

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: P628569

Luminaire Tested: **EPH-VN-04-E-740-U-LAM**

Issue Date: 01/11/2023

Test Information

Test Method: LM-79-2019
Report Number: P628569
Test Lab: INNOVATION CENTER(G2)
Issue Date: 01/11/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: EPHESUS
Catalog Number: EPH-VN-04-E-740-U-LAM
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/
LAMBERTIAN distribution lens
Light Source: (64) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

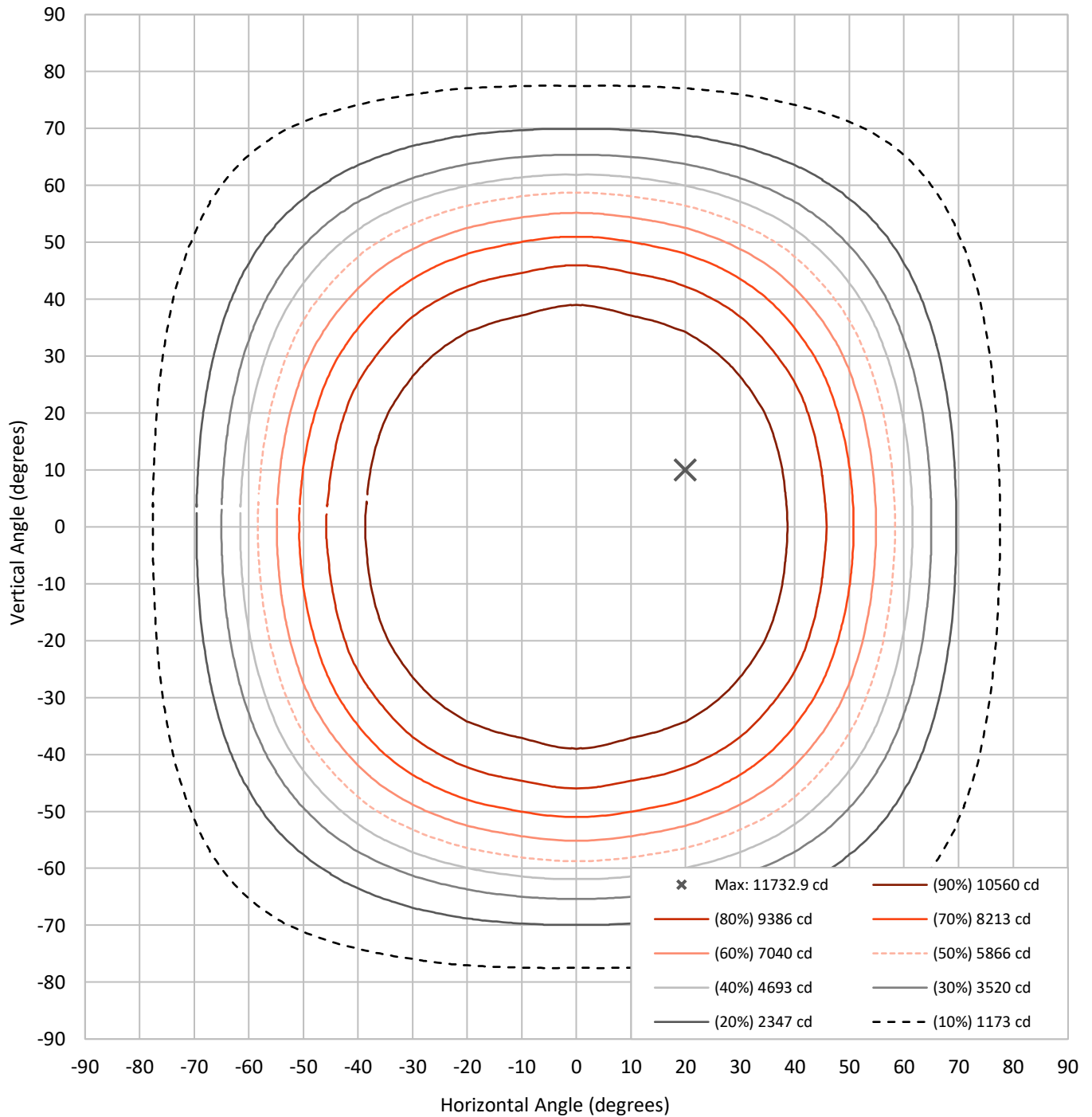
Lumens per Lamp:	N/A	NEMA Type:	7H x 7V
Luminaire Lumens:	35994.9 lumens	Max Intensity:	11732.9 candela
Efficiency:	N/A	Max Intensity Angle:	20°H x 10°V
Efficacy:	118.5 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 0.5' x H: 0')		
Beam Angle (50%):	115.7°H x 112.9°V	Field Angle (10%):	154.7°H x 154°V
Beam Lumens:	22087.2 lumens	Field Lumens:	26478.8 lumens
Beam Efficiency:	61.4%	Field Efficiency:	73.6%

Input Watts (W): 303.8
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



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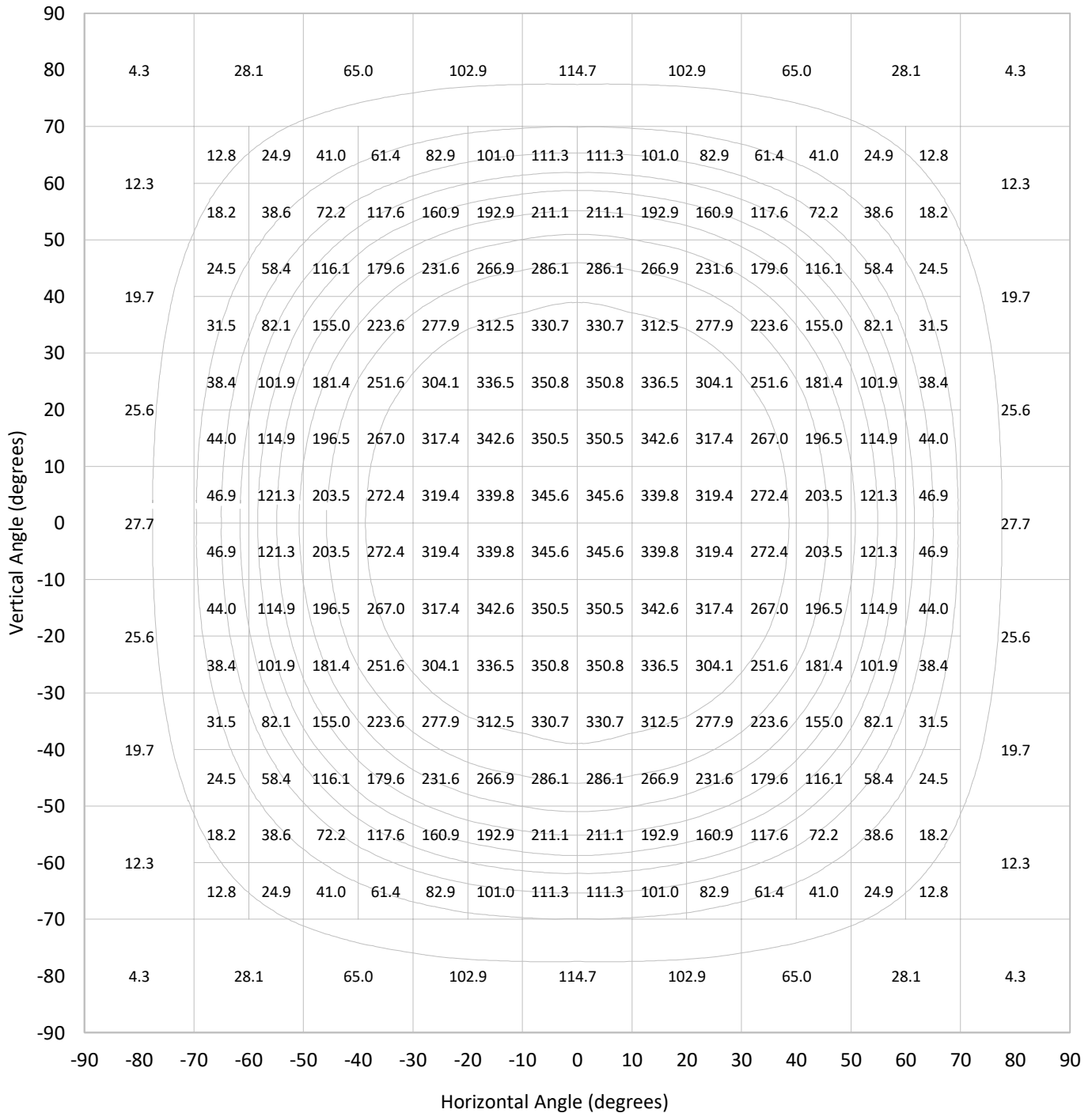
Iso-Candela Plot





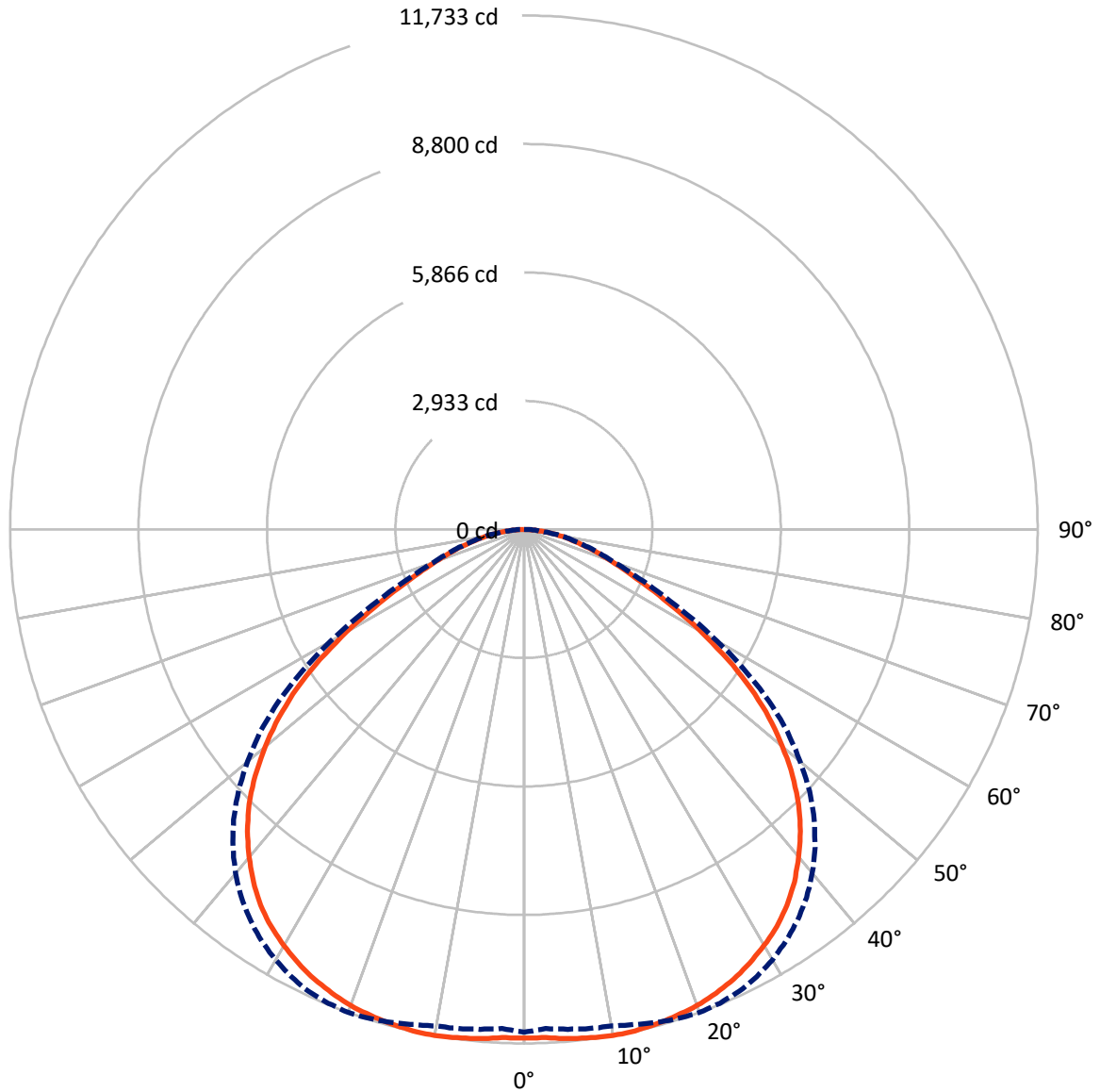
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Lumen Table



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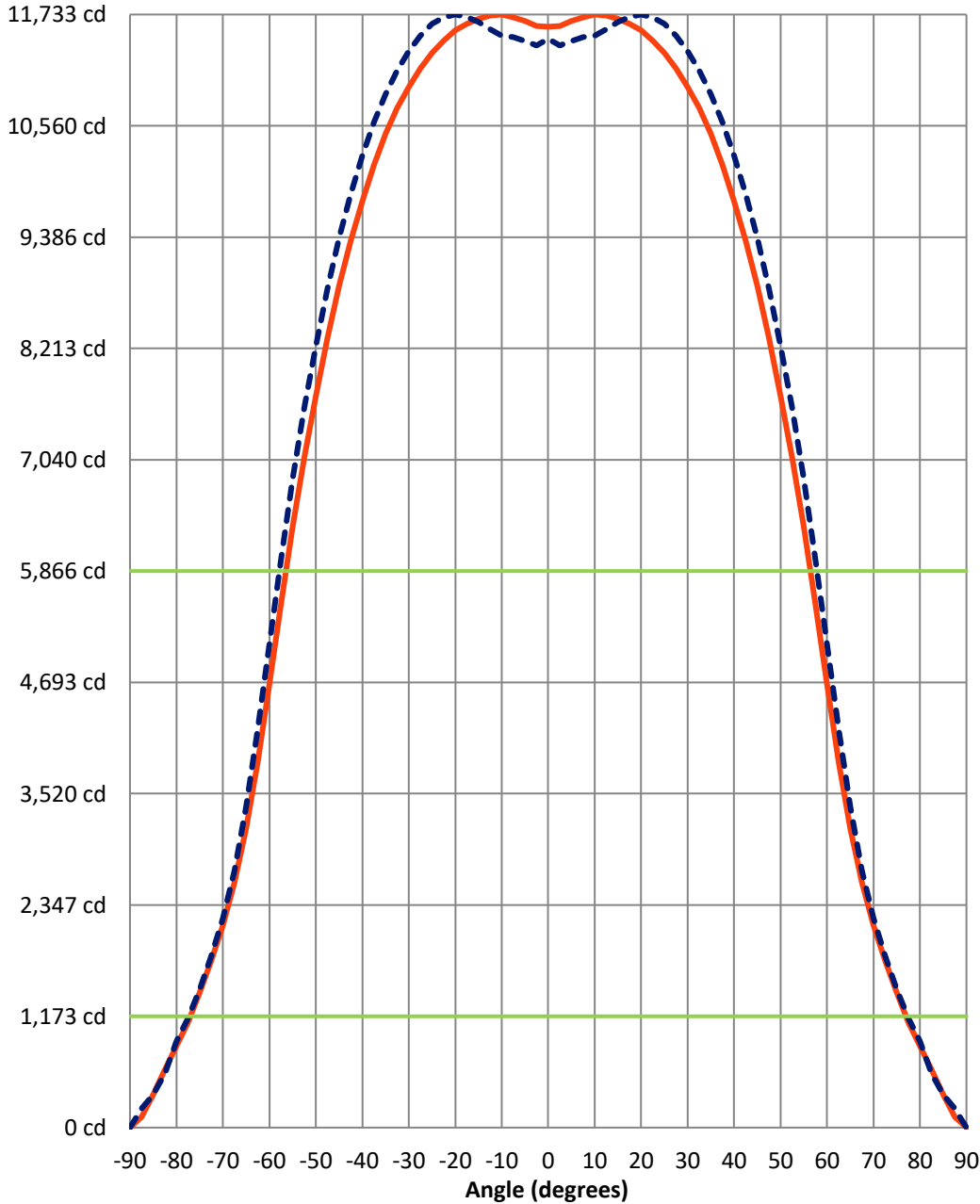
Luminous Intensity Polar Plot



— Vertical Distribution Through 20-Deg - - - Horizontal Distribution Through 10-Deg

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Luminous Intensity Plot



Beam:
 H Angle: 115.7°
 V Angle: 112.9°
 Lumens: 22087.2
 Efficiency: 61.4%

Field:
 H Angle: 154.7°
 V Angle: 154°
 Lumens: 26478.8
 Efficiency: 73.6%

Spill:
 Lumens: 9516.1
 Efficiency: 26.4%

- Vertical Distribution through 20-Deg
- - - Horizontal Distribution through 10-Deg



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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°	94.7	102.3	106.0	109.8	113.6	117.4	121.2	117.4	113.6	113.6	109.8
85°	253.7	261.3	265.1	291.6	318.1	333.3	352.2	348.4	348.4	344.6	340.9
82.5°	507.5	530.2	549.2	575.7	590.8	613.5	628.7	617.3	609.7	594.6	583.2
80°	901.4	908.9	912.7	916.5	897.6	893.8	886.2	874.9	859.7	840.8	821.8
77.5°	1147.5	1155.1	1162.7	1155.1	1151.3	1147.5	1136.2	1124.8	1109.7	1094.5	1071.8
75°	1518.7	1518.7	1518.7	1507.3	1499.8	1488.4	1469.5	1450.5	1424.0	1393.7	1359.6
72.5°	1912.6	1908.8	1905.0	1882.3	1863.3	1840.6	1814.1	1791.4	1761.1	1727.0	1681.5
70°	2325.4	2332.9	2336.7	2306.4	2283.7	2253.4	2219.3	2177.7	2132.2	2083.0	2018.6
67.5°	2893.5	2885.9	2878.3	2836.6	2806.4	2764.7	2715.5	2654.9	2586.7	2510.9	2420.1
65°	3597.9	3609.2	3586.5	3544.9	3488.1	3419.9	3344.1	3257.0	3154.8	3041.2	2912.4
62.5°	4450.0	4469.0	4442.4	4389.4	4317.5	4226.6	4120.5	3995.5	3855.4	3696.4	3537.3
60°	5419.6	5415.8	5366.5	5294.6	5199.9	5086.3	4968.9	4832.5	4673.5	4487.9	4294.7
57.5°	6309.6	6302.0	6241.4	6169.4	6074.7	5953.6	5828.6	5684.7	5518.0	5321.1	5097.6
55°	7108.7	7101.1	7040.5	6964.7	6866.3	6745.1	6631.5	6495.1	6332.3	6124.0	5885.4
52.5°	7816.9	7820.7	7767.6	7684.3	7578.3	7460.9	7351.0	7214.7	7059.4	6851.1	6620.1
50°	8468.3	8464.5	8407.7	8331.9	8233.5	8119.9	8010.0	7873.7	7710.8	7510.1	7286.7
47.5°	9074.2	9066.7	9002.3	8919.0	8816.7	8718.2	8616.0	8494.8	8324.4	8123.6	7900.2
45°	9581.7	9566.6	9502.2	9422.7	9324.2	9237.1	9146.2	9055.3	8873.5	8687.9	8475.9
42.5°	10017.3	10013.5	9949.1	9869.6	9771.1	9695.4	9612.0	9498.4	9346.9	9176.5	8968.2
40°	10433.9	10403.6	10339.2	10263.4	10172.5	10108.2	10024.8	9911.2	9763.5	9596.9	9396.2
37.5°	10744.4	10748.2	10680.0	10596.7	10517.2	10456.6	10380.8	10274.8	10146.0	9983.2	9782.5
35°	11039.8	11020.9	10964.1	10892.1	10820.2	10752.0	10672.5	10581.6	10475.5	10324.0	10134.7
32.5°	11233.0	11259.5	11191.3	11115.6	11073.9	11020.9	10937.6	10842.9	10748.2	10596.7	10426.3
30°	11445.1	11422.3	11369.3	11304.9	11274.6	11240.6	11168.6	11077.7	10967.9	10831.5	10672.5
27.5°	11592.8	11581.4	11517.0	11456.4	11441.3	11411.0	11354.2	11274.6	11164.8	11032.3	10884.5
25°	11657.1	11664.7	11604.1	11570.0	11570.0	11551.1	11505.7	11437.5	11327.7	11206.5	11062.6
22.5°	11687.4	11679.9	11638.2	11630.6	11649.6	11634.4	11615.5	11554.9	11456.4	11358.0	11236.8
20°	11706.4	11653.4	11615.5	11645.8	11668.5	11664.7	11649.6	11611.7	11566.3	11482.9	11376.9
17.5°	11664.7	11630.6	11585.2	11630.6	11679.9	11683.7	11668.5	11645.8	11634.4	11581.4	11486.7
15°	11562.5	11536.0	11543.5	11589.0	11645.8	11664.7	11676.1	11702.6	11687.4	11645.8	11562.5
12.5°	11494.3	11460.2	11494.3	11539.7	11570.0	11581.4	11672.3	11721.5	11721.5	11683.7	11630.6
10°	11475.4	11407.2	11452.6	11494.3	11509.4	11577.6	11653.4	11706.4	11732.9	11702.6	11634.4
7.5°	11437.5	11392.0	11411.0	11429.9	11517.0	11566.3	11607.9	11664.7	11702.6	11698.8	11638.2
5°	11418.6	11361.7	11369.3	11448.8	11509.4	11543.5	11558.7	11607.9	11664.7	11676.1	11630.6
2.5°	11369.3	11342.8	11399.6	11407.2	11452.6	11479.1	11494.3	11539.7	11611.7	11638.2	11619.3
0°	11342.8	11304.9	11267.1	11297.4	11373.1	11429.9	11452.6	11520.8	11604.1	11630.6	11589.0



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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°	106.0	102.3	98.5	94.7	98.5	98.5	98.5	94.7	98.5	94.7	94.7
85°	329.5	314.3	303.0	287.8	272.7	261.3	246.2	231.0	227.2	223.4	215.9
82.5°	568.1	549.2	530.2	507.5	484.8	458.3	431.7	401.4	393.9	386.3	374.9
80°	799.1	772.6	746.1	719.6	696.9	670.3	640.0	606.0	583.2	564.3	541.6
77.5°	1041.5	1003.6	965.7	920.3	893.8	867.3	837.0	802.9	768.8	738.5	704.4
75°	1318.0	1276.3	1238.4	1193.0	1143.7	1094.5	1045.3	999.8	950.6	905.2	859.7
72.5°	1624.7	1564.1	1503.5	1446.7	1386.1	1325.5	1261.2	1200.6	1140.0	1079.4	1015.0
70°	1946.6	1870.9	1795.2	1719.4	1639.9	1560.3	1484.6	1408.9	1333.1	1253.6	1181.6
67.5°	2325.4	2238.3	2139.8	2033.8	1916.3	1814.1	1715.6	1624.7	1533.8	1442.9	1352.0
65°	2798.8	2677.6	2545.0	2401.1	2264.8	2128.4	1984.5	1848.2	1742.1	1636.1	1533.8
62.5°	3382.0	3211.6	3026.0	2840.4	2673.8	2495.8	2329.2	2151.2	1984.5	1833.0	1708.0
60°	4078.9	3847.8	3620.6	3382.0	3151.0	2908.6	2696.5	2476.9	2268.6	2083.0	1901.2
57.5°	4847.7	4578.8	4306.1	4014.5	3700.1	3416.1	3128.3	2840.4	2594.3	2348.1	2143.6
55°	5627.8	5343.8	5037.0	4707.5	4362.9	3999.3	3609.2	3287.3	2950.3	2662.4	2397.3
52.5°	6370.2	6074.7	5756.6	5453.6	5040.8	4624.2	4196.3	3772.1	3378.2	3010.9	2688.9
50°	7032.9	6745.1	6438.3	6086.1	5703.6	5260.5	4783.3	4306.1	3840.3	3408.5	3007.1
47.5°	7638.9	7358.6	7051.9	6699.6	6351.2	5858.9	5377.9	4851.5	4332.6	3836.5	3366.9
45°	8207.0	7922.9	7604.8	7267.7	6866.3	6427.0	5930.8	5400.6	4843.9	4287.2	3745.6
42.5°	8722.0	8438.0	8116.1	7767.6	7370.0	6934.5	6453.5	5919.5	5359.0	4753.0	4158.4
40°	9172.7	8896.2	8585.7	8222.1	7851.0	7392.7	6919.3	6411.8	5832.4	5222.6	4567.4
37.5°	9566.6	9309.1	9002.3	8642.5	8248.6	7839.6	7351.0	6843.6	6320.9	5658.1	4987.8
35°	9915.0	9676.4	9362.1	9021.2	8634.9	8203.2	7744.9	7248.8	6684.5	6063.4	5412.0
32.5°	10218.0	9975.6	9687.8	9346.9	8972.0	8566.8	8097.1	7597.2	7063.2	6430.7	5722.5
30°	10475.5	10240.7	9968.0	9646.1	9286.3	8884.9	8426.6	7922.9	7377.6	6748.9	6048.2
27.5°	10699.0	10475.5	10210.4	9911.2	9566.6	9180.3	8718.2	8210.8	7654.0	7048.1	6347.4
25°	10892.1	10676.3	10430.1	10146.0	9805.2	9426.5	8990.9	8460.7	7904.0	7294.2	6601.2
22.5°	11066.3	10858.0	10611.9	10335.4	10024.8	9646.1	9206.8	8680.4	8116.1	7513.9	6832.2
20°	11221.6	11028.5	10786.1	10502.0	10191.5	9809.0	9373.4	8873.5	8305.4	7714.6	7040.5
17.5°	11346.6	11176.2	10933.8	10634.6	10324.0	9952.9	9528.7	9070.5	8468.3	7885.0	7214.7
15°	11433.7	11267.1	11047.4	10744.4	10441.4	10074.1	9649.9	9176.5	8616.0	8021.4	7358.6
12.5°	11494.3	11316.3	11111.8	10831.5	10528.5	10165.0	9752.2	9286.3	8741.0	8142.6	7483.6
10°	11509.4	11346.6	11142.1	10892.1	10596.7	10244.5	9839.3	9377.2	8843.2	8237.3	7585.9
7.5°	11517.0	11361.7	11176.2	10937.6	10646.0	10305.1	9903.7	9449.2	8919.0	8316.8	7661.6
5°	11513.2	11365.5	11198.9	10967.9	10676.3	10339.2	9945.3	9498.4	8972.0	8369.8	7718.4
2.5°	11501.9	11369.3	11214.0	10990.6	10710.3	10377.1	9987.0	9555.2	9028.8	8415.3	7763.9
0°	11532.2	11418.6	11221.6	10983.0	10717.9	10377.1	9983.2	9562.8	9036.4	8411.5	7760.1



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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°	94.7	90.9	90.9	87.1	83.3	79.5	72.0	68.2	60.6	49.2	37.9
85°	204.5	193.1	181.8	174.2	166.6	159.1	147.7	136.3	121.2	98.5	75.7
82.5°	359.8	337.1	314.3	287.8	265.1	242.4	223.4	204.5	181.8	147.7	113.6
80°	515.1	481.0	446.9	409.0	374.9	337.1	303.0	272.7	242.4	196.9	151.5
77.5°	670.3	624.9	575.7	530.2	481.0	431.7	382.5	340.9	295.4	242.4	189.4
75°	814.3	761.2	715.8	651.4	590.8	526.4	462.0	405.2	348.4	284.0	227.2
72.5°	958.2	890.0	825.6	765.0	696.9	617.3	545.4	473.4	401.4	325.7	257.5
70°	1102.1	1018.8	939.2	867.3	791.5	712.0	624.9	541.6	454.5	363.6	284.0
67.5°	1249.8	1155.1	1064.2	973.3	886.2	795.3	704.4	609.7	507.5	401.4	314.3
65°	1412.6	1295.2	1185.4	1083.2	980.9	882.4	780.2	677.9	564.3	443.1	340.9
62.5°	1575.5	1446.7	1318.0	1189.2	1075.6	965.7	855.9	742.3	617.3	488.6	367.4
60°	1749.7	1602.0	1454.3	1310.4	1170.3	1049.1	927.9	806.7	674.1	530.2	393.9
57.5°	1942.9	1764.9	1598.2	1435.4	1276.3	1132.4	999.8	871.1	723.4	571.9	424.2
55°	2162.5	1942.9	1745.9	1564.1	1389.9	1215.7	1071.8	939.2	780.2	613.5	458.3
52.5°	2393.5	2139.8	1901.2	1696.7	1511.1	1314.2	1140.0	992.3	837.0	655.2	488.6
50°	2662.4	2340.5	2075.4	1825.5	1617.2	1412.6	1211.9	1052.9	893.8	704.4	518.9
47.5°	2938.9	2582.9	2249.6	1976.9	1730.8	1507.3	1295.2	1105.9	946.8	749.9	549.2
45°	3260.8	2813.9	2446.6	2124.6	1840.6	1605.8	1378.6	1162.7	992.3	795.3	579.4
42.5°	3571.4	3086.6	2651.1	2287.5	1965.6	1700.5	1454.3	1223.3	1037.7	840.8	606.0
40°	3938.7	3359.3	2848.0	2442.8	2090.6	1791.4	1530.0	1287.7	1079.4	882.4	632.5
37.5°	4291.0	3635.8	3086.6	2613.2	2211.8	1882.3	1605.8	1348.3	1117.2	924.1	666.6
35°	4639.4	3942.5	3313.8	2772.3	2336.7	1984.5	1681.5	1405.1	1155.1	958.2	696.9
32.5°	4972.7	4230.4	3544.9	2950.3	2473.1	2079.2	1749.7	1458.1	1193.0	988.5	727.2
30°	5283.2	4503.0	3772.1	3132.1	2598.1	2166.3	1814.1	1511.1	1238.4	1015.0	757.4
27.5°	5567.3	4768.1	3999.3	3302.5	2715.5	2245.8	1882.3	1560.3	1276.3	1041.5	784.0
25°	5824.8	5006.7	4207.6	3457.8	2821.5	2332.9	1946.6	1609.6	1310.4	1064.2	806.7
22.5°	6067.2	5226.4	4397.0	3613.0	2950.3	2420.1	2007.2	1655.0	1344.5	1086.9	829.4
20°	6279.3	5427.1	4578.8	3768.3	3063.9	2499.6	2060.3	1696.7	1374.8	1102.1	852.1
17.5°	6449.7	5605.1	4741.6	3904.7	3162.4	2567.8	2105.7	1734.6	1401.3	1121.0	867.3
15°	6601.2	5756.6	4878.0	4022.1	3249.5	2624.6	2147.4	1764.9	1424.0	1132.4	886.2
12.5°	6729.9	5885.4	4995.4	4124.3	3325.2	2673.8	2181.5	1787.6	1442.9	1143.7	897.6
10°	6836.0	5987.6	5093.8	4203.8	3385.8	2711.7	2208.0	1810.3	1458.1	1155.1	908.9
7.5°	6915.5	6063.4	5165.8	4272.0	3435.0	2738.2	2230.7	1825.5	1473.2	1162.7	927.9
5°	6976.1	6127.8	5222.6	4317.5	3472.9	2776.1	2257.2	1844.4	1488.4	1170.3	927.9
2.5°	7021.6	6180.8	5268.1	4355.3	3503.2	2768.5	2257.2	1840.6	1488.4	1170.3	924.1
0°	7014.0	6184.6	5264.3	4355.3	3503.2	2760.9	2257.2	1836.8	1488.4	1170.3	924.1



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 CATALOG NUMBER: EPH-VN-04-E-740-U-LAM

CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	26.5	18.9	7.6	0.0
85°	56.8	37.9	18.9	0.0
82.5°	83.3	53.0	26.5	0.0
80°	109.8	72.0	34.1	0.0
77.5°	140.1	90.9	45.4	0.0
75°	166.6	106.0	53.0	0.0
72.5°	193.1	125.0	60.6	0.0
70°	215.9	140.1	68.2	0.0
67.5°	238.6	159.1	79.5	0.0
65°	257.5	174.2	87.1	0.0
62.5°	272.7	193.1	94.7	0.0
60°	291.6	208.3	102.3	0.0
57.5°	306.8	219.7	109.8	0.0
55°	321.9	227.2	117.4	0.0
52.5°	337.1	238.6	125.0	0.0
50°	352.2	250.0	132.6	0.0
47.5°	367.4	257.5	136.3	0.0
45°	390.1	268.9	143.9	0.0
42.5°	409.0	276.5	151.5	0.0
40°	428.0	284.0	155.3	0.0
37.5°	446.9	291.6	162.9	0.0
35°	465.8	299.2	166.6	0.0
32.5°	481.0	306.8	170.4	0.0
30°	496.1	314.3	174.2	0.0
27.5°	511.3	318.1	178.0	0.0
25°	522.6	325.7	181.8	0.0
22.5°	534.0	329.5	185.6	0.0
20°	541.6	333.3	189.4	0.0
17.5°	552.9	337.1	193.1	0.0
15°	556.7	340.9	200.7	0.0
12.5°	564.3	344.6	200.7	0.0
10°	568.1	348.4	200.7	0.0
7.5°	575.7	348.4	200.7	0.0
5°	571.9	348.4	200.7	0.0
2.5°	571.9	348.4	200.7	0.0
0°	568.1	348.4	200.7	0.0

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