

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: P452898

Luminaire Tested: **GALN-SA3D-827-U-SL4**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P452898
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-SA3D-827-U-SL4
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(3) 80 CRI, 2700K, 1200mA 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: 16617 lumens
Efficiency: N/A
Efficacy: 90.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

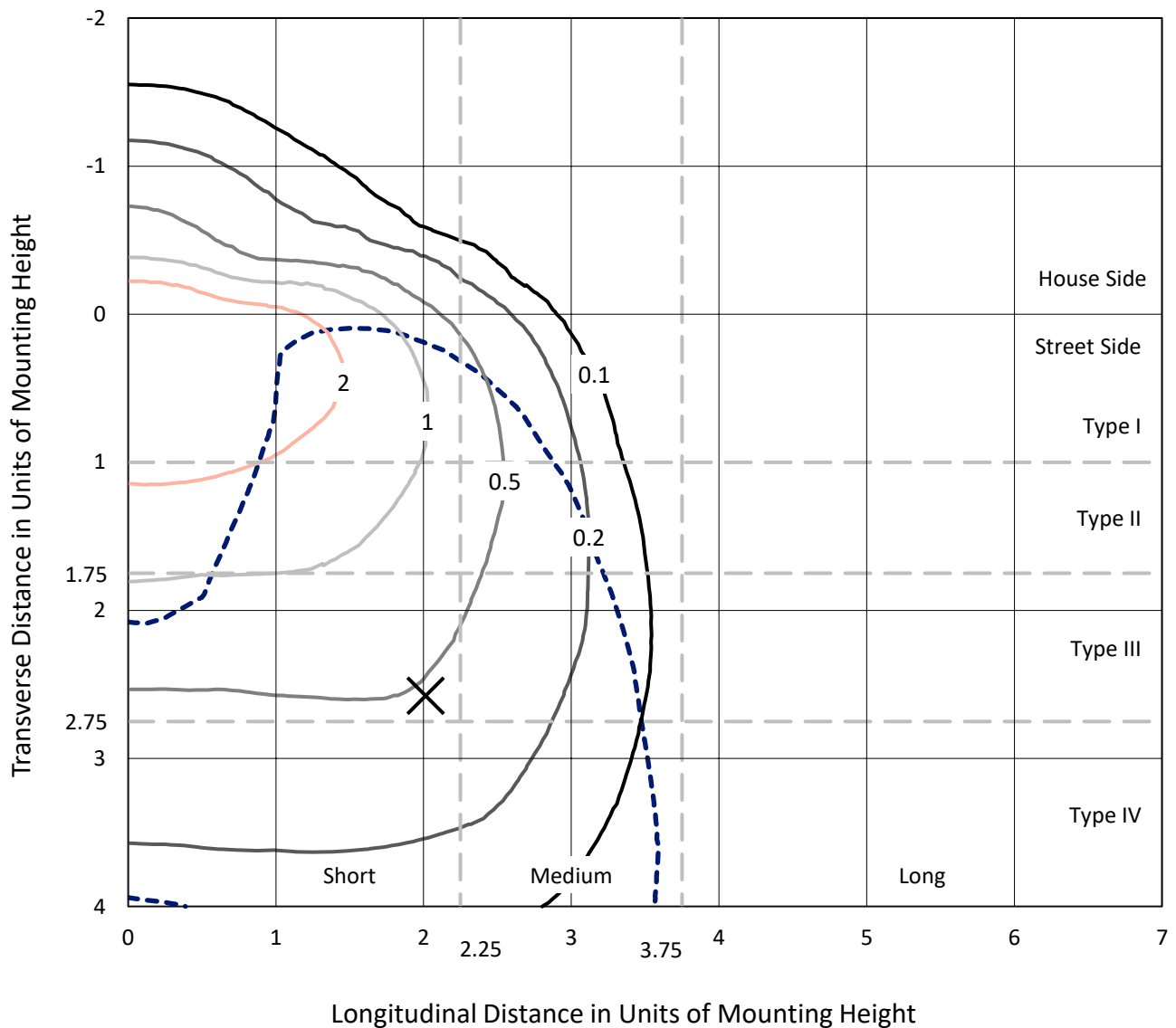
Input Watts (W): 184
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

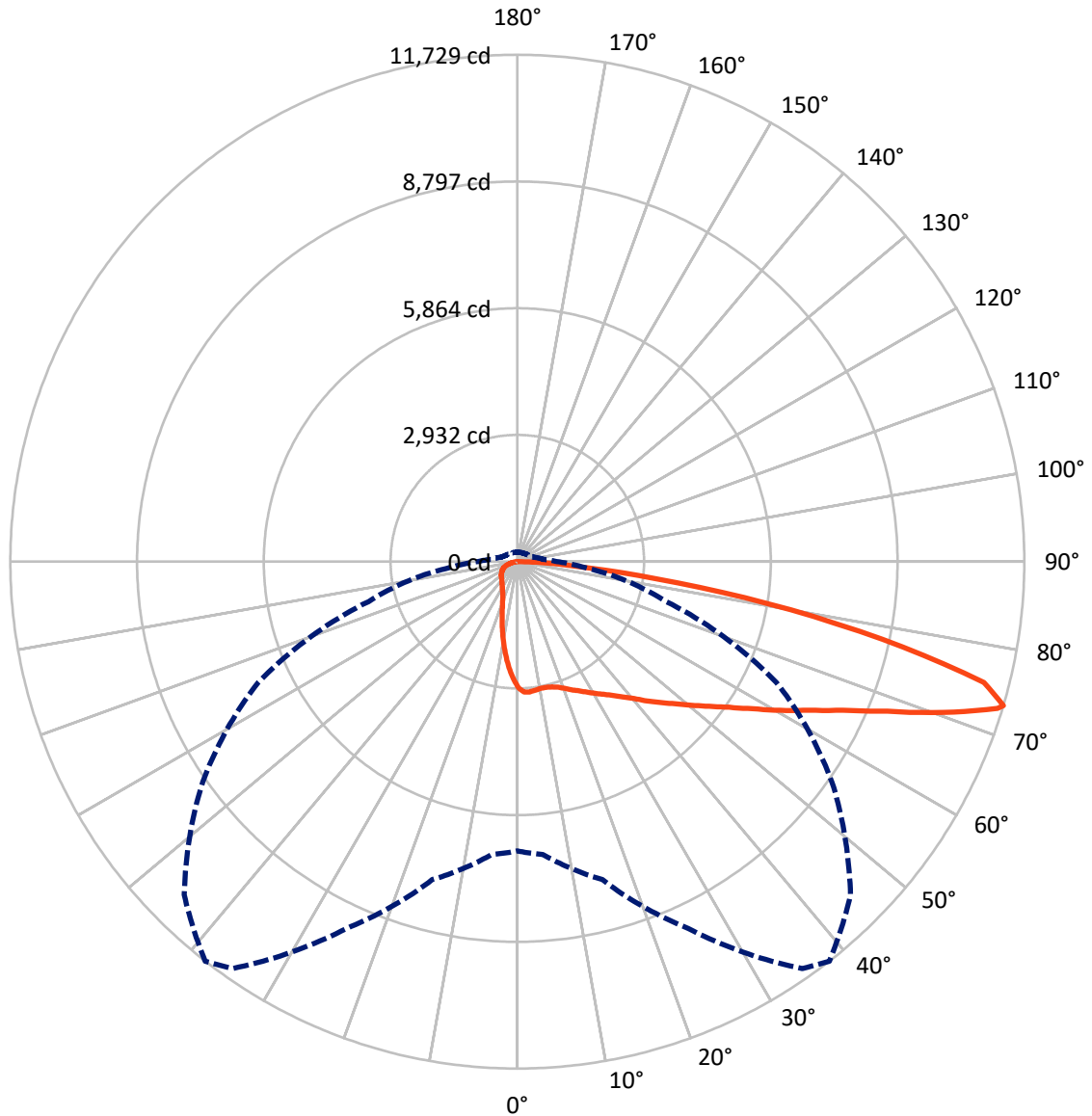
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 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	2233.8	0.0	2233.8
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	14383.2	0.0	14383.2
	% Fixture	86.6	0.0	86.6
Total	Lumens	16617.0	0.0	16617.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	254.8	1.5
10°-20°	653.5	3.9
20°-30°	1017.6	6.1
30°-40°	1492.5	9.0
40°-50°	2214.0	13.3
50°-60°	3136.8	18.9
60°-70°	3979.1	23.9
70°-80°	3312.3	19.9
80°-90°	556.5	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°	16617.0	100.0
0°-180°	16617.0	100.0

Coefficient of Utilization



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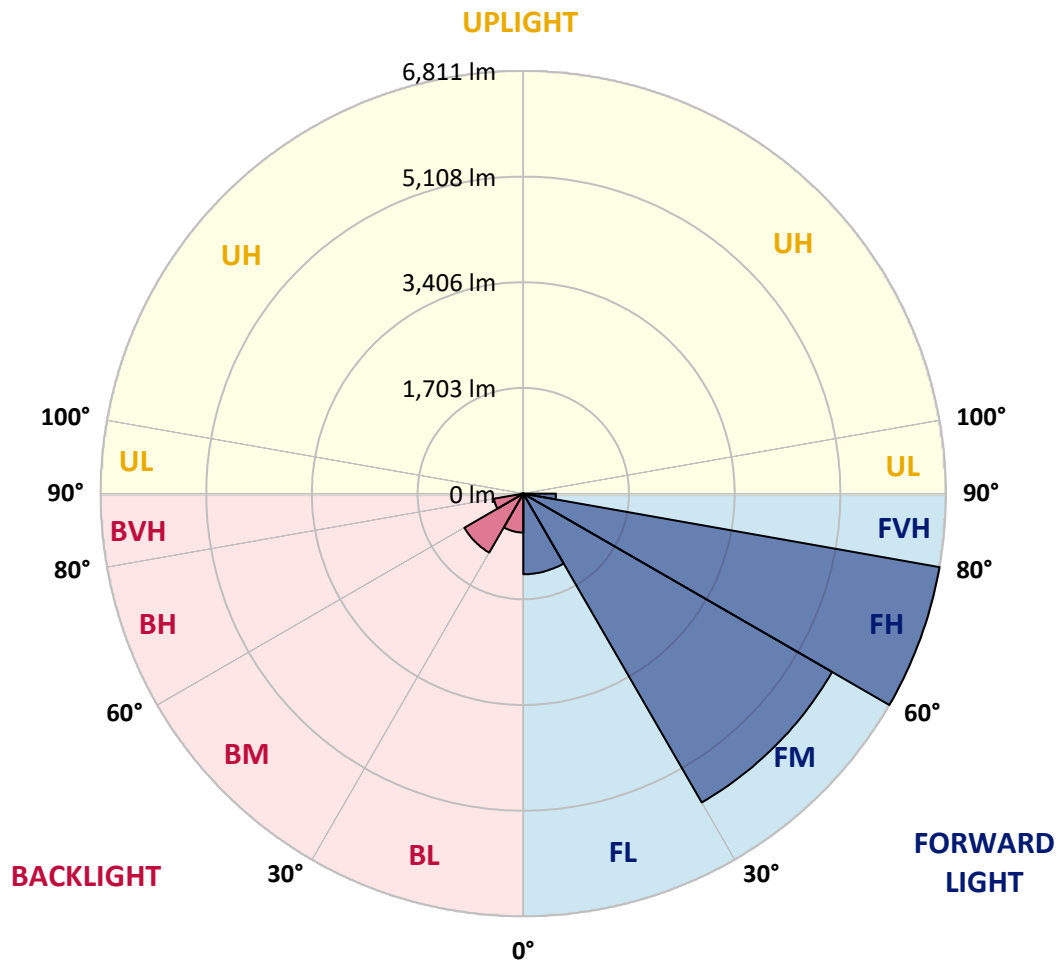
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1299.0	7.8			
FM	(30°-60°)	5746.6	34.6			
FH	(60°-80°)	6811.2	41.0			G3/7500
FVH	(80°-90°)	526.3	3.2			G4/750
BL	(0°-30°)	626.8	3.8	B2/1000		
BM	(30°-60°)	1096.7	6.6	B2/2500		
BH	(60°-80°)	480.1	2.9	B1/500		G1/500
BVH	(80°-90°)	30.2	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-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	2919.3	2919.3	2919.3	2919.3	2919.3	2919.3	2919.3	2919.3	2919.3	2919.3	2919.3
2.5°	3036.6	3051.6	3044.1	3033.8	3027.2	3020.7	3011.3	2984.1	2962.5	2939.0	2902.4
5°	3059.1	3068.5	3062.0	3048.8	3033.8	3027.2	3009.4	2973.8	2939.0	2899.6	2845.2
7.5°	3046.0	3049.8	3042.3	3026.3	3013.2	3001.0	2980.3	2940.9	2898.7	2850.8	2779.5
10°	2999.1	3013.2	3013.2	3000.0	2986.9	2980.3	2959.7	2922.1	2883.7	2829.2	2744.8
12.5°	2960.6	2975.6	2987.8	2984.1	2983.1	2983.1	2967.2	2939.0	2894.0	2842.4	2742.0
15°	2934.3	2952.2	2978.4	2993.5	3002.8	3005.7	2999.1	2974.7	2928.7	2868.7	2753.2
17.5°	2928.7	2950.3	2998.1	3031.0	3055.4	3054.5	3052.6	3018.8	2968.1	2906.2	2767.3
20°	2954.0	2982.2	3048.8	3100.4	3136.1	3129.5	3119.2	3075.1	3016.0	2946.5	2780.4
22.5°	3030.1	3059.1	3132.3	3188.6	3223.4	3223.4	3192.4	3134.2	3071.3	2993.5	2798.3
25°	3138.9	3170.8	3248.7	3305.9	3321.9	3309.7	3278.7	3208.3	3136.1	3061.0	2835.8
27.5°	3272.2	3310.6	3382.9	3430.7	3426.1	3416.7	3384.8	3294.7	3222.4	3153.9	2899.6
30°	3438.3	3466.4	3541.5	3552.7	3535.8	3534.0	3488.9	3398.8	3331.3	3278.7	2990.6
32.5°	3595.0	3620.3	3680.4	3685.0	3655.0	3658.8	3616.5	3534.0	3495.5	3476.7	3143.6
35°	3761.1	3774.2	3825.8	3820.2	3800.5	3797.7	3780.8	3701.9	3714.1	3747.9	3360.4
37.5°	3899.9	3926.2	3955.3	3960.0	3959.1	3968.4	3979.7	3942.2	4012.5	4118.6	3644.7
40°	4027.6	4050.1	4093.2	4108.3	4144.9	4163.6	4202.1	4203.0	4365.4	4539.9	3994.7
42.5°	4113.9	4152.4	4233.1	4260.3	4349.4	4405.7	4463.0	4524.0	4759.5	4983.8	4407.6
45°	4189.0	4239.6	4373.8	4458.3	4579.3	4647.8	4768.9	4896.5	5235.3	5529.0	4827.1
47.5°	4302.5	4347.6	4501.4	4650.7	4833.6	4912.5	5093.6	5284.1	5727.0	6048.8	5228.7
50°	4460.2	4487.4	4644.1	4887.1	5120.8	5222.1	5461.4	5736.4	6252.5	6562.1	5581.5
52.5°	4661.9	4673.2	4798.0	5121.7	5429.5	5555.3	5872.4	6193.4	6712.3	7007.9	5861.2
55°	4900.3	4881.5	4979.1	5370.4	5782.3	5946.6	6287.2	6656.0	7229.3	7368.2	6064.8
57.5°	5135.8	5106.7	5184.6	5672.6	6217.8	6415.8	6812.7	7132.7	7691.0	7705.1	6207.4
60°	5385.4	5363.8	5456.7	6027.3	6751.7	6986.3	7353.2	7627.2	8137.7	7939.7	6230.0
62.5°	5641.6	5606.9	5739.2	6426.1	7353.2	7566.2	7921.9	8152.7	8575.9	8027.0	6013.2
65°	5890.3	5874.3	6078.9	6900.0	8038.2	8280.3	8625.7	8782.4	8926.9	7895.6	5475.5
67.5°	6154.9	6186.8	6513.4	7532.4	8931.6	9235.6	9608.2	9460.8	9027.3	7273.4	4611.2
70°	6558.4	6579.0	7083.9	8361.0	10083.0	10449.9	10630.1	9702.0	8543.1	6092.0	3466.4
72.5°	6732.0	6823.0	7593.4	9230.9	11391.1	11615.4	10973.5	9164.3	7116.7	4138.3	1821.4
73°	6693.5	6802.4	7616.9	9363.2	11493.4	11728.9	10900.3	8887.5	6615.6	3564.0	1561.5
75°	6214.0	6348.2	7311.9	9252.5	11294.4	11153.7	9723.6	7574.7	4470.5	1620.6	711.3
77.5°	4903.1	4941.6	5793.6	7471.4	8894.0	8633.2	7277.2	4734.2	1826.1	602.4	403.5
80°	2459.5	2601.2	3265.6	4280.0	5947.5	5862.1	4593.4	2239.0	761.0	353.8	267.4
82.5°	1183.3	1283.7	1590.6	2087.0	3286.2	3208.3	2274.7	1223.7	483.3	206.4	157.6
85°	762.0	837.0	1012.5	995.6	1351.3	1290.3	1021.9	926.2	286.2	107.9	109.8
87.5°	503.0	550.8	660.6	528.3	491.7	444.8	451.4	521.7	56.3	41.3	15.0
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°	2919.3	2919.3	2919.3	2919.3	2919.3	2919.3	2919.3	2919.3	2919.3	2919.3	2919.3
2.5°	2887.4	2875.2	2834.9	2795.5	2757.9	2722.3	2698.8	2667.8	2647.2	2652.8	2661.3
5°	2815.2	2788.0	2716.6	2647.2	2581.5	2503.6	2440.7	2390.1	2351.6	2337.5	2334.7
7.5°	2739.2	2693.2	2590.9	2471.7	2360.0	2263.4	2151.7	2096.4	2031.6	2009.1	2001.6
10°	2693.2	2631.2	2487.7	2321.6	2153.6	1993.1	1872.1	1773.6	1684.4	1667.5	1659.1
12.5°	2680.0	2598.4	2405.1	2191.1	1967.8	1770.7	1591.5	1462.0	1375.7	1356.0	1326.9
15°	2672.5	2571.2	2328.1	2059.8	1776.4	1536.1	1347.5	1196.4	1117.6	1065.1	1066.0
17.5°	2666.0	2540.2	2241.8	1916.2	1611.2	1334.4	1126.1	990.0	917.7	889.6	886.8
20°	2656.6	2503.6	2142.3	1765.1	1422.6	1150.5	961.8	860.5	811.7	788.2	787.3
22.5°	2652.8	2468.0	2044.7	1611.2	1255.6	1008.8	853.0	781.7	750.7	734.8	734.8
25°	2662.2	2442.6	1942.5	1464.8	1107.3	887.7	777.9	729.1	711.3	702.9	700.0
27.5°	2691.3	2431.4	1841.1	1318.4	971.2	805.1	727.3	693.5	680.3	673.8	674.7
30°	2746.7	2430.4	1741.6	1173.9	869.9	742.3	686.9	663.4	653.1	649.4	648.4
32.5°	2835.8	2451.1	1644.1	1054.7	784.5	689.7	649.4	632.5	627.8	625.0	624.0
35°	2986.9	2509.2	1547.4	945.9	718.8	642.8	613.7	605.3	598.7	601.5	602.4
37.5°	3190.5	2609.7	1455.4	860.5	669.1	608.1	583.7	576.2	572.4	575.2	578.0
40°	3463.6	2754.2	1378.5	792.0	633.4	579.0	557.4	550.8	547.1	551.8	552.7
42.5°	3764.8	2921.2	1314.7	738.5	604.3	554.6	533.9	526.4	523.6	526.4	527.4
45°	4074.5	3115.4	1281.8	700.0	579.9	536.8	515.2	506.7	500.2	498.3	501.1
47.5°	4379.5	3284.4	1280.9	676.6	560.2	520.8	497.3	488.0	479.5	474.8	473.9
50°	4628.1	3418.5	1303.4	666.3	543.3	503.0	479.5	470.1	458.9	449.5	451.4
52.5°	4815.8	3505.8	1313.7	661.6	533.9	484.2	460.7	452.3	439.2	427.0	427.0
55°	4936.9	3526.5	1288.4	656.9	526.4	464.5	439.2	431.7	418.5	406.3	406.3
57.5°	4978.1	3462.7	1197.4	645.6	518.9	447.6	417.6	411.0	400.7	388.5	386.6
60°	4882.4	3246.8	1037.9	611.8	503.9	429.8	394.1	391.3	387.6	377.2	376.3
62.5°	4513.6	2788.9	864.3	567.7	478.6	411.0	372.5	377.2	380.0	374.4	373.5
65°	3899.9	2264.3	738.5	506.7	444.8	384.7	349.1	361.3	368.8	368.8	366.9
67.5°	3163.3	1738.8	622.2	454.2	402.6	349.1	322.8	332.2	337.8	335.9	340.6
70°	2248.4	1177.7	506.7	394.1	349.1	308.7	289.0	289.0	285.3	283.4	283.4
72.5°	1090.4	672.8	411.0	329.4	297.5	263.7	247.7	241.2	233.7	232.7	228.0
73°	911.2	603.4	392.2	317.2	285.3	257.1	239.3	229.0	224.3	220.5	219.6
75°	554.6	457.9	327.5	267.4	243.0	221.5	205.5	196.1	191.4	188.6	187.7
77.5°	365.0	341.6	254.3	204.6	185.8	172.7	166.1	156.7	153.9	150.1	150.1
80°	272.1	260.9	182.0	144.5	133.3	122.0	120.1	118.2	110.7	106.0	104.2
82.5°	175.5	185.8	123.9	96.7	84.5	75.1	76.0	78.8	71.3	64.7	62.9
85°	124.8	134.2	75.1	44.1	35.7	31.0	34.7	31.0	31.9	25.3	20.6
87.5°	20.6	35.7	13.1	5.6	2.8	1.9	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)