

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: 767599_400MP

Luminaire Tested: **GMX40PXXASHS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-46-04
Report Number: 767599_400MP
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GMX40PXXASHS
Description: 400MH TYPE VERTICAL AREA SQUARE
WITH HOUSE SIDE SHIELD
Light Source: 400 WATT PULSE-START CLEAR ED-37 VBU BURN
Ballast/Driver: -

Summary

Lumens per Lamp: 44000 (1 lamp)
Luminaire Lumens: 24416.8 lumens
Efficiency: 55.5%
Efficacy: 54.0 lumens/watt
Luminous Opening: Point Source (0' x 0' x 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B4 - U3 - G4

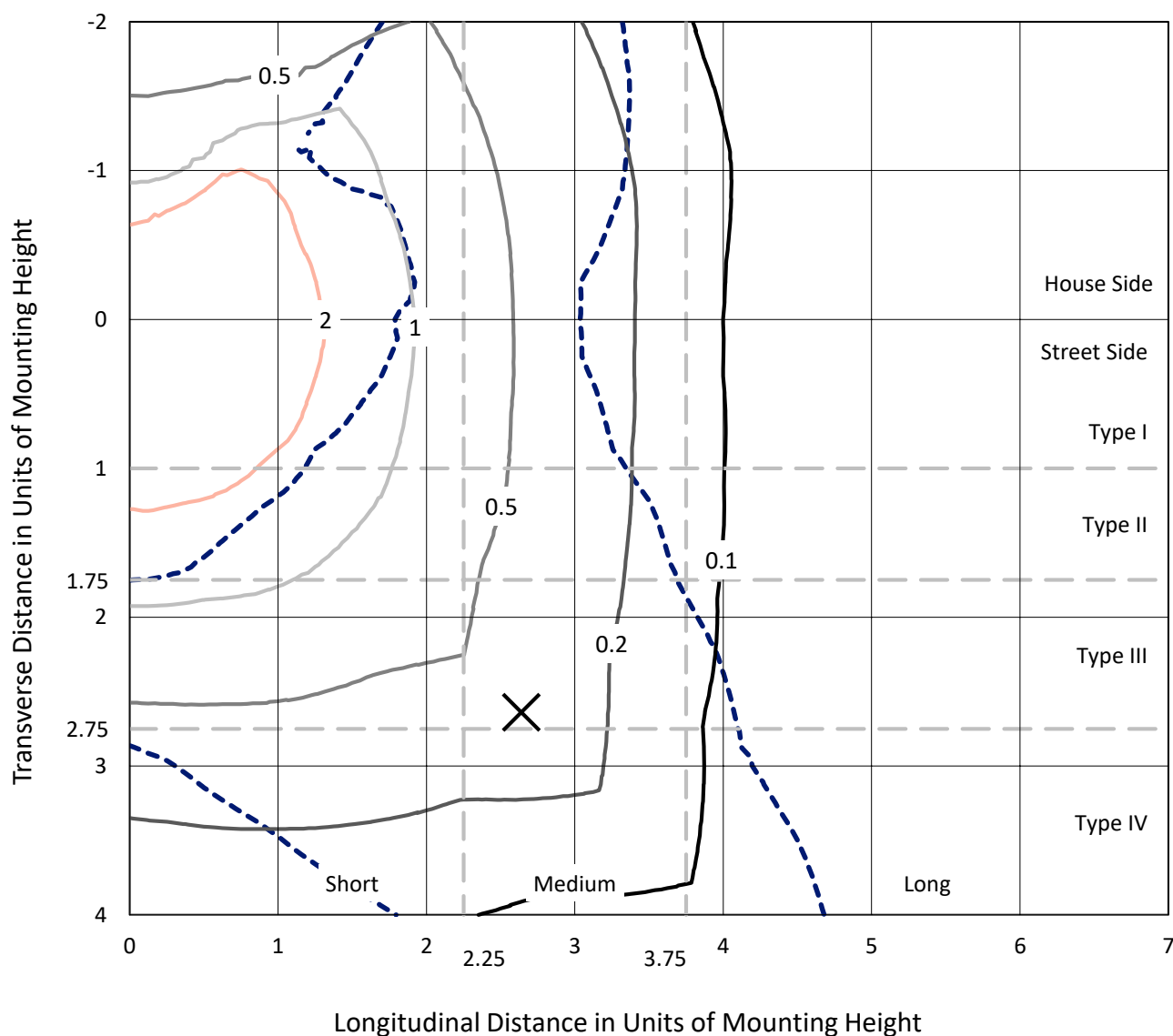
Input Watts (W): 452
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

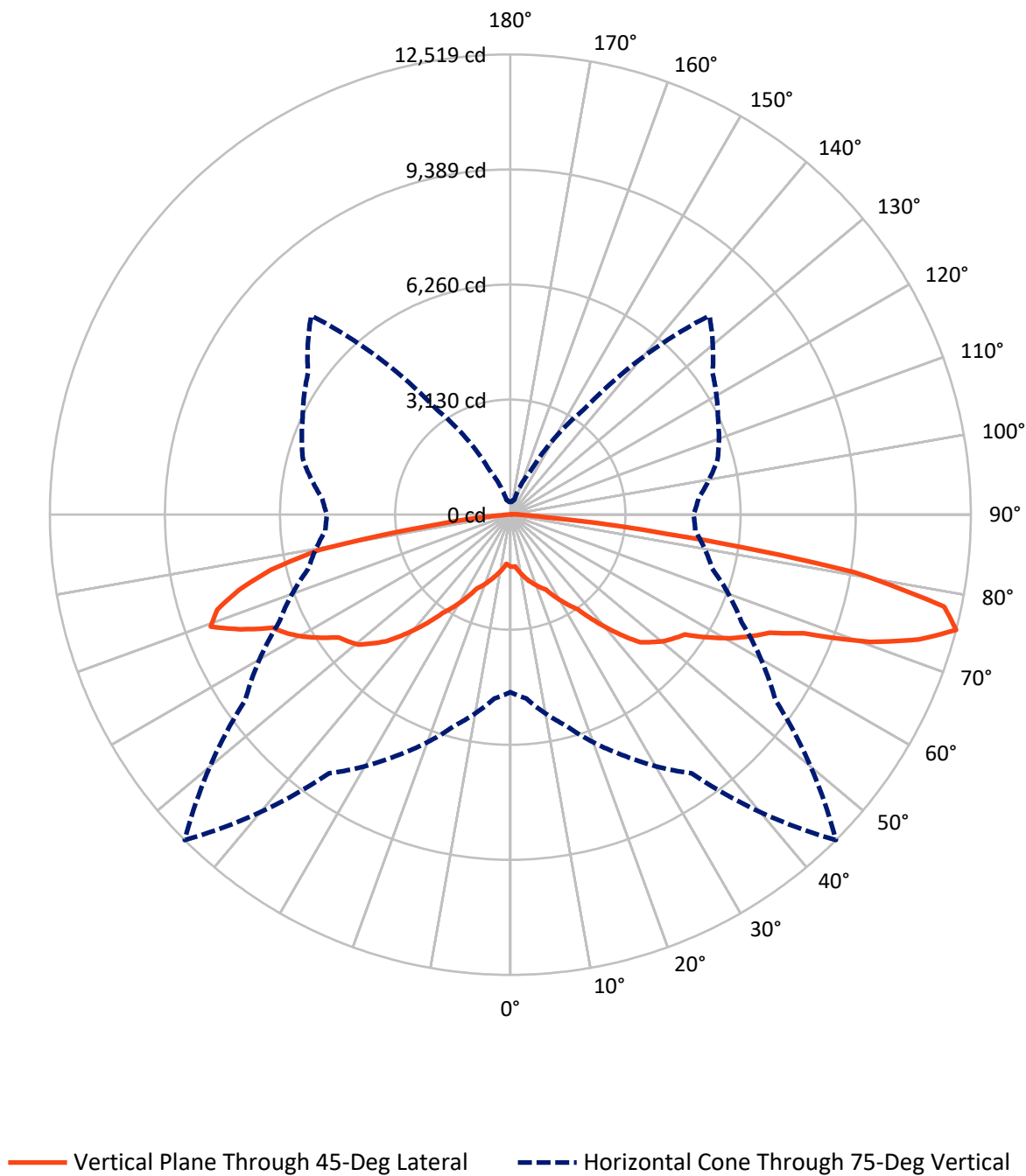
× Max cd
 --- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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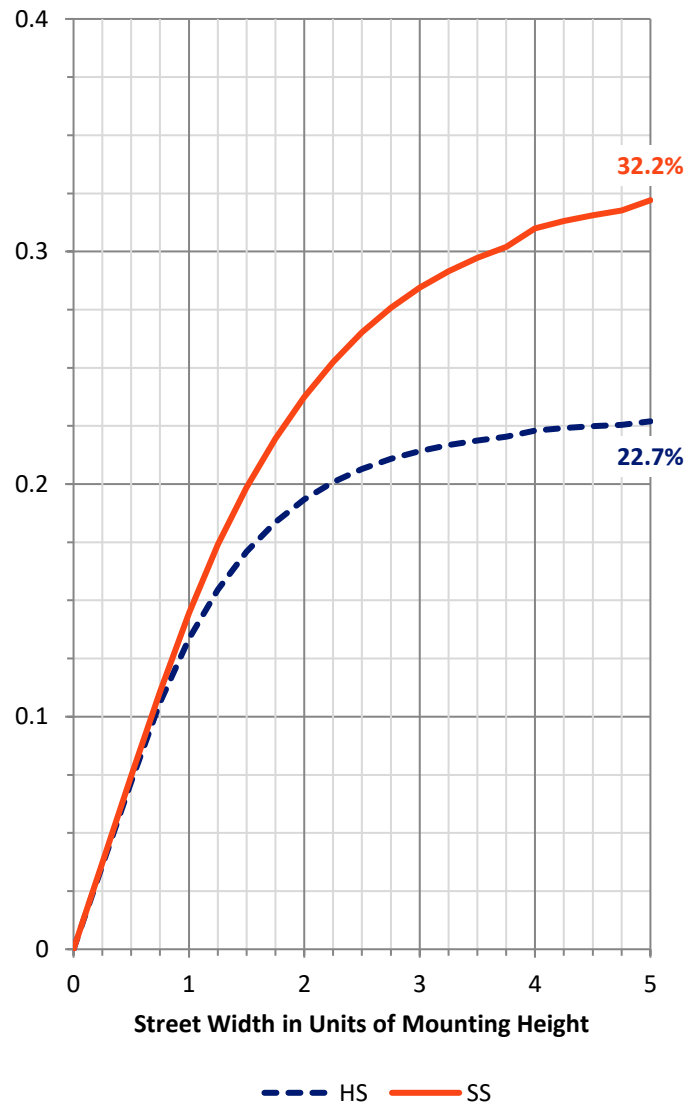
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9994.8	27.3	10022.1
	% Lamp	22.7	0.1	22.8
Street Side	Lumens	14319.3	75.4	14394.7
	% Lamp	32.5	0.2	32.7
Total	Lumens	24314.1	102.7	24416.8
	% Lamp	55.3	0.2	55.5

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	138.3	0.6	0.3
10°-20°	501.0	2.1	1.1
20°-30°	1066.2	4.4	2.4
30°-40°	1982.5	8.1	4.5
40°-50°	3293.4	13.5	7.5
50°-60°	4574.9	18.7	10.4
60°-70°	5973.8	24.5	13.6
70°-80°	5712.2	23.4	13.0
80°-90°	1098.5	4.5	2.5
90°-100°	85.8	0.4	0.2
100°-110°	24.0	0.1	0.1
110°-120°	1.9	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°	24314.1	99.6	55.3
0°-180°	24416.8	100.0	55.5



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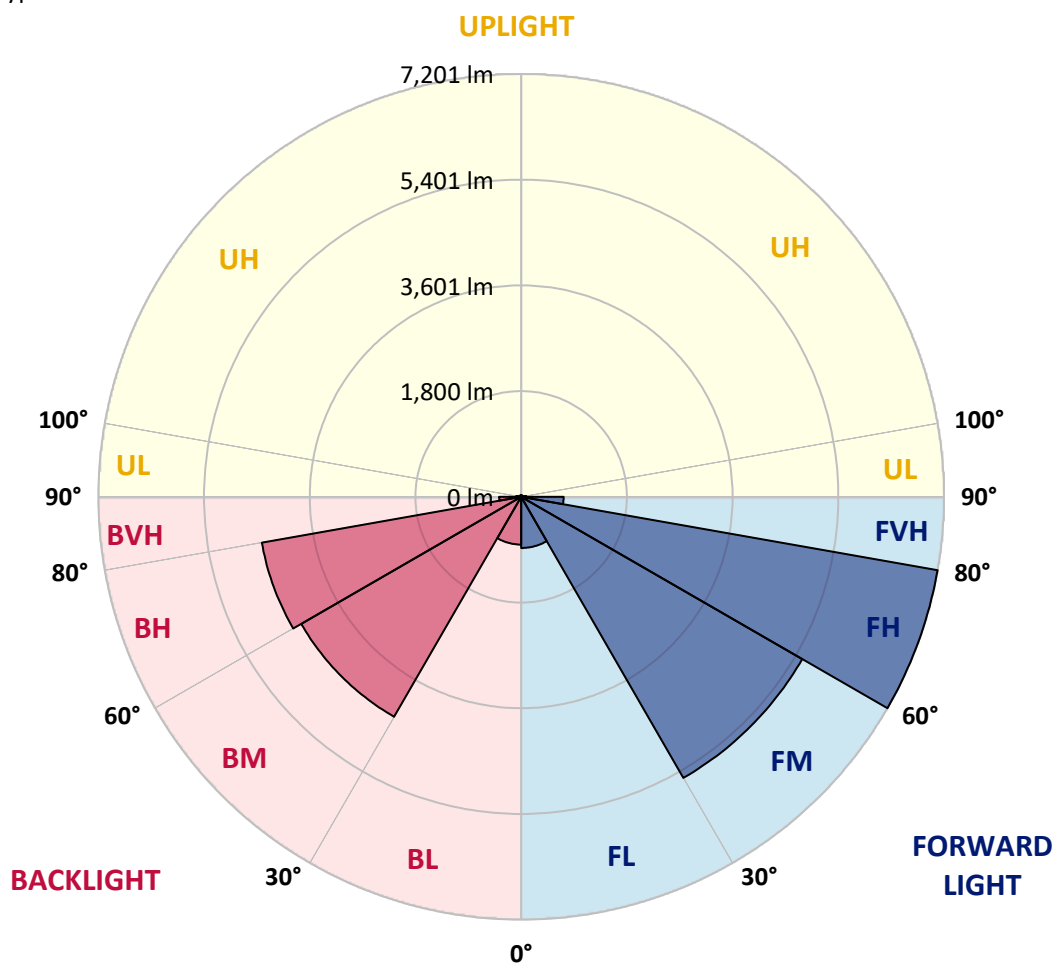
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	871.9	2.0			
FM	(30°-60°)	5527.2	12.6			
FH	(60°-80°)	7201.3	16.4			G3/7500
FVH	(80°-90°)	723.3	1.6			G4/750
BL	(0°-30°)	813.1	1.8	B2/1000		
BM	(30°-60°)	4325.6	9.8	B3/5000		
BH	(60°-80°)	4484.7	10.2	B4/5000		G4/5000
BVH	(80°-90°)	375.3	0.9			G3/500
UL	(90°-100°)	85.8	0.2		U3/500	
UH	(100°-180°)	27.3	0.1		U2/50	
Trapped Light		19583.2	44.5			

BUG Rating: B4-U3-G4

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1416.6	1416.6	1416.6	1416.6	1416.6	1416.6	1416.6	1416.6	1416.6	1416.6	1416.6
5°	1497.2	1481.3	1456.9	1449.6	1409.2	1416.6	1400.7	1376.2	1368.9	1353.0	1335.9
15°	2013.0	2020.3	2053.3	2044.8	1939.7	1860.2	1819.9	1698.9	1690.3	1667.1	1650.0
25°	2318.6	2294.1	2311.2	2311.2	2246.4	2262.3	2286.8	2190.2	2181.7	2230.6	2213.4
35°	3139.9	3164.3	3139.9	3204.7	3115.4	3164.3	3115.4	3043.3	3043.3	3131.3	3124.0
45°	4814.3	4910.9	4846.1	5144.3	4814.3	4951.2	4886.4	5072.2	4863.2	5031.9	4863.2
50°	5168.8	5377.8	5273.9	5467.0	5498.8	5410.8	5684.6	5539.1	5498.8	5570.9	5684.6
55°	5523.2	5507.3	5514.7	5732.2	5797.0	5756.7	5981.6	5684.6	5684.6	5667.4	5644.2
60°	6230.9	6230.9	6311.6	6634.2	6892.1	6827.3	6755.2	6537.7	6279.8	6167.3	6183.2
62.5°	6360.4	6416.7	6537.7	7036.3	7415.2	7294.2	7229.4	6875.0	6504.7	6336.0	6392.2
65°	6504.7	6529.1	6762.6	7439.7	7785.6	7752.6	7745.2	7173.2	6666.0	6513.2	6441.1
67.5°	6618.3	6609.8	6948.3	7841.8	8349.0	8614.2	8324.6	7632.8	6915.3	6650.1	6553.6
70°	6521.8	6722.2	7326.0	8252.4	9097.0	10377.9	8952.8	8155.9	7189.1	6771.1	6706.3
72.5°	5603.9	5893.6	6827.3	7777.0	8960.1	11609.9	8921.0	7752.6	6601.2	6078.1	6054.9
75°	4830.2	5023.3	5957.1	7213.6	8589.8	12519.2	8800.0	6939.8	5684.6	5047.8	4983.0
77.5°	3784.0	3889.1	4967.1	6207.7	7648.7	12060.9	7487.3	5370.4	4210.6	3485.8	3413.7
80°	2190.2	2407.8	3631.2	3985.7	5273.9	9484.4	5040.4	3413.7	2874.7	1948.2	1907.9
82.5°	933.8	1095.1	1907.9	2134.0	2641.2	4282.7	2407.8	1714.8	1537.6	796.9	861.7
85°	466.9	531.7	861.7	853.1	917.9	982.7	853.1	740.7	700.3	370.3	330.0
87.5°	257.9	273.8	361.8	354.4	361.8	378.9	345.9	289.7	289.7	177.2	145.4
90°	161.3	161.3	193.1	201.7	209.0	217.6	209.0	168.7	161.3	96.6	80.7
95°	80.7	88.0	105.1	112.4	136.9	121.0	145.4	121.0	96.6	64.8	56.2
105°	15.9	15.9	15.9	15.9	8.6	8.6	15.9	8.6	8.6	8.6	8.6
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
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°	1416.6	1416.6	1416.6	1416.6	1416.6	1416.6	1416.6	1416.6	1416.6	1416.6
5°	1328.6	1312.7	1353.0	1360.3	1344.4	1353.0	1353.0	1344.4	1335.9	1353.0
15°	1634.1	1609.7	1674.4	1739.2	1755.1	1683.0	1465.4	1433.7	1384.8	1433.7
25°	2206.1	2125.4	2044.8	2109.6	2213.4	2230.6	2294.1	2294.1	2230.6	2286.8
35°	3099.6	3034.8	2897.9	3075.1	3245.0	3333.0	3301.2	2374.8	2020.3	2013.0
45°	4749.6	4686.0	4596.8	4717.8	4830.2	4677.4	2390.7	1634.1	1368.9	1400.7
50°	5314.2	5256.8	5128.4	5482.9	5442.6	5273.9	2206.1	1706.2	1562.0	1593.8
55°	5530.6	5467.0	5240.9	5644.2	5748.1	4709.2	2327.1	2069.2	1860.2	1851.7
60°	6086.7	5981.6	6014.6	6432.6	6537.7	3799.9	2648.6	2101.0	1811.3	1819.9
62.5°	6230.9	6248.0	6248.0	6722.2	6875.0	3501.7	2641.2	1980.0	1634.1	1626.8
65°	6376.3	6464.3	6513.2	7036.3	7148.8	3413.7	2592.3	1795.4	1384.8	1368.9
67.5°	6585.3	6730.8	6996.0	7478.8	7978.7	3559.1	2704.8	1618.2	1079.2	1063.3
70°	6697.8	7004.6	7406.7	7866.2	8694.9	3663.0	2583.8	1256.4	805.4	837.2
72.5°	6086.7	6690.4	7029.0	7462.9	8380.8	3534.7	1948.2	789.6	556.1	563.4
75°	5137.0	5837.3	6230.9	6714.9	7656.0	3494.3	1320.0	426.6	345.9	354.4
77.5°	3582.3	4533.2	4789.9	5498.8	6674.6	3405.1	893.4	298.2	257.9	257.9
80°	2004.4	3003.0	3212.0	3671.6	5273.9	2479.9	579.3	257.9	305.6	402.1
82.5°	789.6	1393.3	1706.2	1683.0	2278.2	990.0	289.7	233.4	121.0	128.3
85°	345.9	603.8	732.1	708.9	635.6	249.3	105.1	112.4	15.9	31.8
87.5°	112.4	217.6	224.9	224.9	193.1	105.1	48.9	24.4	8.6	31.8
90°	31.8	105.1	112.4	112.4	96.6	56.2	24.4	8.6	0.0	0.0
95°	15.9	64.8	72.1	72.1	48.9	48.9	24.4	15.9	8.6	0.0
105°	0.0	8.6	8.6	8.6	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
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)