



IES INDOOR REPORT

PHOTOMETRIC FILENAME : HZX-EX-O2-20W.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] HZX-EX-O2-20W
 [TESTLAB] EVERFINE
 [TESTDATE] 22 May 2025
 [ISSUEDATE] 2025-06-24 15:35:19
 [NEARFIELD]
 [LAMPPOSITION] 0,0
 [OTHER] EVERFINE GO-3000H_V1 SYSTEM
 [MANUFAC] BELUCE CANADA INC.
 [LUMINAIRE] HZX-EX-O2-20W
 [LUMCAT]] HZX-EX-O2-20W
 [LAMP] 2011 LUMENS
 [_SEARCH_SOURCETYPE] LED

CHARACTERISTICS

Lumens Per Lamp	2011 (1 lamp)
Total Lamp Lumens	2011
Luminaire Lumens	2011
Total Luminaire Efficiency	100 %
Luminaire Efficacy Rating (LER)	99
Total Luminaire Watts	20.2571
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.08
Spacing Criterion (90-270)	0.78
Spacing Criterion (Diagonal)	1.44
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.14 m (Diameter)
Luminous Width (90-270)	0.14 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	50256	47660	45064
55	53418	51932	50446
65	52974	50099	47225
75	37475	30336	23197
85	24174	22622	21069

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CANDELA TABULATION

	<u>0</u>	<u>90</u>	<u>180</u>	<u>270</u>	<u>360</u>
0	676.450	676.450	676.450	676.450	676.450
1	678.050	682.630	692.270	669.630	678.050
2	687.870	668.820	690.840	662.440	687.870
3	716.770	661.290	676.070	665.270	716.770
4	713.150	647.640	660.200	652.700	713.150
5	697.260	631.180	637.300	631.890	697.260
6	663.880	632.960	636.820	647.870	663.880
7	647.050	625.740	647.300	644.700	647.050
8	613.030	609.770	646.480	648.830	613.030
9	582.790	597.110	613.690	625.850	582.790
10	573.270	598.840	594.830	592.810	573.270
11	564.360	568.170	572.500	589.520	564.360
12	560.400	558.070	560.380	562.650	560.400
13	567.450	529.310	536.220	544.370	567.450
14	548.920	513.810	517.600	520.650	548.920
15	540.130	489.450	500.860	507.600	540.130
16	529.530	481.660	492.070	503.180	529.530
17	512.870	456.690	486.490	501.770	512.870
18	510.180	439.760	465.900	487.120	510.180
19	497.100	434.250	443.940	476.830	497.100
20	485.340	425.860	426.290	460.620	485.340
21	479.580	416.730	418.470	460.980	479.580
22	482.350	412.770	416.050	457.460	482.350
23	484.560	428.200	426.790	451.830	484.560
24	496.950	446.840	446.040	458.820	496.950
25	502.340	459.500	458.260	455.170	502.340
26	508.210	460.960	457.660	453.660	508.210
27	501.030	464.970	445.610	445.760	501.030
28	492.100	469.820	437.420	430.600	492.100
29	488.250	459.210	436.050	427.730	488.250
30	481.070	443.050	432.370	428.810	481.070
31	472.370	427.920	430.520	430.870	472.370
32	474.030	430.860	437.360	440.410	474.030
33	486.650	446.200	453.230	458.100	486.650
34	506.150	467.000	477.170	473.540	506.150
35	522.890	489.430	497.320	487.460	522.890
36	537.450	509.610	513.120	496.490	537.450
37	556.310	531.900	524.470	505.400	556.310
38	574.870	544.930	527.380	520.480	574.870
39	590.150	551.200	527.900	529.260	590.150
40	594.620	544.640	527.350	534.060	594.620
41	594.230	539.170	523.380	539.360	594.230
42	595.040	532.190	508.390	536.290	595.040
43	583.920	518.750	489.830	523.030	583.920
44	561.910	507.750	474.590	511.550	561.910
45	547.270	490.730	458.710	496.240	547.270
46	526.750	478.760	441.640	478.560	526.750
47	504.090	464.430	431.830	461.710	504.090
48	491.360	454.800	424.760	448.600	491.360
49	481.910	453.100	426.370	440.260	481.910
50	477.510	447.550	426.470	431.290	477.510
51	477.150	446.890	431.290	413.070	477.150
52	473.900	442.540	439.680	406.080	473.900
53	474.370	447.830	443.230	395.370	474.370

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CANDELA TABULATION - (Cont.)

54	469.410	450.200	445.020	377.330	469.410
55	471.860	445.600	444.560	370.780	471.860
56	467.280	441.010	437.390	356.660	467.280
57	464.750	437.170	430.110	337.500	464.750
58	466.520	428.530	424.270	331.040	466.520
59	456.550	416.500	413.560	311.110	456.550
60	446.520	403.460	403.480	296.920	446.520
61	423.340	387.890	388.290	278.250	423.340
62	402.280	367.470	371.360	257.160	402.280
63	388.710	348.240	348.680	235.510	388.710
64	363.510	334.070	324.580	208.080	363.510
65	344.780	307.360	303.730	180.630	344.780
66	322.860	295.010	283.760	154.750	322.860
67	302.290	272.850	265.580	133.760	302.290
68	277.310	254.650	247.330	117.960	277.310
69	259.860	229.040	222.450	104.770	259.860
70	238.870	201.650	197.530	91.750	238.870
71	215.890	174.450	176.390	84.384	215.890
72	197.700	148.040	155.700	78.217	197.700
73	171.980	124.570	132.800	71.750	171.980
74	163.780	109.630	112.150	66.225	163.780
75	149.370	92.461	92.299	60.142	149.370
76	130.720	79.917	76.934	53.869	130.720
77	122.940	68.411	64.867	48.313	122.940
78	108.190	55.427	55.115	43.712	108.190
79	89.363	46.467	47.888	39.719	89.363
80	76.304	42.288	38.548	36.684	76.304
81	58.950	39.197	33.741	34.202	58.950
82	46.934	36.413	29.204	32.130	46.934
83	38.378	33.776	25.229	30.190	38.378
84	34.640	31.176	23.151	28.507	34.640
85	32.447	28.280	21.245	26.918	32.447
86	30.514	25.734	19.218	25.349	30.514
87	27.739	23.625	17.463	23.745	27.739
88	24.200	21.914	15.782	22.168	24.200
89	21.574	20.571	14.373	20.627	21.574
90	19.602	20.308	14.018	19.537	19.602
91	19.121	20.602	14.225	19.377	19.121
92	19.444	21.022	14.638	19.986	19.444
93	19.991	21.428	14.912	20.833	19.991
94	20.574	21.932	15.034	21.697	20.574
95	21.053	22.227	15.149	22.363	21.053
96	21.188	22.326	15.187	22.594	21.188
97	21.043	22.460	15.165	22.520	21.043
98	19.717	22.609	15.217	22.253	19.717
99	17.557	22.029	15.233	21.840	17.557
100	16.499	20.262	14.960	20.748	16.499
101	15.913	19.278	14.641	19.353	15.913
102	15.438	19.308	14.412	18.702	15.438
103	15.157	19.869	14.198	18.836	15.157
104	15.136	19.302	13.963	18.438	15.136
105	15.256	18.655	13.931	18.514	15.256
106	15.279	18.575	13.893	18.789	15.279
107	14.646	18.629	13.612	18.709	14.646
108	14.191	18.963	13.046	18.671	14.191
109	14.248	18.969	12.807	18.280	14.248

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CANDELA TABULATION - (Cont.)

110	14.111	18.784	12.577	17.620	14.111
111	13.764	18.066	12.339	16.618	13.764
112	13.270	16.940	12.339	16.146	13.270
113	12.796	17.274	12.543	16.678	12.796
114	12.155	17.458	12.552	17.061	12.155
115	11.729	17.578	12.279	17.398	11.729
116	11.753	17.605	12.105	18.154	11.753
117	12.022	17.631	12.171	18.536	12.022
118	12.254	17.657	12.171	18.247	12.254
119	11.937	17.683	12.096	18.517	11.937
120	11.202	17.709	11.641	18.686	11.202
121	10.982	17.735	11.321	18.530	10.982
122	10.451	17.762	11.258	17.980	10.451
123	9.607	17.788	10.957	17.361	9.607
124	8.948	17.814	10.878	16.750	8.948
125	8.285	17.840	10.532	16.635	8.285
126	7.654	17.866	9.857	15.978	7.654
127	7.190	17.893	9.232	14.991	7.190
128	7.276	17.928	9.600	14.676	7.276
129	7.920	16.860	9.499	15.595	7.920
130	8.412	16.972	9.400	14.960	8.412
131	8.751	16.974	9.133	14.884	8.751
132	8.674	17.485	8.884	15.181	8.674
133	8.568	18.307	8.851	15.784	8.568
134	8.923	19.255	9.009	16.685	8.923
135	9.387	20.382	9.124	17.829	9.387
136	9.613	21.638	9.140	19.062	9.613
137	10.142	22.207	9.079	19.947	10.142
138	10.537	23.007	8.950	20.922	10.537
139	10.908	23.136	8.580	20.977	10.908
140	11.243	22.358	8.050	20.984	11.243
141	11.423	20.339	7.191	20.798	11.423
142	11.067	19.387	6.394	20.501	11.067
143	10.953	17.814	6.450	20.125	10.953
144	10.999	16.583	6.112	19.672	10.999
145	10.485	14.695	5.408	19.176	10.485
146	9.444	14.127	5.249	18.662	9.444
147	8.451	12.091	5.407	18.030	8.451
148	7.475	12.857	6.007	17.370	7.475
149	6.609	13.231	6.775	16.551	6.609
150	6.485	14.113	7.777	15.549	6.485
151	6.043	14.711	9.288	14.551	6.043
152	6.794	13.907	10.966	13.283	6.794
153	7.994	12.468	11.028	11.820	7.994
154	8.643	10.527	10.202	10.334	8.643
155	8.501	8.700	8.682	8.675	8.501
156	7.754	7.276	7.301	7.510	7.754
157	7.076	6.645	5.673	6.409	7.076
158	6.176	5.666	5.448	5.550	6.176
159	5.702	5.561	5.167	5.279	5.702
160	5.399	5.457	5.157	5.316	5.399
161	5.347	5.352	5.149	5.354	5.347
162	5.363	5.248	5.209	5.391	5.363
163	5.432	5.143	6.190	5.428	5.432
164	6.388	5.159	7.801	5.465	6.388
165	8.259	5.204	9.446	5.502	8.259

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166	9.294	5.201	10.841	5.539	9.294
167	10.130	5.198	11.090	5.488	10.130
168	10.244	5.194	10.999	5.391	10.244
169	10.223	5.191	10.064	5.324	10.223
170	9.236	5.187	8.251	5.308	9.236
171	8.151	5.184	6.983	5.293	8.151
172	7.151	5.181	5.917	5.278	7.151
173	6.213	5.158	5.321	5.271	6.213
174	5.400	5.151	5.293	5.255	5.400
175	5.362	5.136	5.332	5.226	5.362
176	5.355	5.113	5.347	5.203	5.355
177	5.385	5.113	5.347	5.173	5.385
178	5.377	5.113	5.377	5.143	5.377
179	5.377	5.113	5.377	5.113	5.377
180	5.323	5.323	5.323	5.323	5.323

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	204.96	10.20	10.20
0-30	416.11	20.70	20.70
0-40	729.52	36.30	36.30
0-60	1496.02	74.40	74.40
0-80	1888.51	93.90	93.90
0-90	1919.92	95.50	95.50
10-90	1859.19	92.50	92.40
20-40	524.57	26.10	26.10
20-50	909.07	45.20	45.20
40-70	1049.2	52.20	52.20
60-80	392.49	19.50	19.50
70-80	109.78	5.50	5.50
80-90	31.41	1.60	1.60
90-110	38.86	1.90	1.90
90-120	53.72	2.70	2.70
90-130	65.72	3.30	3.30
90-150	84.67	4.20	4.20
90-180	91.11	4.50	4.50
110-180	52.24	2.60	2.60
0-180	2011.03	100.00	100.00

Total Luminaire Efficiency = 100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	60.73
10-20	144.23
20-30	211.16
30-40	313.41
40-50	384.50
50-60	382.00
60-70	282.71
70-80	109.78
80-90	31.41
90-100	21.21
100-110	17.66
110-120	14.86
120-130	12.00
130-140	10.91
140-150	8.03
150-160	4.04
160-170	1.85
170-180	0.55

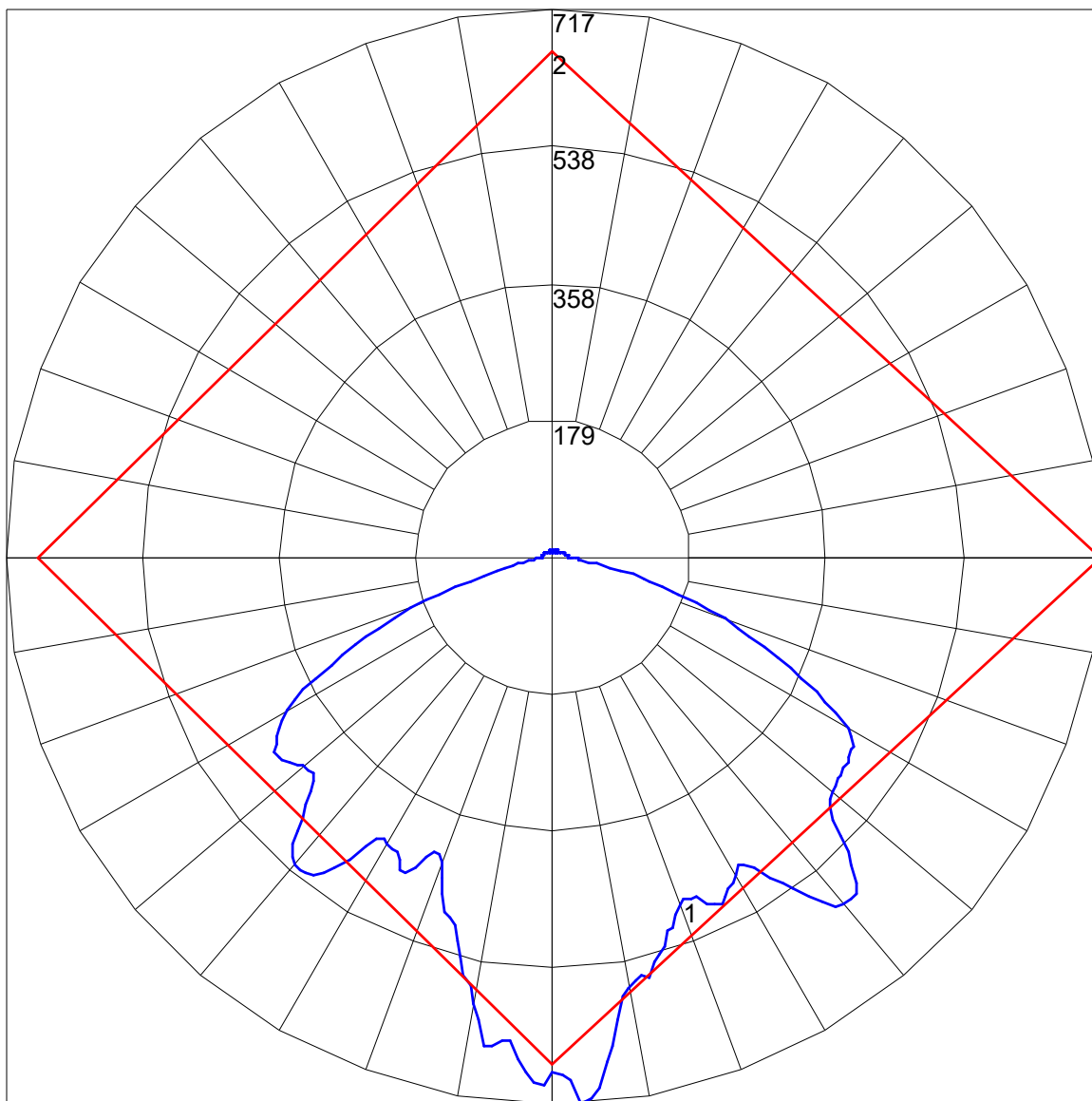
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	118	118	118	118	115	115	115	115	109	109	109	103	103	103	98	98	98	95
1	108	103	98	94	104	100	96	93	95	92	89	90	88	85	86	84	82	80
2	97	89	82	76	94	87	80	75	82	77	72	78	74	70	75	71	68	65
3	88	77	69	62	85	75	68	61	72	65	60	68	63	58	65	61	57	54
4	80	68	59	52	78	66	58	51	63	56	50	60	54	49	57	52	48	45
5	73	60	51	44	71	59	50	43	56	48	43	53	47	42	51	45	41	38
6	67	54	44	38	65	52	44	37	50	42	37	48	41	36	46	40	35	33
7	62	48	39	33	60	47	39	33	45	38	32	43	37	31	42	36	31	29
8	58	44	35	29	56	43	35	29	41	34	28	39	33	28	38	32	27	25
9	54	40	31	26	52	39	31	26	38	30	25	36	30	25	35	29	24	23
10	50	37	29	23	49	36	28	23	35	28	23	33	27	22	32	26	22	20

POLAR GRAPH



Maximum Candela = 716.77 Located At Horizontal Angle = 0, Vertical Angle = 3
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (3) (Through Max. Cd.)