



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HRZ-4-LED-3070-FL-HO-35.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST] L250\_3500K\_HO(950)\_3070\_N2S\_5-16-2016  
[TESTLAB] Orb Optronix, Inc.  
[ISSUEDATE] 05-16-2016  
[TESTDATE] 01-12-2017  
[MANUFAC] LSI INDUSTRIES, INC  
[LUMCAT] HRZ-4-LED-3070-FL-HO-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	4356
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	97
Total Luminaire Watts	44.7
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.28
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.38
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	4015	3500	3301
55	3838	3202	2968
65	3562	2787	2512
75	3097	2152	1843
85	2690	1325	1045

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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>	967.481	967.481	967.481	967.481	967.481	967.481	967.481	967.481	967.481	967.481
<b>10</b>	957.807	953.994	952.785	950.958	950.567	950.328	948.758	948.015	946.356	946.248
<b>20</b>	910.929	907.812	906.494	904.989	901.951	900.393	899.073	897.416	894.569	892.757
<b>30</b>	832.890	830.738	829.086	827.330	824.345	821.820	817.648	814.092	812.136	809.378
<b>40</b>	723.879	721.941	721.695	718.808	716.168	712.729	708.879	704.688	701.105	697.772
<b>50</b>	591.693	590.695	590.669	589.553	587.125	582.640	579.371	574.879	571.341	568.272
<b>60</b>	441.671	441.682	442.535	442.570	440.197	437.750	433.859	428.933	425.597	422.575
<b>70</b>	279.967	281.265	282.725	283.178	282.556	280.481	277.722	273.759	269.754	266.084
<b>80</b>	122.225	123.613	125.211	126.604	126.427	125.702	123.791	120.846	117.768	113.782
<b>90</b>	20.761	21.437	22.027	22.943	24.563	26.795	27.453	30.477	30.469	23.970
<b>100</b>	98.446	110.400	119.579	127.148	133.575	135.194	130.384	119.435	104.909	86.178
<b>110</b>	241.998	260.429	266.581	260.719	250.783	238.666	221.162	196.662	165.717	147.725
<b>120</b>	311.061	329.427	325.823	329.200	315.488	286.755	275.983	253.206	214.677	202.088
<b>130</b>	348.549	340.418	367.849	355.234	322.576	326.577	315.258	274.300	254.176	248.270
<b>140</b>	356.460	334.961	352.882	364.645	351.701	328.849	298.232	285.669	284.611	284.695
<b>150</b>	347.568	330.910	326.621	335.945	341.078	333.378	323.366	319.894	316.672	315.684
<b>160</b>	325.286	314.995	310.474	309.920	314.085	319.884	324.887	327.669	327.478	327.552
<b>170</b>	323.515	317.914	315.083	312.897	312.276	312.250	312.568	312.335	312.952	313.134
<b>180</b>	324.355	324.355	324.355	324.355	324.355	324.355	324.355	324.355	324.355	324.355

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	354.03	N.A.	8.10
0-30	752.94	N.A.	17.30
0-40	1235.09	N.A.	28.40
0-60	2194.02	N.A.	50.40
0-80	2760.9	N.A.	63.40
0-90	2841.91	N.A.	65.20
10-90	2750.38	N.A.	63.10
20-40	881.06	N.A.	20.20
20-50	1382.86	N.A.	31.70
40-70	1313.5	N.A.	30.20
60-80	566.88	N.A.	13.00
70-80	212.31	N.A.	4.90
80-90	81.01	N.A.	1.90
90-110	262.76	N.A.	6.00
90-120	518.78	N.A.	11.90
90-130	790.02	N.A.	18.10
90-150	1243.84	N.A.	28.60
90-180	1514.17	N.A.	34.80
110-180	1251.41	N.A.	28.70
0-180	4356.08	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	91.54
10-20	262.50
20-30	398.91
30-40	482.15
40-50	501.80
50-60	457.13
60-70	354.57
70-80	212.31
80-90	81.01
90-100	78.89
100-110	183.87
110-120	256.02
120-130	271.24
130-140	248.55
140-150	205.27
150-160	150.05
160-170	89.80
170-180	30.47

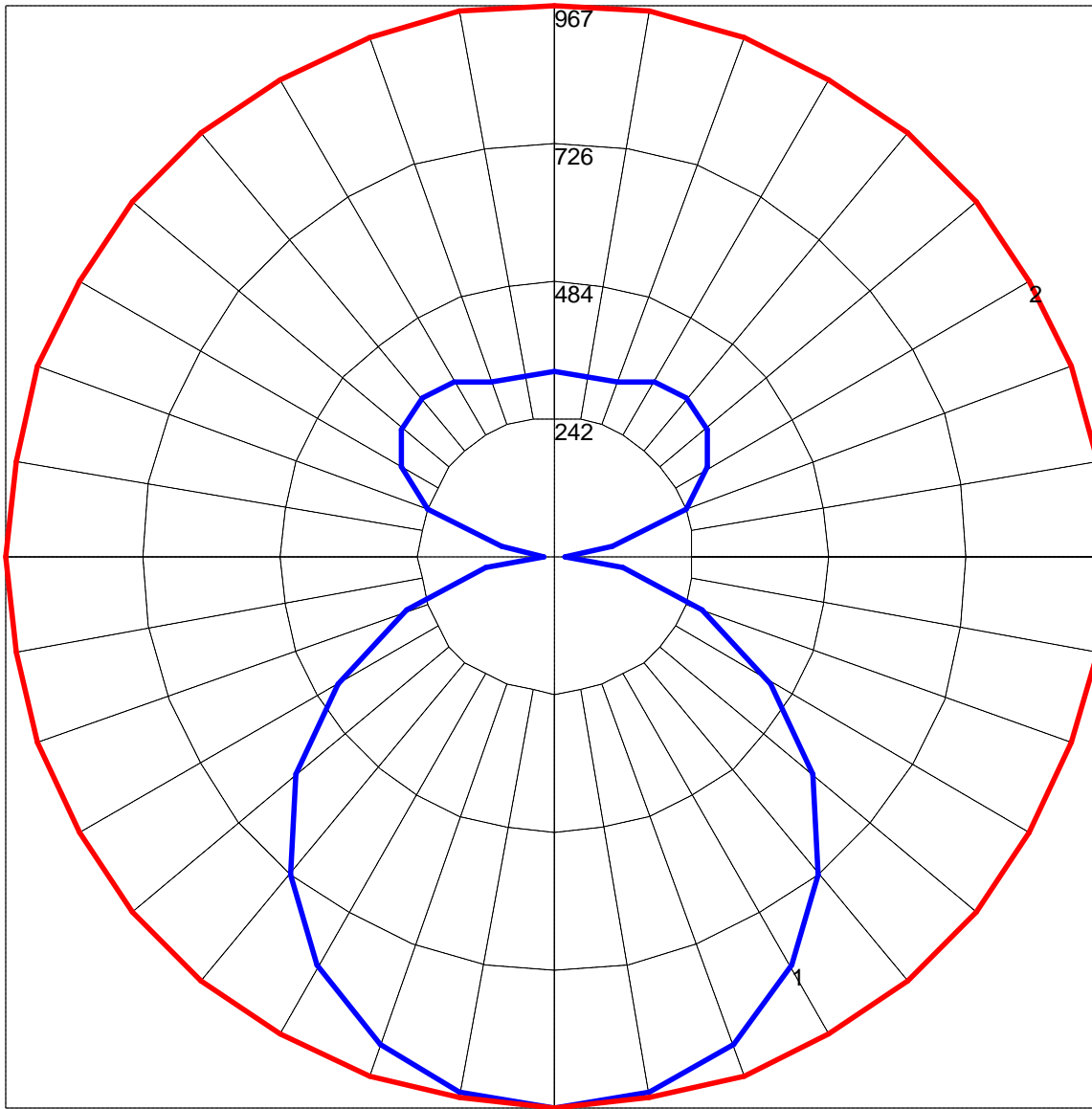
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	111	111	111	111	104	104	104	104	92	92	92	80	80	80	70	70	70	65
1	101	96	92	88	94	90	87	83	80	77	75	70	68	66	61	60	58	54
2	91	84	77	71	86	79	73	68	70	65	61	61	58	55	53	51	49	45
3	83	73	65	59	78	69	62	56	61	56	51	54	50	46	47	44	41	37
4	76	65	56	50	71	61	54	48	54	48	43	48	43	39	42	38	35	32
5	70	58	49	43	65	54	47	41	48	42	37	43	38	34	38	34	30	27
6	64	52	43	37	60	49	41	35	44	37	32	39	34	30	34	30	27	24
7	59	47	38	32	56	44	37	31	40	33	29	35	30	26	31	27	24	21
8	55	42	34	29	52	40	33	28	36	30	25	32	27	23	29	24	21	19
9	51	39	31	26	48	37	30	25	33	27	23	30	24	21	26	22	19	17
10	48	36	28	23	45	34	27	22	30	25	21	27	22	19	24	20	17	15

POLAR GRAPH



Maximum Candela = 967.481 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)