

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: ITL53970_320MP

Luminaire Tested: **GSM-XX-320-MP-XX-3S-XX-FG-HS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: ITL53970_320MP
Test Lab: INDEPENDENT TESTING LABORATORIES, INC.
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GSM-XX-320-MP-XX-3S-XX-FG-HS
Description: MEDIUM ARCHITECTURAL AREA LUMINAIRE - TYPE III DISTRIBUTION WITH HOUSE SIDE SHIELD
Light Source: 320 WATT PULSE-START CLEAR ED-28 HORIZONTAL BURN
Ballast/Driver: -

Summary

Lumens per Lamp: 30000 (1 lamp)
Luminaire Lumens: 16111.5 lumens
Efficiency: 53.7%
Efficacy: 46.0 lumens/watt
Luminous Opening: Circular (Dia: 1.74' x H: 0')
IES Classification: Type III - Medium - Full Cutoff
BUG Rating: B2 - U0 - G2

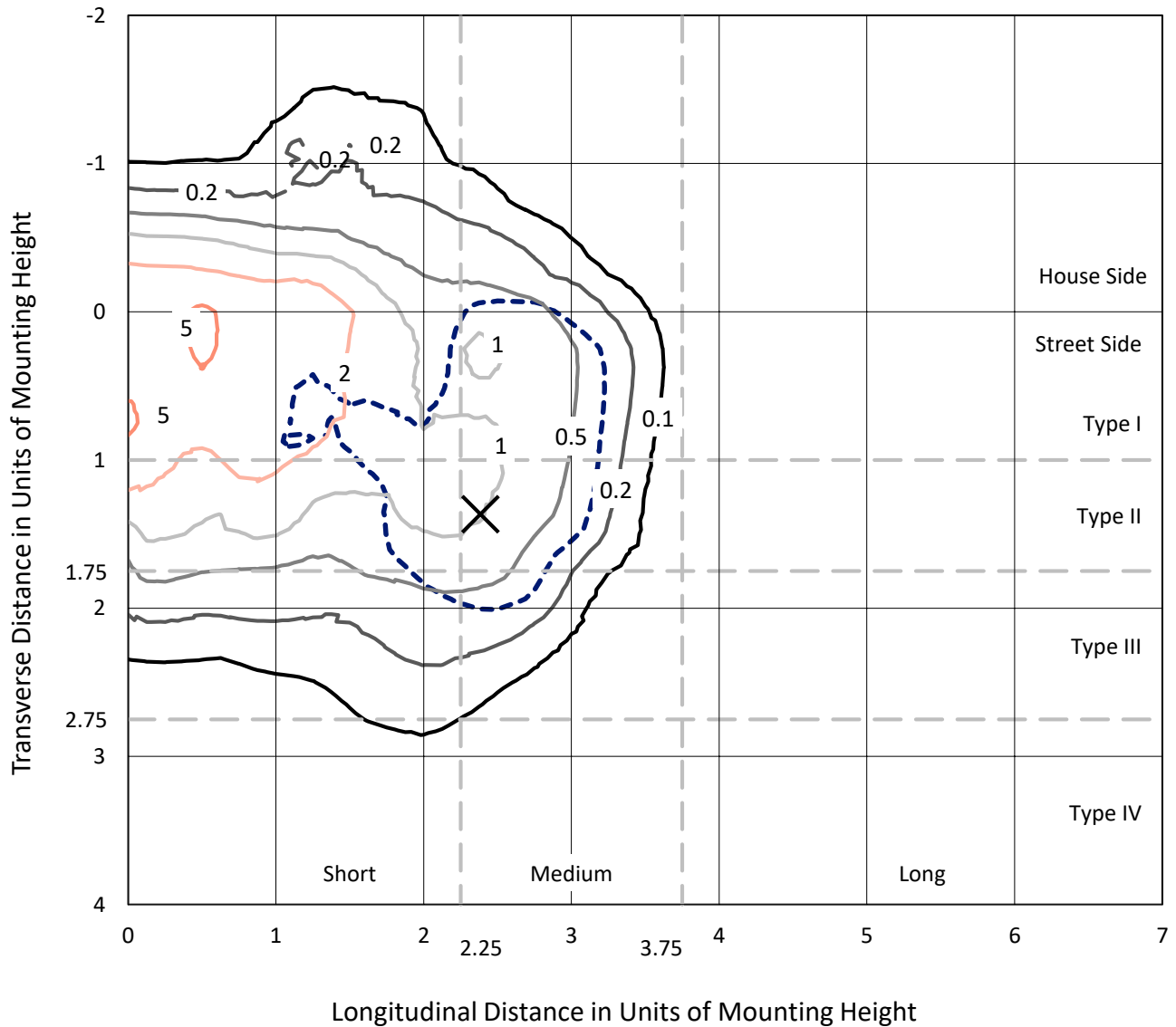
Input Watts (W): 350
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: ITL53970_320MP
 CATALOG NUMBER: GSM-XX-320-MP-XX-3S-XX-FG-HS

Iso-Footcandle Lines of Horizontal Illumination

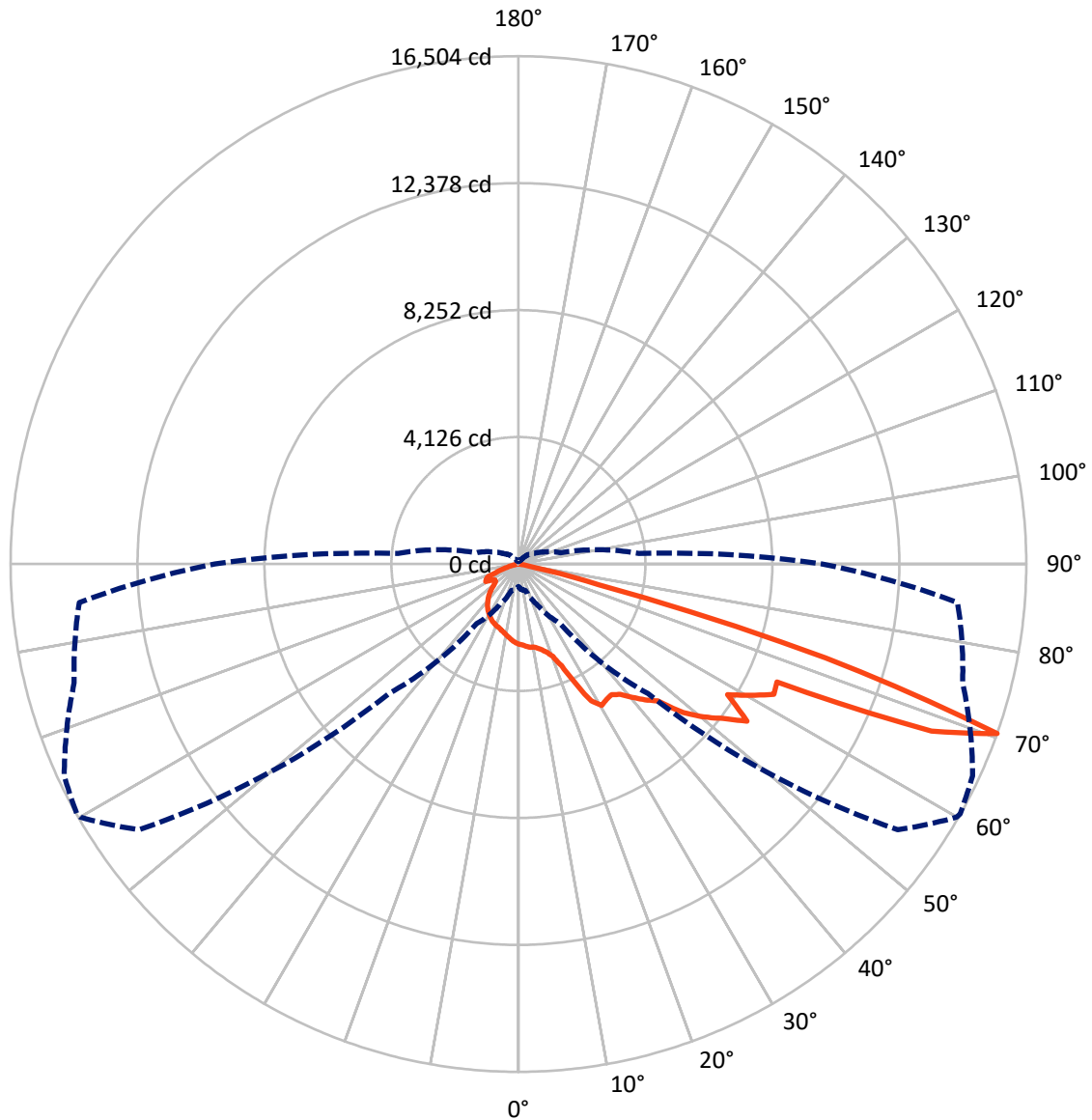
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.8 fc
 Type III - Medium - Full Cutoff

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CATALOG NUMBER: GSM-XX-320-MP-XX-3S-XX-FG-HS

Luminous Intensity Polar Plot



— Vertical Plane Through 60.2-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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 CATALOG NUMBER: GSM-XX-320-MP-XX-3S-XX-FG-HS

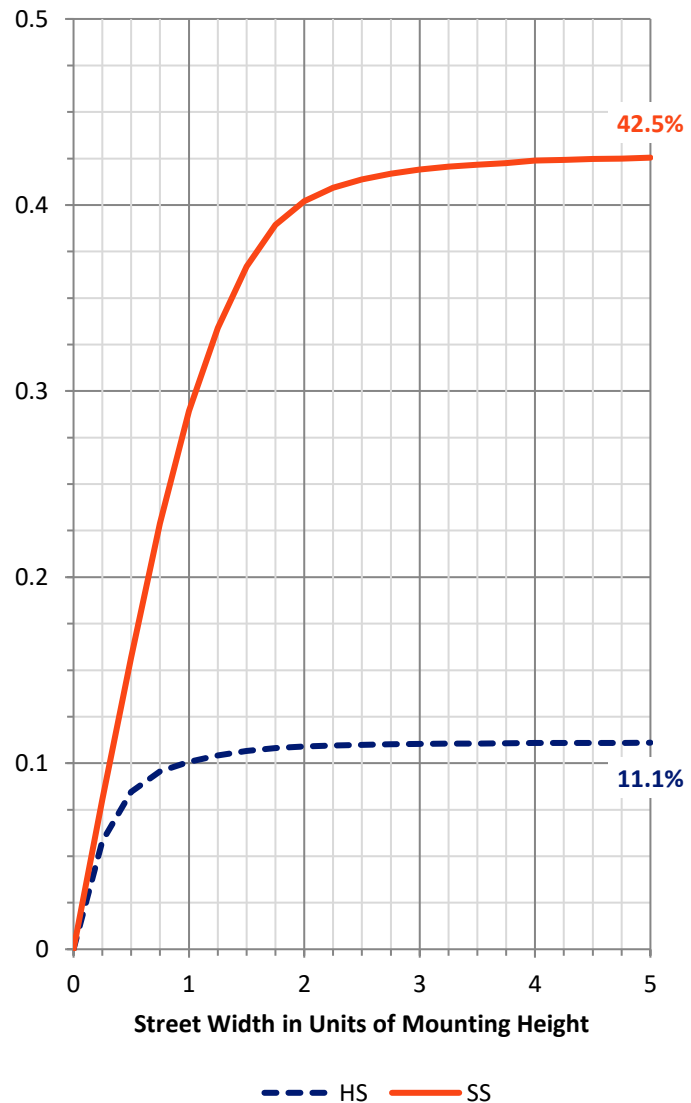
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3356.4	0.0	3356.4
	% Lamp	11.2	0.0	11.2
Street Side	Lumens	12755.1	0.0	12755.1
	% Lamp	42.5	0.0	42.5
Total	Lumens	16111.5	0.0	16111.5
	% Lamp	53.7	0.0	53.7

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	242.2	1.5	0.8
10°-20°	703.0	4.4	2.3
20°-30°	1336.7	8.3	4.5
30°-40°	2111.9	13.1	7.0
40°-50°	2749.0	17.1	9.2
50°-60°	3438.5	21.3	11.5
60°-70°	3576.8	22.2	11.9
70°-80°	1897.8	11.8	6.3
80°-90°	55.6	0.3	0.2
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°	16111.5	100.0	53.7
0°-180°	16111.5	100.0	53.7



REPORT NUMBER: ITL53970_320MP

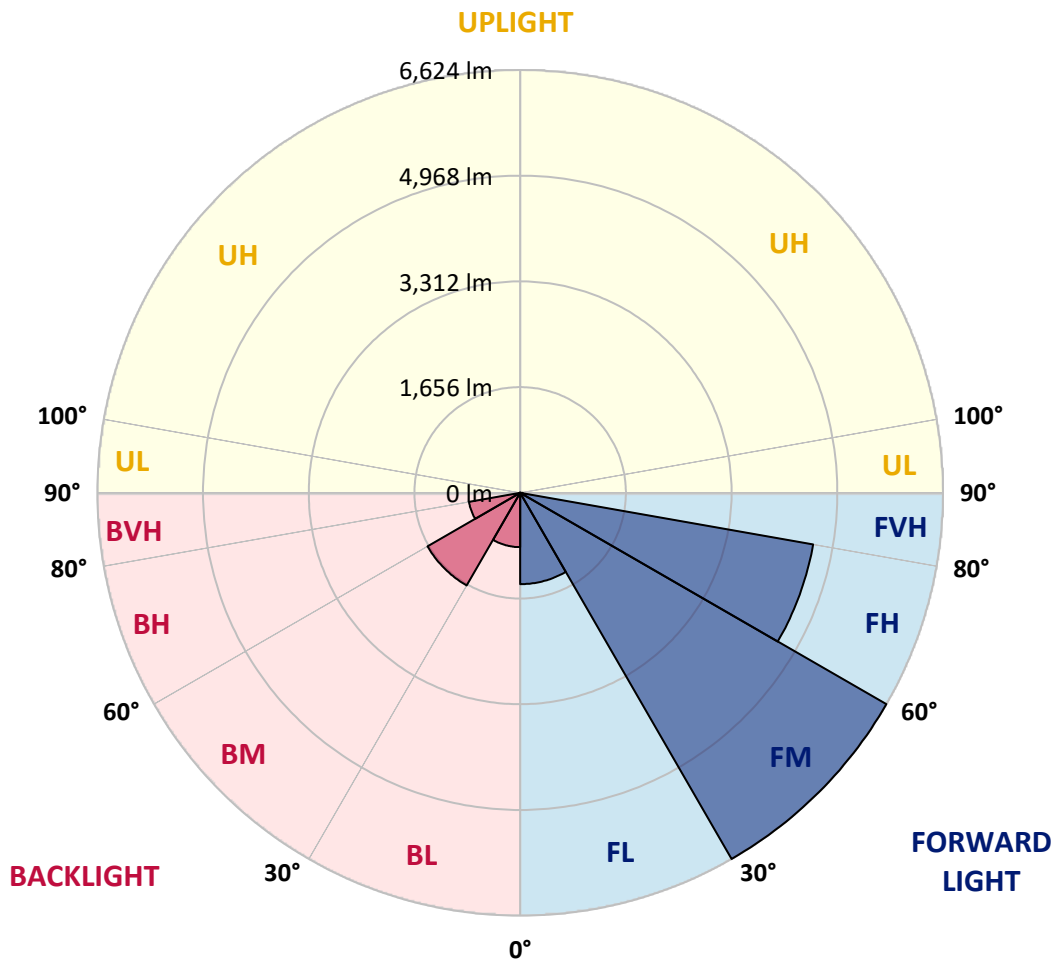
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1431.1	4.8			
FM	(30°-60°)	6623.7	22.1			
FH	(60°-80°)	4659.9	15.5			G2/5000
FVH	(80°-90°)	40.5	0.1			G1/100
BL	(0°-30°)	850.8	2.8	B2/1000		
BM	(30°-60°)	1675.7	5.6	B2/2500		
BH	(60°-80°)	814.7	2.7	B2/1000		G2/1000
BVH	(80°-90°)	15.1	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	
Trapped Light		13888.5	46.3			

BUG Rating: B2-U0-G2

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60.2°	65°	75°	85°
0°	2607.5	2607.5	2607.5	2607.5	2607.5	2607.5	2607.5	2607.5	2607.5	2607.5	2607.5
2.5°	2679.2	2651.7	2697.5	2651.7	2642.5	2651.7	2651.7	2633.3	2651.7	2642.5	2633.3
5°	2715.8	2715.8	2706.7	2688.3	2688.3	2688.3	2706.7	2688.3	2697.5	2688.3	2670.0
7.5°	2770.8	2752.5	2715.8	2706.7	2706.7	2725.0	2734.2	2734.2	2752.5	2743.3	2715.8
10°	2788.3	2752.5	2734.2	2743.3	2734.2	2743.3	2743.3	2743.3	2770.8	2788.3	2779.2
12.5°	2788.3	2779.2	2788.3	2779.2	2779.2	2761.7	2779.2	2806.7	2834.2	2861.7	2852.5
15°	2806.7	2806.7	2834.2	2852.5	2834.2	2834.2	2898.3	2898.3	2916.7	2943.3	2925.0
17.5°	2843.3	2834.2	2880.0	2889.2	2898.3	2970.8	2998.3	3016.7	3044.2	3116.7	3107.5
20°	2861.7	2852.5	2898.3	2934.2	3007.5	3080.0	3153.3	3207.5	3253.3	3499.2	3563.3
22.5°	2880.0	2880.0	2916.7	2998.3	3162.5	3262.5	3417.5	3590.8	3718.3	4165.0	4310.8
25°	3098.3	3044.2	3025.8	3080.0	3271.7	3481.7	3900.8	4283.3	4420.0	4894.2	5030.8
27.5°	3681.7	3563.3	3426.7	3207.5	3371.7	3827.5	4529.2	5040.0	5103.3	5221.7	5094.2
30°	4556.7	4383.3	4064.2	3590.8	3645.0	4301.7	5140.0	5331.7	5249.2	5066.7	4857.5
32.5°	5559.2	5331.7	4255.8	3964.2	4210.0	4802.5	5322.5	5249.2	5185.8	5066.7	5049.2
35°	6325.0	6115.0	4365.0	4274.2	4538.3	5167.5	5313.3	5212.5	5221.7	5468.3	5622.5
37.5°	6798.3	6607.5	4520.0	4475.0	4739.2	5440.8	5304.2	5376.7	5522.5	5905.0	5941.7
40°	7035.8	6698.3	4665.8	4401.7	4766.7	5595.8	5577.5	5695.8	5923.3	6105.8	6033.3
42.5°	6944.2	6488.3	4638.3	3945.8	4839.2	5668.3	6105.8	6033.3	6069.2	5978.3	5914.2
45°	6452.5	5978.3	4429.2	3362.5	4793.3	5960.0	6670.8	6342.5	6260.8	6260.8	5978.3
47.5°	5723.3	5185.8	4110.0	2980.0	4811.7	6561.7	7035.8	7217.5	7190.0	7071.7	7235.8
50°	4830.0	4520.0	3818.3	2870.8	5413.3	6999.2	7318.3	7810.0	8001.7	7700.8	8329.2
52.5°	3900.8	4401.7	4091.7	3135.0	6151.7	8165.8	7837.5	8338.3	8484.2	7983.3	7600.8
55°	3061.7	4100.8	3499.2	3445.0	6370.0	7335.8	8976.7	9013.3	9150.0	7436.7	7354.2
57.5°	2551.7	4082.5	3973.3	3809.2	7673.3	6288.3	7719.2	8010.8	8201.7	7263.3	7464.2
60°	2169.2	3526.7	3472.5	4028.3	6844.2	5841.7	7464.2	8657.5	9067.5	7272.5	7846.7
62.5°	1676.7	2405.8	2060.0	3053.3	4538.3	4420.0	7610.0	9322.5	9460.0	6661.7	6415.8
65°	1294.2	1430.8	1440.0	2278.3	2961.7	5413.3	8247.5	9231.7	8439.2	7472.5	7290.8
67.5°	947.5	1011.7	1093.3	1777.5	2415.0	6789.2	12430.8	14480.8	13287.5	10562.5	11910.8
70°	729.2	820.0	893.3	1476.7	2360.0	5941.7	15055.0	16504.2	16285.8	14945.8	14325.8
72.5°	510.0	820.0	938.3	1248.3	3380.8	5440.8	10507.5	10435.0	12157.5	10261.7	8995.0
75°	310.0	601.7	555.8	701.7	2725.0	2542.5	3235.0	2715.8	3982.5	2570.0	2460.8
77.5°	164.2	282.5	245.8	364.2	1995.8	1093.3	783.3	510.0	710.8	574.2	620.0
80°	55.0	72.5	282.5	182.5	1102.5	929.2	218.3	100.0	155.0	155.0	236.7
82.5°	18.3	27.5	72.5	64.2	191.7	155.0	173.3	36.7	72.5	64.2	100.0
85°	18.3	0.0	0.0	9.2	18.3	18.3	18.3	9.2	27.5	27.5	45.8
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2607.5	2607.5	2607.5	2607.5	2607.5	2607.5	2607.5	2607.5	2607.5	2607.5	2607.5
2.5°	2625.0	2615.8	2588.3	2570.0	2542.5	2515.0	2505.8	2488.3	2479.2	2488.3	2515.0
5°	2660.8	2633.3	2588.3	2524.2	2470.0	2415.0	2369.2	2324.2	2296.7	2296.7	2333.3
7.5°	2688.3	2670.0	2570.0	2460.8	2360.0	2278.3	2196.7	2141.7	2105.0	2105.0	2169.2
10°	2752.5	2706.7	2560.8	2415.0	2269.2	2141.7	2032.5	1959.2	1922.5	1922.5	1950.0
12.5°	2825.0	2761.7	2579.2	2360.0	2178.3	2032.5	1895.8	1813.3	1777.5	1731.7	1768.3
15°	2880.0	2815.8	2579.2	2324.2	2105.0	1905.0	1768.3	1667.5	1613.3	1567.5	1604.2
17.5°	3061.7	2952.5	2625.0	2287.5	2023.3	1813.3	1649.2	1540.0	1458.3	1440.0	1476.7
20°	3481.7	3299.2	2734.2	2278.3	1968.3	1722.5	1530.8	1403.3	1321.7	1294.2	1330.8
22.5°	4183.3	3891.7	2980.0	2260.0	1895.8	1631.7	1412.5	1275.8	1185.0	1148.3	1185.0
25°	4911.7	4520.0	3235.0	2232.5	1840.8	1549.2	1312.5	1148.3	1048.3	1002.5	1039.2
27.5°	4939.2	4520.0	3225.8	2169.2	1777.5	1458.3	1203.3	1030.0	920.8	875.0	911.7
30°	4693.3	4246.7	2998.3	2105.0	1695.0	1366.7	1075.0	902.5	783.3	729.2	765.8
32.5°	4903.3	4374.2	2916.7	2041.7	1613.3	1257.5	965.8	765.8	629.2	583.3	601.7
35°	5422.5	4757.5	2925.0	1977.5	1521.7	1130.0	829.2	620.0	483.3	428.3	455.8
37.5°	5714.2	4939.2	2797.5	1905.0	1412.5	993.3	674.2	455.8	337.5	300.8	310.0
40°	5832.5	4985.0	2688.3	1822.5	1275.8	829.2	519.2	337.5	255.0	236.7	255.0
42.5°	5741.7	4885.0	2625.0	1750.0	1139.2	665.0	373.3	264.2	218.3	200.8	218.3
45°	6015.0	5276.7	2625.0	1667.5	975.0	500.8	319.2	227.5	191.7	182.5	182.5
47.5°	7600.8	6360.8	2725.0	1549.2	801.7	382.5	282.5	218.3	182.5	155.0	164.2
50°	8639.2	7017.5	3016.7	1421.7	629.2	346.7	255.0	200.8	155.0	136.7	145.8
52.5°	7545.8	6115.0	3107.5	1303.3	555.8	364.2	255.0	182.5	155.0	136.7	145.8
55°	7728.3	6351.7	3225.8	1175.8	674.2	620.0	245.8	182.5	145.8	136.7	127.5
57.5°	7445.8	5504.2	2505.8	1093.3	756.7	893.3	245.8	164.2	118.3	100.0	109.2
60°	6589.2	4501.7	2141.7	1102.5	984.2	820.0	255.0	182.5	127.5	109.2	109.2
62.5°	5021.7	3718.3	2269.2	1111.7	1303.3	1148.3	255.0	182.5	118.3	100.0	109.2
65°	6087.5	4119.2	2050.8	1275.8	1030.0	738.3	236.7	173.3	118.3	100.0	90.8
67.5°	10088.3	4820.8	2068.3	1048.3	1130.0	747.5	227.5	173.3	118.3	81.7	90.8
70°	9860.8	3927.5	1412.5	920.8	583.3	419.2	191.7	145.8	100.0	81.7	90.8
72.5°	5358.3	2396.7	929.2	655.8	373.3	300.8	155.0	109.2	81.7	64.2	72.5
75°	1914.2	1111.7	574.2	410.0	264.2	227.5	118.3	90.8	64.2	55.0	55.0
77.5°	555.8	483.3	328.3	255.0	164.2	164.2	81.7	64.2	45.8	36.7	55.0
80°	236.7	236.7	164.2	109.2	81.7	109.2	27.5	27.5	9.2	9.2	18.3
82.5°	118.3	100.0	72.5	64.2	45.8	64.2	27.5	18.3	18.3	18.3	18.3
85°	45.8	36.7	27.5	18.3	18.3	18.3	18.3	18.3	9.2	9.2	18.3
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

(END OF REPORT)