

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: P149349

Luminaire Tested: **VWM-E01-LED-E1-SL2-HSS-7030**

Issue Date: 03/03/2020

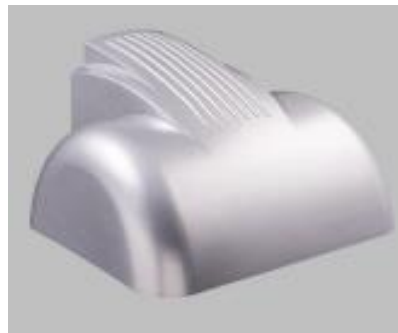
Test Information

Test Method: LM-79-08
Report Number: P149349
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-E01-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: (21) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1674.7 lumens
Efficiency: N/A
Efficacy: 67.8 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

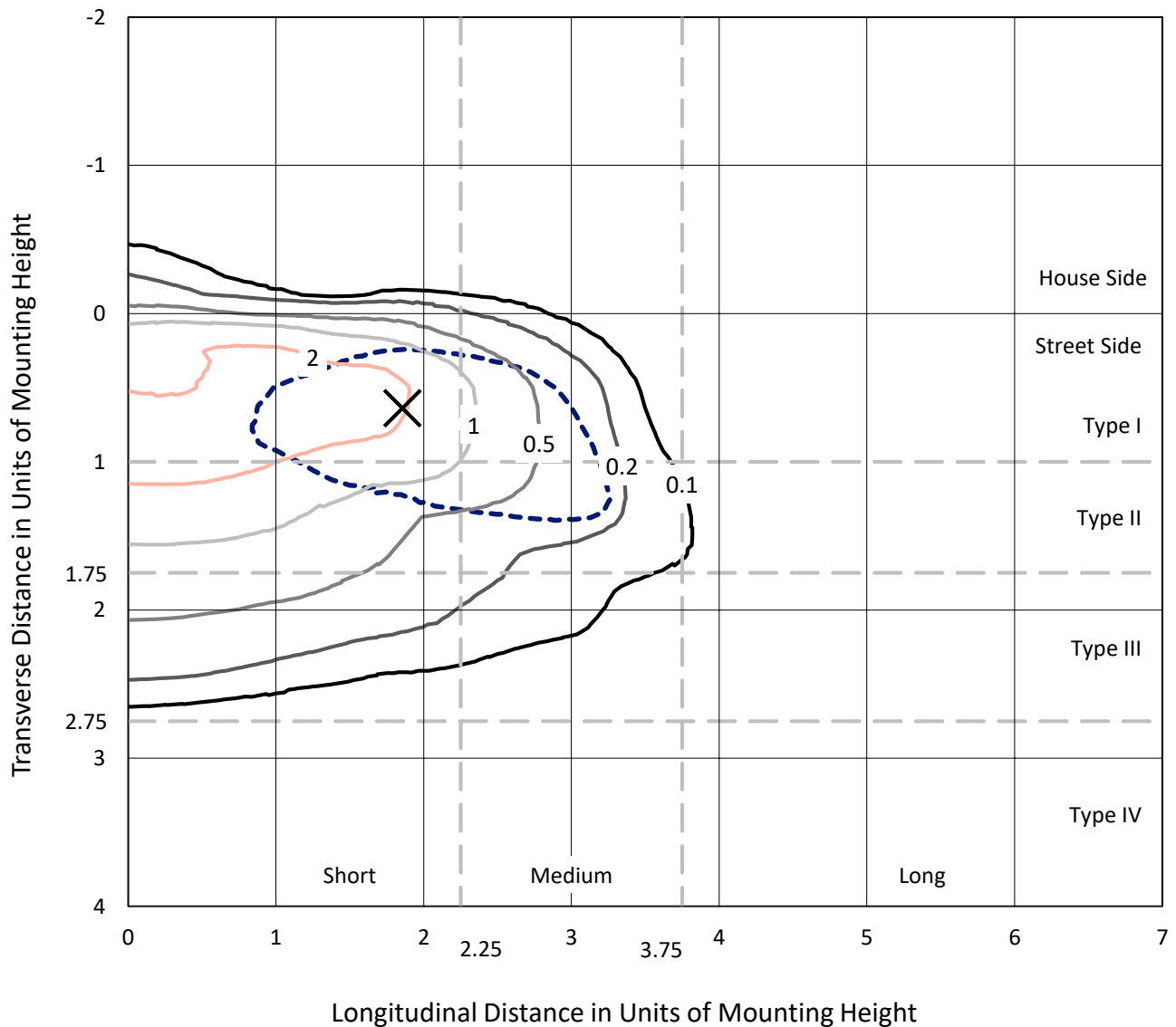
Input Watts (W): 24.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P149349
 CATALOG NUMBER: VWM-E01-LED-E1-SL2-HSS-7030

Iso-Footcandle Lines of Horizontal Illumination

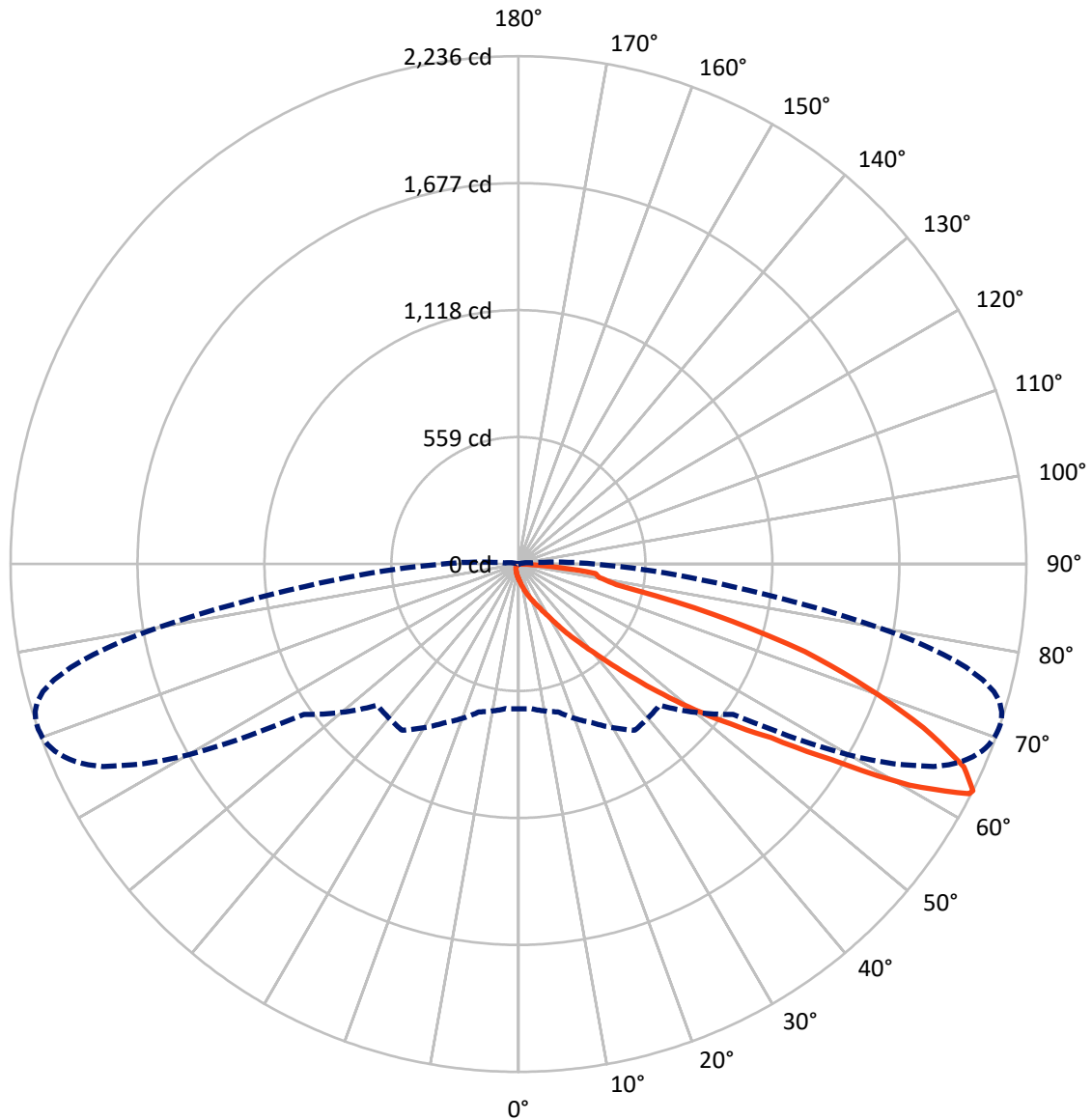
✕ Max cd
 - - - 1/2 Max cd



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

REPORT NUMBER: P149349
CATALOG NUMBER: VWM-E01-LED-E1-SL2-HSS-7030

Luminous Intensity Polar Plot



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

REPORT NUMBER: P149349

CATALOG NUMBER: VWM-E01-LED-E1-SL2-HSS-7030

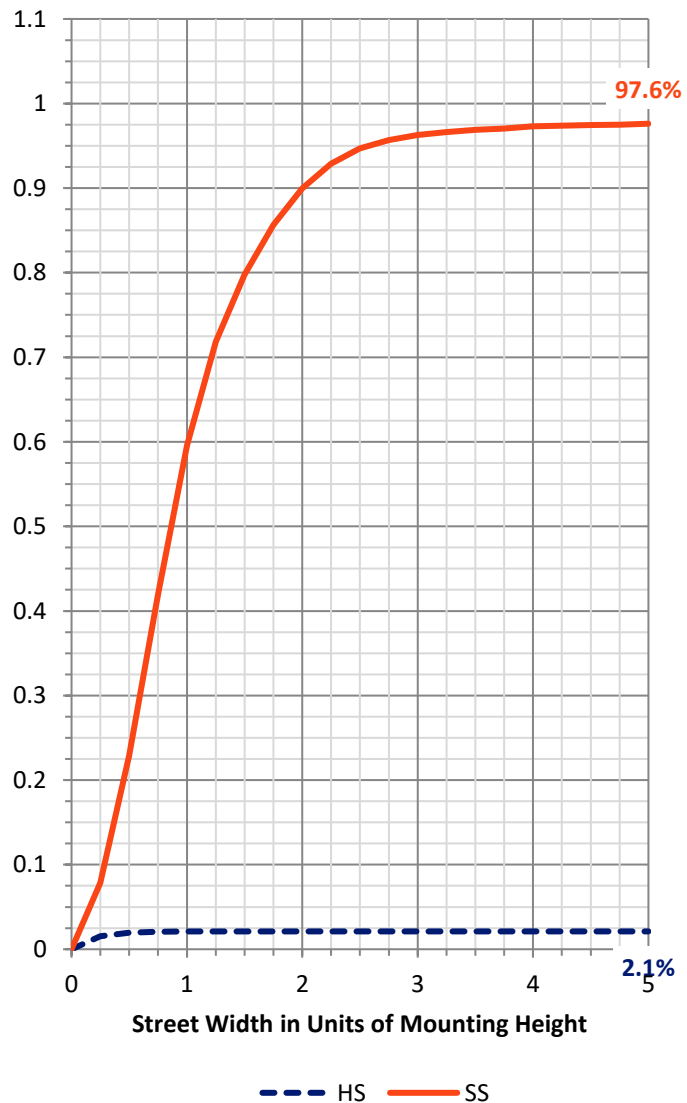
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	35.6	0.0	35.6
	% Fixture	2.1	0.0	2.1
Street Side	Lumens	1639.1	0.0	1639.1
	% Fixture	97.9	0.0	97.9
Total	Lumens	1674.7	0.0	1674.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	7.1	0.4
10°-20°	27.5	1.6
20°-30°	55.9	3.3
30°-40°	136.6	8.2
40°-50°	305.6	18.2
50°-60°	429.7	25.7
60°-70°	505.3	30.2
70°-80°	182.5	10.9
80°-90°	24.4	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°	1674.7	100.0
0°-180°	1674.7	100.0



REPORT NUMBER: P149349

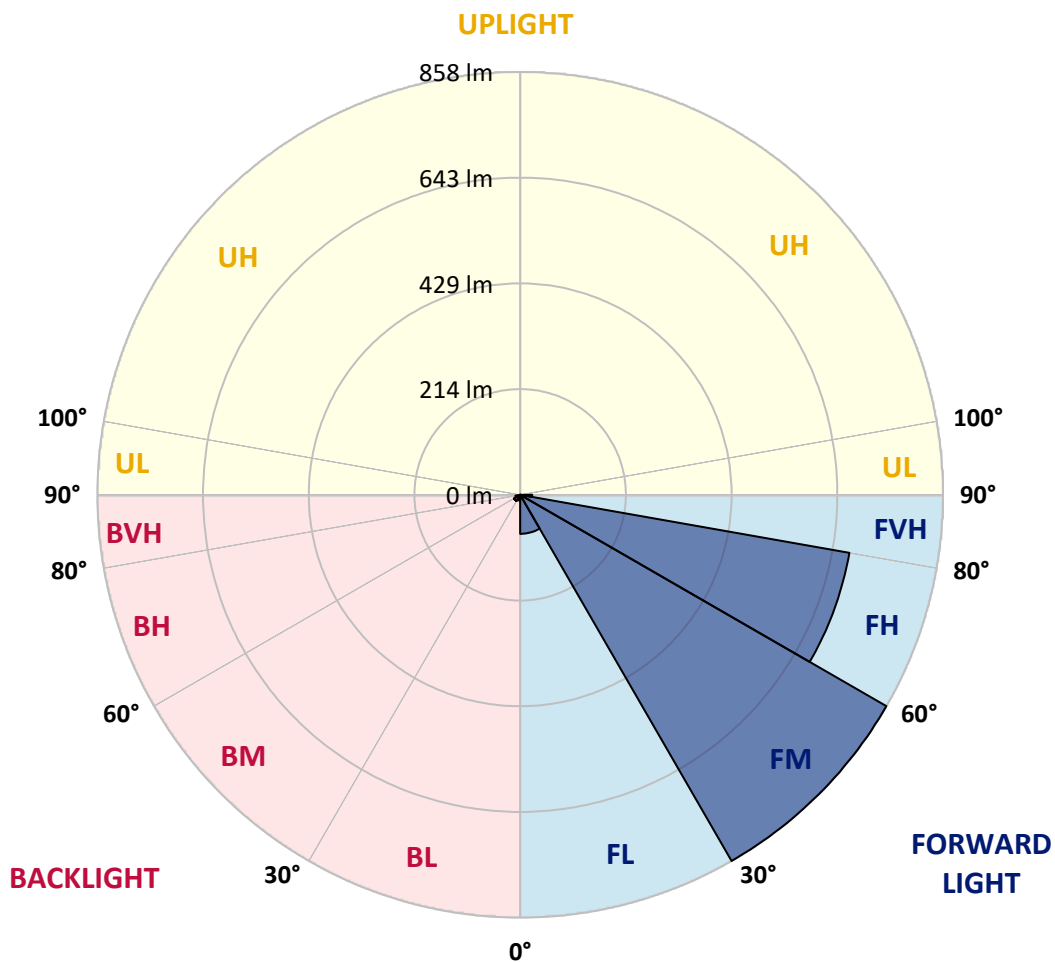
CATALOG NUMBER: VWM-E01-LED-E1-SL2-HSS-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	79.1	4.7			
FM	(30°-60°)	857.6	51.2			
FH	(60°-80°)	678.0	40.5			G1/1800
FVH	(80°-90°)	24.3	1.5			G1/100
BL	(0°-30°)	11.4	0.7	B0/110		
BM	(30°-60°)	14.3	0.9	B0/220		
BH	(60°-80°)	9.7	0.6	B0/110		G0/110
BVH	(80°-90°)	0.1	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: P149349

CATALOG NUMBER: VWM-E01-LED-E1-SL2-HSS-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2
2.5°	84.0	84.9	84.3	82.8	81.0	78.5	76.4	76.4	76.1	75.2	75.5
5°	110.2	110.5	109.3	105.6	102.3	97.1	91.3	90.7	90.1	89.2	88.9
7.5°	135.8	137.0	135.8	131.8	125.1	117.2	108.1	107.2	105.3	105.3	104.1
10°	162.0	162.0	160.7	156.2	150.1	138.8	127.3	125.7	123.6	123.0	121.2
12.5°	180.5	180.5	179.9	177.5	172.6	162.6	148.6	147.0	144.3	143.4	141.3
15°	187.8	187.8	188.2	190.3	190.6	186.0	171.4	170.2	167.4	165.0	164.1
17.5°	192.4	192.1	192.1	195.2	200.6	203.7	194.2	193.0	190.0	188.8	185.7
20°	202.5	201.9	200.0	200.0	205.2	215.9	215.9	215.6	212.2	211.3	209.8
22.5°	217.4	216.8	211.3	206.7	209.2	222.6	235.0	234.4	233.2	232.0	231.1
25°	241.7	239.6	230.2	216.8	214.6	228.9	249.6	251.2	252.1	252.1	252.7
27.5°	278.6	275.8	259.1	234.1	224.7	239.3	265.8	268.8	271.6	272.2	274.9
30°	329.7	324.8	300.8	264.3	242.6	254.5	289.5	292.9	296.8	298.1	302.3
32.5°	413.7	411.0	387.9	333.1	286.8	284.4	322.7	327.0	332.2	334.3	339.5
35°	541.6	542.2	523.3	474.0	410.1	376.6	382.1	385.7	387.6	394.0	396.7
37.5°	628.4	629.9	634.2	614.7	569.0	534.9	492.0	495.9	486.5	487.4	487.7
40°	675.9	680.8	705.7	724.6	720.9	701.1	666.7	668.9	651.2	647.3	628.1
42.5°	707.5	713.9	753.8	812.3	842.1	860.1	852.2	851.2	837.5	832.4	816.2
45°	727.3	733.1	783.4	869.5	938.3	990.7	1012.3	1014.7	1003.2	998.0	984.6
47.5°	726.4	733.1	787.0	890.8	992.2	1075.9	1136.8	1139.9	1146.9	1142.3	1143.2
50°	686.2	692.6	746.8	854.6	976.4	1114.9	1226.3	1236.1	1247.3	1254.9	1258.6
52.5°	637.5	642.1	690.2	792.5	908.8	1098.8	1279.3	1296.0	1312.8	1327.1	1337.1
55°	619.6	624.7	662.5	747.4	854.6	1031.2	1304.0	1328.6	1352.4	1375.8	1395.0
57.5°	629.0	633.9	661.0	726.1	822.3	959.9	1311.0	1349.3	1388.3	1426.3	1464.1
60°	663.7	668.9	692.0	745.9	813.8	918.8	1283.6	1347.2	1412.0	1478.4	1540.8
62.5°	650.0	652.1	686.2	780.6	874.7	883.8	1184.0	1272.9	1371.9	1474.1	1574.9
63°	636.9	639.3	674.1	771.2	893.3	878.6	1153.3	1247.0	1351.5	1461.7	1571.3
65°	577.5	577.8	604.3	681.1	872.6	887.8	1016.3	1105.8	1225.7	1357.8	1496.4
67.5°	431.1	429.0	454.5	513.0	685.0	888.1	872.2	922.5	1005.9	1123.1	1247.3
70°	152.8	149.5	190.9	271.9	426.8	726.4	749.6	752.9	776.0	839.4	917.3
72.5°	49.6	50.5	60.9	99.6	196.7	488.9	678.6	668.3	662.2	661.9	672.2
75°	19.8	20.1	24.4	44.1	88.3	235.6	594.3	600.1	602.2	605.2	608.6
77.5°	9.4	10.4	13.7	24.7	43.8	116.6	425.3	474.3	502.3	524.0	537.0
80°	3.3	4.0	7.6	15.2	20.4	53.6	224.1	270.4	311.5	364.4	410.1
82.5°	0.0	0.0	1.5	10.7	11.3	21.6	91.9	107.8	123.3	159.8	205.2
85°	0.0	0.0	0.0	3.0	3.3	3.7	31.1	37.4	42.0	49.0	56.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.9	1.8	4.6	7.0
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: P149349
 CATALOG NUMBER: VWM-E01-LED-E1-SL2-HSS-7030

CANDELA DISTRIBUTION (continued):

	60°	61°	62°	64°	65°	66°	67°	68°	69°	70°	71°
0°	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2
2.5°	74.9	74.6	74.6	74.0	73.7	73.1	72.8	71.9	71.5	71.5	71.5
5°	88.6	87.4	86.8	85.2	84.3	84.0	82.5	81.9	81.0	81.3	79.8
7.5°	103.8	101.7	100.8	98.6	98.0	95.9	95.3	93.8	92.9	91.0	90.4
10°	120.6	117.8	116.3	113.0	112.0	110.5	108.7	106.9	105.3	103.5	102.6
12.5°	139.7	137.3	136.1	131.5	129.4	127.3	124.8	122.4	120.0	118.4	116.3
15°	162.3	158.3	157.1	152.8	149.2	146.4	143.1	140.0	138.2	135.2	133.0
17.5°	184.5	180.5	179.6	173.2	169.3	167.4	163.8	159.8	156.5	153.4	150.1
20°	206.7	204.0	201.5	195.5	191.2	188.2	183.3	179.3	176.6	172.3	168.1
22.5°	228.9	226.2	224.4	218.0	214.0	209.8	205.5	201.2	197.3	192.1	187.2
25°	251.8	250.0	249.0	243.3	239.6	235.6	231.4	226.5	221.6	215.9	210.7
27.5°	275.5	276.1	274.3	273.1	269.1	266.4	259.7	256.3	252.7	245.7	239.3
30°	305.7	307.5	306.9	307.8	305.4	303.5	298.4	294.1	289.8	283.1	275.8
32.5°	343.7	346.2	347.4	350.7	349.5	348.9	347.4	341.3	338.2	326.7	323.6
35°	402.5	401.3	406.4	409.2	408.0	407.4	405.5	402.2	398.5	390.3	382.7
37.5°	478.9	480.1	481.9	476.5	472.8	472.5	467.0	463.7	458.5	449.4	440.2
40°	618.9	611.3	602.8	579.7	569.6	563.8	547.7	543.1	534.3	521.8	512.4
42.5°	801.0	793.4	767.8	729.2	708.5	679.8	666.7	650.6	638.1	617.7	606.8
45°	981.9	959.9	956.9	911.8	886.3	848.5	825.1	798.0	769.6	742.9	723.4
47.5°	1134.4	1129.5	1114.6	1087.2	1063.4	1031.8	1001.6	959.9	930.7	892.6	857.6
50°	1256.5	1256.2	1250.7	1234.8	1215.1	1189.5	1163.0	1127.7	1094.5	1047.9	1010.5
52.5°	1347.8	1352.7	1354.5	1349.6	1342.0	1319.5	1306.1	1276.6	1248.5	1209.0	1168.5
55°	1414.8	1432.7	1441.9	1452.2	1450.1	1442.2	1441.6	1422.4	1409.6	1378.2	1349.6
57.5°	1497.6	1527.1	1555.4	1605.7	1607.5	1625.2	1634.3	1643.4	1645.9	1633.4	1623.9
60°	1602.9	1663.2	1716.8	1821.8	1849.2	1892.5	1920.5	1950.9	1976.8	1978.9	1978.3
62.5°	1677.2	1770.1	1856.5	2012.4	2065.7	2115.6	2153.1	2182.6	2200.6	2218.8	2227.4
63°	1679.3	1781.0	1873.0	2033.7	2089.7	2137.2	2172.9	2200.3	2219.1	2230.1	2235.6
65°	1627.9	1751.2	1860.8	2020.9	2073.6	2121.4	2140.0	2157.9	2167.1	2171.3	2155.2
67.5°	1379.8	1500.3	1628.2	1807.2	1852.3	1909.5	1924.7	1933.9	1938.1	1937.2	1923.5
70°	1031.8	1132.9	1275.0	1479.6	1539.3	1595.3	1630.0	1644.9	1649.8	1648.3	1627.9
72.5°	720.3	779.7	896.9	1124.6	1205.9	1277.8	1320.7	1342.9	1347.5	1338.4	1319.5
75°	604.9	608.0	634.5	759.0	835.1	911.8	960.2	974.2	965.1	937.4	889.3
77.5°	540.1	546.8	546.8	565.4	580.3	601.6	606.2	572.1	532.5	481.3	439.9
80°	453.0	476.5	492.9	506.6	508.1	503.9	492.6	473.4	443.0	404.0	360.8
82.5°	275.2	321.5	340.4	411.0	445.7	469.2	467.3	441.8	418.6	378.1	341.3
85°	69.4	74.9	81.3	105.6	118.4	144.6	161.1	168.7	171.4	157.4	142.5
87.5°	6.7	4.6	7.6	5.8	8.2	6.1	8.2	7.6	9.4	10.0	11.0
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: P149349

CATALOG NUMBER: VWM-E01-LED-E1-SL2-HSS-7030

CANDELA DISTRIBUTION (continued):

	72°	73°	74°	75°	76°	77°	78°	79°	80°	81°	82°
0°	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2
2.5°	70.9	70.6	70.3	70.0	69.7	69.4	68.8	68.8	68.2	67.9	67.6
5°	78.9	78.2	77.9	77.3	76.4	75.8	74.9	73.7	72.8	72.5	71.9
7.5°	88.9	87.4	86.8	85.9	84.6	82.8	81.6	80.7	79.2	78.2	76.4
10°	100.2	98.6	96.8	95.0	93.2	91.0	89.5	88.3	85.9	84.6	82.5
12.5°	114.5	111.7	109.6	107.2	104.7	102.3	100.5	96.8	94.7	91.9	90.1
15°	129.1	126.7	124.2	121.2	117.5	113.6	111.7	108.4	105.6	101.4	98.9
17.5°	146.7	142.2	138.5	134.9	131.5	127.9	124.2	119.0	115.1	111.4	106.6
20°	164.1	158.6	154.7	149.8	144.9	139.1	134.9	131.2	125.7	120.9	115.7
22.5°	182.7	177.2	170.8	165.9	159.2	154.7	148.9	142.8	137.3	130.9	124.5
25°	205.2	199.4	192.1	185.7	178.1	171.7	164.7	157.7	151.0	143.7	135.5
27.5°	232.9	226.8	218.9	211.3	201.2	193.3	186.6	177.2	168.7	159.5	150.1
30°	267.9	261.2	251.5	240.5	230.5	221.6	212.2	199.7	190.3	179.3	167.1
32.5°	313.6	305.7	292.6	282.2	269.7	258.2	245.1	232.6	219.2	204.9	190.9
35°	371.1	363.8	348.6	333.4	319.7	306.0	289.5	275.2	256.3	239.0	221.0
37.5°	430.8	417.7	403.7	387.3	370.2	353.8	333.7	313.9	292.3	273.4	250.9
40°	499.0	483.2	471.6	453.9	429.9	406.4	387.9	363.2	336.1	310.8	284.4
42.5°	592.5	574.8	554.1	527.3	510.0	482.6	458.5	429.3	393.7	365.3	333.4
45°	700.5	676.5	656.4	630.5	609.5	575.4	547.4	508.4	472.8	435.7	396.7
47.5°	823.8	794.0	764.8	739.2	705.7	672.2	636.6	595.2	549.5	508.7	462.5
50°	965.4	923.1	882.6	849.7	803.7	765.1	726.4	679.8	629.3	582.4	529.7
52.5°	1122.8	1073.8	1020.2	969.7	916.4	866.8	820.2	766.6	710.3	653.0	594.3
55°	1312.8	1276.0	1212.9	1148.7	1077.4	1011.1	951.1	884.7	816.2	741.0	679.2
57.5°	1610.2	1592.3	1539.6	1475.4	1382.5	1301.8	1200.1	1118.9	1019.6	916.1	836.3
60°	2013.3	1991.1	1961.6	1909.5	1835.8	1726.2	1614.2	1487.8	1336.8	1193.4	1057.4
62.5°	2228.3	2220.4	2196.3	2160.4	2091.6	2005.1	1892.2	1753.3	1582.8	1408.7	1235.2
63°	2234.7	2224.6	2203.9	2167.4	2106.8	2023.1	1912.3	1777.4	1610.5	1433.0	1255.9
65°	2148.2	2144.2	2123.2	2083.4	2041.9	1978.0	1892.2	1776.2	1636.1	1468.4	1292.1
67.5°	1905.2	1893.4	1861.1	1848.9	1820.0	1775.6	1710.1	1630.3	1530.2	1398.3	1246.1
70°	1611.5	1593.8	1553.3	1531.7	1496.4	1468.4	1428.5	1371.5	1309.7	1217.8	1104.2
72.5°	1300.0	1263.5	1226.3	1170.0	1120.7	1070.8	1026.6	986.4	918.5	881.4	795.2
75°	844.2	777.9	714.2	629.0	552.3	484.4	418.3	384.8	315.1	286.8	246.3
77.5°	400.7	363.5	313.6	274.9	225.6	184.2	150.4	113.0	88.6	69.4	53.0
80°	323.3	292.0	261.8	226.8	189.7	151.3	116.0	86.8	61.5	42.6	30.1
82.5°	288.3	254.2	217.1	193.0	167.8	137.3	112.6	91.9	67.9	49.6	33.8
85°	112.0	94.4	72.8	59.4	46.3	38.1	34.4	23.7	18.6	14.6	11.3
87.5°	9.7	7.9	6.4	4.3	4.6	2.4	2.7	1.8	1.5	1.5	1.2
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: P149349

CATALOG NUMBER: VWM-E01-LED-E1-SL2-HSS-7030

CANDELA DISTRIBUTION (continued):

	83°	84°	85°	86°	87°	88°	89°	90°	95°	105°	115°
0°	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2
2.5°	67.3	67.0	66.7	66.1	66.1	65.5	65.2	64.8	63.3	60.0	57.2
5°	70.6	70.0	69.4	68.5	67.9	67.0	66.4	65.5	62.1	55.7	50.2
7.5°	75.5	74.3	73.4	71.5	70.6	69.4	68.5	67.0	61.5	51.8	44.1
10°	81.3	79.2	77.6	75.5	73.7	72.2	70.6	68.5	60.9	47.5	38.7
12.5°	88.3	85.9	82.8	80.4	77.9	75.8	73.7	70.9	60.0	43.8	34.4
15°	95.3	91.6	89.5	86.2	82.8	79.8	76.7	74.3	60.3	39.9	30.7
17.5°	103.2	99.6	95.0	91.3	87.7	83.7	80.1	75.2	58.8	36.8	28.0
20°	110.8	105.6	101.4	96.8	91.6	86.8	82.2	77.9	57.5	33.8	25.6
22.5°	119.0	113.0	107.5	101.7	95.3	89.8	84.3	78.9	55.4	31.1	23.4
25°	129.1	122.1	114.2	107.2	100.5	93.8	86.8	80.1	53.3	28.6	21.9
27.5°	141.3	132.1	124.2	115.4	105.9	97.4	89.8	82.5	51.1	26.8	20.4
30°	156.8	146.1	134.9	123.6	113.6	103.8	93.2	84.0	49.0	25.0	18.9
32.5°	177.5	164.1	150.4	137.3	123.9	111.4	100.2	88.3	47.8	23.4	17.4
35°	204.9	187.5	170.8	154.4	138.2	123.0	108.4	95.0	47.8	21.6	15.5
37.5°	230.8	210.7	189.4	169.0	149.8	132.1	114.8	98.6	45.4	20.1	14.0
40°	258.8	234.7	209.8	185.7	162.6	140.7	120.9	102.3	43.2	18.3	12.5
42.5°	301.7	271.3	238.7	210.7	183.0	155.9	131.2	109.3	40.5	16.4	11.0
45°	358.0	319.4	281.0	246.9	211.6	178.4	149.2	122.1	39.9	14.9	9.4
47.5°	418.3	372.6	327.6	284.1	242.6	204.0	169.0	136.4	39.9	13.4	8.2
50°	478.3	421.1	373.0	322.4	275.8	230.2	188.5	151.3	40.2	12.2	6.7
52.5°	532.5	471.3	417.4	358.9	307.5	254.5	209.2	165.9	39.6	10.7	5.5
55°	607.7	535.8	473.4	408.9	348.6	288.9	237.5	187.8	39.9	9.4	4.6
57.5°	746.2	661.9	586.7	502.0	432.6	355.6	293.2	232.9	43.5	7.9	3.3
60°	945.0	835.4	729.8	626.6	538.3	446.6	365.6	294.7	51.1	6.4	2.4
62.5°	1078.7	935.3	809.2	695.4	592.8	496.9	408.6	327.9	56.3	5.2	1.5
63°	1092.4	944.1	817.4	699.9	595.2	499.3	410.4	330.3	56.6	4.9	1.5
65°	1118.2	959.3	822.0	700.8	592.8	495.9	409.2	330.0	57.2	4.0	1.2
67.5°	1088.7	935.9	795.5	674.7	571.5	476.2	394.0	317.8	56.9	2.7	0.9
70°	973.6	847.0	723.7	611.0	517.3	431.1	358.6	289.8	52.4	1.8	0.6
72.5°	714.8	628.7	533.1	451.8	389.7	323.6	276.1	217.7	40.5	1.2	0.3
75°	211.9	193.0	162.3	143.1	126.3	104.4	92.9	72.5	20.7	0.6	0.0
77.5°	42.3	38.4	34.4	31.4	29.5	25.3	24.1	19.8	8.5	0.3	0.0
80°	22.2	18.3	15.5	13.7	11.9	9.7	8.2	6.7	1.5	0.0	0.0
82.5°	21.3	14.3	10.4	8.5	7.3	5.8	4.6	3.3	0.9	0.0	0.0
85°	7.9	6.1	4.6	3.7	3.0	2.7	2.1	1.8	0.0	0.0	0.0
87.5°	1.2	0.9	0.9	0.6	0.6	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: P149349

CATALOG NUMBER: VWM-E01-LED-E1-SL2-HSS-7030

CANDELA DISTRIBUTION (continued):

	125°	135°	145°	155°	165°	175°	180°
0°	64.2	64.2	64.2	64.2	64.2	64.2	64.2
2.5°	54.5	52.1	50.8	49.3	49.3	49.0	49.6
5°	45.4	42.0	39.6	37.8	38.1	37.1	37.4
7.5°	38.4	35.0	32.9	31.7	31.4	31.1	31.1
10°	33.2	30.1	28.3	27.4	27.1	27.1	27.1
12.5°	29.5	26.5	25.0	24.4	24.4	24.1	24.1
15°	26.5	24.1	22.5	21.9	21.9	21.6	21.9
17.5°	24.1	21.6	20.4	19.8	19.8	19.5	19.5
20°	21.9	19.8	18.6	17.7	17.7	17.4	17.7
22.5°	20.1	18.0	16.4	15.8	15.5	15.2	15.5
25°	18.3	16.1	14.6	13.7	13.4	13.4	13.1
27.5°	16.7	14.6	12.8	11.9	11.6	11.6	11.3
30°	15.2	12.8	11.0	10.0	9.7	9.7	9.7
32.5°	13.7	11.0	9.4	8.5	8.2	8.2	8.2
35°	12.2	9.4	7.9	7.0	6.7	6.7	6.7
37.5°	10.4	7.9	6.1	5.5	5.2	4.9	4.9
40°	8.8	6.1	4.6	4.0	3.3	3.3	3.3
42.5°	7.3	4.9	3.3	2.4	2.1	1.8	2.1
45°	6.1	3.7	2.1	1.2	0.9	0.9	0.9
47.5°	4.9	2.4	0.9	0.3	0.3	0.3	0.3
50°	3.7	1.5	0.3	0.0	0.0	0.3	0.3
52.5°	2.7	0.9	0.0	0.0	0.0	0.0	0.0
55°	1.5	0.3	0.0	0.0	0.0	0.0	0.0
57.5°	0.9	0.0	0.0	0.0	0.0	0.0	0.0
60°	0.6	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)