



IES INDOOR REPORT

PHOTOMETRIC FILENAME : VWMV-L20-730-T3-XXX-CGL-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST]GEN from ATAL009835
 [TESTLAB]ATAL-LABS
 [ISSUEDATE] 2-DEC-2022
 [MANUFAC]WILLIAMS OUTDOOR
 [OTHER]H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMCAT]VWMV-L20-730-T3-CLR-DIM-UNV
 [LUMINAIRE]VOLTAIRE VERTICAL MINI ARCHITECTURAL WALL PACK WITH TYPE III
 [MORE]MOLDED REFRACTIVE CLEAR ACRYLIC LED LENS AND A CLEAR GLASS
 [MORE]LENS.
 [LAMP](4) LUXEON M 3000K LEDS
 [BALLASTCAT]X1-LUC-024S050DSP
 [BALLAST](1) INVENTRONICS ELECTRONIC DRIVER
 [OTHER]INPUT WATTS: 26, AMPS: 0.2111, VAC: 120.02, TEMP: 25.7 C
 [_SEARCH_SOURCETYPE] LED
 [_SEARCH_APPLICATION] Outdoor, Architectural, Commercial, Facade, Direct, Wet Location
 [_SEARCH_MOUNTING] Wall
 [_SEARCH_CERTIFICATION] DLC

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2524
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	97
Total Luminaire Watts	26
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.86
Spacing Criterion (90-270)	1.72
Spacing Criterion (Diagonal)	1.68
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.23 ft
Luminous Width (90-270)	0.65 ft
Luminous Height	0.00 ft

IES INDOOR REPORT**PHOTOMETRIC FILENAME : VWMV-L20-730-T3-XXX-CGL-DIM-UNV_.IES****LUMINANCE DATA (cd/sq.m)**

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	68750	104155	78814
55	47534	126460	104337
65	12375	93525	150329
75	1988	19213	195447
85	984	1967	7870

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CANDELA TABULATION

	<u>0.0</u>	<u>5.0</u>	<u>15.0</u>	<u>25.0</u>	<u>35.0</u>	<u>42.5</u>	<u>45.0</u>	<u>55.0</u>	<u>65.0</u>	<u>75.0</u>
0.0	659.62	659.62	659.62	659.62	659.62	659.62	659.62	659.62	659.62	659.62
2.5	677.32	679.68	687.94	685.58	676.14	678.50	679.68	676.14	671.42	666.70
5.0	700.92	704.46	711.54	709.18	704.46	704.46	705.64	698.56	691.48	684.40
7.5	717.44	719.80	725.70	724.52	722.16	724.52	723.34	720.98	715.08	705.64
10.0	739.86	742.22	745.76	744.58	742.22	743.40	742.22	742.22	737.50	728.06
12.5	770.54	770.54	774.08	772.90	771.72	770.54	768.18	763.46	757.56	749.30
15.0	781.16	782.34	789.42	796.50	802.40	802.40	800.04	787.06	777.62	767.00
17.5	783.52	782.34	785.88	795.32	816.56	826.00	824.82	811.84	796.50	779.98
20.0	838.98	836.62	820.10	808.30	814.20	830.72	834.26	831.90	814.20	792.96
22.5	933.38	922.76	887.36	854.32	824.82	824.82	828.36	842.52	830.72	807.12
25.0	1004.18	995.92	947.54	902.70	856.68	831.90	828.36	841.34	841.34	813.02
27.5	1047.84	1039.58	988.84	936.92	889.72	856.68	846.06	837.80	851.96	822.46
30.0	1067.90	1060.82	1012.44	962.88	916.86	883.82	870.84	842.52	859.04	829.54
32.5	1071.44	1063.18	1021.88	980.58	941.64	908.60	895.62	855.50	866.12	835.44
35.0	1071.44	1064.36	1030.14	995.92	964.06	933.38	919.22	868.48	873.20	844.88
37.5	1052.56	1049.02	1024.24	1014.80	987.66	956.98	941.64	877.92	879.10	859.04
40.0	979.40	982.94	992.38	1014.80	1020.70	978.22	960.52	885.00	883.82	879.10
42.5	847.24	840.16	887.36	990.02	1049.02	1008.90	986.48	892.08	887.36	902.70
45.0	669.06	676.14	729.24	905.06	1056.10	1041.94	1013.62	900.34	889.72	925.12
47.5	556.96	558.14	605.34	735.14	1046.66	1073.80	1046.66	908.60	893.26	947.54
50.0	499.14	497.96	538.08	651.36	981.76	1092.68	1072.62	919.22	903.88	968.78
52.5	440.14	441.32	481.44	611.24	850.78	1069.08	1065.54	944.00	927.48	997.10
55.0	375.24	377.60	431.88	582.92	792.96	948.72	998.28	986.48	949.90	1027.78
57.5	226.56	232.46	312.70	547.52	746.94	785.88	875.56	1028.96	977.04	1039.58
60.0	132.16	133.34	181.72	437.78	671.42	696.20	778.80	1037.22	977.04	1031.32
62.5	105.02	107.38	139.24	343.38	552.24	611.24	674.96	993.56	947.54	1012.44
65.0	71.98	76.70	112.10	284.38	454.30	500.32	543.98	906.24	918.04	1015.98
67.5	48.38	51.92	86.14	217.12	369.34	409.46	427.16	771.72	913.32	1020.70
70.0	30.68	33.04	62.54	160.48	250.16	302.08	315.06	604.16	935.74	1024.24
72.5	18.88	18.88	40.12	114.46	159.30	158.12	166.38	383.50	895.62	942.82
75.0	7.08	7.08	8.26	33.04	93.22	81.42	68.44	179.36	722.16	798.86
77.5	4.72	4.72	4.72	5.90	8.26	33.04	30.68	48.38	420.08	568.76
80.0	3.54	3.54	3.54	4.72	4.72	5.90	5.90	10.62	94.40	204.14
82.5	2.36	2.36	2.36	2.36	3.54	3.54	3.54	4.72	8.26	38.94
85.0	1.18	1.18	1.18	1.18	2.36	2.36	2.36	3.54	4.72	5.90
87.5	0.00	0.00	0.00	1.18	1.18	1.18	1.18	1.18	2.36	2.36
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Vert. Angles **Horizontal Angles**

	<u>85.0</u>	<u>90.0</u>	<u>95.0</u>	<u>105.0</u>	<u>115.0</u>	<u>125.0</u>	<u>135.0</u>	<u>145.0</u>	<u>155.0</u>	<u>165.0</u>
0.0	659.62	659.62	659.62	659.62	659.62	659.62	659.62	659.62	659.62	659.62
2.5	664.34	661.98	660.80	653.72	646.64	641.92	638.38	639.56	638.38	633.66
5.0	677.32	672.60	667.88	654.90	640.74	628.94	615.96	612.42	605.34	597.08
7.5	695.02	686.76	679.68	659.62	638.38	619.50	599.44	590.00	578.20	567.58
10.0	713.90	703.28	691.48	665.52	638.38	612.42	588.82	578.20	562.86	551.06
12.5	730.42	716.26	703.28	671.42	638.38	607.70	587.64	571.12	548.70	527.46
15.0	744.58	728.06	711.54	672.60	636.02	606.52	585.28	555.78	519.20	488.52
17.5	754.02	735.14	715.08	671.42	631.30	601.80	572.30	526.28	474.36	417.72
20.0	762.28	741.04	717.44	666.70	625.40	592.36	547.52	475.54	387.04	292.64
22.5	770.54	745.76	719.80	659.62	619.50	575.84	508.58	387.04	259.60	205.32
25.0	776.44	746.94	717.44	652.54	612.42	552.24	446.04	266.68	207.68	201.78
27.5	781.16	750.48	717.44	651.36	602.98	519.20	357.54	218.30	211.22	220.66
30.0	784.70	750.48	715.08	651.36	591.18	473.18	259.60	217.12	231.28	247.80

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CANDELA TABULATION - (Cont.)

32.5	787.06	750.48	711.54	650.18	577.02	411.82	231.28	231.28	256.06	271.40
35.0	789.42	750.48	708.00	645.46	556.96	343.38	236.00	247.80	266.68	269.04
37.5	796.50	750.48	704.46	638.38	531.00	279.66	244.26	252.52	257.24	258.42
40.0	804.76	752.84	702.10	627.76	493.24	240.72	240.72	241.90	240.72	247.80
42.5	816.56	757.56	702.10	614.78	449.58	213.58	219.48	225.38	240.72	315.06
45.0	831.90	767.00	705.64	602.98	396.48	192.34	193.52	210.04	299.72	333.94
47.5	849.60	776.44	709.18	593.54	351.64	160.48	162.84	248.98	304.44	339.84
50.0	868.48	788.24	715.08	587.64	318.60	132.16	141.60	265.50	287.92	279.66
52.5	887.36	798.86	723.34	588.82	303.26	110.92	152.22	218.30	136.88	133.34
55.0	921.58	823.64	739.86	599.44	298.54	96.76	118.00	102.66	86.14	77.88
57.5	962.88	854.32	754.02	598.26	280.84	87.32	75.52	76.70	63.72	53.10
60.0	964.06	864.94	768.18	587.64	257.24	77.88	64.90	59.00	50.74	41.30
62.5	978.22	863.76	761.10	555.78	233.64	70.80	57.82	44.84	38.94	30.68
65.0	1004.18	874.38	755.20	513.30	208.86	63.72	49.56	34.22	30.68	30.68
67.5	1041.94	901.52	774.08	527.46	182.90	56.64	36.58	28.32	22.42	15.34
70.0	1063.18	908.60	782.34	542.80	162.84	50.74	30.68	21.24	12.98	9.44
72.5	993.56	850.78	723.34	502.68	145.14	41.30	24.78	14.16	9.44	7.08
75.0	811.84	696.20	590.00	417.72	100.30	35.40	17.70	10.62	7.08	5.90
77.5	456.66	402.38	344.56	298.54	50.74	21.24	12.98	8.26	5.90	4.72
80.0	127.44	108.56	84.96	102.66	23.60	15.34	10.62	7.08	4.72	3.54
82.5	38.94	33.04	27.14	25.96	10.62	9.44	7.08	4.72	3.54	2.36
85.0	11.80	9.44	8.26	8.26	4.72	4.72	3.54	2.36	2.36	1.18
87.5	2.36	2.36	2.36	2.36	1.18	1.18	1.18	1.18	1.18	1.18
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Vert. Horizontal Angles

	175.0	180.0
0.0	659.62	659.62
2.5	641.92	640.74
5.0	604.16	604.16
7.5	572.30	573.48
10.0	552.24	553.42
12.5	525.10	525.10
15.0	479.08	475.54
17.5	395.30	384.68
20.0	259.60	247.80
22.5	195.88	193.52
25.0	202.96	204.14
27.5	225.38	226.56
30.0	251.34	253.70
32.5	272.58	271.40
35.0	266.68	265.50
37.5	257.24	254.88
40.0	278.48	278.48
42.5	338.66	337.48
45.0	346.92	346.92
47.5	351.64	352.82
50.0	253.70	248.98
52.5	138.06	138.06
55.0	66.08	63.72
57.5	50.74	49.56
60.0	37.76	37.76
62.5	35.40	36.58
65.0	28.32	27.14
67.5	11.80	11.80

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CANDELA TABULATION - (Cont.)

70.0	8.26	8.26
72.5	5.90	5.90
75.0	4.72	4.72
77.5	4.72	3.54
80.0	3.54	3.54
82.5	2.36	2.36
85.0	1.18	1.18
87.5	1.18	1.18
90.0	0.00	0.00

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	254.90	N.A.	10.10
0-30	556.47	N.A.	22.00
0-40	969.77	N.A.	38.40
0-60	1909.41	N.A.	75.70
0-80	2513.85	N.A.	99.60
0-90	2523.68	N.A.	100.00
10-90	2460.25	N.A.	97.50
20-40	714.86	N.A.	28.30
20-50	1194.69	N.A.	47.30
40-70	1327.96	N.A.	52.60
60-80	604.44	N.A.	24.00
70-80	216.12	N.A.	8.60
80-90	9.83	N.A.	0.40
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	2523.68	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	63.43
10-20	191.47
20-30	301.57
30-40	413.29
40-50	479.83
50-60	459.81
60-70	388.32
70-80	216.12
80-90	9.83
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

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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	140	140	140	140	137	137	137	137	131	131	131	126	126	126	120	120	120	118
1	128	122	117	112	125	120	115	111	115	111	107	110	107	104	106	103	101	98
2	115	105	97	90	112	103	95	89	99	92	87	95	89	85	91	87	83	80
3	104	91	81	73	101	89	80	72	86	78	71	83	76	70	79	74	69	66
4	95	80	69	61	92	78	68	60	75	67	59	73	65	59	70	63	58	55
5	87	71	60	51	84	70	59	51	67	58	51	65	56	50	62	55	49	47
6	80	63	52	44	77	62	52	44	60	51	44	58	50	43	56	49	43	40
7	74	57	46	39	72	56	46	38	54	45	38	52	44	38	51	43	37	35
8	68	52	41	34	66	51	41	34	49	40	34	48	39	33	46	39	33	31
9	64	47	37	30	62	46	37	30	45	36	30	44	36	30	43	35	30	27
10	60	43	34	27	58	43	33	27	41	33	27	40	32	27	39	32	27	25

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UGR TABLE - CORRECTED

Reflectances

Ceiling Cavity	70	70	50	50	30	70	70	50	50	30
Walls	50	30	50	30	30	50	30	50	30	30
Floor Cavity	20	20	20	20	20	20	20	20	20	20

Room Size UGR Viewed Crosswise

X=2H	Y=2H	24.9	26.6	25.3	27.0	27.3	30.0	31.7	30.4	32.0	32.4
	3H	25.0	26.5	25.4	26.9	27.2	33.9	35.5	34.3	35.8	36.2
	4H	24.9	26.4	25.3	26.7	27.1	35.5	37.0	35.9	37.3	37.7
	6H	24.9	26.2	25.3	26.6	27.0	35.9	37.2	36.3	37.6	38.0
	8H	24.9	26.2	25.3	26.5	26.9	35.9	37.2	36.3	37.5	37.9
	12H	24.8	26.1	25.3	26.5	26.9	35.8	37.1	36.3	37.5	37.9

UGR Viewed Endwise

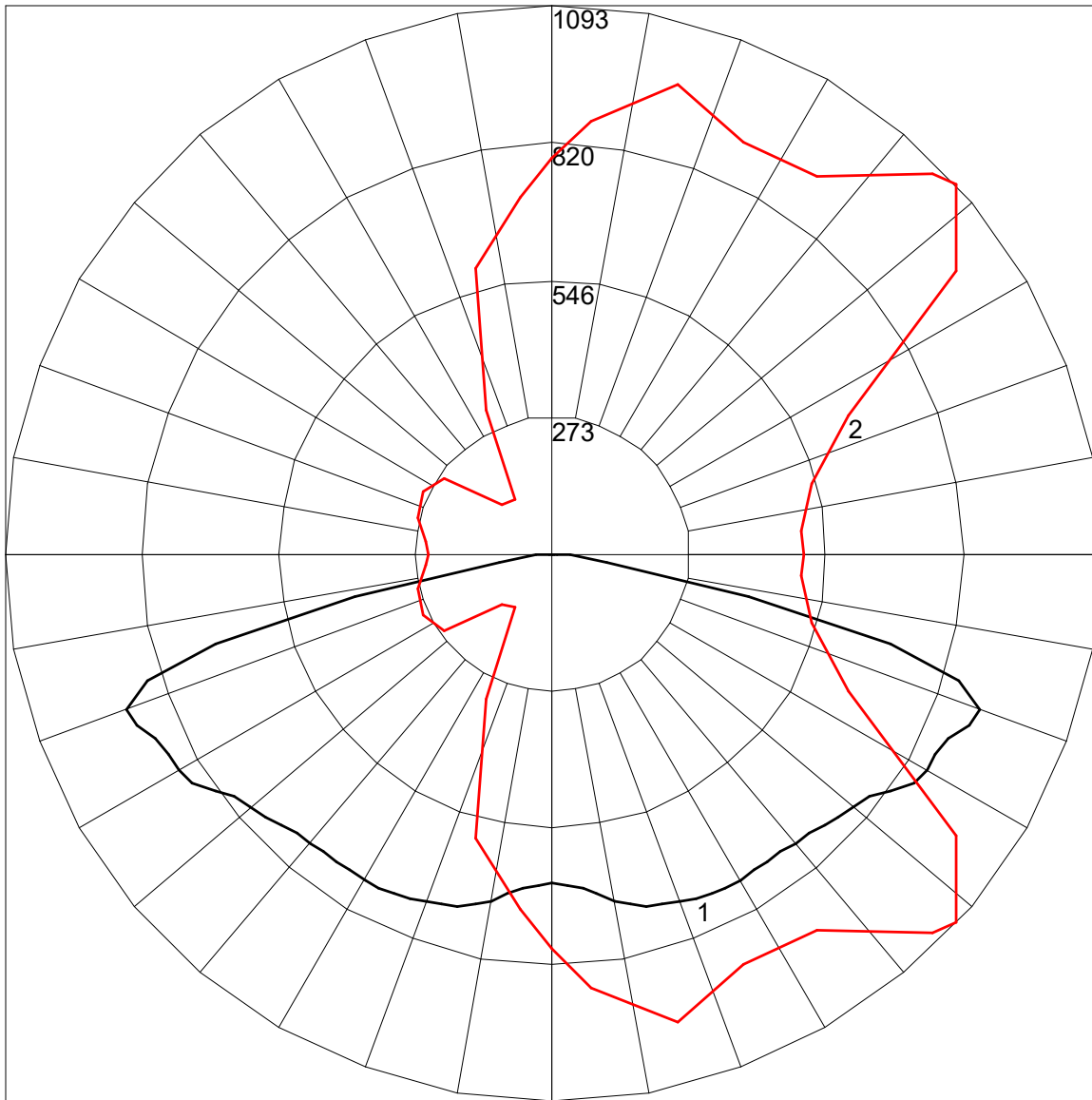
4H	2H	27.1	28.6	27.5	29.0	29.3	30.2	31.7	30.6	32.0	32.4
	3H	27.5	28.8	27.9	29.2	29.6	34.3	35.5	34.7	35.9	36.3
	4H	27.5	28.6	27.9	29.0	29.5	36.1	37.2	36.5	37.6	38.0
	6H	27.5	28.4	27.9	28.9	29.3	36.6	37.5	37.0	38.0	38.4
	8H	27.4	28.3	27.9	28.8	29.2	36.6	37.5	37.0	37.9	38.4
	12H	27.4	28.2	27.9	28.7	29.2	36.6	37.4	37.0	37.8	38.3

8H	4H	28.8	29.7	29.3	30.2	30.6	36.0	36.9	36.5	37.4	37.8
	6H	28.8	29.5	29.2	30.0	30.5	36.5	37.3	37.0	37.7	38.2
	8H	28.7	29.4	29.2	29.9	30.4	36.5	37.2	37.0	37.7	38.2
	12H	28.7	29.3	29.2	29.8	30.3	36.5	37.1	37.0	37.6	38.1

12H	4H	28.9	29.8	29.4	30.2	30.7	36.0	36.8	36.5	37.3	37.7
	6H	28.9	29.5	29.4	30.0	30.5	36.5	37.2	37.0	37.6	38.1
	8H	28.9	29.4	29.4	29.9	30.5	36.5	37.1	37.0	37.6	38.1

Maximum UGR = 38.4

POLAR GRAPH



Maximum Candela = 1092.68 Located At Horizontal Angle = 42.5, Vertical Angle = 50
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (50) (Through Max. Cd.)