

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: 769012_320MP

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: 769012_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-HS
Description: MEDIUM ARCHITECTURAL AREA LUMINAIRE-HORIZONTAL LAMP-TYPE II
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: 21689.4 lumens
Efficiency: 72.3%
Efficacy: 62.0 lumens/watt
Luminous Opening: Point Source (0' x 0' x 0')
IES Classification: Type III - Medium - Cutoff
BUG Rating: B3 - U1 - G3

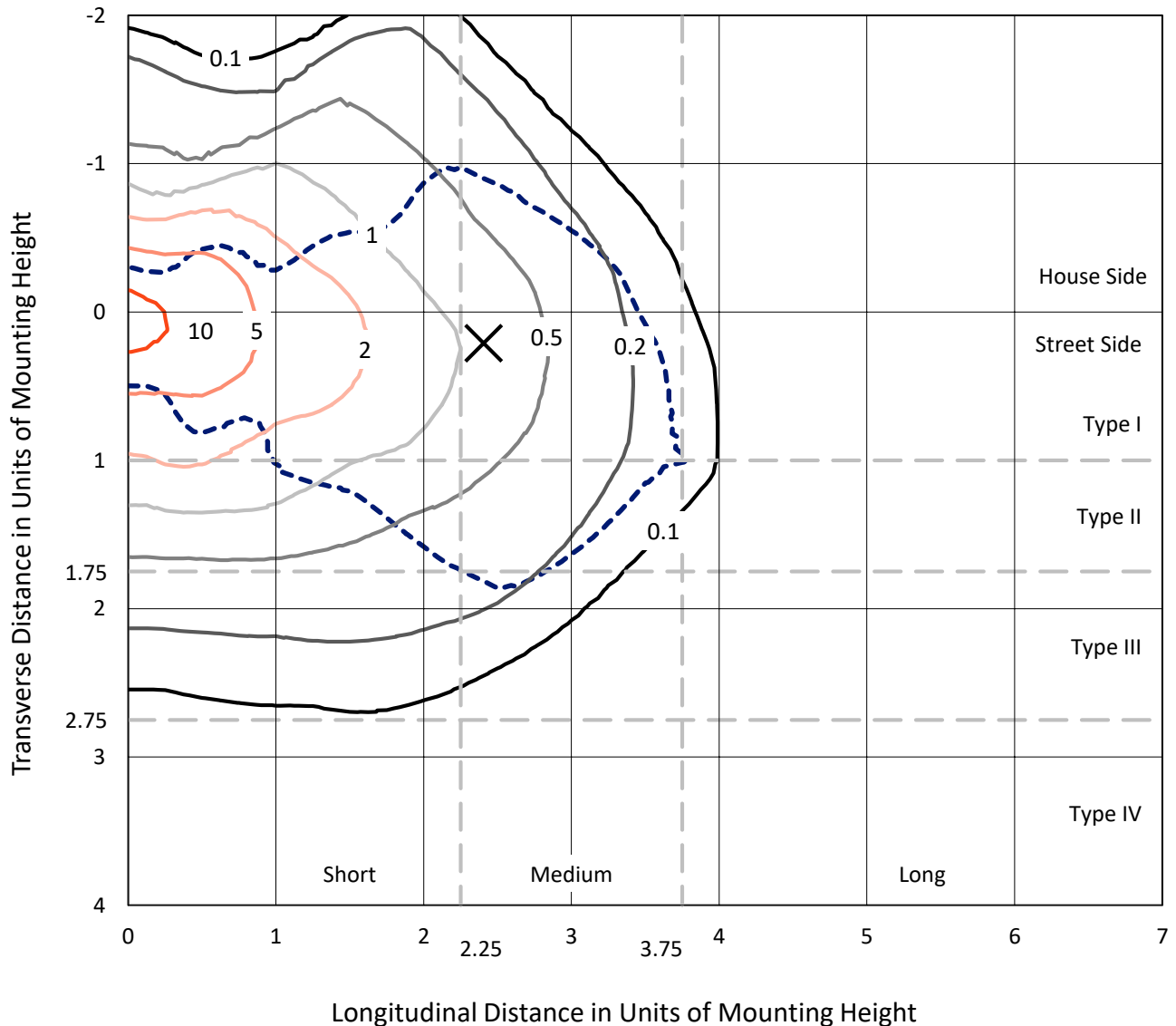
Input Watts (W): 350
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: 769012_320MP
 CATALOG NUMBER: GSM-XX-320-MP-XX-2F-SG-XX-HS

Iso-Footcandle Lines of Horizontal Illumination

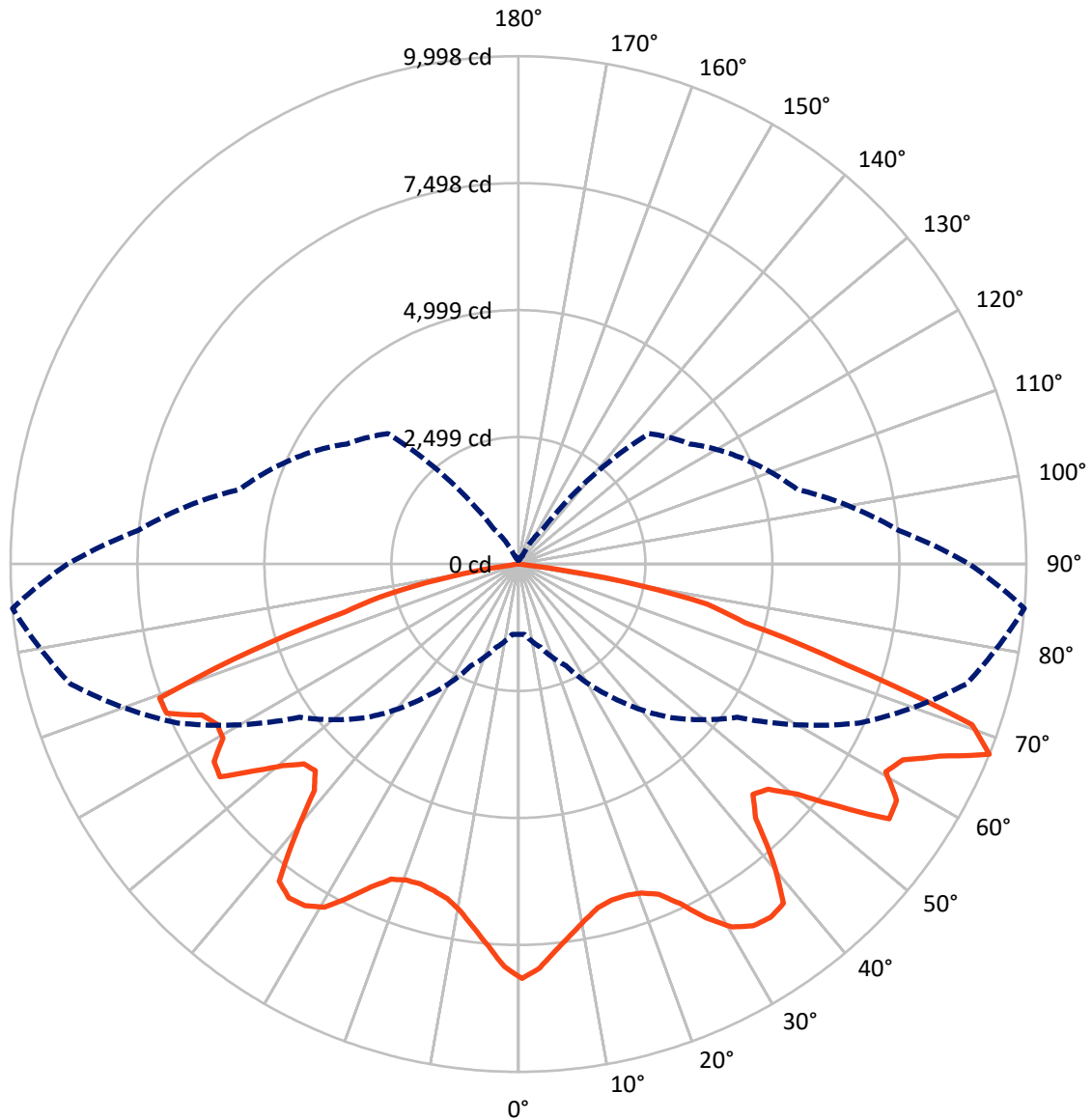
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.1 fc
 Type III - Medium - Cutoff

REPORT NUMBER: 769012_320MP
CATALOG NUMBER: GSM-XX-320-MP-XX-2F-SG-XX-HS

Luminous Intensity Polar Plot



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

REPORT NUMBER: 769012_320MP

CATALOG NUMBER: GSM-XX-320-MP-XX-2F-SG-XX-HS

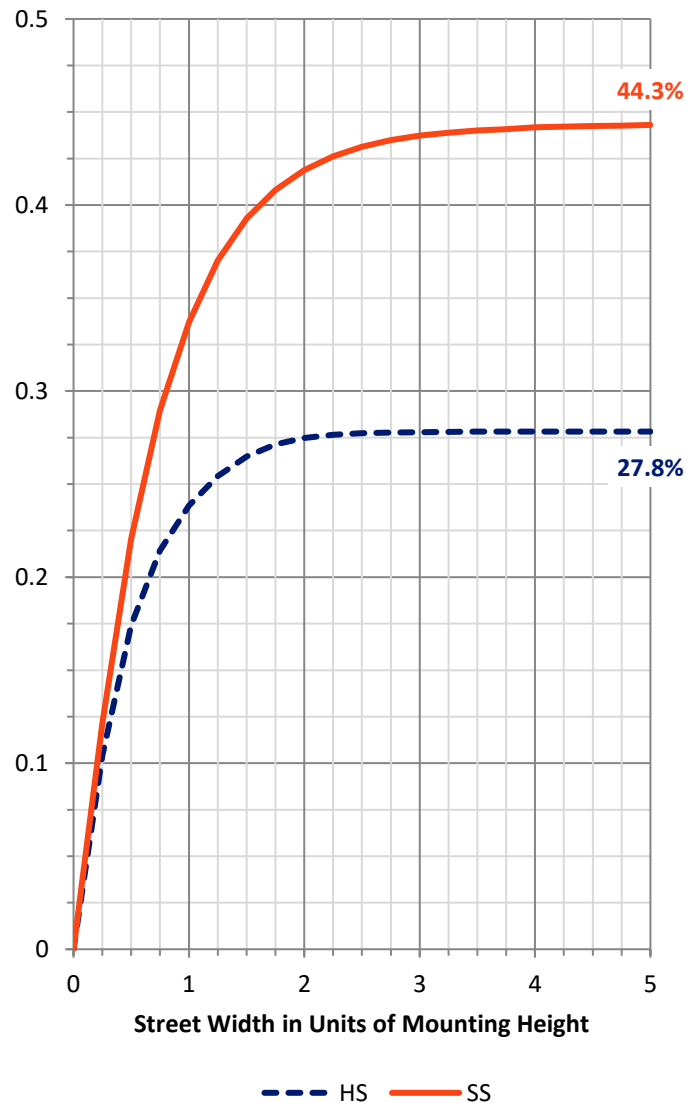
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8400.9	0.0	8400.9
	% Lamp	28.0	0.0	28.0
Street Side	Lumens	13279.0	9.5	13288.5
	% Lamp	44.3	0.0	44.3
Total	Lumens	21679.9	9.5	21689.4
	% Lamp	72.3	0.0	72.3

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	713.0	3.3	2.4
10°-20°	1785.5	8.2	6.0
20°-30°	2627.9	12.1	8.8
30°-40°	3357.4	15.5	11.2
40°-50°	3305.7	15.2	11.0
50°-60°	3784.9	17.5	12.6
60°-70°	3913.5	18.0	13.0
70°-80°	2056.1	9.5	6.9
80°-90°	135.8	0.6	0.5
90°-100°	8.7	0.0	0.0
100°-110°	1.6	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°	21679.9	100.0	72.3
0°-180°	21689.4	100.0	72.3



REPORT NUMBER: 769012_320MP

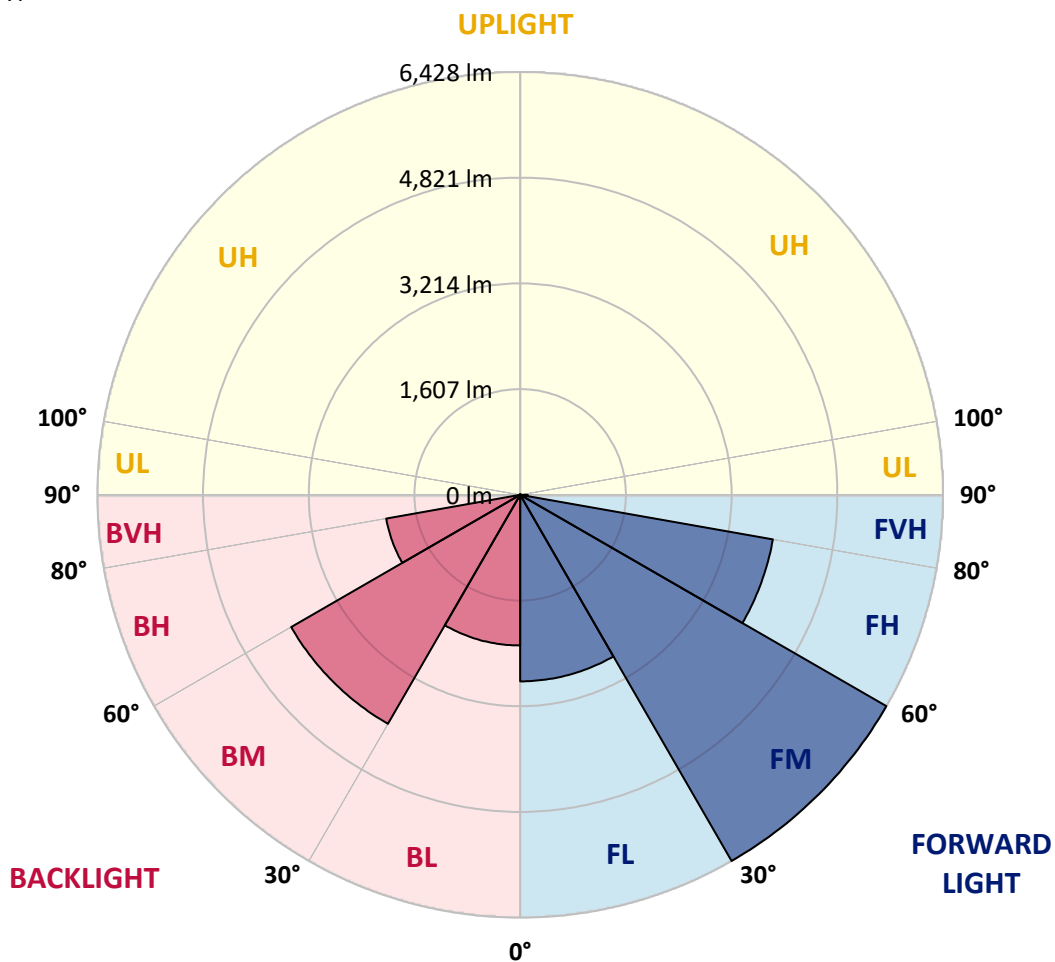
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2835.7	9.5			
FM (30°-60°)	6428.2	21.4			
FH (60°-80°)	3901.0	13.0			G2/5000
FVH (80°-90°)	114.1	0.4			G2/225
BL (0°-30°)	2290.7	7.6	B3/2500		
BM (30°-60°)	4019.9	13.4	B3/5000		
BH (60°-80°)	2068.6	6.9	B3/2500		G3/2500
BVH (80°-90°)	21.7	0.1			G1/100
UL (90°-100°)	8.7	0.0		U1/10	
UH (100°-180°)	0.0	0.0		U0/0	
Trapped Light	8310.6	27.7			

BUG Rating: B3-U1-G3

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	8159.2	8159.2	8159.2	8159.2	8159.2	8159.2	8159.2	8159.2	8159.2	8159.2	8159.2
2.5°	8425.0	8402.5	8375.0	8329.2	8274.2	8200.8	8140.8	8085.8	8017.5	7962.5	7944.2
5°	8571.7	8553.3	8494.2	8388.3	8274.2	8136.7	7990.0	7875.0	7765.0	7641.7	7577.5
7.5°	8351.7	8338.3	8274.2	8159.2	8085.8	7957.5	7801.7	7678.3	7535.8	7375.8	7288.3
10°	7930.0	7916.7	7861.7	7820.0	7765.0	7669.2	7614.2	7490.0	7339.2	7137.5	7026.7
12.5°	7444.2	7421.7	7398.3	7403.3	7403.3	7380.0	7330.0	7251.7	7128.3	6944.2	6843.3
15°	6940.0	6935.0	6980.8	7022.5	7064.2	7082.5	7110.0	7123.3	7040.8	6866.7	6770.0
17.5°	6481.7	6458.3	6559.2	6646.7	6683.3	6784.2	6907.5	7004.2	6999.2	6857.5	6742.5
20°	6005.0	5972.5	6096.7	6225.0	6344.2	6495.0	6747.5	6944.2	7013.3	6912.5	6788.3
22.5°	5546.7	5528.3	5675.0	5849.2	6014.2	6275.0	6623.3	6962.5	7150.8	7059.2	6916.7
25°	5152.5	5129.2	5262.5	5491.7	5780.0	6133.3	6628.3	7169.2	7522.5	7407.5	7247.5
27.5°	4758.3	4740.0	4895.8	5180.0	5565.0	6124.2	6815.8	7559.2	7971.7	7893.3	7664.2
30°	4446.7	4432.5	4630.0	4982.5	5491.7	6197.5	7091.7	7889.2	8356.7	8292.5	8067.5
32.5°	4125.8	4139.2	4446.7	4900.0	5537.5	6348.3	7233.3	8008.3	8544.2	8489.2	8228.3
35°	3850.8	3878.3	4285.8	4840.8	5583.3	6458.3	7196.7	7994.2	8585.8	8544.2	8255.8
37.5°	3667.5	3685.8	4212.5	4822.5	5642.5	6362.5	7064.2	8008.3	8709.2	8475.8	8150.0
40°	3501.7	3510.8	4139.2	4840.8	5510.0	6096.7	6889.2	7847.5	8260.0	7728.3	7297.5
42.5°	3336.7	3350.8	4107.5	4780.8	5175.0	5587.5	6362.5	7233.3	7370.8	6843.3	6417.5
45°	3208.3	3222.5	4029.2	4661.7	4730.8	5000.8	5675.0	6458.3	6797.5	6467.5	6128.3
47.5°	3080.0	3085.0	3905.8	4483.3	4465.0	4657.5	5239.2	6100.8	6775.0	6623.3	6252.5
50°	2924.2	2920.0	3680.8	4254.2	4469.2	4680.0	5138.3	6252.5	7196.7	7119.2	6715.0
52.5°	2768.3	2740.8	3405.8	3983.3	4547.5	4835.8	5326.7	6665.0	7935.0	7939.2	7361.7
55°	2557.5	2548.3	3085.0	3676.7	4542.5	4969.2	5629.2	7220.0	8750.8	8855.8	8145.8
57.5°	2355.8	2351.7	2667.5	3350.8	4359.2	4914.2	5752.5	7471.7	8865.0	8778.3	8040.0
60°	2135.8	2186.7	2388.3	3030.0	3983.3	4666.7	5510.0	7385.0	8324.2	8305.8	7678.3
62.5°	1925.0	1970.8	2172.5	2718.3	3603.3	4405.0	5202.5	7627.5	8434.2	8494.2	7715.0
65°	1613.3	1627.5	1906.7	2406.7	3341.7	4322.5	5225.8	7911.7	9167.5	9112.5	8100.0
67.5°	1384.2	1389.2	1700.8	2209.2	3195.0	4281.7	5257.5	7403.3	9126.7	9997.5	8874.2
70°	1118.3	1136.7	1508.3	1970.8	2979.2	4093.3	5312.5	6889.2	8796.7	9470.0	8393.3
72.5°	852.5	861.7	1136.7	1686.7	2608.3	3735.8	5129.2	6509.2	7636.7	6692.5	5954.2
75°	632.5	623.3	742.5	1072.5	1425.8	2067.5	3080.0	4043.3	5065.0	4602.5	4020.0
77.5°	430.8	445.0	330.0	339.2	481.7	971.7	1856.7	3121.7	4533.3	3795.8	3204.2
80°	302.5	293.3	229.2	225.0	298.3	573.3	1090.8	2003.3	2773.3	2090.0	1737.5
82.5°	238.3	234.2	183.3	151.7	133.3	137.5	174.2	234.2	339.2	229.2	192.5
85°	201.7	201.7	155.8	110.0	69.2	32.5	9.2	5.0	0.0	0.0	0.0
87.5°	119.2	124.2	87.5	50.8	18.3	0.0	0.0	0.0	0.0	0.0	0.0
90°	128.3	133.3	91.7	50.8	23.3	0.0	0.0	0.0	0.0	0.0	0.0
95°	55.0	55.0	36.7	18.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: 769012_320MP

CATALOG NUMBER: GSM-XX-320-MP-XX-2F-SG-XX-HS

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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°	8159.2	8159.2	8159.2	8159.2	8159.2	8159.2	8159.2	8159.2	8159.2	8159.2
2.5°	7930.0	7907.5	7856.7	7825.0	7815.8	7801.7	7788.3	7788.3	7760.8	7765.0
5°	7540.8	7440.0	7334.2	7275.0	7288.3	7302.5	7325.0	7325.0	7306.7	7306.7
7.5°	7215.0	7022.5	6834.2	6729.2	6641.7	6669.2	6705.8	6678.3	6619.2	6610.0
10°	6925.8	6674.2	6458.3	6247.5	6100.8	6027.5	6078.3	6073.3	6023.3	6023.3
12.5°	6733.3	6449.2	6188.3	5908.3	5693.3	5519.2	5578.3	5610.8	5569.2	5574.2
15°	6641.7	6330.0	6014.2	5670.0	5376.7	5198.3	5147.5	5156.7	5101.7	5106.7
17.5°	6586.7	6229.2	5853.3	5422.5	5143.3	4881.7	4753.3	4776.7	4735.0	4730.8
20°	6600.8	6160.8	5730.0	5317.5	4991.7	4652.5	4441.7	4465.0	4446.7	4465.0
22.5°	6692.5	6201.7	5670.0	5262.5	4909.2	4437.5	4120.8	4144.2	4249.2	4254.2
25°	6980.8	6408.3	5816.7	5376.7	4859.2	4258.3	3864.2	3731.7	3924.2	3933.3
27.5°	7370.8	6724.2	6045.8	5477.5	4799.2	4075.0	3570.8	3208.3	3318.3	3345.8
30°	7760.8	7035.8	6316.7	5620.0	4579.2	3818.3	3094.2	2630.8	2663.3	2676.7
32.5°	7930.0	7247.5	6509.2	5697.5	4432.5	3548.3	2612.5	2067.5	2044.2	2044.2
35°	7975.8	7224.2	6330.0	5468.3	4111.7	3268.3	2172.5	1622.5	1618.3	1622.5
37.5°	7820.0	7045.8	6096.7	5152.5	3818.3	3011.7	1820.0	1306.7	1398.3	1430.0
40°	6885.0	6110.0	5285.0	4386.7	3506.7	2740.8	1535.8	1233.3	1356.7	1430.0
42.5°	6000.0	5266.7	4560.8	3832.5	3286.7	2493.3	1301.7	1164.2	1347.5	1448.3
45°	5702.5	4964.2	4345.8	3754.2	3254.2	2241.7	1105.0	1118.3	1325.0	1365.8
47.5°	5770.8	4950.8	4318.3	3772.5	3300.0	2003.3	967.5	1059.2	1123.3	1109.2
50°	6110.0	5092.5	4350.0	3800.0	3318.3	1801.7	962.5	1045.0	980.8	1017.5
52.5°	6614.2	5294.2	4419.2	3790.8	3290.8	1622.5	1004.2	1081.7	1141.7	1191.7
55°	7215.0	5468.3	4478.3	3790.8	3263.3	1462.5	1008.3	1026.7	1182.5	1265.0
57.5°	7141.7	5385.8	4446.7	3790.8	3290.8	1297.5	935.0	857.5	1063.3	1182.5
60°	6751.7	5129.2	4373.3	3860.0	3360.0	1132.5	775.0	619.2	852.5	980.8
62.5°	6715.0	5180.0	4505.8	3992.5	3501.7	1090.8	518.3	371.7	536.7	605.0
65°	6903.3	5464.2	4804.2	4194.2	3726.7	1031.7	325.8	192.5	215.8	238.3
67.5°	7522.5	5679.2	4895.8	4120.8	3630.8	857.5	179.2	100.8	73.3	73.3
70°	7540.8	5147.5	4116.7	3254.2	2901.7	586.7	87.5	41.7	5.0	0.0
72.5°	5519.2	3520.8	2245.8	1503.3	1343.3	261.7	64.2	23.3	0.0	0.0
75°	3548.3	2126.7	1090.8	669.2	454.2	73.3	41.7	9.2	0.0	0.0
77.5°	2630.8	1274.2	577.5	316.7	160.8	9.2	5.0	0.0	0.0	0.0
80°	1352.5	545.8	220.0	115.0	27.5	0.0	0.0	0.0	0.0	0.0
82.5°	146.7	69.2	27.5	5.0	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
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)