

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: P456478

Luminaire Tested: **GALN-SA7D-727-U-T3R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P456478
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-8)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA7D-727-U-T3R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 46114 lumens
Efficiency: N/A
Efficacy: 106.5 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G5

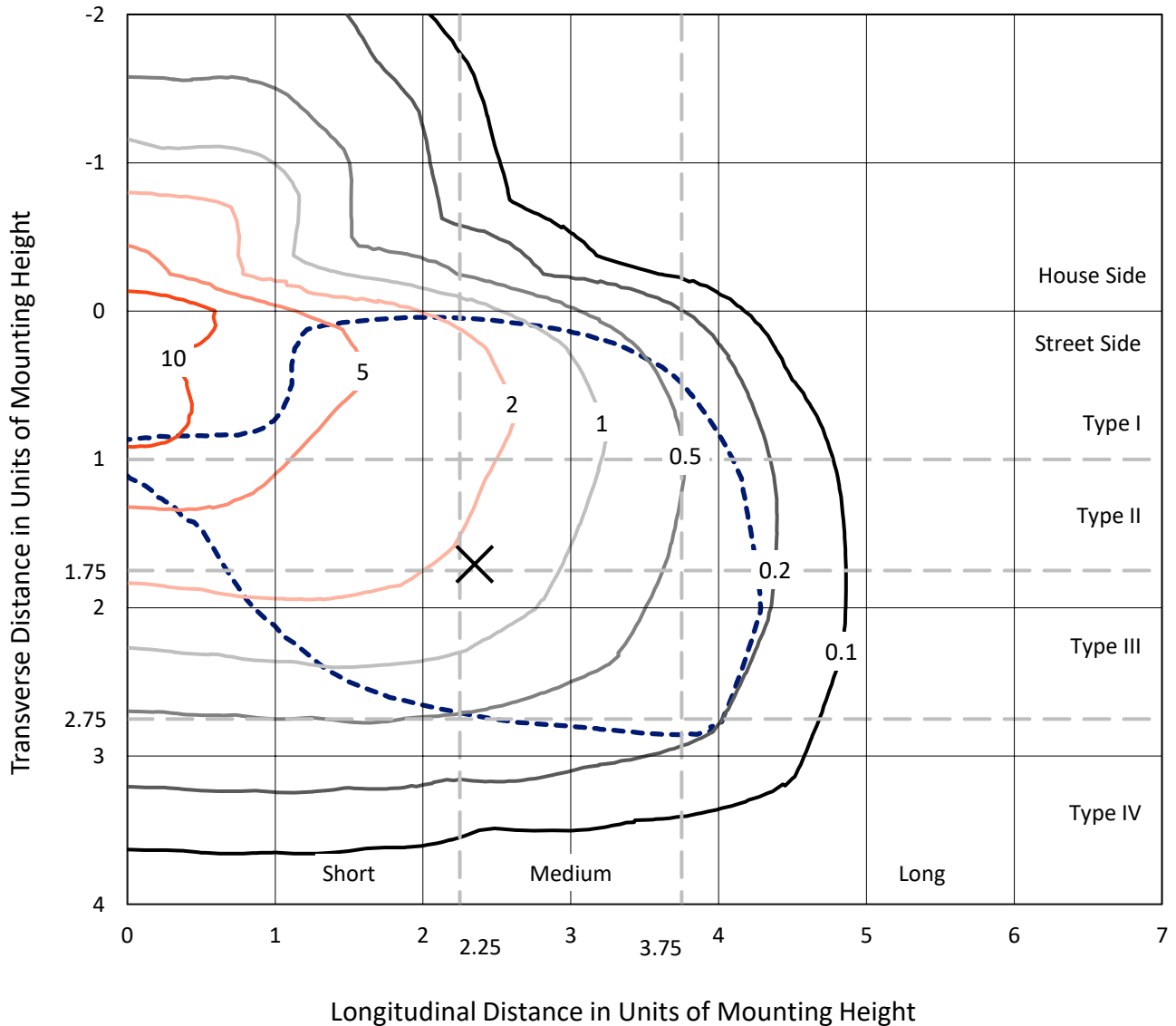
Input Watts (W): 433
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

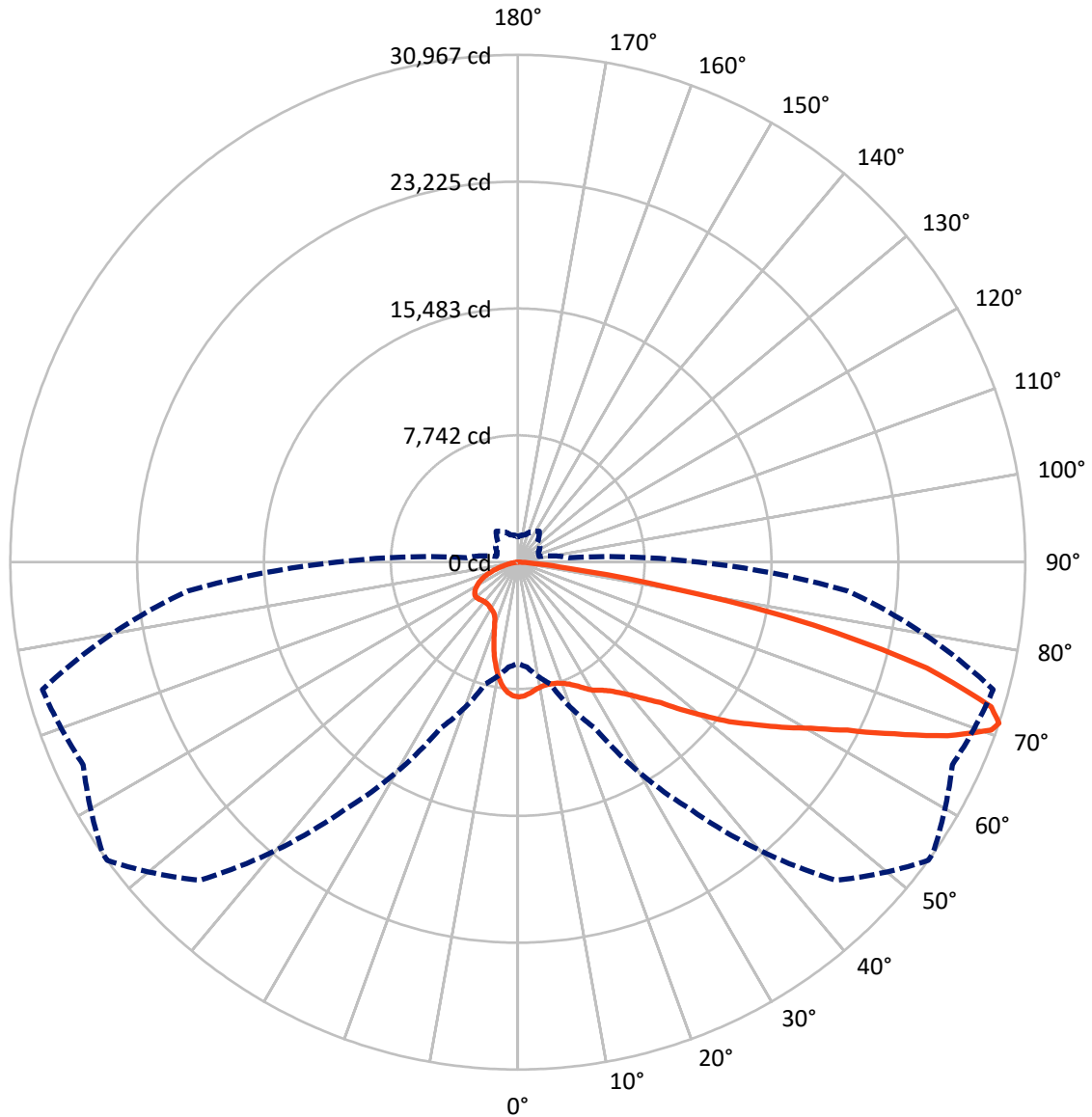
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.3 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8325.6	0.0	8325.6
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	37788.4	0.0	37788.4
	% Fixture	81.9	0.0	81.9
Total	Lumens	46114.0	0.0	46114.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	733.2	1.6
10°-20°	1936.0	4.2
20°-30°	3223.5	7.0
30°-40°	4766.5	10.3
40°-50°	6713.8	14.6
50°-60°	8990.0	19.5
60°-70°	11331.2	24.6
70°-80°	7739.2	16.8
80°-90°	680.6	1.5
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°	46114.0	100.0
0°-180°	46114.0	100.0



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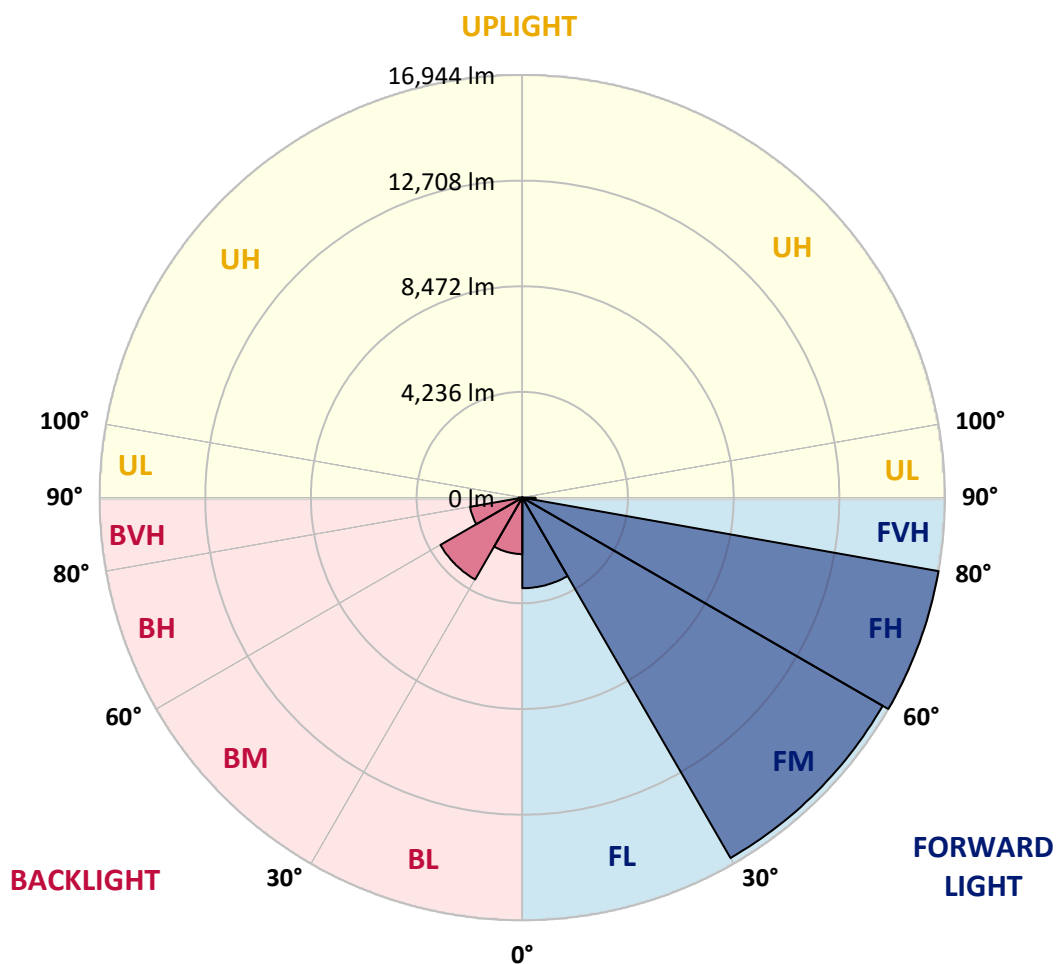
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3629.9	7.9			
FM	(30°-60°)	16682.4	36.2			
FH	(60°-80°)	16944.1	36.7			G5
FVH	(80°-90°)	532.0	1.2			G4/750
BL	(0°-30°)	2262.7	4.9	B3/2500		
BM	(30°-60°)	3787.9	8.2	B3/5000		
BH	(60°-80°)	2126.3	4.6	B3/2500		G3/2500
BVH	(80°-90°)	148.6	0.3			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	8227.4	8227.4	8227.4	8227.4	8227.4	8227.4	8227.4	8227.4	8227.4	8227.4	8227.4
2.5°	7948.4	7985.8	7995.8	8020.7	8073.0	8115.3	8157.7	8152.7	8212.5	8237.4	8259.8
5°	7594.7	7604.7	7642.1	7691.9	7784.0	7901.1	8015.7	8018.2	8165.1	8282.2	8339.5
7.5°	7335.7	7368.1	7393.0	7445.3	7542.4	7669.5	7851.3	7866.2	8127.8	8359.4	8481.5
10°	7166.3	7203.7	7231.1	7295.8	7393.0	7535.0	7731.7	7759.1	8100.4	8481.5	8695.7
12.5°	7011.9	7049.2	7074.1	7158.8	7285.9	7460.2	7681.9	7714.3	8110.3	8623.5	8929.9
15°	7106.5	7136.4	7126.4	7151.4	7236.0	7435.3	7701.8	7734.2	8147.7	8760.5	9161.5
17.5°	7527.5	7552.4	7470.2	7375.5	7335.7	7482.6	7764.1	7799.0	8222.4	8902.5	9398.1
20°	8147.7	8215.0	8035.6	7823.9	7632.1	7652.0	7893.6	7931.0	8327.1	9044.4	9639.8
22.5°	8954.8	9004.6	8785.4	8436.7	8082.9	7901.1	8087.9	8110.3	8484.0	9228.8	9903.8
25°	9903.8	9933.7	9629.8	9181.4	8670.8	8327.1	8354.5	8394.3	8743.0	9438.0	10137.9
27.5°	10825.4	10920.1	10568.9	10020.9	9348.3	8775.4	8720.6	8745.5	9024.5	9555.1	10299.8
30°	11918.9	11911.5	11540.3	10905.1	10043.3	9263.6	9066.9	9061.9	9176.5	9612.4	10416.9
32.5°	12790.7	12892.9	12529.2	11836.7	10837.9	9769.3	9306.0	9296.0	9293.5	9712.0	10591.3
35°	13782.1	13797.1	13463.3	12765.8	11697.2	10404.5	9639.8	9589.9	9532.6	9926.2	10827.9
37.5°	14668.9	14738.6	14432.2	13650.1	12541.6	11064.5	10098.1	10065.7	9891.3	10297.4	11206.5
40°	15361.3	15413.6	15229.3	14484.5	13373.6	11776.9	10681.0	10621.2	10409.4	10905.1	11712.2
42.5°	15588.0	15695.1	15767.4	15401.2	14330.1	12621.4	11398.3	11323.6	11161.7	11826.8	12295.0
45°	15605.4	15774.8	16155.9	16173.4	15291.6	13632.7	12235.3	12183.0	12170.5	13007.4	13114.6
47.5°	15473.4	15645.3	16285.5	16631.7	16148.5	14653.9	13443.4	13361.2	13368.6	14467.1	14033.7
50°	15154.6	15358.8	16136.0	16925.6	16818.5	15715.0	14718.7	14691.3	14845.7	16133.5	14987.7
52.5°	14554.3	14800.9	15981.6	17109.9	17316.7	16629.2	16168.4	16091.2	16482.2	17941.9	16031.4
55°	12892.9	13264.0	15416.1	17212.1	17790.0	17503.5	17473.6	17613.1	18131.2	19914.7	17179.7
57.5°	12026.0	12305.0	14188.1	17229.5	18387.8	18519.8	18998.0	19032.9	19939.6	22009.5	18477.4
60°	11552.8	11799.4	13515.6	17114.9	19222.2	19777.7	20557.3	20681.9	21705.6	24278.7	19822.5
62.5°	11139.3	11351.0	13112.1	16718.9	20163.8	21643.4	22577.5	22637.2	23710.8	26784.6	21150.2
65°	10165.3	10407.0	12300.0	16322.8	20975.8	23974.8	25257.7	25187.9	25845.5	28946.7	21982.1
67.5°	8852.6	9159.0	10783.1	14955.3	21376.8	26523.0	28276.6	28189.4	27952.8	30364.0	22221.3
70°	7176.3	7340.7	8842.7	12591.5	19775.2	27860.6	30660.4	30568.2	29258.0	30550.8	21090.4
71°	6174.9	6431.5	7699.4	11184.1	18442.6	27452.1	30966.8	30941.9	29260.5	30035.2	20238.5
72.5°	4819.9	4976.8	6097.7	8665.8	15675.2	25130.6	30209.6	30304.2	28625.3	28602.9	18482.4
75°	3048.9	3118.6	3826.0	5101.3	8601.1	17797.4	25788.2	26044.8	25417.1	23411.9	13744.7
77.5°	1771.0	1860.7	2291.6	3006.5	3716.4	9659.7	18452.5	18731.5	17660.4	12890.4	5626.9
80°	1031.2	1130.9	1509.5	1746.1	1706.3	3584.4	9395.6	9871.4	7647.0	3255.6	1579.2
82.5°	572.9	640.2	1061.1	1063.6	909.2	1170.7	2956.7	3093.7	2182.0	1312.7	645.1
85°	416.0	470.8	685.0	620.2	435.9	503.2	1028.7	1078.6	881.8	553.0	209.2
87.5°	147.0	209.2	376.1	298.9	119.6	104.6	296.4	241.6	224.2	154.4	47.3
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°	8227.4	8227.4	8227.4	8227.4	8227.4	8227.4	8227.4	8227.4	8227.4	8227.4	8227.4
2.5°	8272.3	8277.2	8252.3	8207.5	8162.7	8105.4	8040.6	7990.8	7968.4	7965.9	7963.4
5°	8361.9	8374.4	8279.7	8140.2	7985.8	7796.5	7634.6	7450.3	7402.9	7328.2	7350.6
7.5°	8506.4	8498.9	8312.1	8015.7	7654.5	7253.5	6914.7	6717.9	6513.7	6456.4	6458.9
10°	8713.1	8665.8	8312.1	7761.6	7158.8	6563.5	6090.2	5791.3	5629.4	5494.9	5445.1
12.5°	8932.3	8812.8	8232.4	7405.4	6521.2	5791.3	5283.2	4879.7	4775.0	4665.4	4667.9
15°	9141.6	8942.3	8075.5	6904.8	5833.7	4966.8	4473.6	4232.0	4199.6	4212.1	4209.6
17.5°	9330.9	9034.5	7836.4	6346.8	5031.6	4259.4	3997.9	4015.3	4102.5	4164.8	4172.2
20°	9522.7	9089.3	7480.2	5599.5	4274.4	3831.0	3841.0	3978.0	4110.0	4194.7	4207.1
22.5°	9704.5	9114.2	7061.7	4877.2	3726.4	3649.2	3796.1	3943.1	4072.6	4154.8	4167.3
25°	9824.1	9056.9	6468.8	4122.4	3457.4	3584.4	3738.8	3863.4	3973.0	4057.7	4077.6
27.5°	9856.5	8872.6	5734.0	3512.2	3332.8	3522.1	3664.1	3756.3	3841.0	3920.7	3935.6
30°	9839.0	8601.1	4927.0	3153.5	3260.6	3449.9	3559.5	3626.7	3728.9	3791.1	3803.6
32.5°	9811.6	8284.7	4085.1	2961.7	3200.8	3382.6	3447.4	3507.2	3504.7	3479.8	3497.2
35°	9821.6	7906.1	3402.6	2847.1	3148.5	3332.8	3387.6	3312.9	3098.7	3088.7	3078.7
37.5°	9873.9	7532.5	2906.9	2767.4	3121.1	3325.3	3355.2	3011.5	2822.2	2735.0	2712.6
40°	10008.4	7096.6	2580.6	2707.6	3118.6	3382.6	3208.3	2859.5	2495.9	2326.5	2314.0
42.5°	10187.8	6668.1	2381.3	2670.2	3148.5	3469.8	3148.5	2645.3	2249.3	2149.6	2134.7
45°	10454.3	6177.4	2271.7	2652.8	3193.3	3502.2	3128.6	2488.4	2149.6	2069.9	2069.9
47.5°	10755.7	5709.1	2211.9	2640.3	3250.6	3479.8	2951.7	2438.6	2102.3	2112.3	2159.6
50°	11054.6	5303.1	2167.1	2612.9	3300.4	3467.3	2879.5	2436.1	2114.8	2241.8	2326.5
52.5°	11400.8	5016.7	2112.3	2568.1	3300.4	3387.6	2857.1	2485.9	2149.6	2187.0	2224.4
55°	11819.3	4927.0	2042.5	2471.0	3240.7	3188.3	2844.6	2558.1	2174.5	2087.4	2102.3
57.5°	12372.3	5071.5	1975.3	2348.9	3103.7	2981.6	2839.6	2578.1	2117.3	2045.0	2030.1
60°	13014.9	5357.9	1955.4	2224.4	2916.8	2804.7	2809.7	2520.8	2037.6	1962.8	1975.3
62.5°	13465.8	5529.8	1942.9	2129.7	2712.6	2610.5	2737.5	2451.0	2002.7	1937.9	1950.4
65°	13465.8	5320.5	1828.3	1985.2	2448.5	2376.3	2650.3	2363.9	1957.8	1883.1	1870.7
67.5°	12955.1	4710.3	1654.0	1768.5	2157.1	2109.8	2528.3	2259.2	1890.6	1833.3	1803.4
70°	11625.0	3571.9	1434.8	1514.5	1788.5	1830.8	2371.3	2117.3	1778.5	1708.8	1663.9
71°	11039.6	3111.1	1342.6	1384.9	1646.5	1708.8	2296.6	2057.5	1728.7	1629.0	1549.3
72.5°	9911.3	2620.4	1203.1	1220.5	1407.4	1519.4	2139.7	1942.9	1634.0	1492.0	1402.4
75°	7530.0	1913.0	969.0	959.0	1041.2	1205.6	1810.9	1731.2	1432.3	1240.5	1188.2
77.5°	3253.1	1041.2	724.8	732.3	707.4	914.2	1424.8	1487.1	1228.0	1008.8	961.5
80°	986.4	600.3	495.7	505.7	473.3	612.8	1003.8	1165.7	986.4	784.6	719.9
82.5°	505.7	358.7	338.8	333.8	301.4	346.2	607.8	797.1	704.9	490.7	433.4
85°	219.2	191.8	166.9	161.9	142.0	124.5	216.7	398.5	373.6	274.0	261.5
87.5°	54.8	49.8	32.4	29.9	17.4	2.5	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)