

Scaled data based on original data using  
LM-46-04 Photometric Testing of Indoor Luminaires Using High Intensity Discharge  
or Incandescent Filament Lamps (Reaffirmed 2012)

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: STREETWORKS

Report Number: ITL53970\_400MP

Luminaire Tested: **GMX40PXX3SFHS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-46-04  
Report Number: ITL53970\_400MP  
Test Lab: INDEPENDENT TESTING LABORATORIES, INC.  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GMX40PXX3SFHS  
Description: 400W MH TYPE III AREA  
WITH HOUSE SIDE SHIELD  
Light Source: 400 WATT PULSE-START CLEAR ED-28 HORIZONTAL BURN  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 40000 (1 lamp)  
Luminaire Lumens: 21482 lumens  
Efficiency: 53.7%  
Efficacy: 47.5 lumens/watt  
Luminous Opening: Circular (Dia: 1.74' x H: 0')  
IES Classification: Type III - Medium - Full Cutoff  
BUG Rating: B3 - U0 - G3

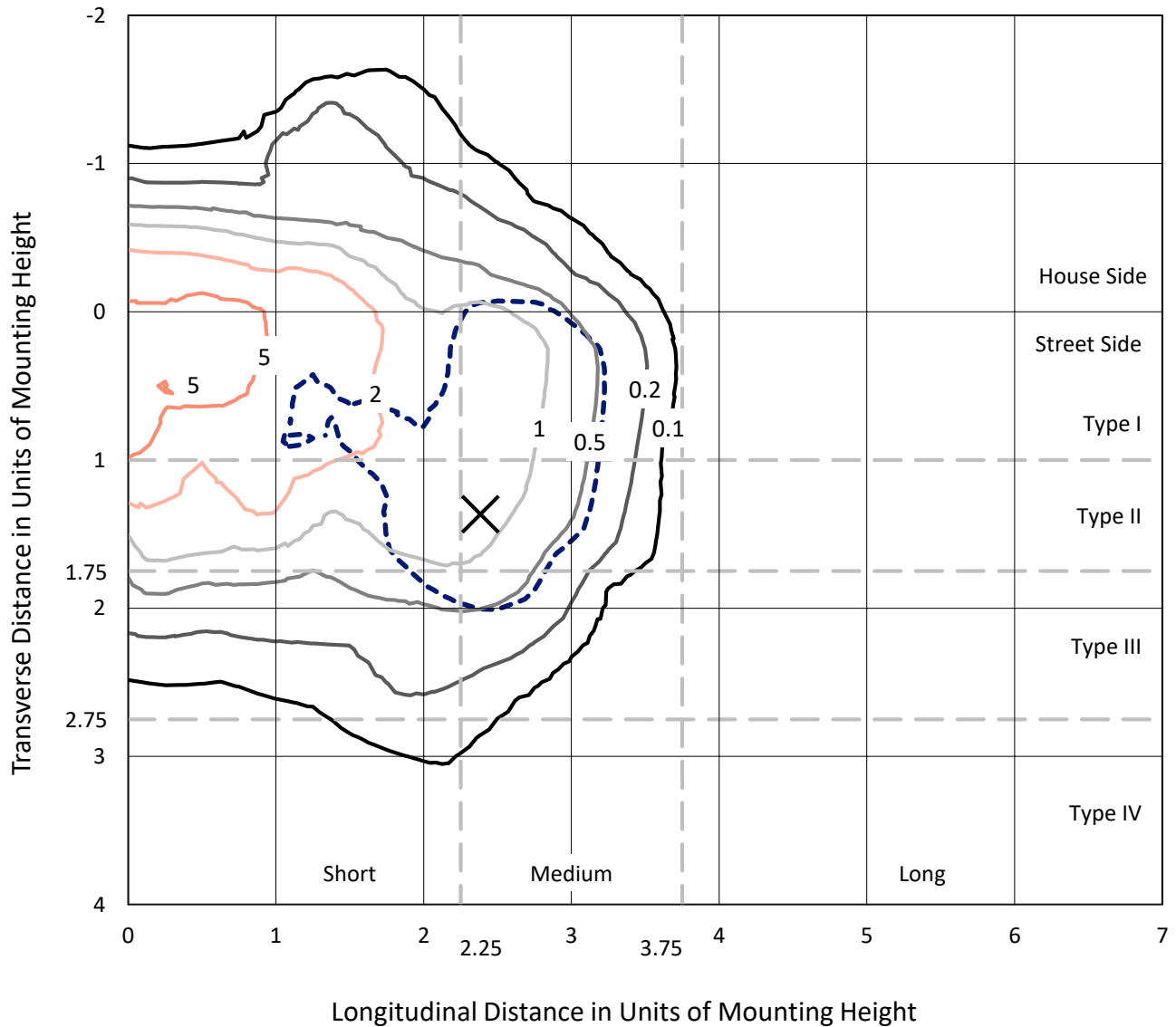
Input Watts (W): 452  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: ITL53970\_400MP  
 CATALOG NUMBER: GMX40PXX3SFHS

### Iso-Footcandle Lines of Horizontal Illumination

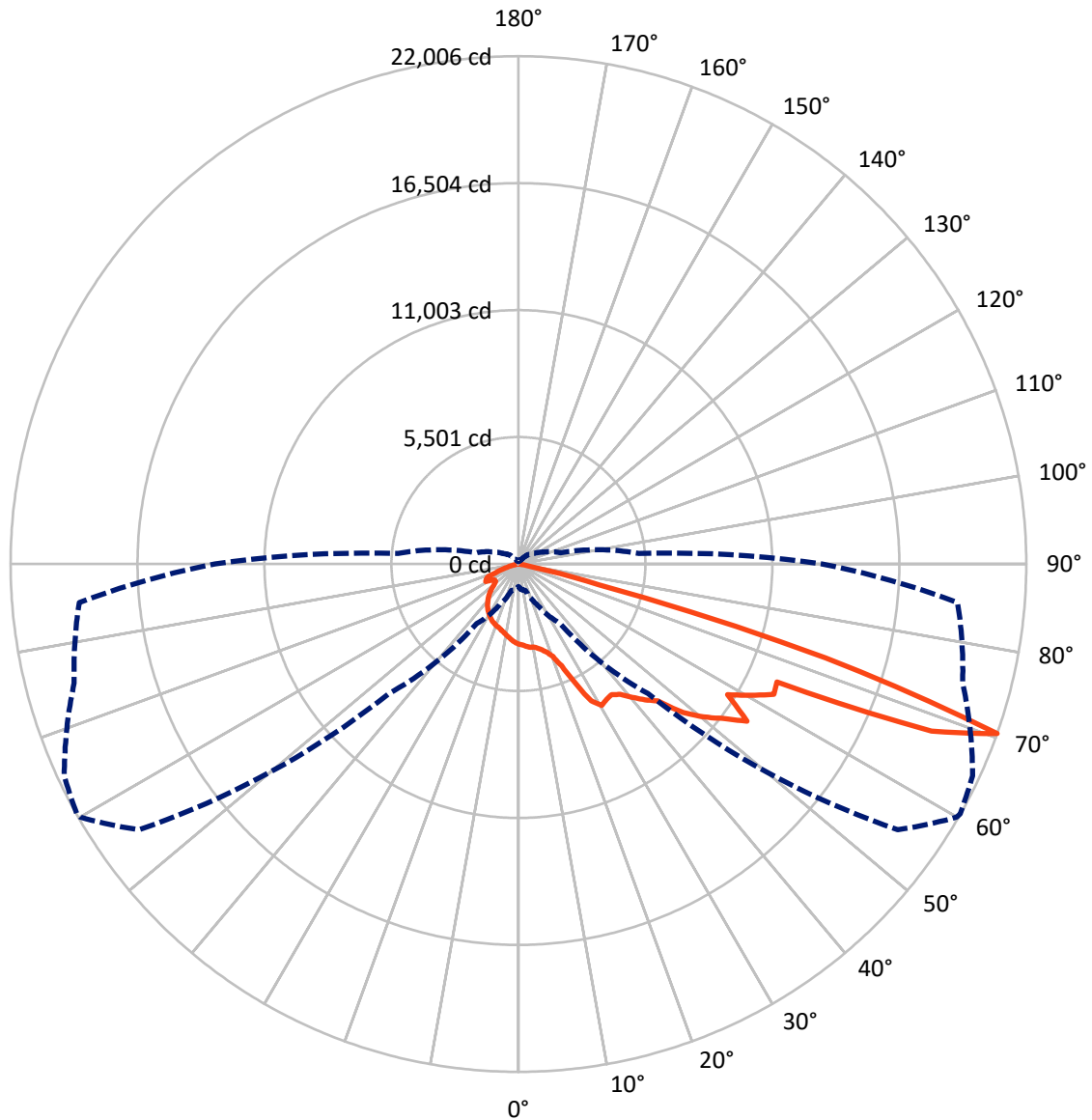
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.8 fc  
 Type III - Medium - Full Cutoff

REPORT NUMBER: ITL53970\_400MP  
CATALOG NUMBER: GMX40PXX3SFHS

### Luminous Intensity Polar Plot



— Vertical Plane Through 60.2-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

REPORT NUMBER: ITL53970\_400MP  
 CATALOG NUMBER: GMX40PXX3SFHS

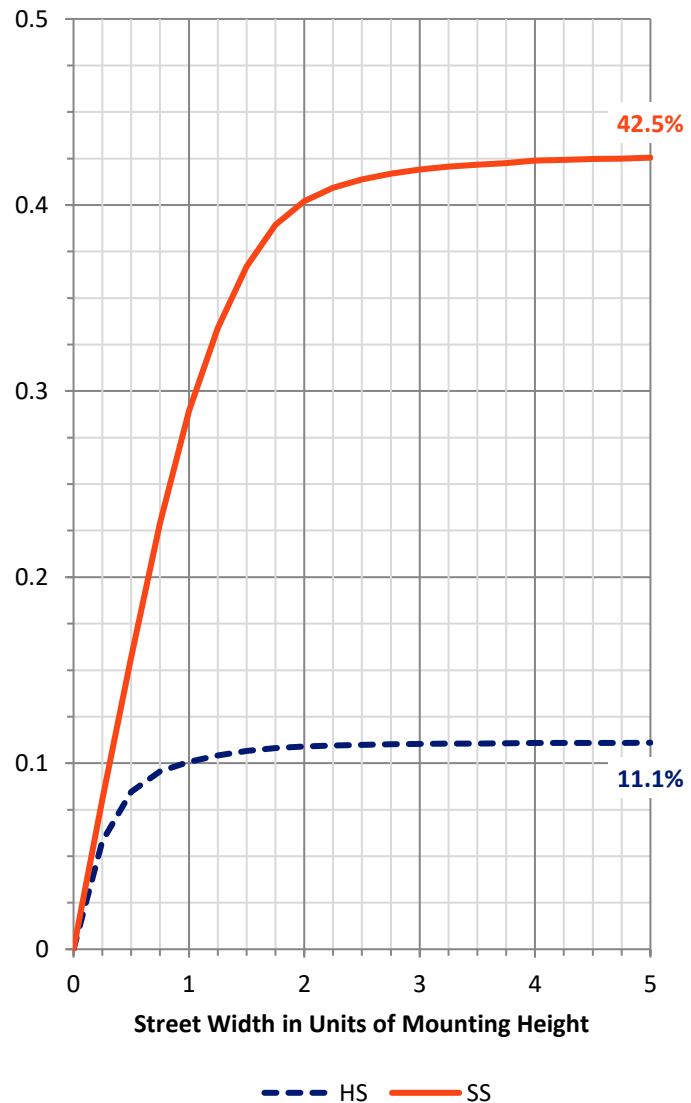
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4475.2	0.0	4475.2
	% Lamp	11.2	0.0	11.2
<b>Street Side</b>	Lumens	17006.8	0.0	17006.8
	% Lamp	42.5	0.0	42.5
<b>Total</b>	Lumens	21482.0	0.0	21482.0
	% Lamp	53.7	0.0	53.7

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	323.0	1.5	0.8
10°-20°	937.4	4.4	2.3
20°-30°	1782.2	8.3	4.5
30°-40°	2815.9	13.1	7.0
40°-50°	3665.3	17.1	9.2
50°-60°	4584.7	21.3	11.5
60°-70°	4769.0	22.2	11.9
70°-80°	2530.4	11.8	6.3
80°-90°	74.1	0.3	0.2
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°	21482.0	100.0	53.7
0°-180°	21482.0	100.0	53.7

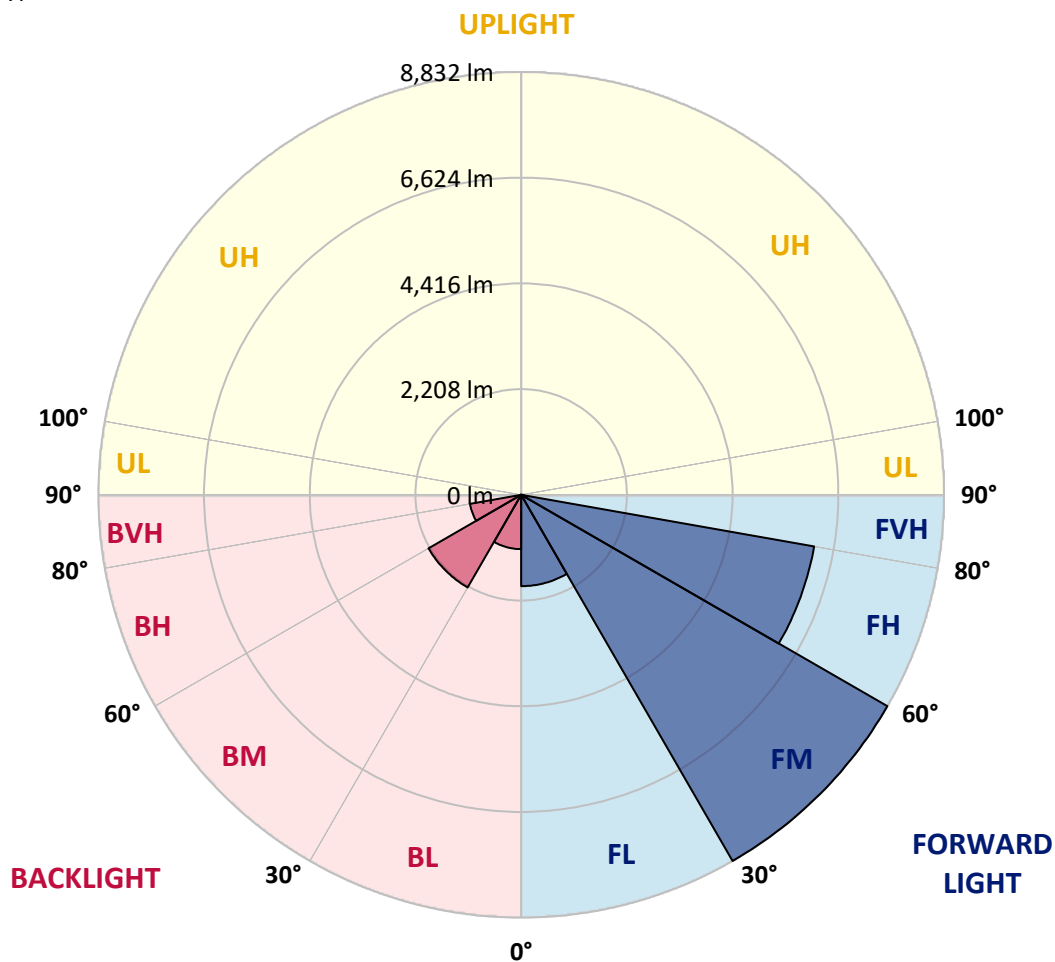


REPORT NUMBER: ITL53970\_400MP  
 CATALOG NUMBER: GMX40PXX3SFHS

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

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1908.1	4.8			
FM	(30°-60°)	8831.6	22.1			
FH	(60°-80°)	6213.1	15.5			G3/7500
FVH	(80°-90°)	54.0	0.1			G1/100
BL	(0°-30°)	1134.5	2.8	B3/2500		
BM	(30°-60°)	2234.3	5.6	B2/2500		
BH	(60°-80°)	1086.3	2.7	B3/2500		G3/2500
BVH	(80°-90°)	20.1	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	
Trapped Light		18518.0	46.3			

**BUG Rating: B3-U0-G3**  
 Type III Medium





REPORT NUMBER: ITL53970\_400MP  
 CATALOG NUMBER: GMX40PXX3SFHS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	60.2°	65°	75°	85°
0°	3476.7	3476.7	3476.7	3476.7	3476.7	3476.7	3476.7	3476.7	3476.7	3476.7	3476.7
2.5°	3572.2	3535.6	3596.7	3535.6	3523.3	3535.6	3535.6	3511.1	3535.6	3523.3	3511.1
5°	3621.1	3621.1	3608.9	3584.4	3584.4	3584.4	3608.9	3584.4	3596.7	3584.4	3560.0
7.5°	3694.4	3670.0	3621.1	3608.9	3608.9	3633.3	3645.6	3645.6	3670.0	3657.8	3621.1
10°	3717.8	3670.0	3645.6	3657.8	3645.6	3657.8	3657.8	3657.8	3694.4	3717.8	3705.6
12.5°	3717.8	3705.6	3717.8	3705.6	3705.6	3682.2	3705.6	3742.2	3778.9	3815.6	3803.3
15°	3742.2	3742.2	3778.9	3803.3	3778.9	3778.9	3864.4	3864.4	3888.9	3924.4	3900.0
17.5°	3791.1	3778.9	3840.0	3852.2	3864.4	3961.1	3997.8	4022.2	4058.9	4155.6	4143.3
20°	3815.6	3803.3	3864.4	3912.2	4010.0	4106.7	4204.4	4276.7	4337.8	4665.6	4751.1
22.5°	3840.0	3840.0	3888.9	3997.8	4216.7	4350.0	4556.7	4787.8	4957.8	5553.3	5747.8
25°	4131.1	4058.9	4034.4	4106.7	4362.2	4642.2	5201.1	5711.1	5893.3	6525.6	6707.8
27.5°	4908.9	4751.1	4568.9	4276.7	4495.6	5103.3	6038.9	6720.0	6804.4	6962.2	6792.2
30°	6075.6	5844.4	5418.9	4787.8	4860.0	5735.6	6853.3	7108.9	6998.9	6755.6	6476.7
32.5°	7412.2	7108.9	5674.4	5285.6	5613.3	6403.3	7096.7	6998.9	6914.4	6755.6	6732.2
35°	8433.3	8153.3	5820.0	5698.9	6051.1	6890.0	7084.4	6950.0	6962.2	7291.1	7496.7
37.5°	9064.4	8810.0	6026.7	5966.7	6318.9	7254.4	7072.2	7168.9	7363.3	7873.3	7922.2
40°	9381.1	8931.1	6221.1	5868.9	6355.6	7461.1	7436.7	7594.4	7897.8	8141.1	8044.4
42.5°	9258.9	8651.1	6184.4	5261.1	6452.2	7557.8	8141.1	8044.4	8092.2	7971.1	7885.6
45°	8603.3	7971.1	5905.6	4483.3	6391.1	7946.7	8894.4	8456.7	8347.8	8347.8	7971.1
47.5°	7631.1	6914.4	5480.0	3973.3	6415.6	8748.9	9381.1	9623.3	9586.7	9428.9	9647.8
50°	6440.0	6026.7	5091.1	3827.8	7217.8	9332.2	9757.8	10413.3	10668.9	10267.8	11105.6
52.5°	5201.1	5868.9	5455.6	4180.0	8202.2	10887.8	10450.0	11117.8	11312.2	10644.4	10134.4
55°	4082.2	5467.8	4665.6	4593.3	8493.3	9781.1	11968.9	12017.8	12200.0	9915.6	9805.6
57.5°	3402.2	5443.3	5297.8	5078.9	10231.1	8384.4	10292.2	10681.1	10935.6	9684.4	9952.2
60°	2892.2	4702.2	4630.0	5371.1	9125.6	7788.9	9952.2	11543.3	12090.0	9696.7	10462.2
62.5°	2235.6	3207.8	2746.7	4071.1	6051.1	5893.3	10146.7	12430.0	12613.3	8882.2	8554.4
65°	1725.6	1907.8	1920.0	3037.8	3948.9	7217.8	10996.7	12308.9	11252.2	9963.3	9721.1
67.5°	1263.3	1348.9	1457.8	2370.0	3220.0	9052.2	16574.4	19307.8	17716.7	14083.3	15881.1
70°	972.2	1093.3	1191.1	1968.9	3146.7	7922.2	20073.3	22005.6	21714.4	19927.8	19101.1
72.5°	680.0	1093.3	1251.1	1664.4	4507.8	7254.4	14010.0	13913.3	16210.0	13682.2	11993.3
75°	413.3	802.2	741.1	935.6	3633.3	3390.0	4313.3	3621.1	5310.0	3426.7	3281.1
77.5°	218.9	376.7	327.8	485.6	2661.1	1457.8	1044.4	680.0	947.8	765.6	826.7
80°	73.3	96.7	376.7	243.3	1470.0	1238.9	291.1	133.3	206.7	206.7	315.6
82.5°	24.4	36.7	96.7	85.6	255.6	206.7	231.1	48.9	96.7	85.6	133.3
85°	24.4	0.0	0.0	12.2	24.4	24.4	24.4	12.2	36.7	36.7	61.1
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	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: ITL53970\_400MP  
 CATALOG NUMBER: GMX40PXX3SFHS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3476.7	3476.7	3476.7	3476.7	3476.7	3476.7	3476.7	3476.7	3476.7	3476.7	3476.7
2.5°	3500.0	3487.8	3451.1	3426.7	3390.0	3353.3	3341.1	3317.8	3305.6	3317.8	3353.3
5°	3547.8	3511.1	3451.1	3365.6	3293.3	3220.0	3158.9	3098.9	3062.2	3062.2	3111.1
7.5°	3584.4	3560.0	3426.7	3281.1	3146.7	3037.8	2928.9	2855.6	2806.7	2806.7	2892.2
10°	3670.0	3608.9	3414.4	3220.0	3025.6	2855.6	2710.0	2612.2	2563.3	2563.3	2600.0
12.5°	3766.7	3682.2	3438.9	3146.7	2904.4	2710.0	2527.8	2417.8	2370.0	2308.9	2357.8
15°	3840.0	3754.4	3438.9	3098.9	2806.7	2540.0	2357.8	2223.3	2151.1	2090.0	2138.9
17.5°	4082.2	3936.7	3500.0	3050.0	2697.8	2417.8	2198.9	2053.3	1944.4	1920.0	1968.9
20°	4642.2	4398.9	3645.6	3037.8	2624.4	2296.7	2041.1	1871.1	1762.2	1725.6	1774.4
22.5°	5577.8	5188.9	3973.3	3013.3	2527.8	2175.6	1883.3	1701.1	1580.0	1531.1	1580.0
25°	6548.9	6026.7	4313.3	2976.7	2454.4	2065.6	1750.0	1531.1	1397.8	1336.7	1385.6
27.5°	6585.6	6026.7	4301.1	2892.2	2370.0	1944.4	1604.4	1373.3	1227.8	1166.7	1215.6
30°	6257.8	5662.2	3997.8	2806.7	2260.0	1822.2	1433.3	1203.3	1044.4	972.2	1021.1
32.5°	6537.8	5832.2	3888.9	2722.2	2151.1	1676.7	1287.8	1021.1	838.9	777.8	802.2
35°	7230.0	6343.3	3900.0	2636.7	2028.9	1506.7	1105.6	826.7	644.4	571.1	607.8
37.5°	7618.9	6585.6	3730.0	2540.0	1883.3	1324.4	898.9	607.8	450.0	401.1	413.3
40°	7776.7	6646.7	3584.4	2430.0	1701.1	1105.6	692.2	450.0	340.0	315.6	340.0
42.5°	7655.6	6513.3	3500.0	2333.3	1518.9	886.7	497.8	352.2	291.1	267.8	291.1
45°	8020.0	7035.6	3500.0	2223.3	1300.0	667.8	425.6	303.3	255.6	243.3	243.3
47.5°	10134.4	8481.1	3633.3	2065.6	1068.9	510.0	376.7	291.1	243.3	206.7	218.9
50°	11518.9	9356.7	4022.2	1895.6	838.9	462.2	340.0	267.8	206.7	182.2	194.4
52.5°	10061.1	8153.3	4143.3	1737.8	741.1	485.6	340.0	243.3	206.7	182.2	194.4
55°	10304.4	8468.9	4301.1	1567.8	898.9	826.7	327.8	243.3	194.4	182.2	170.0
57.5°	9927.8	7338.9	3341.1	1457.8	1008.9	1191.1	327.8	218.9	157.8	133.3	145.6
60°	8785.6	6002.2	2855.6	1470.0	1312.2	1093.3	340.0	243.3	170.0	145.6	145.6
62.5°	6695.6	4957.8	3025.6	1482.2	1737.8	1531.1	340.0	243.3	157.8	133.3	145.6
65°	8116.7	5492.2	2734.4	1701.1	1373.3	984.4	315.6	231.1	157.8	133.3	121.1
67.5°	13451.1	6427.8	2757.8	1397.8	1506.7	996.7	303.3	231.1	157.8	108.9	121.1
70°	13147.8	5236.7	1883.3	1227.8	777.8	558.9	255.6	194.4	133.3	108.9	121.1
72.5°	7144.4	3195.6	1238.9	874.4	497.8	401.1	206.7	145.6	108.9	85.6	96.7
75°	2552.2	1482.2	765.6	546.7	352.2	303.3	157.8	121.1	85.6	73.3	73.3
77.5°	741.1	644.4	437.8	340.0	218.9	218.9	108.9	85.6	61.1	48.9	73.3
80°	315.6	315.6	218.9	145.6	108.9	145.6	36.7	36.7	12.2	12.2	24.4
82.5°	157.8	133.3	96.7	85.6	61.1	85.6	36.7	24.4	24.4	24.4	24.4
85°	61.1	48.9	36.7	24.4	24.4	24.4	24.4	24.4	12.2	12.2	24.4
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	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)