



IES INDOOR REPORT

PHOTOMETRIC FILENAME : BS400LEDEMHOWT40120-277V_P.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TESTLAB] Photopia 2017.2.1 see: www.ltioptics.com/ies

[ISSUEDATE]

[TESTDATE] Mon Feb 05 12:10:04 2018

[TEST] 1

[MANUFAC] BEGHELLI

[LUMCAT]

[LUMINAIRE] BS400LEDEMHOWT40120-277V (REMOTE)

[LAMP] LED 0.195W White 5630 package (65mA)

[LAMPCAT] SPMWHT541MP5WAT0S5

IESNA:LM-63-2002[TEST] 6,552[TESTLAB] CSA Group

[ISSUEDATE] 7/24/2013 1:09:24 PM

[OTHER] Luminous shape: Rectangle

[OTHER] Luminous dimensions (feet)

[OTHER] 0 - 180 Axis: 4.2

[OTHER] 90 - 270 Axis: 0.6

[OTHER] Height: 0.1

CHARACTERISTICS

Lumens Per Lamp	14.275 (192 lamps)
Total Lamp Lumens	2740.8
Luminaire Lumens	2049
Total Luminaire Efficiency	75 %
Luminaire Efficacy Rating (LER)	34
Total Luminaire Watts	60
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.82
Spacing Criterion (90-270)	1.82
Spacing Criterion (Diagonal)	1.98
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	1.45 ft
Luminous Width (90-270)	1.45 ft
Luminous Height	0.27 ft

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LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	1960	1929	1978
55	2320	2122	2335
65	2795	2414	2772
75	3246	2709	3204
85	3588	2895	3595

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CANDELA TABULATION

	0	5	10	15	20	25	30	35	40	45
0.0	263.321	263.321	263.321	263.321	263.321	263.321	263.321	263.321	263.321	263.321
2.5	263.525	263.349	264.511	266.992	263.579	262.465	260.460	258.261	262.117	263.777
5.0	262.397	265.797	268.873	269.151	266.848	268.134	264.412	265.259	266.049	267.182
7.5	271.253	269.213	272.222	270.412	269.995	270.222	270.021	269.216	270.188	270.533
10.0	282.134	274.381	276.174	277.131	274.905	275.995	274.253	275.619	276.123	275.488
12.5	280.542	284.780	283.689	283.556	283.211	286.653	281.718	286.420	282.721	279.692
15.0	286.633	289.777	289.746	291.131	294.695	287.531	292.763	289.803	292.964	290.151
17.5	296.058	294.423	297.834	296.471	297.287	298.123	300.619	299.962	299.307	300.358
20.0	298.970	300.828	302.242	301.721	305.891	306.228	308.254	306.404	307.599	309.302
22.5	302.622	307.171	308.477	309.477	309.378	311.186	313.324	314.486	316.458	318.752
25.0	310.197	310.180	311.928	314.310	314.220	316.324	321.985	323.240	322.656	323.568
27.5	315.146	315.554	313.933	316.766	317.854	319.885	325.716	328.509	329.968	327.534
30.0	313.415	316.497	317.506	318.687	320.152	325.378	330.143	331.225	330.891	331.160
32.5	314.812	318.095	317.540	320.775	326.248	327.081	331.871	334.517	334.684	335.549
35.0	316.157	317.653	319.871	323.007	327.305	331.594	334.308	336.911	338.367	339.427
37.5	320.990	319.897	320.820	325.019	326.495	332.463	335.478	338.696	338.413	339.874
40.0	322.517	322.574	324.019	325.410	329.628	331.888	334.767	338.288	339.523	339.322
42.5	321.608	322.254	324.840	327.342	330.806	333.523	334.531	339.129	337.939	339.642
45.0	323.197	327.044	328.033	327.546	331.741	332.922	336.707	336.523	337.274	338.903
47.5	325.676	325.115	326.956	328.857	333.005	334.517	336.846	335.345	337.092	336.333
50.0	331.109	326.027	328.132	329.429	331.829	333.781	333.396	334.837	335.274	335.364
52.5	328.228	328.393	329.693	328.758	332.010	333.090	333.152	333.801	333.024	332.333
55.0	331.373	329.931	330.900	331.577	333.574	331.818	332.254	331.679	329.903	329.543
57.5	330.223	332.356	332.353	332.163	332.724	329.730	330.735	327.752	327.866	328.679
60.0	330.639	332.237	330.058	330.401	329.582	328.180	326.461	326.415	323.795	323.747
62.5	328.325	328.744	328.172	328.058	327.514	327.718	324.625	321.809	320.313	318.152
65.0	325.191	324.999	324.537	325.064	324.489	320.064	320.118	316.276	313.565	314.120
67.5	319.078	320.166	318.769	319.370	318.256	315.171	311.103	310.548	308.780	306.860
70.0	308.523	309.888	308.489	309.588	308.755	306.316	303.004	300.687	299.387	298.027
72.5	297.370	295.647	295.460	295.500	294.738	295.010	291.792	291.078	288.052	288.131
75.0	280.270	278.947	281.199	279.389	280.230	279.613	276.718	276.372	274.528	273.752
77.5	258.635	261.380	261.811	262.414	262.788	261.516	261.174	260.349	259.278	257.131
80.0	239.057	237.989	240.134	240.729	241.156	242.238	242.009	241.944	241.369	241.780
82.5	216.315	216.091	218.533	218.895	219.703	219.445	220.830	220.445	219.547	219.397
85.0	192.804	193.088	195.113	195.382	196.736	198.901	197.711	198.790	199.014	199.467
87.5	170.674	170.498	171.456	172.453	175.912	175.351	174.844	175.611	178.535	175.133
90.0	149.209	150.053	150.166	151.189	151.469	153.013	153.535	154.826	155.742	154.416
92.5	128.840	130.220	129.305	129.996	131.138	132.234	132.891	134.515	134.339	135.866
95.0	112.177	111.999	110.851	111.596	112.514	113.834	112.996	114.594	115.330	114.871
97.5	96.336	95.511	95.398	94.355	94.443	95.491	96.423	95.800	97.355	96.287
100.0	82.511	81.123	80.908	79.587	79.452	79.341	80.083	80.001	80.885	80.616
102.5	69.262	69.488	67.536	66.865	65.539	65.635	65.726	65.545	66.058	64.973
105.0	57.012	57.768	56.593	55.514	53.706	53.508	52.972	52.644	53.270	52.326
107.5	48.658	47.247	47.128	45.797	43.916	43.281	42.046	41.904	41.366	41.516
110.0	39.284	38.984	38.811	36.890	35.757	33.581	32.587	32.326	32.366	31.360
112.5	31.595	32.230	30.533	28.975	28.040	26.731	25.049	25.196	23.896	23.873
115.0	25.434	25.519	24.363	23.522	21.805	20.408	19.105	17.938	17.309	17.057
117.5	20.218	19.762	19.595	18.643	17.354	15.247	14.031	12.691	12.048	12.244
120.0	15.606	15.216	14.788	14.071	12.867	11.045	9.895	8.451	8.040	7.626
122.5	11.782	11.281	10.669	10.048	9.468	8.179	7.167	5.799	4.875	4.686
125.0	8.649	8.247	7.768	7.224	6.561	5.881	4.705	3.813	2.822	2.351
127.5	5.819	5.762	5.530	4.943	4.501	3.816	3.006	2.269	1.425	1.009
130.0	3.887	3.705	3.620	3.309	2.768	2.252	1.705	1.133	0.807	0.700
132.5	2.388	2.343	2.125	1.904	1.620	1.167	0.816	0.609	0.640	0.646

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135.0	1.195	1.060	0.986	0.833	0.717	0.623	0.578	0.603	0.708	0.646
137.5	0.552	0.632	0.592	0.640	0.564	0.615	0.584	0.635	0.623	0.510
140.0	0.456	0.501	0.544	0.572	0.501	0.555	0.462	0.538	0.535	0.482
142.5	0.535	0.465	0.499	0.493	0.493	0.479	0.448	0.465	0.462	0.419
145.0	0.343	0.428	0.340	0.394	0.425	0.402	0.368	0.399	0.377	0.448
147.5	0.382	0.326	0.323	0.360	0.326	0.388	0.448	0.357	0.388	0.431
150.0	0.334	0.286	0.329	0.258	0.309	0.261	0.323	0.331	0.357	0.385
152.5	0.235	0.261	0.238	0.269	0.303	0.246	0.278	0.314	0.334	0.224
155.0	0.127	0.201	0.286	0.207	0.241	0.218	0.261	0.224	0.275	0.258
157.5	0.201	0.212	0.195	0.164	0.218	0.181	0.176	0.210	0.207	0.184
160.0	0.235	0.147	0.142	0.147	0.142	0.159	0.142	0.147	0.170	0.167
162.5	0.119	0.113	0.133	0.142	0.161	0.144	0.153	0.133	0.195	0.085
165.0	0.082	0.108	0.071	0.093	0.085	0.068	0.091	0.108	0.082	0.079
167.5	0.034	0.037	0.045	0.045	0.045	0.051	0.045	0.014	0.040	0.065
170.0	0.048	0.011	0.051	0.057	0.057	0.040	0.071	0.011	0.028	0.048
172.5	0.028	0.034	0.023	0.023	0.025	0.028	0.042	0.028	0.014	0.000
175.0	0.006	0.040	0.000	0.000	0.000	0.000	0.000	0.025	0.037	0.000
177.5	0.079	0.045	0.079	0.042	0.000	0.088	0.000	0.031	0.000	0.000
180.0	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Vert. Angles **Horizontal Angles**

	<u>50</u>	<u>55</u>	<u>60</u>	<u>65</u>	<u>70</u>	<u>75</u>	<u>80</u>	<u>85</u>	<u>90</u>
0.0	263.321	263.321	263.321	263.321	263.321	263.321	263.321	263.321	263.321
2.5	257.828	263.989	259.831	258.097	269.519	262.970	265.012	262.553	256.389
5.0	268.723	262.899	264.972	267.939	263.086	267.363	268.261	267.250	261.465
7.5	269.791	272.686	268.380	269.973	270.440	273.052	270.295	269.162	277.553
10.0	277.383	277.145	280.179	278.760	274.913	273.219	274.684	277.194	272.958
12.5	284.310	281.375	283.607	283.857	284.777	282.327	279.621	282.114	286.723
15.0	291.701	292.777	290.939	290.049	288.117	291.316	289.684	288.927	291.426
17.5	299.673	299.956	298.862	295.296	296.304	294.599	295.471	296.777	294.962
20.0	309.044	308.355	304.959	304.537	303.302	303.205	300.044	299.834	300.741
22.5	315.642	317.537	313.497	312.840	310.197	307.392	305.188	305.126	305.415
25.0	323.234	320.999	318.769	315.137	315.540	310.183	311.392	308.982	309.276
27.5	328.648	328.679	324.143	320.752	318.217	316.279	314.191	312.112	312.800
30.0	333.041	331.353	329.466	326.602	321.514	318.917	315.681	316.421	312.545
32.5	334.141	334.279	331.781	330.376	326.676	320.322	318.418	315.387	315.616
35.0	338.279	337.622	334.679	331.565	327.877	324.908	321.803	319.013	319.296
37.5	340.067	335.718	334.684	332.993	327.676	324.837	322.945	319.138	320.650
40.0	339.846	340.209	336.379	333.557	330.843	326.106	322.820	320.401	323.228
42.5	339.427	338.900	335.540	333.622	329.942	329.064	324.327	323.050	321.832
45.0	338.333	338.645	336.396	334.302	331.667	328.979	326.308	325.044	326.271
47.5	334.690	335.835	335.636	335.990	332.013	330.517	327.829	327.469	326.432
50.0	336.146	333.180	333.730	333.792	331.410	330.546	329.310	329.072	327.072
52.5	334.582	333.815	330.073	331.962	333.905	331.520	331.050	329.611	329.863
55.0	330.934	330.217	332.002	331.886	330.645	333.359	331.149	328.747	333.540
57.5	327.248	328.291	332.160	332.497	331.259	330.571	329.707	331.285	332.568
60.0	323.344	325.310	328.438	330.359	330.039	330.197	331.005	329.160	330.565
62.5	319.645	321.789	322.033	326.013	327.767	327.764	327.931	328.475	327.733
65.0	316.001	316.112	318.013	321.356	323.157	324.384	323.050	322.820	322.562
67.5	308.069	310.169	311.630	313.744	315.157	314.798	317.067	316.050	316.854
70.0	298.726	301.443	302.656	302.916	305.163	306.126	305.885	305.137	305.197
72.5	287.494	289.896	290.848	292.826	292.392	293.542	293.216	293.120	292.684
75.0	274.213	274.695	277.511	275.871	277.698	276.888	278.018	276.732	276.681
77.5	258.604	258.292	260.128	260.372	259.522	259.465	257.933	258.984	256.190
80.0	239.706	240.278	240.454	241.389	240.326	239.136	239.281	235.173	235.000

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82.5	219.363	219.099	219.405	219.504	219.173	215.805	216.533	215.516	214.272
85.0	197.915	197.688	197.334	196.884	196.105	195.113	192.524	190.445	193.167
87.5	175.779	175.762	175.960	173.745	172.946	172.093	170.473	168.538	168.852
90.0	154.934	153.962	152.957	153.030	151.419	149.829	147.438	148.353	146.659
92.5	134.115	134.764	133.132	131.826	131.325	129.795	129.260	130.333	128.172
95.0	114.829	114.571	113.656	112.662	112.203	111.945	110.755	109.659	112.489
97.5	97.287	96.460	94.956	94.667	94.395	94.848	94.837	95.602	96.259
100.0	80.740	80.015	79.599	79.585	78.545	79.307	81.146	80.995	81.670
102.5	65.026	66.094	65.465	65.856	65.930	66.919	68.361	69.879	68.811
105.0	52.440	53.176	52.743	53.284	53.142	54.751	56.655	57.191	57.664
107.5	41.423	41.222	41.950	42.377	43.760	45.142	46.749	48.239	48.375
110.0	32.009	31.890	32.383	34.196	35.040	37.309	37.938	39.253	39.077
112.5	23.805	24.252	25.230	26.462	27.774	29.904	31.564	31.454	31.508
115.0	17.595	17.915	18.550	20.422	22.258	23.626	24.785	25.422	25.233
117.5	12.349	12.368	13.615	15.720	17.281	18.063	19.377	20.012	20.012
120.0	8.167	8.683	9.878	11.487	12.793	14.063	14.830	15.354	15.148
122.5	4.853	5.853	7.105	8.584	9.119	10.207	11.125	11.533	11.436
125.0	2.841	3.790	4.589	5.567	6.663	7.204	8.190	8.264	8.445
127.5	1.385	2.201	3.071	3.878	4.470	5.164	5.663	5.799	5.909
130.0	0.796	1.105	1.637	2.337	2.870	3.119	3.697	3.924	3.943
132.5	0.663	0.626	0.776	1.144	1.516	1.824	2.119	2.499	2.207
135.0	0.538	0.598	0.677	0.657	0.768	0.960	1.091	1.232	1.258
137.5	0.592	0.518	0.615	0.626	0.643	0.603	0.572	0.671	0.584
140.0	0.618	0.490	0.533	0.504	0.513	0.527	0.496	0.448	0.499
142.5	0.482	0.465	0.501	0.442	0.456	0.518	0.433	0.484	0.473
145.0	0.442	0.428	0.416	0.411	0.448	0.453	0.385	0.450	0.422
147.5	0.357	0.419	0.343	0.388	0.320	0.402	0.371	0.402	0.385
150.0	0.337	0.309	0.377	0.283	0.246	0.292	0.306	0.300	0.286
152.5	0.286	0.263	0.303	0.295	0.241	0.238	0.337	0.269	0.275
155.0	0.238	0.255	0.201	0.227	0.184	0.212	0.178	0.263	0.229
157.5	0.178	0.159	0.235	0.178	0.201	0.198	0.173	0.212	0.136
160.0	0.167	0.102	0.096	0.198	0.161	0.139	0.212	0.181	0.156
162.5	0.076	0.110	0.099	0.102	0.147	0.088	0.139	0.150	0.071
165.0	0.079	0.122	0.099	0.085	0.068	0.074	0.119	0.122	0.059
167.5	0.034	0.042	0.034	0.057	0.037	0.065	0.068	0.020	0.017
170.0	0.023	0.040	0.011	0.020	0.045	0.023	0.048	0.040	0.028
172.5	0.025	0.031	0.045	0.051	0.011	0.006	0.040	0.020	0.031
175.0	0.034	0.042	0.034	0.000	0.017	0.000	0.000	0.000	0.000
177.5	0.040	0.037	0.000	0.042	0.051	0.000	0.000	0.000	0.023
180.0	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	108.47	4.00	5.30
0-30	254.79	9.30	12.40
0-40	460.99	16.80	22.50
0-60	1014.83	37.00	49.50
0-80	1622.59	59.20	79.20
0-90	1836.4	67.00	89.60
10-90	1810.67	66.10	88.40
20-40	352.53	12.90	17.20
20-50	609.54	22.20	29.70
40-70	870.42	31.80	42.50
60-80	607.76	22.20	29.70
70-80	291.17	10.60	14.20
80-90	213.81	7.80	10.40
90-110	183.67	6.70	9.00
90-120	205.77	7.50	10.00
90-130	211.52	7.70	10.30
90-150	212.63	7.80	10.40
90-180	212.77	7.80	10.40
110-180	29.10	1.10	1.40
0-180	2049.16	74.80	100.00

Total Luminaire Efficiency = 74.80%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	25.73
10-20	82.74
20-30	146.32
30-40	206.21
40-50	257.01
50-60	296.82
60-70	316.59
70-80	291.17
80-90	213.81
90-100	124.57
100-110	59.10
110-120	22.10
120-130	5.75
130-140	0.85
140-150	0.26
150-160	0.11
160-170	0.03
170-180	0.00

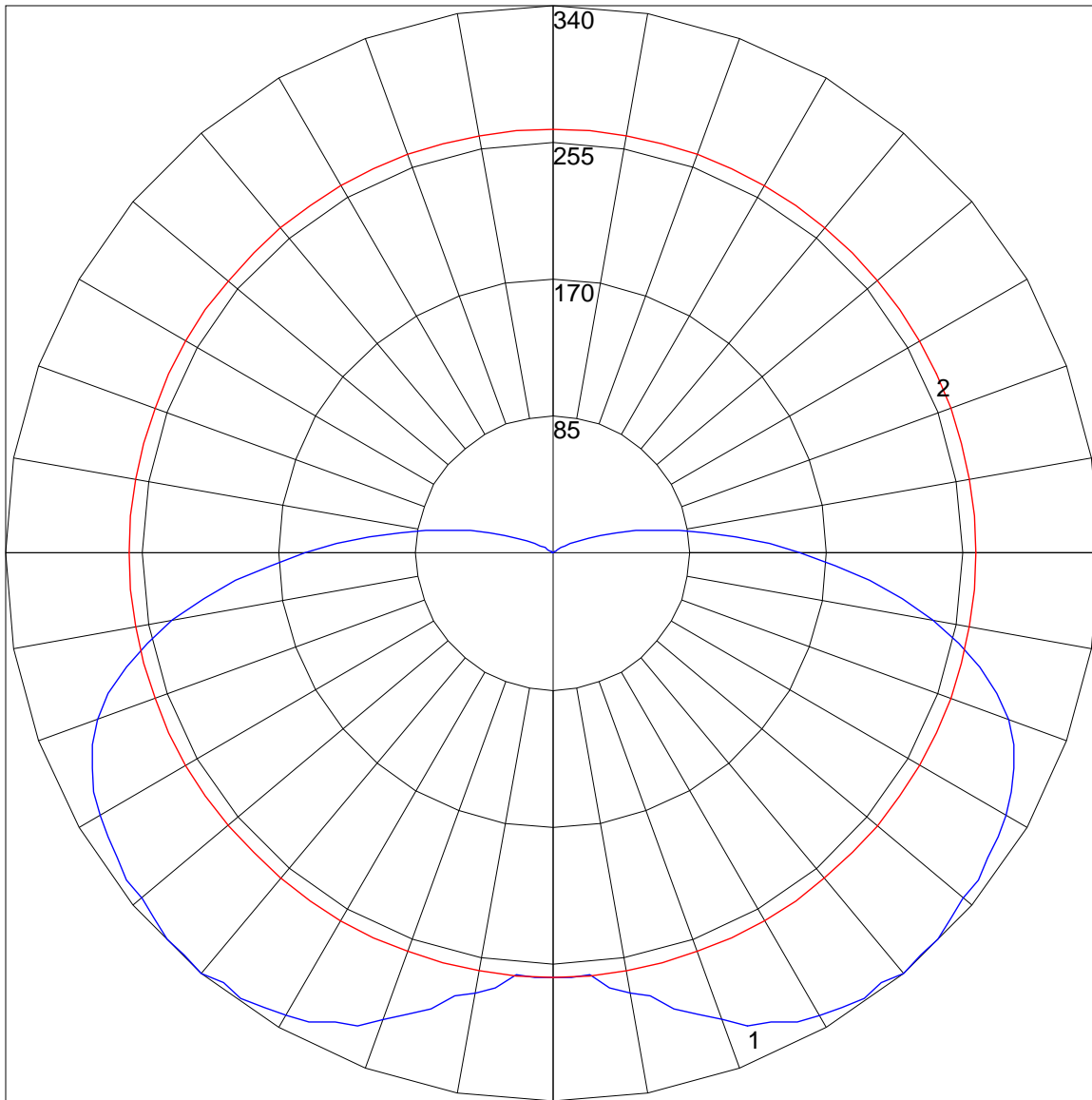
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	87	87	87	87	84	84	84	84	79	79	79	74	74	74	69	69	69	67
1	76	70	66	61	72	68	63	60	63	59	56	59	56	53	55	52	50	48
2	67	59	52	46	64	57	50	45	52	47	43	49	44	41	45	42	39	36
3	60	50	42	36	57	48	41	35	45	39	34	41	36	32	38	34	31	28
4	54	43	35	29	52	42	34	29	39	32	27	36	31	26	33	29	25	23
5	49	38	30	24	47	37	29	24	34	28	23	32	26	22	29	25	21	19
6	45	34	26	21	43	33	25	20	30	24	19	28	23	19	26	22	18	16
7	42	30	23	18	40	29	22	17	27	21	17	25	20	16	24	19	15	14
8	38	27	20	15	37	26	20	15	25	19	15	23	18	14	22	17	13	12
9	36	25	18	14	34	24	18	13	23	17	13	21	16	12	20	15	12	10
10	33	23	16	12	32	22	16	12	21	15	11	20	15	11	18	14	11	9

POLAR GRAPH



Maximum Candela = 340.209 Located At Horizontal Angle = 55, Vertical Angle = 40
1 - Vertical Plane Through Horizontal Angles (55 - 235) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0)