

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: 767515\_400MP

Luminaire Tested: **GMX40PXX3V**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-46-04  
Report Number: 767515\_400MP  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GMX40PXX3V  
Description: 400MH TYPE III VERTICAL AREA  
Light Source: 400 WATT PULSE-START CLEAR ED-37 VBU BURN  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 44000 (1 lamp)  
Luminaire Lumens: 28504.7 lumens  
Efficiency: 64.8%  
Efficacy: 63.1 lumens/watt  
Luminous Opening: Point Source (0' x 0' x 0')  
IES Classification: Type III - Medium - Cutoff  
BUG Rating: B5 - U3 - G5

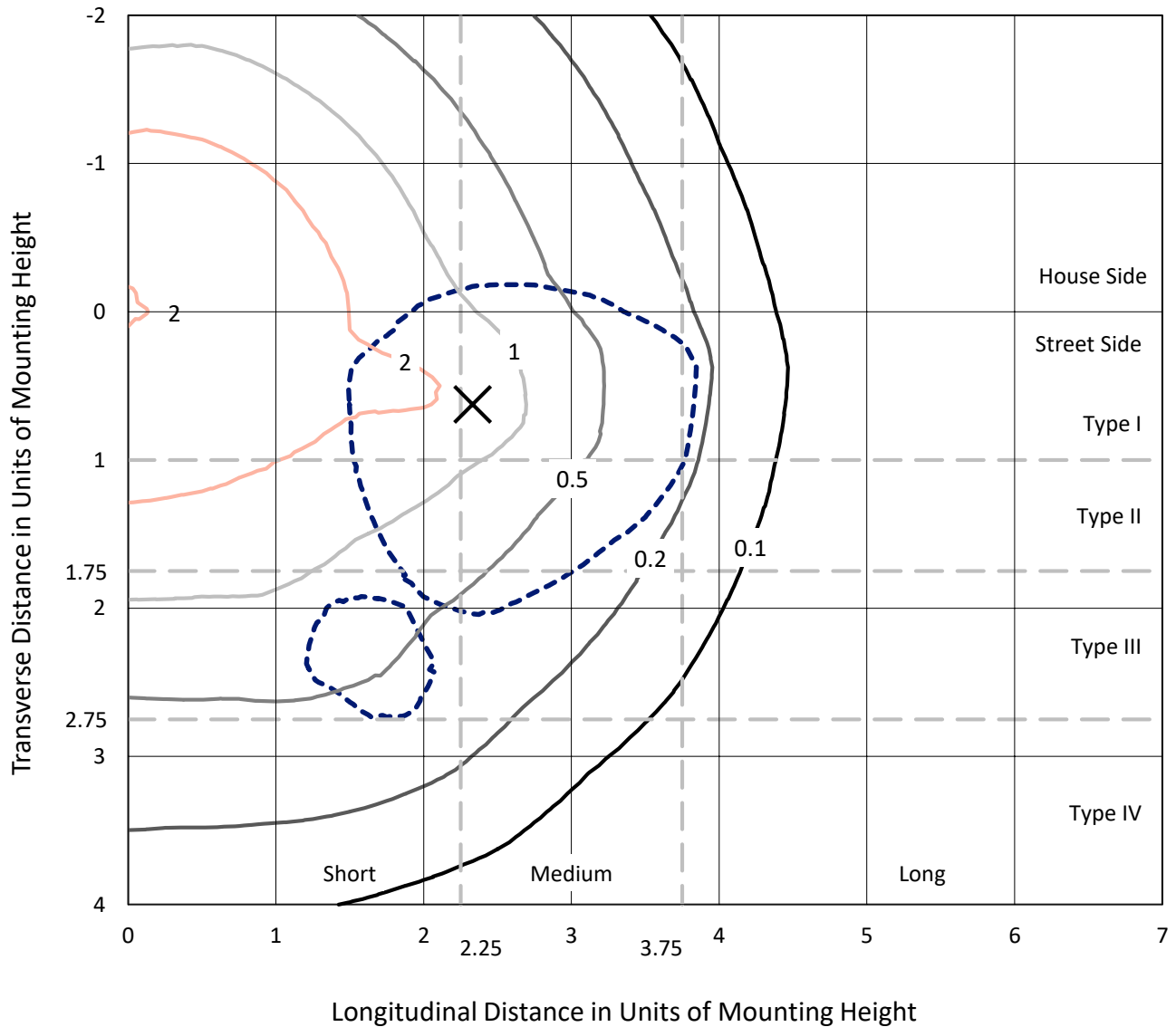
Input Watts (W): 452  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

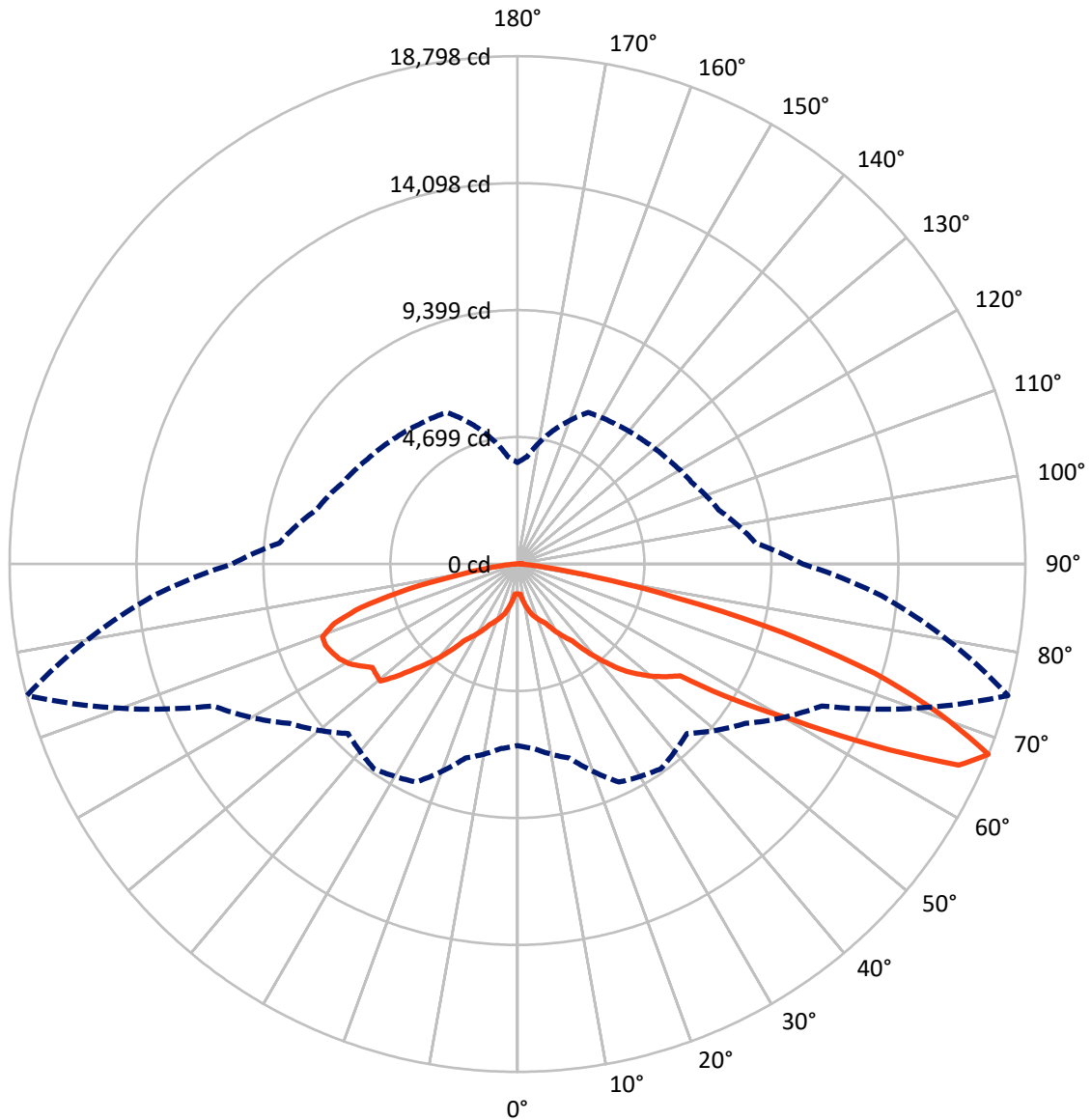
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 fc  
 Type III - Medium - Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical



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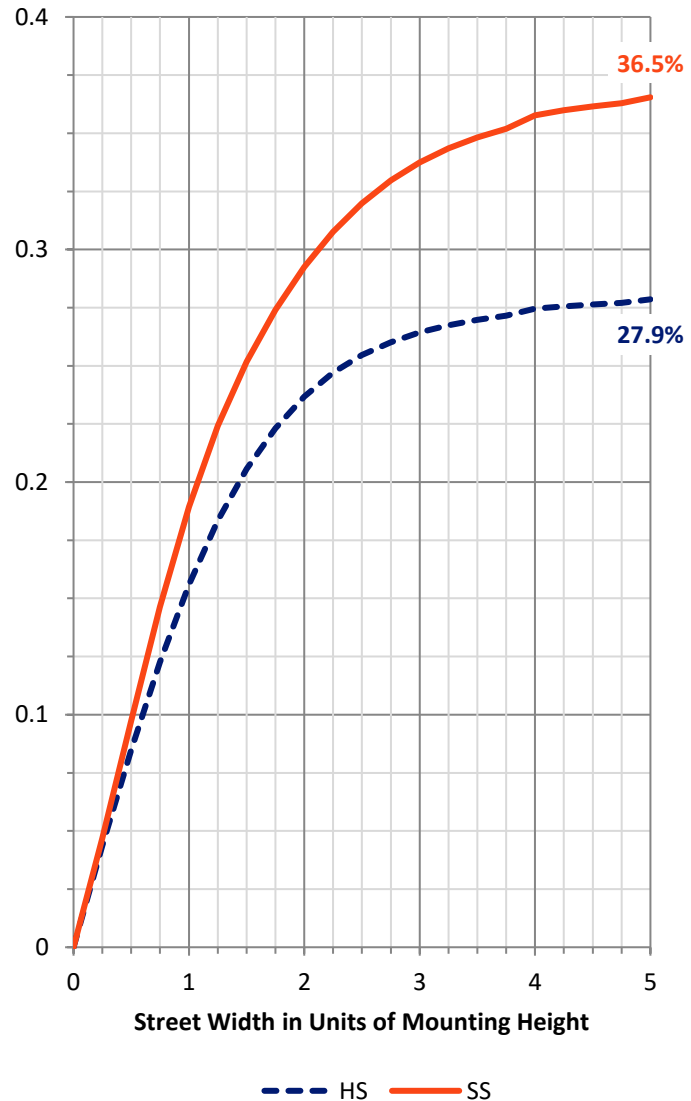
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	12293.7	33.7	12327.4
	% Lamp	27.9	0.1	28.0
<b>Street Side</b>	Lumens	16110.9	66.4	16177.3
	% Lamp	36.6	0.2	36.8
<b>Total</b>	Lumens	28404.6	100.0	28504.7
	% Lamp	64.6	0.2	64.8

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	119.4	0.4	0.3
10°-20°	501.9	1.8	1.1
20°-30°	1119.2	3.9	2.5
30°-40°	2180.7	7.7	5.0
40°-50°	3893.2	13.7	8.8
50°-60°	5714.3	20.0	13.0
60°-70°	8083.0	28.4	18.4
70°-80°	6124.8	21.5	13.9
80°-90°	729.3	2.6	1.7
90°-100°	78.2	0.3	0.2
100°-110°	26.1	0.1	0.1
110°-120°	3.6	0.0	0.0
120°-130°	0.3	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°	28404.6	99.6	64.6
0°-180°	28504.7	100.0	64.8

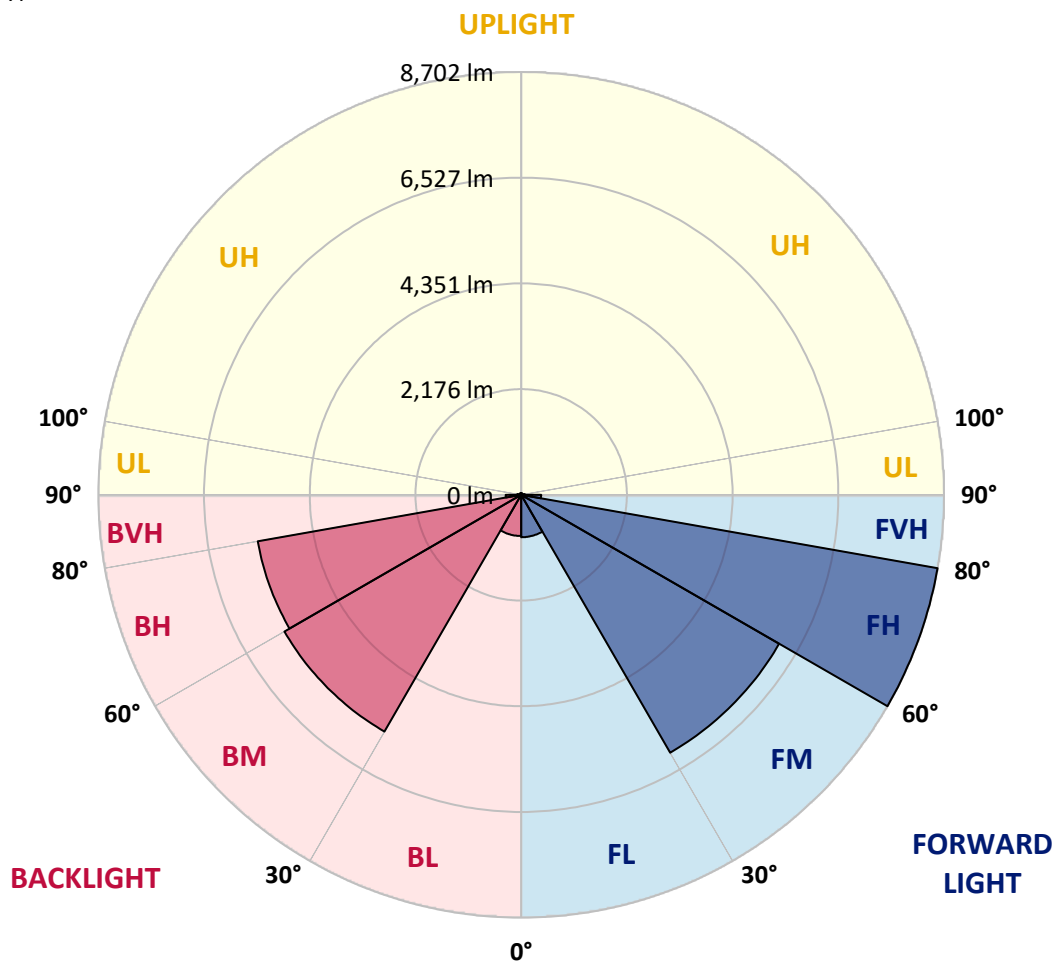


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	873.8	2.0			
FM (30°-60°)	6129.3	13.9			
FH (60°-80°)	8702.5	19.8			G4/12000
FVH (80°-90°)	410.5	0.9			G3/500
BL (0°-30°)	848.0	1.9	B2/1000		
BM (30°-60°)	5626.3	12.8	B4/8500		
BH (60°-80°)	5505.3	12.5	B5		G5
BVH (80°-90°)	318.8	0.7			G3/500
UL (90°-100°)	78.2	0.2		U3/500	
UH (100°-180°)	33.7	0.1		U2/50	
Trapped Light	15495.3	35.2			

**BUG Rating: B5-U3-G5**  
 Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1109.8	1109.8	1109.8	1109.8	1109.8	1109.8	1109.8	1109.8	1109.8	1109.8	1109.8
5°	1173.3	1167.2	1173.3	1167.2	1161.1	1173.3	1179.4	1153.8	1122.0	1103.7	1096.3
15°	1849.2	1849.2	1855.3	1868.8	1861.4	1906.7	1887.1	1989.8	1912.8	1849.2	1837.0
25°	2206.1	2187.8	2200.0	2200.0	2206.1	2283.1	2334.4	2384.6	2429.8	2493.3	2493.3
35°	3060.4	3048.2	3073.9	3086.1	3163.1	3303.7	3494.3	3526.1	3494.3	3641.0	3583.6
45°	4871.8	4655.4	4629.8	4846.1	4915.8	5547.7	5446.2	5866.7	5674.8	5630.8	5541.6
50°	5355.8	5317.9	5286.1	5573.3	5688.2	6268.8	6459.4	6733.2	6536.4	6772.3	6887.2
55°	5458.4	5420.6	5509.8	5720.0	6057.3	6568.2	7135.3	7244.1	7307.7	6873.8	6925.1
60°	6146.6	6166.1	6281.0	6554.8	6982.6	7555.8	8589.8	9648.2	11682.0	8691.2	8270.8
62.5°	6504.7	6504.7	6727.1	7224.6	7594.9	8078.9	9258.3	11000.0	14781.6	10407.2	9194.8
65°	6695.3	6746.7	7218.4	8098.4	8276.9	8512.8	9852.3	12052.3	17950.8	12211.2	10043.0
67.5°	6721.0	6855.4	7434.8	8901.4	9252.2	8869.7	10292.3	12427.6	18797.8	13531.2	10553.9
70°	6784.6	6925.1	7409.1	9105.6	9801.0	9061.6	10330.2	12013.2	16559.9	13600.9	10439.0
72.5°	6708.8	6657.4	7167.1	8455.3	9781.4	8806.1	9609.1	10700.6	13830.7	12256.4	9769.2
75°	5599.0	5522.0	6102.6	7002.1	7836.9	7575.3	8175.4	8895.3	10203.1	9959.9	8124.1
77.5°	3724.1	3934.3	4451.3	4820.4	5515.9	5515.9	6076.9	6076.9	6064.7	5936.3	5299.6
80°	1683.0	1874.9	1926.2	2308.8	2588.7	2869.8	3060.4	2907.7	2901.6	2594.8	2404.1
82.5°	790.8	854.3	810.3	957.0	1128.1	1199.0	1274.8	1217.3	1115.9	1058.4	1038.9
85°	382.6	394.8	356.9	402.1	465.7	477.9	509.7	491.3	446.1	471.8	503.6
87.5°	140.6	140.6	152.8	166.2	172.3	172.3	184.6	204.1	184.6	172.3	172.3
90°	101.4	108.8	108.8	114.9	114.9	121.0	134.4	146.7	140.6	121.0	121.0
95°	89.2	77.0	77.0	89.2	95.3	89.2	114.9	127.1	166.2	101.4	101.4
105°	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2
115°	0.0	6.1	6.1	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
166°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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°	1109.8	1109.8	1109.8	1109.8	1109.8	1109.8	1109.8	1109.8	1109.8	1109.8
5°	1096.3	1109.8	1103.7	1090.2	1070.7	1070.7	1064.6	1052.3	1058.4	1058.4
15°	1829.7	1900.6	1912.8	1855.3	1829.7	1747.8	1683.0	1670.8	1632.9	1619.4
25°	2512.9	2461.6	2352.8	2269.7	2237.9	2225.7	2180.4	2154.8	2168.2	2193.9
35°	3488.2	3405.1	3290.2	3143.6	3137.4	3066.6	3042.1	3028.7	3034.8	3022.6
45°	5509.8	5446.2	5119.9	4992.8	4826.6	4750.8	4533.2	4572.3	4699.4	4679.9
50°	6879.9	6675.8	5942.4	5955.9	5553.8	5311.8	5165.1	4891.3	4891.3	4667.7
55°	6944.7	6593.9	6140.4	5918.0	5745.7	5522.0	5452.3	5420.6	5388.8	5394.9
60°	7957.9	7256.3	6798.0	6447.2	6179.6	6032.9	5918.0	5789.7	5547.7	5355.8
62.5°	8378.3	7460.4	7052.2	6695.3	6415.4	6191.8	6070.8	5942.4	5159.0	4923.1
65°	8716.9	7601.0	7154.9	6765.0	6529.1	6287.1	6134.3	5726.1	4610.2	4374.3
67.5°	8851.3	7715.9	7129.2	6772.3	6516.9	6318.9	6191.8	5113.8	3979.6	3749.8
70°	8754.8	7702.4	7115.8	6765.0	6332.3	6140.4	5682.1	4291.2	3296.3	3060.4
72.5°	8193.8	7129.2	6504.7	6025.6	5579.4	5280.0	4590.7	3264.6	2594.8	2473.8
75°	7097.4	6007.2	5528.1	5024.6	4679.9	4239.9	3577.4	2556.9	2200.0	2206.1
77.5°	4814.3	4164.1	3934.3	3500.4	3220.6	2798.9	2340.6	1811.3	1702.6	1696.4
80°	2372.3	2130.3	2041.1	1696.4	1543.7	1268.7	1115.9	1007.1	957.0	957.0
82.5°	1032.8	1001.0	994.9	937.4	917.9	828.7	745.6	701.6	701.6	701.6
85°	497.4	485.2	541.4	598.9	682.0	669.8	541.4	440.0	414.3	408.2
87.5°	152.8	134.4	127.1	108.8	101.4	101.4	95.3	83.1	77.0	77.0
90°	108.8	89.2	77.0	63.6	63.6	63.6	57.4	51.3	51.3	51.3
95°	77.0	51.3	51.3	37.9	37.9	12.2	37.9	37.9	37.9	25.7
105°	12.2	12.2	12.2	12.2	6.1	12.2	12.2	12.2	12.2	12.2
115°	0.0	0.0	6.1	0.0	6.1	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
166°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)