

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: P624185

Luminaire Tested: **EPH-VN-08-E-730-U-77**

Issue Date: 11/2/2022

**Test Information**

Test Method: LM-79-2019  
Report Number: P624185  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 11/2/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: EPHESUS  
Catalog Number: EPH-VN-08-E-730-U-77  
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/  
Nema 7 distribution lens  
Light Source: (128) 3000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

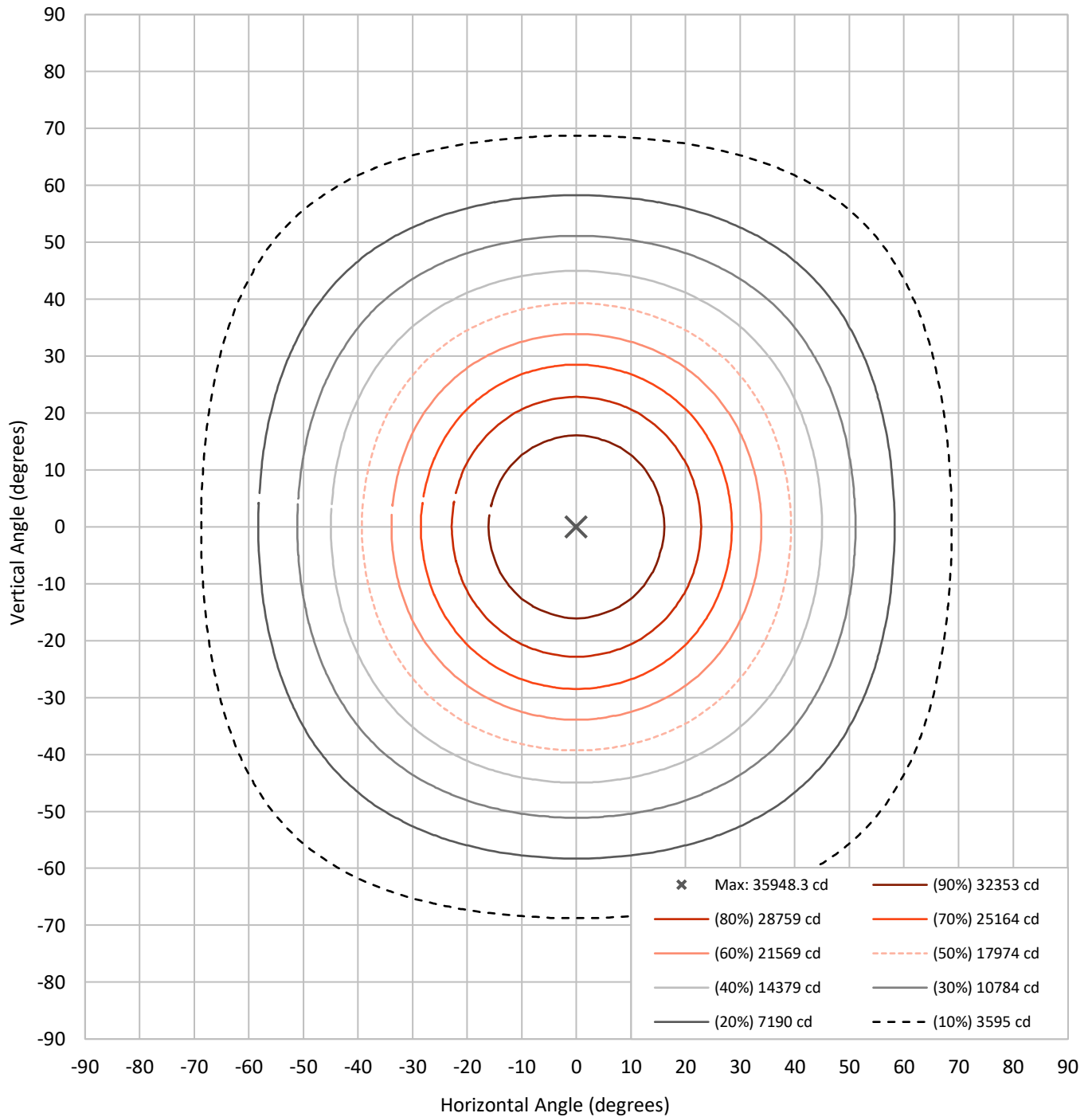
Lumens per Lamp:	N/A	NEMA Type:	7H x 7V
Luminaire Lumens:	64725.8 lumens	Max Intensity:	35948.3 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	103.3 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 1' x H: 0')		
Beam Angle (50%):	78.6°H x 78.6°V	Field Angle (10%):	137.5°H x 137.5°V
Beam Lumens:	28006.2 lumens	Field Lumens:	45859.2 lumens
Beam Efficiency:	43.3%	Field Efficiency:	70.9%

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





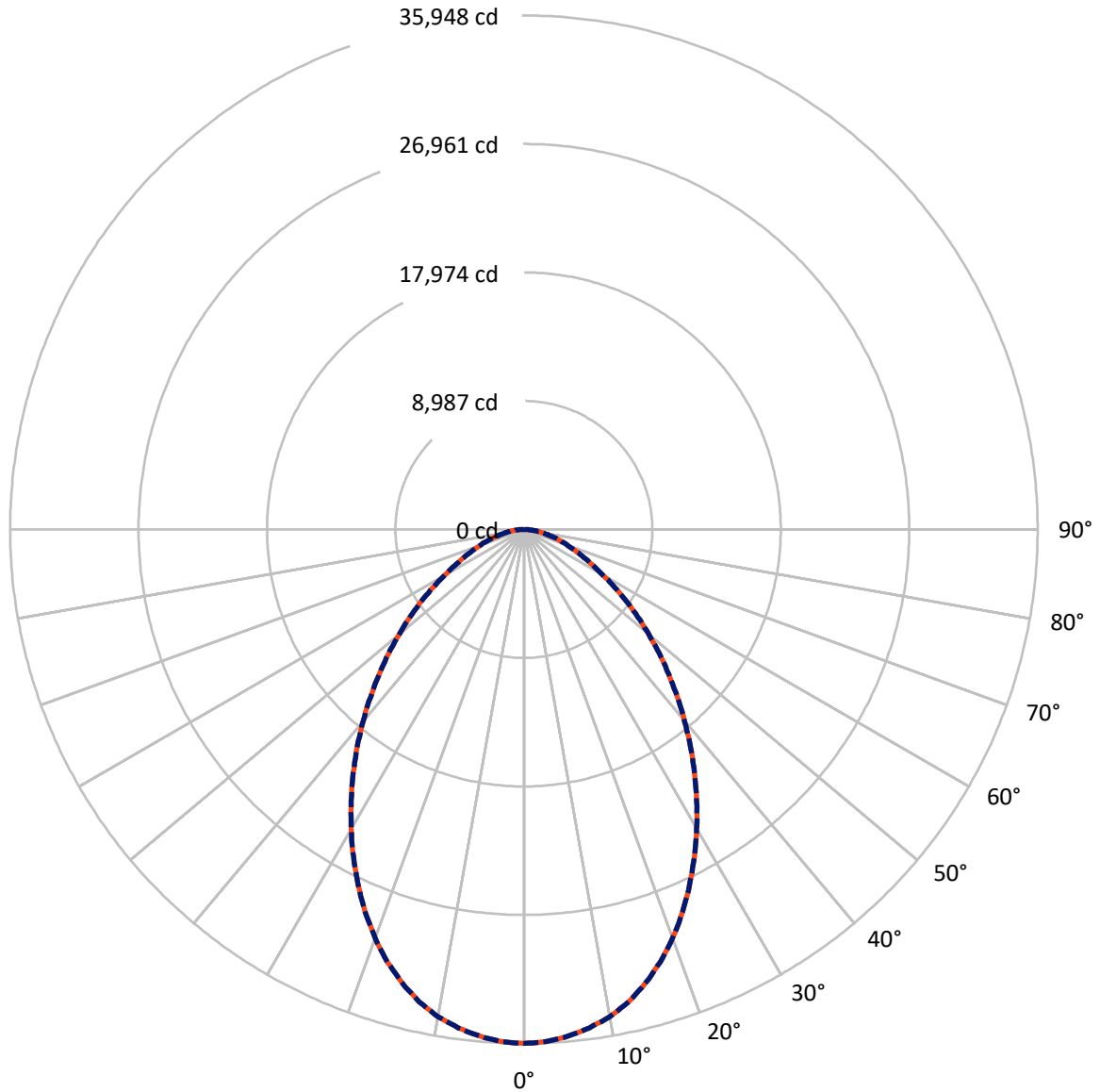
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### Lumen Table

90																			
80	5.4	37.9		94.1		149.0		171.9		149.0		94.1		37.9		5.4			
70																			
60	17.1	17.7	35.6	58.6	84.2	109.2	129.7	141.2	141.2	129.7	109.2	84.2	58.6	35.6	17.7	17.1			
50		26.5	54.8	93.6	142.3	194.5	238.7	263.9	263.9	238.7	194.5	142.3	93.6	54.8	26.5				
40	28.8	35.5	76.2	139.8	223.9	312.6	387.5	430.5	430.5	387.5	312.6	223.9	139.8	76.2	35.5	28.8			
30		44.1	100.4	193.8	315.4	445.6	557.4	622.9	622.9	557.4	445.6	315.4	193.8	100.4	44.1				
20	37.6	51.8	124.3	245.0	403.4	576.6	728.3	817.9	817.9	728.3	576.6	403.4	245.0	124.3	51.8	37.6			
10		57.8	143.2	285.2	473.9	684.0	870.1	977.7	977.7	870.1	684.0	473.9	285.2	143.2	57.8				
0	41.0	61.0	153.6	307.3	513.7	745.1	948.4	1060.7	1060.7	948.4	745.1	513.7	307.3	153.6	61.0	41.0			
-10		61.0	153.6	307.3	513.7	745.1	948.4	1060.7	1060.7	948.4	745.1	513.7	307.3	153.6	61.0				
-20	37.6	57.8	143.2	285.2	473.9	684.0	870.1	977.7	977.7	870.1	684.0	473.9	285.2	143.2	57.8	37.6			
-30		51.8	124.3	245.0	403.4	576.6	728.3	817.9	817.9	728.3	576.6	403.4	245.0	124.3	51.8				
-40	28.8	44.1	100.4	193.8	315.4	445.6	557.4	622.9	622.9	557.4	445.6	315.4	193.8	100.4	44.1	28.8			
-50		35.5	76.2	139.8	223.9	312.6	387.5	430.5	430.5	387.5	312.6	223.9	139.8	76.2	35.5				
-60	17.1	26.5	54.8	93.6	142.3	194.5	238.7	263.9	263.9	238.7	194.5	142.3	93.6	54.8	26.5	17.1			
-70		17.7	35.6	58.6	84.2	109.2	129.7	141.2	141.2	129.7	109.2	84.2	58.6	35.6	17.7				
-80																			
-90	5.4	37.9		94.1		149.0		171.9		149.0		94.1		37.9		5.4			
	-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90

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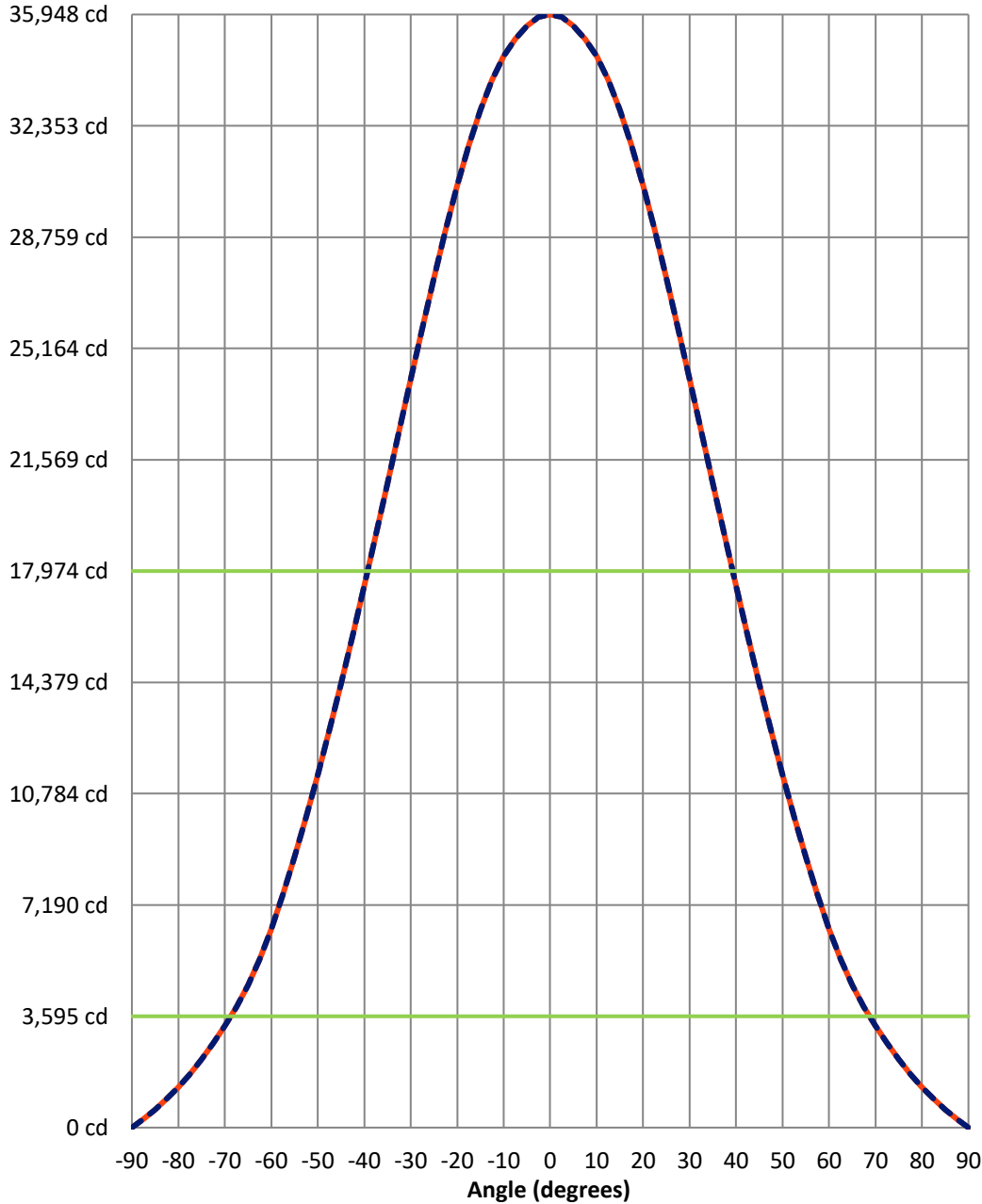
### Luminous Intensity Polar Plot



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

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### Luminous Intensity Plot



**Beam:**  
H Angle: 78.6°  
V Angle: 78.6°  
Lumens: 28006.2  
Efficiency: 43.3%

**Field:**  
H Angle: 137.5°  
V Angle: 137.5°  
Lumens: 45859.2  
Efficiency: 70.9%

**Spill:**  
Lumens: 18866.6  
Efficiency: 29.1%

— Vertical Distribution through 0-Deg  
- - Horizontal Distribution through 0-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°	276.7	276.7	276.7	276.7	276.7	276.7	276.7	263.2	263.2	256.4	249.7
85°	580.4	580.4	580.4	580.4	580.4	566.9	560.1	553.4	546.6	533.1	526.4
82.5°	931.3	931.3	931.3	931.3	917.8	904.3	897.5	884.0	870.5	850.3	830.0
80°	1302.4	1302.4	1302.4	1302.4	1282.2	1268.7	1248.4	1234.9	1214.7	1187.7	1160.7
77.5°	1727.6	1727.6	1727.6	1707.3	1693.8	1673.6	1653.3	1626.3	1599.4	1565.6	1525.1
75°	2206.7	2206.7	2206.7	2179.7	2159.5	2139.2	2105.5	2071.7	2031.2	1984.0	1930.0
72.5°	2726.3	2726.3	2726.3	2692.6	2672.3	2638.6	2598.1	2550.9	2503.6	2442.9	2375.4
70°	3286.4	3286.4	3286.4	3245.9	3212.2	3178.5	3124.5	3070.5	3003.0	2935.5	2854.5
67.5°	3893.8	3893.8	3893.8	3846.5	3806.1	3758.8	3698.1	3630.6	3549.6	3455.1	3360.7
65°	4602.4	4602.4	4575.4	4534.9	4487.6	4420.2	4345.9	4251.4	4150.2	4028.7	3900.5
62.5°	5439.1	5439.1	5398.7	5351.4	5290.7	5203.0	5101.7	4980.3	4838.5	4683.3	4528.1
60°	6410.9	6410.9	6363.7	6302.9	6215.2	6107.2	5972.3	5817.1	5641.6	5445.9	5256.9
57.5°	7531.1	7531.1	7470.4	7389.4	7281.4	7146.5	6977.8	6782.1	6559.4	6316.4	6080.2
55°	8745.8	8745.8	8671.6	8577.1	8448.9	8286.9	8084.5	7855.0	7585.1	7308.4	7004.8
52.5°	10034.8	10034.8	9947.0	9839.1	9690.6	9501.6	9272.2	9002.3	8691.8	8367.9	8010.3
50°	11391.2	11391.2	11289.9	11168.5	10999.8	10777.1	10513.9	10203.5	9859.3	9481.4	9069.7
47.5°	12842.1	12842.1	12727.3	12585.6	12383.2	12126.7	11816.3	11458.7	11067.2	10642.1	10176.5
45°	14333.4	14333.4	14205.2	14043.3	13820.6	13530.4	13186.2	12842.1	12342.7	11850.1	11310.2
42.5°	15885.6	15885.6	15737.1	15554.9	15298.4	14981.3	14589.9	14144.5	13651.9	13098.5	12511.4
40°	17498.4	17498.4	17329.7	17120.5	16837.1	16472.7	16034.0	15534.6	14981.3	14367.2	13719.3
37.5°	19145.0	19145.0	18956.0	18726.6	18409.4	18004.5	17511.9	16958.5	16337.7	15656.1	14940.8
35°	20805.1	20805.1	20595.9	20346.2	19995.3	19549.9	19016.8	18402.7	17714.3	16972.0	16169.0
32.5°	22498.9	22498.9	22269.5	21986.0	21587.9	21095.3	20508.2	19840.1	19145.0	18281.2	17403.9
30°	24172.5	24172.5	23922.8	23612.4	23187.2	22647.4	22006.3	21270.7	20454.2	19570.1	18625.4
27.5°	25819.1	25751.6	25542.4	25211.7	24746.1	24172.5	23477.4	22681.1	21797.1	20825.3	19813.1
25°	27438.7	27364.5	27135.0	26770.6	26271.2	25643.6	24894.6	24044.3	23092.8	22067.0	20960.3
22.5°	28990.8	28909.8	28666.9	28275.5	27742.4	27060.8	26257.7	25346.7	24334.5	23234.5	22067.0
20°	30428.2	30340.5	30090.8	29679.1	29125.8	28403.7	27553.4	26574.9	25495.2	24334.5	23092.8
17.5°	31723.9	31636.1	31373.0	30947.8	30428.2	29625.1	28747.9	27715.4	26574.9	25346.7	24044.3
15°	32864.3	32769.9	32499.9	32074.8	31480.9	30725.1	29800.6	28747.9	27553.4	26257.7	24894.6
12.5°	33836.1	33741.6	33464.9	33039.8	32425.7	31669.9	30725.1	29625.1	28403.7	27060.8	25643.6
10°	34605.4	34510.9	34247.7	33842.8	33208.5	32425.7	31480.9	30428.2	29125.8	27742.4	26271.2
7.5°	35158.8	35071.0	34828.1	34423.2	33842.8	33039.8	32074.8	30947.8	29679.1	28275.5	26770.6
5°	35577.2	35475.9	35233.0	34828.1	34247.7	33464.9	32499.9	31373.0	30090.8	28666.9	27135.0
2.5°	35867.3	35745.9	35475.9	35071.0	34510.9	33741.6	32769.9	31636.1	30340.5	28909.8	27364.5
0°	35948.3	35867.3	35577.2	35158.8	34605.4	33836.1	32864.3	31723.9	30428.2	28990.8	27438.7



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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°	242.9	242.9	236.2	229.4	222.7	209.2	202.4	195.7	189.0	175.5	168.7
85°	512.9	499.4	485.9	472.4	452.1	438.6	418.4	404.9	384.7	364.4	344.2
82.5°	809.8	789.6	762.6	742.3	715.3	681.6	654.6	620.8	587.1	560.1	526.4
80°	1133.7	1100.0	1066.2	1032.5	992.0	951.5	911.0	870.5	823.3	776.1	728.8
77.5°	1484.6	1437.4	1390.2	1336.2	1288.9	1234.9	1181.0	1127.0	1066.2	1005.5	944.8
75°	1876.0	1815.3	1747.8	1680.3	1619.6	1545.4	1471.1	1396.9	1315.9	1241.7	1160.7
72.5°	2301.2	2226.9	2146.0	2065.0	1977.3	1882.8	1788.3	1687.1	1592.6	1498.1	1396.9
70°	2760.1	2672.3	2571.1	2469.9	2361.9	2247.2	2132.5	2011.0	1889.5	1768.1	1646.6
67.5°	3252.7	3144.7	3023.2	2901.8	2766.8	2631.8	2496.9	2355.2	2206.7	2058.2	1916.5
65°	3779.1	3644.1	3502.4	3347.2	3192.0	3036.7	2874.8	2706.1	2537.4	2361.9	2206.7
62.5°	4366.2	4197.5	4015.3	3826.3	3650.8	3461.9	3286.4	3077.2	2874.8	2679.1	2483.4
60°	5047.7	4825.1	4602.4	4366.2	4143.5	3900.5	3684.6	3455.1	3225.7	3003.0	2773.6
57.5°	5810.3	5526.9	5256.9	4973.5	4676.6	4406.7	4130.0	3853.3	3596.9	3333.7	3084.0
55°	6674.1	6329.9	5992.5	5641.6	5297.4	4960.0	4609.1	4298.7	3981.5	3684.6	3394.4
52.5°	7618.9	7227.5	6809.1	6410.9	5972.3	5553.9	5162.5	4771.1	4399.9	4042.2	3711.6
50°	8631.1	8172.2	7693.1	7207.2	6707.8	6215.2	5742.8	5283.9	4852.0	4433.6	4042.2
47.5°	9683.8	9164.2	8617.6	8064.2	7531.1	6930.5	6363.7	5844.0	5324.4	4852.0	4399.9
45°	10763.6	10176.5	9575.9	8948.3	8320.7	7672.8	7045.2	6410.9	5844.0	5283.9	4771.1
42.5°	11877.0	11215.7	10547.6	9852.6	9157.5	8448.9	7740.3	7045.2	6363.7	5742.8	5162.5
40°	13024.3	12295.4	11532.9	10777.1	10034.8	9225.0	8448.9	7672.8	6930.5	6215.2	5553.9
37.5°	14171.5	13375.2	12551.9	11701.6	10851.3	10034.8	9157.5	8320.7	7531.1	6707.8	5972.3
35°	15325.4	14448.2	13557.4	12632.9	11701.6	10777.1	9852.6	8948.3	8064.2	7207.2	6410.9
32.5°	16486.2	15527.9	14542.6	13557.4	12551.9	11532.9	10547.6	9575.9	8617.6	7693.1	6809.1
30°	17626.6	16587.4	15527.9	14448.2	13375.2	12295.4	11215.7	10176.5	9164.2	8172.2	7227.5
27.5°	18740.1	17626.6	16486.2	15325.4	14171.5	13024.3	11877.0	10763.6	9683.8	8631.1	7618.9
25°	19813.1	18625.4	17403.9	16169.0	14940.8	13719.3	12511.4	11310.2	10176.5	9069.7	8010.3
22.5°	20825.3	19570.1	18281.2	16972.0	15656.1	14367.2	13098.5	11850.1	10642.1	9481.4	8367.9
20°	21797.1	20454.2	19145.0	17714.3	16337.7	14981.3	13651.9	12342.7	11067.2	9859.3	8691.8
17.5°	22681.1	21270.7	19840.1	18402.7	16958.5	15534.6	14144.5	12842.1	11458.7	10203.5	9002.3
15°	23477.4	22006.3	20508.2	19016.8	17511.9	16034.0	14589.9	13186.2	11816.3	10513.9	9272.2
12.5°	24172.5	22647.4	21095.3	19549.9	18004.5	16472.7	14981.3	13530.4	12126.7	10777.1	9501.6
10°	24746.1	23187.2	21587.9	19995.3	18409.4	16837.1	15298.4	13820.6	12383.2	10999.8	9690.6
7.5°	25211.7	23612.4	21986.0	20346.2	18726.6	17120.5	15554.9	14043.3	12585.6	11168.5	9839.1
5°	25542.4	23922.8	22269.5	20595.9	18956.0	17329.7	15737.1	14205.2	12727.3	11289.9	9947.0
2.5°	25751.6	24172.5	22498.9	20805.1	19145.0	17498.4	15885.6	14333.4	12842.1	11391.2	10034.8
0°	25819.1	24172.5	22498.9	20805.1	19145.0	17498.4	15885.6	14333.4	12842.1	11391.2	10034.8





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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°	162.0	148.5	135.0	128.2	114.7	108.0	94.5	81.0	74.2	60.7	47.2
85°	323.9	296.9	276.7	256.4	236.2	209.2	189.0	168.7	141.7	121.5	94.5
82.5°	492.6	458.9	425.1	391.4	357.7	323.9	283.4	249.7	215.9	182.2	141.7
80°	681.6	627.6	580.4	533.1	485.9	438.6	384.7	337.4	283.4	236.2	189.0
77.5°	877.3	816.5	749.1	681.6	614.1	553.4	485.9	425.1	364.4	296.9	236.2
75°	1086.5	1005.5	931.3	843.5	762.6	674.8	593.9	512.9	438.6	364.4	283.4
72.5°	1302.4	1201.2	1100.0	1005.5	904.3	803.1	708.6	607.3	512.9	425.1	337.4
70°	1525.1	1403.7	1282.2	1167.5	1052.7	931.3	823.3	708.6	593.9	485.9	384.7
67.5°	1761.3	1619.6	1477.9	1329.4	1201.2	1066.2	931.3	803.1	674.8	553.4	438.6
65°	2017.7	1849.0	1673.6	1518.4	1349.7	1201.2	1052.7	904.3	762.6	614.1	485.9
62.5°	2280.9	2085.2	1889.5	1693.8	1518.4	1329.4	1167.5	1005.5	843.5	681.6	533.1
60°	2550.9	2328.2	2105.5	1889.5	1673.6	1477.9	1282.2	1100.0	931.3	749.1	580.4
57.5°	2827.5	2577.9	2328.2	2085.2	1849.0	1619.6	1403.7	1201.2	1005.5	816.5	627.6
55°	3111.0	2827.5	2550.9	2280.9	2017.7	1761.3	1525.1	1302.4	1086.5	877.3	681.6
52.5°	3394.4	3084.0	2773.6	2483.4	2206.7	1916.5	1646.6	1396.9	1160.7	944.8	728.8
50°	3684.6	3333.7	3003.0	2679.1	2361.9	2058.2	1768.1	1498.1	1241.7	1005.5	776.1
47.5°	3981.5	3596.9	3225.7	2874.8	2537.4	2206.7	1889.5	1592.6	1315.9	1066.2	823.3
45°	4298.7	3853.3	3455.1	3077.2	2706.1	2355.2	2011.0	1687.1	1396.9	1127.0	870.5
42.5°	4609.1	4130.0	3684.6	3286.4	2874.8	2496.9	2132.5	1788.3	1471.1	1181.0	911.0
40°	4960.0	4406.7	3900.5	3461.9	3036.7	2631.8	2247.2	1882.8	1545.4	1234.9	951.5
37.5°	5297.4	4676.6	4143.5	3650.8	3192.0	2766.8	2361.9	1977.3	1619.6	1288.9	992.0
35°	5641.6	4973.5	4366.2	3826.3	3347.2	2901.8	2469.9	2065.0	1680.3	1336.2	1032.5
32.5°	5992.5	5256.9	4602.4	4015.3	3502.4	3023.2	2571.1	2146.0	1747.8	1390.2	1066.2
30°	6329.9	5526.9	4825.1	4197.5	3644.1	3144.7	2672.3	2226.9	1815.3	1437.4	1100.0
27.5°	6674.1	5810.3	5047.7	4366.2	3779.1	3252.7	2760.1	2301.2	1876.0	1484.6	1133.7
25°	7004.8	6080.2	5256.9	4528.1	3900.5	3360.7	2854.5	2375.4	1930.0	1525.1	1160.7
22.5°	7308.4	6316.4	5445.9	4683.3	4028.7	3455.1	2935.5	2442.9	1984.0	1565.6	1187.7
20°	7585.1	6559.4	5641.6	4838.5	4150.2	3549.6	3003.0	2503.6	2031.2	1599.4	1214.7
17.5°	7855.0	6782.1	5817.1	4980.3	4251.4	3630.6	3070.5	2550.9	2071.7	1626.3	1234.9
15°	8084.5	6977.8	5972.3	5101.7	4345.9	3698.1	3124.5	2598.1	2105.5	1653.3	1248.4
12.5°	8286.9	7146.5	6107.2	5203.0	4420.2	3758.8	3178.5	2638.6	2139.2	1673.6	1268.7
10°	8448.9	7281.4	6215.2	5290.7	4487.6	3806.1	3212.2	2672.3	2159.5	1693.8	1282.2
7.5°	8577.1	7389.4	6302.9	5351.4	4534.9	3846.5	3245.9	2692.6	2179.7	1707.3	1302.4
5°	8671.6	7470.4	6363.7	5398.7	4575.4	3893.8	3286.4	2726.3	2206.7	1727.6	1302.4
2.5°	8745.8	7531.1	6410.9	5439.1	4602.4	3893.8	3286.4	2726.3	2206.7	1727.6	1302.4
0°	8745.8	7531.1	6410.9	5439.1	4602.4	3893.8	3286.4	2726.3	2206.7	1727.6	1302.4



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 CATALOG NUMBER: EPH-VN-08-E-730-U-77

**CANDELA DISTRIBUTION (continued):**

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	33.7	27.0	13.5	0.0
85°	74.2	47.2	27.0	0.0
82.5°	108.0	74.2	33.7	0.0
80°	141.7	94.5	47.2	0.0
77.5°	182.2	121.5	60.7	0.0
75°	215.9	141.7	74.2	0.0
72.5°	249.7	168.7	81.0	0.0
70°	283.4	189.0	94.5	0.0
67.5°	323.9	209.2	108.0	0.0
65°	357.7	236.2	114.7	0.0
62.5°	391.4	256.4	128.2	0.0
60°	425.1	276.7	135.0	0.0
57.5°	458.9	296.9	148.5	0.0
55°	492.6	323.9	162.0	0.0
52.5°	526.4	344.2	168.7	0.0
50°	560.1	364.4	175.5	0.0
47.5°	587.1	384.7	189.0	0.0
45°	620.8	404.9	195.7	0.0
42.5°	654.6	418.4	202.4	0.0
40°	681.6	438.6	209.2	0.0
37.5°	715.3	452.1	222.7	0.0
35°	742.3	472.4	229.4	0.0
32.5°	762.6	485.9	236.2	0.0
30°	789.6	499.4	242.9	0.0
27.5°	809.8	512.9	242.9	0.0
25°	830.0	526.4	249.7	0.0
22.5°	850.3	533.1	256.4	0.0
20°	870.5	546.6	263.2	0.0
17.5°	884.0	553.4	263.2	0.0
15°	897.5	560.1	276.7	0.0
12.5°	904.3	566.9	276.7	0.0
10°	917.8	580.4	276.7	0.0
7.5°	931.3	580.4	276.7	0.0
5°	931.3	580.4	276.7	0.0
2.5°	931.3	580.4	276.7	0.0
0°	931.3	580.4	276.7	0.0

(END OF REPORT)