

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: P270675

Luminaire Tested: **NAV-AF-06-D-UNV-SL3-7027-600-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270675  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24263)  
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-SL3-7027-600-HSS  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 17503.8 lumens  
Efficiency: N/A  
Efficacy: 90.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B1 - U0 - G3

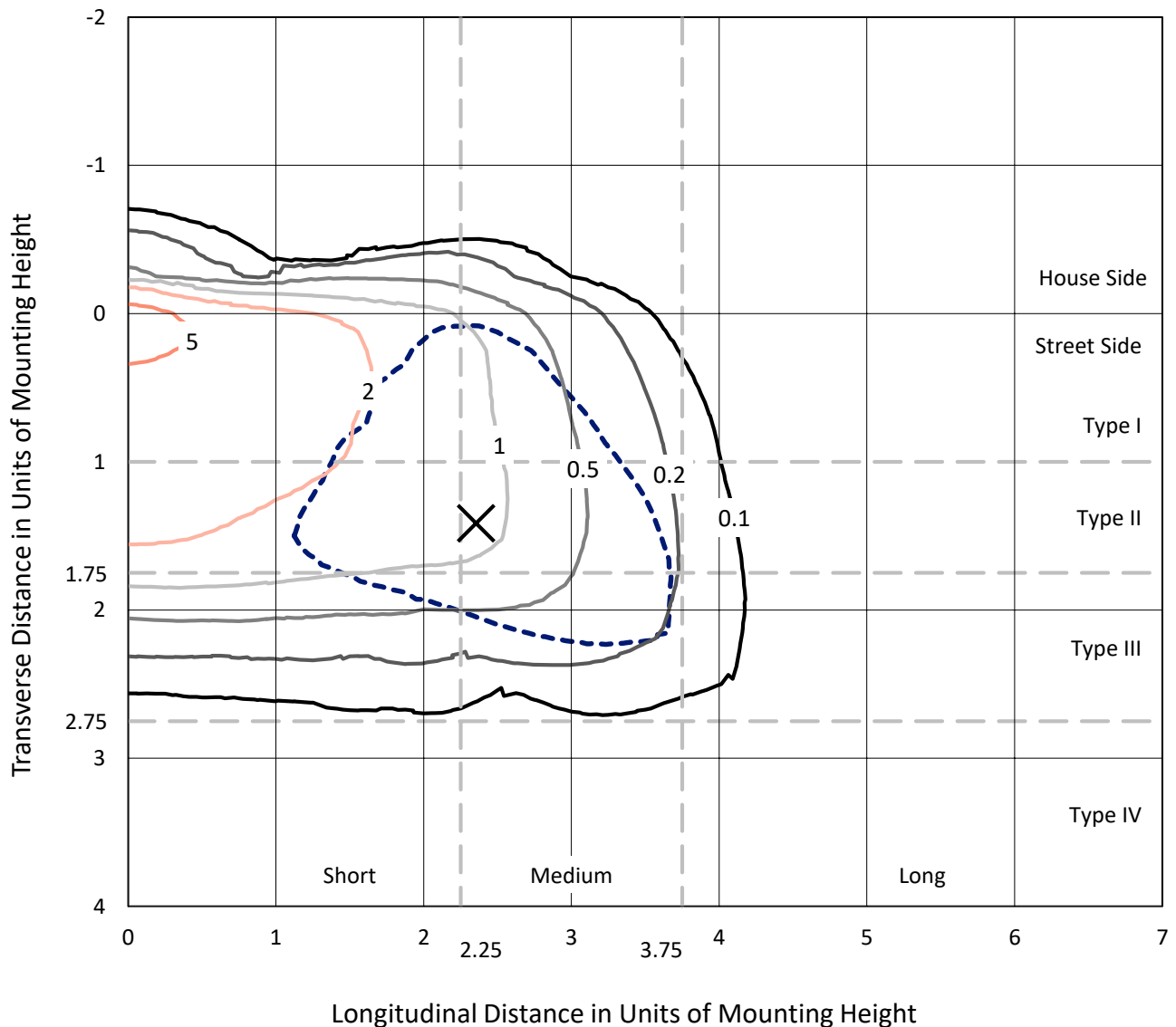
Input Watts (W): 193  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

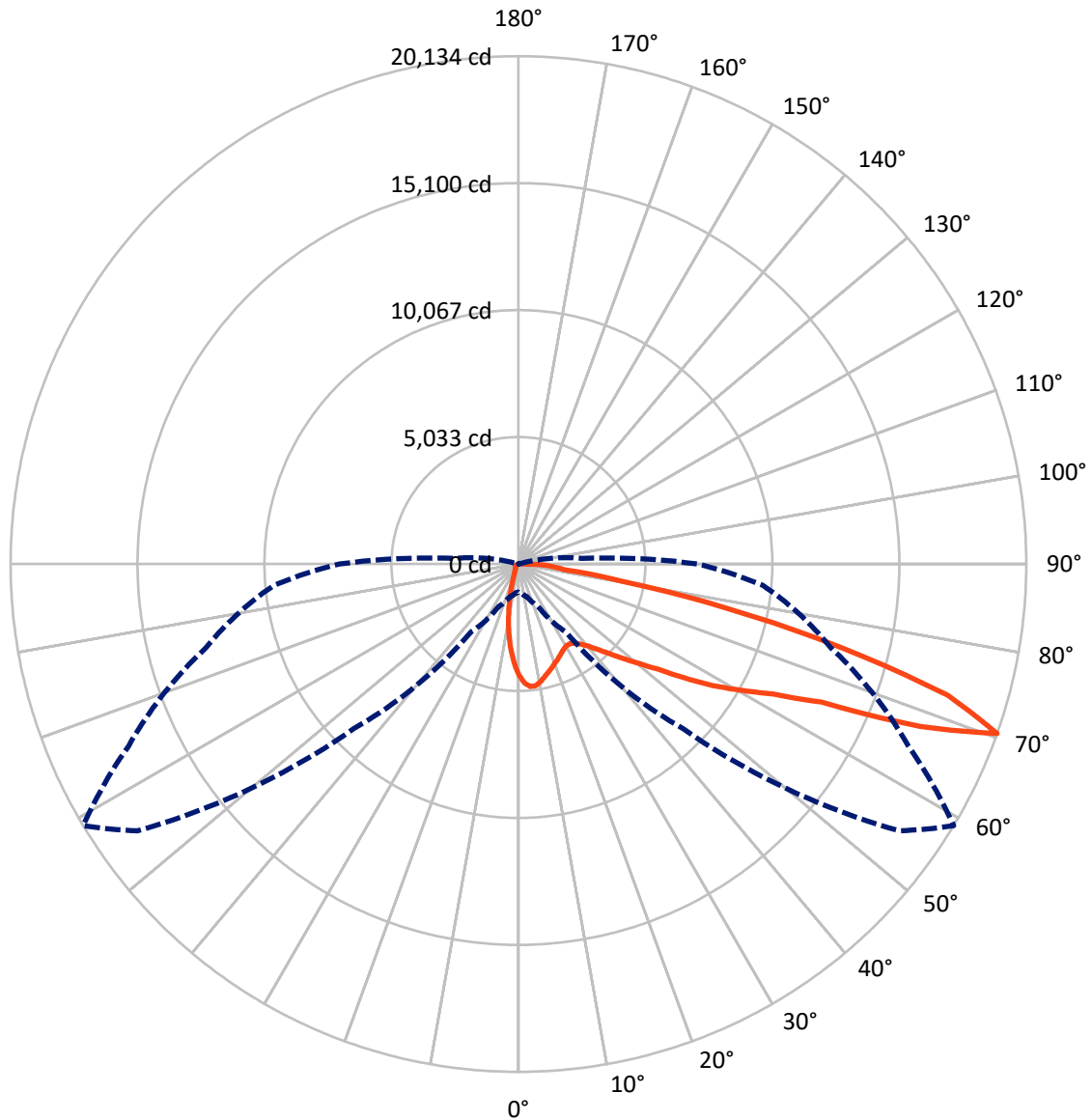


Based on 25 foot mounting height. Maximum calculated value = 7.5 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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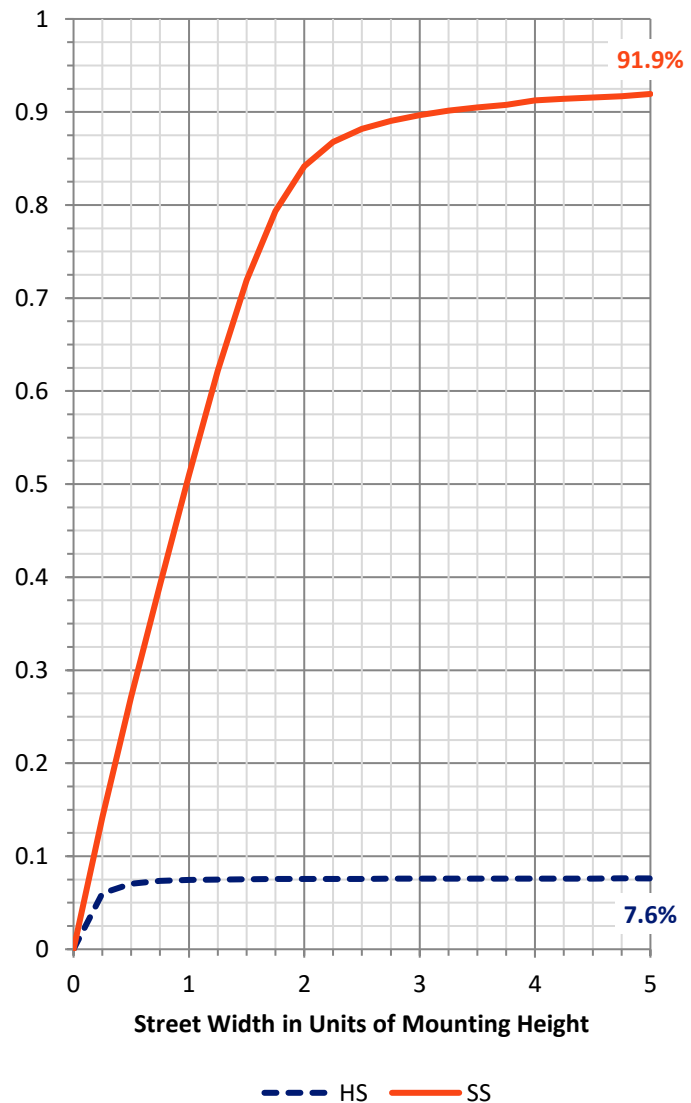
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1345.6	0.0	1345.6
	% Fixture	7.7	0.0	7.7
<b>Street Side</b>	Lumens	16158.2	0.0	16158.2
	% Fixture	92.3	0.0	92.3
<b>Total</b>	Lumens	17503.8	0.0	17503.8
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	364.0	2.1
10°-20°	763.4	4.4
20°-30°	1033.4	5.9
30°-40°	1491.3	8.5
40°-50°	2476.7	14.1
50°-60°	3788.4	21.6
60°-70°	4711.9	26.9
70°-80°	2604.7	14.9
80°-90°	270.1	1.5
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°	17503.8	100.0
0°-180°	17503.8	100.0

**Coefficient of Utilization**



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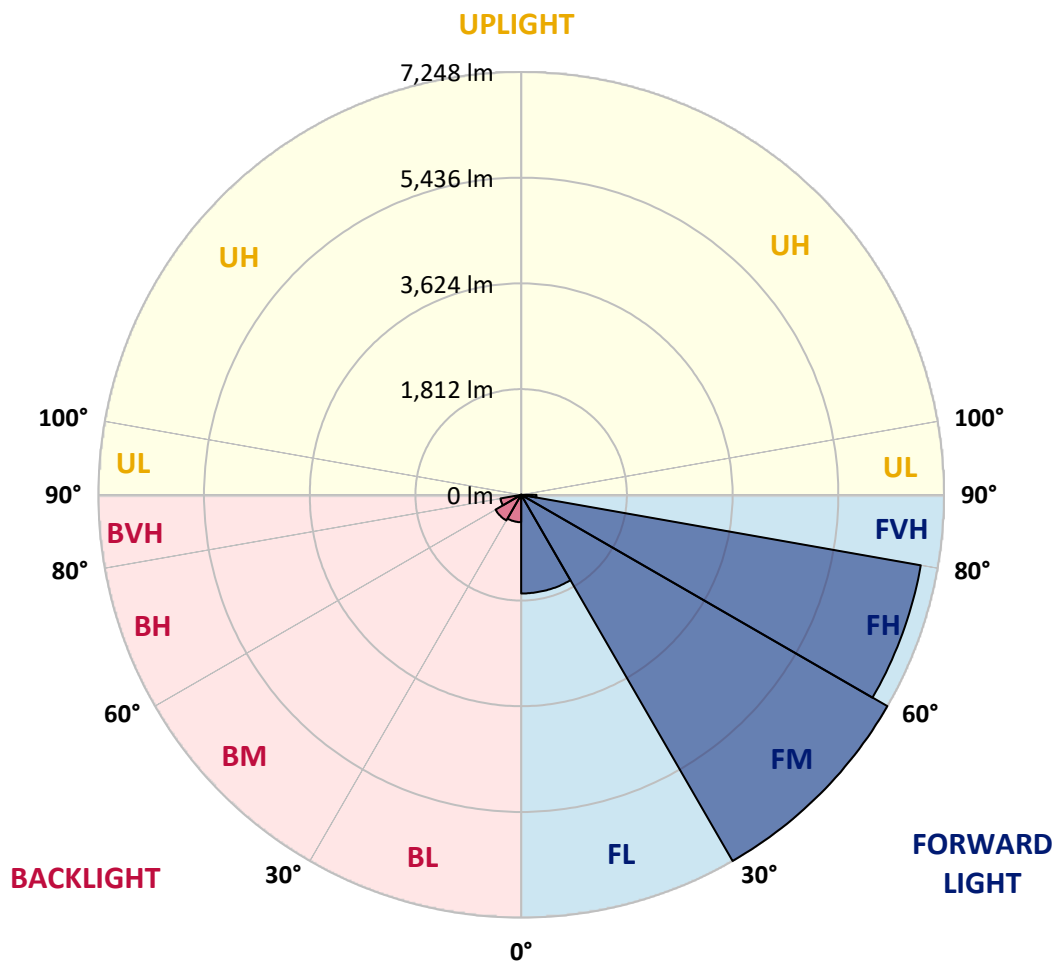
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1691.8	9.7			
FM	(30°-60°)	7248.5	41.4			
FH	(60°-80°)	6955.6	39.7			G3/7500
FVH	(80°-90°)	262.3	1.5			G3/500
BL	(0°-30°)	468.9	2.7	B1/500		
BM	(30°-60°)	507.9	2.9	B1/1000		
BH	(60°-80°)	361.0	2.1	B1/500		G1/500
BVH	(80°-90°)	7.8	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G3**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	4426.0	4426.0	4426.0	4426.0	4426.0	4426.0	4426.0	4426.0	4426.0	4426.0	4426.0
2.5°	5003.1	4995.1	4962.1	4955.6	4918.6	4844.6	4758.9	4724.5	4654.5	4543.5	4420.7
5°	5086.3	5090.2	5092.9	5078.4	5073.1	5012.4	4917.2	4876.3	4782.5	4600.4	4376.0
7.5°	4774.6	4785.2	4818.1	4832.7	4896.1	4919.8	4900.2	4873.7	4799.7	4584.5	4268.9
10°	4445.9	4465.7	4501.3	4525.1	4603.1	4666.3	4747.0	4753.6	4737.8	4531.7	4148.8
12.5°	4163.4	4181.8	4221.3	4268.9	4348.2	4430.0	4550.2	4592.4	4645.2	4497.4	4062.9
15°	3920.4	3925.7	3964.0	4023.2	4127.6	4239.9	4382.6	4444.5	4547.5	4484.2	3996.9
17.5°	3707.8	3709.1	3734.2	3788.3	3915.1	4062.9	4229.3	4311.1	4441.8	4465.7	3938.8
20°	3567.8	3566.5	3567.8	3596.9	3709.1	3884.7	4086.7	4172.5	4340.3	4443.2	3879.4
22.5°	3520.3	3513.6	3483.3	3472.7	3544.1	3698.5	3940.1	4052.3	4249.2	4436.5	3835.9
25°	3578.4	3574.4	3509.7	3449.0	3455.6	3552.0	3790.9	3928.3	4177.8	4460.4	3825.3
27.5°	3765.9	3757.9	3658.8	3540.1	3464.9	3482.0	3680.0	3823.9	4121.1	4518.6	3839.7
30°	4011.4	4012.8	3907.2	3763.2	3586.3	3488.6	3620.6	3756.6	4082.7	4605.6	3871.4
32.5°	4284.7	4283.5	4208.2	4041.8	3816.0	3610.1	3646.9	3761.9	4088.0	4733.7	3932.2
35°	4567.3	4552.8	4527.7	4381.2	4117.1	3822.6	3767.2	3851.8	4143.5	4902.7	4035.2
37.5°	4893.4	4888.1	4913.3	4758.9	4489.5	4135.5	3978.5	4035.2	4283.5	5152.3	4201.6
40°	5412.4	5383.4	5395.3	5185.2	4909.3	4556.8	4274.2	4288.8	4506.5	5482.4	4464.3
42.5°	6401.4	6284.0	6063.4	5669.9	5371.4	5024.2	4661.0	4636.1	4822.2	5882.6	4810.3
45°	7583.2	7448.6	6892.6	6204.7	5833.7	5526.0	5139.2	5071.7	5210.3	6359.2	5256.6
47.5°	8569.7	8424.3	7687.5	6763.2	6303.6	6043.5	5668.6	5589.3	5675.2	6912.5	5792.7
50°	8906.2	8825.7	8178.7	7228.0	6777.7	6624.6	6332.7	6200.7	6221.8	7509.2	6418.6
52.5°	8751.7	8724.1	8290.9	7546.2	7216.2	7266.3	7060.3	6921.7	6897.9	8161.6	7110.5
55°	8425.7	8412.4	8201.2	7723.2	7603.1	7853.9	8081.1	7960.8	7736.4	8854.8	7682.2
57.5°	7959.5	8009.6	8161.6	8063.8	8078.4	8474.5	9029.0	9091.1	8755.7	9406.7	8106.0
60°	6714.3	6849.0	7545.0	8429.5	9106.9	9507.0	10044.5	10160.6	9619.3	9784.3	8596.1
62.5°	4963.4	5156.2	6147.9	7773.4	9673.5	11470.5	11395.3	11343.7	10443.2	10290.1	9487.3
65°	2915.4	3141.4	3979.9	6074.0	8819.1	12732.8	13917.4	13204.2	11698.9	11341.1	10906.7
67.5°	1452.5	1453.7	1832.7	3206.1	6517.7	11852.1	17598.7	17186.6	14368.8	12890.0	11466.5
70°	1117.1	1147.5	1356.1	1863.2	3295.8	9231.2	18442.5	20133.8	17051.9	12821.2	9729.0
72.5°	946.8	966.5	1206.9	1621.5	2464.0	5067.8	15965.2	17796.7	16271.5	10832.8	7171.2
75°	681.4	697.2	1068.3	1471.0	2268.5	2514.0	10951.5	13198.9	12208.7	7620.2	3946.8
77.5°	169.1	167.8	372.3	1193.7	2029.5	2094.2	6284.0	8463.9	7004.9	3120.2	1014.0
80°	75.3	72.7	84.5	250.8	1888.1	1976.7	2763.6	4274.2	2687.1	505.7	310.4
82.5°	52.8	50.1	52.8	92.4	631.1	1834.1	1670.4	1852.6	983.7	173.0	132.1
85°	17.2	15.8	29.0	78.0	177.0	1057.7	1629.3	1383.7	731.5	73.9	88.5
87.5°	2.6	2.6	10.6	42.3	51.6	352.6	955.9	958.6	328.8	43.6	39.6
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°	4426.0	4426.0	4426.0	4426.0	4426.0	4426.0	4426.0	4426.0	4426.0	4426.0	4426.0
2.5°	4358.8	4280.9	4171.2	4061.6	3962.7	3860.9	3779.1	3740.7	3723.7	3699.8	3648.3
5°	4258.3	4117.1	3876.7	3640.4	3419.8	3208.7	3027.7	2924.7	2813.9	2808.6	2754.5
7.5°	4097.3	3896.6	3517.7	3150.5	2813.9	2491.7	2214.3	2034.8	1912.0	1835.3	1782.5
10°	3917.7	3660.2	3158.5	2642.2	2184.0	1753.5	1397.0	1164.7	1023.3	952.1	911.2
12.5°	3775.0	3451.6	2804.6	2154.9	1580.6	1086.7	755.2	586.2	511.0	481.9	468.7
15°	3652.2	3260.0	2473.2	1719.1	1055.0	624.5	437.0	381.6	369.7	369.7	368.3
17.5°	3528.2	3075.3	2151.0	1291.4	664.1	409.4	344.6	336.8	338.0	342.0	342.0
20°	3410.7	2899.6	1840.6	920.4	435.8	327.4	312.9	310.4	314.2	319.5	318.2
22.5°	3315.6	2745.2	1550.1	632.4	335.3	297.1	287.8	283.9	286.5	290.5	289.2
25°	3248.2	2613.1	1283.5	441.0	291.8	270.7	260.1	254.8	252.2	254.8	253.5
27.5°	3207.3	2502.1	1032.6	331.5	261.4	244.2	231.0	220.5	213.8	213.8	211.3
30°	3180.9	2397.8	809.5	274.6	236.3	217.8	199.3	184.8	174.4	171.7	170.3
32.5°	3179.6	2308.1	604.7	242.9	212.5	191.5	169.1	150.6	138.7	136.1	134.7
35°	3212.6	2235.5	445.0	219.1	191.5	166.4	141.4	121.5	110.9	110.9	109.7
37.5°	3298.4	2193.2	336.8	200.7	174.4	145.3	118.8	100.3	91.1	93.8	93.8
40°	3458.1	2185.2	274.6	186.2	159.8	126.8	96.4	81.8	78.0	81.8	81.8
42.5°	3702.5	2227.5	244.2	175.6	146.6	108.2	80.6	70.0	68.7	72.7	72.7
45°	4020.8	2310.7	227.1	166.4	132.1	89.8	67.4	60.7	59.4	64.7	64.7
47.5°	4406.2	2423.0	211.3	155.9	117.5	73.9	56.8	51.6	51.6	56.8	58.1
50°	4863.2	2574.8	195.4	145.3	105.6	62.1	47.5	43.6	44.8	50.1	51.6
52.5°	5388.7	2761.0	180.9	136.1	92.4	50.1	39.6	37.0	38.3	43.6	44.8
55°	5841.6	2923.4	163.8	126.8	75.3	41.0	33.0	31.7	33.0	39.6	39.6
57.5°	6236.4	3079.2	148.0	112.3	59.4	33.0	26.4	26.4	29.0	35.7	37.0
60°	6760.6	3324.8	134.7	95.1	44.8	25.2	21.1	22.5	26.4	31.7	33.0
62.5°	7688.9	3742.1	117.5	79.2	33.0	19.9	17.2	18.4	23.7	30.4	31.7
65°	8850.8	4136.9	97.7	66.0	25.2	14.6	13.2	17.2	23.7	30.4	31.7
67.5°	8732.0	3598.2	76.5	52.8	18.4	11.9	10.6	15.8	22.5	30.4	31.7
70°	7081.5	2522.0	56.8	35.7	14.6	10.6	10.6	15.8	22.5	29.0	30.4
72.5°	4912.0	1403.6	43.6	23.7	13.2	10.6	9.3	14.6	21.1	29.0	30.4
75°	2337.2	430.5	34.3	17.2	11.9	9.3	7.9	14.6	21.1	29.0	30.4
77.5°	449.0	109.7	27.8	14.6	10.6	9.3	7.9	13.2	21.1	27.8	29.0
80°	151.9	48.9	22.5	13.2	10.6	9.3	7.9	13.2	19.9	26.4	27.8
82.5°	83.3	27.8	19.9	11.9	10.6	7.9	6.6	11.9	18.4	26.4	27.8
85°	64.7	19.9	15.8	11.9	10.6	7.9	6.6	11.9	18.4	25.2	26.4
87.5°	33.0	14.6	13.2	11.9	10.6	7.9	6.6	10.6	17.2	23.7	26.4
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)