

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\_400MP

Luminaire Tested: **GSM-XX-400-MP-XX-FT-SG-XX-HS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: 769002\_400MP  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GSM-XX-400-MP-XX-FT-SG-XX-HS  
Description: MEDIUM ARCHITECTURAL AREA LUMINAIRE-HORIZONTAL LAMP-FORWARD THROW  
DISTRIBUTION  
WITH HOUSE-SIDE SHIELD  
Light Source: 400 WATT PULSE-START CLEAR ED-37 HORIZONTAL BURN  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 40000 (1 lamp)  
Luminaire Lumens: 14555 lumens  
Efficiency: 36.4%  
Efficacy: 32.2 lumens/watt  
Luminous Opening: Point Source (0' x 0' x 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B2 - U2 - G4

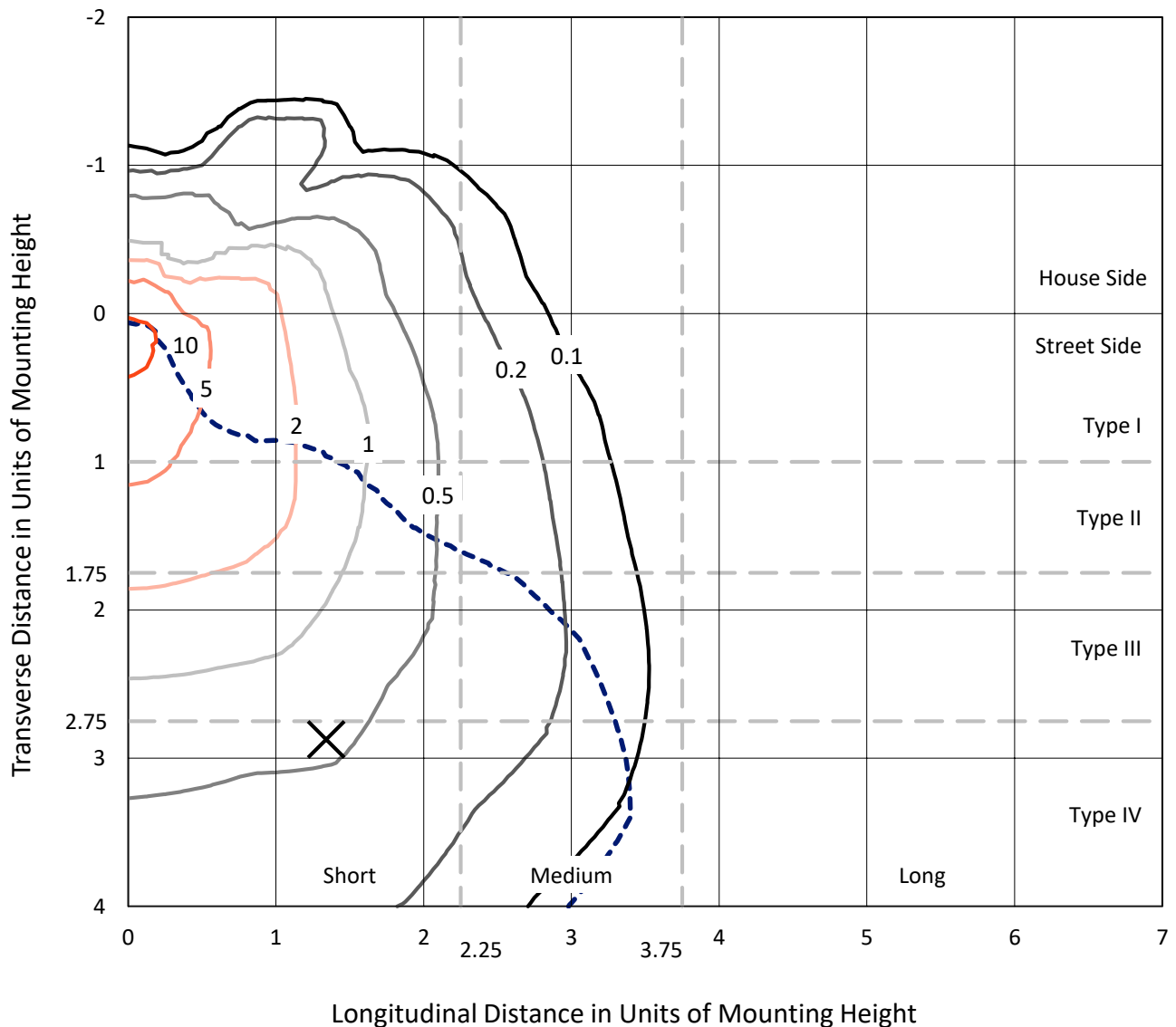
Input Watts (W): 452  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

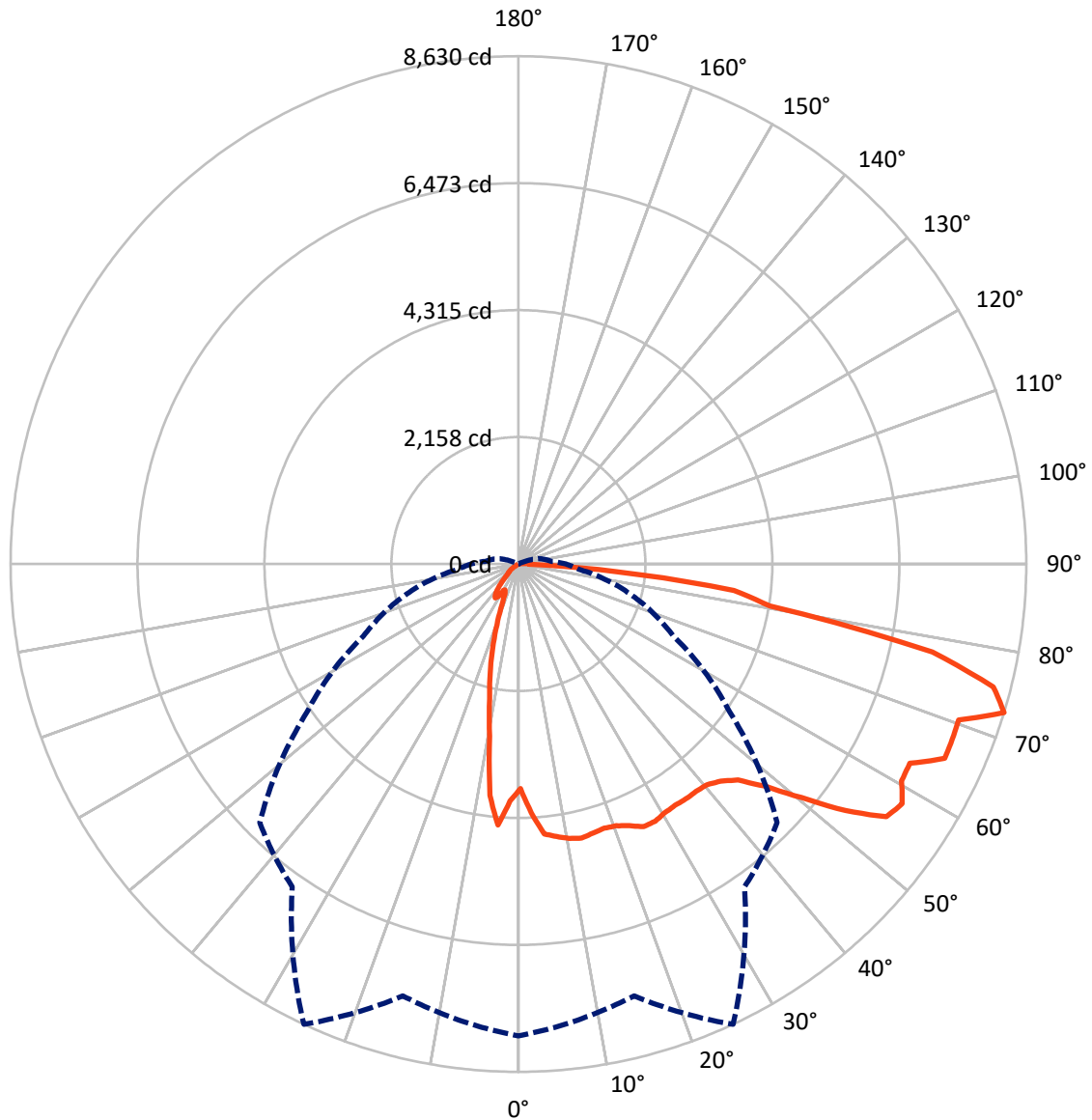
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 11.5 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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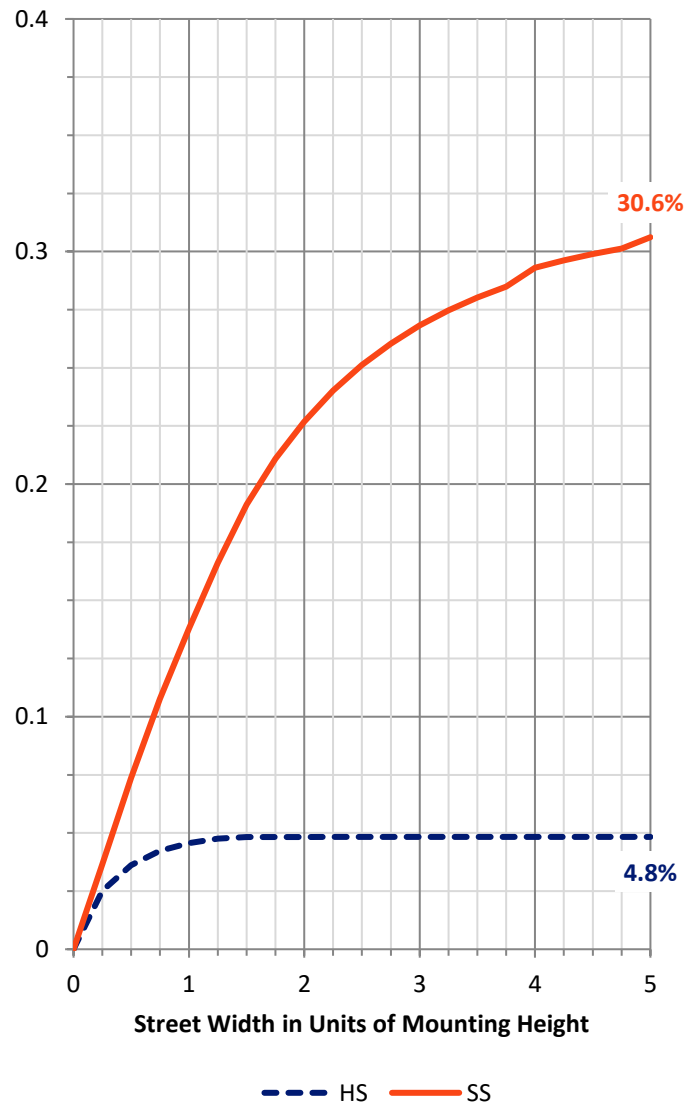
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1948.3	0.0	1948.3
	% Lamp	4.9	0.0	4.9
<b>Street Side</b>	Lumens	12570.4	36.3	12606.7
	% Lamp	31.4	0.1	31.5
<b>Total</b>	Lumens	14518.7	36.3	14555.0
	% Lamp	36.3	0.1	36.4

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	386.7	2.7	1.0
10°-20°	904.8	6.2	2.3
20°-30°	1176.7	8.1	2.9
30°-40°	1552.6	10.7	3.9
40°-50°	1984.4	13.6	5.0
50°-60°	2621.4	18.0	6.6
60°-70°	2805.7	19.3	7.0
70°-80°	2469.5	17.0	6.2
80°-90°	616.9	4.2	1.5
90°-100°	33.0	0.2	0.1
100°-110°	6.6	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°	14518.7	99.8	36.3
0°-180°	14555.0	100.0	36.4



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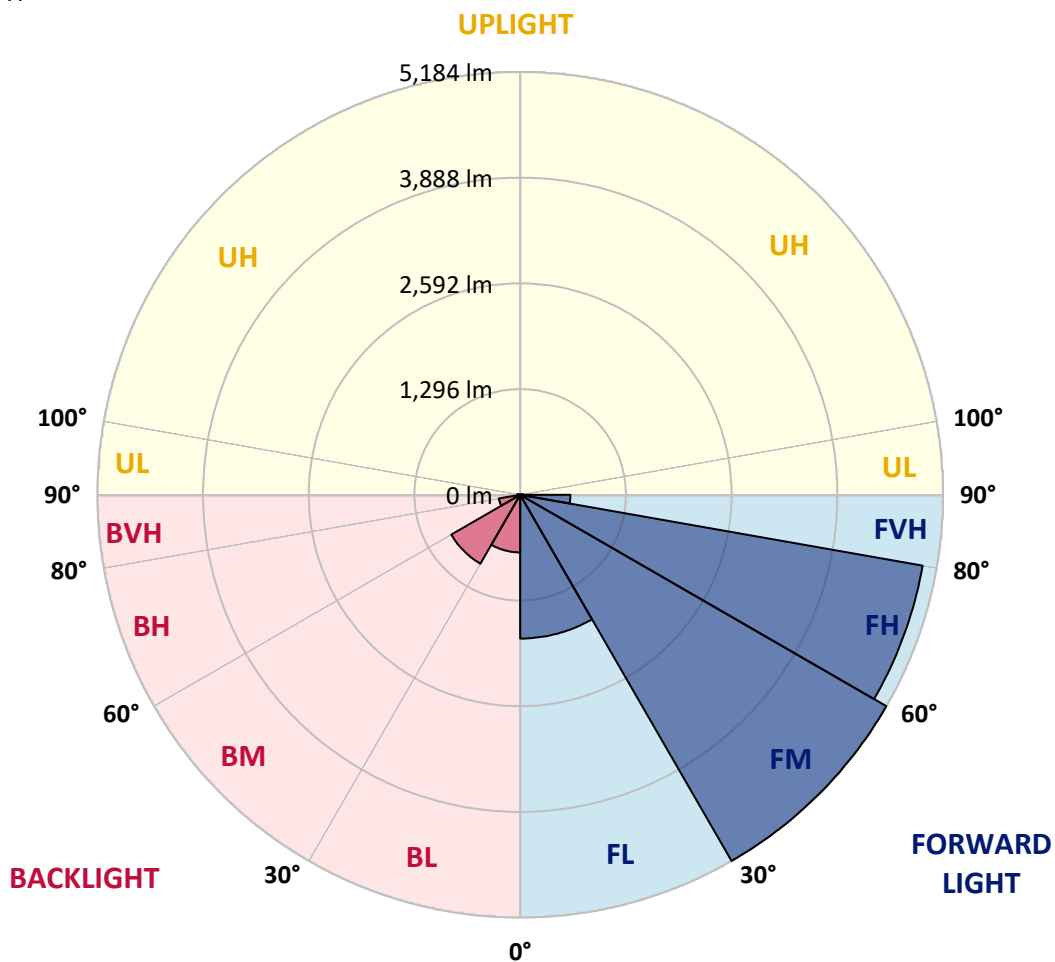
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1761.9	4.4			
FM	(30°-60°)	5183.6	13.0			
FH	(60°-80°)	5009.7	12.5			G3/7500
FVH	(80°-90°)	615.3	1.5			G4/750
BL	(0°-30°)	706.3	1.8	B2/1000		
BM	(30°-60°)	974.9	2.4	B1/1000		
BH	(60°-80°)	265.5	0.7	B1/500		G1/500
BVH	(80°-90°)	1.6	0.0			G0/10
UL	(90°-100°)	33.0	0.1		U2/50	
UH	(100°-180°)	0.0	0.0		U0/0	
Trapped Light		25445.0	63.6			

**BUG Rating: B2-U2-G4**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3813.3	3813.3	3813.3	3813.3	3813.3	3813.3	3813.3	3813.3	3813.3	3813.3	3813.3
2.5°	4277.8	4290.0	4272.2	4235.6	4198.9	4125.6	4027.8	3942.2	3886.7	3837.8	3813.3
5°	4656.7	4663.3	4651.1	4607.8	4577.8	4504.4	4338.9	4155.6	3972.2	3820.0	3764.4
7.5°	4718.9	4706.7	4712.2	4675.6	4668.9	4614.4	4473.3	4260.0	4003.3	3715.6	3617.8
10°	4755.6	4755.6	4761.1	4743.3	4731.1	4638.9	4461.1	4241.1	3972.2	3563.3	3416.7
12.5°	4792.2	4797.8	4797.8	4780.0	4743.3	4595.6	4338.9	4113.3	3844.4	3392.2	3196.7
15°	4828.9	4834.4	4804.4	4743.3	4681.1	4480.0	4186.7	3911.1	3691.1	3202.2	2957.8
17.5°	4926.7	4914.4	4853.3	4718.9	4614.4	4370.0	4040.0	3752.2	3526.7	3018.9	2707.8
20°	5024.4	5030.0	4914.4	4748.9	4571.1	4284.4	3911.1	3630.0	3416.7	2872.2	2481.1
22.5°	5183.3	5176.7	5066.7	4828.9	4546.7	4192.2	3825.6	3556.7	3318.9	2811.1	2346.7
25°	5293.3	5274.4	5188.9	4944.4	4510.0	4101.1	3752.2	3477.8	3226.7	2786.7	2322.2
27.5°	5305.6	5286.7	5188.9	4951.1	4497.8	4008.9	3654.4	3397.8	3128.9	2762.2	2341.1
30°	5256.7	5244.4	5146.7	4902.2	4448.9	3935.6	3563.3	3270.0	3025.6	2737.8	2402.2
32.5°	5293.3	5256.7	5152.2	4890.0	4412.2	3898.9	3483.3	3160.0	2921.1	2720.0	2500.0
35°	5293.3	5281.1	5188.9	4902.2	4382.2	3862.2	3410.0	3074.4	2860.0	2707.8	2585.6
37.5°	5391.1	5372.2	5274.4	4902.2	4370.0	3850.0	3385.6	3037.8	2817.8	2683.3	2597.8
40°	5611.1	5598.9	5440.0	4932.2	4351.1	3837.8	3385.6	3037.8	2817.8	2640.0	2561.1
42.5°	5843.3	5831.1	5635.6	5042.2	4375.6	3850.0	3422.2	3050.0	2805.6	2566.7	2500.0
45°	6197.8	6185.6	5928.9	5232.2	4504.4	3905.6	3502.2	3104.4	2805.6	2517.8	2420.0
47.5°	6711.1	6692.2	6368.9	5641.1	4767.8	3996.7	3605.6	3165.6	2762.2	2414.4	2310.0
50°	7420.0	7395.6	7010.0	6240.0	5146.7	4186.7	3746.7	3233.3	2683.3	2316.7	2170.0
52.5°	7982.2	7957.8	7657.8	6961.1	5647.8	4467.8	3905.6	3282.2	2578.9	2200.0	2060.0
55°	8092.2	8067.8	7902.2	7584.4	6283.3	4871.1	4040.0	3348.9	2512.2	2126.7	1980.0
57.5°	7835.6	7823.3	7688.9	7688.9	6912.2	5323.3	4137.8	3416.7	2530.0	2102.2	1894.4
60°	7420.0	7413.3	7285.6	7481.1	7138.9	5660.0	4192.2	3465.6	2561.1	2065.6	1808.9
62.5°	7542.2	7523.3	7315.6	7462.2	6961.1	5684.4	4216.7	3446.7	2548.9	1962.2	1698.9
65°	7835.6	7804.4	7877.8	7963.3	6655.6	5452.2	4113.3	3312.2	2468.9	1803.3	1540.0
67.5°	7432.2	7413.3	7554.4	7951.1	6704.4	5330.0	4003.3	3147.8	2365.6	1637.8	1393.3
70°	7713.3	7664.4	7566.7	7933.3	6625.6	5537.8	4174.4	3031.1	2236.7	1448.9	1185.6
72.5°	8018.9	7884.4	7596.7	8630.0	6698.9	6215.6	4382.2	2908.9	1962.2	1026.7	806.7
75°	7872.2	7767.8	7584.4	8336.7	6521.1	6148.9	4150.0	2346.7	1180.0	623.3	458.9
77.5°	7578.9	7432.2	7297.8	7193.3	5360.0	4767.8	3233.3	1540.0	708.9	427.8	324.4
80°	5623.3	5531.1	5073.3	4333.3	3116.7	3067.8	2243.3	1136.7	525.6	281.1	171.1
82.5°	5256.7	5085.6	4534.4	3691.1	2444.4	1644.4	1008.9	488.9	226.7	92.2	55.6
85°	2358.9	2175.6	1906.7	1662.2	623.3	495.6	324.4	73.3	6.7	0.0	0.0
87.5°	391.1	385.6	305.6	183.3	92.2	31.1	6.7	0.0	0.0	0.0	0.0
90°	403.3	410.0	324.4	190.0	92.2	31.1	6.7	0.0	0.0	0.0	0.0
95°	207.8	202.2	146.7	67.8	24.4	6.7	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-400-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°	3813.3	3813.3	3813.3	3813.3	3813.3	3813.3	3813.3	3813.3	3813.3	3813.3
2.5°	3788.9	3771.1	3740.0	3795.6	3856.7	3960.0	4027.8	4094.4	4137.8	4143.3
5°	3703.3	3673.3	3758.9	3923.3	4088.9	4296.7	4448.9	4558.9	4607.8	4620.0
7.5°	3526.7	3526.7	3654.4	3813.3	3930.0	3984.4	3960.0	3923.3	3893.3	3898.9
10°	3287.8	3294.4	3397.8	3428.9	3324.4	3160.0	2964.4	2798.9	2683.3	2664.4
12.5°	2994.4	3006.7	3111.1	2970.0	2720.0	2530.0	2346.7	2151.1	1918.9	1882.2
15°	2744.4	2737.8	2737.8	2395.6	2102.2	2016.7	1913.3	1772.2	1478.9	1417.8
17.5°	2463.3	2414.4	2206.7	1650.0	1400.0	1497.8	1491.1	1393.3	1167.8	1112.2
20°	2194.4	2084.4	1668.9	1051.1	843.3	947.8	1094.4	1045.6	904.4	880.0
22.5°	2011.1	1815.6	1326.7	794.4	617.8	635.6	745.6	782.2	721.1	721.1
25°	1925.6	1668.9	1216.7	691.1	507.8	501.1	550.0	598.9	598.9	611.1
27.5°	1937.8	1625.6	1204.4	635.6	452.2	452.2	495.6	464.4	476.7	476.7
30°	2023.3	1625.6	1210.0	593.3	440.0	501.1	513.3	513.3	532.2	525.6
32.5°	2145.6	1625.6	1228.9	568.9	458.9	556.7	654.4	630.0	642.2	660.0
35°	2280.0	1650.0	1246.7	556.7	501.1	617.8	696.7	586.7	598.9	623.3
37.5°	2390.0	1723.3	1290.0	574.4	586.7	691.1	647.8	446.7	427.8	452.2
40°	2475.6	1845.6	1332.2	574.4	630.0	678.9	556.7	336.7	281.1	281.1
42.5°	2493.3	1962.2	1338.9	537.8	544.4	574.4	440.0	263.3	220.0	207.8
45°	2432.2	2016.7	1332.2	495.6	476.7	476.7	330.0	190.0	195.6	195.6
47.5°	2285.6	1980.0	1295.6	458.9	446.7	440.0	244.4	122.2	153.3	158.9
50°	2121.1	1882.2	1271.1	452.2	483.3	495.6	214.4	73.3	104.4	110.0
52.5°	1962.2	1784.4	1253.3	427.8	537.8	617.8	183.3	31.1	43.3	36.7
55°	1827.8	1711.1	1222.2	403.3	635.6	715.6	116.7	6.7	6.7	12.2
57.5°	1723.3	1644.4	1222.2	378.9	862.2	666.7	36.7	0.0	0.0	0.0
60°	1613.3	1588.9	1192.2	373.3	935.6	330.0	0.0	0.0	0.0	0.0
62.5°	1503.3	1491.1	1118.9	391.1	581.1	67.8	0.0	0.0	0.0	0.0
65°	1363.3	1338.9	1014.4	220.0	141.1	0.0	0.0	0.0	0.0	0.0
67.5°	1204.4	1136.7	715.6	6.7	0.0	0.0	0.0	0.0	0.0	0.0
70°	928.9	788.9	195.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	550.0	354.4	18.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	312.2	92.2	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	220.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	122.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	36.7	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)