



**IES INDOOR REPORT**

**PHOTOMETRIC FILENAME : VWFHB-LED180DMVFR40.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
 [TEST]BALLABS TEST NO. 18102.0  
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC  
 [ISSUE DATE] 02-MAY-2014  
 [MANUFAC] MOBERN LIGHTING CO  
 [LUMINAIRE] 6-(96LED) 22"BOARDS 4'ENCLOSED/GASKETED LUMINAIRE  
 [MORE] WHITE REFLECTOR & FROSTED ACRYLIC DROP LENS  
 [MORE] 2 ULT DRIVERS #D10CC80UNVT-Z MOUNTED TO ALUM HEATSINK  
 [LUMCAT] VWFHB-LED180DMVFR40  
 [LAMPCAT] M10CC840D96N2S  
 [MORE]DATA EXTRAPOLATED FROM TEST NO. 18102.0 02-NOV-2016

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	19387
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	108
Total Luminaire Watts	180
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.18
Spacing Criterion (90-270)	1.16
Spacing Criterion (Diagonal)	1.30
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	4.25 ft
Luminous Width (90-270)	1.15 ft
Luminous Height	0.27 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	12732	11073	10644
55	10896	9094	9147
65	8951	7436	8015
75	6633	5794	6633
85	4077	4201	5185

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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>
<b>0</b>	7149.662	7149.662	7149.662	7149.662	7149.662
<b>5</b>	7091.032	7084.636	7084.636	7078.240	7076.108
<b>10</b>	7013.214	7004.686	7002.554	6998.290	6996.158
<b>15</b>	6708.338	6706.206	6699.810	6693.414	6693.414
<b>20</b>	6667.830	6657.170	6644.378	6635.850	6627.322
<b>25</b>	6067.672	6061.276	6048.484	6044.220	6030.362
<b>30</b>	5579.444	5568.784	5553.860	5538.936	5516.550
<b>35</b>	5177.562	5169.034	5151.978	5122.130	5104.008
<b>40</b>	4636.034	4627.506	4596.592	4553.952	4526.236
<b>45</b>	4337.554	4335.422	4299.178	4240.548	4214.964
<b>50</b>	3684.096	3684.096	3651.050	3627.598	3627.598
<b>55</b>	3088.202	3094.598	3078.608	3135.106	3178.812
<b>60</b>	2461.394	2478.450	2500.836	2638.350	2694.848
<b>65</b>	1947.582	1981.694	2071.238	2250.326	2312.154
<b>70</b>	1455.090	1503.060	1654.432	1861.236	1919.866
<b>75</b>	962.598	1031.888	1217.372	1408.186	1463.618
<b>80</b>	585.234	673.712	880.516	1067.066	1113.970
<b>85</b>	278.226	373.100	568.178	719.550	757.926
<b>90</b>	142.844	204.672	343.252	431.730	455.182
<b>95</b>	82.082	149.240	259.038	309.140	317.668
<b>100</b>	86.346	132.184	212.134	250.510	254.774
<b>105</b>	84.214	116.194	185.484	220.662	227.058
<b>110</b>	0.000	101.270	166.296	202.540	218.530
<b>115</b>	0.000	86.346	149.240	187.616	198.276
<b>120</b>	0.000	73.554	134.316	172.692	185.484
<b>125</b>	0.000	60.762	116.194	155.636	166.296
<b>130</b>	0.000	0.000	99.138	134.316	149.240
<b>135</b>	0.000	0.000	82.082	114.062	124.722
<b>140</b>	0.000	0.000	67.158	92.742	105.534
<b>145</b>	0.000	0.000	0.000	86.346	92.742
<b>150</b>	0.000	0.000	0.000	69.290	69.290
<b>155</b>	0.000	0.000	0.000	65.026	60.762
<b>160</b>	0.000	0.000	0.000	0.000	0.000
<b>165</b>	0.000	0.000	0.000	0.000	0.000
<b>170</b>	0.000	0.000	0.000	0.000	0.000
<b>175</b>	0.000	0.000	0.000	0.000	0.000
<b>180</b>	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	2586.78	N.A.	13.30
0-30	5386.84	N.A.	27.80
0-40	8586.6	N.A.	44.30
0-60	14614.37	N.A.	75.40
0-80	18019.38	N.A.	92.90
0-90	18639.85	N.A.	96.10
10-90	17965.84	N.A.	92.70
20-40	5999.82	N.A.	30.90
20-50	9248.49	N.A.	47.70
40-70	8118.3	N.A.	41.90
60-80	3405.00	N.A.	17.60
70-80	1314.48	N.A.	6.80
80-90	620.47	N.A.	3.20
90-110	443.34	N.A.	2.30
90-120	573.59	N.A.	3.00
90-130	664.31	N.A.	3.40
90-150	737.86	N.A.	3.80
90-180	746.67	N.A.	3.90
110-180	303.33	N.A.	1.60
0-180	19386.52	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	674.02
10-20	1912.75
20-30	2800.07
30-40	3199.75
40-50	3248.67
50-60	2779.11
60-70	2090.52
70-80	1314.48
80-90	620.47
90-100	264.62
100-110	178.71
110-120	130.25
120-130	90.72
130-140	50.43
140-150	23.12
150-160	8.81
160-170	0.00
170-180	0.00

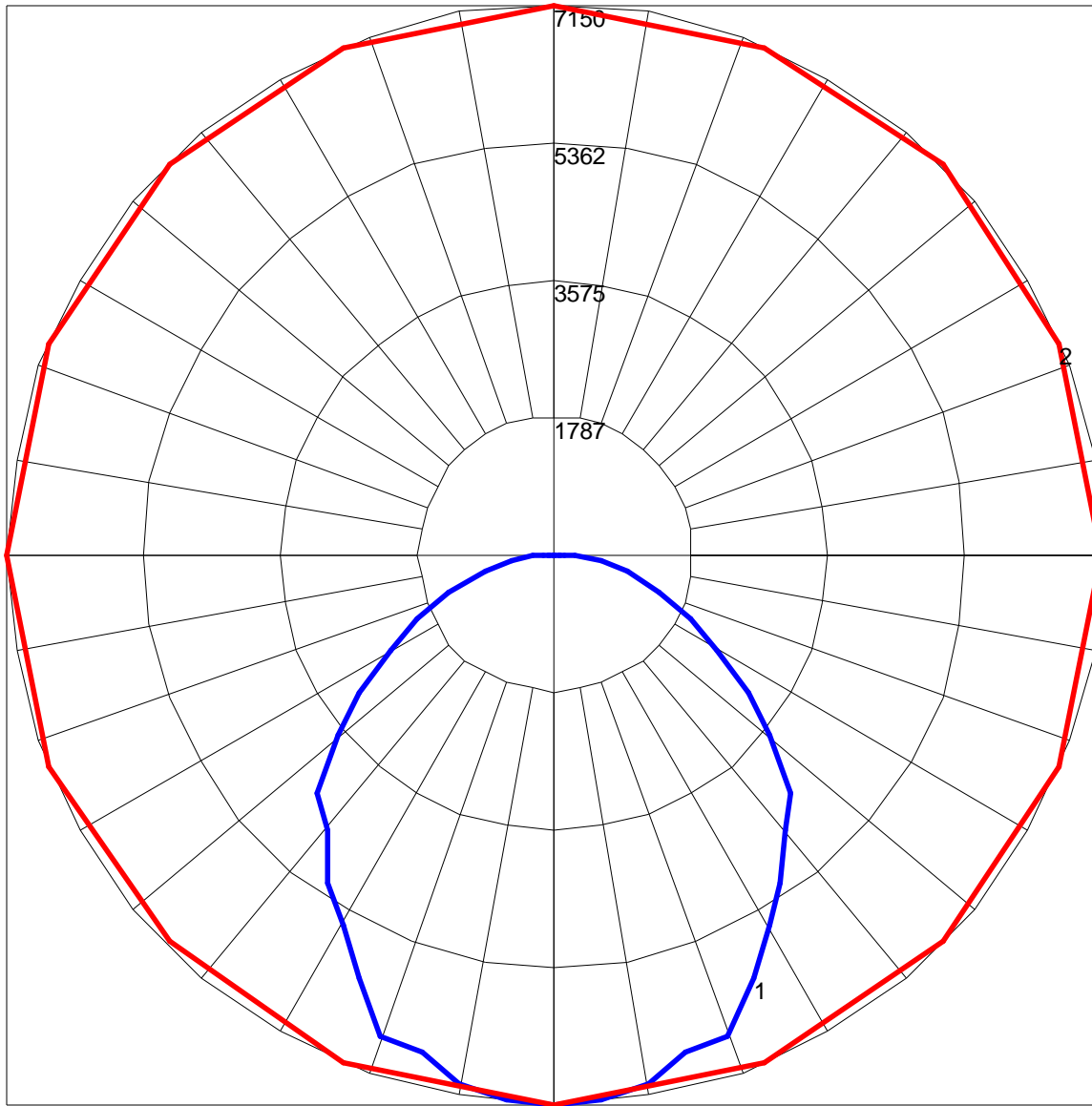
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

Effective Floor Cavity Reflectance 0.20

RC RW	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	118	118	118	118	115	115	115	115	109	109	109	104	104	104	99	99	99	96
1	107	103	98	94	104	100	96	92	95	92	89	90	88	85	86	84	82	80
2	98	89	83	77	95	87	81	76	83	78	73	79	75	71	76	72	69	66
3	89	79	71	64	86	77	69	63	73	67	62	70	65	60	67	63	59	56
4	82	70	61	55	79	68	60	54	65	58	53	63	57	52	60	55	51	48
5	75	63	54	47	73	61	53	47	59	51	46	56	50	45	54	49	44	42
6	70	57	48	41	68	55	47	41	53	46	40	51	45	40	49	43	39	37
7	65	51	43	37	63	50	42	36	48	41	36	47	40	35	45	39	35	33
8	60	47	39	33	59	46	38	33	44	37	32	43	36	32	41	36	31	29
9	56	43	35	30	55	42	35	29	41	34	29	40	33	29	38	33	28	26
10	53	40	32	27	51	39	32	27	38	31	26	37	30	26	36	30	26	24

POLAR GRAPH



Maximum Candela = 7149.662 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)