

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: P452985

Luminaire Tested: **GALN-SA4A-727-U-SL4**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P452985
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-18)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4A-727-U-SL4
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14809 lumens
Efficiency: N/A
Efficacy: 122.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

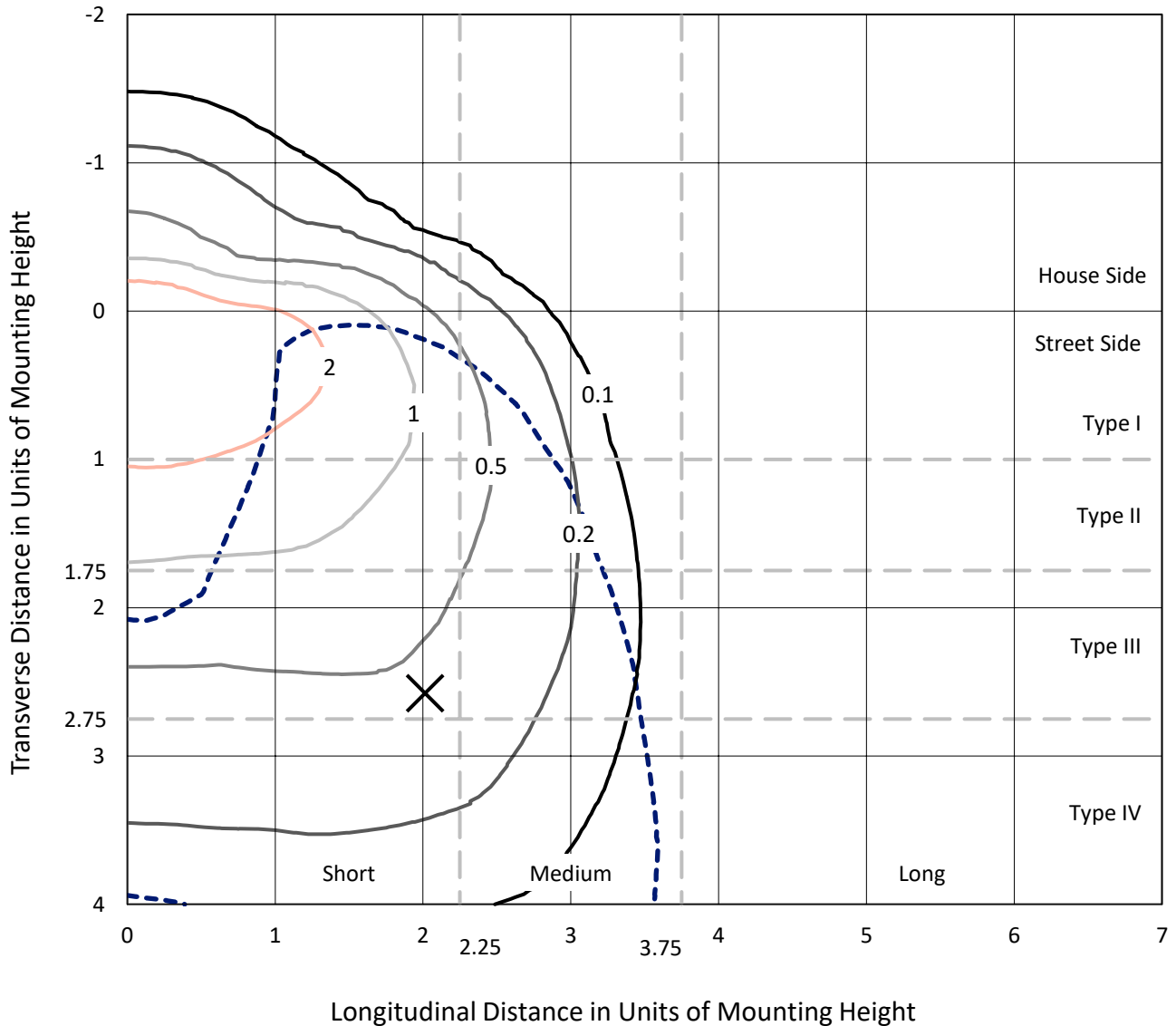
Input Watts (W): 121
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

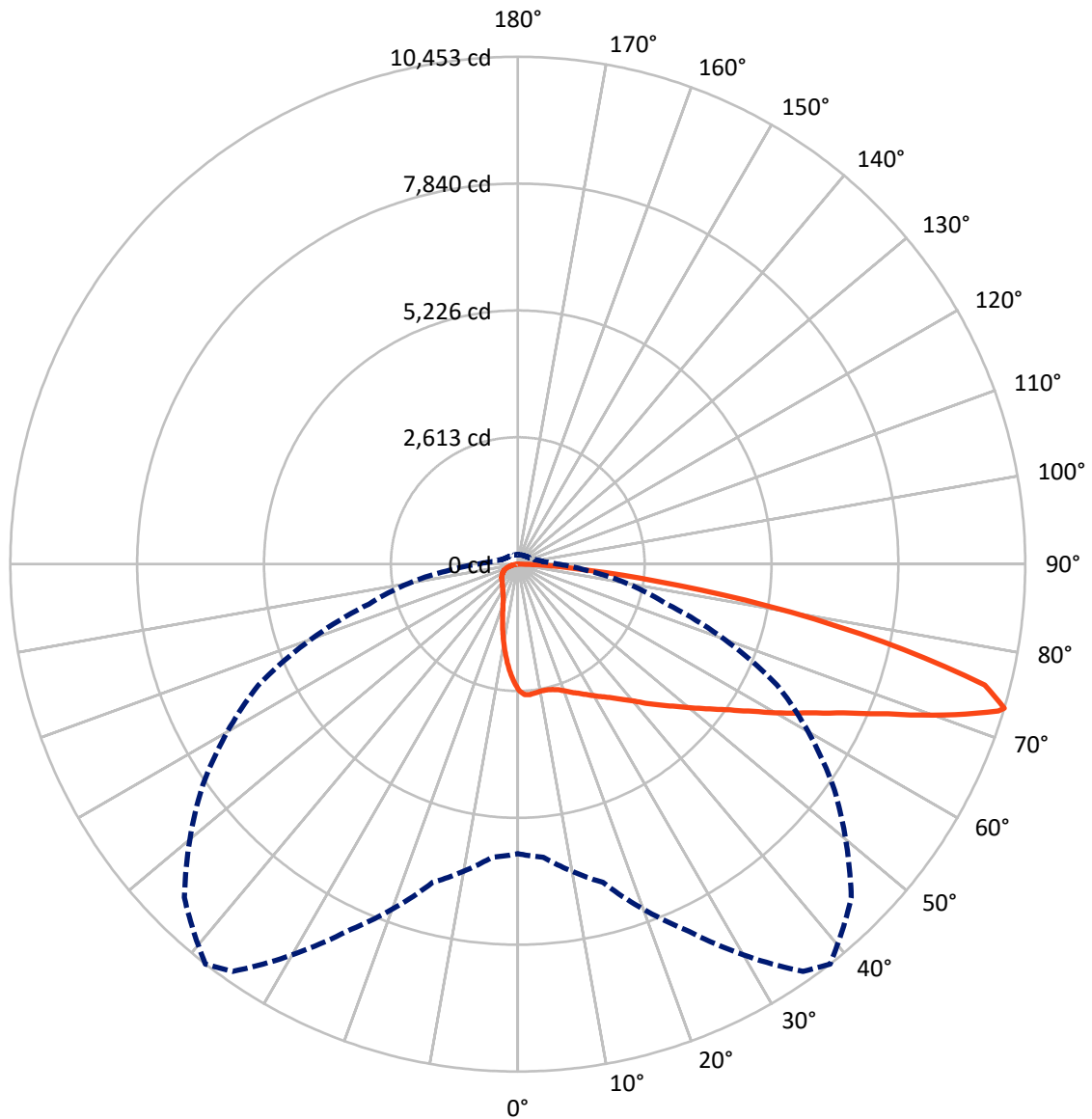
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1990.8	0.0	1990.8
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	12818.2	0.0	12818.2
	% Fixture	86.6	0.0	86.6
Total	Lumens	14809.0	0.0	14809.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	227.1	1.5
10°-20°	582.4	3.9
20°-30°	906.8	6.1
30°-40°	1330.1	9.0
40°-50°	1973.1	13.3
50°-60°	2795.5	18.9
60°-70°	3546.1	23.9
70°-80°	2951.9	19.9
80°-90°	496.0	3.3
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°	14809.0	100.0
0°-180°	14809.0	100.0

Coefficient of Utilization



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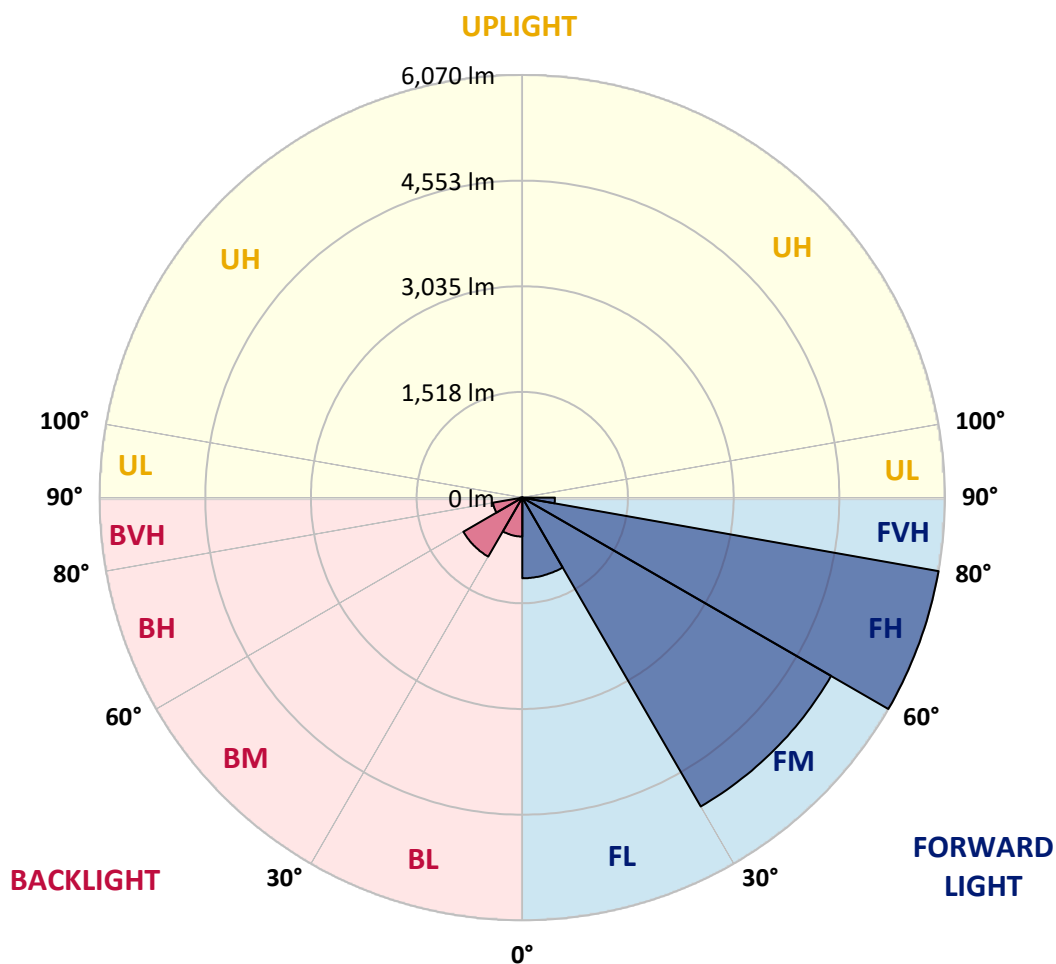
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1157.7	7.8			
FM	(30°-60°)	5121.4	34.6			
FH	(60°-80°)	6070.1	41.0			G3/7500
FVH	(80°-90°)	469.1	3.2			G3/500
BL	(0°-30°)	558.6	3.8	B2/1000		
BM	(30°-60°)	977.4	6.6	B1/1000		
BH	(60°-80°)	427.9	2.9	B1/500		G1/500
BVH	(80°-90°)	26.9	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	2601.7	2601.7	2601.7	2601.7	2601.7	2601.7	2601.7	2601.7	2601.7	2601.7	2601.7
2.5°	2706.2	2719.6	2712.9	2703.7	2697.9	2692.0	2683.6	2659.4	2640.2	2619.3	2586.6
5°	2726.3	2734.7	2728.8	2717.1	2703.7	2697.9	2682.0	2650.2	2619.3	2584.1	2535.6
7.5°	2714.6	2717.9	2711.2	2697.0	2685.3	2674.4	2656.0	2620.9	2583.3	2540.6	2477.1
10°	2672.8	2685.3	2685.3	2673.6	2661.9	2656.0	2637.7	2604.2	2569.9	2521.4	2446.1
12.5°	2638.5	2651.9	2662.7	2659.4	2658.6	2658.6	2644.3	2619.3	2579.1	2533.1	2443.6
15°	2615.1	2631.0	2654.4	2667.8	2676.1	2678.6	2672.8	2651.0	2610.1	2556.5	2453.7
17.5°	2610.1	2629.3	2671.9	2701.2	2723.0	2722.1	2720.4	2690.3	2645.2	2590.0	2466.2
20°	2632.6	2657.7	2717.1	2763.1	2794.9	2789.0	2779.8	2740.5	2687.8	2625.9	2477.9
22.5°	2700.4	2726.3	2791.5	2841.7	2872.6	2872.6	2845.0	2793.2	2737.2	2667.8	2493.8
25°	2797.4	2825.8	2895.2	2946.2	2960.5	2949.6	2922.0	2859.3	2794.9	2728.0	2527.3
27.5°	2916.1	2950.4	3014.8	3057.5	3053.3	3044.9	3016.5	2936.2	2871.8	2810.8	2584.1
30°	3064.2	3089.2	3156.1	3166.2	3151.1	3149.5	3109.3	3029.0	2968.8	2922.0	2665.2
32.5°	3203.8	3226.4	3279.9	3284.1	3257.3	3260.7	3223.1	3149.5	3115.2	3098.4	2801.6
35°	3351.8	3363.5	3409.5	3404.5	3387.0	3384.5	3369.4	3299.2	3310.0	3340.1	2994.7
37.5°	3475.6	3499.0	3525.0	3529.1	3528.3	3536.7	3546.7	3513.2	3576.0	3670.5	3248.1
40°	3589.3	3609.4	3647.9	3661.3	3693.9	3710.6	3744.9	3745.7	3890.4	4046.0	3560.1
42.5°	3666.3	3700.6	3772.5	3796.7	3876.2	3926.4	3977.4	4031.7	4241.7	4441.5	3928.0
45°	3733.2	3778.3	3897.9	3973.2	4081.1	4142.1	4250.0	4363.7	4665.6	4927.4	4301.9
47.5°	3834.4	3874.5	4011.7	4144.6	4307.7	4378.0	4539.4	4709.1	5103.9	5390.7	4659.8
50°	3974.9	3999.1	4138.8	4355.4	4563.6	4653.9	4867.2	5112.2	5572.2	5848.2	4974.2
52.5°	4154.7	4164.7	4275.9	4564.5	4838.8	4950.8	5233.5	5519.5	5982.0	6245.4	5223.5
55°	4367.1	4350.4	4437.3	4786.1	5153.2	5299.6	5603.1	5931.8	6442.8	6566.5	5404.9
57.5°	4577.0	4551.1	4620.5	5055.4	5541.2	5717.7	6071.4	6356.6	6854.2	6866.8	5532.0
60°	4799.5	4780.2	4863.0	5371.5	6017.1	6226.2	6553.1	6797.3	7252.3	7075.8	5552.1
62.5°	5027.8	4996.8	5114.7	5726.9	6553.1	6743.0	7059.9	7265.7	7642.8	7153.6	5358.9
65°	5249.4	5235.2	5417.5	6149.2	7163.6	7379.4	7687.2	7826.8	7955.6	7036.5	4879.7
67.5°	5485.2	5513.6	5804.7	6712.9	7959.8	8230.7	8562.7	8431.5	8045.1	6482.1	4109.5
70°	5844.8	5863.2	6313.1	7451.3	8985.9	9312.9	9473.5	8646.4	7613.6	5429.2	3089.2
72.5°	5999.5	6080.6	6767.2	8226.6	10151.7	10351.6	9779.5	8167.2	6342.4	3688.0	1623.2
73°	5965.2	6062.2	6788.1	8344.5	10242.8	10452.8	9714.3	7920.5	5895.8	3176.2	1391.6
75°	5537.9	5657.5	6516.4	8245.8	10065.6	9940.1	8665.6	6750.5	3984.1	1444.3	633.9
77.5°	4369.6	4403.9	5163.2	6658.5	7926.3	7693.8	6485.4	4219.1	1627.4	536.9	359.6
80°	2191.9	2318.2	2910.3	3814.3	5300.4	5224.3	4093.6	1995.4	678.2	315.3	238.3
82.5°	1054.6	1144.0	1417.5	1859.9	2928.7	2859.3	2027.2	1090.5	430.7	184.0	140.5
85°	679.1	746.0	902.4	887.3	1204.3	1149.9	910.7	825.4	255.1	96.2	97.8
87.5°	448.3	490.9	588.7	470.8	438.2	396.4	402.3	465.0	50.2	36.8	13.4
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°	2601.7	2601.7	2601.7	2601.7	2601.7	2601.7	2601.7	2601.7	2601.7	2601.7	2601.7
2.5°	2573.3	2562.4	2526.4	2491.3	2457.8	2426.1	2405.2	2377.6	2359.2	2364.2	2371.7
5°	2508.9	2484.6	2421.1	2359.2	2300.6	2231.2	2175.2	2130.0	2095.7	2083.2	2080.7
7.5°	2441.1	2400.1	2309.0	2202.8	2103.3	2017.1	1917.6	1868.3	1810.6	1790.5	1783.8
10°	2400.1	2345.0	2217.0	2069.0	1919.3	1776.3	1668.4	1580.6	1501.1	1486.1	1478.6
12.5°	2388.4	2315.7	2143.4	1952.7	1753.7	1578.1	1418.3	1302.9	1226.0	1208.4	1182.5
15°	2381.7	2291.4	2074.8	1835.7	1583.1	1369.0	1200.9	1066.3	996.0	949.2	950.0
17.5°	2375.9	2263.8	1997.9	1707.7	1435.9	1189.2	1003.5	882.3	817.9	792.8	790.3
20°	2367.5	2231.2	1909.2	1573.1	1267.8	1025.3	857.2	766.9	723.4	702.5	701.6
22.5°	2364.2	2199.4	1822.3	1435.9	1119.0	899.0	760.2	696.6	669.0	654.8	654.8
25°	2372.5	2176.9	1731.1	1305.4	986.8	791.1	693.3	649.8	633.9	626.4	623.9
27.5°	2398.5	2166.8	1640.8	1175.0	865.6	717.5	648.1	618.0	606.3	600.5	601.3
30°	2447.8	2166.0	1552.1	1046.2	775.2	661.5	612.2	591.3	582.1	578.7	577.9
32.5°	2527.3	2184.4	1465.2	940.0	699.1	614.7	578.7	563.7	559.5	557.0	556.1
35°	2661.9	2236.2	1379.0	843.0	640.6	572.9	546.9	539.4	533.6	536.1	536.9
37.5°	2843.4	2325.7	1297.1	766.9	596.3	541.9	520.2	513.5	510.1	512.6	515.2
40°	3086.7	2454.5	1228.5	705.8	564.5	516.0	496.8	490.9	487.6	491.7	492.6
42.5°	3355.2	2603.4	1171.6	658.2	538.6	494.2	475.8	469.2	466.6	469.2	470.0
45°	3631.2	2776.5	1142.4	623.9	516.8	478.4	459.1	451.6	445.7	444.1	446.6
47.5°	3903.0	2927.0	1141.5	603.0	499.3	464.1	443.2	434.9	427.3	423.2	422.3
50°	4124.6	3046.6	1161.6	593.8	484.2	448.3	427.3	419.0	408.9	400.6	402.3
52.5°	4291.8	3124.4	1170.8	589.6	475.8	431.5	410.6	403.1	391.4	380.5	380.5
55°	4399.7	3142.8	1148.2	585.4	469.2	414.0	391.4	384.7	373.0	362.1	362.1
57.5°	4436.5	3085.9	1067.1	575.4	462.5	398.9	372.1	366.3	357.1	346.2	344.6
60°	4351.2	2893.6	924.9	545.3	449.1	383.0	351.2	348.7	345.4	336.2	335.4
62.5°	4022.5	2485.4	770.2	506.0	426.5	366.3	332.0	336.2	338.7	333.7	332.8
65°	3475.6	2018.0	658.2	451.6	396.4	342.9	311.1	322.0	328.7	328.7	327.0
67.5°	2819.1	1549.6	554.5	404.8	358.8	311.1	287.7	296.0	301.1	299.4	303.6
70°	2003.7	1049.5	451.6	351.2	311.1	275.1	257.6	257.6	254.2	252.6	252.6
72.5°	971.8	599.6	366.3	293.5	265.1	235.0	220.8	214.9	208.2	207.4	203.2
73°	812.0	537.7	349.6	282.7	254.2	229.1	213.3	204.1	199.9	196.5	195.7
75°	494.2	408.1	291.9	238.3	216.6	197.4	183.1	174.8	170.6	168.1	167.3
77.5°	325.3	304.4	226.6	182.3	165.6	153.9	148.0	139.7	137.2	133.8	133.8
80°	242.5	232.5	162.2	128.8	118.8	108.7	107.0	105.4	98.7	94.5	92.8
82.5°	156.4	165.6	110.4	86.1	75.3	66.9	67.7	70.2	63.6	57.7	56.0
85°	111.2	119.6	66.9	39.3	31.8	27.6	30.9	27.6	28.4	22.6	18.4
87.5°	18.4	31.8	11.7	5.0	2.5	1.7	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)