

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: McGRAW-EDISON

Report Number: 769011_320MP

Luminaire Tested: **GSM-XX-320-MP-XX-2F-SG-XX-X**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: 769011_320MP
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GSM-XX-320-MP-XX-2F-SG-XX-X
Description: MEDIUM ARCHITECTURAL AREA LUMINAIRE-HORIZONTAL LAMP-TYPE II DISTRIBUTION
Light Source: 320 WATT PULSE-START CLEAR ED-28 HORIZONTAL BURN
Ballast/Driver: -

Summary

Lumens per Lamp: 30000 (1 lamp)
Luminaire Lumens: 22921.2 lumens
Efficiency: 76.4%
Efficacy: 65.5 lumens/watt
Luminous Opening: Point Source (0' x 0' x 0')
IES Classification: Type III - Medium - Full Cutoff
BUG Rating: B4 - U0 - G4

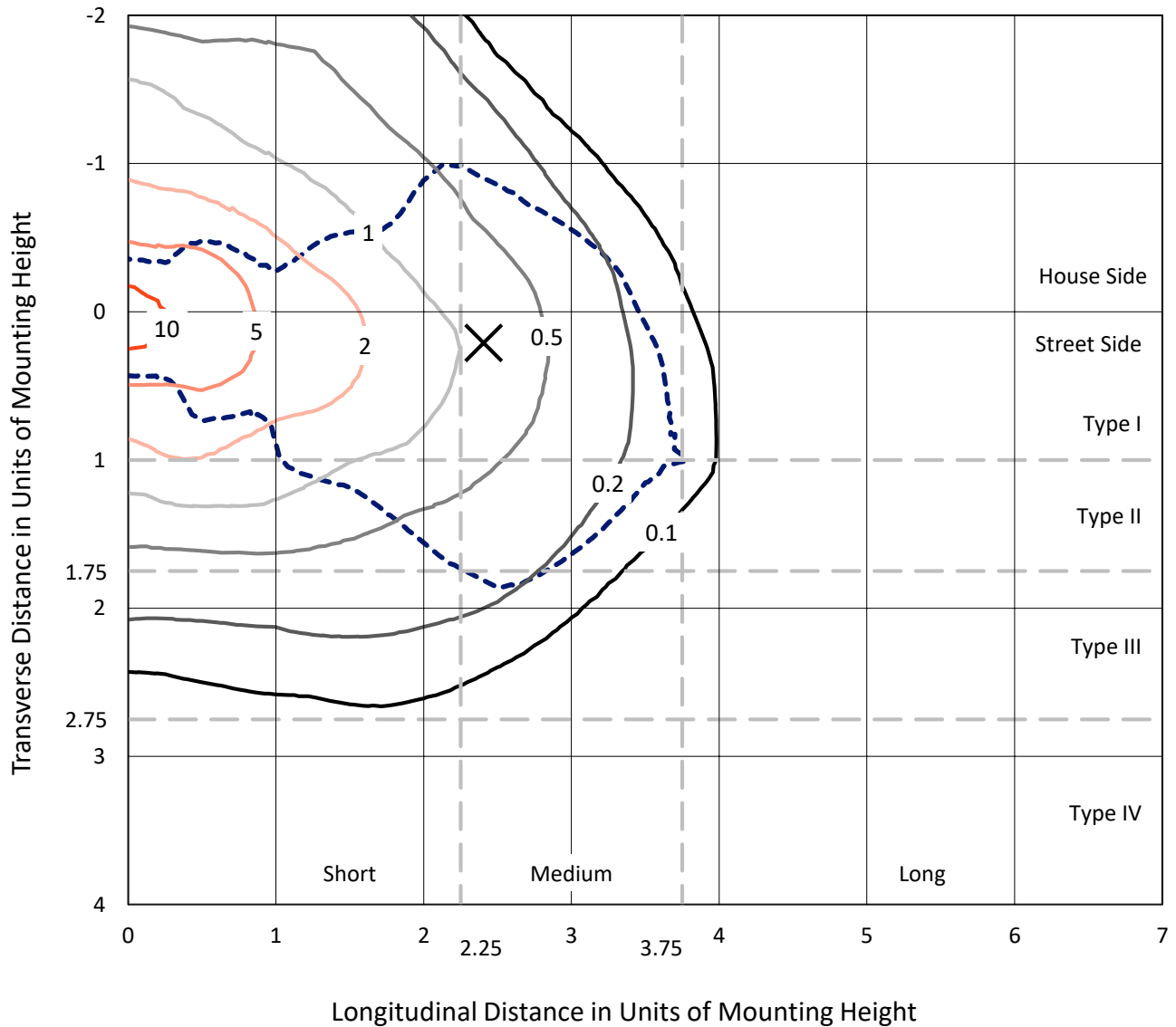
Input Watts (W): 350
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: 769011_320MP
 CATALOG NUMBER: GSM-XX-320-MP-XX-2F-SG-XX-X

Iso-Footcandle Lines of Horizontal Illumination

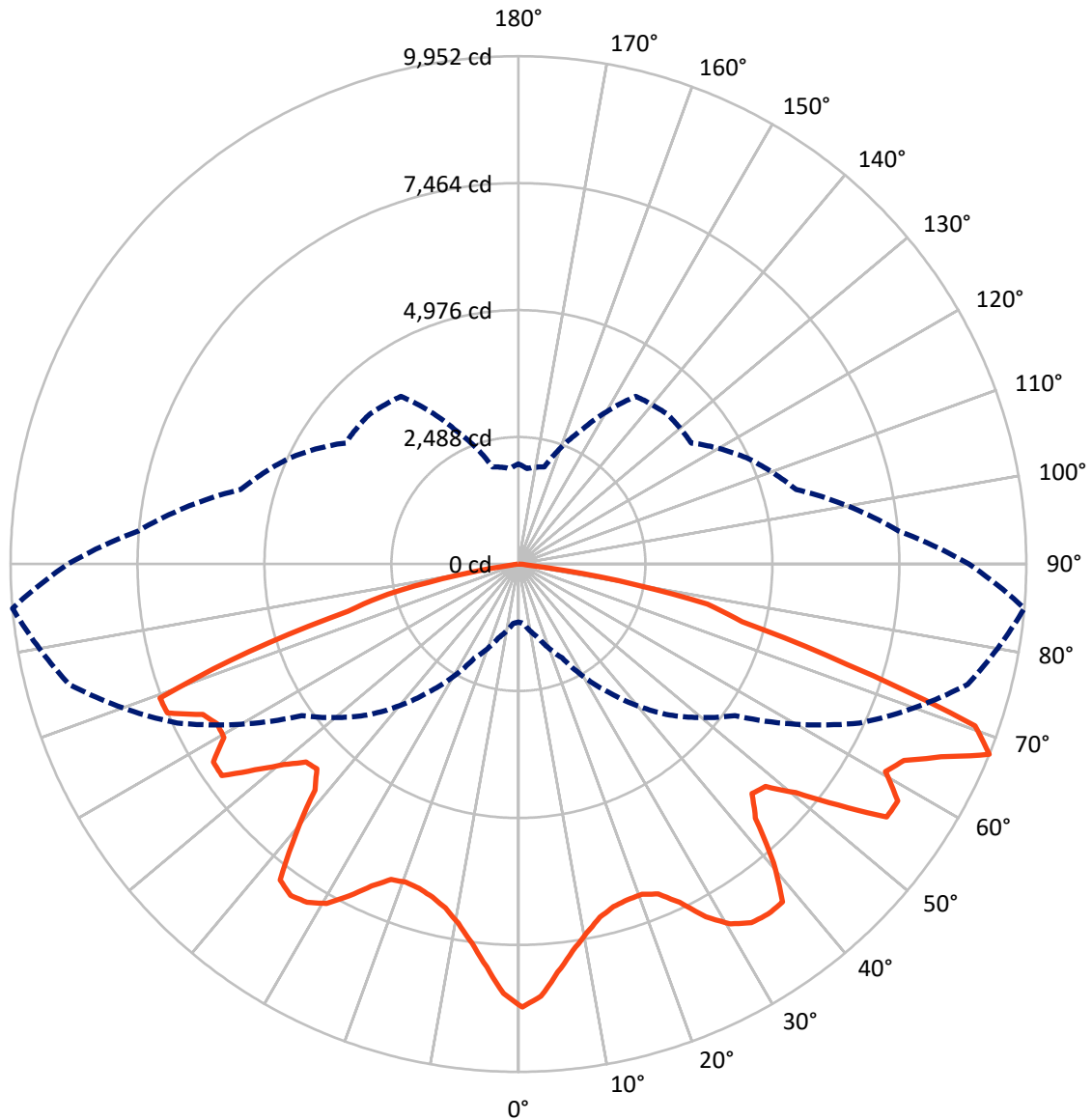
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.9 fc
 Type III - Medium - Full Cutoff

REPORT NUMBER: 769011_320MP
CATALOG NUMBER: GSM-XX-320-MP-XX-2F-SG-XX-X

Luminous Intensity Polar Plot



— Vertical Plane Through 85-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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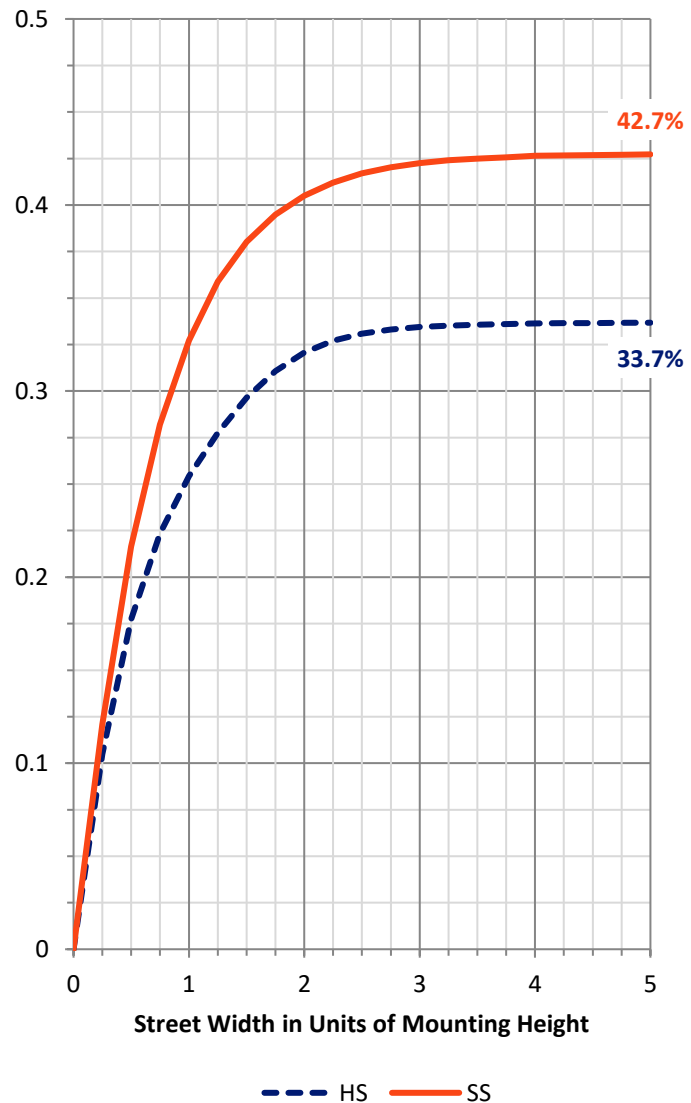
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10142.2	0.0	10142.2
	% Lamp	33.8	0.0	33.8
Street Side	Lumens	12779.0	0.0	12779.0
	% Lamp	42.6	0.0	42.6
Total	Lumens	22921.2	0.0	22921.2
	% Lamp	76.4	0.0	76.4

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	742.8	3.2	2.5
10°-20°	1809.1	7.9	6.0
20°-30°	2614.0	11.4	8.7
30°-40°	3429.4	15.0	11.4
40°-50°	3467.4	15.1	11.6
50°-60°	4159.9	18.1	13.9
60°-70°	4435.5	19.4	14.8
70°-80°	2161.0	9.4	7.2
80°-90°	102.0	0.4	0.3
90°-100°	0.0	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-90°	22921.2	100.0	76.4
0°-180°	22921.2	100.0	76.4



REPORT NUMBER: 769011_320MP

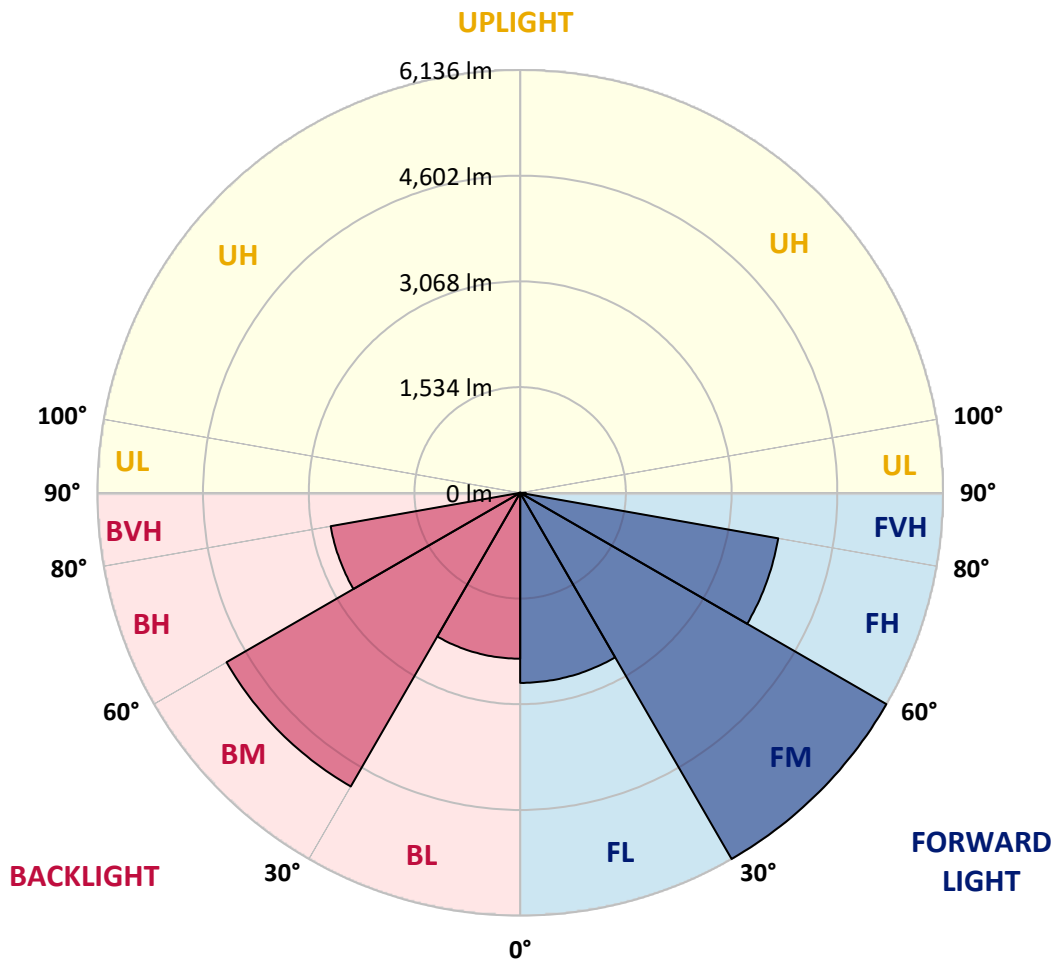
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2758.2	9.2			
FM	(30°-60°)	6136.5	20.5			
FH	(60°-80°)	3803.7	12.7			G2/5000
FVH	(80°-90°)	80.6	0.3			G1/100
BL	(0°-30°)	2407.8	8.0	B3/2500		
BM	(30°-60°)	4920.3	16.4	B3/5000		
BH	(60°-80°)	2792.8	9.3	B4/5000		G4/5000
BVH	(80°-90°)	21.3	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	
Trapped Light		7078.8	23.6			

BUG Rating: B4-U0-G4

Type III Medium





REPORT NUMBER: 769011_320MP
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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	8681.7	8681.7	8681.7	8681.7	8681.7	8681.7	8681.7	8681.7	8681.7	8681.7	8681.7
2.5°	8892.5	8901.7	8888.3	8846.7	8791.7	8709.2	8654.2	8595.0	8540.0	8480.0	8457.5
5°	8892.5	8892.5	8851.7	8769.2	8663.3	8516.7	8388.3	8269.2	8150.0	8035.8	7971.7
7.5°	8489.2	8494.2	8452.5	8384.2	8305.8	8200.8	8063.3	7930.0	7797.5	7650.8	7563.3
10°	7893.3	7889.2	7865.8	7861.7	7838.3	7788.3	7746.7	7650.8	7522.5	7348.3	7247.5
12.5°	7242.5	7270.0	7270.0	7311.7	7357.5	7398.3	7398.3	7361.7	7251.7	7100.8	7013.3
15°	6619.2	6650.8	6729.2	6815.8	6912.5	6980.8	7073.3	7137.5	7086.7	6967.5	6866.7
17.5°	6069.2	6091.7	6201.7	6344.2	6454.2	6614.2	6806.7	6944.2	6995.0	6916.7	6802.5
20°	5519.2	5523.3	5656.7	5840.0	6027.5	6252.5	6573.3	6839.2	6958.3	6907.5	6802.5
22.5°	4996.7	5005.8	5165.8	5400.0	5647.5	5972.5	6399.2	6834.2	7064.2	7022.5	6870.8
25°	4538.3	4560.8	4716.7	4996.7	5354.2	5789.2	6385.0	6980.8	7389.2	7343.3	7183.3
27.5°	4135.0	4144.2	4327.5	4657.5	5101.7	5725.0	6522.5	7334.2	7838.3	7829.2	7581.7
30°	3814.2	3827.5	4029.2	4428.3	4978.3	5775.8	6747.5	7669.2	8214.2	8182.5	7939.2
32.5°	3510.8	3552.5	3869.2	4350.0	4996.7	5922.5	6907.5	7788.3	8393.3	8379.2	8118.3
35°	3245.0	3314.2	3726.7	4313.3	5088.3	6045.8	6903.3	7792.5	8430.0	8425.0	8173.3
37.5°	3043.3	3130.8	3662.5	4300.0	5175.0	6005.0	6815.8	7820.0	8580.8	8406.7	8090.8
40°	2869.2	2979.2	3625.8	4359.2	5101.7	5780.0	6669.2	7728.3	8195.8	7700.8	7293.3
42.5°	2731.7	2846.7	3625.8	4364.2	4822.5	5335.8	6192.5	7095.8	7320.8	6811.7	6403.3
45°	2649.2	2764.2	3566.7	4272.5	4419.2	4771.7	5500.8	6344.2	6756.7	6417.5	6073.3
47.5°	2557.5	2663.3	3501.7	4120.8	4190.0	4478.3	5065.0	5968.3	6692.5	6513.3	6174.2
50°	2465.8	2548.3	3309.2	3915.0	4203.3	4496.7	4987.5	6124.2	7091.7	7040.8	6655.8
52.5°	2383.3	2406.7	3070.8	3685.8	4327.5	4666.7	5193.3	6555.0	7865.8	7847.5	7297.5
55°	2190.8	2227.5	2755.0	3400.8	4327.5	4826.7	5505.0	7114.2	8659.2	8755.0	8063.3
57.5°	2062.5	2071.7	2392.5	3089.2	4157.5	4780.8	5638.3	7389.2	8860.8	8764.2	8012.5
60°	1943.3	1925.0	2150.0	2805.0	3800.0	4542.5	5436.7	7375.8	8274.2	8265.0	7632.5
62.5°	1769.2	1728.3	1939.2	2502.5	3433.3	4285.8	5156.7	7545.0	8393.3	8475.8	7682.5
65°	1420.8	1398.3	1686.7	2190.8	3171.7	4208.3	5165.8	7856.7	9121.7	9103.3	8054.2
67.5°	1136.7	1169.2	1494.2	2030.8	3061.7	4185.0	5180.0	7375.8	9112.5	9951.7	8828.3
70°	898.3	925.8	1306.7	1801.7	2869.2	4029.2	5280.8	6958.3	8810.0	9493.3	8402.5
72.5°	623.3	650.8	935.0	1512.5	2516.7	3680.8	5115.8	6545.8	7691.7	6742.5	6027.5
75°	421.7	421.7	545.8	889.2	1475.8	2090.0	3002.5	4015.8	5042.5	4524.2	3951.7
77.5°	275.0	252.5	179.2	220.0	403.3	916.7	1820.0	3158.3	4501.7	3786.7	3195.0
80°	110.0	87.5	64.2	87.5	220.0	545.8	1095.8	2025.8	2685.8	1989.2	1627.5
82.5°	18.3	14.2	0.0	5.0	41.7	91.7	137.5	210.8	311.7	192.5	151.7
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	8681.7	8681.7	8681.7	8681.7	8681.7	8681.7	8681.7	8681.7	8681.7	8681.7
2.5°	8420.8	8375.0	8315.0	8274.2	8255.8	8223.3	8210.0	8205.0	8210.0	8195.8
5°	7920.8	7829.2	7742.5	7655.0	7645.8	7645.8	7664.2	7664.2	7664.2	7673.3
7.5°	7480.8	7306.7	7141.7	7026.7	6935.0	6949.2	6999.2	7022.5	6985.8	6985.8
10°	7137.5	6916.7	6715.0	6500.0	6348.3	6298.3	6403.3	6449.2	6421.7	6417.5
12.5°	6889.2	6623.3	6390.0	6133.3	5950.0	5825.8	5959.2	6018.3	5995.8	5977.5
15°	6738.3	6445.0	6165.0	5876.7	5629.2	5486.7	5565.0	5583.3	5514.2	5500.8
17.5°	6646.7	6302.5	5981.7	5642.5	5404.2	5216.7	5216.7	5225.8	5138.3	5125.0
20°	6614.2	6183.3	5825.8	5514.2	5271.7	5019.2	4890.8	4918.3	4831.7	4813.3
22.5°	6665.0	6188.3	5743.3	5427.5	5216.7	4835.8	4547.5	4575.0	4584.2	4556.7
25°	6930.8	6385.0	5867.5	5500.8	5180.0	4689.2	4304.2	4148.3	4295.0	4290.8
27.5°	7293.3	6660.0	6041.7	5578.3	5193.3	4615.8	4098.3	3777.5	3924.2	3924.2
30°	7641.7	6935.0	6280.0	5679.2	5092.5	4501.7	3896.7	3479.2	3570.8	3566.7
32.5°	7815.8	7141.7	6463.3	5739.2	5074.2	4465.0	3680.8	3245.0	3254.2	3245.0
35°	7880.0	7128.3	6298.3	5510.0	4804.2	4116.7	3479.2	3061.7	3052.5	3061.7
37.5°	7755.8	6962.5	6073.3	5184.2	4474.2	3869.2	3250.0	2929.2	2965.8	2997.5
40°	6857.5	6064.2	5275.8	4465.0	3873.3	3479.2	3098.3	2846.7	2942.5	3015.8
42.5°	5959.2	5216.7	4575.0	3910.0	3446.7	3144.2	2929.2	2777.5	2901.7	2979.2
45°	5629.2	4909.2	4364.2	3814.2	3345.8	2993.3	2800.8	2718.3	2910.8	2997.5
47.5°	5688.3	4900.0	4322.5	3827.5	3378.3	2951.7	2755.0	2695.0	3034.2	3162.5
50°	6045.8	5055.8	4350.0	3827.5	3387.5	2965.8	2846.7	2773.3	3281.7	3501.7
52.5°	6550.0	5244.2	4446.7	3818.3	3369.2	3020.8	3034.2	3034.2	3722.5	4034.2
55°	7137.5	5395.0	4492.5	3809.2	3364.2	3140.0	3259.2	3305.0	3960.8	4263.3
57.5°	7128.3	5326.7	4455.8	3823.3	3446.7	3345.8	3548.3	3446.7	3873.3	4015.8
60°	6696.7	5060.8	4386.7	3896.7	3575.8	3621.7	3823.3	3360.0	3530.0	3640.0
62.5°	6678.3	5129.2	4529.2	4034.2	3781.7	3965.0	3745.0	2947.5	3075.8	3199.2
65°	6848.3	5431.7	4808.3	4203.3	4102.5	4240.0	3410.0	2461.7	2562.5	2640.0
67.5°	7471.7	5633.3	4927.5	4135.0	4139.2	4010.8	2878.3	1970.8	1879.2	1961.7
70°	7499.2	5106.7	4098.3	3259.2	3327.5	3094.2	2291.7	1503.3	1228.3	1283.3
72.5°	5541.7	3534.2	2223.3	1521.7	1503.3	1375.0	1196.7	811.7	692.5	724.2
75°	3460.8	2016.7	1050.0	687.5	555.0	485.8	430.8	330.0	335.0	339.2
77.5°	2621.7	1224.2	555.0	335.0	247.5	192.5	174.2	165.0	165.0	165.0
80°	1251.7	509.2	210.8	119.2	78.3	50.8	50.8	50.8	55.0	55.0
82.5°	110.0	50.8	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)