

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: P214578

Luminaire Tested: **ARCH-AF24-70-D-U-T2R-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214578  
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-AF24-70-D-U-T2R-7030  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 3000K, 930mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7544 lumens  
Efficiency: N/A  
Efficacy: 101.9 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

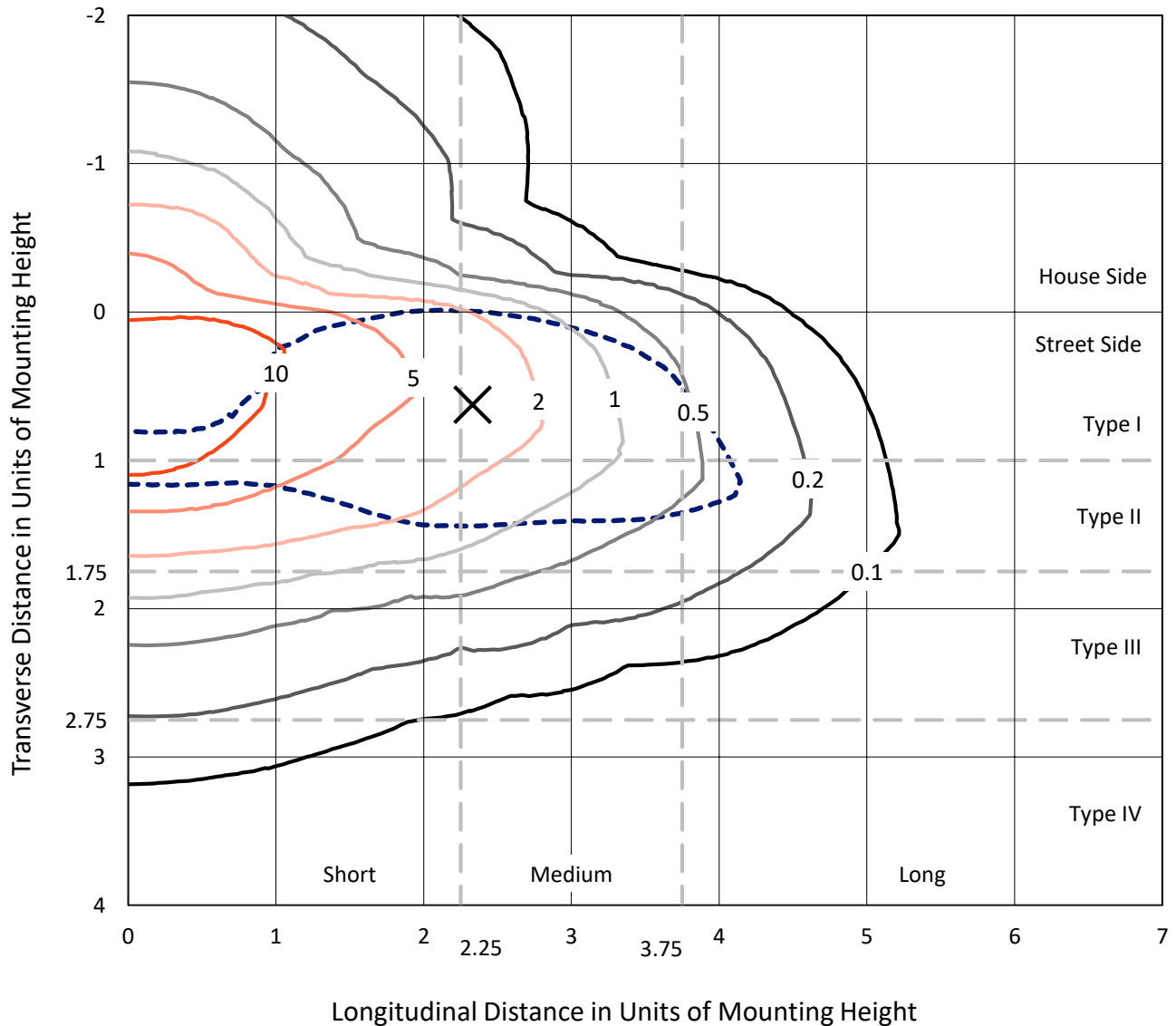
Input Watts (W): 74  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

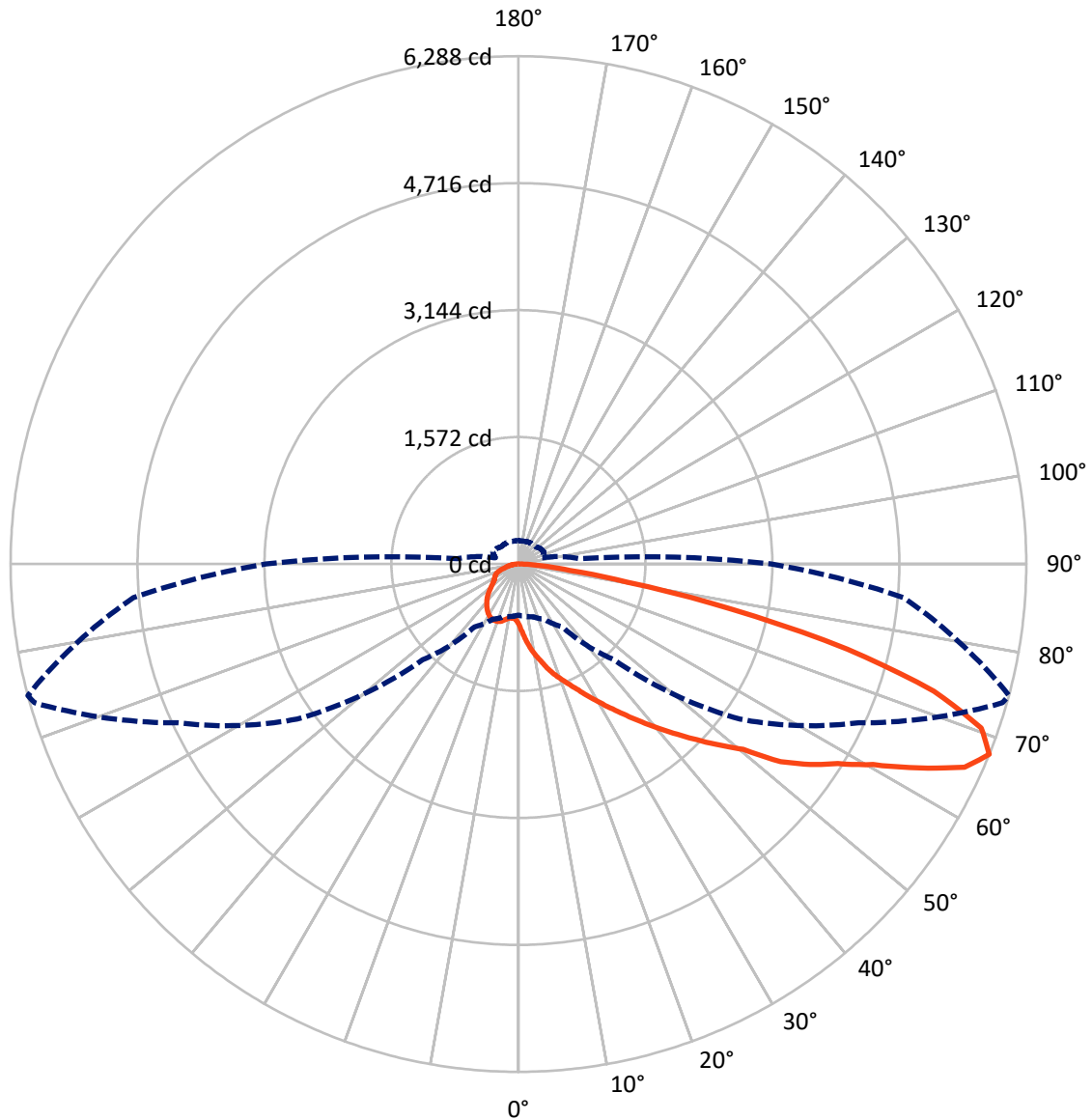
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 15.6 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
<b>House Side</b>	Lumens	1288.2	0.0	1288.2
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	6255.8	0.0	6255.8
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	7544.0	0.0	7544.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	87.8	1.2
10°-20°	317.4	4.2
20°-30°	578.9	7.7
30°-40°	950.1	12.6
40°-50°	1374.0	18.2
50°-60°	1619.3	21.5
60°-70°	1573.6	20.9
70°-80°	874.7	11.6
80°-90°	168.2	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°	7544.0	100.0
0°-180°	7544.0	100.0



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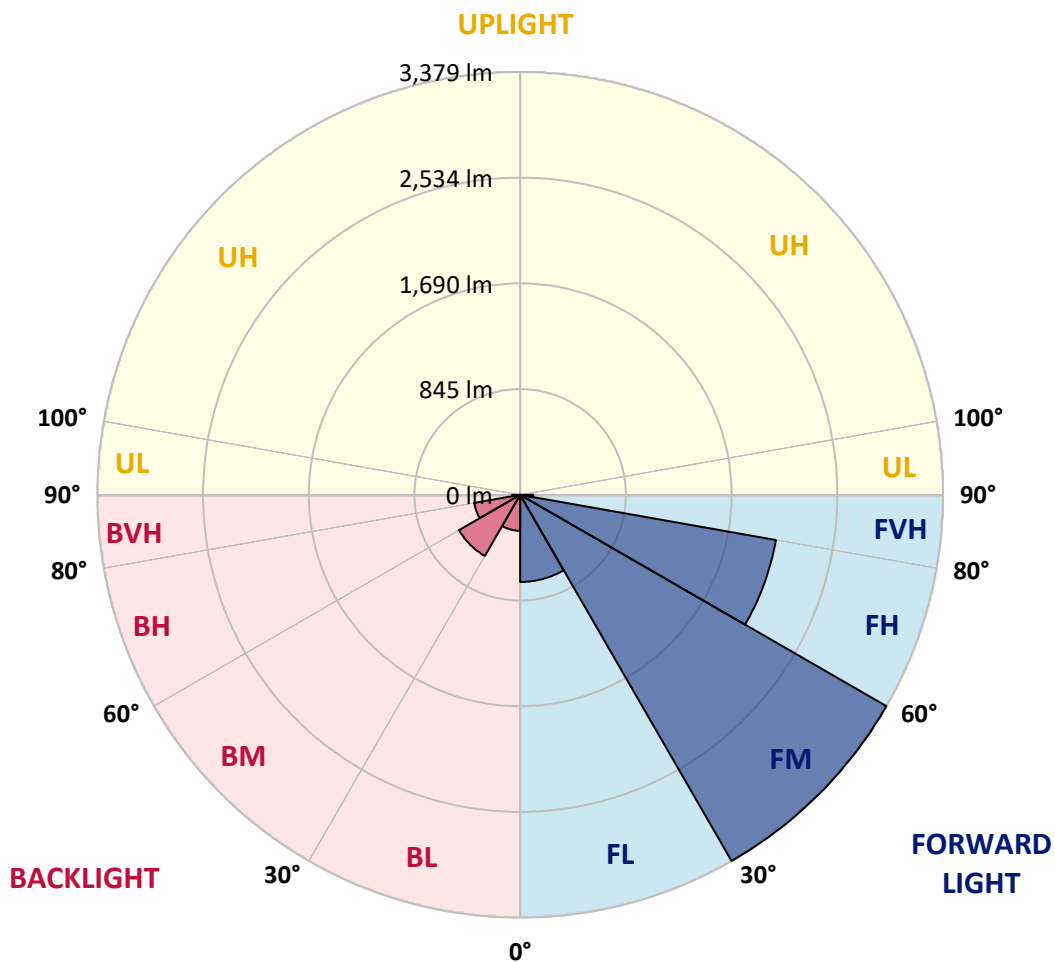
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	696.5	9.2			
FM (30°-60°)	3379.3	44.8			
FH (60°-80°)	2075.3	27.5			G2/5000
FVH (80°-90°)	104.7	1.4			G2/225
BL (0°-30°)	287.5	3.8	B1/500		
BM (30°-60°)	564.2	7.5	B1/1000		
BH (60°-80°)	373.0	4.9	B1/500		G1/500
BVH (80°-90°)	63.5	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°	747.5	747.5	747.5	747.5	747.5	747.5	747.5	747.5	747.5	747.5	747.5
2.5°	1059.8	1063.0	1056.6	1042.5	1021.9	984.1	951.0	892.6	840.6	834.3	779.1
5°	1245.9	1249.0	1241.2	1223.8	1201.7	1160.7	1115.0	1039.3	955.7	939.9	823.2
7.5°	1373.6	1375.2	1365.8	1348.4	1331.1	1290.1	1244.3	1159.2	1056.6	1044.0	880.0
10°	1482.5	1485.6	1473.0	1462.0	1443.0	1402.0	1354.7	1264.8	1159.2	1141.8	938.4
12.5°	1583.4	1586.5	1578.7	1569.2	1562.9	1525.0	1473.0	1365.8	1252.2	1233.3	1007.8
15°	1651.2	1654.4	1655.9	1668.6	1676.4	1649.6	1597.6	1480.9	1353.1	1335.8	1089.8
17.5°	1632.3	1640.2	1663.8	1709.6	1758.4	1760.0	1717.4	1594.4	1452.5	1433.6	1173.3
20°	1577.1	1583.4	1611.8	1681.2	1777.4	1832.6	1829.4	1709.6	1545.5	1525.0	1250.6
22.5°	1622.8	1630.7	1630.7	1673.3	1767.9	1870.4	1911.4	1823.1	1638.6	1619.7	1327.9
25°	1818.4	1823.1	1790.0	1772.6	1807.3	1902.0	1979.2	1946.1	1752.1	1730.1	1411.5
27.5°	2091.2	2083.3	2042.3	1972.9	1935.1	1960.3	2039.2	2062.8	1883.0	1856.2	1498.2
30°	2362.5	2357.7	2310.4	2217.4	2132.2	2078.6	2105.4	2166.9	2025.0	1993.4	1581.8
32.5°	2616.4	2608.5	2556.4	2447.6	2351.4	2252.1	2200.0	2261.5	2176.4	2140.1	1674.9
35°	2849.8	2829.3	2777.2	2663.7	2564.3	2469.7	2342.0	2351.4	2340.4	2302.5	1777.4
37.5°	3039.0	3023.3	2966.5	2860.8	2755.2	2665.3	2531.2	2453.9	2517.0	2480.7	1895.7
40°	3206.2	3188.9	3130.5	3024.8	2927.1	2841.9	2736.2	2578.5	2715.7	2674.7	2028.1
42.5°	3332.4	3319.8	3272.4	3168.4	3073.7	2996.5	2944.4	2736.2	2922.3	2882.9	2173.2
45°	3400.2	3387.6	3362.3	3278.8	3192.0	3132.1	3136.8	2923.9	3138.4	3105.3	2345.1
47.5°	3316.6	3326.1	3348.1	3332.4	3278.8	3250.4	3308.7	3117.9	3379.7	3348.1	2531.2
50°	3092.7	3102.1	3190.4	3299.3	3318.2	3352.9	3463.3	3341.8	3635.2	3609.9	2761.5
52.5°	2542.3	2594.3	2838.7	3099.0	3277.2	3420.7	3635.2	3674.6	4065.7	4065.7	3168.4
55°	1920.9	1966.6	2245.8	2700.0	3117.9	3427.0	3761.3	3900.1	4376.4	4382.7	3381.3
57.5°	1556.6	1585.0	1722.2	2187.4	2783.5	3348.1	3911.2	4094.1	4635.0	4663.4	3655.7
60°	1263.2	1279.0	1368.9	1692.2	2321.5	3135.2	4018.4	4371.7	5004.1	5043.5	4005.8
62.5°	1015.6	1031.4	1091.3	1285.3	1821.5	2736.2	3999.5	4660.3	5496.1	5560.8	4464.7
65°	810.6	828.0	867.4	987.3	1350.0	2241.0	3805.5	4808.5	6005.5	6068.6	4769.1
67.5°	632.4	648.2	675.0	753.8	951.0	1676.4	3346.6	4652.4	6234.2	6287.8	4784.9
70°	477.9	485.7	507.8	558.3	679.7	1113.4	2619.5	4128.8	6029.2	6078.1	4469.4
72.5°	370.6	369.0	381.7	406.9	474.7	766.5	1736.4	3357.6	5330.5	5381.0	3813.4
75°	302.8	301.2	309.1	317.0	343.8	514.1	1025.1	2528.1	4302.3	4206.1	2860.8
77.5°	255.5	253.9	261.8	263.4	274.4	354.8	583.5	1663.8	2870.3	2704.7	1611.8
80°	216.1	214.5	223.9	227.1	235.0	260.2	335.9	900.5	1441.5	1365.8	769.6
82.5°	162.4	168.7	186.1	194.0	203.4	192.4	208.2	397.4	668.7	638.7	334.3
85°	78.9	93.0	140.4	156.1	167.2	121.4	141.9	187.7	301.2	287.0	135.6
87.5°	26.8	23.7	83.6	99.4	108.8	55.2	78.9	104.1	124.6	113.5	42.6
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°	747.5	747.5	747.5	747.5	747.5	747.5	747.5	747.5	747.5	747.5	747.5
2.5°	755.4	731.8	697.1	670.3	652.9	638.7	632.4	630.8	627.7	626.1	626.1
5°	771.2	728.6	675.0	646.6	638.7	632.4	635.6	637.1	637.1	637.1	637.1
7.5°	794.8	734.9	670.3	651.3	649.8	649.8	659.2	664.0	667.1	667.1	667.1
10°	826.4	746.0	678.1	662.4	667.1	670.3	681.3	687.6	690.8	692.3	693.9
12.5°	869.0	769.6	693.9	681.3	687.6	689.2	697.1	700.2	703.4	705.0	705.0
15°	925.7	804.3	719.1	703.4	705.0	703.4	703.4	700.2	698.6	698.6	701.8
17.5°	984.1	837.4	741.2	719.1	712.8	700.2	690.8	682.9	678.1	675.0	676.6
20°	1042.5	867.4	753.8	722.3	705.0	684.5	667.1	656.1	649.8	643.4	646.6
22.5°	1100.8	895.8	758.6	712.8	687.6	657.6	638.7	621.4	607.2	597.7	599.3
25°	1165.5	927.3	758.6	701.8	664.0	632.4	608.8	580.4	559.9	552.0	555.1
27.5°	1230.1	954.1	750.7	681.3	637.1	605.6	570.9	537.8	525.2	520.4	522.0
30°	1294.8	974.6	733.3	656.1	608.8	574.1	528.3	506.2	490.5	477.9	479.4
32.5°	1359.4	988.8	709.7	624.5	578.8	534.6	496.8	471.5	443.2	427.4	429.0
35°	1433.6	999.9	681.3	593.0	545.7	499.9	471.5	430.5	400.6	388.0	384.8
37.5°	1510.8	1007.8	651.3	558.3	512.6	474.7	446.3	395.8	367.5	350.1	348.5
40°	1594.4	1010.9	615.1	522.0	481.0	458.9	413.2	375.3	326.5	315.4	315.4
42.5°	1693.8	1009.3	578.8	485.7	446.3	422.7	389.5	372.2	329.6	318.6	312.3
45°	1807.3	1009.3	539.4	443.2	411.6	376.9	362.7	351.7	323.3	328.0	331.2
47.5°	1936.7	1006.2	492.0	408.5	383.2	353.3	345.4	321.7	310.7	313.8	317.0
50°	2114.9	1010.9	449.5	380.1	362.7	337.5	328.0	315.4	310.7	312.3	310.7
52.5°	2362.5	995.1	408.5	362.7	347.0	313.8	313.8	312.3	313.8	312.3	312.3
55°	2498.1	960.4	378.5	353.3	335.9	302.8	309.1	312.3	315.4	313.8	313.8
57.5°	2690.5	936.8	354.8	347.0	329.6	299.6	306.0	312.3	313.8	312.3	312.3
60°	2917.6	921.0	339.1	348.5	324.9	299.6	307.5	312.3	310.7	309.1	309.1
62.5°	3181.0	914.7	328.0	353.3	320.1	301.2	307.5	312.3	306.0	304.4	304.4
65°	3280.3	857.9	313.8	356.4	323.3	301.2	306.0	307.5	299.6	298.1	296.5
67.5°	3127.4	760.2	293.3	350.1	332.8	301.2	301.2	299.6	290.2	288.6	285.5
70°	2785.1	630.8	261.8	329.6	339.1	302.8	294.9	287.0	277.6	277.6	271.3
72.5°	2280.5	496.8	220.8	293.3	334.3	307.5	282.3	271.3	260.2	260.2	253.9
75°	1643.3	370.6	176.6	244.4	313.8	306.0	266.5	252.3	239.7	238.1	230.3
77.5°	936.8	260.2	143.5	190.8	279.1	298.1	252.3	230.3	216.1	211.3	206.6
80°	481.0	175.1	116.7	149.8	231.8	276.0	241.3	205.0	189.2	181.4	173.5
82.5°	228.7	116.7	89.9	110.4	175.1	241.3	227.1	176.6	159.3	149.8	140.4
85°	102.5	69.4	59.9	71.0	124.6	187.7	200.3	145.1	124.6	156.1	115.1
87.5°	33.1	31.5	31.5	33.1	59.9	82.0	146.7	107.2	99.4	82.0	69.4
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)