

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: P454064

Luminaire Tested: **GALN-SA5A-827-U-T2-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P454064  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-11)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA5A-827-U-T2-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(5) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12585 lumens  
Efficiency: N/A  
Efficacy: 81.7 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G2

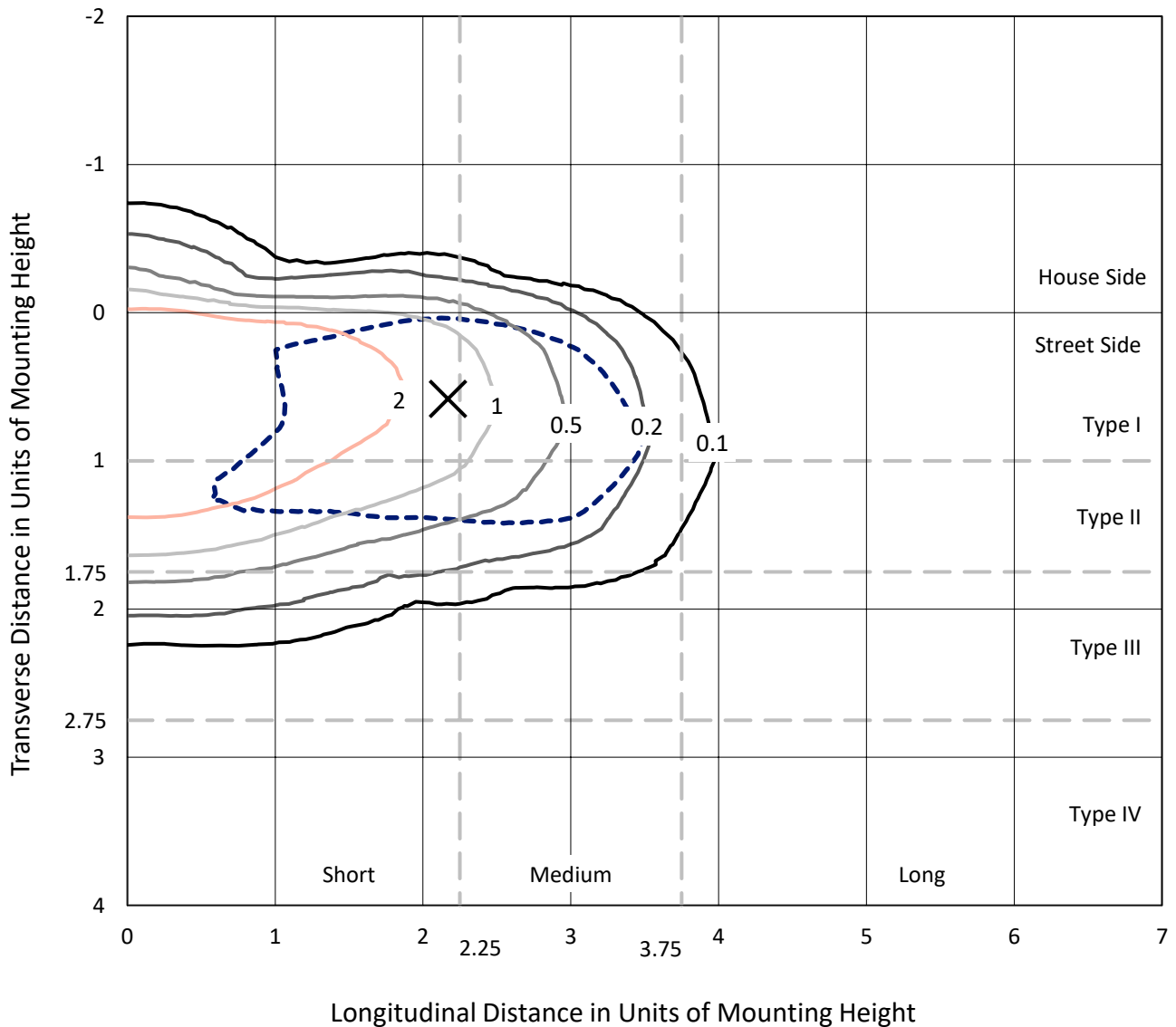
Input Watts (W): 154  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

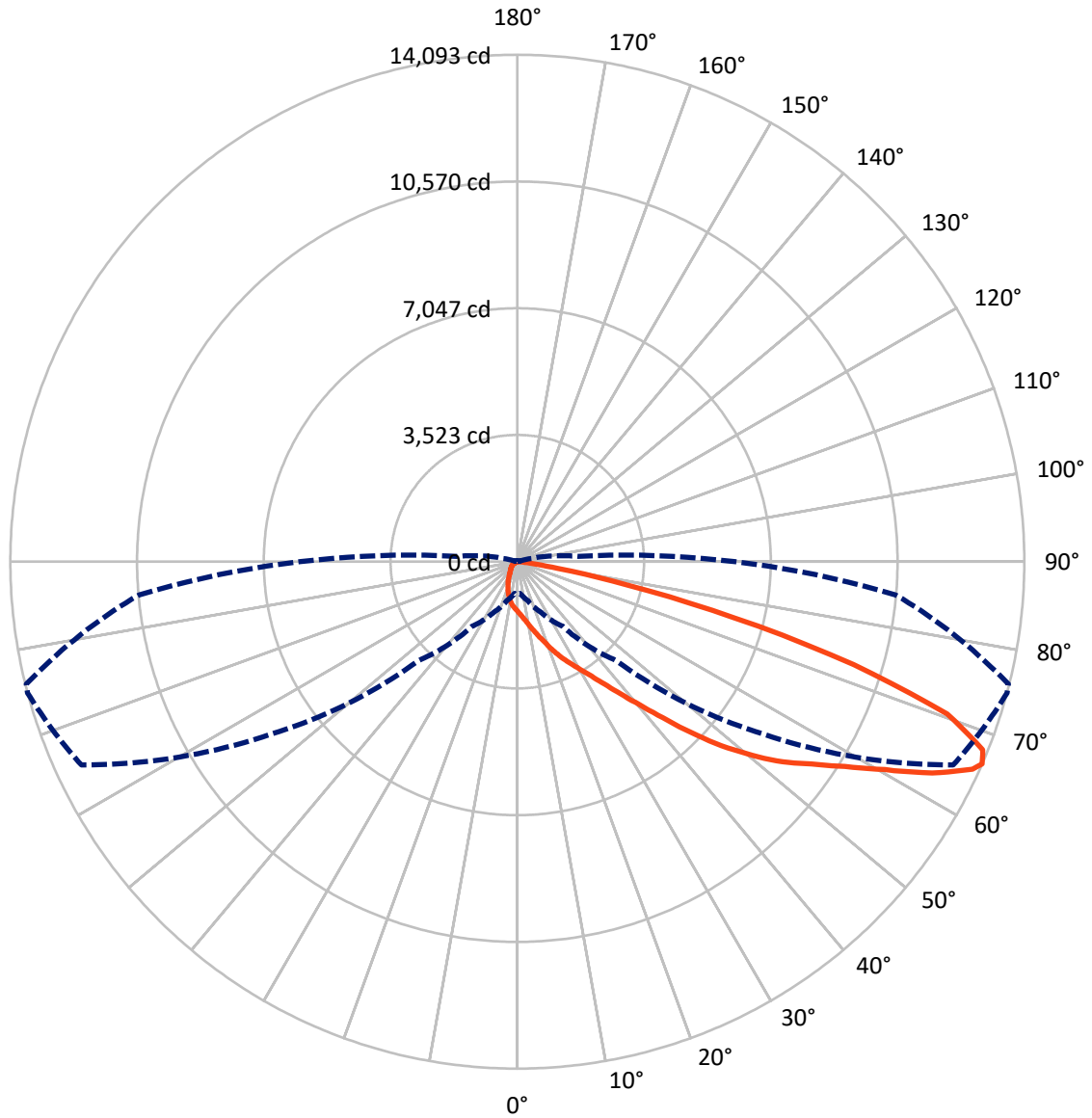
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.8 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral    - - - Horizontal Cone Through 66-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	776.9	0.0	776.9
	% Fixture	6.2	0.0	6.2
<b>Street Side</b>	Lumens	11808.1	0.0	11808.1
	% Fixture	93.8	0.0	93.8
<b>Total</b>	Lumens	12585.0	0.0	12585.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	132.7	1.1
10°-20°	390.7	3.1
20°-30°	674.6	5.4
30°-40°	1216.9	9.7
40°-50°	2198.3	17.5
50°-60°	3427.2	27.2
60°-70°	3255.7	25.9
70°-80°	1220.1	9.7
80°-90°	68.8	0.5
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°	12585.0	100.0
0°-180°	12585.0	100.0

**Coefficient of Utilization**



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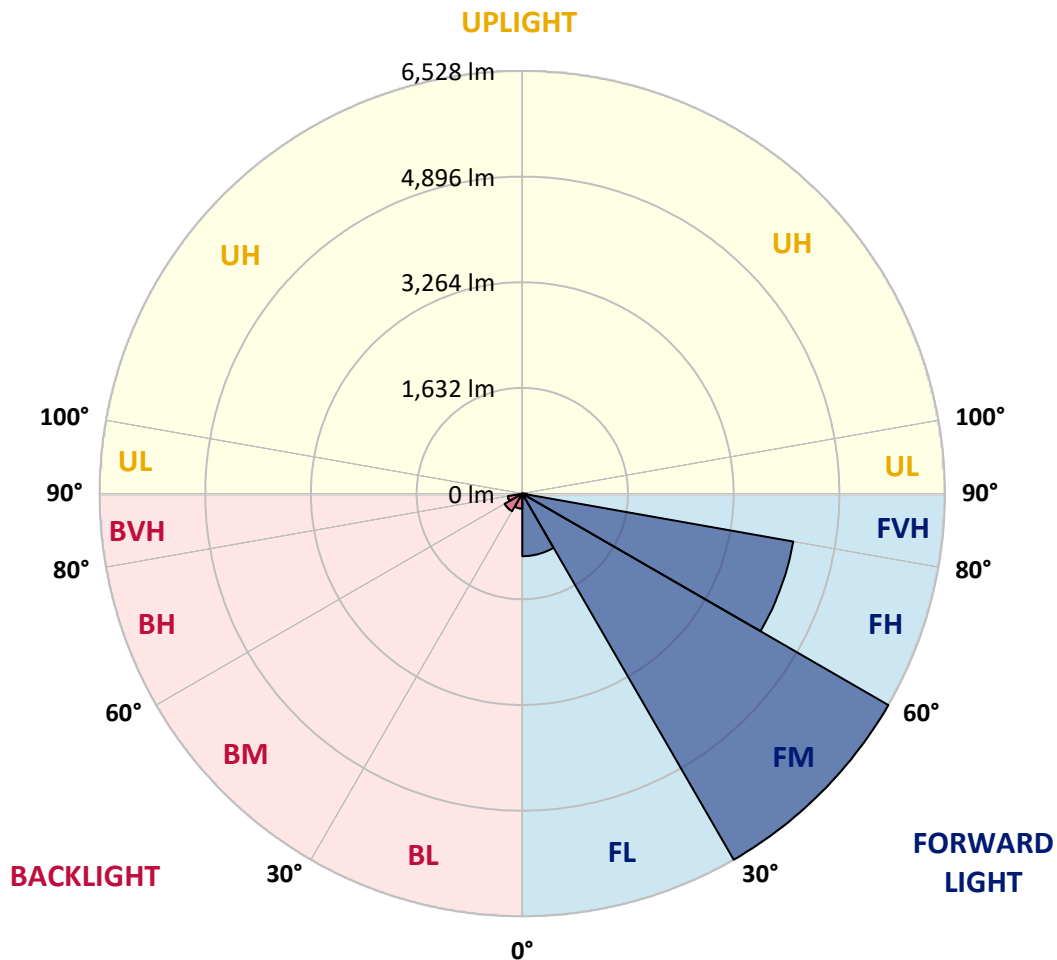
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	966.0	7.7			
FM (30°-60°)	6527.8	51.9			
FH (60°-80°)	4248.9	33.8			G2/5000
FVH (80°-90°)	65.3	0.5			G1/100
BL (0°-30°)	232.0	1.8	B1/500		
BM (30°-60°)	314.5	2.5	B1/1000		
BH (60°-80°)	226.9	1.8	B1/500		G1/500
BVH (80°-90°)	3.6	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-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	1376.3	1376.3	1376.3	1376.3	1376.3	1376.3	1376.3	1376.3	1376.3	1376.3	1376.3
2.5°	1644.3	1623.8	1630.3	1621.0	1599.6	1568.0	1540.1	1500.1	1460.0	1453.5	1408.9
5°	1861.1	1855.5	1848.1	1821.1	1806.2	1757.8	1700.1	1631.3	1548.4	1533.6	1452.6
7.5°	2009.1	2006.3	2010.0	1996.0	1983.0	1939.3	1877.9	1783.9	1655.5	1647.1	1512.2
10°	2057.5	2064.9	2078.9	2101.2	2121.7	2107.7	2061.2	1943.9	1794.1	1769.9	1580.1
12.5°	2029.5	2037.9	2071.4	2131.0	2197.0	2235.2	2216.6	2131.0	1941.1	1921.6	1656.4
15°	1957.9	1968.1	2015.6	2107.7	2225.9	2333.8	2380.4	2318.9	2112.4	2080.7	1748.5
17.5°	1851.8	1866.7	1934.6	2056.5	2218.4	2404.6	2535.8	2515.3	2294.8	2265.0	1849.0
20°	1771.8	1782.9	1840.6	1980.2	2186.8	2443.6	2683.7	2741.4	2519.9	2468.8	1967.2
22.5°	1824.8	1828.5	1848.1	1931.8	2130.0	2453.9	2814.0	2976.9	2759.1	2713.5	2090.0
25°	2084.4	2047.2	2027.7	2009.1	2117.9	2444.6	2932.2	3222.5	2997.3	2948.9	2211.9
27.5°	2493.9	2477.1	2378.5	2246.4	2221.2	2456.7	3010.4	3455.2	3221.6	3169.5	2331.0
30°	2939.6	2910.8	2850.3	2656.7	2462.3	2542.3	3067.1	3681.3	3486.8	3417.9	2439.9
32.5°	3349.1	3367.7	3277.4	3078.3	2853.1	2724.7	3140.6	3927.9	3791.1	3705.5	2566.5
35°	3826.5	3863.7	3725.0	3534.3	3270.9	3054.1	3283.9	4206.1	4177.3	4069.3	2761.9
37.5°	4311.3	4333.6	4248.9	3980.9	3743.6	3472.8	3553.8	4549.5	4652.8	4560.7	2995.5
40°	4718.9	4749.6	4687.2	4449.0	4195.9	3957.7	3945.6	4923.6	5218.6	5123.6	3343.5
42.5°	5030.6	5053.9	5055.7	4887.3	4659.3	4551.4	4445.3	5401.0	5927.6	5817.8	3747.4
45°	5424.2	5457.7	5438.2	5323.7	5153.4	5133.9	5079.0	5977.9	6776.3	6637.7	4271.3
47.5°	6032.8	6055.1	6006.7	5871.8	5698.7	5729.4	5696.9	6624.6	7641.7	7522.6	4813.8
50°	6455.3	6492.5	6561.4	6615.3	6489.7	6376.2	6279.4	7228.6	8463.4	8356.4	5368.4
52.5°	6450.6	6512.0	6729.8	7001.5	7276.0	7241.6	6963.4	7895.8	9247.9	9115.7	5889.5
55°	6016.1	6135.2	6455.3	6937.3	7697.6	8076.3	7949.8	8668.1	9925.3	9836.0	6493.4
57.5°	5119.0	5191.6	5636.4	6310.1	7462.1	8469.0	9092.5	9715.0	10737.7	10695.8	7431.4
60°	3443.1	3475.6	4047.9	4880.8	6352.9	8077.2	9930.0	10981.5	11738.0	11717.6	8526.7
62.5°	1972.8	1986.7	2401.8	3104.3	4520.6	6845.2	10000.7	12543.9	12937.5	12948.7	9794.1
65°	1061.8	1069.2	1404.2	1822.0	2750.7	4878.9	8992.9	13400.0	13907.2	13928.6	10579.5
66°	916.6	881.2	1117.6	1553.1	2188.7	3883.2	8355.5	13369.3	14093.3	14070.0	10551.6
67.5°	697.0	728.6	892.4	1193.9	1622.0	2761.0	6898.2	12774.7	13951.8	13879.3	10122.6
70°	498.8	511.8	635.6	851.5	1104.6	1514.9	4408.0	10610.2	12680.7	12583.0	8818.9
72.5°	322.0	335.9	450.4	616.0	798.4	827.3	2467.8	7665.9	9776.4	9762.5	6641.4
75°	229.8	242.9	297.8	441.1	600.2	511.8	1188.3	5166.5	6215.2	6173.3	4108.4
77.5°	166.6	173.1	199.1	288.5	429.0	366.6	550.9	2759.1	3094.1	3240.2	1815.5
80°	95.8	101.4	138.7	175.9	290.3	250.3	263.3	1107.4	1141.8	1086.9	567.6
82.5°	47.5	54.0	82.8	120.0	181.5	168.4	121.0	333.1	351.8	342.4	143.3
85°	11.2	14.0	46.5	79.1	88.4	75.4	58.6	97.7	121.0	118.2	54.9
87.5°	0.9	1.9	16.8	14.0	14.9	25.1	20.5	25.1	39.1	36.3	19.5
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°	1376.3	1376.3	1376.3	1376.3	1376.3	1376.3	1376.3	1376.3	1376.3	1376.3	1376.3
2.5°	1388.4	1370.7	1319.5	1269.3	1227.4	1183.7	1143.7	1120.4	1111.1	1100.8	1105.5
5°	1407.9	1365.1	1261.8	1172.5	1085.0	1010.6	951.0	912.9	894.3	891.5	886.8
7.5°	1434.0	1360.5	1200.4	1060.8	946.4	863.6	795.6	740.7	724.0	709.1	697.0
10°	1465.6	1352.1	1124.1	943.6	821.7	717.5	628.1	563.0	529.5	520.2	526.7
12.5°	1499.1	1336.3	1044.1	835.6	695.1	562.1	479.2	446.7	437.4	433.6	434.6
15°	1532.6	1316.7	960.3	731.4	553.7	448.5	410.4	402.0	398.3	396.4	394.6
17.5°	1563.3	1285.1	866.3	630.0	448.5	383.4	369.4	362.0	354.5	351.8	347.1
20°	1599.6	1248.8	781.7	516.5	379.7	347.1	330.3	316.4	305.2	297.8	296.8
22.5°	1634.1	1202.3	693.3	428.1	346.2	311.7	284.8	269.9	256.8	247.5	250.3
25°	1652.7	1145.5	614.2	373.2	315.5	276.4	246.6	228.0	214.0	209.4	208.4
27.5°	1652.7	1075.7	536.9	341.5	287.5	244.7	214.0	196.3	187.0	180.5	181.5
30°	1639.6	998.5	465.3	317.3	263.3	216.8	188.0	172.2	164.7	160.1	159.1
32.5°	1629.4	925.0	403.9	294.1	238.2	192.6	167.5	155.4	148.0	143.3	143.3
35°	1645.2	861.7	356.4	270.8	215.0	174.0	151.7	140.5	133.1	129.3	128.4
37.5°	1687.1	804.0	320.1	245.7	193.6	158.2	140.5	127.5	120.0	115.4	113.5
40°	1790.4	771.4	293.1	222.4	173.1	145.2	127.5	115.4	106.1	101.4	100.5
42.5°	1956.0	772.4	267.1	201.0	157.3	134.0	116.3	102.4	92.1	87.5	86.5
45°	2205.4	807.7	246.6	180.5	143.3	121.9	104.2	89.3	80.0	75.4	75.4
47.5°	2504.1	876.6	228.9	162.8	130.3	110.7	92.1	77.2	67.9	64.2	64.2
50°	2828.0	965.9	211.2	144.2	119.1	98.6	79.1	67.0	59.6	56.8	56.8
52.5°	3158.3	1073.9	193.6	129.3	107.0	85.6	67.9	59.6	53.0	51.2	50.3
55°	3592.0	1211.6	174.9	113.5	94.0	73.5	60.5	52.1	44.7	41.9	40.9
57.5°	4259.2	1419.1	154.5	99.6	77.2	61.4	52.1	43.7	35.4	30.7	29.8
60°	5064.1	1672.2	133.1	87.5	62.3	50.3	41.9	33.5	26.1	20.5	19.5
62.5°	5817.8	1833.2	112.6	73.5	49.3	38.2	29.8	25.1	18.6	13.0	12.1
65°	6151.0	1779.2	93.1	59.6	39.1	27.0	19.5	17.7	11.2	5.6	4.7
66°	6040.2	1699.2	85.6	54.0	35.4	23.3	16.8	14.9	8.4	2.8	2.8
67.5°	5713.6	1510.3	74.4	46.5	30.7	18.6	13.0	11.2	4.7	0.9	0.0
70°	4895.7	1221.8	58.6	34.4	22.3	13.0	7.4	5.6	2.8	0.0	0.0
72.5°	3760.4	910.1	46.5	26.1	15.8	7.4	3.7	1.9	2.8	0.0	0.0
75°	2304.1	520.2	36.3	19.5	10.2	4.7	2.8	0.0	2.8	0.9	0.0
77.5°	1022.7	233.6	24.2	13.0	7.4	3.7	1.9	0.0	1.9	0.9	0.0
80°	258.7	76.3	14.0	9.3	5.6	2.8	0.9	0.0	1.9	1.9	0.9
82.5°	70.7	27.9	10.2	7.4	4.7	2.8	0.9	0.0	1.9	1.9	1.9
85°	27.9	13.0	9.3	7.4	5.6	2.8	0.9	0.0	1.9	1.9	1.9
87.5°	13.0	9.3	9.3	8.4	6.5	2.8	0.9	0.0	1.9	0.9	1.9
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)