

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: P453138

Luminaire Tested: **GALN-SA4A-827-U-T2R-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453138
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-827-U-T2R-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 2700K, 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: 10647 lumens
Efficiency: N/A
Efficacy: 88.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

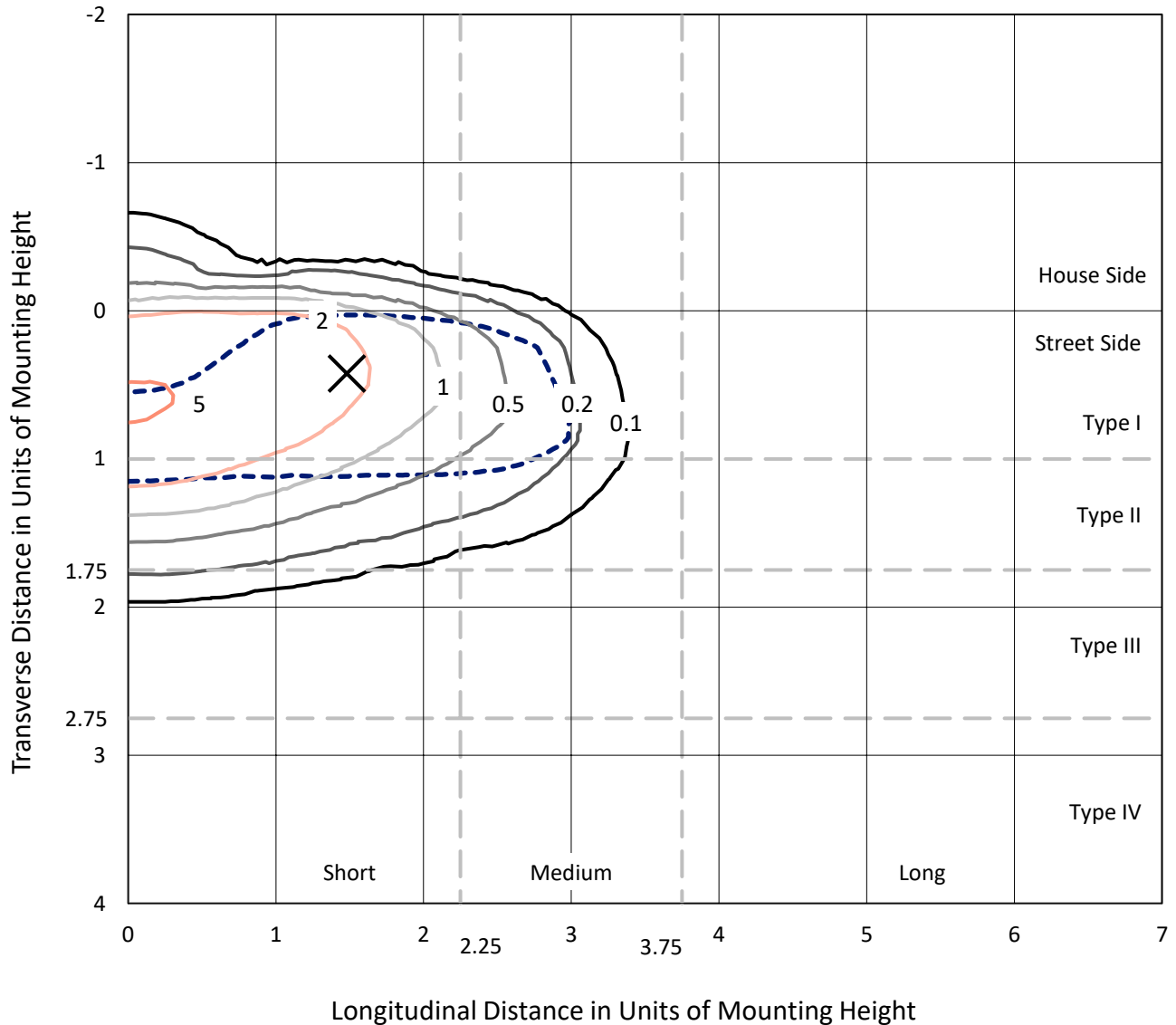
Input Watts (W): 121
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

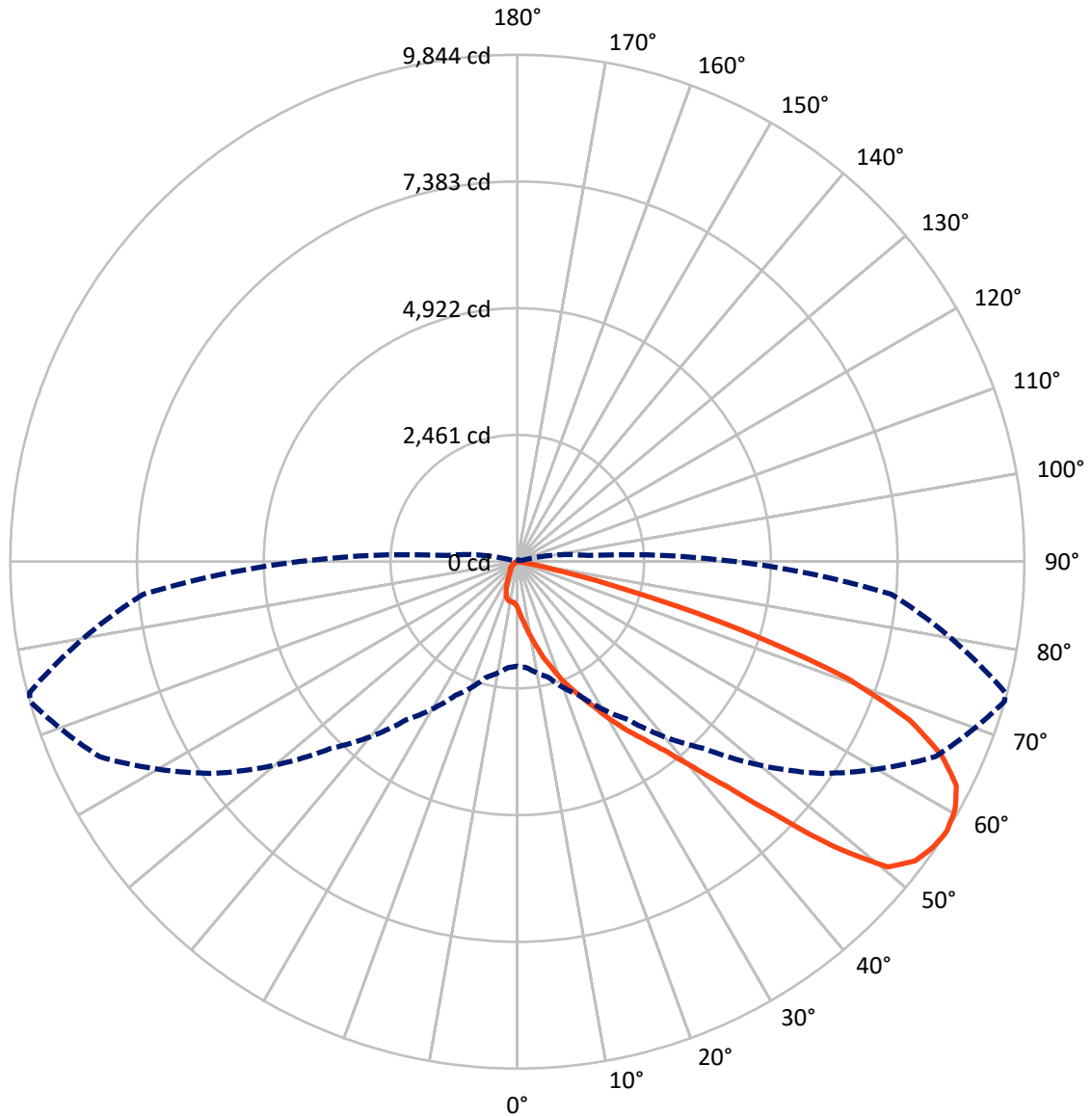
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.4 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
House Side	Lumens	614.1	0.0	614.1
	% Fixture	5.8	0.0	5.8
Street Side	Lumens	10032.9	0.0	10032.9
	% Fixture	94.2	0.0	94.2
Total	Lumens	10647.0	0.0	10647.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.6	1.0
10°-20°	424.2	4.0
20°-30°	907.7	8.5
30°-40°	1668.4	15.7
40°-50°	2557.7	24.0
50°-60°	2705.7	25.4
60°-70°	1766.9	16.6
70°-80°	482.8	4.5
80°-90°	26.0	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°	10647.0	100.0
0°-180°	10647.0	100.0

Coefficient of Utilization



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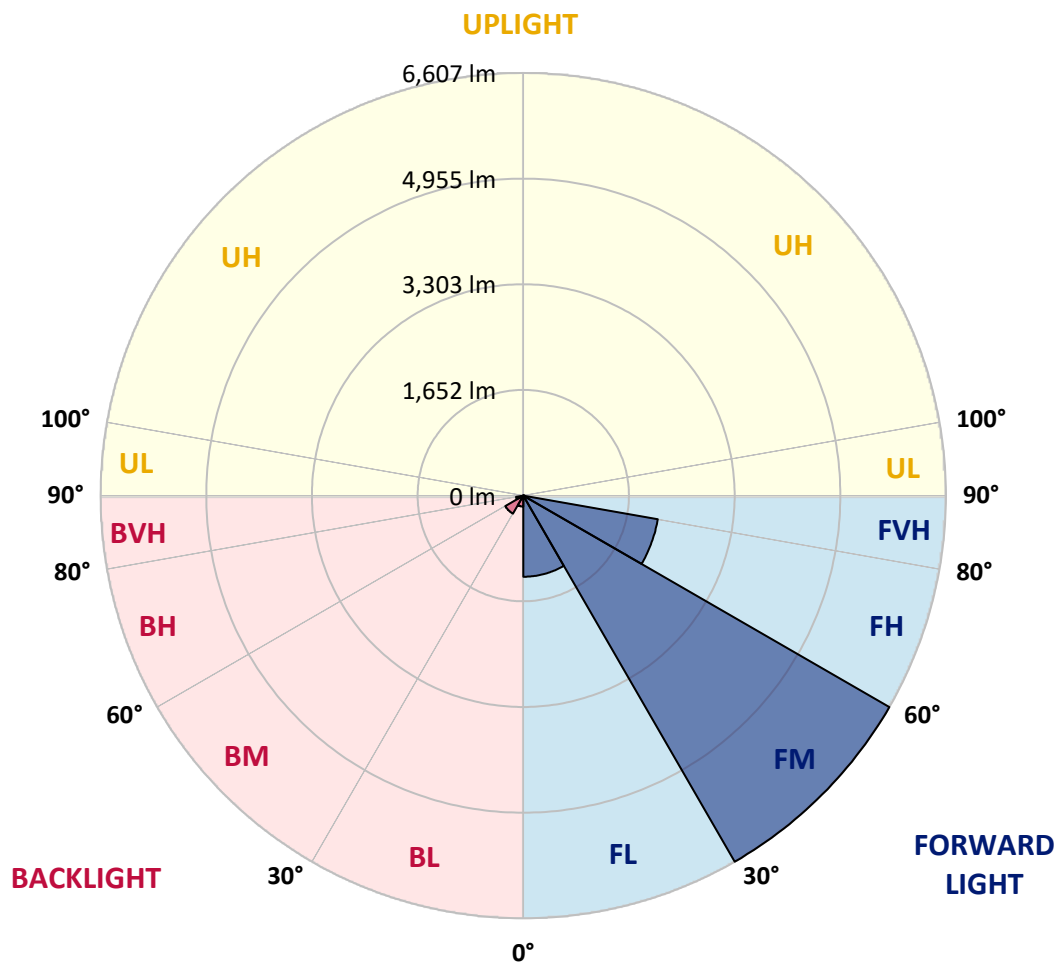
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1268.0	11.9			
FM (30°-60°)	6606.7	62.1			
FH (60°-80°)	2134.4	20.0			G2/5000
FVH (80°-90°)	23.8	0.2			G1/100
BL (0°-30°)	171.5	1.6	B1/500		
BM (30°-60°)	325.1	3.1	B1/1000		
BH (60°-80°)	115.3	1.1	B1/500		G1/500
BVH (80°-90°)	2.1	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°	891.7	891.7	891.7	891.7	891.7	891.7	891.7	891.7	891.7	891.7	891.7
2.5°	1304.8	1293.0	1269.5	1261.4	1226.9	1173.2	1126.2	1062.9	1013.0	1007.8	947.5
5°	1747.3	1720.9	1709.8	1656.9	1573.8	1495.9	1362.1	1260.7	1143.8	1135.0	1013.7
7.5°	2173.7	2136.9	2125.9	2075.9	1978.9	1856.1	1682.6	1498.1	1312.9	1296.0	1102.6
10°	2482.4	2487.6	2467.7	2434.6	2356.0	2231.0	2017.1	1765.0	1501.1	1479.7	1202.6
12.5°	2703.7	2703.0	2706.6	2705.9	2664.0	2569.2	2344.2	2053.9	1708.4	1666.5	1317.3
15°	2847.8	2850.0	2861.0	2899.2	2903.6	2844.8	2657.4	2330.3	1948.7	1896.5	1441.5
17.5°	2993.3	3008.8	3026.4	3062.4	3094.8	3071.2	2938.9	2618.4	2166.3	2127.4	1574.6
20°	3233.7	3255.0	3244.7	3266.8	3283.7	3285.9	3183.7	2884.5	2430.2	2364.8	1726.7
22.5°	3618.1	3617.4	3590.9	3551.3	3518.2	3516.7	3424.1	3158.0	2669.9	2606.7	1879.6
25°	4104.0	4106.3	4054.8	3941.6	3859.3	3758.5	3652.0	3397.6	2926.4	2848.5	2040.6
27.5°	4661.2	4647.3	4569.4	4413.5	4250.3	4078.3	3924.7	3676.2	3198.4	3133.7	2225.1
30°	5161.8	5156.7	5065.6	4875.2	4660.5	4487.8	4265.0	4025.4	3550.5	3471.1	2431.7
32.5°	5627.9	5635.3	5508.8	5311.8	5104.5	4905.3	4670.1	4359.1	3896.0	3783.5	2656.6
35°	5991.8	5999.1	5868.3	5704.4	5491.2	5325.8	5101.6	4714.9	4237.1	4142.3	2915.4
37.5°	6185.8	6195.4	6119.7	5996.2	5863.1	5780.1	5571.3	5172.9	4651.7	4594.4	3221.2
40°	6222.6	6233.6	6200.5	6167.5	6160.1	6219.7	6158.6	5712.4	5226.5	5136.9	3677.0
42.5°	6112.3	6127.0	6141.7	6215.2	6365.2	6583.5	6796.0	6444.6	5966.8	5846.2	4234.2
45°	5822.7	5821.2	5879.3	6069.7	6405.6	6871.7	7462.0	7361.3	6975.3	6832.0	5021.4
47.5°	5327.2	5319.9	5445.6	5716.8	6240.2	6924.6	8005.2	8474.2	8262.5	8130.2	5867.5
50°	4572.3	4608.3	4806.1	5184.6	5829.3	6764.4	8172.8	9204.1	9318.8	9178.4	6551.2
52.5°	3688.0	3686.5	3996.7	4510.6	5220.7	6411.5	8055.9	9336.5	9662.1	9554.8	6887.9
55°	2729.4	2748.5	3071.2	3589.5	4430.4	5767.6	7674.4	9200.5	9793.0	9717.2	7109.9
57°	2030.3	2064.2	2322.9	2871.3	3742.4	5130.2	7166.5	8957.2	9844.4	9803.3	7294.4
57.5°	1895.1	1896.5	2148.7	2647.1	3541.0	4885.5	7020.9	8855.7	9842.9	9820.2	7324.5
60°	1166.6	1203.4	1377.6	1789.2	2592.0	3812.9	6045.4	8272.8	9766.5	9799.6	7453.1
62.5°	698.3	713.8	827.0	1078.4	1670.9	2783.1	4947.2	7526.7	9567.3	9668.0	7444.3
65°	449.1	452.8	504.3	652.8	1044.6	1881.1	3812.2	6540.9	9052.0	9237.2	7153.2
67.5°	347.0	352.8	373.4	428.6	605.7	1171.7	2696.3	5489.0	8218.4	8457.3	6447.5
70°	308.0	310.9	318.3	335.9	400.6	661.6	1677.5	4287.8	6815.1	6882.7	5045.7
72.5°	251.4	259.5	282.3	288.2	317.6	413.1	933.6	2877.9	4578.9	4595.8	2822.8
75°	194.8	196.3	230.1	247.0	267.6	284.5	416.8	1451.1	2199.4	2081.8	1087.9
77.5°	145.5	152.2	167.6	188.9	218.3	203.6	186.7	546.9	682.9	670.4	316.1
80°	93.4	97.0	116.9	141.9	169.8	133.1	105.1	160.3	150.0	154.4	75.7
82.5°	47.0	47.8	75.0	115.4	108.1	66.9	66.2	65.4	55.9	55.1	35.3
85°	5.1	11.0	48.5	66.2	48.5	22.1	30.9	30.1	29.4	30.1	20.6
87.5°	0.7	0.7	8.1	9.6	6.6	7.4	8.8	9.6	11.8	11.0	8.8
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°	891.7	891.7	891.7	891.7	891.7	891.7	891.7	891.7	891.7	891.7	891.7
2.5°	918.1	888.7	834.3	782.1	743.2	718.2	685.8	674.1	657.2	655.0	646.9
5°	957.8	902.0	807.1	732.2	671.9	626.3	586.6	553.5	527.1	521.2	524.1
7.5°	1014.4	931.4	799.1	696.9	613.1	535.2	471.9	433.0	405.0	394.7	396.2
10°	1078.4	970.3	797.6	659.4	531.5	435.9	366.8	332.3	316.1	310.2	303.6
12.5°	1154.1	1015.2	793.9	601.3	441.8	347.7	298.4	277.9	262.4	258.0	258.0
15°	1239.4	1062.9	776.3	529.3	358.7	287.4	254.3	238.2	233.0	228.6	228.6
17.5°	1328.3	1110.0	739.5	440.3	297.7	246.3	225.7	216.1	208.8	203.6	203.6
20°	1429.8	1156.3	680.7	361.7	251.4	219.8	203.6	192.6	186.7	182.3	180.8
22.5°	1526.1	1193.8	605.7	297.0	219.1	197.7	183.0	171.3	165.4	163.2	163.2
25°	1626.0	1216.6	515.3	245.5	199.9	179.4	163.2	153.6	148.5	147.0	146.3
27.5°	1723.1	1229.8	435.9	214.6	182.3	162.5	147.0	139.7	134.5	133.1	133.8
30°	1840.7	1232.0	358.7	192.6	166.9	146.3	132.3	125.7	122.8	121.3	120.6
32.5°	1959.8	1229.1	301.4	179.4	152.2	132.3	120.6	115.4	113.2	111.0	111.0
35°	2093.6	1213.6	256.5	166.1	138.2	120.6	110.3	105.9	102.9	100.7	100.0
37.5°	2259.7	1205.6	230.8	151.4	125.7	109.5	100.0	95.6	93.4	90.4	89.7
40°	2521.4	1241.6	222.7	138.2	113.2	99.2	90.4	85.3	82.3	79.4	78.7
42.5°	2847.8	1304.8	209.5	125.0	102.2	89.7	80.9	75.0	69.8	66.2	64.7
45°	3270.4	1387.9	188.9	111.0	92.6	79.4	71.3	64.0	57.3	54.4	53.7
47.5°	3713.7	1468.0	170.5	100.0	82.3	70.6	61.7	53.7	47.8	45.6	44.8
50°	3985.7	1484.2	158.8	87.5	72.0	61.0	52.2	44.8	41.2	39.0	39.0
52.5°	4109.9	1458.4	142.6	76.5	62.5	53.7	44.8	39.0	36.8	35.3	34.5
55°	4196.7	1418.7	121.3	66.2	53.7	45.6	39.7	35.3	32.3	30.9	30.1
57°	4247.4	1365.1	105.1	58.1	46.3	39.7	35.3	31.6	28.7	25.7	25.7
57.5°	4249.6	1344.5	100.7	57.3	44.1	38.2	34.5	30.9	27.2	24.3	23.5
60°	4184.2	1203.4	80.9	48.5	35.3	32.3	28.7	24.3	19.1	16.2	15.4
62.5°	3973.9	1024.0	66.9	41.2	28.7	25.0	20.6	18.4	13.2	9.6	9.6
65°	3655.6	830.7	57.3	33.1	23.5	18.4	14.0	13.2	8.1	4.4	3.7
67.5°	3195.5	646.9	48.5	27.2	19.8	13.2	9.6	8.8	4.4	1.5	0.0
70°	2434.6	441.1	40.4	22.1	14.7	9.6	6.6	5.1	2.9	0.7	0.0
72.5°	1403.3	242.6	33.8	16.9	11.0	7.4	5.1	2.9	2.9	0.0	0.0
75°	501.3	104.4	25.7	12.5	8.8	5.9	3.7	1.5	2.2	0.7	0.0
77.5°	159.5	55.9	16.9	9.6	7.4	4.4	2.9	1.5	1.5	0.7	0.0
80°	47.0	29.4	10.3	8.1	5.1	3.7	2.2	0.7	1.5	0.7	0.0
82.5°	25.7	14.7	8.1	5.9	5.1	2.9	2.2	0.7	0.7	0.7	0.0
85°	13.2	8.8	6.6	5.9	5.1	2.9	2.2	0.7	0.0	0.7	0.7
87.5°	7.4	6.6	6.6	5.9	5.1	3.7	2.2	0.7	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)