

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: P454058

Luminaire Tested: **GALN-SA5A-827-U-SL4**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P454058
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-SA5A-827-U-SL4
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(5) 80 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: 16479 lumens
Efficiency: N/A
Efficacy: 107.0 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

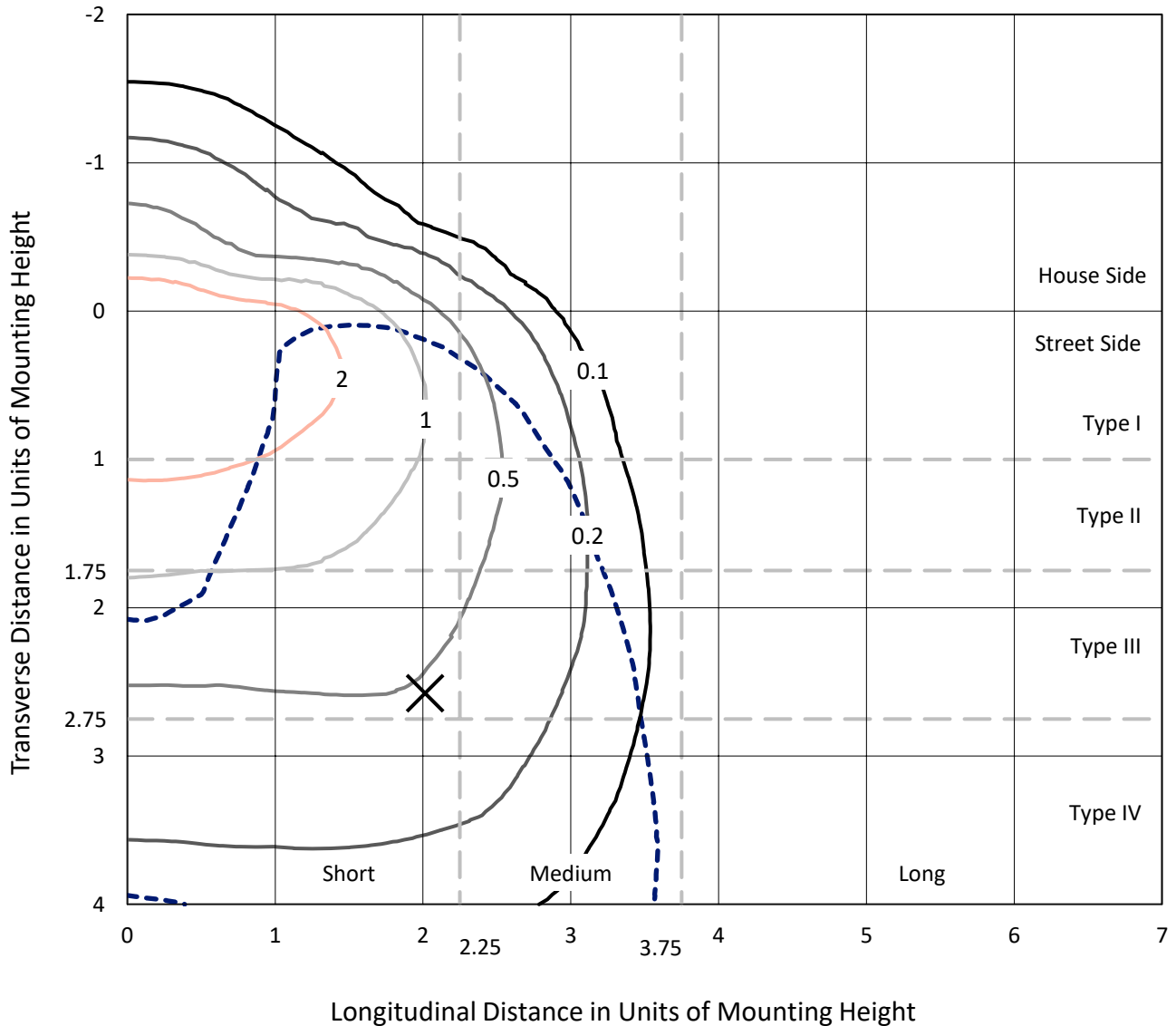
Input Watts (W): 154
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

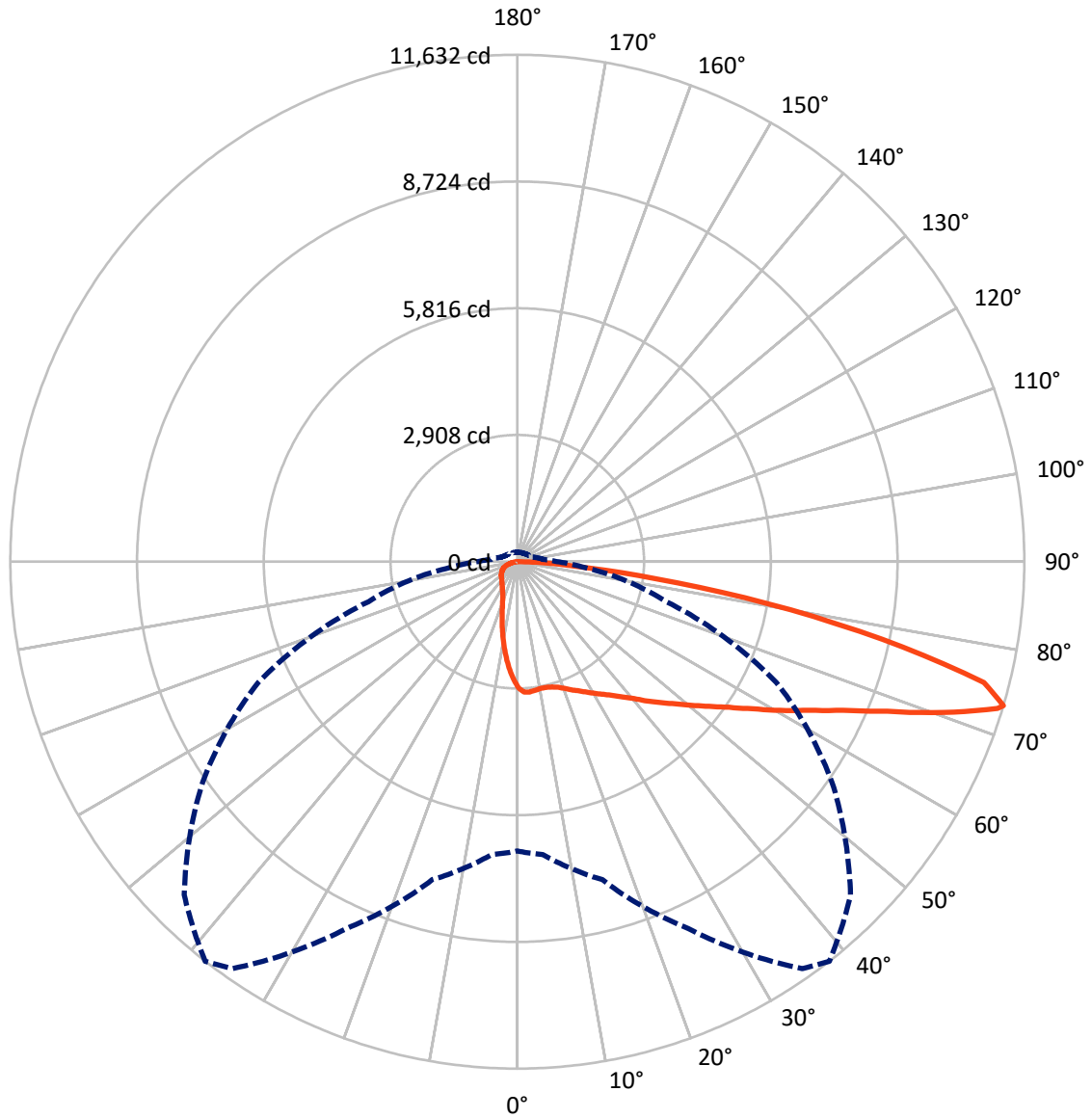
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.7 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	2215.3	0.0	2215.3
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	14263.7	0.0	14263.7
	% Fixture	86.6	0.0	86.6
Total	Lumens	16479.0	0.0	16479.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	252.7	1.5
10°-20°	648.0	3.9
20°-30°	1009.1	6.1
30°-40°	1480.1	9.0
40°-50°	2195.6	13.3
50°-60°	3110.7	18.9
60°-70°	3946.0	23.9
70°-80°	3284.8	19.9
80°-90°	551.9	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°	16479.0	100.0
0°-180°	16479.0	100.0

Coefficient of Utilization



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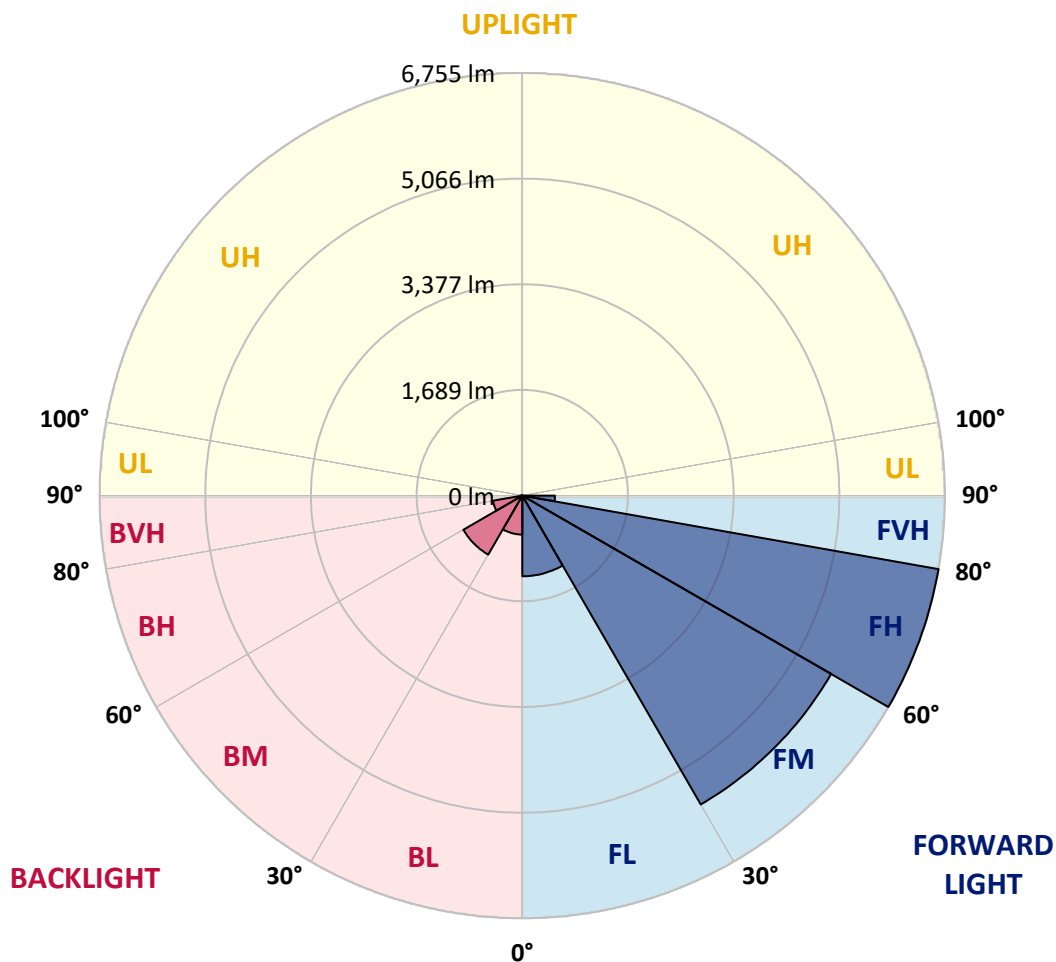
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1288.2	7.8			
FM	(30°-60°)	5698.9	34.6			
FH	(60°-80°)	6754.7	41.0			G3/7500
FVH	(80°-90°)	522.0	3.2			G4/750
BL	(0°-30°)	621.6	3.8	B2/1000		
BM	(30°-60°)	1087.6	6.6	B2/2500		
BH	(60°-80°)	476.1	2.9	B1/500		G1/500
BVH	(80°-90°)	29.9	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-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	2895.1	2895.1	2895.1	2895.1	2895.1	2895.1	2895.1	2895.1	2895.1	2895.1	2895.1
2.5°	3011.4	3026.3	3018.9	3008.6	3002.1	2995.6	2986.3	2959.3	2937.9	2914.6	2878.3
5°	3033.7	3043.0	3036.5	3023.5	3008.6	3002.1	2984.4	2949.1	2914.6	2875.5	2821.6
7.5°	3020.7	3024.4	3017.0	3001.2	2988.1	2976.0	2955.6	2916.5	2874.6	2827.1	2756.4
10°	2974.2	2988.1	2988.1	2975.1	2962.1	2955.6	2935.1	2897.9	2859.7	2805.7	2722.0
12.5°	2936.0	2950.9	2963.0	2959.3	2958.4	2958.4	2942.5	2914.6	2870.0	2818.8	2719.2
15°	2910.0	2927.7	2953.7	2968.6	2977.9	2980.7	2974.2	2950.0	2904.4	2844.8	2730.4
17.5°	2904.4	2925.8	2973.3	3005.8	3030.0	3029.1	3027.2	2993.7	2943.5	2882.1	2744.3
20°	2929.5	2957.4	3023.5	3074.7	3110.0	3103.5	3093.3	3049.6	2990.9	2922.1	2757.4
22.5°	3004.9	3033.7	3106.3	3162.2	3196.6	3196.6	3165.9	3108.2	3045.8	2968.6	2775.0
25°	3112.8	3144.5	3221.7	3278.5	3294.3	3282.2	3251.5	3181.7	3110.0	3035.6	2812.3
27.5°	3245.0	3283.1	3354.8	3402.3	3397.6	3388.3	3356.7	3267.3	3195.7	3127.7	2875.5
30°	3409.7	3437.6	3512.1	3523.2	3506.5	3504.6	3460.0	3370.6	3303.6	3251.5	2965.8
32.5°	3565.1	3590.2	3649.8	3654.4	3624.7	3628.4	3586.5	3504.6	3466.5	3447.9	3117.5
35°	3729.8	3742.9	3794.0	3788.5	3768.9	3766.1	3749.4	3671.2	3683.3	3716.8	3332.5
37.5°	3867.6	3893.6	3922.5	3927.1	3926.2	3935.5	3946.7	3909.4	3979.2	4084.4	3614.4
40°	3994.1	4016.4	4059.3	4074.1	4110.4	4129.0	4167.2	4168.1	4329.1	4502.2	3961.5
42.5°	4079.7	4117.9	4197.9	4224.9	4313.3	4369.1	4425.9	4486.4	4720.0	4942.4	4371.0
45°	4154.2	4204.4	4337.5	4421.3	4541.3	4609.2	4729.3	4855.8	5191.8	5483.1	4787.0
47.5°	4266.8	4311.4	4464.1	4612.0	4793.5	4871.7	5051.3	5240.2	5679.4	5998.6	5185.3
50°	4423.1	4450.1	4605.5	4846.5	5078.3	5178.8	5416.1	5688.7	6200.6	6507.7	5535.2
52.5°	4623.2	4634.4	4758.1	5079.2	5384.4	5509.1	5823.7	6141.9	6656.5	6949.7	5812.5
55°	4859.6	4841.0	4937.7	5325.8	5734.3	5897.2	6235.0	6600.7	7169.3	7307.0	6014.4
57.5°	5093.1	5064.3	5141.5	5625.4	6166.1	6362.5	6756.1	7073.5	7627.2	7641.1	6155.9
60°	5340.7	5319.3	5411.4	5977.2	6695.6	6928.3	7292.1	7563.9	8070.1	7873.8	6178.2
62.5°	5594.7	5560.3	5691.5	6372.7	7292.1	7503.4	7856.1	8085.0	8504.7	7960.3	5963.3
65°	5841.3	5825.5	6028.4	6842.7	7971.5	8211.6	8554.0	8709.4	8852.8	7830.0	5430.0
67.5°	6103.8	6135.4	6459.3	7469.9	8857.4	9158.9	9528.4	9382.3	8952.3	7213.0	4572.9
70°	6503.9	6524.4	7025.1	8291.6	9999.2	10363.1	10541.8	9621.4	8472.1	6041.4	3437.6
72.5°	6676.1	6766.4	7530.4	9154.3	11296.5	11518.9	10882.4	9088.2	7057.6	4103.9	1806.3
73°	6637.9	6745.9	7553.6	9285.5	11397.9	11631.5	10809.8	8813.7	6560.7	3534.4	1548.5
75°	6162.4	6295.5	7251.2	9175.7	11200.6	11061.1	9642.8	7511.8	4433.4	1607.1	705.4
77.5°	4862.4	4900.5	5745.5	7409.4	8820.2	8561.5	7216.8	4694.9	1810.9	597.4	400.2
80°	2439.1	2579.6	3238.5	4244.4	5898.1	5813.4	4555.3	2220.4	754.7	350.8	265.2
82.5°	1173.5	1273.1	1577.4	2069.6	3258.9	3181.7	2255.8	1213.5	479.3	204.7	156.3
85°	755.6	830.1	1004.1	987.4	1340.1	1279.6	1013.4	918.5	283.8	107.0	108.9
87.5°	498.8	546.3	655.1	523.9	487.6	441.1	447.6	517.4	55.8	40.9	14.9
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°	2895.1	2895.1	2895.1	2895.1	2895.1	2895.1	2895.1	2895.1	2895.1	2895.1	2895.1
2.5°	2863.4	2851.3	2811.3	2772.2	2735.0	2699.7	2676.4	2645.7	2625.2	2630.8	2639.2
5°	2791.8	2764.8	2694.1	2625.2	2560.1	2482.8	2420.5	2370.2	2332.1	2318.1	2315.3
7.5°	2716.4	2670.8	2569.4	2451.2	2340.4	2244.6	2133.9	2078.9	2014.7	1992.4	1985.0
10°	2670.8	2609.4	2467.0	2302.3	2135.7	1976.6	1856.5	1758.8	1670.4	1653.7	1645.3
12.5°	2657.8	2576.8	2385.1	2172.9	1951.5	1756.0	1578.3	1449.9	1364.3	1344.7	1315.9
15°	2650.3	2549.8	2308.8	2042.7	1761.6	1523.4	1336.3	1186.5	1108.3	1056.2	1057.2
17.5°	2643.8	2519.1	2223.2	1900.3	1597.8	1323.3	1116.7	981.8	910.1	882.2	879.4
20°	2634.5	2482.8	2124.5	1750.4	1410.8	1140.9	953.9	853.4	805.0	781.7	780.8
22.5°	2630.8	2447.5	2027.8	1597.8	1245.1	1000.4	845.9	775.2	744.5	728.7	728.7
25°	2640.1	2422.3	1926.3	1452.7	1098.1	880.3	771.5	723.1	705.4	697.0	694.2
27.5°	2668.9	2411.2	1825.8	1307.5	963.2	798.5	721.2	687.7	674.7	668.2	669.1
30°	2723.9	2410.2	1727.2	1164.2	862.7	736.1	681.2	657.9	647.7	644.0	643.0
32.5°	2812.3	2430.7	1630.4	1046.0	778.0	684.0	644.0	627.2	622.6	619.8	618.8
35°	2962.1	2488.4	1534.6	938.0	712.8	637.5	608.6	600.2	593.7	596.5	597.4
37.5°	3164.0	2588.0	1443.4	853.4	663.5	603.0	578.8	571.4	567.7	570.5	573.2
40°	3434.8	2731.3	1367.0	785.4	628.2	574.2	552.8	546.3	542.5	547.2	548.1
42.5°	3733.5	2896.9	1303.8	732.4	599.3	550.0	529.5	522.1	519.3	522.1	523.0
45°	4040.6	3089.6	1271.2	694.2	575.1	532.3	510.9	502.5	496.0	494.1	496.9
47.5°	4343.1	3257.1	1270.3	671.0	555.6	516.5	493.2	483.9	475.5	470.9	470.0
50°	4589.7	3390.2	1292.6	660.7	538.8	498.8	475.5	466.2	455.1	445.8	447.6
52.5°	4775.8	3476.7	1302.8	656.1	529.5	480.2	456.9	448.5	435.5	423.4	423.4
55°	4895.9	3497.2	1277.7	651.4	522.1	460.6	435.5	428.1	415.0	402.9	402.9
57.5°	4936.8	3433.9	1187.4	640.2	514.6	443.9	414.1	407.6	397.4	385.3	383.4
60°	4841.9	3219.9	1029.2	606.7	499.7	426.2	390.8	388.1	384.3	374.1	373.2
62.5°	4476.2	2765.7	857.1	563.0	474.6	407.6	369.4	374.1	376.9	371.3	370.4
65°	3867.6	2245.5	732.4	502.5	441.1	381.5	346.2	358.3	365.7	365.7	363.9
67.5°	3137.0	1724.4	617.0	450.4	399.2	346.2	320.1	329.4	335.0	333.2	337.8
70°	2229.7	1167.9	502.5	390.8	346.2	306.2	286.6	286.6	282.9	281.0	281.0
72.5°	1081.4	667.2	407.6	326.6	295.0	261.5	245.7	239.2	231.7	230.8	226.1
73°	903.6	598.4	389.0	314.5	282.9	255.0	237.3	227.1	222.4	218.7	217.8
75°	550.0	454.1	324.8	265.2	241.0	219.6	203.8	194.5	189.8	187.0	186.1
77.5°	362.0	338.7	252.2	202.9	184.3	171.2	164.7	155.4	152.6	148.9	148.9
80°	269.9	258.7	180.5	143.3	132.1	121.0	119.1	117.3	109.8	105.2	103.3
82.5°	174.0	184.3	122.8	95.9	83.8	74.4	75.4	78.2	70.7	64.2	62.3
85°	123.8	133.1	74.4	43.7	35.4	30.7	34.4	30.7	31.6	25.1	20.5
87.5°	20.5	35.4	13.0	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)