

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: P321096

Luminaire Tested: **GAN-SA2D-827-U-AFL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P321096
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-29)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAN-SA2D-827-U-AFL
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(2) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11973 lumens
Efficiency: N/A
Efficacy: 92.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

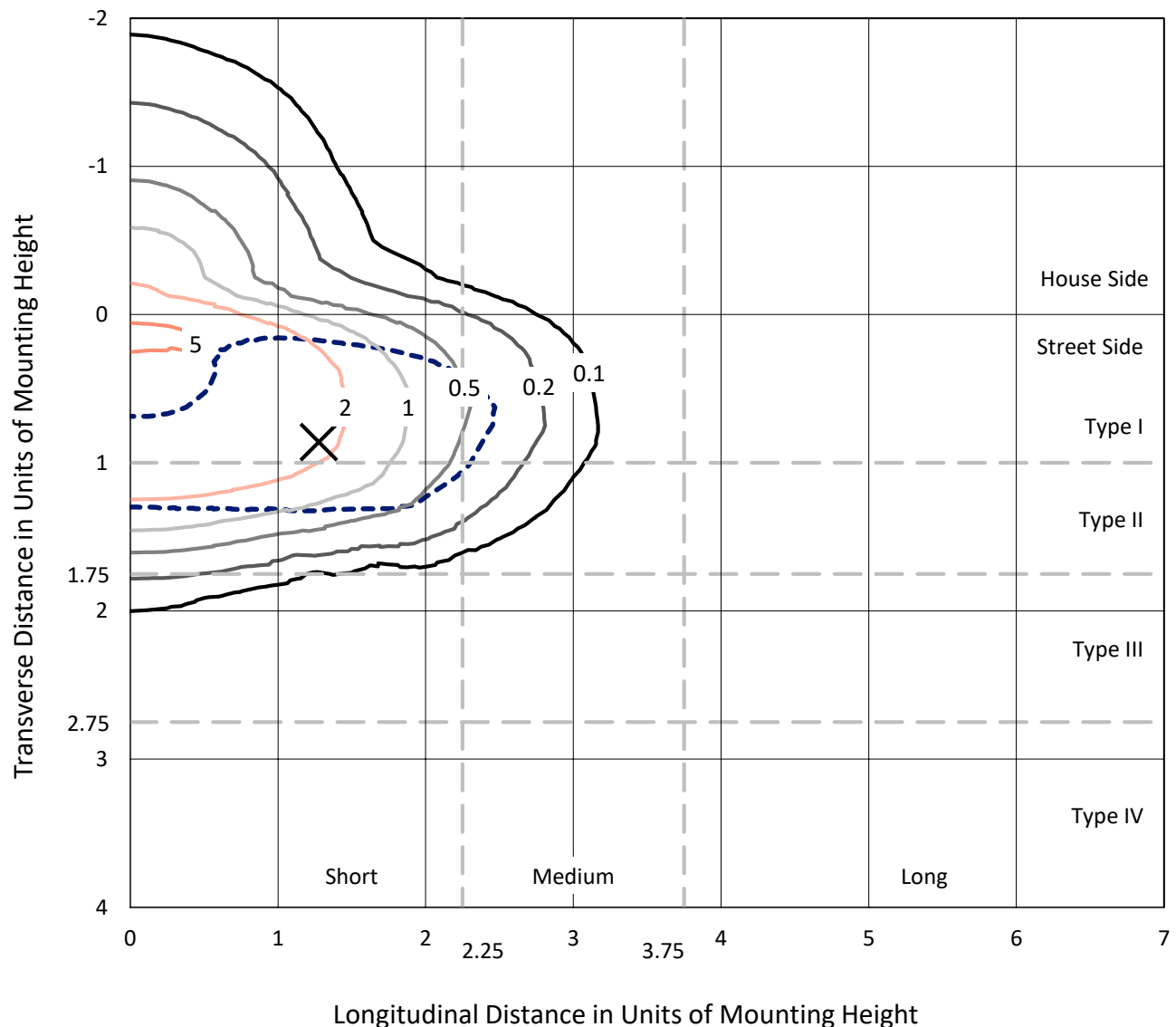
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

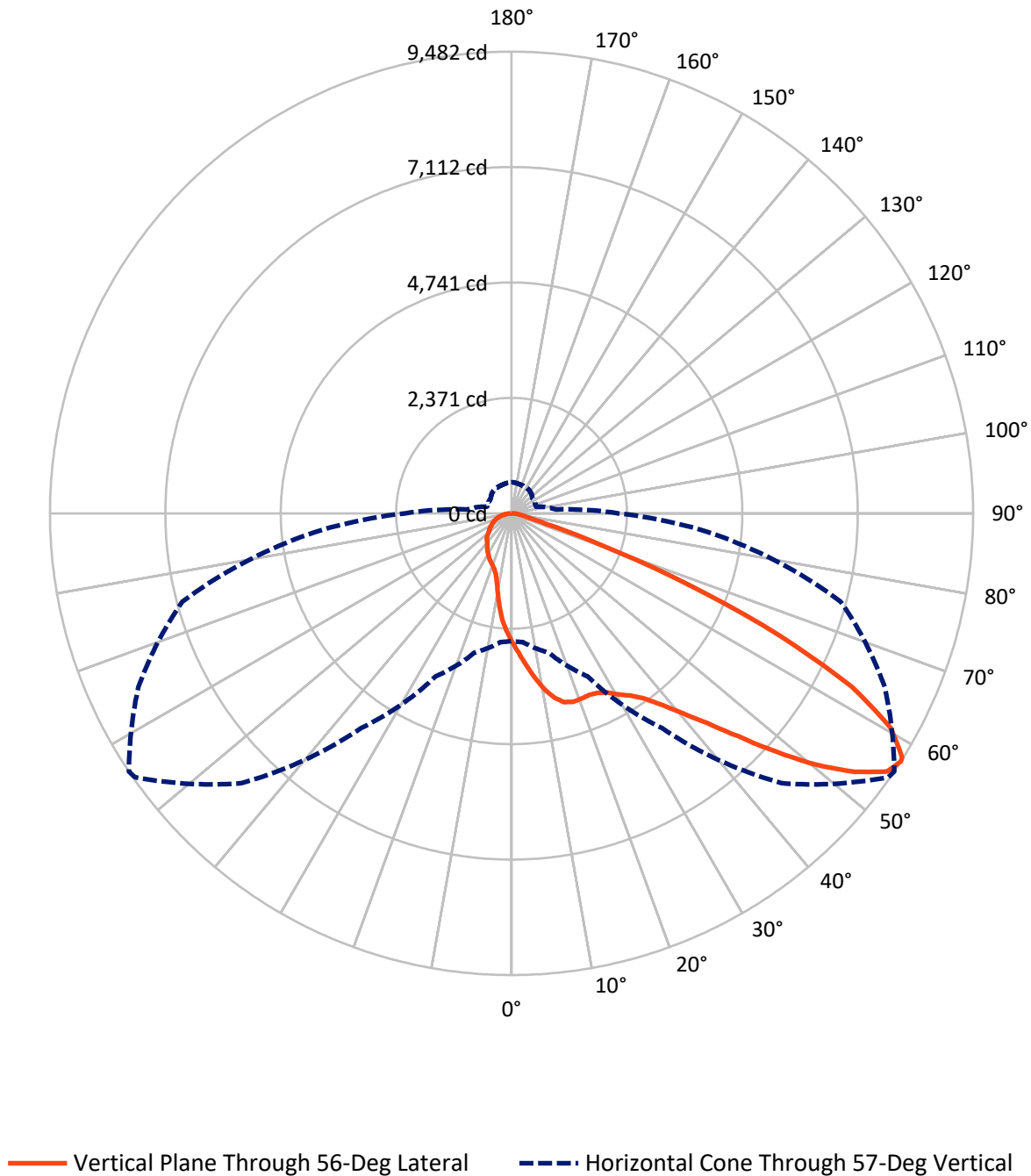
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.9 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2063.9	0.0	2063.9
	% Fixture	17.2	0.0	17.2
Street Side	Lumens	9909.1	0.0	9909.1
	% Fixture	82.8	0.0	82.8
Total	Lumens	11973.0	0.0	11973.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	253.7	2.1
10°-20°	717.2	6.0
20°-30°	1168.2	9.8
30°-40°	1746.3	14.6
40°-50°	2648.8	22.1
50°-60°	2968.8	24.8
60°-70°	1753.5	14.6
70°-80°	574.5	4.8
80°-90°	141.9	1.2
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°	11973.0	100.0
0°-180°	11973.0	100.0

Coefficient of Utilization



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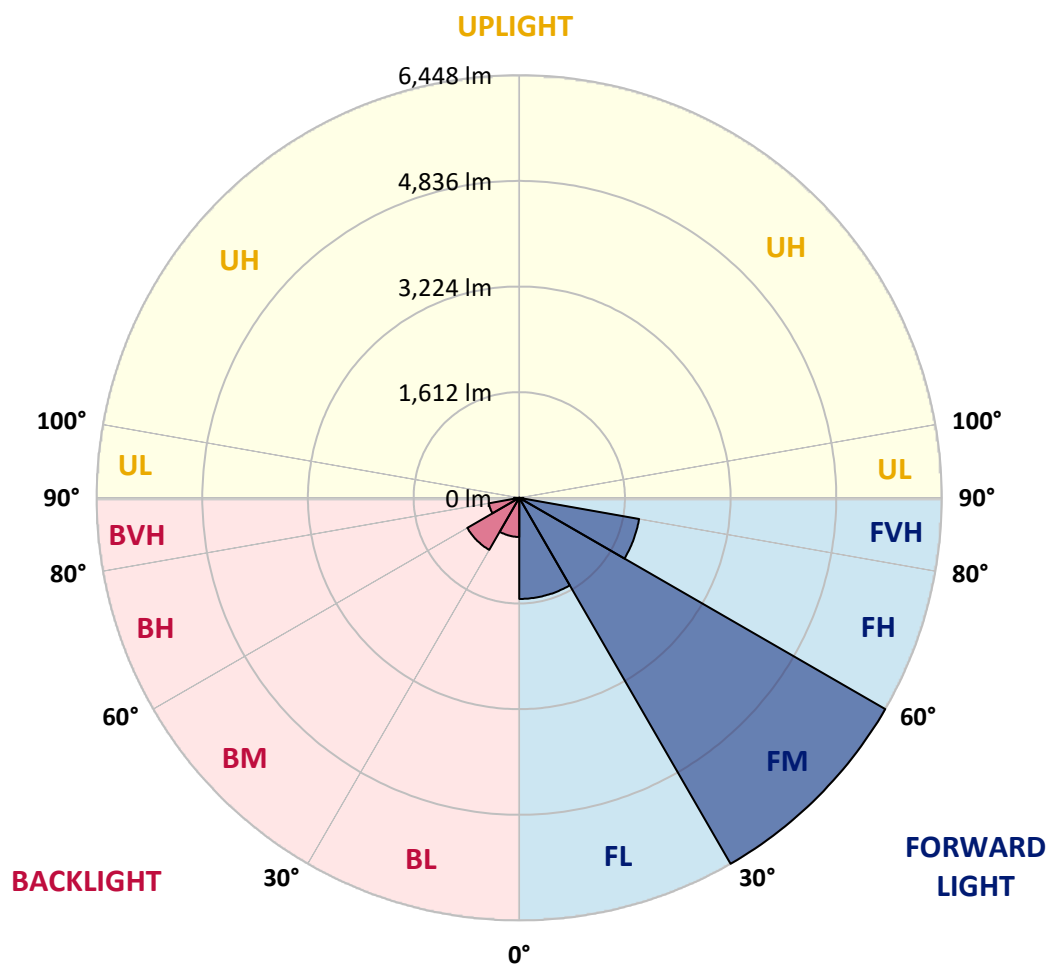
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1542.3	12.9			
FM	(30°-60°)	6447.9	53.9			
FH	(60°-80°)	1856.4	15.5			G2/5000
FVH	(80°-90°)	62.5	0.5			G1/100
BL	(0°-30°)	596.8	5.0	B2/1000		
BM	(30°-60°)	916.1	7.7	B1/1000		
BH	(60°-80°)	471.6	3.9	B1/500		G1/500
BVH	(80°-90°)	79.4	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	65°	75°	85°
0°	2655.6	2655.6	2655.6	2655.6	2655.6	2655.6	2655.6	2655.6	2655.6	2655.6	2655.6
2.5°	3049.4	3077.4	3065.0	3022.2	2989.3	2942.8	2891.0	2875.3	2820.6	2759.3	2685.7
5°	3532.1	3518.1	3497.9	3431.2	3360.9	3279.0	3149.0	3128.4	3006.6	2867.9	2721.5
7.5°	3806.9	3805.7	3793.7	3754.7	3690.5	3583.5	3426.7	3402.4	3218.5	2995.5	2768.4
10°	3767.0	3764.1	3783.9	3824.6	3843.9	3821.7	3689.6	3665.4	3439.5	3136.6	2822.7
12.5°	3540.3	3541.9	3573.6	3659.2	3775.6	3915.5	3894.1	3882.2	3668.7	3296.3	2888.5
15°	3363.8	3367.5	3392.6	3467.0	3604.5	3858.3	4018.4	4022.5	3890.4	3472.4	2965.5
17.5°	3286.4	3294.2	3305.7	3358.0	3483.9	3744.4	4048.0	4070.3	4084.7	3655.1	3039.5
20°	3311.1	3318.5	3321.8	3355.1	3458.4	3675.2	4027.5	4067.4	4233.6	3827.1	3113.6
22.5°	3421.8	3426.3	3428.4	3437.0	3517.2	3695.0	4013.9	4055.9	4341.4	3981.4	3169.5
25°	3605.3	3602.0	3588.8	3577.7	3631.6	3773.2	4045.2	4085.1	4429.1	4121.3	3206.2
27.5°	3825.0	3820.9	3795.4	3764.9	3795.8	3895.0	4135.3	4166.9	4507.6	4252.1	3224.7
30°	4088.8	4078.1	4029.9	3993.7	4005.7	4077.7	4283.8	4312.6	4629.0	4400.7	3242.8
32.5°	4393.7	4382.1	4312.6	4252.5	4252.5	4312.6	4436.9	4460.7	4731.9	4568.5	3272.0
35°	4775.5	4761.1	4670.6	4569.8	4541.4	4571.8	4645.5	4662.4	4917.1	4780.0	3325.1
37.5°	5225.7	5206.3	5089.1	4954.1	4892.0	4890.3	4943.4	4978.0	5212.9	5057.8	3415.2
40°	5677.0	5663.5	5561.0	5454.8	5333.1	5294.0	5375.8	5386.5	5599.7	5402.6	3530.4
42.5°	6026.0	6023.5	6004.6	6018.6	5893.9	5814.9	5879.1	5887.7	6072.1	5775.8	3653.0
45°	6210.3	6214.4	6306.2	6509.4	6555.5	6497.9	6529.6	6532.1	6611.9	6152.3	3765.4
47.5°	6062.6	6084.0	6316.1	6770.7	7148.0	7339.4	7286.7	7317.2	7135.3	6475.7	3853.4
50°	5486.9	5513.3	5908.3	6654.3	7424.6	8153.7	8126.1	8119.1	7557.5	6712.7	3901.1
52.5°	4773.9	4794.4	5120.3	6049.0	7221.7	8603.8	8856.9	8820.7	7932.7	6890.1	3910.2
55°	3688.0	3720.1	4032.4	4840.9	6401.2	8431.8	9394.3	9361.7	8274.6	6983.0	3899.5
57°	2621.9	2655.6	2965.9	3694.6	5384.9	7836.4	9447.7	9482.3	8459.4	6998.7	3911.4
57.5°	2339.6	2374.2	2681.5	3389.3	5068.1	7621.2	9401.7	9459.3	8492.7	6996.2	3918.0
60°	1178.0	1191.2	1387.1	1891.9	3203.7	6161.3	8800.5	8949.0	8522.8	6875.2	3946.4
62.5°	732.4	723.0	716.8	871.5	1558.6	4085.9	7559.9	7845.9	7947.9	6582.3	3877.7
65°	643.9	626.3	558.4	546.0	688.4	1984.5	5693.1	6049.0	6719.7	6120.6	3713.9
67.5°	604.9	587.6	511.0	465.0	465.4	786.7	3534.5	3935.3	5234.7	5340.0	3327.6
70°	564.5	548.9	477.3	423.0	396.2	435.7	1626.1	1930.2	3412.3	4197.4	2781.1
72.5°	512.7	502.0	434.1	378.1	349.7	326.3	622.6	735.3	1975.5	2819.0	1931.4
75°	458.4	448.5	390.5	337.0	302.4	256.8	350.6	377.7	1003.6	1442.2	950.9
77.5°	398.7	393.0	347.3	297.9	270.3	212.7	248.1	261.3	430.4	618.4	476.9
80°	317.2	328.4	303.7	265.4	239.9	170.3	175.7	184.3	250.6	302.0	270.7
82.5°	206.6	225.9	237.8	215.6	197.5	134.1	126.3	130.0	163.4	184.3	117.7
85°	86.0	96.7	156.4	141.1	131.3	97.9	84.8	86.4	101.2	104.9	48.1
87.5°	38.3	40.7	68.7	64.6	55.5	33.7	36.2	39.5	53.9	51.0	18.5
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°	2655.6	2655.6	2655.6	2655.6	2655.6	2655.6	2655.6	2655.6	2655.6	2655.6	2655.6
2.5°	2658.1	2623.5	2564.3	2498.9	2445.4	2402.6	2359.4	2329.7	2295.2	2276.7	2267.2
5°	2660.1	2592.3	2467.6	2339.6	2225.2	2120.7	2021.1	1944.6	1873.0	1834.3	1823.6
7.5°	2668.8	2566.7	2365.1	2154.5	1951.2	1765.6	1622.4	1532.7	1468.1	1439.3	1431.1
10°	2675.8	2536.7	2238.4	1926.5	1650.0	1462.0	1350.9	1300.7	1278.4	1274.7	1271.0
12.5°	2692.2	2505.8	2105.1	1688.7	1415.9	1285.8	1247.2	1243.9	1250.0	1259.1	1259.1
15°	2718.2	2475.4	1952.8	1484.6	1266.9	1221.2	1229.1	1247.2	1264.0	1278.0	1280.1
17.5°	2737.1	2438.0	1789.1	1321.2	1187.5	1199.8	1227.8	1253.3	1270.6	1284.2	1285.4
20°	2750.7	2379.9	1614.2	1196.6	1141.8	1180.1	1215.1	1237.7	1249.6	1263.2	1265.3
22.5°	2743.7	2302.2	1459.1	1107.3	1104.8	1151.3	1184.6	1211.8	1202.7	1189.6	1198.2
25°	2709.9	2195.2	1299.4	1040.6	1065.7	1112.6	1153.8	1135.7	1105.2	1099.4	1102.7
27.5°	2649.9	2058.6	1151.7	978.9	1020.4	1076.8	1074.3	1056.2	1045.5	1038.1	1042.7
30°	2585.3	1910.5	1022.5	925.0	970.2	1016.7	1007.3	1006.9	996.2	984.2	990.0
32.5°	2521.5	1761.5	920.0	880.5	932.4	938.6	959.1	965.3	944.3	919.2	917.6
35°	2465.9	1620.8	842.3	840.2	886.7	887.5	917.6	908.9	856.7	830.8	830.8
37.5°	2424.4	1480.5	783.0	804.0	826.6	848.0	863.3	827.5	818.8	804.4	804.0
40°	2406.3	1357.0	746.0	776.4	784.3	811.4	772.3	786.3	790.4	783.0	783.0
42.5°	2387.3	1249.6	713.9	755.5	754.2	750.5	730.8	748.9	765.3	765.7	764.5
45°	2368.4	1157.1	685.5	710.6	727.9	688.0	691.7	711.0	734.1	742.3	742.3
47.5°	2347.4	1083.8	659.6	663.3	690.0	663.3	660.4	675.2	702.4	715.5	718.4
50°	2301.3	1018.0	630.0	621.7	629.1	638.2	640.7	647.7	677.7	698.7	703.6
52.5°	2237.6	959.1	592.1	583.5	583.5	617.6	629.1	631.2	656.7	681.8	686.7
55°	2184.5	921.7	553.0	551.4	549.7	595.8	615.6	618.8	636.5	656.3	658.8
57°	2188.2	918.8	523.0	524.6	524.2	573.6	602.8	609.8	618.8	635.7	638.6
57.5°	2190.3	920.9	516.4	517.2	516.8	567.4	599.1	606.9	613.9	631.6	634.5
60°	2221.1	926.2	489.6	480.6	482.7	534.5	578.1	588.0	592.5	616.0	619.7
62.5°	2175.4	902.4	468.3	446.4	446.4	499.9	548.9	564.5	571.5	603.2	609.4
65°	2042.9	835.3	443.2	407.8	411.9	465.4	513.9	539.4	550.1	589.6	596.2
67.5°	1838.4	757.5	416.4	373.2	377.3	429.2	477.7	505.3	522.2	574.8	580.2
70°	1572.2	662.5	380.2	336.6	341.5	389.7	434.9	466.2	491.3	560.8	562.5
72.5°	1159.1	543.1	329.6	296.3	301.6	343.6	391.7	427.9	461.7	525.9	525.0
75°	689.2	424.6	273.6	255.5	259.2	298.3	352.6	396.7	447.3	512.3	520.1
77.5°	418.1	319.7	223.0	214.0	218.5	258.4	324.6	371.6	441.1	483.1	480.6
80°	252.6	228.4	178.2	172.4	176.9	221.0	300.4	352.6	385.5	412.7	412.7
82.5°	132.1	139.5	130.8	126.3	132.5	179.4	273.2	307.8	340.7	292.6	273.2
85°	53.9	72.8	79.4	79.0	82.7	124.3	235.8	263.3	219.7	208.6	213.6
87.5°	18.1	30.9	38.7	33.3	35.0	78.2	163.4	127.1	151.0	105.3	100.0
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)