



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : HZX-EX-S2-150W-6000K-D120.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] HZX-EX-S2-150W-6000K-D120  
 [TESTLAB] EVERFINE  
 [TESTDATE] 23 August 2024  
 [ISSUEDATE] 2024-08-23 10:50:13  
 [NEARFIELD]  
 [LAMPPOSITION] 0,0  
 [OTHER] EVERFINE GO-3000H\_V1 SYSTEM  
 [MANUFAC] BELUCE CANADA INC.  
 [LUMINAIRE] HZX-EX-S2-150W-6000K-D120  
 [LUMCAT] ] HZX-EX-S2-150W-6000K-D120  
 [LAMP] 24402 LUMENS  
 [\_SEARCH\_SOURCETYPE] LED

### CHARACTERISTICS

Lumens Per Lamp	24402 (1 lamp)
Total Lamp Lumens	24402
Luminaire Lumens	24402
Total Luminaire Efficiency	100 %
Luminaire Efficacy Rating (LER)	166
Total Luminaire Watts	147.15
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.32
Spacing Criterion (90-270)	1.24
Spacing Criterion (Diagonal)	1.44
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.20 m (Diameter)
Luminous Width (90-270)	0.20 m (Diameter)
Luminous Height	0.00 m

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	274736	254611	234485
55	272351	241588	210825
65	254394	196363	138332
75	174195	95440	16685
85	18515	11148	3780

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**CANDELA TABULATION**

	<u>0</u>	<u>90</u>	<u>180</u>	<u>270</u>	<u>360</u>
0	8097.900	8097.900	8097.900	8097.900	8097.900
1	8097.900	8085.500	8095.700	8108.200	8097.900
2	8096.400	8070.300	8092.200	8116.100	8096.400
3	8093.500	8052.900	8087.100	8121.900	8093.500
4	8088.400	8033.500	8079.800	8126.300	8088.400
5	8081.100	8011.500	8070.400	8128.500	8081.100
6	8073.100	7986.700	8059.400	8130.000	8073.100
7	8062.200	7960.500	8046.400	8130.000	8062.200
8	8049.700	7931.100	8031.800	8129.300	8049.700
9	8035.900	7899.700	8014.300	8127.800	8035.900
10	8018.500	7865.400	7994.100	8124.900	8018.500
11	8000.200	7828.900	7972.800	8121.300	8000.200
12	7979.100	7791.800	7949.200	8115.500	7979.100
13	7955.100	7750.000	7923.700	8108.300	7955.100
14	7929.600	7706.200	7894.800	8098.900	7929.600
15	7901.700	7660.100	7863.400	8087.200	7901.700
16	7872.000	7610.200	7830.600	8073.400	7872.000
17	7839.600	7558.400	7797.500	8057.600	7839.600
18	7806.400	7505.000	7759.800	8038.800	7806.400
19	7768.600	7447.800	7718.600	8016.900	7768.600
20	7729.200	7389.600	7676.000	7993.900	7729.200
21	7687.300	7326.900	7630.900	7968.400	7687.300
22	7642.600	7262.200	7584.000	7940.600	7642.600
23	7596.200	7195.300	7533.400	7910.300	7596.200
24	7545.900	7125.700	7480.200	7878.000	7545.900
25	7494.400	7054.100	7425.500	7842.100	7494.400
26	7441.100	6979.600	7368.000	7804.000	7441.100
27	7383.700	6901.900	7308.700	7766.900	7383.700
28	7323.600	6821.800	7246.100	7724.100	7323.600
29	7262.000	6738.500	7180.300	7678.800	7262.000
30	7197.000	6654.500	7111.200	7631.300	7197.000
31	7129.400	6564.700	7043.500	7581.800	7129.400
32	7061.900	6473.700	6971.300	7529.600	7061.900
33	6989.400	6381.000	6894.700	7474.000	6989.400
34	6914.400	6285.400	6815.400	7416.700	6914.400
35	6836.500	6186.300	6734.100	7357.900	6836.500
36	6757.200	6084.800	6653.800	7295.700	6757.200
37	6675.000	5980.800	6567.500	7228.800	6675.000
38	6589.600	5874.400	6477.800	7160.600	6589.600
39	6502.200	5765.500	6386.400	7091.600	6502.200
40	6411.300	5653.900	6294.800	7021.200	6411.300
41	6320.600	5538.800	6199.200	6945.200	6320.600
42	6226.000	5423.300	6100.200	6868.200	6226.000
43	6126.800	5302.200	5998.500	6786.500	6126.800
44	6026.600	5180.900	5894.600	6703.300	6026.600
45	5923.900	5056.000	5788.100	6618.800	5923.900
46	5817.800	4930.400	5678.500	6531.000	5817.800
47	5709.200	4806.000	5568.400	6440.300	5709.200
48	5598.200	4681.500	5453.300	6345.700	5598.200
49	5487.000	4548.600	5337.500	6252.400	5487.000
50	5371.500	4411.300	5217.000	6154.000	5371.500
51	5252.000	4268.900	5095.200	6051.000	5252.000
52	5131.900	4124.900	4971.100	5947.900	5131.900
53	5009.400	3980.700	4845.200	5843.000	5009.400

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**CANDELA TABULATION - (Cont.)**

54	4886.400	3836.700	4717.600	5734.300	4886.400
55	4763.500	3687.400	4584.800	5621.800	4763.500
56	4640.500	3526.400	4451.300	5510.400	4640.500
57	4506.400	3315.300	4314.800	5392.800	4506.400
58	4370.800	3104.700	4174.900	5274.200	4370.800
59	4232.600	2926.800	4036.500	5153.300	4232.600
60	4091.700	2744.200	3891.500	5027.800	4091.700
61	3950.300	2566.600	3746.000	4901.500	3950.300
62	3803.900	2387.500	3597.800	4773.100	3803.900
63	3657.300	2154.100	3412.500	4642.800	3657.300
64	3491.600	1953.300	3196.400	4509.600	3491.600
65	3278.400	1782.700	3016.900	4372.800	3278.400
66	3069.400	1576.600	2836.700	4233.400	3069.400
67	2895.600	1372.300	2664.600	4092.400	2895.600
68	2733.100	1196.700	2494.600	3950.800	2733.100
69	2556.300	1000.400	2294.100	3805.200	2556.300
70	2380.100	821.880	2088.600	3659.800	2380.100
71	2151.800	652.150	1883.000	3503.200	2151.800
72	1968.200	504.850	1712.700	3297.300	1968.200
73	1781.900	357.870	1487.300	3085.700	1781.900
74	1594.200	242.710	1311.600	2913.300	1594.200
75	1374.800	131.680	1129.600	2739.600	1374.800
76	1195.600	59.638	942.510	2567.900	1195.600
77	1011.500	46.671	763.830	2388.400	1011.500
78	839.920	44.011	597.920	2167.000	839.920
79	662.490	39.046	456.000	1962.800	662.490
80	519.420	30.953	314.260	1791.200	519.420
81	376.500	19.052	210.460	1588.300	376.500
82	258.670	8.220	106.960	1382.100	258.670
83	149.270	8.805	51.270	1207.200	149.270
84	72.587	9.409	48.440	1017.600	72.587
85	49.208	10.046	44.887	834.560	49.208
86	47.002	10.705	38.682	665.920	47.002
87	42.926	11.378	29.154	502.960	42.926
88	35.855	12.080	15.108	357.740	35.855
89	25.749	12.808	8.235	252.720	25.749
90	9.658	13.547	8.829	162.280	9.658
91	10.263	14.290	9.451	71.840	10.263
92	10.927	15.069	10.082	47.906	10.927
93	11.621	15.863	10.749	45.308	11.621
94	12.349	16.668	11.433	40.912	12.349
95	13.086	17.478	12.151	33.976	13.086
96	13.868	18.282	12.894	24.171	13.868
97	14.647	19.132	13.630	10.416	14.647
98	15.459	19.990	14.386	10.802	15.459
99	16.279	20.858	15.171	11.478	16.279
100	17.135	21.725	15.967	12.172	17.135
101	17.970	22.600	16.774	12.889	17.970
102	18.844	23.511	17.613	13.660	18.844
103	19.712	24.444	18.430	14.423	19.712
104	20.612	25.364	19.269	15.235	20.612
105	21.509	26.269	20.146	16.046	21.509
106	22.401	27.225	21.028	16.880	22.401
107	23.339	28.165	21.906	17.733	23.339
108	24.267	29.111	22.810	18.595	24.267
109	25.177	30.072	23.713	19.480	25.177

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**CANDELA TABULATION - (Cont.)**

110	26.097	31.037	24.648	20.360	26.097
111	27.045	31.995	25.583	21.255	27.045
112	27.987	32.953	26.528	22.180	27.987
113	28.925	33.906	27.448	23.093	28.925
114	29.855	34.861	28.408	24.014	29.855
115	30.803	35.812	29.348	24.959	30.803
116	31.761	36.732	30.296	25.877	31.761
117	32.696	37.620	31.241	26.842	32.696
118	33.613	38.522	32.157	27.798	33.613
119	34.531	39.427	33.067	28.753	34.531
120	35.453	40.308	33.951	29.699	35.453
121	36.388	41.150	34.854	30.649	36.388
122	37.275	41.992	35.726	31.615	37.275
123	38.167	42.817	36.591	32.575	38.167
124	39.037	43.692	37.448	33.488	39.037
125	39.894	44.552	38.305	34.431	39.894
126	40.759	45.395	39.165	35.337	40.759
127	41.585	46.294	40.031	36.272	41.585
128	42.432	47.150	40.911	37.207	42.432
129	43.272	48.009	41.721	38.123	43.272
130	44.157	48.875	42.557	39.038	44.157
131	45.049	49.785	43.457	39.911	45.049
132	45.934	50.670	44.339	40.796	45.934
133	46.808	51.550	45.226	41.686	46.808
134	47.693	52.387	46.093	42.579	47.693
135	48.593	53.235	46.988	43.469	48.593
136	49.481	54.121	47.841	44.354	49.481
137	50.390	54.943	48.700	45.254	50.390
138	51.275	55.662	49.552	46.204	51.275
139	52.142	56.437	50.390	47.120	52.142
140	53.017	57.149	51.179	48.057	53.017
141	53.904	57.862	52.002	48.951	53.904
142	54.768	58.550	52.789	49.905	54.768
143	55.628	59.226	53.575	50.877	55.628
144	56.472	59.958	54.432	51.832	56.472
145	57.279	60.564	55.225	52.742	57.279
146	58.110	61.113	55.936	53.670	58.110
147	58.901	61.641	56.585	54.613	58.901
148	59.687	62.234	57.339	55.553	59.687
149	60.450	62.785	58.102	56.452	60.450
150	61.175	63.383	58.834	57.342	61.175
151	61.895	64.010	59.564	58.224	61.895
152	62.594	64.536	60.213	59.085	62.594
153	63.265	65.008	60.845	59.947	63.265
154	63.905	65.488	61.512	60.748	63.905
155	64.501	65.966	62.120	61.520	64.501
156	65.110	66.437	62.716	62.267	65.110
157	65.689	66.863	63.283	63.027	65.689
158	66.252	67.270	63.837	63.749	66.252
159	66.797	67.684	64.350	64.451	66.797
160	67.316	68.089	64.930	65.147	67.316
161	67.815	68.509	65.466	65.839	67.815
162	68.308	68.917	65.994	66.507	68.308
163	68.791	69.306	66.520	67.159	68.791
164	69.257	69.807	67.144	67.783	69.257
165	69.697	70.354	67.811	68.371	69.697

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**CANDELA TABULATION - (Cont.)**

<b>166</b>	70.130	70.836	68.396	68.934	70.130
<b>167</b>	70.499	71.282	68.965	69.456	70.499
<b>168</b>	70.865	71.626	69.425	69.939	70.865
<b>169</b>	71.211	71.937	69.929	70.413	71.211
<b>170</b>	71.528	72.410	70.523	70.868	71.528
<b>171</b>	71.807	72.651	70.938	71.277	71.807
<b>172</b>	72.071	72.937	71.388	71.635	72.071
<b>173</b>	72.244	73.113	71.739	71.901	72.244
<b>174</b>	72.449	73.346	72.088	72.224	72.449
<b>175</b>	72.638	73.526	72.394	72.536	72.638
<b>176</b>	72.774	73.714	72.673	72.801	72.774
<b>177</b>	72.879	73.744	72.885	73.034	72.879
<b>178</b>	72.962	73.706	72.962	73.194	72.962
<b>179</b>	73.038	73.699	73.075	73.344	73.038
<b>180</b>	73.055	73.055	73.055	73.055	73.055

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	2994.13	12.30	12.30
0-30	6431.69	26.40	26.40
0-40	10672.97	43.70	43.70
0-60	19335.41	79.20	79.20
0-80	23866.91	97.80	97.80
0-90	24164.69	99.00	99.00
10-90	23396.36	95.90	95.90
20-40	7678.83	31.50	31.50
20-50	12187.51	49.90	49.90
40-70	11735.99	48.10	48.10
60-80	4531.5	18.60	18.60
70-80	1457.96	6.00	6.00
80-90	297.77	1.20	1.20
90-110	44.44	0.20	0.20
90-120	74.37	0.30	0.30
90-130	109.53	0.40	0.40
90-150	181.96	0.70	0.70
90-180	237.61	1.00	1.00
110-180	193.17	0.80	0.80
0-180	24402.3	100.00	100.00

Total Luminaire Efficiency = 100.00%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	768.33
10-20	2225.8
20-30	3437.56
30-40	4241.28
40-50	4508.68
50-60	4153.77
60-70	3073.54
70-80	1457.96
80-90	297.77
90-100	22.21
100-110	22.23
110-120	29.93
120-130	35.16
130-140	37.12
140-150	35.31
150-160	29.28
160-170	19.47
170-180	6.90

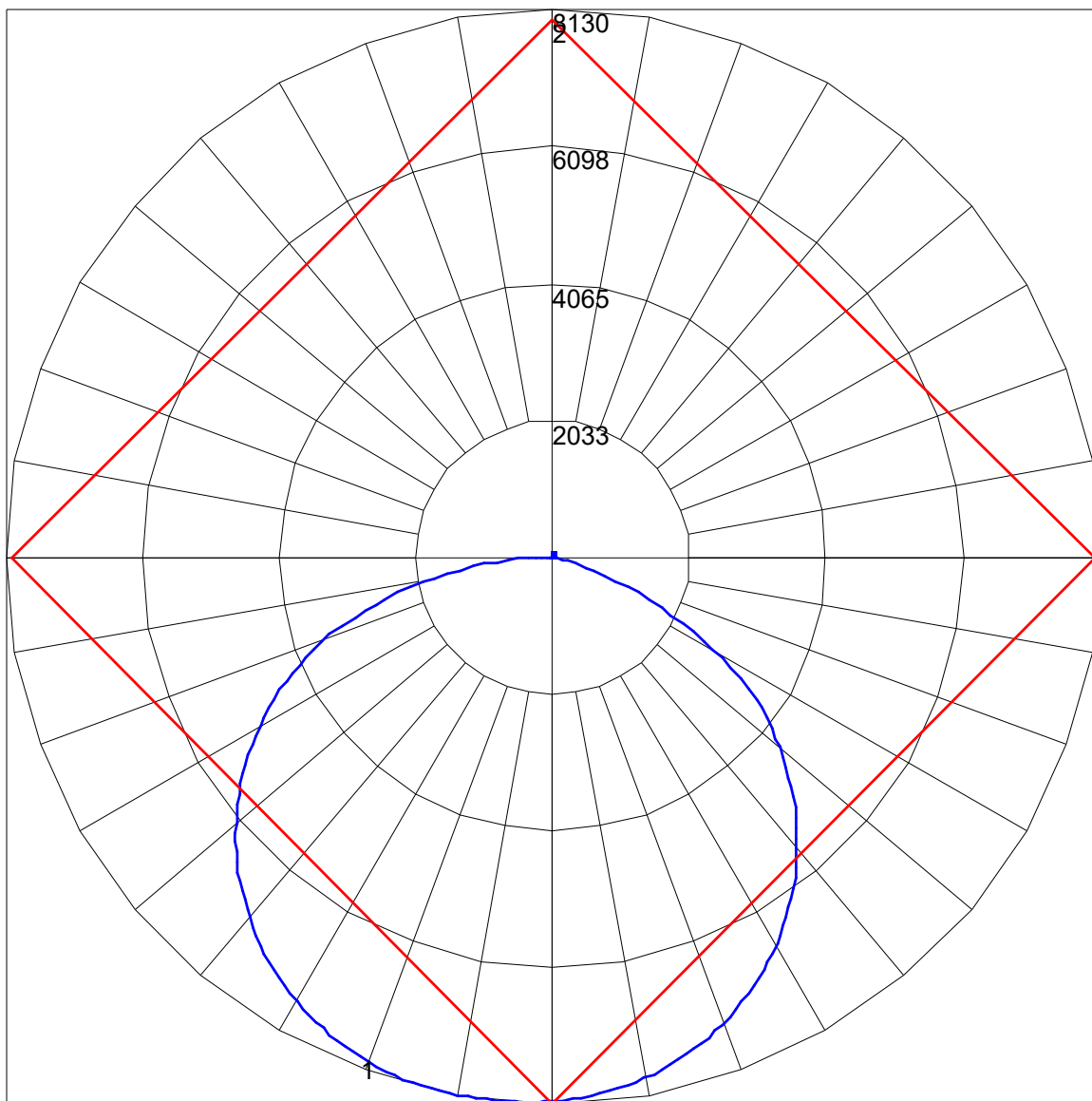
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	101	101	101	99
1	109	104	100	96	106	102	98	95	97	94	91	93	91	88	90	88	86	83
2	99	91	84	78	96	89	83	77	85	80	75	82	77	73	78	75	72	69
3	90	80	71	65	88	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	62	55	80	69	61	54	66	59	54	64	58	53	62	56	52	50
5	76	63	54	47	73	62	53	47	59	52	46	57	51	46	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	46	38	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	33	28	40	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	25	24

POLAR GRAPH



Maximum Candela = 8130 Located At Horizontal Angle = 270, Vertical Angle = 6  
# 1 - Vertical Plane Through Horizontal Angles (270 - 90) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (6) (Through Max. Cd.)