

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: 769008_320MP

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: 769008_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-3F-FG-XX-HS
Description: MEDIUM ARCHITECTURAL AREA LUMINAIRE-HORIZONTAL LAMP-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: 21345.7 lumens
Efficiency: 71.2%
Efficacy: 61.0 lumens/watt
Luminous Opening: Point Source (0' x 0' x 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B3 - U0 - G3

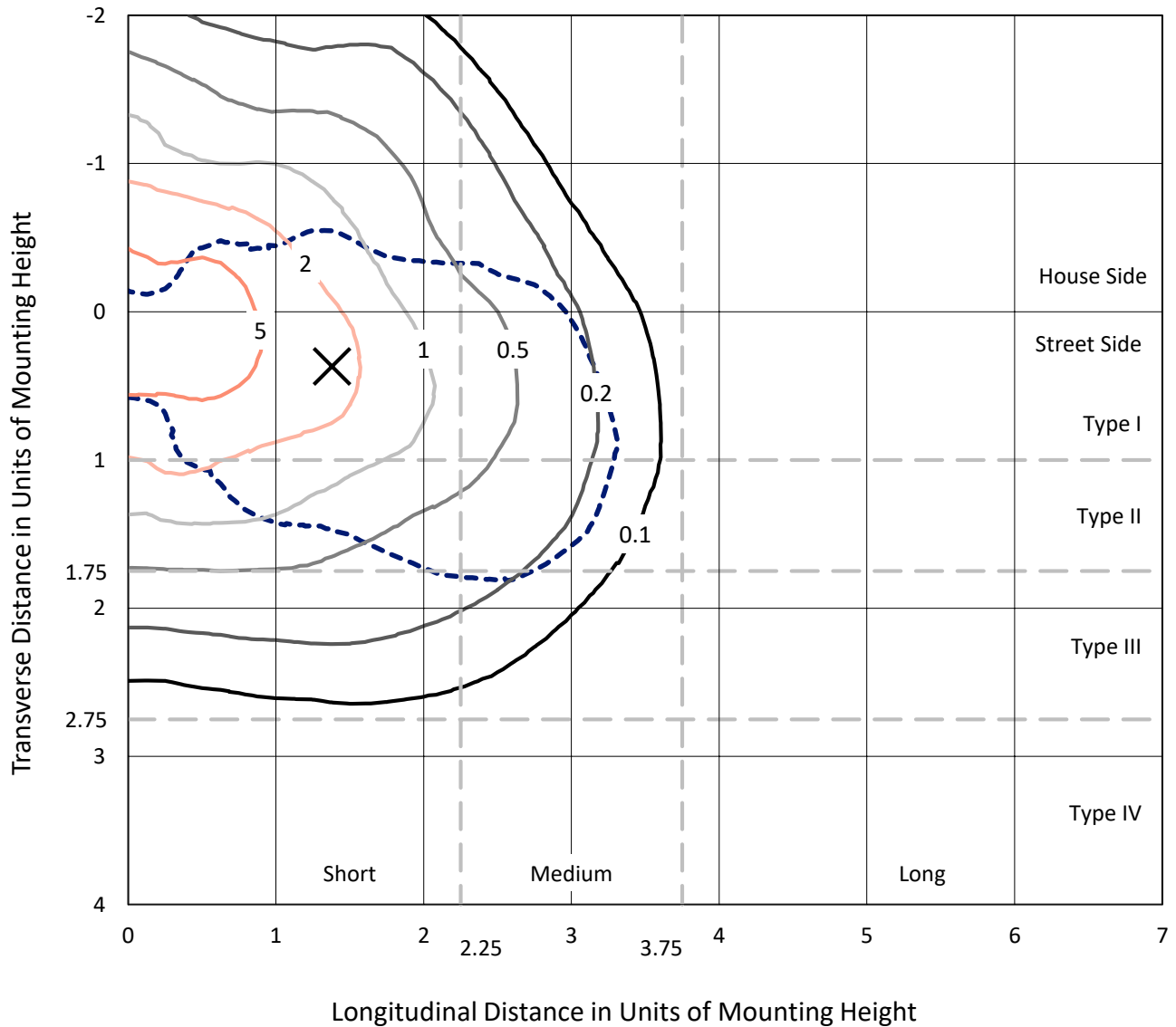
Input Watts (W): 350
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

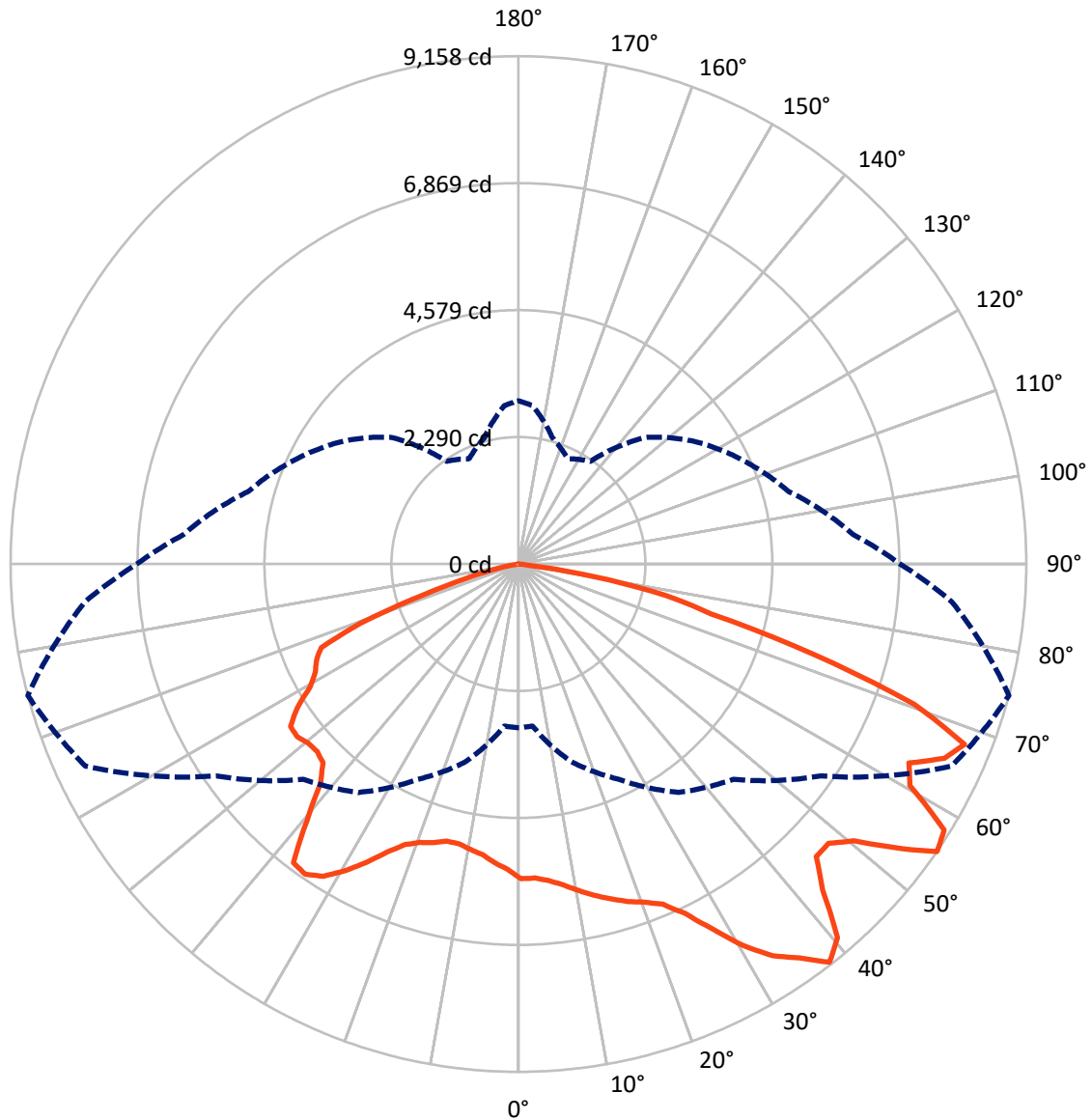
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.9 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 55-Deg Vertical

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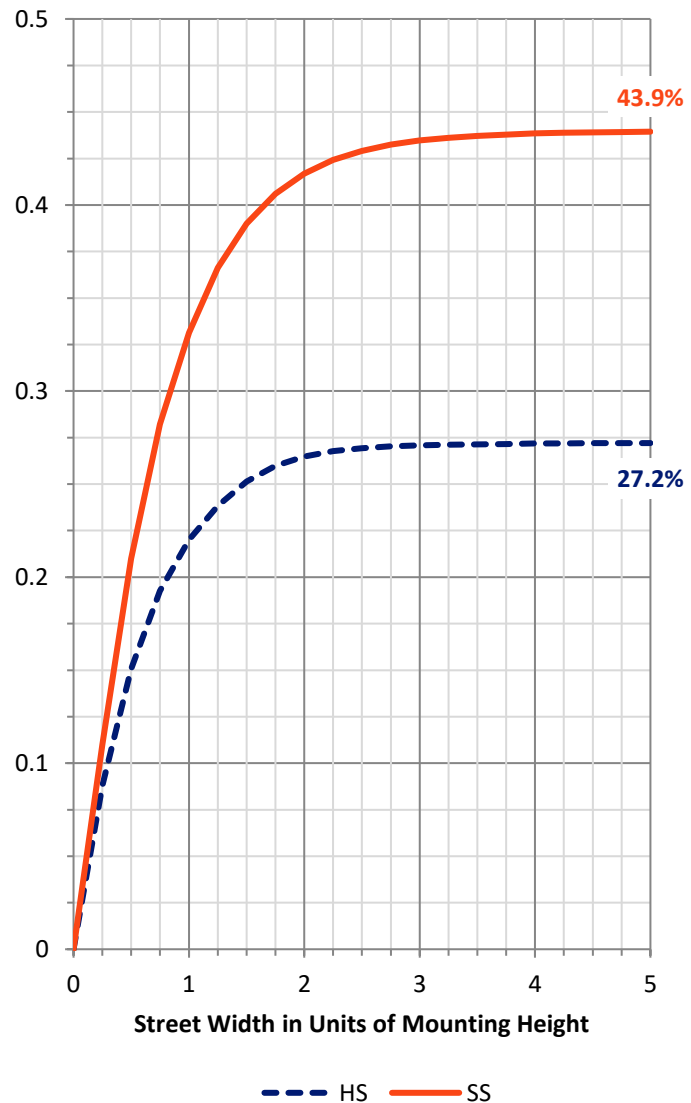
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8197.5	0.0	8197.5
	% Lamp	27.3	0.0	27.3
Street Side	Lumens	13148.2	0.0	13148.2
	% Lamp	43.8	0.0	43.8
Total	Lumens	21345.7	0.0	21345.7
	% Lamp	71.2	0.0	71.2

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	528.8	2.5	1.8
10°-20°	1542.6	7.2	5.1
20°-30°	2522.9	11.8	8.4
30°-40°	3512.0	16.5	11.7
40°-50°	3723.5	17.4	12.4
50°-60°	4154.9	19.5	13.8
60°-70°	3744.0	17.5	12.5
70°-80°	1556.9	7.3	5.2
80°-90°	60.0	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°	21345.7	100.0	71.2
0°-180°	21345.7	100.0	71.2



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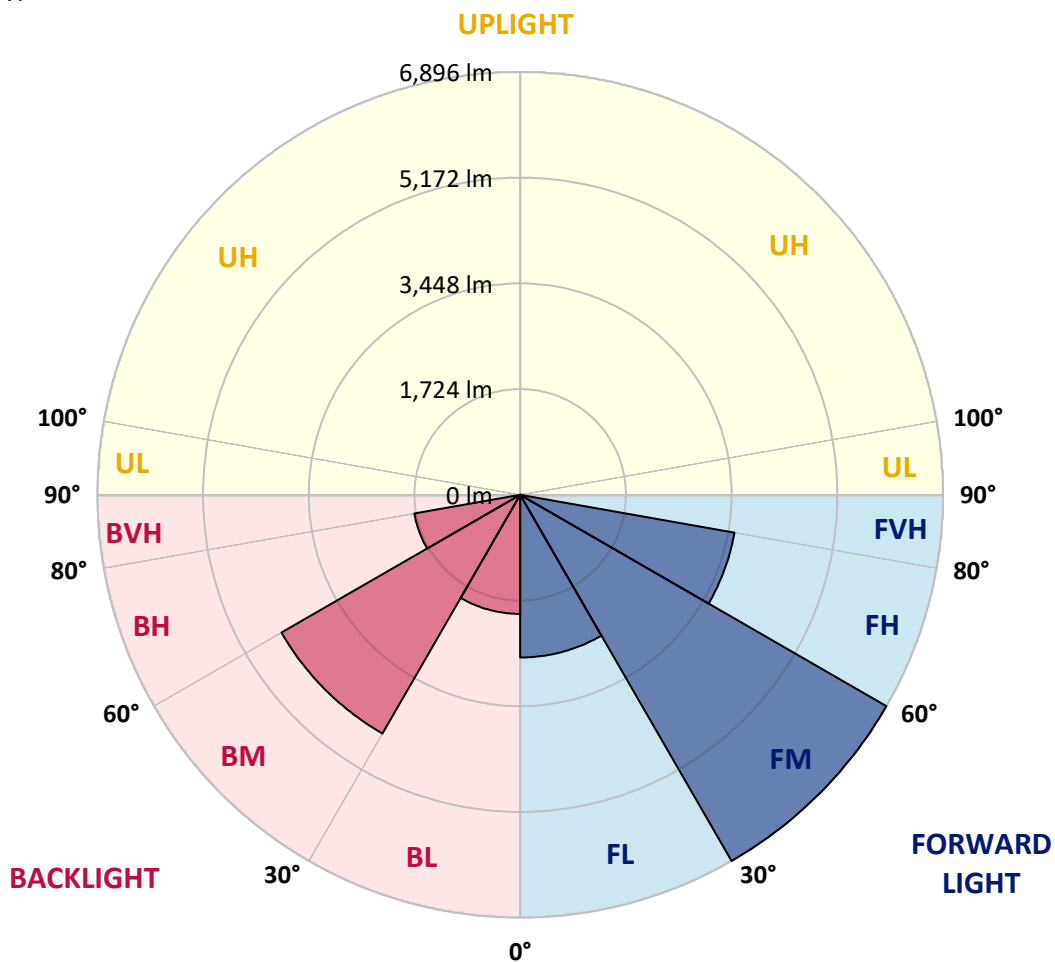
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2652.3	8.8			
FM	(30°-60°)	6895.7	23.0			
FH	(60°-80°)	3548.6	11.8			G2/5000
FVH	(80°-90°)	51.7	0.2			G1/100
BL	(0°-30°)	1942.1	6.5	B3/2500		
BM	(30°-60°)	4494.8	15.0	B3/5000		
BH	(60°-80°)	1752.3	5.8	B3/2500		G3/2500
BVH	(80°-90°)	8.3	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	
Trapped Light		8654.3	28.8			

BUG Rating: B3-U0-G3

Type III Short





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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°	5950.0	5972.5	5968.3	5908.3	5885.8	5816.7	5761.7	5725.0	5670.0	5610.8	5601.7
5°	6206.7	6229.2	6220.0	6137.5	6069.2	5972.5	5895.0	5825.8	5734.2	5624.2	5569.2
7.5°	6344.2	6371.7	6357.5	6275.0	6234.2	6183.3	6128.3	6023.3	5844.2	5656.7	5560.0
10°	6445.0	6463.3	6463.3	6399.2	6430.8	6417.5	6375.8	6243.3	5990.8	5739.2	5620.0
12.5°	6481.7	6495.0	6522.5	6518.3	6573.3	6586.7	6504.2	6344.2	6133.3	5835.0	5660.8
15°	6399.2	6390.0	6454.2	6536.7	6614.2	6637.5	6573.3	6476.7	6265.8	5940.8	5757.5
17.5°	6234.2	6220.0	6348.3	6458.3	6540.8	6619.2	6641.7	6619.2	6399.2	6082.5	5908.3
20°	5977.5	5954.2	6124.2	6247.5	6357.5	6509.2	6660.0	6701.7	6509.2	6174.2	5990.8
22.5°	5665.8	5629.2	5840.0	5968.3	6160.8	6421.7	6701.7	6830.0	6665.0	6335.0	6133.3
25°	5290.0	5280.8	5455.0	5642.5	5968.3	6362.5	6830.0	7068.3	6980.8	6683.3	6440.0
27.5°	4877.5	4890.8	5092.5	5321.7	5812.5	6430.8	7059.2	7430.8	7449.2	7132.5	6848.3
30°	4547.5	4547.5	4758.3	5060.8	5693.3	6577.5	7361.7	7893.3	7985.0	7605.0	7297.5
32.5°	4226.7	4240.0	4520.0	4895.8	5684.2	6820.8	7660.0	8274.2	8420.8	7999.2	7673.3
35°	3951.7	3960.8	4322.5	4785.8	5757.5	6980.8	7779.2	8457.5	8723.3	8338.3	7975.8
37.5°	3722.5	3754.2	4254.2	4762.5	5803.3	6962.5	7820.0	8686.7	9112.5	8516.7	8118.3
40°	3539.2	3575.8	4263.3	4813.3	5679.2	6797.5	7806.7	8745.8	8860.8	7907.5	7425.8
42.5°	3446.7	3483.3	4318.3	4854.2	5436.7	6463.3	7435.0	8232.5	8045.0	7150.8	6692.5
45°	3410.0	3405.8	4414.2	4776.7	5028.3	5830.8	6751.7	7476.7	7526.7	6775.0	6270.8
47.5°	3355.0	3332.5	4441.7	4648.3	4712.5	5290.0	6206.7	7141.7	7526.7	6729.2	6160.8
50°	3226.7	3217.5	4345.8	4565.8	4685.0	5202.5	6078.3	7352.5	7843.3	6976.7	6320.8
52.5°	3144.2	3075.8	4130.0	4450.8	4868.3	5367.5	6320.8	7916.7	8498.3	7435.0	6591.7
55°	2951.7	2933.3	3690.0	4281.7	5028.3	5486.7	6660.0	8617.5	9158.3	7847.5	6880.0
57.5°	2731.7	2736.7	3235.8	4029.2	4955.0	5482.5	6665.0	8846.7	9053.3	7586.7	6614.2
60°	2475.0	2516.7	2850.8	3630.8	4625.0	5170.8	6371.7	8480.0	8109.2	6880.0	6115.0
62.5°	2135.8	2190.8	2480.0	3167.5	4175.8	4785.8	5913.3	8219.2	7902.5	6788.3	5986.7
65°	1595.0	1613.3	1998.3	2713.3	3805.0	4556.7	5514.2	8003.3	8443.3	6903.3	6036.7
67.5°	1283.3	1279.2	1627.5	2324.2	3465.0	4345.8	5299.2	7361.7	8677.5	7178.3	6302.5
70°	980.8	990.0	1320.0	1920.8	3039.2	4056.7	5101.7	6705.8	7572.5	6605.0	5624.2
72.5°	660.0	669.2	912.5	1471.7	2392.5	3548.3	4556.7	5679.2	5546.7	4355.0	3640.0
75°	440.0	435.8	540.8	907.5	1631.7	2498.3	3043.3	3630.8	3589.2	2750.0	2365.0
77.5°	256.7	265.8	220.0	284.2	531.7	1013.3	1609.2	2520.8	2718.3	1875.0	1530.8
80°	119.2	119.2	91.7	110.0	220.0	500.0	830.0	1389.2	1375.0	843.3	650.8
82.5°	45.8	41.7	27.5	23.3	41.7	78.3	105.8	151.7	165.0	87.5	64.2
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°	5550.8	5510.0	5464.2	5436.7	5422.5	5409.2	5381.7	5376.7	5390.8	5390.8
5°	5505.0	5404.2	5303.3	5220.8	5156.7	5101.7	5037.5	5010.0	4987.5	4987.5
7.5°	5464.2	5280.8	5088.3	4927.5	4799.2	4712.5	4648.3	4593.3	4565.8	4565.8
10°	5477.5	5220.8	4936.7	4712.5	4505.8	4359.2	4304.2	4300.0	4318.3	4327.5
12.5°	5482.5	5156.7	4804.2	4533.3	4309.2	4135.0	4065.8	4157.5	4226.7	4245.0
15°	5569.2	5161.7	4744.2	4428.3	4153.3	3960.8	3891.7	4006.7	4084.2	4098.3
17.5°	5688.3	5253.3	4804.2	4405.0	4098.3	3860.0	3841.7	3924.2	4001.7	4025.0
20°	5766.7	5326.7	4826.7	4423.3	4107.5	3823.3	3777.5	3951.7	4025.0	4052.5
22.5°	5904.2	5455.0	4945.8	4520.0	4190.0	3832.5	3680.8	3937.5	4075.0	4107.5
25°	6179.2	5702.5	5175.0	4762.5	4272.5	3869.2	3607.5	3685.8	3988.3	4015.8
27.5°	6559.2	6036.7	5486.7	4987.5	4313.3	3878.3	3557.5	3442.5	3809.2	3896.7
30°	6958.3	6353.3	5798.3	5189.2	4267.5	3818.3	3470.0	3295.8	3539.2	3612.5
32.5°	7302.5	6637.5	6018.3	5271.7	4166.7	3713.3	3369.2	3171.7	3281.7	3309.2
35°	7559.2	6788.3	6009.2	5211.7	3970.0	3566.7	3259.2	3052.5	3085.0	3098.3
37.5°	7623.3	6742.5	5862.5	5042.5	3800.0	3442.5	3130.8	2915.0	2984.2	2988.3
40°	6894.2	5995.8	5216.7	4446.7	3635.0	3250.0	2933.3	2782.5	2960.8	2970.0
42.5°	6170.0	5330.8	4730.8	4093.3	3501.7	3011.7	2722.5	2612.5	2920.0	2951.7
45°	5761.7	5024.2	4570.0	4020.0	3446.7	2727.5	2429.2	2351.7	2782.5	2905.8
47.5°	5665.8	4960.0	4520.0	3997.5	3442.5	2480.0	2150.0	2135.8	2640.0	2814.2
50°	5752.5	4978.3	4496.7	3997.5	3424.2	2388.3	2076.7	2062.5	2599.2	2731.7
52.5°	5899.2	5060.8	4538.3	3937.5	3323.3	2328.3	2104.2	2227.5	2764.2	2860.0
55°	6064.2	5046.7	4446.7	3860.0	3226.7	2260.0	2095.0	2360.8	2869.2	2942.5
57.5°	5798.3	4753.3	4254.2	3786.7	3153.3	2232.5	2021.7	2278.3	2667.5	2759.2
60°	5312.5	4350.0	4075.0	3759.2	3116.7	2177.5	1906.7	1957.5	2337.5	2612.5
62.5°	5055.8	4144.2	4047.5	3772.5	3107.5	2003.3	1650.0	1554.2	1998.3	2310.0
65°	4895.8	4034.2	4043.3	3708.3	3030.0	1668.3	1279.2	1191.7	1475.8	1686.7
67.5°	4831.7	3864.2	3740.8	3350.8	2722.5	1274.2	903.3	852.5	940.0	1054.2
70°	4267.5	3030.0	2535.0	2195.8	1957.5	870.8	614.2	559.2	555.0	605.0
72.5°	2800.8	1769.2	1182.5	1004.2	885.0	513.3	390.0	362.5	348.3	366.7
75°	1851.7	995.0	600.8	481.7	375.8	256.7	225.0	234.2	234.2	247.5
77.5°	1141.7	513.3	289.2	210.8	146.7	96.7	82.5	105.8	105.8	110.0
80°	467.5	197.5	96.7	55.0	32.5	14.2	5.0	14.2	18.3	18.3
82.5°	50.8	18.3	5.0	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	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)