

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: P270678

Luminaire Tested: **NAV-AF-06-D-UNV-SL3-7027-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270678
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24262)
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-SL3-7027-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 34287.1 lumens
Efficiency: N/A
Efficacy: 89.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B3 - U0 - G5

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

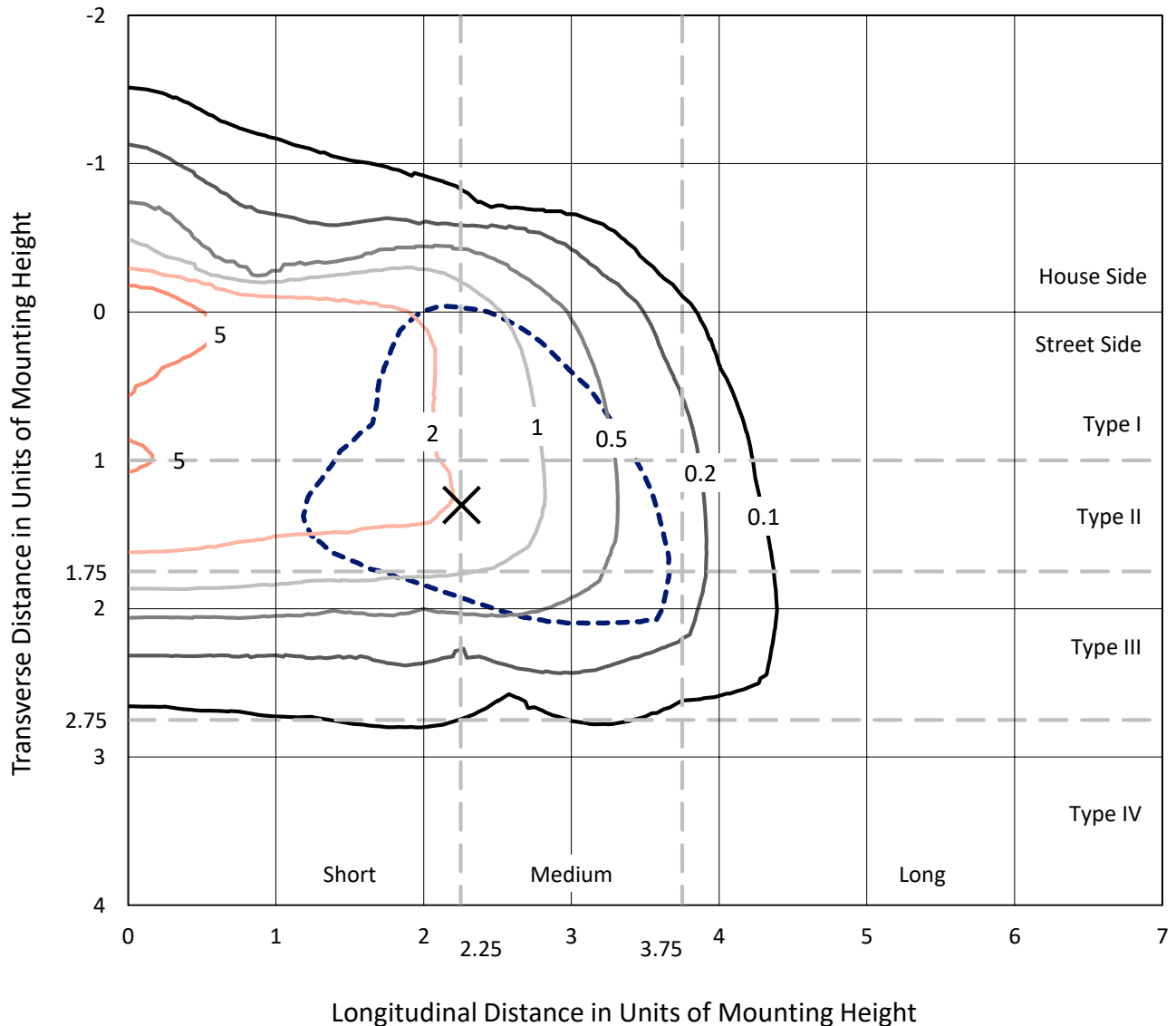


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Iso-Footcandle Lines of Horizontal Illumination

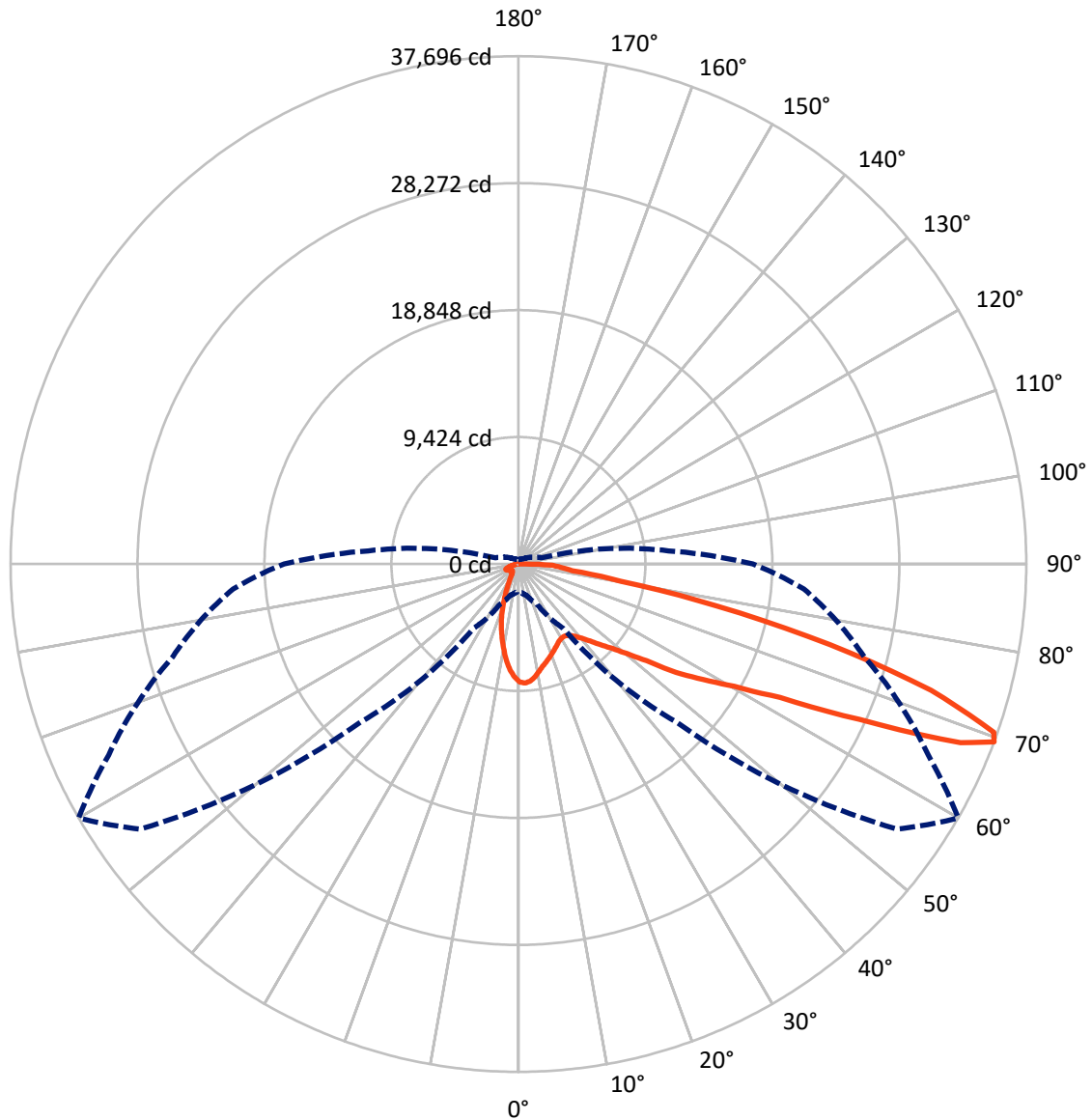
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.7 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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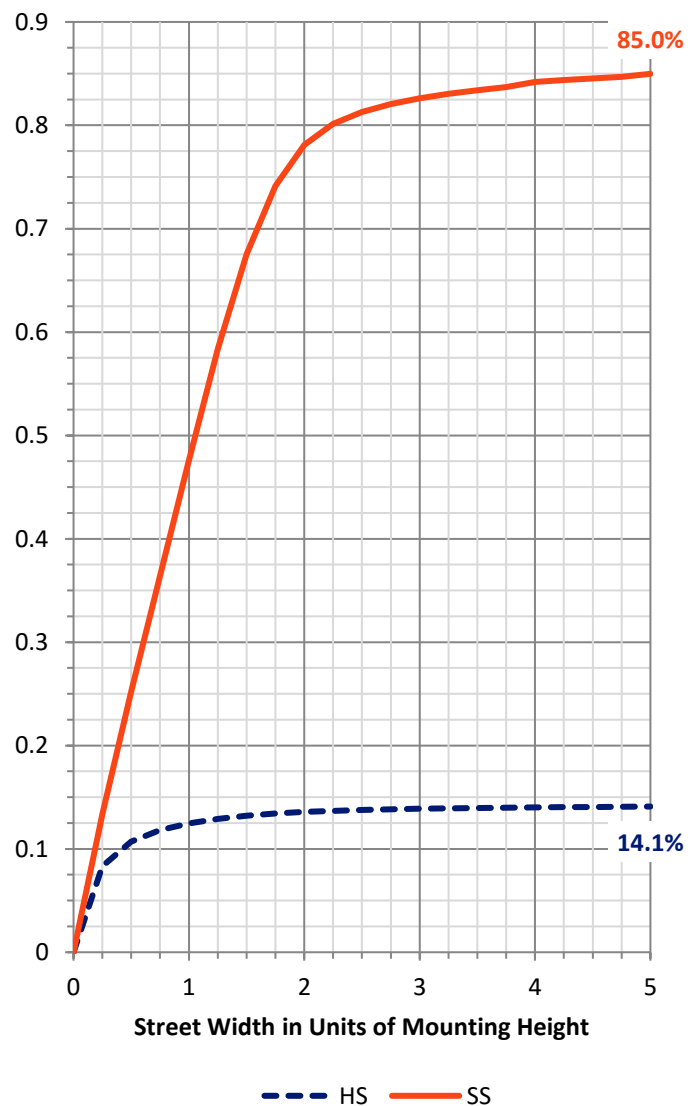
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4890.5	0.0	4890.5
	% Fixture	14.3	0.0	14.3
Street Side	Lumens	29396.6	0.0	29396.6
	% Fixture	85.7	0.0	85.7
Total	Lumens	34287.1	0.0	34287.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	742.2	2.2
10°-20°	1589.1	4.6
20°-30°	2027.2	5.9
30°-40°	2789.5	8.1
40°-50°	4518.5	13.2
50°-60°	7091.7	20.7
60°-70°	9454.5	27.6
70°-80°	5258.8	15.3
80°-90°	815.6	2.4
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°	34287.1	100.0
0°-180°	34287.1	100.0

Coefficient of Utilization



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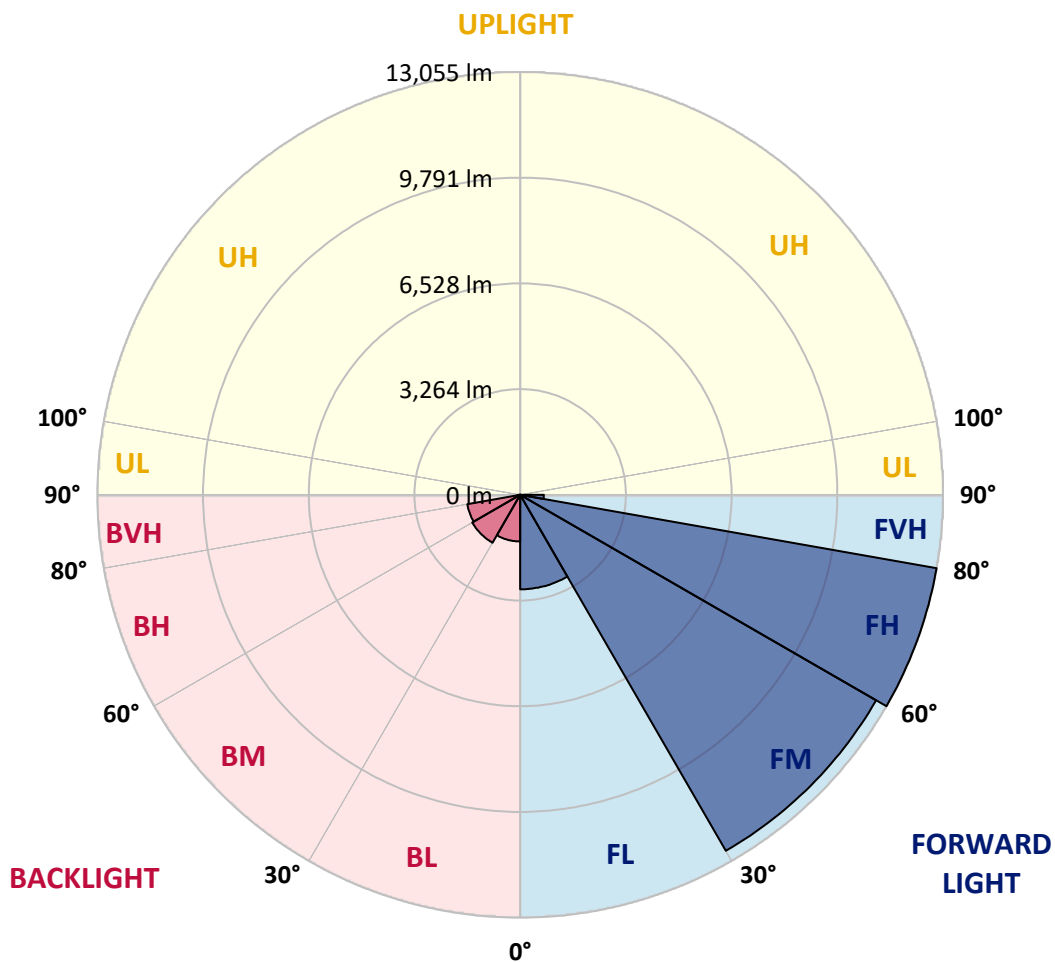
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2917.2	8.5			
FM	(30°-60°)	12691.3	37.0			
FH	(60°-80°)	13055.2	38.1			G5
FVH	(80°-90°)	733.0	2.1			G4/750
BL	(0°-30°)	1441.2	4.2	B3/2500		
BM	(30°-60°)	1708.5	5.0	B2/2500		
BH	(60°-80°)	1658.1	4.8	B3/2500		G3/2500
BVH	(80°-90°)	82.7	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	8748.5	8748.5	8748.5	8748.5	8748.5	8748.5	8748.5	8748.5	8748.5	8748.5	8748.5
2.5°	8981.6	9005.7	9005.7	8985.9	8975.0	8911.1	8873.7	8847.3	8801.2	8715.4	8638.6
5°	8660.5	8706.7	8726.5	8735.3	8792.4	8772.7	8774.9	8757.2	8717.7	8625.3	8500.0
7.5°	8071.4	8080.1	8115.3	8174.5	8313.2	8409.8	8489.1	8504.4	8495.6	8427.4	8251.6
10°	7490.8	7506.1	7548.0	7649.2	7781.1	7919.5	8091.0	8161.5	8214.2	8192.3	7970.1
12.5°	7009.4	7011.5	7057.8	7174.3	7321.5	7495.2	7728.3	7838.3	7963.6	8014.0	7765.7
15°	6545.4	6576.2	6620.1	6760.9	6943.4	7163.3	7431.5	7583.1	7748.2	7893.1	7607.3
17.5°	6193.6	6217.8	6244.2	6360.7	6571.8	6846.6	7178.6	7341.3	7559.0	7781.1	7444.7
20°	6000.0	6008.9	5989.1	6046.3	6224.4	6521.2	6906.0	7101.7	7361.2	7673.3	7277.6
22.5°	5960.6	5960.6	5888.0	5877.0	5956.1	6206.7	6624.6	6864.2	7180.8	7598.6	7128.1
25°	6145.2	6132.1	5995.7	5870.5	5841.9	5969.3	6356.2	6651.0	7026.9	7596.3	7015.9
27.5°	6494.8	6477.3	6308.0	6096.8	5914.4	5859.5	6149.6	6450.9	6906.0	7671.2	6958.7
30°	6930.2	6923.5	6752.1	6488.3	6187.0	5903.4	6068.3	6347.6	6824.7	7809.7	6956.6
32.5°	7407.2	7376.5	7270.9	7007.0	6615.7	6147.5	6116.6	6351.9	6802.7	8012.0	7007.0
35°	7915.1	7893.1	7866.7	7600.7	7161.0	6578.4	6329.9	6503.5	6910.4	8293.3	7150.0
37.5°	8561.6	8537.4	8581.4	8291.1	7809.7	7143.4	6690.4	6807.0	7130.2	8702.3	7416.0
40°	9711.4	9641.1	9518.0	9071.7	8566.0	7836.0	7211.7	7229.2	7506.1	9249.8	7842.7
42.5°	11600.2	11373.6	10764.6	9944.5	9364.1	8640.7	7891.0	7807.3	8025.1	9973.2	8462.7
45°	13493.1	13238.1	12209.1	10896.5	10190.8	9504.7	8730.8	8530.8	8671.5	10815.2	9260.7
47.5°	14715.7	14590.4	13429.4	11848.6	11057.1	10445.9	9691.6	9361.9	9463.0	11769.5	10245.8
50°	15074.0	14966.2	14053.9	12593.9	11875.0	11582.6	10881.2	10443.6	10461.2	12884.1	11426.4
52.5°	14805.8	14761.8	14157.2	13055.6	12626.8	12780.7	12527.9	11918.9	11773.8	14106.5	12706.0
55°	14447.4	14462.7	14229.7	13519.5	13392.0	13897.7	14682.6	14192.3	13576.8	15379.6	14038.4
57.5°	13319.4	13330.5	13941.7	14403.5	14851.9	15463.2	16360.2	16153.5	15436.7	16753.7	15531.3
60°	10725.0	10810.8	12171.8	14220.9	16520.6	18547.8	18767.7	18411.5	17415.6	18336.8	17472.8
62.5°	7662.4	7739.3	9315.8	12345.4	16325.0	22039.3	23213.5	21797.6	20100.1	20704.8	20203.5
65°	4025.8	4012.5	5232.7	8530.8	13750.4	22848.4	30218.4	27808.7	24622.7	23961.0	22841.8
67.5°	2249.3	2321.8	2794.4	4302.8	8961.8	20108.9	34692.6	35402.7	30910.9	26544.3	22727.5
69°	2079.9	2104.1	2420.8	3326.6	5841.9	16591.1	34307.9	37695.9	33562.6	26555.3	21263.2
70°	2020.6	2047.0	2335.0	3064.9	4907.4	13594.3	32907.3	37427.7	34206.6	25966.1	19930.9
72.5°	1811.7	1846.8	2126.1	2754.9	4135.6	7007.0	26506.9	32034.5	30985.6	22694.5	15454.4
75°	1545.7	1605.0	2027.1	2735.1	3918.0	4454.4	17677.1	23866.3	23061.6	16230.4	8768.3
77.5°	639.9	646.4	886.1	2003.0	4111.5	4263.1	9500.4	15117.9	13383.2	7117.0	2640.6
80°	446.3	437.6	442.0	584.8	3317.8	4291.8	4874.5	7688.8	5976.0	1877.6	1235.7
82.5°	376.0	371.5	389.1	367.1	1123.5	4870.0	4076.2	4008.1	2814.3	1011.4	589.3
85°	248.4	241.9	318.8	334.2	534.3	3867.5	4384.1	3150.6	2097.5	540.9	250.6
87.5°	120.9	123.1	182.4	226.5	283.7	1224.7	4199.4	2491.1	1620.5	235.3	101.1
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°	8748.5	8748.5	8748.5	8748.5	8748.5	8748.5	8748.5	8748.5	8748.5	8748.5	8748.5
2.5°	8607.7	8541.8	8482.4	8407.6	8350.6	8302.1	8236.2	8234.0	8222.9	8238.4	8242.8
5°	8416.5	8306.5	8139.5	7952.5	7820.6	7646.9	7477.6	7420.4	7356.7	7350.1	7370.0
7.5°	8128.5	7956.9	7671.2	7385.2	7099.5	6807.0	6530.0	6389.3	6253.0	6211.2	6231.1
10°	7807.3	7589.8	7152.2	6686.2	6283.7	5848.4	5426.3	5153.7	4905.3	4799.6	4826.1
12.5°	7556.8	7279.8	6664.2	6059.4	5457.1	4832.6	4276.4	3737.7	3330.9	3148.5	3159.5
15°	7341.3	6987.3	6206.7	5402.0	4648.0	3792.6	3021.0	2396.6	2040.4	1908.4	1904.0
17.5°	7108.3	6679.4	5729.7	4790.9	3812.4	2754.9	2022.8	1653.4	1512.7	1468.6	1468.6
20°	6859.7	6363.0	5230.7	4124.7	2933.0	1923.8	1521.5	1378.5	1325.8	1312.7	1310.4
22.5°	6629.0	6052.9	4729.2	3414.5	2121.6	1459.9	1294.9	1240.0	1231.2	1242.3	1242.3
25°	6446.4	5780.2	4221.4	2667.0	1543.5	1222.5	1152.0	1145.5	1178.4	1218.0	1224.7
27.5°	6310.1	5536.3	3720.2	1948.1	1213.7	1064.1	1040.0	1068.5	1145.5	1224.7	1240.0
30°	6215.6	5327.4	3120.0	1400.5	1011.4	932.3	943.2	993.7	1110.3	1231.2	1264.3
32.5°	6173.8	5158.1	2515.3	1075.1	864.1	820.2	848.7	914.7	1035.6	1156.5	1196.1
35°	6213.3	5034.9	1956.8	892.6	756.4	723.3	756.4	824.6	903.7	963.1	987.1
37.5°	6356.2	4991.0	1473.1	791.5	685.9	653.0	679.4	725.6	760.8	782.8	793.7
40°	6657.5	5037.2	1154.3	738.8	646.4	609.1	615.6	637.5	661.8	679.4	681.5
42.5°	7136.9	5188.8	1026.8	719.0	622.3	573.8	562.9	578.2	604.6	628.9	633.2
45°	7774.4	5441.7	1013.6	725.6	611.2	545.4	523.4	538.7	573.8	613.5	620.0
47.5°	8598.9	5841.9	1075.1	760.8	617.9	529.9	496.9	512.4	558.4	611.2	620.0
50°	9575.2	6395.9	1189.4	813.5	648.5	529.9	486.0	499.1	547.4	606.9	615.6
52.5°	10725.0	7167.7	1308.2	866.2	692.6	549.7	490.4	488.0	532.1	587.0	598.0
55°	11993.7	8126.2	1422.6	912.5	716.8	576.1	501.3	474.9	510.1	554.1	562.9
57.5°	13486.6	9438.9	1622.6	956.4	730.0	595.8	514.5	461.6	481.5	512.4	519.0
60°	15511.6	11367.1	2011.8	1031.2	754.1	604.6	516.6	448.6	446.3	468.3	470.5
62.5°	18152.1	13625.1	2383.4	1119.1	802.5	606.9	507.9	439.7	417.7	424.3	424.3
65°	20029.8	14456.2	2275.5	1193.8	846.6	604.6	499.1	433.2	395.8	384.7	384.7
67.5°	18961.2	12769.8	1932.7	1213.7	850.9	580.5	479.3	417.7	376.0	349.6	349.6
69°	17391.4	11193.4	1774.3	1178.4	815.8	551.9	457.2	402.4	362.7	332.1	332.1
70°	16111.8	9999.6	1677.6	1136.7	773.9	527.7	437.6	387.0	349.6	323.2	321.1
72.5°	12028.8	6672.9	1433.5	980.6	635.5	446.3	382.6	345.2	314.3	296.8	296.8
75°	6347.6	3344.2	1174.1	800.3	490.4	356.2	314.3	290.2	272.6	270.4	268.2
77.5°	2079.9	1512.7	844.2	602.5	360.6	277.0	250.6	235.3	233.1	241.9	241.9
80°	1123.5	903.7	543.0	406.8	250.6	206.7	193.4	191.2	197.8	211.1	211.1
82.5°	545.4	446.3	323.2	250.6	171.4	151.8	151.8	153.9	162.8	178.1	178.1
85°	235.3	211.1	186.8	140.8	105.6	94.5	107.7	118.8	125.4	136.4	140.8
87.5°	112.1	99.0	85.8	54.9	46.2	48.4	57.1	70.3	83.5	92.3	94.5
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)