

IES File

Performance Summary

The performance data in black text is confirmed through third party testing (see the following Light Laboratory report for details). The performance data in grey text is calculated by Vode. For reference only.



ZipWave™ LED - Zipper board™, Wall Cove, Low Output

ZipWave LED, 48", 3500K, Zipper board with diffuse lens, wall cove, low output
707-Z9-4-48-AW-X-X-X-Z-LO-35-1-X-X

	2700K	3000K	3500K	4000K
Efficacy - Lumens per Watt	87	90	94	98
Total Lumens, 4' rail length (1219mm)	1447	1510	1573	1636
Lumens per foot (305mm)	362	377	393	409
Input Power (W), 4' rail length (1219mm)	16.8	16.8	16.8	16.8
Watts per foot (305mm)	4.2	4.2	4.2	4.2
CRI (>80min., 85 avg.)	-	-	-	-



IES INDOOR REPORT

PHOTOMETRIC FILENAME : ZIPWAVE_ZIPPER_LO_3500K_WALL_COVEDIFFUSELENS_170327.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] L031700426R01 (USED TO PREPARE REPORT FOR LOW OUTPUT RATING)
[TESTLAB] LIGHT LABORATORY, INC.
[ISSUEDATE] 3/31/2017 (ORIGINAL REPORT)
[MANUFAC] VODE LIGHTING
[LUMCAT] 707-Z9-48-AW-Z-LO-35-1-AL
[LUMINAIRE] ZIPWAVE LED, 48", ARMSTRONG WALL COVE, 3500K,
[MORE] ZIPPER BOARD, DIFFUSE LENS, LOW OUTPUT (350MA)
[LAMPPOSITION] 0,0
[LAMP] N/A
[OTHER] DATA FROM ORIGINAL REPORT FACTORED FOR LOW OUTPUT RATING
[MORE] USING 0.50 LUMEN MULTIPLIER
[MORE] INPUT WATTAGE BASED ON 707 SERIES LUMINAIRE LO TEST (L031700418)
[TEST PROCEDURE] IESNA:LM-79-08

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1573
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	94
Total Luminaire Watts	16.78
Ballast Factor	1.00
CIE Type	Indirect
Spacing Criterion (0-180)	N.A.
Spacing Criterion (90-270)	N.A.
Spacing Criterion (Diagonal)	N.A.
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.10 ft
Luminous Width (90-270)	4.00 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

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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90	2.0	2.0	2.0	2.5	2.5	2.5	2.5	3.0	3.0	3.5
95	12.0	12.5	12.5	13.0	13.5	14.0	15.0	15.5	16.5	18.0
100	24.0	24.0	24.5	25.0	26.0	27.5	29.0	31.0	33.0	35.0
105	38.0	38.0	38.5	40.0	41.5	43.5	46.0	49.0	52.0	55.5
110	54.5	54.5	56.0	57.5	59.5	63.0	66.5	70.5	75.0	80.5
115	75.5	76.0	77.5	79.5	82.5	86.5	91.5	97.0	103.5	110.5
120	102.0	102.5	104.5	107.5	111.5	116.5	122.5	130.0	137.5	145.5
125	136.5	137.0	139.5	143.0	147.5	153.5	161.0	169.0	177.5	186.5
130	179.5	180.0	182.5	186.5	192.0	198.5	206.0	215.0	223.5	233.0
135	231.5	232.0	234.5	238.5	243.5	250.0	257.5	265.5	274.0	282.5
140	288.5	289.0	291.5	295.0	299.5	305.0	312.0	318.5	326.0	334.0
145	346.5	346.5	348.5	351.0	355.0	359.5	365.0	371.0	377.0	384.5
150	400.0	400.5	402.0	404.0	407.5	411.5	416.0	421.0	426.5	433.5
155	451.5	452.0	453.0	454.5	457.5	460.5	464.5	469.0	474.5	480.5
160	498.5	499.0	500.0	501.5	504.0	507.0	510.5	514.0	519.0	523.5
165	543.0	543.0	544.0	545.0	547.0	549.0	552.0	555.0	558.5	562.0
170	582.5	582.5	583.0	584.0	584.5	586.0	588.0	590.0	592.0	594.5
175	614.5	614.0	614.5	614.5	615.0	615.5	616.0	617.0	618.0	618.5
180	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0

Vert. Horizontal Angles
 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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA TABULATION - (Cont.)

65	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90	4.0	4.0	4.5	5.0	5.0	5.5	5.5	6.0	6.5	7.0
95	19.0	20.0	21.5	22.5	23.5	24.5	26.0	27.0	28.0	29.5
100	37.5	39.5	42.0	44.5	46.5	48.5	50.5	53.0	55.0	58.0
105	59.5	63.5	67.0	71.0	74.0	77.0	80.5	83.5	87.5	91.5
110	86.0	91.0	96.0	101.0	105.5	110.0	114.5	119.0	124.0	129.5
115	117.5	124.0	130.5	136.5	142.0	147.5	153.5	159.5	165.5	172.0
120	154.0	161.5	169.0	176.0	183.0	189.5	196.5	204.0	211.5	219.5
125	195.5	204.0	212.0	220.5	228.0	235.5	244.0	252.5	261.5	270.0
130	242.0	250.5	259.0	268.0	276.0	285.0	294.5	304.0	314.0	323.5
135	291.5	300.0	308.5	318.0	327.0	336.0	346.5	357.0	367.0	377.5
140	342.0	350.5	359.0	368.5	378.0	388.0	399.0	409.5	419.5	429.5
145	392.0	400.0	408.5	417.5	427.5	437.5	448.0	458.0	468.0	478.0
150	440.5	448.0	456.0	465.5	474.5	484.0	493.5	503.0	512.0	521.5
155	487.0	493.5	501.0	509.0	517.5	525.5	534.0	542.5	550.5	558.5
160	529.0	534.5	541.0	547.5	554.0	561.5	568.0	574.5	582.0	588.0
165	566.5	570.5	575.0	580.0	585.0	590.0	594.5	600.0	605.0	610.0
170	597.0	599.5	602.5	605.5	608.5	611.5	614.5	617.5	621.0	624.5
175	619.5	620.0	622.0	623.0	624.0	625.5	627.0	628.0	629.5	630.5
180	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0

Vert. 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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90	7.5	8.0	8.5	9.5	10.0	11.0	12.0	13.0	14.0	15.0
95	31.5	33.0	35.0	36.5	38.5	40.5	42.5	44.0	46.0	47.5
100	60.5	63.5	66.5	69.5	72.5	75.5	78.0	81.0	83.5	86.0
105	95.5	99.5	104.0	108.0	112.0	116.0	120.0	123.5	127.0	130.0
110	134.5	140.0	145.5	151.0	156.0	161.0	166.0	170.0	174.5	178.0
115	179.0	186.0	192.5	198.5	205.0	211.5	216.5	222.0	226.5	231.0
120	227.5	235.5	243.5	250.5	257.5	264.5	270.5	276.5	281.5	286.5
125	279.5	288.0	296.5	304.5	312.5	319.5	326.5	332.5	338.5	343.0
130	333.5	342.5	352.0	360.0	368.5	376.0	383.0	389.5	395.0	400.0
135	387.5	397.0	406.0	414.5	422.5	430.0	437.0	443.5	449.0	453.5

IES INDOOR REPORT

PHOTOMETRIC FILENAME : ZIPWAVE_ZIPPER_LO_3500K_WALL_COVEDIFFUSELENS_170327.IES

CANDELA TABULATION - (Cont.)

140	439.5	448.5	458.0	466.0	473.5	481.0	488.0	493.5	499.0	503.5
145	487.5	496.0	504.5	512.0	519.5	526.0	532.0	538.0	542.5	547.0
150	529.5	537.5	545.0	551.5	558.5	564.5	570.5	575.0	579.5	583.0
155	565.5	572.5	579.0	585.5	591.0	596.0	601.0	605.0	609.0	612.0
160	593.5	599.5	605.0	610.0	614.5	619.0	623.0	626.5	630.0	632.5
165	614.5	619.5	623.0	627.0	630.5	634.5	637.0	639.5	642.5	644.5
170	627.0	631.0	633.5	636.0	638.0	640.5	642.5	644.5	646.5	647.5
175	632.0	633.5	634.5	635.5	637.0	638.0	639.0	639.5	640.5	641.5
180	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0

Vert. Horizontal Angles

Angles	<u>150</u>	<u>155</u>	<u>160</u>	<u>165</u>	<u>170</u>	<u>175</u>	<u>180</u>
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90	16.0	17.0	17.5	18.0	18.5	19.0	19.0
95	49.0	50.5	52.0	53.0	53.5	54.0	54.5
100	88.5	90.5	92.0	93.5	94.5	95.0	95.5
105	133.0	135.5	138.0	139.5	141.0	141.5	142.0
110	182.0	184.5	187.0	189.5	191.0	192.0	192.5
115	235.0	238.5	241.5	243.5	245.5	246.5	247.0
120	290.5	294.5	297.5	300.0	302.0	303.0	303.5
125	347.5	351.5	355.0	357.0	359.0	360.5	361.0
130	404.5	408.5	411.5	414.0	415.5	416.5	417.0
135	458.5	461.5	465.0	467.0	469.0	470.0	470.5
140	508.0	511.5	514.0	516.5	518.0	519.0	519.5
145	550.5	554.0	556.5	558.5	560.0	561.5	561.0
150	586.5	589.5	592.0	594.0	595.0	596.0	596.0
155	615.5	618.0	620.0	621.5	623.0	623.5	624.0
160	635.5	637.5	639.5	640.5	641.5	642.5	642.5
165	647.0	648.5	649.5	650.5	651.0	651.5	652.0
170	649.0	650.5	651.5	652.0	652.0	652.5	653.0
175	641.5	642.5	643.5	643.5	643.0	643.5	643.5
180	630.0	630.0	630.0	630.0	630.0	630.0	630.0

IES INDOOR REPORT

PHOTOMETRIC FILENAME : ZIPWAVE_ZIPPER_LO_3500K_WALL_COVEDIFFUSELENS_170327.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	0.00	N.A.	0.00
0-30	0.00	N.A.	0.00
0-40	0.00	N.A.	0.00
0-60	0.00	N.A.	0.00
0-80	0.00	N.A.	0.00
0-90	2.29	N.A.	0.10
10-90	2.29	N.A.	0.10
20-40	0.00	N.A.	0.00
20-50	0.00	N.A.	0.00
40-70	0.00	N.A.	0.00
60-80	0.00	N.A.	0.00
70-80	0.00	N.A.	0.00
80-90	2.29	N.A.	0.10
90-110	130.09	N.A.	8.30
90-120	294.26	N.A.	18.70
90-130	525.01	N.A.	33.40
90-150	1091.38	N.A.	69.40
90-180	1570.44	N.A.	99.90
110-180	1440.35	N.A.	91.60
0-180	1572.73	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	0.00
10-20	0.00
20-30	0.00
30-40	0.00
40-50	0.00
50-60	0.00
60-70	0.00
70-80	0.00
80-90	2.29
90-100	34.85
100-110	95.24
110-120	164.17
120-130	230.75
130-140	278.44
140-150	287.93
150-160	249.97
160-170	169.37
170-180	59.72

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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

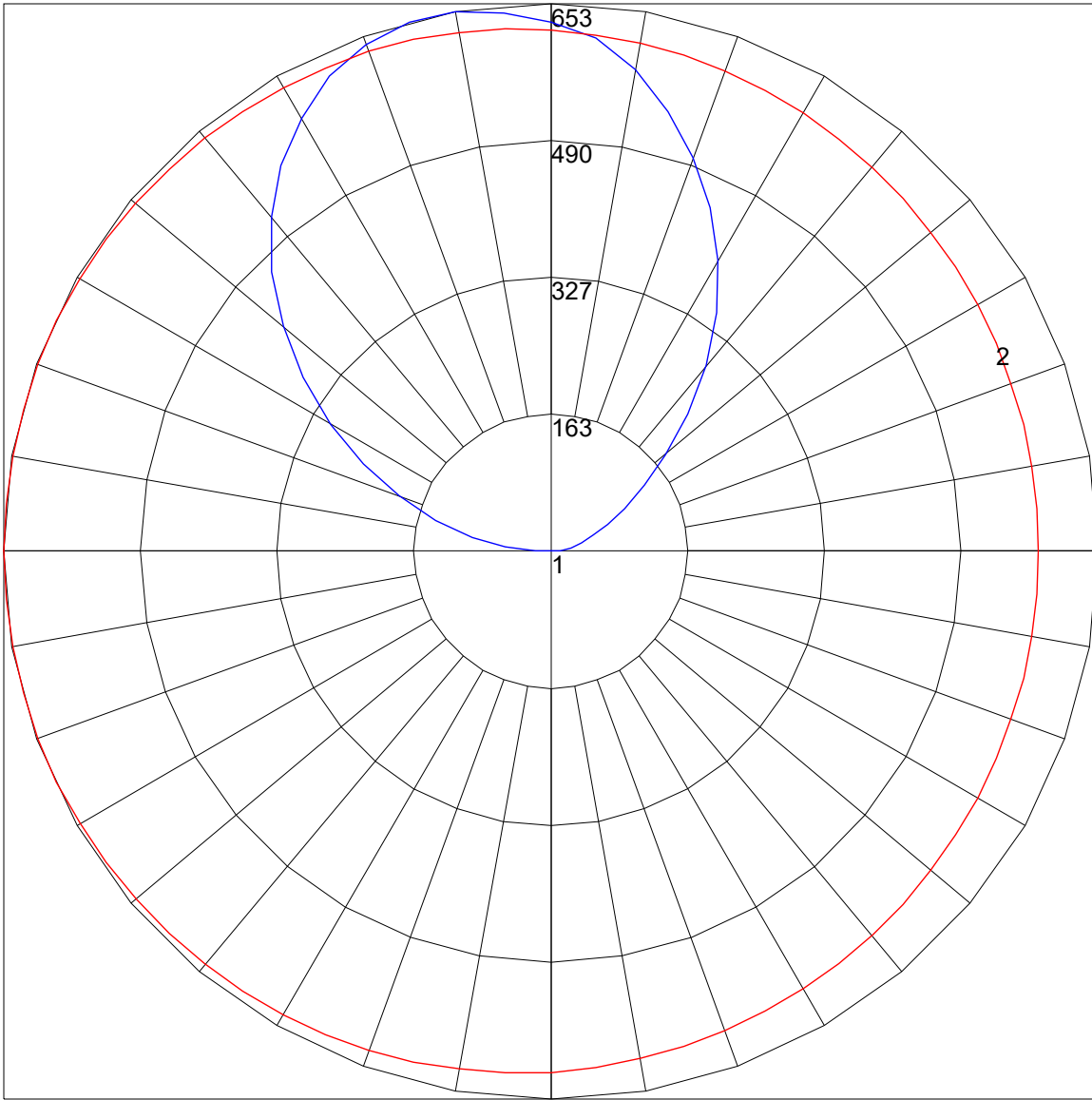
Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
	RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	
0	95	95	95	95	81	81	81	81	56	56	56	32	32	32	10	10	10	0
1	87	83	79	76	74	71	68	65	48	47	45	28	27	26	9	9	8	0
2	79	72	66	62	67	62	57	53	42	40	37	24	23	22	8	7	7	0
3	72	63	56	51	61	54	49	44	37	34	31	21	20	18	7	6	6	0
4	65	56	48	43	56	48	42	37	33	29	26	19	17	16	6	6	5	0
5	60	49	42	36	51	42	36	32	29	25	22	17	15	13	5	5	4	0
6	55	44	36	31	47	38	32	27	26	22	19	15	13	11	5	4	4	0
7	50	39	32	27	43	34	28	23	23	19	17	14	11	10	4	4	3	0
8	47	35	28	23	40	30	24	20	21	17	14	12	10	9	4	3	3	0
9	43	32	25	20	37	27	22	18	19	15	13	11	9	8	4	3	3	0
10	40	29	22	18	34	25	19	16	17	14	11	10	8	7	3	3	2	0

IES INDOOR REPORT

PHOTOMETRIC FILENAME : ZIPWAVE_ZIPPER_LO_3500K_WALL_COVEDIFFUSELENS_170327.IES

POLAR GRAPH



Maximum Candela = 653 Located At Horizontal Angle = 180, Vertical Angle = 170

1 - Vertical Plane Through Horizontal Angles (180 - 0) (Through Max. Cd.)

2 - Horizontal Cone Through Vertical Angle (170) (Through Max. Cd.)