

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: P452905

Luminaire Tested: **GALN-SA3D-827-U-T2**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P452905  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA3D-827-U-T2  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(3) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 17073 lumens  
Efficiency: N/A  
Efficacy: 92.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B2 - U0 - G3

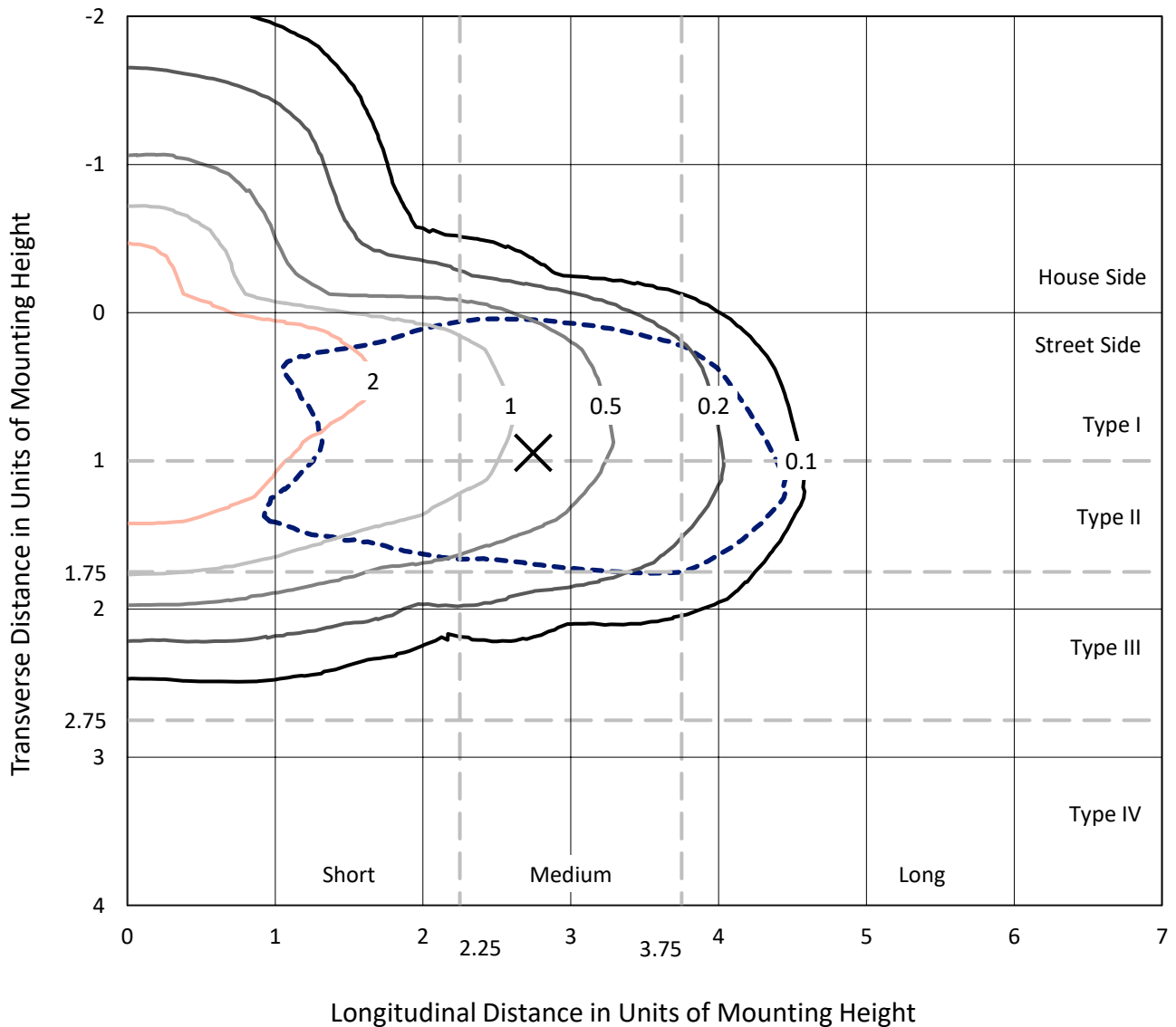
Input Watts (W): 184  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

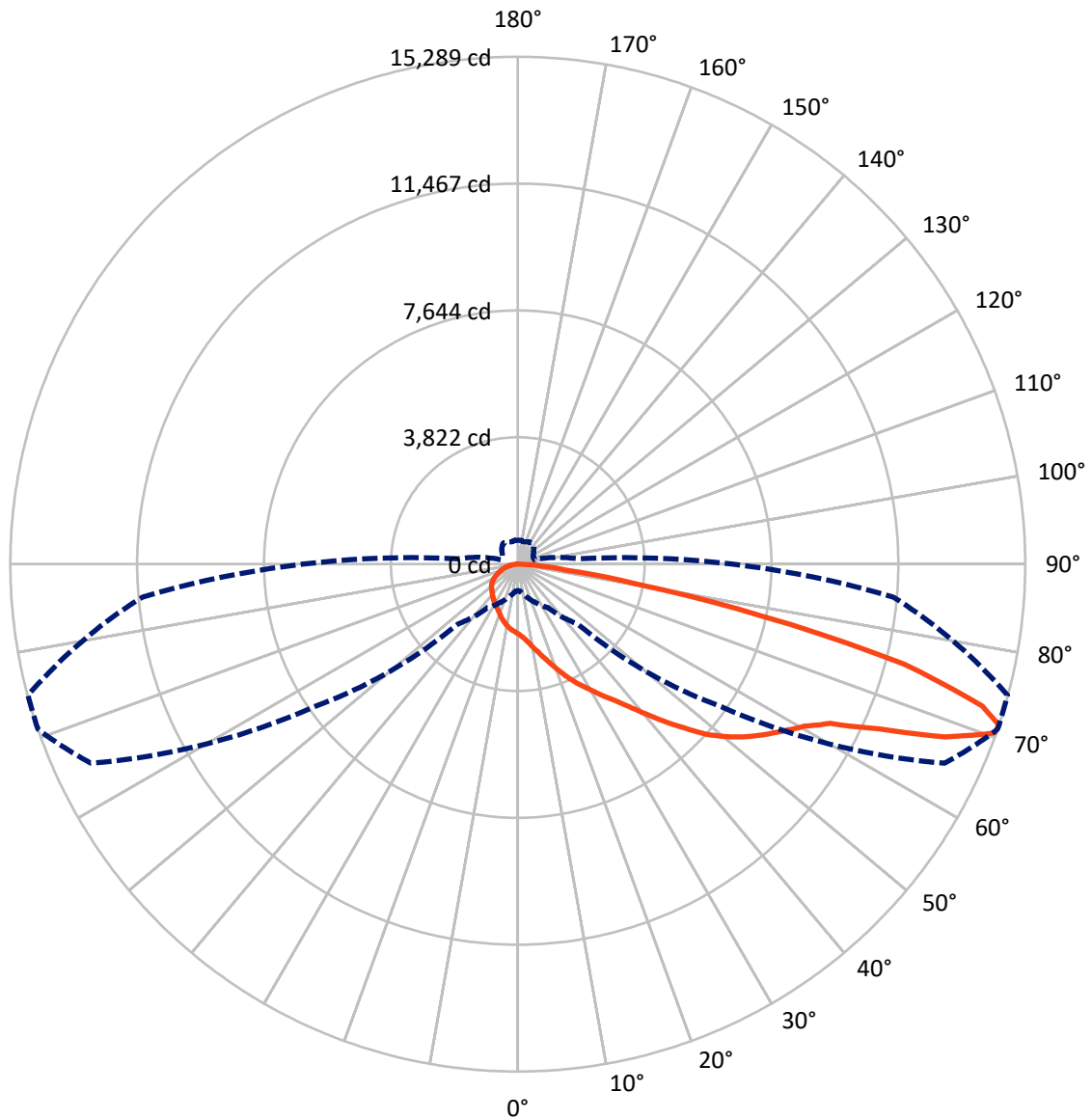
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 71-Deg Lateral    - - - Horizontal Cone Through 71-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3070.5	0.0	3070.5
	% Fixture	18.0	0.0	18.0
<b>Street Side</b>	Lumens	14002.5	0.0	14002.5
	% Fixture	82.0	0.0	82.0
<b>Total</b>	Lumens	17073.0	0.0	17073.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	210.4	1.2
10°-20°	683.5	4.0
20°-30°	1194.5	7.0
30°-40°	1776.7	10.4
40°-50°	2617.8	15.3
50°-60°	3664.9	21.5
60°-70°	4099.1	24.0
70°-80°	2503.9	14.7
80°-90°	322.1	1.9
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°	17073.0	100.0
0°-180°	17073.0	100.0

**Coefficient of Utilization**



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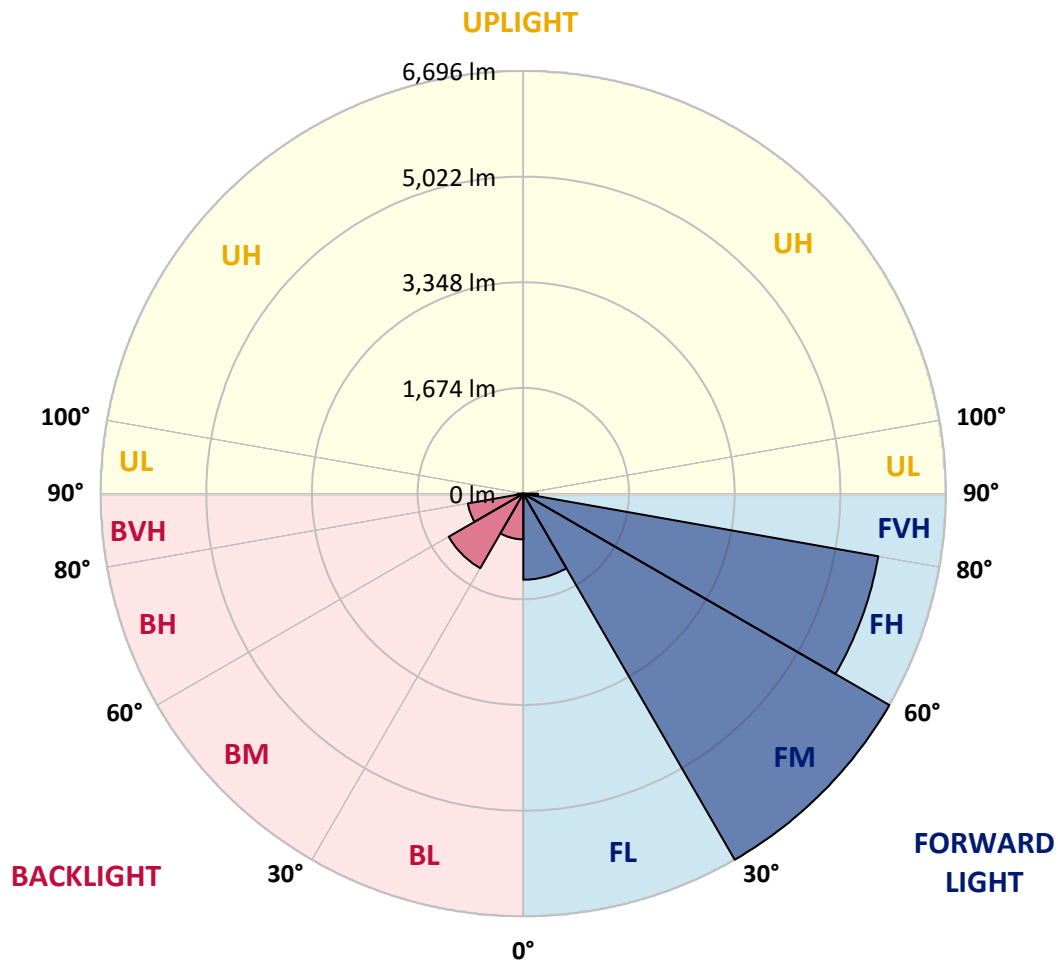
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1364.1	8.0			
FM	(30°-60°)	6695.7	39.2			
FH	(60°-80°)	5710.9	33.4			G3/7500
FVH	(80°-90°)	231.8	1.4			G3/500
BL	(0°-30°)	724.3	4.2	B2/1000		
BM	(30°-60°)	1363.7	8.0	B2/2500		
BH	(60°-80°)	892.1	5.2	B2/1000		G2/1000
BVH	(80°-90°)	90.3	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G3**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	71°	75°	85°
0°	2095.4	2095.4	2095.4	2095.4	2095.4	2095.4	2095.4	2095.4	2095.4	2095.4	2095.4
2.5°	2326.2	2315.0	2315.9	2299.9	2279.3	2256.8	2224.9	2196.7	2174.2	2161.1	2122.6
5°	2577.7	2566.4	2552.4	2517.6	2502.6	2447.3	2376.9	2313.1	2264.3	2237.1	2160.1
7.5°	2781.3	2778.5	2774.8	2755.0	2716.6	2639.6	2579.6	2468.8	2396.6	2345.0	2213.6
10°	2907.1	2911.8	2914.6	2918.3	2902.4	2862.0	2779.4	2639.6	2547.7	2482.0	2283.0
12.5°	2970.9	2975.6	2991.5	3026.2	3047.8	3043.1	2975.6	2838.6	2711.9	2625.6	2357.2
15°	3010.3	3017.8	3045.9	3091.9	3164.2	3210.2	3177.3	3050.6	2911.8	2809.5	2445.4
17.5°	3053.4	3061.9	3092.9	3158.5	3253.3	3352.8	3388.4	3279.6	3128.5	3006.5	2543.9
20°	3077.8	3089.1	3133.2	3219.5	3330.3	3474.8	3593.0	3535.8	3370.6	3235.5	2657.5
22.5°	3117.3	3126.6	3164.2	3256.1	3388.4	3569.5	3797.6	3785.4	3639.9	3465.4	2782.3
25°	3224.2	3239.2	3258.0	3313.4	3441.0	3666.2	3967.4	4051.9	3900.8	3705.6	2896.7
27.5°	3426.0	3438.2	3437.2	3444.7	3517.0	3749.7	4114.7	4315.6	4159.8	3948.6	3007.5
30°	3655.9	3660.6	3664.3	3647.4	3663.4	3835.1	4249.9	4576.4	4420.6	4198.3	3104.1
32.5°	3935.5	3944.9	3913.0	3869.8	3856.7	3961.8	4361.5	4837.3	4729.4	4451.6	3199.8
35°	4265.8	4290.2	4225.5	4149.5	4096.0	4143.8	4511.7	5103.8	5045.6	4775.4	3326.5
37.5°	4643.0	4673.1	4613.0	4463.8	4387.8	4400.9	4707.8	5433.1	5445.3	5144.1	3515.1
40°	4951.8	4991.2	4993.1	4781.9	4666.5	4681.5	4956.5	5787.8	5927.7	5600.2	3737.5
42.5°	5155.4	5193.9	5234.2	5110.3	4989.3	5074.7	5246.4	6172.6	6470.0	6153.8	4048.1
45°	5378.7	5413.4	5436.0	5379.7	5312.1	5533.6	5596.4	6581.7	7048.1	6772.2	4387.8
47.5°	5637.7	5676.2	5697.8	5644.3	5618.9	5936.1	5973.6	6963.6	7665.5	7372.8	4763.2
50°	5983.0	6012.1	6000.9	5967.1	5961.4	6244.8	6335.9	7321.1	8175.1	8019.3	5152.6
52.5°	6412.8	6447.5	6459.7	6411.9	6390.3	6465.4	6627.7	7646.8	8638.6	8574.8	5568.3
55°	6672.7	6728.1	6913.9	6989.0	7040.6	6750.6	6942.0	8006.1	9054.3	9160.3	6014.9
57.5°	6339.6	6410.9	6826.6	7202.0	7687.1	7463.8	7387.8	8381.5	9470.0	9728.1	6549.8
60°	5527.0	5542.9	6078.7	6770.3	7746.2	8380.6	8317.7	8978.3	9920.4	10300.5	7254.5
62.5°	3834.2	3867.9	4501.3	5604.9	7016.2	8710.9	9899.8	10008.6	10566.0	11157.2	8287.7
65°	1977.1	1933.0	2510.1	3522.6	5289.6	7926.4	11181.6	11903.2	11966.1	12497.2	9742.1
67.5°	1217.1	1236.8	1507.0	2056.9	3127.6	5760.6	11047.4	14218.1	13886.9	14142.1	11092.4
70°	914.0	938.4	1124.2	1407.6	1906.8	3293.7	8884.5	14779.3	15241.9	15176.2	11503.4
71°	794.8	820.1	1013.4	1280.9	1601.8	2542.0	7485.4	14191.9	15288.8	15277.6	11348.6
72.5°	677.5	693.5	844.5	1084.8	1350.3	1782.0	5623.6	12728.0	14636.7	15011.1	10795.9
75°	532.1	544.3	611.8	827.6	1063.2	1094.1	3017.8	9542.3	12021.4	12734.6	8987.7
77.5°	433.5	442.0	476.7	614.6	820.1	775.1	1583.0	6211.1	7531.3	8249.2	5294.3
80°	344.4	353.8	374.4	416.6	614.6	552.7	755.4	3147.3	3638.0	3630.5	2113.2
82.5°	267.4	270.2	294.6	305.9	420.4	392.2	409.1	1332.5	1476.1	1524.8	762.9
85°	168.9	177.4	260.9	234.6	251.5	229.9	201.7	529.2	652.2	642.8	305.0
87.5°	51.6	54.4	88.2	99.5	111.7	100.4	74.1	155.8	190.5	206.4	76.0
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°	2095.4	2095.4	2095.4	2095.4	2095.4	2095.4	2095.4	2095.4	2095.4	2095.4	2095.4
2.5°	2107.6	2097.3	2060.7	2030.6	2002.5	1971.5	1945.2	1937.7	1931.2	1928.3	1927.4
5°	2127.3	2096.3	2024.1	1964.9	1918.0	1874.9	1847.6	1835.4	1823.2	1823.2	1827.0
7.5°	2155.4	2099.1	1987.5	1899.3	1840.1	1799.8	1780.1	1778.2	1781.0	1783.8	1784.8
10°	2186.4	2097.3	1934.0	1824.2	1771.6	1752.9	1753.8	1769.8	1784.8	1796.0	1797.9
12.5°	2216.4	2086.0	1871.1	1753.8	1720.0	1723.8	1750.1	1785.7	1814.8	1830.8	1831.7
15°	2250.2	2068.2	1795.1	1687.2	1675.9	1705.0	1753.8	1808.2	1852.3	1878.6	1881.4
17.5°	2278.4	2038.1	1715.3	1622.4	1636.5	1690.0	1757.6	1827.9	1881.4	1914.3	1919.9
20°	2310.3	1999.7	1632.8	1560.5	1600.9	1673.1	1750.1	1826.1	1881.4	1913.3	1920.8
22.5°	2335.6	1945.2	1553.9	1509.8	1568.9	1652.5	1724.7	1785.7	1830.8	1847.6	1858.9
25°	2345.9	1876.7	1479.8	1468.5	1543.6	1618.7	1667.5	1702.2	1716.3	1714.4	1719.1
27.5°	2340.3	1797.9	1416.0	1435.7	1511.7	1566.1	1590.5	1587.7	1562.4	1538.9	1550.2
30°	2316.8	1704.1	1362.5	1401.9	1470.4	1500.4	1496.7	1460.1	1412.2	1368.1	1371.0
32.5°	2274.6	1602.7	1312.8	1363.4	1412.2	1425.4	1400.0	1352.2	1283.7	1226.4	1218.0
35°	2238.9	1506.1	1268.7	1319.3	1354.1	1347.5	1323.1	1261.2	1199.2	1148.6	1140.1
37.5°	2233.3	1423.5	1226.4	1269.6	1289.3	1279.9	1249.9	1197.4	1174.8	1136.4	1131.7
40°	2263.3	1365.3	1183.3	1217.1	1226.4	1218.9	1186.1	1156.1	1176.7	1167.3	1167.3
42.5°	2345.0	1334.4	1144.8	1164.5	1172.0	1177.7	1154.2	1128.9	1154.2	1111.0	1097.0
45°	2474.5	1335.3	1110.1	1112.9	1135.4	1155.1	1139.2	1101.6	1088.5	1002.2	985.3
47.5°	2665.0	1367.2	1081.9	1064.1	1104.5	1137.3	1114.8	1060.4	1002.2	944.9	934.6
50°	2887.4	1424.4	1056.6	1013.4	1063.2	1114.8	1097.9	1034.1	974.0	939.3	932.7
52.5°	3134.1	1496.7	1025.6	957.1	1012.5	1104.5	1101.6	1030.3	947.8	924.3	918.7
55°	3439.1	1568.0	987.2	891.4	967.5	1096.0	1091.3	999.4	942.1	925.2	923.4
57.5°	3793.8	1671.2	931.8	824.8	915.8	1061.3	1051.0	980.6	923.4	911.2	910.2
60°	4365.3	1831.7	853.0	763.8	863.3	1000.3	1013.4	948.7	893.3	890.5	889.6
62.5°	5116.9	2056.9	771.3	701.0	802.3	921.5	959.0	905.5	861.4	875.5	877.4
65°	6154.8	2246.5	686.9	647.5	734.7	845.5	907.4	865.2	825.8	853.0	853.0
67.5°	6831.3	2250.2	609.9	592.1	666.2	781.7	853.0	817.3	779.8	825.8	827.6
70°	6690.6	1971.5	546.1	533.9	599.6	713.2	792.9	764.8	721.6	762.9	747.9
71°	6463.5	1816.7	520.8	511.4	573.3	680.3	764.8	741.3	698.1	725.4	716.9
72.5°	6101.3	1577.4	479.5	481.4	533.9	639.0	725.4	701.0	657.8	672.8	670.0
75°	5157.3	1377.5	410.1	418.5	458.9	568.7	646.5	627.8	583.7	583.7	580.8
77.5°	3224.2	962.8	340.6	345.3	389.4	487.0	555.5	539.6	497.3	483.3	479.5
80°	1203.0	497.3	266.5	272.1	299.3	383.8	459.8	444.8	401.6	385.7	370.7
82.5°	455.1	249.6	196.1	191.4	220.5	292.8	360.3	342.5	308.7	270.2	259.0
85°	171.7	123.9	120.1	116.4	129.5	173.6	223.3	219.6	183.9	156.7	153.9
87.5°	45.0	40.3	46.9	34.7	36.6	32.8	33.8	14.1	6.6	2.8	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)