172.452	171.648	169.750	168.494	167.973
80	68.237	68.778	69.921	71.413	72.103	72.292	71.834	71.358	69.527	68.742
90	9.094	10.105	11.246	12.150	13.081	37.790	15.147	17.699	17.144	10.037
100	148.691	156.787	165.633	170.074	174.382	173.312	164.904	147.824	124.989	100.874
110	547.867	555.589	541.981	527.452	489.953	452.786	406.121	342.137	257.245	217.965
120	728.021	740.496	725.923	686.106	654.882	605.986	527.833	437.983	363.477	337.809
130	798.825	808.039	792.604	756.285	712.906	648.794	577.354	508.555	467.400	453.950
140	792.600	797.261	785.076	754.376	710.748	663.671	613.096	566.962	548.339	545.909
150	744.690	748.569	741.259	720.501	694.682	661.573	635.327	618.084	610.909	608.381
160	686.885	688.065	689.500	683.694	676.776	668.724	664.477	662.194	659.111	658.162
170	672.541	671.756	673.695	676.445	678.894	678.574	677.958	676.465	676.272	675.314
180	668.227	668.227	668.227	668.227	668.227	668.227	668.227	668.227	668.227	668.227

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	225.80	N.A.	4.70
0-30	480.49	N.A.	10.00
0-40	788.97	N.A.	16.50
0-60	1402.01	N.A.	29.30
0-80	1752.28	N.A.	36.60
0-90	1799.54	N.A.	37.60
10-90	1741.22	N.A.	36.40
20-40	563.17	N.A.	11.80
20-50	884.86	N.A.	18.50
40-70	835.30	N.A.	17.50
60-80	350.27	N.A.	7.30
70-80	128.01	N.A.	2.70
80-90	47.26	N.A.	1.00
90-110	408.70	N.A.	8.50
90-120	917.79	N.A.	19.20
90-130	1474.73	N.A.	30.80
90-150	2417.68	N.A.	50.50
90-180	2986.17	N.A.	62.40
110-180	2577.47	N.A.	53.90
0-180	4785.71	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	58.32
10-20	167.48
20-30	254.69
30-40	308.48
40-50	321.69
50-60	291.35
60-70	222.26
70-80	128.01
80-90	47.26
90-100	93.75
100-110	314.96
110-120	509.09
120-130	556.93
130-140	516.60
140-150	426.35
150-160	313.01
160-170	191.33
170-180	64.16

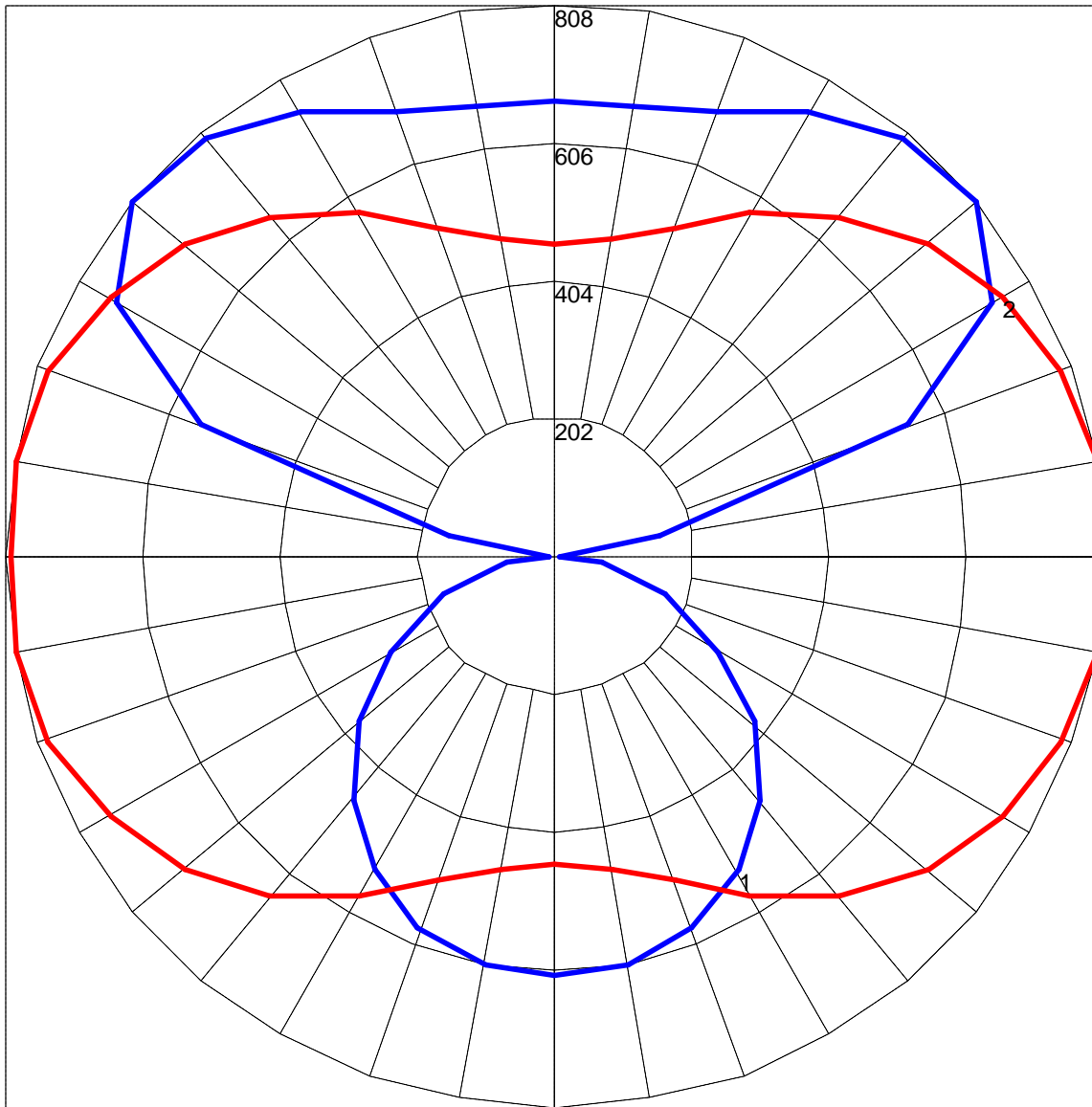
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	95	95	95	95	76	76	76	60	60	60	45	45	45	38
1	95	90	87	83	86	82	79	76	67	64	62	52	51	49	39	38	37	31
2	86	79	73	68	78	72	66	62	58	54	51	46	43	41	34	33	31	26
3	78	69	62	56	71	63	57	51	51	47	43	40	37	34	30	28	26	22
4	72	61	53	47	65	56	49	43	45	40	36	36	32	29	27	24	23	19
5	66	54	46	40	59	49	42	37	40	35	31	32	28	25	24	22	20	16
6	60	48	40	35	54	44	37	32	36	31	27	29	25	22	22	19	17	14
7	56	44	36	30	50	40	33	28	33	27	24	26	22	19	20	17	15	12
8	52	39	32	27	47	36	29	25	30	25	21	24	20	17	18	15	13	11
9	48	36	28	24	43	33	26	22	27	22	19	22	18	15	17	14	12	10
10	45	33	26	21	41	30	24	20	25	20	17	20	16	14	16	13	11	9

POLAR GRAPH



Maximum Candela = 808.039 Located At Horizontal Angle = 10, Vertical Angle = 130
1 - Vertical Plane Through Horizontal Angles (10 - 190) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (130) (Through Max. Cd.)