

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: P453006

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

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P453006  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-25)  
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-AFL-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE  
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13499 lumens  
Efficiency: N/A  
Efficacy: 111.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G1

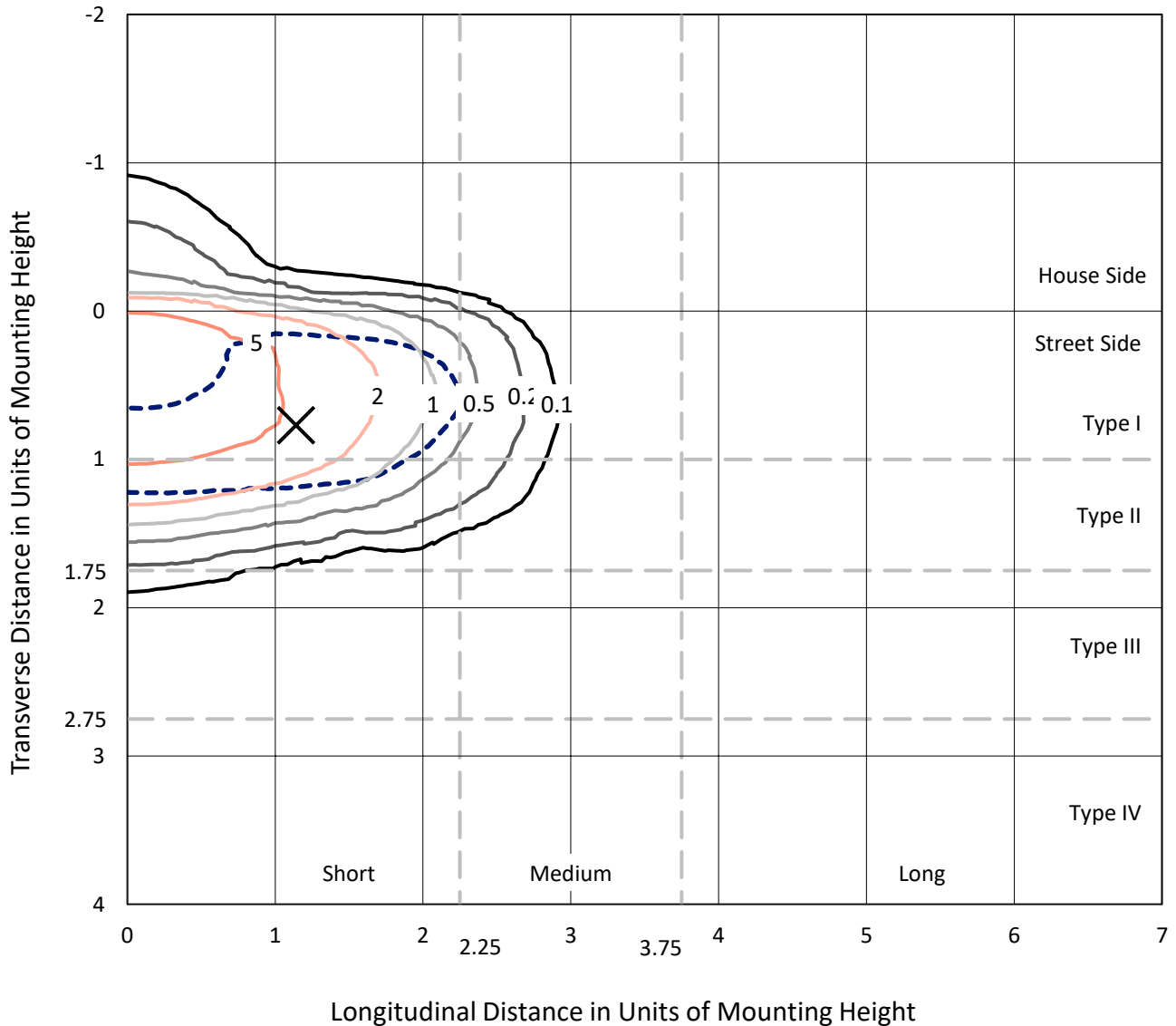
Input Watts (W): 121  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

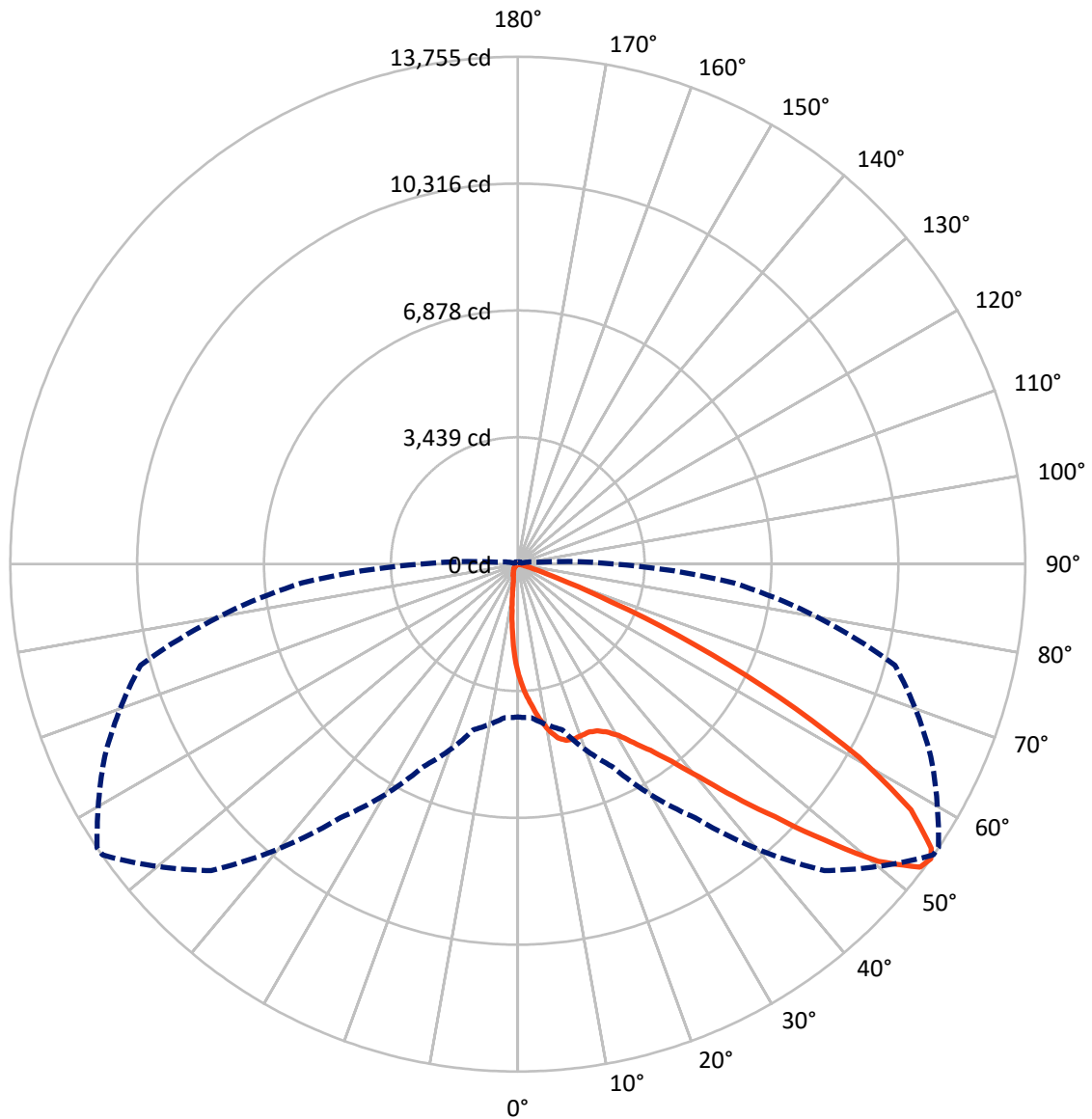
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.2 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 56-Deg Lateral    - - - Horizontal Cone Through 54-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	638.3	0.0	638.3
	% Fixture	4.7	0.0	4.7
<b>Street Side</b>	Lumens	12860.7	0.0	12860.7
	% Fixture	95.3	0.0	95.3
<b>Total</b>	Lumens	13499.0	0.0	13499.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	265.0	2.0
10°-20°	716.4	5.3
20°-30°	1240.8	9.2
30°-40°	2141.8	15.9
40°-50°	3645.4	27.0
50°-60°	3607.6	26.7
60°-70°	1646.6	12.2
70°-80°	211.5	1.6
80°-90°	23.8	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°	13499.0	100.0
0°-180°	13499.0	100.0

**Coefficient of Utilization**



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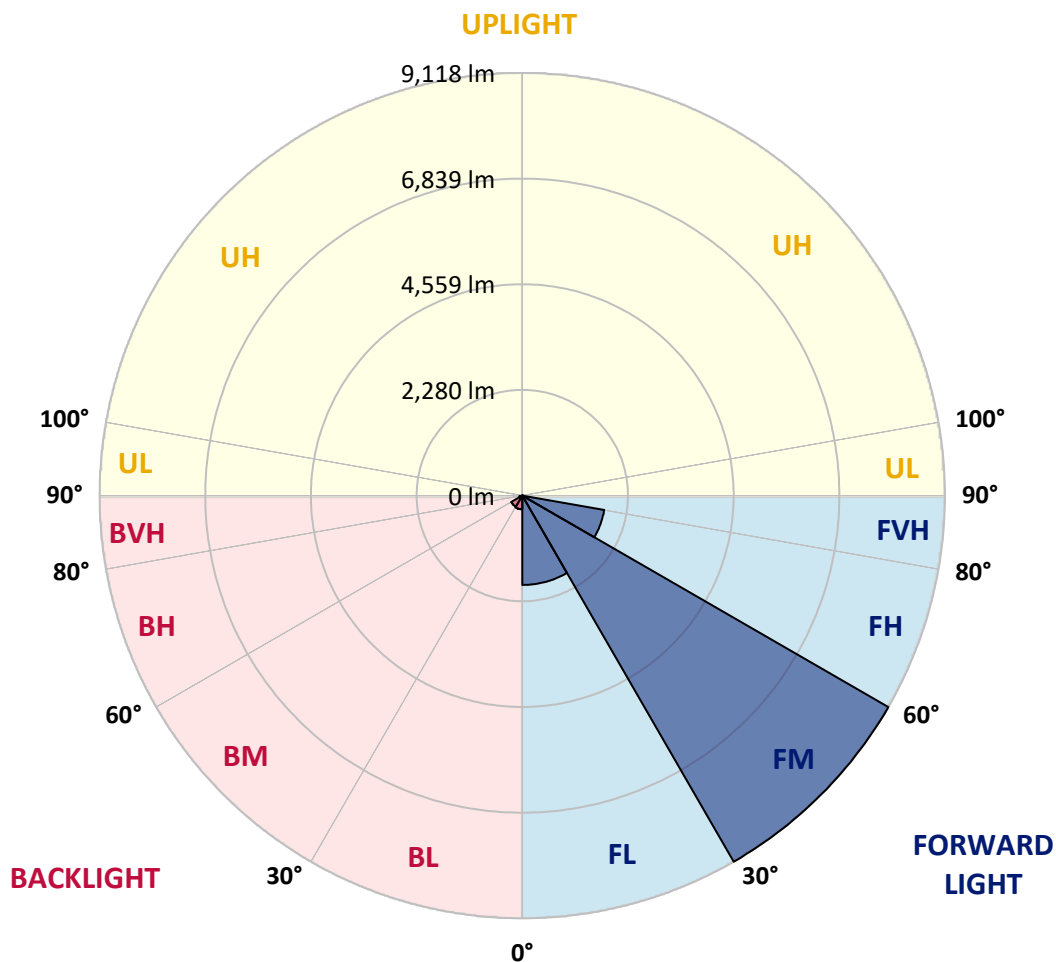
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1927.0	14.3			
FM (30°-60°)	9118.2	67.5			
FH (60°-80°)	1794.1	13.3			G1/1800
FVH (80°-90°)	21.3	0.2			G1/100
BL (0°-30°)	295.2	2.2	B1/500		
BM (30°-60°)	276.6	2.0	B1/1000		
BH (60°-80°)	63.9	0.5	B0/110		G0/110
BVH (80°-90°)	2.6	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-G1**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	56°	65°	75°	85°
0°	2999.1	2999.1	2999.1	2999.1	2999.1	2999.1	2999.1	2999.1	2999.1	2999.1	2999.1
2.5°	3811.5	3785.1	3748.6	3720.4	3653.9	3558.3	3457.2	3457.2	3359.7	3224.0	3085.6
5°	4396.2	4378.9	4343.4	4270.5	4195.8	4061.9	3858.8	3823.3	3649.4	3403.5	3144.8
7.5°	4633.9	4642.1	4643.9	4624.8	4589.3	4457.2	4255.9	4231.3	3953.6	3623.9	3222.2
10°	4406.2	4446.3	4485.4	4564.7	4676.7	4708.6	4594.7	4569.2	4296.0	3847.0	3306.0
12.5°	4067.4	4089.3	4111.1	4235.9	4460.8	4718.6	4837.9	4837.0	4605.6	4069.2	3412.6
15°	3909.8	3929.0	3930.8	3986.3	4181.2	4556.5	4941.7	4955.4	4908.0	4343.4	3527.3
17.5°	3942.6	3958.1	3945.4	3959.0	4061.0	4378.0	4929.9	4975.4	5153.0	4606.6	3631.1
20°	4156.6	4186.7	4137.5	4099.3	4130.2	4330.6	4889.8	4953.6	5326.0	4863.4	3725.9
22.5°	4541.0	4557.4	4495.4	4390.7	4336.1	4429.9	4878.9	4941.7	5473.6	5073.8	3780.5
25°	4968.1	4962.7	4894.4	4776.9	4662.1	4630.2	4950.8	5007.3	5595.6	5263.2	3796.9
27.5°	5395.3	5411.7	5296.9	5151.2	5013.7	4930.8	5112.0	5153.9	5733.2	5479.1	3816.9
30°	5891.6	5865.2	5752.3	5585.6	5428.1	5312.4	5371.6	5383.4	5922.6	5765.0	3869.8
32.5°	6537.3	6464.5	6337.9	6046.4	5933.5	5737.7	5752.3	5766.8	6153.0	6048.3	3933.5
35°	7413.5	7409.8	7162.1	6769.6	6494.5	6251.4	6187.6	6199.5	6501.8	6469.0	4074.7
37.5°	8468.1	8482.7	8200.4	7805.1	7298.7	6912.6	6781.4	6783.2	7031.9	7050.1	4289.6
40°	9327.0	9365.2	9196.7	8929.9	8429.9	7826.0	7605.6	7585.6	7776.9	7754.1	4596.5
42.5°	9696.7	9732.2	9795.1	9888.0	9612.9	9114.8	8594.7	8622.0	8680.3	8520.9	4940.8
45°	9515.5	9572.0	9818.8	10392.5	10651.2	10483.6	9863.4	9767.8	9520.9	9354.3	5286.9
47.5°	8760.5	8898.0	9310.6	10265.9	11171.2	11737.7	11295.1	11168.5	10362.5	9962.7	5507.3
50°	7519.1	7527.3	8102.0	9323.3	10901.6	12529.1	12756.8	12662.1	11146.6	10304.2	5618.4
52.5°	5450.8	5630.2	6156.6	7571.0	9734.1	12408.9	13688.5	13649.4	11955.4	10479.1	5778.7
54°	4143.9	4178.5	4646.6	6050.1	8392.5	11748.6	13745.9	13755.0	12357.0	10584.7	5873.4
55°	3397.1	3314.2	3806.0	5153.9	7477.2	11164.8	13558.3	13602.0	12537.3	10639.3	5943.5
57.5°	1610.2	1611.1	1987.2	2718.6	4683.1	8669.4	12411.7	12566.5	12557.4	10733.2	6159.4
60°	815.1	820.6	903.5	1255.0	2313.3	5763.2	10262.3	10631.1	11591.1	10746.8	6230.4
62.5°	570.1	563.8	550.1	603.8	973.6	2929.0	7640.3	7960.8	9847.9	10226.8	6004.6
65°	488.2	474.5	436.2	428.1	491.8	1166.7	4758.7	5281.4	7519.1	8855.2	5361.6
67.5°	417.1	411.7	377.0	356.1	347.9	508.2	2455.4	2730.4	5139.3	6365.2	4061.0
70°	354.3	351.5	330.6	304.2	281.4	304.2	910.7	1128.4	2864.3	3427.1	1916.2
72.5°	287.8	290.5	294.2	260.5	236.8	215.8	388.9	452.6	1198.5	1225.0	670.3
75°	252.3	249.5	249.5	226.8	197.6	160.3	214.0	230.4	367.0	340.6	155.7
77.5°	177.6	171.2	200.4	186.7	164.8	113.8	122.0	129.3	152.1	130.2	72.9
80°	123.0	123.0	128.4	167.6	148.5	82.9	74.7	80.1	90.2	77.4	41.9
82.5°	69.2	71.0	83.8	89.3	86.5	55.6	49.2	50.1	60.1	52.8	26.4
85°	8.2	13.7	48.3	47.4	35.5	24.6	27.3	28.2	37.3	32.8	15.5
87.5°	0.9	1.8	10.0	12.8	9.1	10.0	10.0	10.0	12.8	14.6	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°	2999.1	2999.1	2999.1	2999.1	2999.1	2999.1	2999.1	2999.1	2999.1	2999.1	2999.1
2.5°	3010.9	2941.7	2776.9	2585.6	2463.6	2265.0	2097.5	1976.3	1946.3	1888.0	1905.3
5°	3007.3	2863.4	2527.3	2172.1	1793.3	1510.9	1300.5	1134.8	1061.9	1013.7	980.0
7.5°	3009.1	2784.2	2245.0	1679.4	1226.8	949.9	755.0	653.9	586.5	558.3	561.9
10°	3014.6	2694.9	1917.1	1244.1	827.9	613.8	494.5	446.3	423.5	419.9	418.9
12.5°	3027.3	2597.5	1603.8	923.5	579.2	446.3	400.7	384.3	377.0	377.0	374.3
15°	3041.0	2490.0	1343.4	686.7	446.3	383.4	362.5	354.3	349.7	349.7	348.8
17.5°	3041.0	2366.1	1100.2	532.8	384.3	352.5	336.1	325.1	321.5	321.5	320.6
20°	3021.9	2222.2	884.3	429.0	348.8	323.3	306.9	295.1	290.5	288.7	287.8
22.5°	2955.4	2030.1	704.0	368.9	319.7	297.8	276.9	263.2	259.6	257.7	258.7
25°	2837.0	1813.3	557.4	324.2	293.3	266.8	248.6	238.6	235.0	235.0	235.9
27.5°	2714.9	1586.5	441.7	290.5	261.4	237.7	223.1	216.8	215.8	218.6	219.5
30°	2602.0	1358.8	357.9	263.2	233.2	213.1	203.1	201.3	201.3	202.2	203.1
32.5°	2476.3	1159.4	299.6	239.5	210.4	193.1	187.6	187.6	189.4	189.4	191.3
35°	2397.1	988.2	263.2	216.8	193.1	178.5	174.9	175.8	178.5	182.1	184.0
37.5°	2354.3	851.5	239.5	198.5	176.7	166.7	163.0	164.8	171.2	177.6	178.5
40°	2357.9	748.6	220.4	183.1	163.9	153.0	150.3	155.7	162.1	168.5	169.4
42.5°	2398.0	672.1	202.2	164.8	153.0	137.5	136.6	142.1	144.8	151.2	152.1
45°	2445.4	616.6	183.1	145.7	133.0	119.3	120.2	124.8	128.4	138.4	140.3
47.5°	2459.9	578.3	161.2	123.9	109.3	104.7	105.6	108.4	115.7	124.8	125.7
50°	2476.3	554.6	140.3	104.7	92.9	92.0	92.9	94.7	99.3	102.9	102.0
52.5°	2546.4	553.7	123.0	91.1	79.2	81.1	82.0	81.1	77.4	71.9	70.1
54°	2612.0	556.5	114.8	84.7	72.9	75.6	74.7	70.1	61.0	55.6	52.8
55°	2664.8	559.2	110.2	80.1	69.2	70.1	71.0	61.9	50.1	44.6	42.8
57.5°	2768.7	552.8	99.3	70.1	61.0	57.4	56.5	41.0	27.3	23.7	21.9
60°	2716.8	499.1	90.2	60.1	51.9	46.4	38.3	22.8	13.7	10.0	10.0
62.5°	2512.8	423.5	80.1	49.2	42.8	35.5	20.0	12.8	6.4	3.6	2.7
65°	2247.7	356.1	71.9	39.2	33.7	22.8	10.9	8.2	2.7	0.0	0.0
67.5°	1671.2	264.1	61.0	31.0	25.5	14.6	7.3	4.6	0.9	0.0	0.0
70°	774.1	161.2	51.9	23.7	18.2	10.9	5.5	2.7	0.0	0.0	0.0
72.5°	222.2	101.1	42.8	17.3	12.8	9.1	4.6	1.8	0.9	0.0	0.0
75°	77.4	81.1	31.9	12.8	10.0	6.4	3.6	1.8	0.9	0.0	0.0
77.5°	46.4	65.6	20.0	10.9	8.2	5.5	3.6	1.8	0.9	0.9	0.0
80°	26.4	43.7	12.8	9.1	7.3	4.6	2.7	1.8	0.9	0.9	0.0
82.5°	14.6	20.9	10.0	8.2	6.4	4.6	2.7	1.8	0.9	0.9	0.9
85°	11.8	10.9	8.2	7.3	5.5	3.6	2.7	0.9	0.0	0.0	0.0
87.5°	9.1	7.3	7.3	7.3	5.5	3.6	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)