

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: P453022

Luminaire Tested: **GALN-SA4A-730-U-T2R-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P453022  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GALN-SA4A-730-U-T2R-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II  
ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13191 lumens  
Efficiency: N/A  
Efficacy: 109.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G2

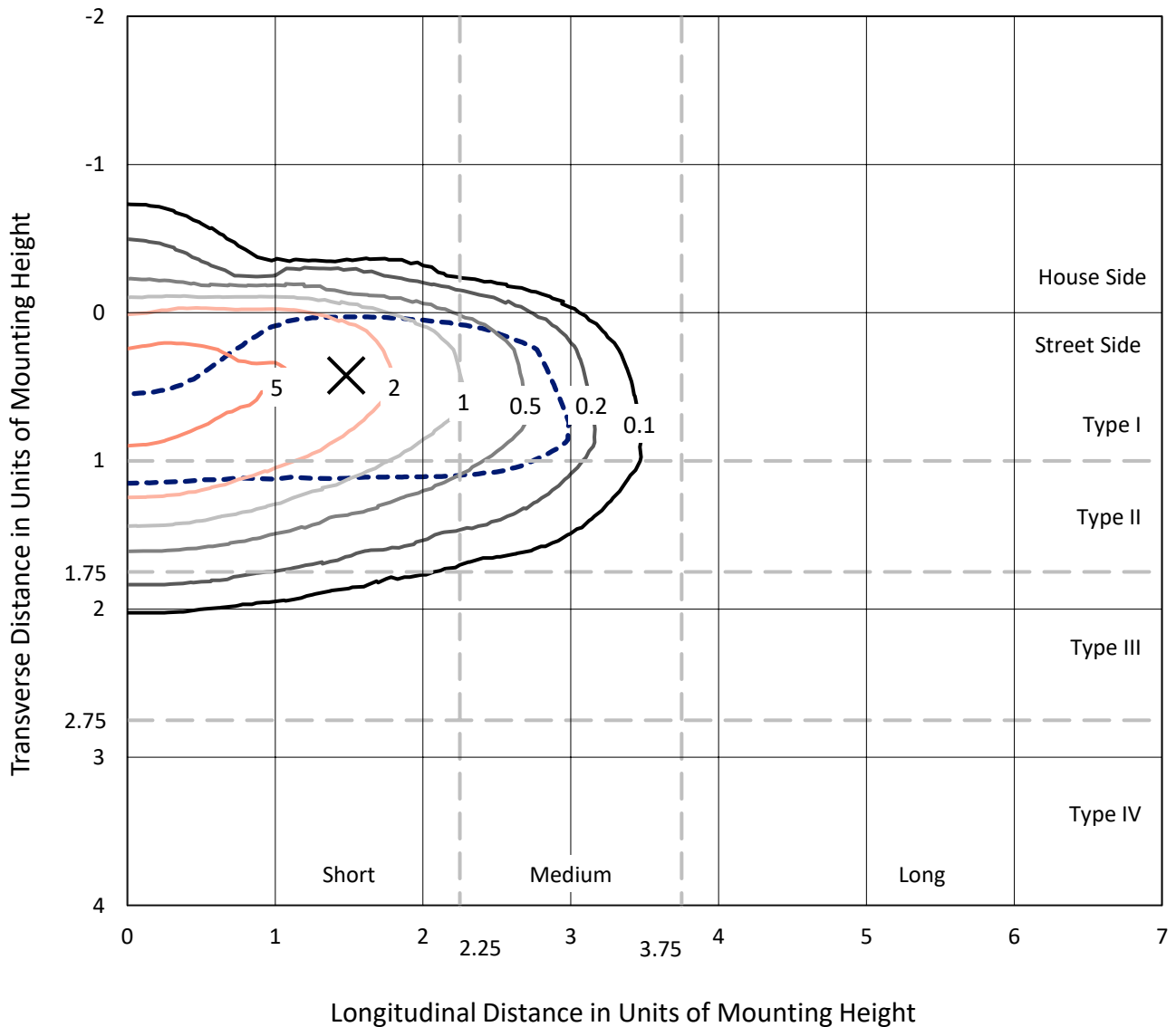
Input Watts (W): 121  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

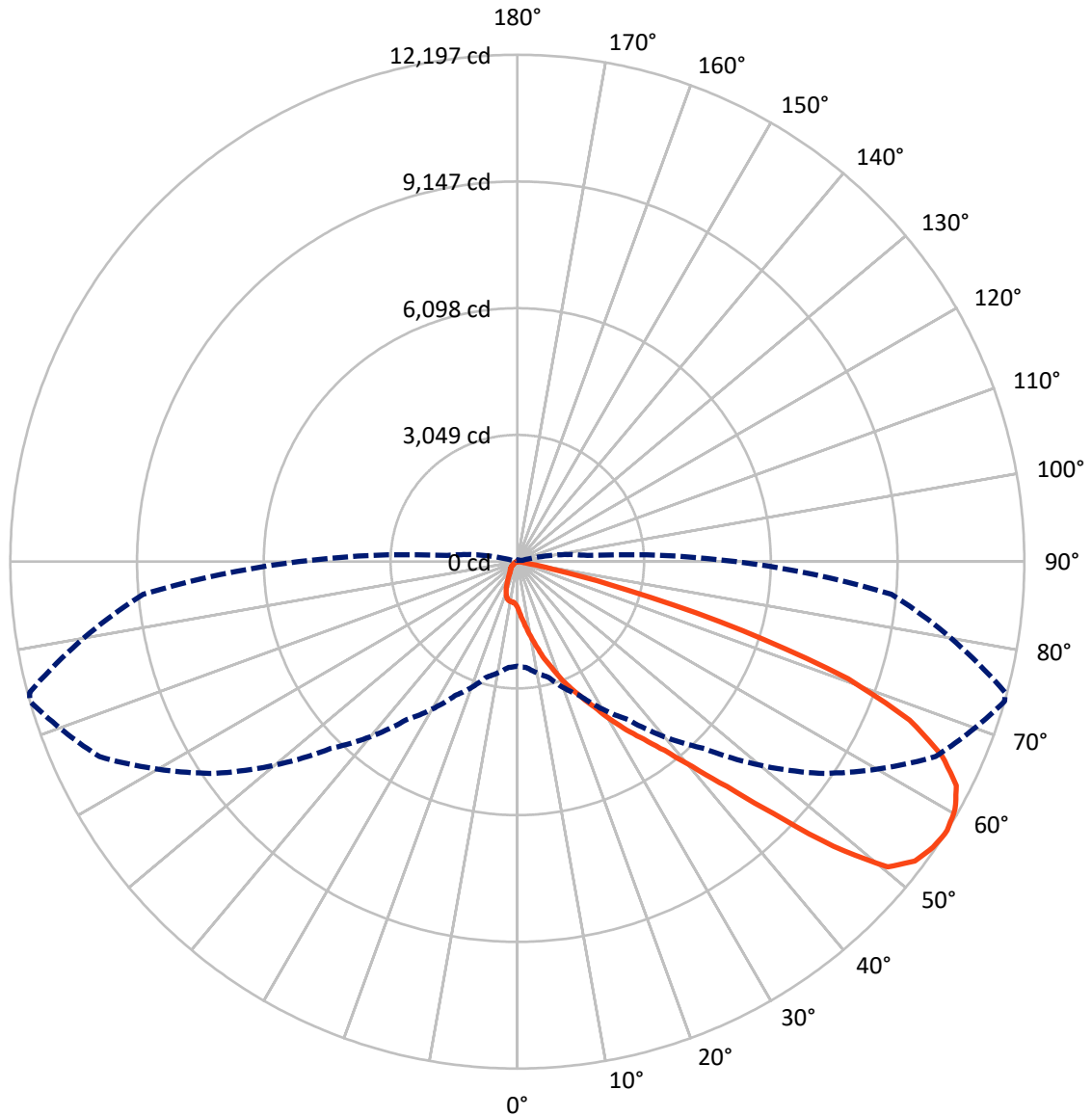
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.7 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 74-Deg Lateral    - - - Horizontal Cone Through 57-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	760.8	0.0	760.8
	% Fixture	5.8	0.0	5.8
<b>Street Side</b>	Lumens	12430.2	0.0	12430.2
	% Fixture	94.2	0.0	94.2
<b>Total</b>	Lumens	13191.0	0.0	13191.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	133.3	1.0
10°-20°	525.6	4.0
20°-30°	1124.6	8.5
30°-40°	2067.0	15.7
40°-50°	3168.8	24.0
50°-60°	3352.2	25.4
60°-70°	2189.1	16.6
70°-80°	598.1	4.5
80°-90°	32.2	0.2
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°	13191.0	100.0
0°-180°	13191.0	100.0

**Coefficient of Utilization**



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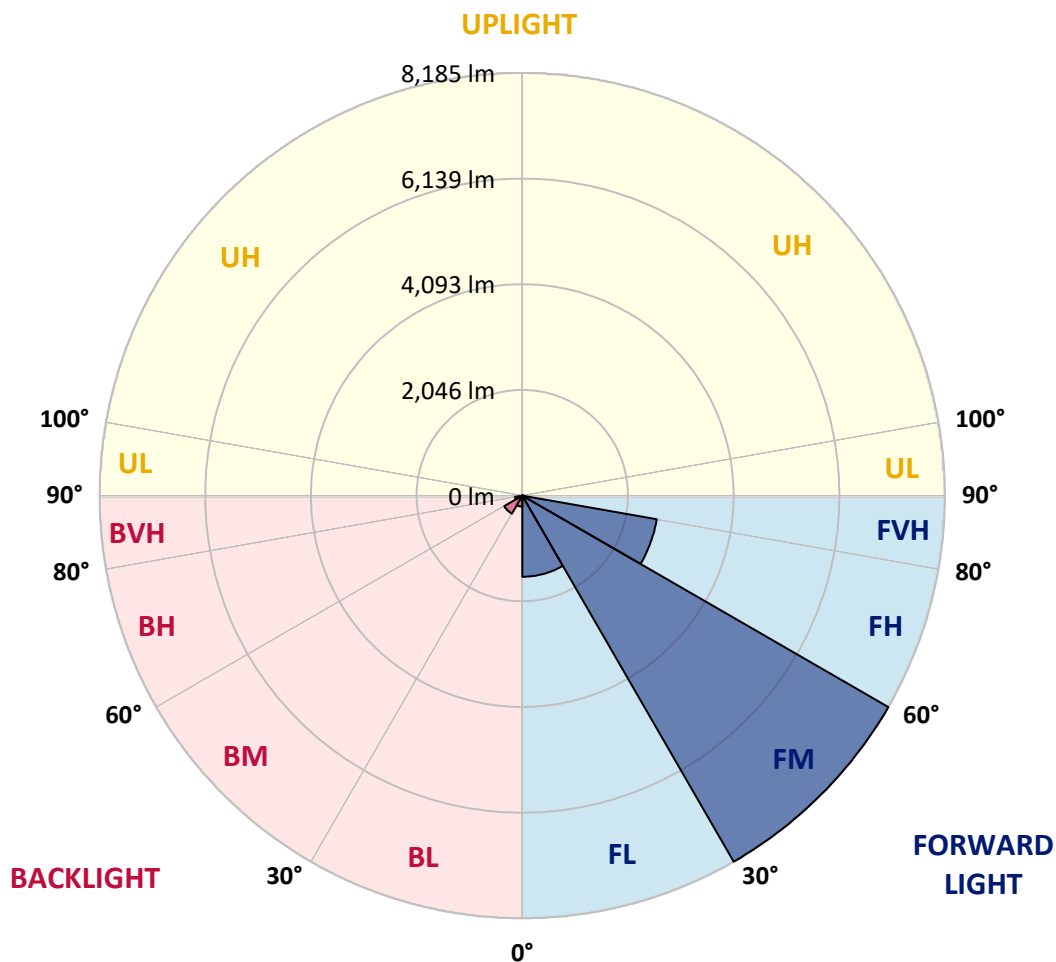
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1571.0	11.9			
FM (30°-60°)	8185.3	62.1			
FH (60°-80°)	2644.4	20.0			G2/5000
FVH (80°-90°)	29.5	0.2			G1/100
BL (0°-30°)	212.5	1.6	B1/500		
BM (30°-60°)	402.8	3.1	B1/1000		
BH (60°-80°)	142.8	1.1	B1/500		G1/500
BVH (80°-90°)	2.7	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	1104.7	1104.7	1104.7	1104.7	1104.7	1104.7	1104.7	1104.7	1104.7	1104.7	1104.7
2.5°	1616.6	1602.0	1572.9	1562.8	1520.0	1453.5	1395.3	1316.9	1255.0	1248.6	1173.9
5°	2164.8	2132.0	2118.4	2052.8	1949.9	1853.4	1687.6	1561.9	1417.1	1406.2	1255.9
7.5°	2693.1	2647.5	2633.9	2571.9	2451.7	2299.6	2084.7	1856.1	1626.6	1605.6	1366.1
10°	3075.6	3081.9	3057.4	3016.4	2918.9	2764.1	2499.1	2186.7	1859.7	1833.3	1490.0
12.5°	3349.7	3348.8	3353.3	3352.4	3300.5	3183.0	2904.4	2544.6	2116.6	2064.7	1632.0
15°	3528.2	3530.9	3544.6	3592.0	3597.4	3524.6	3292.3	2887.0	2414.4	2349.7	1786.0
17.5°	3708.5	3727.7	3749.5	3794.1	3834.2	3805.1	3641.1	3244.1	2684.0	2635.7	1950.8
20°	4006.4	4032.8	4020.0	4047.3	4068.3	4071.0	3944.4	3573.7	3010.9	2929.9	2139.3
22.5°	4482.7	4481.8	4449.0	4399.8	4358.8	4357.0	4242.2	3912.5	3307.8	3229.5	2328.8
25°	5084.7	5087.4	5023.6	4883.4	4781.4	4656.6	4524.6	4209.4	3625.7	3529.1	2528.2
27.5°	5775.0	5757.7	5661.2	5468.1	5265.9	5052.8	4862.4	4554.6	3962.6	3882.5	2756.8
30°	6395.2	6388.8	6275.9	6040.0	5774.1	5560.1	5284.1	4987.2	4398.9	4300.5	3012.7
32.5°	6972.6	6981.7	6825.1	6581.0	6324.2	6077.4	5785.9	5400.7	4826.9	4687.6	3291.4
35°	7423.5	7432.6	7270.4	7067.4	6803.2	6598.3	6320.5	5841.5	5249.5	5132.0	3612.0
37.5°	7663.9	7675.7	7581.9	7428.9	7264.1	7161.2	6902.5	6408.9	5763.2	5692.1	3990.9
40°	7709.4	7723.1	7682.1	7641.1	7632.0	7705.8	7630.2	7077.4	6475.4	6364.3	4555.5
42.5°	7572.8	7591.0	7609.2	7700.3	7886.1	8156.6	8419.8	7984.5	7392.5	7243.1	5245.9
45°	7214.0	7212.2	7284.1	7520.0	7936.2	8513.6	9244.9	9120.2	8642.0	8464.4	6221.3
47.5°	6600.1	6591.0	6746.8	7082.8	7731.3	8579.2	9918.0	10499.0	10236.7	10072.8	7269.5
50°	5664.8	5709.4	5954.4	6423.5	7222.2	8380.6	10125.6	11403.4	11545.5	11371.5	8116.5
52.5°	4569.2	4567.4	4951.7	5588.3	6468.1	7943.5	9980.8	11567.3	11970.8	11837.8	8533.6
55°	3381.6	3405.3	3805.1	4447.1	5489.0	7145.7	9508.1	11398.8	12132.9	12039.1	8808.7
57°	2515.5	2557.4	2877.9	3557.4	4636.6	6356.1	8878.8	11097.4	12196.6	12145.6	9037.3
57.5°	2347.9	2349.7	2662.1	3279.6	4387.0	6052.8	8698.5	10971.7	12194.8	12166.6	9074.6
60°	1445.3	1490.9	1706.7	2216.7	3211.3	4724.0	7489.9	10249.5	12100.1	12141.1	9234.0
62.5°	865.2	884.3	1024.6	1336.1	2070.1	3448.1	6129.3	9325.1	11853.3	11978.1	9223.1
65°	556.5	561.0	624.8	808.7	1294.2	2330.6	4723.1	8103.8	11214.9	11444.4	8862.4
67.5°	429.9	437.2	462.7	531.0	750.5	1451.7	3340.6	6800.5	10182.1	10478.1	7988.1
70°	381.6	385.2	394.4	416.2	496.4	819.7	2078.3	5312.4	8443.5	8527.3	6251.3
72.5°	311.5	321.5	349.7	357.0	393.4	511.8	1156.6	3565.6	5673.0	5694.0	3497.2
75°	241.3	243.2	285.1	306.0	331.5	352.5	516.4	1797.8	2724.9	2579.2	1347.9
77.5°	180.3	188.5	207.6	234.1	270.5	252.3	231.3	677.6	846.1	830.6	391.6
80°	115.7	120.2	144.8	175.8	210.4	164.8	130.2	198.5	185.8	191.3	93.8
82.5°	58.3	59.2	92.9	143.0	133.9	82.9	82.0	81.1	69.2	68.3	43.7
85°	6.4	13.7	60.1	82.0	60.1	27.3	38.3	37.3	36.4	37.3	25.5
87.5°	0.9	0.9	10.0	11.8	8.2	9.1	10.9	11.8	14.6	13.7	10.9
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°	1104.7	1104.7	1104.7	1104.7	1104.7	1104.7	1104.7	1104.7	1104.7	1104.7	1104.7
2.5°	1137.5	1101.1	1033.7	969.0	920.8	889.8	849.7	835.1	814.2	811.5	801.5
5°	1186.7	1117.5	1000.0	907.1	832.4	776.0	726.8	685.8	653.0	645.7	649.4
7.5°	1256.8	1153.9	990.0	863.4	759.6	663.0	584.7	536.4	501.8	489.1	490.9
10°	1336.1	1202.2	988.2	816.9	658.5	540.1	454.5	411.7	391.6	384.3	376.1
12.5°	1429.9	1257.7	983.6	745.0	547.4	430.8	369.8	344.3	325.1	319.7	319.7
15°	1535.5	1316.9	961.7	655.7	444.4	356.1	315.1	295.1	288.7	283.2	283.2
17.5°	1645.7	1375.2	916.2	545.5	368.9	305.1	279.6	267.8	258.7	252.3	252.3
20°	1771.4	1432.6	843.3	448.1	311.5	272.3	252.3	238.6	231.3	225.9	224.0
22.5°	1890.7	1479.0	750.5	367.9	271.4	245.0	226.8	212.2	204.9	202.2	202.2
25°	2014.6	1507.3	638.4	304.2	247.7	222.2	202.2	190.3	184.0	182.1	181.2
27.5°	2134.8	1523.7	540.1	265.9	225.9	201.3	182.1	173.0	166.7	164.8	165.8
30°	2280.5	1526.4	444.4	238.6	206.7	181.2	163.9	155.7	152.1	150.3	149.4
32.5°	2428.0	1522.8	373.4	222.2	188.5	163.9	149.4	143.0	140.3	137.5	137.5
35°	2593.8	1503.6	317.8	205.8	171.2	149.4	136.6	131.1	127.5	124.8	123.9
37.5°	2799.6	1493.6	286.0	187.6	155.7	135.7	123.9	118.4	115.7	112.0	111.1
40°	3123.8	1538.2	276.0	171.2	140.3	123.0	112.0	105.6	102.0	98.4	97.4
42.5°	3528.2	1616.6	259.6	154.8	126.6	111.1	100.2	92.9	86.5	82.0	80.1
45°	4051.9	1719.5	234.1	137.5	114.8	98.4	88.3	79.2	71.0	67.4	66.5
47.5°	4601.1	1818.8	211.3	123.9	102.0	87.4	76.5	66.5	59.2	56.5	55.6
50°	4938.0	1838.8	196.7	108.4	89.3	75.6	64.7	55.6	51.0	48.3	48.3
52.5°	5092.0	1806.9	176.7	94.7	77.4	66.5	55.6	48.3	45.5	43.7	42.8
55°	5199.4	1757.7	150.3	82.0	66.5	56.5	49.2	43.7	40.1	38.3	37.3
57°	5262.3	1691.2	130.2	71.9	57.4	49.2	43.7	39.2	35.5	31.9	31.9
57.5°	5265.0	1665.7	124.8	71.0	54.6	47.4	42.8	38.3	33.7	30.1	29.1
60°	5183.9	1490.9	100.2	60.1	43.7	40.1	35.5	30.1	23.7	20.0	19.1
62.5°	4923.5	1268.7	82.9	51.0	35.5	31.0	25.5	22.8	16.4	11.8	11.8
65°	4529.1	1029.1	71.0	41.0	29.1	22.8	17.3	16.4	10.0	5.5	4.6
67.5°	3959.0	801.5	60.1	33.7	24.6	16.4	11.8	10.9	5.5	1.8	0.0
70°	3016.4	546.4	50.1	27.3	18.2	11.8	8.2	6.4	3.6	0.9	0.0
72.5°	1738.6	300.5	41.9	20.9	13.7	9.1	6.4	3.6	3.6	0.0	0.0
75°	621.1	129.3	31.9	15.5	10.9	7.3	4.6	1.8	2.7	0.9	0.0
77.5°	197.6	69.2	20.9	11.8	9.1	5.5	3.6	1.8	1.8	0.9	0.0
80°	58.3	36.4	12.8	10.0	6.4	4.6	2.7	0.9	1.8	0.9	0.0
82.5°	31.9	18.2	10.0	7.3	6.4	3.6	2.7	0.9	0.9	0.9	0.0
85°	16.4	10.9	8.2	7.3	6.4	3.6	2.7	0.9	0.0	0.9	0.9
87.5°	9.1	8.2	8.2	7.3	6.4	4.6	2.7	0.9	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)