

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: P454622

Luminaire Tested: **GALN-SA5D-727-U-T3R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P454622
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-8)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA5D-727-U-T3R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 33155 lumens
Efficiency: N/A
Efficacy: 107.3 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G5

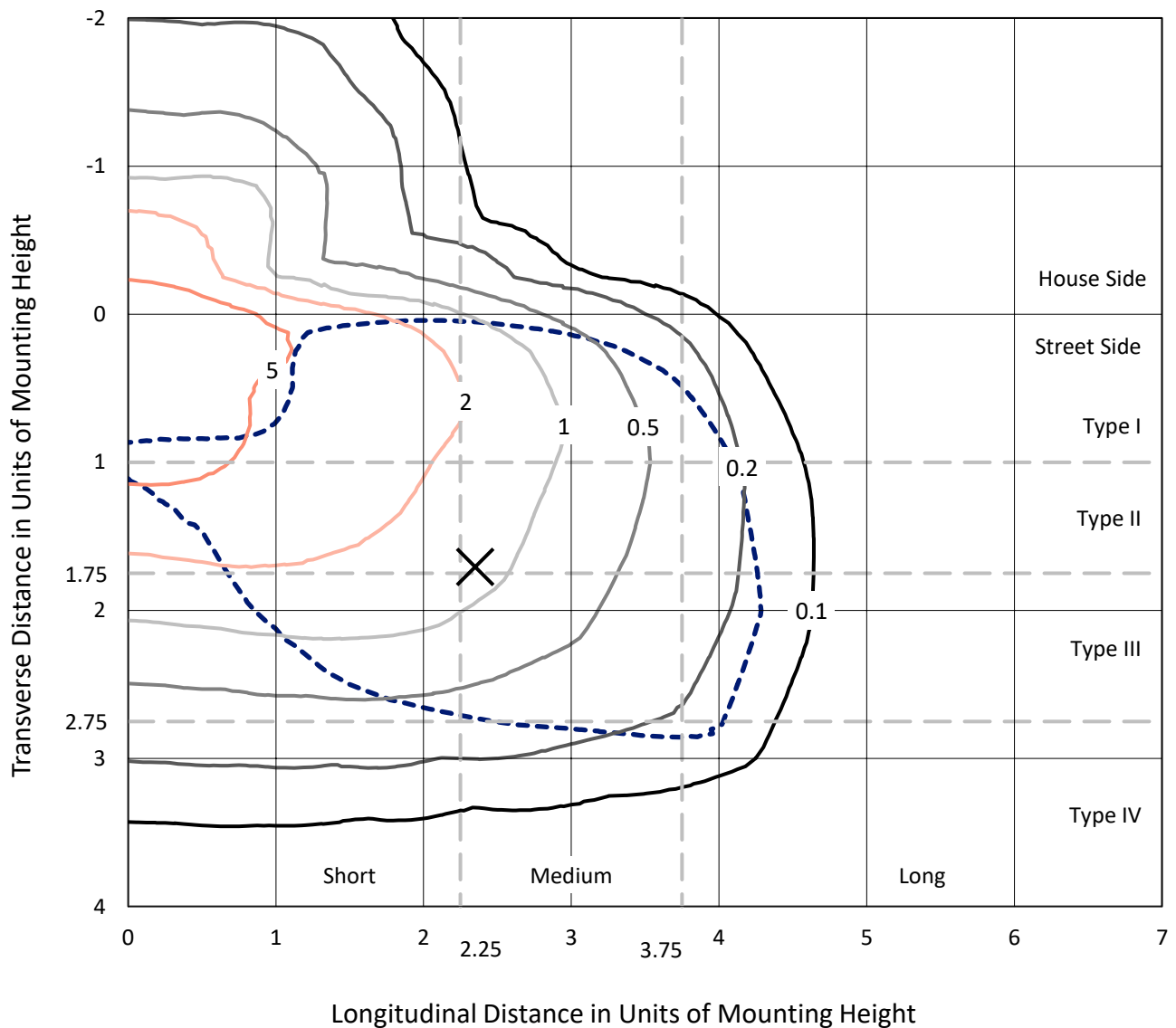
Input Watts (W): 309
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

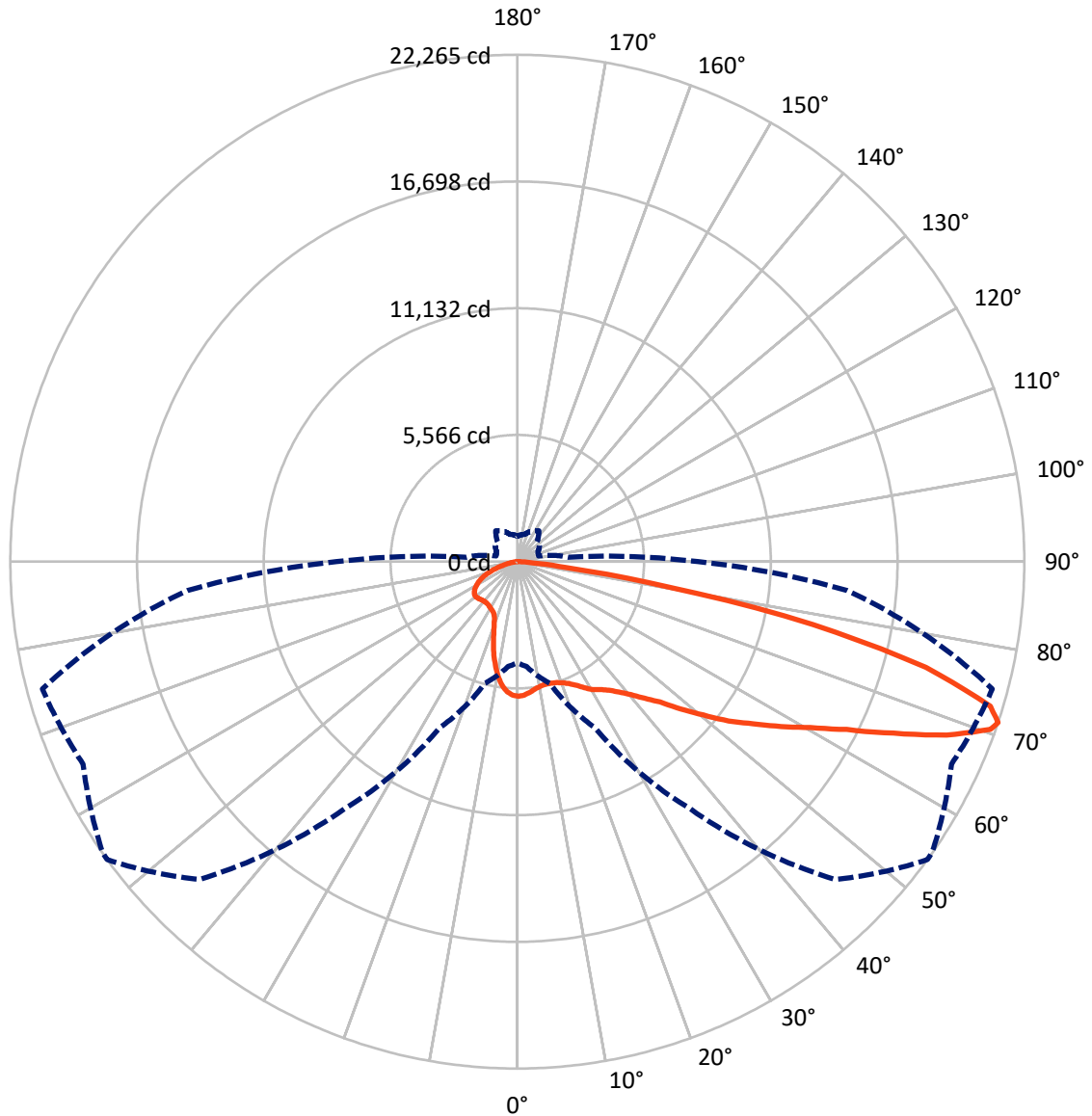
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.5 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5985.9	0.0	5985.9
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	27169.1	0.0	27169.1
	% Fixture	81.9	0.0	81.9
Total	Lumens	33155.0	0.0	33155.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	527.1	1.6
10°-20°	1391.9	4.2
20°-30°	2317.6	7.0
30°-40°	3427.0	10.3
40°-50°	4827.1	14.6
50°-60°	6463.6	19.5
60°-70°	8146.9	24.6
70°-80°	5564.3	16.8
80°-90°	489.3	1.5
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°	33155.0	100.0
0°-180°	33155.0	100.0

Coefficient of Utilization



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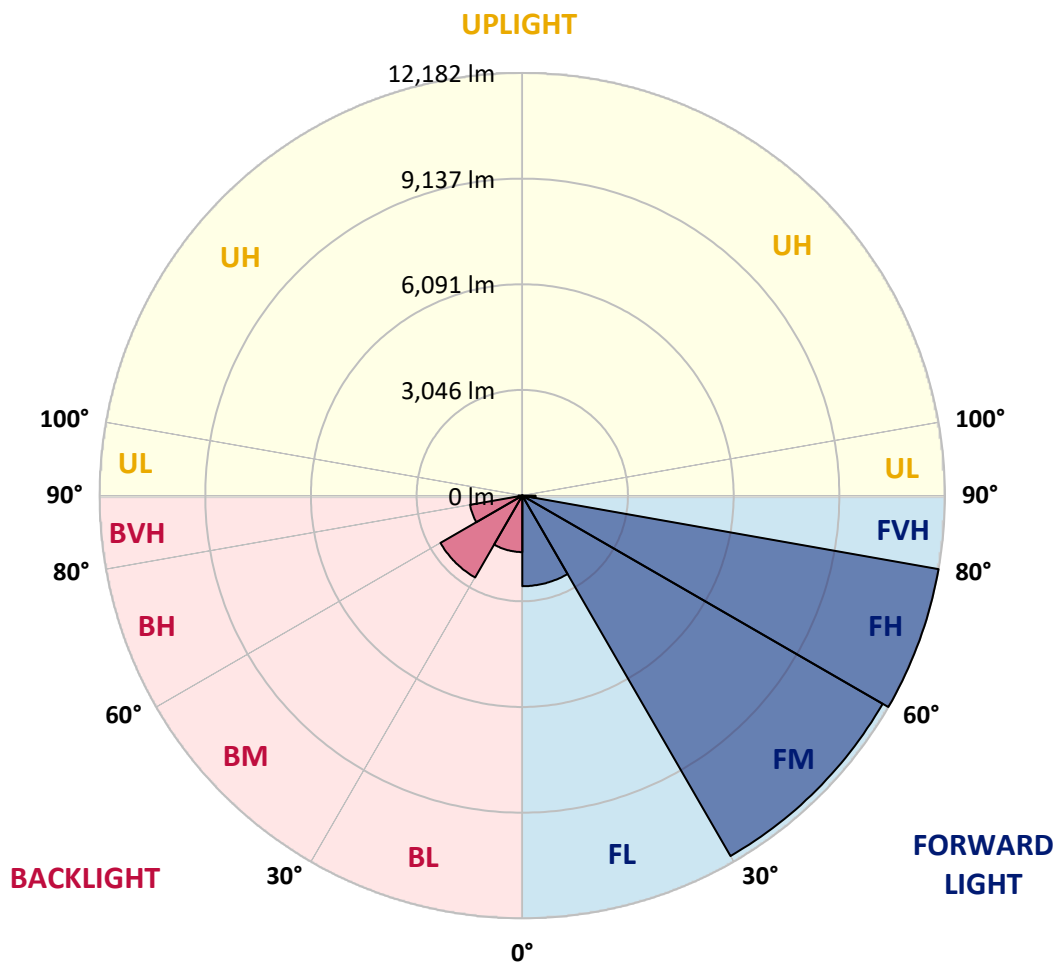
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2609.8	7.9			
FM	(30°-60°)	11994.3	36.2			
FH	(60°-80°)	12182.4	36.7			G5
FVH	(80°-90°)	382.5	1.2			G3/500
BL	(0°-30°)	1626.9	4.9	B3/2500		
BM	(30°-60°)	2723.4	8.2	B3/5000		
BH	(60°-80°)	1528.8	4.6	B3/2500		G3/2500
BVH	(80°-90°)	106.8	0.3			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	5915.3	5915.3	5915.3	5915.3	5915.3	5915.3	5915.3	5915.3	5915.3	5915.3	5915.3
2.5°	5714.8	5741.6	5748.8	5766.7	5804.3	5834.8	5865.2	5861.6	5904.6	5922.5	5938.6
5°	5460.5	5467.6	5494.5	5530.3	5596.6	5680.7	5763.1	5764.9	5870.6	5954.7	5995.9
7.5°	5274.2	5297.5	5315.4	5353.0	5422.8	5514.2	5644.9	5655.7	5843.7	6010.3	6098.0
10°	5152.4	5179.3	5199.0	5245.5	5315.4	5417.5	5559.0	5578.7	5824.0	6098.0	6252.0
12.5°	5041.4	5068.2	5086.2	5147.0	5238.4	5363.7	5523.1	5546.4	5831.2	6200.1	6420.4
15°	5109.4	5130.9	5123.8	5141.7	5202.6	5345.8	5537.5	5560.7	5858.0	6298.6	6586.9
17.5°	5412.1	5430.0	5370.9	5302.9	5274.2	5379.9	5582.2	5607.3	5911.8	6400.7	6757.1
20°	5858.0	5906.4	5777.4	5625.2	5487.3	5501.6	5675.4	5702.2	5987.0	6502.8	6930.8
22.5°	6438.3	6474.1	6316.5	6065.8	5811.5	5680.7	5815.1	5831.2	6099.8	6635.3	7120.6
25°	7120.6	7142.1	6923.6	6601.3	6234.1	5987.0	6006.7	6035.3	6286.1	6785.7	7289.0
27.5°	7783.3	7851.3	7598.8	7204.8	6721.2	6309.3	6269.9	6287.9	6488.4	6869.9	7405.4
30°	8569.5	8564.1	8297.2	7840.6	7220.9	6660.4	6518.9	6515.3	6597.7	6911.1	7489.5
32.5°	9196.3	9269.7	9008.2	8510.4	7792.2	7023.9	6690.8	6683.6	6681.8	6982.7	7614.9
35°	9909.1	9919.8	9679.8	9178.4	8410.1	7480.6	6930.8	6895.0	6853.8	7136.7	7785.0
37.5°	10546.6	10596.8	10376.5	9814.1	9017.2	7955.2	7260.3	7237.0	7111.7	7403.6	8057.3
40°	11044.5	11082.1	10949.6	10414.1	9615.3	8467.4	7679.4	7636.4	7484.2	7840.6	8420.8
42.5°	11207.5	11284.5	11336.4	11073.1	10303.0	9074.5	8195.2	8141.4	8025.0	8503.2	8839.9
45°	11220.0	11341.8	11615.8	11628.3	10994.3	9801.6	8796.9	8759.3	8750.3	9352.1	9429.1
47.5°	11125.1	11248.6	11708.9	11957.8	11610.4	10535.9	9665.5	9606.4	9611.8	10401.5	10089.9
50°	10895.8	11042.7	11601.5	12169.2	12092.2	11298.8	10582.4	10562.7	10673.8	11599.7	10775.8
52.5°	10464.2	10641.5	11490.4	12301.7	12450.3	11956.0	11624.7	11569.2	11850.4	12899.9	11526.2
55°	9269.7	9536.5	11083.9	12375.1	12790.6	12584.7	12563.2	12663.5	13036.0	14318.2	12351.8
57.5°	8646.5	8847.0	10201.0	12387.7	13220.4	13315.3	13659.2	13684.3	14336.2	15824.4	13284.9
60°	8306.2	8483.5	9717.4	12305.3	13820.4	14219.7	14780.3	14869.8	15605.9	17455.9	14252.0
62.5°	8008.9	8161.1	9427.3	12020.5	14497.3	15561.1	16232.7	16275.7	17047.6	19257.5	15206.5
65°	7308.7	7482.4	8843.5	11735.8	15081.2	17237.4	18159.7	18109.6	18582.4	20812.0	15804.7
67.5°	6364.9	6585.1	7752.8	10752.6	15369.5	19069.5	20330.3	20267.6	20097.5	21831.1	15976.6
70°	5159.6	5277.8	6357.7	9053.0	14218.0	20031.2	22044.2	21977.9	21035.9	21965.4	15163.6
71°	4439.6	4624.1	5535.7	8041.1	13259.8	19737.5	22264.5	22246.6	21037.7	21594.7	14551.1
72.5°	3465.4	3578.2	4384.1	6230.5	11270.1	18068.4	21720.0	21788.1	20581.0	20564.9	13288.5
75°	2192.1	2242.2	2750.8	3667.8	6184.0	12796.0	18541.2	18725.7	18274.3	16832.7	9882.2
77.5°	1273.3	1337.8	1647.6	2161.6	2672.0	6945.1	13267.0	13467.6	12697.5	9267.9	4045.6
80°	741.4	813.1	1085.3	1255.4	1226.8	2577.1	6755.3	7097.3	5498.1	2340.7	1135.4
82.5°	411.9	460.3	762.9	764.7	653.7	841.7	2125.8	2224.3	1568.8	943.8	463.8
85°	299.1	338.5	492.5	445.9	313.4	361.8	739.6	775.5	634.0	397.6	150.4
87.5°	105.7	150.4	270.4	214.9	86.0	75.2	213.1	173.7	161.2	111.0	34.0
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°	5915.3	5915.3	5915.3	5915.3	5915.3	5915.3	5915.3	5915.3	5915.3	5915.3	5915.3
2.5°	5947.6	5951.2	5933.3	5901.0	5868.8	5827.6	5781.0	5745.2	5729.1	5727.3	5725.5
5°	6012.1	6021.0	5953.0	5852.7	5741.6	5605.5	5489.1	5356.6	5322.6	5268.8	5284.9
7.5°	6115.9	6110.6	5976.2	5763.1	5503.4	5215.1	4971.5	4830.1	4683.2	4642.0	4643.8
10°	6264.6	6230.5	5976.2	5580.4	5147.0	4719.0	4378.8	4163.8	4047.4	3950.7	3914.9
12.5°	6422.2	6336.2	5918.9	5324.3	4688.6	4163.8	3798.5	3508.4	3433.2	3354.4	3356.1
15°	6572.6	6429.3	5806.1	4964.4	4194.3	3571.1	3216.5	3042.7	3019.5	3028.4	3026.6
17.5°	6708.7	6495.6	5634.2	4563.2	3617.6	3062.4	2874.4	2886.9	2949.6	2994.4	2999.8
20°	6846.6	6535.0	5378.1	4025.9	3073.2	2754.4	2761.6	2860.1	2955.0	3015.9	3024.8
22.5°	6977.3	6552.9	5077.2	3506.6	2679.2	2623.7	2729.3	2835.0	2928.1	2987.2	2996.2
25°	7063.3	6511.7	4651.0	2963.9	2485.8	2577.1	2688.1	2777.7	2856.5	2917.4	2931.7
27.5°	7086.6	6379.2	4122.7	2525.2	2396.2	2532.3	2634.4	2700.7	2761.6	2818.9	2829.6
30°	7074.1	6184.0	3542.4	2267.3	2344.3	2480.4	2559.2	2607.6	2681.0	2725.7	2734.7
32.5°	7054.4	5956.5	2937.1	2129.4	2301.3	2432.0	2478.6	2521.6	2519.8	2501.9	2514.4
35°	7061.5	5684.3	2446.4	2047.0	2263.7	2396.2	2435.6	2381.9	2227.9	2220.7	2213.6
37.5°	7099.1	5415.7	2090.0	1989.7	2244.0	2390.9	2412.3	2165.2	2029.1	1966.4	1950.3
40°	7195.8	5102.3	1855.4	1946.7	2242.2	2432.0	2306.7	2056.0	1794.5	1672.7	1663.7
42.5°	7324.8	4794.2	1712.1	1919.8	2263.7	2494.7	2263.7	1901.9	1617.2	1545.5	1534.8
45°	7516.4	4441.4	1633.3	1907.3	2295.9	2518.0	2249.4	1789.1	1545.5	1488.2	1488.2
47.5°	7733.1	4104.7	1590.3	1898.4	2337.1	2501.9	2122.2	1753.3	1511.5	1518.7	1552.7
50°	7948.0	3812.8	1558.1	1878.7	2372.9	2492.9	2070.3	1751.5	1520.5	1611.8	1672.7
52.5°	8196.9	3606.9	1518.7	1846.4	2372.9	2435.6	2054.2	1787.3	1545.5	1572.4	1599.3
55°	8497.8	3542.4	1468.5	1776.6	2330.0	2292.4	2045.2	1839.3	1563.5	1500.8	1511.5
57.5°	8895.4	3646.3	1420.2	1688.8	2231.5	2143.7	2041.6	1853.6	1522.3	1470.3	1459.6
60°	9357.5	3852.2	1405.9	1599.3	2097.1	2016.6	2020.1	1812.4	1465.0	1411.2	1420.2
62.5°	9681.6	3975.8	1396.9	1531.2	1950.3	1876.9	1968.2	1762.2	1439.9	1393.3	1402.3
65°	9681.6	3825.4	1314.5	1427.3	1760.5	1708.5	1905.5	1699.6	1407.6	1353.9	1345.0
67.5°	9314.5	3386.6	1189.2	1271.5	1550.9	1516.9	1817.8	1624.3	1359.3	1318.1	1296.6
70°	8358.1	2568.2	1031.6	1088.9	1285.9	1316.3	1704.9	1522.3	1278.7	1228.6	1196.3
71°	7937.3	2236.8	965.3	995.7	1183.8	1228.6	1651.2	1479.3	1242.9	1171.2	1113.9
72.5°	7126.0	1884.0	865.0	877.5	1011.9	1092.4	1538.4	1396.9	1174.8	1072.7	1008.3
75°	5413.9	1375.4	696.7	689.5	748.6	866.8	1302.0	1244.7	1029.8	891.9	854.3
77.5°	2338.9	748.6	521.2	526.5	508.6	657.3	1024.4	1069.2	882.9	725.3	691.3
80°	709.2	431.6	356.4	363.6	340.3	440.6	721.7	838.1	709.2	564.1	517.6
82.5°	363.6	257.9	243.6	240.0	216.7	248.9	437.0	573.1	506.8	352.8	311.6
85°	157.6	137.9	120.0	116.4	102.1	89.5	155.8	286.5	268.6	197.0	188.0
87.5°	39.4	35.8	23.3	21.5	12.5	1.8	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)