



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : BTRI-PRO-33-LED35-MO.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] BTRI-33-LED35-MO  
 [TESTLAB] INTERTEK  
 [ISSUE DATE] 8-9-18  
 [MANUFAC] PRUDENTIAL  
 [\_TOTALLUMINAIRELUMENS] 4579

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	7556
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	126
Total Luminaire Watts	60
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.40
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	3.29 ft
Luminous Width (90-270)	0.17 ft
Luminous Height	0.15 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	36809	23460	20355
55	37059	20981	17456
65	38495	18404	14681
75	42025	15327	11525
85	55108	11190	7742

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**CANDELA TABULATION**

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>	<u>202.5</u>
<b>0.0</b>	2053.755	2053.755	2053.755	2053.755	2053.755	2053.755	2053.755	2053.755	2053.755	2053.755
<b>2.5</b>	2059.695	2044.350	2049.300	2058.870	2063.160	2055.405	2048.970	2043.030	2065.800	2043.030
<b>5.0</b>	2065.635	2047.980	2052.600	2063.325	2064.150	2051.610	2044.350	2046.000	2064.480	2046.000
<b>7.5</b>	2045.670	2032.800	2041.875	2053.095	2060.190	2046.660	2044.350	2042.205	2072.070	2042.205
<b>10.0</b>	2029.665	2013.165	2030.325	2037.915	2043.030	2034.285	2019.765	2025.375	2048.145	2025.375
<b>12.5</b>	2011.680	1990.725	2013.165	2017.125	2020.095	2007.555	1998.315	2008.875	2022.240	2008.875
<b>15.0</b>	1983.960	1963.830	1987.095	1989.570	1991.220	1979.670	1970.595	1974.555	1996.500	1974.555
<b>17.5</b>	1952.775	1930.335	1952.280	1957.065	1951.950	1950.795	1940.730	1946.340	1964.820	1946.340
<b>20.0</b>	1912.845	1889.415	1911.360	1920.270	1911.030	1914.825	1899.645	1902.945	1936.770	1902.945
<b>22.5</b>	1871.100	1848.825	1868.625	1875.060	1865.985	1875.720	1858.065	1857.240	1879.020	1857.240
<b>25.0</b>	1829.685	1798.005	1817.970	1827.870	1817.805	1826.220	1815.165	1812.360	1832.160	1812.360
<b>27.5</b>	1777.380	1746.195	1768.140	1785.630	1767.150	1776.225	1767.150	1769.955	1787.445	1769.955
<b>30.0</b>	1717.650	1697.190	1717.650	1728.540	1713.360	1725.075	1711.215	1711.215	1740.585	1711.215
<b>32.5</b>	1666.665	1642.245	1667.490	1676.235	1657.425	1669.800	1654.125	1659.240	1683.825	1659.240
<b>35.0</b>	1614.855	1586.475	1612.545	1621.785	1601.325	1611.885	1598.685	1607.100	1632.015	1607.100
<b>37.5</b>	1558.260	1531.035	1557.930	1569.645	1546.215	1554.630	1544.565	1553.475	1580.040	1553.475
<b>40.0</b>	1497.210	1474.770	1503.645	1515.690	1494.735	1495.725	1489.785	1504.305	1526.250	1504.305
<b>42.5</b>	1438.305	1419.660	1451.010	1464.375	1436.325	1439.295	1434.675	1447.710	1475.100	1447.710
<b>45.0</b>	1386.660	1365.210	1396.395	1412.400	1376.760	1381.215	1376.925	1394.910	1424.115	1394.910
<b>47.5</b>	1330.560	1308.120	1346.895	1358.280	1321.155	1324.125	1321.815	1344.090	1369.665	1344.090
<b>50.0</b>	1272.975	1253.340	1291.125	1305.810	1267.860	1265.055	1266.540	1289.145	1318.845	1289.145
<b>52.5</b>	1211.595	1196.415	1238.160	1251.525	1207.965	1206.150	1208.790	1231.560	1264.395	1231.560
<b>55.0</b>	1153.020	1140.150	1183.875	1196.085	1149.060	1146.090	1147.080	1177.770	1212.090	1177.770
<b>57.5</b>	1094.115	1082.235	1128.105	1140.315	1092.960	1085.370	1087.680	1121.340	1155.000	1121.340
<b>60.0</b>	1036.530	1023.825	1070.355	1085.040	1032.405	1024.320	1026.960	1060.950	1097.745	1060.950
<b>62.5</b>	973.665	963.435	1012.440	1024.320	971.850	961.950	964.095	1000.065	1034.550	1000.065
<b>65.0</b>	908.820	901.065	949.905	962.280	910.470	893.475	899.580	939.675	971.850	939.675
<b>67.5</b>	842.490	839.685	888.195	900.240	843.975	829.785	834.735	875.160	910.305	875.160
<b>70.0</b>	778.800	773.355	823.020	835.725	778.965	760.980	767.580	807.180	841.995	807.180
<b>72.5</b>	716.100	709.665	759.330	770.550	713.955	696.795	701.910	741.675	771.210	741.675
<b>75.0</b>	646.635	643.005	693.330	703.065	649.110	629.640	635.085	673.695	705.705	673.695
<b>77.5</b>	577.335	578.490	626.175	636.075	580.140	563.475	566.775	605.385	634.095	605.385
<b>80.0</b>	511.665	509.850	559.350	569.250	515.460	495.990	499.950	538.230	565.950	538.230
<b>82.5</b>	444.510	442.035	490.875	500.115	447.150	428.175	434.115	469.920	492.690	469.920
<b>85.0</b>	369.105	370.755	419.430	426.360	378.675	355.740	360.360	398.640	417.945	398.640
<b>87.5</b>	275.880	279.345	324.060	328.845	291.390	260.370	262.350	298.485	312.345	298.485
<b>90.0</b>	187.935	191.565	230.010	241.230	207.240	191.895	190.245	220.770	237.270	220.770
<b>92.5</b>	172.755	175.725	210.540	221.595	192.720	181.005	181.665	207.240	220.605	207.240
<b>95.0</b>	170.775	171.105	204.600	218.130	200.640	189.750	192.885	213.015	213.180	213.015
<b>97.5</b>	184.800	179.520	210.705	227.205	211.530	205.755	206.580	215.820	221.100	215.820
<b>100.0</b>	197.175	187.275	206.415	214.170	195.195	195.855	193.215	200.805	219.945	200.805
<b>102.5</b>	194.040	183.480	195.030	197.010	177.045	179.355	177.705	187.110	213.015	187.110
<b>105.0</b>	184.305	173.745	188.925	183.645	164.175	163.515	161.700	180.510	202.455	180.510
<b>107.5</b>	171.270	166.320	182.325	174.570	150.315	152.625	155.760	174.405	197.175	174.405
<b>110.0</b>	165.000	162.525	176.715	166.155	143.880	142.395	150.150	167.640	190.080	167.640
<b>112.5</b>	157.410	155.265	165.165	160.545	139.260	136.455	143.220	159.225	184.470	159.225
<b>115.0</b>	153.780	144.045	154.110	153.285	133.155	131.505	132.990	150.150	177.375	150.150
<b>117.5</b>	142.560	127.215	145.860	146.520	128.205	126.225	125.730	146.025	168.300	146.025
<b>120.0</b>	136.785	115.500	138.105	139.260	124.575	120.615	114.345	138.435	160.710	138.435
<b>122.5</b>	120.780	109.560	129.690	133.980	119.625	113.850	107.745	129.195	154.605	129.195
<b>125.0</b>	108.075	103.455	122.760	125.895	112.365	110.055	101.970	124.245	145.695	124.245
<b>127.5</b>	98.670	96.690	116.985	119.955	106.590	101.805	96.195	118.305	137.610	118.305
<b>130.0</b>	91.080	92.400	110.550	113.850	100.980	93.720	91.245	109.560	128.370	109.560
<b>132.5</b>	86.295	89.265	105.930	107.910	93.225	88.935	87.285	102.960	119.130	102.960

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**CANDELA TABULATION - (Cont.)**

135.0	80.685	83.820	102.630	101.805	84.315	83.490	82.170	97.350	112.530	97.350
137.5	77.550	82.170	99.990	101.640	82.005	78.375	78.540	91.245	104.610	91.245
140.0	70.290	78.870	95.700	95.370	74.415	72.600	74.250	88.110	100.155	88.110
142.5	67.650	73.920	92.070	90.420	71.445	65.340	69.630	84.480	92.730	84.480
145.0	62.205	72.105	84.810	85.965	64.350	60.885	63.855	78.540	86.955	78.540
147.5	57.420	70.785	82.170	80.355	60.720	56.100	60.225	72.930	78.375	72.930
150.0	52.635	69.300	75.405	76.725	57.585	50.985	55.935	68.145	74.085	68.145
152.5	49.830	64.515	71.940	69.300	55.110	46.365	53.955	63.855	65.670	63.855
155.0	43.560	60.390	65.670	63.030	47.850	41.910	50.325	58.245	57.750	58.245
157.5	45.540	56.265	58.575	56.265	47.190	40.920	49.335	52.305	52.470	52.305
160.0	47.520	48.180	52.470	51.810	42.240	40.095	43.890	47.025	47.190	47.025
162.5	42.570	42.405	45.045	43.230	37.785	38.280	39.105	41.250	38.610	41.250
165.0	36.630	38.280	38.940	36.465	31.845	31.680	33.165	34.485	35.640	34.485
167.5	30.030	30.360	33.330	33.330	27.885	25.740	27.060	28.050	29.205	28.050
170.0	25.905	25.575	26.895	25.245	24.585	21.450	20.955	23.760	22.935	23.760
172.5	20.130	21.120	22.110	22.605	19.305	17.985	17.655	16.665	16.335	16.665
175.0	16.830	16.830	16.830	16.665	16.170	15.675	14.025	13.695	12.705	13.695
177.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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

	<u>225.0</u>	<u>247.5</u>	<u>270.0</u>	<u>292.5</u>	<u>315.0</u>	<u>337.5</u>	<u>360.0</u>
0.0	2053.755	2053.755	2053.755	2053.755	2053.755	2053.755	2053.755
2.5	2048.970	2055.405	2063.160	2058.870	2049.300	2044.350	2059.695
5.0	2044.350	2051.610	2064.150	2063.325	2052.600	2047.980	2065.635
7.5	2044.350	2046.660	2060.190	2053.095	2041.875	2032.800	2045.670
10.0	2019.765	2034.285	2043.030	2037.915	2030.325	2013.165	2029.665
12.5	1998.315	2007.555	2020.095	2017.125	2013.165	1990.725	2011.680
15.0	1970.595	1979.670	1991.220	1989.570	1987.095	1963.830	1983.960
17.5	1940.730	1950.795	1951.950	1957.065	1952.280	1930.335	1952.775
20.0	1899.645	1914.825	1911.030	1920.270	1911.360	1889.415	1912.845
22.5	1858.065	1875.720	1865.985	1875.060	1868.625	1848.825	1871.100
25.0	1815.165	1826.220	1817.805	1827.870	1817.970	1798.005	1829.685
27.5	1767.150	1776.225	1767.150	1785.630	1768.140	1746.195	1777.380
30.0	1711.215	1725.075	1713.360	1728.540	1717.650	1697.190	1717.650
32.5	1654.125	1669.800	1657.425	1676.235	1667.490	1642.245	1666.665
35.0	1598.685	1611.885	1601.325	1621.785	1612.545	1586.475	1614.855
37.5	1544.565	1554.630	1546.215	1569.645	1557.930	1531.035	1558.260
40.0	1489.785	1495.725	1494.735	1515.690	1503.645	1474.770	1497.210
42.5	1434.675	1439.295	1436.325	1464.375	1451.010	1419.660	1438.305
45.0	1376.925	1381.215	1376.760	1412.400	1396.395	1365.210	1386.660
47.5	1321.815	1324.125	1321.155	1358.280	1346.895	1308.120	1330.560
50.0	1266.540	1265.055	1267.860	1305.810	1291.125	1253.340	1272.975
52.5	1208.790	1206.150	1207.965	1251.525	1238.160	1196.415	1211.595
55.0	1147.080	1146.090	1149.060	1196.085	1183.875	1140.150	1153.020
57.5	1087.680	1085.370	1092.960	1140.315	1128.105	1082.235	1094.115
60.0	1026.960	1024.320	1032.405	1085.040	1070.355	1023.825	1036.530
62.5	964.095	961.950	971.850	1024.320	1012.440	963.435	973.665
65.0	899.580	893.475	910.470	962.280	949.905	901.065	908.820
67.5	834.735	829.785	843.975	900.240	888.195	839.685	842.490
70.0	767.580	760.980	778.965	835.725	823.020	773.355	778.800
72.5	701.910	696.795	713.955	770.550	759.330	709.665	716.100
75.0	635.085	629.640	649.110	703.065	693.330	643.005	646.635
77.5	566.775	563.475	580.140	636.075	626.175	578.490	577.335
80.0	499.950	495.990	515.460	569.250	559.350	509.850	511.665

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**CANDELA TABULATION - (Cont.)**

82.5	434.115	428.175	447.150	500.115	490.875	442.035	444.510
85.0	360.360	355.740	378.675	426.360	419.430	370.755	369.105
87.5	262.350	260.370	291.390	328.845	324.060	279.345	275.880
90.0	190.245	191.895	207.240	241.230	230.010	191.565	187.935
92.5	181.665	181.005	192.720	221.595	210.540	175.725	172.755
95.0	192.885	189.750	200.640	218.130	204.600	171.105	170.775
97.5	206.580	205.755	211.530	227.205	210.705	179.520	184.800
100.0	193.215	195.855	195.195	214.170	206.415	187.275	197.175
102.5	177.705	179.355	177.045	197.010	195.030	183.480	194.040
105.0	161.700	163.515	164.175	183.645	188.925	173.745	184.305
107.5	155.760	152.625	150.315	174.570	182.325	166.320	171.270
110.0	150.150	142.395	143.880	166.155	176.715	162.525	165.000
112.5	143.220	136.455	139.260	160.545	165.165	155.265	157.410
115.0	132.990	131.505	133.155	153.285	154.110	144.045	153.780
117.5	125.730	126.225	128.205	146.520	145.860	127.215	142.560
120.0	114.345	120.615	124.575	139.260	138.105	115.500	136.785
122.5	107.745	113.850	119.625	133.980	129.690	109.560	120.780
125.0	101.970	110.055	112.365	125.895	122.760	103.455	108.075
127.5	96.195	101.805	106.590	119.955	116.985	96.690	98.670
130.0	91.245	93.720	100.980	113.850	110.550	92.400	91.080
132.5	87.285	88.935	93.225	107.910	105.930	89.265	86.295
135.0	82.170	83.490	84.315	101.805	102.630	83.820	80.685
137.5	78.540	78.375	82.005	101.640	99.990	82.170	77.550
140.0	74.250	72.600	74.415	95.370	95.700	78.870	70.290
142.5	69.630	65.340	71.445	90.420	92.070	73.920	67.650
145.0	63.855	60.885	64.350	85.965	84.810	72.105	62.205
147.5	60.225	56.100	60.720	80.355	82.170	70.785	57.420
150.0	55.935	50.985	57.585	76.725	75.405	69.300	52.635
152.5	53.955	46.365	55.110	69.300	71.940	64.515	49.830
155.0	50.325	41.910	47.850	63.030	65.670	60.390	43.560
157.5	49.335	40.920	47.190	56.265	58.575	56.265	45.540
160.0	43.890	40.095	42.240	51.810	52.470	48.180	47.520
162.5	39.105	38.280	37.785	43.230	45.045	42.405	42.570
165.0	33.165	31.680	31.845	36.465	38.940	38.280	36.630
167.5	27.060	25.740	27.885	33.330	33.330	30.360	30.030
170.0	20.955	21.450	24.585	25.245	26.895	25.575	25.905
172.5	17.655	17.985	19.305	22.605	22.110	21.120	20.130
175.0	14.025	15.675	16.170	16.665	16.830	16.830	16.830
177.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	754.03	N.A.	10.00
0-30	1592.36	N.A.	21.10
0-40	2599.79	N.A.	34.40
0-60	4716.26	N.A.	62.40
0-80	6331.29	N.A.	83.80
0-90	6742.74	N.A.	89.20
10-90	6547.4	N.A.	86.60
20-40	1845.76	N.A.	24.40
20-50	2919.1	N.A.	38.60
40-70	3031.84	N.A.	40.10
60-80	1615.03	N.A.	21.40
70-80	699.67	N.A.	9.30
80-90	411.45	N.A.	5.40
90-110	408.42	N.A.	5.40
90-120	553.15	N.A.	7.30
90-130	657.52	N.A.	8.70
90-150	775.79	N.A.	10.30
90-180	813.60	N.A.	10.80
110-180	405.18	N.A.	5.40
0-180	7556.35	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	195.34
10-20	558.69
20-30	838.34
30-40	1007.42
40-50	1073.34
50-60	1043.13
60-70	915.37
70-80	699.67
80-90	411.45
90-100	220.01
100-110	188.42
110-120	144.73
120-130	104.37
130-140	71.81
140-150	46.46
150-160	25.93
160-170	10.31
170-180	1.57

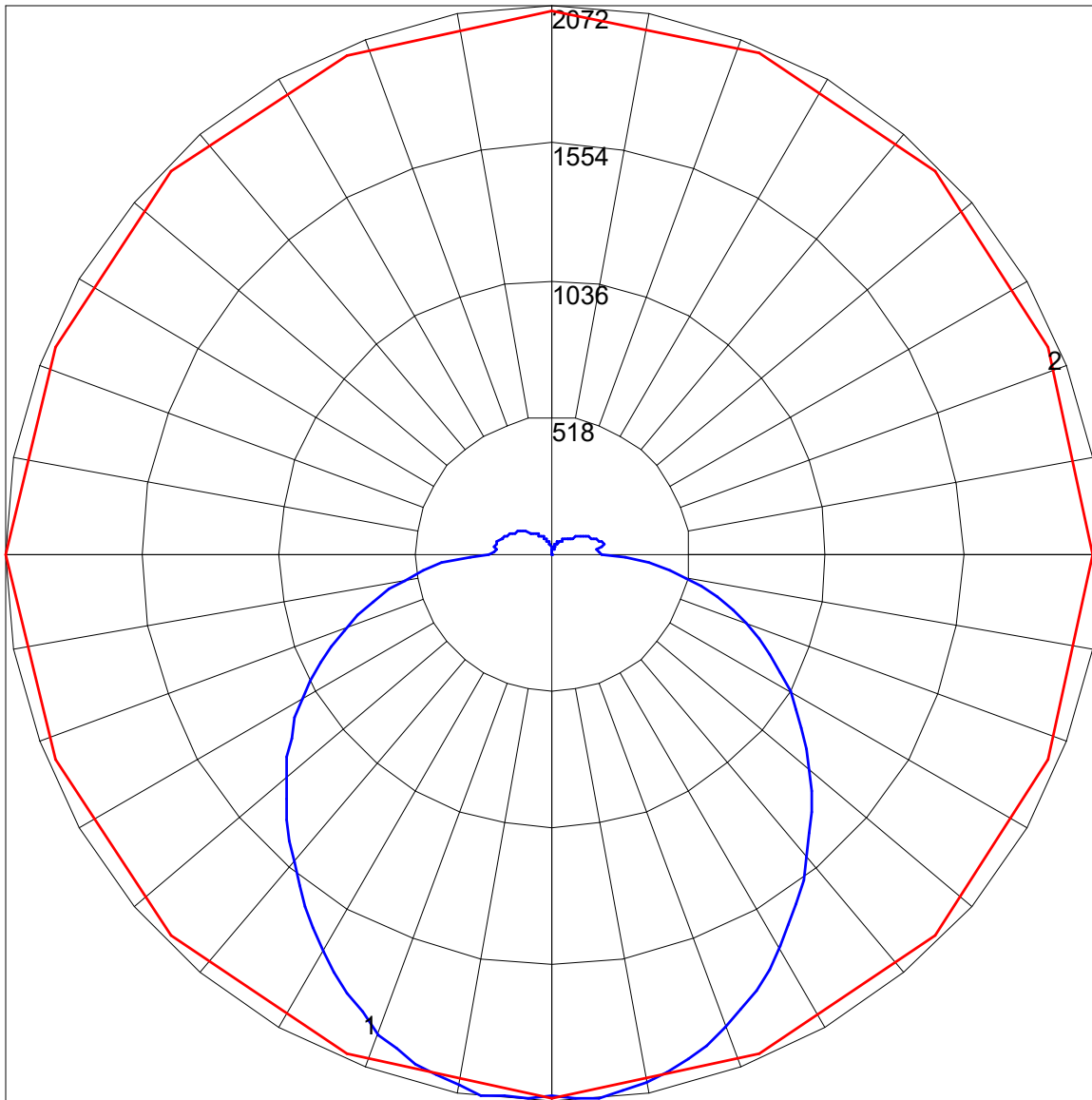
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	116	116	116	116	113	113	113	113	105	105	105	98	98	98	92	92	92	89
1	104	99	94	89	100	95	91	87	89	85	82	83	80	77	78	75	73	70
2	94	85	77	71	90	82	75	69	77	71	66	72	67	63	67	63	60	57
3	85	74	65	58	82	71	63	57	67	60	54	63	57	52	59	54	50	47
4	78	65	56	49	74	63	54	48	59	52	46	55	49	44	52	47	42	40
5	71	58	48	41	68	56	47	41	53	45	39	49	43	38	47	41	36	34
6	66	52	43	36	63	50	42	35	47	40	34	45	38	33	42	36	32	30
7	61	47	38	32	58	46	37	31	43	36	30	41	34	29	38	33	28	26
8	57	43	34	28	54	42	33	28	39	32	27	37	31	26	35	29	25	23
9	53	39	31	25	51	38	30	25	36	29	24	34	28	23	33	27	23	21
10	49	36	28	23	48	35	27	22	33	26	22	32	26	21	30	25	21	19

POLAR GRAPH



Maximum Candela = 2072.07 Located At Horizontal Angle = 180, Vertical Angle = 7.5  
# 1 - Vertical Plane Through Horizontal Angles (180 - 0) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (7.5) (Through Max. Cd.)