

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: P453632

Luminaire Tested: **GALN-SA4C-830-U-T2R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453632
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-SA4C-830-U-T2R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22523 lumens
Efficiency: N/A
Efficacy: 105.7 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): 213
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

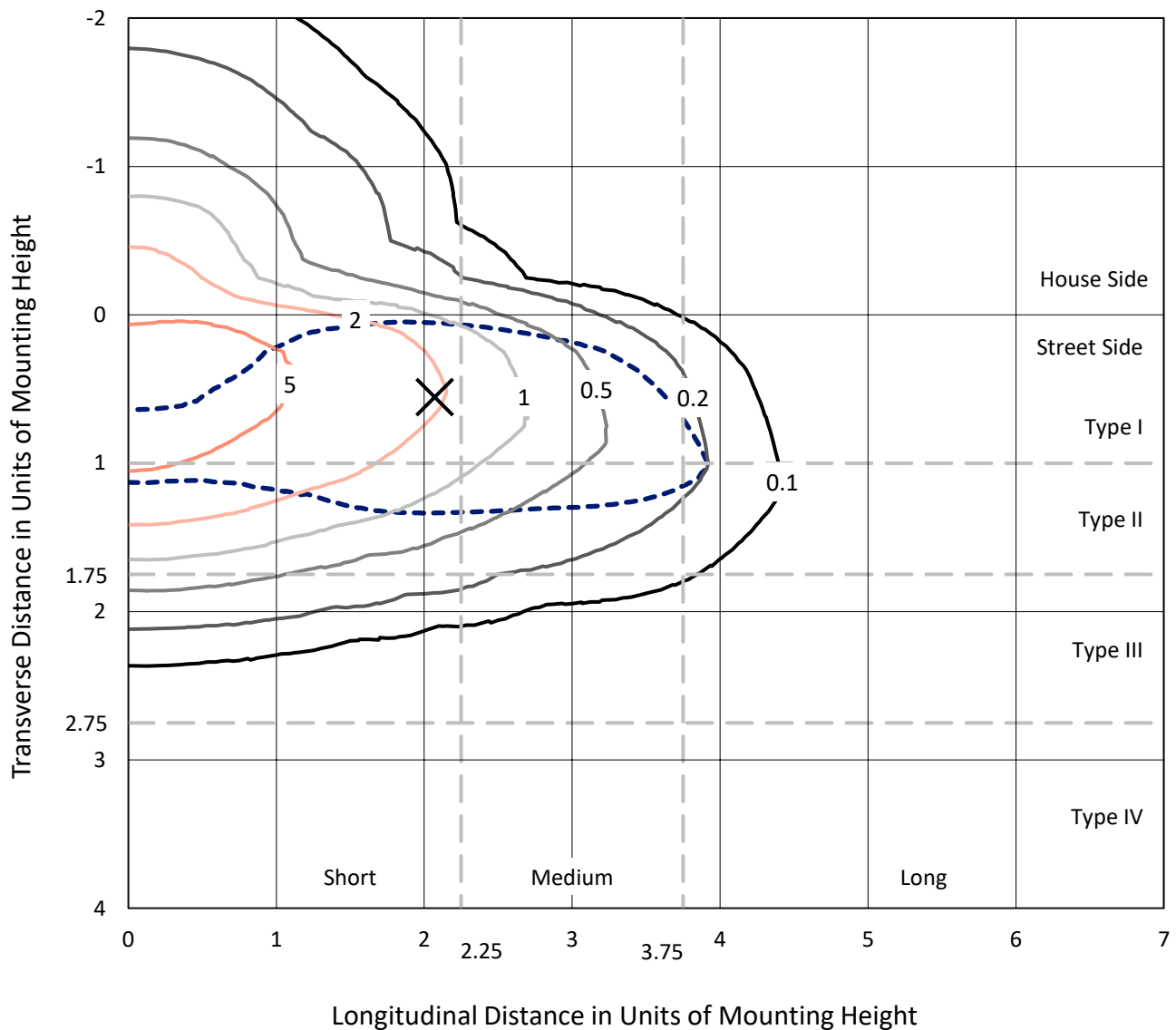


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

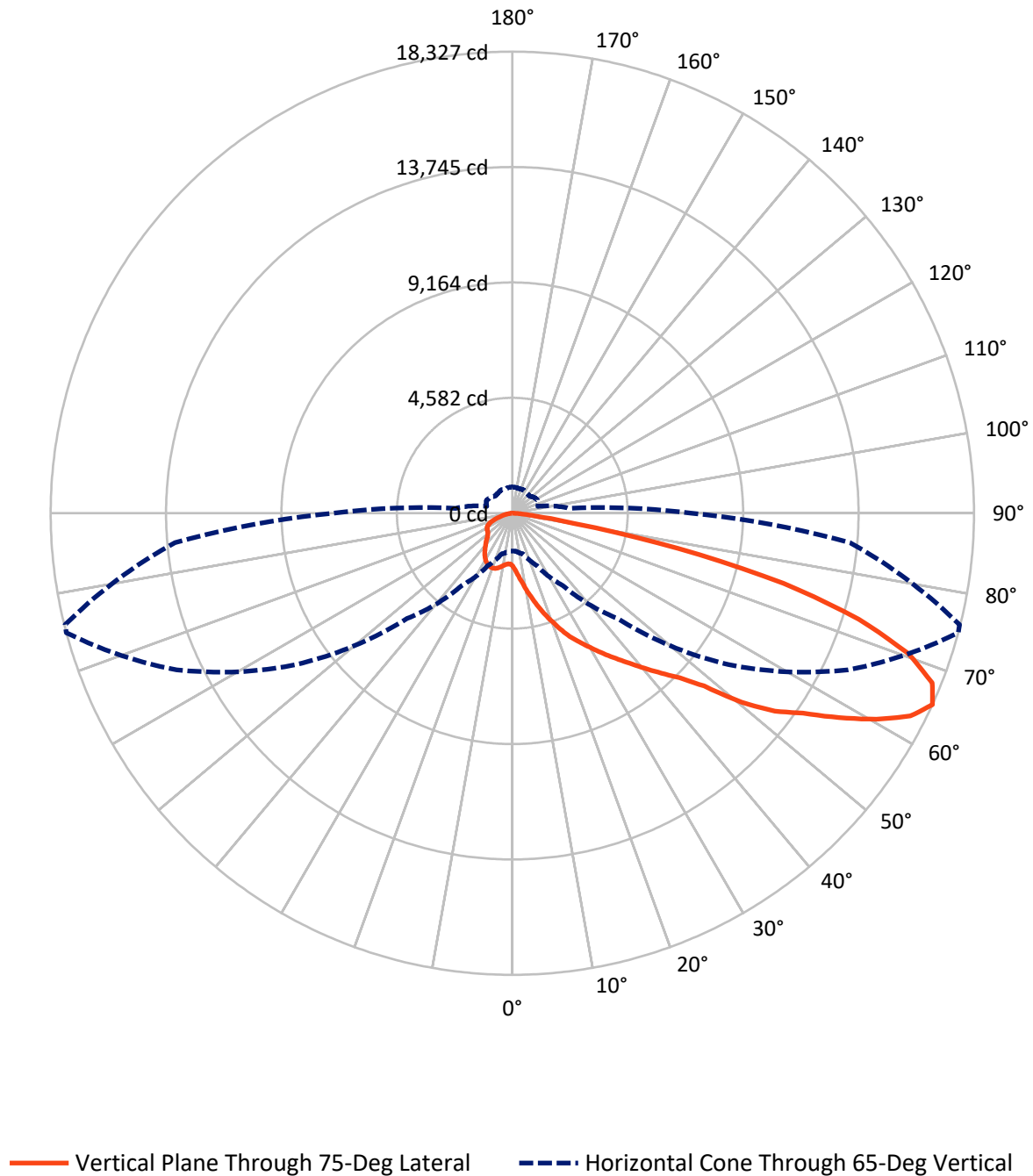


Based on 25 foot mounting height. Maximum calculated value = 8.7 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3786.4	0.0	3786.4
	% Fixture	16.8	0.0	16.8
Street Side	Lumens	18736.6	0.0	18736.6
	% Fixture	83.2	0.0	83.2
Total	Lumens	22523.0	0.0	22523.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	254.3	1.1
10°-20°	995.9	4.4
20°-30°	1923.7	8.5
30°-40°	3124.7	13.9
40°-50°	4298.2	19.1
50°-60°	5074.8	22.5
60°-70°	4446.3	19.7
70°-80°	2122.7	9.4
80°-90°	282.5	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°	22523.0	100.0
0°-180°	22523.0	100.0

Coefficient of Utilization



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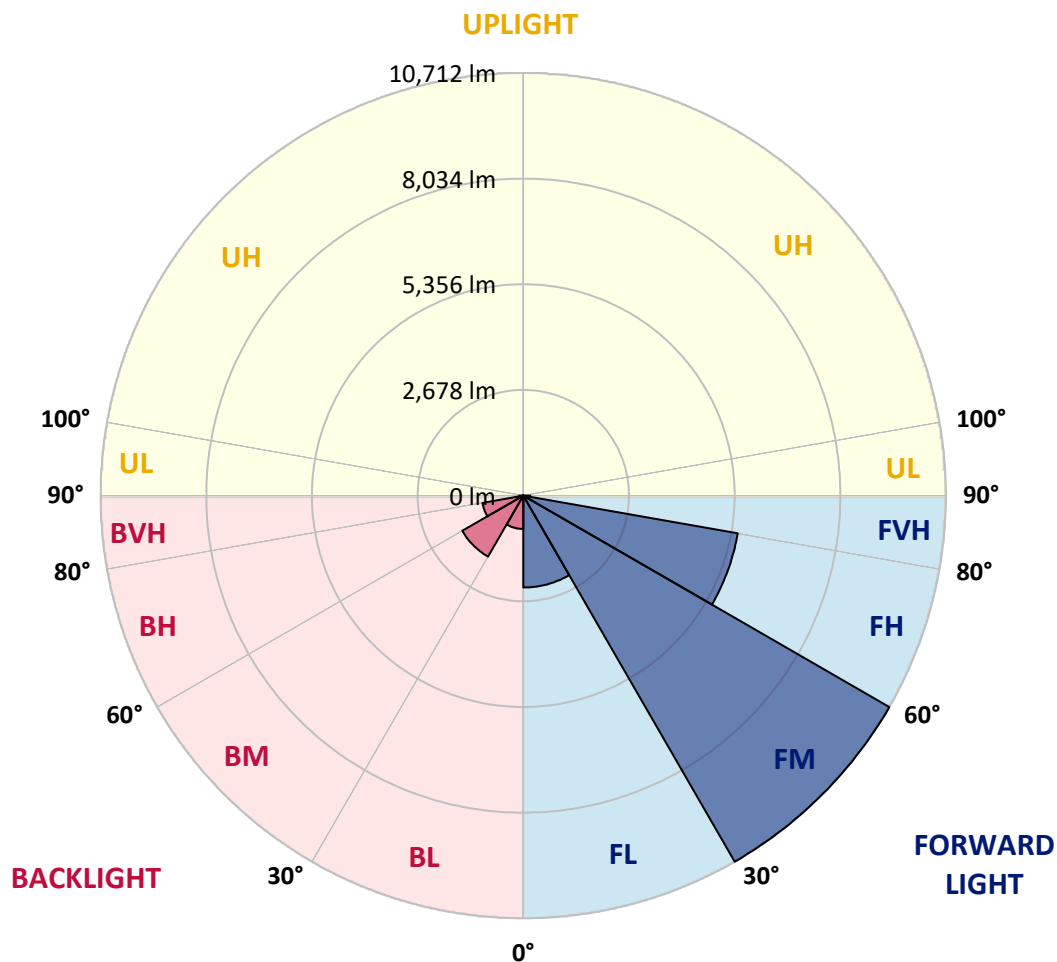
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2328.5	10.3			
FM	(30°-60°)	10712.4	47.6			
FH	(60°-80°)	5519.1	24.5			G3/7500
FVH	(80°-90°)	176.5	0.8			G2/225
BL	(0°-30°)	845.3	3.8	B2/1000		
BM	(30°-60°)	1785.3	7.9	B2/2500		
BH	(60°-80°)	1049.9	4.7	B3/2500		G3/2500
BVH	(80°-90°)	105.9	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°	2092.7	2092.7	2092.7	2092.7	2092.7	2092.7	2092.7	2092.7	2092.7	2092.7	2092.7
2.5°	2780.5	2762.1	2742.6	2688.8	2631.4	2566.7	2473.8	2384.6	2266.1	2262.5	2174.5
5°	3551.3	3539.1	3452.4	3402.3	3269.1	3092.0	2941.7	2708.4	2492.1	2466.5	2295.5
7.5°	4259.9	4212.2	4179.2	4088.8	3956.9	3729.7	3438.9	3123.7	2762.1	2727.9	2444.5
10°	4793.7	4788.8	4771.7	4693.5	4594.6	4368.6	4046.1	3594.1	3104.2	3037.0	2625.3
12.5°	5193.2	5196.9	5194.4	5193.2	5122.3	4930.5	4581.2	4104.7	3449.9	3402.3	2834.2
15°	5455.8	5492.5	5507.2	5568.2	5574.3	5446.1	5145.6	4598.3	3839.6	3768.8	3059.0
17.5°	5629.3	5647.6	5716.1	5819.9	5904.2	5881.0	5613.4	5055.2	4237.9	4119.4	3292.3
20°	5795.5	5827.2	5879.8	6021.5	6170.5	6238.9	6050.8	5523.0	4632.5	4556.7	3550.1
22.5°	6141.2	6186.4	6204.7	6276.8	6403.8	6524.8	6439.3	5971.4	5064.9	4962.3	3823.7
25°	6726.4	6774.0	6722.7	6705.6	6747.1	6807.0	6788.7	6394.1	5473.0	5326.4	4082.7
27.5°	7488.7	7494.8	7394.6	7299.3	7196.7	7166.1	7110.0	6769.1	5827.2	5705.1	4342.9
30°	8307.2	8277.8	8111.7	7939.4	7766.0	7594.9	7433.7	7130.7	6221.8	6081.3	4598.3
32.5°	9067.0	9051.1	8866.7	8599.1	8305.9	8144.7	7818.5	7496.0	6644.5	6508.9	4860.9
35°	9636.3	9659.5	9456.7	9164.8	8844.7	8701.7	8290.1	7879.6	7081.9	6934.0	5146.8
37.5°	10040.7	10028.5	9848.9	9596.0	9315.0	9190.4	8841.0	8298.6	7552.2	7410.5	5459.5
40°	10184.8	10177.5	10044.3	9859.9	9681.5	9637.5	9417.6	8750.6	8090.9	7924.8	5835.8
42.5°	10093.2	10109.1	10021.1	9971.0	9938.1	9969.8	9990.6	9343.1	8678.5	8525.8	6243.8
45°	9812.2	9803.7	9791.5	9873.3	10059.0	10267.9	10557.4	9902.6	9317.5	9195.3	6791.1
47.5°	9310.1	9371.2	9401.7	9627.8	10033.3	10528.1	11209.8	10652.7	10244.7	10138.4	7625.5
50°	8607.7	8656.5	8837.4	9239.3	9844.0	10625.8	11847.5	11879.2	11791.3	11592.2	8531.9
52.5°	7510.6	7586.4	7959.0	8695.6	9455.5	10585.5	12233.5	12931.1	13047.1	12898.1	9425.0
55°	6282.9	6389.2	6782.6	7748.9	8920.4	10365.6	12499.8	13540.7	14003.7	13865.6	10285.0
57.5°	5080.8	5193.2	5597.6	6533.3	7987.1	9879.4	12674.5	14219.9	15305.9	15126.4	11355.2
60°	3807.9	3925.1	4272.1	5236.0	6657.9	8929.0	12556.0	14808.7	16607.0	16530.0	12426.5
62.5°	2456.7	2586.2	2888.0	3685.7	5117.5	7630.4	11922.0	15133.7	17733.3	17640.5	13208.4
65°	1496.5	1511.2	1677.3	2288.1	3502.4	5907.9	10471.9	14702.5	18327.1	18299.0	13446.6
67.5°	967.5	990.8	1066.5	1370.7	2100.0	4103.5	8373.1	13279.2	17980.1	17970.3	12954.3
70°	817.3	824.6	858.8	924.8	1220.4	2488.5	5879.8	11010.7	16662.0	16662.0	11770.5
72.5°	730.5	740.3	752.5	773.3	871.0	1409.8	3508.6	8571.0	14386.0	14481.3	10018.7
75°	663.4	660.9	668.2	671.9	742.8	921.1	1814.1	6339.1	11129.2	10938.6	7255.3
77.5°	568.1	571.7	568.1	583.9	656.0	701.2	921.1	4253.8	6744.7	6497.9	3641.7
80°	466.7	472.8	478.9	488.7	560.7	532.6	553.4	1938.7	2494.6	2442.1	1125.1
82.5°	350.6	359.2	368.9	392.1	441.0	351.8	349.4	828.3	900.3	824.6	414.1
85°	141.7	167.4	252.9	276.1	277.3	193.0	215.0	345.7	367.7	359.2	162.5
87.5°	33.0	39.1	81.8	123.4	113.6	72.1	79.4	112.4	128.3	118.5	55.0
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°	2092.7	2092.7	2092.7	2092.7	2092.7	2092.7	2092.7	2092.7	2092.7	2092.7	2092.7
2.5°	2134.2	2091.4	2018.2	1962.0	1921.6	1886.2	1864.2	1850.8	1845.9	1844.7	1845.9
5°	2206.3	2130.5	2014.5	1941.2	1900.9	1877.7	1864.2	1863.0	1864.2	1865.4	1861.8
7.5°	2305.2	2196.5	2045.0	1976.6	1946.1	1929.0	1922.9	1920.4	1921.6	1920.4	1920.4
10°	2437.2	2288.1	2104.9	2034.0	2008.4	1988.8	1979.1	1973.0	1968.1	1963.2	1960.7
12.5°	2582.5	2389.5	2169.6	2101.2	2064.6	2034.0	2012.0	1996.2	1985.2	1974.2	1971.7
15°	2745.0	2497.0	2241.7	2146.4	2093.9	2048.7	2010.8	1985.2	1965.6	1949.7	1948.5
17.5°	2900.2	2598.4	2290.6	2167.2	2090.2	2026.7	1976.6	1941.2	1916.8	1896.0	1893.5
20°	3066.3	2694.9	2312.6	2153.8	2053.6	1976.6	1910.6	1867.9	1839.8	1816.6	1812.9
22.5°	3233.7	2776.8	2310.1	2111.0	1990.1	1899.7	1830.0	1784.8	1751.8	1728.6	1720.1
25°	3393.7	2842.8	2279.6	2042.6	1902.1	1808.0	1737.2	1695.6	1666.3	1638.2	1638.2
27.5°	3537.9	2881.9	2222.2	1959.5	1811.7	1712.7	1656.5	1618.7	1591.8	1573.5	1562.5
30°	3679.6	2900.2	2144.0	1854.5	1716.4	1632.1	1586.9	1564.9	1540.5	1519.7	1517.3
32.5°	3806.6	2896.5	2046.2	1751.8	1626.0	1566.1	1547.8	1530.7	1505.1	1475.7	1468.4
35°	3930.0	2872.1	1930.2	1639.4	1550.3	1527.1	1531.9	1507.5	1461.1	1424.4	1418.3
37.5°	4064.4	2828.1	1803.1	1547.8	1486.7	1508.7	1520.9	1467.2	1391.4	1334.0	1320.6
40°	4219.5	2778.0	1671.2	1456.2	1436.6	1491.6	1491.6	1392.7	1288.8	1253.4	1243.6
42.5°	4401.6	2736.5	1561.3	1379.2	1395.1	1450.1	1444.0	1293.7	1251.0	1232.6	1227.7
45°	4689.9	2721.8	1447.6	1312.0	1360.9	1401.2	1351.1	1259.5	1235.1	1220.4	1215.5
47.5°	5145.6	2738.9	1347.5	1262.0	1321.8	1352.4	1247.3	1236.3	1219.2	1198.4	1196.0
50°	5568.2	2723.0	1276.6	1233.9	1287.6	1293.7	1204.5	1208.2	1198.4	1175.2	1170.3
52.5°	5914.0	2673.0	1231.4	1219.2	1258.3	1191.1	1164.2	1177.7	1174.0	1144.7	1139.8
55°	6293.9	2642.4	1209.4	1219.2	1238.7	1101.9	1126.4	1145.9	1141.0	1120.2	1119.0
57.5°	6754.5	2648.5	1193.5	1222.9	1219.2	1056.7	1088.5	1111.7	1110.5	1104.4	1104.4
60°	7226.0	2651.0	1169.1	1221.6	1196.0	1021.3	1049.4	1082.4	1084.8	1088.5	1088.5
62.5°	7382.4	2544.7	1121.5	1199.7	1144.7	987.1	1012.7	1057.9	1055.5	1065.3	1066.5
65°	7090.4	2250.3	1050.6	1149.6	1078.7	962.7	984.6	1026.2	1012.7	1038.4	1043.3
67.5°	6453.9	1861.8	940.7	1059.2	1005.4	937.0	966.3	982.2	957.8	1007.9	1009.1
70°	5578.0	1453.8	801.4	930.9	922.3	910.1	951.7	927.2	893.0	954.1	941.9
72.5°	4664.2	1110.5	640.1	761.1	811.2	869.8	926.0	856.4	808.7	827.1	805.1
75°	3503.7	820.9	514.3	596.2	675.6	812.4	902.8	770.9	697.6	680.5	675.6
77.5°	1786.0	536.3	384.8	445.9	507.0	734.2	871.0	670.7	577.8	551.0	538.7
80°	637.7	333.5	271.2	307.9	342.1	631.6	761.1	554.6	448.3	443.5	448.3
82.5°	295.6	215.0	182.0	201.6	202.8	421.5	580.3	414.1	340.8	518.0	437.3
85°	127.1	107.5	102.6	100.2	92.8	188.1	326.2	222.3	346.9	155.1	142.9
87.5°	37.9	42.8	37.9	28.1	20.8	20.8	33.0	12.2	8.6	6.1	6.1
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)