

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: INVUE

Report Number: P151065

Luminaire Tested: **VWM-F01-LED-E1-SL3**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P151065  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33679)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: VWM-F01-LED-E1-SL3  
Description: VISION WALL MEDIUM LED LUMINAIRE  
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL  
Light Source: (7) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2506.4 lumens  
Efficiency: N/A  
Efficacy: 96.8 lumens/watt  
Luminous Opening: Rectangular (W 0.17' x L: 1' x H: 0')  
IES Classification: Type III - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G1

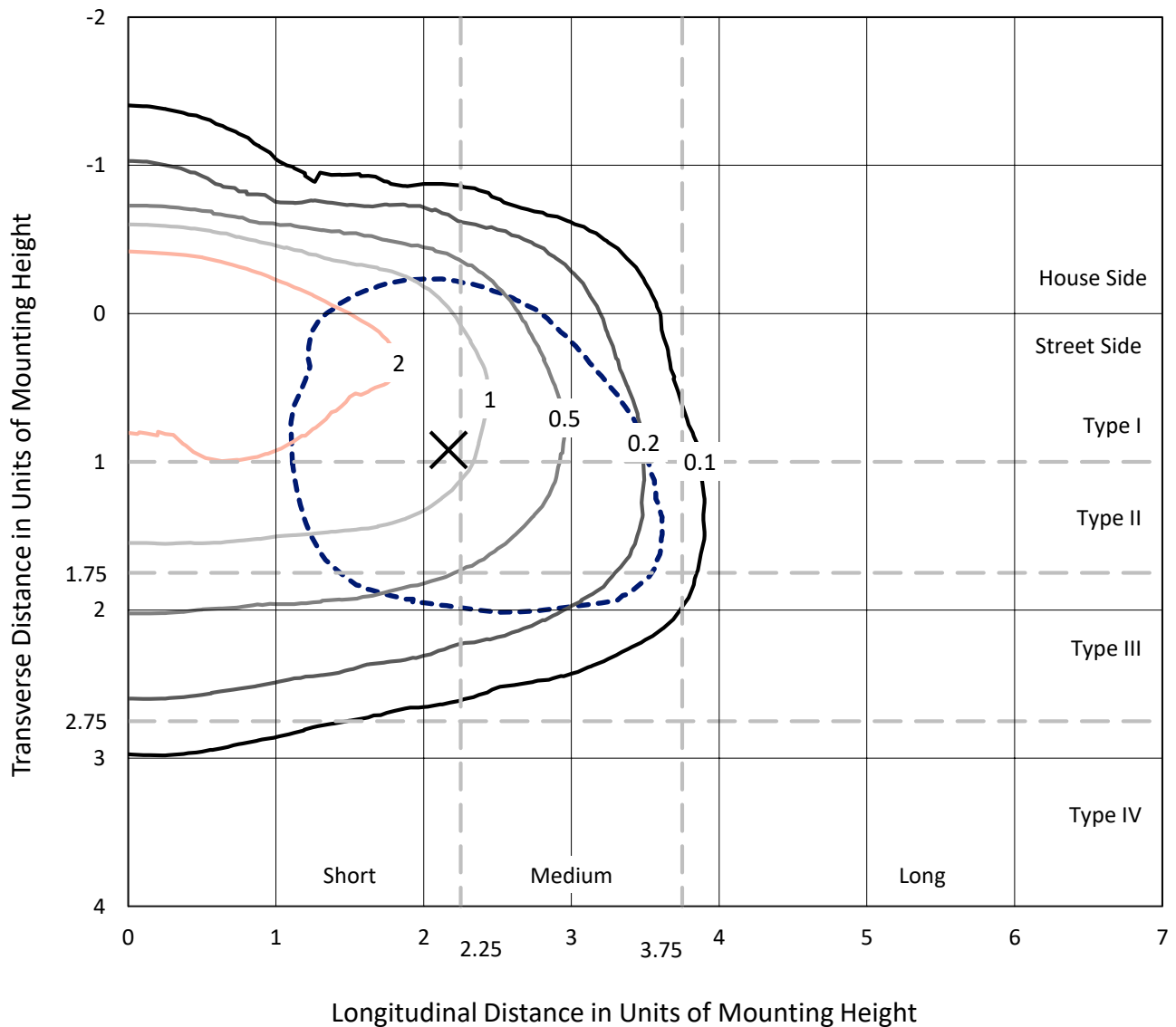
Input Watts (W): 25.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

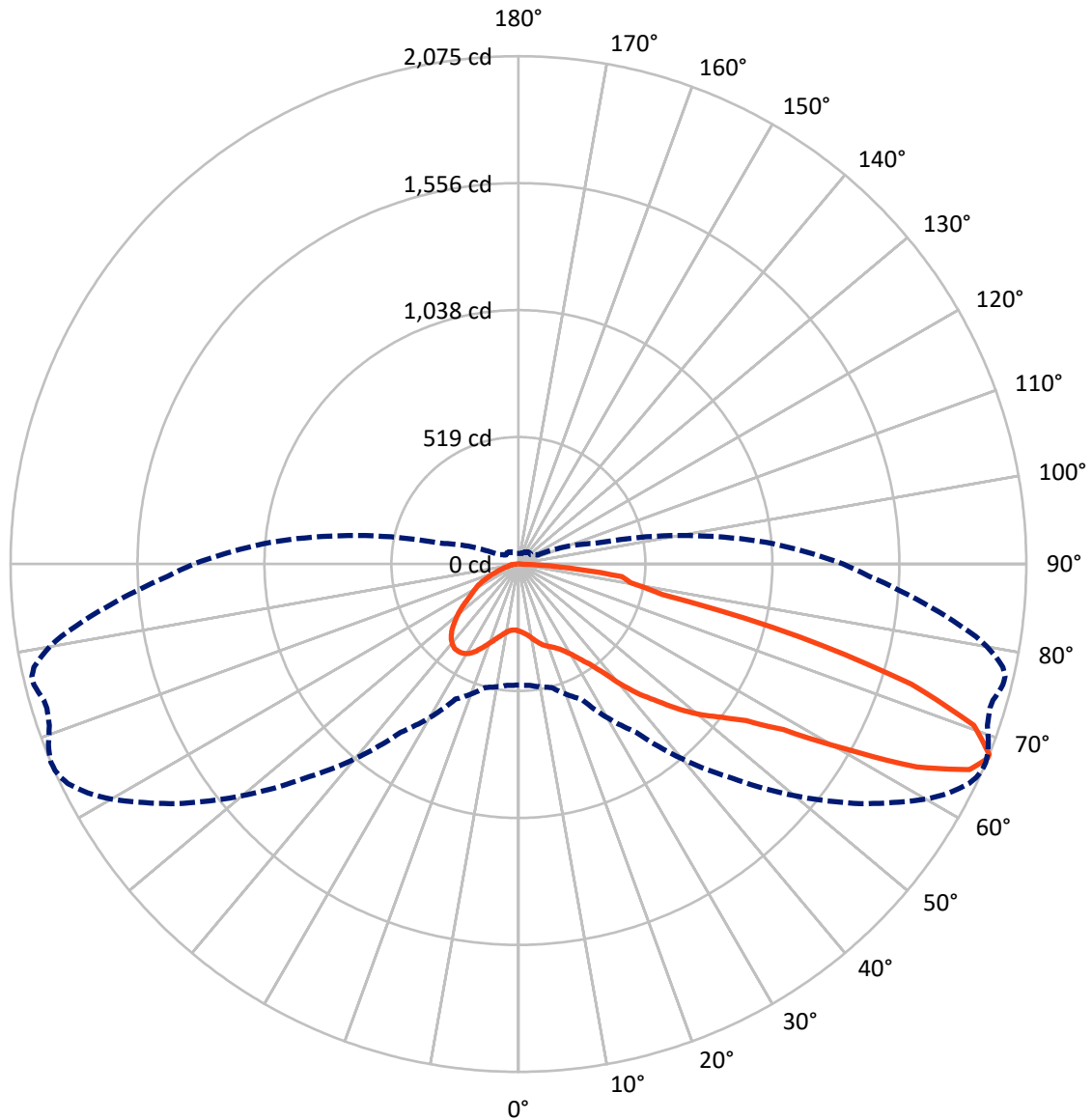
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.5 fc  
 Type III - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral    - - - Horizontal Cone Through 67-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	578.4	0.0	578.4
	% Fixture	23.1	0.0	23.1
<b>Street Side</b>	Lumens	1928.0	0.0	1928.0
	% Fixture	76.9	0.0	76.9
<b>Total</b>	Lumens	2506.4	0.0	2506.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	27.3	1.1
10°-20°	93.5	3.7
20°-30°	165.0	6.6
30°-40°	236.9	9.5
40°-50°	359.8	14.4
50°-60°	529.8	21.1
60°-70°	704.0	28.1
70°-80°	344.4	13.7
80°-90°	45.7	1.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	2506.4	100.0
0°-180°	2506.4	100.0



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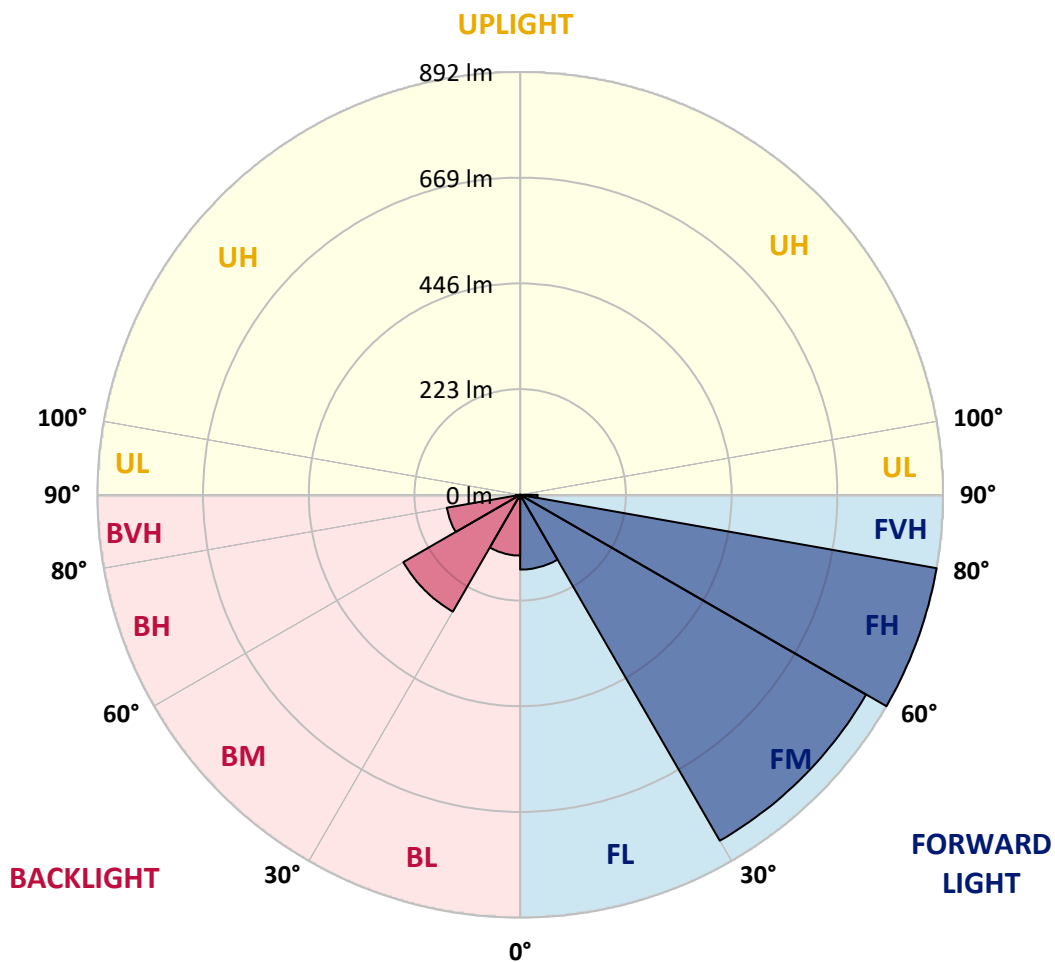
CATALOG NUMBER: VWM-F01-LED-E1-SL3

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	157.7	6.3			
FM	(30°-60°)	842.1	33.6			
FH	(60°-80°)	891.5	35.6			G1/1800
FVH	(80°-90°)	36.7	1.5			G1/100
BL	(0°-30°)	128.1	5.1	B1/500		
BM	(30°-60°)	284.4	11.3	B1/1000		
BH	(60°-80°)	156.9	6.3	B1/500		G1/500
BVH	(80°-90°)	9.0	0.4			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	273.8	273.8	273.8	273.8	273.8	273.8	273.8	273.8	273.8	273.8	273.8
2.5°	286.7	287.0	286.5	286.2	284.5	282.9	281.8	280.4	280.4	280.4	279.9
5°	303.0	301.9	302.7	300.8	297.5	294.4	291.4	288.9	288.4	288.4	287.3
7.5°	322.5	321.1	320.6	317.8	312.9	308.5	302.4	299.9	298.6	298.0	297.5
10°	346.2	346.2	342.6	337.9	331.3	323.6	317.0	312.6	312.3	312.3	309.8
12.5°	370.4	370.9	366.3	361.6	350.8	340.7	333.0	328.0	327.7	326.6	325.3
15°	392.7	391.3	388.3	381.4	369.6	357.5	347.8	342.9	341.8	340.7	339.8
17.5°	411.1	409.7	405.9	397.1	384.7	370.4	358.6	353.3	352.8	352.2	351.1
20°	422.7	421.6	416.1	405.9	392.9	378.4	365.7	362.1	361.0	361.0	360.5
22.5°	429.3	427.6	419.6	406.2	393.5	382.8	372.3	370.1	369.3	369.6	369.6
25°	432.6	431.2	419.9	400.7	388.5	385.5	381.1	379.7	380.0	380.3	380.8
27.5°	433.1	431.2	418.0	393.5	382.2	390.7	393.8	396.0	396.0	397.1	399.0
30°	429.0	426.8	414.1	388.0	379.5	401.2	413.3	419.1	421.3	420.7	425.1
32.5°	421.8	420.5	410.3	388.0	387.2	421.8	443.3	451.6	452.7	453.2	458.2
35°	419.4	419.1	414.7	401.2	411.1	458.2	490.9	497.2	498.6	498.6	502.2
37.5°	418.8	420.2	425.1	426.0	453.2	512.1	555.0	564.7	564.7	567.4	567.4
40°	418.8	421.8	440.6	462.8	504.7	582.3	641.7	652.7	652.7	655.7	654.1
42.5°	435.1	439.5	470.3	512.7	569.6	654.6	722.9	735.3	736.1	735.3	737.7
45°	467.0	470.8	508.2	569.1	636.5	732.2	800.5	815.3	812.3	814.2	815.1
47.5°	509.3	515.4	558.1	630.7	701.7	804.1	887.4	900.9	899.8	900.6	897.1
50°	554.5	560.8	608.4	691.8	766.6	861.8	957.3	977.4	975.5	976.9	978.8
52.5°	594.4	598.2	644.2	737.7	815.9	915.8	1011.0	1036.0	1040.4	1041.0	1042.4
55°	618.0	622.7	664.8	760.6	851.7	968.6	1072.4	1110.3	1118.9	1121.1	1127.1
57.5°	626.3	631.3	669.5	763.9	871.2	1018.1	1157.9	1224.8	1232.0	1243.8	1263.1
60°	626.0	631.3	664.5	756.5	891.0	1079.5	1291.1	1403.1	1439.4	1451.5	1479.1
62.5°	600.4	606.5	640.3	733.9	916.3	1157.9	1489.2	1661.5	1708.3	1730.3	1760.0
65°	544.3	548.7	580.3	676.7	909.2	1235.3	1654.9	1869.8	1912.5	1944.7	1997.8
67°	494.5	497.2	522.0	609.0	839.3	1238.0	1707.2	1921.5	1958.7	1992.8	2047.6
67.5°	481.8	487.6	506.9	588.3	813.1	1222.3	1703.6	1913.6	1951.5	1987.0	2044.8
70°	392.1	400.4	410.0	464.8	639.2	1028.3	1577.3	1775.4	1808.7	1841.7	1922.4
72.5°	241.9	256.7	258.7	293.3	416.1	710.8	1276.3	1497.2	1522.3	1545.9	1628.5
75°	142.5	144.7	151.6	179.7	244.1	424.9	856.3	1112.3	1135.4	1146.9	1211.6
77.5°	79.5	81.7	87.5	111.7	187.7	286.2	498.6	653.5	667.6	682.2	671.7
80°	33.0	36.0	38.8	45.1	87.8	225.9	342.9	415.5	424.6	433.1	443.9
82.5°	16.0	17.1	20.9	23.9	31.9	92.7	268.8	360.2	370.9	383.3	408.4
85°	7.4	8.3	11.6	13.8	15.4	23.4	90.0	175.3	190.1	192.9	197.9
87.5°	0.6	0.6	1.4	1.9	2.8	3.0	9.4	13.2	14.9	13.5	17.1
90°	0.0	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 DISTRIBUTION (continued):**

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	273.8	273.8	273.8	273.8	273.8	273.8	273.8	273.8	273.8	273.8	273.8
2.5°	279.6	279.3	278.8	278.8	278.5	278.5	278.5	277.9	277.9	277.9	277.7
5°	287.0	286.7	285.9	285.9	285.4	285.4	284.5	284.3	283.7	283.7	283.4
7.5°	296.6	296.4	295.3	295.3	294.4	294.2	293.6	292.8	292.8	292.2	291.7
10°	309.8	309.0	308.7	307.4	307.6	307.1	306.5	305.7	305.2	304.6	304.1
12.5°	324.7	324.7	323.3	322.5	323.1	322.5	321.4	321.1	320.3	320.3	319.5
15°	338.7	338.7	338.2	337.1	337.4	336.5	336.3	335.7	334.6	334.9	334.6
17.5°	350.8	350.8	350.0	349.5	349.5	348.6	348.9	348.4	347.8	347.5	346.7
20°	360.5	360.5	359.9	359.4	359.7	359.7	358.8	358.8	358.8	358.3	358.3
22.5°	369.8	370.1	370.1	370.1	370.4	370.7	370.4	370.9	370.7	371.2	371.2
25°	382.2	383.0	383.6	383.6	385.0	385.2	385.5	386.3	386.3	387.2	387.4
27.5°	400.7	401.2	403.4	404.0	404.2	406.4	406.7	407.8	408.9	409.2	409.5
30°	426.0	427.3	429.0	430.1	430.1	432.9	434.0	433.4	436.4	437.3	438.4
32.5°	459.8	460.9	462.6	463.7	464.8	466.1	466.4	467.8	470.3	472.5	471.1
35°	502.5	505.2	502.5	505.5	506.3	508.2	507.7	509.3	510.4	511.3	511.0
37.5°	564.4	563.0	562.5	561.4	559.4	566.0	562.7	562.5	560.8	565.5	562.5
40°	645.8	646.7	647.5	643.1	640.6	640.6	639.8	636.8	635.4	639.5	639.0
42.5°	730.9	731.7	727.8	725.1	718.8	717.9	714.1	713.3	711.9	714.1	711.9
45°	808.2	808.7	800.2	801.6	796.6	797.5	791.4	793.9	790.6	792.8	796.9
47.5°	894.6	895.7	888.3	891.3	886.3	883.3	883.0	884.7	881.1	883.3	884.4
50°	973.0	971.6	967.8	968.6	966.4	967.0	963.7	966.7	962.6	967.0	966.4
52.5°	1042.6	1041.0	1040.2	1042.9	1041.0	1041.0	1039.1	1040.4	1041.0	1047.6	1049.0
55°	1127.1	1128.5	1129.9	1134.8	1137.0	1133.4	1137.0	1143.9	1144.2	1159.9	1168.4
57.5°	1262.8	1272.4	1277.4	1280.4	1293.3	1291.9	1300.2	1316.7	1318.4	1354.7	1375.9
60°	1499.4	1516.5	1532.7	1523.9	1550.1	1558.0	1563.0	1593.8	1603.4	1637.8	1656.3
62.5°	1798.3	1800.2	1825.5	1817.5	1832.4	1828.8	1834.9	1848.9	1861.6	1889.9	1907.2
65°	2006.9	2015.9	2025.8	2015.7	2015.4	2003.3	1995.6	1995.3	2003.0	2009.1	2028.3
67°	2063.5	2072.6	2075.1	2067.7	2056.9	2041.5	2027.2	2019.8	2014.8	2017.6	2029.7
67.5°	2063.0	2071.5	2074.5	2067.4	2052.5	2039.6	2024.5	2015.9	2009.3	2010.7	2020.9
70°	1945.8	1964.2	1974.1	1976.3	1974.4	1951.8	1938.9	1931.2	1925.7	1912.2	1911.4
72.5°	1648.6	1670.9	1678.6	1691.0	1696.5	1663.2	1649.1	1657.7	1638.4	1595.7	1597.7
75°	1210.5	1212.1	1186.3	1181.3	1162.9	1087.5	1064.9	1044.3	1011.3	959.8	911.4
77.5°	631.0	630.7	601.0	585.8	563.8	518.4	516.2	479.4	453.5	406.4	389.4
80°	448.3	455.4	465.3	470.3	462.6	445.0	420.7	394.6	364.6	335.2	299.9
82.5°	416.9	421.3	426.5	407.3	396.5	371.8	353.3	315.4	294.2	260.6	225.1
85°	202.8	216.3	205.8	193.7	189.6	148.3	143.4	119.7	108.7	89.4	83.4
87.5°	12.9	16.0	14.3	12.9	11.3	6.3	8.5	6.1	6.3	4.7	4.1
90°	0.0	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 DISTRIBUTION (continued):**

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	273.8	273.8	273.8	273.8	273.8	273.8	273.8	273.8	273.8	273.8	273.8
2.5°	277.7	277.4	277.1	276.8	276.6	276.6	276.3	276.0	275.7	275.2	275.2
5°	282.9	282.9	282.6	282.1	282.1	281.5	280.7	280.4	280.4	279.9	279.3
7.5°	291.4	291.1	290.6	290.3	289.8	289.2	288.7	288.1	287.8	287.0	286.7
10°	304.3	303.8	302.4	301.9	301.6	301.0	300.5	299.9	299.1	298.6	298.3
12.5°	318.9	318.7	317.6	318.1	316.7	316.2	315.6	314.2	314.8	313.7	313.1
15°	333.5	333.8	333.2	333.2	332.1	331.3	330.8	329.7	329.4	328.8	328.3
17.5°	346.4	347.0	346.2	345.6	345.1	344.5	343.4	342.3	342.3	341.2	340.7
20°	358.3	358.8	358.6	358.0	357.2	356.9	356.4	355.5	355.5	355.0	354.2
22.5°	371.8	372.0	372.0	371.8	370.9	371.2	370.7	369.8	370.1	369.0	369.0
25°	388.0	388.5	389.1	389.4	388.8	389.1	388.5	388.0	387.7	388.0	387.7
27.5°	410.3	410.8	412.5	411.1	412.5	412.8	411.9	410.8	411.7	413.0	412.2
30°	439.7	439.2	441.4	441.7	441.4	441.7	441.1	440.3	440.8	443.3	441.9
32.5°	472.8	473.9	474.4	475.0	475.8	476.9	476.1	475.2	476.6	475.8	477.7
35°	512.7	515.1	516.0	515.1	515.7	517.6	517.3	517.6	520.4	517.6	521.2
37.5°	563.0	565.5	567.4	566.3	567.7	567.7	569.9	575.9	572.1	577.0	580.9
40°	636.2	640.1	640.3	640.1	641.4	643.1	645.3	651.9	647.5	652.7	656.3
42.5°	711.6	716.3	717.9	715.2	718.2	721.8	722.1	727.8	728.1	728.9	730.9
45°	796.6	800.8	804.1	802.7	803.0	807.6	806.5	812.0	807.9	807.9	809.0
47.5°	887.2	891.0	893.2	895.4	892.7	896.8	898.7	897.6	892.7	891.6	885.0
50°	969.7	973.0	976.3	982.4	982.1	984.0	985.4	980.4	979.3	973.3	965.9
52.5°	1057.2	1065.8	1073.2	1085.8	1087.8	1094.4	1091.9	1083.6	1082.3	1072.4	1062.5
55°	1179.1	1203.6	1214.3	1233.9	1247.1	1246.8	1241.3	1239.9	1229.5	1209.7	1197.8
57.5°	1391.3	1429.5	1448.0	1473.3	1477.4	1474.9	1467.8	1455.1	1437.0	1403.7	1382.2
60°	1697.6	1721.2	1742.7	1748.7	1751.8	1747.1	1722.0	1694.0	1658.5	1612.5	1574.3
62.5°	1929.0	1953.2	1969.2	1966.7	1947.7	1923.7	1887.1	1840.1	1790.3	1738.8	1681.6
65°	2046.8	2056.9	2054.5	2035.2	2002.7	1960.9	1907.5	1849.5	1790.8	1730.0	1670.6
67°	2040.4	2040.7	2023.9	1986.5	1944.9	1892.4	1827.2	1763.9	1695.1	1631.2	1560.5
67.5°	2029.1	2028.0	2004.6	1963.6	1918.8	1864.6	1796.9	1731.4	1660.1	1595.7	1522.5
70°	1901.5	1886.0	1833.2	1767.7	1705.3	1632.1	1561.1	1485.9	1405.6	1350.3	1266.1
72.5°	1562.4	1510.4	1419.4	1350.8	1284.0	1188.2	1143.9	1050.6	994.2	959.0	895.4
75°	904.8	861.3	790.9	726.7	694.3	637.6	610.6	542.1	527.8	527.2	505.2
77.5°	345.3	301.3	255.9	206.1	175.3	139.2	122.7	109.8	99.9	106.8	96.9
80°	258.9	213.0	166.5	121.1	86.4	63.8	54.8	50.6	48.2	46.2	44.9
82.5°	192.9	152.2	118.1	77.0	53.9	40.7	35.2	33.0	31.9	30.0	28.3
85°	65.2	52.3	41.3	28.6	22.6	18.4	17.1	16.5	15.7	14.3	13.5
87.5°	3.6	3.3	3.6	2.8	3.3	2.8	3.0	3.0	3.0	2.8	2.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CATALOG NUMBER: VWM-F01-LED-E1-SL3

**CANDELA DISTRIBUTION (continued):**

	87°	88°	89°	90°	95°	105°	115°	125°	135°	145°	155°
0°	273.8	273.8	273.8	273.8	273.8	273.8	273.8	273.8	273.8	273.8	273.8
2.5°	274.9	274.9	274.9	274.3	273.5	271.9	270.2	268.8	267.5	266.6	266.1
5°	279.0	278.5	278.2	277.9	276.0	272.7	269.7	266.9	264.2	262.0	261.1
7.5°	286.5	285.4	285.1	284.3	281.8	276.8	272.4	268.0	264.2	261.1	259.8
10°	297.7	297.7	296.1	295.0	292.2	285.6	279.3	273.5	268.3	265.0	264.2
12.5°	312.0	312.0	310.7	309.8	306.5	298.0	290.3	283.4	278.5	275.2	274.9
15°	326.9	326.6	325.5	324.4	320.9	311.8	304.1	298.0	293.9	290.0	288.9
17.5°	340.1	340.1	338.7	337.6	334.1	326.4	319.5	315.1	310.4	302.4	296.4
20°	353.3	353.6	352.5	351.4	348.4	341.8	338.7	334.3	323.9	306.5	292.2
22.5°	367.9	369.0	367.6	366.5	364.1	361.3	360.2	349.7	327.7	299.9	279.0
25°	386.6	388.5	386.9	386.3	385.0	385.8	382.5	358.3	322.2	285.6	259.5
27.5°	412.2	412.2	412.5	412.5	411.9	415.0	402.9	358.6	310.1	267.2	236.1
30°	442.2	443.9	443.3	443.3	445.5	447.4	414.1	352.5	294.7	244.4	207.5
32.5°	478.3	479.6	480.2	477.7	486.5	476.6	418.3	341.5	275.7	216.0	173.4
35°	521.7	523.7	525.0	525.3	531.1	501.9	416.1	325.3	248.5	180.5	135.9
37.5°	578.4	582.3	585.3	586.7	586.9	523.4	410.0	303.8	213.0	140.9	101.3
40°	653.8	657.9	657.1	659.9	644.2	536.0	396.3	272.7	169.0	103.5	78.1
42.5°	726.5	727.0	728.1	725.6	693.7	542.6	377.0	234.7	126.6	77.3	66.9
45°	807.6	803.0	797.7	793.9	739.4	545.1	350.6	188.5	89.4	64.9	61.9
47.5°	883.9	877.5	866.8	855.8	780.1	541.3	316.7	141.2	68.0	59.4	58.6
50°	958.7	946.9	931.7	919.1	819.2	535.5	279.3	101.8	59.4	56.7	55.9
52.5°	1051.4	1031.6	1011.8	995.3	870.1	526.4	240.0	77.3	55.9	54.5	53.4
55°	1178.6	1151.1	1119.1	1096.0	939.2	512.7	198.7	65.5	54.2	53.1	51.5
57.5°	1354.7	1313.4	1277.4	1239.7	1033.6	498.6	163.2	60.8	53.9	52.3	50.1
60°	1534.7	1485.1	1439.2	1385.2	1129.9	484.6	138.4	60.3	54.8	52.3	49.0
62.5°	1628.2	1577.0	1521.7	1467.0	1171.4	451.6	121.4	61.1	56.7	53.1	49.0
65°	1606.7	1544.3	1488.1	1432.3	1123.3	389.1	102.6	62.2	60.5	56.4	49.8
67°	1498.9	1433.7	1379.7	1326.3	1015.9	325.8	88.1	63.3	64.7	60.3	51.5
67.5°	1460.9	1395.7	1342.6	1290.6	984.3	312.6	84.5	63.8	65.5	61.4	52.0
70°	1211.3	1163.4	1107.0	1066.9	796.9	231.4	69.3	64.9	70.4	67.7	54.5
72.5°	871.8	826.1	783.7	761.4	586.9	161.8	58.3	63.8	73.5	71.3	55.6
75°	463.4	460.6	445.2	456.2	363.2	105.7	51.5	59.7	70.2	65.2	51.7
77.5°	93.6	96.3	113.1	111.4	117.2	58.9	44.0	51.2	54.2	47.9	42.1
80°	43.5	42.7	41.8	42.4	41.6	37.7	35.8	40.2	37.7	30.8	28.1
82.5°	27.0	26.4	25.6	25.3	28.1	30.0	31.4	31.6	25.0	21.5	20.6
85°	12.9	12.9	12.7	13.2	16.5	24.5	26.4	23.4	16.8	15.4	14.6
87.5°	2.5	2.5	2.8	2.5	3.3	5.8	6.6	7.7	6.3	6.6	7.4
90°	0.0	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 DISTRIBUTION (continued):**

	165°	175°	180°
0°	273.8	273.8	273.8
2.5°	265.5	265.0	265.0
5°	260.0	259.8	259.8
7.5°	258.7	258.9	258.7
10°	263.9	263.6	264.7
12.5°	275.5	276.3	276.0
15°	287.6	288.1	288.1
17.5°	291.1	289.2	288.9
20°	281.8	278.2	277.4
22.5°	264.2	257.6	257.8
25°	241.9	233.9	234.4
27.5°	216.0	207.5	207.2
30°	184.9	175.6	170.9
32.5°	147.5	136.2	136.2
35°	110.9	101.8	98.5
37.5°	84.2	79.0	77.3
40°	70.2	67.7	67.1
42.5°	63.8	63.0	62.7
45°	60.5	60.0	59.7
47.5°	57.5	57.2	57.0
50°	55.3	55.0	54.8
52.5°	53.4	52.8	52.6
55°	50.6	50.6	50.6
57.5°	49.0	49.0	48.7
60°	47.3	47.1	47.1
62.5°	46.0	45.4	45.7
65°	45.1	44.3	44.3
67°	44.6	42.9	42.9
67.5°	44.6	42.4	42.4
70°	43.8	40.2	39.6
72.5°	42.9	37.7	36.9
75°	40.7	35.8	34.9
77.5°	34.9	31.9	31.4
80°	27.0	23.4	23.9
82.5°	19.5	16.8	16.5
85°	14.0	12.1	12.1
87.5°	7.4	6.3	6.6
90°	0.0	0.0	0.0

(END OF REPORT)