

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: ITL53281

Luminaire Tested: **GSM-XX-250-HPS-XX-5S-FG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: ITL53281
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GSM-XX-250-HPS-XX-5S-FG
Description: MEDIUM ARCHITECTURAL AREA LUMINAIRE - TYPE v DISTRIBUTION
Light Source: 250-WATT HPS CLEAR E-18
Ballast/Driver: -

Summary

Lumens per Lamp: 28000 (1 lamp)
Luminaire Lumens: 20171.7 lumens
Efficiency: 72.0%
Efficacy: 80.7 lumens/watt
Luminous Opening: Rectangular (W 1.03' x L: 1.01' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B4 - U0 - G2

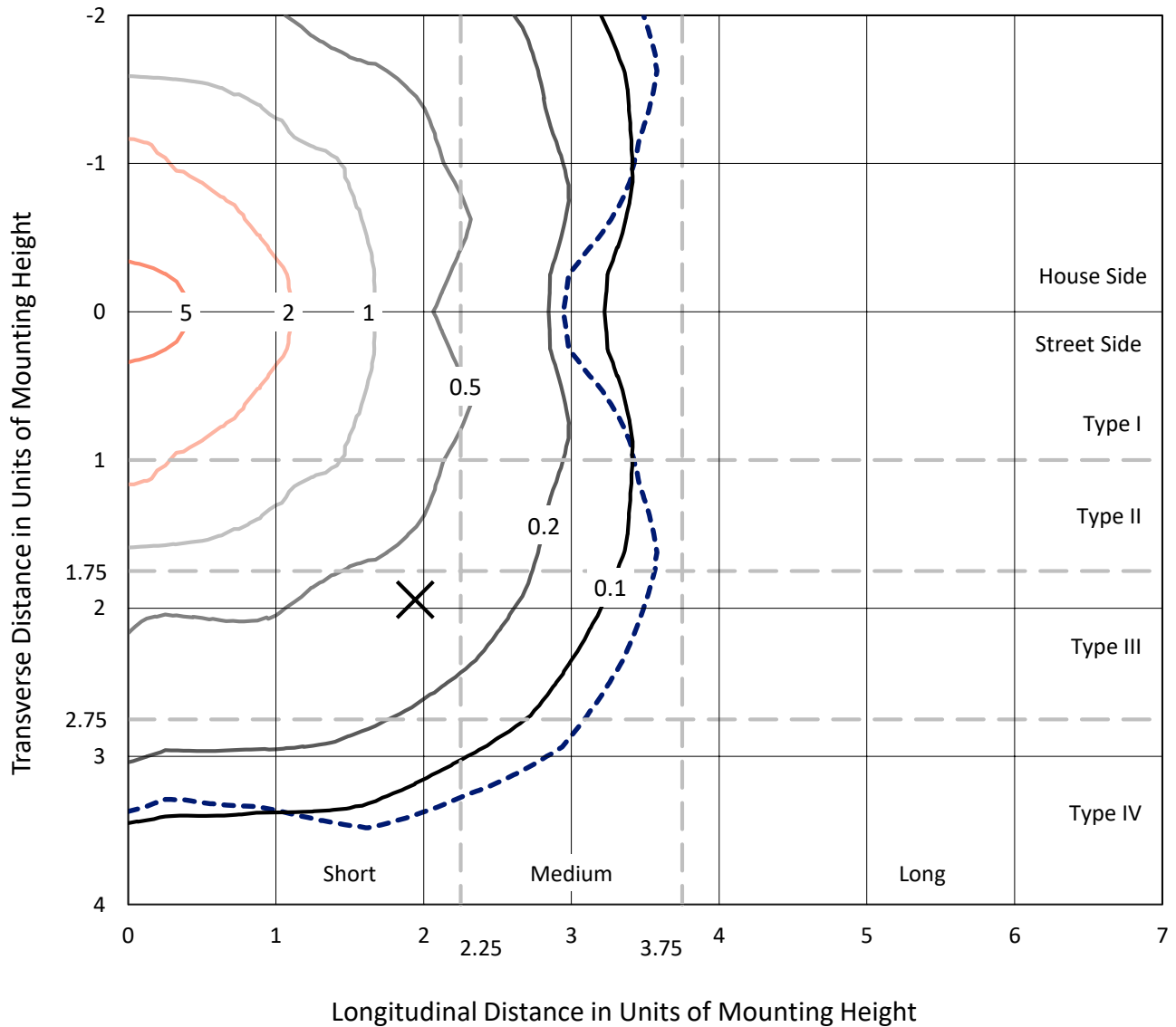
Input Watts (W): 250
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

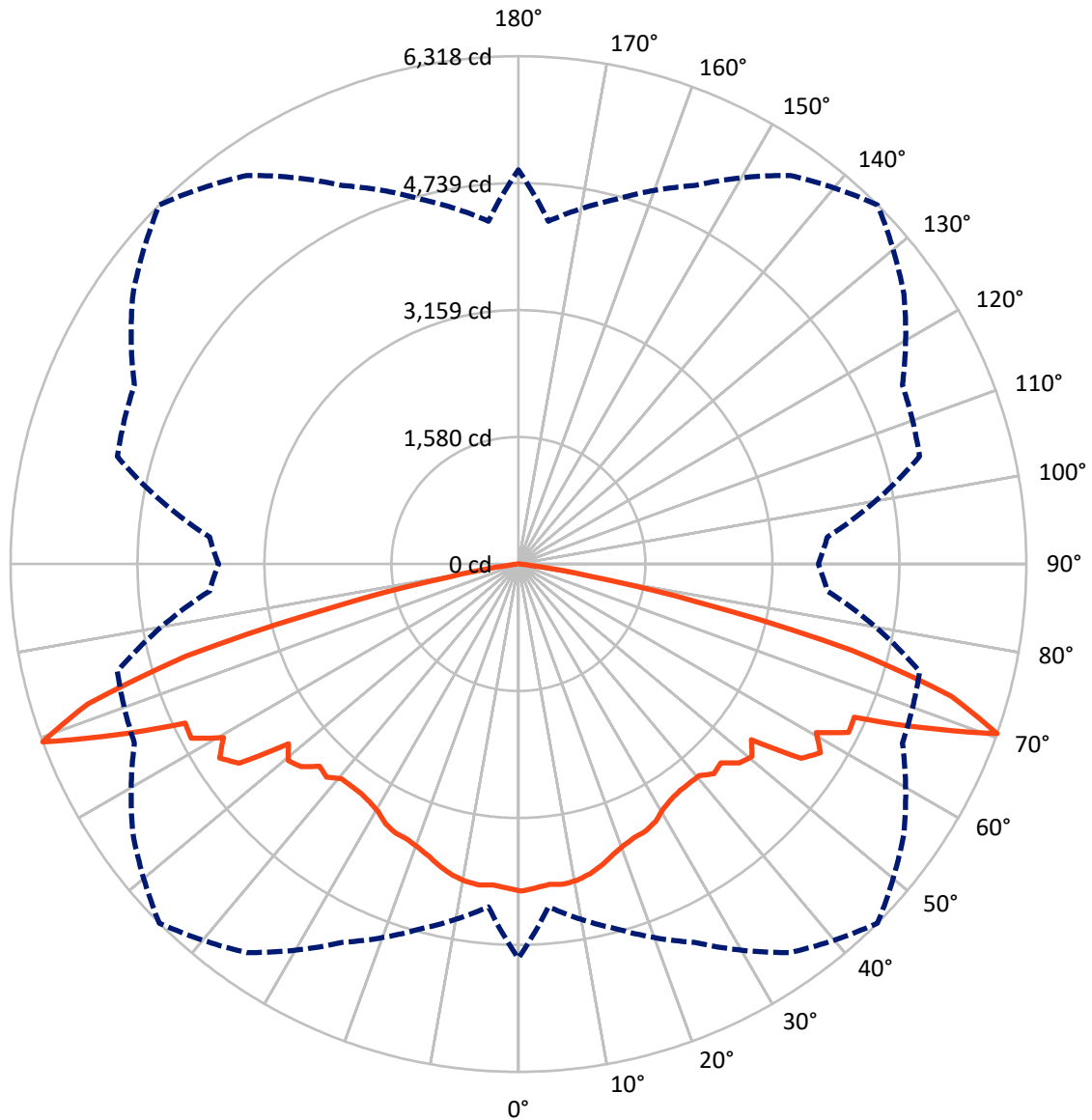
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.5 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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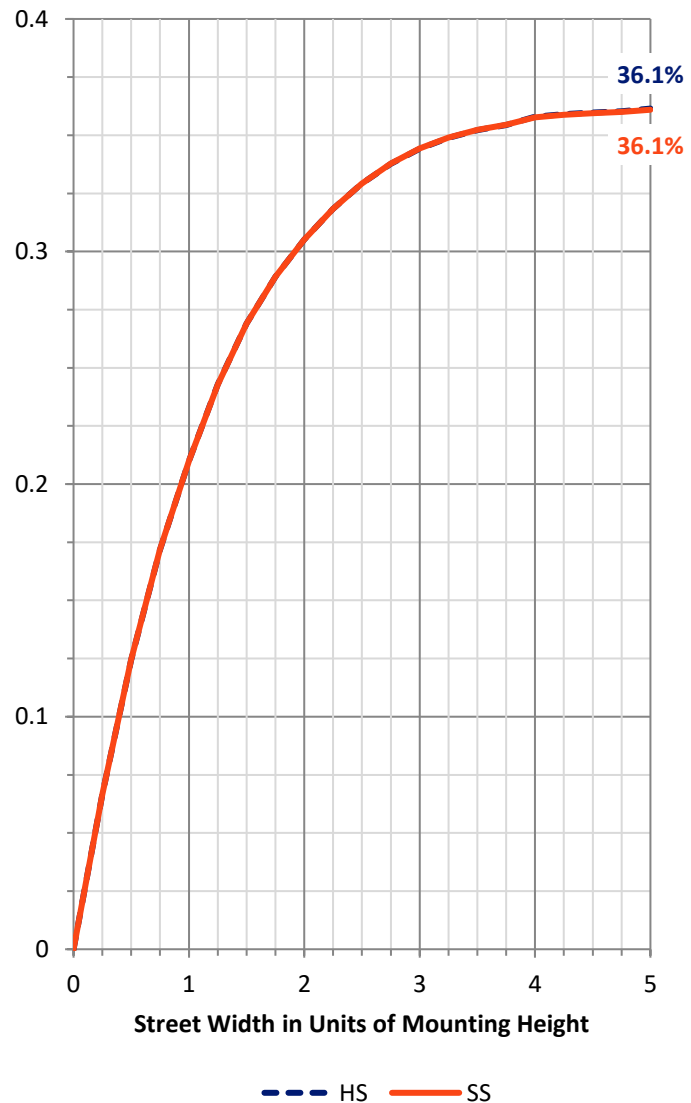
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|--------|----------|--------|---------|
| House Side | Lumens | 10085.9 | 0.0 | 10085.9 |
| | % Lamp | 36.0 | 0.0 | 36.0 |
| Street Side | Lumens | 10085.9 | 0.0 | 10085.9 |
| | % Lamp | 36.0 | 0.0 | 36.0 |
| Total | Lumens | 20171.7 | 0.0 | 20171.7 |
| | % Lamp | 72.0 | 0.0 | 72.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture | % Lamp |
|-----------|---------|-----------|--------|
| 0°-10° | 382.0 | 1.9 | 1.4 |
| 10°-20° | 1095.2 | 5.4 | 3.9 |
| 20°-30° | 1718.2 | 8.5 | 6.1 |
| 30°-40° | 2213.2 | 11.0 | 7.9 |
| 40°-50° | 2885.0 | 14.3 | 10.3 |
| 50°-60° | 3914.7 | 19.4 | 14.0 |
| 60°-70° | 4628.2 | 22.9 | 16.5 |
| 70°-80° | 3187.7 | 15.8 | 11.4 |
| 80°-90° | 147.5 | 0.7 | 0.5 |
| 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° | 20171.7 | 100.0 | 72.0 |
| 0°-180° | 20171.7 | 100.0 | 72.0 |



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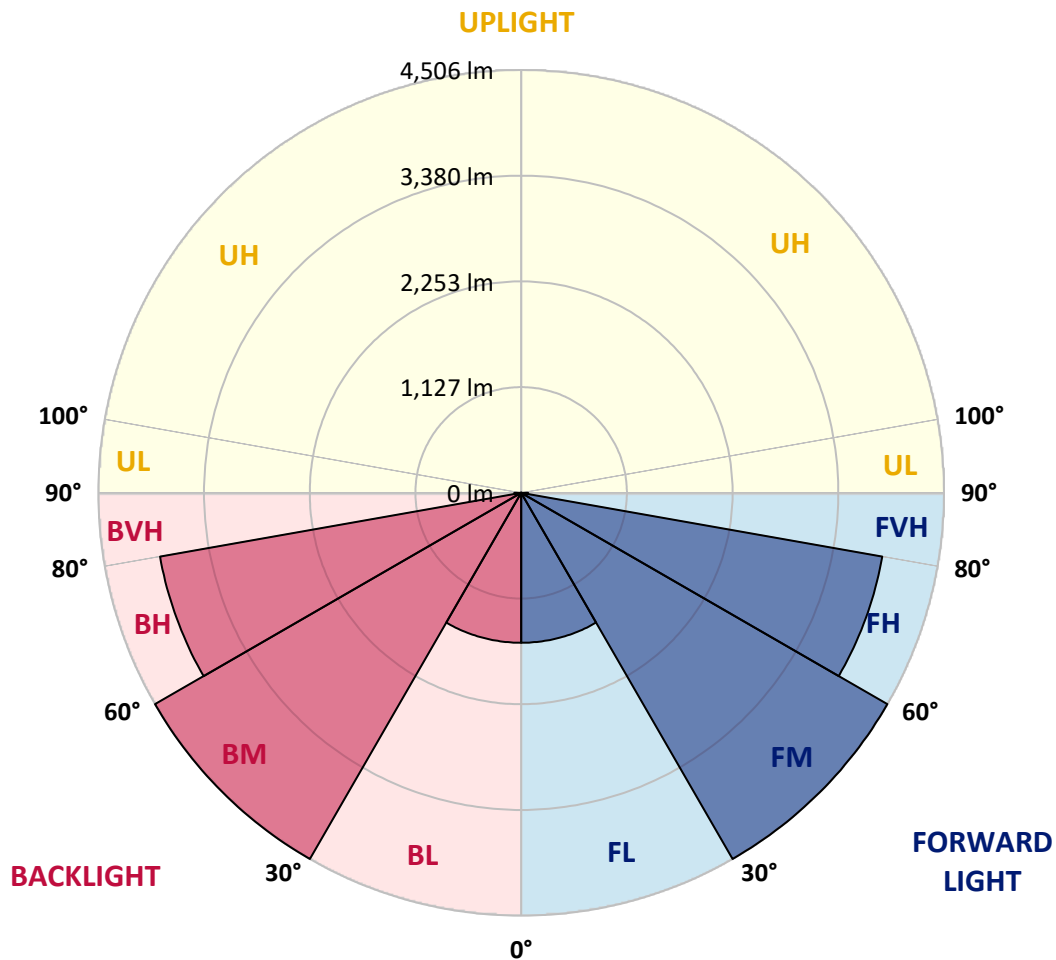
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Lamp | Zone Rating/Lumen Limit | | |
|---------------|-------------|--------|--------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 1597.7 | 5.7 | | | |
| FM | (30°-60°) | 4506.4 | 16.1 | | | |
| FH | (60°-80°) | 3908.0 | 14.0 | | | G2/5000 |
| FVH | (80°-90°) | 73.7 | 0.3 | | | G1/100 |
| BL | (0°-30°) | 1597.7 | 5.7 | B3/2500 | | |
| BM | (30°-60°) | 4506.4 | 16.1 | B3/5000 | | |
| BH | (60°-80°) | 3908.0 | 14.0 | B4/5000 | | G2/5000 |
| BVH | (80°-90°) | 73.7 | 0.3 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |
| Trapped Light | | 7828.3 | 28.0 | | | |

BUG Rating: B4-U0-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|------|------|------|------|------|------|------|------|------|------|------|
| 0° | 4068 | 4068 | 4068 | 4068 | 4068 | 4068 | 4068 | 4068 | 4068 | 4068 | 4068 |
| 2.5° | 4102 | 4073 | 4060 | 4035 | 4035 | 4035 | 4035 | 4022 | 4026 | 4026 | 4018 |
| 5° | 4069 | 4039 | 4031 | 4009 | 4014 | 4005 | 4001 | 3997 | 3988 | 3984 | 3993 |
| 7.5° | 4001 | 3971 | 3976 | 3967 | 3997 | 4022 | 4022 | 4018 | 4005 | 3988 | 3984 |
| 10° | 3917 | 3891 | 3900 | 3891 | 3946 | 4001 | 4047 | 4056 | 4022 | 3988 | 3976 |
| 12.5° | 3841 | 3811 | 3811 | 3819 | 3870 | 3955 | 4039 | 4064 | 4022 | 3967 | 3959 |
| 15° | 3765 | 3739 | 3735 | 3739 | 3790 | 3887 | 3984 | 4047 | 4018 | 3955 | 3950 |
| 17.5° | 3706 | 3684 | 3672 | 3676 | 3722 | 3803 | 3921 | 4001 | 3997 | 3929 | 3925 |
| 20° | 3655 | 3625 | 3617 | 3617 | 3655 | 3739 | 3845 | 3921 | 3938 | 3900 | 3891 |
| 22.5° | 3655 | 3617 | 3575 | 3575 | 3613 | 3693 | 3773 | 3845 | 3883 | 3874 | 3874 |
| 25° | 3731 | 3684 | 3592 | 3579 | 3646 | 3680 | 3735 | 3798 | 3857 | 3866 | 3866 |
| 27.5° | 3849 | 3815 | 3676 | 3617 | 3625 | 3630 | 3676 | 3744 | 3811 | 3836 | 3841 |
| 30° | 3883 | 3828 | 3638 | 3495 | 3495 | 3541 | 3621 | 3693 | 3752 | 3786 | 3790 |
| 32.5° | 3663 | 3630 | 3499 | 3385 | 3414 | 3490 | 3583 | 3642 | 3697 | 3735 | 3739 |
| 35° | 3537 | 3511 | 3389 | 3330 | 3372 | 3461 | 3549 | 3608 | 3668 | 3710 | 3714 |
| 37.5° | 3376 | 3338 | 3317 | 3313 | 3368 | 3457 | 3528 | 3596 | 3655 | 3693 | 3697 |
| 40° | 3216 | 3208 | 3246 | 3321 | 3372 | 3461 | 3533 | 3613 | 3676 | 3701 | 3697 |
| 42.5° | 3292 | 3279 | 3288 | 3364 | 3457 | 3566 | 3549 | 3642 | 3773 | 3769 | 3748 |
| 45° | 3714 | 3710 | 3630 | 3613 | 3490 | 3528 | 3596 | 3680 | 3862 | 3946 | 3917 |
| 47.5° | 4339 | 4258 | 3955 | 3659 | 3554 | 3697 | 3558 | 3731 | 4128 | 4069 | 4009 |
| 50° | 4600 | 4588 | 4406 | 4043 | 4178 | 3765 | 4128 | 4014 | 4305 | 4309 | 4161 |
| 52.5° | 4811 | 4870 | 4668 | 4047 | 3549 | 3630 | 3790 | 3811 | 4170 | 4305 | 4187 |
| 55° | 4364 | 4288 | 4157 | 3997 | 4208 | 4267 | 3938 | 4229 | 4875 | 4617 | 4406 |
| 57.5° | 4212 | 4242 | 4377 | 4583 | 5001 | 4431 | 5503 | 5309 | 4951 | 4854 | 4440 |
| 60° | 3798 | 3655 | 3993 | 4267 | 3950 | 4258 | 5204 | 4571 | 4680 | 4524 | 4212 |
| 62.5° | 3765 | 3579 | 3684 | 4280 | 4123 | 4613 | 4993 | 4609 | 4685 | 4195 | 3798 |
| 65° | 4195 | 3744 | 4144 | 4756 | 4706 | 4592 | 5449 | 5288 | 5035 | 4191 | 3739 |
| 67.5° | 4786 | 4052 | 4469 | 4921 | 4364 | 5436 | 5681 | 5233 | 5622 | 4296 | 3883 |
| 70° | 4904 | 4280 | 4697 | 5195 | 5900 | 6318 | 5854 | 5271 | 5166 | 3857 | 3731 |
| 72.5° | 3756 | 3444 | 3959 | 4891 | 5415 | 5630 | 5343 | 4305 | 4144 | 2638 | 2482 |
| 75° | 2119 | 2017 | 2401 | 3368 | 3706 | 4288 | 3912 | 3575 | 2612 | 1654 | 1604 |
| 77.5° | 920 | 857 | 1106 | 1844 | 2060 | 2271 | 2325 | 2136 | 1574 | 1144 | 979 |
| 80° | 380 | 338 | 422 | 553 | 692 | 853 | 1165 | 1123 | 701 | 435 | 380 |
| 82.5° | 152 | 152 | 156 | 173 | 152 | 152 | 127 | 160 | 165 | 131 | 110 |
| 85° | 42 | 42 | 42 | 55 | 42 | 46 | 38 | 46 | 42 | 38 | 34 |
| 87.5° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



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CATALOG NUMBER: GSM-XX-250-HPS-XX-5S-FG

CANDELA DISTRIBUTION (continued):

| | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|------|------|------|------|------|------|------|------|------|------|
| 0° | 4068 | 4068 | 4068 | 4068 | 4068 | 4068 | 4068 | 4068 | 4068 | 4068 |
| 2.5° | 4026 | 4026 | 4022 | 4035 | 4035 | 4035 | 4035 | 4060 | 4073 | 4102 |
| 5° | 3984 | 3988 | 3997 | 4001 | 4005 | 4014 | 4009 | 4031 | 4039 | 4069 |
| 7.5° | 3988 | 4005 | 4018 | 4022 | 4022 | 3997 | 3967 | 3976 | 3971 | 4001 |
| 10° | 3988 | 4022 | 4056 | 4047 | 4001 | 3946 | 3891 | 3900 | 3891 | 3917 |
| 12.5° | 3967 | 4022 | 4064 | 4039 | 3955 | 3870 | 3819 | 3811 | 3811 | 3841 |
| 15° | 3955 | 4018 | 4047 | 3984 | 3887 | 3790 | 3739 | 3735 | 3739 | 3765 |
| 17.5° | 3929 | 3997 | 4001 | 3921 | 3803 | 3722 | 3676 | 3672 | 3684 | 3706 |
| 20° | 3900 | 3938 | 3921 | 3845 | 3739 | 3655 | 3617 | 3617 | 3625 | 3655 |
| 22.5° | 3874 | 3883 | 3845 | 3773 | 3693 | 3613 | 3575 | 3575 | 3617 | 3655 |
| 25° | 3866 | 3857 | 3798 | 3735 | 3680 | 3646 | 3579 | 3592 | 3684 | 3731 |
| 27.5° | 3836 | 3811 | 3744 | 3676 | 3630 | 3625 | 3617 | 3676 | 3815 | 3849 |
| 30° | 3786 | 3752 | 3693 | 3621 | 3541 | 3495 | 3495 | 3638 | 3828 | 3883 |
| 32.5° | 3735 | 3697 | 3642 | 3583 | 3490 | 3414 | 3385 | 3499 | 3630 | 3663 |
| 35° | 3710 | 3668 | 3608 | 3549 | 3461 | 3372 | 3330 | 3389 | 3511 | 3537 |
| 37.5° | 3693 | 3655 | 3596 | 3528 | 3457 | 3368 | 3313 | 3317 | 3338 | 3376 |
| 40° | 3701 | 3676 | 3613 | 3533 | 3461 | 3372 | 3321 | 3246 | 3208 | 3216 |
| 42.5° | 3769 | 3773 | 3642 | 3549 | 3566 | 3457 | 3364 | 3288 | 3279 | 3292 |
| 45° | 3946 | 3862 | 3680 | 3596 | 3528 | 3490 | 3613 | 3630 | 3710 | 3714 |
| 47.5° | 4069 | 4128 | 3731 | 3558 | 3697 | 3554 | 3659 | 3955 | 4258 | 4339 |
| 50° | 4309 | 4305 | 4014 | 4128 | 3765 | 4178 | 4043 | 4406 | 4588 | 4600 |
| 52.5° | 4305 | 4170 | 3811 | 3790 | 3630 | 3549 | 4047 | 4668 | 4870 | 4811 |
| 55° | 4617 | 4875 | 4229 | 3938 | 4267 | 4208 | 3997 | 4157 | 4288 | 4364 |
| 57.5° | 4854 | 4951 | 5309 | 5503 | 4431 | 5001 | 4583 | 4377 | 4242 | 4212 |
| 60° | 4524 | 4680 | 4571 | 5204 | 4258 | 3950 | 4267 | 3993 | 3655 | 3798 |
| 62.5° | 4195 | 4685 | 4609 | 4993 | 4613 | 4123 | 4280 | 3684 | 3579 | 3765 |
| 65° | 4191 | 5035 | 5288 | 5449 | 4592 | 4706 | 4756 | 4144 | 3744 | 4195 |
| 67.5° | 4296 | 5622 | 5233 | 5681 | 5436 | 4364 | 4921 | 4469 | 4052 | 4786 |
| 70° | 3857 | 5166 | 5271 | 5854 | 6318 | 5900 | 5195 | 4697 | 4280 | 4904 |
| 72.5° | 2638 | 4144 | 4305 | 5343 | 5630 | 5415 | 4891 | 3959 | 3444 | 3756 |
| 75° | 1654 | 2612 | 3575 | 3912 | 4288 | 3706 | 3368 | 2401 | 2017 | 2119 |
| 77.5° | 1144 | 1574 | 2136 | 2325 | 2271 | 2060 | 1844 | 1106 | 857 | 920 |
| 80° | 435 | 701 | 1123 | 1165 | 853 | 692 | 553 | 422 | 338 | 380 |
| 82.5° | 131 | 165 | 160 | 127 | 152 | 152 | 173 | 156 | 152 | 152 |
| 85° | 38 | 42 | 46 | 38 | 46 | 42 | 55 | 42 | 42 | 42 |
| 87.5° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

(END OF REPORT)