

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: 769002_320MP

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: 769002_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-HS
Description: MEDIUM ARCHITECTURAL AREA LUMINAIRE-HORIZONTAL LAMP-FORWARD THROW
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: 10916.3 lumens
Efficiency: 36.4%
Efficacy: 31.2 lumens/watt
Luminous Opening: Point Source (0' x 0' x 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B2 - U2 - G3

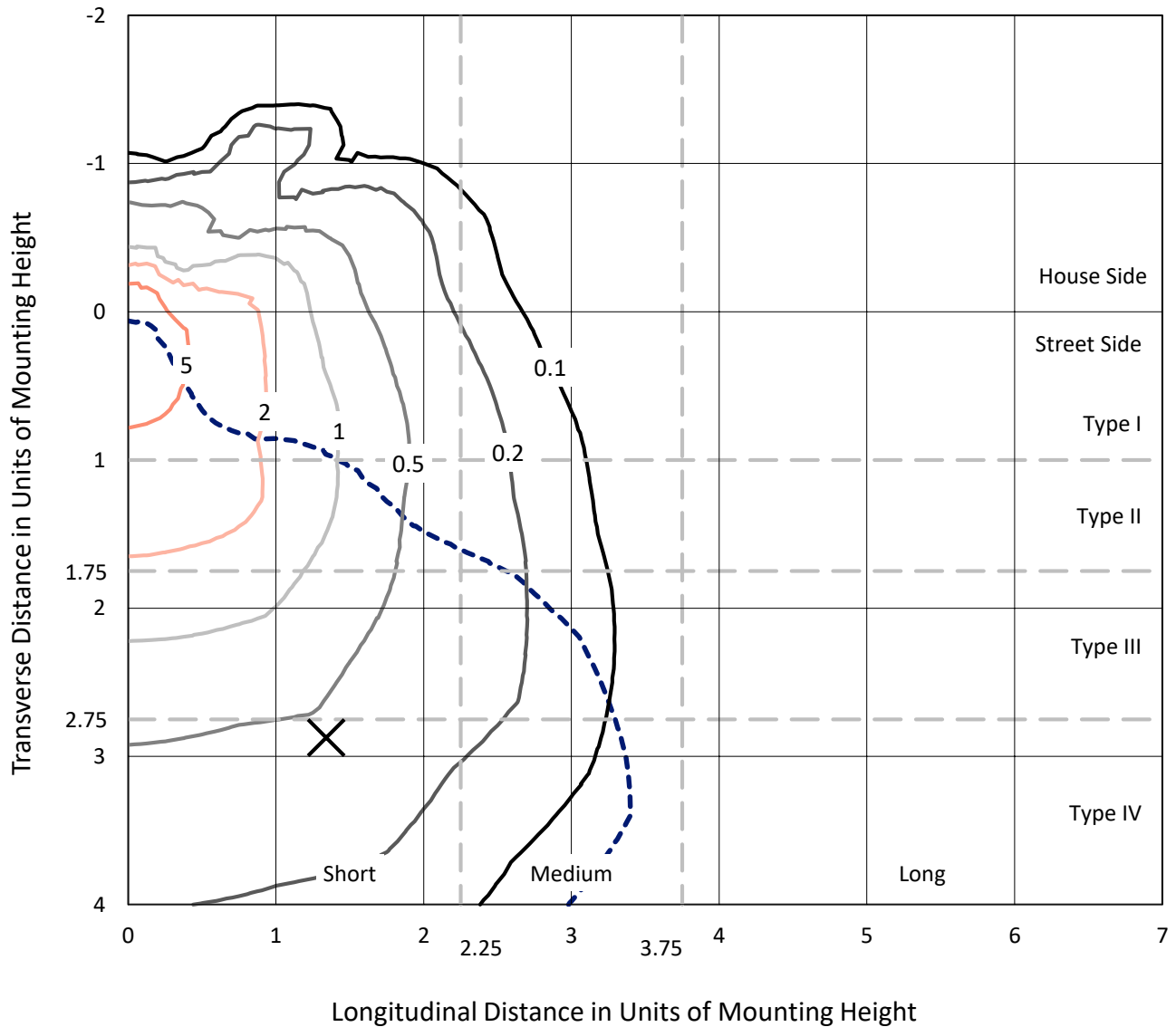
Input Watts (W): 350
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

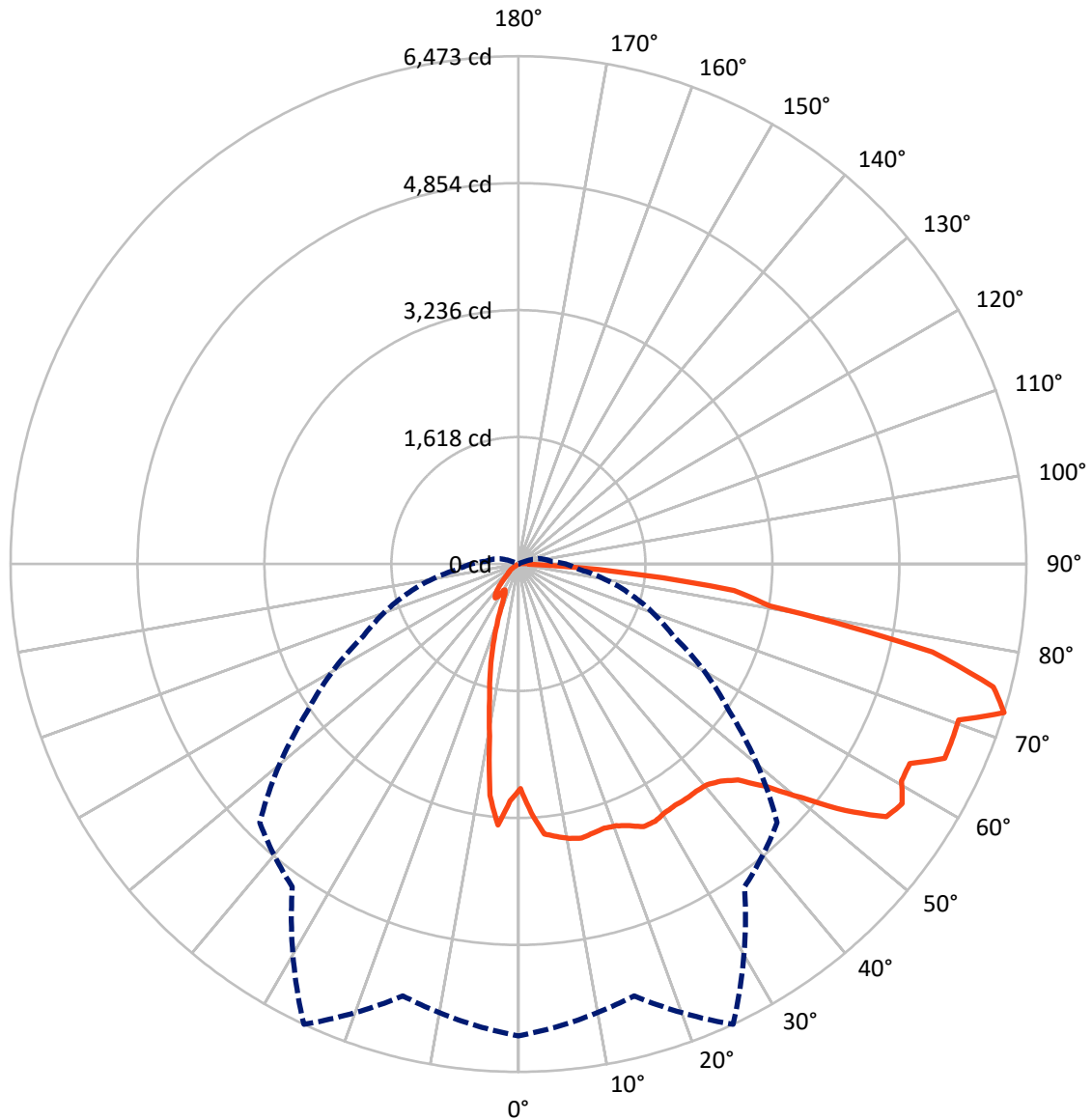
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 8.6 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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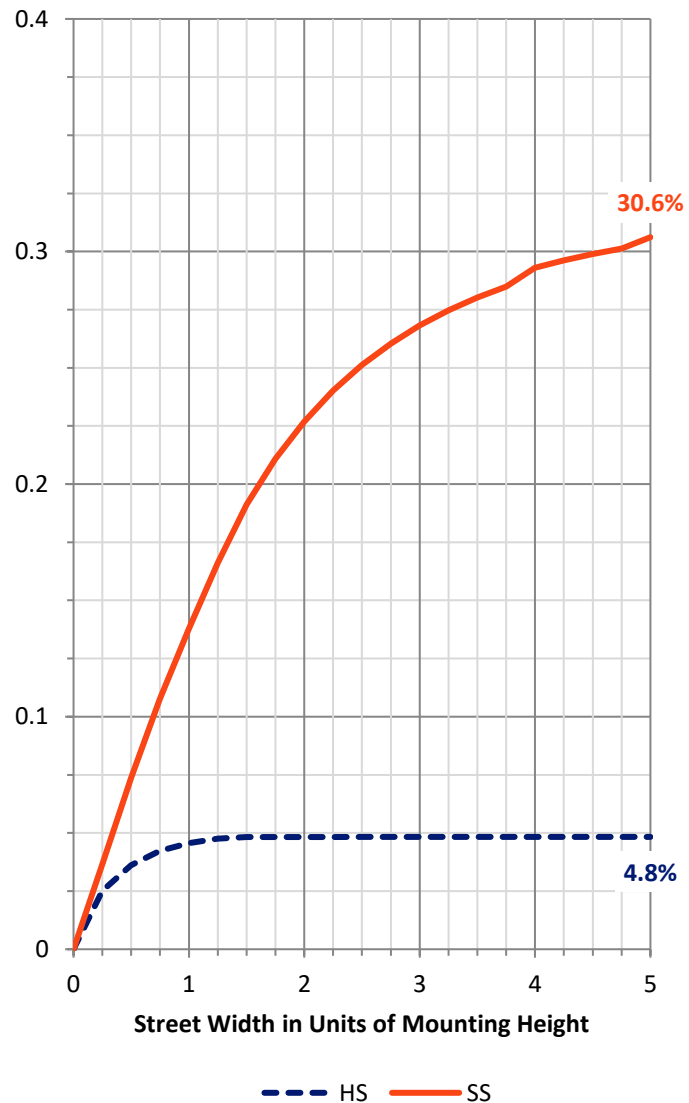
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1461.2	0.0	1461.2
	% Lamp	4.9	0.0	4.9
Street Side	Lumens	9427.8	27.2	9455.1
	% Lamp	31.4	0.1	31.5
Total	Lumens	10889.1	27.2	10916.3
	% Lamp	36.3	0.1	36.4

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	290.0	2.7	1.0
10°-20°	678.6	6.2	2.3
20°-30°	882.5	8.1	2.9
30°-40°	1164.5	10.7	3.9
40°-50°	1488.3	13.6	5.0
50°-60°	1966.1	18.0	6.6
60°-70°	2104.3	19.3	7.0
70°-80°	1852.1	17.0	6.2
80°-90°	462.7	4.2	1.5
90°-100°	24.8	0.2	0.1
100°-110°	4.9	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°	10889.1	99.8	36.3
0°-180°	10916.3	100.0	36.4



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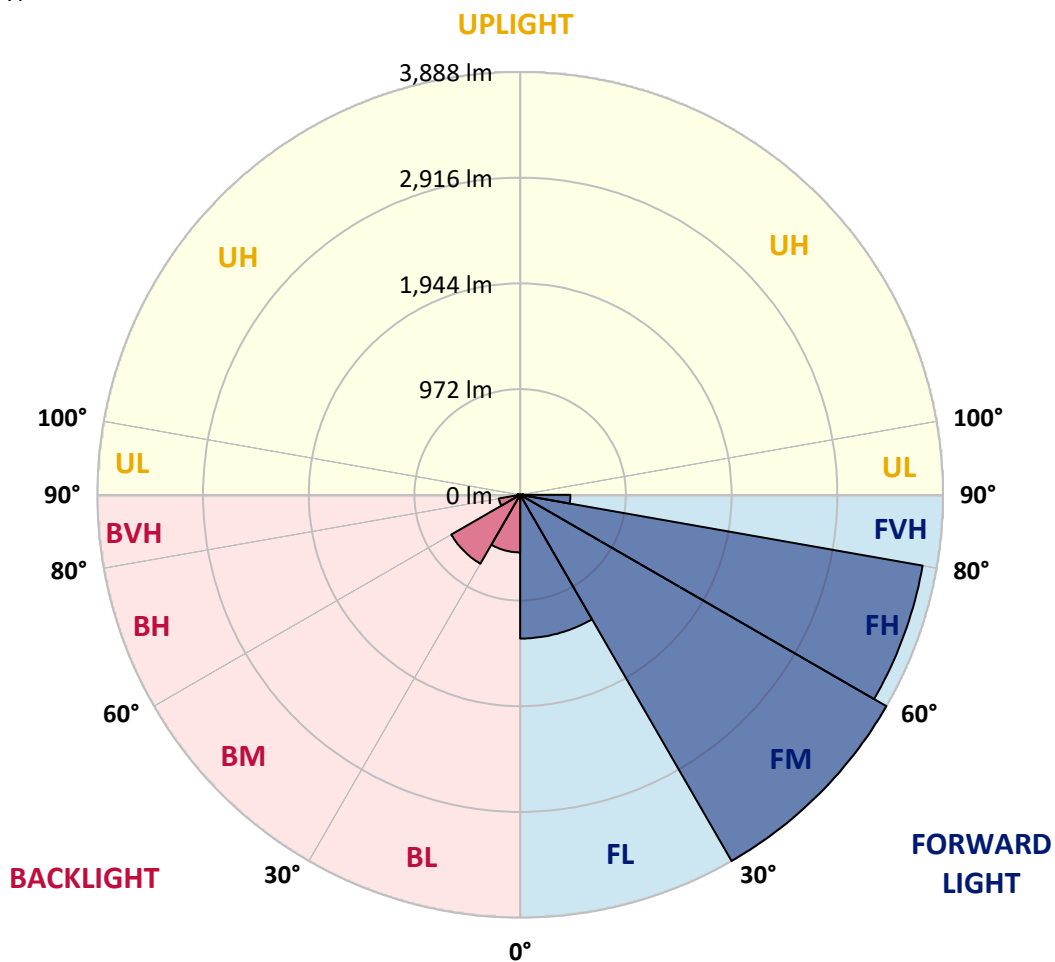
CATALOG NUMBER: GSM-XX-320-MP-XX-FT-SG-XX-HS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1321.4	4.4			
FM	(30°-60°)	3887.7	13.0			
FH	(60°-80°)	3757.3	12.5			G2/5000
FVH	(80°-90°)	461.5	1.5			G3/500
BL	(0°-30°)	529.7	1.8	B2/1000		
BM	(30°-60°)	731.2	2.4	B1/1000		
BH	(60°-80°)	199.1	0.7	B1/500		G1/500
BVH	(80°-90°)	1.2	0.0			G0/10
UL	(90°-100°)	24.8	0.1		U2/50	
UH	(100°-180°)	0.0	0.0		U0/0	
Trapped Light		19083.7	63.6			

BUG Rating: B2-U2-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2860.0	2860.0	2860.0	2860.0	2860.0	2860.0	2860.0	2860.0	2860.0	2860.0	2860.0
2.5°	3208.3	3217.5	3204.2	3176.7	3149.2	3094.2	3020.8	2956.7	2915.0	2878.3	2860.0
5°	3492.5	3497.5	3488.3	3455.8	3433.3	3378.3	3254.2	3116.7	2979.2	2865.0	2823.3
7.5°	3539.2	3530.0	3534.2	3506.7	3501.7	3460.8	3355.0	3195.0	3002.5	2786.7	2713.3
10°	3566.7	3566.7	3570.8	3557.5	3548.3	3479.2	3345.8	3180.8	2979.2	2672.5	2562.5
12.5°	3594.2	3598.3	3598.3	3585.0	3557.5	3446.7	3254.2	3085.0	2883.3	2544.2	2397.5
15°	3621.7	3625.8	3603.3	3557.5	3510.8	3360.0	3140.0	2933.3	2768.3	2401.7	2218.3
17.5°	3695.0	3685.8	3640.0	3539.2	3460.8	3277.5	3030.0	2814.2	2645.0	2264.2	2030.8
20°	3768.3	3772.5	3685.8	3561.7	3428.3	3213.3	2933.3	2722.5	2562.5	2154.2	1860.8
22.5°	3887.5	3882.5	3800.0	3621.7	3410.0	3144.2	2869.2	2667.5	2489.2	2108.3	1760.0
25°	3970.0	3955.8	3891.7	3708.3	3382.5	3075.8	2814.2	2608.3	2420.0	2090.0	1741.7
27.5°	3979.2	3965.0	3891.7	3713.3	3373.3	3006.7	2740.8	2548.3	2346.7	2071.7	1755.8
30°	3942.5	3933.3	3860.0	3676.7	3336.7	2951.7	2672.5	2452.5	2269.2	2053.3	1801.7
32.5°	3970.0	3942.5	3864.2	3667.5	3309.2	2924.2	2612.5	2370.0	2190.8	2040.0	1875.0
35°	3970.0	3960.8	3891.7	3676.7	3286.7	2896.7	2557.5	2305.8	2145.0	2030.8	1939.2
37.5°	4043.3	4029.2	3955.8	3676.7	3277.5	2887.5	2539.2	2278.3	2113.3	2012.5	1948.3
40°	4208.3	4199.2	4080.0	3699.2	3263.3	2878.3	2539.2	2278.3	2113.3	1980.0	1920.8
42.5°	4382.5	4373.3	4226.7	3781.7	3281.7	2887.5	2566.7	2287.5	2104.2	1925.0	1875.0
45°	4648.3	4639.2	4446.7	3924.2	3378.3	2929.2	2626.7	2328.3	2104.2	1888.3	1815.0
47.5°	5033.3	5019.2	4776.7	4230.8	3575.8	2997.5	2704.2	2374.2	2071.7	1810.8	1732.5
50°	5565.0	5546.7	5257.5	4680.0	3860.0	3140.0	2810.0	2425.0	2012.5	1737.5	1627.5
52.5°	5986.7	5968.3	5743.3	5220.8	4235.8	3350.8	2929.2	2461.7	1934.2	1650.0	1545.0
55°	6069.2	6050.8	5926.7	5688.3	4712.5	3653.3	3030.0	2511.7	1884.2	1595.0	1485.0
57.5°	5876.7	5867.5	5766.7	5766.7	5184.2	3992.5	3103.3	2562.5	1897.5	1576.7	1420.8
60°	5565.0	5560.0	5464.2	5610.8	5354.2	4245.0	3144.2	2599.2	1920.8	1549.2	1356.7
62.5°	5656.7	5642.5	5486.7	5596.7	5220.8	4263.3	3162.5	2585.0	1911.7	1471.7	1274.2
65°	5876.7	5853.3	5908.3	5972.5	4991.7	4089.2	3085.0	2484.2	1851.7	1352.5	1155.0
67.5°	5574.2	5560.0	5665.8	5963.3	5028.3	3997.5	3002.5	2360.8	1774.2	1228.3	1045.0
70°	5785.0	5748.3	5675.0	5950.0	4969.2	4153.3	3130.8	2273.3	1677.5	1086.7	889.2
72.5°	6014.2	5913.3	5697.5	6472.5	5024.2	4661.7	3286.7	2181.7	1471.7	770.0	605.0
75°	5904.2	5825.8	5688.3	6252.5	4890.8	4611.7	3112.5	1760.0	885.0	467.5	344.2
77.5°	5684.2	5574.2	5473.3	5395.0	4020.0	3575.8	2425.0	1155.0	531.7	320.8	243.3
80°	4217.5	4148.3	3805.0	3250.0	2337.5	2300.8	1682.5	852.5	394.2	210.8	128.3
82.5°	3942.5	3814.2	3400.8	2768.3	1833.3	1233.3	756.7	366.7	170.0	69.2	41.7
85°	1769.2	1631.7	1430.0	1246.7	467.5	371.7	243.3	55.0	5.0	0.0	0.0
87.5°	293.3	289.2	229.2	137.5	69.2	23.3	5.0	0.0	0.0	0.0	0.0
90°	302.5	307.5	243.3	142.5	69.2	23.3	5.0	0.0	0.0	0.0	0.0
95°	155.8	151.7	110.0	50.8	18.3	5.0	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



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CATALOG NUMBER: GSM-XX-320-MP-XX-FT-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°	2860.0	2860.0	2860.0	2860.0	2860.0	2860.0	2860.0	2860.0	2860.0	2860.0
2.5°	2841.7	2828.3	2805.0	2846.7	2892.5	2970.0	3020.8	3070.8	3103.3	3107.5
5°	2777.5	2755.0	2819.2	2942.5	3066.7	3222.5	3336.7	3419.2	3455.8	3465.0
7.5°	2645.0	2645.0	2740.8	2860.0	2947.5	2988.3	2970.0	2942.5	2920.0	2924.2
10°	2465.8	2470.8	2548.3	2571.7	2493.3	2370.0	2223.3	2099.2	2012.5	1998.3
12.5°	2245.8	2255.0	2333.3	2227.5	2040.0	1897.5	1760.0	1613.3	1439.2	1411.7
15°	2058.3	2053.3	2053.3	1796.7	1576.7	1512.5	1435.0	1329.2	1109.2	1063.3
17.5°	1847.5	1810.8	1655.0	1237.5	1050.0	1123.3	1118.3	1045.0	875.8	834.2
20°	1645.8	1563.3	1251.7	788.3	632.5	710.8	820.8	784.2	678.3	660.0
22.5°	1508.3	1361.7	995.0	595.8	463.3	476.7	559.2	586.7	540.8	540.8
25°	1444.2	1251.7	912.5	518.3	380.8	375.8	412.5	449.2	449.2	458.3
27.5°	1453.3	1219.2	903.3	476.7	339.2	339.2	371.7	348.3	357.5	357.5
30°	1517.5	1219.2	907.5	445.0	330.0	375.8	385.0	385.0	399.2	394.2
32.5°	1609.2	1219.2	921.7	426.7	344.2	417.5	490.8	472.5	481.7	495.0
35°	1710.0	1237.5	935.0	417.5	375.8	463.3	522.5	440.0	449.2	467.5
37.5°	1792.5	1292.5	967.5	430.8	440.0	518.3	485.8	335.0	320.8	339.2
40°	1856.7	1384.2	999.2	430.8	472.5	509.2	417.5	252.5	210.8	210.8
42.5°	1870.0	1471.7	1004.2	403.3	408.3	430.8	330.0	197.5	165.0	155.8
45°	1824.2	1512.5	999.2	371.7	357.5	357.5	247.5	142.5	146.7	146.7
47.5°	1714.2	1485.0	971.7	344.2	335.0	330.0	183.3	91.7	115.0	119.2
50°	1590.8	1411.7	953.3	339.2	362.5	371.7	160.8	55.0	78.3	82.5
52.5°	1471.7	1338.3	940.0	320.8	403.3	463.3	137.5	23.3	32.5	27.5
55°	1370.8	1283.3	916.7	302.5	476.7	536.7	87.5	5.0	5.0	9.2
57.5°	1292.5	1233.3	916.7	284.2	646.7	500.0	27.5	0.0	0.0	0.0
60°	1210.0	1191.7	894.2	280.0	701.7	247.5	0.0	0.0	0.0	0.0
62.5°	1127.5	1118.3	839.2	293.3	435.8	50.8	0.0	0.0	0.0	0.0
65°	1022.5	1004.2	760.8	165.0	105.8	0.0	0.0	0.0	0.0	0.0
67.5°	903.3	852.5	536.7	5.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	696.7	591.7	146.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	412.5	265.8	14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	234.2	69.2	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	165.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	91.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	27.5	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	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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CANDELA DISTRIBUTION (continued):

	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)