

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: P624182

Luminaire Tested: **EPH-VN-06-E-730-U-77**

Issue Date: 11/2/2022

**Test Information**

Test Method: LM-79-2019  
Report Number: P624182  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 11/2/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: EPHESUS  
Catalog Number: EPH-VN-06-E-730-U-77  
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/  
Nema 7 distribution lens  
Light Source: (96) 3000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

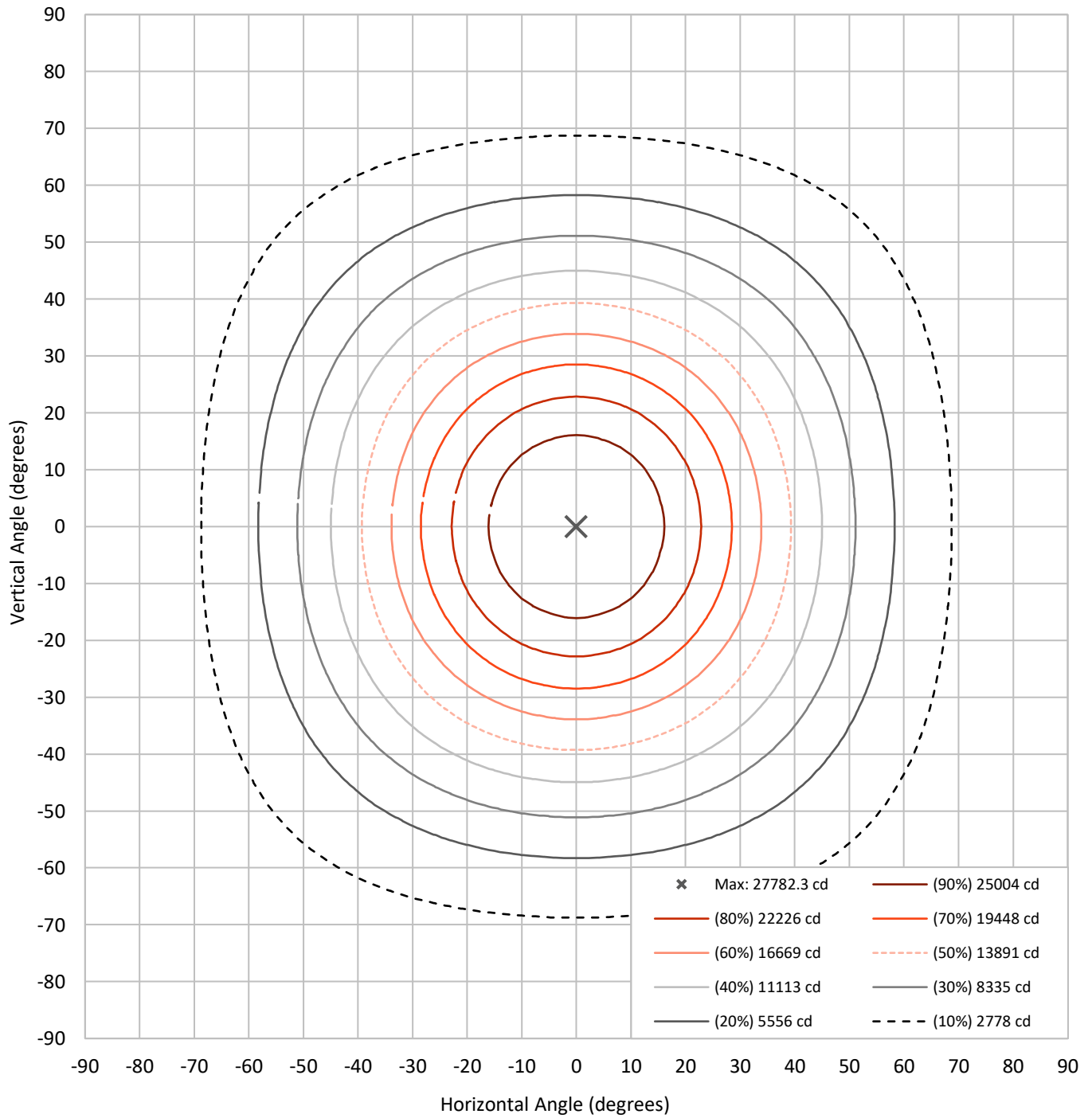
Lumens per Lamp:	N/A	NEMA Type:	7H x 7V
Luminaire Lumens:	50022.7 lumens	Max Intensity:	27782.3 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	107.8 lumens/watt		
Luminous Opening:	Rectangular (W 1.5' x L: 1' x H: 0')		
Beam Angle (50%):	78.6°H x 78.6°V	Field Angle (10%):	137.5°H x 137.5°V
Beam Lumens:	21644.3 lumens	Field Lumens:	35441.8 lumens
Beam Efficiency:	43.3%	Field Efficiency:	70.9%

Input Watts (W): 464.2  
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: P624182  
CATALOG NUMBER: EPH-VN-06-E-730-U-77

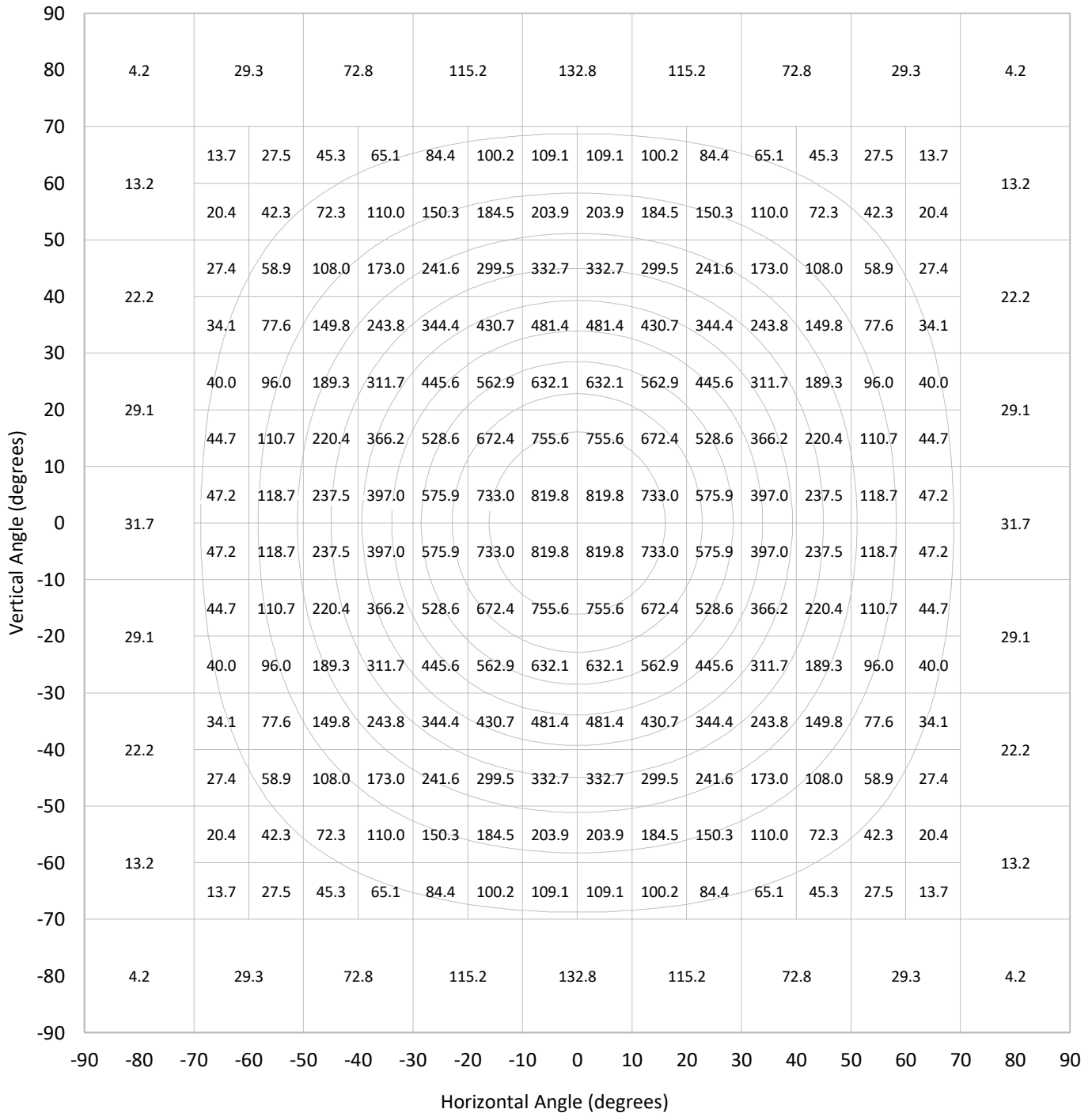
### Iso-Candela Plot





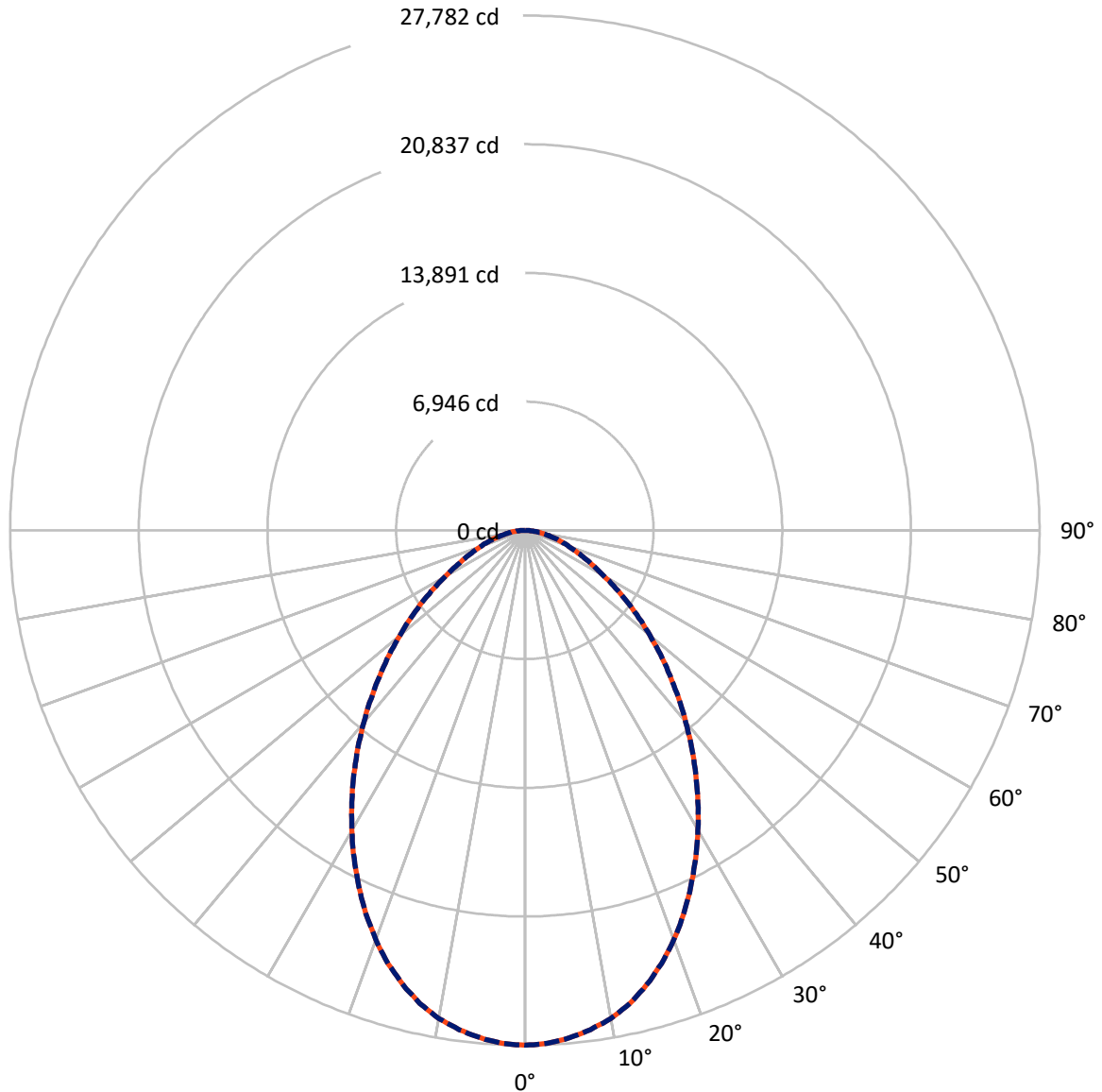
REPORT NUMBER: P624182  
 CATALOG NUMBER: EPH-VN-06-E-730-U-77

### Lumen Table



REPORT NUMBER: P624182  
CATALOG NUMBER: EPH-VN-06-E-730-U-77

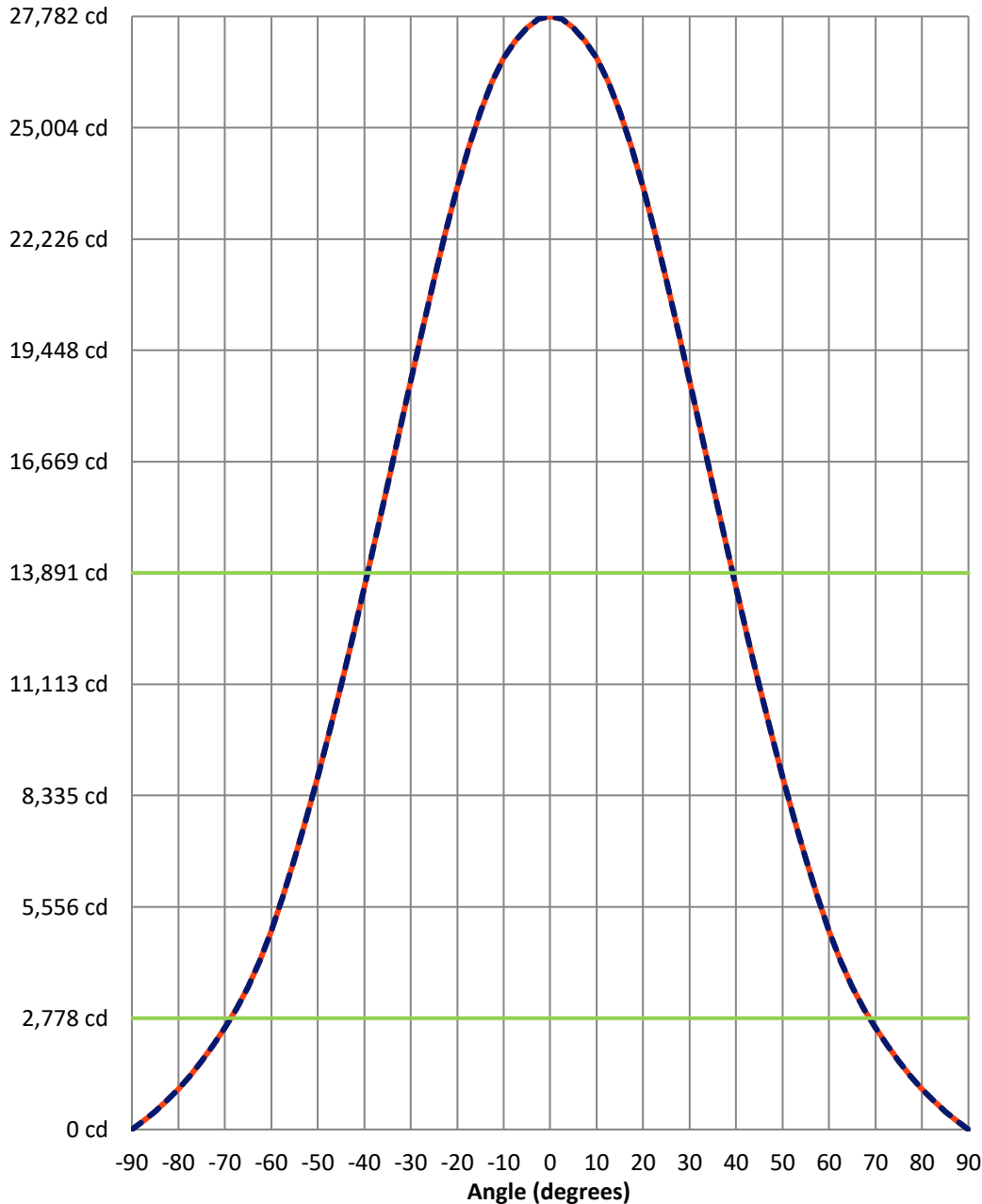
### Luminous Intensity Polar Plot



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

REPORT NUMBER: P624182  
CATALOG NUMBER: EPH-VN-06-E-730-U-77

### Luminous Intensity Plot



**Beam:**  
H Angle: 78.6°  
V Angle: 78.6°  
Lumens: 21644.3  
Efficiency: 43.3%

**Field:**  
H Angle: 137.5°  
V Angle: 137.5°  
Lumens: 35441.8  
Efficiency: 70.9%

**Spill:**  
Lumens: 14580.8  
Efficiency: 29.1%

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



REPORT NUMBER: P624182  
 CATALOG NUMBER: EPH-VN-06-E-730-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°	213.8	213.8	213.8	213.8	213.8	213.8	213.8	203.4	203.4	198.2	193.0
85°	448.5	448.5	448.5	448.5	448.5	438.1	432.9	427.7	422.4	412.0	406.8
82.5°	719.7	719.7	719.7	719.7	709.3	698.9	693.6	683.2	672.8	657.1	641.5
80°	1006.6	1006.6	1006.6	1006.6	990.9	980.5	964.8	954.4	938.8	917.9	897.0
77.5°	1335.1	1335.1	1335.1	1319.5	1309.1	1293.4	1277.8	1256.9	1236.0	1210.0	1178.7
75°	1705.4	1705.4	1705.4	1684.6	1668.9	1653.3	1627.2	1601.1	1569.8	1533.3	1491.6
72.5°	2107.0	2107.0	2107.0	2080.9	2065.3	2039.2	2007.9	1971.4	1934.9	1888.0	1835.8
70°	2539.9	2539.9	2539.9	2508.6	2482.5	2456.4	2414.7	2373.0	2320.8	2268.7	2206.1
67.5°	3009.3	3009.3	3009.3	2972.8	2941.5	2905.0	2858.0	2805.9	2743.3	2670.3	2597.3
65°	3556.9	3556.9	3536.0	3504.7	3468.2	3416.1	3358.7	3285.7	3207.5	3113.6	3014.5
62.5°	4203.6	4203.6	4172.3	4135.8	4088.9	4021.1	3942.8	3848.9	3739.4	3619.5	3499.5
60°	4954.6	4954.6	4918.1	4871.2	4803.4	4719.9	4615.6	4495.7	4360.1	4208.8	4062.8
57.5°	5820.4	5820.4	5773.4	5710.8	5627.4	5523.1	5392.7	5241.5	5069.3	4881.6	4699.1
55°	6759.1	6759.1	6701.8	6628.7	6529.6	6404.5	6248.0	6070.7	5862.1	5648.3	5413.6
52.5°	7755.3	7755.3	7687.5	7604.0	7489.3	7343.2	7165.9	6957.3	6717.4	6467.1	6190.6
50°	8803.6	8803.6	8725.3	8631.4	8501.1	8329.0	8125.6	7885.6	7619.7	7327.6	7009.5
47.5°	9924.9	9924.9	9836.2	9726.7	9570.2	9372.0	9132.1	8855.7	8553.2	8224.6	7864.8
45°	11077.5	11077.5	10978.4	10853.2	10681.1	10456.8	10190.8	9924.9	9538.9	9158.2	8741.0
42.5°	12277.0	12277.0	12162.3	12021.4	11823.3	11578.1	11275.6	10931.4	10550.7	10123.0	9669.3
40°	13523.5	13523.5	13393.1	13231.4	13012.4	12730.7	12391.7	12005.8	11578.1	11103.5	10602.9
37.5°	14796.0	14796.0	14650.0	14472.7	14227.5	13914.6	13533.9	13106.2	12626.4	12099.7	11546.8
35°	16079.0	16079.0	15917.3	15724.4	15453.2	15108.9	14696.9	14222.3	13690.4	13116.7	12496.0
32.5°	17388.1	17388.1	17210.7	16991.7	16684.0	16303.3	15849.5	15333.2	14796.0	14128.4	13450.5
30°	18681.5	18681.5	18488.5	18248.6	17920.0	17502.8	17007.3	16438.9	15807.8	15124.6	14394.4
27.5°	19954.0	19901.9	19740.2	19484.6	19124.8	18681.5	18144.3	17528.9	16845.7	16094.6	15312.3
25°	21205.7	21148.3	20971.0	20689.4	20303.5	19818.4	19239.5	18582.4	17847.0	17054.3	16199.0
22.5°	22405.2	22342.7	22154.9	21852.4	21440.4	20913.7	20293.0	19588.9	18806.6	17956.5	17054.3
20°	23516.1	23448.3	23255.4	22937.2	22509.6	21951.5	21294.4	20538.1	19703.7	18806.6	17847.0
17.5°	24517.5	24449.7	24246.3	23917.7	23516.1	22895.5	22217.5	21419.5	20538.1	19588.9	18582.4
15°	25398.9	25325.9	25117.2	24788.7	24329.7	23745.6	23031.1	22217.5	21294.4	20293.0	19239.5
12.5°	26149.9	26076.9	25863.0	25534.5	25059.9	24475.8	23745.6	22895.5	21951.5	20913.7	19818.4
10°	26744.4	26671.4	26468.0	26155.1	25664.9	25059.9	24329.7	23516.1	22509.6	21440.4	20303.5
7.5°	27172.1	27104.3	26916.5	26603.6	26155.1	25534.5	24788.7	23917.7	22937.2	21852.4	20689.4
5°	27495.5	27417.2	27229.5	26916.5	26468.0	25863.0	25117.2	24246.3	23255.4	22154.9	20971.0
2.5°	27719.7	27625.8	27417.2	27104.3	26671.4	26076.9	25325.9	24449.7	23448.3	22342.7	21148.3
0°	27782.3	27719.7	27495.5	27172.1	26744.4	26149.9	25398.9	24517.5	23516.1	22405.2	21205.7



REPORT NUMBER: P624182  
 CATALOG NUMBER: EPH-VN-06-E-730-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°	187.8	187.8	182.5	177.3	172.1	161.7	156.5	151.2	146.0	135.6	130.4
85°	396.4	385.9	375.5	365.1	349.4	339.0	323.4	312.9	297.3	281.6	266.0
82.5°	625.8	610.2	589.3	573.7	552.8	526.8	505.9	479.8	453.7	432.9	406.8
80°	876.2	850.1	824.0	798.0	766.7	735.4	704.1	672.8	636.3	599.8	563.3
77.5°	1147.4	1110.9	1074.4	1032.6	996.1	954.4	912.7	871.0	824.0	777.1	730.2
75°	1449.9	1402.9	1350.8	1298.6	1251.7	1194.3	1137.0	1079.6	1017.0	959.6	897.0
72.5°	1778.4	1721.1	1658.5	1595.9	1528.1	1455.1	1382.1	1303.8	1230.8	1157.8	1079.6
70°	2133.1	2065.3	1987.1	1908.8	1825.4	1736.7	1648.1	1554.2	1460.3	1366.4	1272.6
67.5°	2513.8	2430.4	2336.5	2242.6	2138.3	2034.0	1929.7	1820.2	1705.4	1590.7	1481.2
65°	2920.6	2816.3	2706.8	2586.8	2466.9	2346.9	2221.7	2091.4	1961.0	1825.4	1705.4
62.5°	3374.3	3244.0	3103.1	2957.1	2821.5	2675.5	2539.9	2378.2	2221.7	2070.5	1919.3
60°	3901.1	3729.0	3556.9	3374.3	3202.2	3014.5	2847.6	2670.3	2492.9	2320.8	2143.5
57.5°	4490.4	4271.4	4062.8	3843.7	3614.3	3405.6	3191.8	2978.0	2779.8	2576.4	2383.4
55°	5158.0	4892.0	4631.3	4360.1	4094.1	3833.3	3562.1	3322.2	3077.1	2847.6	2623.3
52.5°	5888.2	5585.7	5262.3	4954.6	4615.6	4292.3	3989.8	3687.3	3400.4	3124.0	2868.5
50°	6670.5	6315.8	5945.5	5570.0	5184.1	4803.4	4438.3	4083.6	3749.9	3426.5	3124.0
47.5°	7484.1	7082.5	6660.0	6232.4	5820.4	5356.2	4918.1	4516.5	4114.9	3749.9	3400.4
45°	8318.5	7864.8	7400.6	6915.6	6430.6	5929.9	5444.9	4954.6	4516.5	4083.6	3687.3
42.5°	9179.1	8668.0	8151.6	7614.4	7077.3	6529.6	5982.0	5444.9	4918.1	4438.3	3989.8
40°	10065.7	9502.4	8913.1	8329.0	7755.3	7129.4	6529.6	5929.9	5356.2	4803.4	4292.3
37.5°	10952.3	10336.9	9700.6	9043.5	8386.3	7755.3	7077.3	6430.6	5820.4	5184.1	4615.6
35°	11844.1	11166.1	10477.7	9763.2	9043.5	8329.0	7614.4	6915.6	6232.4	5570.0	4954.6
32.5°	12741.2	12000.6	11239.1	10477.7	9700.6	8913.1	8151.6	7400.6	6660.0	5945.5	5262.3
30°	13622.6	12819.4	12000.6	11166.1	10336.9	9502.4	8668.0	7864.8	7082.5	6315.8	5585.7
27.5°	14483.1	13622.6	12741.2	11844.1	10952.3	10065.7	9179.1	8318.5	7484.1	6670.5	5888.2
25°	15312.3	14394.4	13450.5	12496.0	11546.8	10602.9	9669.3	8741.0	7864.8	7009.5	6190.6
22.5°	16094.6	15124.6	14128.4	13116.7	12099.7	11103.5	10123.0	9158.2	8224.6	7327.6	6467.1
20°	16845.7	15807.8	14796.0	13690.4	12626.4	11578.1	10550.7	9538.9	8553.2	7619.7	6717.4
17.5°	17528.9	16438.9	15333.2	14222.3	13106.2	12005.8	10931.4	9924.9	8855.7	7885.6	6957.3
15°	18144.3	17007.3	15849.5	14696.9	13533.9	12391.7	11275.6	10190.8	9132.1	8125.6	7165.9
12.5°	18681.5	17502.8	16303.3	15108.9	13914.6	12730.7	11578.1	10456.8	9372.0	8329.0	7343.2
10°	19124.8	17920.0	16684.0	15453.2	14227.5	13012.4	11823.3	10681.1	9570.2	8501.1	7489.3
7.5°	19484.6	18248.6	16991.7	15724.4	14472.7	13231.4	12021.4	10853.2	9726.7	8631.4	7604.0
5°	19740.2	18488.5	17210.7	15917.3	14650.0	13393.1	12162.3	10978.4	9836.2	8725.3	7687.5
2.5°	19901.9	18681.5	17388.1	16079.0	14796.0	13523.5	12277.0	11077.5	9924.9	8803.6	7755.3
0°	19954.0	18681.5	17388.1	16079.0	14796.0	13523.5	12277.0	11077.5	9924.9	8803.6	7755.3





REPORT NUMBER: P624182  
 CATALOG NUMBER: EPH-VN-06-E-730-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°	125.2	114.7	104.3	99.1	88.7	83.4	73.0	62.6	57.4	46.9	36.5
85°	250.3	229.5	213.8	198.2	182.5	161.7	146.0	130.4	109.5	93.9	73.0
82.5°	380.7	354.6	328.6	302.5	276.4	250.3	219.0	193.0	166.9	140.8	109.5
80°	526.8	485.0	448.5	412.0	375.5	339.0	297.3	260.8	219.0	182.5	146.0
77.5°	678.0	631.1	578.9	526.8	474.6	427.7	375.5	328.6	281.6	229.5	182.5
75°	839.7	777.1	719.7	651.9	589.3	521.5	459.0	396.4	339.0	281.6	219.0
72.5°	1006.6	928.3	850.1	777.1	698.9	620.6	547.6	469.4	396.4	328.6	260.8
70°	1178.7	1084.8	990.9	902.3	813.6	719.7	636.3	547.6	459.0	375.5	297.3
67.5°	1361.2	1251.7	1142.2	1027.4	928.3	824.0	719.7	620.6	521.5	427.7	339.0
65°	1559.4	1429.0	1293.4	1173.5	1043.1	928.3	813.6	698.9	589.3	474.6	375.5
62.5°	1762.8	1611.6	1460.3	1309.1	1173.5	1027.4	902.3	777.1	651.9	526.8	412.0
60°	1971.4	1799.3	1627.2	1460.3	1293.4	1142.2	990.9	850.1	719.7	578.9	448.5
57.5°	2185.2	1992.3	1799.3	1611.6	1429.0	1251.7	1084.8	928.3	777.1	631.1	485.0
55°	2404.3	2185.2	1971.4	1762.8	1559.4	1361.2	1178.7	1006.6	839.7	678.0	526.8
52.5°	2623.3	2383.4	2143.5	1919.3	1705.4	1481.2	1272.6	1079.6	897.0	730.2	563.3
50°	2847.6	2576.4	2320.8	2070.5	1825.4	1590.7	1366.4	1157.8	959.6	777.1	599.8
47.5°	3077.1	2779.8	2492.9	2221.7	1961.0	1705.4	1460.3	1230.8	1017.0	824.0	636.3
45°	3322.2	2978.0	2670.3	2378.2	2091.4	1820.2	1554.2	1303.8	1079.6	871.0	672.8
42.5°	3562.1	3191.8	2847.6	2539.9	2221.7	1929.7	1648.1	1382.1	1137.0	912.7	704.1
40°	3833.3	3405.6	3014.5	2675.5	2346.9	2034.0	1736.7	1455.1	1194.3	954.4	735.4
37.5°	4094.1	3614.3	3202.2	2821.5	2466.9	2138.3	1825.4	1528.1	1251.7	996.1	766.7
35°	4360.1	3843.7	3374.3	2957.1	2586.8	2242.6	1908.8	1595.9	1298.6	1032.6	798.0
32.5°	4631.3	4062.8	3556.9	3103.1	2706.8	2336.5	1987.1	1658.5	1350.8	1074.4	824.0
30°	4892.0	4271.4	3729.0	3244.0	2816.3	2430.4	2065.3	1721.1	1402.9	1110.9	850.1
27.5°	5158.0	4490.4	3901.1	3374.3	2920.6	2513.8	2133.1	1778.4	1449.9	1147.4	876.2
25°	5413.6	4699.1	4062.8	3499.5	3014.5	2597.3	2206.1	1835.8	1491.6	1178.7	897.0
22.5°	5648.3	4881.6	4208.8	3619.5	3113.6	2670.3	2268.7	1888.0	1533.3	1210.0	917.9
20°	5862.1	5069.3	4360.1	3739.4	3207.5	2743.3	2320.8	1934.9	1569.8	1236.0	938.8
17.5°	6070.7	5241.5	4495.7	3848.9	3285.7	2805.9	2373.0	1971.4	1601.1	1256.9	954.4
15°	6248.0	5392.7	4615.6	3942.8	3358.7	2858.0	2414.7	2007.9	1627.2	1277.8	964.8
12.5°	6404.5	5523.1	4719.9	4021.1	3416.1	2905.0	2456.4	2039.2	1653.3	1293.4	980.5
10°	6529.6	5627.4	4803.4	4088.9	3468.2	2941.5	2482.5	2065.3	1668.9	1309.1	990.9
7.5°	6628.7	5710.8	4871.2	4135.8	3504.7	2972.8	2508.6	2080.9	1684.6	1319.5	1006.6
5°	6701.8	5773.4	4918.1	4172.3	3536.0	3009.3	2539.9	2107.0	1705.4	1335.1	1006.6
2.5°	6759.1	5820.4	4954.6	4203.6	3556.9	3009.3	2539.9	2107.0	1705.4	1335.1	1006.6
0°	6759.1	5820.4	4954.6	4203.6	3556.9	3009.3	2539.9	2107.0	1705.4	1335.1	1006.6



REPORT NUMBER: P624182  
 CATALOG NUMBER: EPH-VN-06-E-730-U-77

**CANDELA DISTRIBUTION (continued):**

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	26.1	20.9	10.4	0.0
85°	57.4	36.5	20.9	0.0
82.5°	83.4	57.4	26.1	0.0
80°	109.5	73.0	36.5	0.0
77.5°	140.8	93.9	46.9	0.0
75°	166.9	109.5	57.4	0.0
72.5°	193.0	130.4	62.6	0.0
70°	219.0	146.0	73.0	0.0
67.5°	250.3	161.7	83.4	0.0
65°	276.4	182.5	88.7	0.0
62.5°	302.5	198.2	99.1	0.0
60°	328.6	213.8	104.3	0.0
57.5°	354.6	229.5	114.7	0.0
55°	380.7	250.3	125.2	0.0
52.5°	406.8	266.0	130.4	0.0
50°	432.9	281.6	135.6	0.0
47.5°	453.7	297.3	146.0	0.0
45°	479.8	312.9	151.2	0.0
42.5°	505.9	323.4	156.5	0.0
40°	526.8	339.0	161.7	0.0
37.5°	552.8	349.4	172.1	0.0
35°	573.7	365.1	177.3	0.0
32.5°	589.3	375.5	182.5	0.0
30°	610.2	385.9	187.8	0.0
27.5°	625.8	396.4	187.8	0.0
25°	641.5	406.8	193.0	0.0
22.5°	657.1	412.0	198.2	0.0
20°	672.8	422.4	203.4	0.0
17.5°	683.2	427.7	203.4	0.0
15°	693.6	432.9	213.8	0.0
12.5°	698.9	438.1	213.8	0.0
10°	709.3	448.5	213.8	0.0
7.5°	719.7	448.5	213.8	0.0
5°	719.7	448.5	213.8	0.0
2.5°	719.7	448.5	213.8	0.0
0°	719.7	448.5	213.8	0.0

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