

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: P452211

Luminaire Tested: **GALN-SA3A-827-U-T2R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P452211
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-SA3A-827-U-T2R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(3) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10228 lumens
Efficiency: N/A
Efficacy: 110.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

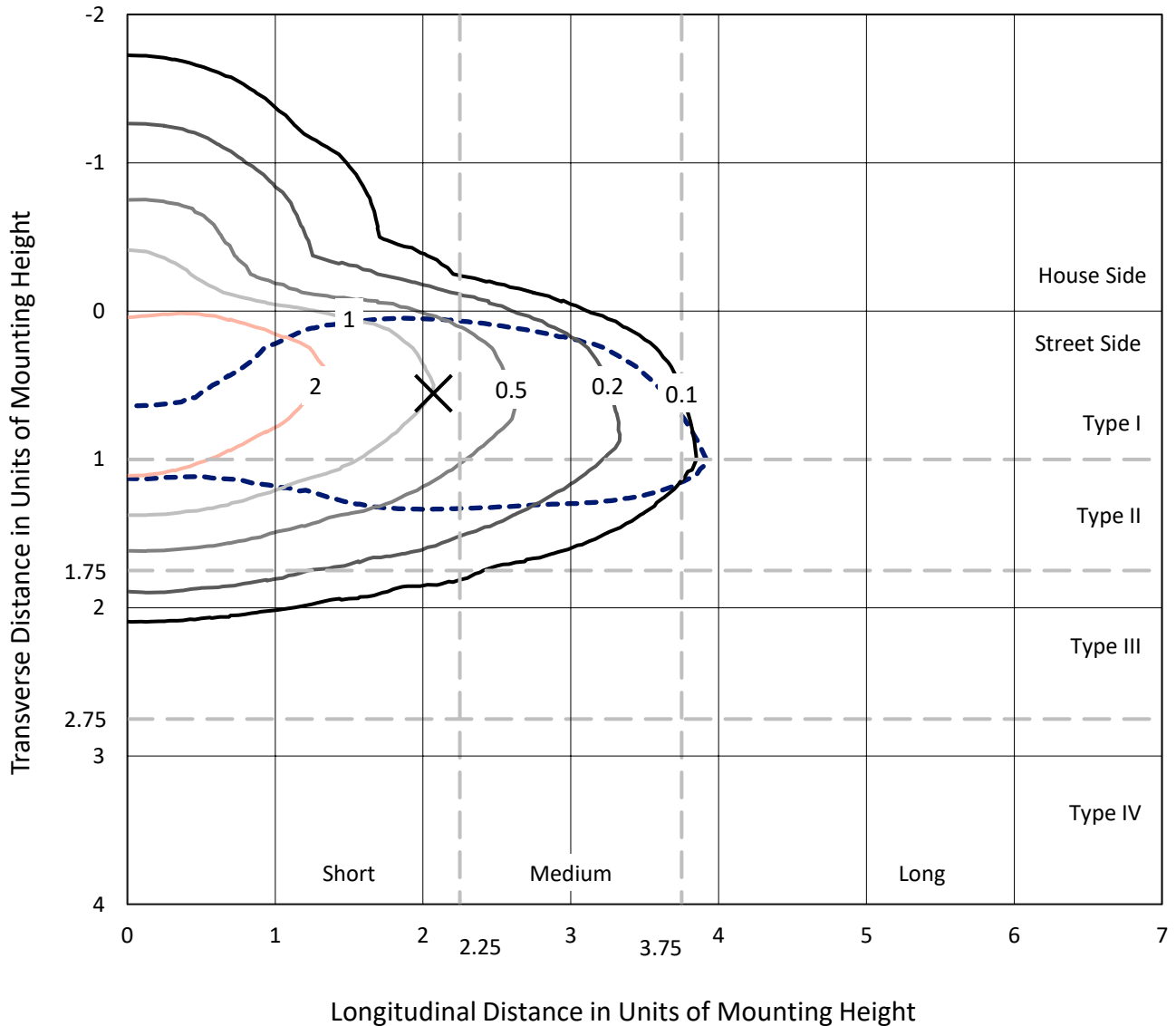
Input Watts (W): 93
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

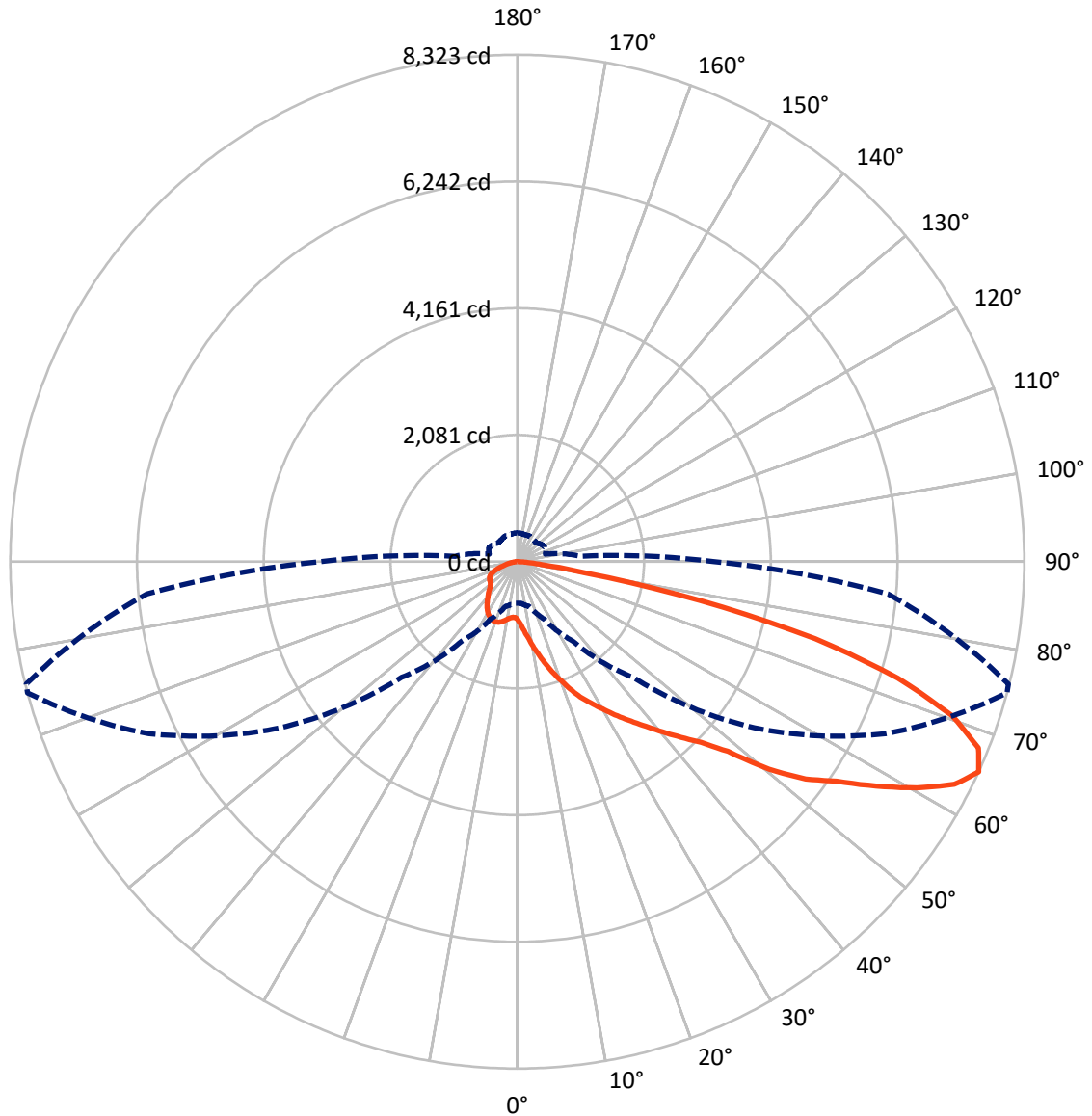
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4 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	1719.5	0.0	1719.5
	% Fixture	16.8	0.0	16.8
Street Side	Lumens	8508.5	0.0	8508.5
	% Fixture	83.2	0.0	83.2
Total	Lumens	10228.0	0.0	10228.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.5	1.1
10°-20°	452.2	4.4
20°-30°	873.6	8.5
30°-40°	1419.0	13.9
40°-50°	1951.9	19.1
50°-60°	2304.5	22.5
60°-70°	2019.1	19.7
70°-80°	964.0	9.4
80°-90°	128.3	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°	10228.0	100.0
0°-180°	10228.0	100.0

Coefficient of Utilization



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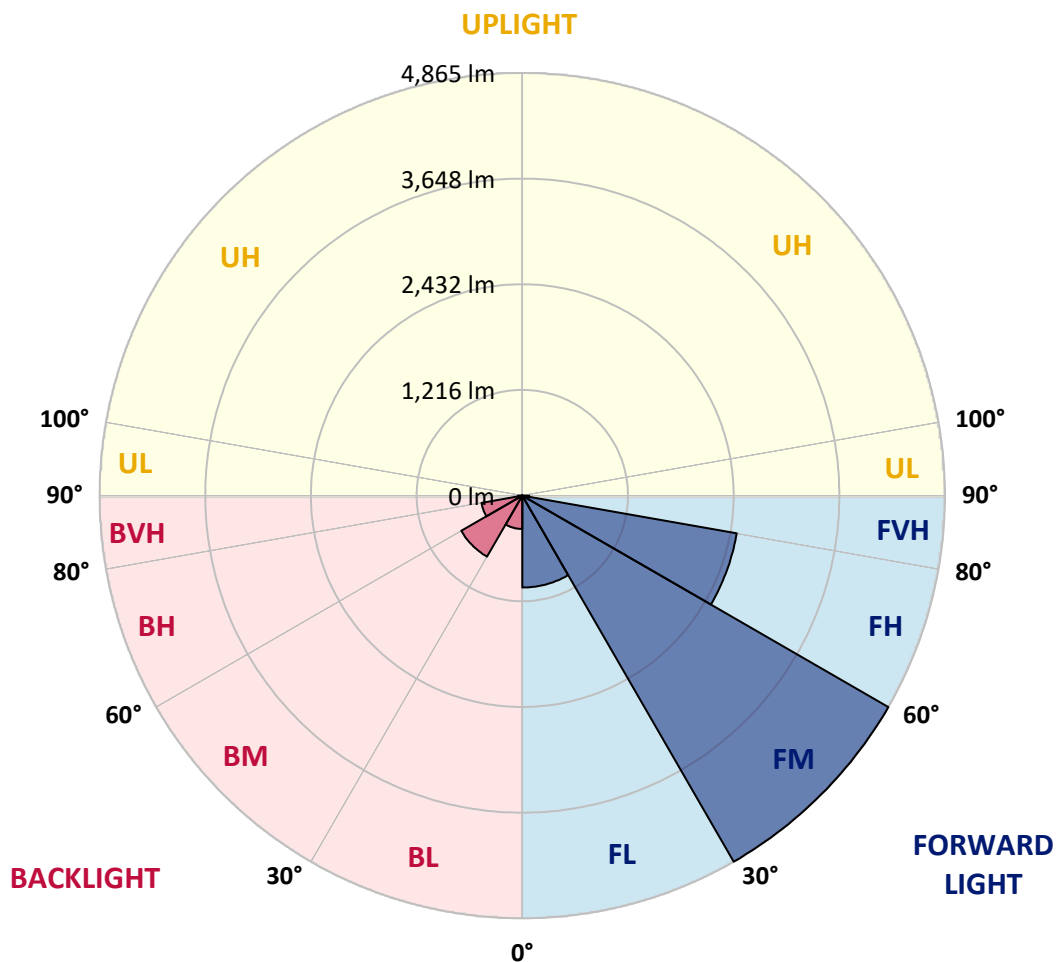
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1057.4	10.3			
FM	(30°-60°)	4864.7	47.6			
FH	(60°-80°)	2506.3	24.5			G2/5000
FVH	(80°-90°)	80.2	0.8			G1/100
BL	(0°-30°)	383.9	3.8	B1/500		
BM	(30°-60°)	810.7	7.9	B1/1000		
BH	(60°-80°)	476.8	4.7	B1/500		G1/500
BVH	(80°-90°)	48.1	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	950.3	950.3	950.3	950.3	950.3	950.3	950.3	950.3	950.3	950.3	950.3
2.5°	1262.6	1254.3	1245.4	1221.0	1195.0	1165.6	1123.4	1082.9	1029.1	1027.4	987.5
5°	1612.7	1607.2	1567.8	1545.0	1484.5	1404.1	1335.9	1229.9	1131.7	1120.1	1042.4
7.5°	1934.5	1912.8	1897.8	1856.8	1796.9	1693.7	1561.7	1418.5	1254.3	1238.8	1110.1
10°	2176.9	2174.7	2166.9	2131.4	2086.5	1983.8	1837.4	1632.1	1409.7	1379.1	1192.2
12.5°	2358.3	2360.0	2358.9	2358.3	2326.1	2239.0	2080.4	1864.0	1566.7	1545.0	1287.1
15°	2477.6	2494.2	2500.9	2528.6	2531.4	2473.1	2336.7	2088.1	1743.6	1711.4	1389.1
17.5°	2556.4	2564.7	2595.7	2642.9	2681.2	2670.6	2549.1	2295.6	1924.5	1870.7	1495.1
20°	2631.8	2646.2	2670.1	2734.4	2802.1	2833.2	2747.7	2508.1	2103.7	2069.3	1612.1
22.5°	2788.8	2809.3	2817.6	2850.4	2908.1	2963.0	2924.2	2711.7	2300.1	2253.5	1736.4
25°	3054.5	3076.2	3052.9	3045.1	3064.0	3091.1	3082.8	2903.6	2485.3	2418.8	1854.0
27.5°	3400.7	3403.5	3358.0	3314.7	3268.1	3254.2	3228.7	3073.9	2646.2	2590.7	1972.2
30°	3772.4	3759.1	3683.6	3605.4	3526.6	3449.0	3375.7	3238.2	2825.4	2761.6	2088.1
32.5°	4117.5	4110.2	4026.5	3905.0	3771.8	3698.6	3550.5	3404.0	3017.4	2955.8	2207.4
35°	4376.0	4386.5	4294.4	4161.8	4016.5	3951.6	3764.6	3578.2	3216.0	3148.8	2337.2
37.5°	4559.6	4554.1	4472.5	4357.7	4230.1	4173.5	4014.8	3768.5	3429.5	3365.2	2479.2
40°	4625.1	4621.7	4561.3	4477.5	4396.5	4376.5	4276.7	3973.8	3674.2	3598.8	2650.1
42.5°	4583.5	4590.7	4550.7	4528.0	4513.0	4527.4	4536.9	4242.8	3941.0	3871.7	2835.4
45°	4455.9	4452.0	4446.4	4483.6	4567.9	4662.8	4794.3	4496.9	4231.2	4175.7	3083.9
47.5°	4227.9	4255.6	4269.5	4372.1	4556.3	4781.0	5090.5	4837.5	4652.2	4604.0	3462.8
50°	3908.9	3931.1	4013.2	4195.7	4470.3	4825.3	5380.1	5394.5	5354.6	5264.2	3874.5
52.5°	3410.7	3445.1	3614.3	3948.8	4293.9	4807.0	5555.4	5872.2	5924.9	5857.2	4280.0
55°	2853.2	2901.4	3080.0	3518.9	4050.9	4707.2	5676.3	6149.0	6359.3	6296.6	4670.6
57.5°	2307.3	2358.3	2541.9	2966.9	3627.0	4486.4	5755.7	6457.5	6950.6	6869.1	5156.5
60°	1729.2	1782.5	1940.0	2377.7	3023.5	4054.8	5701.9	6724.8	7541.5	7506.5	5643.1
62.5°	1115.6	1174.4	1311.5	1673.7	2323.9	3465.1	5413.9	6872.4	8053.0	8010.8	5998.1
65°	679.6	686.2	761.7	1039.1	1590.5	2682.8	4755.4	6676.6	8322.6	8309.8	6106.3
67.5°	439.4	449.9	484.3	622.4	953.6	1863.5	3802.4	6030.3	8165.0	8160.6	5882.7
70°	371.1	374.5	390.0	420.0	554.2	1130.1	2670.1	5000.1	7566.4	7566.4	5345.1
72.5°	331.7	336.2	341.7	351.2	395.5	640.2	1593.3	3892.2	6532.9	6576.2	4549.6
75°	301.2	300.1	303.5	305.1	337.3	418.3	823.8	2878.7	5053.9	4967.4	3294.7
77.5°	258.0	259.6	258.0	265.2	297.9	318.4	418.3	1931.7	3062.9	2950.8	1653.8
80°	211.9	214.7	217.5	221.9	254.6	241.9	251.3	880.4	1132.8	1109.0	510.9
82.5°	159.2	163.1	167.5	178.1	200.3	159.8	158.7	376.1	408.9	374.5	188.1
85°	64.4	76.0	114.8	125.4	125.9	87.7	97.6	157.0	167.0	163.1	73.8
87.5°	15.0	17.8	37.2	56.0	51.6	32.7	36.1	51.0	58.3	53.8	25.0
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°	950.3	950.3	950.3	950.3	950.3	950.3	950.3	950.3	950.3	950.3	950.3
2.5°	969.2	949.8	916.5	891.0	872.6	856.6	846.6	840.5	838.2	837.7	838.2
5°	1001.9	967.5	914.8	881.5	863.2	852.7	846.6	846.0	846.6	847.1	845.5
7.5°	1046.8	997.5	928.7	897.6	883.7	876.0	873.2	872.1	872.6	872.1	872.1
10°	1106.8	1039.1	955.9	923.7	912.0	903.2	898.7	895.9	893.7	891.5	890.4
12.5°	1172.8	1085.1	985.3	954.2	937.6	923.7	913.7	906.5	901.5	896.5	895.4
15°	1246.6	1133.9	1018.0	974.7	950.9	930.3	913.1	901.5	892.6	885.4	884.8
17.5°	1317.0	1180.0	1040.2	984.2	949.2	920.4	897.6	881.5	870.4	861.0	859.9
20°	1392.5	1223.8	1050.2	978.0	932.6	897.6	867.7	848.2	835.5	824.9	823.3
22.5°	1468.5	1261.0	1049.1	958.6	903.7	862.7	831.0	810.5	795.5	785.0	781.1
25°	1541.1	1290.9	1035.2	927.6	863.8	821.1	788.9	770.0	756.7	743.9	743.9
27.5°	1606.6	1308.7	1009.1	889.8	822.7	777.8	752.3	735.1	722.9	714.5	709.5
30°	1670.9	1317.0	973.6	842.1	779.4	741.2	720.6	710.7	699.6	690.1	689.0
32.5°	1728.6	1315.3	929.2	795.5	738.4	711.2	702.9	695.1	683.5	670.2	666.8
35°	1784.7	1304.2	876.5	744.5	704.0	693.5	695.7	684.6	663.5	646.9	644.1
37.5°	1845.7	1284.3	818.8	702.9	675.1	685.1	690.7	666.3	631.9	605.8	599.7
40°	1916.2	1261.5	758.9	661.3	652.4	677.4	677.4	632.4	585.3	569.2	564.7
42.5°	1998.8	1242.7	709.0	626.3	633.5	658.5	655.7	587.5	568.1	559.8	557.5
45°	2129.7	1236.0	657.4	595.8	618.0	636.3	613.6	572.0	560.9	554.2	552.0
47.5°	2336.7	1243.8	611.9	573.1	600.3	614.1	566.4	561.4	553.7	544.2	543.1
50°	2528.6	1236.6	579.7	560.3	584.7	587.5	547.0	548.7	544.2	533.7	531.5
52.5°	2685.6	1213.8	559.2	553.7	571.4	540.9	528.7	534.8	533.1	519.8	517.6
55°	2858.1	1200.0	549.2	553.7	562.5	500.4	511.5	520.4	518.1	508.7	508.2
57.5°	3067.3	1202.7	542.0	555.3	553.7	479.9	494.3	504.8	504.3	501.5	501.5
60°	3281.4	1203.8	530.9	554.8	543.1	463.8	476.5	491.5	492.6	494.3	494.3
62.5°	3352.4	1155.6	509.3	544.8	519.8	448.2	459.9	480.4	479.3	483.8	484.3
65°	3219.8	1021.9	477.1	522.0	489.9	437.2	447.1	466.0	459.9	471.5	473.8
67.5°	2930.8	845.5	427.2	481.0	456.6	425.5	438.8	446.0	434.9	457.7	458.2
70°	2533.1	660.2	363.9	422.7	418.8	413.3	432.2	421.1	405.5	433.3	427.7
72.5°	2118.1	504.3	290.7	345.6	368.4	395.0	420.5	388.9	367.3	375.6	365.6
75°	1591.1	372.8	233.6	270.7	306.8	368.9	410.0	350.1	316.8	309.0	306.8
77.5°	811.1	243.5	174.8	202.5	230.2	333.4	395.5	304.6	262.4	250.2	244.7
80°	289.6	151.5	123.2	139.8	155.3	286.8	345.6	251.9	203.6	201.4	203.6
82.5°	134.3	97.6	82.7	91.5	92.1	191.4	263.5	188.1	154.8	235.2	198.6
85°	57.7	48.8	46.6	45.5	42.2	85.4	148.1	101.0	157.6	70.5	64.9
87.5°	17.2	19.4	17.2	12.8	9.4	9.4	15.0	5.5	3.9	2.8	2.8
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)