

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: P451970

Luminaire Tested: **GALN-SA2D-827-U-SL4**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P451970  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-18)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA2D-827-U-SL4  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(2) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV  
SPILL LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11194 lumens  
Efficiency: N/A  
Efficacy: 89.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G3

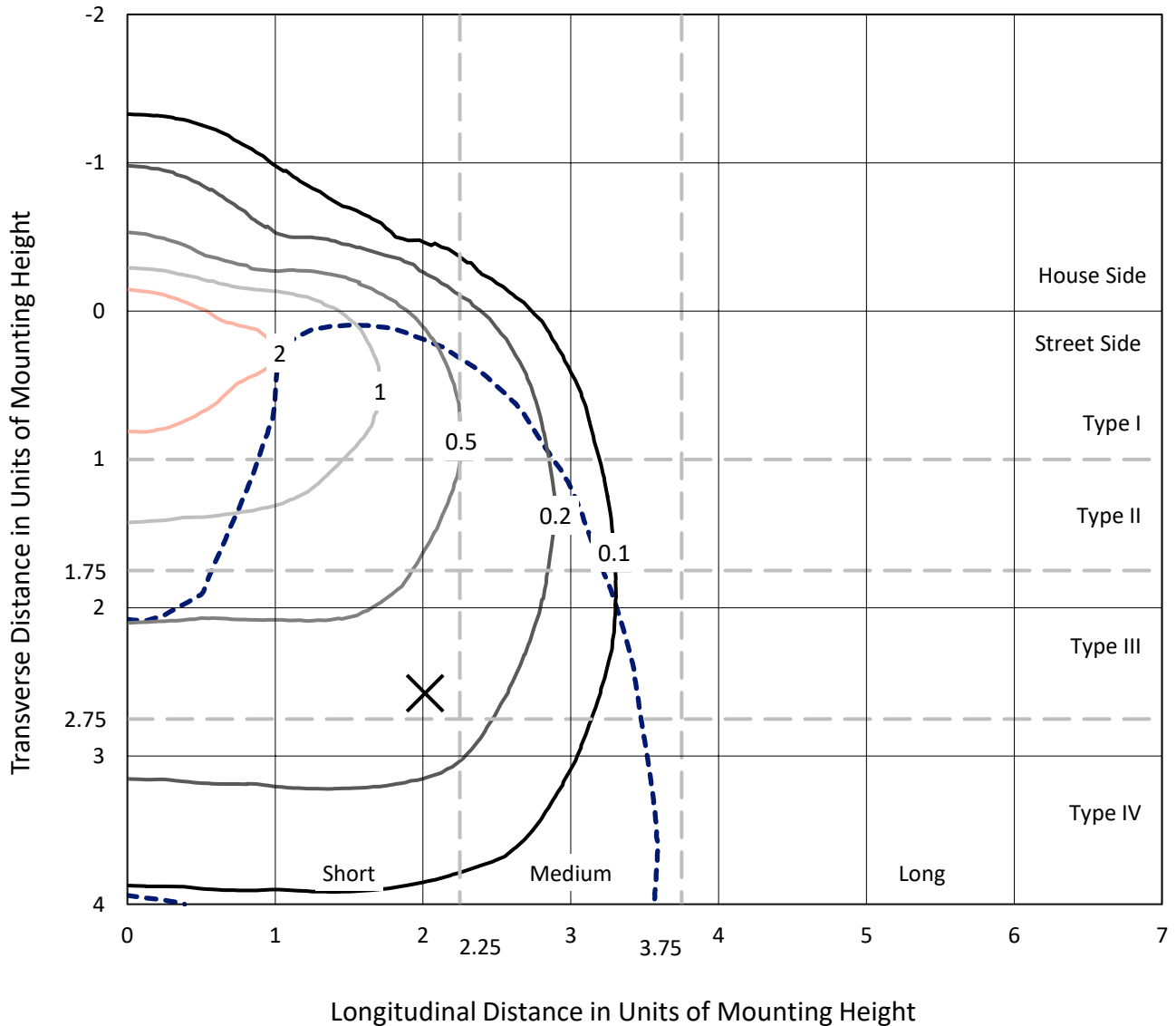
Input Watts (W): 125  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

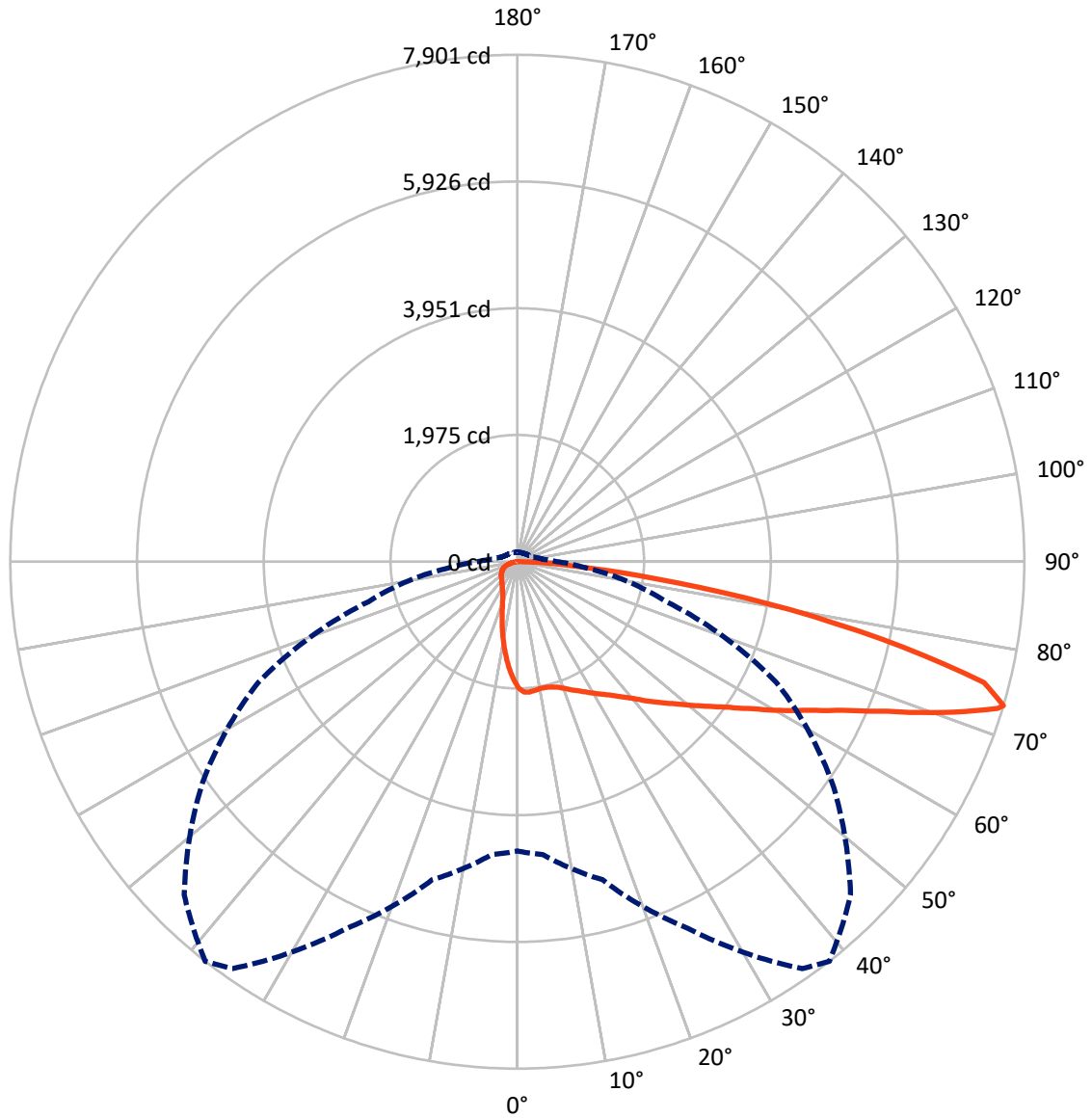
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.2 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral    - - - Horizontal Cone Through 73-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1504.8	0.0	1504.8
	% Fixture	13.4	0.0	13.4
<b>Street Side</b>	Lumens	9689.2	0.0	9689.2
	% Fixture	86.6	0.0	86.6
<b>Total</b>	Lumens	11194.0	0.0	11194.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	171.7	1.5
10°-20°	440.2	3.9
20°-30°	685.5	6.1
30°-40°	1005.4	9.0
40°-50°	1491.4	13.3
50°-60°	2113.1	18.9
60°-70°	2680.5	23.9
70°-80°	2231.3	19.9
80°-90°	374.9	3.3
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°	11194.0	100.0
0°-180°	11194.0	100.0

**Coefficient of Utilization**



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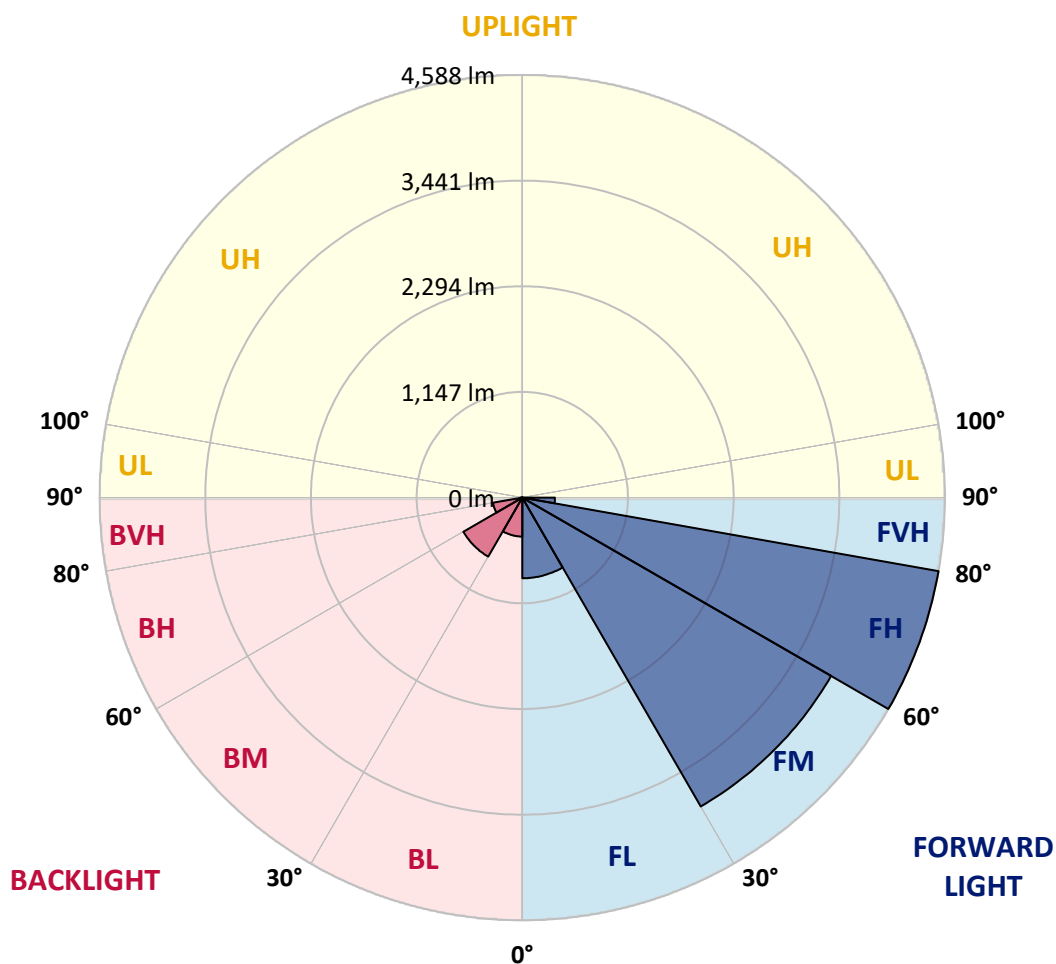
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	875.1	7.8			
FM (30°-60°)	3871.2	34.6			
FH (60°-80°)	4588.4	41.0			G2/5000
FVH (80°-90°)	354.6	3.2			G3/500
BL (0°-30°)	422.3	3.8	B1/500		
BM (30°-60°)	738.8	6.6	B1/1000		
BH (60°-80°)	323.4	2.9	B1/500		G1/500
BVH (80°-90°)	20.3	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G3**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	1966.6	1966.6	1966.6	1966.6	1966.6	1966.6	1966.6	1966.6	1966.6	1966.6	1966.6
2.5°	2045.6	2055.7	2050.7	2043.7	2039.3	2034.9	2028.5	2010.2	1995.7	1979.9	1955.2
5°	2060.8	2067.1	2062.7	2053.8	2043.7	2039.3	2027.3	2003.3	1979.9	1953.3	1916.7
7.5°	2051.9	2054.5	2049.4	2038.7	2029.8	2021.6	2007.7	1981.1	1952.7	1920.4	1872.4
10°	2020.3	2029.8	2029.8	2021.0	2012.1	2007.7	1993.8	1968.5	1942.6	1905.9	1849.0
12.5°	1994.4	2004.5	2012.7	2010.2	2009.6	2009.6	1998.8	1979.9	1949.5	1914.8	1847.1
15°	1976.7	1988.7	2006.4	2016.5	2022.9	2024.8	2020.3	2003.9	1972.9	1932.5	1854.7
17.5°	1972.9	1987.5	2019.7	2041.8	2058.3	2057.6	2056.4	2033.6	1999.5	1957.7	1864.2
20°	1990.0	2008.9	2053.8	2088.6	2112.6	2108.2	2101.2	2071.5	2031.7	1984.9	1873.0
22.5°	2041.2	2060.8	2110.1	2148.0	2171.4	2171.4	2150.5	2111.4	2069.0	2016.5	1885.0
25°	2114.5	2136.0	2188.5	2227.0	2237.8	2229.6	2208.7	2161.3	2112.6	2062.0	1910.3
27.5°	2204.3	2230.2	2278.9	2311.1	2308.0	2301.6	2280.1	2219.5	2170.8	2124.6	1953.3
30°	2316.2	2335.1	2385.7	2393.3	2381.9	2380.6	2350.3	2289.6	2244.1	2208.7	2014.6
32.5°	2421.7	2438.8	2479.3	2482.4	2462.2	2464.7	2436.3	2380.6	2354.7	2342.1	2117.7
35°	2533.6	2542.5	2577.2	2573.5	2560.2	2558.3	2546.9	2493.8	2502.0	2524.8	2263.7
37.5°	2627.2	2644.9	2664.5	2667.6	2667.0	2673.3	2680.9	2655.6	2703.0	2774.5	2455.2
40°	2713.2	2728.3	2757.4	2767.5	2792.2	2804.8	2830.7	2831.4	2940.7	3058.3	2691.0
42.5°	2771.3	2797.2	2851.6	2869.9	2930.0	2967.9	3006.5	3047.6	3206.2	3357.3	2969.2
45°	2821.9	2856.0	2946.4	3003.3	3084.9	3131.0	3212.5	3298.5	3526.7	3724.6	3251.7
47.5°	2898.4	2928.7	3032.4	3132.9	3256.2	3309.3	3431.3	3559.6	3858.0	4074.8	3522.3
50°	3004.6	3022.9	3128.5	3292.2	3449.6	3517.9	3679.1	3864.3	4212.0	4420.6	3760.0
52.5°	3140.5	3148.1	3232.1	3450.2	3657.6	3742.3	3955.9	4172.1	4521.7	4720.8	3948.4
55°	3301.0	3288.4	3354.1	3617.8	3895.3	4005.9	4235.4	4483.8	4870.0	4963.6	4085.5
57.5°	3459.7	3440.1	3492.6	3821.3	4188.6	4322.0	4589.4	4804.9	5181.0	5190.5	4181.6
60°	3627.9	3613.3	3675.9	4060.3	4548.3	4706.3	4953.5	5138.1	5481.9	5348.6	4196.8
62.5°	3800.4	3777.1	3866.2	4328.9	4953.5	5097.0	5336.5	5492.1	5777.2	5407.3	4050.8
65°	3968.0	3957.2	4095.0	4648.1	5414.9	5578.0	5810.7	5916.2	6013.6	5318.8	3688.6
67.5°	4146.2	4167.7	4387.7	5074.2	6016.7	6221.5	6472.5	6373.3	6081.2	4899.7	3106.3
70°	4418.0	4432.0	4772.0	5632.4	6792.4	7039.5	7160.9	6535.7	5755.0	4103.9	2335.1
72.5°	4535.0	4596.3	5115.3	6218.4	7673.6	7824.7	7392.3	6173.5	4794.2	2787.7	1227.0
73°	4509.1	4582.4	5131.1	6307.5	7742.5	7901.2	7343.0	5987.0	4456.6	2400.9	1051.9
75°	4186.0	4276.4	4925.7	6232.9	7608.5	7513.6	6550.3	5102.7	3011.5	1091.7	479.2
77.5°	3302.9	3328.9	3902.8	5033.1	5991.4	5815.7	4902.3	3189.2	1230.1	405.8	271.8
80°	1656.8	1752.3	2199.9	2883.2	4006.5	3949.0	3094.3	1508.3	512.7	238.3	180.2
82.5°	797.1	864.8	1071.5	1405.9	2213.8	2161.3	1532.3	824.3	325.6	139.1	106.2
85°	513.3	563.9	682.1	670.7	910.3	869.2	688.4	623.9	192.8	72.7	74.0
87.5°	338.8	371.1	445.0	355.9	331.2	299.6	304.1	351.5	37.9	27.8	10.1
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°	1966.6	1966.6	1966.6	1966.6	1966.6	1966.6	1966.6	1966.6	1966.6	1966.6	1966.6
2.5°	1945.1	1936.9	1909.7	1883.2	1857.9	1833.8	1818.0	1797.2	1783.3	1787.1	1792.8
5°	1896.4	1878.1	1830.1	1783.3	1739.0	1686.6	1644.2	1610.1	1584.1	1574.7	1572.8
7.5°	1845.2	1814.2	1745.3	1665.1	1589.8	1524.7	1449.5	1412.2	1368.6	1353.4	1348.4
10°	1814.2	1772.5	1675.8	1563.9	1450.8	1342.7	1261.1	1194.7	1134.7	1123.3	1117.6
12.5°	1805.4	1750.4	1620.2	1476.1	1325.6	1192.9	1072.1	984.9	926.7	913.4	893.8
15°	1800.3	1732.1	1568.3	1387.6	1196.6	1034.8	907.8	806.0	752.9	717.5	718.1
17.5°	1795.9	1711.2	1510.2	1290.8	1085.4	898.9	758.6	666.9	618.2	599.3	597.4
20°	1789.6	1686.6	1443.2	1189.1	958.3	775.0	647.9	579.7	546.8	531.0	530.4
22.5°	1787.1	1662.5	1377.4	1085.4	845.8	679.6	574.6	526.6	505.7	495.0	495.0
25°	1793.4	1645.5	1308.5	986.8	745.9	598.0	524.0	491.2	479.2	473.5	471.6
27.5°	1813.0	1637.9	1240.3	888.2	654.3	542.4	489.9	467.2	458.3	453.9	454.5
30°	1850.3	1637.2	1173.3	790.8	586.0	500.0	462.7	446.9	440.0	437.4	436.8
32.5°	1910.3	1651.2	1107.5	710.5	528.5	464.6	437.4	426.1	422.9	421.0	420.4
35°	2012.1	1690.3	1042.4	637.2	484.2	433.0	413.4	407.7	403.3	405.2	405.8
37.5°	2149.3	1758.0	980.5	579.7	450.7	409.6	393.2	388.1	385.6	387.5	389.4
40°	2333.2	1855.3	928.6	533.5	426.7	390.0	375.5	371.1	368.5	371.7	372.3
42.5°	2536.2	1967.9	885.6	497.5	407.1	373.6	359.7	354.6	352.7	354.6	355.3
45°	2744.8	2098.7	863.5	471.6	390.7	361.6	347.0	341.4	336.9	335.7	337.6
47.5°	2950.2	2212.5	862.9	455.8	377.4	350.8	335.0	328.7	323.0	319.9	319.2
50°	3117.7	2302.9	878.0	448.8	366.0	338.8	323.0	316.7	309.1	302.8	304.1
52.5°	3244.2	2361.7	885.0	445.7	359.7	326.2	310.4	304.7	295.8	287.6	287.6
55°	3325.7	2375.6	867.9	442.5	354.6	312.9	295.8	290.8	281.9	273.7	273.7
57.5°	3353.5	2332.6	806.6	434.9	349.6	301.5	281.3	276.9	269.9	261.7	260.4
60°	3289.0	2187.2	699.1	412.2	339.5	289.5	265.5	263.6	261.1	254.1	253.5
62.5°	3040.6	1878.7	582.2	382.4	322.4	276.9	251.0	254.1	256.0	252.2	251.6
65°	2627.2	1525.4	497.5	341.4	299.6	259.2	235.2	243.4	248.4	248.4	247.2
67.5°	2131.0	1171.4	419.1	306.0	271.2	235.2	217.5	223.8	227.6	226.3	229.5
70°	1514.6	793.3	341.4	265.5	235.2	208.0	194.7	194.7	192.2	190.9	190.9
72.5°	734.5	453.2	276.9	221.9	200.4	177.6	166.9	162.5	157.4	156.8	153.6
73°	613.8	406.5	264.2	213.7	192.2	173.2	161.2	154.2	151.1	148.6	147.9
75°	373.6	308.5	220.6	180.2	163.7	149.2	138.4	132.1	129.0	127.1	126.4
77.5°	245.9	230.1	171.3	137.8	125.2	116.3	111.9	105.6	103.7	101.1	101.1
80°	183.3	175.7	122.6	97.3	89.8	82.2	80.9	79.6	74.6	71.4	70.2
82.5°	118.2	125.2	83.4	65.1	56.9	50.6	51.2	53.1	48.0	43.6	42.4
85°	84.1	90.4	50.6	29.7	24.0	20.9	23.4	20.9	21.5	17.1	13.9
87.5°	13.9	24.0	8.8	3.8	1.9	1.3	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)