



IES INDOOR REPORT
PHOTOMETRIC FILENAME : HRZ-4-LED-3070-FL-HO-40.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] L250_4000K_HO(950)_3070_N2S_5-16-2016
[TESTLAB] Orb Optronix, Inc.
[ISSUE DATE] 05-16-2016
[TEST DATE] 01-12-2017
[MANUFACTURER] LSI INDUSTRIES, INC
[LUMEN CATEGORY] HRZ-4-LED-3070-FL-HO-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	4505
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	101
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	4152	3619	3414
55	3969	3312	3069
65	3683	2882	2597
75	3203	2225	1906
85	2782	1370	1081

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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	1000.497	1000.497	1000.497	1000.497	1000.497	1000.497	1000.497	1000.497	1000.497	1000.497
10	990.493	986.550	985.300	983.411	983.006	982.759	981.135	980.367	978.651	978.540
20	942.016	938.792	937.429	935.873	932.731	931.120	929.755	928.041	925.097	923.223
30	861.313	859.088	857.380	855.564	852.477	849.866	845.551	841.874	839.851	836.999
40	748.582	746.578	746.324	743.338	740.608	737.052	733.070	728.736	725.031	721.584
50	611.885	610.853	610.826	609.672	607.161	602.523	599.143	594.497	590.839	587.665
60	456.744	456.755	457.637	457.673	455.219	452.689	448.665	443.571	440.121	436.996
70	289.521	290.863	292.373	292.842	292.199	290.053	287.200	283.101	278.960	275.164
80	126.396	127.831	129.484	130.925	130.741	129.992	128.016	124.970	121.787	117.665
90	21.469	22.169	22.779	23.726	25.401	27.709	28.390	31.517	31.509	24.788
100	101.806	114.168	123.660	131.487	138.133	139.808	134.834	123.511	108.489	89.119
110	250.256	269.316	275.678	269.616	259.341	246.811	228.709	203.373	171.372	152.766
120	321.676	340.669	336.942	340.434	326.254	296.541	285.401	261.847	222.003	208.985
130	360.444	352.035	380.402	367.357	333.584	337.722	326.017	283.661	262.850	256.743
140	368.625	346.392	364.925	377.089	363.703	340.071	308.410	295.418	294.324	294.411
150	359.429	342.203	337.767	347.409	352.718	344.755	334.401	330.811	327.479	326.457
160	336.387	325.745	321.069	320.496	324.804	330.800	335.974	338.851	338.654	338.730
170	334.555	328.763	325.836	323.575	322.933	322.906	323.235	322.994	323.632	323.820
180	335.424	335.424	335.424	335.424	335.424	335.424	335.424	335.424	335.424	335.424

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	366.11	N.A.	8.10
0-30	778.64	N.A.	17.30
0-40	1277.24	N.A.	28.40
0-60	2268.89	N.A.	50.40
0-80	2855.12	N.A.	63.40
0-90	2938.9	N.A.	65.20
10-90	2844.24	N.A.	63.10
20-40	911.12	N.A.	20.20
20-50	1430.05	N.A.	31.70
40-70	1358.32	N.A.	30.20
60-80	586.23	N.A.	13.00
70-80	219.56	N.A.	4.90
80-90	83.78	N.A.	1.90
90-110	271.73	N.A.	6.00
90-120	536.49	N.A.	11.90
90-130	816.98	N.A.	18.10
90-150	1286.29	N.A.	28.60
90-180	1565.84	N.A.	34.80
110-180	1294.11	N.A.	28.70
0-180	4504.74	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	94.66
10-20	271.45
20-30	412.52
30-40	498.60
40-50	518.93
50-60	472.73
60-70	366.67
70-80	219.56
80-90	83.78
90-100	81.58
100-110	190.15
110-120	264.76
120-130	280.49
130-140	257.03
140-150	212.27
150-160	155.17
160-170	92.87
170-180	31.51

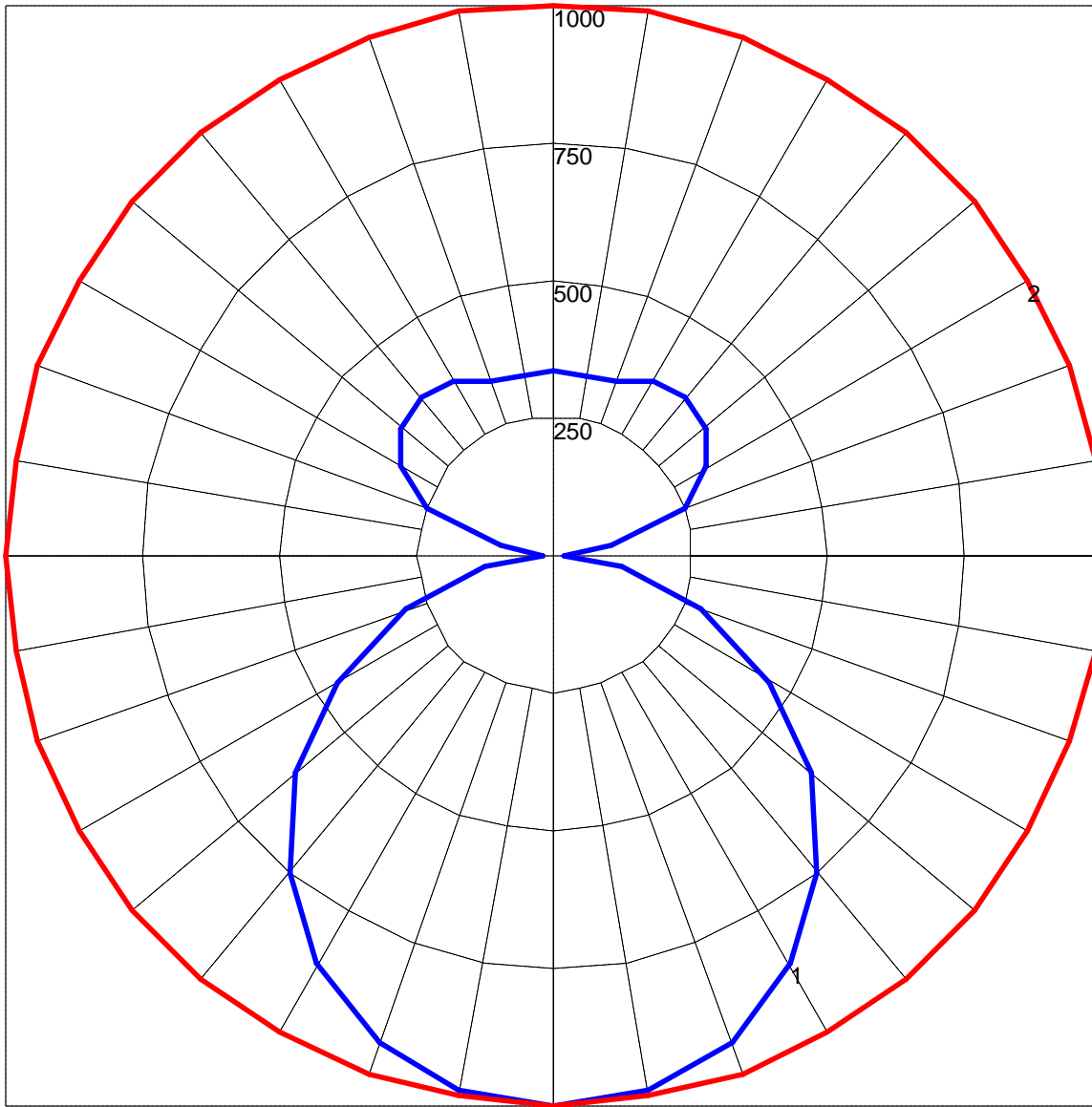
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	74	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 = 1000.497 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.)