

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: McGRAW-EDISON

Report Number: P456603

Luminaire Tested: **GALN-SA7D-827-U-AFL**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P456603
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-24)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA7D-827-U-AFL
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(7) 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: 39998 lumens
Efficiency: N/A
Efficacy: 92.4 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

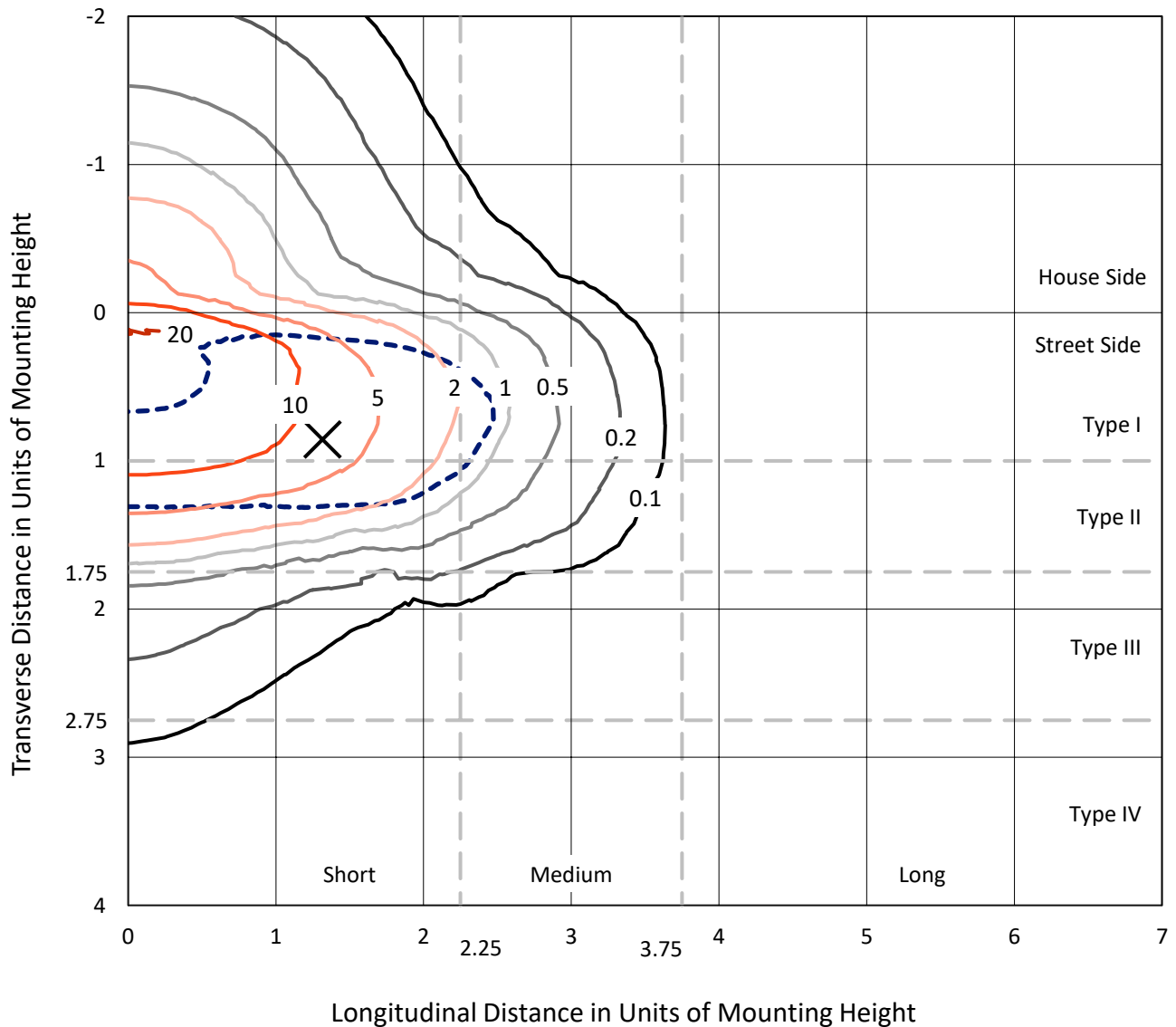
Input Watts (W): 433
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P456603
 CATALOG NUMBER: GALN-SA7D-827-U-AFL

Iso-Footcandle Lines of Horizontal Illumination

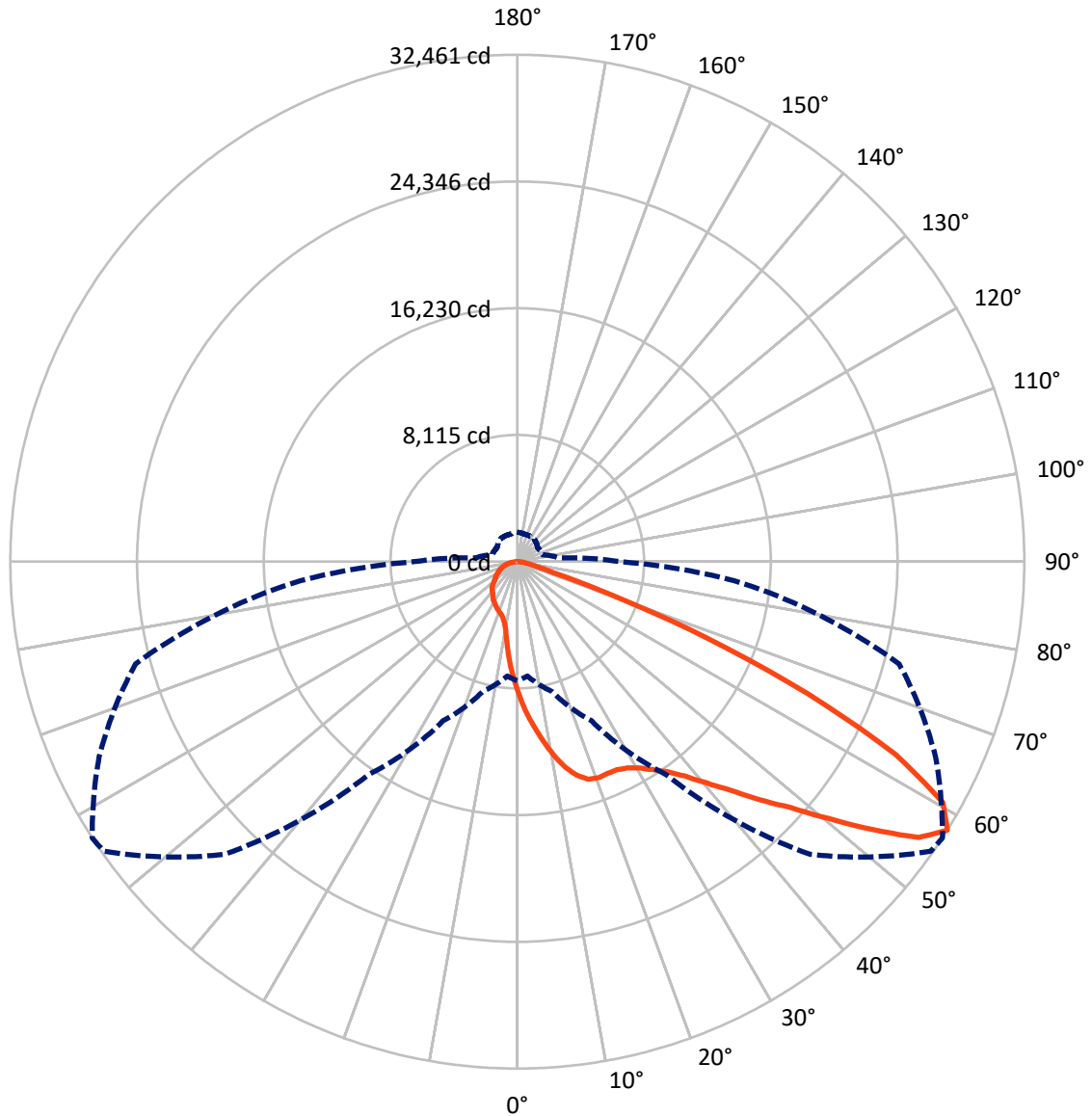
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 20.5 fc
 Type II - Short - N/A

REPORT NUMBER: P456603
CATALOG NUMBER: GALN-SA7D-827-U-AFL

Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral - - - Horizontal Cone Through 57.5-Deg Vertical

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CATALOG NUMBER: GALN-SA7D-827-U-AFL

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6082.6	0.0	6082.6
	% Fixture	15.2	0.0	15.2
Street Side	Lumens	33915.4	0.0	33915.4
	% Fixture	84.8	0.0	84.8
Total	Lumens	39998.0	0.0	39998.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	807.6	2.0
10°-20°	2380.1	6.0
20°-30°	3952.2	9.9
30°-40°	5953.2	14.9
40°-50°	8938.1	22.3
50°-60°	10018.5	25.0
60°-70°	5863.3	14.7
70°-80°	1734.3	4.3
80°-90°	350.6	0.9
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°	39998.0	100.0
0°-180°	39998.0	100.0

Coefficient of Utilization



REPORT NUMBER: P456603

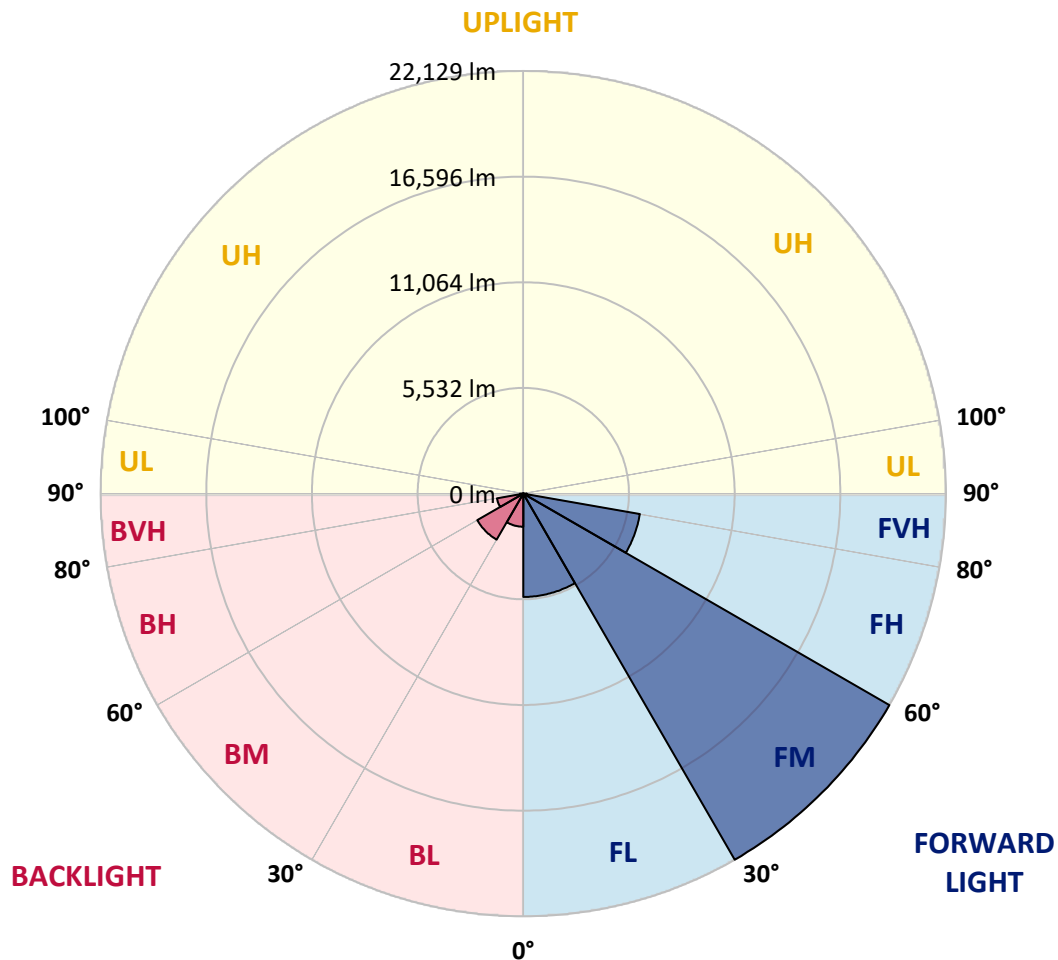
CATALOG NUMBER: GALN-SA7D-827-U-AFL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	5406.8	13.5			
FM	(30°-60°)	22128.6	55.3			
FH	(60°-80°)	6198.1	15.5			G3/7500
FVH	(80°-90°)	181.9	0.5			G2/225
BL	(0°-30°)	1733.1	4.3	B3/2500		
BM	(30°-60°)	2781.2	7.0	B3/5000		
BH	(60°-80°)	1399.6	3.5	B3/2500		G3/2500
BVH	(80°-90°)	168.7	0.4			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short





REPORT NUMBER: P456603

CATALOG NUMBER: GALN-SA7D-827-U-AFL

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	8403.1	8403.1	8403.1	8403.1	8403.1	8403.1	8403.1	8403.1	8403.1	8403.1	8403.1
2.5°	10441.5	10327.7	10237.9	10159.1	10056.2	9778.1	9500.0	9495.7	9274.5	8933.0	8582.7
5°	12142.7	11989.4	12009.2	11763.9	11518.7	11115.9	10526.9	10496.2	10025.5	9386.2	8735.9
7.5°	13250.6	13252.8	13191.5	13051.3	12786.4	12328.8	11661.0	11510.0	10855.3	9885.4	8911.1
10°	13193.6	13252.8	13355.7	13476.1	13557.1	13331.6	12722.9	12539.0	11687.3	10489.7	9105.9
12.5°	12436.1	12528.1	12674.7	12976.9	13465.1	13837.3	13629.3	13480.5	12650.7	11091.8	9320.5
15°	11963.2	12017.9	12098.9	12302.5	12828.0	13719.1	14257.7	14178.9	13559.3	11772.7	9561.3
17.5°	11818.7	11873.4	11899.7	12024.5	12398.9	13311.9	14505.1	14645.3	14365.0	12398.9	9804.4
20°	11963.2	11989.4	11989.4	12063.9	12357.3	13073.2	14494.2	14776.6	15026.2	13149.9	10032.1
22.5°	12341.9	12352.9	12337.6	12363.8	12582.8	13138.9	14391.3	14741.6	15560.4	13787.0	10209.4
25°	12957.2	12974.7	12874.0	12812.7	12972.5	13427.9	14448.2	14770.1	15978.6	14395.7	10327.7
27.5°	13655.6	13677.5	13554.9	13412.6	13487.0	13784.8	14671.5	14960.5	16291.7	14995.6	10402.1
30°	14511.7	14520.5	14314.6	14143.9	14095.7	14316.8	15052.5	15321.8	16681.4	15702.8	10513.8
32.5°	15387.5	15453.2	15188.2	14947.4	14866.4	14934.3	15615.2	15875.7	17145.6	16462.5	10693.3
35°	16578.5	16589.5	16272.0	15978.6	15711.5	15799.1	16335.5	16523.8	17787.1	17340.5	10947.3
37.5°	18065.2	18165.9	17728.0	17180.6	16852.2	16725.2	17206.9	17412.7	18687.0	18417.7	11330.4
40°	19716.0	19753.2	19378.9	19037.3	18437.4	18069.6	18402.4	18625.7	19797.0	19702.9	11774.9
42.5°	20753.8	20834.8	20863.3	20828.3	20377.2	19759.8	19886.8	19991.9	21110.7	20909.3	12230.3
45°	21104.1	21224.6	21631.8	22494.4	22542.6	21933.9	21638.4	21739.1	22542.6	22126.6	12666.0
47.5°	20523.9	20729.7	21480.7	23249.8	24574.4	24620.4	23729.3	23508.2	23847.5	23136.0	12981.3
50°	19024.2	19067.9	20217.4	22779.1	25526.8	27188.6	26266.9	25855.3	25086.8	23882.6	13198.0
52.5°	16703.3	16753.7	17717.1	20591.8	24940.1	28984.0	29235.8	28500.1	26345.7	24462.8	13340.3
55°	12398.9	12690.1	13749.8	16528.2	22159.5	28815.4	31596.0	31177.8	27867.4	24922.5	13563.7
57.5°	7623.7	7356.6	8613.3	11245.0	16666.1	26499.0	32325.1	32460.8	29542.3	25307.9	13938.1
60°	3507.5	3560.1	4079.0	5799.9	10159.1	20729.7	30446.5	31304.8	30468.4	25294.8	14032.2
62.5°	2417.2	2369.0	2237.6	2546.3	4632.9	13110.4	25717.3	27171.1	28611.8	24508.7	13657.8
65°	2161.0	2112.8	1858.8	1773.5	2128.1	5714.5	18695.7	20530.5	24090.6	22525.1	12725.1
67.5°	2018.7	1953.0	1690.3	1523.9	1519.5	2274.8	11023.9	13233.1	17868.1	19043.9	11026.1
70°	1869.8	1817.2	1556.7	1372.8	1294.0	1429.7	4845.3	6342.8	11601.9	13723.5	8589.2
72.5°	1720.9	1659.6	1425.3	1228.3	1125.4	1070.6	1856.7	2415.0	6555.2	8228.0	5265.6
75°	1504.2	1473.5	1274.3	1112.2	1000.6	864.8	1177.9	1344.3	3135.3	3779.0	2642.7
77.5°	1315.9	1283.0	1131.9	972.1	891.1	702.8	836.4	913.0	1322.4	1532.6	1193.3
80°	963.4	996.2	954.6	858.3	794.8	551.7	562.7	626.2	786.0	869.2	729.1
82.5°	610.9	672.2	735.7	661.2	602.1	435.7	389.7	413.8	536.4	569.3	324.0
85°	256.2	260.5	426.9	402.9	343.7	258.4	234.3	247.4	286.8	300.0	151.1
87.5°	98.5	96.3	151.1	140.1	107.3	74.4	74.4	83.2	113.9	105.1	48.2
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: P456603

CATALOG NUMBER: GALN-SA7D-827-U-AFL

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	8403.1	8403.1	8403.1	8403.1	8403.1	8403.1	8403.1	8403.1	8403.1	8403.1	8403.1
2.5°	8431.6	8276.1	7967.4	7584.3	7304.0	6988.7	6710.7	6511.4	6437.0	6402.0	6336.3
5°	8425.0	8118.5	7479.2	6809.2	6270.6	5718.9	5252.5	4950.4	4924.1	4722.7	4702.9
7.5°	8427.2	7958.7	6940.6	5955.3	5134.3	4569.4	4184.0	4083.3	3962.9	3932.3	3947.6
10°	8433.8	7755.0	6362.6	5110.2	4315.4	3945.4	3800.9	3761.5	3765.9	3779.0	3781.2
12.5°	8442.5	7558.0	5762.6	4468.7	3855.6	3702.4	3687.0	3722.1	3759.3	3787.8	3794.3
15°	8453.5	7332.5	5178.1	3952.0	3625.7	3612.6	3663.0	3722.1	3774.6	3816.2	3822.8
17.5°	8440.3	7069.7	4687.6	3634.5	3498.7	3562.2	3645.4	3719.9	3768.0	3807.5	3811.8
20°	8409.7	6776.4	4214.7	3411.2	3419.9	3522.8	3612.6	3682.7	3735.2	3754.9	3770.2
22.5°	8291.5	6426.0	3803.1	3238.2	3325.8	3468.1	3575.4	3617.0	3557.9	3516.3	3527.2
25°	8090.0	5970.6	3419.9	3098.1	3240.4	3391.5	3500.9	3400.2	3352.1	3334.5	3343.3
27.5°	7838.2	5471.4	3130.9	2951.4	3130.9	3306.1	3275.4	3257.9	3236.0	3207.5	3214.1
30°	7566.8	4983.2	2885.7	2837.5	3012.7	3113.4	3126.5	3155.0	3130.9	3087.1	3104.6
32.5°	7315.0	4523.4	2699.6	2741.2	2929.5	2914.2	3012.7	3045.5	2933.9	2787.2	2793.7
35°	7100.4	4096.5	2559.5	2647.0	2787.2	2793.7	2892.3	2778.4	2658.0	2587.9	2592.3
37.5°	6938.4	3763.7	2467.5	2566.0	2605.4	2688.6	2636.1	2577.0	2561.7	2513.5	2515.7
40°	6842.0	3472.5	2408.4	2502.5	2496.0	2552.9	2384.3	2443.4	2465.3	2450.0	2452.2
42.5°	6745.7	3266.7	2347.1	2415.0	2412.8	2301.1	2263.9	2314.3	2371.2	2377.7	2373.4
45°	6669.1	3106.8	2283.6	2281.4	2325.2	2150.0	2139.1	2169.7	2250.8	2290.2	2288.0
47.5°	6583.7	2973.3	2187.3	2126.0	2139.1	2055.9	2038.4	2051.5	2150.0	2213.5	2231.1
50°	6476.4	2839.7	2066.8	1983.6	1928.9	1968.3	1972.7	1974.9	2073.4	2145.7	2161.0
52.5°	6391.0	2739.0	1928.9	1867.6	1801.9	1889.5	1922.3	1926.7	1985.8	2044.9	2055.9
55°	6441.4	2682.1	1793.2	1749.4	1690.3	1808.5	1872.0	1880.7	1893.9	1937.7	1944.2
57.5°	6592.4	2695.2	1683.7	1626.8	1583.0	1712.2	1819.4	1826.0	1817.2	1869.8	1878.6
60°	6638.4	2688.6	1602.7	1491.0	1464.7	1609.2	1742.8	1755.9	1753.8	1830.4	1845.7
62.5°	6445.8	2605.4	1521.7	1377.2	1359.7	1504.2	1635.5	1688.1	1699.0	1808.5	1828.2
65°	5992.5	2434.7	1414.4	1256.7	1256.7	1392.5	1532.6	1604.9	1635.5	1782.2	1804.1
67.5°	5394.8	2233.2	1304.9	1153.8	1149.5	1285.2	1423.1	1497.6	1545.8	1745.0	1758.1
70°	4477.4	1961.8	1169.2	1042.2	1042.2	1164.8	1289.6	1379.4	1449.4	1674.9	1674.9
72.5°	3067.4	1631.1	1005.0	915.2	917.4	1031.2	1158.2	1258.9	1342.1	1534.8	1539.2
75°	1939.9	1274.3	825.4	779.4	788.2	895.5	1026.9	1131.9	1298.3	1517.3	1523.9
77.5°	1031.2	895.5	656.8	645.9	656.8	755.4	902.1	1046.6	1302.7	1315.9	1294.0
80°	667.8	634.9	518.9	497.0	501.4	608.7	803.5	994.0	1046.6	1059.7	1011.5
82.5°	363.4	402.9	367.8	345.9	345.9	475.1	685.3	790.4	751.0	624.0	595.5
85°	155.5	188.3	190.5	166.4	159.8	293.4	459.8	431.3	400.7	383.2	378.8
87.5°	43.8	61.3	61.3	46.0	35.0	81.0	92.0	26.3	0.0	2.2	4.4
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)