

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: P149930

Luminaire Tested: **VWM-E02-LED-E1-SL2**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P149930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33678)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: VWM-E02-LED-E1-SL2
Description: VISION WALL MEDIUM LED LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 W/ SPILL LIGHT CONTROL
Light Source: (42) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6110.2 lumens
Efficiency: N/A
Efficacy: 117.3 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B1 - U0 - G2

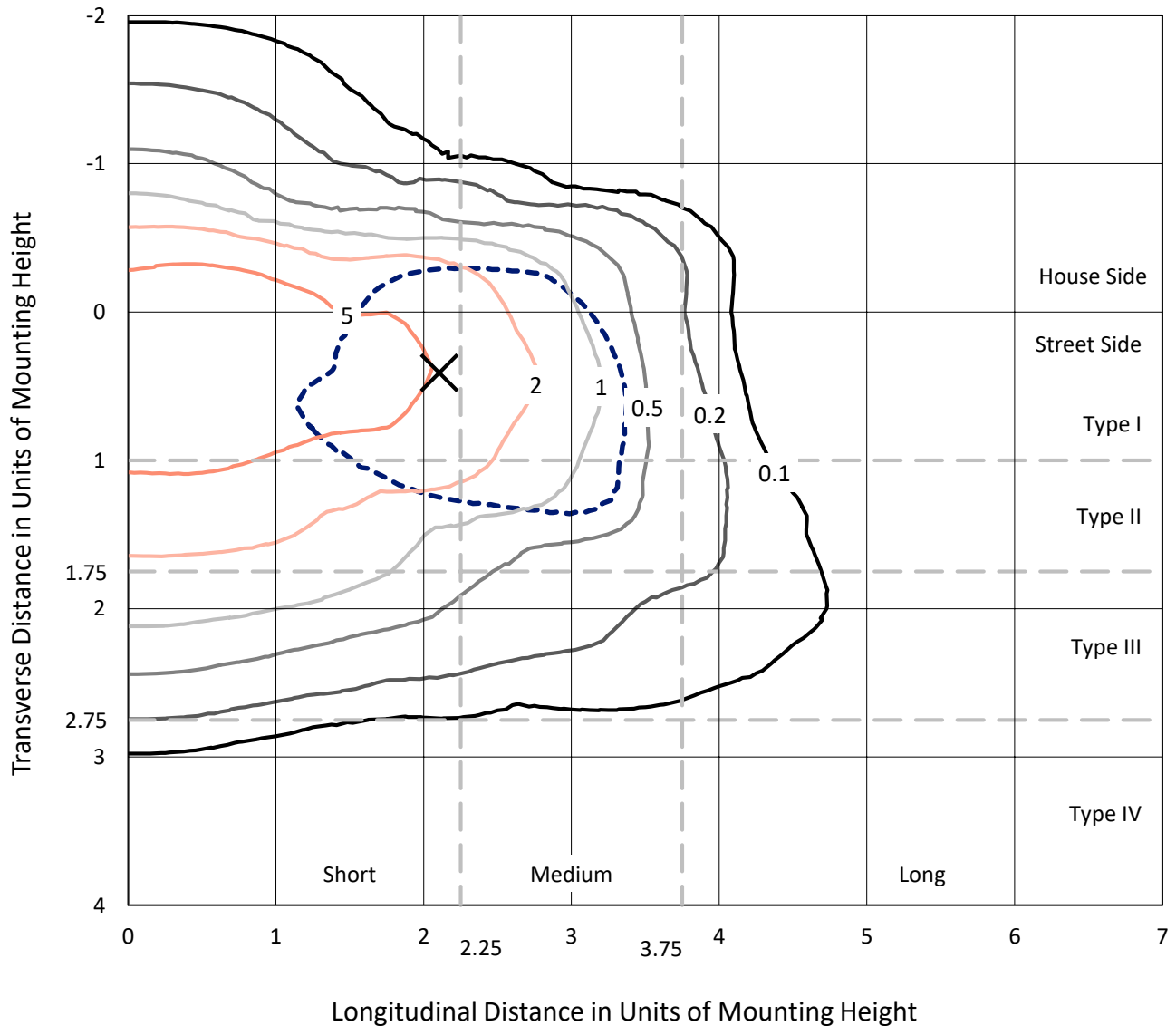
Input Watts (W): 52.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

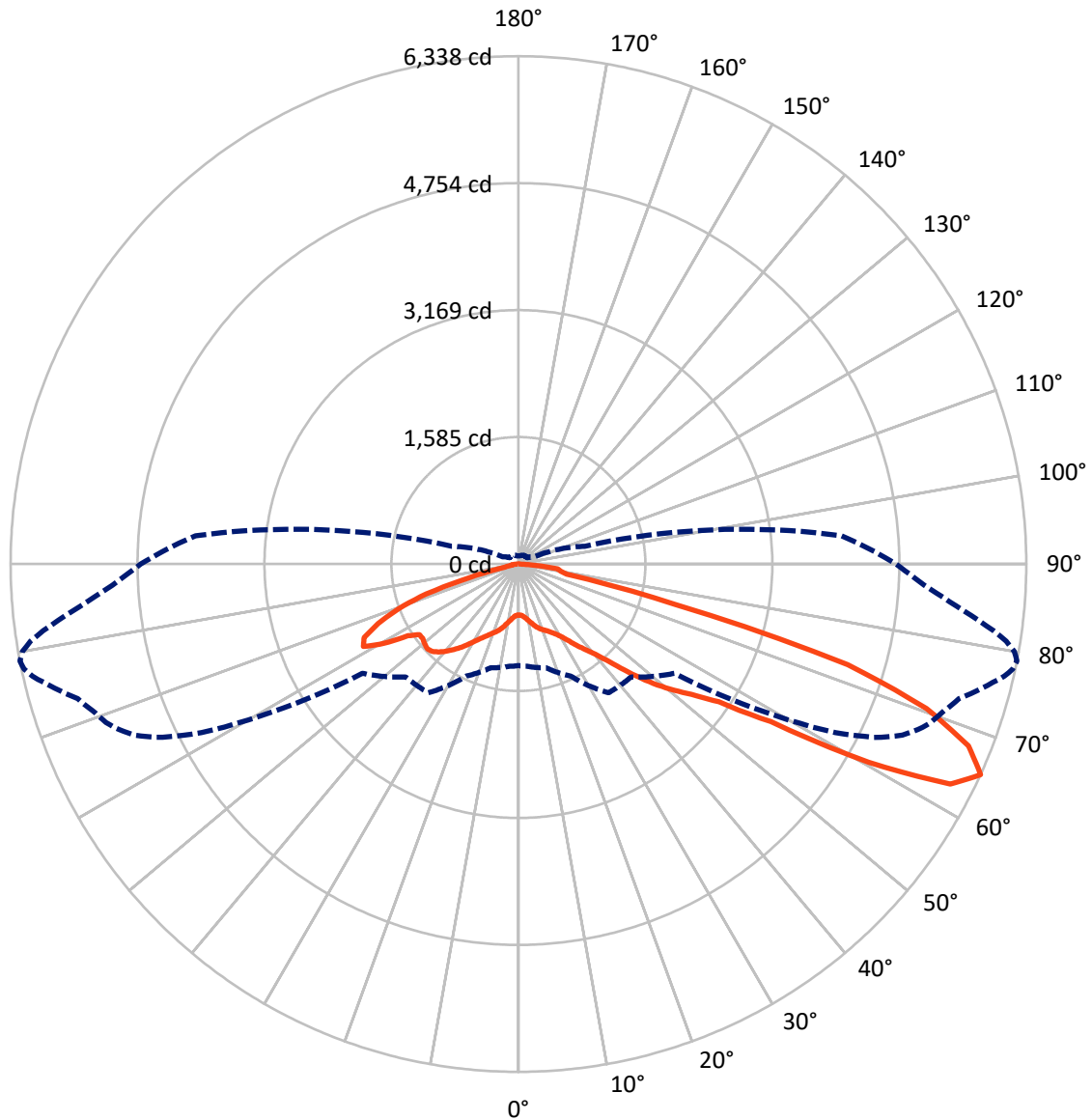
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.4 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 79-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1444.4	0.0	1444.4
	% Fixture	23.6	0.0	23.6
Street Side	Lumens	4665.8	0.0	4665.8
	% Fixture	76.4	0.0	76.4
Total	Lumens	6110.2	0.0	6110.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.2	1.0
10°-20°	206.7	3.4
20°-30°	357.1	5.8
30°-40°	591.0	9.7
40°-50°	1002.4	16.4
50°-60°	1331.9	21.8
60°-70°	1720.4	28.2
70°-80°	721.5	11.8
80°-90°	115.9	1.9
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°	6110.2	100.0
0°-180°	6110.2	100.0



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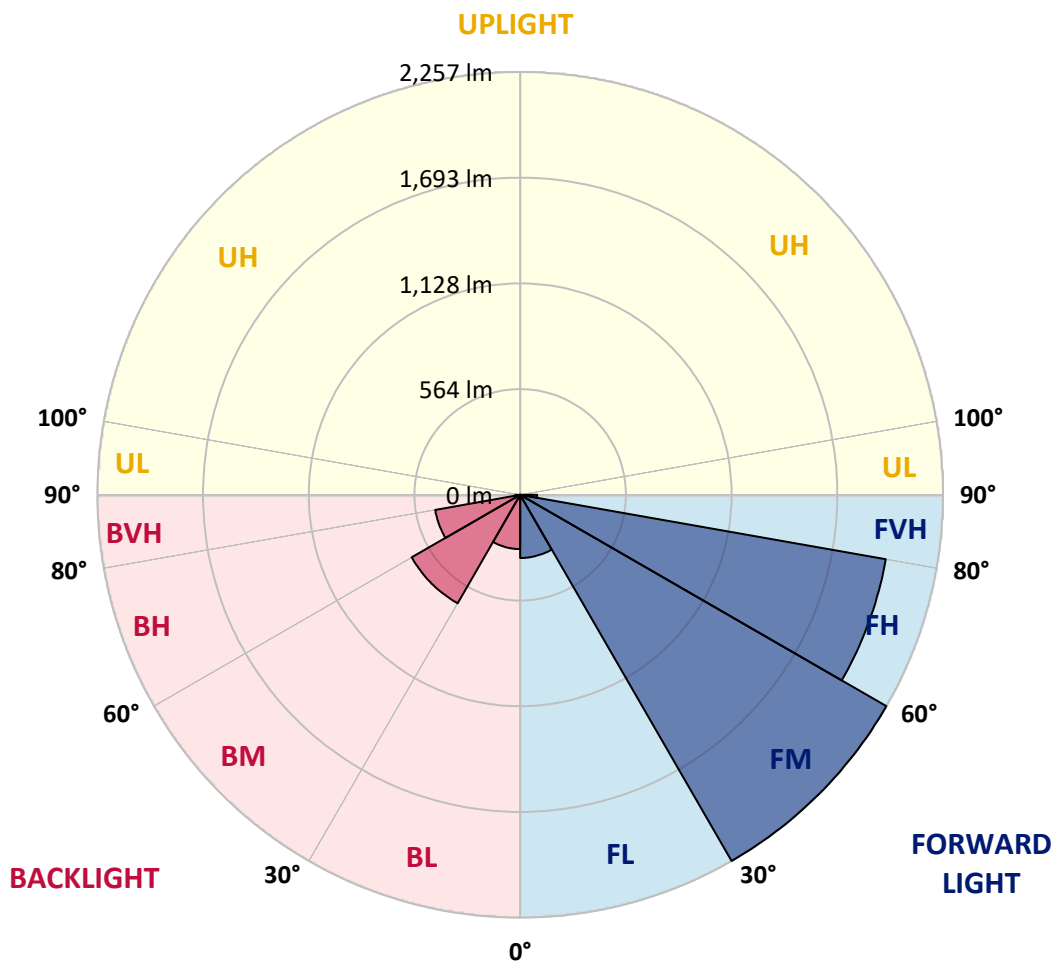
CATALOG NUMBER: VWM-E02-LED-E1-SL2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	337.1	5.5			
FM	(30°-60°)	2256.7	36.9			
FH	(60°-80°)	1981.3	32.4			G2/5000
FVH	(80°-90°)	90.6	1.5			G1/100
BL	(0°-30°)	289.9	4.7	B1/500		
BM	(30°-60°)	668.6	10.9	B1/1000		
BH	(60°-80°)	460.7	7.5	B1/500		G1/500
BVH	(80°-90°)	25.3	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
2.5°	634.0	636.0	634.7	636.0	637.3	638.0	639.3	638.7	638.7	639.3	638.0
5°	634.0	634.0	636.0	639.3	640.7	644.7	649.3	648.7	649.3	648.7	650.0
7.5°	647.3	646.7	648.7	652.7	654.0	660.0	668.0	669.3	670.7	670.7	672.7
10°	670.7	670.0	672.0	674.0	676.0	680.7	692.0	696.7	697.3	698.0	700.7
12.5°	700.0	699.3	696.7	696.7	696.0	704.7	720.0	728.7	730.0	732.7	734.7
15°	720.7	718.7	714.7	712.0	715.3	729.3	752.0	762.0	763.3	765.3	770.7
17.5°	740.7	738.7	730.0	723.3	728.0	750.7	781.3	792.0	794.7	796.7	802.7
20°	768.7	767.3	754.7	738.7	737.3	766.7	804.0	818.0	820.0	822.7	828.7
22.5°	811.3	805.3	790.7	760.7	746.0	776.0	820.0	839.3	842.0	844.7	852.7
25°	864.7	862.0	836.7	790.7	760.0	785.3	837.3	861.3	865.3	868.7	879.3
27.5°	920.0	916.0	888.7	828.7	784.7	804.0	864.7	892.0	897.3	902.7	912.7
30°	969.3	968.0	945.3	880.0	824.7	839.3	908.7	942.0	948.0	954.7	964.0
32.5°	1085.3	1086.0	1062.7	996.0	921.3	903.3	972.0	1022.0	1024.7	1032.7	1049.3
35°	1307.3	1310.0	1301.3	1248.7	1164.7	1090.7	1097.3	1146.7	1149.3	1156.0	1172.0
37.5°	1456.0	1461.3	1488.0	1504.7	1462.0	1428.0	1343.3	1324.0	1326.0	1322.0	1318.7
40°	1538.0	1546.0	1616.0	1702.7	1749.3	1750.0	1713.3	1628.0	1595.3	1586.0	1546.0
42.5°	1584.7	1598.0	1697.3	1845.3	1979.3	2071.3	2094.0	1999.3	1975.3	1932.7	1856.0
45°	1615.3	1631.3	1748.7	1951.3	2148.7	2305.3	2423.3	2381.3	2365.3	2339.3	2268.7
47.5°	1610.0	1622.7	1744.7	1987.3	2237.3	2460.0	2669.3	2712.7	2693.3	2686.7	2638.7
50°	1512.7	1524.0	1648.0	1898.0	2188.7	2518.7	2825.3	2948.0	2948.0	2960.7	2946.0
52.5°	1408.7	1418.0	1530.7	1755.3	2031.3	2461.3	2912.0	3115.3	3142.0	3164.0	3198.7
55°	1369.3	1380.7	1466.0	1658.0	1897.3	2297.3	2941.3	3240.7	3290.0	3327.3	3406.0
57.5°	1388.0	1399.3	1460.0	1605.3	1818.7	2130.0	2942.7	3409.3	3504.7	3581.3	3740.7
60°	1468.7	1479.3	1530.0	1654.0	1798.0	2033.3	2886.0	3678.0	3830.0	3974.0	4239.3
62.5°	1431.3	1444.7	1518.7	1734.7	1952.0	1960.0	2681.3	3886.0	4130.7	4343.3	4765.3
65°	1268.0	1282.0	1340.0	1542.0	1961.3	1992.0	2378.0	3890.0	4194.0	4481.3	4936.7
67.5°	962.7	968.0	1014.0	1176.0	1568.7	2027.3	2066.0	3429.3	3718.7	4039.3	4509.3
70°	492.0	501.3	514.7	649.3	1010.0	1675.3	1775.3	2527.3	2896.0	3227.3	3792.0
72.5°	170.7	174.0	187.3	248.0	492.0	1099.3	1554.0	1732.0	1954.7	2264.7	2918.7
75°	102.7	102.7	107.3	125.3	224.7	572.7	1382.7	1414.7	1444.7	1548.7	1976.7
77.5°	81.3	82.7	82.7	86.0	124.7	294.0	1050.0	1315.3	1319.3	1329.3	1401.3
80°	58.0	60.7	66.0	68.7	80.7	161.3	589.3	1154.7	1233.3	1271.3	1324.0
82.5°	43.3	46.0	56.0	59.3	62.7	90.0	264.7	796.7	940.0	1016.0	1201.3
85°	19.3	22.7	38.0	42.0	44.0	48.0	124.0	226.7	260.7	292.7	386.0
87.5°	3.3	3.3	6.0	8.7	12.7	12.0	27.3	38.7	39.3	46.0	51.3
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°	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
2.5°	638.0	638.0	638.0	637.3	638.0	638.0	638.0	638.0	638.7	638.7	638.7
5°	652.0	650.7	651.3	651.3	651.3	650.7	652.0	651.3	652.0	654.0	653.3
7.5°	672.7	674.0	674.7	675.3	675.3	675.3	676.0	677.3	677.3	679.3	678.7
10°	703.3	702.7	703.3	705.3	707.3	708.0	710.0	709.3	710.7	713.3	716.0
12.5°	736.0	737.3	739.3	741.3	744.7	745.3	747.3	748.0	752.0	752.0	754.7
15°	772.7	773.3	777.3	778.0	782.0	783.3	786.7	788.0	792.7	793.3	796.0
17.5°	806.0	807.3	809.3	811.3	816.0	818.0	820.7	823.3	827.3	828.7	833.3
20°	832.7	835.3	836.0	840.0	844.0	846.7	849.3	852.0	856.0	858.0	862.7
22.5°	856.7	859.3	861.3	864.7	867.3	871.3	872.7	877.3	881.3	884.7	888.7
25°	882.7	886.7	888.7	894.7	896.7	900.7	904.0	908.7	914.0	918.0	923.3
27.5°	919.3	925.3	928.0	934.7	939.3	941.3	946.7	953.3	958.0	962.7	968.0
30°	970.0	981.3	983.3	988.0	996.7	998.0	1004.7	1010.0	1017.3	1022.0	1026.7
32.5°	1048.7	1062.7	1064.0	1069.3	1076.7	1079.3	1084.7	1090.7	1102.0	1104.0	1111.3
35°	1169.3	1175.3	1180.7	1182.7	1188.7	1192.0	1196.0	1202.7	1214.0	1212.7	1220.7
37.5°	1314.0	1316.0	1316.7	1310.0	1311.3	1305.3	1312.7	1314.0	1318.0	1321.3	1329.3
40°	1520.7	1500.0	1497.3	1481.3	1465.3	1456.7	1453.3	1440.0	1443.3	1444.7	1451.3
42.5°	1822.7	1782.7	1749.3	1726.7	1687.3	1668.0	1642.0	1621.3	1605.3	1611.3	1614.0
45°	2205.3	2148.0	2094.7	2025.3	1974.0	1937.3	1891.3	1850.0	1831.3	1822.7	1833.3
47.5°	2587.3	2536.7	2474.0	2402.7	2321.3	2260.7	2184.0	2116.7	2070.0	2052.7	2062.0
50°	2917.3	2870.7	2823.3	2781.3	2686.7	2620.7	2516.0	2428.7	2355.3	2318.0	2308.0
52.5°	3191.3	3166.7	3141.3	3106.0	3030.0	2964.0	2880.7	2794.7	2697.3	2621.3	2595.3
55°	3436.0	3450.7	3438.0	3438.7	3408.7	3366.7	3296.0	3232.0	3164.0	3078.0	3042.0
57.5°	3792.7	3879.3	3896.7	3940.0	3961.3	3984.0	4004.0	3966.0	3948.7	3884.7	3885.3
60°	4354.7	4481.3	4591.3	4691.3	4773.3	4853.3	4937.3	4974.7	5016.0	5035.3	5101.3
62.5°	4952.7	5073.3	5237.3	5371.3	5446.7	5550.7	5642.0	5701.3	5774.0	5851.3	5952.0
65°	5100.7	5246.0	5349.3	5438.7	5513.3	5568.7	5618.7	5689.3	5750.0	5872.7	5991.3
67.5°	4721.3	4837.3	4932.0	5020.0	5078.0	5124.7	5169.3	5216.0	5320.0	5431.3	5550.7
70°	4052.7	4192.7	4349.3	4463.3	4492.0	4532.0	4574.7	4635.3	4687.3	4804.0	4894.7
72.5°	3256.0	3457.3	3590.0	3748.0	3782.0	3842.7	3866.7	3914.0	3923.3	3986.7	4010.7
75°	2269.3	2500.0	2633.3	2749.3	2772.0	2738.7	2752.0	2584.7	2542.0	2507.3	2479.3
77.5°	1498.0	1560.0	1581.3	1562.7	1473.3	1403.3	1328.7	1255.3	1263.3	1204.0	1100.0
80°	1332.0	1346.0	1326.7	1308.0	1256.7	1183.3	1116.0	1047.3	1013.3	977.3	924.0
82.5°	1296.0	1350.0	1356.0	1333.3	1292.7	1212.7	1131.3	1029.3	942.7	862.7	781.3
85°	433.3	527.3	569.3	608.7	620.7	634.7	586.7	521.3	442.7	390.0	305.3
87.5°	55.3	68.7	79.3	68.0	79.3	93.3	67.3	75.3	76.0	47.3	35.3
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°	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
2.5°	639.3	638.7	638.7	638.7	638.0	638.7	638.7	638.7	638.7	638.7	638.0
5°	654.0	654.0	656.0	656.7	655.3	654.7	655.3	656.0	656.0	655.3	656.0
7.5°	681.3	682.0	683.3	685.3	684.0	684.7	685.3	684.7	686.7	687.3	686.7
10°	716.0	717.3	720.7	721.3	720.7	723.3	724.0	722.7	724.0	724.0	726.7
12.5°	756.0	757.3	761.3	762.7	764.0	764.7	766.7	767.3	769.3	770.7	772.7
15°	799.3	800.7	803.3	808.0	809.3	810.7	812.0	816.0	816.7	819.3	821.3
17.5°	836.0	838.0	842.0	845.3	847.3	850.7	852.0	856.7	858.0	862.0	865.3
20°	865.3	868.7	872.0	876.0	879.3	883.3	884.7	889.3	892.0	894.0	898.0
22.5°	892.0	896.0	900.7	905.3	908.0	913.3	915.3	917.3	923.3	926.0	930.0
25°	926.7	930.7	936.0	942.0	944.7	951.3	953.3	956.7	963.3	966.0	972.0
27.5°	974.0	979.3	983.3	989.3	992.7	997.3	1002.0	1006.0	1012.0	1016.0	1022.7
30°	1033.3	1037.3	1044.0	1048.7	1054.0	1060.7	1066.0	1070.0	1073.3	1079.3	1086.7
32.5°	1120.7	1121.3	1123.3	1134.7	1140.0	1145.3	1152.7	1156.0	1161.3	1167.3	1175.3
35°	1229.3	1235.3	1240.0	1245.3	1251.3	1257.3	1260.0	1270.0	1274.7	1282.7	1290.7
37.5°	1337.3	1338.0	1348.7	1352.0	1357.3	1363.3	1372.7	1382.7	1394.7	1402.7	1415.3
40°	1453.3	1458.7	1472.0	1478.7	1485.3	1500.0	1507.3	1523.3	1543.3	1554.7	1576.0
42.5°	1621.3	1629.3	1653.3	1664.0	1680.0	1704.0	1719.3	1741.3	1749.3	1776.7	1786.7
45°	1841.3	1866.0	1900.7	1923.3	1952.0	1978.0	1991.3	2001.3	2013.3	2034.7	2032.0
47.5°	2079.3	2111.3	2150.0	2196.7	2215.3	2246.0	2263.3	2282.7	2272.0	2266.7	2261.3
50°	2323.3	2360.7	2412.0	2454.0	2482.7	2501.3	2516.0	2513.3	2490.7	2478.7	2445.3
52.5°	2594.7	2616.7	2665.3	2701.3	2718.7	2722.7	2719.3	2699.3	2678.0	2640.0	2600.7
55°	3010.7	3000.7	3020.0	3036.7	3031.3	3050.0	3002.0	2983.3	2930.7	2881.3	2828.7
57.5°	3856.0	3869.3	3761.3	3712.7	3704.0	3721.3	3636.7	3626.0	3498.7	3482.7	3394.0
60°	5092.0	5157.3	5072.7	5025.3	4897.3	4855.3	4760.7	4721.3	4599.3	4500.7	4376.0
62.5°	6021.3	6080.7	6116.0	6048.7	5974.0	5864.0	5720.7	5562.0	5432.7	5281.3	5149.3
65°	6105.3	6225.3	6306.7	6338.0	6285.3	6164.7	5988.0	5788.0	5590.0	5400.0	5233.3
67.5°	5712.7	5820.0	5946.0	6058.7	6065.3	5986.7	5836.0	5632.7	5404.0	5169.3	4974.0
70°	5038.0	5172.7	5282.7	5401.3	5484.0	5438.7	5363.3	5176.7	4939.3	4756.7	4532.0
72.5°	4097.3	4154.0	4180.7	4297.3	4298.7	4216.0	4162.7	4059.3	3868.0	3738.7	3567.3
75°	2392.7	2268.0	2135.3	2020.0	1926.0	1886.7	1712.0	1682.7	1565.3	1492.7	1386.0
77.5°	986.7	875.3	732.0	612.7	494.7	441.3	364.0	330.0	286.0	266.7	254.0
80°	846.0	740.7	632.7	529.3	437.3	345.3	268.7	208.7	164.0	139.3	129.3
82.5°	690.7	627.3	552.0	496.0	424.0	355.3	300.0	232.7	174.0	128.0	98.0
85°	249.3	204.7	164.7	151.3	120.7	99.3	83.3	71.3	58.7	46.7	41.3
87.5°	28.0	26.7	15.3	14.7	16.7	12.0	14.0	12.7	10.7	9.3	10.0
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-E02-LED-E1-SL2

CANDELA DISTRIBUTION (continued):

	87°	88°	89°	90°	95°	105°	115°	125°	135°	145°	155°
0°	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
2.5°	638.0	638.0	638.7	638.7	639.3	640.0	641.3	640.7	640.7	641.3	641.3
5°	656.0	658.0	657.3	657.3	657.3	658.0	658.7	656.0	653.3	650.7	649.3
7.5°	687.3	688.7	690.0	688.7	690.0	689.3	688.0	680.7	672.0	661.3	654.0
10°	728.0	728.0	729.3	728.7	731.3	729.3	725.3	708.7	690.0	667.3	650.7
12.5°	772.0	776.7	774.7	775.3	780.7	775.3	766.0	741.3	708.0	671.3	642.0
15°	824.0	826.0	827.3	825.3	828.7	824.0	807.3	768.0	719.3	668.0	624.7
17.5°	866.7	867.3	868.0	869.3	874.0	868.7	840.0	786.7	722.0	652.7	595.3
20°	900.0	903.3	906.0	906.0	912.7	904.7	866.7	796.0	713.3	627.3	558.0
22.5°	934.7	937.3	940.7	941.3	950.0	942.0	888.7	794.0	690.7	591.3	514.7
25°	977.3	980.0	982.7	986.0	998.0	986.7	910.7	786.0	659.3	548.7	468.0
27.5°	1026.7	1032.7	1034.7	1040.0	1054.0	1036.7	929.3	774.0	624.7	499.3	418.7
30°	1092.7	1100.0	1102.7	1110.0	1129.3	1091.3	940.0	753.3	580.7	449.3	366.0
32.5°	1181.3	1191.3	1199.3	1207.3	1229.3	1146.0	941.3	723.3	529.3	393.3	315.3
35°	1297.3	1312.7	1318.7	1324.0	1344.7	1205.3	935.3	678.7	466.7	336.0	275.3
37.5°	1427.3	1442.7	1446.7	1449.3	1453.3	1256.0	920.7	610.7	396.0	286.0	243.3
40°	1587.3	1600.7	1606.0	1602.0	1580.7	1295.3	888.0	531.3	327.3	252.0	223.3
42.5°	1782.7	1802.7	1804.7	1786.7	1716.0	1317.3	822.7	438.0	273.3	227.3	208.0
45°	2024.7	2023.3	2012.0	1999.3	1863.3	1308.7	731.3	356.7	239.3	208.0	194.0
47.5°	2242.0	2219.3	2202.0	2164.7	1993.3	1258.0	613.3	295.3	218.7	193.3	182.0
50°	2420.0	2378.7	2342.0	2301.3	2090.0	1168.0	496.0	250.7	199.3	180.7	170.7
52.5°	2560.7	2510.7	2468.0	2428.0	2183.3	1068.0	406.7	218.0	180.7	168.0	158.0
55°	2780.7	2730.7	2662.7	2618.7	2326.0	976.0	348.7	192.0	162.7	154.7	144.7
57.5°	3337.3	3293.3	3212.0	3098.0	2692.7	941.3	316.0	172.0	148.0	143.3	135.3
60°	4309.3	4238.0	4132.0	4016.0	3438.0	964.7	290.0	158.0	138.0	134.0	128.0
62.5°	5042.7	4917.3	4797.3	4690.0	4034.0	964.0	256.0	147.3	130.7	128.7	122.7
65°	5072.7	4945.3	4824.7	4712.0	4047.3	858.0	216.0	138.0	129.3	128.7	118.7
67.5°	4803.3	4665.3	4548.7	4406.7	3746.7	670.7	173.3	132.0	134.7	133.3	117.3
70°	4363.3	4183.3	4087.3	3947.3	3297.3	469.3	142.7	134.0	146.0	142.0	119.3
72.5°	3424.7	3288.7	3142.7	3045.3	2581.3	296.7	120.0	135.3	150.7	144.0	124.7
75°	1274.7	1311.3	1251.3	1230.0	1311.3	174.0	106.7	126.0	134.7	124.7	113.3
77.5°	257.3	246.0	233.3	230.7	298.0	107.3	98.0	109.3	103.3	91.3	92.0
80°	123.3	120.0	116.0	115.3	110.7	89.3	90.7	93.3	78.0	70.7	75.3
82.5°	82.0	77.3	76.0	73.3	74.7	80.0	86.0	80.0	60.0	56.0	68.0
85°	38.0	36.7	36.0	36.0	40.0	72.0	71.3	58.7	41.3	40.0	68.0
87.5°	9.3	9.3	10.0	9.3	10.7	21.3	18.7	18.0	15.3	17.3	32.0
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-E02-LED-E1-SL2

CANDELA DISTRIBUTION (continued):

	165°	175°	180°
0°	636.0	636.0	636.0
2.5°	640.7	641.3	640.7
5°	646.7	646.7	646.7
7.5°	646.7	644.7	644.0
10°	637.3	631.3	631.3
12.5°	621.3	611.3	610.0
15°	591.3	578.0	576.0
17.5°	553.3	535.3	532.0
20°	510.7	488.0	484.0
22.5°	464.0	438.0	436.0
25°	418.0	391.3	386.0
27.5°	366.7	340.7	338.0
30°	315.3	292.7	291.3
32.5°	272.0	258.0	255.3
35°	241.3	233.3	230.0
37.5°	221.3	215.3	214.7
40°	206.0	200.7	200.0
42.5°	193.3	188.7	188.0
45°	180.7	176.7	175.3
47.5°	168.0	164.0	163.3
50°	156.7	151.3	150.7
52.5°	146.0	140.7	139.3
55°	136.0	130.7	130.7
57.5°	127.3	122.0	121.3
60°	119.3	114.0	113.3
62.5°	113.3	106.7	106.0
65°	108.7	102.0	100.7
67.5°	106.0	98.0	96.0
70°	110.7	96.0	92.7
72.5°	111.3	94.0	89.3
75°	107.3	88.7	85.3
77.5°	94.0	79.3	76.0
80°	81.3	61.3	56.7
82.5°	77.3	50.0	43.3
85°	60.0	32.7	30.7
87.5°	34.0	18.0	14.7
90°	0.0	0.0	0.0

(END OF REPORT)