

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: STREETWORKS

Report Number: P214590

Luminaire Tested: **ARCH-AF24-50-D-U-T2R**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214590
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29635)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-AF24-50-D-U-T2R
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 670mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6810.8 lumens
Efficiency: N/A
Efficacy: 126.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G2

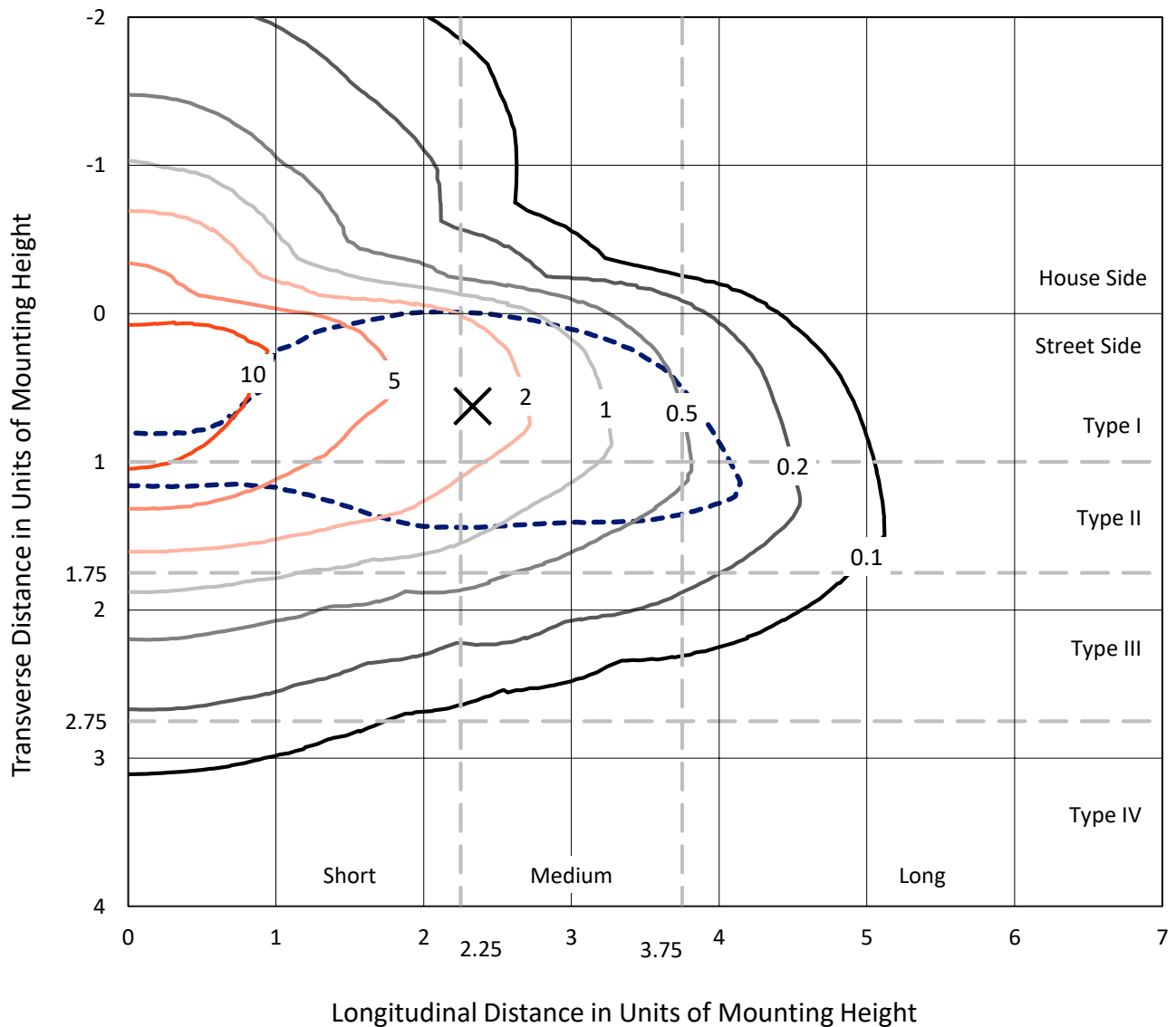
Input Watts (W): 54
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

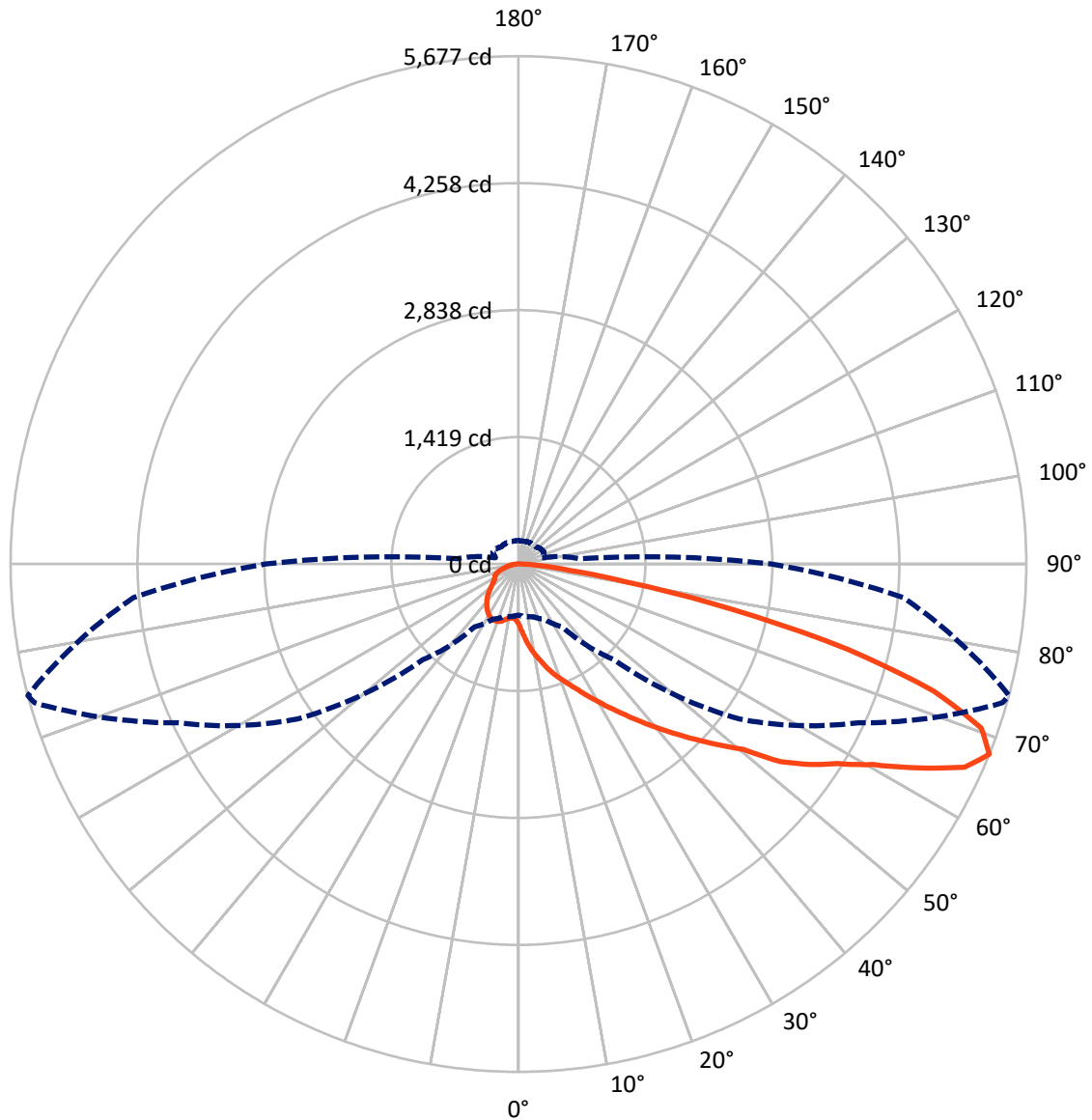


Based on 10 foot mounting height. Maximum calculated value = 14.1 fc
 Type II - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1163.0	0.0	1163.0
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	5647.8	0.0	5647.8
	% Fixture	82.9	0.0	82.9
Total	Lumens	6810.8	0.0	6810.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.3	1.2
10°-20°	286.5	4.2
20°-30°	522.6	7.7
30°-40°	857.8	12.6
40°-50°	1240.5	18.2
50°-60°	1461.9	21.5
60°-70°	1420.6	20.9
70°-80°	789.7	11.6
80°-90°	151.8	2.2
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°	6810.8	100.0
0°-180°	6810.8	100.0



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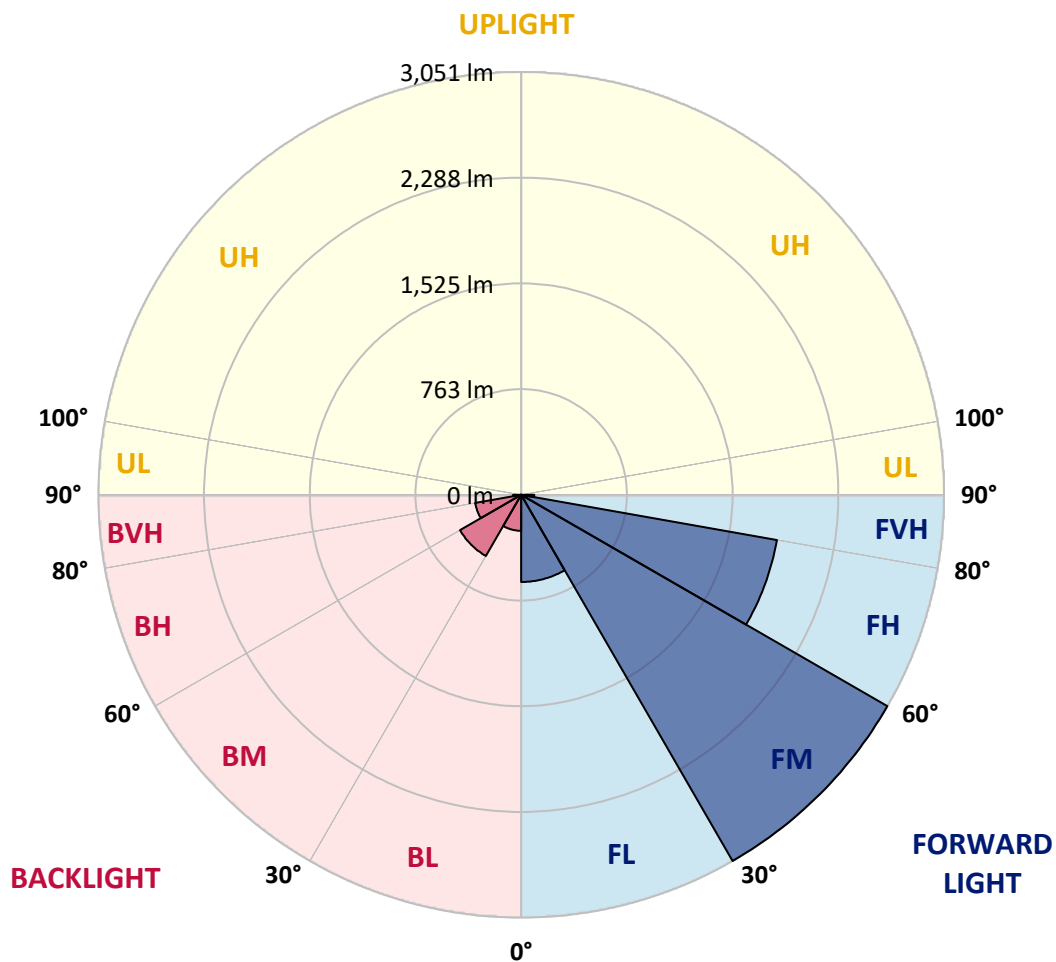
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	628.8	9.2			
FM (30°-60°)	3050.9	44.8			
FH (60°-80°)	1873.6	27.5			G2/5000
FVH (80°-90°)	94.5	1.4			G1/100
BL (0°-30°)	259.6	3.8	B1/500		
BM (30°-60°)	509.4	7.5	B1/1000		
BH (60°-80°)	336.8	4.9	B1/500		G1/500
BVH (80°-90°)	57.3	0.8			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8
2.5°	956.8	959.6	953.9	941.1	922.6	888.4	858.6	805.9	758.9	753.2	703.4
5°	1124.8	1127.7	1120.5	1104.9	1084.9	1047.9	1006.6	938.3	862.9	848.5	743.3
7.5°	1240.1	1241.6	1233.1	1217.3	1201.7	1164.6	1123.4	1046.5	953.9	942.5	794.5
10°	1338.4	1341.2	1329.8	1319.9	1302.8	1265.8	1223.0	1141.9	1046.5	1030.8	847.2
12.5°	1429.5	1432.3	1425.3	1416.7	1411.0	1376.8	1329.8	1233.1	1130.5	1113.4	909.8
15°	1490.7	1493.6	1495.0	1506.4	1513.5	1489.3	1442.4	1337.0	1221.6	1206.0	983.9
17.5°	1473.7	1480.7	1502.1	1543.4	1587.5	1588.9	1550.5	1439.5	1311.3	1294.2	1059.3
20°	1423.8	1429.5	1455.1	1517.8	1604.6	1654.4	1651.7	1543.4	1395.3	1376.8	1129.0
22.5°	1465.1	1472.2	1472.2	1510.7	1596.1	1688.6	1725.6	1645.9	1479.3	1462.2	1198.8
25°	1641.6	1645.9	1616.1	1600.4	1631.7	1717.1	1786.9	1757.0	1581.9	1561.9	1274.3
27.5°	1888.0	1880.8	1843.9	1781.2	1747.0	1769.8	1841.0	1862.4	1700.0	1675.8	1352.6
30°	2132.9	2128.6	2085.9	2001.9	1925.0	1876.6	1900.7	1956.3	1828.2	1799.7	1428.0
32.5°	2362.1	2354.9	2308.0	2209.8	2122.9	2033.2	1986.2	2041.7	1964.9	1932.1	1512.1
35°	2572.8	2554.3	2507.4	2404.9	2315.1	2229.7	2114.3	2122.9	2112.9	2078.7	1604.6
37.5°	2743.7	2729.4	2678.2	2582.7	2487.4	2406.2	2285.2	2215.4	2272.4	2239.6	1711.4
40°	2894.6	2878.9	2826.2	2730.9	2642.6	2565.7	2470.3	2327.9	2451.8	2414.8	1831.0
42.5°	3008.5	2997.1	2954.4	2860.5	2775.0	2705.2	2658.2	2470.3	2638.3	2602.7	1962.0
45°	3069.8	3058.3	3035.5	2960.1	2881.8	2827.6	2831.9	2639.7	2833.4	2803.5	2117.2
47.5°	2994.3	3002.8	3022.7	3008.5	2960.1	2934.4	2987.1	2814.9	3051.3	3022.7	2285.2
50°	2792.0	2800.6	2880.3	2978.6	2995.7	3027.0	3126.6	3017.1	3281.8	3259.1	2493.1
52.5°	2295.2	2342.1	2562.9	2797.8	2958.7	3088.2	3281.8	3317.4	3670.6	3670.6	2860.5
55°	1734.2	1775.5	2027.5	2437.6	2814.9	3093.9	3395.8	3521.1	3951.0	3956.8	3052.7
57.5°	1405.3	1430.9	1554.8	1974.8	2513.0	3022.7	3531.0	3696.2	4184.6	4210.2	3300.3
60°	1140.5	1154.7	1235.8	1527.8	2095.8	2830.5	3627.9	3946.7	4517.8	4553.4	3616.4
62.5°	917.0	931.2	985.3	1160.4	1644.5	2470.3	3610.8	4207.4	4961.9	5020.3	4030.8
65°	731.8	747.5	783.1	891.3	1218.7	2023.2	3435.7	4341.2	5421.8	5478.8	4305.6
67.5°	570.9	585.2	609.4	680.6	858.6	1513.5	3021.3	4200.2	5628.3	5676.8	4319.8
70°	431.4	438.5	458.5	504.0	613.7	1005.3	2365.0	3727.5	5443.2	5487.3	4035.0
72.5°	334.6	333.2	344.5	367.3	428.6	691.9	1567.6	3031.3	4812.5	4858.0	3442.7
75°	273.3	271.9	279.1	286.2	310.4	464.1	925.5	2282.4	3884.1	3797.3	2582.7
77.5°	230.7	229.2	236.3	237.7	247.8	320.4	526.8	1502.1	2591.3	2441.8	1455.1
80°	195.1	193.6	202.1	205.0	212.2	235.0	303.3	813.0	1301.4	1233.1	694.8
82.5°	146.7	152.3	168.0	175.1	183.7	173.7	187.9	358.7	603.6	576.6	301.9
85°	71.2	84.0	126.7	141.0	150.9	109.7	128.2	169.4	271.9	259.1	122.4
87.5°	24.2	21.4	75.5	89.7	98.2	49.8	71.2	94.0	112.5	102.5	38.5
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°	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8
2.5°	682.0	660.6	629.3	605.1	589.4	576.6	570.9	569.5	566.7	565.3	565.3
5°	696.2	657.8	609.4	583.8	576.6	570.9	573.8	575.2	575.2	575.2	575.2
7.5°	717.6	663.5	605.1	588.0	586.6	586.6	595.2	599.4	602.3	602.3	602.3
10°	746.0	673.5	612.2	598.0	602.3	605.1	615.1	620.8	623.6	625.0	626.5
12.5°	784.5	694.8	626.5	615.1	620.8	622.2	629.3	632.2	635.0	636.5	636.5
15°	835.8	726.1	649.3	635.0	636.5	635.0	635.0	632.2	630.8	630.8	633.6
17.5°	888.4	756.1	669.2	649.3	643.5	632.2	623.6	616.5	612.2	609.4	610.8
20°	941.1	783.1	680.6	652.1	636.5	618.0	602.3	592.3	586.6	580.9	583.8
22.5°	993.8	808.7	684.9	643.5	620.8	593.7	576.6	561.0	548.2	539.6	541.0
25°	1052.2	837.2	684.9	633.6	599.4	570.9	549.6	524.0	505.4	498.4	501.1
27.5°	1110.6	861.4	677.7	615.1	575.2	546.8	515.5	485.5	474.1	469.8	471.3
30°	1168.9	879.9	662.1	592.3	549.6	518.2	477.0	457.1	442.8	431.4	432.8
32.5°	1227.3	892.7	640.7	563.9	522.5	482.6	448.5	425.8	400.1	385.9	387.3
35°	1294.2	902.7	615.1	535.3	492.7	451.3	425.8	388.7	361.6	350.3	347.4
37.5°	1364.0	909.8	588.0	504.0	462.8	428.6	402.9	357.4	331.7	316.1	314.7
40°	1439.5	912.7	555.3	471.3	434.2	414.3	373.1	338.9	294.7	284.8	284.8
42.5°	1529.2	911.2	522.5	438.5	402.9	381.6	351.7	336.0	297.6	287.7	281.9
45°	1631.7	911.2	486.9	400.1	371.6	340.3	327.4	317.5	291.8	296.1	299.0
47.5°	1748.4	908.4	444.3	368.8	346.0	319.0	311.8	290.4	280.5	283.4	286.2
50°	1909.3	912.7	405.8	343.1	327.4	304.7	296.1	284.8	280.5	281.9	280.5
52.5°	2132.9	898.5	368.8	327.4	313.2	283.4	283.4	281.9	283.4	281.9	281.9
55°	2255.3	867.1	341.7	319.0	303.3	273.3	279.1	281.9	284.8	283.4	283.4
57.5°	2429.0	845.8	320.4	313.2	297.6	270.6	276.2	281.9	283.4	281.9	281.9
60°	2634.0	831.5	306.2	314.7	293.3	270.6	277.6	281.9	280.5	279.1	279.1
62.5°	2871.8	825.8	296.1	319.0	289.0	271.9	277.6	281.9	276.2	274.8	274.8
65°	2961.5	774.6	283.4	321.8	291.8	271.9	276.2	277.6	270.6	269.1	267.7
67.5°	2823.4	686.3	264.8	316.1	300.4	271.9	271.9	270.6	262.0	260.5	257.7
70°	2514.4	569.5	236.3	297.6	306.2	273.3	266.3	259.1	250.6	250.6	244.9
72.5°	2058.8	448.5	199.4	264.8	301.9	277.6	254.8	244.9	235.0	235.0	229.2
75°	1483.6	334.6	159.5	220.7	283.4	276.2	240.6	227.8	216.5	215.0	207.9
77.5°	845.8	235.0	129.6	172.3	252.1	269.1	227.8	207.9	195.1	190.8	186.5
80°	434.2	158.0	105.4	135.2	209.3	249.2	217.9	185.1	170.8	163.8	156.6
82.5°	206.4	105.4	81.1	99.6	158.0	217.9	205.0	159.5	143.8	135.2	126.7
85°	92.6	62.6	54.1	64.0	112.5	169.4	180.9	131.0	112.5	141.0	103.9
87.5°	29.9	28.4	28.4	29.9	54.1	74.1	132.4	96.8	89.7	74.1	62.6
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)