

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: EPHESUS

Report Number: P624222

Luminaire Tested: **EPH-VN-03-E-940-U-77**

Issue Date: 11/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P624222
Test Lab: INNOVATION CENTER(G2)
Issue Date: 11/2/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: EPHESUS
Catalog Number: EPH-VN-03-E-940-U-77
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/
Nema 7 distribution lens
Light Source: (48) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

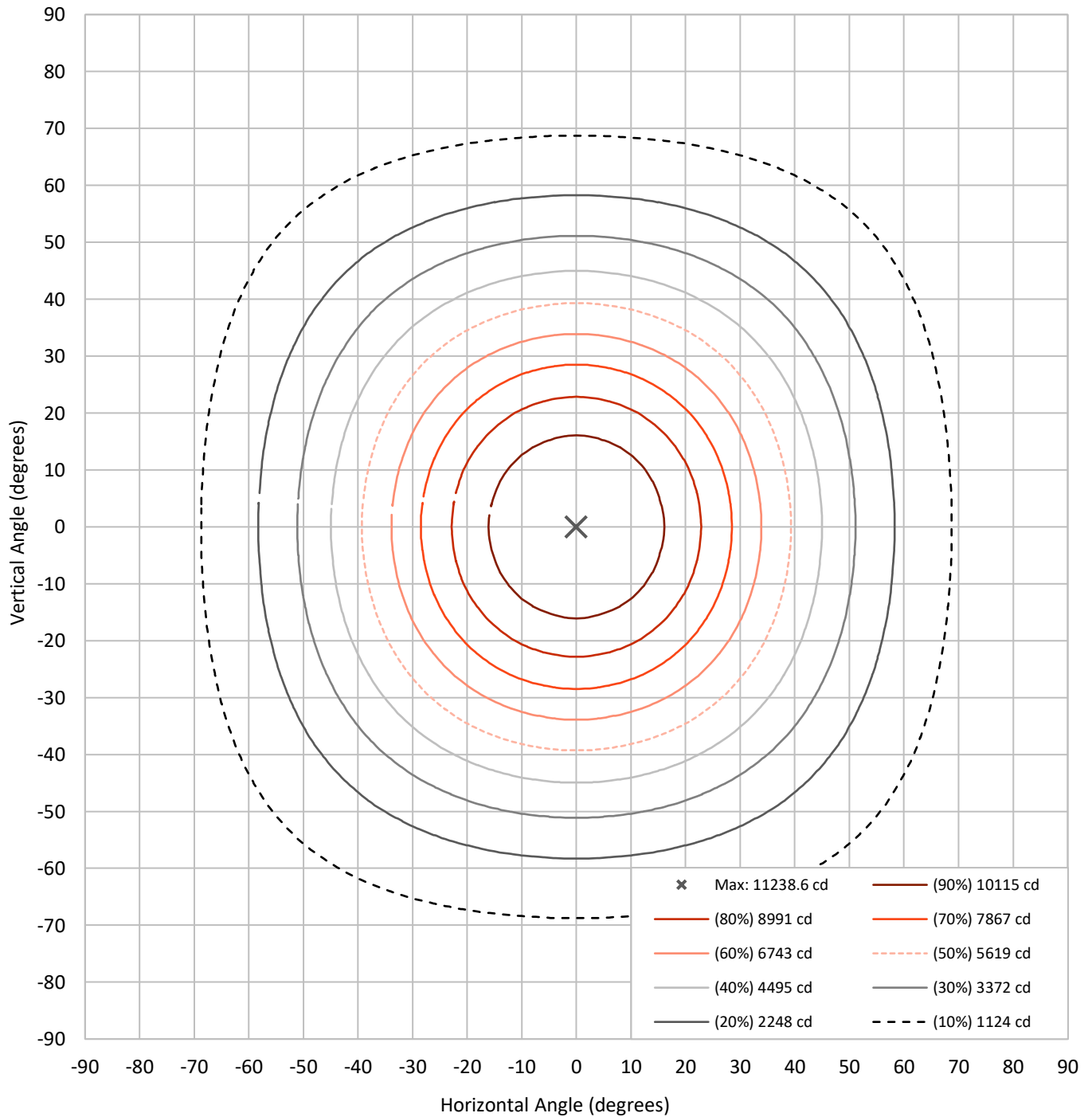
Lumens per Lamp:	N/A	NEMA Type:	7H x 7V
Luminaire Lumens:	20235.3 lumens	Max Intensity:	11238.6 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	87.2 lumens/watt		
Luminous Opening:	Rectangular (W 1.5' x L: 0.5' x H: 0')		
Beam Angle (50%):	78.6°H x 78.6°V	Field Angle (10%):	137.5°H x 137.5°V
Beam Lumens:	8755.6 lumens	Field Lumens:	14337 lumens
Beam Efficiency:	43.3%	Field Efficiency:	70.9%

Input Watts (W): 232.1
Input Voltage (V): 120
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



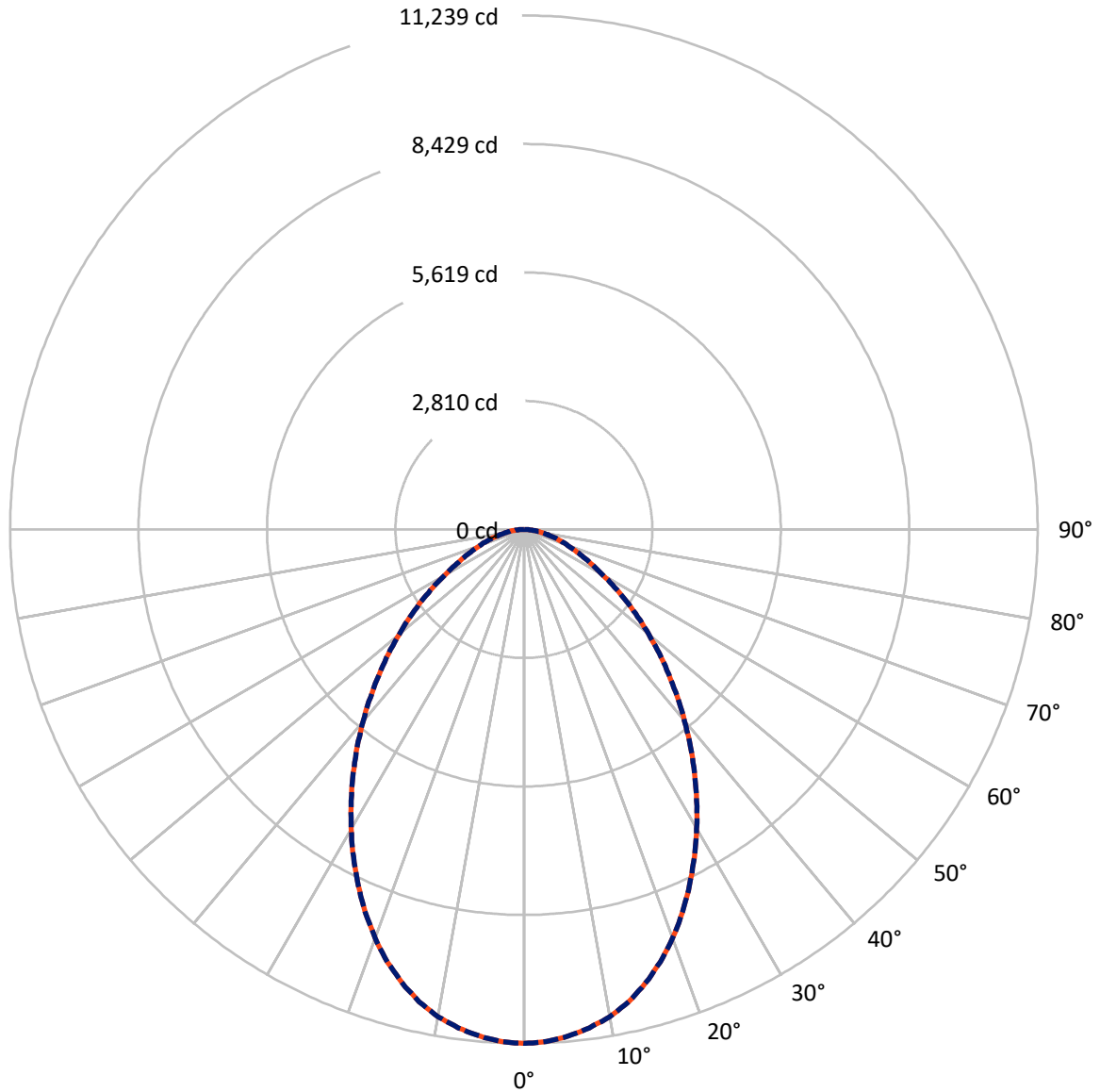
REPORT NUMBER: P624222
CATALOG NUMBER: EPH-VN-03-E-940-U-77

Iso-Candela Plot



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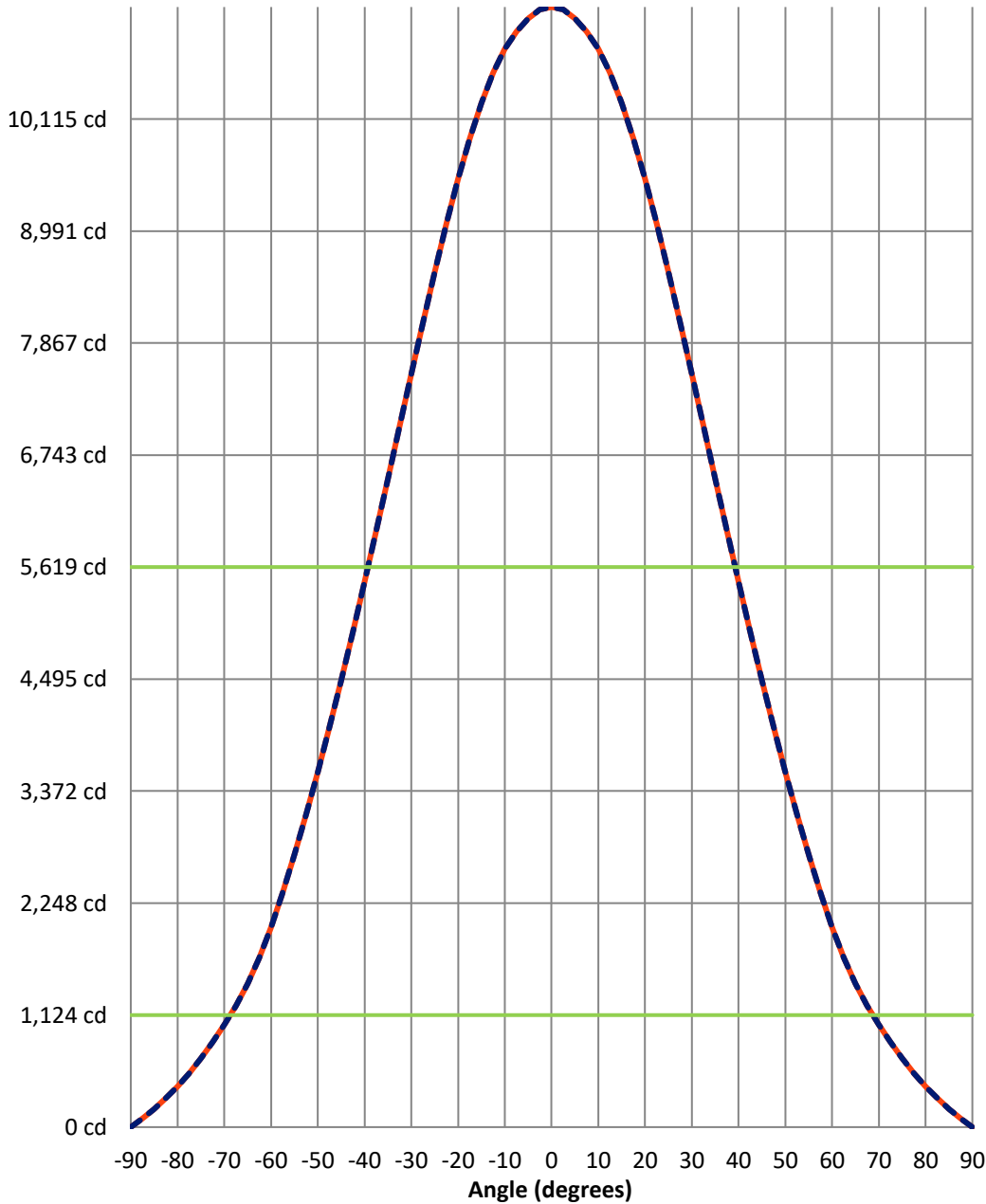
Luminous Intensity Polar Plot



— Vertical Distribution Through 0-Deg - - - Horizontal Distribution Through 0-Deg

REPORT NUMBER: P624222
CATALOG NUMBER: EPH-VN-03-E-940-U-77

Luminous Intensity Plot



Beam:
H Angle: 78.6°
V Angle: 78.6°
Lumens: 8755.6
Efficiency: 43.3%

Field:
H Angle: 137.5°
V Angle: 137.5°
Lumens: 14337
Efficiency: 70.9%

Spill:
Lumens: 5898.3
Efficiency: 29.1%

— Vertical Distribution through 0-Deg
- - Horizontal Distribution through 0-Deg



REPORT NUMBER: P624222
 CATALOG NUMBER: EPH-VN-03-E-940-U-77

FIELD
 BEAM

CANDELA DISTRIBUTION:

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	86.5	86.5	86.5	86.5	86.5	86.5	86.5	82.3	82.3	80.2	78.1
85°	181.4	181.4	181.4	181.4	181.4	177.2	175.1	173.0	170.9	166.7	164.6
82.5°	291.1	291.1	291.1	291.1	286.9	282.7	280.6	276.4	272.2	265.8	259.5
80°	407.2	407.2	407.2	407.2	400.9	396.6	390.3	386.1	379.8	371.3	362.9
77.5°	540.1	540.1	540.1	533.8	529.5	523.2	516.9	508.4	500.0	489.5	476.8
75°	689.9	689.9	689.9	681.4	675.1	668.8	658.2	647.7	635.0	620.3	603.4
72.5°	852.3	852.3	852.3	841.8	835.5	824.9	812.2	797.5	782.7	763.7	742.6
70°	1027.4	1027.4	1027.4	1014.8	1004.2	993.7	976.8	959.9	938.8	917.7	892.4
67.5°	1217.3	1217.3	1217.3	1202.6	1189.9	1175.1	1156.1	1135.0	1109.7	1080.2	1050.6
65°	1438.8	1438.8	1430.4	1417.7	1403.0	1381.9	1358.7	1329.1	1297.5	1259.5	1219.4
62.5°	1700.4	1700.4	1687.8	1673.0	1654.0	1626.6	1595.0	1557.0	1512.7	1464.2	1415.6
60°	2004.3	2004.3	1989.5	1970.5	1943.1	1909.3	1867.1	1818.6	1763.7	1702.6	1643.5
57.5°	2354.5	2354.5	2335.5	2310.2	2276.4	2234.2	2181.5	2120.3	2050.7	1974.7	1900.9
55°	2734.2	2734.2	2711.0	2681.5	2641.4	2590.8	2527.5	2455.7	2371.3	2284.8	2189.9
52.5°	3137.2	3137.2	3109.8	3076.0	3029.6	2970.5	2898.8	2814.4	2717.3	2616.1	2504.3
50°	3561.2	3561.2	3529.6	3491.6	3438.9	3369.3	3287.0	3189.9	3082.3	2964.2	2835.5
47.5°	4014.8	4014.8	3979.0	3934.7	3871.4	3791.2	3694.2	3582.3	3460.0	3327.1	3181.5
45°	4481.1	4481.1	4441.0	4390.4	4320.7	4230.0	4122.4	4014.8	3858.7	3704.7	3535.9
42.5°	4966.3	4966.3	4919.9	4862.9	4782.8	4683.6	4561.3	4422.0	4268.0	4095.0	3911.5
40°	5470.5	5470.5	5417.8	5352.4	5263.8	5149.9	5012.7	4856.6	4683.6	4491.6	4289.1
37.5°	5985.3	5985.3	5926.3	5854.5	5755.4	5628.8	5474.8	5301.8	5107.7	4894.6	4671.0
35°	6504.3	6504.3	6438.9	6360.9	6251.2	6111.9	5945.2	5753.3	5538.1	5306.0	5054.9
32.5°	7033.9	7033.9	6962.1	6873.5	6749.1	6595.0	6411.5	6202.6	5985.3	5715.3	5441.0
30°	7557.1	7557.1	7479.0	7382.0	7249.1	7080.3	6879.9	6649.9	6394.6	6118.2	5822.9
27.5°	8071.9	8050.8	7985.4	7882.0	7736.4	7557.1	7339.8	7090.8	6814.5	6510.7	6194.2
25°	8578.2	8555.0	8483.3	8369.3	8213.2	8017.0	7782.8	7517.0	7219.5	6898.8	6552.8
22.5°	9063.4	9038.1	8962.2	8839.8	8673.1	8460.0	8209.0	7924.2	7607.7	7263.8	6898.8
20°	9512.8	9485.4	9407.3	9278.6	9105.6	8879.9	8614.1	8308.1	7970.6	7607.7	7219.5
17.5°	9917.9	9890.5	9808.2	9675.3	9512.8	9261.7	8987.5	8664.7	8308.1	7924.2	7517.0
15°	10274.4	10244.9	10160.5	10027.6	9841.9	9605.6	9316.6	8987.5	8614.1	8209.0	7782.8
12.5°	10578.2	10548.7	10462.2	10329.3	10137.3	9901.0	9605.6	9261.7	8879.9	8460.0	8017.0
10°	10818.7	10789.2	10706.9	10580.3	10382.0	10137.3	9841.9	9512.8	9105.6	8673.1	8213.2
7.5°	10991.7	10964.3	10888.4	10761.8	10580.3	10329.3	10027.6	9675.3	9278.6	8839.8	8369.3
5°	11122.5	11090.9	11014.9	10888.4	10706.9	10462.2	10160.5	9808.2	9407.3	8962.2	8483.3
2.5°	11213.3	11175.3	11090.9	10964.3	10789.2	10548.7	10244.9	9890.5	9485.4	9038.1	8555.0
0°	11238.6	11213.3	11122.5	10991.7	10818.7	10578.2	10274.4	9917.9	9512.8	9063.4	8578.2



REPORT NUMBER: P624222
 CATALOG NUMBER: EPH-VN-03-E-940-U-77

CANDELA DISTRIBUTION (continued):

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	47.5°	50°	52.5°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	76.0	76.0	73.8	71.7	69.6	65.4	63.3	61.2	59.1	54.9	52.7
85°	160.3	156.1	151.9	147.7	141.4	137.1	130.8	126.6	120.3	113.9	107.6
82.5°	253.2	246.8	238.4	232.1	223.6	213.1	204.6	194.1	183.5	175.1	164.6
80°	354.4	343.9	333.3	322.8	310.1	297.5	284.8	272.2	257.4	242.6	227.9
77.5°	464.1	449.4	434.6	417.7	403.0	386.1	369.2	352.3	333.3	314.4	295.4
75°	586.5	567.5	546.4	525.3	506.3	483.1	459.9	436.7	411.4	388.2	362.9
72.5°	719.4	696.2	670.9	645.6	618.2	588.6	559.1	527.4	497.9	468.4	436.7
70°	862.9	835.5	803.8	772.2	738.4	702.5	666.7	628.7	590.7	552.8	514.8
67.5°	1016.9	983.1	945.2	907.2	865.0	822.8	780.6	736.3	689.9	643.5	599.2
65°	1181.5	1139.3	1095.0	1046.4	997.9	949.4	898.7	846.0	793.3	738.4	689.9
62.5°	1365.0	1312.3	1255.3	1196.2	1141.4	1082.3	1027.4	962.0	898.7	837.6	776.4
60°	1578.1	1508.5	1438.8	1365.0	1295.4	1219.4	1151.9	1080.2	1008.5	938.8	867.1
57.5°	1816.5	1727.9	1643.5	1554.9	1462.0	1377.7	1291.2	1204.7	1124.5	1042.2	964.2
55°	2086.5	1978.9	1873.4	1763.7	1656.1	1550.7	1441.0	1343.9	1244.7	1151.9	1061.2
52.5°	2381.9	2259.5	2128.7	2004.3	1867.1	1736.3	1613.9	1491.6	1375.5	1263.7	1160.4
50°	2698.4	2554.9	2405.1	2253.2	2097.1	1943.1	1795.4	1651.9	1516.9	1386.1	1263.7
47.5°	3027.5	2865.0	2694.1	2521.1	2354.5	2166.7	1989.5	1827.0	1664.6	1516.9	1375.5
45°	3365.0	3181.5	2993.7	2797.5	2601.3	2398.8	2202.6	2004.3	1827.0	1651.9	1491.6
42.5°	3713.1	3506.4	3297.5	3080.2	2862.9	2641.4	2419.9	2202.6	1989.5	1795.4	1613.9
40°	4071.8	3843.9	3605.5	3369.3	3137.2	2884.0	2641.4	2398.8	2166.7	1943.1	1736.3
37.5°	4430.4	4181.5	3924.1	3658.3	3392.5	3137.2	2862.9	2601.3	2354.5	2097.1	1867.1
35°	4791.2	4516.9	4238.5	3949.4	3658.3	3369.3	3080.2	2797.5	2521.1	2253.2	2004.3
32.5°	5154.1	4854.5	4546.5	4238.5	3924.1	3605.5	3297.5	2993.7	2694.1	2405.1	2128.7
30°	5510.6	5185.7	4854.5	4516.9	4181.5	3843.9	3506.4	3181.5	2865.0	2554.9	2259.5
27.5°	5858.7	5510.6	5154.1	4791.2	4430.4	4071.8	3713.1	3365.0	3027.5	2698.4	2381.9
25°	6194.2	5822.9	5441.0	5054.9	4671.0	4289.1	3911.5	3535.9	3181.5	2835.5	2504.3
22.5°	6510.7	6118.2	5715.3	5306.0	4894.6	4491.6	4095.0	3704.7	3327.1	2964.2	2616.1
20°	6814.5	6394.6	5985.3	5538.1	5107.7	4683.6	4268.0	3858.7	3460.0	3082.3	2717.3
17.5°	7090.8	6649.9	6202.6	5753.3	5301.8	4856.6	4422.0	4014.8	3582.3	3189.9	2814.4
15°	7339.8	6879.9	6411.5	5945.2	5474.8	5012.7	4561.3	4122.4	3694.2	3287.0	2898.8
12.5°	7557.1	7080.3	6595.0	6111.9	5628.8	5149.9	4683.6	4230.0	3791.2	3369.3	2970.5
10°	7736.4	7249.1	6749.1	6251.2	5755.4	5263.8	4782.8	4320.7	3871.4	3438.9	3029.6
7.5°	7882.0	7382.0	6873.5	6360.9	5854.5	5352.4	4862.9	4390.4	3934.7	3491.6	3076.0
5°	7985.4	7479.0	6962.1	6438.9	5926.3	5417.8	4919.9	4441.0	3979.0	3529.6	3109.8
2.5°	8050.8	7557.1	7033.9	6504.3	5985.3	5470.5	4966.3	4481.1	4014.8	3561.2	3137.2
0°	8071.9	7557.1	7033.9	6504.3	5985.3	5470.5	4966.3	4481.1	4014.8	3561.2	3137.2



REPORT NUMBER: P624222
 CATALOG NUMBER: EPH-VN-03-E-940-U-77

CANDELA DISTRIBUTION (continued):

	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°	80°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	50.6	46.4	42.2	40.1	35.9	33.8	29.5	25.3	23.2	19.0	14.8
85°	101.3	92.8	86.5	80.2	73.8	65.4	59.1	52.7	44.3	38.0	29.5
82.5°	154.0	143.5	132.9	122.4	111.8	101.3	88.6	78.1	67.5	57.0	44.3
80°	213.1	196.2	181.4	166.7	151.9	137.1	120.3	105.5	88.6	73.8	59.1
77.5°	274.3	255.3	234.2	213.1	192.0	173.0	151.9	132.9	113.9	92.8	73.8
75°	339.7	314.4	291.1	263.7	238.4	211.0	185.7	160.3	137.1	113.9	88.6
72.5°	407.2	375.5	343.9	314.4	282.7	251.1	221.5	189.9	160.3	132.9	105.5
70°	476.8	438.8	400.9	365.0	329.1	291.1	257.4	221.5	185.7	151.9	120.3
67.5°	550.6	506.3	462.0	415.6	375.5	333.3	291.1	251.1	211.0	173.0	137.1
65°	630.8	578.1	523.2	474.7	421.9	375.5	329.1	282.7	238.4	192.0	151.9
62.5°	713.1	651.9	590.7	529.5	474.7	415.6	365.0	314.4	263.7	213.1	166.7
60°	797.5	727.9	658.2	590.7	523.2	462.0	400.9	343.9	291.1	234.2	181.4
57.5°	884.0	805.9	727.9	651.9	578.1	506.3	438.8	375.5	314.4	255.3	196.2
55°	972.6	884.0	797.5	713.1	630.8	550.6	476.8	407.2	339.7	274.3	213.1
52.5°	1061.2	964.2	867.1	776.4	689.9	599.2	514.8	436.7	362.9	295.4	227.9
50°	1151.9	1042.2	938.8	837.6	738.4	643.5	552.8	468.4	388.2	314.4	242.6
47.5°	1244.7	1124.5	1008.5	898.7	793.3	689.9	590.7	497.9	411.4	333.3	257.4
45°	1343.9	1204.7	1080.2	962.0	846.0	736.3	628.7	527.4	436.7	352.3	272.2
42.5°	1441.0	1291.2	1151.9	1027.4	898.7	780.6	666.7	559.1	459.9	369.2	284.8
40°	1550.7	1377.7	1219.4	1082.3	949.4	822.8	702.5	588.6	483.1	386.1	297.5
37.5°	1656.1	1462.0	1295.4	1141.4	997.9	865.0	738.4	618.2	506.3	403.0	310.1
35°	1763.7	1554.9	1365.0	1196.2	1046.4	907.2	772.2	645.6	525.3	417.7	322.8
32.5°	1873.4	1643.5	1438.8	1255.3	1095.0	945.2	803.8	670.9	546.4	434.6	333.3
30°	1978.9	1727.9	1508.5	1312.3	1139.3	983.1	835.5	696.2	567.5	449.4	343.9
27.5°	2086.5	1816.5	1578.1	1365.0	1181.5	1016.9	862.9	719.4	586.5	464.1	354.4
25°	2189.9	1900.9	1643.5	1415.6	1219.4	1050.6	892.4	742.6	603.4	476.8	362.9
22.5°	2284.8	1974.7	1702.6	1464.2	1259.5	1080.2	917.7	763.7	620.3	489.5	371.3
20°	2371.3	2050.7	1763.7	1512.7	1297.5	1109.7	938.8	782.7	635.0	500.0	379.8
17.5°	2455.7	2120.3	1818.6	1557.0	1329.1	1135.0	959.9	797.5	647.7	508.4	386.1
15°	2527.5	2181.5	1867.1	1595.0	1358.7	1156.1	976.8	812.2	658.2	516.9	390.3
12.5°	2590.8	2234.2	1909.3	1626.6	1381.9	1175.1	993.7	824.9	668.8	523.2	396.6
10°	2641.4	2276.4	1943.1	1654.0	1403.0	1189.9	1004.2	835.5	675.1	529.5	400.9
7.5°	2681.5	2310.2	1970.5	1673.0	1417.7	1202.6	1014.8	841.8	681.4	533.8	407.2
5°	2711.0	2335.5	1989.5	1687.8	1430.4	1217.3	1027.4	852.3	689.9	540.1	407.2
2.5°	2734.2	2354.5	2004.3	1700.4	1438.8	1217.3	1027.4	852.3	689.9	540.1	407.2
0°	2734.2	2354.5	2004.3	1700.4	1438.8	1217.3	1027.4	852.3	689.9	540.1	407.2



REPORT NUMBER: P624222
 CATALOG NUMBER: EPH-VN-03-E-940-U-77

CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	10.5	8.4	4.2	0.0
85°	23.2	14.8	8.4	0.0
82.5°	33.8	23.2	10.5	0.0
80°	44.3	29.5	14.8	0.0
77.5°	57.0	38.0	19.0	0.0
75°	67.5	44.3	23.2	0.0
72.5°	78.1	52.7	25.3	0.0
70°	88.6	59.1	29.5	0.0
67.5°	101.3	65.4	33.8	0.0
65°	111.8	73.8	35.9	0.0
62.5°	122.4	80.2	40.1	0.0
60°	132.9	86.5	42.2	0.0
57.5°	143.5	92.8	46.4	0.0
55°	154.0	101.3	50.6	0.0
52.5°	164.6	107.6	52.7	0.0
50°	175.1	113.9	54.9	0.0
47.5°	183.5	120.3	59.1	0.0
45°	194.1	126.6	61.2	0.0
42.5°	204.6	130.8	63.3	0.0
40°	213.1	137.1	65.4	0.0
37.5°	223.6	141.4	69.6	0.0
35°	232.1	147.7	71.7	0.0
32.5°	238.4	151.9	73.8	0.0
30°	246.8	156.1	76.0	0.0
27.5°	253.2	160.3	76.0	0.0
25°	259.5	164.6	78.1	0.0
22.5°	265.8	166.7	80.2	0.0
20°	272.2	170.9	82.3	0.0
17.5°	276.4	173.0	82.3	0.0
15°	280.6	175.1	86.5	0.0
12.5°	282.7	177.2	86.5	0.0
10°	286.9	181.4	86.5	0.0
7.5°	291.1	181.4	86.5	0.0
5°	291.1	181.4	86.5	0.0
2.5°	291.1	181.4	86.5	0.0
0°	291.1	181.4	86.5	0.0

(END OF REPORT)