

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: P456619

Luminaire Tested: **GALN-SA7D-827-U-T2R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P456619
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-6)
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-T2R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(7) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 40368 lumens
Efficiency: N/A
Efficacy: 93.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G4

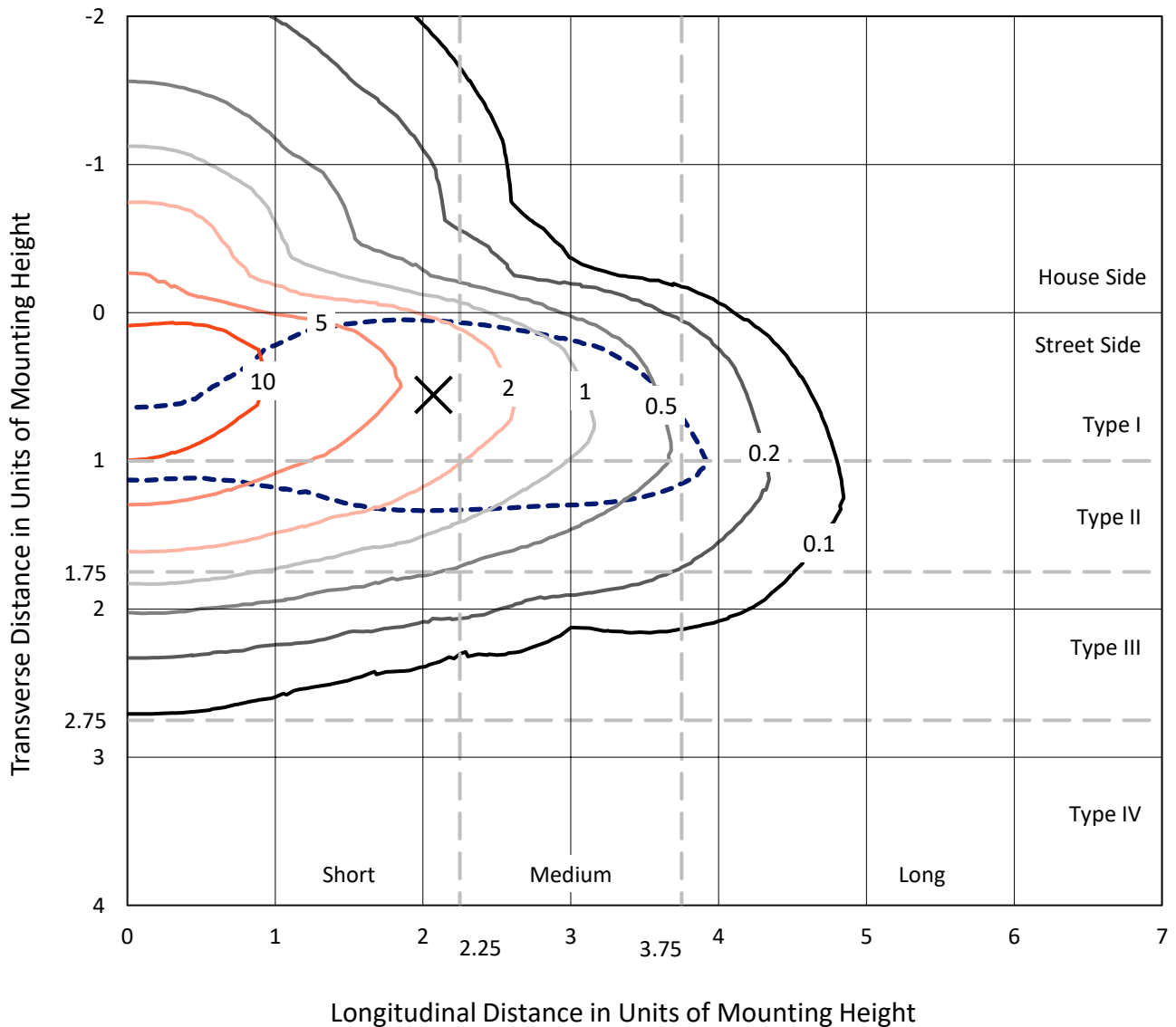
Input Watts (W): 433
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

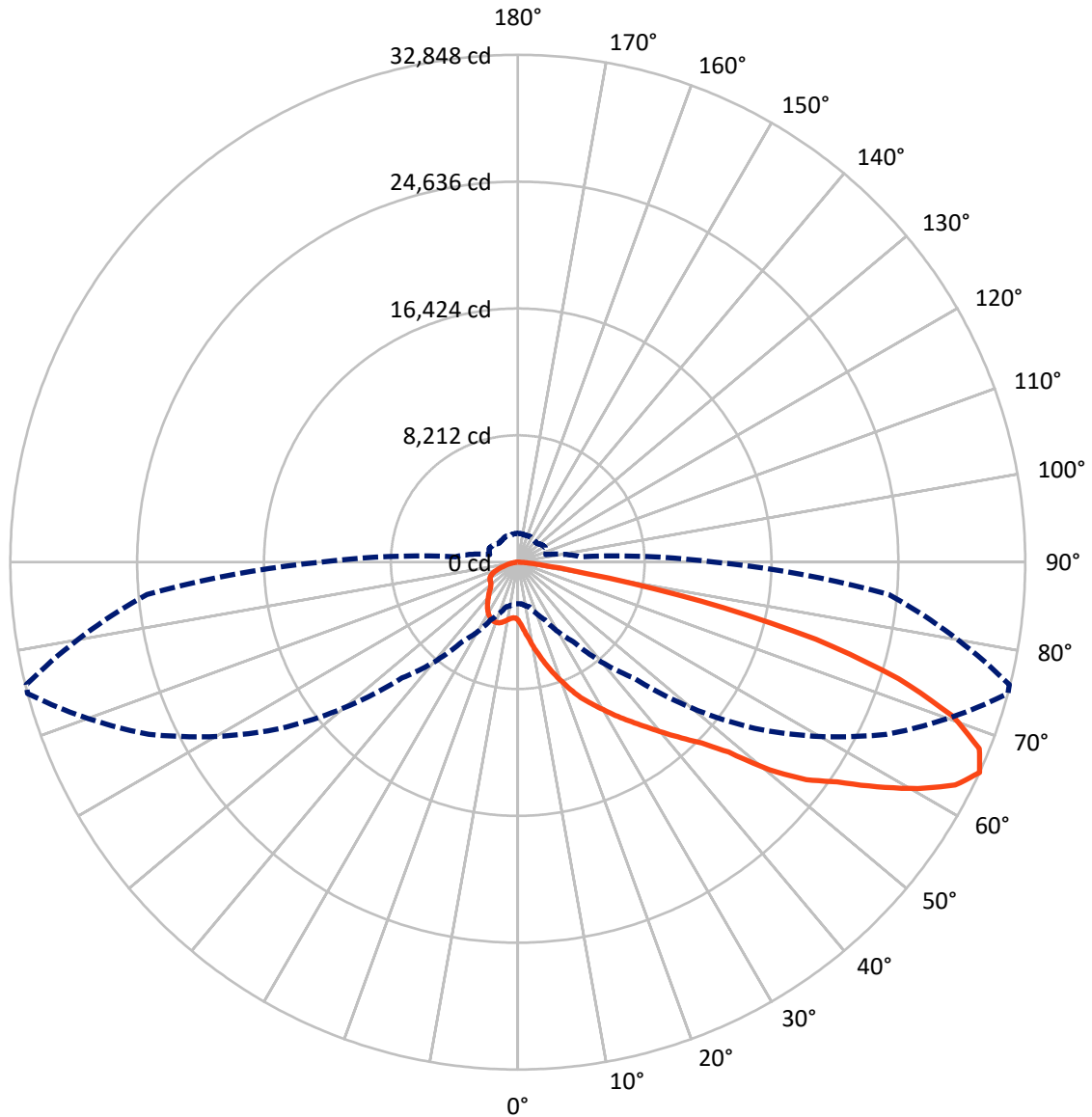
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 15.6 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6786.4	0.0	6786.4
	% Fixture	16.8	0.0	16.8
Street Side	Lumens	33581.6	0.0	33581.6
	% Fixture	83.2	0.0	83.2
Total	Lumens	40368.0	0.0	40368.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	455.7	1.1
10°-20°	1784.9	4.4
20°-30°	3447.8	8.5
30°-40°	5600.3	13.9
40°-50°	7703.8	19.1
50°-60°	9095.5	22.5
60°-70°	7969.2	19.7
70°-80°	3804.5	9.4
80°-90°	506.2	1.3
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°	40368.0	100.0
0°-180°	40368.0	100.0

Coefficient of Utilization



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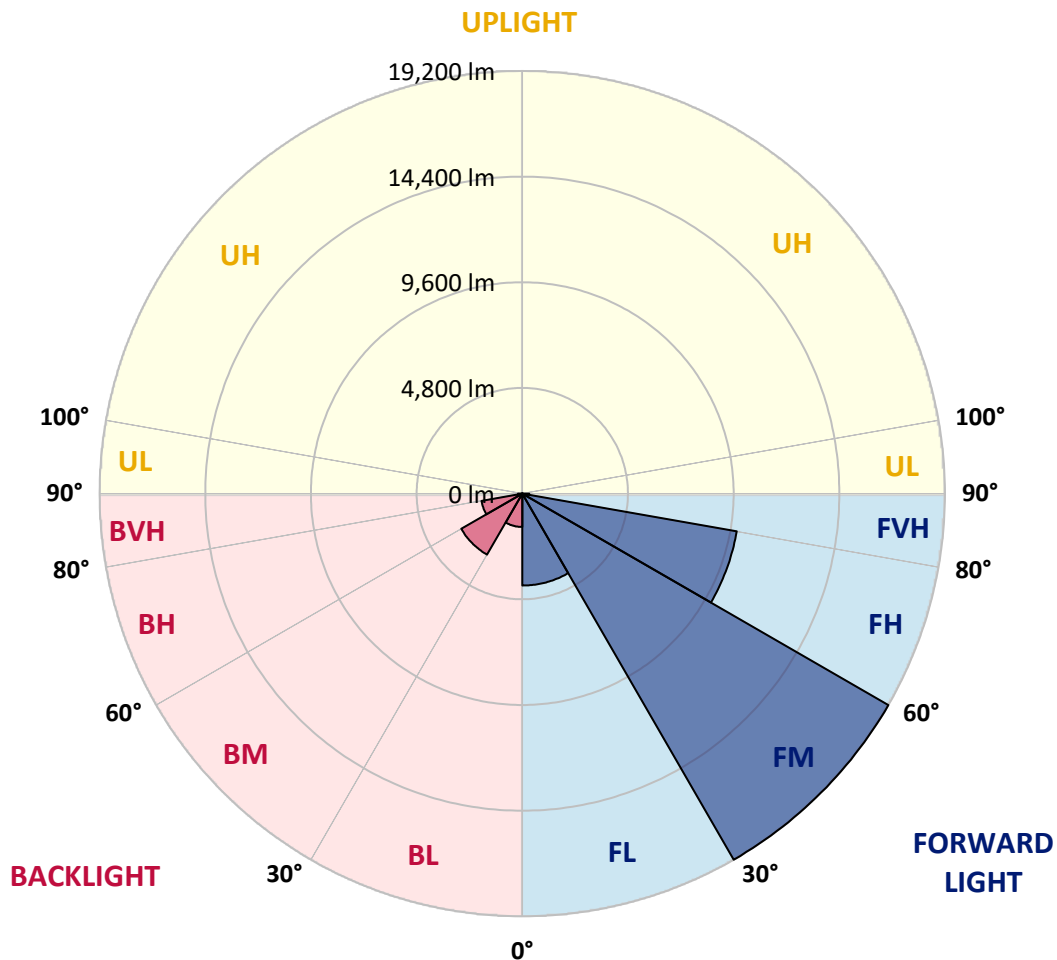
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4173.4	10.3			
FM	(30°-60°)	19199.9	47.6			
FH	(60°-80°)	9892.0	24.5			G4/12000
FVH	(80°-90°)	316.4	0.8			G3/500
BL	(0°-30°)	1515.0	3.8	B3/2500		
BM	(30°-60°)	3199.7	7.9	B3/5000		
BH	(60°-80°)	1881.7	4.7	B3/2500		G3/2500
BVH	(80°-90°)	189.9	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	3750.7	3750.7	3750.7	3750.7	3750.7	3750.7	3750.7	3750.7	3750.7	3750.7	3750.7
2.5°	4983.4	4950.6	4915.5	4819.2	4716.3	4600.2	4433.8	4274.0	4061.6	4055.0	3897.4
5°	6365.0	6343.1	6187.7	6097.9	5859.2	5541.7	5272.4	4854.2	4466.7	4420.7	4114.2
7.5°	7635.0	7549.6	7490.4	7328.4	7091.9	6684.7	6163.6	5598.7	4950.6	4889.3	4381.3
10°	8591.8	8583.0	8552.4	8412.2	8234.9	7829.8	7251.8	6441.7	5563.6	5443.2	4705.3
12.5°	9307.8	9314.3	9310.0	9307.8	9180.8	8837.0	8210.8	7356.9	6183.3	6097.9	5079.8
15°	9778.5	9844.2	9870.5	9980.0	9990.9	9761.0	9222.4	8241.5	6881.8	6754.8	5482.6
17.5°	10089.4	10122.3	10244.9	10431.0	10582.1	10540.5	10061.0	9060.4	7595.5	7383.2	5900.8
20°	10387.2	10444.1	10538.3	10792.3	11059.4	11182.0	10844.8	9899.0	8302.8	8167.0	6362.8
22.5°	11006.9	11087.9	11120.7	11249.9	11477.6	11694.4	11541.1	10702.5	9077.9	8893.9	6853.3
25°	12055.7	12141.0	12049.1	12018.4	12092.9	12200.2	12167.3	11460.1	9809.2	9546.4	7317.5
27.5°	13421.9	13432.9	13253.3	13082.6	12898.6	12843.9	12743.2	12132.3	10444.1	10225.2	7783.8
30°	14888.9	14836.4	14538.6	14229.9	13919.0	13612.4	13323.4	12780.4	11151.4	10899.6	8241.5
32.5°	16250.8	16222.4	15891.7	15412.2	14886.7	14597.7	14013.1	13435.1	11909.0	11665.9	8712.2
35°	17271.2	17312.8	16949.3	16426.0	15852.3	15596.2	14858.3	14122.6	12692.8	12427.9	9224.6
37.5°	17995.9	17974.0	17652.1	17198.9	16695.3	16472.0	15845.8	14873.6	13535.8	13281.8	9785.1
40°	18254.3	18241.1	18002.5	17671.8	17352.2	17273.4	16879.2	15683.7	14501.4	14203.6	10459.5
42.5°	18090.1	18118.5	17960.9	17871.1	17812.0	17868.9	17906.1	16745.7	15554.6	15280.9	11190.8
45°	17586.5	17571.1	17549.2	17695.9	18028.7	18403.2	18922.1	17748.5	16699.7	16480.7	12171.7
47.5°	16686.6	16796.0	16850.8	17255.8	17982.8	18869.5	20091.3	19092.9	18361.6	18171.1	13667.2
50°	15427.6	15515.1	15839.2	16559.6	17643.4	19044.7	21234.2	21291.2	21133.5	20776.6	15291.8
52.5°	13461.3	13597.1	14264.9	15585.2	16947.1	18972.4	21926.1	23176.4	23384.4	23117.3	16892.4
55°	11260.8	11451.3	12156.4	13888.3	15988.1	18578.3	22403.5	24269.0	25098.8	24851.4	18433.8
57.5°	9106.3	9307.8	10032.5	11709.7	14315.3	17706.9	22716.6	25486.3	27432.9	27111.0	20351.9
60°	6824.8	7035.0	7656.9	9384.4	11933.0	16003.4	22504.2	26541.7	29764.7	29626.8	22272.1
62.5°	4403.2	4635.3	5176.1	6605.9	9172.0	13675.9	21367.8	27124.1	31783.5	31617.1	23673.4
65°	2682.2	2708.5	3006.3	4101.0	6277.4	10588.7	18768.8	26351.2	32847.6	32797.3	24100.4
67.5°	1734.1	1775.7	1911.5	2456.7	3763.8	7354.7	15007.2	23800.4	32225.8	32208.3	23218.0
70°	1464.8	1477.9	1539.3	1657.5	2187.4	4460.1	10538.3	19734.4	29863.3	29863.3	21096.3
72.5°	1309.4	1326.9	1348.8	1386.0	1561.1	2526.7	6288.4	15361.9	25784.1	25954.9	17956.5
75°	1188.9	1184.5	1197.7	1204.3	1331.2	1650.9	3251.5	11361.6	19946.8	19605.2	13003.7
77.5°	1018.1	1024.7	1018.1	1046.6	1175.8	1256.8	1650.9	7624.0	12088.5	11646.2	6527.0
80°	836.4	847.4	858.3	875.8	1005.0	954.6	991.9	3474.8	4471.1	4376.9	2016.6
82.5°	628.4	643.7	661.2	702.8	790.4	630.6	626.2	1484.5	1613.7	1477.9	742.3
85°	254.0	300.0	453.2	494.8	497.0	345.9	385.4	619.6	659.1	643.7	291.2
87.5°	59.1	70.1	146.7	221.1	203.6	129.2	142.3	201.4	229.9	212.4	98.5
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°	3750.7	3750.7	3750.7	3750.7	3750.7	3750.7	3750.7	3750.7	3750.7	3750.7	3750.7
2.5°	3825.1	3748.5	3617.1	3516.4	3444.2	3380.7	3341.3	3317.2	3308.4	3306.2	3308.4
5°	3954.3	3818.6	3610.6	3479.2	3406.9	3365.3	3341.3	3339.1	3341.3	3343.4	3336.9
7.5°	4131.7	3936.8	3665.3	3542.7	3488.0	3457.3	3446.3	3442.0	3444.2	3442.0	3442.0
10°	4368.1	4101.0	3772.6	3645.6	3599.6	3564.6	3547.1	3536.1	3527.4	3518.6	3514.2
12.5°	4628.7	4282.8	3888.6	3766.0	3700.3	3645.6	3606.2	3577.7	3558.0	3538.3	3533.9
15°	4919.9	4475.4	4017.8	3847.0	3752.9	3671.9	3604.0	3558.0	3523.0	3494.5	3492.3
17.5°	5198.0	4657.2	4105.4	3884.3	3746.3	3632.5	3542.7	3479.2	3435.4	3398.2	3393.8
20°	5495.8	4830.1	4144.8	3860.2	3680.6	3542.7	3424.5	3347.8	3297.5	3255.9	3249.3
22.5°	5795.7	4976.8	4140.4	3783.5	3566.8	3404.7	3279.9	3198.9	3139.8	3098.2	3082.9
25°	6082.6	5095.1	4085.7	3660.9	3409.1	3240.5	3113.5	3039.1	2986.5	2936.2	2936.2
27.5°	6340.9	5165.1	3982.8	3512.0	3247.1	3069.7	2969.0	2901.2	2853.0	2820.1	2800.4
30°	6594.9	5198.0	3842.7	3323.7	3076.3	2925.2	2844.2	2804.8	2761.0	2723.8	2719.4
32.5°	6822.6	5191.4	3667.5	3139.8	2914.3	2807.0	2774.2	2743.5	2697.5	2645.0	2631.8
35°	7043.8	5147.6	3459.5	2938.4	2778.5	2736.9	2745.7	2701.9	2618.7	2553.0	2542.1
37.5°	7284.6	5068.8	3231.8	2774.2	2664.7	2704.1	2726.0	2629.6	2493.9	2391.0	2366.9
40°	7562.7	4979.0	2995.3	2609.9	2574.9	2673.4	2673.4	2496.1	2310.0	2246.5	2229.0
42.5°	7888.9	4904.6	2798.2	2472.0	2500.5	2599.0	2588.0	2318.7	2242.1	2209.3	2200.5
45°	8405.7	4878.3	2594.6	2351.6	2439.2	2511.4	2421.6	2257.4	2213.6	2187.4	2178.6
47.5°	9222.4	4909.0	2415.1	2261.8	2369.1	2423.8	2235.5	2215.8	2185.2	2147.9	2143.6
50°	9980.0	4880.5	2288.1	2211.4	2307.8	2318.7	2158.9	2165.5	2147.9	2106.3	2097.6
52.5°	10599.6	4790.7	2207.1	2185.2	2255.2	2134.8	2086.6	2110.7	2104.2	2051.6	2042.8
55°	11280.6	4736.0	2167.7	2185.2	2220.2	1975.0	2018.8	2053.8	2045.0	2007.8	2005.6
57.5°	12106.0	4746.9	2139.2	2191.7	2185.2	1894.0	1950.9	1992.5	1990.3	1979.4	1979.4
60°	12951.2	4751.3	2095.4	2189.5	2143.6	1830.5	1880.8	1939.9	1944.3	1950.9	1950.9
62.5°	13231.4	4560.8	2010.0	2150.1	2051.6	1769.2	1815.1	1896.1	1891.8	1909.3	1911.5
65°	12708.1	4033.1	1883.0	2060.4	1933.4	1725.4	1764.8	1839.2	1815.1	1861.1	1869.9
67.5°	11567.4	3336.9	1686.0	1898.3	1802.0	1679.4	1731.9	1760.4	1716.6	1806.4	1808.6
70°	9997.5	2605.6	1436.3	1668.4	1653.1	1631.2	1705.7	1661.9	1600.6	1710.0	1688.1
72.5°	8359.7	1990.3	1147.3	1364.1	1453.9	1559.0	1659.7	1534.9	1449.5	1482.3	1442.9
75°	6279.6	1471.4	921.8	1068.5	1210.8	1456.0	1618.1	1381.6	1250.2	1219.6	1210.8
77.5°	3201.1	961.2	689.7	799.2	908.7	1315.9	1561.1	1202.1	1035.7	987.5	965.6
80°	1142.9	597.7	486.1	551.8	613.1	1132.0	1364.1	994.1	803.6	794.8	803.6
82.5°	529.9	385.4	326.2	361.3	363.5	755.4	1040.0	742.3	610.9	928.4	783.9
85°	227.7	192.7	183.9	179.5	166.4	337.2	584.6	398.5	621.8	278.1	256.2
87.5°	67.9	76.6	67.9	50.4	37.2	37.2	59.1	21.9	15.3	10.9	10.9
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)