



IES INDOOR REPORT

PHOTOMETRIC FILENAME : HRZ-4-LED-FL-HO-35.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] L250_3500K_HO(950)_NA_N2S_5-12-2016

[TESTLAB] Orb Optronix, Inc.

[ISSUE DATE] 05-12-2016

[TEST DATE] 01-12-2017

[MANUFACT] LSI INDUSTRIES, INC

[LUMCAT] HRZ-4-LED-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	5028
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	112
Total Luminaire Watts	44.8
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	1590	1326	1218
55	1549	1233	1102
65	1453	1087	934
75	1287	848	677
85	1183	606	391

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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	340.152	340.152	340.152	340.152	340.152	340.152	340.152	340.152	340.152	340.152
10	340.537	339.581	338.785	337.985	337.018	335.521	334.884	334.403	333.476	333.471
20	333.041	332.579	330.509	327.803	325.110	323.173	321.656	320.211	318.446	318.189
30	315.642	314.619	311.484	307.130	304.003	300.560	297.746	295.739	293.664	292.728
40	283.224	282.389	281.134	274.667	271.132	266.973	263.666	260.828	258.205	256.960
50	237.621	236.731	235.482	232.537	225.220	221.245	217.988	214.726	212.059	210.115
60	179.437	179.290	178.301	176.544	173.201	168.739	165.238	161.871	159.232	157.697
70	114.883	114.478	114.673	113.971	111.555	108.693	106.041	102.654	100.007	98.435
80	52.218	52.438	52.799	52.639	51.391	49.620	47.872	45.739	42.823	41.189
90	10.667	11.168	13.986	14.291	16.741	21.081	21.453	18.875	15.243	10.329
100	301.485	323.748	284.235	197.503	196.249	195.175	182.558	158.919	126.567	89.240
110	719.492	701.689	688.218	655.351	628.650	584.893	522.122	433.558	298.648	229.368
120	1036.411	1024.251	990.052	946.591	883.428	808.373	709.401	566.637	439.398	391.156
130	1138.061	1124.400	1093.717	1045.801	972.318	882.738	765.967	649.233	572.110	546.663
140	1128.692	1115.720	1083.261	1025.729	961.785	885.252	792.386	720.575	687.294	678.291
150	1037.092	1025.800	1004.205	968.729	920.969	867.249	822.525	795.264	785.219	779.751
160	937.204	929.239	918.207	903.260	885.347	869.919	860.302	853.455	849.245	845.157
170	904.646	900.303	897.227	895.171	893.611	890.855	888.938	885.375	883.142	880.871
180	894.777	894.777	894.777	894.777	894.777	894.777	894.777	894.777	894.777	894.777

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	126.06	N.A.	2.50
0-30	271.45	N.A.	5.40
0-40	451.48	N.A.	9.00
0-60	819.87	N.A.	16.30
0-80	1041.77	N.A.	20.70
0-90	1077.25	N.A.	21.40
10-90	1044.96	N.A.	20.80
20-40	325.42	N.A.	6.50
20-50	516.83	N.A.	10.30
40-70	506.80	N.A.	10.10
60-80	221.90	N.A.	4.40
70-80	83.50	N.A.	1.70
80-90	35.48	N.A.	0.70
90-110	523.92	N.A.	10.40
90-120	1189.5	N.A.	23.70
90-130	1938.65	N.A.	38.60
90-150	3200.35	N.A.	63.70
90-180	3950.34	N.A.	78.60
110-180	3426.42	N.A.	68.20
0-180	5027.59	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	32.30
10-20	93.76
20-30	145.40
30-40	180.02
40-50	191.41
50-60	176.98
60-70	138.40
70-80	83.50
80-90	35.48
90-100	121.45
100-110	402.47
110-120	665.58
120-130	749.16
130-140	693.74
140-150	567.96
150-160	412.94
160-170	251.77
170-180	85.28

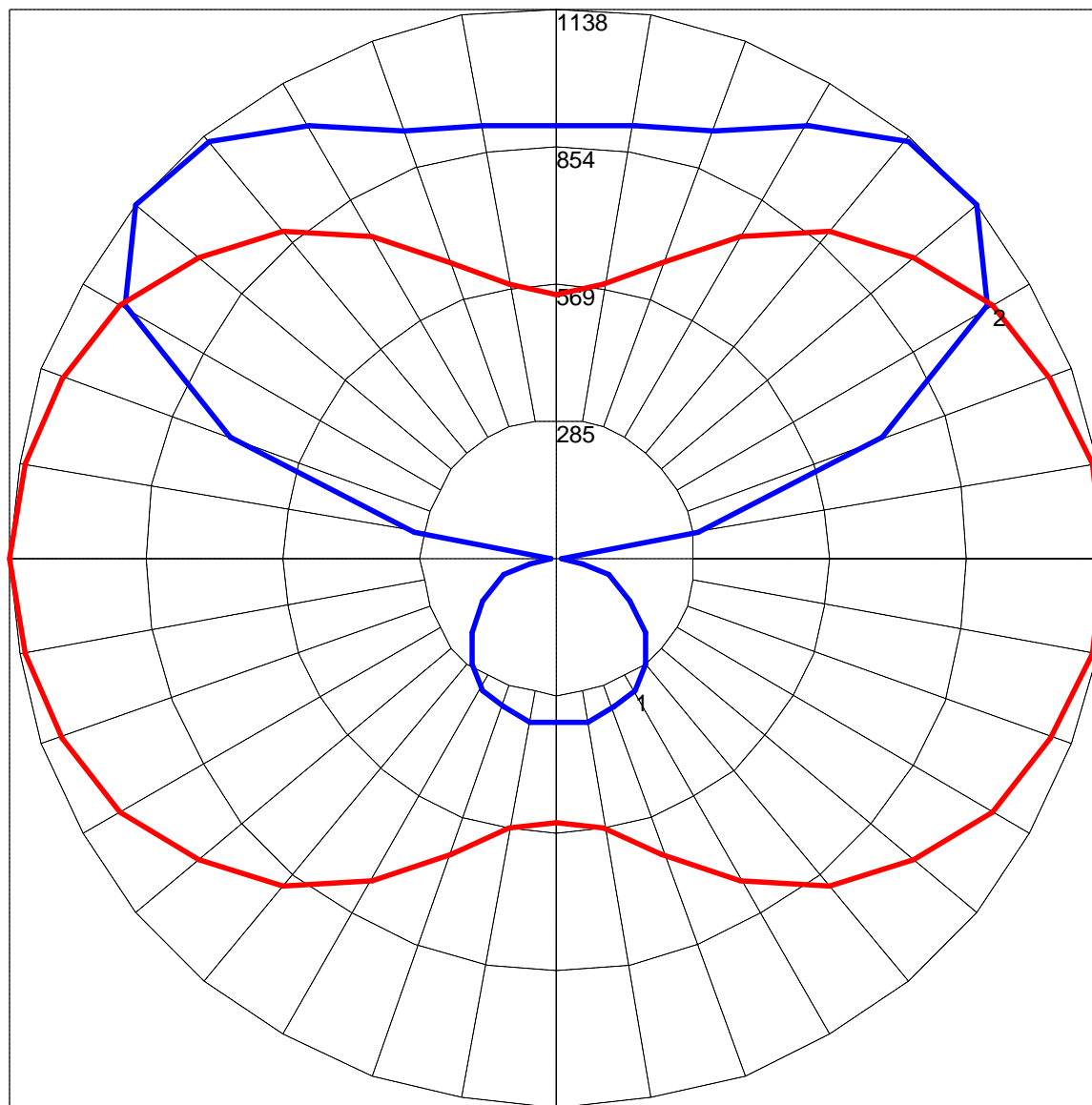
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	100	100	100	100	89	89	89	89	67	67	67	48	48	48	30	30	30	21
1	91	87	83	80	81	77	74	71	59	57	55	42	40	39	26	25	25	18
2	83	76	70	65	73	67	62	58	51	48	45	36	34	32	23	22	21	14
3	75	66	59	54	66	59	53	48	45	41	37	32	29	27	20	19	17	12
4	69	58	51	45	61	52	45	41	40	35	32	28	25	23	18	16	15	10
5	63	52	44	38	55	46	39	34	35	31	27	25	22	20	16	14	13	9
6	58	46	38	33	51	41	35	30	32	27	23	23	20	17	14	12	11	8
7	53	41	34	29	47	37	30	26	28	24	20	20	17	15	13	11	10	7
8	49	37	30	25	43	33	27	23	26	21	18	19	15	13	12	10	9	6
9	46	34	27	22	40	30	24	20	23	19	16	17	14	12	11	9	8	5
10	43	31	24	19	38	28	22	18	21	17	14	16	13	10	10	8	7	5

POLAR GRAPH



Maximum Candela = 1138.061 Located At Horizontal Angle = 0, Vertical Angle = 130
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (130) (Through Max. Cd.)