

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: P628573

Luminaire Tested: **EPH-VN-08-E-740-U-LAM**

Issue Date: 01/11/2023

Test Information

Test Method: LM-79-2019
Report Number: P628573
Test Lab: INNOVATION CENTER(G2)
Issue Date: 01/11/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: EPHESUS
Catalog Number: EPH-VN-08-E-740-U-LAM
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/
LAMBERTIAN distribution lens
Light Source: (128) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

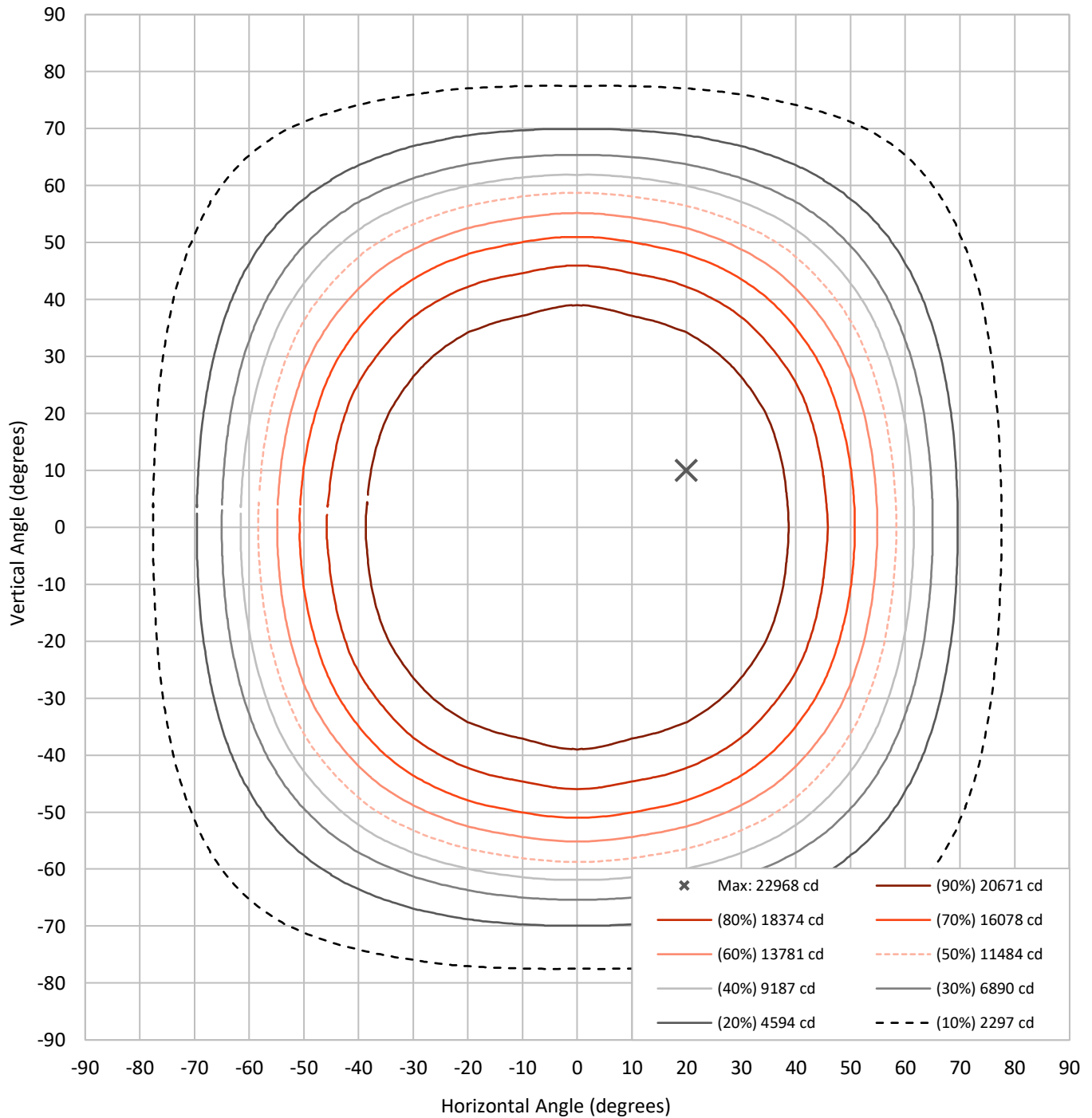
Summary

Lumens per Lamp:	N/A	NEMA Type:	7H x 7V
Luminaire Lumens:	70462.8 lumens	Max Intensity:	22968 candela
Efficiency:	N/A	Max Intensity Angle:	20°H x 10°V
Efficacy:	112.4 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 1' x H: 0')		
Beam Angle (50%):	115.7°H x 112.9°V	Field Angle (10%):	154.7°H x 154°V
Beam Lumens:	43237.4 lumens	Field Lumens:	51834.3 lumens
Beam Efficiency:	61.4%	Field Efficiency:	73.6%
Input Watts (W):	626.8		
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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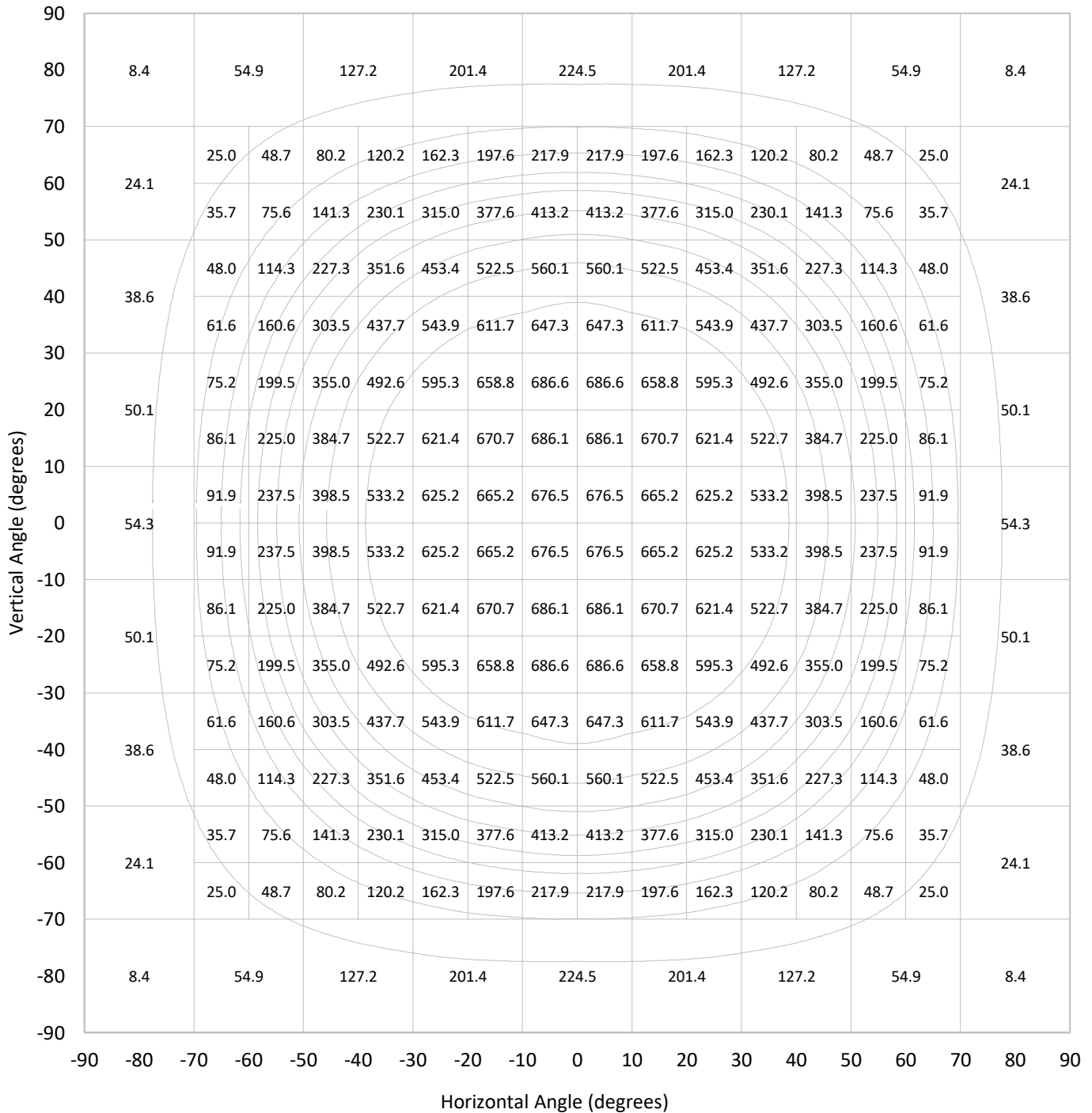
Iso-Candela Plot





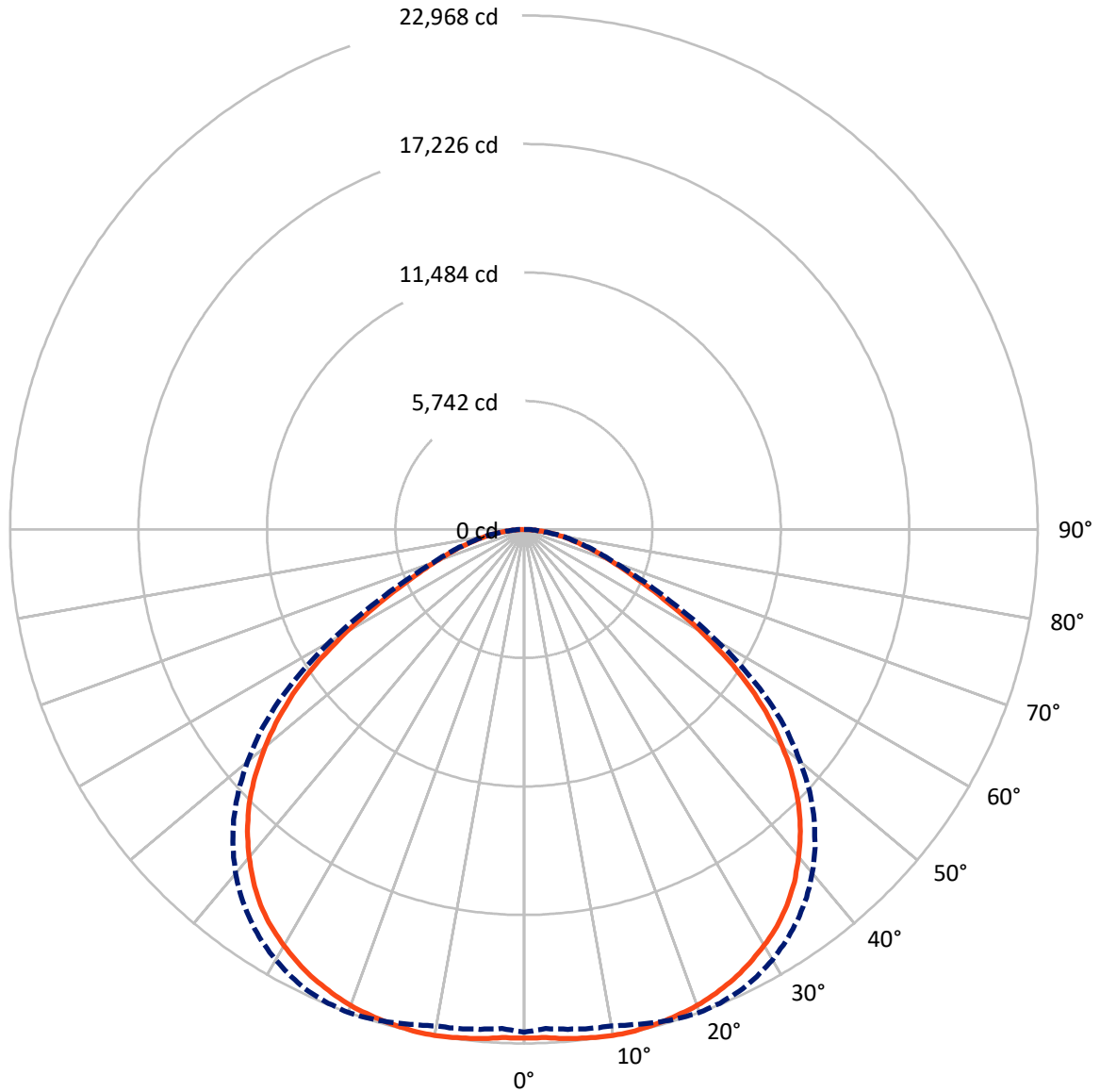
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Lumen Table



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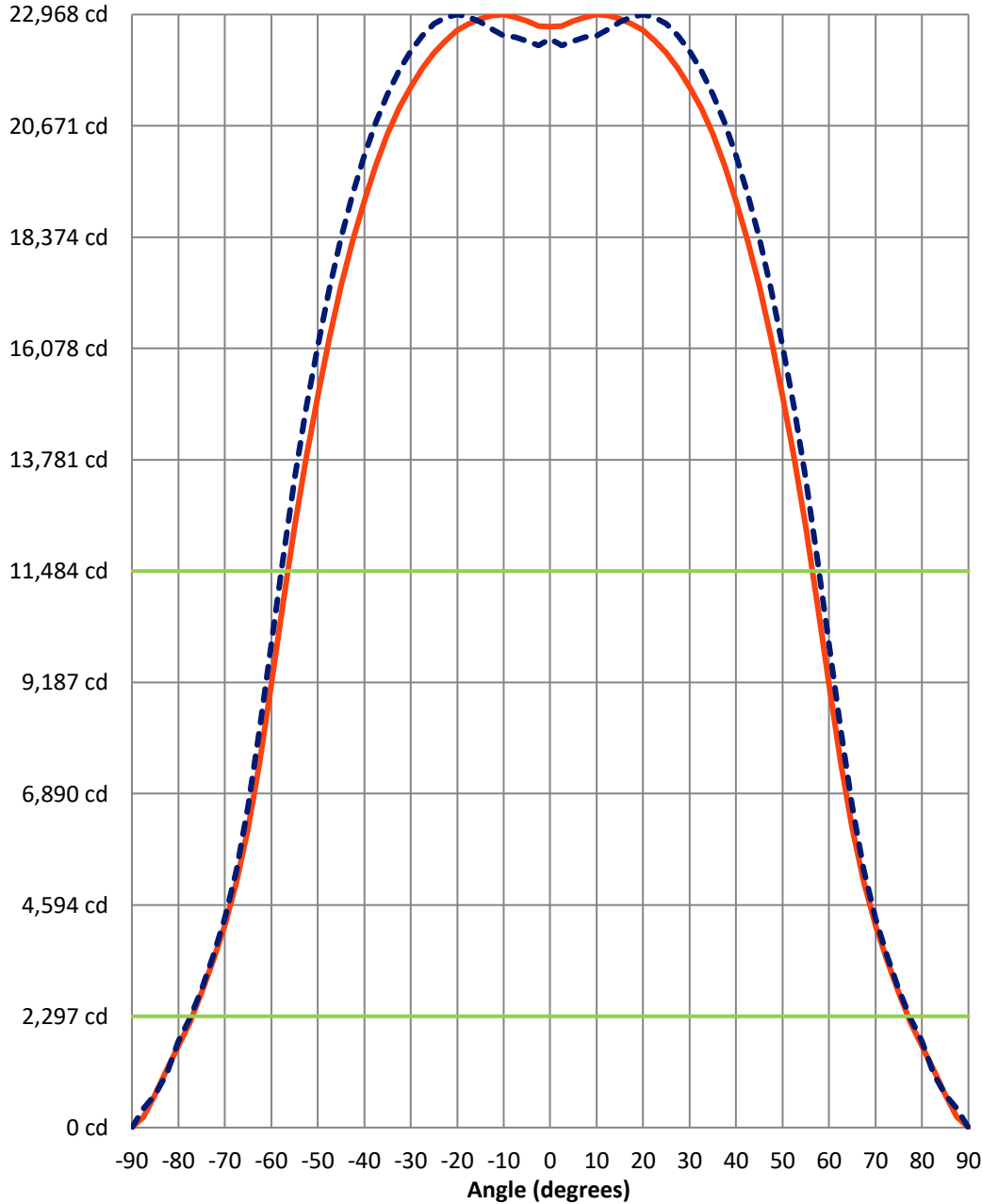
Luminous Intensity Polar Plot



— 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: 43237.4
Efficiency: 61.4%

Field:
H Angle: 154.7°
V Angle: 154°
Lumens: 51834.3
Efficiency: 73.6%

Spill:
Lumens: 18628.5
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°	185.3	200.2	207.6	215.0	222.4	229.8	237.2	229.8	222.4	222.4	215.0
85°	496.7	511.6	519.0	570.9	622.8	652.4	689.5	682.1	682.1	674.7	667.2
82.5°	993.5	1037.9	1075.0	1126.9	1156.6	1201.0	1230.7	1208.5	1193.6	1164.0	1141.7
80°	1764.5	1779.3	1786.7	1794.1	1757.1	1749.7	1734.8	1712.6	1682.9	1645.9	1608.8
77.5°	2246.4	2261.2	2276.0	2261.2	2253.8	2246.4	2224.1	2201.9	2172.3	2142.6	2098.1
75°	2972.9	2972.9	2972.9	2950.7	2935.9	2913.6	2876.6	2839.5	2787.6	2728.3	2661.6
72.5°	3744.0	3736.6	3729.2	3684.7	3647.6	3603.1	3551.2	3506.7	3447.4	3380.7	3291.7
70°	4552.1	4566.9	4574.3	4515.0	4470.5	4411.2	4344.5	4263.0	4174.0	4077.6	3951.6
67.5°	5664.2	5649.3	5634.5	5553.0	5493.6	5412.1	5315.7	5197.1	5063.6	4915.4	4737.4
65°	7043.1	7065.4	7020.9	6939.3	6828.1	6694.7	6546.4	6375.9	6175.7	5953.3	5701.2
62.5°	8711.3	8748.3	8696.4	8592.6	8451.8	8273.8	8066.2	7821.6	7547.3	7235.9	6924.5
60°	10609.2	10601.8	10505.4	10364.5	10179.2	9956.8	9726.9	9460.0	9148.7	8785.4	8407.3
57.5°	12351.4	12336.6	12218.0	12077.1	11891.8	11654.5	11409.9	11128.2	10802.0	10416.4	9979.0
55°	13915.8	13900.9	13782.3	13634.0	13441.3	13204.0	12981.6	12714.7	12395.9	11988.2	11521.1
52.5°	15302.1	15309.6	15205.8	15042.7	14835.1	14605.2	14390.2	14123.3	13819.4	13411.6	12959.4
50°	16577.3	16569.9	16458.7	16310.4	16117.7	15895.3	15680.3	15413.4	15094.6	14701.6	14264.2
47.5°	17763.5	17748.7	17622.7	17459.6	17259.4	17066.6	16866.5	16629.2	16295.6	15902.7	15465.3
45°	18757.0	18727.3	18601.3	18445.6	18252.9	18082.3	17904.4	17726.5	17370.6	17007.3	16592.2
42.5°	19609.6	19602.2	19476.1	19320.4	19127.7	18979.4	18816.3	18593.9	18297.3	17963.7	17556.0
40°	20425.1	20365.8	20239.8	20091.5	19913.5	19787.5	19624.4	19402.0	19112.9	18786.6	18393.7
37.5°	21033.0	21040.5	20907.0	20743.9	20588.2	20469.6	20321.3	20113.7	19861.7	19542.9	19149.9
35°	21611.3	21574.2	21463.0	21322.2	21181.3	21047.9	20892.2	20714.2	20506.7	20210.1	19839.4
32.5°	21989.4	22041.3	21907.9	21759.6	21678.0	21574.2	21411.1	21225.8	21040.5	20743.9	20410.3
30°	22404.6	22360.1	22256.3	22130.3	22071.0	22004.2	21863.4	21685.5	21470.5	21203.6	20892.2
27.5°	22693.7	22671.5	22545.5	22426.8	22397.2	22337.9	22226.7	22071.0	21856.0	21596.5	21307.3
25°	22819.8	22834.6	22716.0	22649.3	22649.3	22612.2	22523.2	22389.8	22174.8	21937.5	21655.8
22.5°	22879.1	22864.3	22782.7	22767.9	22804.9	22775.3	22738.2	22619.6	22426.8	22234.1	21996.8
20°	22916.1	22812.4	22738.2	22797.5	22842.0	22834.6	22804.9	22730.8	22641.8	22478.7	22271.1
17.5°	22834.6	22767.9	22678.9	22767.9	22864.3	22871.7	22842.0	22797.5	22775.3	22671.5	22486.1
15°	22634.4	22582.5	22597.4	22686.3	22797.5	22834.6	22856.8	22908.7	22879.1	22797.5	22634.4
12.5°	22501.0	22434.3	22501.0	22589.9	22649.3	22671.5	22849.4	22945.8	22945.8	22871.7	22767.9
10°	22463.9	22330.5	22419.4	22501.0	22530.6	22664.1	22812.4	22916.1	22968.0	22908.7	22775.3
7.5°	22389.8	22300.8	22337.9	22374.9	22545.5	22641.8	22723.4	22834.6	22908.7	22901.3	22782.7
5°	22352.7	22241.5	22256.3	22412.0	22530.6	22597.4	22627.0	22723.4	22834.6	22856.8	22767.9
2.5°	22256.3	22204.4	22315.6	22330.5	22419.4	22471.3	22501.0	22589.9	22730.8	22782.7	22745.6
0°	22204.4	22130.3	22056.1	22115.5	22263.7	22374.9	22419.4	22552.9	22716.0	22767.9	22686.3



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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°	207.6	200.2	192.8	185.3	192.8	192.8	192.8	185.3	192.8	185.3	185.3
85°	645.0	615.3	593.1	563.5	533.8	511.6	481.9	452.2	444.8	437.4	422.6
82.5°	1112.1	1075.0	1037.9	993.5	949.0	897.1	845.2	785.9	771.0	756.2	734.0
80°	1564.3	1512.4	1460.5	1408.6	1364.1	1312.2	1252.9	1186.2	1141.7	1104.7	1060.2
77.5°	2038.8	1964.7	1890.5	1801.6	1749.7	1697.8	1638.5	1571.7	1505.0	1445.7	1379.0
75°	2580.0	2498.5	2424.3	2335.4	2239.0	2142.6	2046.2	1957.3	1860.9	1771.9	1682.9
72.5°	3180.5	3061.9	2943.3	2832.1	2713.5	2594.8	2468.8	2350.2	2231.6	2112.9	1986.9
70°	3810.7	3662.4	3514.2	3365.9	3210.2	3054.5	2906.2	2757.9	2609.7	2454.0	2313.1
67.5°	4552.1	4381.6	4188.8	3981.2	3751.4	3551.2	3358.5	3180.5	3002.6	2824.7	2646.7
65°	5478.8	5241.6	4982.1	4700.4	4433.5	4166.6	3884.8	3617.9	3410.4	3202.8	3002.6
62.5°	6620.6	6286.9	5923.7	5560.4	5234.2	4885.7	4559.5	4211.1	3884.8	3588.3	3343.6
60°	7984.7	7532.5	7087.6	6620.6	6168.3	5693.8	5278.6	4848.6	4440.9	4077.6	3721.7
57.5°	9489.7	8963.3	8429.5	7858.7	7243.3	6687.3	6123.8	5560.4	5078.5	4596.6	4196.2
55°	11017.0	10460.9	9860.4	9215.4	8540.7	7829.0	7065.4	6435.2	5775.4	5211.9	4693.0
52.5°	12470.1	11891.8	11269.0	10675.9	9867.8	9052.3	8214.5	7384.2	6613.1	5894.0	5263.8
50°	13767.5	13204.0	12603.5	11914.0	11165.2	10297.8	9363.7	8429.5	7517.6	6672.4	5886.6
47.5°	14953.7	14405.1	13804.6	13115.1	12433.0	11469.2	10527.6	9497.1	8481.4	7510.2	6590.9
45°	16065.8	15509.7	14887.0	14227.1	13441.3	12581.3	11610.1	10572.1	9482.3	8392.5	7332.3
42.5°	17074.1	16518.0	15887.8	15205.8	14427.3	13574.7	12633.2	11587.8	10490.6	9304.4	8140.4
40°	17956.3	17415.1	16807.2	16095.4	15368.9	14471.8	13545.1	12551.6	11417.3	10223.7	8941.1
37.5°	18727.3	18223.2	17622.7	16918.4	16147.3	15346.6	14390.2	13396.8	12373.7	11076.3	9764.0
35°	19409.4	18942.3	18327.0	17659.7	16903.5	16058.4	15161.3	14190.1	13085.4	11869.5	10594.4
32.5°	20002.5	19528.0	18964.6	18297.3	17563.4	16770.1	15850.8	14872.1	13826.8	12588.7	11202.3
30°	20506.7	20047.0	19513.2	18883.0	18178.7	17392.8	16495.8	15509.7	14442.1	13211.4	11839.9
27.5°	20944.1	20506.7	19987.7	19402.0	18727.3	17971.1	17066.6	16073.2	14983.4	13797.1	12425.6
25°	21322.2	20899.6	20417.7	19861.7	19194.4	18453.0	17600.4	16562.5	15472.7	14279.0	12922.3
22.5°	21663.2	21255.5	20773.6	20232.3	19624.4	18883.0	18023.0	16992.5	15887.8	14709.0	13374.6
20°	21967.2	21589.1	21114.6	20558.6	19950.6	19201.8	18349.2	17370.6	16258.5	15102.0	13782.3
17.5°	22211.8	21878.2	21403.7	20818.0	20210.1	19483.5	18653.2	17756.1	16577.3	15435.6	14123.3
15°	22382.4	22056.1	21626.1	21033.0	20439.9	19720.8	18890.4	17963.7	16866.5	15702.5	14405.1
12.5°	22501.0	22152.5	21752.2	21203.6	20610.4	19898.7	19090.6	18178.7	17111.1	15939.7	14649.7
10°	22530.6	22211.8	21811.5	21322.2	20743.9	20054.4	19261.1	18356.6	17311.3	16125.1	14849.9
7.5°	22545.5	22241.5	21878.2	21411.1	20840.3	20173.0	19387.2	18497.5	17459.6	16280.8	14998.2
5°	22538.0	22248.9	21922.7	21470.5	20899.6	20239.8	19468.7	18593.9	17563.4	16384.6	15109.4
2.5°	22515.8	22256.3	21952.4	21514.9	20966.3	20313.9	19550.3	18705.1	17674.6	16473.5	15198.4
0°	22575.1	22352.7	21967.2	21500.1	20981.1	20313.9	19542.9	18719.9	17689.4	16466.1	15190.9



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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°	185.3	177.9	177.9	170.5	163.1	155.7	140.9	133.4	118.6	96.4	74.1
85°	400.3	378.1	355.9	341.0	326.2	311.4	289.1	266.9	237.2	192.8	148.3
82.5°	704.3	659.8	615.3	563.5	519.0	474.5	437.4	400.3	355.9	289.1	222.4
80°	1008.3	941.6	874.8	800.7	734.0	659.8	593.1	533.8	474.5	385.5	296.6
77.5°	1312.2	1223.3	1126.9	1037.9	941.6	845.2	748.8	667.2	578.3	474.5	370.7
75°	1594.0	1490.2	1401.2	1275.2	1156.6	1030.5	904.5	793.3	682.1	556.0	444.8
72.5°	1875.7	1742.3	1616.2	1497.6	1364.1	1208.5	1067.6	926.7	785.9	637.6	504.1
70°	2157.4	1994.3	1838.6	1697.8	1549.5	1393.8	1223.3	1060.2	889.7	711.7	556.0
67.5°	2446.6	2261.2	2083.3	1905.4	1734.8	1556.9	1379.0	1193.6	993.5	785.9	615.3
65°	2765.4	2535.5	2320.5	2120.4	1920.2	1727.4	1527.2	1327.1	1104.7	867.4	667.2
62.5°	3084.2	2832.1	2580.0	2327.9	2105.5	1890.5	1675.5	1453.1	1208.5	956.4	719.1
60°	3425.2	3136.1	2846.9	2565.2	2290.9	2053.6	1816.4	1579.1	1319.7	1037.9	771.0
57.5°	3803.3	3454.8	3128.6	2809.8	2498.5	2216.7	1957.3	1705.2	1416.0	1119.5	830.3
55°	4233.3	3803.3	3417.8	3061.9	2720.9	2379.8	2098.1	1838.6	1527.2	1201.0	897.1
52.5°	4685.5	4188.8	3721.7	3321.4	2958.1	2572.6	2231.6	1942.4	1638.5	1282.6	956.4
50°	5211.9	4581.7	4062.8	3573.5	3165.7	2765.4	2372.4	2061.0	1749.7	1379.0	1015.7
47.5°	5753.1	5056.2	4403.8	3870.0	3388.1	2950.7	2535.5	2164.8	1853.5	1467.9	1075.0
45°	6383.3	5508.5	4789.3	4159.2	3603.1	3143.5	2698.6	2276.0	1942.4	1556.9	1134.3
42.5°	6991.2	6042.3	5189.7	4478.0	3847.8	3328.8	2846.9	2394.7	2031.4	1645.9	1186.2
40°	7710.4	6576.1	5575.2	4781.9	4092.4	3506.7	2995.2	2520.7	2112.9	1727.4	1238.1
37.5°	8399.9	7117.3	6042.3	5115.5	4329.7	3684.7	3143.5	2639.3	2187.1	1809.0	1304.8
35°	9081.9	7717.8	6487.1	5426.9	4574.3	3884.8	3291.7	2750.5	2261.2	1875.7	1364.1
32.5°	9734.4	8281.2	6939.3	5775.4	4841.2	4070.2	3425.2	2854.3	2335.4	1935.0	1423.5
30°	10342.3	8815.0	7384.2	6131.2	5085.9	4240.7	3551.2	2958.1	2424.3	1986.9	1482.8
27.5°	10898.3	9334.0	7829.0	6464.9	5315.7	4396.4	3684.7	3054.5	2498.5	2038.8	1534.7
25°	11402.5	9801.1	8236.8	6768.8	5523.3	4566.9	3810.7	3150.9	2565.2	2083.3	1579.1
22.5°	11877.0	10231.1	8607.5	7072.8	5775.4	4737.4	3929.3	3239.8	2631.9	2127.8	1623.6
20°	12292.1	10624.0	8963.3	7376.8	5997.8	4893.1	4033.1	3321.4	2691.2	2157.4	1668.1
17.5°	12625.8	10972.5	9282.1	7643.7	6190.5	5026.6	4122.1	3395.5	2743.1	2194.5	1697.8
15°	12922.3	11269.0	9549.0	7873.5	6361.1	5137.8	4203.6	3454.8	2787.6	2216.7	1734.8
12.5°	13174.4	11521.1	9778.8	8073.7	6509.3	5234.2	4270.4	3499.3	2824.7	2239.0	1757.1
10°	13382.0	11721.3	9971.6	8229.4	6628.0	5308.3	4322.3	3543.8	2854.3	2261.2	1779.3
7.5°	13537.7	11869.5	10112.5	8362.8	6724.3	5360.2	4366.7	3573.5	2884.0	2276.0	1816.4
5°	13656.3	11995.6	10223.7	8451.8	6798.5	5434.3	4418.6	3610.5	2913.6	2290.9	1816.4
2.5°	13745.2	12099.4	10312.6	8525.9	6857.8	5419.5	4418.6	3603.1	2913.6	2290.9	1809.0
0°	13730.4	12106.8	10305.2	8525.9	6857.8	5404.7	4418.6	3595.7	2913.6	2290.9	1809.0



REPORT NUMBER: P628573
 CATALOG NUMBER: EPH-VN-08-E-740-U-LAM

CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	51.9	37.1	14.8	0.0
85°	111.2	74.1	37.1	0.0
82.5°	163.1	103.8	51.9	0.0
80°	215.0	140.9	66.7	0.0
77.5°	274.3	177.9	89.0	0.0
75°	326.2	207.6	103.8	0.0
72.5°	378.1	244.7	118.6	0.0
70°	422.6	274.3	133.4	0.0
67.5°	467.1	311.4	155.7	0.0
65°	504.1	341.0	170.5	0.0
62.5°	533.8	378.1	185.3	0.0
60°	570.9	407.8	200.2	0.0
57.5°	600.5	430.0	215.0	0.0
55°	630.2	444.8	229.8	0.0
52.5°	659.8	467.1	244.7	0.0
50°	689.5	489.3	259.5	0.0
47.5°	719.1	504.1	266.9	0.0
45°	763.6	526.4	281.7	0.0
42.5°	800.7	541.2	296.6	0.0
40°	837.8	556.0	304.0	0.0
37.5°	874.8	570.9	318.8	0.0
35°	911.9	585.7	326.2	0.0
32.5°	941.6	600.5	333.6	0.0
30°	971.2	615.3	341.0	0.0
27.5°	1000.9	622.8	348.5	0.0
25°	1023.1	637.6	355.9	0.0
22.5°	1045.4	645.0	363.3	0.0
20°	1060.2	652.4	370.7	0.0
17.5°	1082.4	659.8	378.1	0.0
15°	1089.8	667.2	392.9	0.0
12.5°	1104.7	674.7	392.9	0.0
10°	1112.1	682.1	392.9	0.0
7.5°	1126.9	682.1	392.9	0.0
5°	1119.5	682.1	392.9	0.0
2.5°	1119.5	682.1	392.9	0.0
0°	1112.1	682.1	392.9	0.0

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