

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: LUMARK

Report Number: P270671

Luminaire Tested: **NAV-AF-06-D-UNV-SL2-7027-1200-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270671  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24258)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-AF-06-D-UNV-SL2-7027-1200-HSS  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II  
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 28005.6 lumens  
Efficiency: N/A  
Efficacy: 73.3 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type II - Medium - Semi-Cutoff  
BUG Rating: B2 - U0 - G4

Input Watts (W): 382  
Input Voltage (V): NR  
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

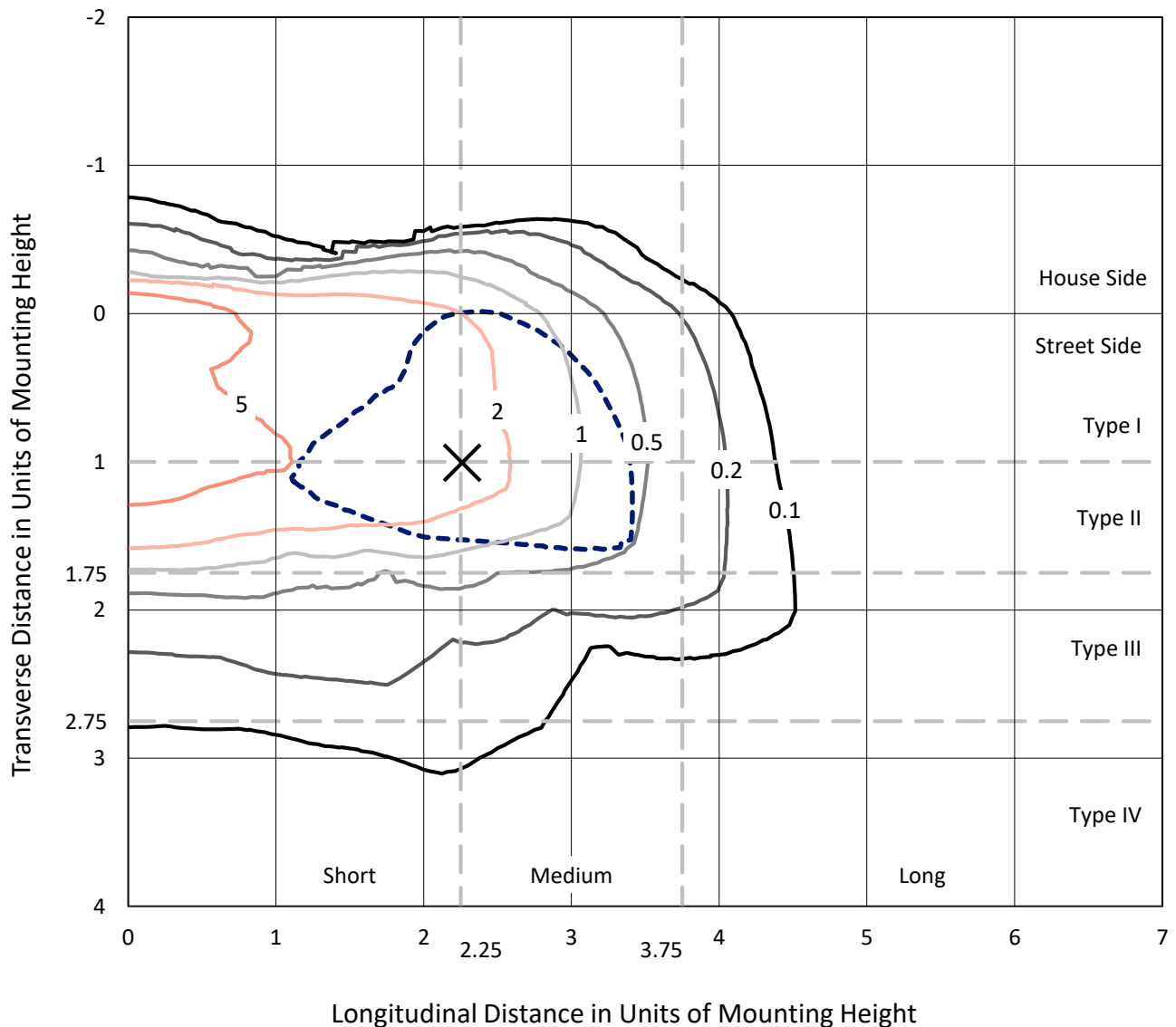


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

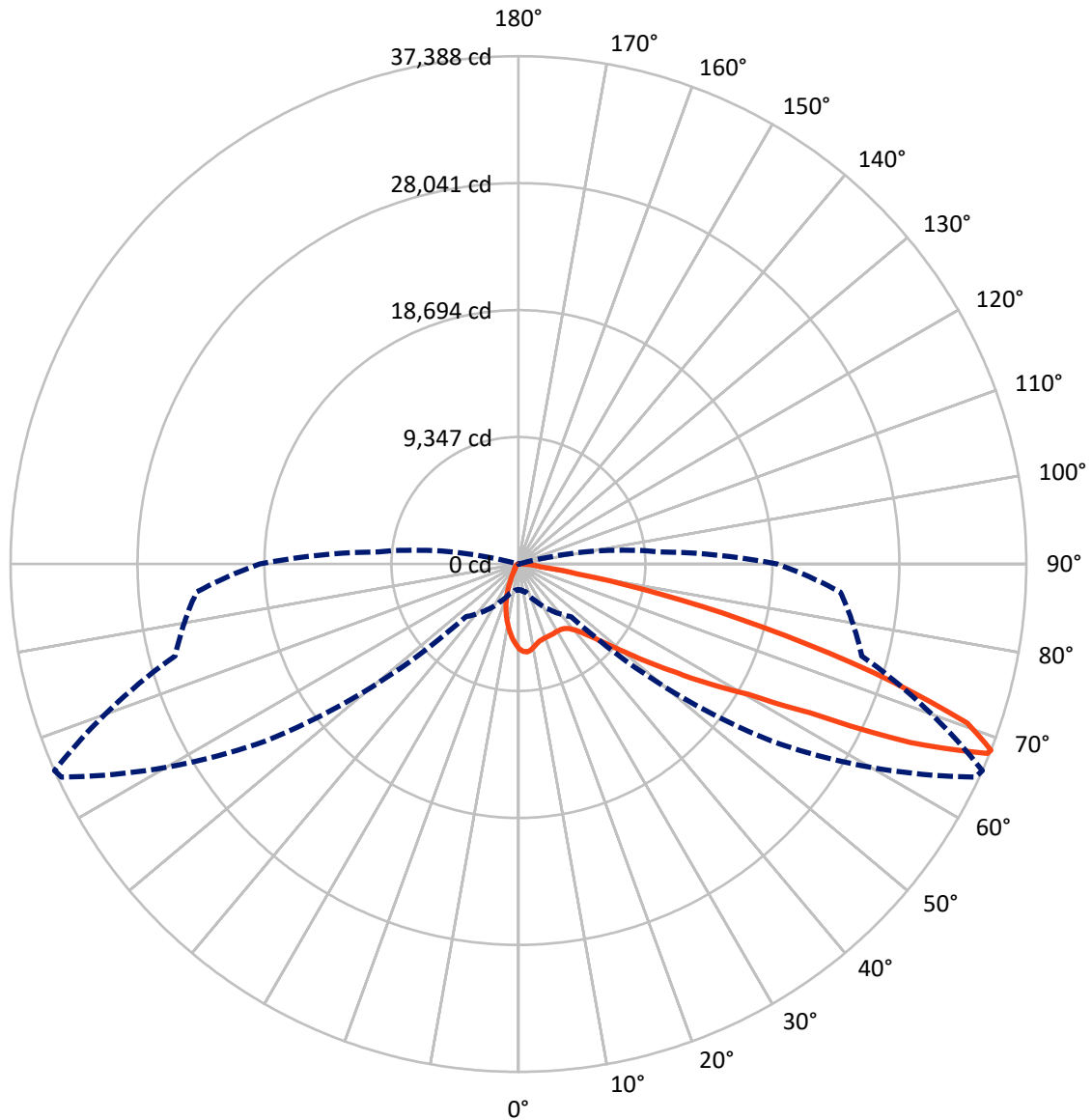


Based on 25 foot mounting height. Maximum calculated value = 10 fc  
 Type II - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral      - - - Horizontal Cone Through 68-Deg Vertical

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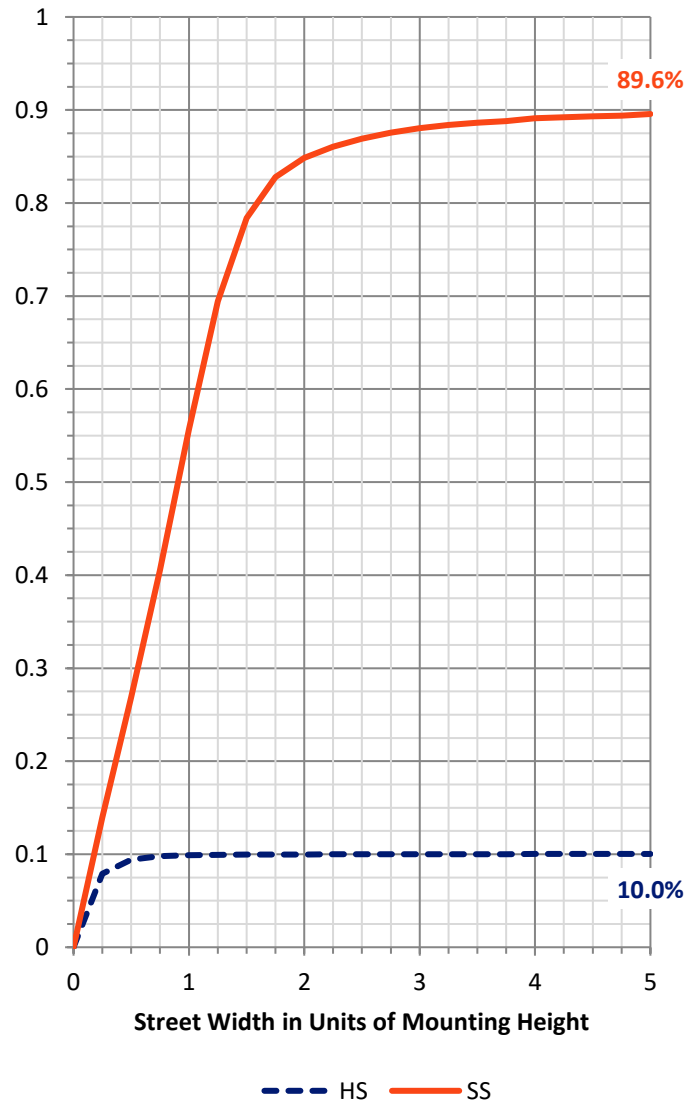
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2836.7	0.0	2836.7
	% Fixture	10.1	0.0	10.1
<b>Street Side</b>	Lumens	25168.9	0.0	25168.9
	% Fixture	89.9	0.0	89.9
<b>Total</b>	Lumens	28005.6	0.0	28005.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	511.5	1.8
10°-20°	1100.5	3.9
20°-30°	1594.8	5.7
30°-40°	2441.3	8.7
40°-50°	4175.7	14.9
50°-60°	6532.0	23.3
60°-70°	7521.4	26.9
70°-80°	3763.8	13.4
80°-90°	364.5	1.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	28005.6	100.0
0°-180°	28005.6	100.0



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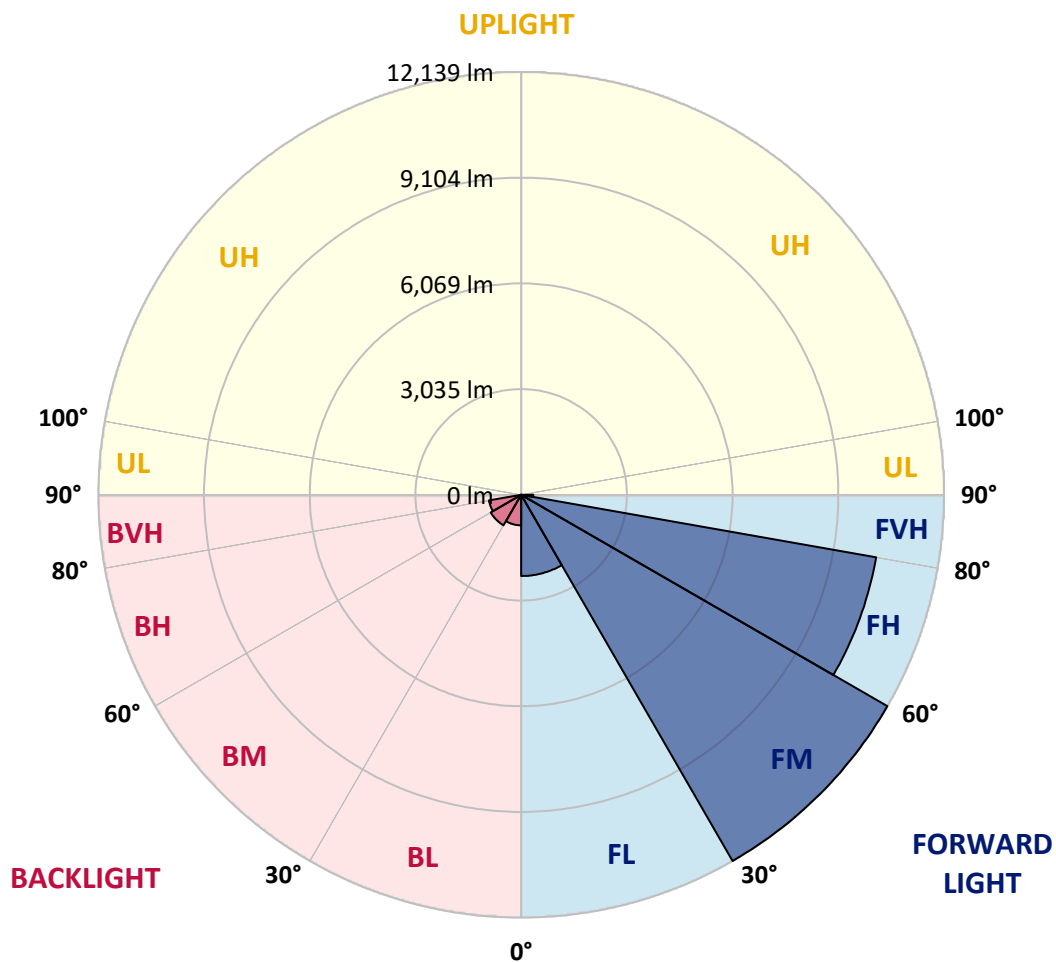
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2331.3	8.3			
FM (30°-60°)	12138.9	43.3			
FH (60°-80°)	10348.0	36.9			G4/12000
FVH (80°-90°)	350.7	1.3			G3/500
BL (0°-30°)	875.5	3.1	B2/1000		
BM (30°-60°)	1010.1	3.6	B2/2500		
BH (60°-80°)	937.2	3.3	B2/1000		G2/1000
BVH (80°-90°)	13.8	0.0			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G4**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	6239.4	6239.4	6239.4	6239.4	6239.4	6239.4	6239.4	6239.4	6239.4	6239.4	6239.4
2.5°	6562.6	6567.0	6564.8	6571.3	6567.0	6534.0	6498.8	6424.0	6430.6	6333.9	6226.2
5°	6100.8	6138.3	6175.6	6212.9	6303.1	6382.3	6476.8	6498.8	6498.8	6415.2	6257.0
7.5°	5630.3	5632.6	5674.4	5724.9	5845.8	5990.9	6210.8	6408.7	6413.1	6435.1	6261.4
10°	5276.5	5287.5	5316.0	5371.0	5491.9	5634.8	5881.1	6190.9	6215.3	6377.8	6217.3
12.5°	5001.7	5014.8	5045.6	5109.3	5219.2	5366.6	5625.9	5979.9	6013.0	6322.9	6204.2
15°	4790.5	4808.2	4832.3	4896.1	5014.8	5171.0	5454.5	5839.3	5878.8	6300.9	6245.9
17.5°	4702.5	4702.5	4700.4	4744.4	4863.2	5021.3	5318.1	5764.6	5815.1	6318.5	6316.3
20°	4739.9	4733.3	4687.3	4676.2	4748.8	4907.1	5210.4	5716.2	5773.2	6351.5	6402.1
22.5°	4937.9	4924.7	4821.4	4735.5	4713.5	4819.1	5137.9	5683.1	5751.3	6419.6	6516.3
25°	5357.9	5318.1	5175.2	4981.8	4808.2	4797.2	5087.3	5665.6	5738.2	6498.8	6641.7
27.5°	5903.0	5892.1	5663.4	5403.9	5069.8	4869.7	5072.0	5652.3	5724.9	6556.0	6742.9
30°	6580.2	6584.5	6320.7	5982.2	5476.4	5074.2	5120.2	5645.8	5720.5	6560.3	6786.9
32.5°	7279.2	7283.6	7063.8	6701.0	6032.7	5425.9	5256.6	5676.6	5744.8	6542.7	6784.5
35°	7952.1	7958.7	7826.8	7534.4	6775.8	5914.0	5513.8	5782.1	5830.4	6553.8	6780.1
37.5°	8802.9	8829.3	8666.6	8393.9	7707.9	6630.7	5933.8	5995.4	6035.0	6644.0	6813.1
40°	10253.9	10218.7	9752.5	9290.9	8719.3	7503.5	6540.6	6362.4	6375.7	6877.0	6938.5
42.5°	11944.6	11900.6	11102.5	10306.7	9759.1	8556.6	7316.6	6925.4	6923.1	7268.2	7211.1
45°	13399.9	13373.5	12533.7	11471.9	10911.3	9719.7	8273.0	7736.6	7710.2	7945.4	7707.9
47.5°	14433.2	14411.2	13775.9	12711.8	12243.4	10999.1	9466.8	8842.5	8787.5	8831.4	8514.9
50°	14534.3	14510.2	14288.1	13604.4	13800.0	12876.8	10942.1	10291.3	10220.8	10152.7	9735.0
52.5°	13589.0	13586.9	13703.4	13659.4	14890.6	15292.8	12751.4	12083.0	11999.5	11825.7	11410.4
55°	11656.5	11645.5	12087.5	12729.4	14866.3	17786.0	15510.6	14215.6	14105.6	13758.4	13213.1
57.5°	8517.0	8459.9	9383.2	10744.2	13822.0	18876.4	19892.2	16864.8	16682.3	15580.8	14741.0
60°	4702.5	4724.5	5911.7	7523.3	11348.7	18661.0	23924.2	19953.7	19474.4	17152.7	16306.4
62.5°	2636.0	2691.1	3574.7	4889.5	7235.3	16913.2	26087.6	25269.7	24115.4	18986.3	18285.0
65°	1994.1	2027.0	2471.1	3772.6	4562.0	11819.2	26432.7	32702.8	31706.9	21765.3	21435.5
67.5°	1877.5	1903.9	2121.5	3128.4	4155.2	6129.5	23834.1	37099.9	37225.3	25555.5	23875.8
68°	1890.8	1923.7	2141.4	3009.9	4148.6	5483.1	22726.0	37121.9	37387.9	26166.6	23792.2
70°	1736.9	1745.6	2264.4	2952.5	4021.2	4320.0	16440.5	34578.2	35055.3	26894.4	21598.2
72.5°	663.9	666.2	1015.8	2556.8	4212.3	4344.3	8281.8	27329.8	27353.8	23405.3	16838.4
75°	345.2	290.2	318.8	800.3	4023.2	4234.3	4155.2	18661.0	18544.5	15829.4	10317.7
77.5°	237.4	202.3	213.3	276.9	1673.1	4232.2	3001.0	10731.0	10706.8	6734.1	2943.8
80°	134.0	116.5	127.5	233.0	587.0	3972.8	2796.6	4612.4	4346.4	1182.8	477.1
82.5°	68.1	57.1	68.1	195.7	364.9	2499.8	2719.6	1809.4	1611.5	281.3	309.9
85°	17.5	17.5	33.0	136.4	226.5	820.1	2438.2	1306.0	1174.1	123.1	219.8
87.5°	4.4	2.2	13.1	50.6	81.3	178.0	1352.0	727.6	626.6	63.8	127.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6239.4	6239.4	6239.4	6239.4	6239.4	6239.4	6239.4	6239.4	6239.4	6239.4	6239.4
2.5°	6182.2	6120.6	5999.7	5863.4	5766.7	5661.2	5599.7	5524.8	5467.8	5417.0	5454.5
5°	6160.2	6041.6	5773.2	5472.0	5219.2	4977.4	4797.2	4625.6	4495.9	4414.6	4447.6
7.5°	6103.1	5927.1	5491.9	5021.3	4608.0	4219.0	3902.3	3618.7	3398.8	3280.3	3317.6
10°	6006.3	5757.9	5173.1	4520.1	3941.9	3392.3	2921.8	2499.8	2180.9	2031.4	2066.6
12.5°	5936.0	5608.4	4843.3	4036.4	3275.8	2495.3	1870.9	1387.3	1138.8	989.4	1002.5
15°	5905.2	5491.9	4535.5	3526.4	2548.1	1602.8	1011.3	732.1	646.4	615.6	617.8
17.5°	5909.6	5399.5	4243.1	2996.6	1813.8	921.2	620.0	558.4	545.2	538.7	538.7
20°	5920.5	5307.1	3939.7	2444.7	1160.8	593.6	516.6	496.9	490.3	481.5	483.6
22.5°	5953.5	5236.8	3634.2	1890.8	714.5	483.6	457.2	439.7	428.8	415.6	417.7
25°	6004.1	5184.1	3332.9	1360.9	503.5	422.2	397.9	373.8	353.9	338.7	340.7
27.5°	6035.0	5109.3	3011.9	927.8	417.7	369.4	336.3	303.4	281.3	268.2	266.0
30°	6013.0	4988.4	2647.0	609.1	369.4	318.8	279.3	241.9	219.8	208.9	208.9
32.5°	5953.5	4832.3	2244.7	444.1	327.6	274.8	226.5	193.4	178.0	171.4	173.7
35°	5885.4	4669.6	1816.0	375.9	294.6	233.0	184.7	158.3	151.8	149.5	149.5
37.5°	5848.1	4529.0	1404.9	340.7	263.8	193.4	151.8	136.4	129.7	129.7	129.7
40°	5889.7	4421.2	1039.9	314.3	233.0	160.4	127.5	116.5	114.4	114.4	114.4
42.5°	6068.0	4383.8	760.7	292.4	202.3	134.0	110.0	101.1	99.0	101.1	101.1
45°	6415.2	4465.1	576.1	270.4	173.7	110.0	94.5	87.9	87.9	90.1	90.1
47.5°	7004.4	4674.1	472.7	248.4	145.0	92.3	81.3	77.0	77.0	79.1	79.1
50°	7919.1	5061.1	424.3	224.2	120.9	79.1	68.1	65.9	65.9	68.1	70.3
52.5°	9308.4	5797.5	400.1	200.1	99.0	65.9	57.1	54.9	57.1	59.4	59.4
55°	10854.1	6740.6	371.5	175.9	83.5	54.9	46.2	46.2	48.4	52.8	52.8
57.5°	12294.2	7650.9	345.2	145.0	72.6	43.9	37.4	37.4	41.9	46.2	46.2
60°	13815.5	8543.4	309.9	116.5	61.5	35.2	30.8	30.8	37.4	41.9	43.9
62.5°	15695.1	9581.1	263.8	92.3	48.4	26.4	22.0	28.6	35.2	41.9	41.9
65°	18412.6	10871.6	206.7	72.6	37.4	19.9	17.5	26.4	33.0	39.5	41.9
67.5°	19399.6	10706.8	156.0	59.4	28.6	15.5	15.5	24.2	33.0	39.5	39.5
68°	19039.1	10346.1	149.5	57.1	26.4	15.5	15.5	24.2	33.0	39.5	39.5
70°	16590.0	8457.7	123.1	43.9	22.0	13.1	13.1	22.0	33.0	37.4	39.5
72.5°	12421.7	5619.3	105.6	28.6	19.9	13.1	11.0	22.0	30.8	37.4	37.4
75°	7125.4	2332.5	90.1	22.0	17.5	11.0	11.0	19.9	30.8	37.4	37.4
77.5°	2013.8	545.2	72.6	17.5	15.5	11.0	8.9	19.9	28.6	35.2	35.2
80°	369.4	162.8	57.1	15.5	13.1	11.0	8.9	19.9	28.6	35.2	35.2
82.5°	244.0	77.0	41.9	15.5	13.1	11.0	8.9	17.5	26.4	33.0	33.0
85°	182.4	54.9	26.4	15.5	13.1	11.0	8.9	17.5	26.4	33.0	33.0
87.5°	101.1	24.2	19.9	17.5	15.5	11.0	8.9	15.5	24.2	30.8	30.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)