



IES INDOOR REPORT

PHOTOMETRIC FILENAME : TUNGSTEN_24V_18W.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] C9055R
 [TESTLAB] LUXNET
 [ISSUEDATE] 5/5/2020
 [MANUFAC] BeLuce Canada Inc.
 [LAMP] Tungsten Incandescent Lamp 24V 18W WHT
 [MORE] BeLuce LUXNET REMOTE HEAD CAT
 [MORE] SPECULAR REFLECTOR AND PRISMATIC GLASS LENS
 [MORE] LUMEN RATING = 239 LMS

CHARACTERISTICS

Lumens Per Lamp	239 (1 lamp)
Total Lamp Lumens	239
Luminaire Lumens	109
Total Luminaire Efficiency	46 %
Luminaire Efficacy Rating (LER)	6
Total Luminaire Watts	18
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.40
Spacing Criterion (90-270)	0.26
Spacing Criterion (Diagonal)	0.32
Basic Luminous Shape	Point
Luminous Length (0-180)	0.00 ft
Luminous Width (90-270)	0.00 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : TUNGSTEN_24V_18W.IES

CANDELA TABULATION

	<u>0</u>	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>	<u>35</u>	<u>40</u>	<u>45</u>
0	513.940	513.940	513.940	513.940	513.940	513.940	513.940	513.940	513.940	513.940
1	562.459	600.196	591.211	587.617	582.226	573.241	555.271	549.880	551.677	542.692
2	628.947	650.511	648.714	636.135	630.744	618.165	598.399	584.023	580.429	569.647
3	672.075	690.045	682.857	670.278	663.090	650.511	625.353	603.789	598.399	582.226
4	724.188	704.421	695.436	682.857	677.466	654.105	627.150	603.789	591.211	569.647
5	733.173	691.842	682.857	670.278	657.699	639.729	607.383	580.429	558.865	535.504
6	725.985	643.323	630.744	619.962	609.180	585.820	558.865	531.910	497.767	467.218
7	659.496	553.474	544.489	535.504	521.128	495.970	476.203	447.451	409.714	380.962
8	569.647	454.639	445.654	436.669	416.902	393.541	384.556	354.008	316.271	291.113
9	461.827	350.414	343.226	328.850	309.083	292.910	289.316	262.361	231.812	215.639
10	341.429	256.970	240.797	237.203	217.436	197.669	195.872	183.293	159.932	145.556
11	253.376	183.293	172.511	159.932	145.556	134.774	136.571	120.399	106.023	104.226
12	177.902	129.383	116.805	115.008	102.429	89.850	86.256	80.865	75.474	71.880
13	125.789	89.850	80.865	73.677	66.489	61.098	62.895	57.504	55.707	55.707
14	89.850	57.504	57.504	52.113	50.316	44.925	44.925	44.925	43.128	46.722
15	55.707	41.331	37.737	32.346	32.346	34.143	39.534	35.940	37.737	35.940
16	43.128	28.752	25.158	25.158	25.158	23.361	30.549	35.940	32.346	32.346
17	25.158	17.970	23.361	17.970	19.767	25.158	26.955	32.346	30.549	34.143
18	23.361	19.767	14.376	16.173	19.767	19.767	30.549	25.158	30.549	35.940
19	10.782	10.782	12.579	12.579	14.376	19.767	25.158	25.158	30.549	32.346
20	16.173	14.376	12.579	12.579	19.767	23.361	26.955	26.955	32.346	17.970
21	12.579	8.985	10.782	8.985	16.173	21.564	26.955	26.955	28.752	14.376
22	7.188	8.985	8.985	12.579	19.767	25.158	25.158	28.752	19.767	10.782
23	12.579	10.782	7.188	14.376	17.970	21.564	25.158	28.752	8.985	10.782
24	5.391	12.579	8.985	14.376	25.158	25.158	25.158	17.970	8.985	8.985
25	8.985	5.391	12.579	12.579	19.767	23.361	26.955	10.782	10.782	3.594
26	3.594	8.985	8.985	14.376	25.158	25.158	25.158	12.579	5.391	1.797
27	7.188	5.391	10.782	14.376	26.955	26.955	21.564	12.579	1.797	1.797
28	3.594	7.188	12.579	21.564	28.752	26.955	17.970	14.376	3.594	1.797
29	5.391	7.188	10.782	21.564	28.752	28.752	14.376	10.782	3.594	1.797
30	1.797	5.391	16.173	21.564	35.940	30.549	16.173	8.985	3.594	1.797
31	10.782	7.188	16.173	30.549	32.346	35.940	14.376	3.594	3.594	5.391
32	1.797	7.188	16.173	28.752	32.346	28.752	10.782	5.391	5.391	3.594
33	5.391	7.188	17.970	30.549	37.737	25.158	8.985	7.188	8.985	5.391
34	3.594	7.188	19.767	34.143	35.940	23.361	7.188	3.594	3.594	3.594
35	10.782	10.782	19.767	37.737	37.737	19.767	5.391	5.391	5.391	1.797
36	1.797	8.985	23.361	32.346	39.534	17.970	7.188	3.594	5.391	7.188
37	10.782	10.782	16.173	34.143	41.331	16.173	5.391	5.391	3.594	7.188
38	1.797	10.782	19.767	34.143	35.940	16.173	5.391	1.797	3.594	14.376
39	5.391	10.782	21.564	32.346	34.143	12.579	3.594	3.594	5.391	19.767
40	3.594	7.188	19.767	34.143	28.752	8.985	5.391	3.594	7.188	25.158
41	0.000	8.985	17.970	34.143	25.158	12.579	7.188	3.594	12.579	26.955
42	7.188	12.579	23.361	32.346	19.767	8.985	1.797	5.391	14.376	30.549
43	0.000	7.188	23.361	28.752	21.564	7.188	3.594	5.391	21.564	32.346
44	0.000	10.782	21.564	28.752	19.767	3.594	3.594	3.594	25.158	30.549
45	5.391	10.782	21.564	26.955	14.376	1.797	3.594	5.391	30.549	32.346
46	0.000	10.782	25.158	28.752	10.782	1.797	5.391	8.985	32.346	32.346
47	0.000	14.376	21.564	28.752	7.188	0.000	1.797	14.376	37.737	34.143
48	0.000	10.782	23.361	28.752	8.985	3.594	3.594	21.564	39.534	28.752
49	3.594	14.376	21.564	26.955	7.188	0.000	3.594	21.564	35.940	23.361
50	0.000	10.782	21.564	19.767	8.985	3.594	5.391	23.361	37.737	19.767
51	3.594	12.579	17.970	23.361	7.188	3.594	7.188	28.752	32.346	12.579
52	0.000	10.782	17.970	19.767	3.594	1.797	8.985	28.752	23.361	3.594
53	3.594	12.579	16.173	14.376	1.797	3.594	7.188	30.549	19.767	1.797

IES INDOOR REPORT
PHOTOMETRIC FILENAME : TUNGSTEN_24V_18W.IES

CANDELA TABULATION - (Cont.)

54	0.000	14.376	19.767	12.579	1.797	5.391	7.188	34.143	14.376	5.391
55	1.797	12.579	16.173	7.188	3.594	3.594	7.188	30.549	16.173	1.797
56	3.594	14.376	17.970	5.391	3.594	1.797	12.579	26.955	8.985	5.391
57	0.000	8.985	14.376	7.188	5.391	8.985	14.376	23.361	7.188	3.594
58	0.000	7.188	10.782	5.391	5.391	5.391	19.767	17.970	8.985	8.985
59	1.797	7.188	12.579	3.594	5.391	5.391	19.767	10.782	8.985	5.391
60	0.000	8.985	7.188	0.000	8.985	10.782	19.767	8.985	3.594	12.579
61	0.000	8.985	8.985	1.797	5.391	10.782	14.376	5.391	1.797	10.782
62	0.000	8.985	10.782	1.797	5.391	5.391	14.376	7.188	1.797	16.173
63	1.797	8.985	10.782	0.000	7.188	10.782	8.985	3.594	1.797	17.970
64	0.000	10.782	10.782	0.000	3.594	5.391	3.594	5.391	5.391	19.767
65	0.000	8.985	14.376	0.000	5.391	3.594	3.594	3.594	8.985	19.767
66	0.000	8.985	8.985	1.797	5.391	7.188	5.391	3.594	7.188	16.173
67	0.000	10.782	10.782	0.000	7.188	7.188	1.797	0.000	8.985	16.173
68	0.000	14.376	7.188	0.000	7.188	7.188	3.594	1.797	10.782	8.985
69	0.000	12.579	3.594	1.797	7.188	8.985	1.797	3.594	10.782	8.985
70	0.000	14.376	3.594	0.000	3.594	1.797	3.594	1.797	5.391	5.391
71	0.000	12.579	0.000	0.000	7.188	0.000	1.797	3.594	1.797	3.594
90	0.000	3.594	1.797	1.797	1.797	3.594	0.000	0.000	0.000	0.000

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>	<u>95</u>
0	513.940	513.940	513.940	513.940	513.940	513.940	513.940	513.940	513.940	513.940
1	531.910	528.316	517.534	515.737	513.940	512.143	501.361	494.173	492.376	486.985
2	555.271	548.083	531.910	524.722	517.534	508.549	497.767	490.579	481.594	474.406
3	560.662	549.880	528.316	519.331	512.143	501.361	483.391	472.609	465.421	454.639
4	544.489	531.910	508.549	492.376	481.594	469.015	456.436	443.857	434.872	425.887
5	504.955	481.594	460.030	445.654	429.481	422.293	407.917	398.932	389.947	386.353
6	442.060	416.902	395.338	377.368	366.586	359.399	348.617	345.023	341.429	339.632
7	354.008	332.444	318.068	305.489	294.707	291.113	289.316	287.519	283.925	289.316
8	273.143	256.970	246.188	240.797	226.421	226.421	231.812	231.812	230.015	239.000
9	204.857	190.481	185.090	181.496	170.714	170.714	176.105	177.902	181.496	190.481
10	141.962	132.977	131.180	129.383	122.195	125.789	134.774	136.571	136.571	145.556
11	104.226	97.038	98.835	98.835	91.647	95.241	102.429	106.023	109.617	118.602
12	73.677	70.083	68.286	71.880	68.286	71.880	84.459	89.850	89.850	98.835
13	55.707	50.316	55.707	59.301	61.098	68.286	79.068	82.662	84.459	89.850
14	44.925	43.128	52.113	55.707	57.504	61.098	62.895	70.083	70.083	75.474
15	37.737	43.128	44.925	46.722	46.722	41.331	39.534	41.331	44.925	48.519
16	35.940	43.128	32.346	25.158	25.158	23.361	26.955	32.346	32.346	32.346
17	39.534	30.549	21.564	17.970	16.173	17.970	19.767	25.158	25.158	30.549
18	28.752	16.173	12.579	17.970	12.579	16.173	17.970	21.564	25.158	23.361
19	16.173	16.173	10.782	12.579	10.782	12.579	16.173	16.173	21.564	21.564
20	16.173	10.782	7.188	10.782	10.782	12.579	14.376	16.173	17.970	21.564
21	12.579	8.985	5.391	8.985	7.188	10.782	12.579	10.782	17.970	14.376
22	7.188	7.188	5.391	7.188	5.391	10.782	10.782	8.985	14.376	10.782
23	7.188	5.391	5.391	8.985	8.985	7.188	10.782	12.579	8.985	12.579
24	7.188	7.188	3.594	5.391	5.391	7.188	12.579	10.782	12.579	10.782
25	5.391	3.594	1.797	3.594	5.391	7.188	10.782	10.782	10.782	10.782
26	1.797	3.594	1.797	5.391	7.188	8.985	12.579	10.782	14.376	14.376
27	1.797	5.391	1.797	5.391	10.782	12.579	16.173	14.376	16.173	12.579
28	3.594	1.797	3.594	8.985	7.188	16.173	17.970	19.767	19.767	19.767
29	1.797	1.797	3.594	12.579	10.782	21.564	21.564	21.564	25.158	23.361
30	1.797	3.594	7.188	12.579	17.970	23.361	19.767	19.767	28.752	26.955
31	7.188	3.594	10.782	17.970	19.767	19.767	23.361	25.158	30.549	37.737
32	7.188	7.188	14.376	17.970	19.767	21.564	19.767	25.158	37.737	44.925

IES INDOOR REPORT
PHOTOMETRIC FILENAME : TUNGSTEN_24V_18W.IES

CANDELA TABULATION - (Cont.)

33	8.985	12.579	21.564	19.767	21.564	21.564	26.955	28.752	44.925	55.707
34	10.782	19.767	19.767	23.361	23.361	25.158	25.158	28.752	32.346	44.925
35	14.376	23.361	21.564	21.564	26.955	16.173	16.173	23.361	32.346	39.534
36	19.767	21.564	23.361	28.752	14.376	14.376	16.173	21.564	25.158	32.346
37	21.564	23.361	28.752	23.361	8.985	7.188	16.173	19.767	26.955	30.549
38	23.361	21.564	28.752	14.376	8.985	7.188	12.579	16.173	25.158	30.549
39	25.158	26.955	25.158	7.188	3.594	1.797	3.594	7.188	16.173	25.158
40	23.361	30.549	10.782	1.797	1.797	3.594	3.594	3.594	8.985	14.376
41	25.158	32.346	3.594	0.000	1.797	3.594	1.797	1.797	5.391	7.188
42	28.752	21.564	0.000	3.594	3.594	3.594	7.188	5.391	5.391	5.391
43	34.143	8.985	0.000	1.797	5.391	3.594	5.391	5.391	5.391	7.188
44	35.940	1.797	0.000	3.594	3.594	3.594	3.594	7.188	12.579	14.376
45	30.549	1.797	0.000	3.594	7.188	5.391	7.188	8.985	14.376	16.173
46	16.173	3.594	5.391	1.797	7.188	5.391	10.782	12.579	21.564	23.361
47	7.188	1.797	5.391	3.594	8.985	12.579	8.985	16.173	23.361	25.158
48	5.391	3.594	3.594	5.391	8.985	12.579	12.579	21.564	28.752	28.752
49	3.594	5.391	7.188	7.188	10.782	12.579	17.970	21.564	34.143	35.940
50	3.594	10.782	7.188	12.579	14.376	12.579	16.173	25.158	34.143	37.737
51	1.797	8.985	8.985	14.376	14.376	16.173	14.376	23.361	26.955	34.143
52	1.797	12.579	10.782	17.970	19.767	12.579	14.376	17.970	23.361	23.361
53	5.391	14.376	14.376	17.970	14.376	16.173	12.579	16.173	17.970	19.767
54	7.188	16.173	16.173	17.970	12.579	14.376	10.782	14.376	16.173	16.173
55	8.985	16.173	19.767	17.970	10.782	8.985	3.594	8.985	12.579	14.376
56	12.579	19.767	17.970	12.579	8.985	3.594	5.391	10.782	10.782	17.970
57	14.376	17.970	17.970	16.173	5.391	1.797	5.391	5.391	14.376	12.579
58	16.173	17.970	19.767	12.579	5.391	1.797	1.797	7.188	10.782	14.376
59	17.970	17.970	21.564	12.579	3.594	3.594	5.391	12.579	10.782	14.376
60	19.767	16.173	16.173	5.391	5.391	3.594	7.188	10.782	16.173	14.376
61	19.767	17.970	12.579	8.985	5.391	5.391	10.782	12.579	16.173	17.970
62	16.173	17.970	7.188	10.782	7.188	7.188	5.391	12.579	16.173	17.970
63	17.970	17.970	10.782	8.985	10.782	8.985	8.985	12.579	14.376	12.579
64	14.376	12.579	12.579	10.782	10.782	8.985	8.985	10.782	14.376	10.782
65	17.970	7.188	8.985	12.579	12.579	7.188	12.579	8.985	14.376	8.985
66	16.173	5.391	12.579	10.782	10.782	10.782	8.985	8.985	12.579	8.985
67	14.376	7.188	14.376	8.985	14.376	12.579	8.985	10.782	14.376	8.985
68	14.376	8.985	10.782	12.579	10.782	10.782	7.188	14.376	16.173	12.579
69	8.985	7.188	8.985	14.376	12.579	5.391	10.782	10.782	10.782	10.782
70	3.594	7.188	12.579	12.579	10.782	5.391	3.594	8.985	14.376	10.782
71	5.391	8.985	8.985	16.173	10.782	5.391	3.594	7.188	14.376	10.782
90	0.000	0.000	0.000	1.797	0.000	0.000	0.000	0.000	0.000	0.000

**Vert.
Angles**

Horizontal Angles

	<u>100</u>	<u>105</u>	<u>110</u>	<u>115</u>	<u>120</u>	<u>125</u>	<u>130</u>	<u>135</u>	<u>140</u>	<u>145</u>
0	513.940	513.940	513.940	513.940	513.940	513.940	513.940	513.940	513.940	513.940
1	490.579	485.188	481.594	478.000	479.797	478.000	479.797	479.797	478.000	479.797
2	470.812	469.015	460.030	458.233	460.030	451.045	449.248	445.654	440.263	438.466
3	454.639	445.654	436.669	433.075	429.481	422.293	422.293	416.902	413.308	409.714
4	422.293	418.699	407.917	402.526	402.526	393.541	389.947	386.353	382.759	379.165
5	386.353	382.759	379.165	377.368	373.774	364.789	362.992	359.399	355.805	354.008
6	341.429	337.835	343.226	345.023	343.226	339.632	336.038	336.038	330.647	327.053
7	294.707	301.895	301.895	305.489	312.677	312.677	314.474	309.083	307.286	301.895
8	246.188	251.579	269.549	282.128	291.113	292.910	289.316	291.113	285.722	278.534
9	203.060	210.248	228.218	246.188	258.767	273.143	274.940	273.143	262.361	253.376
10	159.932	168.917	185.090	203.060	215.639	239.000	255.173	258.767	246.188	230.015
11	125.789	136.571	156.338	176.105	186.887	206.654	222.827	233.609	221.030	199.466

IES INDOOR REPORT
PHOTOMETRIC FILENAME : TUNGSTEN_24V_18W.IES

CANDELA TABULATION - (Cont.)

12	106.023	111.414	125.789	140.165	154.541	176.105	190.481	201.263	201.263	179.699
13	97.038	98.835	111.414	122.195	132.977	149.150	163.526	168.917	168.917	152.744
14	82.662	88.053	95.241	106.023	113.211	120.399	134.774	140.165	141.962	129.383
15	61.098	68.286	80.865	88.053	89.850	102.429	106.023	109.617	115.008	111.414
16	37.737	44.925	55.707	70.083	75.474	79.068	88.053	86.256	88.053	97.038
17	30.549	35.940	35.940	48.519	57.504	64.692	75.474	71.880	73.677	82.662
18	30.549	34.143	35.940	34.143	44.925	46.722	57.504	62.895	59.301	62.895
19	26.955	32.346	28.752	32.346	30.549	37.737	44.925	50.316	50.316	53.910
20	19.767	21.564	23.361	23.361	26.955	26.955	34.143	34.143	32.346	39.534
21	17.970	16.173	17.970	17.970	25.158	23.361	28.752	26.955	26.955	32.346
22	14.376	17.970	16.173	16.173	17.970	21.564	23.361	25.158	26.955	28.752
23	10.782	10.782	10.782	8.985	16.173	16.173	21.564	17.970	16.173	19.767
24	10.782	10.782	10.782	8.985	10.782	8.985	14.376	19.767	17.970	17.970
25	12.579	8.985	7.188	8.985	7.188	7.188	8.985	16.173	17.970	17.970
26	12.579	12.579	8.985	7.188	3.594	3.594	5.391	12.579	21.564	14.376
27	16.173	12.579	8.985	7.188	1.797	3.594	7.188	5.391	19.767	14.376
28	21.564	16.173	12.579	10.782	5.391	5.391	1.797	5.391	16.173	17.970
29	28.752	23.361	16.173	12.579	5.391	3.594	1.797	1.797	10.782	19.767
30	34.143	30.549	23.361	8.985	8.985	3.594	0.000	1.797	7.188	17.970
31	41.331	32.346	25.158	17.970	8.985	5.391	1.797	3.594	5.391	12.579
32	46.722	41.331	34.143	19.767	12.579	7.188	0.000	5.391	1.797	7.188
33	55.707	52.113	46.722	26.955	17.970	14.376	3.594	5.391	1.797	3.594
34	62.895	52.113	44.925	28.752	21.564	16.173	8.985	1.797	5.391	1.797
35	46.722	46.722	46.722	34.143	23.361	17.970	10.782	3.594	3.594	3.594
36	43.128	43.128	37.737	34.143	26.955	19.767	17.970	7.188	7.188	1.797
37	39.534	43.128	35.940	32.346	30.549	16.173	21.564	12.579	3.594	3.594
38	34.143	37.737	30.549	26.955	26.955	19.767	19.767	14.376	7.188	5.391
39	28.752	32.346	23.361	19.767	21.564	16.173	17.970	19.767	12.579	7.188
40	19.767	19.767	17.970	14.376	14.376	14.376	14.376	19.767	16.173	7.188
41	10.782	10.782	12.579	8.985	8.985	14.376	12.579	17.970	16.173	10.782
42	8.985	12.579	7.188	7.188	8.985	8.985	12.579	14.376	17.970	12.579
43	10.782	8.985	7.188	5.391	8.985	8.985	8.985	12.579	17.970	14.376
44	12.579	10.782	8.985	5.391	3.594	10.782	10.782	14.376	14.376	16.173
45	16.173	12.579	12.579	5.391	5.391	7.188	10.782	10.782	14.376	17.970
46	21.564	14.376	12.579	5.391	8.985	5.391	8.985	8.985	14.376	19.767
47	25.158	14.376	14.376	7.188	7.188	5.391	8.985	10.782	12.579	19.767
48	25.158	17.970	14.376	7.188	8.985	5.391	7.188	10.782	14.376	17.970
49	28.752	19.767	16.173	14.376	7.188	8.985	8.985	10.782	14.376	17.970
50	34.143	21.564	14.376	10.782	12.579	10.782	14.376	14.376	16.173	17.970
51	34.143	21.564	16.173	12.579	16.173	12.579	10.782	17.970	12.579	16.173
52	23.361	17.970	12.579	12.579	14.376	8.985	14.376	10.782	14.376	17.970
53	16.173	14.376	10.782	10.782	17.970	12.579	10.782	14.376	10.782	12.579
54	12.579	10.782	10.782	10.782	16.173	14.376	8.985	12.579	10.782	12.579
55	12.579	8.985	7.188	7.188	8.985	14.376	14.376	14.376	12.579	10.782
56	8.985	8.985	5.391	10.782	7.188	12.579	12.579	10.782	14.376	12.579
57	12.579	5.391	5.391	8.985	7.188	14.376	12.579	14.376	12.579	10.782
58	12.579	7.188	5.391	7.188	5.391	12.579	10.782	8.985	14.376	10.782
59	14.376	7.188	7.188	8.985	7.188	8.985	10.782	7.188	12.579	10.782
60	12.579	10.782	7.188	7.188	8.985	8.985	12.579	8.985	16.173	7.188
61	12.579	8.985	8.985	10.782	8.985	8.985	12.579	7.188	10.782	7.188
62	14.376	8.985	7.188	7.188	8.985	10.782	12.579	7.188	7.188	10.782
63	12.579	10.782	7.188	5.391	12.579	10.782	7.188	7.188	8.985	8.985
64	7.188	8.985	8.985	7.188	10.782	8.985	5.391	8.985	7.188	8.985
65	8.985	8.985	10.782	5.391	7.188	5.391	3.594	7.188	7.188	7.188
66	8.985	7.188	10.782	8.985	3.594	3.594	5.391	7.188	5.391	8.985
67	8.985	10.782	7.188	7.188	5.391	3.594	3.594	3.594	8.985	8.985

IES INDOOR REPORT
PHOTOMETRIC FILENAME : TUNGSTEN_24V_18W.IES

CANDELA TABULATION - (Cont.)

68	7.188	3.594	7.188	8.985	5.391	5.391	1.797	7.188	8.985	8.985
69	5.391	3.594	3.594	7.188	7.188	5.391	1.797	3.594	7.188	7.188
70	8.985	5.391	5.391	5.391	7.188	3.594	0.000	1.797	7.188	7.188
71	10.782	5.391	1.797	3.594	10.782	1.797	0.000	1.797	3.594	1.797
90	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

**Vert.
Angles**

Horizontal Angles

	150	155	160	165	170	175	180
0	513.940	513.940	513.940	513.940	513.940	513.940	513.940
1	479.797	485.188	490.579	490.579	494.173	495.970	461.827
2	440.263	442.060	443.857	447.451	442.060	447.451	418.699
3	404.323	407.917	409.714	411.511	411.511	409.714	382.759
4	375.571	373.774	373.774	371.977	370.180	373.774	357.602
5	350.414	352.211	345.023	345.023	341.429	345.023	330.647
6	325.256	323.459	325.256	321.662	319.865	321.662	296.504
7	292.910	298.301	291.113	289.316	285.722	283.925	264.158
8	271.346	264.158	264.158	258.767	255.173	255.173	226.421
9	247.985	237.203	230.015	226.421	221.030	222.827	188.684
10	215.639	201.263	194.075	188.684	188.684	185.090	158.135
11	192.278	172.511	167.120	156.338	156.338	154.541	125.789
12	158.135	145.556	134.774	131.180	122.195	120.399	102.429
13	138.368	120.399	109.617	107.820	100.632	98.835	82.662
14	111.414	104.226	93.444	82.662	80.865	80.865	68.286
15	97.038	80.865	75.474	71.880	64.692	62.895	52.113
16	79.068	70.083	61.098	59.301	53.910	53.910	43.128
17	68.286	61.098	55.707	50.316	44.925	50.316	41.331
18	61.098	48.519	46.722	44.925	44.925	41.331	44.925
19	50.316	48.519	41.331	39.534	41.331	39.534	43.128
20	44.925	41.331	39.534	39.534	37.737	43.128	41.331
21	41.331	37.737	35.940	34.143	34.143	39.534	41.331
22	37.737	34.143	39.534	35.940	39.534	43.128	37.737
23	28.752	25.158	37.737	34.143	34.143	35.940	43.128
24	23.361	25.158	35.940	35.940	35.940	37.737	43.128
25	16.173	25.158	30.549	35.940	32.346	39.534	41.331
26	16.173	17.970	23.361	35.940	30.549	37.737	35.940
27	12.579	16.173	21.564	35.940	30.549	34.143	39.534
28	14.376	14.376	21.564	34.143	28.752	37.737	30.549
29	16.173	10.782	17.970	30.549	32.346	32.346	35.940
30	12.579	14.376	17.970	25.158	30.549	30.549	32.346
31	17.970	8.985	12.579	25.158	32.346	26.955	30.549
32	19.767	8.985	14.376	21.564	35.940	26.955	34.143
33	23.361	14.376	10.782	17.970	35.940	28.752	26.955
34	21.564	10.782	14.376	19.767	37.737	26.955	32.346
35	14.376	12.579	12.579	19.767	35.940	32.346	28.752
36	7.188	14.376	14.376	17.970	35.940	28.752	25.158
37	7.188	14.376	17.970	16.173	32.346	28.752	25.158
38	1.797	14.376	21.564	16.173	28.752	26.955	23.361
39	3.594	19.767	17.970	14.376	32.346	32.346	25.158
40	3.594	16.173	19.767	12.579	26.955	28.752	17.970
41	5.391	12.579	19.767	12.579	19.767	28.752	21.564
42	5.391	12.579	21.564	17.970	21.564	23.361	14.376
43	8.985	8.985	23.361	17.970	23.361	25.158	12.579
44	12.579	12.579	16.173	19.767	23.361	30.549	14.376
45	16.173	10.782	17.970	21.564	21.564	30.549	16.173
46	17.970	14.376	16.173	17.970	16.173	32.346	12.579

IES INDOOR REPORT
PHOTOMETRIC FILENAME : TUNGSTEN_24V_18W.IES

CANDELA TABULATION - (Cont.)

47	16.173	14.376	14.376	19.767	16.173	28.752	10.782
48	17.970	14.376	12.579	17.970	14.376	25.158	8.985
49	17.970	23.361	17.970	14.376	12.579	17.970	14.376
50	14.376	23.361	19.767	16.173	14.376	16.173	14.376
51	12.579	19.767	14.376	12.579	14.376	16.173	16.173
52	12.579	21.564	12.579	14.376	8.985	14.376	12.579
53	14.376	16.173	14.376	10.782	12.579	17.970	10.782
54	17.970	10.782	10.782	14.376	8.985	14.376	16.173
55	14.376	10.782	12.579	10.782	12.579	16.173	12.579
56	14.376	8.985	12.579	16.173	10.782	14.376	8.985
57	16.173	14.376	10.782	12.579	8.985	10.782	14.376
58	16.173	10.782	12.579	12.579	5.391	14.376	8.985
59	14.376	8.985	14.376	10.782	7.188	12.579	7.188
60	14.376	8.985	10.782	10.782	7.188	10.782	12.579
61	10.782	10.782	7.188	10.782	5.391	7.188	8.985
62	7.188	8.985	8.985	8.985	5.391	10.782	7.188
63	7.188	5.391	5.391	8.985	8.985	8.985	8.985
64	3.594	8.985	5.391	8.985	7.188	7.188	8.985
65	8.985	7.188	3.594	5.391	8.985	5.391	1.797
66	5.391	7.188	7.188	7.188	5.391	10.782	7.188
67	3.594	7.188	5.391	7.188	5.391	7.188	1.797
68	3.594	10.782	7.188	7.188	1.797	10.782	1.797
69	3.594	7.188	3.594	8.985	5.391	7.188	7.188
70	5.391	5.391	5.391	5.391	3.594	5.391	7.188
71	1.797	7.188	3.594	5.391	3.594	10.782	3.594
90	0.000	0.000	0.000	0.000	0.000	0.000	0.000

IES INDOOR REPORT
PHOTOMETRIC FILENAME : TUNGSTEN_24V_18W.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	52.86	22.10	48.30
0-30	60.43	25.30	55.20
0-40	72.56	30.40	66.30
0-60	94.45	39.50	86.30
0-80	103.36	43.20	94.50
0-90	109.38	45.80	100.00
10-90	75.59	31.60	69.10
20-40	19.70	8.20	18.00
20-50	30.51	12.80	27.90
40-70	30.20	12.60	27.60
60-80	8.91	3.70	8.10
70-80	0.59	0.20	0.50
80-90	6.02	2.50	5.50
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	109.38	45.80	100.00

Total Luminaire Efficiency = 45.80%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	33.79
10-20	19.08
20-30	7.57
30-40	12.13
40-50	10.81
50-60	11.07
60-70	8.32
70-80	0.59
80-90	6.02
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

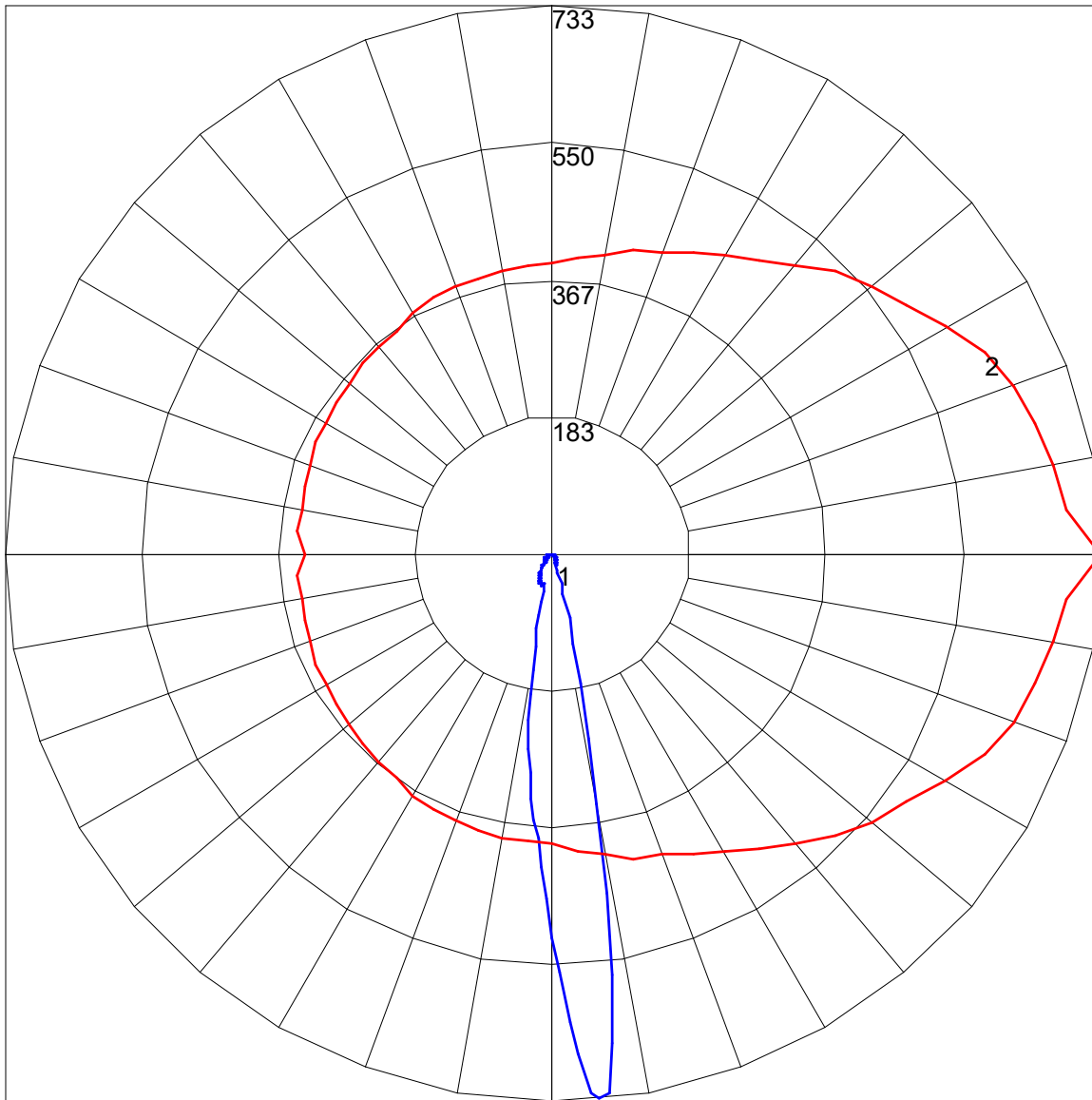
IES INDOOR REPORT
PHOTOMETRIC FILENAME : TUNGSTEN_24V_18W.IES

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	54	54	54	54	53	53	53	53	51	51	51	49	49	49	47	47	47	46
1	51	49	47	46	49	48	46	45	46	45	44	44	43	42	43	42	41	40
2	48	45	42	40	46	44	42	40	42	40	39	41	39	38	40	38	37	36
3	45	41	38	36	44	41	38	36	39	37	35	38	36	35	37	36	34	33
4	42	38	35	33	42	38	35	33	37	34	32	36	34	32	35	33	32	31
5	40	36	33	31	40	36	33	31	35	32	30	34	32	30	33	31	30	29
6	38	34	31	29	38	34	31	29	33	30	28	32	30	28	32	30	28	27
7	37	32	29	27	36	32	29	27	31	29	27	31	29	27	30	28	27	26
8	35	31	28	26	35	31	28	26	30	28	26	30	27	26	29	27	26	25
9	34	30	27	25	34	29	27	25	29	26	25	28	26	25	28	26	25	24
10	33	28	26	24	32	28	26	24	28	25	24	27	25	24	27	25	24	23

POLAR GRAPH



Maximum Candela = 733.173 Located At Horizontal Angle = 0, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)