

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: P651429

Luminaire Tested: **GALN-SA5D-840-U-T4FT-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P651429  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-29)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GALN-SA5D-840-U-T4FT-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(5) 80 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 23461.4 lumens  
Efficiency: N/A  
Efficacy: 75.9 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G4

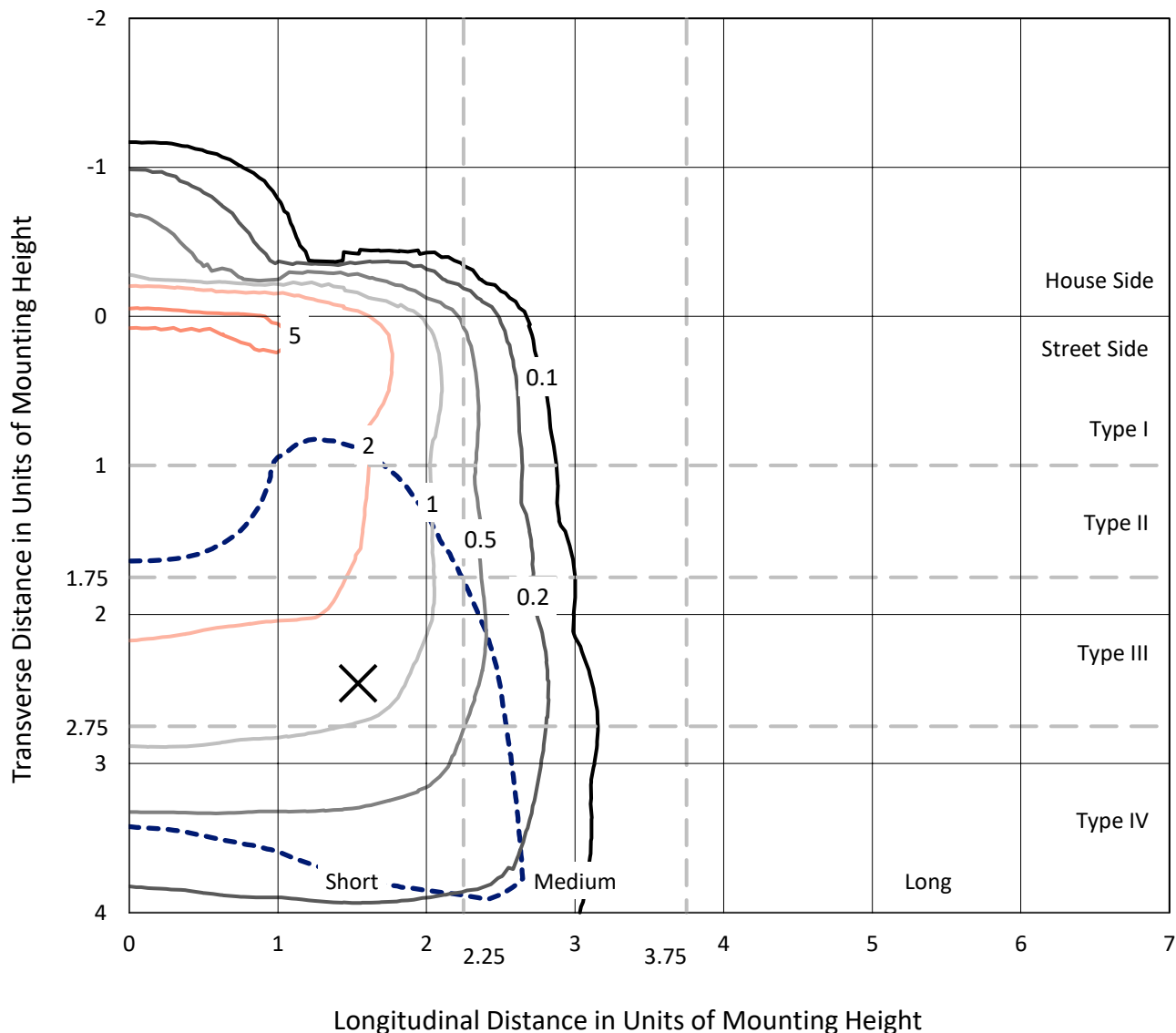
Input Watts (W): 309  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

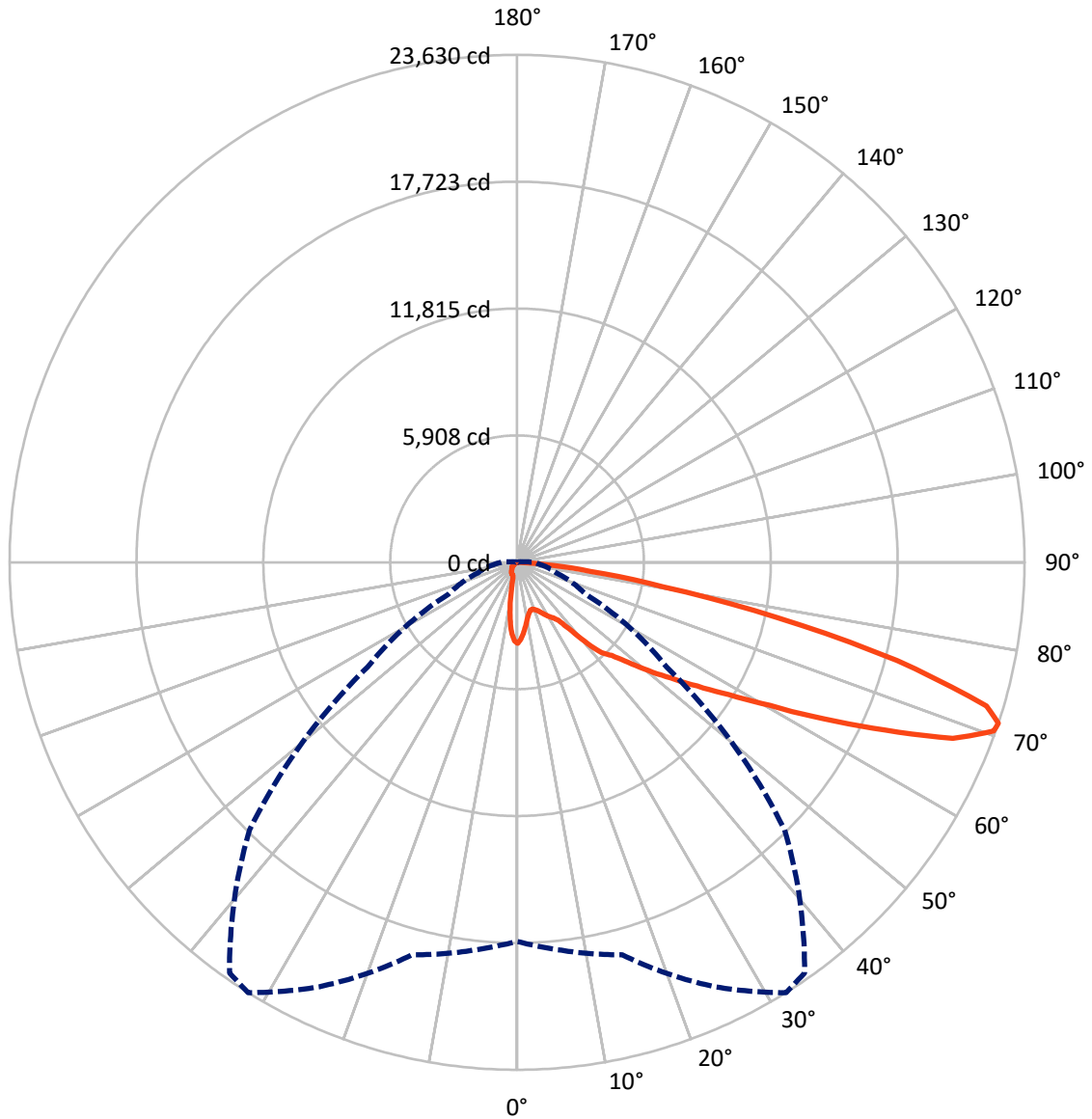
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 32-Deg Lateral      - - - Horizontal Cone Through 71-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1965.1	0.0	1965.1
	% Fixture	8.4	0.0	8.4
<b>Street Side</b>	Lumens	21496.2	0.0	21496.2
	% Fixture	91.6	0.0	91.6
<b>Total</b>	Lumens	23461.4	0.0	23461.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	306.8	1.3
10°-20°	665.8	2.8
20°-30°	1035.8	4.4
30°-40°	1725.7	7.4
40°-50°	3210.1	13.7
50°-60°	5153.9	22.0
60°-70°	6932.3	29.5
70°-80°	4113.0	17.5
80°-90°	317.9	1.4
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°	23461.4	100.0
0°-180°	23461.4	100.0

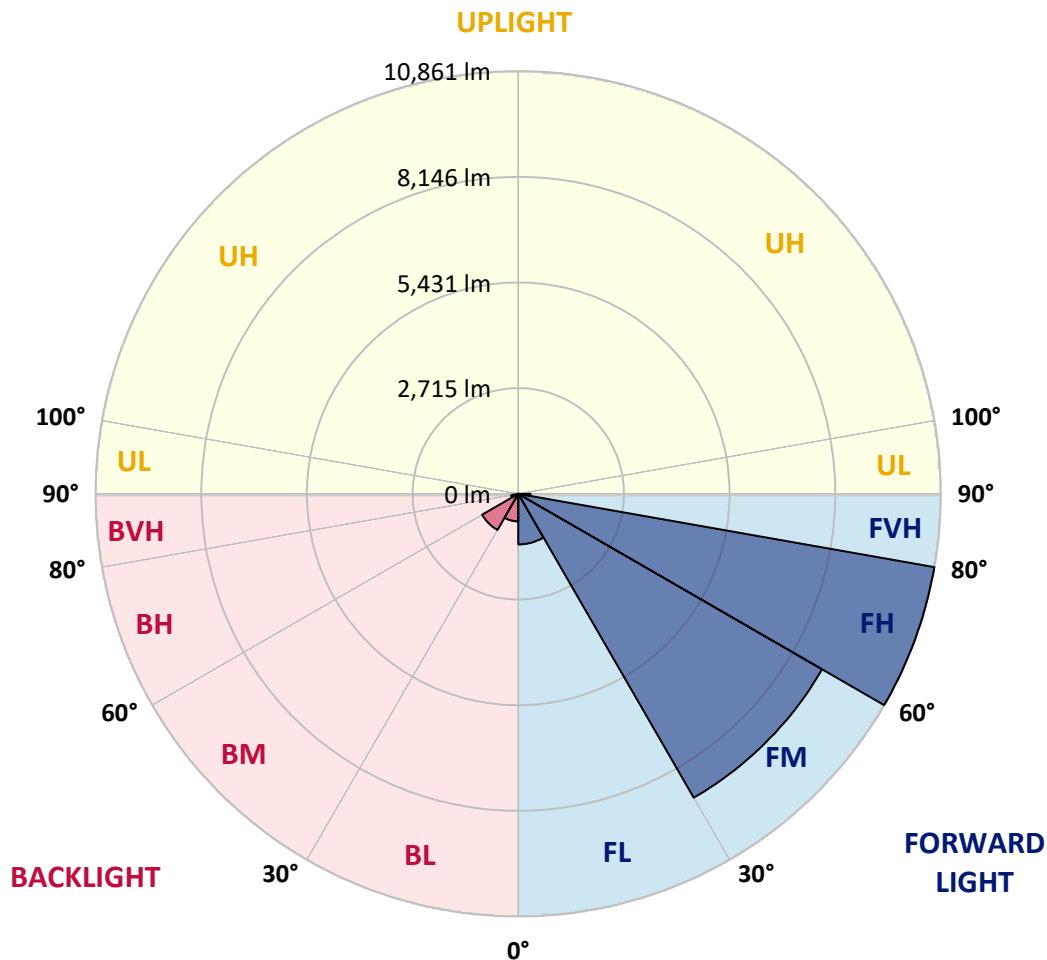


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1300.4	5.5			
FM (30°-60°)	9017.7	38.4			
FH (60°-80°)	10861.5	46.3			G4/12000
FVH (80°-90°)	316.7	1.3			G3/500
BL (0°-30°)	708.1	3.0	B2/1000		
BM (30°-60°)	1072.0	4.6	B2/2500		
BH (60°-80°)	183.8	0.8	B1/500		G1/500
BVH (80°-90°)	1.2	0.0			G0/10
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°	32°	35°	45°	55°	65°	75°	85°
0°	3773.0	3773.0	3773.0	3773.0	3773.0	3773.0	3773.0	3773.0	3773.0	3773.0	3773.0
2.5°	3499.2	3535.2	3529.8	3542.5	3573.1	3585.7	3619.9	3657.7	3709.9	3746.0	3769.4
5°	3133.7	3160.6	3164.3	3227.3	3257.9	3292.1	3392.9	3502.8	3625.3	3722.5	3787.4
7.5°	2742.8	2757.2	2786.1	2868.9	2946.4	2980.5	3133.7	3324.6	3517.2	3699.1	3816.2
10°	2420.5	2436.6	2488.9	2577.2	2649.2	2694.2	2906.7	3146.3	3416.4	3686.5	3857.6
12.5°	2236.7	2245.7	2265.6	2344.8	2436.6	2485.3	2714.0	2987.7	3335.3	3691.9	3927.8
15°	2224.2	2220.6	2197.1	2229.6	2312.4	2362.8	2586.2	2879.7	3263.3	3709.9	4010.6
17.5°	2290.8	2281.8	2226.0	2226.0	2294.4	2335.8	2532.1	2822.1	3227.3	3751.4	4127.7
20°	2393.4	2379.0	2287.2	2280.0	2346.6	2389.9	2564.5	2825.7	3234.5	3828.8	4284.4
22.5°	2523.1	2506.9	2368.3	2371.8	2443.9	2487.1	2658.1	2890.5	3279.5	3924.3	4451.9
25°	2692.4	2674.4	2510.5	2503.3	2578.9	2616.8	2796.8	3005.7	3342.6	4043.1	4671.6
27.5°	2917.5	2879.7	2683.4	2672.6	2753.6	2802.2	2964.4	3160.6	3454.2	4207.0	4966.9
30°	3103.0	3061.6	2874.3	2845.4	2931.9	2969.7	3137.3	3369.6	3673.9	4493.3	5375.8
32.5°	3346.2	3284.9	3065.2	2989.6	3081.4	3130.0	3387.5	3758.5	3999.9	4795.9	5862.0
35°	3893.6	3855.8	3587.5	3322.7	3317.3	3378.5	3756.7	4151.2	4334.9	5267.8	6524.8
37.5°	4677.1	4650.0	4365.5	4010.6	3908.0	3879.2	4205.2	4583.4	4869.7	5916.1	7295.6
40°	5586.5	5523.4	5262.3	4961.6	4828.3	4743.7	4734.7	5226.3	5568.5	6796.7	8098.8
42.5°	6238.5	6123.2	5806.2	5784.6	5755.8	5667.5	5411.8	6166.4	6470.7	7744.0	8957.8
45°	6922.8	6748.1	6276.2	6195.2	6184.4	6179.0	6434.7	7279.4	7454.0	8770.5	9840.3
47.5°	7454.0	7315.4	6928.2	6892.2	6937.2	7059.7	7787.2	8460.8	8424.8	9685.5	10580.5
50°	8161.8	8057.4	7626.9	7695.4	7927.7	8127.6	9312.6	9748.5	9222.6	10405.8	11118.9
52.5°	8997.4	8804.8	8405.0	8590.5	8947.1	9280.2	10931.7	10875.8	9782.7	10947.9	11520.6
55°	9721.5	9584.5	9447.7	9640.4	10173.5	10589.5	12394.0	11720.5	10189.7	11383.7	11697.0
57.5°	10946.0	10913.7	10773.2	10969.5	11616.1	12048.3	13703.3	12376.0	10450.9	11610.6	11490.0
60°	12757.8	12705.6	12444.4	12694.8	13537.6	14216.6	14909.9	12964.9	10510.2	11522.4	10893.8
62.5°	14936.9	14758.6	14535.3	14904.5	16060.7	16359.7	16046.3	13314.3	10288.7	10820.0	9456.7
65°	16972.0	16788.3	16793.7	17571.7	18830.6	19034.1	17371.8	13262.1	9640.4	9060.5	6975.0
67.5°	18529.8	18499.2	18718.9	20237.1	21883.2	21742.7	18556.8	12480.4	7718.8	5872.9	3706.3
70°	18609.1	18668.5	19298.8	21861.5	23532.8	23309.5	18456.0	10144.6	4812.1	2701.4	1460.6
71°	17651.0	18050.7	18922.4	21811.1	23630.1	23340.1	17605.9	8496.8	3529.8	1883.8	1053.5
72.5°	15041.4	15252.1	17135.9	20527.0	22861.1	22241.5	15450.2	5955.7	2260.2	1152.6	605.1
75°	8284.3	8803.0	11475.5	16104.0	18284.9	17741.0	10069.0	2829.3	1127.4	630.3	250.4
77.5°	3944.0	3843.2	5599.1	9577.4	12397.6	12368.8	5073.2	1257.0	657.3	426.8	126.1
80°	1127.4	1267.9	2143.1	4552.8	6883.2	6958.8	1948.6	606.9	455.7	333.2	64.8
82.5°	340.4	347.6	787.0	2013.4	3423.5	3227.3	731.2	309.7	327.7	264.7	37.8
85°	59.5	73.8	232.3	709.6	1305.7	990.5	183.7	147.7	216.1	174.7	21.6
87.5°	3.6	5.4	77.5	81.1	115.3	66.6	32.4	21.6	46.8	46.8	12.6
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°	3773.0	3773.0	3773.0	3773.0	3773.0	3773.0	3773.0	3773.0	3773.0	3773.0	3773.0
2.5°	3785.6	3796.4	3789.1	3773.0	3746.0	3713.5	3670.3	3634.3	3603.7	3587.5	3607.3
5°	3809.0	3823.4	3787.4	3706.3	3583.8	3450.6	3299.3	3182.3	3090.4	3061.6	3050.8
7.5°	3845.0	3854.0	3756.7	3576.7	3317.3	3002.1	2726.6	2494.3	2314.2	2260.2	2181.0
10°	3891.8	3886.4	3702.8	3367.8	2912.1	2438.5	2011.7	1694.7	1455.2	1368.7	1361.5
12.5°	3963.9	3935.0	3634.3	3083.2	2429.5	1809.9	1282.3	1003.1	851.8	801.4	790.6
15°	4053.9	3985.5	3526.2	2750.0	1860.4	1168.8	790.6	705.9	686.2	682.6	678.9
17.5°	4160.2	4052.1	3383.9	2341.2	1307.5	758.2	660.9	659.2	660.9	657.3	655.6
20°	4304.2	4122.3	3214.6	1856.8	864.5	639.3	630.3	630.3	632.1	630.3	630.3
22.5°	4457.3	4205.2	3005.7	1417.3	651.9	606.9	605.1	608.7	612.3	610.5	610.5
25°	4646.4	4313.2	2730.2	970.7	583.5	579.9	581.7	588.9	596.1	598.0	596.1
27.5°	4920.2	4446.5	2434.9	668.2	534.9	538.5	556.5	574.5	585.3	587.1	587.1
30°	5228.1	4594.2	2049.4	542.1	495.3	495.3	516.9	551.1	574.5	578.1	579.9
32.5°	5624.4	4765.3	1622.6	488.0	457.4	453.8	473.7	515.0	558.3	570.9	570.9
35°	6114.2	4966.9	1206.7	453.8	430.4	421.4	432.2	466.4	522.3	558.3	561.9
37.5°	6688.6	5157.9	882.5	423.2	405.2	392.6	399.8	426.8	471.9	525.9	540.3
40°	7219.9	5327.1	659.2	398.0	380.0	371.0	376.4	389.0	426.8	477.3	486.3
42.5°	7799.9	5458.6	524.1	371.0	354.8	351.2	351.2	356.6	381.8	410.6	412.4
45°	8378.0	5505.4	439.4	338.6	327.7	331.4	329.6	326.0	336.7	333.2	333.2
47.5°	8790.4	5449.6	363.8	308.0	308.0	313.4	304.4	291.7	286.4	264.7	266.5
50°	9073.1	5246.2	299.0	272.0	286.4	293.6	275.5	255.7	235.9	212.5	207.1
52.5°	9190.2	4884.1	244.9	225.1	253.9	262.9	241.4	217.9	187.3	167.5	162.1
55°	9114.5	4437.5	203.5	183.7	214.3	225.1	203.5	176.5	142.3	120.7	117.1
57.5°	8781.4	3904.4	172.9	145.9	171.1	178.3	163.9	135.1	100.8	79.2	79.2
60°	8205.0	3353.3	140.4	115.3	127.8	138.7	124.3	97.2	68.5	48.6	45.0
62.5°	7036.2	2723.0	113.5	90.1	90.1	99.1	86.5	70.2	43.2	25.2	23.4
65°	5080.4	1867.6	90.1	66.6	64.8	64.8	54.0	46.8	25.2	10.8	7.2
67.5°	2760.8	1053.5	72.1	50.5	45.0	43.2	34.2	27.0	10.8	1.8	0.0
70°	1086.0	405.2	55.8	34.2	28.8	27.0	18.0	12.6	7.2	0.0	0.0
71°	736.5	279.1	48.6	28.8	23.4	19.8	14.4	10.8	5.4	0.0	0.0
72.5°	421.4	172.9	37.8	21.6	18.0	14.4	10.8	7.2	5.4	0.0	0.0
75°	183.7	88.2	23.4	16.2	12.6	9.0	7.2	5.4	1.8	0.0	0.0
77.5°	93.7	48.6	16.2	12.6	7.2	5.4	3.6	1.8	0.0	0.0	0.0
80°	52.2	25.2	10.8	7.2	5.4	3.6	1.8	1.8	0.0	0.0	0.0
82.5°	28.8	14.4	5.4	3.6	1.8	0.0	0.0	0.0	0.0	0.0	0.0
85°	18.0	9.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	9.0	3.6	0.0	0.0	0.0	0.0	1.8	1.8	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)