

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: P453690

Luminaire Tested: **GALN-SA4D-727-U-T2R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453690
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA4D-727-U-T2R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26083 lumens
Efficiency: N/A
Efficacy: 106.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

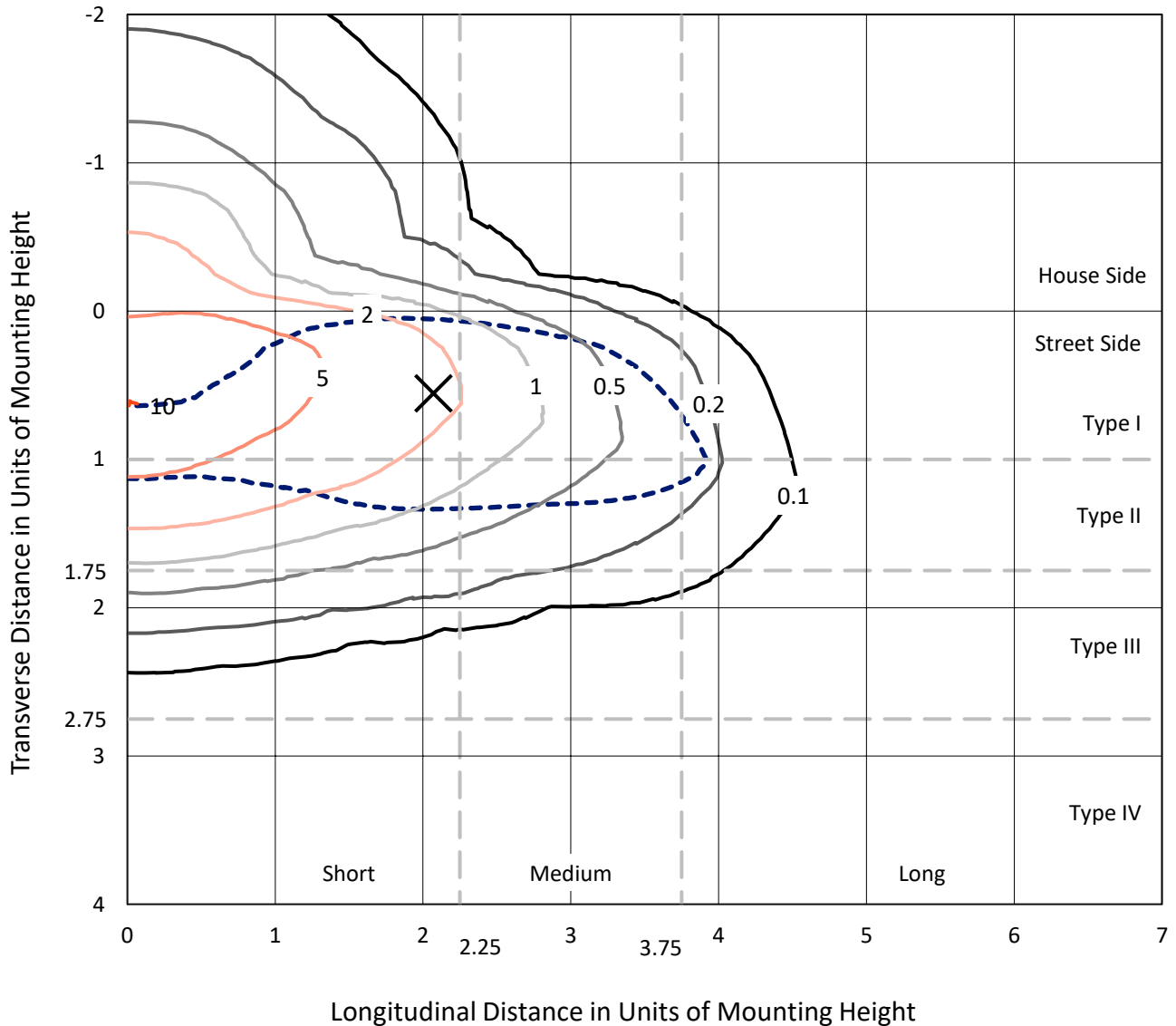
Input Watts (W): 245
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

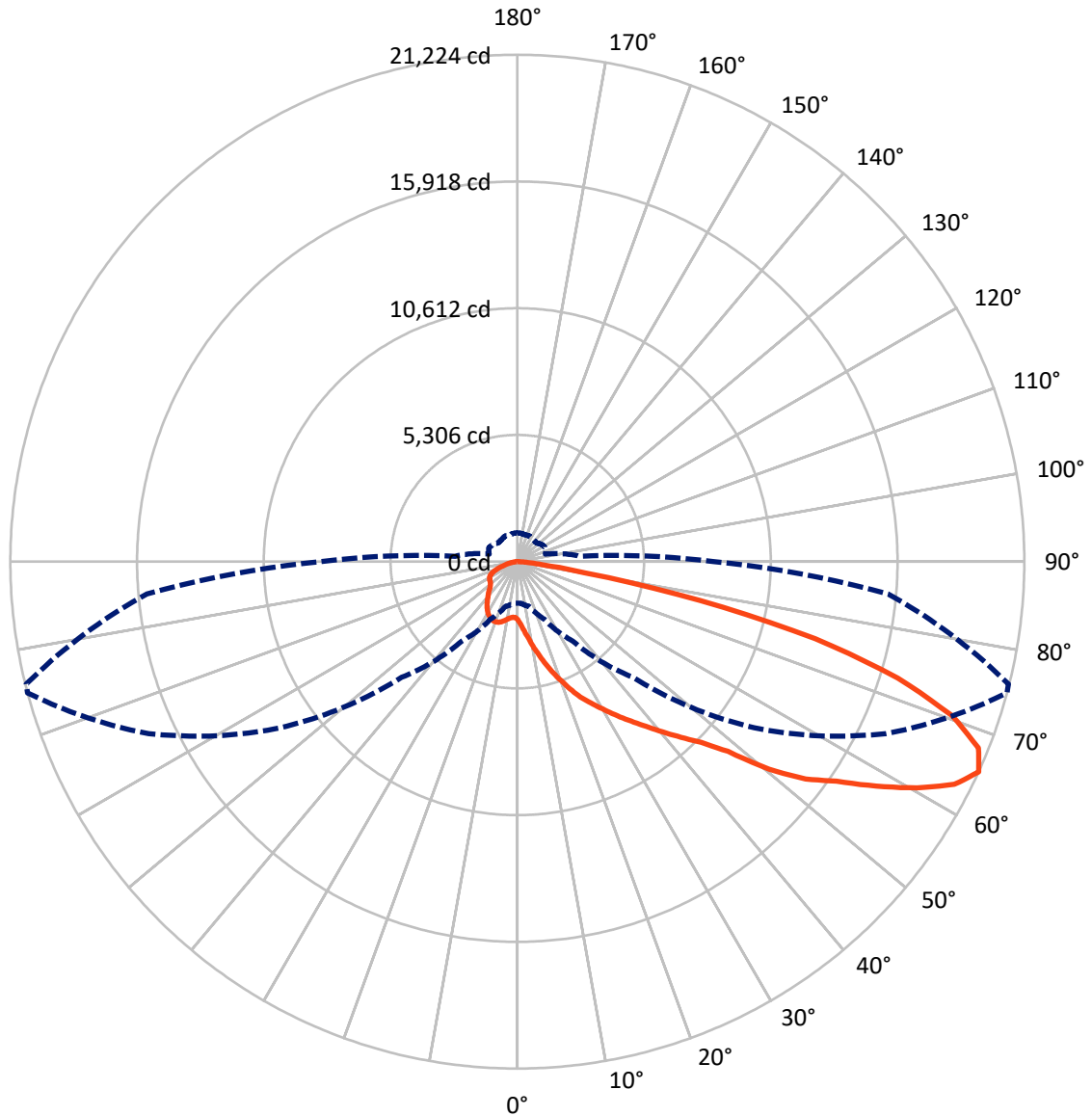
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.1 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4384.9	0.0	4384.9
	% Fixture	16.8	0.0	16.8
Street Side	Lumens	21698.1	0.0	21698.1
	% Fixture	83.2	0.0	83.2
Total	Lumens	26083.0	0.0	26083.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	294.4	1.1
10°-20°	1153.3	4.4
20°-30°	2227.8	8.5
30°-40°	3618.5	13.9
40°-50°	4977.6	19.1
50°-60°	5876.9	22.5
60°-70°	5149.1	19.7
70°-80°	2458.2	9.4
80°-90°	327.1	1.3
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°	26083.0	100.0
0°-180°	26083.0	100.0

Coefficient of Utilization



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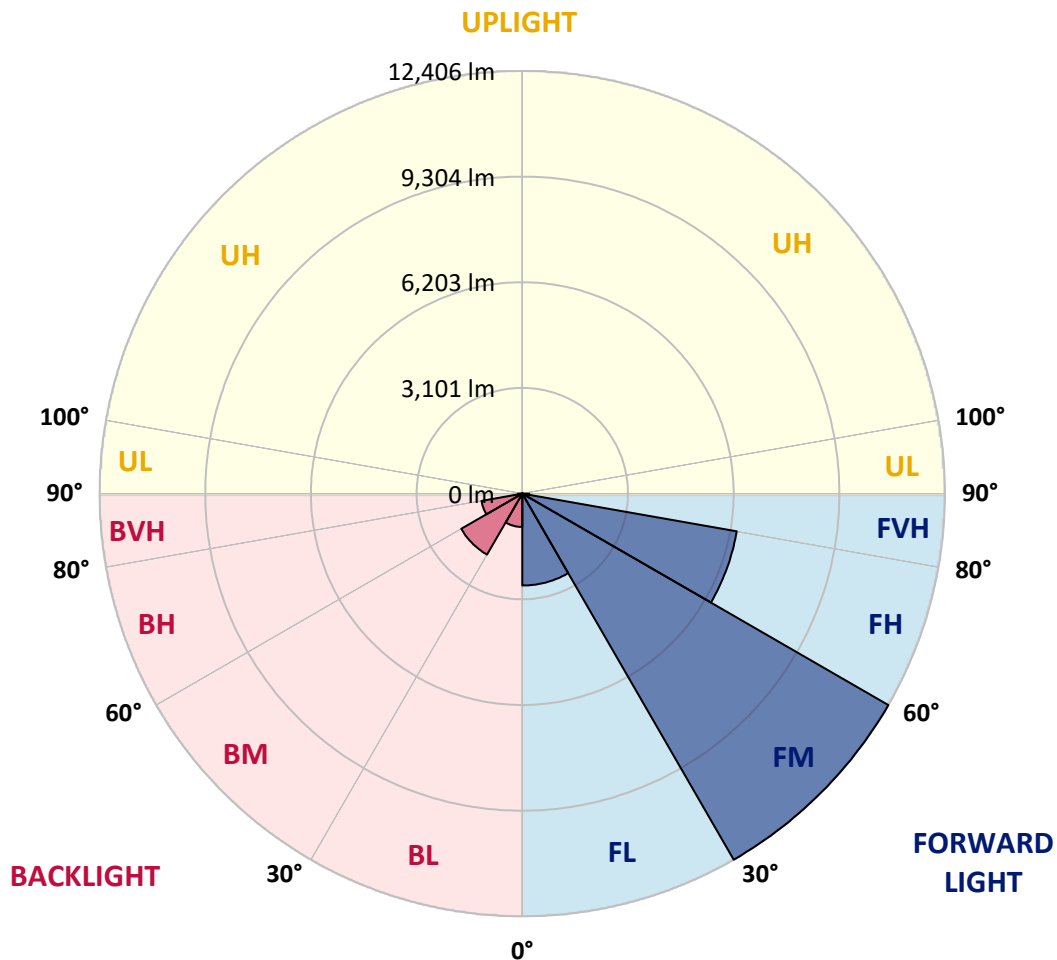
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2696.6	10.3			
FM (30°-60°)	12405.6	47.6			
FH (60°-80°)	6391.5	24.5			G3/7500
FVH (80°-90°)	204.4	0.8			G2/225
BL (0°-30°)	978.9	3.8	B2/1000		
BM (30°-60°)	2067.4	7.9	B2/2500		
BH (60°-80°)	1215.9	4.7	B3/2500		G3/2500
BVH (80°-90°)	122.7	0.5			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	2423.4	2423.4	2423.4	2423.4	2423.4	2423.4	2423.4	2423.4	2423.4	2423.4	2423.4
2.5°	3219.9	3198.7	3176.1	3113.8	3047.3	2972.4	2864.8	2761.6	2624.3	2620.1	2518.2
5°	4112.6	4098.5	3998.0	3940.0	3785.8	3580.7	3406.7	3136.5	2886.1	2856.3	2658.3
7.5°	4933.2	4878.0	4839.8	4735.1	4582.3	4319.2	3982.5	3617.5	3198.7	3159.1	2830.9
10°	5551.4	5545.8	5526.0	5435.4	5320.8	5059.1	4685.6	4162.1	3594.8	3517.0	3040.3
12.5°	6014.0	6018.3	6015.5	6014.0	5932.0	5709.9	5305.3	4753.5	3995.2	3940.0	3282.2
15°	6318.2	6360.6	6377.6	6448.4	6455.4	6306.9	5958.9	5325.1	4446.5	4364.5	3542.5
17.5°	6519.1	6540.3	6619.5	6739.8	6837.4	6810.5	6500.7	5854.2	4907.7	4770.5	3812.7
20°	6711.5	6748.3	6809.1	6973.2	7145.8	7225.0	7007.2	6396.0	5364.7	5277.0	4111.2
22.5°	7111.9	7164.2	7185.4	7268.9	7416.0	7556.1	7457.1	6915.2	5865.5	5746.7	4428.1
25°	7789.5	7844.7	7785.3	7765.5	7813.6	7882.9	7861.7	7404.7	6338.0	6168.2	4728.0
27.5°	8672.3	8679.4	8563.4	8453.0	8334.2	8298.8	8233.8	7839.0	6748.3	6606.8	5029.4
30°	9620.2	9586.2	9393.8	9194.4	8993.5	8795.4	8608.7	8257.8	7205.2	7042.5	5325.1
32.5°	10500.2	10481.8	10268.1	9958.3	9618.8	9432.0	9054.3	8680.8	7694.7	7537.7	5629.2
35°	11159.4	11186.3	10951.5	10613.3	10242.7	10077.2	9600.4	9125.0	8201.2	8030.0	5960.3
37.5°	11627.7	11613.6	11405.6	11112.7	10787.4	10643.0	10238.4	9610.3	8745.9	8581.8	6322.4
40°	11794.6	11786.2	11631.9	11418.3	11211.8	11160.8	10906.2	10133.7	9369.8	9177.4	6758.2
42.5°	11688.5	11706.9	11605.1	11547.1	11508.9	11545.6	11569.7	10819.9	10050.3	9873.4	7230.7
45°	11363.1	11353.2	11339.1	11433.9	11648.9	11890.8	12226.1	11467.8	10790.2	10648.7	7864.5
47.5°	10781.7	10852.4	10887.8	11149.5	11619.2	12192.2	12981.6	12336.5	11864.0	11740.9	8830.8
50°	9968.2	10024.8	10234.2	10699.6	11399.9	12305.4	13720.1	13756.9	13655.0	13424.4	9880.5
52.5°	8697.8	8785.5	9217.0	10070.1	10950.0	12258.7	14167.2	14975.0	15109.4	14936.8	10914.7
55°	7276.0	7399.1	7854.6	8973.7	10330.4	12004.0	14475.6	15680.9	16217.1	16057.2	11910.6
57.5°	5883.9	6014.0	6482.3	7566.0	9249.5	11441.0	14677.9	16467.5	17725.2	17517.2	13150.0
60°	4409.7	4545.5	4947.3	6063.6	7710.3	10340.3	14540.6	17149.4	19231.9	19142.8	14390.7
62.5°	2845.0	2995.0	3344.4	4268.3	5926.3	8836.4	13806.4	17525.7	20536.3	20428.8	15296.1
65°	1733.0	1750.0	1942.4	2649.8	4056.0	6841.7	12127.1	17026.3	21223.8	21191.3	15572.0
67.5°	1120.5	1147.3	1235.1	1587.3	2431.9	4752.1	9696.6	15378.2	20822.1	20810.7	15001.8
70°	946.5	954.9	994.6	1071.0	1413.3	2881.8	6809.1	12751.0	19295.6	19295.6	13631.0
72.5°	846.0	857.3	871.5	895.5	1008.7	1632.6	4063.1	9925.8	16659.9	16770.3	11602.2
75°	768.2	765.4	773.9	778.1	860.2	1066.7	2100.9	7341.1	12888.2	12667.5	8402.1
77.5°	657.9	662.1	657.9	676.2	759.7	812.1	1066.7	4926.1	7810.7	7525.0	4217.3
80°	540.4	547.5	554.6	565.9	649.4	616.8	640.9	2245.2	2888.9	2828.1	1303.0
82.5°	406.0	415.9	427.2	454.1	510.7	407.4	404.6	959.2	1042.7	954.9	479.6
85°	164.1	193.8	292.9	319.7	321.1	223.5	249.0	400.4	425.8	415.9	188.2
87.5°	38.2	45.3	94.8	142.9	131.6	83.5	92.0	130.2	148.5	137.2	63.7
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°	2423.4	2423.4	2423.4	2423.4	2423.4	2423.4	2423.4	2423.4	2423.4	2423.4	2423.4
2.5°	2471.5	2422.0	2337.1	2272.1	2225.4	2184.4	2158.9	2143.3	2137.7	2136.2	2137.7
5°	2555.0	2467.3	2332.9	2248.0	2201.3	2174.4	2158.9	2157.5	2158.9	2160.3	2156.1
7.5°	2669.6	2543.7	2368.3	2289.0	2253.7	2233.9	2226.8	2224.0	2225.4	2224.0	2224.0
10°	2822.4	2649.8	2437.6	2355.5	2325.8	2303.2	2291.9	2284.8	2279.1	2273.5	2270.6
12.5°	2990.7	2767.2	2512.6	2433.3	2390.9	2355.5	2330.1	2311.7	2298.9	2286.2	2283.4
15°	3178.9	2891.7	2596.0	2485.7	2424.9	2372.5	2328.7	2298.9	2276.3	2257.9	2256.5
17.5°	3358.6	3009.1	2652.6	2509.7	2420.6	2347.0	2289.0	2248.0	2219.7	2195.7	2192.8
20°	3551.0	3120.9	2678.1	2494.2	2378.2	2289.0	2212.6	2163.1	2130.6	2103.7	2099.5
22.5°	3744.8	3215.7	2675.3	2444.7	2304.6	2199.9	2119.3	2066.9	2028.7	2001.8	1991.9
25°	3930.1	3292.1	2639.9	2365.4	2202.7	2093.8	2011.8	1963.7	1929.7	1897.2	1897.2
27.5°	4097.1	3337.4	2573.4	2269.2	2098.1	1983.5	1918.4	1874.5	1843.4	1822.2	1809.4
30°	4261.2	3358.6	2482.9	2147.6	1987.7	1890.1	1837.7	1812.3	1784.0	1759.9	1757.1
32.5°	4408.3	3354.3	2369.7	2028.7	1883.0	1813.7	1792.5	1772.7	1743.0	1709.0	1700.5
35°	4551.2	3326.0	2235.3	1898.6	1795.3	1768.4	1774.1	1745.8	1692.0	1649.6	1642.5
37.5°	4706.8	3275.1	2088.1	1792.5	1721.7	1747.2	1761.3	1699.1	1611.4	1544.9	1529.3
40°	4886.5	3217.1	1935.4	1686.4	1663.7	1727.4	1727.4	1612.8	1492.5	1451.5	1440.2
42.5°	5097.3	3169.0	1808.0	1597.2	1615.6	1679.3	1672.2	1498.2	1448.7	1427.5	1421.8
45°	5431.2	3152.0	1676.5	1519.4	1576.0	1622.7	1564.7	1458.6	1430.3	1413.3	1407.7
47.5°	5958.9	3171.8	1560.5	1461.4	1530.7	1566.1	1444.4	1431.7	1411.9	1387.9	1385.0
50°	6448.4	3153.4	1478.4	1428.9	1491.1	1498.2	1394.9	1399.2	1387.9	1361.0	1355.3
52.5°	6848.7	3095.4	1426.1	1411.9	1457.2	1379.4	1348.2	1363.8	1359.6	1325.6	1319.9
55°	7288.7	3060.1	1400.6	1411.9	1434.5	1276.1	1304.4	1327.0	1321.4	1297.3	1295.9
57.5°	7822.1	3067.1	1382.2	1416.1	1411.9	1223.7	1260.5	1287.4	1286.0	1278.9	1278.9
60°	8368.2	3070.0	1353.9	1414.7	1385.0	1182.7	1215.3	1253.5	1256.3	1260.5	1260.5
62.5°	8549.2	2946.9	1298.7	1389.3	1325.6	1143.1	1172.8	1225.2	1222.3	1233.6	1235.1
65°	8211.1	2605.9	1216.7	1331.3	1249.2	1114.8	1140.3	1188.4	1172.8	1202.5	1208.2
67.5°	7474.0	2156.1	1089.3	1226.6	1164.3	1085.1	1119.1	1137.4	1109.2	1167.2	1168.6
70°	6459.7	1683.5	928.1	1078.0	1068.1	1054.0	1102.1	1073.8	1034.2	1104.9	1090.8
72.5°	5401.5	1286.0	741.3	881.4	939.4	1007.3	1072.4	991.7	936.6	957.8	932.3
75°	4057.5	950.7	595.6	690.4	782.3	940.8	1045.5	892.7	807.8	788.0	782.3
77.5°	2068.3	621.1	445.6	516.4	587.1	850.3	1008.7	776.7	669.2	638.0	623.9
80°	738.5	386.2	314.1	356.5	396.1	731.4	881.4	642.3	519.2	513.5	519.2
82.5°	342.4	249.0	210.8	233.4	234.8	488.1	672.0	479.6	394.7	599.8	506.5
85°	147.1	124.5	118.8	116.0	107.5	217.9	377.7	257.5	401.8	179.7	165.5
87.5°	43.9	49.5	43.9	32.5	24.1	24.1	38.2	14.1	9.9	7.1	7.1
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)