

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: STREETWORKS

Report Number: P321419

Luminaire Tested: **GAN-SA5D-827-U-T2R-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P321419
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-9)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAN-SA5D-827-U-T2R-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(5) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23011 lumens
Efficiency: N/A
Efficacy: 71.9 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G3

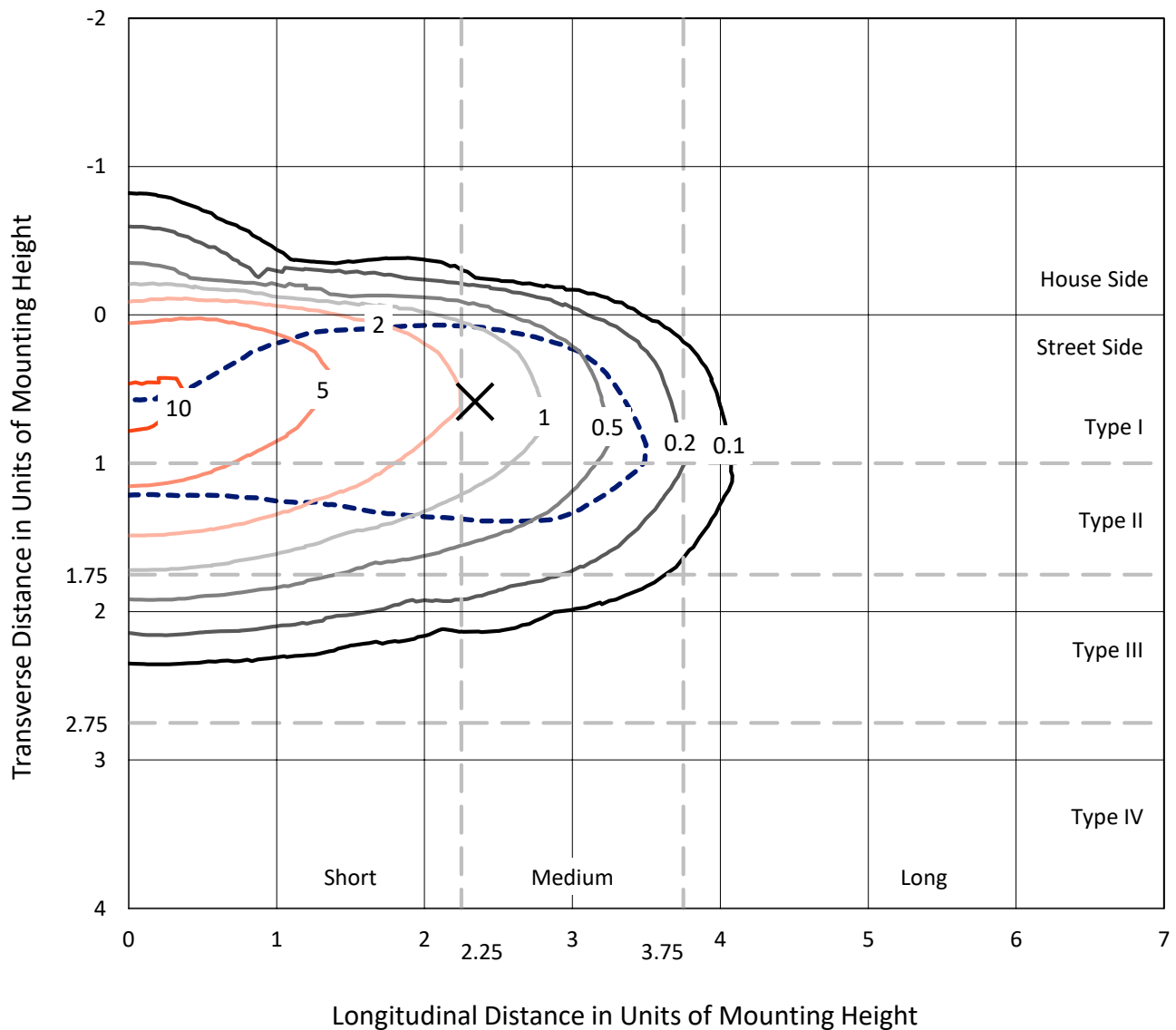
Input Watts (W): 320
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

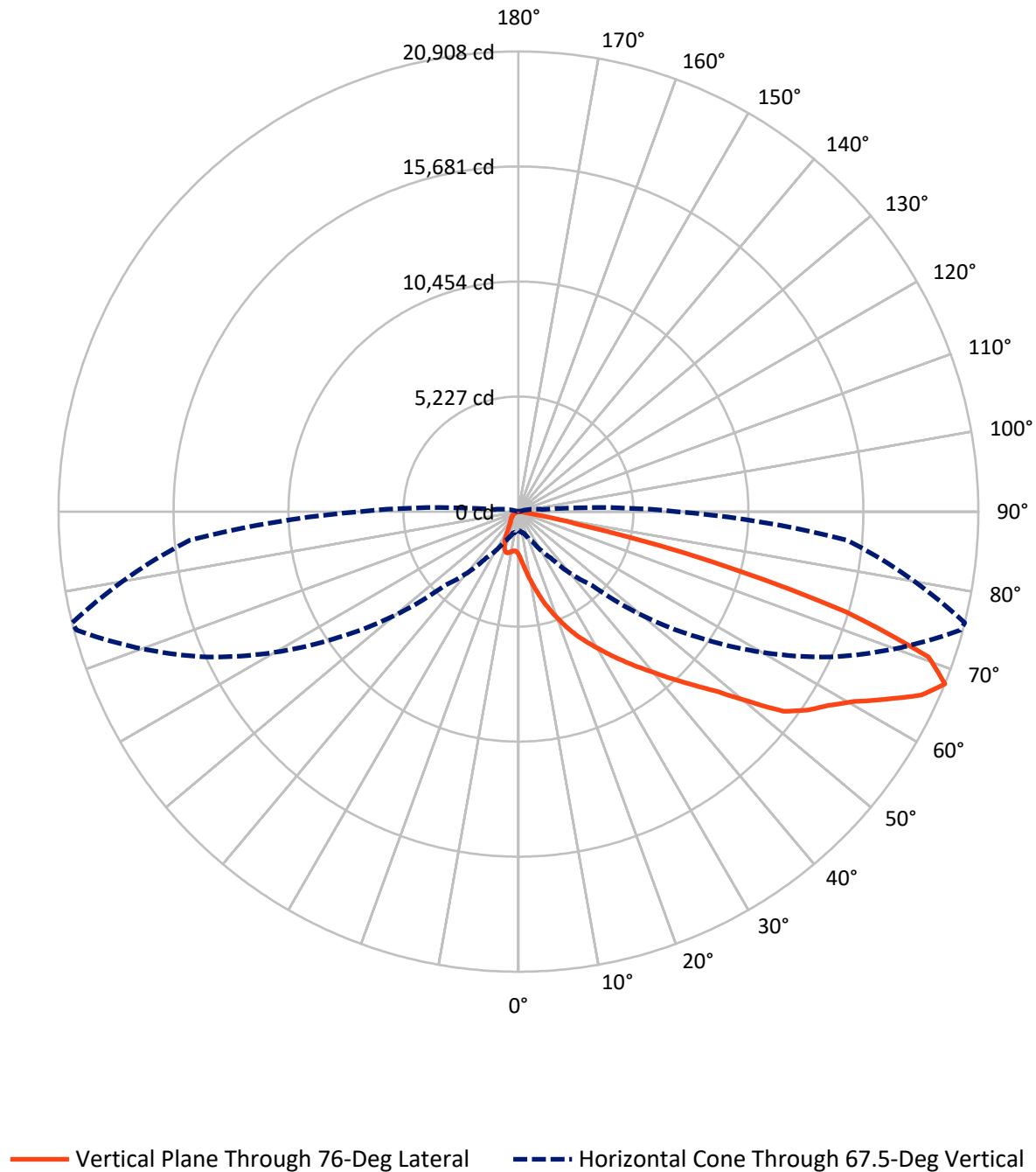
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1142.7	0.0	1142.7
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	21868.3	0.0	21868.3
	% Fixture	95.0	0.0	95.0
Total	Lumens	23011.0	0.0	23011.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	242.7	1.1
10°-20°	962.2	4.2
20°-30°	1957.8	8.5
30°-40°	3398.1	14.8
40°-50°	4801.0	20.9
50°-60°	5444.6	23.7
60°-70°	4515.8	19.6
70°-80°	1635.7	7.1
80°-90°	53.0	0.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	23011.0	100.0
0°-180°	23011.0	100.0

Coefficient of Utilization



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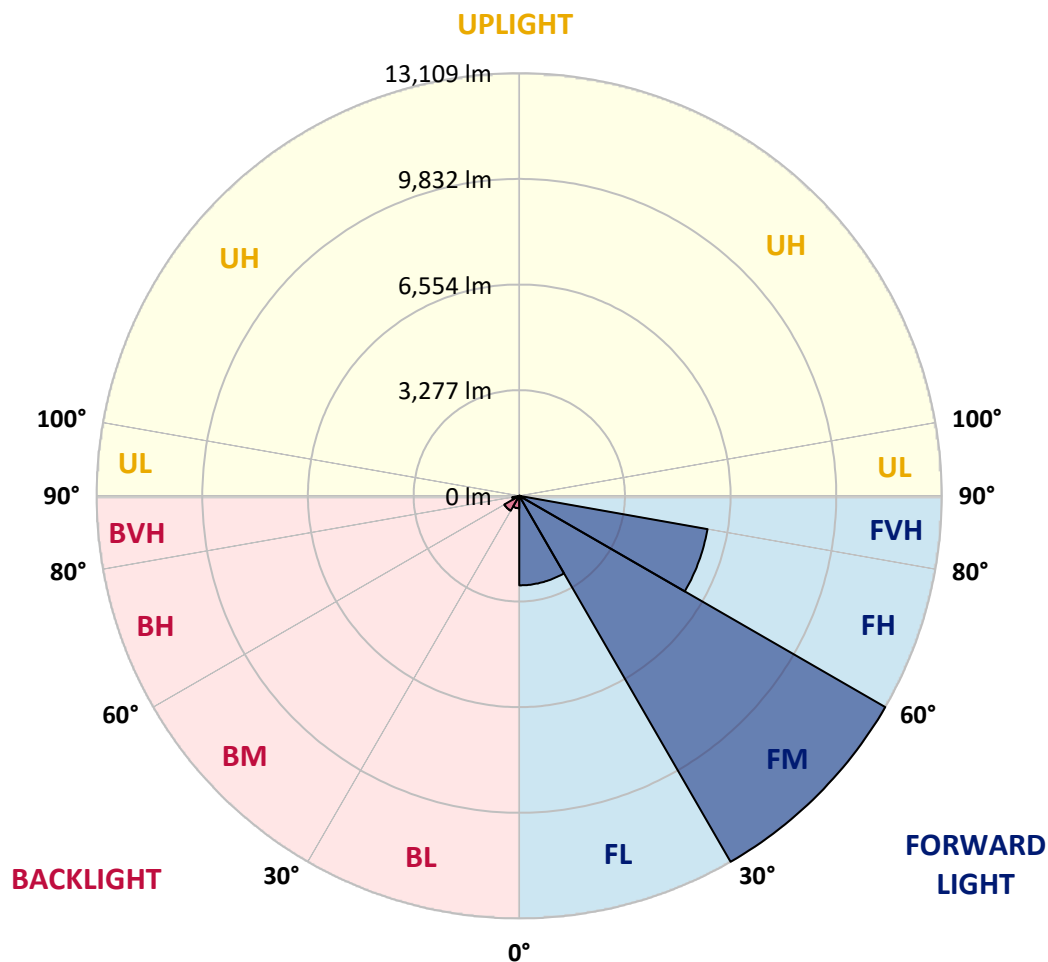
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2777.4	12.1			
FM	(30°-60°)	13108.9	57.0			
FH	(60°-80°)	5930.7	25.8			G3/7500
FVH	(80°-90°)	51.4	0.2			G1/100
BL	(0°-30°)	385.4	1.7	B1/500		
BM	(30°-60°)	534.8	2.3	B1/1000		
BH	(60°-80°)	220.8	1.0	B1/500		G1/500
BVH	(80°-90°)	1.7	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	1952.0	1952.0	1952.0	1952.0	1952.0	1952.0	1952.0	1952.0	1952.0	1952.0	1952.0
2.5°	2913.9	2848.3	2863.5	2821.1	2744.5	2587.2	2453.1	2326.1	2177.9	2172.8	2050.8
5°	3929.2	3873.8	3866.7	3781.0	3641.8	3374.7	3114.5	2818.1	2487.4	2463.2	2204.1
7.5°	4850.8	4806.4	4790.3	4688.4	4429.3	4169.2	3830.4	3394.8	2877.6	2833.2	2410.8
10°	5558.6	5537.4	5541.4	5468.8	5247.0	5005.0	4560.4	4004.8	3320.2	3251.7	2658.8
12.5°	6095.0	6100.0	6136.3	6091.9	5967.9	5788.4	5313.6	4655.2	3810.2	3716.5	2942.1
15°	6489.2	6514.4	6580.9	6636.4	6627.3	6472.0	6036.5	5315.6	4330.5	4226.6	3257.7
17.5°	6744.3	6772.5	6869.3	6992.3	7105.2	7068.9	6734.2	5952.8	4856.8	4736.8	3595.5
20°	6968.1	7001.4	7105.2	7267.6	7478.3	7523.7	7303.9	6570.9	5382.1	5235.9	3944.3
22.5°	7453.1	7452.1	7515.6	7610.4	7811.0	7928.0	7788.8	7144.6	5901.4	5749.1	4300.2
25°	8330.3	8297.0	8274.8	8200.2	8244.6	8317.2	8239.5	7681.0	6423.7	6269.4	4661.2
27.5°	9372.8	9393.0	9213.5	9012.9	8857.6	8783.0	8655.9	8178.0	6925.8	6756.4	5014.1
30°	10472.8	10478.9	10267.2	10011.1	9669.3	9385.9	9166.1	8652.9	7442.0	7257.5	5356.9
32.5°	11465.0	11425.6	11215.9	10867.1	10435.5	10116.9	9660.2	9183.3	7988.5	7810.0	5738.0
35°	12251.4	12205.0	11949.9	11632.3	11184.7	10864.0	10314.5	9712.6	8563.2	8388.8	6120.2
37.5°	12826.1	12771.7	12509.5	12182.9	11796.7	11610.2	11073.8	10288.3	9190.3	9002.8	6522.5
40°	13025.8	12978.4	12814.0	12575.1	12264.5	12222.2	11879.4	10950.8	9872.9	9673.3	6978.2
42.5°	12906.8	12860.4	12801.9	12721.3	12592.2	12632.5	12639.6	11705.9	10631.1	10434.5	7481.3
45°	12434.9	12393.6	12454.1	12572.0	12732.4	12932.0	13333.3	12517.6	11478.1	11268.4	8063.1
47.5°	11740.2	11710.0	11877.4	12171.8	12640.6	13191.1	13967.5	13370.6	12428.9	12234.3	8789.0
50°	10752.1	10747.1	11081.8	11619.2	12340.1	13316.1	14622.9	14340.5	13749.7	13545.0	9798.3
52.5°	9213.5	9223.6	9882.0	10742.0	11812.8	13231.4	15044.3	15586.8	15286.3	15073.5	10672.5
55°	7748.5	7809.0	8275.8	9516.0	11004.2	12916.9	15189.5	16168.5	16134.2	15932.6	11158.5
57.5°	6313.7	6423.7	6873.3	8031.8	9823.5	12191.9	15109.8	16420.6	16765.4	16611.2	11799.7
60°	4759.0	4809.4	5327.7	6410.5	8308.1	10869.1	14532.1	16557.7	17628.5	17521.6	12730.3
62.5°	3027.8	3153.9	3613.6	4658.2	6469.0	9032.0	13558.1	16555.7	18708.3	18766.8	13931.2
65°	1595.1	1742.3	1986.3	2886.7	4445.4	6980.2	12093.1	16400.4	20033.2	20114.9	14869.9
67.5°	860.0	902.4	1031.5	1498.3	2578.1	4728.8	9940.5	15634.1	20800.5	20908.4	15001.0
70°	629.2	652.3	700.7	828.8	1297.6	2746.5	7253.5	13896.9	19811.4	19771.1	13328.2
72.5°	483.0	519.3	555.6	607.0	746.1	1466.0	4516.0	10882.2	15807.6	15541.4	9962.7
75°	381.1	387.2	438.6	485.0	559.6	834.8	2005.4	6337.9	9648.1	9017.9	5166.3
77.5°	304.5	308.5	338.8	379.1	449.7	548.5	621.1	2493.4	3080.2	2748.5	1121.2
80°	180.5	190.6	252.1	292.4	373.1	345.8	226.9	541.4	480.9	435.6	188.5
82.5°	100.8	108.9	142.2	230.9	260.1	165.4	112.9	146.2	112.9	109.9	53.4
85°	0.0	5.0	91.8	143.2	105.9	36.3	47.4	48.4	33.3	31.3	21.2
87.5°	0.0	0.0	28.2	27.2	4.0	6.0	11.1	16.1	13.1	13.1	11.1
90°	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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1952.0	1952.0	1952.0	1952.0	1952.0	1952.0	1952.0	1952.0	1952.0	1952.0	1952.0
2.5°	1990.3	1935.9	1833.0	1732.2	1647.5	1577.9	1515.4	1490.2	1470.0	1467.0	1450.9
5°	2079.0	1969.1	1772.5	1611.2	1503.3	1426.7	1361.2	1320.8	1289.6	1277.5	1266.4
7.5°	2213.1	2046.8	1764.5	1578.9	1449.9	1320.8	1199.8	1068.8	987.1	955.8	937.7
10°	2376.5	2149.6	1794.7	1569.9	1344.0	1071.8	871.1	704.8	637.2	615.0	609.0
12.5°	2567.0	2277.7	1847.1	1513.4	1118.2	761.2	600.9	544.5	529.3	522.3	522.3
15°	2785.8	2417.8	1884.4	1350.1	826.8	575.7	520.3	494.0	477.9	468.8	469.9
17.5°	3009.7	2554.9	1866.3	1113.1	610.0	512.2	470.9	442.6	420.4	411.4	409.4
20°	3235.5	2682.0	1765.5	828.8	516.2	464.8	418.4	387.2	365.0	355.9	353.9
22.5°	3469.4	2789.9	1588.0	608.0	463.8	412.4	367.0	335.8	314.6	306.5	302.5
25°	3697.3	2877.6	1340.0	492.0	414.4	363.0	319.6	290.4	271.2	263.2	262.1
27.5°	3910.0	2933.0	1052.6	434.6	371.0	318.6	279.3	253.1	236.9	230.9	229.9
30°	4101.6	2938.1	778.4	392.2	332.7	280.3	244.0	220.8	206.7	200.6	198.6
32.5°	4295.2	2895.7	566.6	353.9	297.4	247.0	211.7	193.6	183.5	178.5	178.5
35°	4477.7	2797.9	441.6	320.6	263.2	214.8	186.5	173.4	167.4	162.3	162.3
37.5°	4656.2	2657.8	375.1	291.4	230.9	187.5	164.3	156.3	151.2	146.2	146.2
40°	4837.7	2481.3	340.8	264.2	204.7	166.4	146.2	139.1	134.1	130.1	129.1
42.5°	5060.5	2277.7	318.6	239.0	181.5	147.2	129.1	121.0	117.0	112.9	110.9
45°	5318.6	2102.2	300.5	213.8	162.3	131.1	111.9	103.9	97.8	92.8	91.8
47.5°	5690.6	1975.2	276.3	186.5	144.2	113.9	96.8	87.7	78.6	73.6	72.6
50°	6165.5	1870.3	245.0	162.3	126.0	96.8	80.7	69.6	61.5	56.5	56.5
52.5°	6401.5	1733.2	216.8	141.2	105.9	81.7	65.5	52.4	48.4	43.4	43.4
55°	6496.2	1628.3	188.5	120.0	87.7	67.6	51.4	40.3	37.3	34.3	33.3
57.5°	6762.4	1598.1	164.3	101.8	72.6	53.4	39.3	30.2	28.2	24.2	24.2
60°	7190.9	1613.2	142.2	86.7	58.5	41.3	29.2	23.2	21.2	17.1	17.1
62.5°	7653.7	1594.1	120.0	74.6	45.4	30.2	20.2	17.1	17.1	10.1	9.1
65°	7742.5	1419.6	102.8	61.5	35.3	22.2	13.1	11.1	15.1	2.0	0.0
67.5°	7185.9	1101.0	88.7	47.4	26.2	17.1	10.1	5.0	13.1	0.0	0.0
70°	5746.1	699.7	71.6	34.3	20.2	14.1	8.1	2.0	10.1	0.0	0.0
72.5°	4063.3	406.3	56.5	24.2	17.1	11.1	6.0	0.0	6.0	0.0	0.0
75°	2054.8	216.8	35.3	18.1	13.1	8.1	4.0	0.0	1.0	0.0	0.0
77.5°	444.6	100.8	22.2	13.1	9.1	5.0	2.0	0.0	0.0	0.0	0.0
80°	96.8	44.4	14.1	8.1	5.0	3.0	0.0	0.0	0.0	0.0	0.0
82.5°	35.3	23.2	7.1	4.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	19.2	12.1	4.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	10.1	4.0	1.0	1.0	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)