

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: 769016\_320MP

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: 769016\_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-SG-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: 18442.8 lumens  
Efficiency: 61.5%  
Efficacy: 52.7 lumens/watt  
Luminous Opening: Point Source (0' x 0' x 0')  
IES Classification: Type II - Medium - Cutoff  
BUG Rating: B4 - U1 - G4

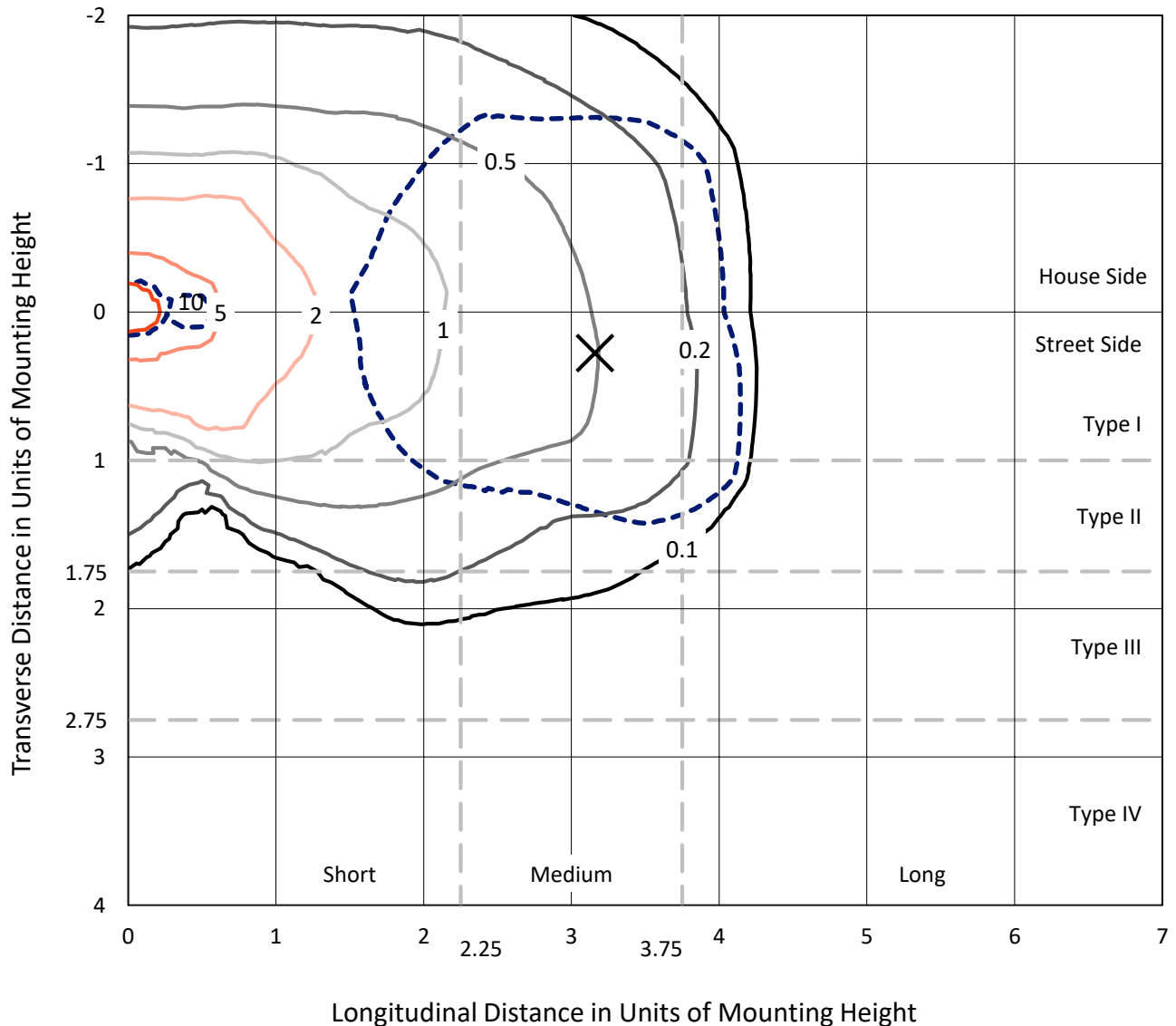
Input Watts (W): 350  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

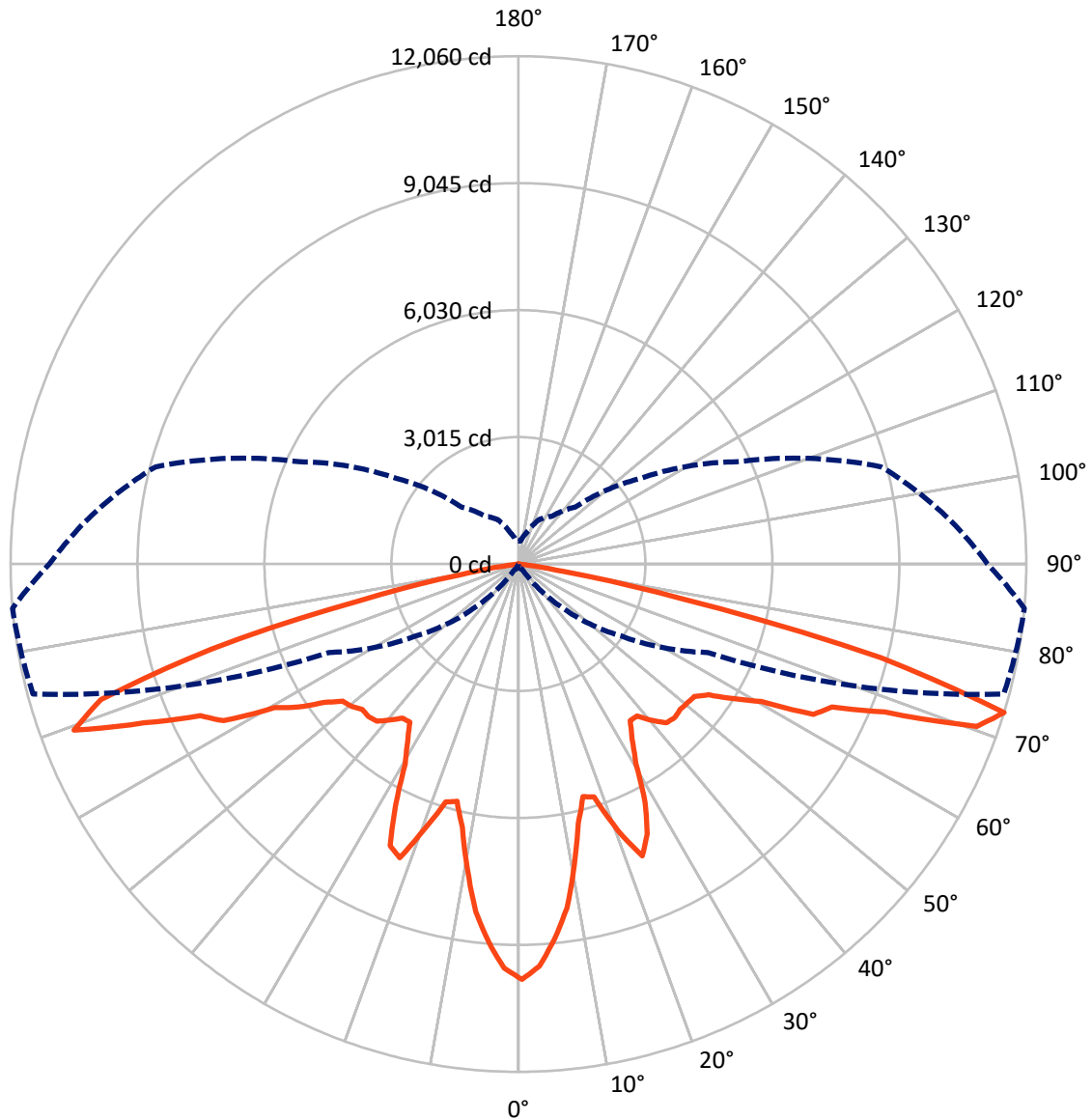
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 15.8 fc  
 Type II - Medium - Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 85-Deg Lateral      - - - Horizontal Cone Through 72.5-Deg Vertical

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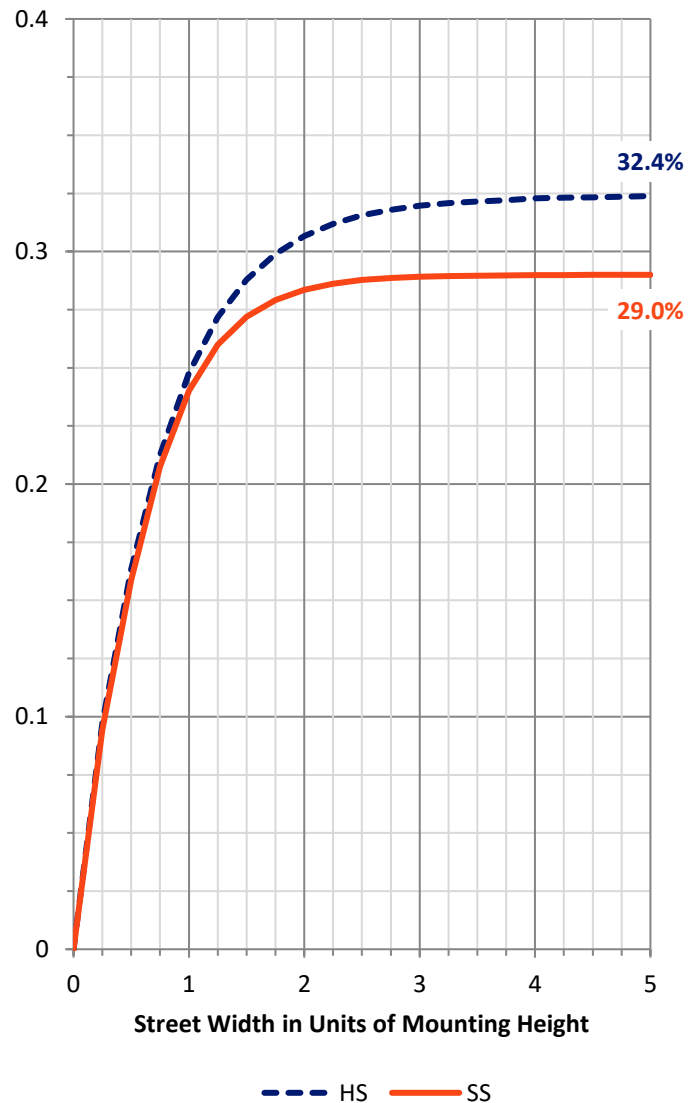
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	9757.8	2.3	9760.1
	% Lamp	32.5	0.0	32.5
<b>Street Side</b>	Lumens	8682.6	0.1	8682.7
	% Lamp	28.9	0.0	28.9
<b>Total</b>	Lumens	18440.4	2.4	18442.8
	% Lamp	61.5	0.0	61.5

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	764.7	4.1	2.5
10°-20°	1483.8	8.0	4.9
20°-30°	1983.6	10.8	6.6
30°-40°	2112.1	11.5	7.0
40°-50°	2560.6	13.9	8.5
50°-60°	2844.3	15.4	9.5
60°-70°	3745.2	20.3	12.5
70°-80°	2816.1	15.3	9.4
80°-90°	130.1	0.7	0.4
90°-100°	2.3	0.0	0.0
100°-110°	0.1	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°	18440.4	100.0	61.5
0°-180°	18442.8	100.0	61.5



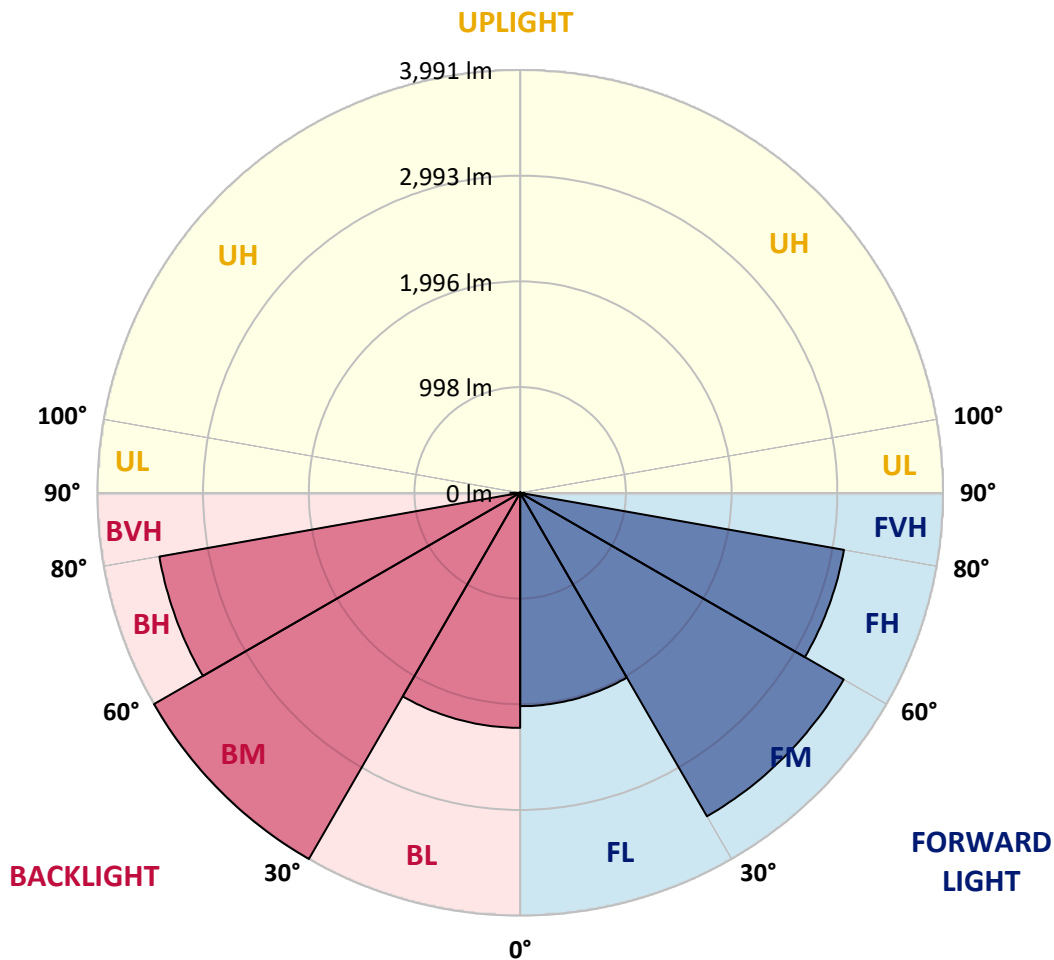
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2013.9	6.7			
FM	(30°-60°)	3525.9	11.8			
FH	(60°-80°)	3103.2	10.3			G2/5000
FVH	(80°-90°)	39.5	0.1			G1/100
BL	(0°-30°)	2218.2	7.4	B3/2500		
BM	(30°-60°)	3991.1	13.3	B3/5000		
BH	(60°-80°)	3458.0	11.5	B4/5000		G4/5000
BVH	(80°-90°)	90.6	0.3			G1/100
UL	(90°-100°)	2.3	0.0		U1/10	
UH	(100°-180°)	2.3	0.0		U1/10	
Trapped Light		11557.2	38.5			

**BUG Rating: B4-U1-G4**  
 Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	9864.2	9864.2	9864.2	9864.2	9864.2	9864.2	9864.2	9864.2	9864.2	9864.2	9864.2
2.5°	9268.3	9268.3	9291.7	9314.2	9350.8	9374.2	9433.3	9497.5	9539.2	9561.7	9585.0
5°	7820.0	7829.2	7916.7	8030.8	8214.2	8388.3	8567.5	8745.8	8883.3	8943.3	8984.2
7.5°	6325.8	6344.2	6476.7	6687.5	6971.7	7275.0	7618.3	7884.2	8122.5	8255.8	8296.7
10°	5390.8	5404.2	5500.8	5670.0	5959.2	6348.3	6742.5	6980.8	7160.0	7275.0	7330.0
12.5°	4767.5	4776.7	4813.3	4936.7	5165.8	5473.3	5770.8	6069.2	6238.3	6316.7	6371.7
15°	4125.8	4144.2	4249.2	4410.0	4620.8	4749.2	5005.8	5308.3	5550.8	5730.0	5816.7
17.5°	3510.8	3534.2	3768.3	4020.0	4157.5	4226.7	4515.0	4987.5	5532.5	5816.7	5913.3
20°	3089.2	3112.5	3336.7	3635.0	3790.8	3860.0	4162.5	4877.5	6188.3	6765.8	6779.2
22.5°	2786.7	2810.0	2997.5	3305.0	3530.0	3676.7	3970.0	4790.0	6417.5	7531.7	7715.0
25°	2585.0	2603.3	2750.0	3052.5	3318.3	3557.5	3924.2	4725.8	6100.8	7100.8	7366.7
27.5°	2456.7	2456.7	2635.8	2869.2	3121.7	3446.7	3905.8	4740.0	5656.7	6403.3	6531.7
30°	2273.3	2300.8	2585.0	2700.0	3006.7	3254.2	3575.8	4336.7	4927.5	5486.7	5574.2
32.5°	2025.8	2090.0	2502.5	2667.5	2947.5	3020.8	3208.3	3745.0	4446.7	4955.0	5024.2
35°	1595.0	1673.3	2218.3	2590.0	3135.0	3070.8	3180.8	3621.7	4180.8	4570.0	4611.7
37.5°	1118.3	1210.0	1792.5	2452.5	3382.5	3250.0	3259.2	3713.3	4230.8	4575.0	4593.3
40°	779.2	903.3	1265.0	2145.0	3580.0	3603.3	3470.0	3915.0	4547.5	4881.7	4854.2
42.5°	623.3	779.2	788.3	1750.8	3616.7	3937.5	3768.3	4111.7	4932.5	5152.5	5092.5
45°	733.3	843.3	582.5	1292.5	3433.3	4116.7	3960.8	4254.2	5024.2	5202.5	5165.8
47.5°	834.2	898.3	522.5	880.0	2965.8	4171.7	3951.7	4171.7	4850.0	5165.8	5152.5
50°	870.8	861.7	504.2	591.7	2465.8	3979.2	3836.7	4120.8	4735.0	5193.3	5248.3
52.5°	980.8	843.3	472.5	408.3	2172.5	3575.8	4020.0	4212.5	4780.8	5230.0	5285.0
55°	834.2	628.3	311.7	302.5	1888.3	3240.8	4340.8	4364.2	5005.8	5482.5	5592.5
57.5°	650.8	495.0	247.5	238.3	1576.7	3052.5	4515.0	4639.2	5711.7	6036.7	6174.2
60°	495.0	380.8	247.5	201.7	1310.8	2915.0	4529.2	5184.2	6509.2	6623.3	6692.5
62.5°	375.8	330.0	243.3	174.2	949.2	2814.2	4584.2	5871.7	7563.3	7861.7	7880.0
65°	256.7	265.8	238.3	146.7	637.5	2713.3	4565.8	6472.5	7870.8	8182.5	8186.7
67.5°	128.3	142.5	201.7	142.5	417.5	2640.0	4542.5	6696.7	8631.7	9383.3	9506.7
70°	0.0	9.2	82.5	146.7	234.2	2489.2	4217.5	6183.3	10556.7	11546.7	11574.2
72.5°	0.0	0.0	18.3	128.3	146.7	1453.3	2979.2	4973.3	11931.7	12060.0	11139.2
75°	0.0	0.0	0.0	55.0	91.7	545.8	2594.2	4735.0	9805.0	8906.7	7797.5
77.5°	0.0	0.0	0.0	0.0	45.8	252.5	1897.5	3204.2	4474.2	3919.2	3603.3
80°	0.0	0.0	0.0	0.0	14.2	124.2	669.2	866.7	1086.7	1077.5	1150.8
82.5°	0.0	0.0	0.0	0.0	0.0	18.3	87.5	137.5	170.0	220.0	270.8
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	14.2	27.5	32.5
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	5.0	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	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-1F-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°	9864.2	9864.2	9864.2	9864.2	9864.2	9864.2	9864.2	9864.2	9864.2	9864.2
2.5°	9603.3	9653.3	9685.8	9722.5	9772.5	9809.2	9818.3	9841.7	9850.8	9836.7
5°	9002.5	9025.8	9044.2	9039.2	9030.0	9030.0	9016.7	9035.0	9044.2	9057.5
7.5°	8315.0	8265.0	8205.0	8118.3	8021.7	7911.7	7815.8	7792.5	7783.3	7792.5
10°	7339.2	7306.7	7233.3	7077.5	6935.0	6784.2	6683.3	6637.5	6646.7	6655.8
12.5°	6399.2	6366.7	6307.5	6206.7	6036.7	5876.7	5785.0	5761.7	5757.5	5766.7
15°	5821.7	5688.3	5615.0	5495.8	5390.8	5248.3	5134.2	5120.0	5101.7	5115.8
17.5°	5908.3	5633.3	5239.2	4964.2	4881.7	4840.8	4685.0	4615.8	4575.0	4556.7
20°	6669.2	6050.8	5207.5	4652.5	4515.0	4450.8	4304.2	4235.8	4120.8	4107.5
22.5°	7522.5	6412.5	5189.2	4441.7	4190.0	4111.7	3988.3	3869.2	3731.7	3722.5
25°	7348.3	6330.0	5024.2	4245.0	3974.2	3869.2	3768.3	3580.0	3396.7	3373.3
27.5°	6412.5	5752.5	4753.3	4025.0	3726.7	3662.5	3575.8	3360.0	3112.5	3089.2
30°	5455.0	5028.3	4355.0	3690.0	3483.3	3488.3	3424.2	3153.3	2929.2	2887.5
32.5°	4955.0	4611.7	3997.5	3419.2	3195.0	3222.5	3158.3	2993.3	2777.5	2731.7
35°	4551.7	4331.7	3809.2	3323.3	3185.8	3199.2	2997.5	2795.8	2630.8	2612.5
37.5°	4579.2	4295.0	3768.3	3332.5	3300.0	3268.3	2869.2	2630.8	2489.2	2465.8
40°	4804.2	4520.0	3882.5	3465.0	3520.8	3332.5	2740.8	2480.0	2351.7	2337.5
42.5°	5019.2	4712.5	4038.3	3662.5	3768.3	3364.2	2599.2	2333.3	2232.5	2218.3
45°	5083.3	4762.5	4144.2	3860.0	3924.2	3309.2	2443.3	2181.7	2076.7	2080.8
47.5°	5065.0	4730.8	4144.2	4001.7	3988.3	3171.7	2305.8	2040.0	1934.2	1915.8
50°	5207.5	4795.0	4102.5	3900.8	3933.3	2979.2	2177.5	1897.5	1787.5	1769.2
52.5°	5294.2	4840.8	4212.5	3928.3	3726.7	2782.5	2058.3	1755.8	1650.0	1640.8
55°	5651.7	5015.0	4355.0	4075.0	3497.5	2599.2	1961.7	1631.7	1535.8	1530.8
57.5°	6238.3	5464.2	4560.8	4208.3	3305.0	2456.7	1870.0	1521.7	1448.3	1448.3
60°	6724.2	5917.5	4955.0	4331.7	3167.5	2342.5	1810.8	1457.5	1365.8	1365.8
62.5°	7925.8	6898.3	5555.8	4575.0	3075.8	2205.0	1746.7	1420.8	1255.8	1274.2
65°	8365.8	7476.7	5990.8	4740.0	3048.3	2150.0	1664.2	1375.0	1132.5	1127.5
67.5°	9653.3	8562.5	6555.0	4785.8	2975.0	2040.0	1540.0	1288.3	967.5	916.7
70°	11267.5	9717.5	6861.7	4707.5	2887.5	1911.7	1398.3	1095.8	793.3	751.7
72.5°	10423.3	8920.0	5743.3	3543.3	1911.7	1384.2	1164.2	779.2	545.8	550.0
75°	7568.3	7238.3	4835.8	2910.8	1086.7	518.3	481.7	476.7	412.5	412.5
77.5°	3896.7	4331.7	3332.5	2186.7	720.0	252.5	183.3	215.8	280.0	302.5
80°	1430.0	1824.2	1622.5	1210.0	440.0	170.0	124.2	124.2	151.7	174.2
82.5°	335.0	430.8	421.7	353.3	151.7	78.3	78.3	69.2	96.7	110.0
85°	36.7	32.5	27.5	18.3	14.2	23.3	41.7	50.8	69.2	73.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	14.2	36.7	60.0	64.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	14.2	41.7	64.2	73.3
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.2	9.2
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)