



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : HZCAS310HTVHOWT50120-277V.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] 1

[TESTLAB]

[TESTDATE] 25 October 2022

[ISSUEDATE] 2022-10-25 15:24:02

[NEARFIELD]

[LAMPPOSITION] 0,0

[OTHER]

[MANUFAC] BEGHELLI

[LUMCAT]

[LUMINAIRE] HZCAS310HTVHOWT50120-277V

[LAMP] LED

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

### CHARACTERISTICS

Lumens Per Lamp	32334 (1 lamp)
Total Lamp Lumens	32334
Luminaire Lumens	32247
Total Luminaire Efficiency	100 %
Luminaire Efficacy Rating (LER)	125
Total Luminaire Watts	258.015
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	1.34
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.60 m
Luminous Width (90-270)	0.45 m
Luminous Height	0.00 m

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	40737	40150	41385
55	36145	36685	37153
65	29514	29051	30158
75	15565	17910	16669
85	0	0	3154

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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>
<b>0.0</b>	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62
<b>2.5</b>	12535.83	12535.56	12535.45	12535.50	12535.72	12536.09	12536.62	12537.31	12538.16	12539.03
<b>5.0</b>	12452.04	12451.44	12451.17	12451.21	12451.57	12451.91	12452.00	12452.43	12453.20	12453.63
<b>7.5</b>	12368.25	12367.27	12366.76	12366.64	12365.67	12365.00	12364.28	12364.27	12364.00	12364.29
<b>10.0</b>	12284.46	12283.03	12282.23	12280.34	12278.34	12276.41	12274.11	12272.45	12269.48	12267.21
<b>12.5</b>	12200.68	12198.74	12197.05	12193.19	12189.51	12185.08	12180.25	12174.46	12168.34	12161.87
<b>15.0</b>	12116.89	12114.39	12110.69	12104.67	12098.55	12090.99	12081.69	12070.74	12059.32	12043.43
<b>17.5</b>	11780.26	11779.14	11778.70	11779.65	11782.55	11785.16	11788.83	11792.99	11791.79	11797.17
<b>20.0</b>	11443.63	11442.57	11441.38	11441.67	11443.18	11445.30	11447.69	11444.52	11447.26	11445.99
<b>22.5</b>	11107.01	11105.88	11103.32	11104.08	11104.66	11105.06	11104.47	11102.66	11099.75	11095.58
<b>25.0</b>	10770.38	10769.21	10766.86	10766.13	10765.87	10764.75	10762.83	10759.39	10754.75	10748.42
<b>27.5</b>	10433.76	10432.17	10429.42	10428.28	10426.99	10425.52	10422.95	10418.51	10414.24	10406.73
<b>30.0</b>	10097.13	10095.23	10092.24	10091.16	10088.72	10087.90	10085.16	10082.58	10078.58	10073.34
<b>32.5</b>	9711.08	9709.25	9707.49	9708.36	9708.53	9710.98	9713.87	9719.01	9725.24	9735.75
<b>35.0</b>	9325.03	9322.87	9321.01	9320.34	9320.85	9321.93	9323.67	9325.03	9332.32	9342.22
<b>37.5</b>	8938.98	8936.57	8934.55	8932.90	8933.50	8932.71	8934.38	8935.93	8939.63	8945.81
<b>40.0</b>	8552.93	8550.33	8547.81	8545.99	8545.62	8544.38	8544.89	8545.25	8546.51	8547.25
<b>42.5</b>	8166.88	8164.16	8161.19	8159.47	8158.49	8156.57	8156.74	8154.22	8151.57	8147.25
<b>45.0</b>	7780.82	7778.06	7774.68	7773.05	7771.91	7769.76	7768.32	7763.17	7755.33	7747.56
<b>47.5</b>	7235.63	7233.56	7234.83	7241.77	7251.54	7264.49	7280.77	7295.17	7310.96	7332.15
<b>50.0</b>	6690.44	6686.78	6688.07	6694.79	6703.01	6713.36	6725.07	6734.89	6747.74	6766.09
<b>52.5</b>	6145.25	6140.91	6141.06	6147.27	6153.12	6161.79	6169.02	6174.29	6184.67	6199.29
<b>55.0</b>	5600.05	5594.66	5594.73	5600.73	5605.83	5609.55	5611.87	5613.57	5621.58	5632.70
<b>57.5</b>	5054.86	5048.29	5048.11	5053.48	5056.59	5057.26	5054.03	5052.81	5058.31	5066.56
<b>60.0</b>	4509.67	4501.94	4501.59	4506.37	4507.21	4505.12	4494.40	4492.54	4495.15	4498.85
<b>62.5</b>	3939.42	3932.94	3933.28	3937.91	3939.84	3938.97	3930.78	3929.83	3931.19	3931.11
<b>65.0</b>	3369.16	3363.73	3364.18	3367.47	3369.77	3368.41	3363.17	3365.54	3367.67	3366.99
<b>67.5</b>	2798.90	2794.53	2795.14	2796.25	2799.79	2799.17	2797.06	2802.27	2805.92	2806.02
<b>70.0</b>	2228.64	2225.34	2226.15	2226.67	2230.29	2231.08	2232.28	2239.76	2245.78	2248.16
<b>72.5</b>	1658.39	1656.16	1657.20	1656.58	1661.21	1662.89	1668.84	1678.57	1686.90	1694.35
<b>75.0</b>	1088.13	1086.99	1088.29	1086.67	1092.49	1097.54	1106.60	1118.49	1128.64	1143.57
<b>77.5</b>	544.07	544.37	547.81	551.28	559.86	569.46	582.77	597.48	610.97	629.92
<b>80.0</b>	0.00	2.02	8.05	17.89	31.46	48.40	68.69	91.75	116.70	145.02
<b>82.5</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>85.0</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>87.5</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>90.0</b>	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>
<b>0.0</b>	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62
<b>2.5</b>	12540.12	12541.09	12542.21	12543.50	12544.94	12546.54	12548.28	12550.18	12552.22	12554.40
<b>5.0</b>	12455.38	12456.50	12457.97	12459.79	12461.98	12464.34	12466.52	12469.09	12472.03	12475.35
<b>7.5</b>	12364.34	12364.33	12364.95	12366.09	12366.80	12368.19	12370.28	12372.52	12373.87	12379.07
<b>10.0</b>	12264.75	12262.29	12260.34	12256.78	12253.74	12251.50	12249.11	12248.06	12247.96	12247.34
<b>12.5</b>	12153.99	12144.87	12135.83	12126.76	12118.38	12109.31	12102.13	12094.01	12088.08	12083.17
<b>15.0</b>	12027.08	12010.27	11991.82	11974.27	11954.91	11937.55	11919.57	11904.40	11889.54	11878.51
<b>17.5</b>	11799.20	11800.56	11801.11	11792.49	11756.43	11729.87	11701.50	11676.24	11654.41	11636.29
<b>20.0</b>	11443.96	11440.99	11436.14	11429.77	11424.29	11420.43	11415.67	11416.05	11385.89	11367.56
<b>22.5</b>	11089.79	11082.35	11073.43	11065.18	11056.80	11049.72	11046.12	11046.66	11054.88	11066.40
<b>25.0</b>	10739.90	10730.25	10721.21	10712.05	10703.22	10692.23	10699.04	10702.90	10709.84	10719.35
<b>27.5</b>	10398.22	10390.38	10382.01	10373.50	10367.63	10363.95	10363.03	10363.37	10365.55	10361.53
<b>30.0</b>	10068.64	10063.58	10056.00	10048.34	10041.25	10034.70	10028.15	10022.57	10020.55	10021.90

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**CANDELA TABULATION - (Cont.)**

32.5	9752.64	9747.75	9739.92	9730.01	9715.34	9705.91	9692.99	9683.95	9677.26	9674.49
35.0	9353.38	9364.69	9376.64	9386.97	9396.33	9377.30	9361.26	9346.62	9329.90	9327.19
37.5	8947.54	8957.87	8965.15	8972.64	8980.29	8993.68	9010.93	9012.65	8994.05	8975.26
40.0	8548.40	8550.10	8552.20	8553.16	8558.05	8566.53	8579.82	8595.78	8613.31	8615.64
42.5	8144.33	8141.99	8138.06	8135.11	8135.18	8138.12	8149.35	8140.36	8146.42	8163.40
45.0	7740.58	7734.41	7724.64	7717.32	7706.50	7701.47	7685.95	7672.16	7668.62	7680.80
47.5	7337.87	7320.56	7312.20	7299.74	7282.67	7252.51	7219.69	7194.37	7183.77	7180.00
50.0	6789.32	6812.11	6840.11	6869.64	6843.36	6792.49	6745.33	6710.01	6692.79	6686.78
52.5	6217.26	6234.97	6257.26	6275.76	6278.66	6272.42	6264.37	6223.15	6194.74	6180.07
55.0	5644.50	5657.36	5673.17	5680.69	5675.93	5659.10	5665.20	5671.27	5683.60	5667.59
57.5	5071.75	5074.21	5084.34	5084.27	5075.06	5074.59	5075.29	5077.82	5083.30	5094.46
60.0	4498.80	4500.96	4503.83	4502.10	4496.32	4493.25	4491.54	4488.72	4487.32	4495.01
62.5	3926.82	3924.18	3924.02	3923.13	3921.74	3920.53	3915.78	3903.64	3897.63	3902.02
65.0	3366.31	3364.63	3360.07	3358.98	3357.97	3353.80	3342.35	3325.31	3316.37	3307.84
67.5	2811.04	2812.33	2813.59	2813.62	2814.93	2809.39	2788.81	2762.45	2742.09	2729.89
70.0	2260.50	2264.23	2269.43	2274.41	2278.52	2277.45	2261.62	2243.84	2225.19	2203.68
72.5	1712.38	1720.10	1729.43	1741.03	1748.71	1752.82	1748.65	1739.48	1731.18	1722.65
75.0	1166.73	1179.42	1193.92	1211.57	1225.14	1237.85	1245.34	1252.14	1252.11	1256.50
77.5	652.15	666.66	680.38	694.06	707.48	731.45	750.74	767.80	785.98	803.63
80.0	174.97	204.37	233.81	262.69	290.51	316.41	336.76	353.93	367.80	378.10
82.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.57	49.45	82.09
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>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	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62
2.5	12556.17	12559.07	12561.60	12564.12	12566.76	12569.53	12572.42	12575.42	12578.53	12581.74
5.0	12479.02	12482.56	12487.12	12491.43	12496.11	12501.14	12506.52	12512.22	12518.24	12524.55
7.5	12378.96	12381.12	12386.76	12391.48	12397.04	12403.42	12410.59	12416.43	12426.90	12435.56
10.0	12248.21	12247.18	12253.27	12257.06	12264.11	12269.44	12277.62	12286.56	12297.06	12309.07
12.5	12079.40	12078.22	12078.32	12080.52	12085.48	12092.94	12102.51	12114.72	12129.45	12141.70
15.0	11869.81	11865.12	11863.15	11864.53	11866.52	11878.87	11891.51	11907.90	11927.73	11950.52
17.5	11623.20	11615.27	11613.26	11616.58	11624.33	11635.35	11650.59	11668.05	11686.65	11708.87
20.0	11354.90	11347.94	11345.02	11345.17	11346.29	11347.74	11351.77	11355.83	11363.17	11373.77
22.5	11078.95	11066.54	11055.20	11044.26	11033.75	11024.37	11016.90	11012.06	11010.55	11013.50
25.0	10731.63	10747.57	10766.78	10747.27	10728.53	10711.89	10698.80	10687.23	10683.68	10682.78
27.5	10379.38	10392.47	10410.38	10425.50	10439.90	10416.12	10395.52	10380.04	10373.68	10365.38
30.0	10027.29	10037.36	10051.81	10064.21	10095.76	10123.05	10089.38	10073.72	10058.27	10049.45
32.5	9675.55	9679.95	9696.42	9697.49	9724.11	9754.03	9798.73	9767.06	9744.63	9729.39
35.0	9321.80	9317.49	9319.59	9323.03	9347.63	9374.20	9407.33	9446.23	9412.87	9388.91
37.5	8958.43	8951.90	8934.51	8950.73	8959.90	8976.72	9002.91	9038.66	9068.38	9037.01
40.0	8590.88	8574.76	8563.88	8558.32	8560.88	8571.26	8591.29	8621.42	8662.89	8674.88
42.5	8196.88	8196.12	8175.58	8161.98	8156.21	8158.31	8171.51	8192.63	8223.39	8266.93
45.0	7705.54	7742.75	7784.63	7760.38	7744.86	7735.71	7733.35	7743.04	7765.78	7802.75
47.5	7210.73	7233.97	7275.75	7331.80	7321.33	7296.44	7272.55	7264.66	7280.20	7314.90
50.0	6686.58	6713.79	6745.96	6788.93	6844.03	6838.52	6777.16	6755.29	6759.12	6784.36
52.5	6176.23	6184.37	6204.65	6236.81	6255.92	6264.48	6234.44	6218.16	6223.59	6247.93
55.0	5650.97	5649.78	5657.41	5655.34	5648.57	5650.51	5661.89	5679.20	5662.40	5656.11
57.5	5118.51	5112.47	5097.63	5081.42	5054.29	5066.36	5081.35	5117.61	5113.50	5093.27
60.0	4511.43	4531.23	4555.26	4515.32	4504.74	4494.19	4502.65	4522.95	4561.35	4540.63
62.5	3909.77	3926.14	3943.10	3961.59	3953.74	3938.02	3932.60	3938.51	3949.61	3984.42
65.0	3315.29	3327.42	3331.45	3349.82	3372.16	3394.44	3368.52	3340.37	3334.31	3362.71
67.5	2740.71	2742.66	2749.46	2761.92	2776.11	2793.30	2784.60	2753.95	2748.23	2762.29

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**CANDELA TABULATION - (Cont.)**

<b>70.0</b>	2182.08	2172.98	2180.41	2190.73	2198.48	2199.93	2195.32	2193.06	2189.92	2185.16
<b>72.5</b>	1702.24	1687.42	1663.39	1631.53	1642.86	1653.71	1659.24	1661.64	1669.46	1657.28
<b>75.0</b>	1253.54	1247.70	1235.60	1205.83	1178.60	1146.29	1168.87	1175.23	1180.90	1173.17
<b>77.5</b>	817.43	828.05	829.69	824.66	818.31	803.43	770.91	728.58	749.76	761.22
<b>80.0</b>	395.38	425.73	448.59	469.18	485.09	491.34	481.12	463.71	435.07	413.22
<b>82.5</b>	110.36	134.00	151.71	168.16	179.76	203.49	225.27	236.52	238.33	231.20
<b>85.0</b>	0.00	0.00	0.00	0.00	0.00	21.73	42.13	58.12	73.21	91.78
<b>87.5</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>90.0</b>	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><b>75.0</b></u>	<u><b>77.5</b></u>	<u><b>80.0</b></u>	<u><b>82.5</b></u>	<u><b>85.0</b></u>	<u><b>87.5</b></u>	<u><b>90.0</b></u>	<u><b>92.5</b></u>	<u><b>95.0</b></u>	<u><b>97.5</b></u>
<b>0.0</b>	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62
<b>2.5</b>	12585.04	12588.44	12591.91	12595.46	12599.07	12602.74	12606.46	12604.20	12601.98	12599.82
<b>5.0</b>	12531.14	12537.99	12543.91	12551.75	12559.64	12567.56	12575.50	12570.81	12566.13	12561.46
<b>7.5</b>	12444.98	12455.13	12465.96	12477.41	12489.45	12502.02	12515.07	12508.13	12501.63	12495.58
<b>10.0</b>	12322.50	12337.27	12353.30	12366.84	12387.15	12407.55	12427.98	12418.07	12408.19	12398.34
<b>12.5</b>	12165.72	12186.71	12209.80	12234.80	12261.53	12289.80	12319.42	12304.23	12290.36	12277.98
<b>15.0</b>	11976.42	12005.26	12036.85	12071.01	12103.96	12145.32	12186.77	12160.65	12134.58	12117.41
<b>17.5</b>	11734.70	11762.28	11791.01	11823.84	11860.88	11902.29	11948.19	11916.32	11889.03	11866.29
<b>20.0</b>	11386.41	11403.26	11424.70	11451.12	11470.51	11517.27	11564.15	11531.36	11498.65	11493.54
<b>22.5</b>	11020.69	11024.16	11050.27	11073.77	11102.89	11137.93	11179.14	11152.55	11132.21	11117.93
<b>25.0</b>	10686.88	10696.45	10711.81	10733.19	10760.83	10791.55	10835.69	10806.58	10790.92	10778.38
<b>27.5</b>	10365.65	10372.24	10385.53	10406.16	10433.77	10468.46	10510.31	10483.85	10464.62	10452.62
<b>30.0</b>	10047.16	10050.89	10061.71	10080.29	10106.81	10137.30	10184.25	10152.57	10137.43	10126.36
<b>32.5</b>	9719.53	9717.03	9716.53	9739.94	9765.80	9801.12	9845.86	9817.31	9798.23	9788.72
<b>35.0</b>	9373.85	9368.43	9372.23	9386.72	9412.02	9442.79	9495.33	9459.39	9445.24	9436.55
<b>37.5</b>	9016.43	9005.46	9006.14	9018.46	9042.66	9079.26	9128.41	9095.97	9076.20	9069.06
<b>40.0</b>	8644.66	8626.80	8621.41	8629.82	8652.92	8683.49	8743.23	8701.41	8688.53	8682.76
<b>42.5</b>	8247.60	8222.27	8211.42	8216.88	8239.33	8278.42	8334.00	8298.96	8280.25	8277.86
<b>45.0</b>	7835.99	7804.35	7789.42	7791.15	7810.45	7838.51	7904.45	7860.69	7854.56	7857.89
<b>47.5</b>	7378.07	7376.20	7347.45	7333.08	7351.68	7386.06	7442.48	7409.05	7397.68	7402.09
<b>50.0</b>	6859.77	6915.12	6866.89	6846.00	6852.11	6875.89	6954.91	6904.21	6907.47	6926.55
<b>52.5</b>	6277.23	6318.53	6291.40	6261.43	6261.89	6292.84	6356.76	6319.31	6315.61	6343.92
<b>55.0</b>	5669.13	5708.82	5727.45	5684.36	5673.87	5679.53	5756.20	5705.42	5725.94	5762.85
<b>57.5</b>	5092.84	5114.45	5164.46	5121.13	5103.44	5123.11	5180.87	5149.16	5156.59	5201.93
<b>60.0</b>	4519.99	4525.55	4568.27	4567.92	4540.57	4531.28	4605.99	4553.66	4586.45	4638.59
<b>62.5</b>	3936.88	3946.43	3975.26	4010.10	3969.40	3972.03	4022.88	3995.08	4015.45	4080.10
<b>65.0</b>	3390.67	3361.50	3366.37	3423.65	3397.61	3393.85	3442.65	3415.16	3440.87	3490.32
<b>67.5</b>	2769.72	2764.02	2760.47	2784.18	2768.26	2757.25	2800.17	2779.28	2813.58	2852.55
<b>70.0</b>	2178.56	2193.15	2182.57	2191.71	2212.97	2186.26	2222.28	2204.89	2250.29	2248.48
<b>72.5</b>	1641.58	1654.57	1637.81	1649.08	1690.43	1654.78	1679.79	1669.35	1720.97	1696.20
<b>75.0</b>	1156.54	1164.79	1157.10	1155.69	1166.83	1153.42	1165.31	1161.58	1185.01	1188.81
<b>77.5</b>	767.93	753.40	742.32	734.42	735.78	736.03	731.58	742.29	750.93	762.18
<b>80.0</b>	430.87	431.07	413.75	409.16	406.78	404.66	406.79	406.32	413.30	424.61
<b>82.5</b>	210.71	198.30	202.21	190.97	186.71	181.06	182.70	179.72	188.24	196.41
<b>85.0</b>	101.60	96.93	84.56	84.72	77.62	77.88	74.24	76.99	77.48	85.77
<b>87.5</b>	0.00	14.56	30.01	30.75	32.87	28.64	22.87	22.30	26.98	30.35
<b>90.0</b>	0.00	0.00	0.00	0.00	0.00	0.00	9.97	0.00	0.00	0.00

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

	<u><b>100.0</b></u>	<u><b>102.5</b></u>	<u><b>105.0</b></u>	<u><b>107.5</b></u>	<u><b>110.0</b></u>	<u><b>112.5</b></u>	<u><b>115.0</b></u>	<u><b>117.5</b></u>	<u><b>120.0</b></u>	<u><b>122.5</b></u>
<b>0.0</b>	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62
<b>2.5</b>	12597.72	12595.67	12593.68	12591.77	12589.92	12588.15	12586.46	12584.85	12583.32	12581.88

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

5.0	12556.83	12554.00	12550.22	12546.65	12543.28	12540.11	12537.17	12534.46	12531.97	12529.72
7.5	12490.00	12484.89	12480.27	12476.14	12472.51	12467.20	12465.63	12462.76	12460.36	12458.43
10.0	12394.66	12388.45	12383.14	12378.76	12375.33	12372.87	12371.41	12369.86	12368.67	12368.28
12.5	12267.26	12258.35	12251.40	12241.24	12241.91	12239.88	12239.93	12242.11	12244.67	12248.40
15.0	12099.13	12083.76	12071.58	12062.83	12057.75	12055.18	12055.75	12060.23	12064.78	12077.77
17.5	11848.05	11834.26	11822.32	11812.98	11808.08	11807.71	11809.91	11815.87	11827.38	11842.88
20.0	11481.40	11474.37	11472.06	11474.13	11478.96	11487.56	11499.90	11514.89	11533.95	11555.67
22.5	11109.48	11098.45	11110.36	11118.54	11131.14	11148.42	11166.76	11193.08	11219.52	11248.08
25.0	10772.15	10772.02	10777.78	10789.35	10806.26	10826.01	10855.91	10887.95	10922.28	10958.99
27.5	10447.80	10450.32	10459.61	10475.35	10496.77	10523.91	10556.63	10594.27	10636.06	10636.24
30.0	10123.41	10128.44	10141.01	10160.48	10187.15	10220.85	10255.03	10304.87	10293.62	10276.03
32.5	9781.70	9797.43	9814.61	9839.78	9872.73	9913.29	9957.14	9936.63	9924.52	9914.36
35.0	9438.68	9451.51	9474.25	9507.14	9549.23	9601.03	9574.44	9557.65	9549.90	9542.28
37.5	9074.04	9090.85	9119.64	9158.38	9208.13	9195.93	9178.75	9171.21	9171.63	9176.74
40.0	8691.13	8713.04	8748.19	8796.39	8804.72	8783.36	8773.21	8772.84	8781.04	8797.43
42.5	8291.36	8319.85	8362.28	8398.78	8371.26	8357.93	8356.89	8365.71	8384.79	8411.50
45.0	7878.56	7914.96	7967.01	7951.67	7929.70	7922.97	7930.48	7949.60	7979.49	8018.00
47.5	7438.80	7489.38	7517.76	7484.94	7473.97	7466.99	7483.97	7526.06	7568.62	7598.57
50.0	6969.97	7038.55	7004.16	6955.88	6965.02	6997.89	7040.88	7092.18	7105.87	7073.15
52.5	6404.84	6461.44	6440.75	6426.87	6424.22	6451.12	6513.95	6572.32	6553.91	6533.07
55.0	5832.70	5837.44	5822.70	5834.64	5865.66	5908.95	5919.99	5941.67	5968.34	5982.83
57.5	5272.10	5242.31	5241.45	5267.40	5311.92	5340.82	5335.25	5348.88	5360.15	5412.80
60.0	4667.41	4654.04	4672.53	4715.48	4756.65	4748.49	4752.57	4776.94	4816.06	4844.15
62.5	4070.71	4066.80	4088.81	4166.28	4154.35	4157.63	4185.12	4218.55	4269.90	4299.91
65.0	3464.38	3484.08	3541.06	3539.66	3542.96	3578.09	3620.18	3678.27	3677.94	3682.91
67.5	2852.81	2885.14	2921.67	2933.26	2950.58	2990.87	3054.78	3066.24	3076.91	3079.78
70.0	2261.38	2303.04	2316.86	2344.24	2382.93	2415.84	2437.57	2468.74	2492.69	2505.27
72.5	1715.18	1742.25	1756.01	1811.24	1836.05	1854.84	1872.56	1894.77	1926.56	1947.85
75.0	1213.72	1236.31	1250.69	1290.92	1325.94	1341.27	1354.35	1360.54	1419.18	1478.28
77.5	782.97	808.33	835.84	846.28	860.24	862.16	928.00	967.89	1004.99	1042.62
80.0	441.89	469.93	481.34	474.06	514.98	558.49	594.88	613.20	625.54	632.91
82.5	213.77	218.01	240.49	272.04	284.32	295.69	295.63	287.71	273.95	262.67
85.0	89.88	106.56	114.37	108.66	93.91	79.46	60.12	32.66	0.00	0.00
87.5	32.71	16.45	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>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	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62
2.5	12580.53	12579.13	12577.35	12576.59	12575.40	12574.31	12573.30	12572.40	12571.59	12570.88
5.0	12527.72	12525.42	12524.01	12522.39	12521.01	12519.88	12518.99	12518.35	12517.43	12516.58
7.5	12456.99	12454.66	12455.07	12454.67	12454.73	12455.23	12454.94	12454.65	12454.76	12455.27
10.0	12368.67	12367.07	12370.23	12371.67	12373.80	12375.42	12377.46	12380.16	12382.84	12385.97
12.5	12253.90	12260.13	12265.79	12272.80	12279.09	12284.49	12290.76	12295.58	12302.22	12307.89
15.0	12090.94	12106.04	12121.44	12139.95	12155.15	12172.65	12186.91	12201.90	12212.66	12223.48
17.5	11863.84	11888.95	11917.27	11949.00	11982.03	12015.54	12048.69	12077.63	12102.44	12127.43
20.0	11581.07	11612.24	11650.46	11695.19	11746.59	11798.01	11804.72	11810.39	11808.71	11804.03
22.5	11279.05	11314.20	11350.47	11364.69	11375.29	11389.26	11409.14	11425.32	11439.39	11450.47
25.0	10995.90	10989.02	10984.63	10985.23	10992.59	11004.87	11021.79	11033.68	11065.39	11084.70
27.5	10637.25	10631.94	10630.18	10622.65	10638.48	10647.58	10661.94	10680.32	10701.91	10724.44
30.0	10276.75	10275.69	10279.53	10286.85	10296.61	10309.33	10324.97	10341.10	10360.39	10381.31
32.5	9919.17	9923.20	9932.22	9944.67	9959.99	9977.59	9996.99	10019.37	10034.39	10057.15
35.0	9557.69	9572.34	9586.97	9605.56	9621.36	9651.24	9675.09	9700.75	9728.20	9724.86
37.5	9179.72	9211.49	9238.94	9269.19	9297.10	9328.70	9341.27	9334.60	9333.68	9337.68
40.0	8820.90	8848.57	8883.33	8925.00	8939.74	8929.92	8927.78	8930.45	8934.29	8941.38

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

42.5	8444.32	8483.73	8505.38	8498.50	8500.37	8506.71	8510.44	8520.60	8533.96	8547.63
45.0	8064.73	8048.70	8039.11	8044.56	8059.14	8074.78	8092.22	8107.62	8124.25	8153.02
47.5	7569.54	7555.71	7556.46	7564.47	7604.87	7640.62	7668.71	7694.94	7722.68	7755.81
50.0	7054.09	7050.35	7052.01	7088.17	7133.77	7191.92	7244.17	7281.26	7316.65	7346.69
52.5	6527.22	6535.57	6552.64	6594.10	6650.11	6726.41	6801.89	6807.06	6789.42	6778.78
55.0	5991.18	6012.55	6048.21	6098.51	6148.20	6172.77	6203.24	6213.91	6217.36	6213.14
57.5	5447.99	5484.25	5524.89	5535.01	5550.08	5571.00	5601.78	5630.74	5639.18	5642.99
60.0	4901.72	4909.73	4921.91	4940.74	4962.78	4984.67	5014.01	5044.19	5069.01	5081.66
62.5	4293.83	4302.12	4324.14	4353.88	4383.08	4412.22	4438.93	4467.47	4494.10	4517.15
65.0	3684.80	3702.11	3728.63	3764.80	3813.48	3847.41	3876.12	3903.13	3923.61	3946.20
67.5	3097.78	3121.54	3151.56	3187.94	3248.83	3286.20	3312.49	3332.25	3348.24	3367.37
70.0	2516.88	2546.10	2586.10	2635.92	2687.81	2724.49	2748.54	2765.53	2779.82	2795.30
72.5	1978.63	2021.42	2062.12	2101.93	2142.69	2176.36	2191.70	2206.99	2217.73	2229.19
75.0	1506.32	1535.83	1569.10	1592.85	1615.56	1637.72	1645.55	1655.79	1661.76	1668.86
77.5	1063.16	1071.15	1088.89	1098.35	1104.50	1110.56	1109.80	1111.16	1110.93	1100.89
80.0	633.59	627.74	623.18	616.79	597.14	571.50	540.06	502.88	461.50	417.19
82.5	244.07	215.47	179.16	133.96	80.24	20.29	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	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62
2.5	12570.27	12569.76	12569.36	12568.79	12568.43	12568.03	12567.73	12567.53	12567.42	12567.42
5.0	12515.94	12515.52	12515.32	12514.52	12514.73	12514.58	12514.65	12514.92	12513.44	12514.18
7.5	12455.59	12456.25	12457.29	12458.11	12458.53	12459.29	12459.77	12460.69	12461.50	12462.46
10.0	12389.25	12391.46	12393.89	12396.45	12399.09	12402.13	12403.74	12405.72	12407.35	12407.22
12.5	12313.86	12319.89	12326.06	12331.46	12336.05	12340.77	12345.66	12349.41	12352.55	12355.14
15.0	12232.98	12242.78	12252.08	12261.31	12270.50	12277.51	12284.58	12291.61	12296.79	12300.68
17.5	12118.73	12098.58	12080.34	12064.50	12049.22	12040.30	12030.29	12022.58	12017.46	12012.35
20.0	11796.25	11784.33	11768.95	11754.80	11742.84	11731.22	11725.85	11719.03	11714.22	11710.82
22.5	11455.68	11454.25	11448.36	11439.60	11430.56	11423.23	11417.98	11413.91	11410.92	11408.90
25.0	11101.51	11112.21	11117.43	11117.24	11113.93	11110.18	11108.09	11106.90	11106.56	11106.09
27.5	10745.48	10764.99	10779.21	10788.52	10792.32	10793.83	10795.67	10798.30	10800.72	10802.81
30.0	10401.52	10420.56	10440.19	10455.16	10466.50	10473.55	10480.71	10487.99	10493.80	10499.58
32.5	10075.58	10090.48	10105.02	10112.51	10117.63	10122.11	10126.65	10130.05	10133.76	10137.99
35.0	9723.90	9722.49	9722.91	9728.61	9736.88	9742.50	9750.95	9757.78	9764.15	9769.41
37.5	9337.65	9340.52	9338.93	9349.28	9359.23	9367.11	9376.12	9385.21	9394.54	9401.12
40.0	8951.44	8958.14	8966.20	8973.51	8982.63	8991.42	9001.78	9013.24	9023.89	9033.13
42.5	8561.71	8575.97	8588.70	8598.73	8609.96	8618.89	8628.69	8640.62	8653.71	8665.23
45.0	8173.62	8194.58	8211.46	8226.98	8240.01	8248.95	8256.23	8268.93	8283.86	8297.11
47.5	7786.51	7804.72	7834.51	7839.89	7824.15	7810.39	7795.52	7791.24	7792.19	7794.95
50.0	7336.89	7323.68	7311.69	7301.97	7292.91	7285.73	7275.94	7273.19	7275.25	7278.58
52.5	6775.81	6772.58	6765.13	6760.95	6759.94	6759.45	6755.80	6755.34	6757.04	6761.77
55.0	6214.39	6219.78	6219.04	6219.95	6225.11	6231.40	6234.52	6237.18	6242.68	6246.66
57.5	5649.50	5660.12	5673.74	5679.08	5688.86	5702.16	5712.46	5718.90	5726.87	5730.96
60.0	5095.35	5110.83	5127.41	5137.75	5151.99	5172.35	5188.55	5200.75	5211.63	5215.74
62.5	4537.85	4557.86	4579.66	4586.28	4594.97	4609.87	4623.40	4629.82	4636.84	4637.56
65.0	3960.74	3978.22	3993.04	4000.47	4008.52	4021.79	4035.36	4043.06	4051.25	4053.57
67.5	3384.83	3391.68	3409.89	3417.49	3424.35	3435.59	3448.35	3457.11	3465.44	3468.77
70.0	2810.62	2822.23	2831.16	2837.06	2842.22	2851.12	2862.19	2871.90	2880.06	2885.71
72.5	2239.25	2250.03	2255.03	2259.00	2261.76	2268.47	2276.88	2285.87	2295.06	2301.81
75.0	1674.04	1681.46	1681.99	1683.45	1681.97	1687.41	1692.59	1703.07	1710.41	1718.08
77.5	1078.09	1056.68	1026.85	998.02	967.83	944.62	922.33	906.10	890.97	879.63

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**CANDELA TABULATION - (Cont.)**

<b>80.0</b>	370.73	324.12	275.71	229.51	184.94	145.02	108.64	77.02	50.07	0.00
<b>82.5</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>85.0</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>87.5</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>90.0</b>	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><b>175.0</b></u>	<u><b>177.5</b></u>	<u><b>180.0</b></u>	<u><b>182.5</b></u>	<u><b>185.0</b></u>	<u><b>187.5</b></u>	<u><b>190.0</b></u>	<u><b>192.5</b></u>	<u><b>195.0</b></u>	<u><b>197.5</b></u>
<b>0.0</b>	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62
<b>2.5</b>	12567.52	12567.72	12568.02	12568.06	12568.21	12568.46	12568.80	12569.24	12569.77	12570.40
<b>5.0</b>	12514.92	12515.67	12516.41	12516.41	12516.41	12516.42	12516.42	12518.85	12519.21	12519.96
<b>7.5</b>	12463.00	12463.76	12464.81	12464.96	12465.40	12466.13	12466.27	12466.65	12467.33	12467.75
<b>10.0</b>	12409.81	12411.51	12413.21	12413.21	12413.22	12412.20	12413.82	12413.81	12413.67	12413.95
<b>12.5</b>	12357.81	12359.59	12361.61	12361.85	12362.58	12361.35	12360.67	12359.86	12358.68	12356.71
<b>15.0</b>	12303.40	12307.14	12310.00	12310.02	12308.74	12308.45	12306.80	12304.73	12301.41	12297.41
<b>17.5</b>	12009.47	12008.79	12010.24	12012.31	12015.90	12021.65	12030.23	12039.30	12050.62	12064.09
<b>20.0</b>	11700.46	11706.70	11710.48	11710.91	11708.18	11722.38	11729.91	11738.79	11750.88	11761.06
<b>22.5</b>	11407.42	11408.61	11410.73	11413.73	11417.30	11422.85	11429.18	11436.35	11444.48	11454.38
<b>25.0</b>	11096.83	11106.07	11110.97	11111.93	11107.68	11122.33	11127.03	11131.74	11137.24	11144.33
<b>27.5</b>	10805.03	10808.14	10811.21	10814.58	10817.69	10820.93	10823.28	10825.01	10827.42	10831.07
<b>30.0</b>	10491.64	10504.82	10511.45	10512.13	10506.22	10519.28	10518.78	10516.41	10514.52	10513.76
<b>32.5</b>	10138.90	10142.17	10145.73	10149.60	10153.53	10157.88	10158.92	10160.64	10163.18	10165.87
<b>35.0</b>	9772.53	9772.41	9780.00	9779.84	9786.98	9789.10	9790.11	9790.93	9790.74	9792.43
<b>37.5</b>	9406.23	9410.23	9414.27	9417.57	9420.68	9421.14	9423.29	9420.73	9421.04	9419.21
<b>40.0</b>	9039.72	9040.47	9048.54	9047.58	9053.04	9053.61	9053.30	9051.21	9047.42	9047.69
<b>42.5</b>	8673.27	8678.63	8682.82	8685.43	8685.90	8687.21	8685.63	8680.80	8679.27	8678.41
<b>45.0</b>	8306.89	8308.97	8317.09	8315.34	8318.83	8318.88	8319.63	8311.03	8307.82	8311.02
<b>47.5</b>	7797.35	7799.11	7802.27	7806.17	7810.40	7818.43	7828.25	7834.71	7849.43	7873.96
<b>50.0</b>	7281.34	7277.60	7287.45	7285.86	7295.63	7303.81	7312.55	7317.92	7331.62	7350.37
<b>52.5</b>	6764.99	6767.99	6772.64	6776.60	6780.96	6789.55	6797.24	6801.17	6813.04	6825.23
<b>55.0</b>	6249.26	6247.17	6257.82	6256.64	6267.00	6275.25	6281.61	6284.14	6292.59	6298.97
<b>57.5</b>	5733.24	5736.85	5743.00	5746.84	5751.49	5761.15	5766.05	5766.92	5770.78	5772.17
<b>60.0</b>	5197.97	5216.45	5228.18	5227.16	5217.42	5247.35	5250.82	5249.65	5248.34	5248.42
<b>62.5</b>	4637.33	4640.67	4646.88	4650.10	4656.33	4669.14	4675.87	4680.93	4682.22	4684.16
<b>65.0</b>	4035.26	4054.53	4065.57	4062.68	4053.70	4084.94	4091.35	4093.01	4094.58	4095.85
<b>67.5</b>	3472.09	3478.09	3484.27	3485.01	3489.97	3500.77	3504.95	3507.11	3507.66	3508.16
<b>70.0</b>	2873.16	2892.69	2902.96	2898.39	2890.37	2916.77	2919.81	2921.66	2923.06	2921.14
<b>72.5</b>	2306.88	2315.44	2321.66	2319.96	2323.43	2331.79	2334.92	2336.59	2335.88	2335.48
<b>75.0</b>	1711.61	1730.94	1740.35	1734.27	1727.40	1747.35	1750.26	1752.60	1750.96	1751.00
<b>77.5</b>	871.39	869.38	870.18	871.13	879.53	895.03	912.56	933.47	956.72	984.24
<b>80.0</b>	0.00	0.00	0.00	0.00	0.00	0.00	51.29	79.37	112.74	151.03
<b>82.5</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>85.0</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>87.5</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>90.0</b>	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><b>200.0</b></u>	<u><b>202.5</b></u>	<u><b>205.0</b></u>	<u><b>207.5</b></u>	<u><b>210.0</b></u>	<u><b>212.5</b></u>	<u><b>215.0</b></u>	<u><b>217.5</b></u>	<u><b>220.0</b></u>	<u><b>222.5</b></u>
<b>0.0</b>	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62
<b>2.5</b>	12571.13	12571.94	12572.85	12573.55	12574.45	12575.44	12576.52	12577.70	12578.95	12580.29
<b>5.0</b>	12520.91	12522.07	12523.14	12524.19	12525.44	12526.89	12528.53	12530.57	12531.69	12533.35
<b>7.5</b>	12468.34	12469.24	12469.85	12470.30	12471.08	12472.38	12472.59	12473.42	12474.61	12476.88
<b>10.0</b>	12413.04	12412.56	12411.83	12410.94	12410.53	12409.23	12408.40	12409.22	12406.92	12406.55
<b>12.5</b>	12354.54	12352.11	12349.25	12346.02	12342.77	12339.36	12336.12	12331.80	12329.34	12325.08

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

15.0	12294.65	12287.56	12281.80	12275.92	12268.97	12262.35	12254.51	12249.41	12239.45	12234.97
17.5	12079.11	12096.29	12115.88	12137.80	12161.75	12177.56	12165.71	12149.95	12133.22	12112.71
20.0	11774.93	11790.86	11809.19	11833.20	11853.21	11875.74	11897.55	11919.62	11928.53	11935.80
22.5	11466.14	11480.02	11496.25	11514.07	11533.31	11545.22	11551.03	11551.23	11546.56	11537.25
25.0	11153.10	11163.92	11175.97	11186.91	11193.63	11192.70	11188.58	11172.40	11153.91	11137.35
27.5	10839.12	10842.30	10847.92	10849.33	10844.21	10834.06	10818.38	10799.45	10781.70	10765.14
30.0	10514.35	10517.12	10513.68	10507.30	10498.25	10484.63	10467.99	10450.21	10432.22	10418.86
32.5	10170.44	10175.30	10178.36	10172.93	10165.44	10153.74	10138.34	10127.67	10106.90	10088.14
35.0	9795.21	9797.20	9801.36	9805.38	9812.43	9821.08	9825.88	9811.55	9790.64	9768.62
37.5	9422.62	9421.58	9423.36	9425.59	9428.29	9438.11	9442.99	9452.00	9465.78	9452.05
40.0	9049.09	9048.08	9047.43	9045.16	9043.35	9047.24	9047.92	9053.17	9052.05	9057.89
42.5	8678.68	8676.16	8671.08	8665.41	8661.43	8656.27	8651.01	8644.31	8638.78	8639.79
45.0	8310.19	8304.86	8295.40	8288.97	8276.88	8265.26	8251.89	8235.85	8227.72	8219.95
47.5	7895.90	7918.35	7921.44	7908.09	7891.83	7873.00	7851.85	7826.65	7809.82	7795.48
50.0	7367.25	7384.87	7401.70	7424.16	7446.84	7470.19	7451.97	7418.23	7392.46	7366.63
52.5	6837.12	6846.75	6860.77	6877.23	6892.69	6906.68	6928.74	6948.28	6967.40	6924.30
55.0	6304.97	6309.77	6319.42	6329.26	6336.52	6342.63	6358.21	6373.12	6387.57	6380.99
57.5	5771.15	5771.98	5777.65	5780.15	5779.09	5780.58	5789.21	5797.01	5794.33	5773.42
60.0	5237.56	5234.57	5234.95	5229.59	5222.27	5220.64	5221.24	5218.14	5204.62	5181.68
62.5	4682.24	4685.73	4691.23	4679.24	4667.44	4661.79	4653.44	4641.90	4624.68	4604.67
65.0	4095.86	4097.37	4099.31	4094.99	4091.68	4091.48	4083.55	4073.47	4058.38	4039.16
67.5	3507.11	3510.71	3511.26	3501.96	3505.84	3504.17	3496.21	3492.21	3487.48	3478.34
70.0	2922.45	2928.12	2926.01	2924.90	2924.22	2921.46	2915.47	2913.53	2910.39	2899.43
72.5	2340.38	2341.94	2344.08	2344.42	2342.67	2342.82	2340.89	2341.51	2339.45	2329.52
75.0	1756.36	1759.95	1767.20	1767.33	1767.76	1769.05	1771.73	1776.41	1776.61	1768.90
77.5	1016.06	1049.95	1086.54	1121.07	1152.67	1183.77	1208.73	1215.11	1220.73	1217.43
80.0	194.26	241.28	291.95	344.34	396.75	449.62	502.91	553.95	600.09	635.89
82.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.66
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>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	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62
2.5	12581.71	12583.22	12584.79	12586.44	12588.24	12589.63	12591.32	12593.07	12594.89	12596.78
5.0	12535.23	12537.31	12539.59	12542.07	12545.50	12546.76	12549.35	12552.15	12555.15	12558.34
7.5	12476.98	12478.42	12480.25	12482.48	12484.56	12486.84	12489.53	12492.63	12496.13	12500.02
10.0	12407.80	12406.15	12406.39	12407.29	12407.70	12408.29	12409.55	12411.49	12415.75	12417.12
12.5	12321.60	12318.46	12315.73	12313.96	12311.43	12309.16	12308.07	12310.85	12307.09	12308.03
15.0	12222.31	12213.97	12202.44	12192.90	12181.80	12171.23	12163.53	12155.23	12149.73	12147.57
17.5	12089.03	12063.22	12035.83	12009.86	11984.46	11961.22	11952.32	11926.25	11915.78	11909.64
20.0	11891.33	11840.18	11793.44	11749.46	11712.55	11681.94	11656.23	11634.67	11625.54	11603.75
22.5	11522.66	11511.67	11501.09	11450.18	11407.72	11370.23	11337.68	11309.43	11282.55	11264.85
25.0	11123.42	11112.43	11105.67	11104.37	11104.77	11064.04	11026.45	10994.24	10964.12	10940.06
27.5	10757.07	10743.29	10736.53	10734.37	10737.29	10745.91	10739.01	10702.83	10671.99	10644.75
30.0	10404.87	10393.59	10386.01	10382.99	10386.17	10397.44	10414.36	10432.23	10396.16	10359.76
32.5	10071.98	10057.36	10047.26	10043.49	10045.36	10053.86	10065.06	10081.16	10103.05	10060.88
35.0	9746.43	9729.39	9720.32	9712.91	9703.23	9699.24	9701.54	9709.18	9725.43	9752.46
37.5	9423.43	9399.45	9379.32	9362.53	9346.73	9334.57	9330.69	9330.99	9337.52	9351.99
40.0	9074.36	9071.12	9041.45	9011.76	8986.36	8964.59	8948.60	8939.07	8938.84	8948.01
42.5	8647.85	8659.52	8674.88	8656.40	8619.80	8588.33	8563.96	8546.06	8536.86	8538.34
45.0	8218.19	8217.83	8220.09	8233.59	8253.65	8211.56	8175.27	8147.26	8125.49	8114.77
47.5	7780.89	7763.15	7749.95	7752.82	7771.33	7808.31	7781.14	7737.69	7704.91	7687.21
50.0	7329.87	7289.35	7263.23	7252.48	7261.96	7288.93	7331.43	7321.96	7277.14	7250.35

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

52.5	6859.34	6800.98	6753.74	6740.23	6737.90	6753.41	6785.88	6833.46	6807.51	6726.13
55.0	6359.49	6299.89	6247.18	6216.74	6203.60	6208.59	6223.80	6222.33	6217.14	6188.91
57.5	5751.68	5731.32	5722.48	5687.77	5664.88	5652.26	5634.42	5616.37	5612.22	5628.15
60.0	5157.94	5138.46	5125.13	5120.61	5121.13	5095.98	5067.69	5038.62	5024.35	5029.18
62.5	4580.31	4556.85	4538.49	4523.23	4523.67	4538.92	4514.88	4474.26	4451.91	4446.20
65.0	4012.88	3987.25	3957.36	3934.26	3930.83	3925.08	3923.53	3930.30	3892.14	3869.15
67.5	3455.63	3423.23	3386.70	3356.55	3340.12	3327.83	3324.58	3331.28	3338.06	3288.46
70.0	2881.92	2853.03	2819.39	2784.78	2765.35	2750.63	2741.08	2736.59	2717.95	2687.36
72.5	2315.57	2287.97	2266.30	2240.14	2216.08	2190.78	2177.83	2155.36	2123.50	2099.55
75.0	1766.63	1747.89	1736.17	1723.90	1701.62	1684.27	1656.19	1597.15	1586.73	1560.69
77.5	1220.57	1223.99	1223.65	1219.43	1216.88	1209.28	1188.53	1151.88	1112.84	1064.55
80.0	672.29	703.50	724.77	736.34	746.62	759.83	757.03	748.45	732.25	713.92
82.5	90.44	153.30	210.07	258.70	297.25	335.03	355.21	375.50	387.81	393.40
85.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	44.21	83.51	113.32
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	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62
2.5	12598.72	12600.71	12602.76	12604.86	12607.00	12609.17	12611.39	12613.63	12615.90	12612.15
5.0	12561.71	12565.27	12568.99	12572.88	12576.93	12581.12	12585.45	12589.92	12594.50	12586.55
7.5	12505.17	12508.41	12513.11	12518.21	12523.71	12529.58	12535.83	12542.43	12549.37	12536.04
10.0	12420.94	12425.49	12430.76	12436.73	12443.38	12450.71	12458.69	12467.30	12476.53	12455.50
12.5	12310.44	12314.28	12322.51	12324.74	12332.11	12341.01	12351.33	12362.96	12375.78	12345.29
15.0	12153.75	12148.79	12153.43	12161.30	12172.19	12185.89	12202.15	12220.74	12241.41	12201.33
17.5	11906.96	11909.10	11915.91	11934.24	11938.41	11955.26	11976.34	12001.53	12030.71	11984.59
20.0	11594.14	11594.34	11588.40	11592.44	11601.55	11615.89	11635.62	11660.87	11691.80	11646.03
22.5	11259.06	11237.74	11231.26	11229.85	11235.10	11246.40	11263.46	11286.51	11315.77	11272.53
25.0	10921.83	10908.41	10911.58	10897.68	10900.48	10908.95	10923.43	10944.25	10971.70	10930.20
27.5	10621.77	10603.87	10591.87	10585.55	10590.95	10590.49	10602.76	10622.03	10648.43	10606.58
30.0	10331.85	10303.49	10285.31	10274.05	10270.29	10274.39	10286.41	10306.37	10334.29	10290.26
32.5	10021.51	9989.83	9967.39	9953.65	9948.38	9950.91	9962.60	9983.65	10013.95	9967.12
35.0	9703.88	9664.71	9634.57	9622.78	9606.44	9608.63	9621.75	9645.65	9680.12	9628.45
37.5	9361.77	9317.24	9287.01	9262.42	9252.04	9253.39	9266.70	9292.35	9330.25	9273.95
40.0	8967.49	8960.83	8921.68	8895.56	8880.79	8879.72	8893.29	8921.24	8963.26	8902.17
42.5	8548.93	8569.91	8539.85	8507.05	8488.59	8493.74	8497.99	8525.87	8569.56	8505.60
45.0	8117.32	8136.55	8166.70	8112.89	8086.49	8075.64	8082.65	8108.90	8153.21	8086.98
47.5	7682.63	7690.72	7717.01	7703.28	7659.80	7642.11	7643.42	7665.59	7709.19	7642.75
50.0	7219.45	7203.78	7229.02	7260.86	7213.06	7185.39	7180.03	7198.09	7240.41	7170.41
52.5	6683.94	6682.17	6717.97	6753.80	6706.93	6654.77	6636.29	6650.13	6698.69	6619.26
55.0	6152.06	6129.02	6114.94	6122.39	6115.08	6055.56	6030.23	6038.88	6083.24	6011.05
57.5	5602.43	5554.69	5526.24	5522.41	5544.56	5484.33	5452.38	5458.00	5502.15	5432.84
60.0	5048.26	5005.45	4961.40	4940.57	4947.77	4924.15	4888.56	4891.24	4934.81	4866.31
62.5	4447.81	4474.20	4400.99	4365.18	4368.35	4376.96	4347.10	4325.34	4371.34	4298.55
65.0	3847.68	3843.51	3871.73	3798.76	3775.85	3797.68	3752.52	3740.61	3781.37	3713.23
67.5	3239.14	3231.32	3253.08	3222.49	3177.27	3184.34	3164.57	3143.14	3188.65	3114.33
70.0	2656.34	2632.88	2621.11	2624.28	2578.20	2557.99	2560.44	2534.80	2574.83	2508.81
72.5	2082.52	2073.77	2042.00	2033.97	2037.18	1997.34	2007.80	1975.54	2008.04	1949.64
75.0	1556.05	1541.42	1509.97	1493.50	1494.42	1466.99	1452.39	1438.18	1463.51	1414.64
77.5	1073.66	1058.95	1036.10	1014.45	1001.20	1013.44	980.85	973.29	1002.03	956.61
80.0	683.76	643.52	638.44	621.28	597.40	602.89	590.15	580.69	593.67	568.40
82.5	392.18	371.93	342.51	320.97	321.05	310.70	304.51	310.81	306.02	304.12
85.0	137.95	153.11	159.10	157.32	141.71	134.88	129.20	129.42	129.37	127.52
87.5	0.00	0.00	0.00	21.24	50.13	51.09	47.33	49.05	57.09	54.49

**IES INDOOR REPORT**  
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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 14.16 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	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62
2.5	12608.43	12604.75	12601.12	12597.54	12594.03	12590.58	12587.22	12583.94	12580.75	12577.67
5.0	12578.73	12571.06	12563.57	12556.27	12549.18	12542.33	12535.74	12529.41	12523.36	12517.62
7.5	12523.09	12510.59	12498.59	12487.15	12476.33	12466.18	12458.07	12447.67	12439.03	12431.09
10.0	12435.19	12415.73	12397.25	12379.86	12363.68	12348.82	12335.38	12323.46	12315.64	12304.01
12.5	12316.04	12288.20	12261.93	12237.40	12218.33	12193.97	12175.25	12158.84	12144.85	12137.46
15.0	12163.23	12127.29	12093.67	12062.52	12033.99	12008.22	11990.64	11964.30	11945.89	11930.77
17.5	11942.29	11903.79	11869.04	11845.64	11808.42	11780.72	11756.39	11735.44	11716.07	11698.98
20.0	11605.78	11570.76	11540.67	11515.22	11494.13	11481.75	11462.29	11450.74	11448.75	11433.77
22.5	11235.43	11204.18	11178.49	11158.49	11144.46	11134.88	11138.80	11126.88	11127.44	11130.16
25.0	10895.33	10866.78	10844.21	10827.28	10826.84	10808.64	10805.88	10807.21	10813.89	10825.76
27.5	10571.84	10544.07	10528.93	10508.46	10500.02	10497.62	10504.52	10509.33	10521.63	10537.03
30.0	10254.16	10225.96	10205.63	10193.09	10187.90	10189.36	10200.70	10211.85	10231.54	10255.50
32.5	9929.50	9901.19	9882.12	9871.76	9870.50	9876.58	9887.79	9907.10	9937.56	9894.44
35.0	9587.38	9557.13	9537.87	9537.18	9531.40	9543.49	9564.53	9594.88	9554.79	9520.17
37.5	9229.91	9198.24	9178.62	9170.85	9177.43	9190.02	9217.12	9189.67	9156.35	9130.99
40.0	8854.99	8821.89	8802.95	8797.67	8805.04	8825.55	8813.22	8775.10	8747.52	8729.74
42.5	8457.78	8434.36	8409.20	8407.31	8419.92	8430.14	8386.58	8355.15	8334.24	8324.64
45.0	8039.03	8009.14	7996.97	8001.69	8035.54	7987.75	7949.02	7924.73	7913.69	7913.91
47.5	7597.50	7572.75	7567.43	7587.93	7576.00	7518.67	7488.96	7481.59	7482.27	7493.85
50.0	7126.43	7109.34	7119.14	7143.55	7080.56	7017.07	6993.77	6994.69	7016.27	7060.00
52.5	6573.67	6558.94	6576.60	6594.96	6545.07	6493.79	6463.57	6459.08	6493.17	6508.81
55.0	5974.43	5971.54	6000.17	5971.86	5931.10	5914.26	5913.84	5927.37	5920.23	5887.25
57.5	5401.90	5406.33	5434.54	5382.21	5354.13	5346.87	5359.62	5355.35	5315.51	5293.45
60.0	4838.72	4849.48	4845.02	4807.05	4798.12	4808.36	4811.28	4757.11	4724.40	4710.65
62.5	4293.96	4298.30	4262.34	4232.13	4238.04	4276.84	4216.62	4180.42	4149.19	4143.21
65.0	3697.07	3712.18	3660.79	3655.87	3698.40	3643.93	3604.25	3589.40	3590.15	3592.00
67.5	3102.28	3099.50	3064.18	3066.92	3074.69	3028.00	2999.44	2996.93	3010.88	2997.01
70.0	2507.97	2479.69	2470.52	2484.34	2449.73	2428.75	2422.76	2413.32	2404.12	2395.29
72.5	1956.40	1922.96	1936.42	1900.82	1870.80	1875.86	1865.10	1857.16	1841.32	1827.23
75.0	1405.74	1395.65	1395.25	1374.90	1350.32	1353.85	1361.40	1340.52	1333.43	1297.11
77.5	946.77	956.82	926.89	904.45	911.94	906.57	900.26	877.67	901.42	918.92
80.0	564.29	564.31	535.54	548.93	539.24	520.55	550.09	570.12	574.79	575.80
82.5	290.32	283.33	283.70	270.25	279.09	296.33	302.95	298.65	280.99	255.70
85.0	121.07	120.29	120.31	130.11	128.41	114.76	94.55	76.90	54.79	28.53
87.5	49.08	44.82	41.11	17.80	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	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62
2.5	12574.69	12571.83	12569.36	12566.40	12563.65	12561.02	12558.51	12556.13	12553.88	12551.76
5.0	12512.19	12507.10	12503.70	12497.78	12493.09	12488.73	12484.71	12481.03	12477.70	12475.18
7.5	12423.89	12417.45	12411.81	12406.64	12401.39	12399.96	12393.09	12391.40	12386.76	12383.78
10.0	12297.94	12290.12	12285.64	12282.09	12278.43	12276.33	12277.93	12274.42	12273.88	12276.88
12.5	12123.97	12116.98	12112.72	12110.73	12110.55	12113.20	12117.33	12122.75	12130.59	12136.64
15.0	11918.89	11909.58	11903.87	11901.88	11903.77	11909.58	11917.95	11935.31	11944.74	11967.49
17.5	11692.82	11676.22	11670.97	11669.42	11671.71	11678.31	11689.07	11705.05	11726.35	11751.42
20.0	11428.00	11422.99	11418.97	11417.84	11420.11	11428.12	11441.70	11462.17	11452.66	11450.13
22.5	11133.98	11139.36	11145.40	11152.63	11166.27	11144.61	11127.33	11114.81	11104.20	11097.75

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**CANDELA TABULATION - (Cont.)**

25.0	10837.18	10851.98	10867.12	10844.92	10825.19	10808.28	10794.88	10782.83	10773.08	10768.72
27.5	10554.33	10542.63	10517.85	10497.83	10482.26	10470.55	10465.62	10453.00	10447.71	10441.95
30.0	10224.50	10195.45	10170.71	10150.64	10136.95	10128.72	10124.31	10122.79	10122.03	10122.14
32.5	9863.77	9838.79	9825.87	9805.06	9795.01	9788.75	9787.60	9790.36	9796.36	9809.51
35.0	9492.67	9475.05	9464.85	9460.28	9455.60	9451.68	9453.68	9460.16	9469.87	9482.12
37.5	9113.41	9102.65	9096.10	9100.25	9100.76	9107.19	9117.58	9131.31	9128.85	9101.08
40.0	8720.74	8717.62	8721.63	8731.53	8746.36	8763.39	8749.99	8715.93	8693.98	8678.82
42.5	8322.88	8328.75	8341.17	8358.98	8355.51	8317.59	8287.57	8266.77	8262.68	8246.17
45.0	7920.85	7938.10	7960.06	7909.92	7862.02	7829.09	7811.76	7802.73	7806.27	7807.15
47.5	7514.93	7519.10	7453.83	7401.58	7368.82	7333.88	7320.82	7324.82	7338.26	7358.66
50.0	7050.33	6980.91	6925.13	6881.28	6852.23	6834.39	6826.59	6835.35	6862.01	6898.52
52.5	6476.05	6428.60	6383.96	6353.32	6332.55	6326.32	6330.97	6343.59	6377.09	6377.55
55.0	5869.73	5857.19	5833.84	5814.05	5806.28	5811.60	5817.88	5795.02	5777.94	5775.88
57.5	5280.98	5277.25	5276.13	5270.69	5267.39	5238.69	5220.11	5204.43	5189.29	5182.98
60.0	4712.99	4719.25	4722.96	4690.74	4660.26	4637.63	4624.43	4619.03	4608.62	4601.53
62.5	4153.28	4149.78	4116.56	4083.82	4060.96	4043.64	4033.60	4035.81	4033.94	4028.23
65.0	3561.57	3533.18	3510.57	3488.53	3469.54	3456.88	3449.78	3454.65	3464.94	3460.88
67.5	2962.15	2935.96	2915.88	2900.45	2890.36	2878.49	2874.42	2885.61	2906.58	2907.55
70.0	2380.03	2360.42	2338.06	2323.77	2326.31	2335.82	2345.19	2352.10	2363.73	2364.09
72.5	1810.83	1802.45	1808.67	1820.61	1832.50	1833.71	1835.13	1832.69	1832.63	1827.92
75.0	1319.26	1347.83	1362.74	1364.49	1361.31	1349.29	1342.15	1329.58	1313.27	1299.73
77.5	928.67	933.64	936.09	922.21	905.40	881.94	852.27	827.82	803.63	776.50
80.0	564.18	546.83	526.61	497.22	463.54	435.95	408.94	388.47	365.22	337.86
82.5	226.07	208.90	188.08	162.11	131.18	95.55	55.04	13.84	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>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	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62	12619.62
2.5	12549.78	12547.95	12546.25	12544.71	12543.45	12541.99	12540.68	12539.53	12538.53	12537.69
5.0	12471.77	12469.06	12466.69	12464.69	12463.05	12461.30	12459.30	12457.63	12456.27	12455.52
7.5	12381.47	12380.20	12377.44	12375.55	12374.26	12373.23	12372.39	12372.12	12372.00	12370.76
10.0	12274.61	12275.23	12276.82	12276.99	12278.09	12279.00	12279.50	12280.81	12282.03	12284.02
12.5	12144.86	12151.48	12158.33	12164.66	12170.71	12176.16	12180.83	12184.94	12188.51	12192.49
15.0	11980.11	11999.87	12016.85	12034.63	12048.65	12061.77	12076.76	12083.08	12091.68	12098.34
17.5	11780.66	11813.00	11823.21	11824.65	11822.78	11818.93	11813.64	11806.87	11799.48	11793.01
20.0	11449.33	11452.32	11457.40	11470.03	11466.97	11468.77	11468.10	11464.11	11461.59	11453.06
22.5	11095.35	11096.60	11103.58	11107.60	11114.27	11119.14	11121.92	11121.33	11117.47	11113.25
25.0	10760.27	10756.14	10758.22	10763.00	10769.28	10774.95	10778.57	10780.29	10777.62	10773.68
27.5	10442.07	10435.40	10429.22	10430.87	10434.79	10439.41	10445.36	10442.11	10440.62	10435.07
30.0	10122.02	10124.59	10121.59	10111.17	10111.71	10114.28	10113.10	10108.94	10105.08	10098.67
32.5	9808.10	9811.76	9817.64	9811.79	9798.49	9780.94	9765.00	9750.15	9737.43	9726.62
35.0	9494.48	9479.10	9456.38	9442.28	9409.40	9387.56	9373.90	9362.33	9350.11	9342.10
37.5	9081.77	9071.55	9048.55	9032.60	9025.65	8996.24	8984.23	8972.29	8964.80	8955.88
40.0	8659.84	8648.62	8638.06	8627.45	8619.37	8606.56	8592.47	8583.11	8575.25	8569.96
42.5	8238.07	8230.52	8225.80	8220.23	8215.47	8216.06	8202.42	8194.47	8189.49	8183.45
45.0	7813.85	7812.60	7812.76	7816.63	7811.78	7813.69	7811.88	7806.51	7799.92	7797.27
47.5	7382.23	7394.52	7399.64	7405.18	7408.15	7397.80	7370.98	7343.55	7315.26	7293.61
50.0	6943.91	6961.82	6927.45	6892.32	6860.14	6833.70	6810.49	6788.33	6764.66	6745.22
52.5	6382.62	6366.19	6345.86	6316.27	6288.88	6264.25	6247.94	6231.54	6213.48	6197.02
55.0	5777.52	5771.17	5761.15	5739.76	5717.31	5696.96	5684.16	5673.65	5661.02	5648.34
57.5	5183.89	5181.10	5174.86	5163.00	5145.83	5129.69	5119.30	5115.18	5107.49	5099.07
60.0	4600.90	4596.16	4590.14	4584.21	4573.67	4561.76	4554.47	4559.68	4553.36	4549.51

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**CANDELA TABULATION - (Cont.)**

62.5	4025.24	4019.95	4010.54	4005.92	4003.06	3993.87	3987.57	3988.60	3985.55	3982.10
65.0	3458.64	3454.68	3443.70	3438.33	3434.47	3426.68	3420.55	3416.42	3412.36	3406.26
67.5	2904.68	2897.65	2885.57	2876.50	2870.08	2861.26	2851.93	2846.05	2840.50	2832.64
70.0	2355.79	2345.23	2333.24	2318.38	2308.19	2299.64	2286.99	2277.44	2271.03	2259.68
72.5	1813.97	1798.06	1782.43	1764.00	1749.66	1735.55	1724.32	1710.77	1699.31	1687.26
75.0	1277.93	1255.88	1235.55	1212.75	1195.61	1175.31	1161.63	1145.70	1129.76	1115.84
77.5	748.17	725.47	708.13	687.86	668.88	648.55	632.21	614.20	595.23	579.37
80.0	307.10	275.46	243.40	211.17	179.65	149.00	120.89	94.25	70.13	49.27
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	12619.62	12619.62	12619.62	12619.62	12619.62
2.5	12537.00	12536.47	12536.10	12535.88	12535.83
5.0	12454.16	12453.16	12452.47	12452.09	12452.04
7.5	12370.01	12369.68	12368.73	12368.25	12368.25
10.0	12284.63	12284.72	12284.88	12284.36	12284.46
12.5	12197.02	12199.04	12201.02	12200.41	12200.68
15.0	12105.48	12112.75	12115.13	12116.41	12116.89
17.5	11788.04	11785.77	11783.17	11781.08	11780.26
20.0	11448.40	11446.28	11445.55	11444.30	11443.63
22.5	11108.97	11107.30	11107.78	11107.45	11107.00
25.0	10769.46	10768.24	10769.25	10770.68	10770.38
27.5	10430.74	10428.96	10430.48	10432.65	10433.75
30.0	10093.29	10089.88	10092.05	10095.05	10097.13
32.5	9716.41	9710.08	9709.52	9710.19	9711.08
35.0	9332.64	9326.50	9325.66	9325.15	9325.03
37.5	8950.13	8943.47	8942.54	8940.36	8938.98
40.0	8565.04	8560.65	8558.23	8555.82	8552.93
42.5	8181.22	8178.68	8174.83	8171.50	8166.87
45.0	7798.30	7794.48	7791.79	7787.40	7780.82
47.5	7277.92	7263.73	7252.60	7243.55	7235.63
50.0	6730.53	6717.21	6706.30	6697.85	6690.44
52.5	6183.57	6171.00	6160.05	6152.05	6145.24
55.0	5636.51	5624.60	5614.37	5606.22	5600.05
57.5	5089.51	5078.15	5067.21	5060.07	5054.86
60.0	4542.76	4531.78	4520.82	4514.06	4509.67
62.5	3973.30	3961.63	3950.17	3943.26	3939.41
65.0	3400.46	3389.37	3378.57	3372.25	3369.16
67.5	2825.90	2817.21	2806.98	2801.23	2798.90
70.0	2252.32	2245.36	2235.38	2230.23	2228.64
72.5	1678.89	1672.74	1663.77	1659.23	1658.39
75.0	1105.60	1100.46	1092.16	1088.24	1088.13
77.5	566.82	558.38	549.75	545.07	544.07
80.0	31.85	18.12	8.08	2.03	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

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HZCAS310HTVHOWT50120-277V.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	4592.83	14.20	14.20
0-30	9620.06	29.80	29.80
0-40	15593.11	48.20	48.40
0-60	27043.94	83.60	83.90
0-80	32152.73	99.40	99.70
0-90	32247.24	99.70	100.00
10-90	31057.69	96.10	96.30
20-40	11000.27	34.00	34.10
20-50	17144.02	53.00	53.20
40-70	15066.42	46.60	46.70
60-80	5108.79	15.80	15.80
70-80	1493.21	4.60	4.60
80-90	94.50	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	32247.24	99.70	100.00

Total Luminaire Efficiency = 99.70%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	1189.54
10-20	3403.29
20-30	5027.23
30-40	5973.04
40-50	6143.74
50-60	5307.09
60-70	3615.59
70-80	1493.21
80-90	94.50
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

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HZCAS310HTVHOWT50120-277V.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	90	88	86
2	100	92	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	62
4	84	73	64	58	82	71	63	57	69	62	57	66	61	56	64	59	55	53
5	77	65	56	50	75	64	56	50	62	55	49	60	53	49	58	52	48	46
6	71	59	50	44	70	58	49	43	56	49	43	54	48	43	53	47	42	40
7	66	53	45	39	65	52	44	39	51	44	38	49	43	38	48	42	38	36
8	62	49	40	35	60	48	40	34	47	39	34	45	39	34	44	38	34	32
9	58	45	37	31	56	44	36	31	43	36	31	42	35	31	41	35	31	29
10	54	41	33	28	53	41	33	28	40	33	28	39	32	28	38	32	28	26

**IES INDOOR REPORT**  
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**UGR TABLE - CORRECTED**

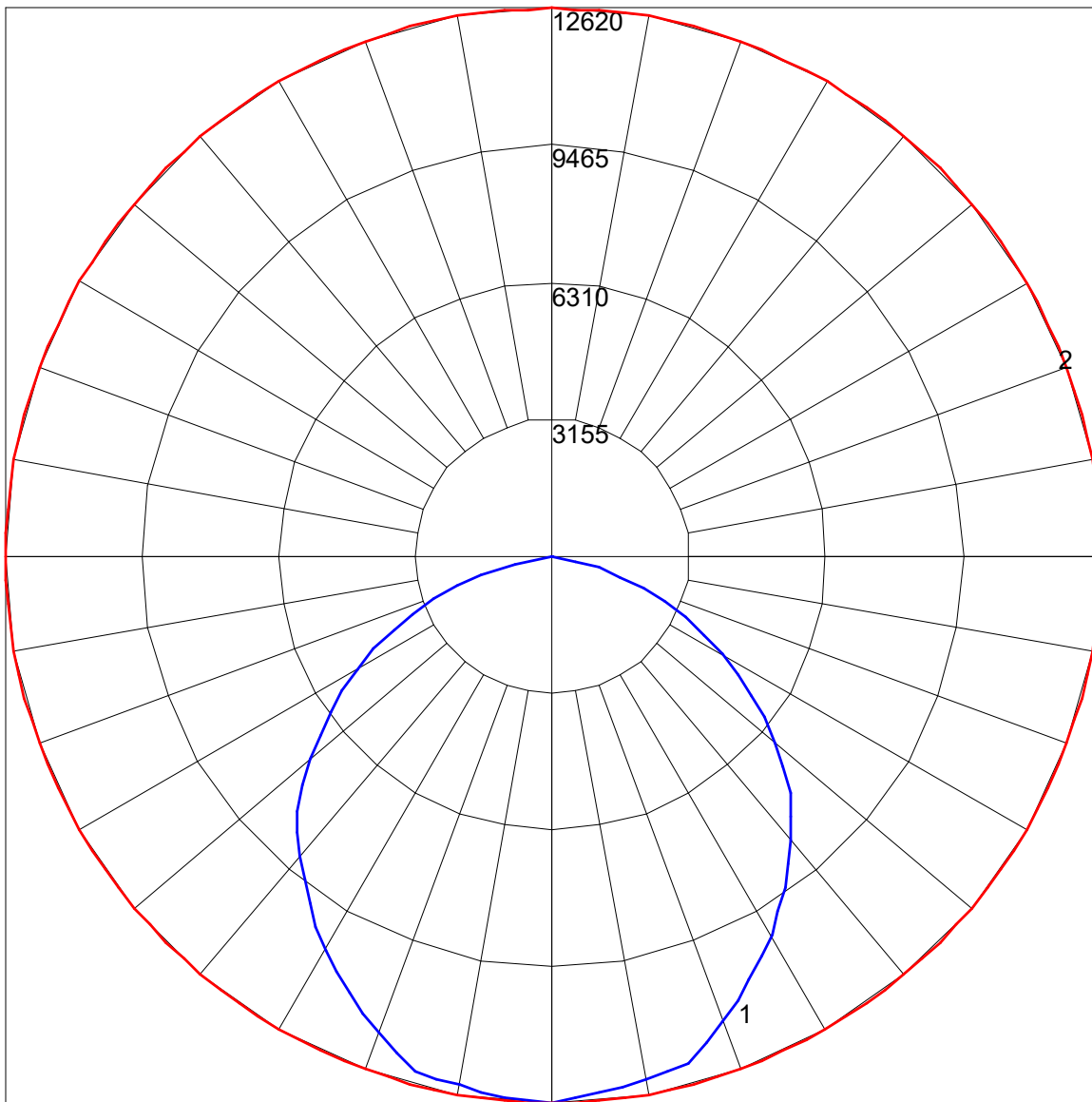
Reflectances

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

Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	20.0	21.6	20.4	21.9	22.2	12.1	12.1	12.1	12.1	12.1
	3H	21.4	22.8	21.8	23.1	23.5	12.1	12.1	12.1	12.1	12.1
	4H	21.7	23.0	22.1	23.3	23.7	12.1	12.1	12.1	12.1	12.1
	6H	21.7	22.9	22.1	23.2	23.6	12.1	12.1	12.1	12.1	12.1
	8H	21.6	22.8	22.1	23.2	23.6	12.1	12.1	12.1	12.1	12.1
	12H	21.6	22.7	22.1	23.1	23.5	12.1	12.1	12.1	12.1	12.1
4H	2H	20.1	21.4	20.5	21.7	22.1	12.1	12.6	12.1	12.9	13.3
	3H	21.6	22.7	22.1	23.1	23.5	12.1	12.8	12.1	13.2	13.6
	4H	22.0	22.9	22.4	23.3	23.8	12.1	12.6	12.1	13.1	13.5
	6H	22.0	22.8	22.5	23.3	23.7	12.1	12.5	12.1	12.9	13.4
	8H	22.0	22.7	22.4	23.2	23.6	12.1	12.4	12.1	12.8	13.3
	12H	21.9	22.6	22.4	23.1	23.6	12.1	12.2	12.1	12.7	13.2
8H	4H	21.9	22.7	22.4	23.1	23.6	12.8	13.5	13.2	14.0	14.4
	6H	21.9	22.5	22.4	23.0	23.5	12.7	13.3	13.2	13.8	14.3
	8H	21.9	22.4	22.4	22.9	23.4	12.6	13.2	13.2	13.7	14.2
	12H	21.8	22.3	22.4	22.8	23.4	12.6	13.1	13.1	13.6	14.2
12H	4H	21.9	22.6	22.4	23.0	23.5	12.7	13.4	13.2	13.9	14.4
	6H	21.9	22.4	22.4	22.9	23.4	12.7	13.2	13.2	13.7	14.2
	8H	21.8	22.3	22.4	22.8	23.4	12.6	13.1	13.1	13.6	14.2

Maximum UGR = 23.8

POLAR GRAPH



Maximum Candela = 12619.62 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)