

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: 769001_320MP

Luminaire Tested: **GSM-XX-320-MP-XX-FT-SG-XX-X**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: 769001_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-FT-SG-XX-X
Description: MEDIUM ARCHITECTURAL AREA LUMINAIRE-HORIZONTAL LAMP-FORWARD THROW DISTRIBUTION
Light Source: 320 WATT PULSE-START CLEAR ED-28 HORIZONTAL BURN
Ballast/Driver: -

Summary

Lumens per Lamp: 30000 (1 lamp)
Luminaire Lumens: 13562.5 lumens
Efficiency: 45.2%
Efficacy: 38.7 lumens/watt
Luminous Opening: Point Source (0' x 0' x 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G3

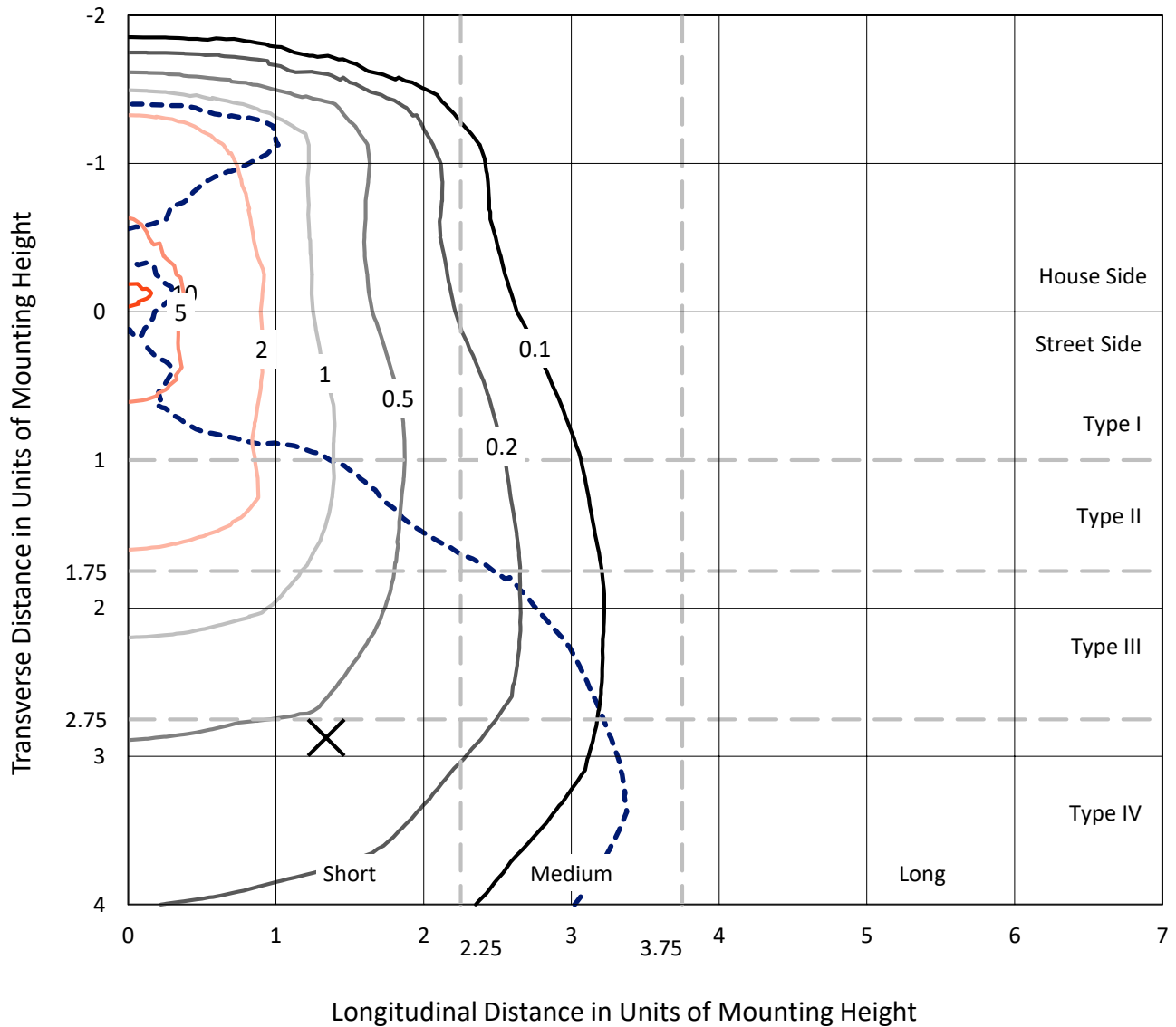
Input Watts (W): 350
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

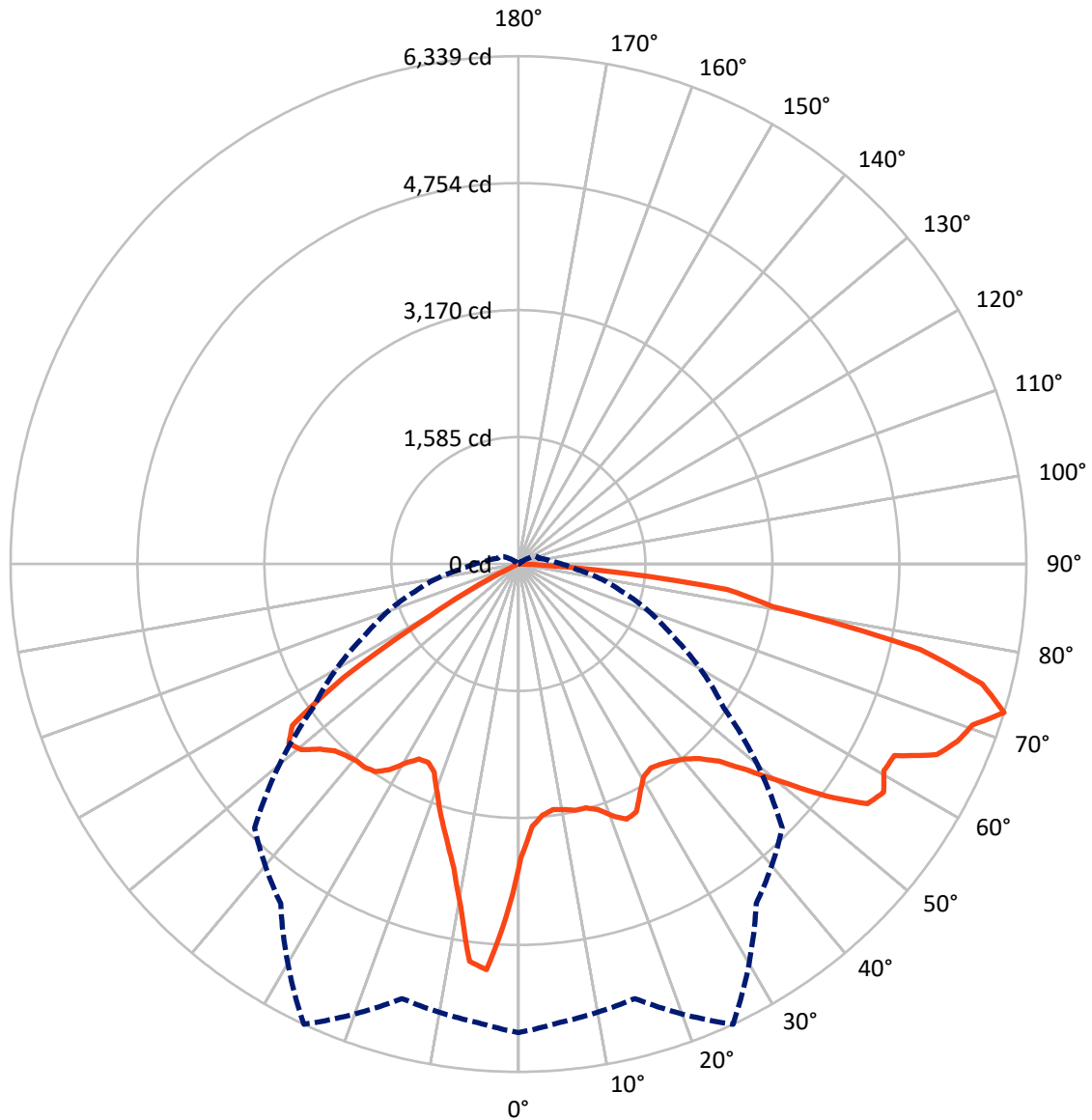
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 12.3 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 25-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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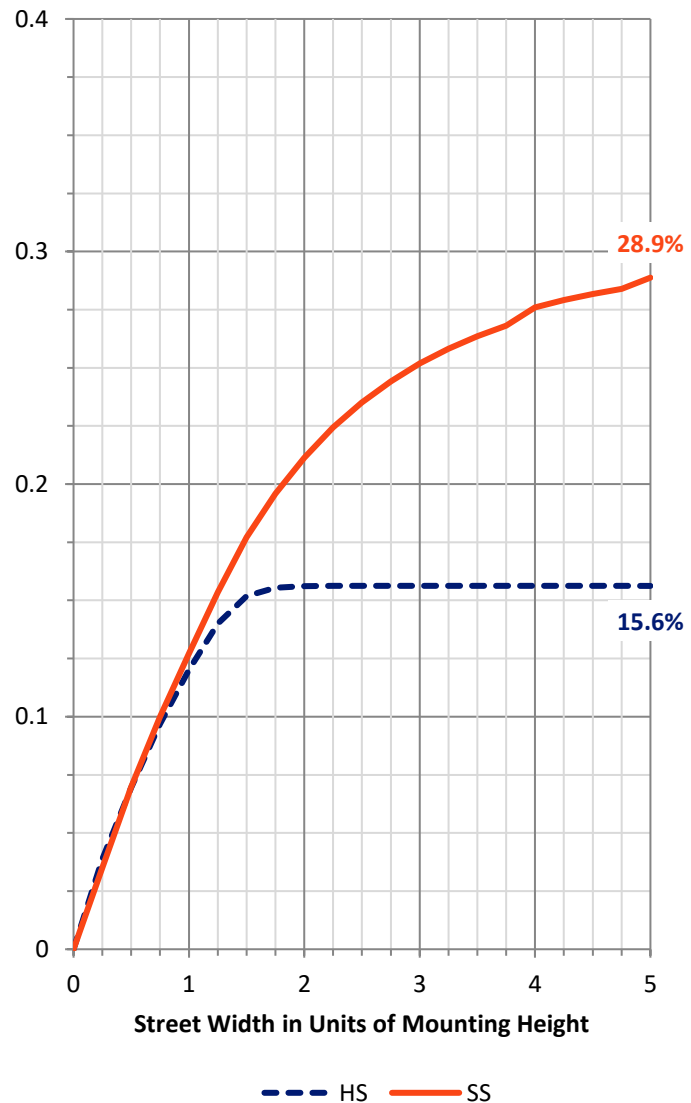
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4710.5	0.0	4710.5
	% Lamp	15.7	0.0	15.7
Street Side	Lumens	8852.0	0.0	8852.0
	% Lamp	29.5	0.0	29.5
Total	Lumens	13562.5	0.0	13562.5
	% Lamp	45.2	0.0	45.2

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	360.8	2.7	1.2
10°-20°	895.6	6.6	3.0
20°-30°	1235.0	9.1	4.1
30°-40°	1643.3	12.1	5.5
40°-50°	2182.2	16.1	7.3
50°-60°	2715.4	20.0	9.1
60°-70°	2317.0	17.1	7.7
70°-80°	1815.3	13.4	6.1
80°-90°	397.8	2.9	1.3
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°	13562.5	100.0	45.2
0°-180°	13562.5	100.0	45.2



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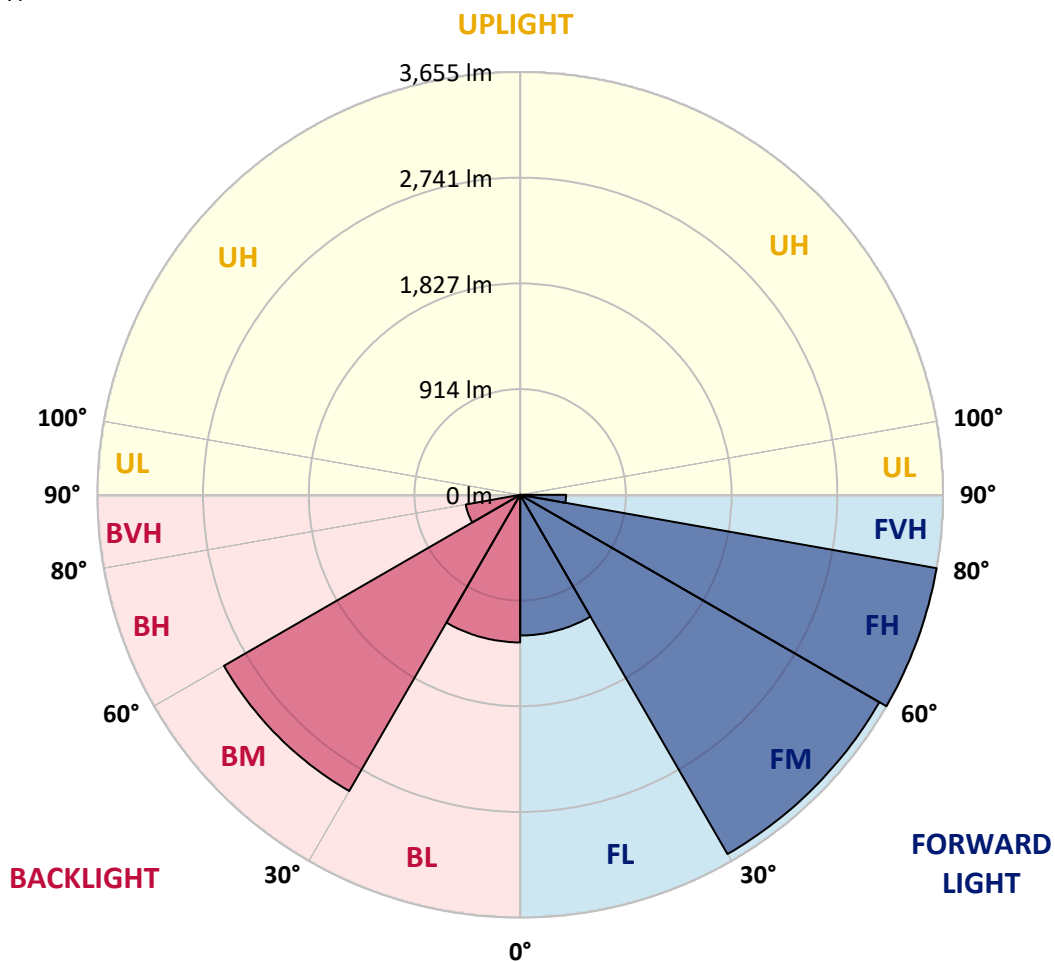
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1216.0	4.1			
FM	(30°-60°)	3584.8	11.9			
FH	(60°-80°)	3654.6	12.2			G2/5000
FVH	(80°-90°)	396.6	1.3			G3/500
BL	(0°-30°)	1275.5	4.3	B3/2500		
BM	(30°-60°)	2956.1	9.9	B3/5000		
BH	(60°-80°)	477.7	1.6	B1/500		G1/500
BVH	(80°-90°)	1.3	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	
Trapped Light		16437.5	54.8			

BUG Rating: B3-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3667.5	3667.5	3667.5	3667.5	3667.5	3667.5	3667.5	3667.5	3667.5	3667.5	3667.5
2.5°	3254.2	3245.0	3259.2	3277.5	3300.0	3341.7	3360.0	3415.0	3470.0	3570.8	3630.8
5°	3162.5	3144.2	3153.3	3149.2	3158.3	3176.7	3176.7	3226.7	3300.0	3442.5	3543.3
7.5°	3107.5	3098.3	3103.3	3094.2	3098.3	3089.2	3066.7	3061.7	3112.5	3254.2	3369.2
10°	3135.0	3135.0	3125.8	3116.7	3116.7	3070.8	2988.3	2938.3	2938.3	3048.3	3176.7
12.5°	3208.3	3204.2	3185.8	3153.3	3107.5	3020.8	2896.7	2795.8	2764.2	2828.3	2933.3
15°	3364.2	3350.8	3272.5	3158.3	3061.7	2933.3	2768.3	2645.0	2585.0	2612.5	2695.0
17.5°	3585.0	3570.8	3437.5	3222.5	3043.3	2860.0	2654.2	2502.5	2434.2	2447.5	2498.3
20°	3676.7	3662.5	3543.3	3355.0	3098.3	2814.2	2562.5	2406.7	2328.3	2324.2	2351.7
22.5°	3539.2	3539.2	3515.8	3460.8	3213.3	2805.0	2489.2	2328.3	2260.0	2232.5	2236.7
25°	3364.2	3364.2	3378.3	3424.2	3286.7	2832.5	2447.5	2287.5	2214.2	2172.5	2159.2
27.5°	3245.0	3240.8	3231.7	3231.7	3158.3	2846.7	2406.7	2255.0	2172.5	2126.7	2104.2
30°	3171.7	3171.7	3135.0	3080.0	2947.5	2722.5	2374.2	2214.2	2122.5	2071.7	2058.3
32.5°	3208.3	3208.3	3144.2	3034.2	2832.5	2617.5	2355.8	2200.0	2104.2	2053.3	2044.2
35°	3254.2	3254.2	3204.2	3066.7	2805.0	2553.3	2346.7	2181.7	2076.7	2040.0	2030.8
37.5°	3355.0	3345.8	3309.2	3121.7	2814.2	2566.7	2360.8	2177.5	2067.5	2025.8	1998.3
40°	3510.8	3506.7	3451.7	3199.2	2846.7	2594.2	2388.3	2186.7	2058.3	1998.3	1961.7
42.5°	3722.5	3699.2	3607.5	3318.3	2933.3	2654.2	2420.0	2218.3	2053.3	1961.7	1920.8
45°	4015.8	3992.5	3864.2	3510.8	3085.0	2727.5	2465.8	2255.0	2053.3	1911.7	1870.0
47.5°	4455.8	4419.2	4235.8	3836.7	3327.5	2819.2	2539.2	2300.8	2025.8	1842.5	1792.5
50°	5060.8	5015.0	4744.2	4276.7	3644.2	2970.0	2640.0	2337.5	1966.7	1750.8	1691.7
52.5°	5555.8	5510.0	5294.2	4808.3	4038.3	3213.3	2768.3	2383.3	1906.7	1664.2	1604.2
55°	5675.0	5633.3	5532.5	5285.0	4533.3	3515.8	2855.8	2434.2	1879.2	1627.5	1540.0
57.5°	5473.3	5418.3	5376.7	5376.7	5046.7	3800.0	2942.5	2470.8	1888.3	1595.0	1471.7
60°	5207.5	5147.5	5092.5	5239.2	5266.7	4025.0	3039.2	2493.3	1911.7	1545.0	1402.5
62.5°	5363.3	5321.7	5175.0	5266.7	5152.5	4075.0	3080.0	2461.7	1884.2	1444.2	1297.5
65°	5675.0	5638.3	5670.0	5739.2	4964.2	3951.7	3002.5	2383.3	1796.7	1310.8	1182.5
67.5°	5500.8	5464.2	5596.7	5908.3	5129.2	3965.0	2924.2	2287.5	1695.8	1191.7	1031.7
70°	5647.5	5615.0	5605.8	6014.2	5129.2	4190.0	2997.5	2214.2	1563.3	1026.7	825.0
72.5°	5849.2	5748.3	5615.0	6339.2	5175.0	4657.5	3130.8	2122.5	1347.5	710.8	540.8
75°	5766.7	5624.2	5532.5	5977.5	4932.5	4373.3	2814.2	1728.3	811.7	421.7	307.5
77.5°	5620.0	5532.5	5440.8	5129.2	4001.7	3460.8	2159.2	1136.7	454.2	284.2	220.0
80°	3988.3	3919.2	3685.8	3217.5	2365.0	2223.3	1494.2	802.5	335.0	179.2	119.2
82.5°	3373.3	3277.5	3048.3	2630.8	1796.7	1160.0	632.5	302.5	128.3	55.0	32.5
85°	1246.7	1169.2	1050.0	995.0	385.0	298.3	165.0	23.3	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	9.2	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°	3667.5	3667.5	3667.5	3667.5	3667.5	3667.5	3667.5	3667.5	3667.5	3667.5
2.5°	3695.0	3805.0	3942.5	4080.0	4208.3	4313.3	4410.0	4460.0	4487.5	4492.5
5°	3644.2	3882.5	4162.5	4441.7	4694.2	4914.2	5079.2	5170.8	5216.7	5225.8
7.5°	3515.8	3864.2	4235.8	4565.8	4795.0	4936.7	4996.7	5000.8	4996.7	4996.7
10°	3327.5	3726.7	4120.8	4391.7	4492.5	4455.8	4345.8	4235.8	4162.5	4144.2
12.5°	3085.0	3492.5	3905.8	4116.7	4107.5	4001.7	3873.3	3740.8	3575.8	3539.2
15°	2837.5	3240.8	3616.7	3722.5	3662.5	3612.5	3561.7	3483.3	3272.5	3226.7
17.5°	2612.5	2947.5	3204.2	3171.7	3116.7	3235.8	3295.8	3250.0	3107.5	3061.7
20°	2415.8	2645.0	2759.2	2676.7	2681.7	2837.5	3034.2	3048.3	2984.2	2960.8
22.5°	2260.0	2370.0	2420.0	2434.2	2502.5	2612.5	2805.0	2905.8	2905.8	2905.8
25°	2163.3	2209.2	2260.0	2346.7	2438.3	2557.5	2718.3	2832.5	2905.8	2915.0
27.5°	2108.3	2135.8	2205.0	2310.0	2415.8	2544.2	2731.7	2869.2	2979.2	2988.3
30°	2062.5	2085.8	2163.3	2264.2	2397.5	2612.5	2850.8	3006.7	3121.7	3135.0
32.5°	2049.2	2062.5	2135.8	2250.8	2425.0	2718.3	3025.0	3208.3	3341.7	3355.0
35°	2025.8	2053.3	2108.3	2236.7	2480.0	2810.0	3144.2	3259.2	3332.5	3336.7
37.5°	1998.3	2067.5	2099.2	2245.8	2539.2	2915.0	3180.8	3213.3	3263.3	3281.7
40°	1975.8	2104.2	2104.2	2264.2	2603.3	2970.0	3180.8	3231.7	3295.8	3300.0
42.5°	1952.5	2140.8	2108.3	2287.5	2654.2	2988.3	3217.5	3314.2	3396.7	3391.7
45°	1897.5	2104.2	2085.8	2296.7	2672.5	3006.7	3268.3	3442.5	3607.5	3612.5
47.5°	1792.5	1989.2	2025.8	2315.0	2685.8	3052.5	3387.5	3658.3	3855.0	3878.3
50°	1677.5	1838.3	1961.7	2300.8	2736.7	3204.2	3566.7	3841.7	4089.2	4125.8
52.5°	1572.5	1691.7	1897.5	2287.5	2805.0	3405.8	3635.0	3841.7	3946.7	3951.7
55°	1499.2	1572.5	1820.0	2282.5	2915.0	3539.2	3465.0	3254.2	2997.5	2970.0
57.5°	1425.8	1466.7	1755.8	2264.2	3075.8	3295.8	2599.2	1755.8	1622.5	1622.5
60°	1365.8	1370.8	1695.8	2269.2	3121.7	2360.8	1270.0	870.8	715.0	696.7
62.5°	1260.8	1260.8	1622.5	2236.7	2548.3	980.8	637.5	302.5	192.5	183.3
65°	1114.2	1109.2	1535.8	2007.5	1114.2	399.2	119.2	64.2	45.8	45.8
67.5°	940.0	921.7	1233.3	1169.2	280.0	41.7	9.2	9.2	5.0	9.2
70°	710.8	577.5	747.5	335.0	32.5	0.0	0.0	0.0	0.0	0.0
72.5°	408.3	270.8	234.2	64.2	0.0	0.0	0.0	0.0	0.0	0.0
75°	238.3	105.8	27.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	160.8	27.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	82.5	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	18.3	0.0	0.0	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	5.0	0.0
87.5°	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	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)