

IES INDOOR REPORT

PHOTOMETRIC FILENAME : HZL-4-L400-840-HIAFR-ND-XXXX-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM 14469285.03
[TESTLAB] UL Solutions
[ISSUE DATE] 11/19/2025
[TEST DATE] 11/2/2022
[MANUFAC] H E Williams Inc
[LUMCAT] HZL-4-L400-840-HIAFR-ND-DIM-UNV
[LUMINAIRE] 4-foot enclosed and gasketed industrial luminaire with nar
[MORE] row distribution
[LAMP] 224 White LEDs
[OTHER] This test was performed using the calibrated photodetector met
[MORE] hod of absolute photometry.

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	36860
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	137
Total Luminaire Watts	270
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.14
Spacing Criterion (Diagonal)	1.24
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	4.13 ft
Luminous Width (90-270)	1.04 ft
Luminous Height	0.19 ft



LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	36953	25042	15173
55	31561	15359	7941
65	25253	9292	4823
75	18676	5684	3233
85	10688	2919	2151

CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0.0	17408.368	17408.368	17408.368	17408.368	17408.368
0.5	17451.107	17483.162	17373.642	17368.299	17373.642
1.0	17453.778	17483.162	17376.313	17376.313	17381.655
1.5	17451.107	17483.162	17384.327	17389.669	17397.683
2.0	17443.093	17483.162	17392.340	17405.696	17419.052
2.5	17437.751	17480.491	17400.354	17427.066	17445.765
3.0	17432.409	17480.491	17411.039	17451.107	17469.806
3.5	17424.395	17477.819	17427.066	17480.491	17504.532
4.0	17411.039	17475.148	17440.422	17509.874	17541.929
4.5	17403.025	17472.477	17456.450	17544.600	17581.997
5.0	17389.669	17467.135	17469.806	17576.655	17622.066
5.5	17370.970	17464.463	17488.504	17611.381	17662.134
6.0	17357.614	17456.450	17504.532	17648.778	17707.545
6.5	17341.587	17453.778	17520.559	17680.832	17750.284
7.0	17322.888	17448.436	17536.586	17715.558	17793.024
7.5	17301.519	17437.751	17549.942	17750.284	17830.421
8.0	17282.820	17429.737	17565.970	17782.339	17867.818
8.5	17258.779	17421.724	17579.326	17809.051	17899.873
9.0	17234.738	17408.368	17592.682	17835.763	17926.585
9.5	17208.026	17400.354	17603.367	17857.133	17947.955
10.0	17181.314	17384.327	17611.381	17875.832	17966.653
10.5	17154.601	17370.970	17619.394	17889.188	17980.010
11.0	17125.218	17357.614	17624.737	17899.873	17988.023
11.5	17093.163	17341.587	17630.079	17905.215	17988.023
12.0	17061.108	17322.888	17627.408	17899.873	17980.010
12.5	17026.383	17304.190	17624.737	17894.530	17966.653
13.0	16988.985	17285.491	17622.066	17878.503	17947.955
13.5	16951.588	17261.450	17608.709	17857.133	17921.243
14.0	16911.520	17240.080	17595.353	17830.421	17883.845
14.5	16871.452	17213.368	17576.655	17795.695	17838.435
15.0	16828.712	17186.656	17555.285	17752.955	17785.010
15.5	16783.301	17154.601	17525.901	17704.873	17726.243
16.0	16737.890	17125.218	17496.518	17648.778	17659.463
16.5	16689.808	17093.163	17459.121	17587.340	17587.340
17.0	16639.055	17058.437	17421.724	17517.888	17507.203
17.5	16585.631	17021.040	17373.642	17440.422	17416.381
18.0	16532.206	16980.972	17325.560	17357.614	17317.546
18.5	16478.782	16938.232	17269.464	17269.464	17213.368
19.0	16422.686	16895.493	17210.697	17173.300	17101.177
19.5	16363.919	16847.411	17143.916	17069.122	16978.300
20.0	16305.152	16799.328	17071.793	16959.602	16852.753
20.5	16241.043	16745.904	16996.999	16844.739	16711.178
21.0	16179.604	16692.480	16914.191	16721.863	16566.932
21.5	16112.824	16636.384	16826.041	16590.973	16414.672
22.0	16048.714	16574.946	16735.219	16457.412	16259.741
22.5	15979.263	16513.507	16641.726	16313.166	16099.468
23.0	15909.811	16449.398	16537.549	16163.577	15933.852
23.5	15837.688	16379.946	16430.700	16008.646	15762.894
24.0	15765.565	16307.823	16321.179	15848.373	15586.593
24.5	15693.442	16235.700	16203.645	15677.414	15399.607
25.0	15613.305	16160.906	16083.440	15506.456	15204.608
25.5	15535.839	16078.098	15955.222	15324.813	15004.266
26.0	15455.703	15997.961	15813.647	15137.827	14793.239
26.5	15372.895	15915.153	15674.743	14945.499	14576.870

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CANDELA TABULATION - (Cont.)

27.0	15287.41615827.00315541.18214742.48614368.515
27.5	15201.93615736.18115396.93614539.47314173.515
28.0	15113.78615640.01715247.34714325.77513903.722
28.5	15022.96415546.52415092.41614112.07713633.928
29.0	14921.45815445.01814937.48513887.69413393.518
29.5	14825.29415340.84014774.54113663.31113147.765
30.0	14729.13015236.66214611.59613436.25712896.670
30.5	14630.29415127.14214437.96613201.19012642.904
31.0	14528.78815014.95114264.33712966.12212378.453
31.5	14424.61014902.75914085.36512720.36912114.001
32.0	14320.43214779.88313901.05012477.28811841.537
32.5	14216.25514657.00713714.06512228.86411563.729
33.0	14106.73514534.13013519.06511975.09811283.251
33.5	13999.88614403.24013321.39511718.66010994.758
34.0	13885.02314272.35013123.72411456.88010708.937
34.5	13772.83214138.78912920.71111192.42910423.117
35.0	13657.96913999.88612717.69810925.30710134.624
35.5	13545.77713860.98212509.34310658.1849854.146
36.0	13425.57213716.73612300.98710359.0079573.667
36.5	13305.36713569.81912089.96010099.8989295.860
37.0	13182.49113420.23011870.9209846.132 9015.381
37.5	13054.27213267.97011654.5519595.037 8737.574
38.0	12926.05413113.03911430.1689322.572 8467.780
38.5	12795.16412958.10811205.7859031.409 8187.302
39.0	12661.60212797.83510976.0608761.615 7917.508
39.5	12528.04112637.56110746.3358497.164 7645.043
40.0	12389.13712471.94510513.9388235.384 7372.579
40.5	12247.56312306.33010284.2137973.604 7110.799
41.0	12103.31612135.37110051.8167717.166 6851.690
41.5	11959.07011964.4139822.091 7463.400 6600.595
42.0	11814.82411790.7839589.695 7212.305 6360.185
42.5	11667.90711614.4829359.969 6969.224 6125.117
43.0	11520.99011435.5109127.573 6726.142 5898.063
43.5	11368.73011259.2108900.519 6493.746 5684.365
44.0	11219.14111074.8958668.122 6264.021 5470.667
44.5	11069.55310893.2528438.397 6042.309 5264.983
45.0	10919.96410708.9378208.672 5825.940 5061.970
45.5	10767.70410524.6237978.946 5614.913 4866.970
46.0	10615.44510337.6377751.892 5409.229 4666.629
46.5	10463.18510150.6527530.181 5208.887 4442.246
47.0	10308.2549963.666 7311.140 5013.888 4298.000
47.5	10153.3239774.009 7108.127 4826.902 4145.740
48.0	9998.392 9584.352 6899.772 4645.259 3977.453
48.5	9840.790 9394.695 6672.718 4468.958 3822.522
49.0	9683.187 9205.038 6467.034 4300.671 3670.262
49.5	9520.243 9015.381 6266.692 4137.726 3528.687
50.0	9359.969 8828.396 6071.692 3980.124 3392.455
50.5	9197.025 8641.410 5876.693 3827.864 3261.565
51.0	9031.409 8451.753 5687.036 3683.618 3136.017
51.5	8865.793 8267.439 5497.379 3544.714 3013.141
52.0	8700.177 8080.453 5315.736 3408.482 2895.607
52.5	8534.561 7896.138 5136.764 3280.263 2783.416
53.0	8368.945 7711.824 4965.806 3157.387 2673.895
53.5	8200.658 7527.510 4794.847 3037.182 2570.786
54.0	8035.042 7345.866 4631.903 2924.990 2471.684
54.5	7872.097 7164.223 4474.300 2815.470 2377.657

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55.0	7706.482	6985.251	4324.712	2711.292	2289.506
55.5	7543.537	6808.950	4177.795	2610.587	2205.096
56.0	7385.935	6632.649	4033.548	2513.889	2125.493
56.5	7225.661	6456.349	3894.645	2412.650	2049.096
57.0	7068.059	6285.390	3761.084	2328.773	1975.370
57.5	6910.457	6117.103	3627.522	2247.034	1905.384
58.0	6755.526	5962.172	3501.975	2166.897	1837.535
58.5	6603.266	5793.885	3379.099	2089.966	1772.624
59.0	6451.006	5617.584	3258.893	2015.706	1709.583
59.5	6298.746	5454.640	3144.031	1943.850	1648.412
60.0	6149.158	5299.709	3031.839	1875.466	1590.180
60.5	5999.569	5158.134	2924.990	1809.220	1534.084
61.0	5849.981	4987.175	2820.813	1745.912	1480.927
61.5	5700.392	4834.916	2721.977	1684.741	1429.906
62.0	5553.475	4685.327	2626.615	1626.241	1381.290
62.5	5403.886	4541.081	2533.122	1570.146	1336.681
63.0	5256.969	4396.835	2441.766	1516.454	1292.071
63.5	5112.723	4255.260	2356.020	1464.365	1249.332
64.0	4965.806	4119.028	2270.273	1414.680	1207.660
64.5	4824.231	3982.795	2187.733	1366.865	1168.393
65.0	4682.656	3851.905	2107.596	1320.119	1129.928
65.5	4541.081	3721.015	2030.932	1275.510	1092.264
66.0	4402.177	3592.796	1957.206	1232.770	1055.935
66.5	4265.945	3469.920	1885.617	1190.832	1021.209
67.0	4132.384	3347.044	1816.165	1150.496	988.086
67.5	4001.494	3226.839	1749.118	1111.229	955.764
68.0	3883.960	3109.305	1683.673	1073.031	923.709
68.5	3777.111	2991.771	1620.365	1035.901	892.990
69.0	3606.153	2879.580	1559.995	1000.373	863.073
69.5	3477.934	2767.388	1500.961	964.846	835.559
70.0	3373.756	2660.539	1443.797	930.922	807.244
70.5	3258.893	2555.560	1391.174	897.798	779.997
71.0	3141.360	2452.985	1332.674	864.942	753.552
71.5	3026.497	2351.746	1276.578	833.689	726.840
72.0	2914.306	2252.910	1224.489	803.237	700.929
72.5	2802.114	2156.212	1173.202	773.319	676.354
73.0	2689.923	2062.452	1123.517	744.203	650.977
73.5	2581.204	1970.295	1074.901	715.888	627.738
74.0	2473.019	1880.542	1028.154	687.840	603.430
74.5	2366.170	1791.857	982.476	660.861	580.724
75.0	2260.657	1706.111	938.668	634.683	559.621
75.5	2156.212	1622.502	895.127	608.505	537.985
76.0	2052.836	1540.495	853.189	583.128	517.416
76.5	1950.795	1460.091	812.052	558.820	497.649
77.0	1852.227	1382.091	769.313	535.046	477.615
77.5	1752.857	1305.427	730.580	511.272	457.581
78.0	1657.227	1230.900	693.717	488.834	438.081
78.5	1563.467	1159.044	657.388	466.663	419.382
79.0	1472.112	1087.455	621.060	445.026	401.485
79.5	1382.893	1018.805	583.662	424.190	383.855
80.0	1296.612	952.024	550.272	404.156	366.759
80.5	1210.866	886.579	517.950	385.725	350.732
81.0	1129.394	824.073	486.697	367.293	333.903
81.5	1049.791	763.703	457.314	348.328	318.677
82.0	971.524	705.737	428.464	330.430	303.718
82.5	896.997	649.642	401.218	313.869	289.828

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83.0	824.874	597.019	376.108	298.109	276.472
83.5	755.956	547.334	351.266	282.348	263.650
84.0	689.710	499.786	328.561	268.725	252.164
84.5	626.135	455.177	307.191	255.369	240.143
85.0	566.300	414.040	287.424	243.081	229.458
85.5	511.005	375.841	268.992	231.061	219.308
86.0	458.649	340.848	251.896	220.109	209.424
86.5	410.300	309.328	236.136	209.691	200.342
87.0	367.828	278.074	221.444	200.075	191.527
87.5	330.430	254.835	208.355	190.725	183.780
88.0	298.910	233.465	196.602	182.177	176.034
88.5	272.198	214.499	185.116	174.698	169.088
89.0	252.965	197.671	175.232	166.952	162.678
89.5	239.075	183.246	165.883	159.739	156.267
90.0	229.458	170.157	157.068	153.863	150.924
90.5	221.979	161.075	149.856	147.986	145.315
91.0	218.773	153.595	142.643	141.842	140.506
91.5	215.568	146.650	136.500	137.568	136.232
92.0	213.164	141.575	131.157	133.027	131.424
92.5	211.027	137.568	126.082	128.753	126.883
93.0	208.890	134.363	122.075	125.013	123.678
93.5	207.821	133.027	119.137	121.274	120.472
94.0	207.020	131.958	116.198	118.602	117.267
94.5	205.951	130.890	114.061	115.664	114.863
95.0	204.883	130.356	112.191	112.993	112.459
95.5	204.349	130.089	110.856	111.390	110.856
96.0	203.814	129.821	110.054	109.520	108.452
96.5	203.814	129.554	108.719	108.452	106.849
97.0	202.746	129.287	108.719	106.849	105.246
97.5	202.212	129.287	108.719	106.048	104.445
98.0	202.212	128.486	108.452	105.246	103.643
98.5	201.410	127.952	108.452	104.712	103.376
99.0	200.075	128.219	108.719	104.712	102.842
99.5	199.540	127.685	109.253	104.445	102.041
100.0	198.205	127.685	109.253	104.178	102.308
100.5	197.136	127.150	109.253	104.178	102.041
101.0	196.335	126.883	110.054	104.445	102.308
101.5	194.999	126.349	109.520	104.445	102.041
102.0	193.931	125.815	109.787	104.712	102.308
102.5	191.794	125.280	109.787	104.979	102.842
103.0	190.458	124.479	110.054	104.712	103.376
103.5	188.588	124.212	109.787	105.246	102.842
104.0	186.184	123.143	110.054	105.513	103.376
104.5	184.582	122.342	109.787	105.780	103.643
105.0	181.910	121.808	110.054	105.780	104.178
105.5	179.506	120.472	109.787	105.513	103.109
106.0	177.369	119.938	109.253	105.780	104.178
106.5	174.698	118.602	109.253	105.513	103.643
107.0	171.493	117.534	108.719	106.048	103.911
107.5	168.821	116.465	108.719	105.780	104.712
108.0	165.616	115.130	107.917	105.513	104.178
108.5	162.945	113.794	107.383	105.513	104.178
109.0	160.273	112.459	107.383	105.513	104.178
109.5	157.335	111.123	106.849	105.246	104.712
110.0	153.863	109.520	106.048	104.979	104.178
110.5	151.726	107.917	105.780	104.979	104.178

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111.0	148.787	106.315	104.445	104.712	104.445
111.5	144.780	104.712	104.178	104.712	104.445
112.0	141.575	103.109	103.109	104.712	103.911
112.5	138.904	100.972	102.575	104.178	104.178
113.0	135.965	99.370	101.507	103.643	103.643
113.5	132.760	97.500	100.171	102.842	103.911
114.0	129.821	95.630	99.370	102.575	103.376
114.5	127.150	94.027	98.301	102.308	103.109
115.0	123.411	92.157	97.500	101.774	103.109
115.5	120.472	90.020	96.698	100.972	102.842
116.0	117.801	88.418	95.630	100.171	102.308
116.5	114.328	86.013	93.760	99.637	102.308
117.0	111.390	84.411	92.959	99.370	101.507
117.5	108.719	82.274	91.356	98.301	101.774
118.0	106.315	80.137	90.020	97.767	100.438
118.5	103.376	78.534	88.952	97.233	99.904
119.0	100.438	76.130	86.815	96.431	99.370
119.5	97.500	74.527	86.013	95.096	98.835
120.0	94.828	72.390	84.144	94.294	97.767
120.5	92.691	70.253	82.541	92.959	97.233
121.0	89.753	68.650	80.938	91.890	96.698
121.5	87.616	67.048	79.870	91.089	95.897
122.0	85.212	65.445	78.534	89.753	95.096
122.5	83.342	63.842	76.397	88.952	93.760
123.0	80.938	61.705	75.061	87.616	93.493
123.5	78.534	60.370	73.192	86.815	91.890
124.0	76.397	58.767	71.856	85.212	91.356
124.5	74.260	56.897	69.986	83.876	90.287
125.0	72.657	55.561	68.650	82.541	89.219
125.5	70.253	54.226	67.048	81.472	88.418
126.0	68.918	52.623	65.445	79.870	86.548
126.5	67.048	51.288	63.575	78.801	85.746
127.0	65.445	50.486	62.240	77.465	84.678
127.5	63.308	48.883	60.904	76.397	83.342
128.0	61.705	47.815	59.301	75.329	82.274
128.5	60.370	46.746	57.698	73.726	80.938
129.0	59.034	45.678	55.829	72.390	80.404
129.5	57.698	44.342	54.226	71.322	77.733
130.0	56.363	43.541	52.890	69.719	76.664
130.5	54.760	42.205	51.288	68.116	75.596
131.0	52.890	41.137	49.685	66.513	74.527
131.5	52.089	40.603	48.082	65.178	73.192
132.0	50.486	39.534	46.746	64.109	71.856
132.5	49.418	38.466	45.144	62.774	70.787
133.0	48.082	38.199	43.808	61.171	68.918
133.5	47.014	37.130	41.938	59.835	67.315
134.0	45.411	36.062	41.404	58.233	66.246
134.5	44.609	35.527	39.267	56.897	64.377
135.0	43.274	34.993	37.931	55.561	63.308
135.5	42.740	33.925	37.130	53.692	61.705
136.0	41.404	33.657	35.794	52.890	60.637
136.5	40.335	32.856	33.925	51.555	58.500
137.0	39.801	32.322	32.856	50.219	57.431
137.5	39.000	31.253	31.520	48.616	55.829
138.0	37.397	30.986	30.185	47.548	54.760
138.5	37.664	30.452	29.383	45.945	53.692

IES INDOOR REPORT**PHOTOMETRIC FILENAME : HZL-4-L400-840-HIAFR-ND-XXXX-DIM-UNV_.IES****CANDELA TABULATION - (Cont.)**

139.0	36.062	29.651	28.315	44.877	51.822
139.5	36.062	29.116	27.514	43.541	50.219
140.0	34.993	28.582	26.712	42.740	49.151
140.5	33.925	28.048	25.644	40.870	47.815
141.0	33.390	27.514	24.842	40.068	46.212
141.5	32.589	27.246	24.575	38.733	45.144
142.0	32.322	27.246	23.774	38.199	44.342
142.5	31.788	26.178	23.507	36.863	43.541
143.0	30.986	25.911	23.240	35.794	41.671
143.5	30.185	25.644	22.171	35.260	41.137
144.0	29.918	25.110	22.438	34.726	39.801
144.5	29.116	24.575	22.438	33.390	39.000
145.0	28.582	24.575	22.171	32.589	37.397
145.5	28.315	24.308	22.438	31.520	36.863
146.0	27.514	24.041	21.904	30.986	35.527
146.5	26.979	23.507	22.171	29.651	34.459
147.0	26.445	23.240	21.637	28.849	33.657
147.5	25.644	22.973	21.370	27.781	32.856
148.0	25.644	22.973	21.370	27.514	31.788
148.5	25.377	22.973	21.370	26.712	31.520
149.0	25.110	22.705	21.904	26.445	30.185
149.5	25.110	22.973	21.370	26.178	29.383
150.0	24.842	22.973	21.637	25.644	28.849
150.5	24.842	23.507	22.171	25.377	28.048
151.0	25.110	22.973	22.438	25.110	27.514
151.5	24.575	23.240	22.438	24.842	27.246
152.0	24.842	23.507	22.705	24.842	26.445
152.5	24.575	23.774	22.705	24.308	26.445
153.0	25.110	23.774	22.973	24.041	25.644
153.5	24.842	24.041	22.973	24.041	25.644
154.0	24.842	24.041	23.507	24.041	25.377
154.5	24.842	24.041	23.240	23.507	24.575
155.0	24.575	24.308	23.240	23.507	24.842
155.5	24.575	24.575	23.507	23.507	24.308
156.0	24.842	24.575	23.507	23.507	23.774
156.5	24.842	24.308	23.774	23.507	23.507
157.0	24.842	24.575	23.774	23.240	22.973
157.5	25.110	24.842	24.041	23.507	23.774
158.0	25.377	24.842	24.575	23.774	23.774
158.5	25.377	25.110	24.575	23.507	24.308
159.0	25.644	25.110	24.308	24.308	24.041
159.5	25.911	25.110	24.575	24.308	24.308
160.0	25.911	25.377	25.110	24.575	25.110
160.5	25.377	25.644	25.110	24.575	24.308
161.0	26.445	25.644	25.110	24.842	25.110
161.5	26.178	25.911	25.377	25.377	25.110
162.0	26.178	25.911	25.377	25.644	25.644
162.5	26.712	25.644	25.911	25.644	25.377
163.0	26.178	26.178	25.644	25.644	25.377
163.5	26.445	25.911	25.110	25.644	25.377
164.0	25.644	25.377	25.110	25.377	25.377
164.5	25.377	25.110	25.110	25.110	24.842
165.0	25.377	25.110	25.110	24.842	24.842
165.5	25.377	25.377	24.842	24.842	25.110
166.0	24.842	24.842	25.110	24.575	24.842
166.5	25.377	25.110	24.842	24.842	24.842

IES INDOOR REPORT**PHOTOMETRIC FILENAME : HZL-4-L400-840-HIAFR-ND-XXXX-DIM-UNV_.IES****CANDELA TABULATION - (Cont.)**

167.0	24.842	25.110	24.842	25.377	25.911
167.5	25.644	25.110	25.377	25.377	26.178
168.0	25.644	25.644	25.911	25.644	26.445
168.5	26.445	25.911	26.178	26.178	26.712
169.0	26.178	26.445	26.712	26.979	27.781
169.5	27.781	26.979	27.246	27.781	27.781
170.0	27.246	27.514	27.246	27.781	28.582
170.5	27.514	27.514	27.514	28.315	29.116
171.0	27.781	27.246	27.514	28.582	29.383
171.5	28.315	27.781	28.315	28.048	29.651
172.0	28.315	28.315	28.315	28.582	29.651
172.5	27.781	27.781	27.781	28.849	29.918
173.0	28.315	28.048	28.582	28.315	29.651
173.5	28.315	28.315	28.048	28.849	29.651
174.0	28.315	28.048	28.315	29.116	29.651
174.5	28.849	28.315	28.582	28.849	30.185
175.0	28.582	28.849	28.582	29.116	29.918
175.5	28.582	28.315	28.582	29.383	29.918
176.0	28.582	28.582	28.849	29.383	30.452
176.5	28.315	29.116	28.849	29.383	30.452
177.0	28.849	28.582	28.582	29.383	30.452
177.5	29.116	29.383	28.849	29.651	30.719
178.0	29.116	29.116	29.116	29.918	30.452
178.5	29.116	29.116	29.383	29.651	30.986
179.0	29.116	29.116	29.383	29.918	30.719
179.5	29.651	29.383	29.651	29.918	31.253
180.0	29.651	29.651	29.651	29.651	29.651

IES INDOOR REPORT**PHOTOMETRIC FILENAME : HZL-4-L400-840-HIAFR-ND-XXXX-DIM-UNV_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	6589.21	N.A.	17.90
0-30	13824.45	N.A.	37.50
0-40	21530.08	N.A.	58.40
0-60	32141.19	N.A.	87.20
0-80	35948.71	N.A.	97.50
0-90	36347.71	N.A.	98.60
10-90	34672.69	N.A.	94.10
20-40	14940.87	N.A.	40.50
20-50	21262.12	N.A.	57.70
40-70	13161.71	N.A.	35.70
60-80	3807.53	N.A.	10.30
70-80	1256.93	N.A.	3.40
80-90	399.00	N.A.	1.10
90-110	272.27	N.A.	0.70
90-120	372.36	N.A.	1.00
90-130	437.34	N.A.	1.20
90-150	491.10	N.A.	1.30
90-180	512.26	N.A.	1.40
110-180	239.99	N.A.	0.70
0-180	36859.98	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1675.02
10-20	4914.19
20-30	7235.24
30-40	7705.63
40-50	6321.25
50-60	4289.85
60-70	2550.6
70-80	1256.93
80-90	399.00
90-100	146.18
100-110	126.09
110-120	100.09
120-130	64.99
130-140	35.72
140-150	18.03
150-160	11.20
160-170	7.25
170-180	2.72

IES INDOOR REPORT
PHOTOMETRIC FILENAME : HZL-4-L400-840-HIAFR-ND-XXXX-DIM-UNV_.IES

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	119	119	119	119	116	116	116	116	110	110	110	105	105	105	101	101	101	99
1	110	106	103	99	107	104	100	98	99	97	94	95	93	91	92	90	88	86
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75
3	94	85	78	72	92	83	77	71	80	75	70	77	73	69	75	71	67	65
4	87	76	69	63	85	75	68	62	72	66	61	70	65	60	68	63	59	57
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51
6	75	63	55	49	73	62	54	49	60	53	48	58	52	48	57	52	47	45
7	70	58	50	44	68	57	49	44	55	48	44	54	48	43	52	47	43	41
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	48	43	39	37
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	35	34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31

IES INDOOR REPORT

PHOTOMETRIC FILENAME : HZL-4-L400-840-HIAFR-ND-XXXX-DIM-UNV_.IES

UGR TABLE - CORRECTED

Reflectances

Ceiling Cavity	70	70	50	50	30	70	70	50	50	30
Walls	50	30	50	30	30	50	30	50	30	30
Floor Cavity	20	20	20	20	20	20	20	20	20	20

Room Size UGR Viewed Crosswise

X=2H	Y=2H	23.2	24.6	23.6	25.0	25.3	16.2	17.6	16.6	18.0	18.4
	3H	24.5	25.7	24.9	26.1	26.5	17.2	18.4	17.6	18.8	19.2
	4H	24.9	26.1	25.3	26.4	26.9	17.5	18.7	18.0	19.1	19.5
	6H	25.1	26.2	25.6	26.6	27.1	17.8	18.9	18.3	19.3	19.7
	8H	25.2	26.2	25.6	26.6	27.1	17.9	18.9	18.4	19.4	19.8
	12H	25.2	26.2	25.7	26.6	27.1	18.0	19.0	18.5	19.4	19.9

UGR Viewed Endwise

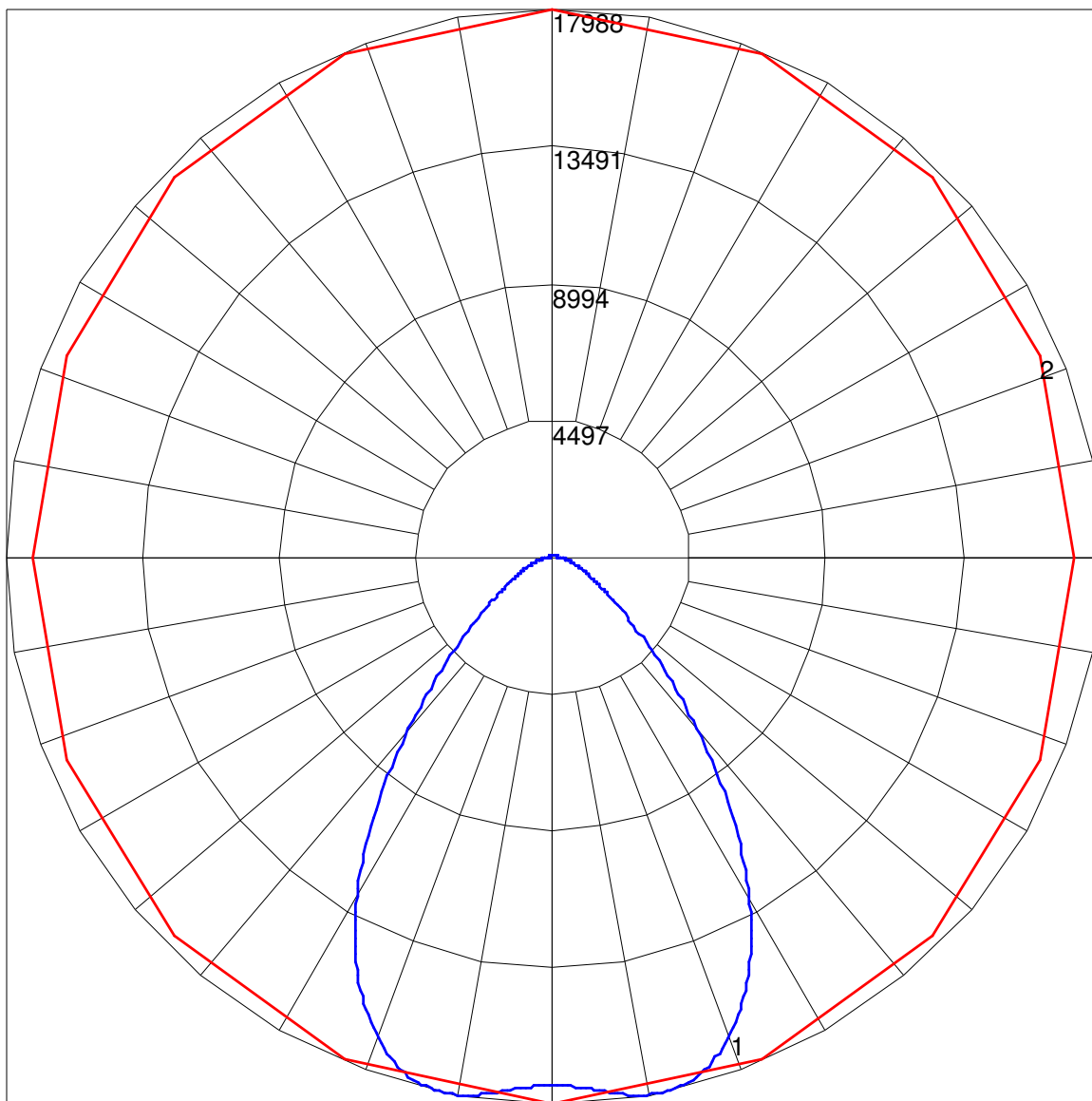
4H	2H	23.2	24.3	23.6	24.7	25.2	17.2	18.4	17.7	18.8	19.2
	3H	24.6	25.6	25.1	26.0	26.5	18.3	19.3	18.7	19.7	20.2
	4H	25.1	26.0	25.6	26.5	26.9	18.7	19.6	19.2	20.0	20.5
	6H	25.5	26.2	26.0	26.7	27.2	19.0	19.8	19.5	20.2	20.8
	8H	25.6	26.3	26.1	26.8	27.3	19.1	19.8	19.6	20.3	20.8
	12H	25.6	26.3	26.1	26.8	27.3	19.2	19.9	19.8	20.4	20.9

8H	4H	25.1	25.8	25.6	26.3	26.8	19.2	19.9	19.7	20.3	20.9
	6H	25.5	26.1	26.0	26.6	27.1	19.5	20.1	20.1	20.7	21.2
	8H	25.6	26.1	26.2	26.7	27.2	19.7	20.2	20.3	20.8	21.3
	12H	25.7	26.2	26.2	26.7	27.3	19.9	20.3	20.4	20.9	21.5

12H	4H	25.0	25.7	25.6	26.2	26.7	19.2	19.9	19.7	20.4	20.9
	6H	25.5	26.0	26.0	26.5	27.1	19.6	20.2	20.2	20.7	21.3
	8H	25.6	26.1	26.1	26.6	27.2	19.8	20.3	20.4	20.8	21.4

Maximum UGR = 27.3

POLAR GRAPH



Maximum Candela = 17988.023 Located At Horizontal Angle = 90, Vertical Angle = 11
1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (11) (Through Max. Cd.)