

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: P453146

Luminaire Tested: **GALN-SA4A-827-U-T4W-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P453146  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-27)  
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-T4W-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9621 lumens  
Efficiency: N/A  
Efficacy: 79.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B1 - U0 - G2

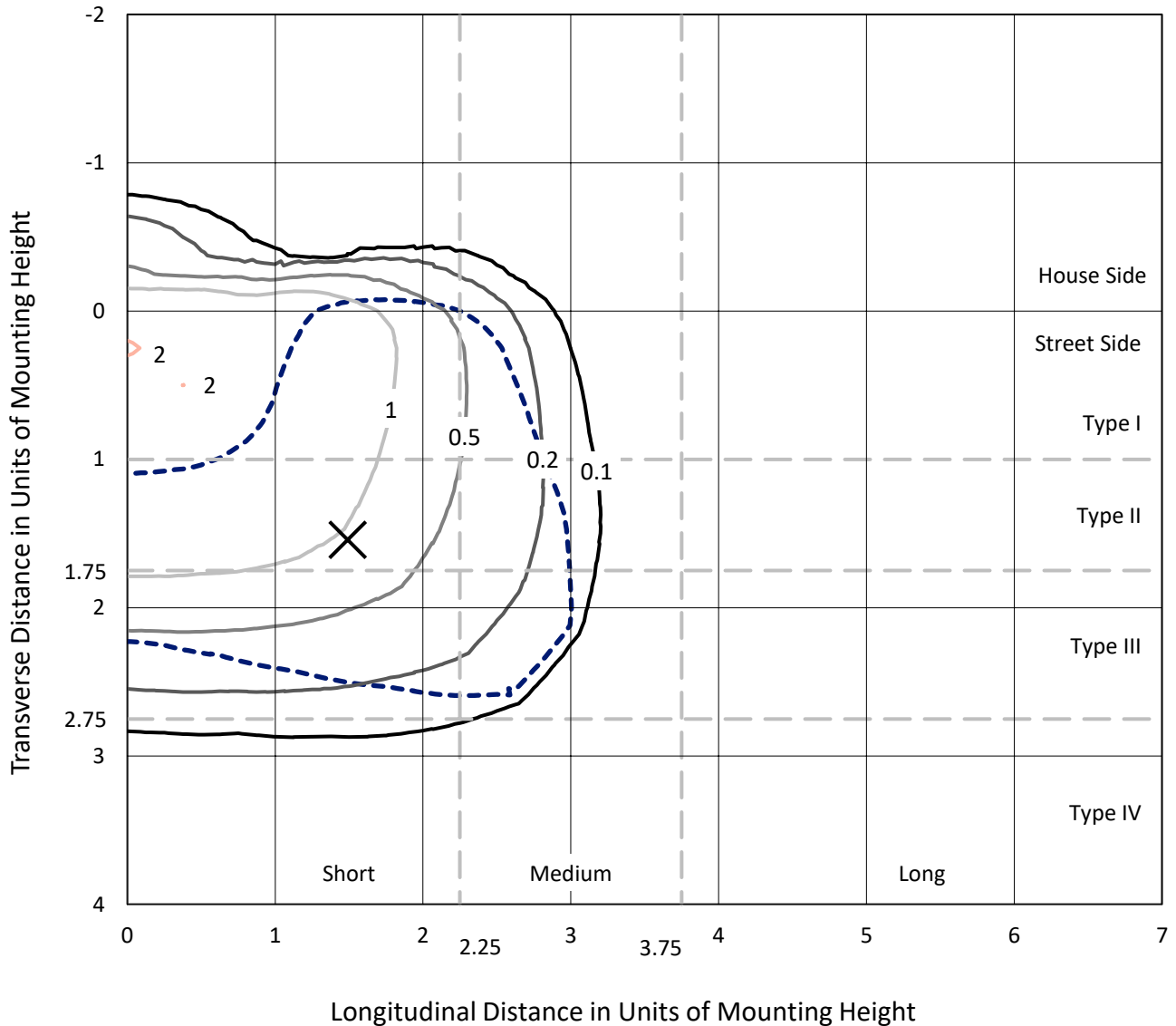
Input Watts (W): 121  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

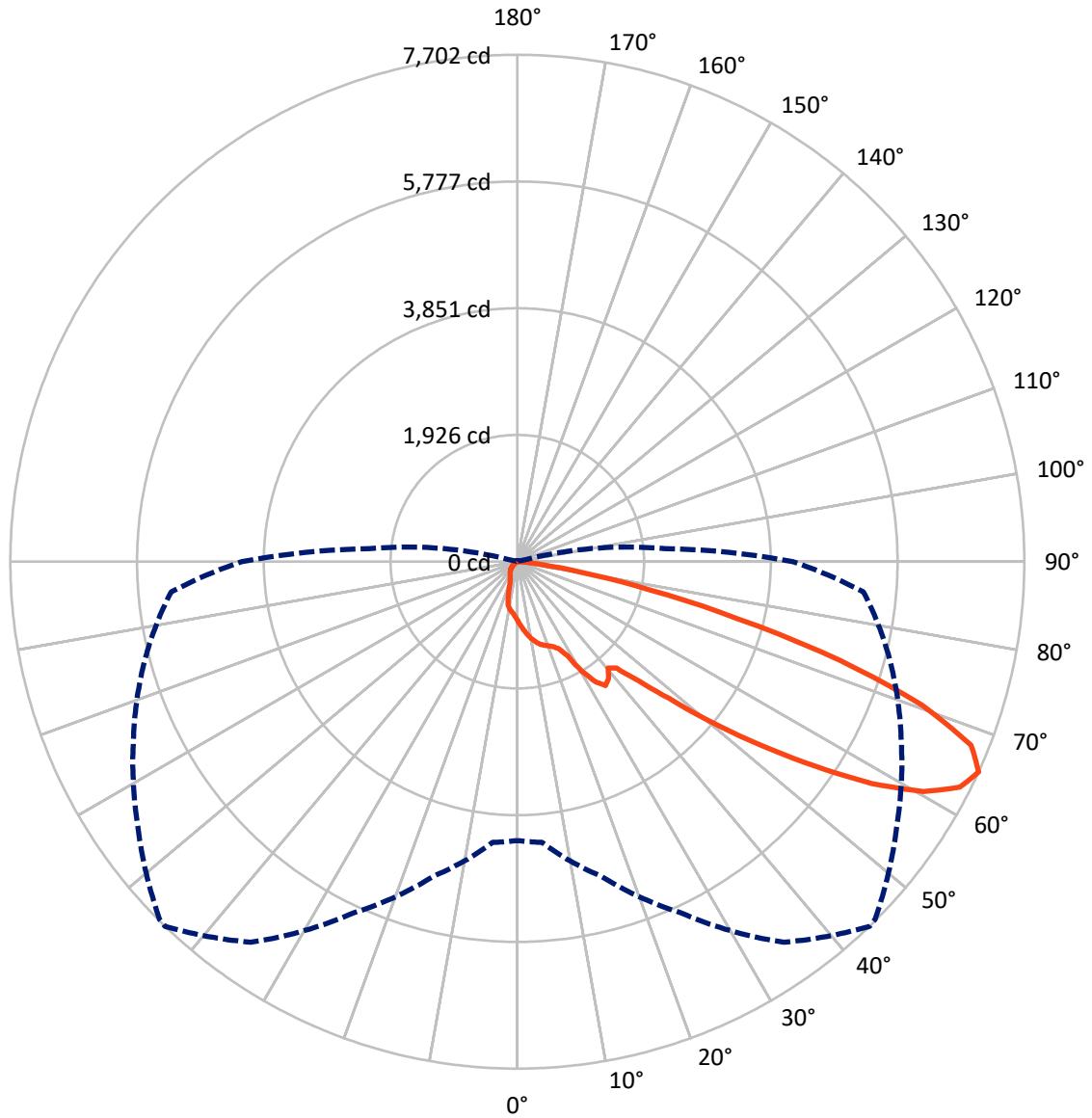
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.1 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	886.4	0.0	886.4
	% Fixture	9.2	0.0	9.2
<b>Street Side</b>	Lumens	8734.6	0.0	8734.6
	% Fixture	90.8	0.0	90.8
<b>Total</b>	Lumens	9621.0	0.0	9621.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.1	0.9
10°-20°	268.0	2.8
20°-30°	454.5	4.7
30°-40°	755.7	7.9
40°-50°	1319.4	13.7
50°-60°	2577.7	26.8
60°-70°	2990.7	31.1
70°-80°	1089.1	11.3
80°-90°	76.7	0.8
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°	9621.0	100.0
0°-180°	9621.0	100.0

**Coefficient of Utilization**

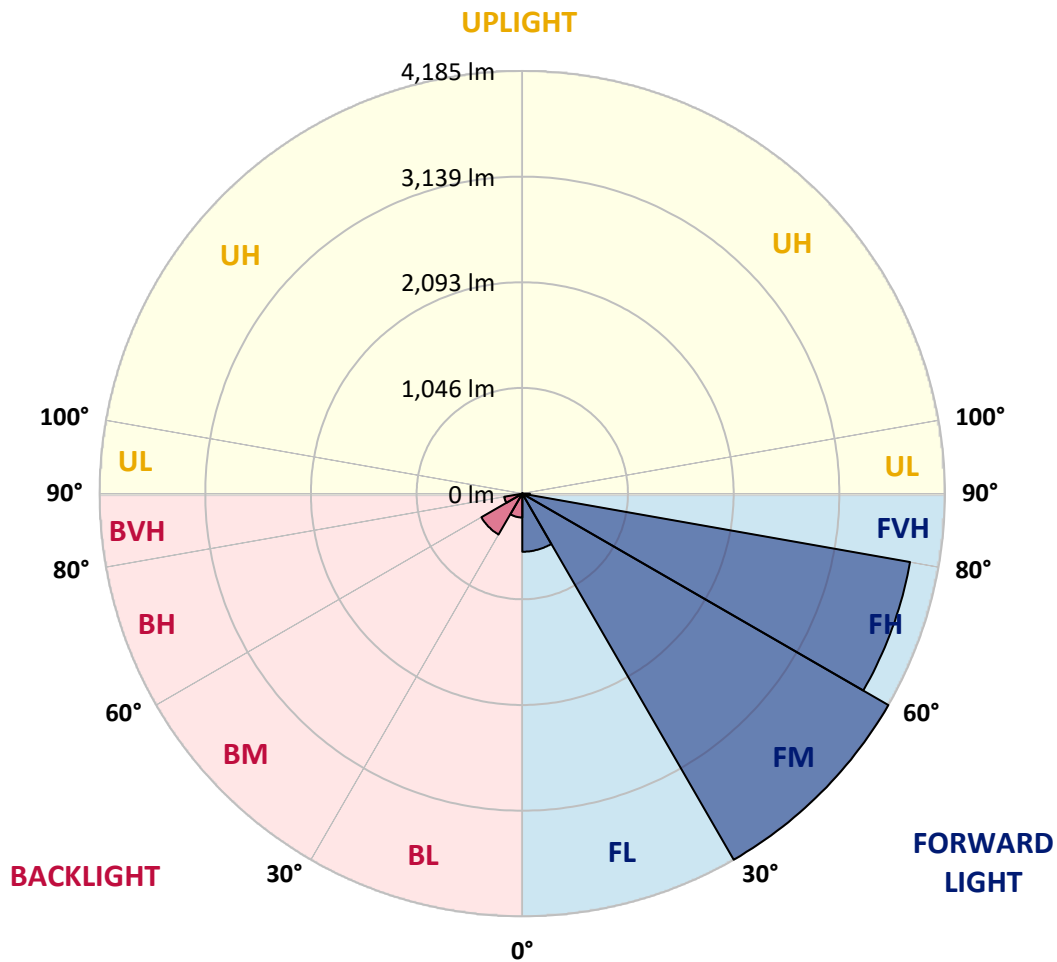


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	575.4	6.0			
FM (30°-60°)	4185.2	43.5			
FH (60°-80°)	3898.3	40.5			G2/5000
FVH (80°-90°)	75.7	0.8			G1/100
BL (0°-30°)	236.2	2.5	B1/500		
BM (30°-60°)	467.7	4.9	B1/1000		
BH (60°-80°)	181.5	1.9	B1/500		G1/500
BVH (80°-90°)	1.0	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 III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	895.4	895.4	895.4	895.4	895.4	895.4	895.4	895.4	895.4	895.4	895.4
2.5°	1007.9	1003.5	1001.3	989.5	980.7	969.7	969.7	955.7	939.5	921.9	905.7
5°	1120.4	1113.0	1103.5	1093.2	1072.6	1043.2	1043.2	1013.8	980.0	949.8	916.7
7.5°	1228.5	1221.8	1205.7	1185.8	1152.0	1121.1	1118.9	1076.3	1035.8	990.3	943.2
10°	1323.3	1318.1	1304.2	1266.0	1230.7	1190.2	1189.5	1141.7	1094.7	1038.8	980.7
12.5°	1389.5	1390.2	1371.8	1335.1	1289.5	1251.2	1248.3	1201.3	1152.0	1091.7	1020.4
15°	1436.5	1436.5	1417.4	1376.2	1335.1	1301.2	1298.3	1257.1	1206.4	1141.0	1063.8
17.5°	1449.7	1454.2	1433.6	1396.8	1363.7	1334.3	1333.6	1299.0	1258.6	1195.4	1107.9
20°	1444.6	1449.0	1432.8	1404.2	1381.4	1364.5	1362.3	1348.3	1310.8	1251.2	1154.9
22.5°	1433.6	1438.0	1426.2	1409.3	1398.3	1403.4	1399.7	1411.5	1391.7	1319.6	1210.8
25°	1435.8	1440.2	1431.4	1421.8	1431.4	1463.0	1472.5	1523.3	1505.6	1406.4	1271.1
27.5°	1504.9	1513.7	1501.2	1505.6	1539.4	1612.9	1631.3	1718.8	1640.9	1516.6	1365.2
30°	1658.5	1652.6	1629.1	1650.4	1768.1	1923.9	1918.8	1904.8	1782.8	1643.8	1476.9
32.5°	1798.2	1793.1	1791.6	1883.5	2096.7	2172.4	2168.7	2033.5	1910.0	1789.4	1587.2
35°	1854.8	1835.0	1830.6	2053.3	2409.9	2309.9	2287.1	2086.4	2064.3	1948.2	1699.7
37.5°	2025.4	2011.4	1943.0	2081.2	2284.9	2251.8	2234.2	2177.6	2229.0	2088.6	1826.9
40°	2376.8	2337.8	2276.1	2140.8	2107.7	2121.7	2139.3	2294.4	2423.8	2280.5	1996.7
42.5°	2813.5	2804.6	2690.0	2437.8	2190.0	2209.2	2232.0	2538.5	2703.9	2569.4	2273.9
45°	3337.6	3350.1	3184.7	2887.0	2562.0	2578.2	2611.3	2898.7	3083.3	3018.6	2709.8
47.5°	3814.0	3804.5	3748.6	3439.1	3139.1	3103.1	3156.8	3361.2	3608.2	3618.5	3250.9
50°	4293.4	4344.1	4261.0	4139.7	3916.9	3841.2	3821.4	3921.4	4297.8	4248.5	3900.8
52.5°	4982.2	5008.7	4852.8	4821.9	4872.7	4627.1	4607.3	4631.5	4968.2	4799.1	4387.5
55°	5415.2	5399.8	5341.7	5582.8	5783.5	5477.0	5452.0	5354.2	5524.7	5188.0	4855.7
57.5°	5551.9	5574.0	5709.3	6145.2	6620.1	6359.9	6314.3	6036.4	5926.1	5550.5	5286.6
60°	5490.9	5531.4	5823.2	6471.6	7130.3	7091.4	7052.4	6585.6	6214.3	5853.4	5588.7
62.5°	5056.4	5113.1	5579.9	6413.6	7303.1	7546.4	7497.9	6928.2	6406.2	6000.4	5641.6
65°	4237.5	4279.4	4949.9	5886.4	7057.6	7702.3	7684.7	7035.5	6436.3	5865.9	5279.2
67.5°	3020.8	3163.4	3784.6	4960.9	6331.2	7436.2	7466.3	6906.9	6153.3	5284.3	4372.0
70°	1898.9	1996.0	2441.5	3551.6	5075.6	6523.8	6623.1	6318.0	5340.2	4119.1	2926.7
72.5°	905.7	977.8	1295.4	2248.1	3582.4	5132.9	5211.6	5186.6	4129.4	2595.1	1510.0
75°	403.6	430.8	618.3	1147.6	2312.8	3450.1	3653.8	3687.6	2580.4	1269.6	587.4
77.5°	205.8	206.6	289.7	555.8	1154.9	2058.5	2098.9	2217.3	1399.0	559.5	204.4
80°	109.5	116.9	153.6	262.5	599.2	1013.8	1008.6	1108.6	620.5	274.2	68.4
82.5°	49.3	54.4	86.7	137.5	292.6	384.5	414.6	453.6	266.1	175.0	30.1
85°	14.7	17.6	42.6	69.1	105.9	111.0	124.2	160.3	150.7	124.2	15.4
87.5°	2.2	2.2	17.6	19.1	15.4	19.8	20.6	22.8	48.5	45.6	8.1
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°	895.4	895.4	895.4	895.4	895.4	895.4	895.4	895.4	895.4	895.4	895.4
2.5°	896.9	891.8	873.4	857.9	844.7	836.6	827.1	821.2	818.2	816.0	816.8
5°	900.6	888.1	856.5	831.5	812.4	791.8	777.8	769.7	766.0	760.2	760.2
7.5°	921.2	901.3	857.2	819.0	785.9	758.0	731.5	721.9	715.3	713.8	712.4
10°	950.6	925.6	865.3	812.4	765.3	727.1	689.6	656.5	630.8	615.3	613.1
12.5°	987.3	951.3	877.8	807.9	747.7	680.0	580.8	513.9	469.0	455.1	457.3
15°	1021.1	982.2	890.3	804.3	715.3	563.9	451.4	374.9	352.1	349.9	350.7
17.5°	1061.6	1015.3	905.0	799.1	626.4	430.8	335.2	314.6	319.1	326.4	325.7
20°	1103.5	1050.5	922.6	768.2	499.9	324.2	296.3	298.5	305.1	311.7	313.2
22.5°	1148.3	1091.0	943.2	694.0	381.5	282.3	280.8	283.8	290.4	297.7	299.2
25°	1210.1	1141.7	958.7	597.0	288.9	261.0	263.9	269.1	275.0	283.0	284.5
27.5°	1289.5	1210.1	966.7	470.5	250.0	241.9	242.6	250.0	257.3	264.7	264.7
30°	1392.4	1291.7	950.6	355.8	230.8	223.5	220.5	225.0	234.5	241.9	242.6
32.5°	1484.3	1368.9	907.9	272.0	216.9	206.6	199.2	200.0	203.6	208.1	208.8
35°	1576.2	1443.9	835.1	228.6	202.2	190.4	179.4	173.5	170.6	168.4	170.6
37.5°	1693.8	1537.2	738.1	208.1	189.7	175.0	159.5	147.0	136.7	130.1	131.6
40°	1845.3	1666.6	623.4	194.8	177.9	160.3	139.7	123.5	105.9	100.0	97.0
42.5°	2095.2	1862.9	502.9	183.8	166.1	144.8	119.1	97.0	80.9	75.0	76.5
45°	2490.0	2110.7	387.4	172.0	154.4	127.9	100.0	76.5	63.2	60.3	61.8
47.5°	3013.4	2431.2	298.5	158.8	139.7	109.5	78.7	60.3	52.2	51.5	50.7
50°	3506.0	2729.7	249.2	144.1	122.0	91.2	64.7	50.7	45.6	44.8	44.8
52.5°	3951.5	2943.6	202.9	127.2	102.9	75.0	54.4	44.8	40.4	38.2	38.2
55°	4347.8	3083.3	164.7	106.6	80.9	59.5	47.1	40.4	35.3	32.3	31.6
57.5°	4647.0	3100.2	123.5	85.3	60.3	46.3	40.4	35.3	29.4	25.7	24.3
60°	4774.9	2953.9	91.2	64.7	44.8	36.8	32.3	28.7	22.1	18.4	17.6
62.5°	4646.2	2669.4	67.6	49.3	34.6	27.2	22.8	21.3	15.4	11.0	10.3
65°	4185.3	2258.4	53.7	37.5	25.7	19.8	14.7	14.0	9.6	5.1	4.4
67.5°	3353.1	1768.8	42.6	27.9	18.4	13.2	9.6	8.8	5.1	1.5	1.5
70°	2180.5	1130.7	34.6	20.6	11.8	8.8	5.9	4.4	2.9	0.7	0.0
72.5°	1078.5	528.6	27.9	16.2	8.1	4.4	2.2	1.5	2.2	0.0	0.0
75°	418.3	188.2	20.6	11.0	4.4	2.2	1.5	0.0	0.7	0.0	0.0
77.5°	138.9	62.5	12.5	5.9	2.9	1.5	0.0	0.0	0.0	0.0	0.0
80°	51.5	24.3	6.6	3.7	1.5	0.7	0.0	0.0	0.0	0.0	0.0
82.5°	20.6	9.6	4.4	2.9	1.5	0.0	0.0	0.0	0.0	0.0	0.0
85°	10.3	5.9	2.9	2.2	1.5	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	7.4	4.4	2.9	2.2	1.5	0.7	0.0	0.0	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)