



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : HZX-EX-S1-100W-4000K-D120.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] HZX-EX-S1-100W-4000K-D120

[TESTLAB] Standard-tech Co., Ltd Testing Center

[TESTDATE] 2018-02-07

[ISSUEDATE] 2018-02-07 22:08:21

[NEARFIELD]

[LAMPPOSITION] 0,0

[OTHER] EVERFINE GO-R5000\_V2 SYSTEM

[MANUFAC] BELUCE CANADA INC.

[LUMINAIRE] HZX-EX-S1-100W-4000K-D120

[LUMCAT] ] HZX-EX-S1-100W-4000K-D120

[LAMP] 15564 LUMENS

[\_SEARCH\_SOURCE] LED

[OTHER]

[OTHER]	Gamma(deg)	Fz(lm)	Ft(lm)	%Lum	%Lamp
[OTHER]	0- 10	534.55	534.55	3.43	3.43
[OTHER]	10- 20	1543.04	2077.59	13.35	13.35
[OTHER]	20- 30	2366.11	4443.70	28.55	28.55
[OTHER]	30- 40	2892.89	7336.59	47.14	47.14
[OTHER]	40- 50	3030.82	10367.41	66.61	66.61
[OTHER]	50- 60	2660.99	13028.40	83.71	83.71
[OTHER]	60- 70	1750.64	14779.04	94.96	94.96
[OTHER]	70- 80	675.15	15454.19	99.29	99.29
[OTHER]	80- 90	66.12	15520.31	99.72	99.72
[OTHER]	90-100	2.25	15522.56	99.73	99.73
[OTHER]	100-110	3.68	15526.25	99.76	99.76
[OTHER]	110-120	5.69	15531.94	99.79	99.79
[OTHER]	120-130	7.35	15539.29	99.84	99.84
[OTHER]	130-140	7.49	15546.78	99.89	99.89
[OTHER]	140-150	6.74	15553.52	99.93	99.93
[OTHER]	150-160	5.54	15559.06	99.97	99.97
[OTHER]	160-170	3.63	15562.70	99.99	99.99
[OTHER]	170-180	1.45	15564.15	100.00	100.00
[OTHER]					

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**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	15564
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	151
Total Luminaire Watts	103.3
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.32
Spacing Criterion (90-270)	1.30
Spacing Criterion (Diagonal)	1.42
Basic Luminous Shape	Point
Luminous Length (0-180)	0.00 m
Luminous Width (90-270)	0.00 m
Luminous Height	0.00 m

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	0	0	0
55	0	0	0
65	0	0	0
75	0	0	0
85	0	0	0

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**CANDELA TABULATION**

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>	<u>202.5</u>
0	5630.92	5630.92	5630.92	5630.92	5630.92	5630.92	5630.92	5630.92	5630.92	5630.92
1	5628.60	5633.26	5629.78	5630.91	5628.68	5629.24	5629.23	5630.92	5633.15	5628.12
2	5626.28	5635.00	5627.49	5628.63	5626.26	5626.88	5622.87	5628.64	5630.85	5623.48
3	5625.71	5637.23	5624.14	5624.73	5620.49	5623.99	5619.38	5629.14	5630.17	5620.00
4	5622.89	5635.62	5618.45	5620.71	5613.13	5620.60	5614.29	5626.32	5625.66	5613.78
5	5620.03	5634.47	5612.76	5614.50	5606.15	5615.34	5607.91	5623.34	5620.87	5606.78
6	5615.48	5628.86	5606.46	5608.20	5598.03	5609.51	5602.09	5616.92	5609.94	5598.17
7	5609.21	5623.15	5596.82	5599.66	5589.02	5601.06	5592.52	5607.34	5600.93	5589.73
8	5602.75	5615.59	5585.77	5588.07	5576.88	5592.30	5582.08	5595.76	5588.18	5579.84
9	5593.08	5603.06	5573.78	5574.99	5565.19	5581.25	5569.22	5582.93	5575.95	5567.14
10	5580.61	5586.71	5560.80	5560.29	5550.17	5569.49	5553.60	5567.32	5563.75	5555.52
11	5564.83	5569.22	5546.25	5545.13	5535.49	5553.17	5537.82	5551.58	5550.78	5541.98
12	5547.31	5547.26	5531.61	5526.56	5518.06	5536.39	5519.84	5533.68	5537.32	5521.80
13	5525.22	5522.94	5515.82	5506.27	5497.85	5520.59	5499.57	5516.79	5518.76	5503.20
14	5502.32	5498.32	5497.03	5486.20	5476.65	5502.33	5475.65	5496.20	5500.49	5483.24
15	5477.20	5469.83	5476.03	5461.80	5452.01	5479.74	5450.90	5472.70	5480.21	5459.21
16	5451.27	5438.36	5454.16	5437.77	5427.71	5455.47	5424.93	5448.46	5455.94	5434.42
17	5427.50	5407.93	5428.27	5410.77	5402.08	5428.68	5396.96	5419.42	5429.15	5405.28
18	5399.79	5377.89	5399.47	5384.14	5374.98	5402.66	5365.95	5391.69	5403.19	5374.84
19	5374.46	5345.77	5369.15	5355.00	5346.69	5374.88	5337.06	5361.70	5371.93	5341.98
20	5346.84	5312.57	5336.07	5325.89	5316.88	5343.76	5302.70	5330.72	5342.69	5306.37
21	5317.23	5279.17	5299.95	5293.63	5284.78	5307.75	5266.04	5296.97	5310.00	5267.71
22	5284.84	5242.18	5262.96	5261.75	5251.35	5269.55	5229.71	5263.00	5278.17	5230.72
23	5248.22	5204.60	5224.06	5225.29	5213.33	5226.46	5193.05	5225.51	5243.50	5191.17
24	5211.34	5165.47	5185.18	5185.07	5173.28	5187.94	5154.68	5185.56	5205.72	5150.04
25	5170.47	5124.72	5142.40	5142.63	5131.54	5145.07	5115.86	5144.45	5168.48	5107.91
26	5127.16	5080.54	5102.39	5096.31	5085.50	5102.77	5073.22	5100.69	5124.49	5067.00
27	5079.38	5035.15	5061.64	5049.83	5037.07	5058.47	5029.40	5054.19	5078.41	5022.11
28	5027.48	4987.81	5019.41	5003.92	4987.73	5013.69	4980.07	5008.13	5029.53	4973.98
29	4978.16	4939.81	4972.06	4958.51	4942.39	4969.85	4931.90	4961.67	4982.94	4929.25
30	4927.47	4887.74	4922.00	4911.47	4893.35	4920.67	4881.16	4911.48	4929.71	4875.18
31	4878.43	4834.36	4866.80	4862.80	4842.70	4867.65	4829.54	4859.17	4874.46	4824.59
32	4828.77	4779.65	4813.25	4811.78	4792.91	4812.12	4775.48	4807.81	4821.09	4770.87
33	4779.75	4723.57	4754.14	4757.87	4740.01	4752.06	4721.06	4751.40	4763.36	4715.21
34	4726.49	4666.93	4696.36	4701.85	4684.18	4693.33	4665.25	4695.58	4701.84	4658.89
35	4670.76	4611.31	4637.85	4645.57	4627.87	4634.09	4607.80	4636.98	4640.80	4599.23
36	4610.23	4556.63	4575.49	4584.15	4569.33	4576.57	4547.62	4575.65	4578.77	4538.54
37	4545.79	4501.77	4511.78	4522.58	4508.22	4514.79	4487.75	4511.12	4512.41	4474.69
38	4477.97	4444.27	4442.35	4459.98	4444.70	4452.31	4428.14	4445.37	4450.46	4411.95
39	4411.06	4382.74	4374.93	4393.98	4376.96	4386.72	4365.69	4378.23	4383.17	4348.23
40	4341.21	4317.20	4305.35	4328.57	4310.01	4321.22	4301.54	4306.50	4312.80	4283.34
41	4272.98	4247.98	4237.77	4259.76	4239.97	4252.86	4235.75	4233.31	4240.09	4214.90
42	4200.61	4177.17	4166.25	4189.01	4167.92	4178.43	4167.45	4160.72	4163.98	4142.94
43	4127.85	4102.42	4096.04	4116.20	4095.99	4104.51	4094.01	4084.64	4088.90	4065.30
44	4050.82	4025.63	4020.67	4039.85	4024.68	4027.45	4021.03	4005.54	4011.31	3988.53
45	3969.03	3946.37	3945.20	3960.67	3949.77	3946.99	3937.91	3926.63	3936.34	3911.43
46	3883.37	3866.64	3868.52	3878.20	3869.63	3864.47	3854.92	3843.48	3861.01	3828.98
47	3799.41	3786.52	3794.58	3796.37	3787.57	3781.95	3769.27	3759.45	3780.68	3746.71
48	3712.80	3703.06	3711.67	3712.95	3702.37	3701.59	3689.33	3675.80	3696.87	3663.43
49	3623.04	3615.89	3625.37	3626.96	3613.61	3619.71	3607.41	3589.58	3612.12	3579.35
50	3534.17	3523.53	3537.11	3538.34	3524.83	3535.97	3522.23	3500.54	3522.59	3493.88
51	3444.62	3431.38	3445.44	3443.27	3434.43	3449.05	3438.24	3407.21	3430.97	3407.67
52	3353.51	3340.19	3355.68	3344.72	3338.50	3353.22	3348.51	3315.90	3337.15	3315.10
53	3258.30	3244.51	3256.36	3241.19	3217.95	3229.16	3229.83	3205.80	3221.72	3204.89

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54	3151.91	3137.04	3151.17	3130.76	3097.40	3105.11	3111.15	3095.71	3106.30	3094.68
55	3036.68	3021.37	3033.82	3017.45	2976.71	2981.02	2992.34	2985.43	2990.83	2984.29
56	2915.86	2904.32	2909.48	2894.92	2845.48	2854.08	2860.37	2861.29	2872.30	2860.73
57	2785.81	2777.77	2775.41	2768.88	2715.56	2720.93	2724.15	2731.81	2752.00	2730.42
58	2650.01	2647.40	2644.37	2638.05	2591.52	2599.38	2595.45	2601.72	2623.46	2602.57
59	2520.72	2515.83	2520.79	2515.11	2470.13	2482.19	2476.06	2474.49	2488.63	2472.73
60	2391.63	2390.96	2400.47	2398.01	2354.06	2363.35	2355.98	2350.30	2360.94	2345.06
61	2269.35	2269.34	2278.03	2280.18	2236.88	2242.35	2234.19	2225.86	2236.18	2222.03
62	2149.82	2149.91	2154.20	2166.34	2122.72	2123.88	2114.35	2106.09	2113.98	2097.85
63	2031.56	2032.63	2038.11	2047.78	2007.62	2008.99	1994.45	1986.76	1990.90	1976.50
64	1914.34	1915.02	1919.12	1931.93	1894.36	1895.95	1877.74	1870.25	1875.22	1857.37
65	1801.11	1803.06	1804.60	1815.19	1779.34	1782.56	1765.11	1756.64	1758.62	1744.39
66	1681.75	1691.92	1692.01	1698.13	1663.33	1666.13	1649.35	1642.10	1641.87	1632.30
67	1561.71	1567.66	1567.36	1570.98	1552.58	1546.69	1534.22	1532.71	1528.84	1520.69
68	1441.65	1443.40	1442.36	1443.83	1428.66	1414.71	1410.05	1413.58	1407.07	1397.23
69	1317.77	1313.68	1313.02	1310.20	1300.80	1286.07	1279.50	1286.15	1277.54	1264.37
70	1191.40	1186.50	1187.21	1182.70	1174.83	1169.09	1155.57	1153.41	1146.37	1134.40
71	1074.99	1070.61	1070.54	1064.39	1053.32	1061.00	1041.68	1027.13	1022.58	1017.12
72	965.85	961.93	959.98	956.84	945.19	947.61	931.52	916.56	906.76	903.62
73	863.07	856.85	855.89	856.32	839.20	837.07	825.87	813.64	799.58	793.69
74	761.62	753.43	755.83	758.10	737.66	732.17	725.53	714.17	699.77	693.96
75	654.76	653.90	657.47	649.87	633.07	633.30	618.97	614.38	597.36	591.09
76	547.28	549.47	556.41	552.25	537.85	536.57	520.55	515.80	500.04	492.18
77	459.08	456.05	461.70	469.35	452.05	440.99	436.60	425.86	415.06	409.28
78	371.83	372.85	380.74	381.77	368.97	360.83	351.62	345.42	336.75	331.44
79	291.76	300.69	303.83	298.64	291.98	287.08	279.20	270.00	265.58	262.63
80	227.77	230.23	229.50	230.45	221.96	218.51	217.52	208.79	203.11	199.00
81	171.17	175.04	175.36	174.62	169.99	167.27	160.37	156.98	150.31	147.44
82	124.51	125.52	126.20	125.58	123.33	118.14	113.99	109.94	106.52	104.38
83	87.00	89.24	91.93	88.36	86.41	82.24	79.71	76.19	73.60	71.99
84	58.68	60.89	61.00	61.00	57.97	54.61	51.43	50.75	48.77	47.92
85	37.63	38.71	39.32	39.26	37.13	35.47	33.44	32.19	31.49	31.12
86	25.89	26.31	26.63	26.50	25.18	24.65	23.56	23.14	22.87	22.67
87	18.80	19.57	19.64	19.56	18.53	18.30	17.68	17.01	16.41	16.03
88	12.34	12.63	12.85	12.72	11.95	11.60	11.15	10.67	10.16	9.76
89	6.88	7.33	7.53	7.48	7.20	6.80	6.27	5.48	4.87	4.49
90	2.63	2.69	2.90	2.79	2.30	2.15	1.89	1.79	1.84	1.84
91	2.17	2.27	2.27	2.32	1.84	1.79	1.74	1.79	1.79	1.79
92	2.11	2.16	2.10	2.26	1.79	1.74	1.74	1.74	1.79	1.79
93	1.96	2.00	2.15	2.16	1.79	1.74	1.74	1.79	1.79	1.79
94	1.95	2.00	2.10	2.15	1.79	1.74	1.79	1.74	1.79	1.84
95	1.95	2.00	2.10	2.15	1.90	1.79	1.90	1.95	1.90	1.89
96	1.95	2.00	2.10	2.15	1.95	1.79	1.95	1.95	1.90	1.89
97	1.95	2.05	2.15	2.15	2.00	1.95	2.05	2.00	1.95	2.10
98	2.00	2.10	2.20	2.36	2.06	2.06	2.11	2.16	2.11	2.10
99	2.37	2.31	2.47	2.52	2.21	2.17	2.16	2.11	2.22	2.16
100	2.37	2.42	2.47	2.57	2.32	2.38	2.42	2.32	2.32	2.42
101	2.63	2.57	2.73	2.78	2.47	2.48	2.53	2.53	2.48	2.47
102	2.84	2.73	2.83	3.09	2.58	2.59	2.63	2.53	2.69	2.63
103	3.16	2.94	3.15	3.25	2.80	2.85	2.69	2.74	2.69	2.74
104	3.27	3.25	3.31	3.52	3.11	3.06	3.06	2.85	2.85	2.89
105	3.47	3.46	3.61	3.82	3.32	3.22	3.26	3.16	3.01	3.05
106	3.69	3.73	3.94	4.04	3.53	3.48	3.37	3.37	3.32	3.21
107	3.95	4.14	4.15	4.31	3.85	3.69	3.74	3.58	3.59	3.53
108	4.42	4.25	4.36	4.56	4.05	3.85	3.89	3.79	3.85	3.78
109	4.69	4.73	4.78	4.93	4.21	4.01	4.00	4.05	4.17	3.84

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**CANDELA TABULATION - (Cont.)**

110	4.85	4.83	5.04	5.20	4.59	4.49	4.16	4.32	4.44	4.05
111	5.11	5.04	5.15	5.72	4.85	4.75	4.37	4.42	4.64	4.31
112	5.27	5.04	5.35	5.93	5.16	4.91	4.42	4.68	4.65	4.47
113	5.38	5.15	5.77	6.20	5.27	5.17	4.63	4.68	5.01	4.68
114	5.75	5.36	5.88	6.61	5.37	5.49	5.00	4.68	5.23	4.68
115	5.85	5.62	6.19	6.77	5.63	5.64	5.16	4.68	5.49	4.68
116	6.17	5.68	6.51	7.03	5.80	5.85	5.37	4.74	5.75	4.73
117	6.43	5.57	6.77	7.39	6.11	5.96	5.69	4.95	5.91	4.84
118	6.59	5.73	7.04	7.46	6.11	6.22	6.05	5.21	6.01	5.00
119	6.75	6.24	7.24	7.61	6.42	6.43	6.37	5.74	6.17	5.48
120	7.11	7.23	7.51	7.87	6.53	6.49	6.52	6.42	6.38	6.11
121	7.80	7.82	7.51	8.19	6.64	6.70	6.73	6.84	6.86	6.63
122	8.73	8.24	7.77	8.35	6.85	6.86	6.69	7.16	7.24	7.15
123	9.39	8.72	7.93	8.56	7.00	7.02	6.94	7.37	8.02	7.41
124	9.90	9.23	8.03	8.76	7.01	7.18	6.95	7.69	8.34	7.57
125	10.12	9.35	8.30	9.18	7.26	7.39	7.00	7.95	8.60	7.79
126	10.23	9.66	8.45	9.45	7.48	7.60	7.05	8.26	8.81	8.09
127	10.39	9.82	8.51	9.71	7.69	7.86	7.16	8.42	8.97	8.21
128	10.86	9.93	8.72	9.87	8.06	7.96	7.21	8.53	9.23	8.52
129	10.86	9.93	8.77	9.92	8.32	8.02	7.37	8.84	9.44	8.78
130	10.97	10.09	8.82	9.98	8.53	8.02	7.58	9.01	9.60	8.99
131	10.97	10.19	9.03	9.98	8.63	8.28	7.74	9.42	9.60	9.25
132	11.02	10.40	9.19	9.98	8.84	8.28	8.00	9.79	9.65	9.46
133	11.02	10.76	9.19	9.98	9.06	8.44	8.00	9.89	9.86	9.77
134	11.18	10.88	9.30	9.98	9.17	8.60	8.00	10.15	10.13	9.77
135	11.18	11.14	9.25	9.98	9.42	8.60	8.00	10.16	10.29	9.77
136	11.23	11.55	9.45	10.03	9.42	8.60	8.00	10.26	10.45	9.78
137	11.34	11.61	9.51	10.08	9.42	8.91	8.00	10.26	10.60	9.83
138	11.44	11.66	9.46	10.24	9.48	9.08	8.00	10.37	10.65	9.94
139	11.50	11.67	9.46	10.24	9.53	9.39	8.05	10.47	10.66	10.10
140	11.44	11.72	9.46	10.34	9.79	9.55	8.05	10.52	10.76	10.46
141	11.44	11.72	9.51	10.35	9.85	9.71	8.16	10.53	10.71	10.67
142	11.44	11.88	9.40	10.35	10.22	9.76	8.37	10.68	10.71	10.83
143	11.44	12.08	9.45	10.35	10.32	9.92	8.47	10.73	10.71	11.04
144	11.39	12.24	9.46	10.45	10.58	9.97	8.53	10.79	10.71	11.25
145	11.44	12.51	9.46	10.40	10.74	10.13	8.89	10.94	10.82	11.30
146	12.37	12.76	9.81	10.55	10.74	10.18	9.32	11.05	11.24	11.46
147	12.50	12.82	10.24	10.81	10.84	10.34	9.53	11.05	11.55	11.51
148	12.65	12.82	10.70	10.87	11.00	10.55	9.90	11.05	11.66	11.67
149	12.81	12.82	10.87	10.92	11.00	10.60	10.31	11.05	11.71	11.77
150	12.82	12.87	11.48	11.08	11.00	10.81	10.58	11.21	11.81	11.93
151	12.87	12.98	11.71	11.19	11.00	11.08	10.84	11.36	11.92	12.14
152	13.18	13.08	11.97	11.45	11.00	11.24	11.00	11.42	11.92	12.09
153	13.44	13.14	12.44	11.55	10.90	11.34	11.21	11.42	11.92	12.14
154	13.45	13.30	12.61	11.71	10.84	11.44	11.47	11.47	11.81	11.98
155	13.50	13.30	12.76	11.92	10.84	11.44	11.52	11.57	11.87	11.82
156	13.50	13.45	12.92	12.13	10.84	11.44	11.57	11.52	11.87	11.51
157	13.60	13.45	12.97	12.29	10.84	11.44	11.57	11.63	11.92	11.51
158	13.55	13.50	13.28	12.29	10.85	11.44	11.57	11.63	12.13	11.46
159	13.55	13.56	13.29	12.29	11.11	11.44	11.58	11.63	12.29	11.72
160	13.55	13.51	13.39	12.29	11.43	11.44	11.84	11.89	12.39	11.88
161	13.61	13.51	13.34	12.29	11.59	11.44	11.89	12.15	12.55	12.04
162	13.45	13.56	13.39	12.34	11.79	11.45	12.00	12.21	12.50	12.19
163	13.40	13.51	13.39	12.34	11.90	11.55	12.05	12.42	12.50	12.24
164	13.29	13.56	13.39	12.34	12.06	11.50	12.00	12.52	12.50	12.25
165	13.03	13.45	13.39	12.34	12.11	11.82	12.10	12.58	12.39	12.30

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**CANDELA TABULATION - (Cont.)**

166	12.97	13.35	13.45	12.29	12.27	12.30	12.26	12.90	12.35	12.41
167	12.97	13.60	13.91	12.34	12.85	12.87	12.32	13.27	12.78	12.79
168	13.60	14.49	14.85	12.55	13.06	13.19	12.79	14.21	13.93	13.78
169	14.12	15.01	15.22	12.81	13.22	13.46	13.22	15.00	15.10	14.68
170	14.81	15.13	15.44	12.81	13.96	13.99	13.84	15.42	15.99	15.72
171	15.38	15.44	15.70	13.23	14.53	14.77	14.15	15.79	16.62	16.67
172	15.92	15.55	15.86	13.34	14.69	14.87	14.31	15.94	16.93	17.34
173	16.33	15.61	15.86	13.34	14.74	14.82	14.26	15.89	16.82	17.34
174	16.61	15.71	15.86	13.34	14.74	14.82	14.26	15.89	16.50	17.24
175	16.87	15.92	16.23	13.44	14.74	14.87	14.26	15.89	16.40	17.29
176	17.13	15.97	16.39	13.81	14.69	14.71	14.31	15.82	16.18	16.97
177	17.09	16.03	16.39	13.76	14.42	14.55	14.15	15.35	15.75	16.91
178	17.09	15.87	16.39	13.76	14.16	14.34	13.99	15.10	15.23	16.61
179	17.14	15.82	16.34	13.76	13.95	14.19	14.00	15.10	14.98	16.61
180	17.21	17.21	17.21	17.21	17.21	17.21	17.21	17.21	17.21	17.21

**Vert. Angles**      **Horizontal Angles**

	<u>225.0</u>	<u>247.5</u>	<u>270.0</u>	<u>292.5</u>	<u>315.0</u>	<u>337.5</u>	<u>360.0</u>
0	5630.92	5630.92	5630.92	5630.92	5630.92	5630.92	5630.92
1	5631.48	5631.48	5630.41	5630.97	5634.93	5629.23	5628.60
2	5633.21	5629.71	5626.98	5629.26	5635.55	5628.07	5626.28
3	5633.75	5627.37	5621.96	5626.47	5637.78	5626.40	5625.71
4	5632.61	5622.86	5617.34	5623.02	5636.17	5623.00	5622.89
5	5630.78	5618.19	5609.97	5617.36	5633.91	5617.36	5620.03
6	5624.40	5611.76	5600.29	5608.81	5626.04	5609.39	5615.48
7	5615.41	5601.68	5589.42	5599.07	5615.23	5599.68	5609.21
8	5604.40	5590.12	5577.71	5587.38	5602.39	5586.30	5602.75
9	5590.36	5577.39	5565.73	5575.38	5585.36	5570.92	5593.08
10	5572.41	5565.74	5551.57	5560.11	5569.46	5554.48	5580.61
11	5552.72	5551.12	5536.35	5544.21	5551.92	5535.26	5564.83
12	5531.30	5534.90	5517.67	5526.07	5530.50	5515.46	5547.31
13	5507.21	5516.41	5496.15	5503.89	5508.95	5495.00	5525.22
14	5483.17	5494.25	5472.24	5481.60	5484.39	5473.86	5502.32
15	5457.47	5472.35	5444.93	5459.46	5459.27	5450.73	5477.20
16	5428.62	5447.00	5415.78	5434.34	5434.61	5428.30	5451.27
17	5400.70	5419.68	5386.12	5408.07	5406.89	5404.07	5427.50
18	5370.37	5390.48	5353.48	5378.83	5377.16	5376.35	5399.79
19	5339.76	5359.36	5320.04	5347.67	5345.67	5345.36	5374.46
20	5307.10	5324.41	5287.89	5314.76	5308.80	5311.01	5346.84
21	5272.27	5291.24	5257.86	5282.30	5272.74	5274.05	5317.23
22	5237.23	5254.38	5224.80	5247.63	5235.21	5237.09	5284.84
23	5199.86	5215.35	5191.80	5211.73	5195.64	5196.65	5248.22
24	5162.23	5174.99	5153.84	5173.08	5154.40	5157.53	5211.34
25	5124.65	5130.40	5115.87	5132.65	5110.64	5119.47	5170.47
26	5084.20	5084.36	5073.70	5091.51	5063.73	5079.14	5127.16
27	5041.20	5038.40	5030.48	5045.97	5017.60	5039.30	5079.38
28	4995.45	4992.68	4983.23	4997.71	4969.75	4995.51	5027.48
29	4947.24	4948.02	4927.92	4943.57	4919.95	4948.27	4978.16
30	4900.02	4900.25	4872.85	4890.53	4868.81	4898.85	4927.47
31	4849.47	4850.28	4813.00	4835.54	4815.67	4845.44	4878.43
32	4799.98	4800.61	4754.28	4778.31	4761.39	4788.95	4828.77
33	4751.31	4747.28	4700.16	4720.58	4708.44	4733.22	4779.75
34	4699.87	4691.57	4644.72	4664.74	4653.33	4678.35	4726.49
35	4642.98	4634.25	4591.30	4610.09	4598.40	4619.89	4670.76
36	4577.83	4575.29	4534.14	4552.24	4541.11	4559.47	4610.23

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**CANDELA TABULATION - (Cont.)**

37	4508.75	4510.29	4474.27	4491.68	4479.56	4498.03	4545.79
38	4439.08	4444.22	4406.58	4427.10	4418.55	4435.49	4477.97
39	4368.11	4374.23	4339.79	4362.08	4355.17	4373.27	4411.06
40	4295.20	4304.36	4271.56	4297.13	4288.96	4307.65	4341.21
41	4215.25	4232.30	4204.41	4228.64	4217.42	4237.98	4272.98
42	4137.17	4155.33	4133.15	4156.83	4144.95	4166.70	4200.61
43	4057.77	4071.36	4062.41	4083.50	4072.00	4094.87	4127.85
44	3977.67	3989.62	3983.88	4006.30	3995.15	4020.27	4050.82
45	3897.75	3910.14	3904.66	3927.89	3921.06	3942.33	3969.03
46	3815.36	3831.45	3820.66	3849.37	3841.15	3861.77	3883.37
47	3733.72	3752.57	3738.03	3767.99	3755.83	3779.27	3799.41
48	3653.06	3669.28	3652.48	3679.91	3666.60	3690.63	3712.80
49	3568.68	3581.85	3564.80	3583.91	3576.68	3601.60	3623.04
50	3483.72	3492.10	3476.15	3490.96	3487.47	3512.97	3534.17
51	3392.52	3398.93	3380.62	3396.55	3398.12	3419.73	3444.62
52	3301.16	3305.28	3283.82	3303.92	3304.71	3329.86	3353.51
53	3196.51	3198.83	3185.40	3216.25	3216.43	3236.02	3258.30
54	3091.86	3092.37	3084.53	3118.31	3120.73	3135.35	3151.91
55	2987.03	2985.83	2984.41	3015.18	3010.13	3022.41	3036.68
56	2868.46	2873.25	2871.93	2898.57	2896.56	2900.22	2915.86
57	2741.97	2755.27	2750.84	2768.27	2768.72	2776.11	2785.81
58	2607.74	2627.88	2618.75	2634.70	2639.44	2644.62	2650.01
59	2472.10	2496.03	2487.49	2498.77	2505.46	2519.16	2520.72
60	2343.33	2367.79	2358.40	2371.34	2378.15	2398.41	2391.63
61	2217.15	2239.31	2232.31	2247.27	2258.87	2280.03	2269.35
62	2093.87	2114.61	2111.20	2125.42	2135.15	2158.61	2149.82
63	1972.98	1989.58	1993.14	2008.02	2015.78	2033.32	2031.56
64	1852.24	1866.31	1874.74	1892.85	1894.81	1907.42	1914.34
65	1733.87	1746.42	1756.32	1777.65	1773.60	1790.50	1801.11
66	1618.06	1627.30	1637.41	1654.74	1655.33	1674.37	1681.75
67	1509.37	1512.29	1518.51	1531.77	1537.08	1550.72	1561.71
68	1393.47	1390.15	1399.60	1408.80	1418.83	1426.83	1441.65
69	1264.74	1265.77	1271.71	1276.67	1286.92	1296.31	1317.77
70	1137.65	1132.14	1141.70	1143.39	1156.21	1168.04	1191.40
71	1013.55	1008.81	1011.45	1023.67	1040.54	1046.68	1074.99
72	903.43	897.01	901.75	913.29	925.18	936.69	965.85
73	798.40	794.46	801.44	806.01	818.49	836.31	863.07
74	694.85	699.35	702.17	705.48	723.85	734.68	761.62
75	596.85	591.61	602.80	608.69	627.77	634.52	654.76
76	498.68	494.82	503.34	508.33	524.62	534.50	547.28
77	407.38	415.53	416.90	419.59	433.90	443.37	459.08
78	329.99	331.21	338.64	339.21	348.10	362.12	371.83
79	256.71	256.78	260.80	267.52	276.39	284.93	291.76
80	194.95	199.07	199.61	202.73	211.18	215.92	227.77
81	147.39	146.03	147.94	151.32	155.08	164.52	171.17
82	103.42	103.54	105.29	106.98	112.75	116.91	124.51
83	70.66	70.16	71.95	75.35	78.40	82.86	87.00
84	46.75	46.47	47.09	50.22	52.25	56.06	58.68
85	30.88	30.89	31.91	32.92	34.26	35.85	37.63
86	22.72	22.67	23.25	23.99	24.53	25.27	25.89
87	15.73	15.56	16.27	16.78	17.52	18.23	18.80
88	9.64	9.70	10.36	10.92	11.41	11.69	12.34
89	4.18	4.28	4.67	5.21	5.98	6.49	6.88
90	1.78	1.89	2.50	2.43	2.43	2.61	2.63
91	1.73	1.89	2.22	2.22	2.21	2.11	2.17
92	1.73	1.84	2.11	2.11	2.16	2.10	2.11

**IES INDOOR REPORT**  
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**CANDELA TABULATION - (Cont.)**

93	1.73	1.89	2.16	2.11	2.11	1.95	1.96
94	1.73	1.89	2.00	2.11	2.10	1.95	1.95
95	1.90	1.89	2.00	2.11	2.10	1.89	1.95
96	2.05	1.94	2.00	2.11	2.10	1.95	1.95
97	2.05	2.15	2.00	2.21	2.16	1.95	1.95
98	2.11	2.21	2.21	2.32	2.26	2.10	2.00
99	2.36	2.42	2.47	2.42	2.47	2.31	2.37
100	2.42	2.42	2.58	2.58	2.58	2.42	2.37
101	2.52	2.68	2.84	2.74	2.78	2.63	2.63
102	2.79	2.84	3.10	3.10	2.99	2.78	2.84
103	3.00	3.10	3.21	3.27	3.26	3.00	3.16
104	3.21	3.26	3.58	3.53	3.47	3.16	3.27
105	3.37	3.52	3.88	3.89	3.83	3.41	3.47
106	3.62	3.73	4.21	4.11	4.10	3.58	3.69
107	3.79	3.94	4.52	4.42	4.21	4.09	3.95
108	3.94	4.20	4.84	4.58	4.42	4.16	4.42
109	4.05	4.52	5.05	5.01	4.68	4.36	4.69
110	4.31	4.63	5.41	5.32	4.94	4.52	4.85
111	4.36	4.94	5.73	5.80	5.10	4.73	5.11
112	4.63	5.25	5.84	5.96	5.26	4.94	5.27
113	4.83	5.41	6.21	6.22	5.73	4.95	5.38
114	4.99	5.67	6.63	6.59	5.94	5.15	5.75
115	5.26	5.78	6.68	6.70	6.15	5.36	5.85
116	5.46	5.88	7.05	6.96	6.47	5.37	6.17
117	5.63	6.04	7.26	7.22	6.78	5.37	6.43
118	5.89	6.09	7.47	7.54	7.10	5.58	6.59
119	6.20	6.20	7.88	7.49	7.41	6.49	6.75
120	6.26	6.30	8.31	7.80	7.52	7.19	7.11
121	6.51	6.51	8.37	8.01	7.78	7.78	7.80
122	6.51	6.52	8.58	8.32	7.89	8.35	8.73
123	6.57	6.83	8.79	8.44	8.05	8.52	9.39
124	6.62	6.89	9.05	8.79	8.21	8.94	9.90
125	6.83	7.20	9.16	9.12	8.21	9.10	10.12
126	6.99	7.46	9.47	9.28	8.21	9.36	10.23
127	7.25	7.77	9.84	9.54	8.21	9.57	10.39
128	7.36	7.82	10.05	9.65	8.21	9.94	10.86
129	7.68	7.83	10.16	9.81	8.26	9.99	10.86
130	8.04	7.93	10.21	9.81	8.31	10.05	10.97
131	8.04	8.04	10.31	9.81	8.36	10.25	10.97
132	8.04	8.30	10.32	9.81	8.36	10.57	11.02
133	7.93	8.40	10.42	9.81	8.68	10.94	11.02
134	7.98	8.41	10.58	9.96	8.83	11.05	11.18
135	7.88	8.72	10.79	10.07	8.94	11.20	11.18
136	7.83	8.77	10.84	10.12	9.10	11.36	11.23
137	7.83	8.87	10.95	10.23	9.21	11.52	11.34
138	7.88	8.98	11.05	10.38	9.21	11.57	11.44
139	7.93	9.46	11.21	10.49	9.26	11.57	11.50
140	8.04	9.67	11.16	10.60	9.36	11.63	11.44
141	8.10	9.93	11.62	10.55	9.36	11.73	11.44
142	8.36	10.03	11.58	10.55	9.47	11.94	11.44
143	8.72	9.98	11.63	10.24	9.83	11.99	11.44
144	9.10	10.08	11.74	10.07	9.94	12.15	11.39
145	9.35	10.08	11.69	9.97	10.10	12.31	11.44
146	9.78	10.09	11.69	9.92	10.46	12.46	12.37
147	10.36	10.24	11.69	9.97	10.73	12.52	12.50
148	10.98	10.46	11.64	10.02	11.09	12.52	12.65



**IES INDOOR REPORT**  
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**CANDELA TABULATION - (Cont.)**

<b>149</b>	11.25	10.82	11.58	10.18	11.62	12.63	12.81
<b>150</b>	11.82	10.92	11.53	10.33	11.98	12.58	12.82
<b>151</b>	11.82	11.03	11.53	10.54	12.41	12.73	12.87
<b>152</b>	11.87	11.14	11.53	10.71	12.73	12.84	13.18
<b>153</b>	11.82	11.24	11.53	10.76	12.99	13.30	13.44
<b>154</b>	11.71	11.29	11.53	10.86	13.26	13.31	13.45
<b>155</b>	11.71	11.40	11.32	11.02	13.31	13.41	13.50
<b>156</b>	11.66	11.66	11.16	11.02	13.36	13.47	13.50
<b>157</b>	11.77	11.82	11.00	11.23	13.31	13.47	13.60
<b>158</b>	11.82	11.82	10.90	11.34	13.36	13.47	13.55
<b>159</b>	11.77	11.92	10.90	11.44	13.36	13.47	13.55
<b>160</b>	11.77	12.03	11.05	11.65	13.36	13.52	13.55
<b>161</b>	11.77	12.13	11.48	11.66	13.36	13.47	13.61
<b>162</b>	11.82	12.24	11.84	11.76	13.41	13.42	13.45
<b>163</b>	11.71	12.50	11.90	11.71	13.42	13.42	13.40
<b>164</b>	11.73	12.45	12.30	11.71	13.52	13.47	13.29
<b>165</b>	12.03	12.66	12.42	11.76	13.52	13.16	13.03
<b>166</b>	12.25	12.66	12.53	11.81	13.57	12.94	12.97
<b>167</b>	12.63	13.10	12.84	12.02	13.78	12.84	12.97
<b>168</b>	13.88	14.29	13.31	12.49	14.30	13.72	13.60
<b>169</b>	14.67	15.03	13.42	12.75	14.67	14.29	14.12
<b>170</b>	15.40	15.66	13.58	12.87	14.83	14.67	14.81
<b>171</b>	16.02	16.23	13.94	13.02	14.99	14.83	15.38
<b>172</b>	16.13	16.33	14.00	13.23	15.20	14.99	15.92
<b>173</b>	16.13	16.33	14.00	13.44	15.25	14.94	16.33
<b>174</b>	16.02	16.33	14.00	13.55	15.31	14.99	16.61
<b>175</b>	15.96	16.33	14.26	13.92	15.73	15.05	16.87
<b>176</b>	15.75	16.38	14.57	14.39	15.83	15.15	17.13
<b>177</b>	15.49	16.17	14.58	14.40	15.84	15.15	17.09
<b>178</b>	15.29	16.01	14.63	14.40	15.84	15.15	17.09
<b>179</b>	15.29	15.97	14.42	14.40	15.73	15.20	17.14
<b>180</b>	17.21	17.21	17.21	17.21	17.21	17.21	17.21

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HZX-EX-S1-100W-4000K-D120.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	2077.59	N.A.	13.30
0-30	4443.69	N.A.	28.60
0-40	7336.56	N.A.	47.10
0-60	13028.36	N.A.	83.70
0-80	15454.14	N.A.	99.30
0-90	15520.26	N.A.	99.70
10-90	14985.71	N.A.	96.30
20-40	5258.98	N.A.	33.80
20-50	8289.8	N.A.	53.30
40-70	7442.43	N.A.	47.80
60-80	2425.78	N.A.	15.60
70-80	675.14	N.A.	4.30
80-90	66.12	N.A.	0.40
90-110	5.94	N.A.	0.00
90-120	11.63	N.A.	0.10
90-130	18.98	N.A.	0.10
90-150	33.21	N.A.	0.20
90-180	43.84	N.A.	0.30
110-180	37.90	N.A.	0.20
0-180	15564.1	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	534.55
10-20	1543.04
20-30	2366.11
30-40	2892.87
40-50	3030.82
50-60	2660.98
60-70	1750.64
70-80	675.14
80-90	66.12
90-100	2.25
100-110	3.68
110-120	5.69
120-130	7.35
130-140	7.49
140-150	6.74
150-160	5.54
160-170	3.63
170-180	1.45

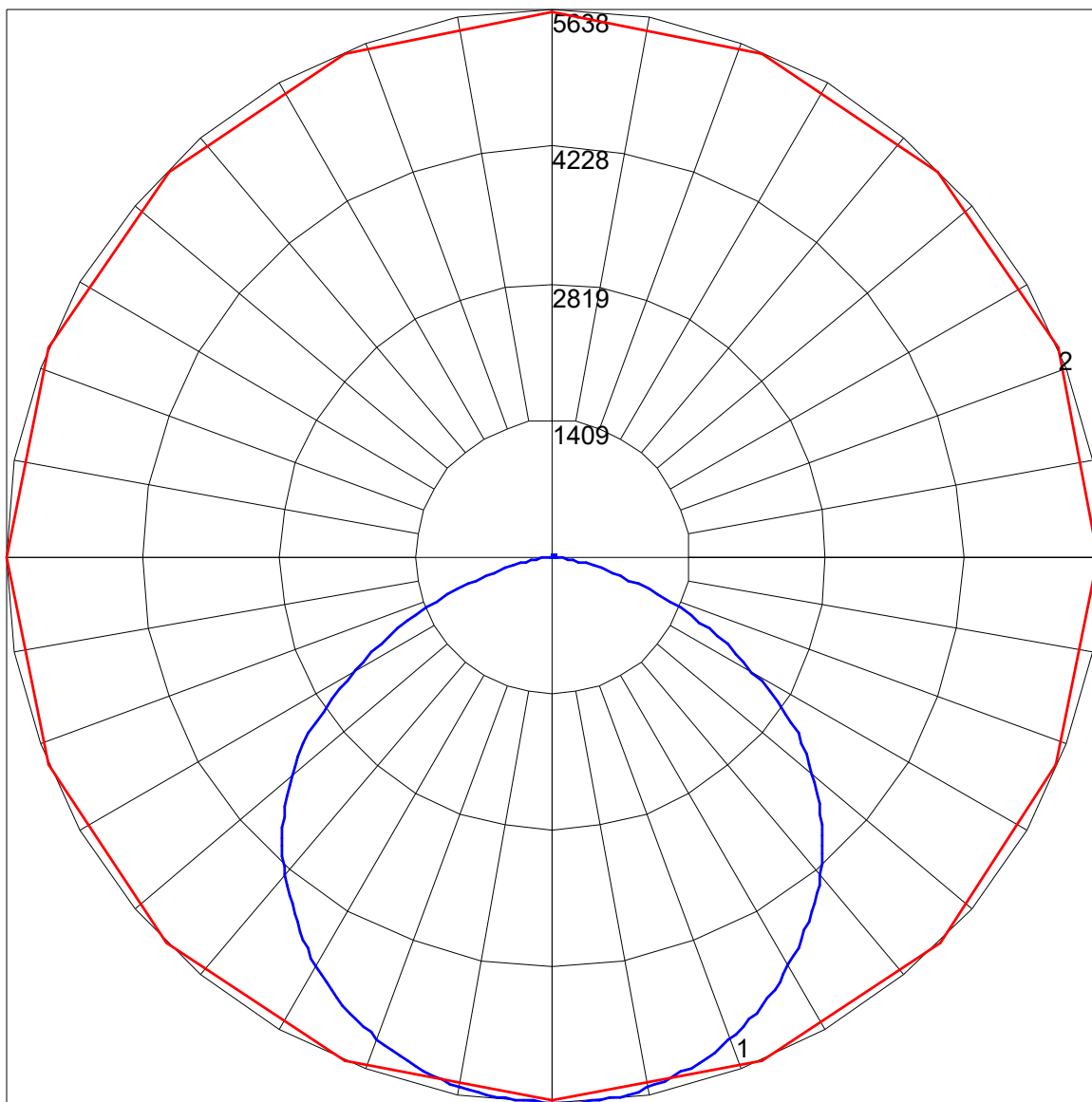
**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HZX-EX-S1-100W-4000K-D120.IES**

**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	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	89	88	86
2	100	92	86	81	98	91	85	80	87	82	78	84	80	76	81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	63	61
4	84	72	64	57	82	71	63	57	68	62	56	66	60	55	64	59	55	52
5	77	65	56	49	75	64	55	49	61	54	49	59	53	48	58	52	48	45
6	71	58	49	43	69	57	49	43	55	48	43	54	47	42	52	46	42	40
7	66	53	44	38	64	52	44	38	50	43	38	49	42	37	48	42	37	35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	52	40	33	28	39	32	27	38	32	27	37	31	27	25

POLAR GRAPH



Maximum Candela = 5637.78 Located At Horizontal Angle = 315, Vertical Angle = 3  
# 1 - Vertical Plane Through Horizontal Angles (315 - 135) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (3) (Through Max. Cd.)