

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: P453811

Luminaire Tested: **GALN-SA4D-760-U-T4FT-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P453811  
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-SA4D-760-U-T4FT-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 5700K, 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: 22037 lumens  
Efficiency: N/A  
Efficacy: 89.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G4

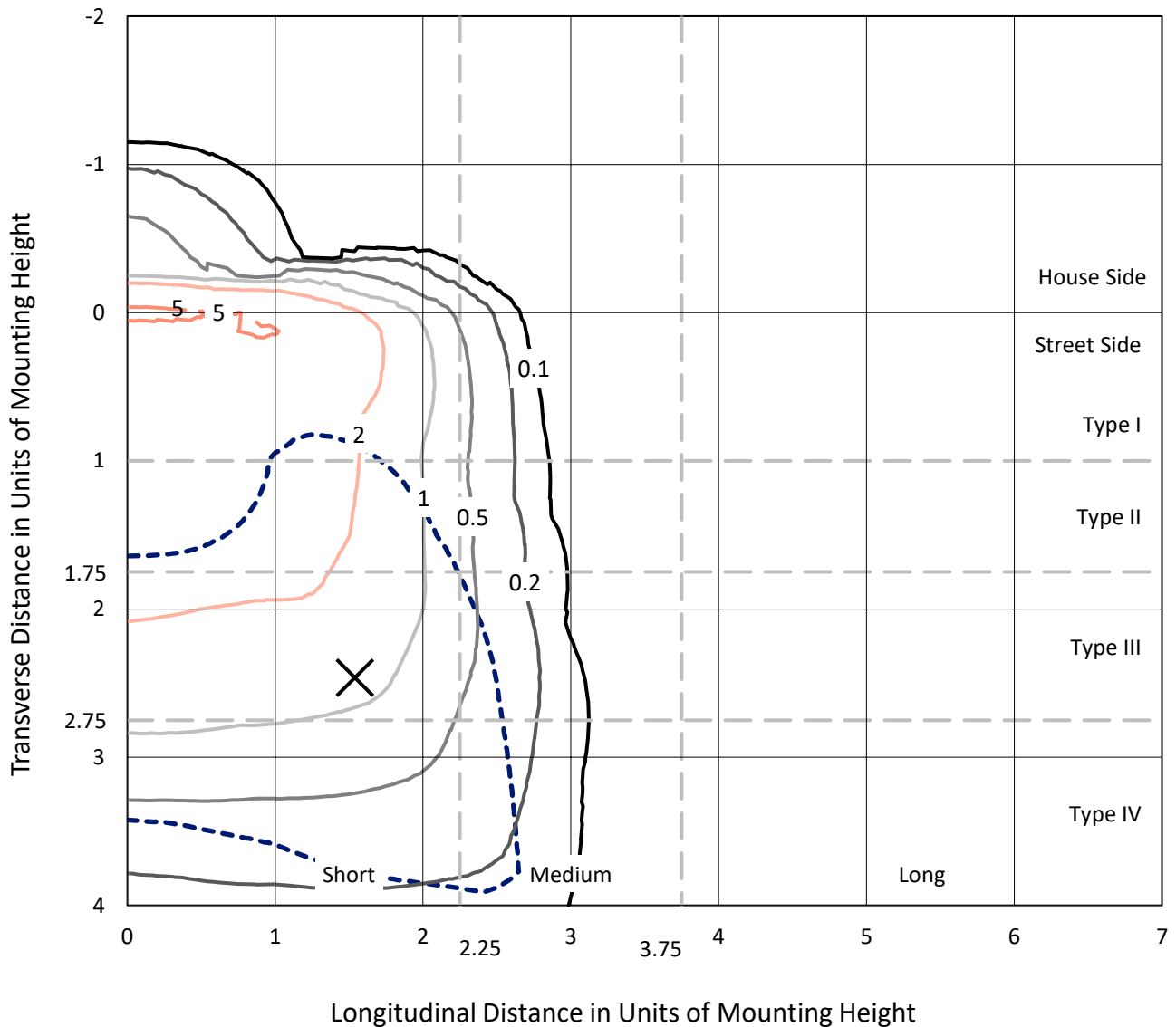
Input Watts (W): 245  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

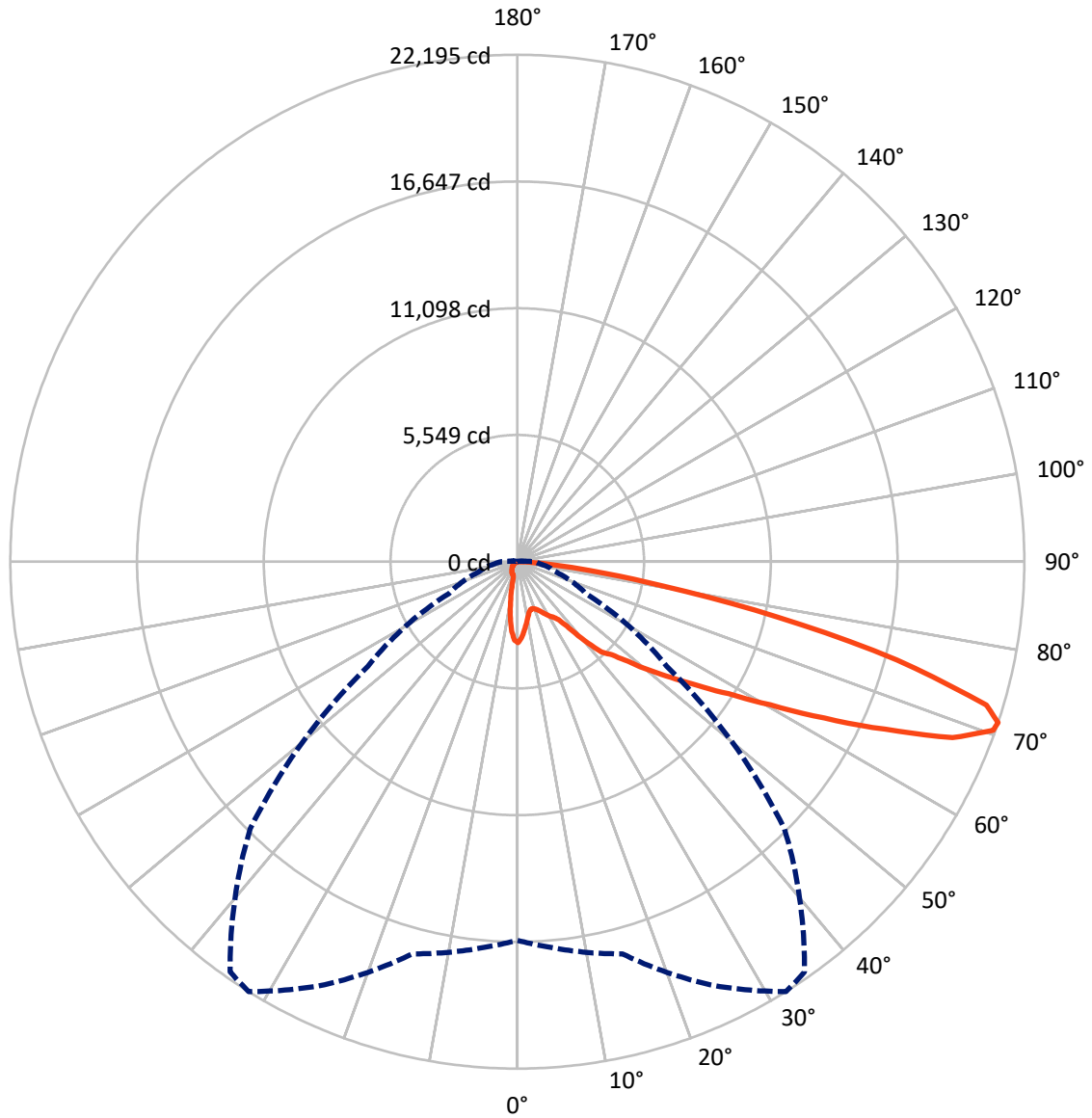
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.7 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	1845.8	0.0	1845.8
	% Fixture	8.4	0.0	8.4
<b>Street Side</b>	Lumens	20191.2	0.0	20191.2
	% Fixture	91.6	0.0	91.6
<b>Total</b>	Lumens	22037.0	0.0	22037.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	288.2	1.3
10°-20°	625.4	2.8
20°-30°	972.9	4.4
30°-40°	1620.9	7.4
40°-50°	3015.2	13.7
50°-60°	4841.0	22.0
60°-70°	6511.4	29.5
70°-80°	3863.3	17.5
80°-90°	298.6	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°	22037.0	100.0
0°-180°	22037.0	100.0



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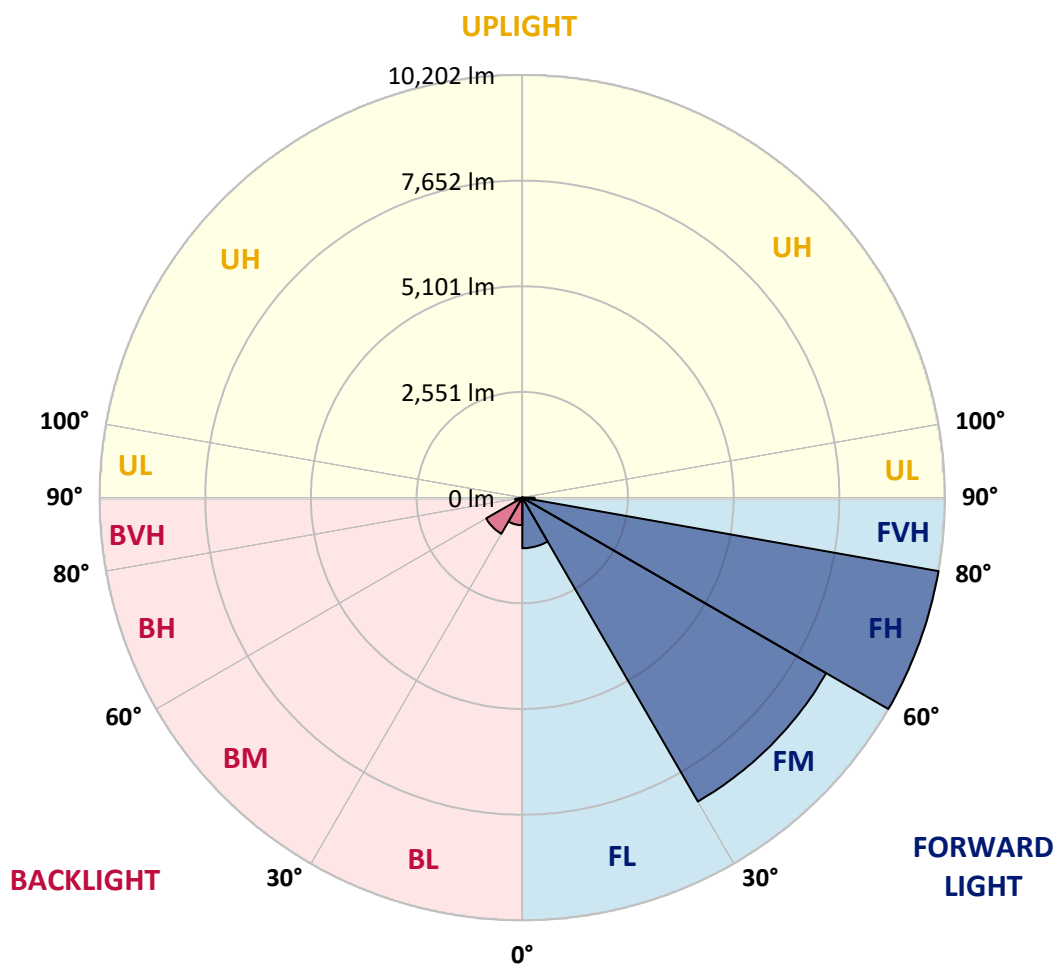
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1221.4	5.5			
FM	(30°-60°)	8470.2	38.4			
FH	(60°-80°)	10202.1	46.3			G4/12000
FVH	(80°-90°)	297.5	1.3			G3/500
BL	(0°-30°)	665.1	3.0	B2/1000		
BM	(30°-60°)	1006.9	4.6	B2/2500		
BH	(60°-80°)	172.6	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°	3543.9	3543.9	3543.9	3543.9	3543.9	3543.9	3543.9	3543.9	3543.9	3543.9	3543.9
2.5°	3286.8	3320.6	3315.5	3327.4	3356.1	3368.0	3400.1	3435.6	3484.7	3518.5	3540.5
5°	2943.4	2968.8	2972.1	3031.3	3060.1	3092.2	3187.0	3290.2	3405.2	3496.5	3557.4
7.5°	2576.3	2589.8	2616.9	2694.7	2767.5	2799.6	2943.4	3122.7	3303.7	3474.5	3584.5
10°	2273.5	2288.7	2337.8	2420.7	2488.3	2530.6	2730.2	2955.2	3209.0	3462.7	3623.4
12.5°	2101.0	2109.4	2128.0	2202.5	2288.7	2334.4	2549.2	2806.4	3132.8	3467.8	3689.4
15°	2089.1	2085.7	2063.7	2094.2	2172.0	2219.4	2429.1	2704.9	3065.2	3484.7	3767.2
17.5°	2151.7	2143.3	2090.8	2090.8	2155.1	2194.0	2378.4	2650.7	3031.3	3523.6	3877.1
20°	2248.1	2234.6	2148.3	2141.6	2204.1	2244.7	2408.8	2654.1	3038.1	3596.3	4024.3
22.5°	2369.9	2354.7	2224.4	2227.8	2295.5	2336.1	2496.8	2715.0	3080.4	3686.0	4181.6
25°	2528.9	2512.0	2358.1	2351.3	2422.4	2457.9	2627.0	2823.3	3139.6	3797.6	4388.0
27.5°	2740.4	2704.9	2520.5	2510.3	2586.5	2632.1	2784.4	2968.8	3244.5	3951.6	4665.4
30°	2914.6	2875.7	2699.8	2672.7	2753.9	2789.4	2946.8	3165.0	3450.9	4220.5	5049.4
32.5°	3143.0	3085.5	2879.1	2808.0	2894.3	2940.0	3181.9	3530.4	3757.0	4504.7	5506.1
35°	3657.2	3621.7	3369.7	3121.0	3115.9	3173.4	3528.7	3899.1	4071.7	4947.9	6128.7
37.5°	4393.1	4367.7	4100.4	3767.2	3670.8	3643.7	3949.9	4305.1	4574.1	5556.9	6852.7
40°	5247.3	5188.1	4942.8	4660.3	4535.2	4455.7	4447.2	4909.0	5230.4	6384.1	7607.1
42.5°	5859.7	5751.4	5453.7	5433.4	5406.3	5323.5	5083.2	5792.0	6077.9	7273.9	8414.0
45°	6502.5	6338.4	5895.2	5819.1	5808.9	5803.9	6044.1	6837.4	7001.5	8238.1	9242.9
47.5°	7001.5	6871.3	6507.6	6473.7	6516.0	6631.1	7314.5	7947.1	7913.3	9097.4	9938.1
50°	7666.3	7568.2	7163.9	7228.2	7446.4	7634.2	8747.2	9156.6	8662.7	9774.0	10443.9
52.5°	8451.2	8270.2	7894.7	8068.9	8403.8	8716.8	10268.0	10215.5	9188.7	10283.2	10821.1
55°	9131.2	9002.7	8874.1	9055.1	9555.8	9946.6	11641.6	11008.9	9571.1	10692.6	10986.9
57.5°	10281.5	10251.1	10119.1	10303.5	10910.8	11316.8	12871.4	11624.6	9816.3	10905.7	10792.4
60°	11983.3	11934.2	11688.9	11924.1	12715.7	13353.5	14004.7	12177.8	9872.2	10822.8	10232.5
62.5°	14030.1	13862.6	13652.9	13999.6	15085.7	15366.5	15072.1	12506.0	9664.1	10163.1	8882.6
65°	15941.6	15769.1	15774.1	16504.9	17687.3	17878.5	16317.1	12456.9	9055.1	8510.4	6551.6
67.5°	17404.8	17376.1	17582.4	19008.5	20554.6	20422.6	17430.2	11722.8	7250.2	5516.3	3481.3
70°	17479.3	17535.1	18127.1	20534.3	22104.1	21894.3	17335.5	9528.8	4519.9	2537.4	1371.9
71°	16579.3	16954.9	17773.6	20486.9	22195.4	21923.1	16537.0	7981.0	3315.5	1769.4	989.6
72.5°	14128.2	14326.1	16095.5	19280.8	21473.1	20891.2	14512.2	5594.1	2123.0	1082.6	568.4
75°	7781.3	8268.5	10778.9	15126.3	17174.8	16663.9	9457.7	2657.5	1058.9	592.1	235.1
77.5°	3704.6	3609.9	5259.2	8995.9	11644.9	11617.9	4765.2	1180.7	617.4	400.9	118.4
80°	1058.9	1190.9	2013.0	4276.4	6465.3	6536.3	1830.3	570.1	428.0	312.9	60.9
82.5°	319.7	326.5	739.2	1891.2	3215.7	3031.3	686.8	291.0	307.9	248.7	35.5
85°	55.8	69.4	218.2	666.5	1226.4	930.4	172.5	138.7	203.0	164.1	20.3
87.5°	3.4	5.1	72.7	76.1	108.3	62.6	30.4	20.3	44.0	44.0	11.8
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°	3543.9	3543.9	3543.9	3543.9	3543.9	3543.9	3543.9	3543.9	3543.9	3543.9	3543.9
2.5°	3555.7	3565.9	3559.1	3543.9	3518.5	3488.1	3447.5	3413.6	3384.9	3369.7	3388.3
5°	3577.7	3591.3	3557.4	3481.3	3366.3	3241.1	3099.0	2989.1	2902.8	2875.7	2865.6
7.5°	3611.6	3620.0	3528.7	3359.5	3115.9	2819.9	2561.1	2342.9	2173.7	2123.0	2048.5
10°	3655.5	3650.5	3477.9	3163.3	2735.3	2290.4	1889.5	1591.8	1366.8	1285.6	1278.8
12.5°	3723.2	3696.1	3413.6	2896.0	2282.0	1700.1	1204.4	942.2	800.1	752.8	742.6
15°	3807.8	3743.5	3312.1	2583.1	1747.4	1097.8	742.6	663.1	644.5	641.1	637.7
17.5°	3907.6	3806.1	3178.5	2199.1	1228.1	712.2	620.8	619.1	620.8	617.4	615.7
20°	4042.9	3872.1	3019.5	1744.0	812.0	600.5	592.1	592.1	593.8	592.1	592.1
22.5°	4186.7	3949.9	2823.3	1331.3	612.4	570.1	568.4	571.8	575.1	573.5	573.5
25°	4364.3	4051.4	2564.5	911.8	548.1	544.7	546.4	553.2	559.9	561.6	559.9
27.5°	4621.4	4176.6	2287.0	627.6	502.4	505.8	522.7	539.6	549.8	551.5	551.5
30°	4910.7	4315.3	1925.0	509.2	465.2	465.2	485.5	517.6	539.6	543.0	544.7
32.5°	5282.9	4476.0	1524.1	458.4	429.7	426.3	444.9	483.8	524.4	536.2	536.2
35°	5743.0	4665.4	1133.4	426.3	404.3	395.8	406.0	438.1	490.6	524.4	527.8
37.5°	6282.6	4844.7	828.9	397.5	380.6	368.8	375.5	400.9	443.2	493.9	507.5
40°	6781.6	5003.7	619.1	373.8	356.9	348.5	353.5	365.4	400.9	448.3	456.7
42.5°	7326.3	5127.2	492.3	348.5	333.2	329.9	329.9	334.9	358.6	385.7	387.4
45°	7869.3	5171.2	412.7	318.0	307.9	311.3	309.6	306.2	316.3	312.9	312.9
47.5°	8256.7	5118.8	341.7	289.3	289.3	294.3	285.9	274.0	269.0	248.7	250.4
50°	8522.3	4927.6	280.8	255.4	269.0	275.7	258.8	240.2	221.6	199.6	194.5
52.5°	8632.2	4587.6	230.1	211.4	238.5	247.0	226.7	204.7	175.9	157.3	152.2
55°	8561.2	4168.1	191.2	172.5	201.3	211.4	191.2	165.8	133.6	113.3	110.0
57.5°	8248.2	3667.4	162.4	137.0	160.7	167.5	153.9	126.9	94.7	74.4	74.4
60°	7706.9	3149.8	131.9	108.3	120.1	130.3	116.7	91.3	64.3	45.7	42.3
62.5°	6609.1	2557.7	106.6	84.6	84.6	93.0	81.2	66.0	40.6	23.7	22.0
65°	4772.0	1754.2	84.6	62.6	60.9	60.9	50.7	44.0	23.7	10.1	6.8
67.5°	2593.2	989.6	67.7	47.4	42.3	40.6	32.1	25.4	10.1	1.7	0.0
70°	1020.0	380.6	52.4	32.1	27.1	25.4	16.9	11.8	6.8	0.0	0.0
71°	691.9	262.2	45.7	27.1	22.0	18.6	13.5	10.1	5.1	0.0	0.0
72.5°	395.8	162.4	35.5	20.3	16.9	13.5	10.1	6.8	5.1	0.0	0.0
75°	172.5	82.9	22.0	15.2	11.8	8.5	6.8	5.1	1.7	0.0	0.0
77.5°	88.0	45.7	15.2	11.8	6.8	5.1	3.4	1.7	0.0	0.0	0.0
80°	49.1	23.7	10.1	6.8	5.1	3.4	1.7	1.7	0.0	0.0	0.0
82.5°	27.1	13.5	5.1	3.4	1.7	0.0	0.0	0.0	0.0	0.0	0.0
85°	16.9	8.5	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	8.5	3.4	0.0	0.0	0.0	0.0	1.7	1.7	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)