

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: P628598

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

Issue Date: 01/11/2023

Test Information

Test Method: LM-79-2019
Report Number: P628598
Test Lab: INNOVATION CENTER(G2)
Issue Date: 01/11/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: EPHESUS
Catalog Number: EPH-VN-03-E-940-U-LAM
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/
LAMBERTIAN distribution lens
Light Source: (48) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

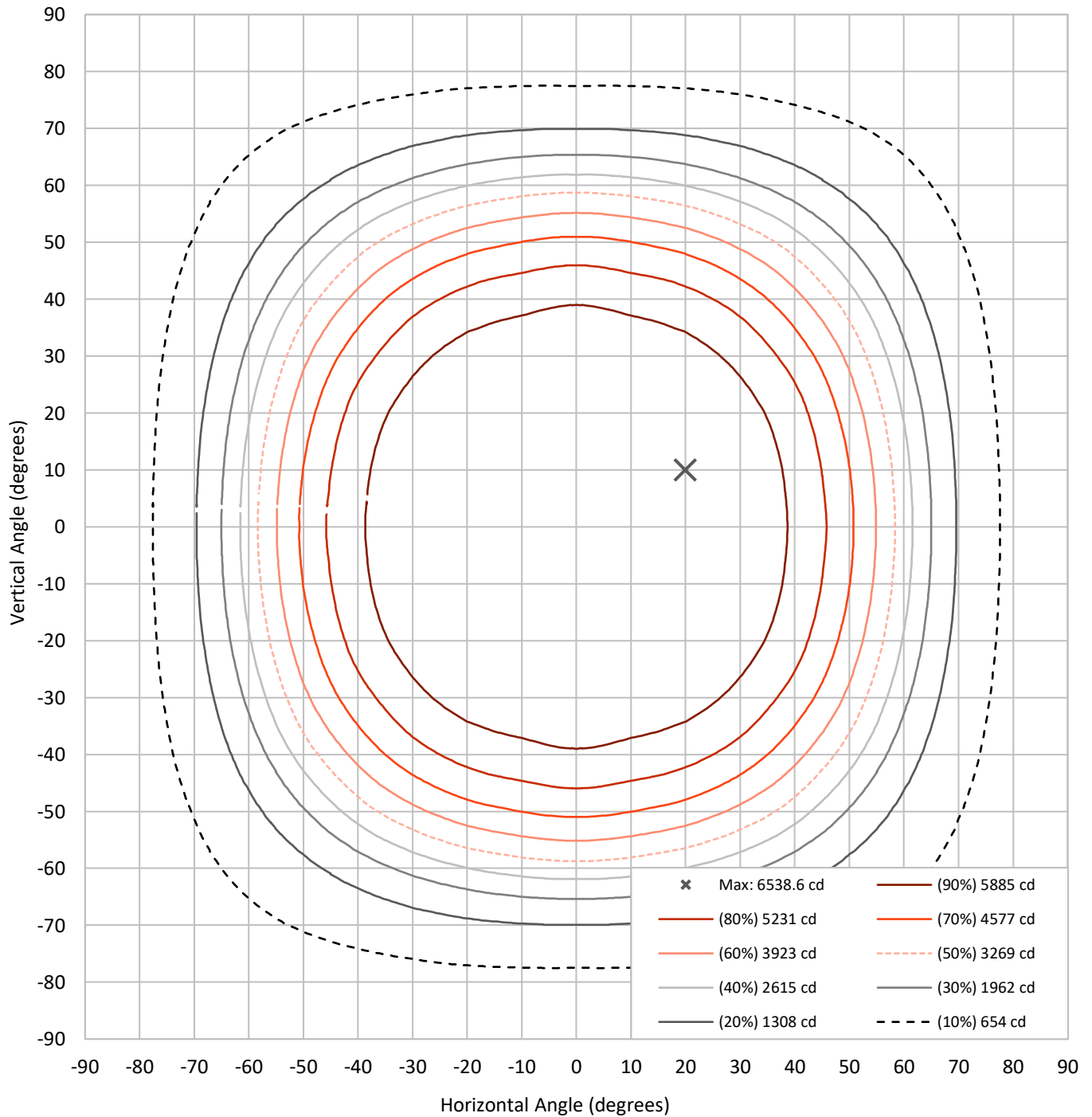
Lumens per Lamp:	N/A	NEMA Type:	7H x 7V
Luminaire Lumens:	20059.5 lumens	Max Intensity:	6538.6 candela
Efficiency:	N/A	Max Intensity Angle:	20°H x 10°V
Efficacy:	86.4 lumens/watt		
Luminous Opening:	Rectangular (W 1.5' x L: 0.5' x H: 0')		
Beam Angle (50%):	115.7°H x 112.9°V	Field Angle (10%):	154.7°H x 154°V
Beam Lumens:	12308.9 lumens	Field Lumens:	14756.3 lumens
Beam Efficiency:	61.4%	Field Efficiency:	73.6%

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



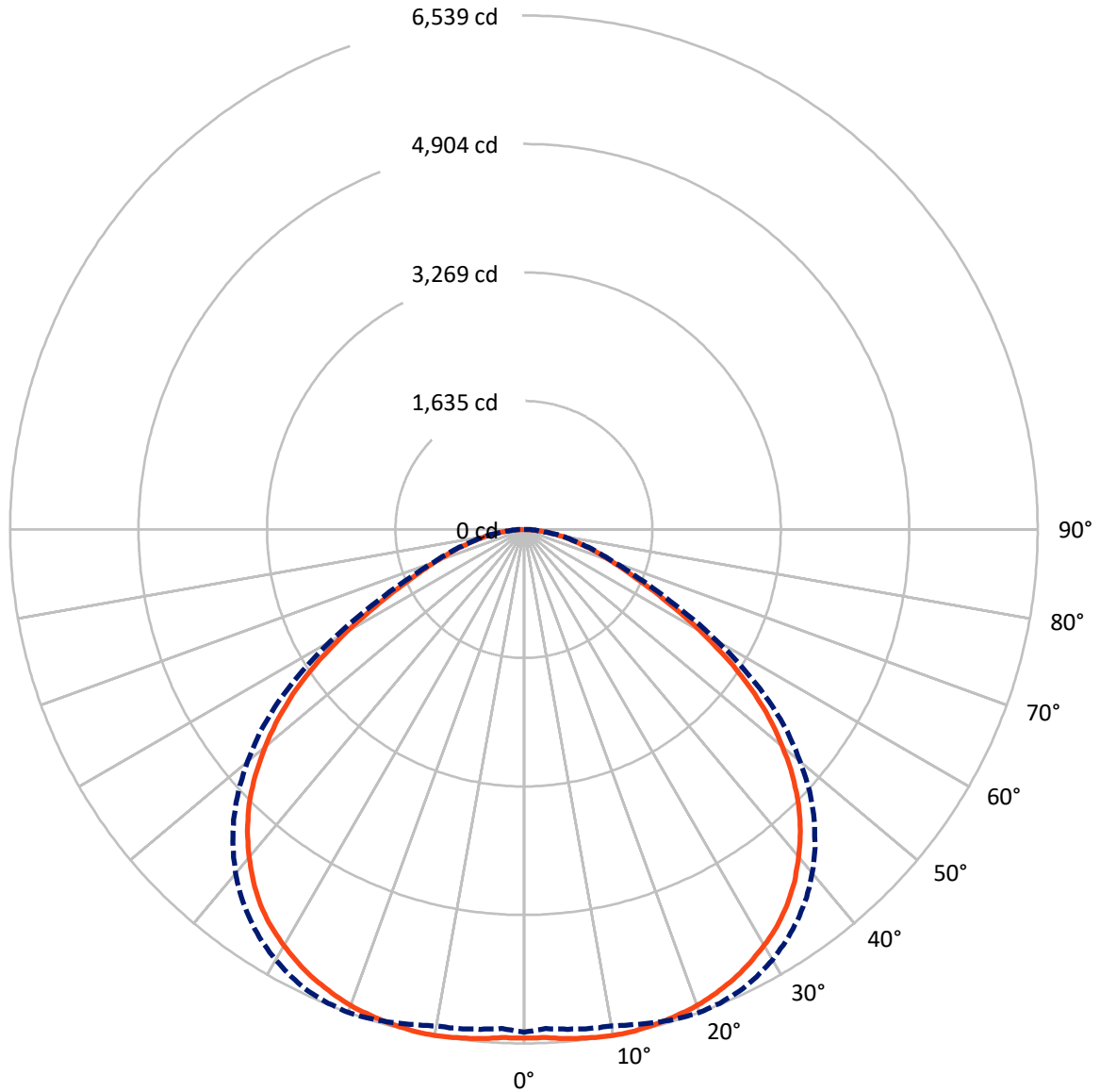
REPORT NUMBER: P628598
CATALOG NUMBER: EPH-VN-03-E-940-U-LAM

Iso-Candela Plot



REPORT NUMBER: P628598
CATALOG NUMBER: EPH-VN-03-E-940-U-LAM

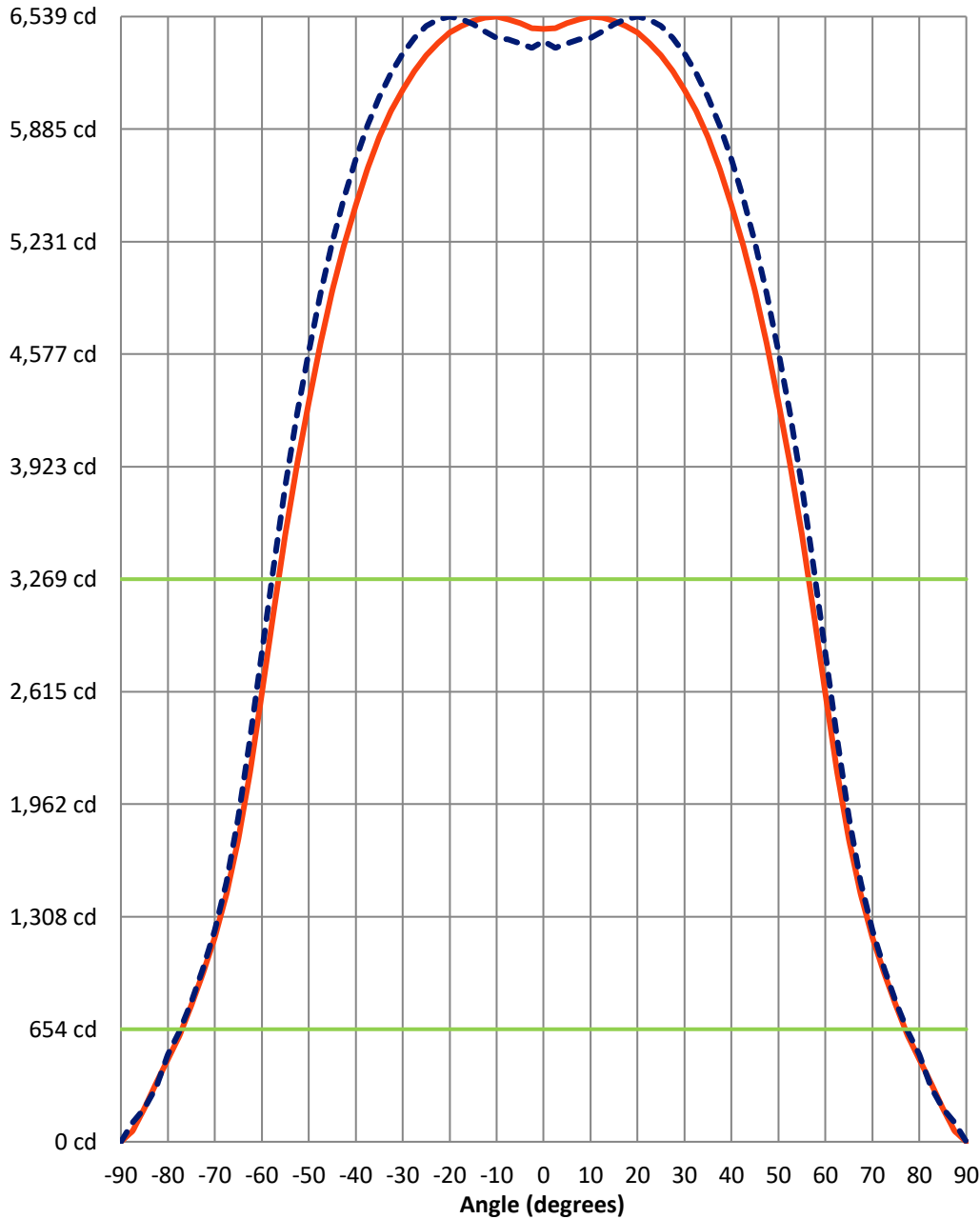
Luminous Intensity Polar Plot



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

REPORT NUMBER: P628598
 CATALOG NUMBER: EPH-VN-03-E-940-U-LAM

Luminous Intensity Plot



Beam:
 H Angle: 115.7°
 V Angle: 112.9°
 Lumens: 12308.9
 Efficiency: 61.4%

Field:
 H Angle: 154.7°
 V Angle: 154°
 Lumens: 14756.3
 Efficiency: 73.6%

Spill:
 Lumens: 5303.2
 Efficiency: 26.4%

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



REPORT NUMBER: P628598
 CATALOG NUMBER: EPH-VN-03-E-940-U-LAM

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°	52.8	57.0	59.1	61.2	63.3	65.4	67.5	65.4	63.3	63.3	61.2
85°	141.4	145.6	147.7	162.5	177.3	185.7	196.3	194.2	194.2	192.1	190.0
82.5°	282.8	295.5	306.0	320.8	329.3	341.9	350.4	344.0	339.8	331.4	325.0
80°	502.3	506.5	508.7	510.8	500.2	498.1	493.9	487.5	479.1	468.5	458.0
77.5°	639.5	643.7	647.9	643.7	641.6	639.5	633.2	626.8	618.4	610.0	597.3
75°	846.3	846.3	846.3	840.0	835.8	829.5	818.9	808.4	793.6	776.7	757.7
72.5°	1065.8	1063.7	1061.6	1049.0	1038.4	1025.7	1011.0	998.3	981.4	962.4	937.1
70°	1295.9	1300.1	1302.2	1285.3	1272.7	1255.8	1236.8	1213.6	1188.3	1160.8	1124.9
67.5°	1612.5	1608.3	1604.0	1580.8	1563.9	1540.7	1513.3	1479.5	1441.5	1399.3	1348.7
65°	2005.1	2011.4	1998.7	1975.5	1943.8	1905.9	1863.6	1815.1	1758.1	1694.8	1623.0
62.5°	2479.9	2490.5	2475.7	2446.2	2406.1	2355.4	2296.3	2226.7	2148.6	2059.9	1971.3
60°	3020.2	3018.1	2990.7	2950.6	2897.8	2834.5	2769.1	2693.1	2604.5	2501.0	2393.4
57.5°	3516.2	3512.0	3478.2	3438.1	3385.4	3317.8	3248.2	3168.0	3075.1	2965.4	2840.8
55°	3961.6	3957.3	3923.6	3881.4	3826.5	3759.0	3695.6	3619.7	3528.9	3412.8	3279.8
52.5°	4356.2	4358.4	4328.8	4282.4	4223.3	4157.9	4096.6	4020.7	3934.1	3818.0	3689.3
50°	4719.3	4717.2	4685.5	4643.3	4588.4	4525.1	4463.9	4387.9	4297.2	4185.3	4060.8
47.5°	5057.0	5052.7	5016.9	4970.4	4913.4	4858.6	4801.6	4734.0	4639.1	4527.2	4402.7
45°	5339.8	5331.3	5295.5	5251.1	5196.3	5147.7	5097.1	5046.4	4945.1	4841.7	4723.5
42.5°	5582.5	5580.4	5544.5	5500.2	5445.3	5403.1	5356.7	5293.3	5208.9	5113.9	4997.9
40°	5814.7	5797.8	5761.9	5719.7	5669.0	5633.2	5586.7	5523.4	5441.1	5348.2	5236.4
37.5°	5987.7	5989.8	5951.9	5905.4	5861.1	5827.3	5785.1	5726.0	5654.3	5563.5	5451.6
35°	6152.4	6141.8	6110.1	6070.0	6029.9	5992.0	5947.6	5897.0	5837.9	5753.5	5647.9
32.5°	6260.0	6274.8	6236.8	6194.6	6171.4	6141.8	6095.4	6042.6	5989.8	5905.4	5810.4
30°	6378.2	6365.5	6336.0	6300.1	6283.2	6264.2	6224.1	6173.5	6112.3	6036.3	5947.6
27.5°	6460.5	6454.2	6418.3	6384.5	6376.1	6359.2	6327.5	6283.2	6222.0	6148.1	6065.8
25°	6496.4	6500.6	6466.8	6447.8	6447.8	6437.3	6412.0	6374.0	6312.8	6245.2	6165.0
22.5°	6513.3	6509.0	6485.8	6481.6	6492.2	6483.7	6473.2	6439.4	6384.5	6329.6	6262.1
20°	6523.8	6494.3	6473.2	6490.0	6502.7	6500.6	6492.2	6471.1	6445.7	6399.3	6340.2
17.5°	6500.6	6481.6	6456.3	6481.6	6509.0	6511.2	6502.7	6490.0	6483.7	6454.2	6401.4
15°	6443.6	6428.8	6433.1	6458.4	6490.0	6500.6	6506.9	6521.7	6513.3	6490.0	6443.6
12.5°	6405.6	6386.6	6405.6	6431.0	6447.8	6454.2	6504.8	6532.3	6532.3	6511.2	6481.6
10°	6395.1	6357.1	6382.4	6405.6	6414.1	6452.1	6494.3	6523.8	6538.6	6521.7	6483.7
7.5°	6374.0	6348.6	6359.2	6369.7	6418.3	6445.7	6468.9	6500.6	6521.7	6519.6	6485.8
5°	6363.4	6331.8	6336.0	6380.3	6414.1	6433.1	6441.5	6468.9	6500.6	6506.9	6481.6
2.5°	6336.0	6321.2	6352.9	6357.1	6382.4	6397.2	6405.6	6431.0	6471.1	6485.8	6475.3
0°	6321.2	6300.1	6279.0	6295.9	6338.1	6369.7	6382.4	6420.4	6466.8	6481.6	6458.4



REPORT NUMBER: P628598
 CATALOG NUMBER: EPH-VN-03-E-940-U-LAM

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°	59.1	57.0	54.9	52.8	54.9	54.9	54.9	52.8	54.9	52.8	52.8
85°	183.6	175.2	168.8	160.4	152.0	145.6	137.2	128.7	126.6	124.5	120.3
82.5°	316.6	306.0	295.5	282.8	270.2	255.4	240.6	223.7	219.5	215.3	208.9
80°	445.3	430.6	415.8	401.0	388.3	373.6	356.7	337.7	325.0	314.5	301.8
77.5°	580.4	559.3	538.2	512.9	498.1	483.3	466.4	447.4	428.4	411.6	392.6
75°	734.5	711.3	690.2	664.8	637.4	610.0	582.5	557.2	529.8	504.4	479.1
72.5°	905.4	871.7	837.9	806.2	772.5	738.7	702.8	669.1	635.3	601.5	565.6
70°	1084.8	1042.6	1000.4	958.2	913.9	869.6	827.3	785.1	742.9	698.6	658.5
67.5°	1295.9	1247.4	1192.5	1133.4	1068.0	1011.0	956.1	905.4	854.8	804.1	753.5
65°	1559.7	1492.2	1418.3	1338.1	1262.1	1186.1	1105.9	1030.0	970.9	911.8	854.8
62.5°	1884.8	1789.8	1686.4	1582.9	1490.1	1390.9	1298.0	1198.8	1105.9	1021.5	951.9
60°	2273.1	2144.4	2017.7	1884.8	1756.0	1620.9	1502.7	1380.3	1264.2	1160.8	1059.5
57.5°	2701.5	2551.7	2399.7	2237.2	2062.0	1903.7	1743.3	1582.9	1445.8	1308.6	1194.6
55°	3136.3	2978.0	2807.1	2623.5	2431.4	2228.8	2011.4	1832.0	1644.1	1483.7	1336.0
52.5°	3550.0	3385.4	3208.1	3039.2	2809.2	2577.0	2338.5	2102.1	1882.6	1677.9	1498.5
50°	3919.4	3759.0	3588.0	3391.7	3178.5	2931.6	2665.7	2399.7	2140.1	1899.5	1675.8
47.5°	4257.1	4100.9	3929.9	3733.6	3539.5	3265.1	2997.0	2703.7	2414.5	2138.0	1876.3
45°	4573.6	4415.3	4238.1	4050.2	3826.5	3581.7	3305.2	3009.7	2699.4	2389.2	2087.4
42.5°	4860.7	4702.4	4523.0	4328.8	4107.2	3864.5	3596.4	3298.8	2986.5	2648.8	2317.4
40°	5111.8	4957.8	4784.7	4582.1	4375.2	4119.9	3856.0	3573.2	3250.3	2910.5	2545.4
37.5°	5331.3	5187.8	5016.9	4816.4	4596.9	4368.9	4096.6	3813.8	3522.6	3153.2	2779.6
35°	5525.5	5392.5	5217.4	5027.4	4812.1	4571.5	4316.1	4039.7	3725.2	3379.0	3016.0
32.5°	5694.4	5559.3	5398.9	5208.9	5000.0	4774.1	4512.4	4233.8	3936.2	3583.8	3189.1
30°	5837.9	5707.0	5555.1	5375.7	5175.2	4951.4	4696.1	4415.3	4111.4	3761.1	3370.6
27.5°	5962.4	5837.9	5690.1	5523.4	5331.3	5116.1	4858.6	4575.7	4265.5	3927.8	3537.3
25°	6070.0	5949.7	5812.6	5654.3	5464.3	5253.2	5010.5	4715.0	4404.8	4065.0	3678.7
22.5°	6167.1	6051.0	5913.9	5759.8	5586.7	5375.7	5130.8	4837.5	4523.0	4187.4	3807.5
20°	6253.7	6146.0	6010.9	5852.7	5679.6	5466.4	5223.7	4945.1	4628.5	4299.3	3923.6
17.5°	6323.3	6228.3	6093.3	5926.5	5753.5	5546.6	5310.2	5054.9	4719.3	4394.2	4020.7
15°	6371.9	6279.0	6156.6	5987.7	5818.9	5614.2	5377.8	5113.9	4801.6	4470.2	4100.9
12.5°	6405.6	6306.4	6192.5	6036.3	5867.4	5664.8	5434.8	5175.2	4871.2	4537.8	4170.5
10°	6414.1	6323.3	6209.3	6070.0	5905.4	5709.1	5483.3	5225.8	4928.2	4590.5	4227.5
7.5°	6418.3	6331.8	6228.3	6095.4	5932.9	5742.9	5519.2	5265.9	4970.4	4634.8	4269.7
5°	6416.2	6333.9	6241.0	6112.3	5949.7	5761.9	5542.4	5293.3	5000.0	4664.4	4301.4
2.5°	6409.8	6336.0	6249.4	6124.9	5968.7	5783.0	5565.6	5325.0	5031.6	4689.7	4326.7
0°	6426.7	6363.4	6253.7	6120.7	5973.0	5783.0	5563.5	5329.2	5035.9	4687.6	4324.6



REPORT NUMBER: P628598
 CATALOG NUMBER: EPH-VN-03-E-940-U-LAM

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°	52.8	50.7	50.7	48.5	46.4	44.3	40.1	38.0	33.8	27.4	21.1
85°	114.0	107.6	101.3	97.1	92.9	88.6	82.3	76.0	67.5	54.9	42.2
82.5°	200.5	187.8	175.2	160.4	147.7	135.1	124.5	114.0	101.3	82.3	63.3
80°	287.0	268.0	249.0	227.9	208.9	187.8	168.8	152.0	135.1	109.8	84.4
77.5°	373.6	348.2	320.8	295.5	268.0	240.6	213.2	190.0	164.6	135.1	105.5
75°	453.8	424.2	398.9	363.0	329.3	293.4	257.5	225.8	194.2	158.3	126.6
72.5°	534.0	496.0	460.1	426.3	388.3	344.0	303.9	263.8	223.7	181.5	143.5
70°	614.2	567.7	523.4	483.3	441.1	396.8	348.2	301.8	253.3	202.6	158.3
67.5°	696.5	643.7	593.1	542.4	493.9	443.2	392.6	339.8	282.8	223.7	175.2
65°	787.2	721.8	660.6	603.6	546.6	491.8	434.8	377.8	314.5	246.9	190.0
62.5°	878.0	806.2	734.5	662.7	599.4	538.2	477.0	413.7	344.0	272.3	204.7
60°	975.1	892.8	810.5	730.3	652.2	584.6	517.1	449.6	375.7	295.5	219.5
57.5°	1082.7	983.5	890.7	799.9	711.3	631.1	557.2	485.4	403.1	318.7	236.4
55°	1205.1	1082.7	973.0	871.7	774.6	677.5	597.3	523.4	434.8	341.9	255.4
52.5°	1333.9	1192.5	1059.5	945.5	842.1	732.4	635.3	553.0	466.4	365.1	272.3
50°	1483.7	1304.3	1156.6	1017.3	901.2	787.2	675.4	586.7	498.1	392.6	289.2
47.5°	1637.8	1439.4	1253.7	1101.7	964.5	840.0	721.8	616.3	527.6	417.9	306.0
45°	1817.2	1568.2	1363.4	1184.0	1025.7	894.9	768.3	647.9	553.0	443.2	322.9
42.5°	1990.3	1720.1	1477.4	1274.8	1095.4	947.7	810.5	681.7	578.3	468.5	337.7
40°	2195.0	1872.1	1587.2	1361.3	1165.0	998.3	852.7	717.6	601.5	491.8	352.5
37.5°	2391.3	2026.2	1720.1	1456.3	1232.6	1049.0	894.9	751.4	622.6	515.0	371.5
35°	2585.5	2197.1	1846.8	1544.9	1302.2	1105.9	937.1	783.0	643.7	534.0	388.3
32.5°	2771.2	2357.5	1975.5	1644.1	1378.2	1158.7	975.1	812.6	664.8	550.9	405.2
30°	2944.3	2509.5	2102.1	1745.5	1447.9	1207.3	1011.0	842.1	690.2	565.6	422.1
27.5°	3102.6	2657.2	2228.8	1840.4	1513.3	1251.6	1049.0	869.6	711.3	580.4	436.9
25°	3246.1	2790.2	2344.9	1927.0	1572.4	1300.1	1084.8	897.0	730.3	593.1	449.6
22.5°	3381.2	2912.6	2450.4	2013.5	1644.1	1348.7	1118.6	922.3	749.3	605.7	462.2
20°	3499.4	3024.5	2551.7	2100.0	1707.5	1393.0	1148.2	945.5	766.1	614.2	474.9
17.5°	3594.3	3123.7	2642.5	2176.0	1762.3	1431.0	1173.5	966.6	780.9	624.7	483.3
15°	3678.7	3208.1	2718.4	2241.4	1810.9	1462.6	1196.7	983.5	793.6	631.1	493.9
12.5°	3750.5	3279.8	2783.9	2298.4	1853.1	1490.1	1215.7	996.2	804.1	637.4	500.2
10°	3809.6	3336.8	2838.7	2342.7	1886.9	1511.2	1230.5	1008.9	812.6	643.7	506.5
7.5°	3853.9	3379.0	2878.8	2380.7	1914.3	1526.0	1243.1	1017.3	821.0	647.9	517.1
5°	3887.7	3414.9	2910.5	2406.1	1935.4	1547.1	1257.9	1027.9	829.5	652.2	517.1
2.5°	3913.0	3444.5	2935.8	2427.2	1952.3	1542.8	1257.9	1025.7	829.5	652.2	515.0
0°	3908.8	3446.6	2933.7	2427.2	1952.3	1538.6	1257.9	1023.6	829.5	652.2	515.0



REPORT NUMBER: P628598
 CATALOG NUMBER: EPH-VN-03-E-940-U-LAM

CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	14.8	10.6	4.2	0.0
85°	31.7	21.1	10.6	0.0
82.5°	46.4	29.5	14.8	0.0
80°	61.2	40.1	19.0	0.0
77.5°	78.1	50.7	25.3	0.0
75°	92.9	59.1	29.5	0.0
72.5°	107.6	69.6	33.8	0.0
70°	120.3	78.1	38.0	0.0
67.5°	133.0	88.6	44.3	0.0
65°	143.5	97.1	48.5	0.0
62.5°	152.0	107.6	52.8	0.0
60°	162.5	116.1	57.0	0.0
57.5°	171.0	122.4	61.2	0.0
55°	179.4	126.6	65.4	0.0
52.5°	187.8	133.0	69.6	0.0
50°	196.3	139.3	73.9	0.0
47.5°	204.7	143.5	76.0	0.0
45°	217.4	149.9	80.2	0.0
42.5°	227.9	154.1	84.4	0.0
40°	238.5	158.3	86.5	0.0
37.5°	249.0	162.5	90.8	0.0
35°	259.6	166.7	92.9	0.0
32.5°	268.0	171.0	95.0	0.0
30°	276.5	175.2	97.1	0.0
27.5°	284.9	177.3	99.2	0.0
25°	291.3	181.5	101.3	0.0
22.5°	297.6	183.6	103.4	0.0
20°	301.8	185.7	105.5	0.0
17.5°	308.1	187.8	107.6	0.0
15°	310.3	190.0	111.9	0.0
12.5°	314.5	192.1	111.9	0.0
10°	316.6	194.2	111.9	0.0
7.5°	320.8	194.2	111.9	0.0
5°	318.7	194.2	111.9	0.0
2.5°	318.7	194.2	111.9	0.0
0°	316.6	194.2	111.9	0.0

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