



IES INDOOR REPORT

PHOTOMETRIC FILENAME : HZX-EX-I2-20W-5000K-D120.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] HZX-EX-I2-20W-5000K-D120

[TESTLAB] EVERFINE

[TESTDATE] 2020-03-06

[ISSUEDATE] 2020-03-06 17:41:28

[NEARFIELD]

[LAMPPOSITION] 90,90

[OTHER] EVERFINE GO-3000H_V1 SYSTEM

[MANUFAC] BELUCE CANADA INC.

[LUMINAIRE] HZX-EX-I2-20W-5000K-D120

[LUMCAT]] HZX-EX-I2-20W-5000K-D120

[LAMP] 2609 LUMENS

[_SEARCH_SOURCE] LED

[OTHER]

[OTHER]	Gamma(deg)	Fz(lm)	Ft(lm)	%Lum	%Lamp
[OTHER]	0- 10	88.33	88.33	3.39	2.38
[OTHER]	10- 20	255.32	343.66	13.17	9.25
[OTHER]	20- 30	392.34	735.99	28.21	19.82
[OTHER]	30- 40	482.28	1218.27	46.70	32.80
[OTHER]	40- 50	507.35	1725.61	66.15	46.46
[OTHER]	50- 60	448.08	2173.69	83.33	58.53
[OTHER]	60- 70	300.94	2474.63	94.86	66.63
[OTHER]	70- 80	127.77	2602.40	99.76	70.07
[OTHER]	80- 90	6.27	2608.67	100.00	70.24
[OTHER]	90-100	0.00	2608.67	100.00	70.24
[OTHER]	100-110	0.00	2608.67	100.00	70.24
[OTHER]	110-120	0.00	2608.67	100.00	70.24
[OTHER]	120-130	0.00	2608.67	100.00	70.24
[OTHER]	130-140	0.00	2608.67	100.00	70.24
[OTHER]	140-150	0.00	2608.67	100.00	70.24
[OTHER]	150-160	0.00	2608.67	100.00	70.24
[OTHER]	160-170	0.00	2608.67	100.00	70.24
[OTHER]	170-180	0.00	2608.67	100.00	70.24
[OTHER]					

Note: Candela values converted from Type-B to Type-C

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CHARACTERISTICS

Lumens Per Lamp	2609 (1 lamp)
Total Lamp Lumens	2609
Luminaire Lumens	2609
Total Luminaire Efficiency	100 %
Luminaire Efficacy Rating (LER)	125
Total Luminaire Watts	20.8
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.24
Spacing Criterion (Diagonal)	1.42
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.20 m
Luminous Width (90-270)	0.05 m
Luminous Height	0.00 m

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	13293	12095	13397
55	10527	9618	11392
65	7122	3944	4317
75	1218	661	547
85	0	0	124

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CANDELA TABULATION

	<u>0.0</u>	<u>2.5</u>	<u>5.0</u>	<u>7.5</u>	<u>10.0</u>	<u>12.5</u>	<u>15.0</u>	<u>17.5</u>	<u>20.0</u>	<u>22.5</u>
0.0	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33
2.5	926.84	926.68	926.53	926.41	926.30	926.21	926.14	926.09	926.06	925.98
5.0	917.35	917.02	916.72	916.46	916.23	916.01	915.78	915.58	915.42	915.12
7.5	907.86	907.34	906.88	906.44	905.99	905.56	905.05	904.86	904.60	904.40
10.0	898.37	897.66	897.03	896.33	895.64	895.04	894.52	894.07	893.60	893.20
12.5	888.88	887.98	887.12	886.13	885.25	884.49	883.76	883.03	882.33	881.67
15.0	879.39	878.28	877.13	875.75	874.85	873.85	872.82	871.77	870.80	869.84
17.5	858.31	857.06	855.85	854.80	854.03	853.36	852.81	852.41	851.91	852.16
20.0	837.23	835.77	834.33	833.11	832.10	831.24	830.48	829.61	829.51	829.13
22.5	816.15	814.39	812.62	811.38	810.17	809.03	808.06	807.28	806.52	805.96
25.0	795.06	793.15	791.30	789.62	788.17	786.78	785.59	784.49	783.43	782.76
27.5	773.98	771.82	769.75	767.84	766.12	764.50	763.09	761.46	760.35	759.34
30.0	752.89	750.50	748.18	746.07	744.02	742.21	740.39	738.61	737.09	735.68
32.5	721.45	718.94	716.66	714.82	713.16	711.89	710.72	710.00	709.65	709.63
35.0	690.00	687.29	684.74	682.58	680.62	678.91	677.28	675.81	675.25	674.65
37.5	658.56	655.64	652.82	650.31	648.01	645.72	643.66	641.92	640.58	639.22
40.0	627.11	623.99	620.88	618.02	615.24	612.48	609.80	607.58	605.56	603.48
42.5	595.67	592.34	588.93	585.70	582.41	579.06	575.81	573.02	570.25	567.39
45.0	564.23	560.69	556.96	553.33	549.51	545.54	541.70	538.29	534.69	530.96
47.5	513.78	510.40	507.17	504.30	501.56	499.07	497.08	495.58	494.10	492.75
50.0	463.33	459.74	456.60	453.47	450.46	447.79	445.47	443.49	441.77	440.42
52.5	412.88	409.43	405.96	402.49	399.10	396.61	393.87	391.47	389.71	388.17
55.0	362.43	359.00	355.49	351.84	348.38	345.42	342.23	339.59	337.95	336.23
57.5	311.98	308.55	304.92	301.04	297.45	294.22	290.61	287.94	286.48	284.53
60.0	261.53	258.12	254.36	250.29	246.61	243.03	238.82	236.51	235.18	233.03
62.5	221.10	217.88	214.19	210.03	206.06	201.76	196.75	193.19	189.93	185.51
65.0	180.66	177.78	174.52	170.86	167.50	163.79	159.59	156.99	154.26	150.94
67.5	140.23	137.70	134.92	131.65	129.09	126.09	122.82	121.09	119.10	117.03
70.0	99.79	97.64	95.40	92.84	90.85	88.61	86.37	85.42	84.47	83.71
72.5	59.36	57.61	55.94	53.96	52.75	51.18	50.14	49.99	50.30	50.90
75.0	18.92	17.59	16.53	15.16	14.76	14.19	14.10	14.76	16.49	18.51
77.5	9.46	8.72	7.96	6.87	6.13	5.00	4.09	3.29	3.16	3.07
80.0	0.00	0.03	0.12	0.22	0.34	0.42	0.48	0.50	0.60	0.70
82.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
85.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
87.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Vert. Angles **Horizontal Angles**

	<u>25.0</u>	<u>27.5</u>	<u>30.0</u>	<u>32.5</u>	<u>35.0</u>	<u>37.5</u>	<u>40.0</u>	<u>42.5</u>	<u>45.0</u>	<u>47.5</u>
0.0	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33
2.5	926.04	926.03	926.04	926.07	926.12	926.20	926.29	926.40	926.54	926.69
5.0	915.23	915.18	915.18	915.22	915.30	915.41	915.54	915.70	915.91	916.17
7.5	904.22	904.07	903.98	903.95	903.92	903.96	904.06	904.22	904.39	904.95
10.0	892.84	892.50	892.21	892.01	891.85	891.77	891.75	891.82	891.97	892.13
12.5	881.05	880.49	880.00	879.60	879.25	878.88	878.64	878.56	878.59	878.72
15.0	868.96	868.17	867.27	866.44	865.90	865.47	865.12	864.89	864.60	864.47
17.5	852.21	852.25	852.90	853.24	852.20	851.58	850.83	850.16	849.56	849.06
20.0	828.97	829.23	829.71	830.26	831.02	832.01	833.04	834.55	833.49	832.58
22.5	805.78	805.80	805.91	806.20	806.56	807.16	808.04	809.10	810.38	811.89
25.0	782.27	781.88	781.62	781.44	781.46	781.30	782.18	782.80	783.64	784.78
27.5	758.42	757.59	756.78	756.17	755.85	755.55	755.41	755.49	756.01	756.23
30.0	734.27	732.83	731.58	730.57	729.52	728.53	727.91	727.66	727.82	728.55

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CANDELA TABULATION - (Cont.)

32.5	709.81	707.77	706.15	704.35	702.19	701.15	700.01	699.28	699.06	699.10
35.0	674.08	674.21	674.44	674.57	675.36	673.26	671.58	670.19	668.38	668.37
37.5	637.75	637.45	636.82	636.88	637.33	638.51	640.20	639.81	637.78	636.00
40.0	601.73	600.09	598.82	598.06	597.85	598.26	599.00	600.38	601.83	601.75
42.5	564.76	562.23	560.26	558.62	557.69	557.16	558.15	557.37	557.75	559.16
45.0	527.40	524.16	521.12	518.75	516.31	515.76	514.68	513.55	513.38	513.92
47.5	489.71	484.87	481.62	478.42	475.94	473.77	471.32	469.48	468.24	467.38
50.0	439.03	437.85	437.19	437.15	434.81	431.22	427.69	424.76	422.88	422.03
52.5	386.60	385.29	384.47	384.24	384.57	384.02	383.73	379.91	377.71	376.10
55.0	334.47	333.18	331.86	331.75	331.22	329.55	328.01	326.17	331.13	330.59
57.5	282.70	280.95	279.30	279.16	277.36	276.84	265.38	265.02	270.85	276.28
60.0	231.31	229.51	228.07	227.35	225.51	218.39	200.88	205.83	212.77	217.28
62.5	181.12	177.82	176.87	175.35	173.52	150.66	141.11	148.71	156.58	159.85
65.0	147.60	142.57	138.35	132.04	121.32	82.56	83.92	93.60	100.05	105.44
67.5	114.83	111.27	108.34	103.42	88.64	54.81	51.24	49.26	44.92	48.28
70.0	82.64	80.89	79.18	76.07	56.83	40.73	38.81	36.21	29.39	13.49
72.5	51.19	51.20	50.92	49.89	33.46	27.74	27.04	23.99	19.15	8.50
75.0	20.42	22.11	23.65	24.21	16.65	15.51	15.76	13.92	10.27	5.71
77.5	2.98	2.73	2.70	2.58	2.75	3.88	4.95	5.29	3.79	3.27
80.0	0.79	0.83	0.93	0.96	0.89	0.78	0.68	0.79	0.93	1.07
82.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.13	0.24
85.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
87.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Vert. Horizontal Angles

	<u>50.0</u>	<u>52.5</u>	<u>55.0</u>	<u>57.5</u>	<u>60.0</u>	<u>62.5</u>	<u>65.0</u>	<u>67.5</u>	<u>70.0</u>	<u>72.5</u>
0.0	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33
2.5	926.70	927.02	927.26	927.48	927.72	927.98	928.26	928.55	928.86	929.18
5.0	916.46	916.71	917.15	917.53	917.96	918.42	918.93	919.47	920.05	920.67
7.5	904.94	905.15	905.74	906.23	906.79	907.41	908.10	908.63	909.67	910.53
10.0	892.39	892.48	893.21	893.75	894.54	895.12	895.94	896.85	897.85	898.94
12.5	878.96	879.32	879.70	880.15	880.75	881.47	882.31	883.28	884.39	885.25
15.0	864.43	864.56	864.77	865.12	865.42	866.30	867.12	868.14	869.33	870.69
17.5	848.72	848.57	848.56	848.74	849.13	849.66	850.45	851.45	852.65	854.11
20.0	831.84	831.21	830.82	830.68	830.76	831.07	831.71	832.64	833.91	835.50
22.5	813.35	812.17	811.33	810.82	810.63	810.80	811.36	812.30	813.60	815.19
25.0	786.30	788.26	790.63	789.95	789.61	789.66	789.95	790.53	791.69	793.18
27.5	758.34	760.32	762.82	765.19	767.47	767.01	767.02	767.47	768.78	769.76
30.0	729.71	731.27	733.35	735.71	739.65	743.50	742.59	743.02	743.68	746.91
32.5	699.59	700.79	703.22	704.54	708.18	715.33	726.23	728.99	729.07	728.03
35.0	668.25	668.57	669.71	675.63	684.13	690.21	695.95	702.67	700.29	698.74
37.5	634.65	636.82	640.28	643.74	647.22	651.68	657.15	663.78	669.75	667.47
40.0	600.93	601.47	602.48	604.40	607.14	610.97	616.01	622.30	629.74	632.79
42.5	561.47	562.25	562.16	562.84	564.73	568.06	572.40	577.73	584.24	592.17
45.0	515.52	517.59	519.63	519.68	521.13	523.54	526.88	531.87	538.11	545.82
47.5	469.24	469.64	471.92	475.36	476.61	478.55	480.50	484.87	491.67	499.10
50.0	420.89	422.34	423.84	426.21	430.69	433.55	435.52	439.91	447.02	453.14
52.5	375.21	374.74	375.06	377.55	377.36	381.79	394.05	399.90	402.26	405.59
55.0	328.37	326.51	326.60	314.84	302.30	320.08	342.43	351.95	337.27	318.18
57.5	279.65	279.62	256.97	223.54	234.50	256.97	271.91	241.79	204.79	218.05
60.0	221.76	209.69	151.21	150.90	173.83	188.04	163.87	136.67	137.07	147.43
62.5	161.71	121.62	98.57	101.46	114.19	114.84	106.29	106.61	103.31	114.49
65.0	89.67	66.94	70.59	75.27	78.57	79.29	75.07	57.01	69.30	82.57
67.5	37.86	39.90	46.05	51.21	54.53	54.53	17.86	27.05	41.79	49.90

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CANDELA TABULATION - (Cont.)

70.0	10.83	15.82	23.14	29.32	33.42	18.50	10.84	10.70	17.57	12.78
72.5	8.22	8.14	8.05	9.87	13.30	8.26	8.20	8.34	8.47	8.97
75.0	5.82	5.86	5.95	6.15	5.95	5.73	5.98	5.96	6.05	6.47
77.5	3.53	3.74	4.00	4.19	4.13	4.18	4.17	3.51	3.35	3.48
80.0	1.35	1.73	2.10	2.37	2.57	2.75	2.71	2.24	1.48	0.95
82.5	0.37	0.51	0.68	0.88	1.14	1.43	1.60	1.50	1.17	0.99
85.0	0.00	0.00	0.00	0.00	0.00	0.17	0.41	0.70	1.06	1.19
87.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Vert. Angles **Horizontal Angles**

	<u>75.0</u>	<u>77.5</u>	<u>80.0</u>	<u>82.5</u>	<u>85.0</u>	<u>87.5</u>	<u>90.0</u>	<u>92.5</u>	<u>95.0</u>	<u>97.5</u>
0.0	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33
2.5	929.52	929.87	930.24	930.62	931.01	931.42	931.83	931.84	931.87	931.90
5.0	921.33	922.02	922.54	923.38	924.22	925.07	925.92	925.94	925.96	925.99
7.5	911.46	912.45	913.50	914.60	915.77	916.98	918.25	918.32	918.43	918.59
10.0	900.13	901.41	902.77	903.89	905.61	907.34	909.07	909.14	909.21	909.28
12.5	887.00	888.47	890.09	891.83	893.71	895.71	897.83	897.98	898.24	898.62
15.0	872.24	873.98	875.90	877.99	879.96	882.61	885.27	885.36	885.46	886.23
17.5	855.82	857.76	859.92	862.32	864.97	867.85	870.95	871.16	871.58	872.20
20.0	837.31	839.44	841.89	844.66	847.17	850.95	854.73	854.84	854.94	856.27
22.5	817.14	819.02	822.11	825.11	828.48	832.22	836.33	836.65	837.32	838.35
25.0	795.11	797.41	800.18	803.39	807.05	810.95	815.72	815.94	817.02	818.30
27.5	771.54	773.85	776.69	780.01	783.88	788.30	793.27	793.81	794.88	796.48
30.0	749.93	752.76	755.54	758.43	761.54	764.74	769.02	769.39	771.02	772.95
32.5	727.68	728.08	728.72	731.28	734.05	737.64	742.03	742.87	744.49	746.86
35.0	697.93	698.04	699.14	701.23	704.26	707.80	713.11	714.56	717.48	720.46
37.5	666.22	665.84	666.63	668.54	671.59	675.85	681.27	684.39	688.60	693.91
40.0	630.53	629.66	630.16	632.06	635.40	639.48	646.28	648.99	654.37	660.39
42.5	591.94	590.80	591.15	593.06	596.51	601.55	608.17	611.73	616.83	623.48
45.0	552.41	550.90	551.06	552.83	556.33	560.70	568.61	571.50	577.94	585.16
47.5	508.17	509.87	509.27	510.16	514.14	519.62	527.11	531.17	537.19	544.62
50.0	460.80	467.08	465.70	467.26	470.66	475.24	484.39	487.63	495.37	504.15
52.5	409.36	417.52	420.94	421.98	425.52	431.66	440.46	445.02	452.20	461.86
55.0	322.35	348.53	364.51	354.41	354.95	366.82	392.22	395.55	405.15	416.25
57.5	232.15	222.24	200.05	205.07	216.81	229.51	246.98	256.04	278.74	312.05
60.0	142.98	141.64	144.54	147.15	149.35	151.98	158.39	158.93	163.91	170.11
62.5	114.53	116.65	119.49	123.61	125.22	128.63	134.04	135.25	138.52	143.97
65.0	89.21	80.66	76.80	90.19	94.33	100.20	109.52	110.86	114.44	118.59
67.5	22.86	26.01	36.03	28.61	26.34	36.35	44.55	53.72	76.42	81.95
70.0	11.54	11.53	11.69	11.82	12.04	12.30	12.84	13.18	14.04	15.80
72.5	9.05	9.02	9.33	9.56	9.67	9.87	10.25	10.40	10.85	11.08
75.0	6.57	6.86	7.37	7.40	7.71	7.92	8.50	8.63	8.80	9.10
77.5	4.10	4.53	4.45	5.21	5.15	5.47	5.90	6.04	6.32	6.65
80.0	1.92	2.10	1.39	2.08	2.06	2.41	2.86	3.24	3.48	3.66
82.5	0.91	0.92	0.81	0.76	0.68	0.64	0.61	0.65	0.78	0.89
85.0	1.14	1.08	0.99	0.92	0.89	0.72	0.65	0.78	1.01	1.01
87.5	0.00	0.35	1.08	1.25	1.13	1.07	0.84	1.18	1.22	1.31
90.0	0.00	0.00	0.00	0.00	0.00	0.00	1.09	0.00	0.00	0.00

Vert. Angles **Horizontal Angles**

	<u>100.0</u>	<u>102.5</u>	<u>105.0</u>	<u>107.5</u>	<u>110.0</u>	<u>112.5</u>	<u>115.0</u>	<u>117.5</u>	<u>120.0</u>	<u>122.5</u>
0.0	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33
2.5	931.95	932.00	932.06	932.13	932.22	932.31	932.41	932.52	932.63	932.76

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CANDELA TABULATION - (Cont.)

5.0	926.01	926.33	926.49	926.67	926.87	927.09	927.33	927.60	927.89	928.19
7.5	918.80	919.05	919.35	919.69	920.07	920.25	920.93	921.42	921.95	922.51
10.0	909.94	910.34	910.81	911.35	911.96	912.64	913.38	914.16	914.98	915.85
12.5	899.11	899.71	900.43	900.84	902.10	903.08	904.14	905.30	906.54	907.88
15.0	886.85	887.63	888.56	889.65	890.89	892.23	893.69	895.26	896.73	898.68
17.5	873.04	874.08	875.29	876.67	878.24	880.00	881.87	883.86	886.01	888.30
20.0	857.32	858.62	860.18	861.99	863.97	866.19	868.66	871.21	873.94	876.81
22.5	839.72	840.95	843.33	845.56	848.09	850.82	853.82	857.03	860.39	863.98
25.0	819.99	822.08	824.54	827.32	830.44	833.79	837.65	841.67	845.77	850.11
27.5	798.59	801.15	804.18	807.69	811.51	815.69	820.15	824.83	829.86	832.11
30.0	775.48	778.60	782.22	786.24	790.78	795.78	800.74	807.07	808.67	809.90
32.5	749.41	753.77	758.26	763.34	768.87	774.87	780.97	782.17	783.99	785.95
35.0	723.72	727.06	732.06	737.99	744.58	751.84	753.41	755.57	758.26	760.72
37.5	700.25	707.58	715.93	721.27	725.75	723.21	723.72	726.64	730.42	734.80
40.0	667.69	676.16	685.59	696.05	700.95	701.71	701.24	699.76	701.10	706.43
42.5	631.60	641.20	652.17	661.89	662.47	664.25	667.20	671.13	675.26	678.21
45.0	594.08	604.52	616.54	619.55	621.23	624.28	628.51	633.80	640.27	647.43
47.5	554.99	566.63	575.52	576.38	578.84	581.90	587.36	595.02	602.66	610.64
50.0	514.57	527.85	530.48	531.03	535.59	540.89	547.01	555.57	562.97	568.82
52.5	473.81	484.02	484.54	487.10	491.53	497.93	505.65	513.38	519.46	526.86
55.0	430.04	434.71	437.15	441.35	447.35	454.95	460.73	468.12	475.90	484.49
57.5	355.92	360.73	371.73	385.70	401.87	406.01	413.45	422.63	430.69	442.41
60.0	188.09	209.54	235.08	272.11	318.71	327.00	333.42	368.00	387.85	398.94
62.5	146.65	149.58	153.98	161.17	184.61	233.26	236.99	259.43	329.21	348.66
65.0	120.31	124.95	130.48	133.01	135.76	144.55	164.42	157.61	211.29	272.30
67.5	80.67	89.51	95.88	102.36	110.72	115.26	118.74	122.98	133.23	183.54
70.0	21.20	25.80	48.46	46.15	72.26	87.70	82.72	81.72	101.81	117.62
72.5	11.42	11.91	12.63	16.92	15.57	49.08	51.00	43.10	60.45	85.33
75.0	9.27	9.58	9.74	10.28	11.11	13.10	23.16	13.23	18.83	58.16
77.5	6.99	7.30	7.71	7.88	8.70	9.22	9.38	9.82	10.71	31.14
80.0	4.27	4.36	4.99	5.69	5.96	6.31	6.63	7.35	7.86	12.77
82.5	1.51	1.40	2.40	3.32	3.25	3.18	3.80	4.84	5.26	4.92
85.0	1.04	1.11	1.37	1.41	0.99	0.64	0.83	0.60	0.00	0.00
87.5	1.08	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Vert. Angles **Horizontal Angles**

	<u>125.0</u>	<u>127.5</u>	<u>130.0</u>	<u>132.5</u>	<u>135.0</u>	<u>137.5</u>	<u>140.0</u>	<u>142.5</u>	<u>145.0</u>	<u>147.5</u>
0.0	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33
2.5	932.89	933.00	933.01	933.31	933.45	933.61	933.77	933.93	934.10	934.27
5.0	928.52	928.77	929.18	929.52	929.88	930.25	930.64	931.04	931.42	931.81
7.5	923.11	923.57	924.34	924.97	925.63	926.31	926.97	927.63	928.31	929.02
10.0	916.78	917.46	918.65	919.62	920.64	921.66	922.72	923.82	924.82	925.82
12.5	909.29	910.73	912.12	913.57	915.02	916.46	917.94	919.36	920.81	922.27
15.0	900.52	902.42	904.32	906.30	908.38	910.55	912.54	914.57	916.47	918.36
17.5	890.75	893.26	895.78	898.37	900.99	903.61	906.20	908.89	911.38	914.13
20.0	879.81	882.91	886.08	889.41	892.90	896.10	897.25	898.55	899.81	901.26
22.5	867.84	871.74	875.66	877.18	878.59	880.05	882.01	883.82	885.68	887.61
25.0	854.66	855.98	857.52	859.53	861.48	863.61	865.93	867.78	870.95	873.47
27.5	834.24	836.04	838.16	839.94	843.24	846.26	849.22	852.35	855.47	858.72
30.0	812.30	814.83	817.73	820.87	824.22	827.84	831.72	835.69	839.64	843.62
32.5	789.42	792.62	796.12	800.11	804.41	808.84	813.44	818.34	822.93	828.04
35.0	764.96	769.15	773.77	778.52	783.01	789.09	794.67	800.29	806.21	809.90
37.5	738.79	744.64	750.13	756.09	762.20	768.51	773.84	777.80	781.88	786.35
40.0	712.49	718.99	725.79	732.72	738.01	742.19	746.70	751.70	756.79	761.96

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CANDELA TABULATION - (Cont.)

42.5	684.15	691.99	698.63	703.32	708.04	713.42	719.13	725.02	731.20	737.39
45.0	654.70	659.69	665.05	670.94	677.47	683.85	690.77	697.92	704.62	712.46
47.5	616.59	623.02	629.97	636.85	645.49	653.75	661.79	670.23	678.81	687.23
50.0	575.95	584.24	592.45	602.91	612.81	622.62	632.44	642.05	652.06	660.95
52.5	535.17	544.58	554.75	566.65	579.00	590.75	602.08	608.50	614.51	620.91
55.0	494.29	505.02	516.68	529.41	542.19	550.26	557.61	564.47	572.97	580.69
57.5	453.45	465.51	477.40	484.84	493.28	502.73	512.00	521.55	530.42	539.69
60.0	413.19	419.04	427.43	436.35	445.40	455.40	466.01	477.06	488.57	499.50
62.5	343.31	355.59	376.60	388.00	398.60	408.92	420.26	432.34	445.68	458.63
65.0	270.77	271.68	317.53	337.96	352.40	363.50	375.15	387.75	401.11	412.57
67.5	203.25	196.12	232.43	288.17	305.78	314.98	320.26	329.25	346.60	358.73
70.0	136.45	130.23	139.71	223.35	245.46	253.84	257.93	264.80	291.05	305.48
72.5	89.72	92.27	94.49	145.36	185.06	194.34	197.29	201.83	233.29	252.83
75.0	63.85	65.04	65.65	83.70	125.67	135.11	138.20	140.18	169.88	200.75
77.5	40.39	39.59	38.35	39.81	65.39	77.55	80.47	80.40	104.60	145.45
80.0	18.38	15.72	12.43	10.69	18.82	32.27	35.08	34.06	40.18	54.58
82.5	4.62	3.86	3.13	2.31	2.07	1.12	0.00	0.00	0.00	0.00
85.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
87.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Vert. Angles **Horizontal Angles**

	<u>150.0</u>	<u>152.5</u>	<u>155.0</u>	<u>157.5</u>	<u>160.0</u>	<u>162.5</u>	<u>165.0</u>	<u>167.5</u>	<u>170.0</u>	<u>172.5</u>
0.0	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33
2.5	934.45	934.63	934.82	934.92	935.15	935.32	935.48	935.65	935.82	935.98
5.0	932.20	932.61	933.02	933.26	933.79	934.17	934.55	934.93	935.29	935.63
7.5	929.67	930.33	931.01	931.67	932.30	932.95	933.47	934.14	934.70	935.22
10.0	926.79	927.81	928.80	929.76	930.68	931.60	932.49	933.36	934.14	934.87
12.5	923.75	925.13	926.42	927.69	928.95	930.17	931.35	932.48	933.58	934.51
15.0	920.21	922.06	923.92	925.61	927.13	928.66	930.16	931.57	932.92	934.11
17.5	915.48	916.38	917.44	918.56	919.50	920.70	921.77	922.91	924.06	925.26
20.0	902.83	904.28	905.68	907.12	908.62	909.90	911.51	912.92	914.34	915.79
22.5	889.55	891.58	893.53	895.43	897.34	899.24	901.08	902.83	904.58	906.29
25.0	875.98	878.51	881.02	883.44	885.84	888.20	890.47	892.65	894.74	896.75
27.5	861.99	865.15	868.27	871.25	874.11	876.94	879.76	882.33	884.85	887.19
30.0	847.50	851.46	855.21	858.95	862.24	865.56	868.89	871.91	874.88	877.60
32.5	832.82	837.37	841.98	844.19	846.51	848.72	851.26	853.75	856.19	858.65
35.0	813.72	816.60	818.30	821.06	824.04	826.66	829.91	833.03	835.87	838.74
37.5	790.64	795.02	796.21	797.81	801.20	804.89	808.49	812.09	815.51	818.80
40.0	767.31	772.42	776.64	775.45	778.28	782.60	786.89	791.08	795.09	798.84
42.5	743.59	749.67	755.54	755.90	755.44	760.05	765.16	769.98	774.62	778.84
45.0	719.67	726.78	733.43	737.99	732.86	737.46	743.21	748.86	754.10	758.79
47.5	695.51	702.95	711.23	717.17	711.29	710.71	715.58	720.75	725.51	729.93
50.0	666.03	671.21	676.33	681.22	681.27	679.20	684.27	689.94	695.26	700.13
52.5	627.17	633.31	639.37	645.08	649.59	647.61	653.03	659.16	664.69	670.16
55.0	588.12	595.34	602.32	608.93	615.41	616.44	621.83	628.36	634.77	640.56
57.5	548.39	556.67	565.20	572.81	580.00	584.74	590.66	597.58	604.52	610.78
60.0	509.61	519.12	528.10	536.60	544.58	551.93	559.31	566.85	574.28	581.03
62.5	470.31	480.95	490.41	497.12	503.48	509.84	516.63	522.68	528.82	534.82
65.0	421.77	430.63	438.85	446.53	453.78	460.45	467.71	474.37	480.72	487.08
67.5	369.15	377.68	387.35	395.95	404.18	411.20	418.86	426.11	432.69	439.08
70.0	316.66	326.06	336.17	345.44	354.70	362.10	370.07	377.91	384.75	391.61
72.5	264.51	274.16	285.08	295.05	305.33	313.15	321.34	329.38	336.89	343.89
75.0	213.17	222.68	234.15	244.79	255.88	264.35	272.71	281.68	289.11	296.21
77.5	150.82	152.16	154.11	154.79	155.80	154.78	153.67	153.44	152.94	152.92

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CANDELA TABULATION - (Cont.)

80.0	51.55	46.50	41.20	35.53	29.72	23.74	18.08	13.03	8.59	0.00
82.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
85.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
87.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Vert. Angles	Horizontal Angles									
	175.0	177.5	180.0	182.5	185.0	187.5	190.0	192.5	195.0	197.5
0.0	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33
2.5	936.15	936.32	936.50	936.65	936.80	936.95	937.10	937.24	937.39	937.53
5.0	935.97	936.32	936.66	936.96	937.26	937.55	937.85	938.02	938.36	938.60
7.5	935.78	936.30	936.83	937.26	937.70	938.14	938.50	938.85	939.20	939.47
10.0	935.59	936.29	936.99	937.57	938.14	938.63	939.07	939.48	939.84	940.20
12.5	935.38	936.27	937.16	937.86	938.46	939.07	939.57	940.04	940.44	940.77
15.0	935.21	936.25	937.32	938.15	938.88	939.47	940.04	940.55	940.95	941.28
17.5	926.31	927.38	928.58	929.63	930.61	931.60	932.67	933.68	934.70	935.72
20.0	916.95	918.40	919.83	921.00	921.94	923.32	924.48	925.63	926.71	927.71
22.5	907.88	909.48	911.09	912.51	913.76	915.03	916.35	917.54	918.58	919.58
25.0	898.51	900.56	902.34	903.80	905.06	906.75	908.20	909.37	910.39	911.33
27.5	889.53	891.69	893.60	895.36	896.92	898.50	899.98	901.10	902.18	902.91
30.0	879.89	882.65	884.85	886.71	888.18	890.28	891.77	892.82	893.78	894.49
32.5	861.04	863.52	865.77	868.01	870.18	872.59	874.70	876.80	878.74	880.80
35.0	841.45	844.01	846.69	848.94	851.47	853.92	856.10	858.31	860.24	862.28
37.5	821.87	824.89	827.61	830.25	832.72	835.24	837.48	839.67	841.79	843.59
40.0	802.27	805.38	808.53	811.17	814.04	816.56	818.93	821.05	823.14	824.90
42.5	782.66	786.27	789.45	792.49	795.29	797.83	800.37	802.49	804.52	806.12
45.0	763.05	766.76	770.37	773.41	776.52	779.17	781.78	783.96	785.78	787.33
47.5	734.07	737.96	741.57	745.13	748.60	751.98	755.31	758.53	761.44	764.20
50.0	704.66	708.32	712.77	716.25	720.29	723.87	727.21	730.43	733.28	735.93
52.5	675.14	679.67	683.97	687.98	691.98	695.76	699.15	702.36	705.14	707.64
55.0	645.79	650.27	655.17	659.03	663.55	667.61	671.08	674.23	676.92	679.28
57.5	616.34	621.44	626.37	630.84	635.38	639.44	643.00	646.05	648.64	650.85
60.0	585.80	592.03	597.57	602.01	606.02	611.26	614.90	617.86	620.36	622.52
62.5	540.28	545.43	550.58	555.66	561.21	566.41	571.47	576.03	580.34	584.33
65.0	491.43	497.99	503.58	508.48	513.06	520.02	525.27	530.01	534.21	537.98
67.5	445.73	451.36	456.59	462.07	468.02	473.64	479.12	483.96	488.04	491.62
70.0	397.16	404.02	409.60	414.94	420.10	427.19	432.95	437.90	441.83	445.27
72.5	351.24	357.33	362.61	368.46	374.79	380.87	386.78	391.82	395.48	398.95
75.0	302.99	310.08	315.61	321.38	327.14	334.48	340.60	345.65	349.13	352.64
77.5	154.21	155.72	157.81	161.46	166.65	173.12	180.94	189.67	199.02	210.07
80.0	0.00	0.00	0.00	0.00	0.00	0.00	10.18	16.14	23.48	32.32
82.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
85.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
87.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Vert. Angles	Horizontal Angles									
	200.0	202.5	205.0	207.5	210.0	212.5	215.0	217.5	220.0	222.5
0.0	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33
2.5	937.67	937.81	937.87	938.06	938.17	938.28	938.39	938.50	938.60	938.70
5.0	938.84	939.07	939.26	939.42	939.57	939.72	939.86	939.96	940.09	940.19
7.5	939.73	939.98	940.19	940.37	940.55	940.71	940.83	940.93	941.04	941.11
10.0	940.45	940.71	940.92	941.09	941.26	941.33	941.39	941.43	941.41	941.39
12.5	941.05	941.29	941.46	941.56	941.60	941.59	941.52	941.36	941.19	941.00

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CANDELA TABULATION - (Cont.)

15.0	941.54	941.70	941.77	941.75	941.58	941.35	941.08	940.85	940.39	940.05
17.5	936.70	937.64	938.53	939.36	940.21	940.72	940.21	939.66	939.07	938.38
20.0	928.67	929.51	930.31	931.22	931.94	932.74	933.56	934.43	935.04	935.75
22.5	920.43	921.20	921.98	922.70	923.44	924.04	924.58	925.09	925.61	926.12
25.0	912.06	912.81	913.44	913.98	914.45	914.87	915.24	915.39	915.71	916.06
27.5	903.72	904.26	904.65	904.98	905.26	905.31	905.31	905.39	905.43	905.42
30.0	895.14	895.50	895.65	895.85	895.69	895.47	895.30	894.96	894.57	894.17
32.5	882.72	884.53	886.69	886.37	885.91	885.52	884.84	884.30	883.18	882.32
35.0	864.03	865.91	867.77	869.28	871.11	872.86	873.89	872.66	871.33	869.73
37.5	845.30	847.05	848.48	849.93	851.38	852.95	854.12	855.65	857.16	856.55
40.0	826.53	827.97	829.14	830.30	831.25	832.28	833.29	834.34	835.18	836.33
42.5	807.62	808.77	809.61	810.37	810.95	811.52	812.00	812.45	812.95	813.41
45.0	788.60	789.37	789.87	790.30	790.39	790.44	790.48	790.41	790.42	789.85
47.5	766.78	768.97	769.99	769.90	769.54	769.24	768.83	767.95	766.96	765.86
50.0	738.30	740.29	742.01	743.87	745.56	747.37	746.85	745.17	743.28	741.63
52.5	709.69	711.34	712.97	714.53	716.05	717.23	718.56	718.85	719.17	716.73
55.0	681.04	682.44	683.93	685.23	686.39	686.90	687.38	687.17	687.27	687.19
57.5	652.35	653.56	654.96	656.00	656.59	656.49	656.00	655.52	654.75	653.95
60.0	623.61	624.70	625.92	626.64	626.58	625.88	624.70	623.59	622.26	620.70
62.5	587.88	591.78	596.08	597.27	596.52	595.19	593.52	591.72	589.76	587.52
65.0	541.53	545.21	549.03	552.70	555.67	558.11	560.34	559.98	557.42	554.10
67.5	495.05	498.58	501.99	504.98	508.65	510.97	513.22	515.02	516.47	516.91
70.0	448.63	451.96	454.91	458.51	462.03	464.15	466.34	467.62	468.16	467.33
72.5	402.20	404.99	407.88	411.76	415.25	417.59	419.69	420.22	419.76	417.81
75.0	355.66	358.11	360.98	365.19	368.94	371.26	373.08	372.95	371.42	368.42
77.5	222.31	235.76	251.37	270.11	290.27	311.51	326.77	325.58	323.23	319.26
80.0	42.59	54.31	67.75	83.25	100.32	119.04	138.92	159.50	180.54	201.64
82.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.23
85.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
87.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Vert. Angles **Horizontal Angles**

	<u>225.0</u>	<u>227.5</u>	<u>230.0</u>	<u>232.5</u>	<u>235.0</u>	<u>237.5</u>	<u>240.0</u>	<u>242.5</u>	<u>245.0</u>	<u>247.5</u>
0.0	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33
2.5	938.79	938.88	938.97	939.05	939.07	939.15	939.19	939.23	939.26	939.29
5.0	940.29	940.38	940.46	940.55	940.56	940.64	940.68	940.71	940.74	940.77
7.5	941.15	941.17	941.20	941.22	941.21	941.19	941.18	941.16	941.14	941.12
10.0	941.38	941.25	941.14	941.03	940.93	940.82	940.72	940.64	940.57	940.38
12.5	940.82	940.59	940.29	940.01	939.72	939.43	939.15	938.96	938.58	938.30
15.0	939.54	939.12	938.60	938.10	937.51	936.90	936.33	935.77	935.25	934.77
17.5	937.59	936.69	935.80	934.94	934.02	933.09	932.42	931.32	930.50	929.72
20.0	934.67	933.38	932.12	930.86	929.60	928.35	927.11	925.88	924.89	923.61
22.5	926.73	927.40	927.96	926.11	924.44	922.81	921.13	919.50	917.92	916.42
25.0	916.41	916.83	917.40	917.92	918.46	916.22	913.96	911.86	909.64	907.65
27.5	905.68	905.54	905.64	905.80	906.06	906.47	905.60	902.79	900.11	897.42
30.0	893.77	893.38	892.97	892.62	892.46	892.62	892.58	892.65	889.28	885.81
32.5	881.34	880.28	879.40	878.72	877.85	877.38	876.86	876.68	876.86	872.97
35.0	868.04	866.89	865.39	864.02	862.28	860.96	859.97	859.22	858.70	858.52
37.5	854.51	852.17	849.82	847.60	845.50	843.62	841.72	840.26	839.10	838.39
40.0	837.65	836.91	833.82	830.88	827.81	825.02	822.23	819.89	818.13	816.83
42.5	813.80	814.42	815.43	813.17	809.04	805.05	801.67	798.50	795.91	793.83
45.0	789.61	789.59	789.59	789.44	789.28	784.48	780.03	775.94	772.18	769.21
47.5	764.95	763.96	762.76	762.08	761.63	761.67	757.33	752.17	747.50	743.82
50.0	739.63	737.54	735.70	734.11	732.84	731.80	731.31	728.21	728.17	727.40

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CANDELA TABULATION - (Cont.)

52.5	713.90	710.91	707.98	705.88	703.43	701.40	702.91	712.06	710.01	700.36
55.0	687.02	684.21	680.71	677.08	673.63	673.43	677.72	677.31	677.53	671.62
57.5	653.08	652.53	652.01	648.07	644.52	643.68	640.84	638.65	637.31	636.99
60.0	619.08	617.13	615.47	614.13	612.47	607.32	603.02	599.44	596.61	595.02
62.5	584.63	581.36	578.32	575.54	572.23	569.27	565.18	559.96	555.70	552.83
65.0	549.71	545.05	540.95	536.57	532.11	528.15	524.17	520.61	514.46	509.01
67.5	514.55	508.77	503.78	497.82	492.62	487.09	481.25	476.45	472.05	464.82
70.0	465.66	464.52	464.13	459.86	453.44	445.75	437.72	429.71	411.75	405.94
72.5	415.15	412.49	410.52	400.63	400.83	404.38	393.51	370.41	316.99	315.13
75.0	365.36	361.06	351.48	323.36	319.27	326.97	331.89	271.91	212.68	217.99
77.5	314.55	309.81	283.33	239.94	240.16	246.77	242.73	179.05	149.56	143.87
80.0	222.70	243.02	206.83	157.84	161.23	168.33	161.76	129.83	120.81	112.58
82.5	30.18	53.31	58.29	57.84	70.75	84.54	98.64	99.73	88.83	80.28
85.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.68	24.80	31.09
87.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Vert. Angles **Horizontal Angles**

	<u>250.0</u>	<u>252.5</u>	<u>255.0</u>	<u>257.5</u>	<u>260.0</u>	<u>262.5</u>	<u>265.0</u>	<u>267.5</u>	<u>270.0</u>	<u>272.5</u>
0.0	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33
2.5	939.32	939.34	939.36	939.38	939.39	939.40	939.41	939.41	939.41	938.99
5.0	940.79	940.81	940.82	940.83	940.84	940.84	940.84	940.83	940.82	939.99
7.5	941.10	941.04	941.00	940.96	940.92	940.89	940.86	940.84	940.82	939.57
10.0	940.24	940.12	940.01	939.92	939.84	939.77	939.72	939.68	939.66	937.98
12.5	938.05	937.82	937.70	937.37	937.18	937.03	936.92	936.85	936.81	934.70
15.0	934.47	933.84	933.42	933.06	932.76	932.52	932.34	932.23	932.18	929.66
17.5	929.00	928.35	927.78	927.46	926.77	926.38	926.09	925.90	925.81	922.86
20.0	922.60	921.79	920.80	920.05	919.43	918.92	918.54	918.28	918.15	914.74
22.5	915.33	913.67	912.46	911.41	910.49	909.72	909.14	908.75	908.54	904.68
25.0	905.67	903.87	902.69	900.76	899.48	898.43	897.60	897.01	896.67	892.38
27.5	894.81	892.45	890.35	888.50	887.17	885.45	884.33	883.54	883.08	878.33
30.0	882.73	879.62	876.95	874.54	872.45	870.71	869.35	868.36	867.77	862.58
32.5	869.04	865.39	862.05	859.09	856.58	854.52	852.93	851.82	851.17	845.46
35.0	853.84	849.57	845.61	842.56	839.16	836.74	834.89	833.62	832.91	826.75
37.5	837.26	832.16	827.70	823.40	819.88	816.98	814.71	813.14	812.28	805.61
40.0	816.09	813.34	807.87	803.05	798.84	795.40	792.82	791.09	790.20	782.91
42.5	792.24	791.31	786.32	780.78	775.99	772.65	769.19	767.28	766.36	758.43
45.0	766.88	765.32	763.94	756.62	751.18	746.79	743.55	741.45	740.50	731.93
47.5	742.72	740.48	736.85	731.25	725.83	723.00	721.92	722.34	723.78	712.02
50.0	720.18	713.42	707.98	703.29	698.52	695.16	693.47	693.49	695.27	682.45
52.5	691.26	683.03	676.34	670.52	665.23	661.18	658.93	658.61	660.31	646.76
55.0	660.70	651.05	642.84	636.21	630.58	625.45	622.45	621.70	623.24	609.01
57.5	629.52	618.25	608.43	600.33	594.32	588.34	584.44	583.01	584.35	569.46
60.0	594.60	584.36	572.64	562.73	555.05	548.48	543.35	541.30	542.41	526.72
62.5	549.93	548.98	534.93	523.06	513.58	506.25	501.02	495.85	496.24	479.84
65.0	504.14	500.89	497.34	481.00	468.66	459.53	450.85	446.05	445.89	415.43
67.5	457.15	450.67	442.59	434.60	408.27	381.66	347.56	316.22	301.90	271.23
70.0	408.43	371.35	344.27	307.58	248.62	218.94	200.50	189.38	185.64	179.40
72.5	300.28	235.67	210.47	184.54	174.59	167.96	164.57	158.96	156.76	150.43
75.0	189.40	164.23	158.75	151.91	147.39	141.30	136.23	130.91	127.70	121.31
77.5	140.69	135.27	131.24	127.86	121.37	115.35	108.19	100.66	93.19	75.52
80.0	107.00	109.97	105.67	92.34	86.30	65.99	36.20	24.05	14.37	13.76
82.5	59.05	64.48	65.48	24.17	24.32	12.56	11.76	11.55	10.84	10.35
85.0	13.03	19.26	20.30	9.97	8.32	7.46	6.51	7.02	8.74	8.08
87.5	0.00	0.00	0.00	2.22	5.29	5.86	5.28	4.63	4.93	4.21

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CANDELA TABULATION - (Cont.)

90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.85	0.00
Vert. Angles	Horizontal Angles									
	<u>275.0</u>	<u>277.5</u>	<u>280.0</u>	<u>282.5</u>	<u>285.0</u>	<u>287.5</u>	<u>290.0</u>	<u>292.5</u>	<u>295.0</u>	<u>297.5</u>
0.0	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33
2.5	938.57	938.15	937.73	937.31	936.89	936.46	936.05	935.63	935.22	934.81
5.0	939.16	938.32	937.49	936.66	935.84	935.02	934.20	933.40	932.61	931.83
7.5	938.32	937.08	935.85	934.64	933.44	932.26	931.11	929.94	928.81	927.70
10.0	936.32	934.68	933.06	931.48	929.92	928.40	926.92	925.47	924.11	922.66
12.5	932.64	930.62	928.65	926.73	924.96	923.03	921.24	919.51	917.84	916.33
15.0	927.21	924.84	922.54	920.32	918.18	916.14	914.34	912.25	910.38	908.60
17.5	920.01	917.29	914.67	912.39	909.78	907.47	905.29	903.26	901.34	899.53
20.0	911.46	908.32	905.34	902.51	899.85	897.48	895.03	892.88	891.11	889.04
22.5	901.02	897.58	894.35	891.33	888.49	885.86	883.75	881.21	879.18	877.32
25.0	888.35	884.59	881.11	877.91	875.47	872.34	869.94	867.83	865.86	864.24
27.5	873.94	869.90	866.49	862.78	859.67	856.90	854.89	852.55	850.81	849.28
30.0	857.81	853.46	849.54	846.08	843.02	840.28	838.10	835.99	834.40	832.98
32.5	840.25	835.54	831.36	827.70	824.59	821.97	819.78	818.10	817.15	812.01
35.0	821.17	816.19	811.83	808.50	804.89	802.24	800.12	798.61	793.67	789.25
37.5	799.69	794.53	790.12	786.48	783.79	781.27	779.50	774.63	769.59	765.22
40.0	776.49	770.95	766.31	762.57	759.72	757.75	753.92	748.81	744.28	740.24
42.5	751.53	746.22	740.88	737.06	734.24	731.53	725.74	720.91	716.91	713.53
45.0	724.54	718.35	713.35	709.61	707.97	701.69	696.17	691.68	688.20	685.47
47.5	701.32	692.22	685.18	681.06	676.52	669.84	664.59	660.90	658.05	656.12
50.0	671.40	662.12	654.58	648.75	641.84	635.75	631.64	628.35	625.91	625.24
52.5	635.26	625.79	618.42	612.08	605.11	599.24	595.34	592.92	591.84	586.61
55.0	597.15	587.68	580.54	572.94	565.98	561.15	558.07	556.58	551.00	540.71
57.5	557.33	547.83	540.57	531.74	525.49	521.55	519.52	514.59	503.77	494.18
60.0	514.36	505.36	496.97	488.60	483.08	480.06	476.25	465.05	455.34	447.15
62.5	469.18	458.95	447.89	442.03	438.02	436.55	407.78	407.22	405.30	398.88
65.0	399.87	400.39	358.14	352.18	384.60	357.66	318.51	304.73	333.96	349.05
67.5	247.11	248.81	244.53	220.53	225.64	255.99	238.47	202.91	212.25	265.75
70.0	175.67	169.87	166.77	161.14	154.88	158.17	158.24	140.57	140.41	167.41
72.5	147.44	140.60	136.79	130.71	125.29	120.49	108.96	105.60	106.80	106.55
75.0	115.99	110.65	98.52	97.92	96.09	84.54	68.68	56.75	78.32	73.72
77.5	60.44	58.23	50.61	29.06	57.55	46.76	30.83	14.18	35.17	51.73
80.0	13.48	12.37	12.59	11.76	15.93	12.25	10.26	10.31	13.71	30.39
82.5	9.86	9.67	9.29	9.00	8.52	8.12	7.86	7.73	7.72	9.70
85.0	7.53	6.56	6.49	6.27	6.07	5.86	5.03	3.52	2.18	0.98
87.5	3.51	3.44	2.95	1.19	0.00	0.00	0.00	0.00	0.00	0.00
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Vert. Angles	Horizontal Angles									
	<u>300.0</u>	<u>302.5</u>	<u>305.0</u>	<u>307.5</u>	<u>310.0</u>	<u>312.5</u>	<u>315.0</u>	<u>317.5</u>	<u>320.0</u>	<u>322.5</u>
0.0	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33
2.5	934.40	934.01	933.58	933.22	932.81	932.41	932.01	931.63	931.25	930.88
5.0	931.06	930.31	929.54	928.85	928.12	927.41	926.72	926.05	925.41	924.77
7.5	926.62	925.57	924.56	923.57	922.57	921.93	920.69	919.80	918.91	918.03
10.0	921.41	919.92	918.62	917.36	916.13	914.94	913.81	912.72	911.69	910.75
12.5	914.68	913.16	911.72	910.33	908.97	907.69	906.41	905.15	903.97	902.76
15.0	906.92	905.25	903.67	902.17	900.73	899.40	898.06	896.89	895.59	894.50
17.5	898.07	896.19	894.63	893.13	891.68	890.30	888.92	887.65	886.50	885.36
20.0	887.29	885.68	884.22	882.87	881.60	880.35	879.16	878.06	874.39	871.05
22.5	875.56	874.03	872.70	871.46	870.41	866.66	862.86	859.24	855.65	852.25

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CANDELA TABULATION - (Cont.)

25.0	862.55	861.18	860.04	855.53	851.17	847.14	843.23	839.57	836.13	832.82
27.5	848.02	844.54	839.62	834.96	830.64	826.65	822.97	819.23	815.86	812.64
30.0	827.75	822.70	817.76	813.26	809.06	805.11	801.47	798.08	794.85	791.86
32.5	807.37	801.77	795.94	790.67	786.50	782.75	779.28	776.12	773.22	770.75
35.0	785.33	781.88	778.79	771.90	763.90	759.87	756.41	753.50	750.80	748.46
37.5	761.53	758.45	755.74	753.65	750.08	740.76	733.40	730.37	726.31	720.32
40.0	736.85	733.97	731.69	729.93	728.45	727.20	714.54	700.33	693.75	688.19
42.5	710.86	708.54	706.84	705.54	701.76	693.52	685.78	673.66	662.03	655.45
45.0	683.43	681.89	680.88	672.61	664.01	656.11	648.89	642.06	631.83	622.63
47.5	654.90	652.08	642.25	633.53	626.09	618.04	611.18	604.93	599.04	590.55
50.0	620.61	610.45	601.32	593.17	586.05	579.33	572.94	567.21	561.88	556.68
52.5	576.80	567.53	559.01	551.68	545.27	539.74	534.30	528.94	524.27	514.71
55.0	531.54	523.46	515.92	509.05	503.45	498.99	493.47	482.67	472.57	463.39
57.5	485.85	478.55	472.08	466.14	459.81	449.40	439.69	429.87	420.12	411.67
60.0	439.76	433.32	427.78	415.42	405.34	395.08	385.70	376.60	367.43	359.32
62.5	393.33	379.85	358.40	348.48	349.76	340.89	331.91	323.19	314.57	306.61
65.0	329.70	307.55	285.58	270.09	282.36	287.09	278.22	269.88	261.58	253.83
67.5	257.28	235.62	213.72	193.91	200.60	229.99	224.62	218.03	211.67	206.00
70.0	183.48	164.73	142.66	121.65	118.61	164.38	177.04	170.90	164.55	158.61
72.5	111.83	95.48	87.48	84.71	84.18	108.66	129.82	124.19	117.68	111.44
75.0	70.71	67.43	63.89	60.58	57.88	65.24	83.68	78.31	71.08	64.48
77.5	48.41	44.79	40.95	37.05	33.35	31.85	36.93	32.09	24.71	17.79
80.0	26.87	22.75	18.43	14.03	9.61	7.05	6.24	5.45	4.76	4.26
82.5	6.65	5.34	4.20	3.22	2.35	1.56	0.85	0.20	0.00	0.00
85.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
87.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**Vert.
Angles**

Horizontal Angles

	<u>325.0</u>	<u>327.5</u>	<u>330.0</u>	<u>332.5</u>	<u>335.0</u>	<u>337.5</u>	<u>340.0</u>	<u>342.5</u>	<u>345.0</u>	<u>347.5</u>
0.0	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33	936.33
2.5	930.52	930.18	929.84	929.52	929.14	928.91	928.62	928.34	928.08	927.83
5.0	924.17	923.56	922.99	922.43	921.91	921.37	920.82	920.29	919.79	919.22
7.5	917.20	916.40	915.61	914.85	914.13	913.43	912.73	912.08	911.45	910.75
10.0	909.74	908.78	907.88	906.95	906.07	905.23	904.41	903.65	902.85	902.10
12.5	901.62	900.59	899.67	898.72	897.76	896.82	895.89	895.00	894.16	893.29
15.0	893.27	892.17	891.00	889.94	889.08	888.17	887.22	886.24	885.31	884.41
17.5	884.29	883.21	880.99	878.44	875.87	873.62	871.63	869.57	867.61	865.79
20.0	867.92	864.95	862.12	859.50	856.81	854.26	851.90	849.83	847.70	845.67
22.5	849.00	845.89	843.00	840.14	837.47	834.87	832.32	829.94	827.76	825.58
25.0	829.64	826.50	823.52	820.65	817.89	815.27	812.71	810.14	807.77	805.48
27.5	809.55	806.56	803.68	800.93	798.17	795.49	792.99	790.38	787.79	785.34
30.0	789.02	786.17	783.45	780.80	778.29	775.63	772.99	770.46	767.83	765.21
32.5	767.86	765.43	762.83	760.37	757.97	753.57	749.03	744.91	740.94	737.02
35.0	746.19	741.58	736.61	731.66	727.10	722.64	718.35	714.17	710.22	706.27
37.5	715.01	710.11	704.95	700.34	695.83	691.53	687.49	683.29	679.46	675.43
40.0	682.75	677.87	673.02	668.60	664.36	660.23	656.25	652.31	648.44	644.59
42.5	650.31	645.56	641.02	636.55	632.59	628.71	624.91	621.13	617.41	613.62
45.0	617.64	613.05	608.77	604.58	600.53	597.01	593.45	589.81	586.22	582.63
47.5	584.84	580.39	576.34	572.40	568.37	563.41	556.62	550.15	543.98	538.09
50.0	551.56	546.61	537.57	529.14	521.11	513.93	507.07	500.55	494.34	488.38
52.5	505.56	496.41	487.51	479.21	471.60	464.33	457.55	450.87	444.71	438.70
55.0	454.59	445.94	437.41	429.11	421.80	414.77	407.99	401.18	395.03	388.99
57.5	403.34	395.22	387.17	378.92	371.61	365.09	358.41	351.53	345.30	339.25
60.0	351.96	344.30	336.79	328.74	321.35	315.26	308.85	301.90	295.53	289.51

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CANDELA TABULATION - (Cont.)

62.5	300.20	293.16	286.23	278.53	271.28	266.64	261.60	255.79	250.32	245.29
65.0	248.72	243.84	238.47	232.35	225.96	222.10	217.92	212.58	207.42	202.75
67.5	202.11	197.76	192.49	186.89	180.60	176.84	174.00	169.18	164.44	160.10
70.0	155.71	151.81	146.58	141.41	135.22	131.31	130.10	125.61	121.38	117.37
72.5	109.30	106.15	100.45	95.79	89.77	85.61	86.16	81.94	78.21	74.58
75.0	62.28	60.28	54.35	49.94	44.25	39.87	41.92	38.17	34.93	31.68
77.5	15.21	17.46	16.41	16.12	14.78	13.62	17.35	16.36	15.47	14.48
80.0	4.98	6.50	5.70	4.95	4.00	3.12	3.31	2.52	1.83	1.23
82.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
85.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
87.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Vert. Horizontal Angles
Angles

	<u>350.0</u>	<u>352.5</u>	<u>355.0</u>	<u>357.5</u>	<u>360.0</u>
0.0	936.33	936.33	936.33	936.33	936.33
2.5	927.60	927.38	927.18	927.00	926.84
5.0	918.87	918.44	918.04	917.68	917.35
7.5	910.09	909.49	908.89	908.35	907.86
10.0	901.30	900.50	899.74	899.02	898.37
12.5	892.44	891.50	890.48	889.69	888.88
15.0	883.46	882.50	881.41	880.37	879.39
17.5	864.14	862.50	860.95	859.54	858.31
20.0	843.76	841.95	840.24	838.66	837.23
22.5	823.45	821.44	819.52	817.79	816.15
25.0	803.17	800.92	798.79	796.83	795.06
27.5	782.92	780.44	778.06	775.99	773.98
30.0	762.71	760.01	757.36	755.09	752.89
32.5	733.40	729.95	726.67	723.89	721.44
35.0	702.45	698.94	695.58	692.60	690.00
37.5	671.42	667.89	664.40	661.31	658.55
40.0	640.50	636.80	633.29	630.01	627.11
42.5	609.54	605.63	602.10	598.71	595.67
45.0	578.52	574.50	570.89	567.41	564.23
47.5	532.15	526.45	521.53	517.21	513.78
50.0	482.47	476.59	471.35	466.80	463.33
52.5	432.74	426.78	421.19	416.37	412.88
55.0	382.95	376.96	370.87	365.87	362.43
57.5	333.13	327.11	320.87	315.54	311.98
60.0	283.29	277.24	270.72	265.12	261.53
62.5	240.11	234.96	229.35	224.31	221.09
65.0	197.99	193.29	188.24	183.58	180.66
67.5	155.84	151.52	147.07	142.82	140.22
70.0	113.54	109.62	105.84	102.04	99.79
72.5	71.16	67.71	64.56	61.25	59.36
75.0	28.70	25.73	23.23	20.44	18.92
77.5	13.44	12.35	11.38	10.17	9.46
80.0	0.76	0.40	0.17	0.04	0.00
82.5	0.00	0.00	0.00	0.00	0.00
85.0	0.00	0.00	0.00	0.00	0.00
87.5	0.00	0.00	0.00	0.00	0.00
90.0	0.00	0.00	0.00	0.00	0.00

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	343.66	13.20	13.20
0-30	736.00	28.20	28.20
0-40	1218.22	46.70	46.70
0-60	2173.45	83.30	83.30
0-80	2602.12	99.70	99.70
0-90	2609.24	100.00	100.00
10-90	2520.89	96.60	96.60
20-40	874.56	33.50	33.50
20-50	1381.82	53.00	53.00
40-70	1256.32	48.20	48.10
60-80	428.66	16.40	16.40
70-80	127.58	4.90	4.90
80-90	7.12	0.30	0.30
90-110	0.00	0.00	0.00
90-120	0.00	0.00	0.00
90-130	0.00	0.00	0.00
90-150	0.00	0.00	0.00
90-180	0.00	0.00	0.00
110-180	0.00	0.00	0.00
0-180	2609.24	100.00	100.00

Total Luminaire Efficiency = 100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	88.34
10-20	255.31
20-30	392.34
30-40	482.22
40-50	507.25
50-60	447.98
60-70	301.09
70-80	127.58
80-90	7.12
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

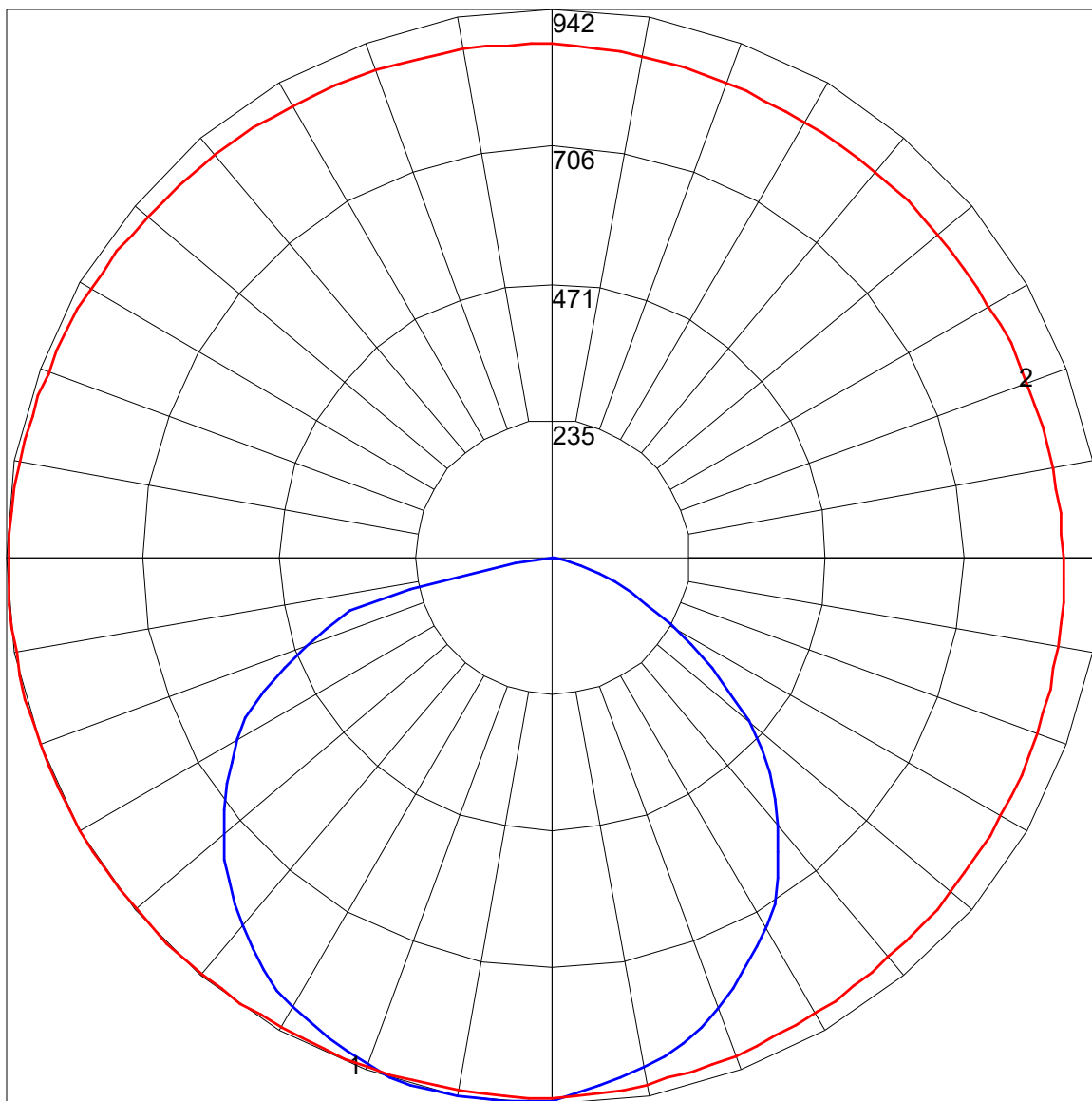
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	102	102	102	100
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	100	92	86	80	98	90	85	79	87	82	78	84	80	76	81	77	74	72
3	91	81	73	67	89	80	72	67	77	71	65	74	69	64	71	67	63	61
4	84	72	64	57	81	71	63	57	68	61	56	66	60	55	64	59	54	52
5	77	64	56	49	75	63	55	49	61	54	48	59	53	48	57	52	47	45
6	71	58	49	43	69	57	49	43	55	48	42	53	47	42	52	46	41	39
7	66	52	44	38	64	52	43	38	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	34	46	39	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25

POLAR GRAPH



Maximum Candela = 941.77 Located At Horizontal Angle = 205, Vertical Angle = 15
1 - Vertical Plane Through Horizontal Angles (205 - 25) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (15) (Through Max. Cd.)