

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: P149354

Luminaire Tested: **VWM-F01-LED-E1-SL2-HSS-7030**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P149354  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33726)  
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-SL2-HSS-7030  
Description: VISION WALL MEDIUM LED LUMINAIRE  
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD  
Light Source: (7) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1382.5 lumens  
Efficiency: N/A  
Efficacy: 53.4 lumens/watt  
Luminous Opening: Rectangular (W 0.17' x L: 1' x H: 0')  
IES Classification: Type II - Short - Non-Cutoff  
BUG Rating: B0 - U0 - G1

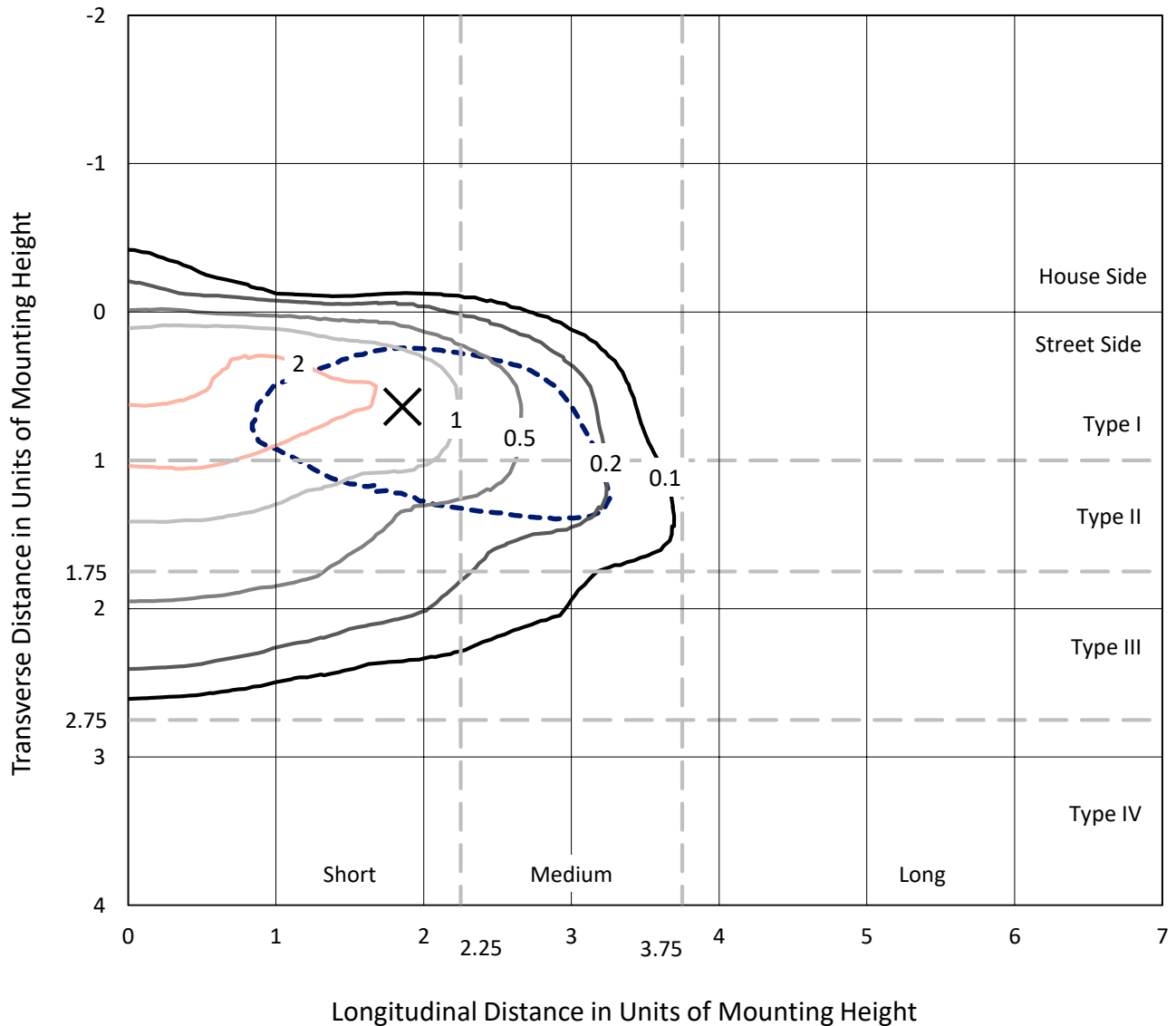
Input Watts (W): 25.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P149354  
 CATALOG NUMBER: VWM-F01-LED-E1-SL2-HSS-7030

### Iso-Footcandle Lines of Horizontal Illumination

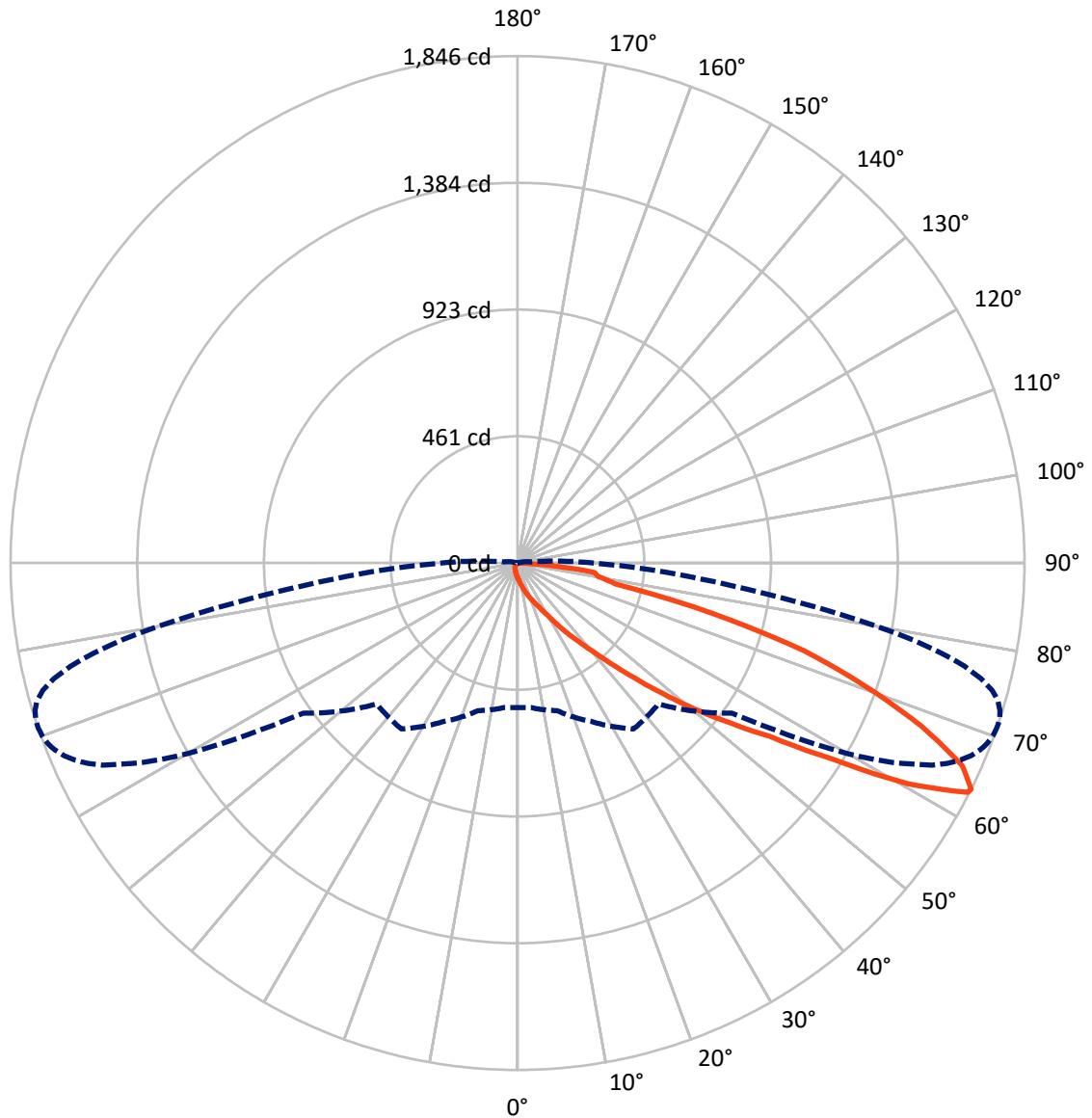
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.9 fc  
 Type II - Short - Non-Cutoff

REPORT NUMBER: P149354  
CATALOG NUMBER: VWM-F01-LED-E1-SL2-HSS-7030

### Luminous Intensity Polar Plot



— Vertical Plane Through 71-Deg Lateral    - - - Horizontal Cone Through 63-Deg Vertical

REPORT NUMBER: P149354

CATALOG NUMBER: VWM-F01-LED-E1-SL2-HSS-7030

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	29.4	0.0	29.4
	% Fixture	2.1	0.0	2.1
<b>Street Side</b>	Lumens	1353.2	0.0	1353.2
	% Fixture	97.9	0.0	97.9
<b>Total</b>	Lumens	1382.5	0.0	1382.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	5.9	0.4
10°-20°	22.7	1.6
20°-30°	46.2	3.3
30°-40°	112.8	8.2
40°-50°	252.3	18.2
50°-60°	354.7	25.7
60°-70°	417.1	30.2
70°-80°	150.6	10.9
80°-90°	20.1	1.5
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°	1382.5	100.0
0°-180°	1382.5	100.0



REPORT NUMBER: P149354

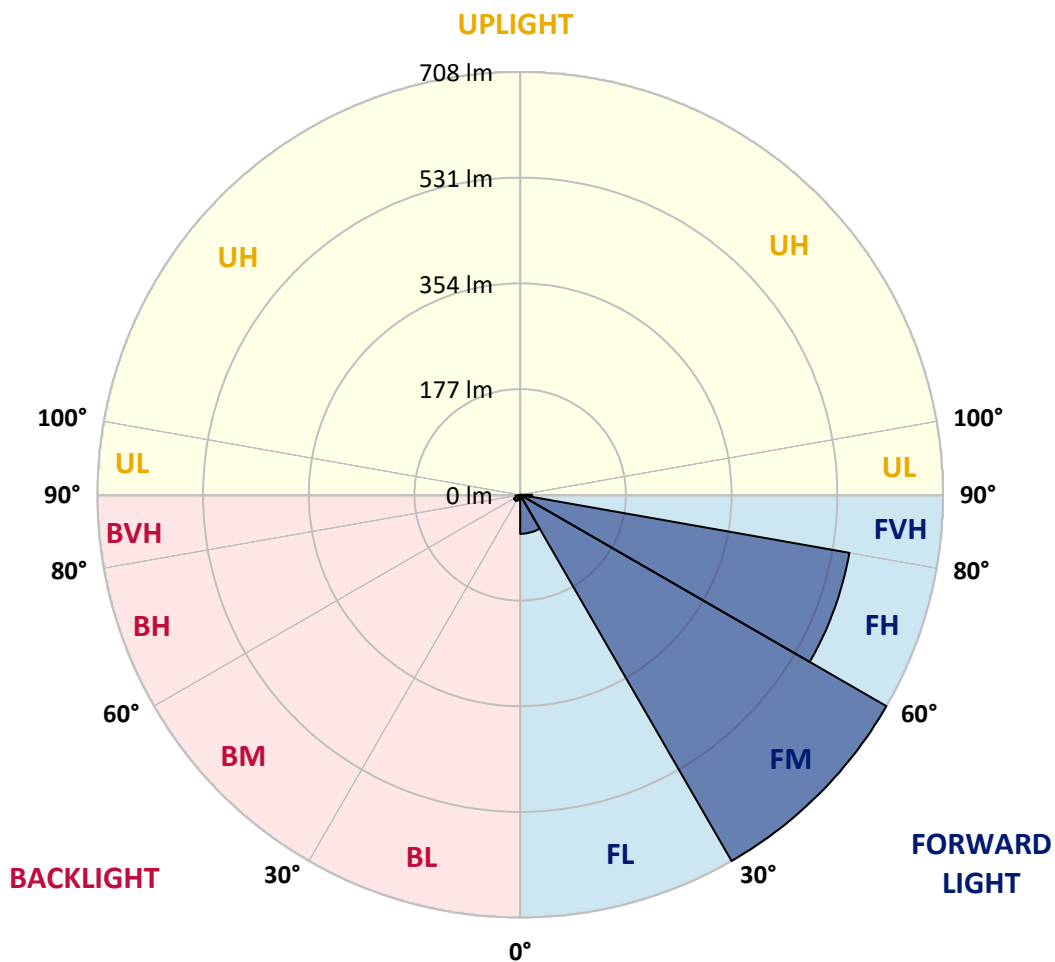
CATALOG NUMBER: VWM-F01-LED-E1-SL2-HSS-7030

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	65.3	4.7			
FM	(30°-60°)	708.0	51.2			
FH	(60°-80°)	559.7	40.5			G0/660
FVH	(80°-90°)	20.1	1.5			G1/100
BL	(0°-30°)	9.4	0.7	B0/110		
BM	(30°-60°)	11.8	0.9	B0/220		
BH	(60°-80°)	8.1	0.6	B0/110		G0/110
BVH	(80°-90°)	0.0	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B0-U0-G1**

Type II Short





REPORT NUMBER: P149354

CATALOG NUMBER: VWM-F01-LED-E1-SL2-HSS-7030

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0
2.5°	69.4	70.1	69.6	68.4	66.9	64.8	63.1	63.1	62.8	62.1	62.3
5°	91.0	91.2	90.2	87.2	84.4	80.2	75.4	74.9	74.4	73.6	73.4
7.5°	112.1	113.1	112.1	108.8	103.3	96.8	89.2	88.5	87.0	87.0	86.0
10°	133.7	133.7	132.7	128.9	123.9	114.6	105.1	103.8	102.0	101.5	100.0
12.5°	149.0	149.0	148.5	146.5	142.5	134.2	122.6	121.4	119.1	118.4	116.6
15°	155.1	155.1	155.3	157.1	157.3	153.6	141.5	140.5	138.2	136.2	135.5
17.5°	158.8	158.6	158.6	161.1	165.6	168.1	160.3	159.3	156.8	155.8	153.3
20°	167.1	166.6	165.1	165.1	169.4	178.2	178.2	177.9	175.2	174.4	173.2
22.5°	179.5	178.9	174.4	170.7	172.7	183.7	194.0	193.5	192.5	191.5	190.8
25°	199.6	197.8	190.0	178.9	177.2	189.0	206.1	207.3	208.1	208.1	208.6
27.5°	230.0	227.7	213.9	193.3	185.5	197.5	219.4	221.9	224.2	224.7	227.0
30°	272.2	268.2	248.3	218.2	200.3	210.1	239.0	241.8	245.0	246.1	249.6
32.5°	341.6	339.3	320.2	275.0	236.8	234.7	266.4	269.9	274.2	276.0	280.2
35°	447.1	447.6	432.0	391.3	338.5	310.9	315.4	318.4	319.9	325.2	327.5
37.5°	518.7	520.0	523.5	507.4	469.7	441.6	406.2	409.4	401.6	402.4	402.6
40°	558.0	562.0	582.6	598.2	595.2	578.8	550.4	552.2	537.6	534.3	518.5
42.5°	584.1	589.4	622.3	670.6	695.2	710.0	703.5	702.7	691.4	687.1	673.8
45°	600.4	605.2	646.7	717.8	774.6	817.8	835.7	837.7	828.1	823.9	812.8
47.5°	599.7	605.2	649.7	735.4	819.1	888.2	938.5	941.0	946.8	943.0	943.7
50°	566.5	571.8	616.5	705.5	806.0	920.4	1012.4	1020.4	1029.7	1036.0	1039.0
52.5°	526.3	530.1	569.8	654.2	750.2	907.1	1056.1	1069.9	1083.7	1095.6	1103.8
55°	511.5	515.7	546.9	617.0	705.5	851.3	1076.5	1096.8	1116.4	1135.8	1151.6
57.5°	519.3	523.3	545.6	599.4	678.8	792.4	1082.2	1113.9	1146.1	1177.5	1208.7
60°	547.9	552.2	571.3	615.8	671.8	758.5	1059.6	1112.1	1165.7	1220.5	1272.0
62.5°	536.6	538.4	566.5	644.4	722.1	729.6	977.4	1050.8	1132.5	1216.9	1300.1
63°	525.8	527.8	556.4	636.6	737.4	725.3	952.0	1029.5	1115.7	1206.6	1297.1
65°	476.8	477.0	498.9	562.2	720.3	732.9	838.9	912.8	1011.9	1120.9	1235.3
67.5°	355.9	354.1	375.2	423.5	565.5	733.1	720.1	761.5	830.4	927.2	1029.7
70°	126.2	123.4	157.6	224.4	352.4	599.7	618.8	621.5	640.6	692.9	757.3
72.5°	41.0	41.7	50.3	82.2	162.4	403.6	560.2	551.7	546.6	546.4	554.9
75°	16.3	16.6	20.1	36.4	72.9	194.5	490.6	495.4	497.1	499.6	502.4
77.5°	7.8	8.5	11.3	20.4	36.2	96.3	351.1	391.6	414.7	432.5	443.3
80°	2.8	3.3	6.3	12.6	16.8	44.2	185.0	223.2	257.1	300.8	338.5
82.5°	0.0	0.0	1.3	8.8	9.3	17.8	75.9	89.0	101.8	131.9	169.4
85°	0.0	0.0	0.0	2.5	2.8	3.0	25.6	30.9	34.7	40.5	46.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.8	1.5	3.8	5.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P149354

CATALOG NUMBER: VWM-F01-LED-E1-SL2-HSS-7030

**CANDELA DISTRIBUTION (continued):**

	60°	61°	62°	64°	65°	66°	67°	68°	69°	70°	71°
0°	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0
2.5°	61.8	61.6	61.6	61.1	60.8	60.3	60.1	59.3	59.1	59.1	59.1
5°	73.1	72.1	71.6	70.4	69.6	69.4	68.1	67.6	66.9	67.1	65.8
7.5°	85.7	83.9	83.2	81.4	80.9	79.2	78.7	77.4	76.7	75.1	74.6
10°	99.5	97.3	96.0	93.2	92.5	91.2	89.7	88.2	87.0	85.5	84.7
12.5°	115.4	113.4	112.3	108.6	106.8	105.1	103.0	101.0	99.0	97.8	96.0
15°	134.0	130.7	129.7	126.2	123.2	120.9	118.1	115.6	114.1	111.6	109.8
17.5°	152.3	149.0	148.3	143.0	139.7	138.2	135.2	131.9	129.2	126.7	123.9
20°	170.7	168.4	166.4	161.4	157.8	155.3	151.3	148.0	145.8	142.3	138.7
22.5°	189.0	186.7	185.2	180.0	176.7	173.2	169.6	166.1	162.9	158.6	154.6
25°	207.9	206.3	205.6	200.8	197.8	194.5	191.0	187.0	183.0	178.2	173.9
27.5°	227.5	228.0	226.4	225.4	222.2	219.9	214.4	211.6	208.6	202.8	197.5
30°	252.3	253.8	253.3	254.1	252.1	250.6	246.3	242.8	239.3	233.7	227.7
32.5°	283.8	285.8	286.8	289.5	288.5	288.0	286.8	281.7	279.2	269.7	267.2
35°	332.3	331.3	335.5	337.8	336.8	336.3	334.8	332.0	329.0	322.2	315.9
37.5°	395.3	396.3	397.9	393.3	390.3	390.1	385.5	382.8	378.5	371.0	363.4
40°	511.0	504.7	497.6	478.5	470.2	465.5	452.1	448.4	441.1	430.8	423.0
42.5°	661.3	655.0	633.9	601.9	584.8	561.2	550.4	537.1	526.8	510.0	500.9
45°	810.5	792.4	789.9	752.7	731.6	700.5	681.1	658.7	635.4	613.2	597.2
47.5°	936.5	932.4	920.1	897.5	877.9	851.8	826.9	792.4	768.3	736.9	708.0
50°	1037.2	1037.0	1032.5	1019.4	1003.1	982.0	960.1	930.9	903.5	865.1	834.2
52.5°	1112.6	1116.7	1118.2	1114.2	1107.9	1089.3	1078.2	1053.8	1030.7	998.0	964.6
55°	1167.9	1182.8	1190.3	1198.8	1197.1	1190.6	1190.1	1174.2	1163.7	1137.8	1114.2
57.5°	1236.3	1260.7	1284.1	1325.5	1327.0	1341.6	1349.1	1356.7	1358.7	1348.4	1340.6
60°	1323.3	1373.0	1417.3	1504.0	1526.6	1562.3	1585.4	1610.5	1631.9	1633.7	1633.1
62.5°	1384.6	1461.2	1532.6	1661.3	1705.3	1746.5	1777.4	1801.8	1816.6	1831.7	1838.7
63°	1386.3	1470.3	1546.2	1678.9	1725.1	1764.3	1793.8	1816.4	1832.0	1841.0	1845.5
65°	1343.9	1445.7	1536.1	1668.3	1711.8	1751.3	1766.6	1781.4	1789.0	1792.5	1779.2
67.5°	1139.0	1238.6	1344.1	1491.9	1529.1	1576.3	1588.9	1596.5	1600.0	1599.2	1587.9
70°	851.8	935.2	1052.6	1221.5	1270.7	1317.0	1345.6	1357.9	1362.0	1360.7	1343.9
72.5°	594.6	643.7	740.4	928.4	995.5	1054.8	1090.3	1108.6	1112.4	1104.9	1089.3
75°	499.4	501.9	523.8	626.6	689.4	752.7	792.7	804.3	796.7	773.8	734.1
77.5°	445.9	451.4	451.4	466.7	479.0	496.6	500.4	472.3	439.6	397.4	363.2
80°	374.0	393.3	406.9	418.2	419.5	416.0	406.7	390.8	365.7	333.5	297.8
82.5°	227.2	265.4	281.0	339.3	367.9	387.3	385.8	364.7	345.6	312.2	281.7
85°	57.3	61.8	67.1	87.2	97.8	119.4	133.0	139.2	141.5	129.9	117.6
87.5°	5.5	3.8	6.3	4.8	6.8	5.0	6.8	6.3	7.8	8.3	9.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





REPORT NUMBER: P149354

CATALOG NUMBER: VWM-F01-LED-E1-SL2-HSS-7030

**CANDELA DISTRIBUTION (continued):**

	72°	73°	74°	75°	76°	77°	78°	79°	80°	81°	82°
0°	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0
2.5°	58.6	58.3	58.1	57.8	57.6	57.3	56.8	56.8	56.3	56.0	55.8
5°	65.1	64.6	64.3	63.8	63.1	62.6	61.8	60.8	60.1	59.8	59.3
7.5°	73.4	72.1	71.6	70.9	69.9	68.4	67.4	66.6	65.3	64.6	63.1
10°	82.7	81.4	79.9	78.4	76.9	75.1	73.9	72.9	70.9	69.9	68.1
12.5°	94.5	92.2	90.5	88.5	86.5	84.4	82.9	79.9	78.2	75.9	74.4
15°	106.6	104.6	102.5	100.0	97.0	93.7	92.2	89.5	87.2	83.7	81.7
17.5°	121.1	117.4	114.4	111.3	108.6	105.6	102.5	98.3	95.0	92.0	88.0
20°	135.5	130.9	127.7	123.7	119.6	114.9	111.3	108.3	103.8	99.8	95.5
22.5°	150.8	146.3	141.0	137.0	131.4	127.7	122.9	117.9	113.4	108.1	102.8
25°	169.4	164.6	158.6	153.3	147.0	141.8	136.0	130.2	124.7	118.6	111.8
27.5°	192.3	187.2	180.7	174.4	166.1	159.6	154.1	146.3	139.2	131.7	123.9
30°	221.2	215.6	207.6	198.6	190.3	183.0	175.2	164.9	157.1	148.0	138.0
32.5°	258.9	252.3	241.5	233.0	222.7	213.1	202.3	192.0	181.0	169.1	157.6
35°	306.4	300.3	287.8	275.2	263.9	252.6	239.0	227.2	211.6	197.3	182.5
37.5°	355.6	344.8	333.3	319.7	305.6	292.0	275.5	259.1	241.3	225.7	207.1
40°	411.9	398.9	389.3	374.7	354.9	335.5	320.2	299.8	277.5	256.6	234.7
42.5°	489.1	474.5	457.4	435.3	421.0	398.4	378.5	354.4	325.0	301.6	275.2
45°	578.3	558.5	541.9	520.5	503.2	475.0	451.9	419.7	390.3	359.7	327.5
47.5°	680.1	655.5	631.3	610.2	582.6	554.9	525.5	491.4	453.7	420.0	381.8
50°	797.0	762.0	728.6	701.5	663.5	631.6	599.7	561.2	519.5	480.8	437.3
52.5°	926.9	886.4	842.2	800.5	756.5	715.5	677.1	632.9	586.4	539.1	490.6
55°	1083.7	1053.3	1001.3	948.3	889.5	834.7	785.2	730.4	673.8	611.7	560.7
57.5°	1329.3	1314.5	1271.0	1218.0	1141.3	1074.7	990.7	923.6	841.7	756.3	690.4
60°	1662.1	1643.7	1619.3	1576.3	1515.5	1425.0	1332.6	1228.3	1103.6	985.2	872.9
62.5°	1839.5	1833.0	1813.1	1783.4	1726.6	1655.3	1562.0	1447.4	1306.7	1162.9	1019.7
63°	1844.8	1836.5	1819.4	1789.2	1739.2	1670.1	1578.6	1467.3	1329.5	1183.0	1036.7
65°	1773.4	1770.1	1752.8	1719.9	1685.7	1632.9	1562.0	1466.3	1350.7	1212.2	1066.6
67.5°	1572.8	1563.0	1536.4	1526.3	1502.5	1465.8	1411.7	1345.9	1263.2	1154.4	1028.7
70°	1330.3	1315.7	1282.3	1264.4	1235.3	1212.2	1179.2	1132.2	1081.2	1005.3	911.6
72.5°	1073.2	1043.0	1012.4	965.9	925.1	883.9	847.5	814.3	758.3	727.6	656.5
75°	696.9	642.2	589.6	519.3	455.9	399.9	345.3	317.7	260.1	236.8	203.3
77.5°	330.8	300.1	258.9	227.0	186.2	152.1	124.2	93.2	73.1	57.3	43.7
80°	266.9	241.0	216.1	187.2	156.6	124.9	95.8	71.6	50.8	35.2	24.9
82.5°	238.0	209.9	179.2	159.3	138.5	113.4	93.0	75.9	56.0	41.0	27.9
85°	92.5	77.9	60.1	49.0	38.2	31.4	28.4	19.6	15.3	12.1	9.3
87.5°	8.0	6.5	5.3	3.5	3.8	2.0	2.3	1.5	1.3	1.3	1.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P149354

CATALOG NUMBER: VWM-F01-LED-E1-SL2-HSS-7030

**CANDELA DISTRIBUTION (continued):**

	83°	84°	85°	86°	87°	88°	89°	90°	95°	105°	115°
0°	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0
2.5°	55.5	55.3	55.0	54.5	54.5	54.0	53.8	53.5	52.3	49.5	47.3
5°	58.3	57.8	57.3	56.5	56.0	55.3	54.8	54.0	51.3	46.0	41.5
7.5°	62.3	61.3	60.6	59.1	58.3	57.3	56.5	55.3	50.8	42.7	36.4
10°	67.1	65.3	64.1	62.3	60.8	59.6	58.3	56.5	50.3	39.2	31.9
12.5°	72.9	70.9	68.4	66.4	64.3	62.6	60.8	58.6	49.5	36.2	28.4
15°	78.7	75.7	73.9	71.1	68.4	65.8	63.3	61.3	49.8	32.9	25.4
17.5°	85.2	82.2	78.4	75.4	72.4	69.1	66.1	62.1	48.5	30.4	23.1
20°	91.5	87.2	83.7	79.9	75.7	71.6	67.9	64.3	47.5	27.9	21.1
22.5°	98.3	93.2	88.7	83.9	78.7	74.1	69.6	65.1	45.7	25.6	19.4
25°	106.6	100.8	94.2	88.5	82.9	77.4	71.6	66.1	44.0	23.6	18.1
27.5°	116.6	109.1	102.5	95.3	87.5	80.4	74.1	68.1	42.2	22.1	16.8
30°	129.4	120.6	111.3	102.0	93.7	85.7	76.9	69.4	40.5	20.6	15.6
32.5°	146.5	135.5	124.2	113.4	102.3	92.0	82.7	72.9	39.5	19.4	14.3
35°	169.1	154.8	141.0	127.4	114.1	101.5	89.5	78.4	39.5	17.8	12.8
37.5°	190.5	173.9	156.3	139.5	123.7	109.1	94.8	81.4	37.4	16.6	11.6
40°	213.6	193.8	173.2	153.3	134.2	116.1	99.8	84.4	35.7	15.1	10.3
42.5°	249.1	223.9	197.0	173.9	151.1	128.7	108.3	90.2	33.4	13.6	9.0
45°	295.6	263.6	232.0	203.8	174.7	147.3	123.2	100.8	32.9	12.3	7.8
47.5°	345.3	307.6	270.4	234.5	200.3	168.4	139.5	112.6	32.9	11.1	6.8
50°	394.8	347.6	307.9	266.2	227.7	190.0	155.6	124.9	33.2	10.1	5.5
52.5°	439.6	389.1	344.6	296.3	253.8	210.1	172.7	137.0	32.7	8.8	4.5
55°	501.7	442.3	390.8	337.5	287.8	238.5	196.0	155.1	32.9	7.8	3.8
57.5°	616.0	546.4	484.3	414.4	357.1	293.6	242.0	192.3	35.9	6.5	2.8
60°	780.1	689.7	602.4	517.2	444.4	368.7	301.8	243.3	42.2	5.3	2.0
62.5°	890.5	772.1	668.0	574.0	489.3	410.2	337.3	270.7	46.5	4.3	1.3
63°	901.8	779.4	674.8	577.8	491.4	412.2	338.8	272.7	46.7	4.0	1.3
65°	923.1	791.9	678.6	578.6	489.3	409.4	337.8	272.4	47.3	3.3	1.0
67.5°	898.8	772.6	656.7	556.9	471.7	393.1	325.2	262.4	47.0	2.3	0.8
70°	803.8	699.2	597.4	504.4	427.0	355.9	296.1	239.3	43.2	1.5	0.5
72.5°	590.1	519.0	440.1	373.0	321.7	267.2	228.0	179.7	33.4	1.0	0.3
75°	174.9	159.3	134.0	118.1	104.3	86.2	76.7	59.8	17.1	0.5	0.0
77.5°	34.9	31.7	28.4	25.9	24.4	20.9	19.9	16.3	7.0	0.3	0.0
80°	18.3	15.1	12.8	11.3	9.8	8.0	6.8	5.5	1.3	0.0	0.0
82.5°	17.6	11.8	8.5	7.0	6.0	4.8	3.8	2.8	0.8	0.0	0.0
85°	6.5	5.0	3.8	3.0	2.5	2.3	1.8	1.5	0.0	0.0	0.0
87.5°	1.0	0.8	0.8	0.5	0.5	0.3	0.3	0.3	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P149354

CATALOG NUMBER: VWM-F01-LED-E1-SL2-HSS-7030

**CANDELA DISTRIBUTION (continued):**

	125°	135°	145°	155°	165°	175°	180°
0°	53.0	53.0	53.0	53.0	53.0	53.0	53.0
2.5°	45.0	43.0	42.0	40.7	40.7	40.5	41.0
5°	37.4	34.7	32.7	31.2	31.4	30.7	30.9
7.5°	31.7	28.9	27.1	26.1	25.9	25.6	25.6
10°	27.4	24.9	23.4	22.6	22.4	22.4	22.4
12.5°	24.4	21.9	20.6	20.1	20.1	19.9	19.9
15°	21.9	19.9	18.6	18.1	18.1	17.8	18.1
17.5°	19.9	17.8	16.8	16.3	16.3	16.1	16.1
20°	18.1	16.3	15.3	14.6	14.6	14.3	14.6
22.5°	16.6	14.8	13.6	13.1	12.8	12.6	12.8
25°	15.1	13.3	12.1	11.3	11.1	11.1	10.8
27.5°	13.8	12.1	10.6	9.8	9.6	9.6	9.3
30°	12.6	10.6	9.0	8.3	8.0	8.0	8.0
32.5°	11.3	9.0	7.8	7.0	6.8	6.8	6.8
35°	10.1	7.8	6.5	5.8	5.5	5.5	5.5
37.5°	8.5	6.5	5.0	4.5	4.3	4.0	4.0
40°	7.3	5.0	3.8	3.3	2.8	2.8	2.8
42.5°	6.0	4.0	2.8	2.0	1.8	1.5	1.8
45°	5.0	3.0	1.8	1.0	0.8	0.8	0.8
47.5°	4.0	2.0	0.8	0.3	0.3	0.3	0.3
50°	3.0	1.3	0.3	0.0	0.0	0.3	0.3
52.5°	2.3	0.8	0.0	0.0	0.0	0.0	0.0
55°	1.3	0.3	0.0	0.0	0.0	0.0	0.0
57.5°	0.8	0.0	0.0	0.0	0.0	0.0	0.0
60°	0.5	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	0.3	0.0	0.0	0.0	0.0	0.0	0.0
63°	0.3	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.3	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	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
72.5°	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
77.5°	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
82.5°	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
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)