

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: P628575

Luminaire Tested: **EPH-VN-04-E-750-U-LAM**

Issue Date: 01/11/2023

Test Information

Test Method: LM-79-2019
Report Number: P628575
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-750-U-LAM
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/
LAMBERTIAN distribution lens
Light Source: (64) 5000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A	NEMA Type:	7H x 7V
Luminaire Lumens:	36819.2 lumens	Max Intensity:	12001.6 candela
Efficiency:	N/A	Max Intensity Angle:	20°H x 10°V
Efficacy:	121.2 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 0.5' x H: 0')		

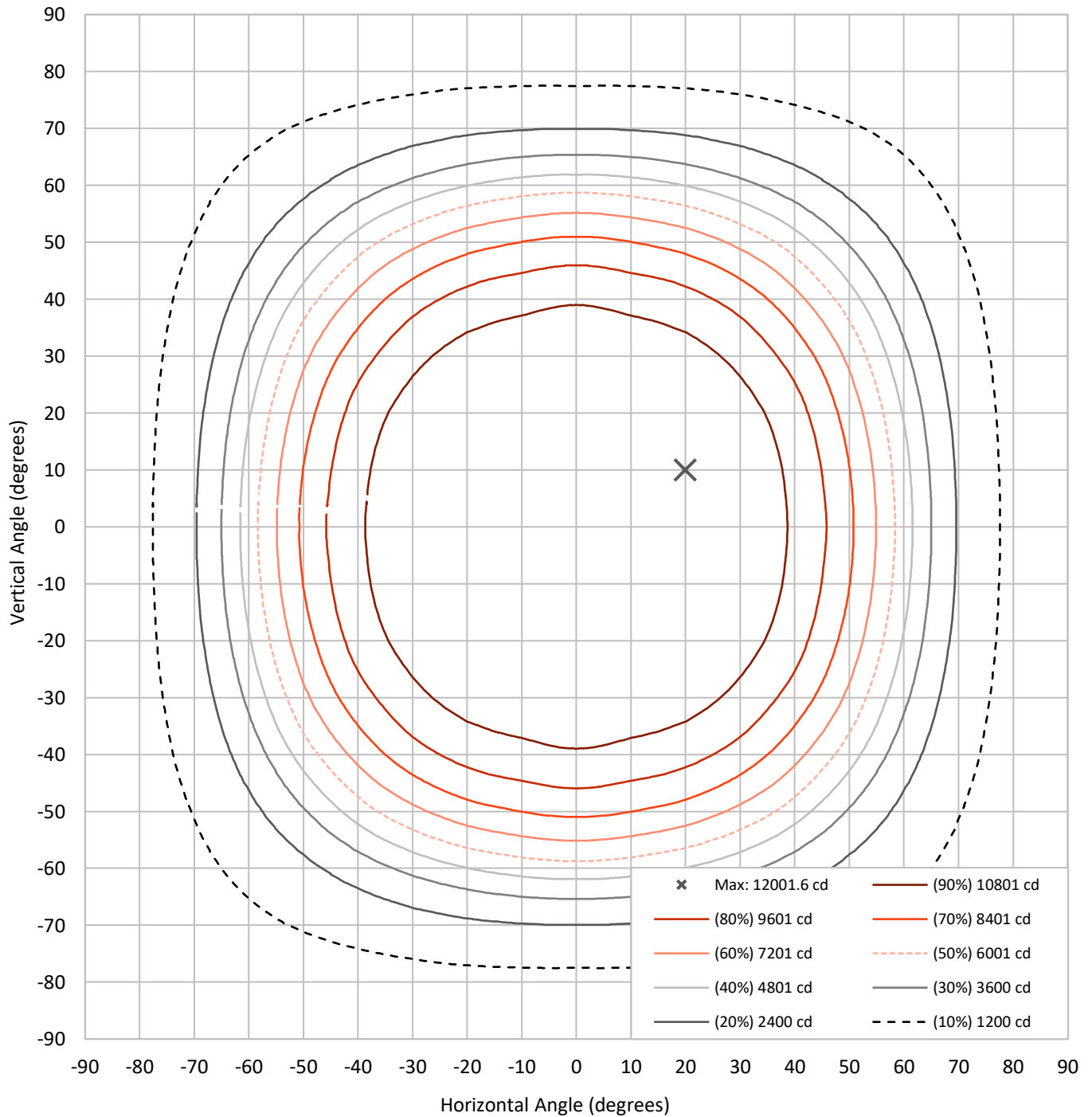
Beam Angle (50%):	115.7°H x 112.9°V	Field Angle (10%):	154.7°H x 154°V
Beam Lumens:	22593 lumens	Field Lumens:	27085.2 lumens
Beam Efficiency:	61.4%	Field Efficiency:	73.6%

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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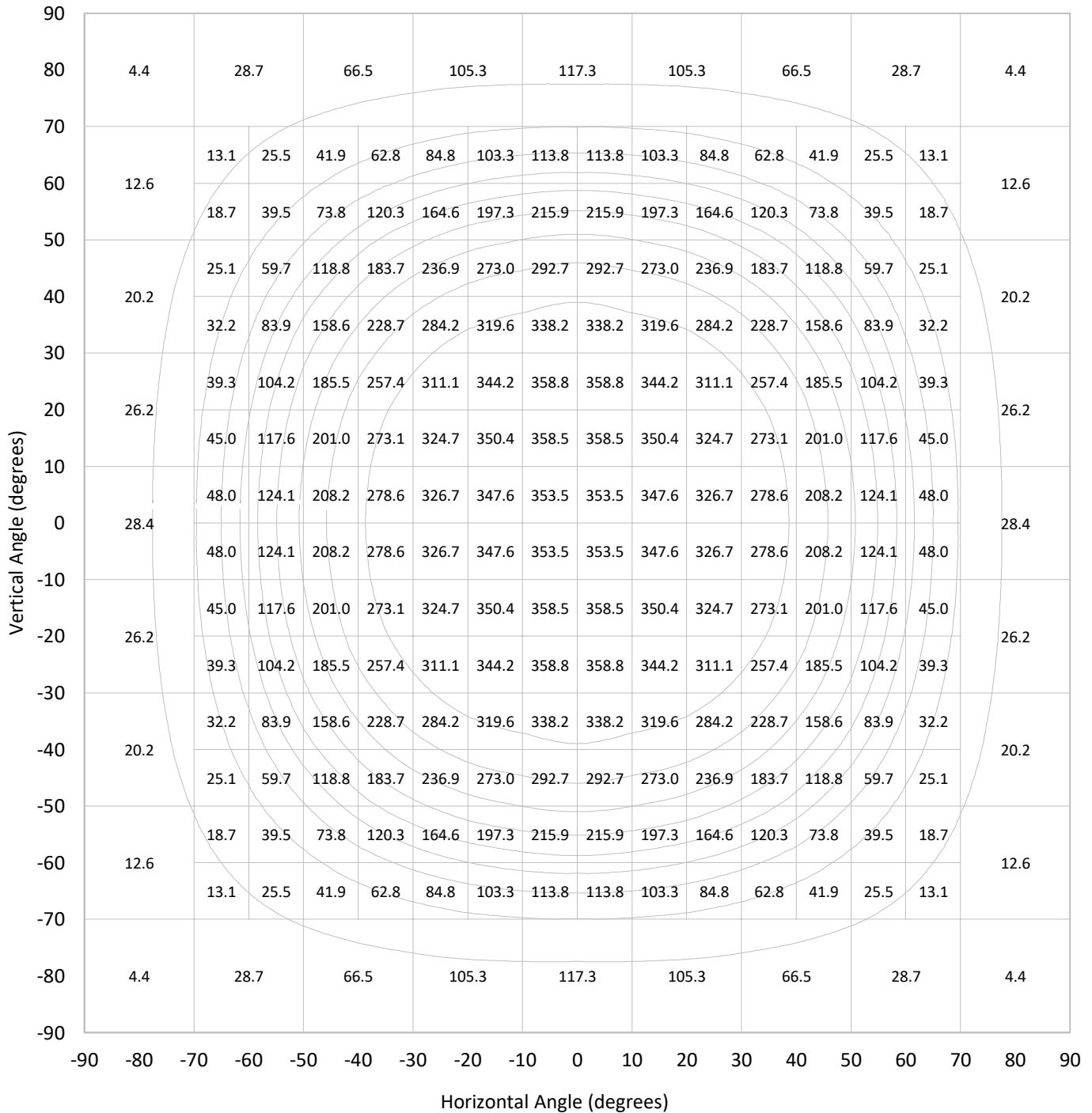
Iso-Candela Plot





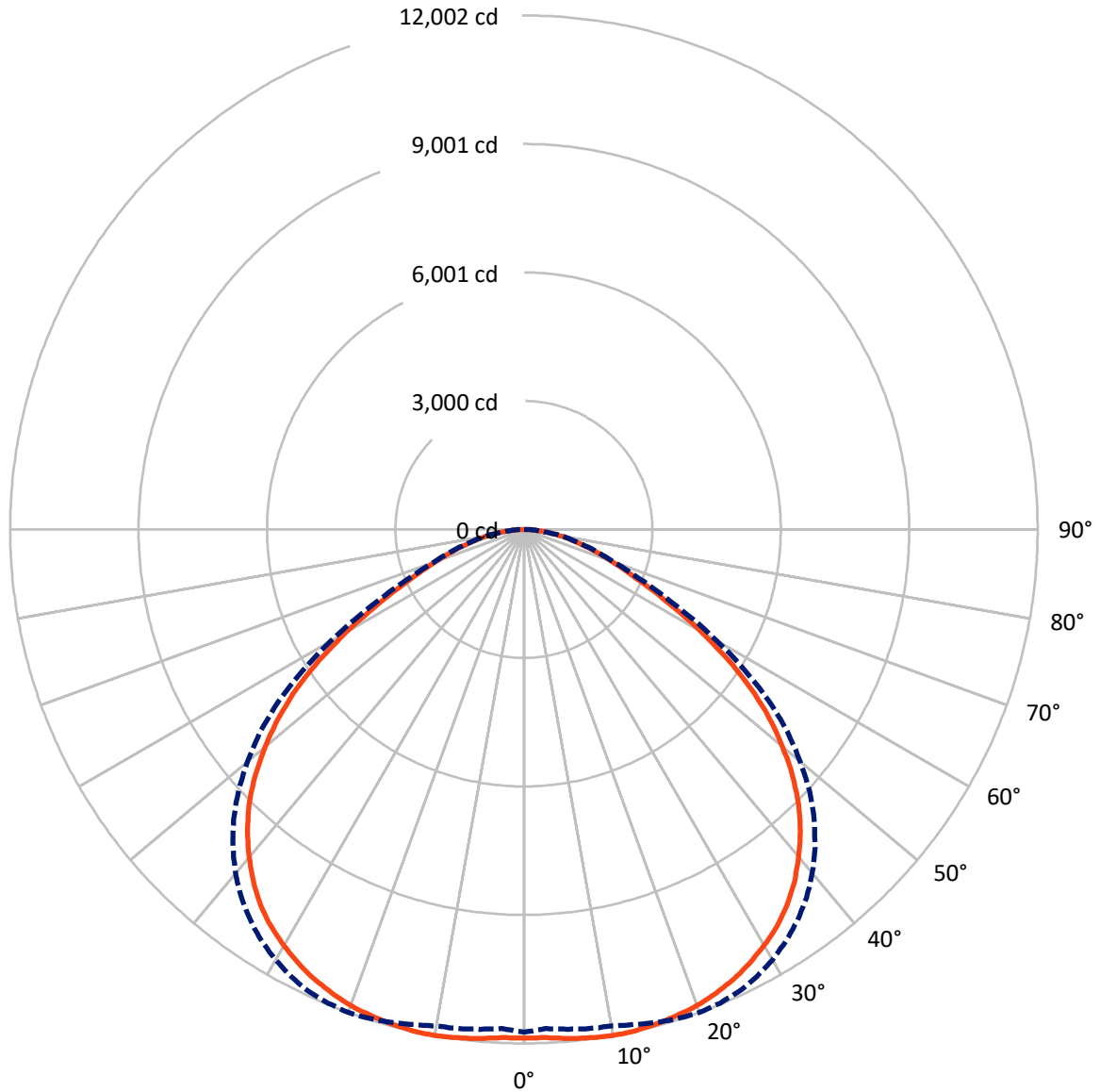
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Lumen Table



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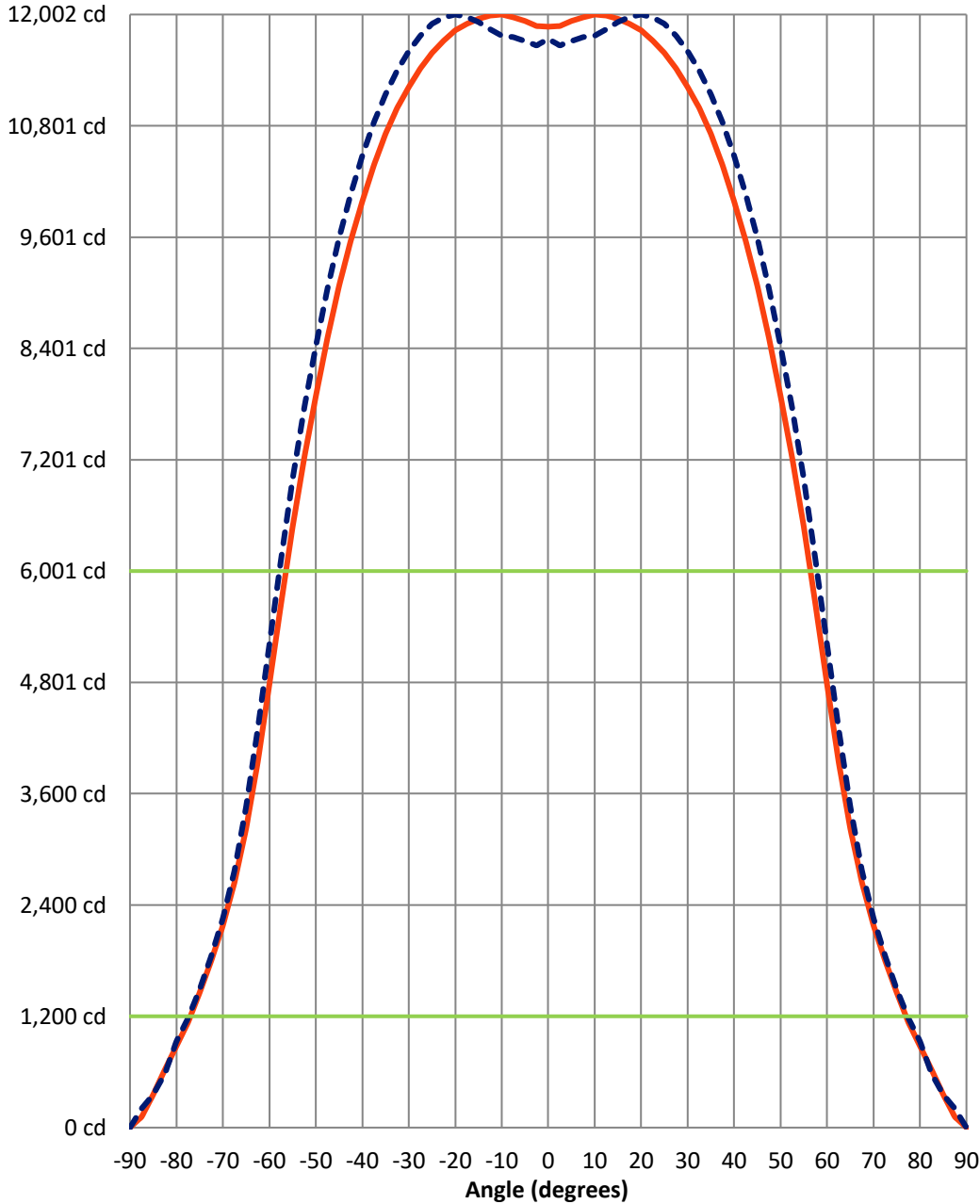
Luminous Intensity Polar Plot



— 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: 22593
 Efficiency: 61.4%

Field:
 H Angle: 154.7°
 V Angle: 154°
 Lumens: 27085.2
 Efficiency: 73.6%

Spill:
 Lumens: 9734
 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°	96.8	104.6	108.5	112.3	116.2	120.1	124.0	120.1	116.2	116.2	112.3
85°	259.6	267.3	271.2	298.3	325.4	340.9	360.3	356.4	356.4	352.5	348.7
82.5°	519.1	542.4	561.7	588.8	604.3	627.6	643.1	631.5	623.7	608.2	596.6
80°	922.0	929.8	933.6	937.5	918.1	914.3	906.5	894.9	879.4	860.0	840.7
77.5°	1173.8	1181.6	1189.3	1181.6	1177.7	1173.8	1162.2	1150.6	1135.1	1119.6	1096.3
75°	1553.5	1553.5	1553.5	1541.8	1534.1	1522.5	1503.1	1483.7	1456.6	1425.6	1390.8
72.5°	1956.4	1952.5	1948.6	1925.4	1906.0	1882.8	1855.6	1832.4	1801.4	1766.5	1720.0
70°	2378.6	2386.4	2390.2	2359.3	2336.0	2305.0	2270.1	2227.5	2181.0	2130.7	2064.8
67.5°	2959.7	2952.0	2944.2	2901.6	2870.6	2828.0	2777.6	2715.7	2645.9	2568.4	2475.5
65°	3680.3	3691.9	3668.7	3626.0	3567.9	3498.2	3420.7	3331.6	3227.0	3110.8	2979.1
62.5°	4551.9	4571.3	4544.2	4489.9	4416.3	4323.4	4214.9	4087.0	3943.7	3781.0	3618.3
60°	5543.7	5539.8	5489.4	5415.8	5319.0	5202.7	5082.7	4943.2	4780.5	4590.7	4393.1
57.5°	6454.0	6446.3	6384.3	6310.7	6213.9	6089.9	5962.0	5814.8	5644.4	5442.9	5214.4
55°	7271.5	7263.7	7201.7	7124.2	7023.5	6899.6	6783.3	6643.9	6477.3	6264.2	6020.2
52.5°	7995.9	7999.8	7945.5	7860.3	7751.8	7631.7	7519.4	7379.9	7221.1	7008.0	6771.7
50°	8662.2	8658.3	8600.2	8522.7	8422.0	8305.8	8193.5	8054.0	7887.4	7682.1	7453.5
47.5°	9282.0	9274.3	9208.4	9123.2	9018.6	8917.9	8813.3	8689.3	8515.0	8309.7	8081.1
45°	9801.2	9785.7	9719.8	9638.5	9537.7	9448.6	9355.7	9262.7	9076.7	8886.9	8670.0
42.5°	10246.7	10242.8	10176.9	10095.6	9994.9	9917.4	9832.1	9715.9	9561.0	9386.6	9173.6
40°	10672.8	10641.8	10576.0	10498.5	10405.5	10339.6	10254.4	10138.2	9987.1	9816.7	9611.3
37.5°	10990.5	10994.3	10924.6	10839.4	10758.0	10696.0	10618.6	10510.1	10378.4	10211.8	10006.5
35°	11292.6	11273.3	11215.2	11141.6	11067.9	10998.2	10916.9	10823.9	10715.4	10560.5	10366.8
32.5°	11490.2	11517.3	11447.6	11370.1	11327.5	11273.3	11188.0	11091.2	10994.3	10839.4	10665.1
30°	11707.2	11683.9	11629.7	11563.8	11532.8	11498.0	11424.4	11331.4	11219.0	11079.6	10916.9
27.5°	11858.2	11846.6	11780.8	11718.8	11703.3	11672.3	11614.2	11532.8	11420.5	11284.9	11133.8
25°	11924.1	11931.8	11869.9	11835.0	11835.0	11815.6	11769.1	11699.4	11587.1	11463.1	11315.9
22.5°	11955.1	11947.3	11904.7	11897.0	11916.3	11900.9	11881.5	11819.5	11718.8	11618.1	11494.1
20°	11974.5	11920.2	11881.5	11912.5	11935.7	11931.8	11916.3	11877.6	11831.1	11745.9	11637.4
17.5°	11931.8	11897.0	11850.5	11897.0	11947.3	11951.2	11935.7	11912.5	11900.9	11846.6	11749.8
15°	11827.2	11800.1	11807.9	11854.4	11912.5	11931.8	11943.5	11970.6	11955.1	11912.5	11827.2
12.5°	11757.5	11722.7	11757.5	11804.0	11835.0	11846.6	11939.6	11990.0	11990.0	11951.2	11897.0
10°	11738.1	11668.4	11714.9	11757.5	11773.0	11842.7	11920.2	11974.5	12001.6	11970.6	11900.9
7.5°	11699.4	11652.9	11672.3	11691.7	11780.8	11831.1	11873.7	11931.8	11970.6	11966.7	11904.7
5°	11680.0	11621.9	11629.7	11711.0	11773.0	11807.9	11823.4	11873.7	11931.8	11943.5	11897.0
2.5°	11629.7	11602.6	11660.7	11668.4	11714.9	11742.0	11757.5	11804.0	11877.6	11904.7	11885.4
0°	11602.6	11563.8	11525.1	11556.1	11633.5	11691.7	11714.9	11784.6	11869.9	11897.0	11854.4



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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°	108.5	104.6	100.7	96.8	100.7	100.7	100.7	96.8	100.7	96.8	96.8
85°	337.0	321.5	309.9	294.4	278.9	267.3	251.8	236.3	232.4	228.6	220.8
82.5°	581.1	561.7	542.4	519.1	495.9	468.8	441.6	410.6	402.9	395.1	383.5
80°	817.4	790.3	763.2	736.1	712.8	685.7	654.7	619.8	596.6	577.2	554.0
77.5°	1065.3	1026.6	987.9	941.4	914.3	887.1	856.1	821.3	786.4	755.4	720.6
75°	1348.1	1305.5	1266.8	1220.3	1169.9	1119.6	1069.2	1022.7	972.4	925.9	879.4
72.5°	1661.9	1600.0	1538.0	1479.9	1417.9	1355.9	1290.0	1228.1	1166.1	1104.1	1038.2
70°	1991.2	1913.7	1836.3	1758.8	1677.4	1596.1	1518.6	1441.1	1363.6	1282.3	1208.7
67.5°	2378.6	2289.5	2188.8	2080.3	1960.2	1855.6	1754.9	1661.9	1569.0	1476.0	1383.0
65°	2862.9	2738.9	2603.3	2456.1	2316.6	2177.2	2030.0	1890.5	1782.0	1673.6	1569.0
62.5°	3459.5	3285.1	3095.3	2905.5	2735.0	2552.9	2382.5	2200.4	2030.0	1875.0	1747.2
60°	4172.3	3936.0	3703.5	3459.5	3223.1	2975.2	2758.3	2533.6	2320.5	2130.7	1944.7
57.5°	4958.7	4683.6	4404.7	4106.4	3784.9	3494.3	3199.9	2905.5	2653.7	2401.9	2192.7
55°	5756.7	5466.2	5152.4	4815.4	4462.8	4090.9	3691.9	3362.6	3017.8	2723.4	2452.2
52.5°	6516.0	6213.9	5888.4	5578.5	5156.3	4730.1	4292.4	3858.5	3455.6	3079.8	2750.5
50°	7194.0	6899.6	6585.8	6225.5	5834.2	5381.0	4892.8	4404.7	3928.2	3486.6	3075.9
47.5°	7813.8	7527.1	7213.3	6853.1	6496.7	5993.0	5501.0	4962.6	4431.8	3924.3	3444.0
45°	8394.9	8104.4	7778.9	7434.2	7023.5	6574.1	6066.6	5524.3	4954.8	4385.3	3831.4
42.5°	8921.8	8631.2	8301.9	7945.5	7538.8	7093.2	6601.3	6055.0	5481.7	4861.8	4253.6
40°	9382.8	9100.0	8782.3	8410.4	8030.8	7562.0	7077.8	6558.6	5965.9	5342.2	4672.0
37.5°	9785.7	9522.2	9208.4	8840.4	8437.5	8019.1	7519.4	7000.3	6465.7	5787.7	5102.0
35°	10142.1	9898.0	9576.5	9227.8	8832.7	8391.0	7922.3	7414.8	6837.6	6202.2	5535.9
32.5°	10452.0	10204.1	9909.6	9561.0	9177.4	8762.9	8282.6	7771.2	7225.0	6578.0	5853.6
30°	10715.4	10475.2	10196.3	9867.0	9499.0	9088.3	8619.6	8104.4	7546.5	6903.4	6186.7
27.5°	10944.0	10715.4	10444.2	10138.2	9785.7	9390.5	8917.9	8398.8	7829.3	7209.5	6492.8
25°	11141.6	10920.7	10668.9	10378.4	10029.7	9642.3	9196.8	8654.5	8085.0	7461.3	6752.3
22.5°	11319.8	11106.7	10854.9	10572.1	10254.4	9867.0	9417.6	8879.2	8301.9	7686.0	6988.7
20°	11478.6	11281.0	11033.1	10742.5	10424.9	10033.6	9588.1	9076.7	8495.6	7891.3	7201.7
17.5°	11606.4	11432.1	11184.2	10878.1	10560.5	10180.8	9746.9	9278.2	8662.2	8065.6	7379.9
15°	11695.5	11525.1	11300.4	10990.5	10680.6	10304.8	9870.9	9386.6	8813.3	8205.1	7527.1
12.5°	11757.5	11575.4	11366.2	11079.6	10769.7	10397.8	9975.5	9499.0	8941.1	8329.0	7655.0
10°	11773.0	11606.4	11397.2	11141.6	10839.4	10479.1	10064.6	9592.0	9045.7	8425.9	7759.6
7.5°	11780.8	11621.9	11432.1	11188.0	10889.7	10541.1	10130.4	9665.6	9123.2	8507.3	7837.1
5°	11776.9	11625.8	11455.3	11219.0	10920.7	10576.0	10173.1	9715.9	9177.4	8561.5	7895.2
2.5°	11765.3	11629.7	11470.8	11242.3	10955.6	10614.7	10215.7	9774.0	9235.6	8608.0	7941.6
0°	11796.3	11680.0	11478.6	11234.5	10963.4	10614.7	10211.8	9781.8	9243.3	8604.1	7937.8



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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°	96.8	93.0	93.0	89.1	85.2	81.4	73.6	69.7	62.0	50.4	38.7
85°	209.2	197.6	186.0	178.2	170.5	162.7	151.1	139.5	124.0	100.7	77.5
82.5°	368.0	344.8	321.5	294.4	271.2	247.9	228.6	209.2	186.0	151.1	116.2
80°	526.9	492.0	457.1	418.4	383.5	344.8	309.9	278.9	247.9	201.4	155.0
77.5°	685.7	639.2	588.8	542.4	492.0	441.6	391.3	348.7	302.2	247.9	193.7
75°	832.9	778.7	732.2	666.3	604.3	538.5	472.6	414.5	356.4	290.5	232.4
72.5°	980.1	910.4	844.5	782.5	712.8	631.5	557.9	484.2	410.6	333.2	263.4
70°	1127.3	1042.1	960.7	887.1	809.7	728.3	639.2	554.0	464.9	371.9	290.5
67.5°	1278.4	1181.6	1088.6	995.6	906.5	813.5	720.6	623.7	519.1	410.6	321.5
65°	1445.0	1324.9	1212.6	1108.0	1003.4	902.6	798.0	693.4	577.2	453.3	348.7
62.5°	1611.6	1479.9	1348.1	1216.4	1100.2	987.9	875.5	759.3	631.5	499.7	375.8
60°	1789.8	1638.7	1487.6	1340.4	1197.1	1073.1	949.1	825.2	689.6	542.4	402.9
57.5°	1987.3	1805.3	1634.8	1468.2	1305.5	1158.3	1022.7	891.0	739.9	585.0	433.9
55°	2212.0	1987.3	1785.9	1600.0	1421.7	1243.5	1096.3	960.7	798.0	627.6	468.8
52.5°	2448.4	2188.8	1944.7	1735.5	1545.7	1344.3	1166.1	1015.0	856.1	670.2	499.7
50°	2723.4	2394.1	2122.9	1867.3	1654.2	1445.0	1239.7	1077.0	914.3	720.6	530.7
47.5°	3006.2	2642.1	2301.1	2022.2	1770.4	1541.8	1324.9	1131.2	968.5	767.0	561.7
45°	3335.5	2878.4	2502.6	2173.3	1882.8	1642.6	1410.1	1189.3	1015.0	813.5	592.7
42.5°	3653.2	3157.3	2711.8	2339.9	2010.6	1739.4	1487.6	1251.3	1061.5	860.0	619.8
40°	4028.9	3436.2	2913.2	2498.7	2138.4	1832.4	1565.1	1317.2	1104.1	902.6	647.0
37.5°	4389.2	3719.0	3157.3	2673.0	2262.4	1925.4	1642.6	1379.1	1142.8	945.3	681.8
35°	4745.6	4032.8	3389.7	2835.8	2390.2	2030.0	1720.0	1437.2	1181.6	980.1	712.8
32.5°	5086.5	4327.2	3626.0	3017.8	2529.7	2126.8	1789.8	1491.5	1220.3	1011.1	743.8
30°	5404.2	4606.2	3858.5	3203.8	2657.5	2215.9	1855.6	1545.7	1266.8	1038.2	774.8
27.5°	5694.7	4877.3	4090.9	3378.1	2777.6	2297.3	1925.4	1596.1	1305.5	1065.3	801.9
25°	5958.2	5121.4	4304.0	3536.9	2886.1	2386.4	1991.2	1646.4	1340.4	1088.6	825.2
22.5°	6206.1	5346.1	4497.7	3695.8	3017.8	2475.5	2053.2	1692.9	1375.3	1111.8	848.4
20°	6423.1	5551.4	4683.6	3854.6	3134.0	2556.8	2107.4	1735.5	1406.3	1127.3	871.6
17.5°	6597.4	5733.5	4850.2	3994.1	3234.8	2626.6	2153.9	1774.3	1433.4	1146.7	887.1
15°	6752.3	5888.4	4989.7	4114.2	3323.9	2684.7	2196.5	1805.3	1456.6	1158.3	906.5
12.5°	6884.1	6020.2	5109.8	4218.8	3401.4	2735.0	2231.4	1828.5	1476.0	1169.9	918.1
10°	6992.5	6124.8	5210.5	4300.1	3463.3	2773.8	2258.5	1851.8	1491.5	1181.6	929.8
7.5°	7073.9	6202.2	5284.1	4369.8	3513.7	2800.9	2281.8	1867.3	1507.0	1189.3	949.1
5°	7135.9	6268.1	5342.2	4416.3	3552.4	2839.6	2308.9	1886.6	1522.5	1197.1	949.1
2.5°	7182.4	6322.3	5388.7	4455.1	3583.4	2831.9	2308.9	1882.8	1522.5	1197.1	945.3
0°	7174.6	6326.2	5384.8	4455.1	3583.4	2824.1	2308.9	1878.9	1522.5	1197.1	945.3



REPORT NUMBER: P628575
 CATALOG NUMBER: EPH-VN-04-E-750-U-LAM

CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	27.1	19.4	7.7	0.0
85°	58.1	38.7	19.4	0.0
82.5°	85.2	54.2	27.1	0.0
80°	112.3	73.6	34.9	0.0
77.5°	143.3	93.0	46.5	0.0
75°	170.5	108.5	54.2	0.0
72.5°	197.6	127.8	62.0	0.0
70°	220.8	143.3	69.7	0.0
67.5°	244.1	162.7	81.4	0.0
65°	263.4	178.2	89.1	0.0
62.5°	278.9	197.6	96.8	0.0
60°	298.3	213.1	104.6	0.0
57.5°	313.8	224.7	112.3	0.0
55°	329.3	232.4	120.1	0.0
52.5°	344.8	244.1	127.8	0.0
50°	360.3	255.7	135.6	0.0
47.5°	375.8	263.4	139.5	0.0
45°	399.0	275.1	147.2	0.0
42.5°	418.4	282.8	155.0	0.0
40°	437.8	290.5	158.8	0.0
37.5°	457.1	298.3	166.6	0.0
35°	476.5	306.0	170.5	0.0
32.5°	492.0	313.8	174.3	0.0
30°	507.5	321.5	178.2	0.0
27.5°	523.0	325.4	182.1	0.0
25°	534.6	333.2	186.0	0.0
22.5°	546.2	337.0	189.8	0.0
20°	554.0	340.9	193.7	0.0
17.5°	565.6	344.8	197.6	0.0
15°	569.5	348.7	205.3	0.0
12.5°	577.2	352.5	205.3	0.0
10°	581.1	356.4	205.3	0.0
7.5°	588.8	356.4	205.3	0.0
5°	585.0	356.4	205.3	0.0
2.5°	585.0	356.4	205.3	0.0
0°	581.1	356.4	205.3	0.0

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