

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: P453748

Luminaire Tested: **GALN-SA4D-740-U-T2R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453748
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-740-U-T2R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 4000K, 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: 31188 lumens
Efficiency: N/A
Efficacy: 127.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G4

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

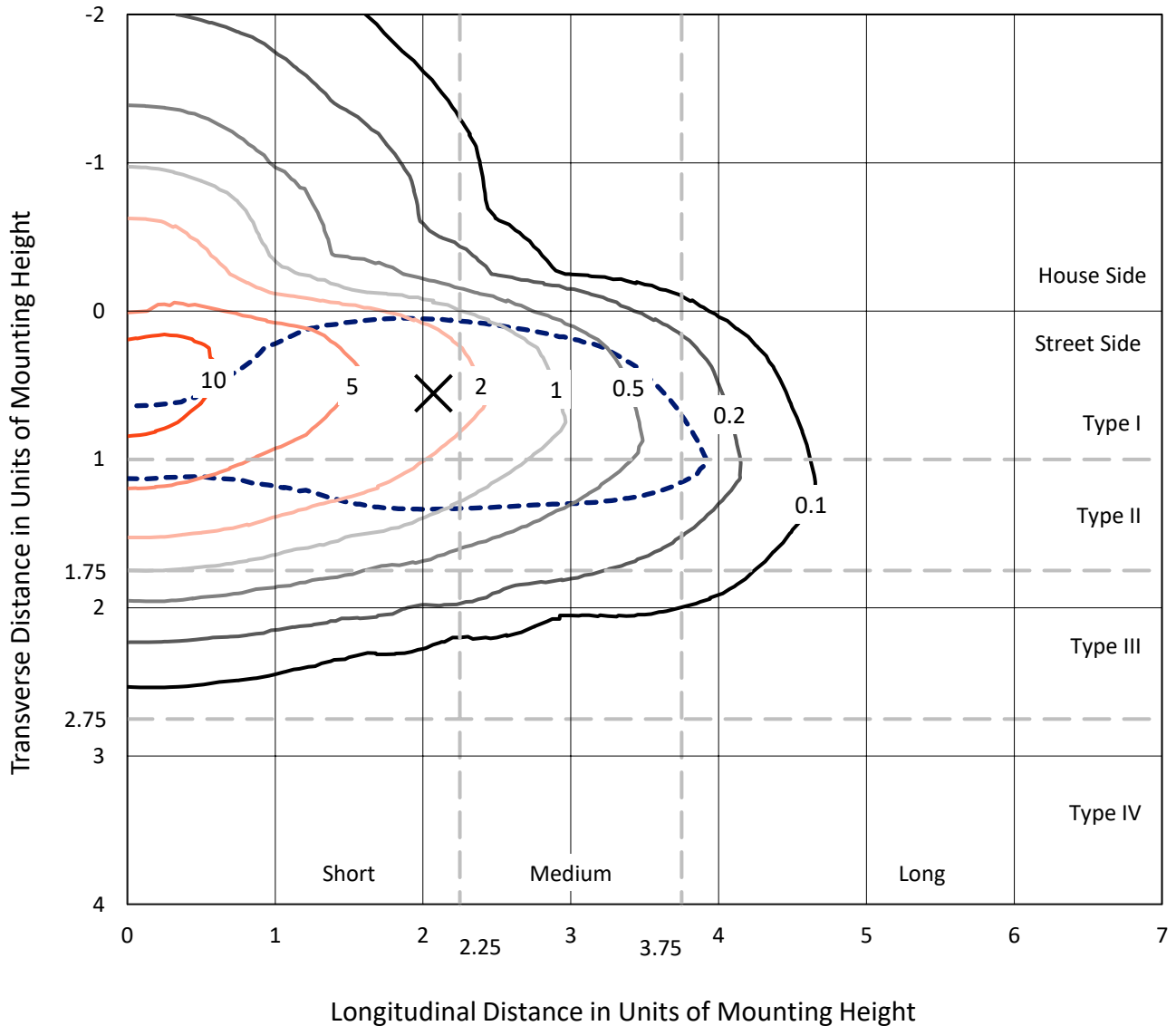




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Iso-Footcandle Lines of Horizontal Illumination

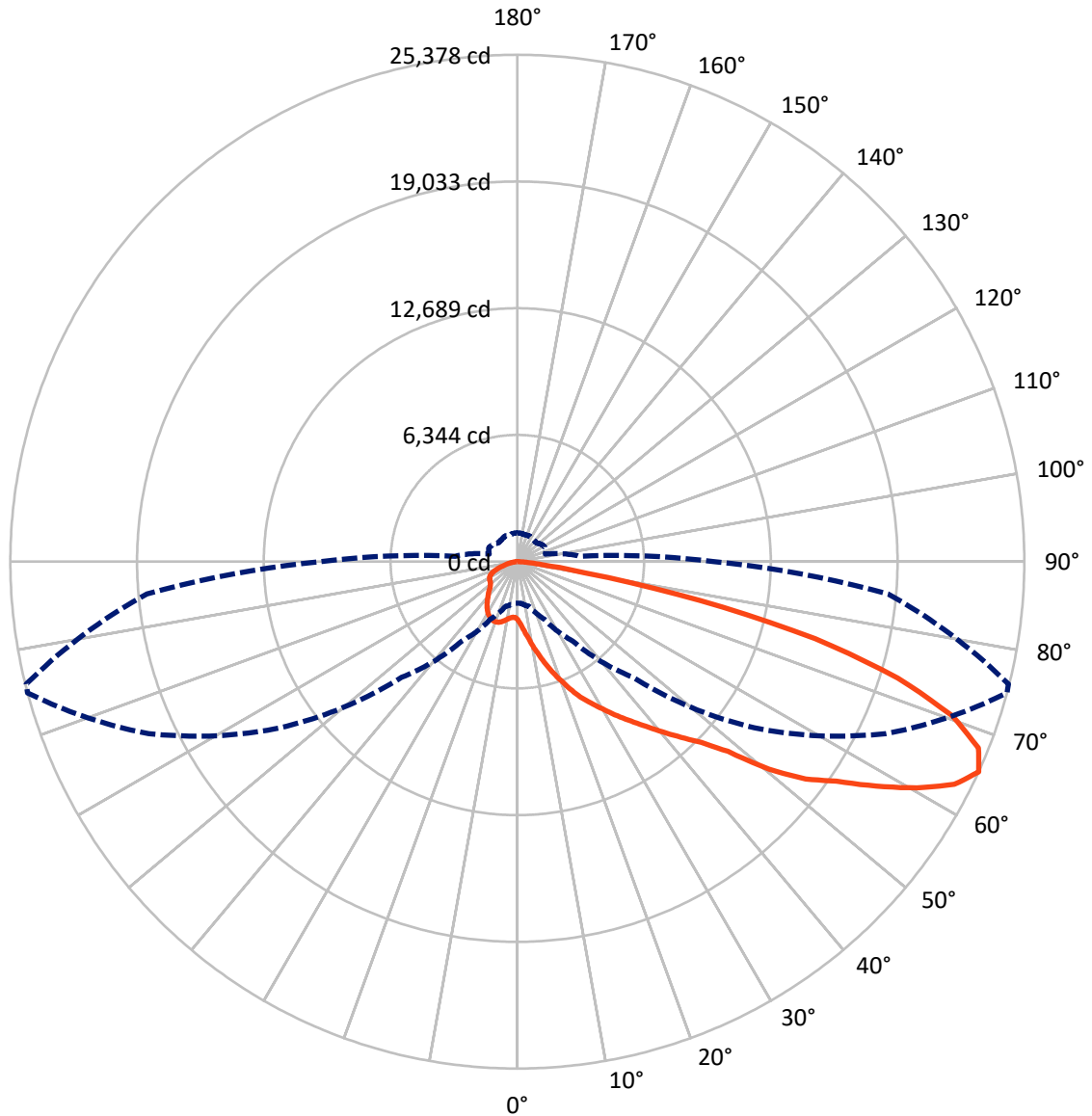
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12 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	5243.1	0.0	5243.1
	% Fixture	16.8	0.0	16.8
Street Side	Lumens	25944.9	0.0	25944.9
	% Fixture	83.2	0.0	83.2
Total	Lumens	31188.0	0.0	31188.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	352.1	1.1
10°-20°	1379.0	4.4
20°-30°	2663.8	8.5
30°-40°	4326.8	13.9
40°-50°	5951.9	19.1
50°-60°	7027.1	22.5
60°-70°	6156.9	19.7
70°-80°	2939.4	9.4
80°-90°	391.1	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°	31188.0	100.0
0°-180°	31188.0	100.0

Coefficient of Utilization



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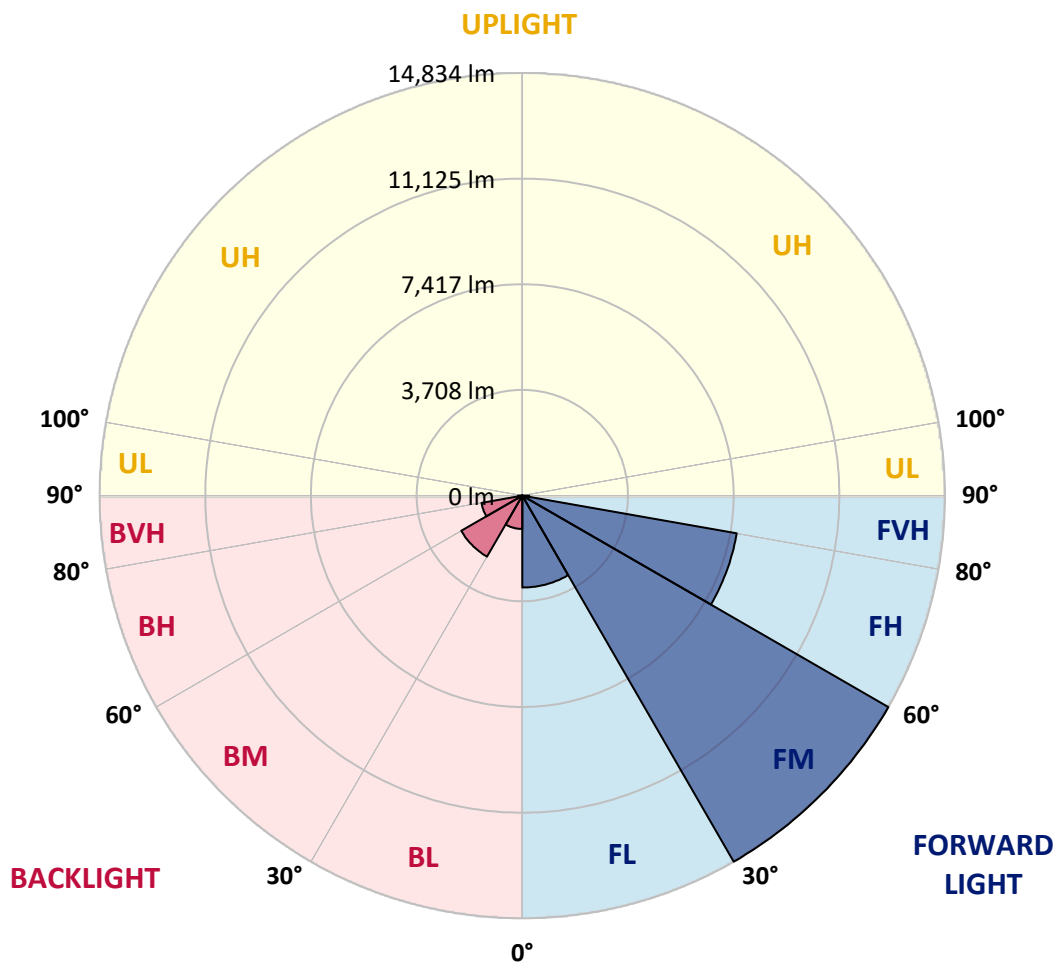
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3224.3	10.3			
FM (30°-60°)	14833.7	47.6			
FH (60°-80°)	7642.5	24.5			G4/12000
FVH (80°-90°)	244.4	0.8			G3/500
BL (0°-30°)	1170.5	3.8	B3/2500		
BM (30°-60°)	2472.1	7.9	B2/2500		
BH (60°-80°)	1453.8	4.7	B3/2500		G3/2500
BVH (80°-90°)	146.7	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-G4

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	2897.8	2897.8	2897.8	2897.8	2897.8	2897.8	2897.8	2897.8	2897.8	2897.8	2897.8
2.5°	3850.1	3824.8	3797.7	3723.3	3643.8	3554.1	3425.5	3302.1	3138.0	3132.9	3011.1
5°	4917.6	4900.6	4780.5	4711.2	4526.8	4281.5	4073.4	3750.3	3450.9	3415.4	3178.6
7.5°	5898.7	5832.7	5787.1	5661.9	5479.2	5164.5	4761.9	4325.5	3824.8	3777.4	3384.9
10°	6637.9	6631.2	6607.5	6499.2	6362.2	6049.3	5602.7	4976.8	4298.4	4205.4	3635.3
12.5°	7191.1	7196.2	7192.8	7191.1	7093.0	6827.4	6343.6	5683.9	4777.2	4711.2	3924.6
15°	7554.8	7605.6	7625.9	7710.4	7718.9	7541.3	7125.1	6367.3	5316.8	5218.7	4235.8
17.5°	7795.0	7820.4	7915.1	8058.9	8175.6	8143.5	7773.0	7000.0	5868.3	5704.2	4558.9
20°	8025.1	8069.1	8141.8	8338.0	8544.4	8639.1	8378.6	7647.9	6414.7	6309.8	4915.9
22.5°	8503.8	8566.4	8591.8	8691.6	8867.5	9035.0	8916.6	8268.7	7013.5	6871.4	5294.8
25°	9314.1	9380.1	9309.0	9285.3	9342.9	9425.8	9400.4	8854.0	7578.5	7375.5	5653.4
27.5°	10369.7	10378.1	10239.4	10107.5	9965.4	9923.1	9845.3	9373.3	8069.1	7899.9	6013.7
30°	11503.1	11462.5	11232.4	10993.9	10753.7	10516.9	10293.6	9874.0	8615.5	8420.9	6367.3
32.5°	12555.3	12533.3	12277.8	11907.4	11501.4	11278.1	10826.4	10379.8	9200.8	9013.0	6731.0
35°	13343.6	13375.7	13094.9	12690.6	12247.4	12049.5	11479.4	10911.0	9806.4	9601.7	7126.8
37.5°	13903.5	13886.6	13637.9	13287.7	12898.7	12726.1	12242.3	11491.2	10457.6	10261.4	7559.9
40°	14103.1	14093.0	13908.6	13653.1	13406.2	13345.3	13040.8	12117.1	11203.7	10973.6	8080.9
42.5°	13976.2	13998.2	13876.4	13807.1	13761.4	13805.4	13834.1	12937.6	12017.3	11805.9	8645.9
45°	13587.2	13575.3	13558.4	13671.7	13928.9	14218.1	14619.1	13712.3	12902.0	12732.9	9403.8
47.5°	12891.9	12976.5	13018.8	13331.7	13893.3	14578.5	15522.4	14751.0	14186.0	14038.8	10559.1
50°	11919.2	11986.9	12237.2	12793.8	13631.1	14713.8	16405.4	16449.4	16327.6	16051.9	11814.3
52.5°	10400.1	10505.0	11021.0	12041.0	13093.2	14658.0	16940.0	17905.9	18066.6	17860.2	13050.9
55°	8700.0	8847.2	9391.9	10730.0	12352.3	14353.5	17308.7	18750.0	19391.1	19200.0	14241.8
57.5°	7035.5	7191.1	7751.0	9046.8	11059.9	13680.2	17550.6	19690.6	21194.4	20945.7	15723.7
60°	5272.8	5435.2	5915.6	7250.3	9219.4	12364.1	17386.6	20505.9	22996.0	22889.4	17207.2
62.5°	3401.9	3581.2	3999.0	5103.6	7086.2	10565.9	16508.6	20955.9	24555.7	24427.1	18289.9
65°	2072.2	2092.5	2322.6	3168.4	4849.9	8180.7	14500.6	20358.7	25377.8	25338.9	18619.8
67.5°	1339.8	1371.9	1476.8	1898.0	2907.9	5682.2	11594.4	18388.0	24897.4	24883.9	17938.0
70°	1131.7	1141.8	1189.2	1280.6	1689.9	3445.8	8141.8	15246.6	23072.1	23072.1	16298.8
72.5°	1011.6	1025.1	1042.0	1070.8	1206.1	1952.1	4858.4	11868.5	19920.6	20052.6	13873.0
75°	918.6	915.2	925.3	930.4	1028.5	1275.5	2512.1	8777.9	15410.7	15146.8	10046.6
77.5°	786.6	791.7	786.6	808.6	908.4	971.0	1275.5	5890.2	9339.5	8997.8	5042.7
80°	646.2	654.7	663.1	676.7	776.5	737.5	766.3	2684.6	3454.3	3381.6	1558.0
82.5°	485.5	497.3	510.9	543.0	610.7	487.2	483.8	1146.9	1246.7	1141.8	573.5
85°	196.2	231.8	350.2	382.3	384.0	267.3	297.7	478.7	509.2	497.3	225.0
87.5°	45.7	54.1	113.3	170.9	157.3	99.8	110.0	155.6	177.6	164.1	76.1
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°	2897.8	2897.8	2897.8	2897.8	2897.8	2897.8	2897.8	2897.8	2897.8	2897.8	2897.8
2.5°	2955.3	2896.1	2794.6	2716.8	2660.9	2611.9	2581.4	2562.8	2556.1	2554.4	2556.1
5°	3055.1	2950.2	2789.5	2688.0	2632.2	2600.0	2581.4	2579.7	2581.4	2583.1	2578.0
7.5°	3192.1	3041.5	2831.8	2737.1	2694.8	2671.1	2662.6	2659.2	2660.9	2659.2	2659.2
10°	3374.8	3168.4	2914.7	2816.6	2781.0	2754.0	2740.4	2732.0	2725.2	2718.4	2715.1
12.5°	3576.1	3308.8	3004.3	2909.6	2858.9	2816.6	2786.1	2764.1	2748.9	2733.7	2730.3
15°	3801.1	3457.7	3104.1	2972.2	2899.5	2836.9	2784.4	2748.9	2721.8	2699.8	2698.1
17.5°	4015.9	3598.1	3171.8	3000.9	2894.4	2806.4	2737.1	2688.0	2654.2	2625.4	2622.0
20°	4246.0	3731.7	3202.3	2982.3	2843.6	2737.1	2645.7	2586.5	2547.6	2515.5	2510.4
22.5°	4477.7	3845.1	3198.9	2923.1	2755.7	2630.5	2534.1	2471.5	2425.8	2393.7	2381.8
25°	4699.3	3936.4	3156.6	2828.4	2633.9	2503.6	2405.5	2348.0	2307.4	2268.5	2268.5
27.5°	4899.0	3990.6	3077.1	2713.4	2508.7	2371.7	2293.8	2241.4	2204.2	2178.8	2163.6
30°	5095.2	4015.9	2968.8	2567.9	2376.7	2260.0	2197.4	2167.0	2133.1	2104.4	2101.0
32.5°	5271.1	4010.9	2833.5	2425.8	2251.6	2168.7	2143.3	2119.6	2084.1	2043.5	2033.3
35°	5442.0	3977.0	2672.8	2270.2	2146.7	2114.5	2121.3	2087.5	2023.2	1972.4	1964.0
37.5°	5628.0	3916.1	2496.8	2143.3	2058.7	2089.2	2106.1	2031.6	1926.8	1847.3	1828.7
40°	5842.9	3846.8	2314.1	2016.4	1989.4	2065.5	2065.5	1928.5	1784.7	1735.6	1722.1
42.5°	6094.9	3789.2	2161.9	1909.8	1931.8	2008.0	1999.5	1791.4	1732.2	1706.9	1700.1
45°	6494.2	3768.9	2004.6	1816.8	1884.5	1940.3	1870.9	1744.1	1710.2	1689.9	1683.2
47.5°	7125.1	3792.6	1865.9	1747.5	1830.3	1872.6	1727.2	1711.9	1688.2	1659.5	1656.1
50°	7710.4	3770.6	1767.8	1708.5	1783.0	1791.4	1667.9	1673.0	1659.5	1627.3	1620.6
52.5°	8189.2	3701.3	1705.2	1688.2	1742.4	1649.3	1612.1	1630.7	1625.7	1585.1	1578.3
55°	8715.3	3659.0	1674.7	1688.2	1715.3	1525.8	1559.7	1586.7	1580.0	1551.2	1549.5
57.5°	9353.0	3667.4	1652.7	1693.3	1688.2	1463.3	1507.2	1539.4	1537.7	1529.2	1529.2
60°	10006.0	3670.8	1618.9	1691.6	1656.1	1414.2	1453.1	1498.8	1502.2	1507.2	1507.2
62.5°	10222.5	3523.7	1552.9	1661.2	1585.1	1366.8	1402.4	1465.0	1461.6	1475.1	1476.8
65°	9818.2	3116.0	1454.8	1591.8	1493.7	1333.0	1363.5	1421.0	1402.4	1437.9	1444.7
67.5°	8936.9	2578.0	1302.6	1466.6	1392.2	1297.5	1338.1	1360.1	1326.2	1395.6	1397.3
70°	7724.0	2013.0	1109.7	1289.0	1277.2	1260.3	1317.8	1283.9	1236.6	1321.2	1304.2
72.5°	6458.6	1537.7	886.4	1053.9	1123.2	1204.4	1282.3	1185.8	1119.9	1145.2	1114.8
75°	4851.6	1136.8	712.2	825.5	935.5	1124.9	1250.1	1067.4	965.9	942.2	935.5
77.5°	2473.2	742.6	532.9	617.4	702.0	1016.7	1206.1	928.7	800.1	762.9	746.0
80°	883.0	461.8	375.5	426.3	473.7	874.6	1053.9	768.0	620.8	614.1	620.8
82.5°	409.4	297.7	252.1	279.1	280.8	583.6	803.5	573.5	472.0	717.3	605.6
85°	175.9	148.9	142.1	138.7	128.6	260.5	451.7	307.9	480.4	214.8	197.9
87.5°	52.4	59.2	52.4	38.9	28.8	28.8	45.7	16.9	11.8	8.5	8.5
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)