



IES INDOOR REPORT
PHOTOMETRIC FILENAME : BULW.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TESTLAB]LIGHT LABORATORY, INC.
[ISSUE DATE]2/10/2018
[MANUFAC]LIGHTWAY INDUSTRIES, INC
[LUMCAT]BULW
[LUMINAIRE]LED Indirect Wall Pack
[OTHER]120VAC, 0.29A, 16W, 0.997PF, 7.0%ATHD
[OTHER] IESNA:LM-79-08

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	973
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	60
Total Luminaire Watts	16.2
Ballast Factor	1.00
CIE Type	General Diffuse
Spacing Criterion (0-180)	N.A.
Spacing Criterion (90-270)	N.A.
Spacing Criterion (Diagonal)	N.A.
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.00 ft
Luminous Width (90-270)	0.50 ft (Diameter)
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	1568	2963	12896
55	0	1504	5586
65	0	0	1166
75	0	0	476
85	0	0	0

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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>
0.0	423.00	423.00	423.00	423.00	423.00	423.00	423.00	423.00	423.00	423.00
2.5	488.25	488.25	488.25	490.50	490.50	492.75	490.50	490.50	488.25	488.25
5.0	472.50	472.50	470.25	472.50	470.25	465.75	465.75	463.50	463.50	465.75
7.5	454.50	452.25	454.50	452.25	461.25	468.00	477.00	486.00	490.50	488.25
10.0	443.25	445.50	450.00	450.00	447.75	447.75	445.50	447.75	450.00	454.50
12.5	517.50	517.50	519.75	517.50	501.75	479.25	456.75	445.50	441.00	441.00
13.0	495.00	504.00	513.00	517.50	524.25	504.00	470.25	447.75	441.00	443.25
15.0	423.00	423.00	420.75	420.75	441.00	463.50	486.00	506.25	486.00	450.00
17.5	393.75	400.50	407.25	411.75	436.50	450.00	425.25	423.00	459.00	499.50
20.0	461.25	461.25	459.00	456.75	429.75	400.50	396.00	414.00	427.50	418.50
22.5	364.50	362.25	360.00	369.00	380.25	416.25	443.25	425.25	391.50	427.50
25.0	344.25	348.75	360.00	355.50	342.00	348.75	348.75	389.25	436.50	380.25
27.5	191.25	191.25	207.00	245.25	288.00	326.25	348.75	337.50	344.25	407.25
30.0	96.75	99.00	119.25	153.00	168.75	175.50	261.00	306.00	324.00	335.25
32.5	38.25	38.25	38.25	40.50	49.50	94.50	164.25	173.25	276.75	319.50
35.0	36.00	36.00	36.00	38.25	38.25	40.50	49.50	105.75	162.00	274.50
37.5	38.25	38.25	38.25	40.50	38.25	40.50	40.50	42.75	78.75	162.00
40.0	36.00	36.00	38.25	38.25	42.75	45.00	45.00	42.75	40.50	65.25
42.5	31.50	31.50	33.75	36.00	40.50	45.00	49.50	49.50	40.50	38.25
45.0	20.25	20.25	24.75	29.25	36.00	42.75	49.50	49.50	45.00	38.25
47.5	9.00	9.00	11.25	15.75	22.50	33.75	45.00	45.00	47.25	42.75
50.0	0.00	0.00	2.25	2.25	6.75	13.50	24.75	36.00	42.75	40.50
52.5	0.00	0.00	0.00	0.00	0.00	2.25	6.75	15.75	27.00	31.50
55.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.25	6.75	15.75
57.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.50
60.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
62.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
65.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
67.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
82.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
85.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
87.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
92.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
97.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
102.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
107.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
112.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
115.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
117.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.25
122.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.25	9.00
125.0	0.00	0.00	0.00	0.00	0.00	0.00	2.25	9.00	11.25	18.00
127.5	0.00	0.00	0.00	2.25	4.50	13.50	18.00	20.25	20.25	20.25
130.0	13.50	13.50	18.00	20.25	29.25	36.00	38.25	27.00	24.75	20.25

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CANDELA TABULATION - (Cont.)

132.5	38.25	40.50	47.25	54.00	56.25	49.50	47.25	33.75	24.75	22.50
135.0	67.50	67.50	65.25	63.00	58.50	54.00	47.25	38.25	27.00	22.50
137.5	72.00	69.75	67.50	63.00	60.75	51.75	42.75	38.25	31.50	67.50
140.0	65.25	67.50	60.75	54.00	49.50	45.00	40.50	36.00	103.50	155.25
142.5	54.00	54.00	51.75	51.75	47.25	42.75	40.50	139.50	173.25	272.25
145.0	49.50	49.50	47.25	45.00	54.00	114.75	155.25	231.75	279.00	306.00
147.5	110.25	105.75	139.50	168.75	175.50	216.00	272.25	342.00	324.00	369.00
150.0	220.50	222.75	238.50	274.50	290.25	339.75	353.25	339.75	389.25	414.00
152.5	353.25	353.25	366.75	375.75	355.50	355.50	387.00	441.00	420.75	396.00
155.0	375.75	369.00	380.25	391.50	423.00	454.50	454.50	420.75	407.25	425.25
157.5	468.00	472.50	474.75	465.75	445.50	425.25	420.75	441.00	445.50	459.00
160.0	427.50	432.00	429.75	436.50	445.50	445.50	450.00	456.75	472.50	495.00
162.5	463.50	461.25	461.25	463.50	463.50	472.50	488.25	501.75	497.25	474.75
165.0	490.50	495.00	504.00	513.00	515.25	508.50	497.25	481.50	481.50	492.75
167.5	483.75	481.50	483.75	483.75	488.25	492.75	490.50	501.75	495.00	479.25
170.0	517.50	519.75	519.75	515.25	504.00	488.25	477.00	472.50	474.75	492.75
172.5	470.25	472.50	477.00	483.75	488.25	504.00	510.75	517.50	519.75	513.00
174.0	515.25	515.25	517.50	519.75	522.00	522.00	515.25	497.25	483.75	474.75
175.0	517.50	513.00	510.75	513.00	504.00	490.50	481.50	477.00	472.50	470.25
177.5	486.00	490.50	490.50	492.75	497.25	506.25	508.50	510.75	513.00	510.75
180.0	450.00	450.00	450.00	450.00	450.00	450.00	450.00	450.00	450.00	450.00

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>
0.0	423.00	423.00	423.00	423.00	423.00	423.00	423.00	423.00	423.00	423.00
2.5	481.50	474.75	468.00	461.25	445.50	436.50	427.50	418.50	409.50	400.50
5.0	474.75	479.25	486.00	492.75	492.75	486.00	463.50	434.25	409.50	400.50
7.5	472.50	461.25	461.25	468.00	481.50	490.50	490.50	454.50	414.00	411.75
10.0	474.75	488.25	474.75	456.75	459.00	477.00	497.25	465.75	411.75	420.75
12.5	441.00	450.00	481.50	483.75	454.50	456.75	488.25	479.25	414.00	438.75
13.0	441.00	445.50	472.50	488.25	456.75	454.50	483.75	481.50	416.25	441.00
15.0	443.25	443.25	454.50	483.75	483.75	445.50	468.00	492.75	420.75	452.25
17.5	470.25	441.00	443.25	445.50	470.25	452.25	445.50	477.00	402.75	450.00
20.0	470.25	479.25	423.00	425.25	434.25	450.00	423.00	468.00	391.50	441.00
22.5	398.25	432.00	441.00	407.25	423.00	456.75	420.75	463.50	389.25	436.50
25.0	391.50	378.00	454.50	425.25	418.50	427.50	420.75	445.50	384.75	423.00
27.5	373.50	409.50	387.00	450.00	409.50	438.75	465.75	461.25	387.00	420.75
30.0	411.75	362.25	418.50	438.75	371.25	333.00	324.00	317.25	281.25	292.50
32.5	330.75	454.50	303.75	274.50	321.75	288.00	310.50	301.50	272.25	279.00
35.0	337.50	247.50	279.00	267.75	303.75	270.00	288.00	285.75	258.75	272.25
37.5	195.75	222.75	263.25	247.50	256.50	256.50	274.50	276.75	258.75	279.00
40.0	114.75	198.00	213.75	243.00	238.50	263.25	249.75	263.25	249.75	274.50
42.5	67.50	130.50	198.00	245.25	218.25	227.25	175.50	186.75	180.00	180.00
45.0	33.75	81.00	155.25	148.50	148.50	177.75	164.25	173.25	166.50	157.50
47.5	33.75	31.50	74.25	121.50	146.25	150.75	144.00	159.75	157.50	139.50
50.0	31.50	22.50	40.50	87.75	137.25	121.50	126.00	130.50	103.50	101.25
52.5	24.75	22.50	18.00	56.25	65.25	69.75	74.25	83.25	74.25	60.75
55.0	20.25	22.50	15.75	13.50	38.25	63.00	69.75	69.75	58.50	51.75
57.5	11.25	13.50	13.50	11.25	29.25	27.00	18.00	18.00	18.00	15.75
60.0	2.25	4.50	9.00	6.75	6.75	13.50	15.75	18.00	18.00	15.75
62.5	0.00	2.25	2.25	4.50	4.50	9.00	13.50	13.50	13.50	11.25
65.0	0.00	0.00	2.25	2.25	2.25	6.75	9.00	9.00	9.00	6.75
67.5	0.00	0.00	0.00	2.25	2.25	4.50	6.75	6.75	6.75	4.50
70.0	0.00	0.00	0.00	0.00	0.00	2.25	4.50	4.50	4.50	2.25
72.5	0.00	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	2.25

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CANDELA TABULATION - (Cont.)

75.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25
77.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
82.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
85.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
87.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
92.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
97.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
102.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.25	2.25
107.5	0.00	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	2.25
110.0	0.00	0.00	0.00	0.00	0.00	2.25	4.50	4.50	4.50	2.25
112.5	0.00	0.00	0.00	2.25	2.25	4.50	6.75	6.75	6.75	4.50
115.0	0.00	0.00	2.25	2.25	2.25	6.75	11.25	11.25	9.00	9.00
117.5	0.00	2.25	4.50	4.50	4.50	9.00	11.25	11.25	11.25	11.25
120.0	4.50	6.75	6.75	6.75	9.00	13.50	13.50	13.50	13.50	11.25
122.5	15.75	13.50	9.00	13.50	45.00	45.00	38.25	33.75	15.75	18.00
125.0	18.00	15.75	13.50	38.25	67.50	58.50	51.75	63.00	47.25	38.25
127.5	18.00	15.75	29.25	76.50	114.75	96.75	63.00	65.25	58.50	54.00
130.0	18.00	18.00	72.00	119.25	132.75	144.00	123.75	135.00	126.00	112.50
132.5	20.25	67.50	99.00	157.50	150.75	164.25	148.50	148.50	144.00	119.25
135.0	74.25	144.00	175.50	209.25	157.50	168.75	162.00	164.25	159.75	141.75
137.5	123.75	193.50	249.75	225.00	245.25	247.50	234.00	222.75	189.00	193.50
140.0	195.75	216.00	261.00	263.25	281.25	281.25	274.50	272.25	261.00	249.75
142.5	315.00	299.25	249.75	265.50	290.25	294.75	303.75	301.50	285.75	272.25
145.0	382.50	427.50	306.00	294.75	290.25	288.00	310.50	306.00	290.25	281.25
147.5	396.00	382.50	447.75	447.75	333.00	301.50	319.50	317.25	297.00	294.75
150.0	375.75	400.50	418.50	432.00	492.75	470.25	420.75	416.25	382.50	384.75
152.5	420.75	423.00	445.50	418.50	425.25	429.75	434.25	490.50	432.00	488.25
155.0	432.00	470.25	441.00	452.25	425.25	461.25	420.75	452.25	402.75	454.50
157.5	474.75	459.00	456.75	459.00	450.00	477.00	436.50	465.75	411.75	479.25
160.0	474.75	463.50	479.25	450.00	477.00	468.00	459.00	481.50	429.75	492.75
162.5	479.25	499.50	468.00	474.75	501.75	454.50	474.75	481.50	429.75	486.00
165.0	488.25	461.25	465.75	504.00	492.75	470.25	504.00	481.50	432.00	486.00
167.5	474.75	483.75	508.50	497.25	468.00	474.75	497.25	468.00	427.50	472.50
170.0	508.50	517.50	490.50	472.50	474.75	499.50	504.00	468.00	441.00	470.25
172.5	486.00	472.50	468.00	477.00	499.50	506.25	495.00	459.00	441.00	456.75
174.0	468.00	468.00	479.25	495.00	506.25	504.00	481.50	454.50	441.00	452.25
175.0	474.75	483.75	499.50	506.25	508.50	501.75	474.75	450.00	441.00	452.25
177.5	510.75	508.50	504.00	497.25	483.75	470.25	452.25	443.25	438.75	445.50
180.0	450.00	450.00	450.00	450.00	450.00	450.00	450.00	450.00	450.00	450.00

Vert. Angles **Horizontal Angles**

	100	105	110	115	120	125	130	135	140	145
0.0	423.00	423.00	423.00	423.00	423.00	423.00	423.00	423.00	423.00	423.00
2.5	396.00	398.25	405.00	411.75	425.25	434.25	445.50	452.25	463.50	463.50
5.0	411.75	434.25	456.75	470.25	481.50	483.75	479.25	472.50	459.00	459.00
7.5	445.50	468.00	474.75	463.50	450.00	450.00	468.00	492.75	506.25	506.25
10.0	461.25	463.50	445.50	441.00	479.25	504.00	486.00	443.25	402.75	384.75
12.5	461.25	441.00	438.75	486.00	472.50	411.75	384.75	396.00	387.00	353.25
13.0	459.00	436.50	445.50	488.25	456.75	396.00	387.00	396.00	360.00	321.75
15.0	452.25	429.75	492.75	472.50	391.50	387.00	362.25	303.75	328.50	362.25

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CANDELA TABULATION - (Cont.)

17.5	427.50	447.75	463.50	389.25	384.75	326.25	321.75	348.75	265.50	200.25
20.0	402.75	468.00	387.00	373.50	301.50	330.75	292.50	209.25	231.75	195.75
22.5	409.50	432.00	364.50	312.75	324.00	256.50	216.00	198.00	157.50	146.25
25.0	432.00	364.50	346.50	299.25	252.00	213.75	162.00	148.50	103.50	83.25
27.5	470.25	389.25	324.00	317.25	202.50	162.00	137.25	87.75	74.25	65.25
30.0	299.25	294.75	274.50	207.00	184.50	141.75	81.00	67.50	58.50	56.25
32.5	263.25	218.25	198.00	148.50	135.00	87.75	65.25	56.25	51.75	51.75
35.0	236.25	193.50	137.25	110.25	69.75	56.25	58.50	49.50	51.75	54.00
37.5	236.25	207.00	132.75	87.75	51.75	42.75	40.50	49.50	54.00	58.50
40.0	220.50	166.50	108.00	58.50	42.75	36.00	38.25	47.25	56.25	58.50
42.5	144.00	105.75	87.75	47.25	36.00	36.00	38.25	45.00	49.50	54.00
45.0	128.25	83.25	45.00	33.75	31.50	36.00	42.75	42.75	42.75	47.25
47.5	114.75	69.75	36.00	27.00	27.00	36.00	42.75	42.75	40.50	38.25
50.0	78.75	49.50	27.00	24.75	31.50	33.75	33.75	36.00	33.75	31.50
52.5	42.75	24.75	20.25	24.75	31.50	31.50	29.25	27.00	27.00	24.75
55.0	33.75	18.00	13.50	20.25	24.75	24.75	24.75	22.50	20.25	20.25
57.5	13.50	11.25	11.25	15.75	18.00	18.00	18.00	15.75	15.75	15.75
60.0	11.25	9.00	6.75	9.00	11.25	11.25	13.50	11.25	13.50	13.50
62.5	9.00	6.75	6.75	6.75	6.75	9.00	9.00	9.00	9.00	11.25
65.0	6.75	6.75	6.75	4.50	4.50	4.50	6.75	6.75	6.75	9.00
67.5	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
70.0	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25
72.5	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25
75.0	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25
77.5	0.00	2.25	2.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
82.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
85.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
87.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
92.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
97.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
102.5	2.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.0	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	0.00	0.00
107.5	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25
110.0	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25
112.5	4.50	4.50	4.50	4.50	4.50	4.50	2.25	4.50	4.50	4.50
115.0	6.75	4.50	4.50	4.50	4.50	4.50	4.50	6.75	6.75	6.75
117.5	9.00	6.75	6.75	6.75	6.75	9.00	9.00	9.00	9.00	9.00
120.0	9.00	6.75	9.00	11.25	11.25	11.25	13.50	11.25	11.25	11.25
122.5	15.75	13.50	13.50	15.75	18.00	18.00	18.00	18.00	15.75	15.75
125.0	33.75	18.00	15.75	20.25	22.50	24.75	22.50	20.25	20.25	22.50
127.5	38.25	27.00	22.50	22.50	27.00	27.00	27.00	24.75	27.00	27.00
130.0	99.00	54.00	29.25	24.75	27.00	29.25	29.25	33.75	31.50	29.25
132.5	110.25	72.00	38.25	27.00	29.25	33.75	36.00	36.00	33.75	36.00
135.0	110.25	90.00	56.25	40.50	33.75	36.00	38.25	36.00	38.25	40.50
137.5	184.50	135.00	101.25	51.75	38.25	36.00	38.25	40.50	42.75	45.00
140.0	227.25	209.25	139.50	69.75	47.25	36.00	40.50	47.25	47.25	47.25
142.5	231.75	184.50	126.00	99.00	60.75	45.00	49.50	49.50	49.50	49.50
145.0	252.00	204.75	189.00	159.75	94.50	74.25	56.25	49.50	49.50	51.75
147.5	310.50	272.25	245.25	168.75	166.50	112.50	69.75	56.25	51.75	51.75
150.0	427.50	360.00	281.25	299.25	229.50	144.00	101.25	76.50	60.75	54.00
152.5	501.75	378.00	344.25	319.50	207.00	231.75	144.00	114.75	83.25	67.50
155.0	423.00	420.75	380.25	270.00	346.50	191.25	238.50	155.25	135.00	96.75

**IES INDOOR REPORT
PHOTOMETRIC FILENAME : BULW.IES**

CANDELA TABULATION - (Cont.)

157.5	423.00	472.50	366.75	398.25	270.00	353.25	193.50	231.75	204.75	148.50
160.0	441.00	474.75	434.25	380.25	378.00	270.00	366.75	252.00	189.00	252.00
162.5	468.00	447.75	495.00	409.50	396.00	398.25	276.75	324.00	362.25	258.75
165.0	506.25	447.75	479.25	492.75	407.25	387.00	427.50	357.75	279.00	310.50
167.5	513.00	481.50	443.25	477.00	506.25	459.00	389.25	396.00	423.00	400.50
170.0	508.50	517.50	474.75	447.75	472.50	504.00	508.50	474.75	418.50	389.25
172.5	488.25	506.25	508.50	492.75	456.75	452.25	468.00	483.75	501.75	510.75
174.0	479.25	497.25	508.50	510.75	499.50	479.25	456.75	454.50	459.00	468.00
175.0	472.50	488.25	504.00	510.75	515.25	508.50	490.50	470.25	459.00	454.50
177.5	454.50	461.25	470.25	479.25	492.75	501.75	510.75	515.25	517.50	517.50
180.0	450.00	450.00	450.00	450.00	450.00	450.00	450.00	450.00	450.00	450.00

Vert. Horizontal Angles

	<u>150</u>	<u>155</u>	<u>160</u>	<u>165</u>	<u>170</u>	<u>175</u>	<u>180</u>
0.0	423.00	423.00	423.00	423.00	423.00	423.00	423.00
2.5	468.00	474.75	474.75	479.25	479.25	483.75	481.50
5.0	456.75	454.50	456.75	461.25	461.25	468.00	465.75
7.5	492.75	470.25	454.50	427.50	432.00	416.25	420.75
10.0	382.50	391.50	393.75	389.25	391.50	382.50	389.25
12.5	315.00	308.25	328.50	351.00	357.75	364.50	362.25
13.0	310.50	333.00	355.50	364.50	362.25	348.75	353.25
15.0	339.75	276.75	222.75	200.25	202.50	213.75	211.50
17.5	222.75	231.75	211.50	177.75	171.00	162.00	166.50
20.0	157.50	159.75	146.25	121.50	112.50	101.25	103.50
22.5	108.00	87.75	81.00	76.50	74.25	72.00	72.00
25.0	74.25	69.75	65.25	63.00	60.75	60.75	63.00
27.5	63.00	58.50	56.25	56.25	56.25	56.25	56.25
30.0	54.00	56.25	56.25	56.25	58.50	56.25	56.25
32.5	54.00	56.25	56.25	58.50	58.50	58.50	58.50
35.0	56.25	58.50	58.50	58.50	58.50	58.50	58.50
37.5	58.50	58.50	56.25	54.00	54.00	54.00	51.75
40.0	54.00	54.00	51.75	51.75	51.75	49.50	49.50
42.5	54.00	49.50	47.25	47.25	45.00	45.00	42.75
45.0	49.50	45.00	42.75	38.25	38.25	36.00	36.00
47.5	38.25	38.25	33.75	31.50	31.50	29.25	29.25
50.0	29.25	29.25	29.25	27.00	27.00	24.75	24.75
52.5	24.75	24.75	24.75	22.50	22.50	22.50	22.50
55.0	20.25	20.25	20.25	20.25	20.25	20.25	20.25
57.5	15.75	18.00	20.25	20.25	18.00	18.00	18.00
60.0	13.50	15.75	18.00	18.00	15.75	15.75	15.75
62.5	11.25	13.50	13.50	13.50	11.25	11.25	11.25
65.0	9.00	9.00	6.75	6.75	6.75	4.50	4.50
67.5	4.50	4.50	4.50	4.50	4.50	4.50	4.50
70.0	2.25	2.25	2.25	2.25	2.25	2.25	2.25
72.5	2.25	2.25	2.25	2.25	2.25	2.25	2.25
75.0	2.25	2.25	2.25	2.25	2.25	2.25	2.25
77.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
82.5	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
87.5	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
92.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
97.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**IES INDOOR REPORT
PHOTOMETRIC FILENAME : BULW.IES**

CANDELA TABULATION - (Cont.)

100.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
102.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.0	0.00	0.00	2.25	0.00	0.00	0.00	0.00
107.5	2.25	2.25	2.25	2.25	2.25	2.25	2.25
110.0	2.25	2.25	2.25	2.25	2.25	2.25	2.25
112.5	4.50	4.50	4.50	4.50	4.50	4.50	4.50
115.0	6.75	6.75	4.50	4.50	4.50	4.50	4.50
117.5	11.25	11.25	11.25	11.25	11.25	9.00	9.00
120.0	13.50	13.50	15.75	15.75	15.75	15.75	15.75
122.5	15.75	15.75	18.00	18.00	18.00	18.00	18.00
125.0	20.25	20.25	20.25	20.25	20.25	20.25	20.25
127.5	24.75	27.00	29.25	27.00	24.75	24.75	24.75
130.0	31.50	31.50	31.50	31.50	31.50	31.50	31.50
132.5	38.25	38.25	36.00	36.00	33.75	33.75	33.75
135.0	42.75	40.50	38.25	38.25	36.00	36.00	36.00
137.5	45.00	42.75	42.75	42.75	40.50	40.50	40.50
140.0	47.25	45.00	45.00	45.00	42.75	42.75	42.75
142.5	49.50	47.25	47.25	47.25	47.25	47.25	45.00
145.0	49.50	49.50	49.50	47.25	47.25	47.25	45.00
147.5	51.75	51.75	51.75	51.75	51.75	51.75	49.50
150.0	51.75	54.00	54.00	54.00	54.00	54.00	54.00
152.5	60.75	56.25	54.00	54.00	54.00	54.00	54.00
155.0	81.00	72.00	65.25	60.75	58.50	58.50	58.50
157.5	137.25	110.25	94.50	87.75	81.00	76.50	76.50
160.0	227.25	173.25	146.25	144.00	137.25	132.75	132.75
162.5	191.25	202.50	247.50	261.00	249.75	243.00	243.00
165.0	371.25	373.50	317.25	274.50	222.75	207.00	207.00
167.5	339.75	292.50	276.75	288.00	306.00	335.25	326.25
170.0	391.50	409.50	429.75	436.50	438.75	432.00	438.75
172.5	499.50	477.00	468.00	452.25	441.00	420.75	425.25
174.0	486.00	495.00	504.00	508.50	513.00	515.25	515.25
175.0	456.75	463.50	465.75	470.25	474.75	481.50	477.00
177.5	519.75	519.75	519.75	519.75	519.75	515.25	517.50
180.0	450.00	450.00	450.00	450.00	450.00	450.00	450.00

IES INDOOR REPORT
PHOTOMETRIC FILENAME : BULW.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	155.90	N.A.	16.00
0-30	287.69	N.A.	29.60
0-40	378.65	N.A.	38.90
0-60	455.19	N.A.	46.80
0-80	460.79	N.A.	47.40
0-90	460.79	N.A.	47.40
10-90	417.19	N.A.	42.90
20-40	222.75	N.A.	22.90
20-50	279.03	N.A.	28.70
40-70	81.25	N.A.	8.40
60-80	5.60	N.A.	0.60
70-80	0.89	N.A.	0.10
80-90	0.00	N.A.	0.00
90-110	0.73	N.A.	0.10
90-120	5.16	N.A.	0.50
90-130	26.84	N.A.	2.80
90-150	199.48	N.A.	20.50
90-180	511.92	N.A.	52.60
110-180	511.19	N.A.	52.60
0-180	972.71	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	43.60
10-20	112.30
20-30	131.79
30-40	90.96
40-50	56.28
50-60	20.26
60-70	4.71
70-80	0.89
80-90	0.00
90-100	0.00
100-110	0.73
110-120	4.42
120-130	21.69
130-140	63.00
140-150	109.63
150-160	147.17
160-170	119.26
170-180	46.02

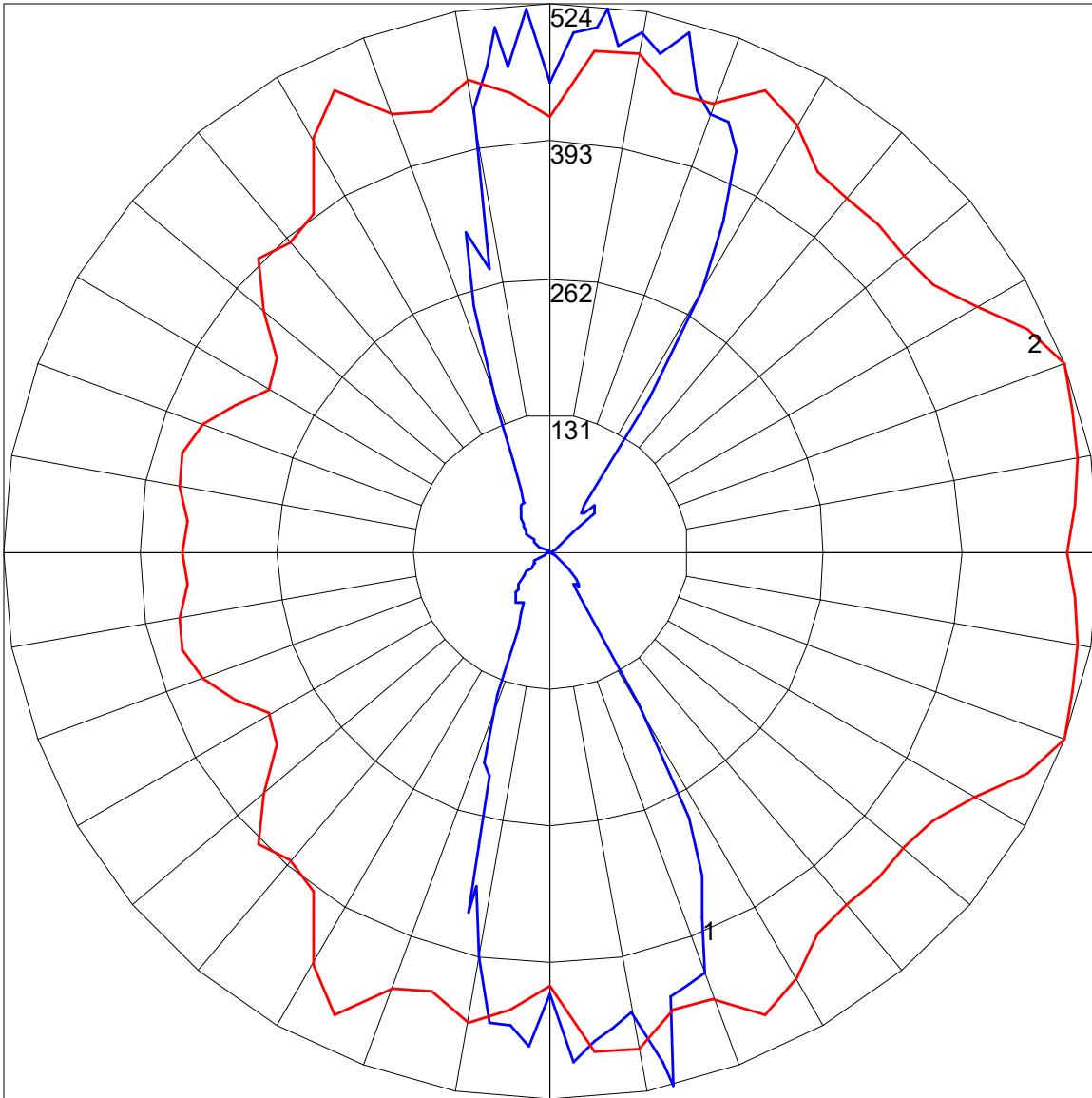
IES INDOOR REPORT
PHOTOMETRIC FILENAME : BULW.IES

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	106	106	106	106	98	98	98	98	82	82	82	67	67	67	54	54	54	47
1	99	96	92	90	91	88	86	83	75	73	71	62	61	60	50	50	49	44
2	92	86	81	77	85	80	75	72	68	65	62	57	55	53	47	46	45	40
3	85	78	72	67	79	72	67	63	62	58	55	53	50	48	44	42	41	37
4	79	70	64	59	73	66	60	56	57	53	49	49	46	43	41	39	37	34
5	74	64	57	52	68	60	54	50	52	48	44	45	42	39	38	36	34	31
6	69	59	52	47	64	55	49	45	48	44	40	42	38	36	36	33	32	29
7	65	54	47	42	60	51	45	40	45	40	37	39	35	33	34	31	29	27
8	61	50	43	38	56	47	41	37	41	37	33	36	33	30	31	29	27	25
9	57	46	40	35	53	44	38	34	39	34	31	34	31	28	30	27	25	23
10	54	43	36	32	50	41	35	31	36	32	29	32	28	26	28	25	24	22

POLAR GRAPH



Maximum Candela = 524.25 Located At Horizontal Angle = 20, Vertical Angle = 13
1 - Vertical Plane Through Horizontal Angles (20 - 200) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (13) (Through Max. Cd.)