

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: 769017_320MP

Luminaire Tested: **GSM-XX-320-MP-XX-1F-FG-XX-HS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: 769017_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-1F-FG-XX-HS
Description: MEDIUM ARCHITECTURAL AREA LUMINAIRE-HORIZONTAL LAMP-TYPE I
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: 18112 lumens
Efficiency: 60.4%
Efficacy: 51.7 lumens/watt
Luminous Opening: Point Source (0' x 0' x 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B4 - U0 - G4

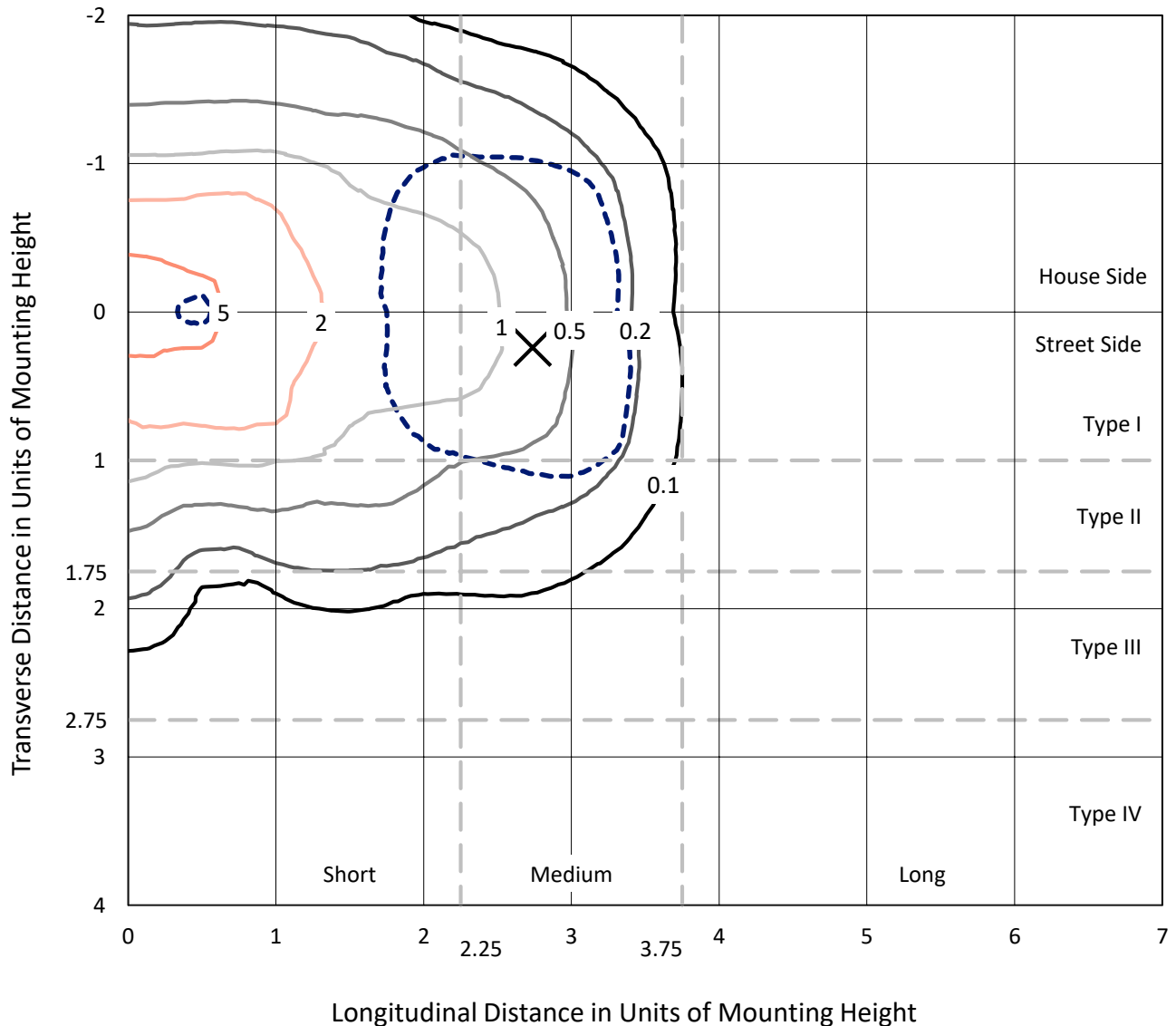
Input Watts (W): 350
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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 CATALOG NUMBER: GSM-XX-320-MP-XX-1F-FG-XX-HS

Iso-Footcandle Lines of Horizontal Illumination

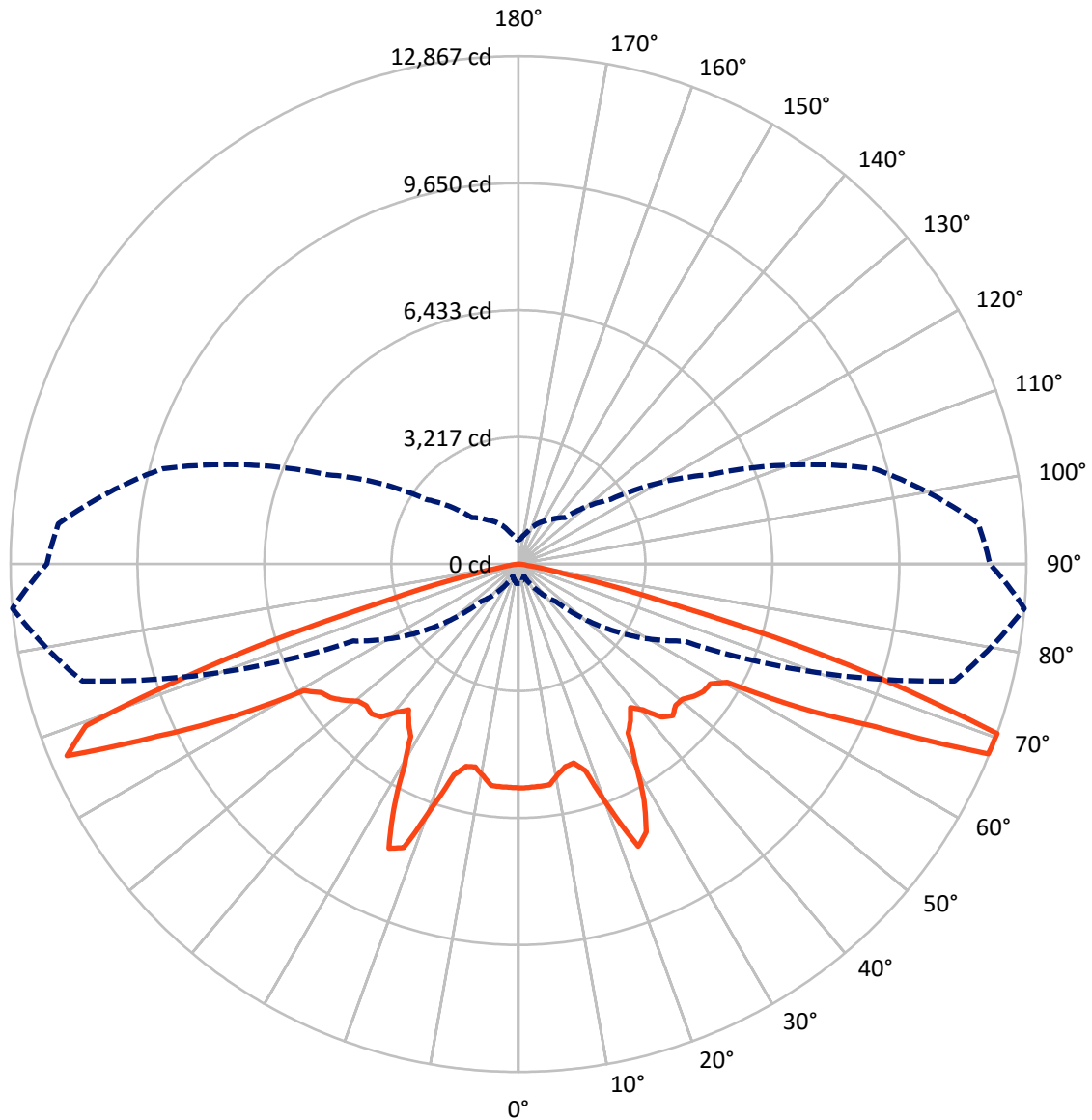
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.1 fc
 Type II - Medium - Full Cutoff

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CATALOG NUMBER: GSM-XX-320-MP-XX-1F-FG-XX-HS

Luminous Intensity Polar Plot



— Vertical Plane Through 85-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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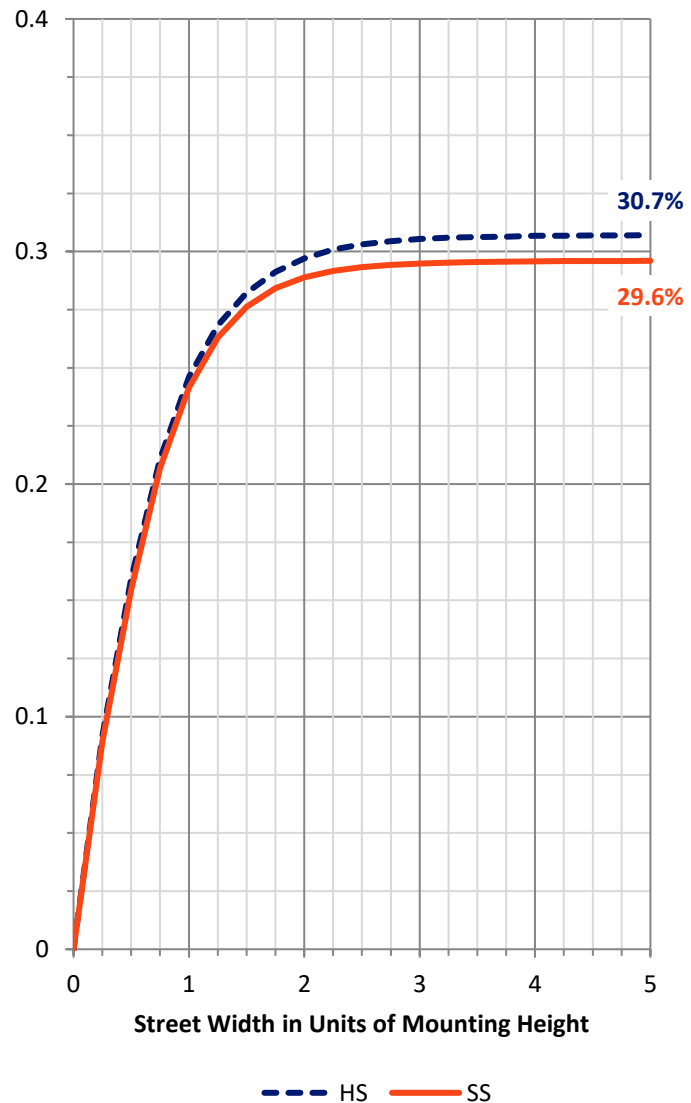
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9248.9	0.0	9248.9
	% Lamp	30.8	0.0	30.8
Street Side	Lumens	8863.0	0.0	8863.0
	% Lamp	29.5	0.0	29.5
Total	Lumens	18112.0	0.0	18112.0
	% Lamp	60.4	0.0	60.4

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	517.8	2.9	1.7
10°-20°	1326.4	7.3	4.4
20°-30°	2021.5	11.2	6.7
30°-40°	2291.4	12.7	7.6
40°-50°	2892.1	16.0	9.6
50°-60°	3211.8	17.7	10.7
60°-70°	3984.9	22.0	13.3
70°-80°	1830.1	10.1	6.1
80°-90°	36.0	0.2	0.1
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°	18112.0	100.0	60.4
0°-180°	18112.0	100.0	60.4



REPORT NUMBER: 769017_320MP

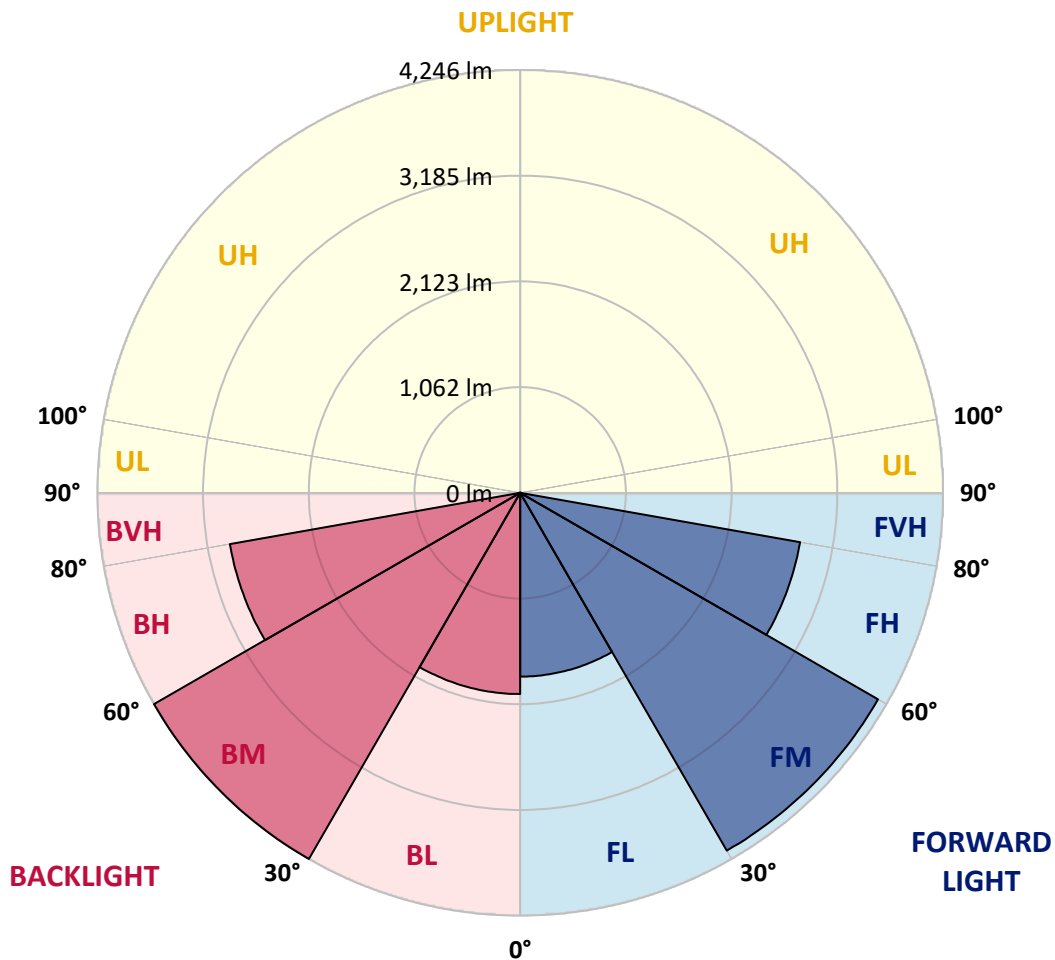
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1845.4	6.2			
FM	(30°-60°)	4149.3	13.8			
FH	(60°-80°)	2854.8	9.5			G2/5000
FVH	(80°-90°)	13.5	0.0			G1/100
BL	(0°-30°)	2020.3	6.7	B3/2500		
BM	(30°-60°)	4246.0	14.2	B3/5000		
BH	(60°-80°)	2960.2	9.9	B4/5000		G4/5000
BVH	(80°-90°)	22.5	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	
Trapped Light		11888.0	39.6			

BUG Rating: B4-U0-G4

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5675.0	5675.0	5675.0	5675.0	5675.0	5675.0	5675.0	5675.0	5675.0	5675.0	5675.0
2.5°	5583.3	5578.3	5587.5	5610.8	5642.5	5665.8	5665.8	5670.0	5665.8	5665.8	5665.8
5°	5262.5	5262.5	5285.0	5335.8	5418.3	5473.3	5537.5	5592.5	5638.3	5656.7	5665.8
7.5°	4859.2	4868.3	4918.3	5005.8	5110.8	5230.0	5340.0	5459.2	5569.2	5651.7	5665.8
10°	4483.3	4478.3	4529.2	4634.2	4808.3	5037.5	5262.5	5312.5	5358.3	5427.5	5445.8
12.5°	4098.3	4111.7	4162.5	4272.5	4478.3	4753.3	4969.2	5092.5	5193.3	5271.7	5290.0
15°	3722.5	3735.8	3832.5	3992.5	4194.2	4368.3	4565.8	4826.7	5042.5	5230.0	5299.2
17.5°	3345.8	3355.0	3492.5	3717.5	3869.2	4034.2	4285.8	4744.2	5175.0	5500.8	5583.3
20°	2970.0	2997.5	3158.3	3355.0	3548.3	3731.7	4052.5	4753.3	5931.7	6605.0	6650.8
22.5°	2740.8	2759.2	2905.8	3121.7	3355.0	3612.5	3946.7	4785.8	6476.7	7774.2	7980.8
25°	2612.5	2626.7	2731.7	2997.5	3290.8	3607.5	3942.5	4771.7	6243.3	7517.5	7907.5
27.5°	2539.2	2548.3	2722.5	2979.2	3345.8	3667.5	4052.5	4877.5	5858.3	6784.2	6995.0
30°	2465.8	2493.3	2896.7	3043.3	3350.8	3530.0	3823.3	4575.0	5156.7	5825.8	5972.5
32.5°	2383.3	2447.5	3075.8	3030.0	3323.3	3318.3	3442.5	3979.2	4602.5	5106.7	5202.5
35°	2337.5	2374.2	3103.3	3034.2	3530.0	3470.0	3451.7	3713.3	4290.8	4886.7	4950.8
37.5°	2355.8	2392.5	2850.8	2883.3	3649.2	3795.8	3667.5	3768.3	4267.5	4615.8	4666.7
40°	2401.7	2401.7	2456.7	2649.2	3525.0	4190.0	4010.8	4015.8	4501.7	4854.2	4886.7
42.5°	2383.3	2324.2	2209.2	2465.8	3235.8	4515.0	4460.0	4455.8	5042.5	5299.2	5239.2
45°	2300.8	2227.5	2049.2	2291.7	2933.3	4496.7	4863.3	4840.8	5367.5	5482.5	5358.3
47.5°	2227.5	2163.3	1925.0	2140.8	2727.5	4180.8	5070.0	4914.2	5184.2	5358.3	5294.2
50°	2145.0	2099.2	1778.3	1998.3	2608.3	3832.5	5335.8	4845.0	5046.7	5381.7	5367.5
52.5°	2016.7	1934.2	1572.5	1851.7	2511.7	3570.8	5601.7	4854.2	5156.7	5569.2	5629.2
55°	1805.8	1686.7	1301.7	1618.3	2388.3	3268.3	5299.2	4945.8	5596.7	5693.3	5789.2
57.5°	1677.5	1572.5	1035.8	1310.8	2269.2	2970.0	4602.5	4826.7	5853.3	5730.0	5862.5
60°	1512.5	1420.8	802.5	1017.5	2150.0	2786.7	4208.3	4813.3	5981.7	6078.3	6192.5
62.5°	1274.2	1200.8	619.2	756.7	1870.0	2667.5	4520.0	5431.7	7178.3	8030.8	8127.5
65°	1100.0	1059.2	513.3	518.3	1590.8	2553.3	4675.8	6036.7	8681.7	9919.2	9937.5
67.5°	852.5	834.2	454.2	403.3	1224.2	2315.0	4153.3	5629.2	10809.2	12839.2	12555.0
70°	495.0	495.0	412.5	335.0	788.3	1347.5	2960.8	4615.8	11441.7	12866.7	11950.0
72.5°	247.5	247.5	366.7	238.3	339.2	628.3	2759.2	4492.5	8769.2	8727.5	7627.5
75°	110.0	105.8	238.3	146.7	183.3	375.8	2223.3	3497.5	4364.2	3818.3	3125.8
77.5°	45.8	50.8	100.8	73.3	105.8	229.2	990.0	1265.0	1301.7	1191.7	1095.8
80°	0.0	5.0	14.2	18.3	41.7	82.5	247.5	284.2	307.5	330.0	353.3
82.5°	0.0	0.0	0.0	0.0	5.0	5.0	27.5	50.8	64.2	73.3	87.5
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°	5675.0	5675.0	5675.0	5675.0	5675.0	5675.0	5675.0	5675.0	5675.0	5675.0
2.5°	5660.8	5651.7	5675.0	5670.0	5670.0	5675.0	5684.2	5688.3	5688.3	5684.2
5°	5660.8	5660.8	5675.0	5665.8	5660.8	5656.7	5656.7	5647.5	5633.3	5629.2
7.5°	5651.7	5610.8	5624.2	5596.7	5565.0	5528.3	5482.5	5450.0	5427.5	5427.5
10°	5436.7	5400.0	5409.2	5385.8	5349.2	5308.3	5230.0	5184.2	5165.8	5170.8
12.5°	5257.5	5193.3	5202.5	5193.3	5110.8	5037.5	4969.2	4900.0	4886.7	4886.7
15°	5294.2	5138.3	5074.2	4950.8	4881.7	4771.7	4685.0	4620.8	4611.7	4611.7
17.5°	5583.3	5345.0	4978.3	4689.2	4551.7	4483.3	4386.7	4327.5	4309.2	4309.2
20°	6522.5	5926.7	5115.8	4529.2	4300.0	4194.2	4080.0	4038.3	3979.2	3960.8
22.5°	7746.7	6568.3	5262.5	4405.0	4065.8	3919.2	3795.8	3754.2	3649.2	3621.7
25°	7916.7	6724.2	5244.2	4304.2	3910.0	3781.7	3649.2	3520.8	3360.0	3336.7
27.5°	6953.3	6206.7	5083.3	4190.0	3845.8	3750.0	3635.0	3415.0	3116.7	3070.8
30°	5858.3	5404.2	4611.7	3869.2	3625.8	3671.7	3580.0	3318.3	2947.5	2887.5
32.5°	5147.5	4845.0	4245.0	3621.7	3433.3	3488.3	3290.8	3103.3	2805.0	2740.8
35°	4905.0	4652.5	4093.3	3594.2	3543.3	3488.3	3066.7	2777.5	2603.3	2557.5
37.5°	4625.0	4524.2	4010.8	3635.0	3745.0	3520.8	2892.5	2557.5	2438.3	2420.0
40°	4868.3	4675.8	4130.0	3832.5	4034.2	3520.8	2722.5	2379.2	2287.5	2273.3
42.5°	5207.5	5037.5	4405.0	4153.3	4263.3	3460.8	2580.8	2255.0	2150.0	2154.2
45°	5317.5	5202.5	4661.7	4450.8	4327.5	3314.2	2443.3	2117.5	2007.5	1998.3
47.5°	5266.7	5129.2	4817.5	4698.3	4295.0	3135.0	2337.5	2016.7	1875.0	1851.7
50°	5349.2	5138.3	4909.2	4927.5	4203.3	2951.7	2241.7	1906.7	1755.8	1732.5
52.5°	5605.8	5202.5	4868.3	5060.8	4065.8	2805.0	2154.2	1820.0	1664.2	1640.8
55°	5835.0	5491.7	5000.8	4960.0	3827.5	2663.3	2067.5	1741.7	1576.7	1558.3
57.5°	5968.3	5684.2	5134.2	4799.2	3497.5	2548.3	1975.8	1636.7	1494.2	1485.0
60°	6316.7	5940.8	5266.7	4611.7	3199.2	2415.8	1884.2	1554.2	1416.7	1439.2
62.5°	8278.3	7343.3	5945.0	4634.2	2984.2	2245.8	1774.2	1480.8	1297.5	1329.2
65°	10125.8	8874.2	6586.7	4565.8	2805.0	2076.7	1609.2	1365.8	1100.0	1100.0
67.5°	12426.7	10162.5	6637.5	4135.0	2544.2	1847.5	1411.7	1173.3	907.5	861.7
70°	11698.3	9328.3	5354.2	2860.0	1668.3	1361.7	1123.3	830.0	637.5	614.2
72.5°	7770.0	7013.3	4180.8	2126.7	861.7	513.3	495.0	458.3	390.0	385.0
75°	3428.3	3841.7	2718.3	1600.0	577.5	243.3	155.8	155.8	160.8	165.0
77.5°	1283.3	1618.3	1375.0	953.3	375.8	160.8	82.5	73.3	87.5	91.7
80°	412.5	522.5	485.8	385.0	165.0	64.2	27.5	23.3	36.7	36.7
82.5°	100.8	115.0	105.8	78.3	32.5	9.2	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)